

AGENDA
IRVINE RANCH WATER DISTRICT
ENGINEERING AND OPERATIONS COMMITTEE MEETING
TUESDAY, MARCH 15, 2022

This meeting will be held in-person at the District's headquarters located at 15600 Sand Canyon Avenue, Irvine, California. The meeting will also be broadcasted via Webex for those wanting to observe the meeting virtually.

To observe this meeting virtually, please join online using the link and information below:

Via Web: <https://irwd.webex.com/irwd/j.php?MTID=mae108464a00e0a54d2ee9a6e2d3834a2>
Meeting Number (Access Code): 2489 272 8733
Meeting Password: pD7EpvemR43

PLEASE NOTE: Webex observers of the meeting will be placed into the Webex lobby when the Board enters closed session. Participants who remain in the "lobby" will automatically be returned to the open session of the Board once the closed session has concluded. Observers joining the meeting while the Board is in closed session will receive a notice that the meeting has been locked. They will be able to observe the meeting once the closed session has concluded.

CALL TO ORDER 1:30 p.m.

ATTENDANCE Committee Chair: Doug Reinhart _____
 Committee Member: Karen McLaughlin _____

Director Reinhart will participate via teleconference from 76000 Frank Sinatra Dr., Site #302
Palm Desert, CA 92211

ALL VOTES WILL BE TAKEN BY A ROLL CALL VOTE.

<u>ALSO PRESENT</u>	Paul Cook	_____	Kevin Burton	_____	Wendy Chambers	_____
	Jose Zepeda	_____	Paul Weghorst	_____	Cheryl Clary	_____
	Rich Mori	_____	Eric Akiyoshi	_____	Richard Mykitta	_____
	Jacob Moeder	_____	Jim Colston	_____	Ken Pfister	_____
	Lars Oldewage	_____	Malcolm Cortez	_____	Scott Toland	_____
	Steve Choi	_____	Kelly Welch	_____	Fiona Sanchez	_____
	Belisario Rios	_____	Bruce Newell	_____	Mitch Robinson	_____
	_____	_____	_____	_____	_____	_____

PUBLIC COMMENT NOTICE

If you wish to address the Committee on any item, please submit a request to speak via the "chat" feature available when joining the meeting virtually. Remarks are limited to three minutes per speaker on each subject. Public comments are limited to three minutes per speaker on each subject. You may also submit a public comment in advance of the meeting by emailing comments@irwd.com before 9:00 a.m. on Tuesday, March 15, 2022.

COMMUNICATIONS

1. Notes: Burton
2. Public Comments
3. Determine the need to discuss and/or take action on item(s) introduced that came to the attention of the District subsequent to the agenda being posted.
4. Determine which items may be approved without discussion.

INFORMATION

5. RESEARCH BUSINESS PLAN UPDATE – COLSTON / BURTON

Recommendation: Receive and file.

6. ORANGE COUNTY POWER AUTHORITY UPDATE – WELCH / SANCHEZ/ WEGHORST

Recommendation: Receive and file

ACTION

7. 2022 IRWD PROJECT MANUAL UPDATE – BURTON

Recommendation: That the Board adopt a resolution rescinding Resolution No. 2019-25 and revising standard form construction contract documents.

OTHER BUSINESS

8. Directors' Comments
9. Adjourn

Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the above-named Committee in connection with a matter subject to discussion or consideration at an open meeting of the Committee are available for public inspection in the District's office, 15600 Sand Canyon Avenue, Irvine, California ("District Office"). If such writings are distributed to members of the Committee less than 72 hours prior to the meeting, they will be available from the District Secretary of the District Office at the same time as they are distributed to Committee Members, except that if such writings are distributed one hour prior to, or during, the meeting, they will be available electronically via the Webex meeting noted. Upon request, the District will provide for written agenda materials in appropriate alternative formats, and reasonable disability-related modification or accommodation to enable individuals with disabilities to participate in and provide comments at public meetings. Please submit a request, including your name, phone number and/or email address, and a description of the modification, accommodation, or alternative format requested at least two days before the meeting. Requests should be emailed to comments@irwd.com. Requests made by mail must be received at least two days before the meeting. Requests will be granted whenever possible and resolved in favor of accessibility

March 15, 2022

Prepared and

submitted by: J. Colston / K. Burton

Approved by: Paul A. Cook



ENGINEERING AND OPERATIONS COMMITTEE

RESEARCH BUSINESS PLAN UPDATE

SUMMARY:

Staff will provide an update on the research projects in which IRWD is currently involved.

BACKGROUND:

Periodically IRWD receives requests to participate in various research projects pertaining to emerging technologies through either direct funding or dedication of in-kind staff resources. Guidelines were developed to assist staff with its evaluation and response to those requests. These guidelines were incorporated into the IRWD Research Business Plan which also provides a tracking mechanism for the various requests and ongoing research projects and programs in which IRWD participates. The underlying purpose of the Research Business Plan is to ensure that IRWD's research resources are being prioritized and utilized effectively.

One of the components of the Research Business Plan is for staff to provide a status update on the research projects to the Engineering and Operations Committee on a quarterly basis. IRWD actively participates in the Technology Approval Group (TAG) sponsored by Isle Utilities. The TAG hosts numerous developing technology providers to match interested agencies with their technologies. A status update on the current research projects is attached as Exhibit "A".

Changes since the last update:

- Added: Life-Cycle Cost Analysis to Support Cost-Effective Enhanced Aquifer Recharge
- Completed: Restoration of Local Recharge Sources from Invasive Mussels
- Under Review: National Collaborative PFAS Project (Biosolids)

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

Receive and file.

LIST OF EXHIBITS:

Exhibit "A" – Research Projects Summary Table

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Exhibit "A"

Research Projects Summary Table

No.	Project Title	Project Description	IRWD Contact	Organizations Involved	Type of Research	IRWD Participation Resource	Start Date	Projected Completion Date	Comments/Next Steps
1	UCI Industry-University Research Center-Perfluorinated Compound Sources and Loading at Wastewater Treatment Plants-A Sewershed-Scale Analysis	This project will develop and implement methodology for sewershed analysis to identify raw wastewater sources of PFAS.	Weghorst	UCI Industry-University Research Center	Case study, data review, best practice analysis and technical report.	Staff time for review of reports, sharing information, and site analysis. Also providing automated sampling equipment.	Sep-20	TBD (1-2 years)	OCSD conducted sampling of their trunklines at the end of 2021. Initial data review has begun by the research team. The next step will include sampling in three areas of the sewershed followed by a discussion at the upcoming Technical Advisory Committee.
2	Automated, AI Based CCTV Video Analysis for Pipeline Assessments	The Abyss Extract software utilizes machine learning and AI technologies to automate the analysis of CCTV video footage. CCTV videos of sewer pipes are collected and analysed using machine learning algorithms to identify anomalies. The goal is to decrease the time it takes to inspect, identify and recommend repairs for any defects.	Zepeda	Abyss Solutions	Testing and Optimization	Staff time for review of reports, sharing information, and compare results of software tool against current methods.	Apr-21	Aug-21	Technology will be reviewed by staff for possible implementation to optimize current work practices of inspecting sewer pipelines and identifying defects. A second round of CCTV data will be provided by Abyss Solutions. The first data set was not consistent with field conditions. Project testing completed. We will be testing a similar product and will compare the results to make a decision on which product provides the best value. No progress has been made on testing an alternative product. May consider dropping this off of the list.
3	Bio-electrochemical Sensor for Real-time Monitoring of Microbial Activity and organic carbon	The SENTRY system can be inserted at various locations at the treatment process (aerobic and anaerobic), providing real-time visualisation of microbial metabolic activity and correlations to bio-available carbon. The sensor provides real-time data for insight on the health of the treatment plant and organic load at key locations (influent, nutrient removal bioreactors, anaerobic digesters and effluent).	Zepeda	Island Water Technologies (IWT)	Treatment Process Optimization	Staff time for review of performance data.	Jun-20	Feb-22	The installation of the test unit is currently on hold. Staff will be reviewing results from a trial that was performed at LACSD prior to moving forward. We have decided to drop the testing of this product due to timing of available support from the vendor and an increase in cost. We are actively looking for an alternative product.
4	Life-Cycle Cost Analysis to Support Cost-Effective Enhanced Aquifer Recharge	The goal is to develop a widely applicable research framework that covers all types of EAR implementation and EAR support tools that are easy to use and provide maximum benefit to groundwater users, managers, researchers, and the public.	Sanchez	Water Research Foundation and Groundwater Protection Council	Information gathering	Meetings only	TBD	N/A	Project has sought EPA funding, but it has not been approved yet. IRWD participation is limited to meetings and information sharing.

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March 15, 2022

Prepared by: K. Welch

Submitted by: F. Sanchez / P. Weghorst

Approved by: Paul A. Cook



ENGINEERING AND OPERATIONS COMMITTEE

ORANGE COUNTY POWER AUTHORITY UPDATE

SUMMARY:

IRWD receives electric service including generation and distribution through Southern California Edison (SCE) for most of its accounts. IRWD has transferred some electric service accounts to SCE's Direct Access (DA) Service Program. An alternative to DA is to purchase energy through Community Choice Aggregation (CCA), whereby a local authority can procure electricity and sell it to customers at a competitive price. In December 2020, the Orange County Power Authority (OCPA) was formed as a CCA provider, and consists of the cities of Irvine, Huntington Beach, Fullerton, and Buena Park. The OCPA is preparing to launch its services to commercial accounts within these cities on April 1, 2022.

Staff has been evaluating the benefits of IRWD's participation in CCA through the OCPA. Based on the findings of these evaluations, staff intends to notify OCPA that IRWD accounts will opt-out of the OCPA. At the meeting, staff will provide an update on the OCPA program and also provide an overview of the renewable energy program offered through SCE.

BACKGROUND:

IRWD currently receives electricity for most of its accounts from SCE, which provides generation, distribution, billing, maintenance, and outage response/restoration services. IRWD actively manages its electrical accounts to optimize the tariff (account type) for the electrical demands from each account. IRWD also participates in SCE's Direct Access Electric Service Program for 90 accounts, representing approximately 25% of the District's load. DA allows non-residential customers to purchase electricity through an Electric Service Provider instead of SCE, which can provide flexibility and potential cost savings.

In addition to these steps to actively manage its electrical demands and expenses, IRWD – since 2012 – has implemented its Energy Greenhouse Gas Master (Climate Action) Plan; this Plan is currently being updated. IRWD also owns, operates, or otherwise participates in solar generation programs, microturbine electrical generation, and battery storage projects; IRWD has also deployed extensive emergency power facilities – both fixed and portable – to ensure service will continue even when electrical power is interrupted.

Community Choice Aggregation Programs:

Another alternative to purchasing electricity through SCE is via participation in a CCA. CCA is similar to DA in that electricity is purchased through an alternative provider to SCE. CCA is a municipal power aggregation program that procures power on behalf of residents, businesses, and municipal accounts within the cities it serves from an alternative provider. Electrical transmission, distribution, and billing services are still received through SCE. CCAs have been

allowed in California since 2002, following the passage of Assembly Bill 117. CCAs were intended to provide local control over energy procurement portfolios, including the amount of renewable energy being offered to a community. When a customer transfers account(s) to an alternative program (such as a CCA or a DA program), SCE is allowed to assess surcharges and exit fees for each account transferred.

Orange County Power Authority:

In November 2020, the cities of Irvine and Fullerton entered into a Joint Powers Agreement to form the OCPA, with Buena Park and Huntington Beach also signing on the following month. The OCPA's stated purposes are to provide local control over the choice of electricity sources, to increase access to renewable energy sources, and to potentially provide lower electricity prices to its membership. The OCPA aspires to reach the carbon neutrality goals of the City of Irvine and the other partnering cities by 2030.

Customers within the jurisdiction of a CCA are automatically enrolled in a CCA, though customers can opt out before a deadline. Staff has heard that OCPA will enrolling commercial customers on April 1, 2022 (residential customers on October 1, 2022), though IRWD has not received a single notification from OCPA regarding the program or how to opt out. Existing accounts already enrolled in DA or participating in any of SCE incentive programs – such as the Self-Generation Incentive Program, demand response programs and accounts with solar and energy storage – are not eligible for CCA service. If SCE customers opt into a CCA and then later decide to return to SCE, they must provide a six-month notice to return to bundled service and will then be charged a higher transitional bundled rate by SCE for six months. After six months, customers are transitioned to SCE's bundled service for a minimum of 12 months.

OCPA Electric Service Options and Rates:

In January 2022, the OCPA Board adopted rate design for its three power profile options. Customers of the CCA can choose between the following three options:

“Basic Choice” Renewable energy content starting at 38.5% and increases over time;

“Smart Choice” Renewable energy content starting at 69% and increases over time; and

“100% Renewable Choice” Renewable energy content at 100%.

OCPA's rates for Basic Choice are designed to be the same as those offered by SCE (as of April 1, 2022), net of the SCE surcharges and exit fees. Customers selecting the Smart Choice service, will pay an additional 0.5 cents per kWh above the Basic Choice rate. Customers selecting the 100% Renewable Choice option will pay an additional 1.5 cents per kWh above the Basic Choice rate. For perspective, this 1.5 cents per kWh increase equates to an estimated 7.3% increase in electrical costs for large commercial customers.

In February 2022, the City of Irvine chose the 100% Renewable Choice as the default power profile for Irvine. Customers who don't want to participate in the default 100% Renewable Choice option can either opt out completely and remain with SCE or can choose one of the other two power profiles for service through the OCPA.

SCE “Green Rate” Option:

SCE has established a Green Rate Program which gives customers the opportunity to purchase more of its energy from renewable sources. For commercial customers on Time of Use (TOU) GS-1 rates, the energy costs are expected to be reduced during time of use when participating in the Green Rate Program. The energy generation in this program is 100% renewable and SCE customers can enroll and de-enroll from the Green Rate at any time without penalty. Staff is currently working with SCE to obtain more information on the SCE Green Rate Program to better understand any impacts to IRWD’s energy costs should it decide to participate in the program.

Next Steps:

OCPA plans to enroll its commercial and municipal customers starting April 1, 2022. At this time, staff intends to opt out of purchasing power through the OCPA. Once IRWD opts out of participation, it will not be able to opt in for 12 months. Based on staff’s future research and evaluations, staff could decide to opt in to participate with a limited number of electric accounts.

Staff will continue to work with SCE to evaluate IRWD’s potential enrollment in the SCE Green Rate Program. Based on the findings of this evaluation, staff may choose to participate in the SCE Green Rate for select accounts.

FISCAL IMPACTS:

IRWD’s current annual electrical budget is approximately \$20 million. By opting out of OCPA participation, IRWD will not incur any fiscal impacts. Opting into OCPA or changing accounts to the SCE Green Rate would have budgetary impacts, depending on how many accounts are shifted, the amount of power purchased through each account, and the market pricing.

ENVIRONMENTAL COMPLIANCE:

The evaluation of the opportunity to purchase power from the OCPA is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15262.

RECOMMENDATION:

Receive and file.

LIST OF EXHIBITS:

None.

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March 15, 2022
Prepared and
submitted by: K. Burton
Approved by: Paul A. Cook 

ENGINEERING AND OPERATIONS COMMITTEE

2022 IRWD PROJECT MANUAL UPDATE

SUMMARY:

IRWD's standard form construction contract documents consist of the plans for the project, Project Manual and Construction Manual. The IRWD Project Manual, excluding the Special Provisions, Project Technical Specifications, and Appendix, was last revised in July 2019. Staff recommends that the Board rescind Resolution No. 2019-25 and adopt a resolution revising the IRWD Project Manual, subject to non-substantive revisions.

BACKGROUND:

The District's standard form construction contract documents consist of the plans for the project, the Project Manual, and the Construction Manual. Contents of the Project and Construction Manuals include:

<u>Project Manual</u>	<u>Construction Manual</u>
Notice Inviting Bids	General Technical Specifications
Instruction to Bidders	Standard Drawings
Bid Form	
Agreement, Bonds and Insurance	
General Provisions	
General Requirement	
Special Provisions	
Project Technical Specifications	
Appendix	

The manuals are revised periodically, with revisions to the Project manual (excluding the Special Provisions, Project Technical Specifications and Appendix) being approved by resolution as required by the District's Policy for Competitive Bidding. The Project Manual was last revised in July 2019. The plans are project-specific, and the Construction Manual is updated as necessary to incorporate changes to the District's General Technical Specifications and Standard Drawings. Project plans and the Construction Manual are approved by the General Manager and/or the Executive Director of Technical Services.

The 2022 Project Manual incorporates administrative revisions to the Instruction to Bidders, the Bid Form, and the Agreements, Bonds and Insurance, and minor revisions to the General Provisions, and the General Requirements to address needed updates and clarifications identified since July 2019.

Staff recommends that the Board rescind Resolution No. 2019-25 and adopt a resolution revising the Project Manual subject to non-substantive revisions. A copy of the Resolution is attached as Exhibit “A”. The proposed resolution also delegates authority to the General Manager and/or the Executive Director of Technical Services to make findings regarding the need for sole source material procurements as contained in the Project Technical Specifications. An edited version of the 2022 Project Manual, with all revisions shown in “track changes” mode, is attached as Exhibit “B”. Revisions have been reviewed by the District’s legal counsel.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

That the Board adopt the following resolution by title subject to non-substantive changes to the documents:

RESOLUTION NO. 2022 -

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT RESCINDING
RESOLUTION NO. 2019-25 AND REVISING
STANDARD FORM CONSTRUCTION CONTRACT DOCUMENTS

LIST OF EXHIBITS:

Exhibit “A” – Resolution

Exhibit “B” – 2022 IRWD Project Manual

EXHIBIT “A”

RESOLUTION NO. 2022 -
RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT RESCINDING
RESOLUTION NO. 2019-25 AND REVISING
STANDARD FORM CONSTRUCTION CONTRACT DOCUMENTS

Irvine Ranch Water District (IRWD) is a California Water District, organized and existing under the California Water District Law; and

The Board of Directors previously adopted on July 22, 2019, standard form construction contract documents which have undergone minor additions and deletions; and

The “IRWD Project Manual”, which includes General Provisions, has been revised, and includes modifications that reflect the latest legislative changes and statutes. The “IRWD Construction Manual”, which includes General Technical Specifications and Standard Drawings, is revised on an ongoing basis.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of IRWD as follow:

Section 1. That the Project Manual of Irvine Ranch Water District as set forth in Exhibit “A” attached hereto, (excluding the Special Provisions, Project Technical Specifications and Appendix) be and hereby are approved and adopted.

Section 2. The General Manager and/or the Executive Director of Technical Services are authorized to make findings regarding the need for sole source material procurements as contained in the Project Technical Specifications.

Section 3. The General Manager and/or the Executive Director of Technical Services are authorized to make and approve amendments to the General Technical Specifications and Standard Drawings as contained in ongoing revisions of the District’s Construction Manual. The General Manager shall make periodic reports to the Board of Directors to identify all revisions.

Section 4. That Resolution No. 2019-25 adopted on July 22, 2019, be rescinded in its entirety.

ADOPTED, SIGNED AND APPROVED this 28th day of March 2022.

President, IRVINE RANCH WATER DISTRICT
and the Board of Directors thereof

Secretary, IRVINE RANCH WATER DISTRICT
and the Board of Directors thereof

APPROVED AS TO FORM:
HANSON BRIDGETT LLP

Legal Counsel – IRWD

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PROJECT MANUAL

FOR

PROJECT NO. XXXXX

CODE XXXX

MONTH 20XX



Irvine Ranch
WATER DISTRICT

PROJECT MANUAL

FOR

PROJECT NO. XXXXX

MONTH 20XX

Insert Engineer's Stamp and Signature Here



Kevin L. Burton

RME 28832

Date

Executive Director of Technical Services

PROJECT MANUAL

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Bid Documents

Agreement, Bonds, and Insurance

General Provisions

Section 0 – Special Provisions

Project Technical Specifications

Section 1	General Requirements
Sections 2-17	Technical Specifications

Appendix

BID DOCUMENTS

Contents

Notice Inviting Sealed Proposals (Bids)

Instructions to Bidders

Schedule of Work

Bid Form

Bid Security Declaration

Bid Bond

NOTICE INVITING SEALED PROPOSALS (BIDS)

FOR THE

PROJECT NO. XXXXX

IRVINE RANCH WATER DISTRICT

NOTICE IS HEREBY GIVEN that the Irvine Ranch Water District ("DISTRICT") invites and will receive electronically submitted proposals ("Bids") up to the hour of 2:00 PM on the ____ day of _____, 20__, at the PlanetBids website, for furnishing to DISTRICT all transportation, materials, equipment, labor, services, and supplies necessary to construct the Work for DISTRICT. At the time specified above the Bids will be electronically opened, and Bidders may view the bid opening online at the PlanetBids website.

Prospective bidders must be on the Bidders List accompanying this Notice. Bids will not be accepted from bidders that are not on the Bidders List. Prequalification to be placed on the Bidders List for this project is closed. Bids must be submitted to DISTRICT through the PlanetBids website as given below.

<https://www.planetbids.com/portal/portal.cfm?CompanyID=39499>

Bids shall conform to and be responsive to all of the Contract Documents for the Work as heretofore approved by DISTRICT and must be accompanied by the security referred to in the Instructions to Bidders.

The Contract Documents consist of the IRWD Construction Manual, the Project Manual, and the Plans, and may be downloaded free of charge at the PlanetBids website. Complete hard copy sets of the Project Manual and Plans may be purchased from SABP Print Solutions, 2372 Morse Avenue, Irvine, California 92614, (949) 756-1001.

Under the provisions of the California Labor Code, the Director of the Department of Industrial Relations has determined the prevailing rate of wages for the locality in which the Work is to be performed and DISTRICT has adopted said prevailing rate of wages. A copy of the prevailing wage rates can be found online with the State of California at <http://www.dir.ca.gov/dlsr/pwd>. A copy of such prevailing wage rates shall be posted on the jobsite by CONTRACTOR.

It shall be mandatory for the bidder to whom the Work is awarded, and upon any subcontractor under the successful bidder, to pay not less than the specified rates to all workers employed by them in the execution of the Work. The project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The Contractor and subcontractors, require proof of current registration. A bid shall not be accepted nor any contract or subcontract entered into without proof of the contractor's and subcontractor's current registration.

The Contractor to whom this project is awarded must possess a class _____ contractor's license, issued by the State of California, which is current and full.

The Contractor will be permitted to substitute securities for moneys withheld under this Agreement to ensure performance. Such substitution shall be subject to the provisions of Article 11.8 of the General Provisions of the Agreement. A payment bond and performance bond are required to be provided by the Contractor.

A pre-bid meeting and site visit will be held at the hour of ____:00 _M on the ____ day of _____, 20__, at _____.

SUBSTANTIALLY COMPLEX PROJECT FINDING

PROJECT NO. XXXXX

(Delete this page unless the Board has made a finding on the project complexity.)

DISTRICT's Board of Directors on _____ approved the following finding during a properly noticed and normally scheduled public hearing and prior to bid: "That this project is substantially complex and therefore requires a higher retention amount than five (5) percent, and that the actual retention amount of _____ percent be established for this project." All references in the Contract Documents indicating a five (5) percent retention amount are hereby superseded and replaced with the higher retention amount specified in the preceding sentence. The basis of the finding, including a description of the project and why it is a unique project that is not regularly, customarily or routinely performed by DISTRICT or licensed contractors, is set forth below.

Insert information from the Board write-up on the basis of the finding, including a description of the project and why it is a unique project that is not regularly, customarily or routinely performed by DISTRICT or licensed contractors.

BIDDERS LIST

PROJECT NO. XXXXX

*Delete the names of the **Pipeline** firms not to be invited to bid on this project.*

1. CCL Contracting, Inc.
2. E.J. Meyer Company
3. Ferreira Construction Co., Inc.
4. GCI Construction, Inc.
5. Gwinco Construction & Engineering, Inc.
6. Irvine Pipeline Company, Inc.
7. KEC Engineering
8. L&S Construction, Inc.
9. Leatherwood Construction, Inc.
10. Mike Prlich & Sons, Inc.
11. Mladen Buntich Construction Co.
12. MNR Construction, Inc.
13. Paulus Engineering, Inc.
14. Steve P. Rados, Inc.
15. Sukut Construction, Inc.
16. Sully-Miller Contracting Company
17. T.E. Roberts, Inc.
18. Vido Artukovich & Son, Inc.
19. W.A. Rasic Construction

BIDDERS LIST

PROJECT NO. XXXXX

Delete the names of the **Mechanical** firms not to be invited to bid on this project.

1. ARB, Inc.
2. Archer Western Contractors
3. Cushman Contracting Corporation
4. Environmental Construction, Inc.
5. Gateway Pacific Contractors, Inc.
6. GSE Construction Company, Inc.
- 6.7. James W. Fowler Co.
- 7.8. J.F. Shea Construction, Inc.
- 8.9. Olsson Construction
- 9.10. Pacific Hydrotech
- 10.11. Pascal & Ludwig Constructors
- 11.12. PCL Construction, Inc.
13. R C Foster Corporation
- 12.14. Rice Lake Construction Group
- 13.15. Schuler Constructors, Inc.
- 14.16. Shimmick Construction Company, Inc.
- 15.17. SS Mechanical Construction Corp.
- 16.18. Stanek Constructors, Inc. (now Rice Lake Construction Group)
- 17.19. Steve P. Rados, Inc.
- 18.20. Walsh Construction Company II, LLC

BIDDERS LIST

PROJECT NO. XXXXX

Contractor categories other than Pipeline or Mechanical:

1. *Insert contractor names from District's Prequalified Contractor List*
- 2.
- 3.
- 4.
- 5.

INSTRUCTIONS TO BIDDERS

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Bid Documents

Revised 3/2022
S:\Engineering\Project Manual\2022 Project Manual\Bid Documents.docx

INSTRUCTIONS TO BIDDERS

ARTICLE 1 PROPOSAL REQUIREMENTS AND CONDITIONS

1.1 Contract Documents

The documents that comprise the Contract Documents are set forth in the Agreement and the definition of "Contract Documents" in Article 1 of the General Provisions.

1.2 Contractor's License

No bid will be accepted from a Bidder who is not a licensed contractor in the State of California for the contracting class indicated in the Notice Inviting Sealed Proposals.

1.3 Proposals

1.3.1 Bids shall be made in accordance with the following: Bids shall be submitted electronically through DISTRICT's PlanetBids website. The electronically submitted bid is a part of the Contract Documents. All bids shall be properly executed and with all items filled in; the signatures of all persons signing shall be in longhand. Erasures, interlineations, or other corrections shall be authenticated by affixing in the margin immediately adjacent to the correction the initials of a person signing the bid.

1.3.2 Bids shall not contain any additional description or summaries of the work to be done. Alternative proposals will not be considered, except as called for. No paper copy, oral, telegraphic, or telephonic proposals or modifications will be considered.

1.3.3 The Bid Security Declaration and proposal guarantee in the form of cash, a cashier's or a certified check, or bidder's bond, in an amount not less than ten (10) percent of the amount of bid, made payable to or for the benefit of DISTRICT shall be submitted in paper form in a sealed envelope to DISTRICT prior to the bid opening. The envelope exterior shall indicate "Bid Security" and the project title. The check or bond shall be given as a guarantee that the Bidder will enter into a contract if awarded the Work, and in case of refusal or failure to enter into said contract and furnish the required bonds and insurance certificates and endorsements within fifteen (15) calendar days after Notice of Award by DISTRICT in writing, the check and the money represented by the check shall be forfeited to DISTRICT, or in the event that a bond is deposited, said bond shall be deemed to be forfeited. Forfeiture does not preclude DISTRICT from seeking all other remedies provided by law to recover losses sustained as a result of Bidder's failure to enter into the contract or to furnish the required bonds, insurance certificates and endorsements.

1.3.4 Bids shall be submitted on or before the day and hour set for the opening of bids in the Notice Inviting Sealed Proposals. It is the sole responsibility of the Bidder to see that their bid is submitted and received in proper time.

1.3.5 Prospective bidders must be on the Bidders List accompanying the Notice Inviting Sealed Proposals. Bids will not be accepted from bidders that are not on the Bidders List. Prequalification to be placed on the Bidders List for this project is closed.

1.4 Withdrawal of Bid

A Bidder may withdraw their bid electronically through PlanetBids any time prior to the scheduled time for opening of the bids.

INSTRUCTIONS TO BIDDERS

1.5 Bidders Interested in More Than One Bid

No person, partnership, or corporation shall be allowed to make or file or be interested in more than one bid for the Work, unless alternative bids are called for. A person, partnership, or corporation submitting a subproposal to a Bidder, or who has quoted prices on material to a Bidder, is not disqualified from submitting a subproposal or quoting prices to other Bidders.

1.6 Interpretation of Plans and Other Documents

If any prospective Bidder is in doubt as to the true meaning of any part of the plans, specifications, or other Contract Documents, or finds discrepancies in, or omissions from the Plans and specifications or other Contract Documents, they may submit to DISTRICT through PlanetBids a written request for an interpretation or correction. An interpretation or correction of the documents will be made solely at DISTRICT's discretion and only by addendum duly issued by DISTRICT; a copy of such addendum will be made available to Bidders through PlanetBids. DISTRICT and the Engineer will not be responsible for any other explanation or interpretation of the documents.

1.7 Substitute and Or Equivalent Items

The contract, if awarded, will be on the basis of materials and equipment shown or specified in the Contract Documents without consideration of possible substitute or "or equivalent" items. Application for acceptance of a substitute or "or equivalent" item of material or equipment will not be considered by DISTRICT until after the effective date of the Agreement except as may be specified for major items of equipment in the Special Provisions. The procedure for submission of a request for substitution is set forth in the general provisions.

1.8 Engineer's Opinion of Probable Cost

The quantities of work to be done and materials to be furnished are approximate as shown in the Contract Documents and are given as a basis for comparison of bids only. DISTRICT does not expressly or by implication agree or represent that the actual amount of work will correspond with the engineer's opinion of probable cost.

1.9 Addenda

Addenda issued through PlanetBids before the time in which to submit bids expires shall be covered in the bid and shall form a part of the Contract Documents.

1.10 Registration To Perform Public Work

Contractor and subcontractors, if required in Article 1.11, require proof of current registration. A bid shall not be accepted nor any contract or subcontract entered into without proof of the contractor's or subcontractor's current registration.

1.11 Subcontractors

The bidder shall provide the name, State of California license number, Department of Industrial Relations registration number, location of place of business, type of work which will be done, and percentage of work of each subcontractor who will perform work or labor or render service to the bidder in or about the construction of the Work in an amount in excess of 1/2 of 1 percent (0.5%) of the bidder's total Bid on the PlanetBids website.

INSTRUCTIONS TO BIDDERS

1.12 Sole Source Material Procurement

District Board of Directors has delegated the authority to make findings regarding the need for sole source material procurements to the General Manager and/or Executive Director of Technical Services. Whenever materials or equipment are specified or described in the Contract Documents by using the name of an item or the name of a particular supplier, and the name is followed by words indicating that no substitution is permitted, DISTRICT finds that those materials and equipment are strictly required (1) in order to match other products in use on a particular public improvement either completed or in the course of completion, or (2) in order to obtain a necessary item that is only available from one source.

ARTICLE 2 EXISTING CONDITIONS AND EXAMINATION OF CONTRACT DOCUMENTS

2.1 General

2.1.1 Any investigations and reports related to the Work are listed in the Special Provisions and are available for review at DISTRICT's office. Bidder should visit the project site prior to submitting a bid in order to confirm soil and groundwater conditions in the project area at the time of bidding. If additional information is required, it is recommended that it be obtained from a qualified soils engineer.

2.1.2 The Bidder shall examine the Contract Documents and the site where the Work is to be performed. The submittal of a bid shall be conclusive evidence that the Bidder has investigated and has determined to their satisfaction the conditions to be encountered and the character, quality, and scope of the Work.

2.1.3 The plans for the Work show conditions as they are supposed or believed by DISTRICT to exist; but it is not represented or intended to be inferred that the conditions are actually existent. DISTRICT and the Engineer will not be liable for any loss sustained by CONTRACTOR as a result of any variance between the conditions as shown on the plans and the actual conditions revealed during the progress of the Work or otherwise.

2.1.4 Where DISTRICT or the Engineer or their consultants have made investigations of subsurface conditions in areas where the Work is to be performed, such investigations were made only for the purpose of study and design. The conditions indicated by such investigations apply only at the specific location of each boring or excavation at the time the borings or excavations were made. Where such investigations have been made, the records as to such investigations are available for inspection at the office of DISTRICT.

2.1.5 The records of such investigations are not a part of the Contract Documents and are available solely for the convenience of the Bidder or CONTRACTOR. It is expressly understood and agreed that DISTRICT, the Engineer, and their consultants assume no responsibility whatsoever in respect to the sufficiency or accuracy of the investigations, the records, or of the interpretations set forth or made by DISTRICT, the Engineer or their consultants. There is no warranty or guarantee, either expressed or implied, that the conditions indicated by such investigations or records are representative of those existing throughout the area, or any part of an area, or that unlooked for developments may not occur, or that materials other than, or in proportions different from, those indicated may not be encountered.

2.1.6 When a log of test borings showing a record of the data obtained by the investigation of subsurface conditions by DISTRICT, the Engineer, or their consultants is included with the Contract Documents it is expressly understood and agreed that said log of test borings does not constitute a part of the Agreement, that it represents only the opinion of DISTRICT or the

Bid Documents

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INSTRUCTIONS TO BIDDERS

Engineer or their consultants as to the character of the materials encountered by them in the test borings at the time they were made, that it is included in the plans only for the convenience of Bidders, and that their use is subject to all of the conditions and limitations set forth in this Article.

2.1.7 The availability or use of information described in this Article is not to be construed in any way as a waiver of the provisions of subparagraph 2.1.2 and a Bidder or CONTRACTOR is cautioned to make such independent investigations and examination as they deem necessary to satisfy themselves as to conditions to be encountered in the performance of the Work.

2.1.8 No information derived from such inspection of records of investigations or compilation of records made by DISTRICT, the Engineer, or their consultants will in any way relieve the Bidder or CONTRACTOR from any risk or from properly fulfilling the terms of the Agreement.

ARTICLE 3 AWARD OF CONTRACT OR REJECTION OF BIDS

3.1 Award

3.1.1 The award of the Agreement, if it is awarded, will be to the lowest responsive and responsible Bidder complying with the instructions contained in the Contract Documents. DISTRICT, however, reserves the right to reject any and all bids and to waive any informality in bids received. If, in the judgment of DISTRICT, a bid is unbalanced or if the Bidder is not responsive and responsible, it shall be considered sufficient grounds for rejection of the entire bid.

3.1.2 DISTRICT shall have sixty (60) days, unless otherwise specified in the Special Provisions, after the opening of bids within which to accept or reject the bids. No Bidder may withdraw their bid during said period. DISTRICT will return the proposal guarantees, except Bidders' bonds and any guarantees that have been forfeited, to the respective Bidders whose proposals they accompanied within ten (10) days after the execution of the Agreement by the successful Bidder or rejection of all bids.

3.1.3 Before award of the contract, any Bidder upon request shall furnish a recent statement of their financial condition and previous construction experience or such other evidence of their qualifications as may be requested by DISTRICT. Failure to do so upon request shall constitute grounds for rejection of the bid.

3.1.4 If the schedule of work items includes bid items or schedule(s) of bid items that may be added to ("Additive Items") or deducted from ("Deductive Items") the bids, the lowest responsive and responsible Bidder will be determined by adding all Additive Items to, and deducting all Deductive Items from, the total of the base bid, unless another method is provided in the Special Provisions. DISTRICT reserves the right to award the Work to the lowest responsive and responsible bidder based on any single schedule or combination of schedules of bid items deemed by DISTRICT, in its sole discretion, to be in DISTRICT's best interest.

3.2 Agreement and Bonds

3.2.1 The form of Agreement, bonds, and other documents that the successful Bidder, as CONTRACTOR, shall be required to execute are included in the Contract Documents and should be carefully examined by the Bidder.

3.2.2 The successful Bidder, simultaneously with the execution of the Agreement, will be required to furnish a payment bond and a performance bond, each in an amount equal to one hundred (100) percent of the Contract Price. Said bonds shall be secured from a surety company

Bid Documents

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INSTRUCTIONS TO BIDDERS

satisfactory to DISTRICT and who is admitted and authorized to transact business in California. A certified copy of Power of Attorney must be attached to each bond. Said bonds shall continue in full force and effect for the guarantee period.

3.2.3 Should any surety or sureties be deemed unsatisfactory at any time by DISTRICT, notice will be given CONTRACTOR to that effect, and CONTRACTOR shall substitute a new surety or sureties satisfactory to DISTRICT. No further payment shall be deemed due or will be made under the Agreement until the new sureties qualify and are accepted by DISTRICT.

3.2.4 All alterations, time extensions, extra and additional work, and other changes authorized by the Specifications, or any part of the Agreement, may be made without securing consent of the surety or sureties on the contract bonds.

3.3 Insurance Requirements

The successful Bidder will be required to furnish DISTRICT proof of full compliance with all insurance requirements as specified in the Articles on CONTRACTOR's Insurance in the General and Special Provisions. The form of certificates of insurance and endorsements which the successful Bidder, as CONTRACTOR, shall be required to furnish are included in the Contract Documents and should be carefully examined by the Bidder. No alteration or substitution of said forms will be allowed.

3.4 Execution of Agreement

The Agreement shall be signed by the successful Bidder and returned to DISTRICT, together with the contract bonds and certificates of insurance coverage and endorsements, within fifteen (15) calendar days after the mailing date of the Notice of Award. The date of commencement stated in the Notice of Award will constitute the beginning of the Contract Time. The Agreement, bonds, certificates of insurance and endorsements, and other documents to be executed by CONTRACTOR shall be executed and submitted in original-triplicate, two of which shall be filed with DISTRICT and one returned to CONTRACTOR after execution by DISTRICT. Following receipt and approval of the executed Contract Documents, DISTRICT will issue a Notice to Proceed. The receipt of the Notice to Proceed will be authorization for CONTRACTOR to begin work in the field and to start ordering of equipment and material.

3.5 Failure to Execute Agreement or Submit Insurance

3.5.1 Failure by a Bidder to whom the Work is awarded to execute the Agreement and file acceptable bonds and certificates of insurance coverage and endorsements as provided herein shall be just cause for the annulment of the award and the forfeiture of the proposal guarantee, and shall make the Bidder liable to DISTRICT for all damages resulting from the failure, including reasonable attorneys' fees. The value of the proposal guarantee shall not be a limitation of damages.

3.5.2 The insurance certificates and endorsements included in the Contract Documents shall be completed, without alteration, to the satisfaction of DISTRICT, and submitted to DISTRICT by CONTRACTOR or CONTRACTOR's insurance company within fifteen (15) calendar days of the date of the Notice of Award. DISTRICT shall be allotted seven (7) calendar days for review of insurance documents. Additional time as may be required for transmittal and review of follow-up insurance submittals shall not result in an extension of the Contract Time. The insurance certificates and endorsements shall reflect coverage that complies with all insurance requirements in the general provisions and Special Provisions.

INSTRUCTIONS TO BIDDERS

ARTICLE 4 ASSIGNMENT OF ANTITRUST ACTIONS

4.1 General

In entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, 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 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2, commencing with Section 16700, 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 CONTRACTOR, without further acknowledgment by the parties.

ARTICLE 5 MISCELLANEOUS

5.1 Bid Breakdown

Lump-sum and unit-price bid items shall be broken down as indicated on the Schedule of Work. CONTRACTOR may be directed to provide greater detail of the items making up the Contract Price prior to submission of the first Progress Payment Request as indicated in the General Provisions.

5.2 Contract Time

The Contract Time shall be as set forth in the Agreement.

5.3 Liquidated Damages

Liquidated damages shall be as set forth in the Agreement.

5.4 Unit Price Bid Item Quantities

It is understood that the unit price bid item quantities listed in the Schedule of Work are approximate only and are solely for the purpose of facilitating the comparison of bids, and that CONTRACTOR's compensation will be computed upon the basis of the actual quantities in the completed Work whether they be more or less than those shown in the bid.

SCHEDULE OF WORK

PROJECT NO. XXXXX

Base Bid Items

Item No.	Approx. Quantity	Description	Unit Price Dlrs./Cts.	Total Amount Dlrs./Cts.
1-N		(PROJECT BID ITEMS AS REQUIRED)	ENTER AMOUNTS ON PLANETBIDS	
N+1		Trench Safety Measures		
N+2		Startup Testing		
N+3		Final Record Drawings		
		SUBTOTAL, Base Bid Items		

Additive and Deductive Bid Items

Item No.	Approx. Quantity	Description	Unit Price Dlrs./Cts.	Total Amount Dlrs./Cts.
A-1		Builder's Risk Insurance	ENTER AMOUNTS ON PLANETBIDS	
A-2		Additive Bid Item No. 2		
D-1		Deductive Bid Item No. 1		
		SUBTOTAL, Additive/Deductive Bid Items		
		SUBTOTAL, Base Bid and Additive/Deductive Bid Items		
		ADDITION (+) OR		
		DEDUCTION (-)*		
		TOTAL AMOUNT OF BID		

Fill in total amounts for specified Bid Item numbers N+1, N+2, N+3, etc. in blanks above; leave remaining blank for CONTRACTOR to fill in. Only CONTRACTOR entered bid amounts should be greyed out.

*Provision is made here for the bidder to include an addition or deduction in their Bid, if bidder wishes, to reflect any last-minute adjustments in price. The addition or deduction, if made, will be proportionately applied to all of the base bid items.

BID PROPOSAL

DOCUMENT CHECKLIST

PROJECT NO. XXXXX

Bid proposals shall include the following information entered electronically on PlanetBids:

☐ Schedule of Work

Bid proposals shall include the Bid Form and all contents provided therein as listed below that shall be completed by hand and uploaded to PlanetBids as a compiled single document:

☐ Bid Form

- ☐ Statements by Bidder
- ☐ Certification of Bidder and Qualifications
- ☐ Safety Program Certification
- ☐ Non-Collusion Declaration

Bid proposals shall include the following documents that shall be submitted in a sealed envelope to DISTRICT prior to Bid Opening in accordance with the Article 1.3.3 of the Instructions to Bidders:

- ☐ Bid Security Declaration
- ☐ Bid Bond, Cash, or Certified Check

BID FORM

PROPOSAL TO

IRVINE RANCH WATER DISTRICT

PROJECT NO. XXXXX

Name of Bidder: _____

TO: BOARD OF DIRECTORS, IRVINE RANCH WATER DISTRICT

Pursuant to and in compliance with your notice inviting sealed proposals (the "Bids") and the other documents relating thereto, the bidder, having familiarized himself with the terms of the Contract Documents, local conditions affecting the performance of the Work, and the cost of the Work at the place where the Work is to be done, hereby proposes and agrees to perform the Work within the Contract Time stipulated in the Agreement, including all of its component parts and everything required to be performed, and to provide and furnish any and all of the labor, material, tools, expendable equipment, and all utility and transportation services necessary to perform and complete in a workmanlike manner, all of the Work required by the Contract Documents, including Addenda, for the prices hereinafter set forth.

The bidder declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any person, firm, or corporation; and bidder proposes and agrees, if the proposal is accepted, that bidder will execute an Agreement with DISTRICT in the form set forth in the Contract Documents and that bidder will accept in full payment thereof the prices submitted electronically on PlanetBids.

Signed this ____ day of _____, 20 ____

Name of Bidder

Signature of Bidder

Title of Signatory

STATEMENTS BY BIDDER

PROJECT NO. XXXXX

Bidder shall indicate opposite each item listed by DISTRICT below the name of the manufacturer or supplier proposed to be used under the Agreement. Award of an Agreement under this proposal (bid) will not imply approval by DISTRICT of a manufacturer or supplier listed by the bidder. However, if a manufacturer or supplier is acceptable to DISTRICT, the successful bidder shall furnish the items from the manufacturer or supplier indicated. Any manufacturer or supplier listed in the Agreement may be substituted, changed, or omitted by the successful bidder, subject to the approval of DISTRICT, without subjecting DISTRICT to any liability for the substitution, change or omission.

The listing of any manufacturer or supplier in the Agreement does not, and is not intended to, grant any right, title, or interest in the Agreement for the benefit of the named manufacturer or supplier. Each bidder shall inform in writing each named manufacturer or supplier that the so named manufacturer or supplier is listed for information purposes only and they may be substituted, changed, or omitted by the successful bidder, subject to the approval of DISTRICT, without subjecting DISTRICT to any liability for the substitution, change or omission. The successful bidder shall reimburse DISTRICT for any expenses incurred by DISTRICT as a result of the successful bidder's failure to so notify each named manufacturer or supplier.

- A. For each item listed by DISTRICT below, the bidder intends to furnish materials supplied by the following manufacturers: (Bidder to list one manufacturer only for each item.)

<u>Item</u>	<u>Manufacturer</u>
<i>Insert "None" if no items are going to be listed</i>	

Signed this ____ day of _____, 20 ____

Name of Bidder

Signature of Bidder

Title of Signatory

CERTIFICATION OF BIDDER AND QUALIFICATIONS

PROJECT NO. XXXXX

The undersigned bidder certifies that bidder is, at the time of bidding, and shall be, throughout the period of the Contract, licensed by the State of California to do the type of work required under the terms of the Contract Documents. Bidder further certifies that bidder is skilled and regularly engaged in the general class and type of work called for in the Contract Documents.

The undersigned bidder certifies that it is not an ineligible contractor for the purposes of California Labor Code Section 1777.1 or 1777.7. The undersigned further certifies that no subcontractor to be used for the performance of the Work is an ineligible contractor for the purposes of Labor Code Section 1777.1 or 1777.7.

The bidder represents that bidder is competent, knowledgeable and has special skills regarding the nature, extent and inherent conditions of the Work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the Work which may create, during the Work, unusual or peculiar unsafe conditions hazardous to persons and property.

Bidder expressly acknowledges that bidder is aware of such peculiar risks and that they have the skill and experience to foresee and to adopt protective measures to adequately and safely perform the Work with respect to such hazards.

Furthermore, Bidder hereby certifies to DISTRICT that all representations, certifications, and statements made by Bidder, as set forth in this bid, are true and correct and are made under penalty of perjury.

Signed this ____ day of _____, 20 ____

Name of Bidder

Signature of Bidder

Title of Signatory

SAFETY PROGRAM CERTIFICATION

PROJECT NO. XXXXX

CONTRACTOR acknowledges that CONTRACTOR has read Section 01410 of Division 1 – General Requirements, Construction Safety Procedures.

CONTRACTOR certifies to DISTRICT that CONTRACTOR's SAFETY PROGRAM includes the following elements:

Safety Policy
Incident Investigation Program
Safety Meeting Program
Statistical Injury and Illness Data
Safety Training Program and Records
Disciplinary Procedures
Safety Inspection Program
OSHA T1 Annual Trench Excavation Permit: Permit No. _____

Signed this ____ day of _____, 20 ____

Name of Bidder

Signature of Bidder

Title of Signatory

NON-COLLUSION DECLARATION

PROJECT NO. XXXXX

The undersigned declares:

I am the _____ of _____, 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 _____ [date], at _____ [city], _____ [state].

Name of Bidder

Signature of Bidder

Title of Signatory

BID SECURITY DECLARATION

PROJECT NO. XXXXX

THIS PROPOSAL INCLUDES _____
(Insert the words "cash", "bidder's bond", "cashier's check", or "certified check", as the case may be) in an amount equal to at least ten percent (10%) of the total amount of the bid, payable in lawful money of the United States of America to the IRVINE RANCH WATER DISTRICT.

Prior to bid opening, the Bid Security Declaration and the bid security must be received in a sealed envelope by mail or hand delivery to DISTRICT at 15600 Sand Canyon Avenue, Irvine, California 92618, Attention: Laura Gates.

The undersigned deposits the security in the form set forth above as a proposal guarantee and agrees that it shall be forfeited to DISTRICT in case this is accepted by DISTRICT and the undersigned fails to execute an Agreement with DISTRICT as specified in the Contract Documents accompanied by the required payment and faithful performance bonds with sureties satisfactory to DISTRICT, and accompanied by the required certificates of insurance coverage and endorsements. Should DISTRICT be required to engage the services of an attorney(s) in connection with the enforcement of this Bid, bidder promises to pay all of DISTRICT's reasonable attorneys' fees and costs incurred with or without suit. The bidder's liability to DISTRICT for failure to do any of the foregoing shall not be limited to the amount of the deposited security in the form set forth above.

The names of all persons interested in the foregoing proposal as principals are as follows:

(NOTICE: If bidder or other interested person is a **corporation**, state legal name of corporation also names of the president, secretary, treasurer and manager thereof; if a **general partnership**, state true name of firm, also names of all individual partners and limited partners; if bidder or other interested person is an **individual**, state first and last names in full; if the bidder is a **joint venture**, state the complete name of each venture; if the bidder is a **limited liability company**, state the complete name of each manager and each member, and if the manager or member is a corporation, its president, secretary and treasurer, and state the complete name of the chief executive officer, if any, of the limited liability company).

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we

as Principal, and _____ as Surety, are held and
firmly bound unto the

IRVINE RANCH WATER DISTRICT

hereinafter called 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, assigns, and successors, jointly and severally, firmly by these presents. The condition of this obligation is such that whereas the Principal has submitted a Bid for the construction of:

PROJECT NO. XXXXX

NOW THEREFORE, if the Principal shall not withdraw said Bid within the period of time set forth in the Contract Documents, and shall within fifteen (15) calendar days after the prescribed forms are presented to the Principal for signature enter into a written contract with DISTRICT in accordance with the Bid as accepted, and if the Principal shall give the required bonds with good and sufficient sureties for the faithful performance and proper fulfillment of such contract, and for the protection of laborers and material men, or in the event of the withdrawal of the Bid within the period specified, or the failure to enter into the Agreement, and give such bonds within the time specified, if the Principal shall within sixty (60) days after request by DISTRICT pay to DISTRICT the difference between the amount specified in the Bid and the amount for which DISTRICT may procure the required work, if the latter amount be in excess of the former, then the above obligation shall be void and of no effect, otherwise it shall remain in full force and virtue.

Forfeiture of this bond shall not preclude DISTRICT from seeking any or all other remedies provided by law to cover losses sustained as a result of the Principal's failure to do any of the foregoing, and this bond shall not be a limitation on Principal's liability therefor.

It is further agreed that if DISTRICT is required to initiate legal proceedings to recover on this bond, it may also recover its costs relating thereto including a reasonable amount for attorneys' fees incurred with or without suit.

IN WITNESS WHEREOF the above-bounded parties have executed this instrument this day of _____, 20____, the name and corporate seal for each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

Two Witnesses (if individual)

PRINCIPAL

By _____

Title _____

ATTEST: (if corporation, or limited
liability company with officers)

Title

Corporate Seal (Non-Embossed)

Attach acknowledgments of authorized representative of Principal.

Any claims under this bond may be addressed to:

_____ (name and address of Surety)

_____ (name and address of agent or
representative in California,
if different from above)

_____ (telephone number of Surety
and agent of representative
in California)

SURETY

By _____

Title _____

ATTEST: (if corporation)

Title

Corporate Seal (Non-Embossed)

Attach acknowledgments of authorized representatives of Surety.

AGREEMENT, BONDS, AND INSURANCE

Contents

Agreement

Performance Bond

Payment Bond

Contractor's Certificate Regarding Worker's Compensation

Certificates of Insurance and Endorsements

AGREEMENT

THIS AGREEMENT, made and entered into by and between the IRVINE RANCH WATER DISTRICT hereinafter referred to as "DISTRICT" and _____ a corporation organized and existing under the laws of the State of _____; a partnership consisting of _____; a joint venture consisting of _____; a limited liability company consisting of _____; or an individual trading as _____; in the City of _____, County of _____, State of _____, hereinafter referred to as "CONTRACTOR".

WITNESSETH: That DISTRICT and CONTRACTOR, for the consideration hereinafter named, agree as follows:

1. SCOPE OF WORK: CONTRACTOR will furnish all materials and will perform all of the work for the construction of:

PROJECT NO. XXXXX

in accordance with the Contract Documents therefor.

2. CONTRACT TIME:
 - 2.1 The work shall be substantially completed within _____ calendar days from the date of the Notice of Award.
 - 2.2 For any early occupancy milestone described in Section 01700 of Division 1, General Requirements, CONTRACTOR shall achieve Substantial Completion of the milestone within the number of calendar days from the date of the Notice of Award, as set forth below:

Early Occupancy Milestone

()
()
()

Substantial Completion

() days
() days
() days

3. CONTRACT PRICE: DISTRICT will pay CONTRACTOR in accordance with the prices shown in the bid form.
4. PAYMENTS: Monthly progress payments and the final payment will be made in accordance with the General Provisions. The filing of the notice of completion by DISTRICT shall be preceded by final acceptance of the Work by DISTRICT.
5. LIQUIDATED DAMAGES:

- 5.1 Liquidated Damages shall be assessed at the rate of \$_____ per calendar day, in accordance with the General Provisions.
- 5.2 For any early occupancy milestone that is not Substantially Complete within the time set forth above, Liquidated Damages shall be assessed at the rates per calendar day listed below for each calendar day that expires after the time specified in paragraph 2.2 above, until the early occupancy milestone Work is Substantially Complete. Liquidated damages shall be assessed cumulatively for early occupancy milestones that are not substantially completed, as well as for substantial completion of the Work.

Early Occupancy Milestone

()
()
()

Liquidated Damages Per Day

(\$)
(\$)
(\$)

Fill in above early occupancy milestones, completion times and liquidated damage rates, if applicable. Delete paragraphs 2.2 and 5.2 if there are no early occupancy milestones.

6. COMPLIANCE WITH PUBLIC CONTRACTS LAW: DISTRICT is a public agency in the State of California and is subject to provisions of law relating to public contracts. It is agreed that all applicable provisions of law related to public contracts are a part of this Agreement to the same extent as though set forth herein and will be complied with by CONTRACTOR.
7. CONTRACT DOCUMENTS: The complete contract includes all the contract documents set forth herein, to wit: Project Manual, Construction Manual, Plans, Addenda, and supplemental agreements.

IN WITNESS WHEREOF, this agreement is executed by the General Manager and the Secretary of DISTRICT pursuant to Minutes of the meeting of the Board of Directors held on _____, authorizing the same, and CONTRACTOR has caused this agreement to be executed.

Dated: _____

IRVINE RANCH WATER DISTRICT
Owner

By _____
General Manager

ATTEST: _____
Secretary to the Board

(Non-Embossed SEAL)

Dated: _____

Contractor

By _____

Title _____

(Non-Embossed SEAL)

CORPORATE CERTIFICATE

I, _____, certify that I am the _____

Secretary of _____, a _____ corporation;

That said corporation executed the foregoing Agreement as (*check only one*):

☐

CONTRACTOR,

☐

venturer of the joint venture named as CONTRACTOR in the foregoing Agreement,

☐

partner of the partnership named as CONTRACTOR in the foregoing Agreement,

☐

manager or member of the limited liability company named as CONTRACTOR in the foregoing Agreement;

that _____, who signed said agreement on behalf of CONTRACTOR

was then _____ of said corporation; and that said corporation is in good standing;

and that said contract was duly signed for and in behalf of CONTRACTOR by said corporation by express authority of its governing body and is within the scope of its corporate powers; and that if CONTRACTOR is a joint venture, partnership or limited liability company that includes said corporation, said corporation is CONTRACTOR's duly authorized signatory.

By _____

Bond No. _____

Premium \$ _____

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: THAT

WHEREAS, THE Board of Directors of the

IRVINE RANCH WATER DISTRICT

by Minute Order at the meeting held the ____ day of _____, 20____, has awarded to

_____ hereinafter designed as the "Principal", a
contract for the construction of:

PROJECT NO. XXXXX

WHEREAS, said Principal is required under the terms of the Contract to furnish a bond for the faithful performance of the Contract,

NOW, THEREFORE, we the Principal and

as Surety, and held firmly bound unto the

IRVINE RANCH WATER DISTRICT

hereinafter called the "Obligee", 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, and firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the above-bounded Principal, his or its 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 his or their part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the Obligee, the Obligee's Representative, the

Engineer/Architect and their consultants and each of their officers, directors, agents and employees, as therein stipulated, this obligation shall become null and void, otherwise, it shall be and remain in full force and virtue inclusive of the entire Contract guarantee period. And the said 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, or the plans or specifications accompanying the same, shall in any way affect its obligation on this bond, and it does hereby waive notice by District of any such change, extension of time, alteration or addition to the terms of the Contract, or to the work or to the plans or specifications. Principal and Surety agree that if Obligee is required to engage the services of an attorney(s) in connection with the enforcement of this bond, each shall also pay Obligee's reasonable attorneys' fees incurred with or without suit.

IN WITNESS WHEREOF, three counterparts of this instrument, each of which shall for all purposed be deemed an original hereof, have been duly executed by the Principal and Surety above named, on the ____ day of _____ 20____.

APPROVED:

Principal
By _____
Title _____
Purchasing Representative for the District

Any Claims under this bond may be addressed to:

(Name and address of Surety)

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

(Telephone Number of Surety and
Agent or Representative in
California)

Surety

(Attach Acknowledgment)

By _____

Title _____

NOTICE: No substitution or revision to this bond form will be accepted. Sureties must be admitted and authorized to do business in and have an agent for service of process in California. A certified copy of Power of Attorney must be attached.

PAYMENT BOND

We, _____
as Principal, and _____
as Surety, jointly and severally, bind ourselves, our heirs, representatives, successors and assigns,
as set forth herein, to the Irvine Ranch Water District (herein called Owner) for payment of the
penal of sum of _____ Dollars (\$ _____), lawful
money of the United States of America. Owner has awarded Principal a contract for the
construction of:

PROJECT NO. XXXXX

If Principal or any of his subcontractors fails to pay any of the persons named in Section 9100 of the California Civil Code, or amounts due under the California Unemployment Insurance Code with respect to work or labor performed under the Contract or during the one-year guarantee period, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department Franchise Tax Board from wages of employees of the Contractor and his subcontractors pursuant to Section 13020 of the California Unemployment Insurance Code, with respect to such work and labor, then Surety will pay the same in an amount not exceeding the sum specified above, and also will pay, in case suit is brought upon this bond, such reasonable attorney's fees as shall be fixed by the court.

This bond shall inure to the benefit of any of the persons named in Section 9100 of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Surety agrees that no change, extension of time, alteration, or addition to the terms of the Contract, or the work to be performed thereunder, or the plans and specifications shall in any way affect its obligation on this bond, and it does hereby waive notice by District thereof.

Principal and Surety agree that should Owner become a party to any action on this bond that each will also pay Owner reasonable attorneys' fees incurred therein in addition to the sum above set forth.

Executed in three original counterparts on

_____, 20____.

(Non-Embossed Seal of Corporation)

Principal _____

By _____

Title _____

Any claims under this bond may be addressed to:

_____ (Name and Address of Surety)

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

_____ (Telephone Number of Surety's
Agent in California)

(Attach Acknowledgment)

Surety

By _____
Attorney-in-Fact

APPROVED:

Purchasing Representative for the District

NOTICE: No substitution or revision to this bond form will be accepted. Sureties must be admitted and authorized to do business in and have an agent for service of process in California. Certified copy of Power of Attorney must be attached.

**CONTRACTOR'S CERTIFICATE
REGARDING WORKER'S COMPENSATION**

Description of Contract:

PROJECT NO. XXXXX

California Labor Code Section 3700 provides:

"Every employer, except the state shall secure the payment of compensation in one or more of the following ways:

- (a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this state.
- (b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees...."

I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the Labor Code, and I will comply with such provisions before commencing the performance of any and all work required under the terms and conditions of this Contract.

Dated: _____, 20__

Contractor

By _____

(Non-Embossed SEAL)

(In accordance with Article 5 commencing at Section 1860, Chapter 1, Division 2, Part 7, of the California Labor Code, the above certificate must be signed and filed with the District (the awarding body) prior to performing any work under this contract.)

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT-CALIFORNIA

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

You must maintain payroll records accurately segregating the remuneration of your employees while engaged in the work described in the Schedule.

The additional premium for this endorsement shall be _____% of the California workers' compensation premium otherwise due on such remuneration.

Schedule

Person or Organization

Job Description

Notes:

1. This endorsement may be used to waive the company's right of subrogation against named third parties who may be responsible for an injury.
2. The sentence in () is optional with the company. It limits the endorsement to apply only to specific jobs of the insured, and only to the extent that the insured is required to obtain this waiver.

This endorsement changes the policy to which it is attached and is effective on the date unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective
Insured

Policy No.
Insurance Company

Endorsement No.

Countersigned By _____

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

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:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED	INSURER A :	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES

CERTIFICATE NUMBER:

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
	COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☐ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PROJECT ☐ LOC ☐ OTHER						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB ☐ OCCUR EXCESS LIAB ☐ CLAIMS-MADE DED \$ RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N ☐	N/A				PER STATUTE ☐ OTH-ER ☐ E L EACH ACCIDENT \$ E L DISEASE - EA EMPLOYEE \$ E L DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER**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

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY AND NONCONTRIBUTORY – OTHER INSURANCE CONDITION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

The following is added to the **Other Insurance** Condition and supersedes any provision to the contrary:

Primary And Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured under your policy provided that:

- (1) The additional insured is a Named Insured under such other insurance; and

- (2) You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED - OWNERS, LESSEES OR
CONTRACTORS - AUTOMATIC STATUS WHEN
REQUIRED IN CONSTRUCTION AGREEMENT WITH YOU**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. Section II - Who Is An Insured is amended to include as an additional insured any person or organization for whom you are performing operations when you and such person or organization have agreed in writing in a contract or agreement that such person or organization be added as an additional insured on your policy. Such person or organization is an additional insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;
in the performance of your ongoing operations for the additional insured.

However, the insurance afforded to such additional insured:

1. Only applies to the extent permitted by law; and
2. Will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

A person's or organization's status as an additional insured under this endorsement ends when your operations for that additional insured are completed.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to:

1. "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:
 - a. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
 - b. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any professional architectural, engineering or surveying services.

2. "Bodily injury" or "property damage" occurring after:

- a. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
- b. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

C. With respect to the insurance afforded to these additional insureds, the following is added to Section III - Limits Of Insurance:

The most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement you have entered into with the additional insured; or
 2. Available under the applicable Limits of Insurance shown in the Declarations;
- whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location And Description Of Completed Operations
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

A. Section II - Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following is added to Section III - Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
 2. Available under the applicable Limits of Insurance shown in the Declarations;
- whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

GENERAL PROVISIONS

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GENERAL PROVISIONS

ARTICLE 1 DEFINITION

1.1 Definitions

Whenever the following terms occur in the Contract Documents, they shall have the meanings as set forth in this Article which shall be equally applicable in both the singular and plural forms of any of the defined terms.

Addendum - Corrections, additions, and/or deletions that are made to the Plans, Project Manual, Construction Manual, and/or other Addenda prior to DISTRICT's receipt of sealed proposals ("Bids").

Agreement - The written agreement executed between DISTRICT and CONTRACTOR covering the performance of the Work. Other Contract Documents are incorporated into the Agreement and are made a part of it.

Bidder - Any individual, partnership, corporation, or combination thereof submitting a proposal for the Work, acting directly or through an authorized representative.

Change Order - A written instrument, which when signed by DISTRICT, amends the Contract Documents to provide for changes in the Work or in the provisions of the Contract Documents or changes in Contract Price or Contract Time, or any combination of these.

Change Request - A written instrument which, when signed by DISTRICT, is a directive authorizing a change in the Work or in the provisions of the Contract Documents, or an adjustment in Contract Price or Contract Time, or a combination of these. Even when signed by DISTRICT, a Change Request is not an instrument that amends the Contract Documents; however, it may be converted into a Change Order.

Construction Manual (IRWD) - Manual containing General Technical Specifications and Standard Drawings.

Contract Documents - Project Manual, Construction Manual, Plans, addenda, and supplemental agreements. Supplemental agreements are written agreements covering alterations, amendments, or extensions to the contract and include Change Orders.

Contract Price - The total compensation, subject to authorized adjustments, payable by DISTRICT to CONTRACTOR under the Contract Documents.

Contract Time - The time set forth in the Agreement for achieving substantial completion of the Work or any designated portion of the Work. Contract Time shall be in calendar days measured from the date of commencement stated in the Notice of Award, or shall be in such other time increments or measured from such other time of commencement as are specified in the Agreement.

GENERAL PROVISIONS

CONTRACTOR - The individual, partnership, corporation, or combination of these who has entered into the Agreement with DISTRICT for the performance of the Work. The term "CONTRACTOR" means the CONTRACTOR or their authorized representative.

Days - Unless otherwise specified, days shall mean calendar days.

DISTRICT - The Irvine Ranch Water District (IRWD). The term "DISTRICT" means DISTRICT or their authorized representative.

District Board of Directors - The governing body of the Irvine Ranch Water District.

DISTRICT's Representative - The person or engineering/architectural firm authorized by DISTRICT to represent them during the performance of the Work by CONTRACTOR. The term "DISTRICT's Representative" means DISTRICT's Representatives or their assistants.

Emergency - A sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage.

Engineer/Architect - The person, firm, or corporation duly authorized by DISTRICT to oversee the execution of this Agreement, acting either directly or through their properly authorized agents, and the person, firm, or corporation or their properly authorized agents who designed the project.

Final Acceptance - The formal action by DISTRICT as evidenced by the filing of a Notice of Completion accepting the Work as being complete after certification by the DISTRICT's Representative of final completion.

Final Progress Payment - The total amount to be paid under the terms of the Agreement less all previous payments and all amounts to be retained under the provisions of the Agreement.

General Requirements - Sections of Section 1 of the Project Technical Specifications.

General Technical Specifications - The documents identified as such in the latest revision of the IRWD Construction Manual (may also be referred to as standard specifications or specifications).

Holidays - The days designated by DISTRICT as legal holidays.

Laboratory - The facility authorized by DISTRICT or DISTRICT's Representative to test materials and work involved in the contract.

GENERAL PROVISIONS

Notice of Award - Written notice to the successful Bidder of DISTRICT'S intent to enter into the Agreement. This notice will be accompanied by documents to be executed by CONTRACTOR.

Notice of Completion - Certification by DISTRICT that the Work is complete, including minor items identified on the certificate of Substantial Completion, delivery of record documents, and final cleanup.

Notice to Proceed - Written notice by DISTRICT that all Contract Documents have been approved and executed by DISTRICT and CONTRACTOR. CONTRACTOR shall not commence work in the field or order materials until the Notice to Proceed is issued.

Owner - The legal owner of the property on which or through which the work is to be constructed.

Plans (Drawings) - The plans, drawings, or reproductions that show the location, character, dimensions, and details of the Work.

Progress Payment Request - The form furnished by DISTRICT that is to be used by CONTRACTOR in requesting progress or final payments. The request includes such supporting documentation as required by the Contract Documents.

Progress Schedule - All documentation related to the planning and scheduling of the Work as described in these General Provisions and the General Requirements.

Project Manual - Instruction to Bidders, Notice Inviting Sealed Proposals (Bids), Bid Form, Bid Bond, Agreement, Performance Bond, Payment Bond, CONTRACTOR'S Certificate Regarding Worker's Compensation, Certificates of Insurance and Endorsements, General Provisions, Special Provisions, Project Technical Specifications, and Appendix.

Project Technical Specifications - The documents identified as such in the IRWD Project Manual (may also be referred to as specifications).

Shop Drawings - Drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data that are prepared by CONTRACTOR or any Subcontractor, manufacturer, supplier, or distributor that illustrate some portion of the Work.

Special Provisions - Sections of Section O, containing additions, deletions, and changes to the Instructions To Bidders and General Provisions.

Standard Drawings (Standard Plans) - The documents identified as such in the latest revision of the IRWD Construction Manual.

Substantial Completion - The date when (a) the Work, or specified part of the Work, is complete in accordance with the Contract Documents, with the exception of the minor

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items identified during the inspections described in the General Provisions, and (b) the Work or any specified part of the Work can be utilized for the purpose for which it is intended. The terms "substantially complete" and "substantially completed" as applied to any work refers to Substantial Completion.

Subsurface Installation - Any underground pipeline, conduit, duct, wire, or other structure operated or maintained in or across a public street or public right way (Government Code Section 4216).

Subcontractor - An individual, partnership, corporation, or combination of these, who has a contract with CONTRACTOR to perform any of the Work at the site. The term "Subcontractor" means a Subcontractor or their authorized representative. Subcontractor also means an individual, partnership, corporation, or combination of these, who has a contract with a Subcontractor to perform any of the Work at the site.

Utility - Public or private fixed works for the transportation of fluids, gases, power, signals, or communications.

Work - All obligations and responsibilities and all labor necessary to produce the construction or improvement required by the Agreement, and all materials and equipment incorporated in the construction or improvement.

1.2 Document Headings

The headings in these Contract Documents are for convenience of reference only, and shall not limit or otherwise affect the meaning of the Contract Documents.

1.3 Terms

Wherever the terms "directed", "required", "permitted", "ordered", "designated", "prescribed", or terms of like import are used, it shall be understood that the direction, requirements, permission, order, designation, or prescription of DISTRICT's Representative is intended. Similarly, the terms "approved", "acceptable", "satisfactory", "or equivalent", or terms of like import shall mean approved by, or acceptable to, DISTRICT's Representative, unless otherwise expressly stated. The word "provide" shall be understood to mean furnish and install.

1.4 Abbreviations

Wherever the following abbreviations are used, they shall have the meanings indicated:

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGA	American Gas Association
AAI	The Asphalt Institute

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AIA	American Institute of Architects
AIEE	American Institute of Electrical Engineers
AIMA	Acoustical and Insulating Materials Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AMCA	Air Moving and Conditioning Association, Inc.
ANSI	American National Standards Institute (formerly USASI, USAS, ASA)
APA	American Plywood Association
API	American Petroleum Institute
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASA	American Standards Association (Now ANSI)
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AT&SF	Atchison, Topeka and Santa Fe Railway Company
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
CALTRANS	State of California, Department of Transportation, Division of Highways
CCR	California Code of Regulations
CFR	Code of Federal Regulations
CRSI	Concrete Reinforcing Steel Institute
CRWQCB	California Regional Water Quality Control Board
CA	Commercial Standard, US Department of Commerce
DIPRA	Ductile Iron Pipe Research Association
ETL	Electrical Testing Laboratories
GRI	Geosynthetic Research Institute
HI	Hydraulics Institute
ICBO	International Conference of Building Officials
IEEE	Institute of Electrical and Electronics Engineers
ISA	Instrument Society of America
MSS	Manufacturers Standardization Society of the Valve and Fittings Industry
NAPF	National Association of Plastic Fabricators
NBFU	National Board of Fire Underwriters
NCPI	National Clay Pipe Institute
NECA	National Electrical Contractors Association
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NOAA	National Oceanographic and Atmospheric Administration
NSF	National Sanitation Foundation

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OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PS	Product Standard, U.S. Department of Commerce
SDI	Steel Deck Institute
SJI	Steel Joist Institute
SMACNA	Sheet Metal and Air-Conditioning Contractors National Association
State Specifications	Standard Specifications, State of California, Business and Transportation Agency, Department of Transportation
SSPC	Steel Structures Painting Council
SSPWC	Standard Specifications for Public Works Construction (Green Book)
UBC	Uniform Building Code, Pacific Coast Building Officials Conference of the International Conference of Building Officials
U/L or UL	Underwriters' Laboratories, Inc.
USA	Underground Service Alert
USASI or USAS	United States of America Standards Institute (Now ANSI)
USGS	United States Geological Survey

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1.5 Abbreviations – Common Usage

The following abbreviations, together with others in general use, are applicable to the Contract Documents.

<u>Abbreviation</u>	<u>Word or Words</u>
ABAN.....	Abandon
ABAND.....	Abandoned
ABS	Acrylonitrile – butadiene – styrene
AC	Asphalt Concrete
ACP	Asbestos cement pipe
ALT.....	alternate
AWG.....	American Wire Gage (nonferrous wire)
BC.....	beginning of a curve
BCR.....	beginning of a curb return
BDRY.....	Boundary
BM.....	Bench mark
BVC.....	Beginning of a vertical curve
C/C.....	Center to center
CAB.....	Crushed aggregate base
CAP.....	Corrugated aluminum pipe
CB.....	Catch Basin
Cb.....	Curb
CBR.....	California Bearing Radio
CCTV.....	Closed Circuit TV
CF.....	Curb face
CF.....	Cubic foot
CFS	Cubic feet per Second
C&G.....	Curb and gutter
CIP.....	Cast iron pipe
CIPP.....	Cast-in place pipe
CL.....	Clearance, center line
CLF.....	Chain link fence
CMB.....	Crushed miscellaneous base
CMC.....	Cement mortar-coated
CML.....	Cement mortar-lined
CO.....	Cleanout (Sewer)
CONC.....	Concrete
CONN.....	Connection
CONST.....	Construct, Construction
COORD.....	Coordinate
CSP.....	Corrugated steel pipe
CTB.....	Cement treated base
CV.....	Check valve
CY.....	Cubic yard
dB.....	Decibels
DIA.....	Diameter

<u>Abbreviation</u>	<u>Word or Words</u>
DIP.....	Ductile iron pipe
DW.....	Domestic water
DWG.....	Drawing
EA.....	Each
EC.....	End of curve
ECR.....	End of curb return
EF.....	Each face
EGL.....	Energy grade line
El.....	Elevation
ENGR.....	Engineer, Engineering
EP.....	Edge of pavement
ESMT.....	Easement
ETB.....	Emulsion-treated base
EVC.....	End of vertical curve
EXC.....	Excavation
EXP JT.....	Expansion joint
EXST.....	Existing
F.....	Fahrenheit
FAB.....	Fabricate
FD.....	Floor drain
FDN.....	Foundation
FG.....	Finished grade
FH.....	Fire hydrant
FL.....	Flow line
FS.....	Finished surface
FTG.....	Footing
FW.....	Face of wall
GA.....	Gauge
GALV.....	Galvanized
GIP.....	Galvanized iron pipe
GL.....	Ground line or grade line
GM.....	Gas meter
GR.....	Grade
GRTG.....	Grating
GSP.....	Galvanized steel pipe
H.....	High or height
HB.....	Hose bib
HC.....	House connection
HDWL.....	Headwall
HGL.....	Hydraulic grade line
HORIZ.....	Horizontal
HP.....	Horsepower

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<u>Abbreviation</u>	<u>Word or Words</u>
HPG.....	High pressure gas
HYDR.....	Hydraulic
ID.....	Inside diameter
INCL.....	Including
INV.....	Invert
IP.....	Iron pipe
JC.....	Junction chamber
JCT.....	Junction
JS.....	Junction structure
JT.....	Joint
L.....	Length
LAB.....	Laboratory
LAT.....	Lateral
LB.....	Pound
LD.....	Local depression
LF.....	Linear foot
LONG.....	Longitudinal
LS.....	Lump sum
LTS.....	Lime treated soil
MAINT.....	Maintenance
MAX.....	Maximum
MCR.....	Middle of curb return
MEAS.....	Measure
MGD.....	Million Gallons per day
MH.....	Manhole, maintenance hole
MIN.....	Minimum
MISC.....	Miscellaneous
MOD.....	Modified, modify
MON.....	Monument
MULT.....	Multiple
OC.....	On center
OD.....	Outside diameter
OPP.....	Opposite
ORIG.....	Original
PB.....	Pull box
PC.....	Point of curvature
PCC.....	Portland cement concrete or point of compound curvature
PE.....	Polyethylene
PI.....	Point of intersection
PL.....	Property line
PMB.....	Processed miscellaneous base
POC.....	Point on curve
POT.....	Point on tangent
PP.....	Power pole
PRC.....	Point of reverse curve
PSI.....	Pounds per square inch
PT.....	Point of tangency
PVC.....	Polyvinyl chloride
PVMT.....	Pavement
Q.....	Rate of flow in cubic feet per second
QUAD.....	Quadrangle, Quadrant
R.....	Radius
R/W.....	Right-of-way

<u>Abbreviation</u>	<u>Word or Words</u>
RC.....	Reinforced concrete
RCB.....	Reinforced concrete box
RCE.....	Registered civil engineer
RCP.....	Reinforced concrete pipe
RCV.....	Remote control valve
REF.....	Reference
REINF.....	Reinforced or reinforcement
RES.....	Reservoir
RR.....	Railroad
RW.....	Reclaimed water
S.....	Slope or sewer
SCCP.....	Steel cylinder concrete pipe
SD.....	Storm drain
SDR.....	Standard thermoplastic pipe dimension ratio (ratio of pipe O.D. to minimum wall thickness)
SEC.....	Section or second
SF.....	Square foot
SPEC.....	Specifications
SR.....	Standard ratio
SS.....	Sanitary sewer
SSB.....	Select sub-base
STA.....	Station
STD.....	Standard
STR.....	Straight
STRUC.....	Structural/Structure
SW.....	Sidewalk
SWD.....	Sidewalk drain
SY.....	Square yard
TAN.....	Tangent
TC.....	Top of curb
TEL.....	Telephone
TF.....	Top of footing
TOPO.....	Topography
TR.....	Tract
TRANS.....	Transition
TS.....	Traffic signal or transition structure
TSC.....	Traffic signal conduit
TW.....	Top of wall
TYP.....	Typical
VAR.....	Varies, Variable
VB.....	Valve box
VC.....	Vertical curve
VCP.....	Vitrified clay pipe
VERT.....	Vertical
VOL.....	Volume
W.....	Wide or width
WATCH.....	Work Area Traffic Control Handbook
WM.....	Water meter
WPJ.....	Weakened plane joint
XCONN.....	Cross connection
XSEC.....	Cross section

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1.6 Units of Measure, Their Abbreviation and Conversion

The following units of measure, together with other units in general use, are applicable to the Contract Documents.

<u>U.S. Customary Unit</u> <u>(Abbreviations)</u>	<u>Equal To</u>	<u>SI unit</u> <u>(Abbreviations)</u>
1 mil (=0.001 in)		25.4 micrometer (um)
1 inch (in)		25.4 millimeter (mm)
1 inch (in)		2.54 centimeter (cm)
1 foot (ft)		0.3048 meter (m)
1 yard (yd)		0.9144 meter (m)
1 mile (mi)		1.6093 kilometer (km)
1 square foot (ft ²)		0.0929 square meter (m ²)
1 square yard (yd ²)		0.8361 square meter (m ²)
1 cubic foot (ft ³)		0.0283 cubic meter (m ³)
1 cubic yard (yd ³)		0.7646 cubic meter (m ³)
1 acre		0.4047 hectare (ha)
1 U.S. gallon (gal)		3.7854 Liter (L)
1 fluid ounce (fl. Oz.)		29.5735 milliliter (mL)
1 pound mass (lb) (avoirdupois)		0.4536 kilogram (kg)
1 ounce mass (oz)		28.3495 kilogram (kg)
1 Ton (=2000 lb. avoirdupois)		0.9072 Tonne (= 1000 kg)
1 Poise		0.1 pascal . second (Pa . s)
1 centistoke (cs)	1 square millimeter per second (mm ² /s)	
1 pound force (lbf)		4.4482 Newton (N)
1 pounds per square inch (psi)		6.8948 Kilopascal (kPa)
1 pound force per foot (lbf/ft)		1.4594 Newton per meter (N/m)
1 foot-pound force (ft-lbf)		1.3558 Joules (J)
1 foot-pound force per second ([ft-lbf]/s)		1.3558 Watt (W)
1 part per million (ppm)		1 milligram/liter (mg/L)

1.7 Language of Documents

Wherever anything is required or permitted by a provision of the Contract Documents to be furnished in writing, it shall be in the English language.

END OF ARTICLE

GENERAL PROVISIONS

ARTICLE 2 NOTICES

2.1 Notice and Service

2.1.1 Any notice required or given by one party to the other under the contract shall be in writing and shall be dated and signed by the party giving such notice or by a duly authorized representative of such party. Any such notices shall not be effective for any purposes whatsoever, unless served in the following manner:

- 2.1.1.1 If the notice is given to DISTRICT, by personal delivery, delivery service, or by depositing the same in the United States mail, enclosed in a sealed envelope addressed to DISTRICT, postage prepaid and registered or certified.
- 2.1.1.2 If the notice is given to CONTRACTOR, by personal delivery to CONTRACTOR or to their authorized representative at the site of the Work or by depositing the same in the United States mail or delivery service, enclosed in a sealed envelope addressed to CONTRACTOR at their regular place of business or such other address as may have been established for the conduct of the Work under this contract, postage prepaid and registered or certified.
- 2.1.1.3 If the notice is given to the surety or any other person, by personal delivery to surety or other person, or by depositing the same in the United States mail, enclosed in a sealed envelope addressed to such surety or person at the address of surety or person last communicated by them to the party giving the notice, postage prepaid and registered or certified.

2.2 CONTRACTOR Correspondence

All CONTRACTOR's correspondence shall have identification numbers assigned by CONTRACTOR. The identification numbers shall be sequential and assigned chronologically such that each CONTRACTOR's submission can be individually identified by reference to the assigned identification number. The numbering system must be approved by DISTRICT. Any correspondence not so identified may not be accepted by DISTRICT.

2.3 DISTRICT Correspondence

All correspondence from DISTRICT or the Engineer/Architect shall be by project transmittal memorandum (PTM). PTMs shall be sequentially numbered for identification. CONTRACTOR shall sign and return one copy of each PTM to acknowledge receipt of the PTM and all attachments. CONTRACTOR's acknowledgement of receipt shall not constitute acceptance of or agreement with the contents of the PTM.

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2.4 Use of Forms Provided

Unless DISTRICT allows to the contrary, only those forms provided or approved by DISTRICT shall be used and no modifications or substitutions shall be allowed.

2.5 Initial Submittals by CONTRACTOR

2.5.1 Within ten (10) days after Notice of Award (unless otherwise specified in the Special Provisions or General Requirements), CONTRACTOR shall submit to DISTRICT for review a preliminary progress schedule indicating the starting and completion dates of the various stages of the Work, a proposed schedule of Shop Drawing submissions, a proposed schedule of values of the Work on the form provided by DISTRICT, and a listing of labor projections through the Contract Time.

2.5.2 DISTRICT will review and return these submissions and CONTRACTOR shall revise, adjust or modify and resubmit acceptable schedules.

2.5.3 Within thirty (30) days after Notice of Award, CONTRACTOR shall (except as otherwise specified in the Special Provisions) submit to DISTRICT acceptable Progress and Shop Drawing Submittal Schedules, acceptable labor projections, and a final schedule of values of the Work. These schedules shall be of satisfactory type, form, and substance to DISTRICT. DISTRICT may require the schedule of values to be adjusted if in their opinion the breakdown does not accurately reflect the true distribution of the Contract Price. Upon acceptance of the Schedule of Values by DISTRICT, it shall be incorporated into the Progress Payment Request.

2.6 Daily Reports By CONTRACTOR

2.6.1 CONTRACTOR shall be responsible for preparing and delivering to DISTRICT, on a daily basis, reports recording labor and equipment available and used, materials and equipment received each day, and problems encountered on a form acceptable to DISTRICT. If CONTRACTOR fails to submit reports daily, DISTRICT may withhold payments for undocumented work until such time as CONTRACTOR submits the required information. CONTRACTOR shall make available any records as requested by DISTRICT to verify that the reports are accurate.

2.6.2 CONTRACTOR shall submit to DISTRICT each morning, a list of specific items requiring final inspection, monitoring, or witnessing by DISTRICT on the following day.

END OF ARTICLE

GENERAL PROVISIONS

ARTICLE 3 CONTRACT DOCUMENTS

3.1 Applicable Law; Intent

3.1.1 The Contract Documents comprise the entire agreement between DISTRICT and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.

3.1.2 It is the intent of the Contract Documents to describe a functionally complete project (or part of it) to be constructed in accordance with the Contract Documents. Any work, materials, or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether or not specifically called for. When words that have a well-known technical or trade meaning are used to describe work, materials or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental entity, including DISTRICT, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect at the time of opening of Bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall change the duties and responsibilities of DISTRICT, CONTRACTOR, or the Engineer/Architect, or any of their consultants, agents, or employees from those set forth in the Contract Documents, nor shall it assign to DISTRICT or the Engineer/Architect, or any of their consultants, agents, or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of this Agreement.

3.2 Priority of the Contract Documents

3.2.1 In resolving conflicts, errors, or discrepancies, the Contract Documents shall be given precedence in the following order:

- Supplemental agreements (including Change Orders)
- Agreement
- Notice to Proceed
- Notice of Award
- Addenda
- Special Provisions
- Instructions to Bidders
- General Provisions
- General Requirements
- Project Technical Specifications
- Plans
- General Technical Specifications
- Standard Drawings

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- Notice Inviting Sealed Proposals
- CONTRACTORS's Bid
- Bonds
- Certificate(s) of Insurance and Endorsements
- Affidavits

3.2.2 If the issue of priority pertains to the specifications and the drawings, figured dimensions shall govern over scaled dimensions, but Work not dimensioned shall be as directed, and Work not particularly shown, identified, sized, or located shall be the same as similar parts that are shown or specified. Further, detail drawings shall govern over general drawings, larger scale drawings take precedence over smaller scale drawings, Change Order drawings govern over contract drawings, and contract drawings govern over standard or Shop Drawings. In all cases where notes, specifications, sketches, diagrams, details or schedules in the specifications or in the drawings, or between the specifications and the drawings, conflict, the higher cost requirement shall be binding on CONTRACTOR, unless otherwise directed by DISTRICT.

3.2.3 If the issue of priority is due to a conflict or discrepancy between provisions of the Contract Documents and any referenced standard specification, manual, or code of any technical society, organization or association, the provisions of the Contract Documents will take precedence if they are more stringent or presumptively cause a higher level of performance. If there is any conflict or discrepancy between standard specifications, manuals, or codes of any technical society, organization or association, or between laws or regulations, the higher cost requirement shall be binding on CONTRACTOR, unless otherwise directed by DISTRICT.

3.2.4 In accordance with the intent of the Contract Documents, CONTRACTOR recognizes and agrees that compliance with the priority order specified shall not justify an increase in Contract Price or extension in Contract Time.

3.3 Reuse of Documents

Neither CONTRACTOR nor any Subcontractor or supplier or other person or organization shall acquire any title to or have ownership rights of any of the drawings, specifications or other documents (or copies) prepared by or bearing the seal of the design engineer or architect of record; and they shall only be used on this project and shall not be used on any other project nor shall they be generally published without written consent of DISTRICT.

END OF ARTICLE

GENERAL PROVISIONS

ARTICLE 4 CONTRACTOR'S INSURANCE

4.1 General

4.1.1 CONTRACTOR shall not commence or continue to perform any Work unless they, at their own expense, have in full force and effect all required insurance. CONTRACTOR shall not permit any Subcontractor to perform work on this project until the same insurance requirements have been complied with by such Subcontractor.

4.1.2 The types of insurance the CONTRACTOR shall obtain and maintain for the full period of the Agreement are worker's compensation insurance, commercial general liability insurance, business automobile liability insurance and, unless otherwise specified in the Special Provisions or so determined by DISTRICT at the time of awarding the Agreement, builder's risk insurance, including coverage for collapse, earthquake and flood, all as detailed in the following portions of this Article.

4.1.3 Insurers shall have financial and size ratings of at least an "A", VIII in accordance with the most current Best's Key Rating Guide, Property Casualty.

4.1.4 As evidence that specified insurance coverage has been obtained for the period of the Agreement, the CONTRACTOR shall provide certificates of insurance and endorsements on the forms provided as a part of the Contract Documents. Additional information as set forth in the Special Provisions shall be included on said forms. No alteration or substitution of said forms will be allowed. Certified copies of insurance policies from the insurance company affording coverage shall be provided by CONTRACTOR upon request.

4.1.5 DISTRICT reserves the right to withhold payments to CONTRACTOR in the event of material noncompliance with insurance requirements.

4.1.6 The requirements set forth herein as to the types and limits of insurance coverage to be maintained by the CONTRACTOR and any approval of said insurance by the DISTRICT or its insurance consultant(s) is not intended to and shall not in any manner limit or qualify the liabilities and obligations otherwise assumed by the CONTRACTOR pursuant to the Agreement, including but not limited to the provisions concerning indemnification.

4.2 Worker's Compensation Insurance and Employer's Liability Insurance

4.2.1 CONTRACTOR shall provide worker's compensation insurance coverage for no less than the statutory limits and employer's liability insurance coverage, with limits not less than those specified in the Special Provisions, for all persons whom CONTRACTOR employs or may employ in carrying out the Work. This insurance shall be in strict accordance with the requirements of the most current and applicable state worker's compensation insurance laws.

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4.2.2 The worker's compensation insurance shall include a waiver of right of subrogation against the DISTRICT, the District Board of Directors, DISTRICT's Representative, the Engineer/Architect, those persons and entities required to be included as additional insureds by the Special Provisions, owners of record of all private properties on which entry will be made, and their consultants, and each of their officers, agents, and employees but only while acting in their capacity as such and only in respect to operations of the original named insured, their Subcontractors, agents, officers, and employees in the performance of the Work.

4.3 Commercial General Liability Insurance

4.3.1 CONTRACTOR shall provide commercial general liability insurance coverage equivalent to Insurance Services Office Form CG 00 01, with limits not less than those specified in the Special Provisions.

4.3.2 Included in such insurance shall be blanket contractual liability coverage and severability of interests (no cross suits exclusion).

4.3.3 The commercial general liability insurance shall be primary and non-contributory and include as additional insureds: DISTRICT, the District Board of Directors, DISTRICT's Representative, the Engineer/Architect, those persons and entities required to be included as additional insureds by the Special Provisions, owners of record of all private properties on which entry will be made, and their consultants, and each of their officers, agents, and employees but only while acting in their capacity as such and only in respect to operations of the original named insured, their Subcontractors, agents, officers, and employees in the performance of the Work.

4.3.4 Such insurance shall have a deductible or self insured retention not to exceed \$25,000.

4.4 Automobile Liability Insurance

4.4.1 CONTRACTOR shall provide business automobile liability insurance coverage equivalent to Insurance Services Office Form CA 00 01, with limits not less than those specified in the Special Provisions. Business automobile liability insurance coverage shall be provided for all owned, non-owned and hired vehicles.

4.5 Builder's Risk Insurance

4.5.1 CONTRACTOR shall provide builder's risk insurance upon the Work, including completed work and work in progress and including coverage for collapse, earthquake and flood. Coverage shall also include transit, off-site storage, permission to occupy, waiver of subrogation, testing, extra expense and boiler & machinery.

4.5.2 Such insurance shall have a deductible clause not to exceed \$50,000, except for earthquake and high hazard flood. The deductible for earthquake and high hazard flood

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shall not exceed five (5) percent of the Contract Price.

4.5.3 The builder's risk insurance shall include as named insureds: DISTRICT, CONTRACTOR and all subcontractors.

4.6 CONTRACTOR's Responsibility Not Limited by Insurance

Nothing contained in these insurance requirements is to be construed as limiting the extent of the liability of CONTRACTOR or CONTRACTOR's sureties.

4.7 Maintaining Insurance

The maintenance of proper insurance in conformity with the Contract Documents is a material element of this Agreement. If at any time during the life of the Agreement, including the guarantee period, or any extension, CONTRACTOR fails to maintain the required insurance in full force and effect, the Work shall be discontinued immediately and all payments due or that become due to CONTRACTOR shall be withheld until notice is received by DISTRICT that the required insurance has been restored to full force and effect and that the premiums have been paid for a period satisfactory to DISTRICT. Failure to maintain or renew coverage or to provide evidence of renewal upon request of DISTRICT may be treated by DISTRICT as a material breach of contract.

END OF ARTICLE

GENERAL PROVISIONS

ARTICLE 5 DISTRICT'S RESPONSIBILITIES

5.1 Authority of DISTRICT's Representative

5.1.1 DISTRICT's Representatives will decide any and all questions that may arise as to the interpretation of the Plans and specifications, and will have the authority to disapprove or reject materials and equipment furnished and work performed which, in their opinion, is not in accordance with the Contract Documents. DISTRICT's Representatives may be represented at the Work by their authorized assistants.

5.1.2 The administration, inspection, assistance, and actions by DISTRICT's Representatives and the Engineer/Architect shall not be construed as supervisory control of the Work nor of means and methods employed by CONTRACTOR and shall not relieve CONTRACTOR from their responsibilities and obligations under the Agreement. CONTRACTOR shall not request nor require DISTRICT's Representative or the Engineer/Architect to undertake such supervisory control nor to administrate, to supervise, to inspect, to assist, or to act in a manner so as to relieve CONTRACTOR of their responsibilities and obligations. The presence of DISTRICT's Representatives shall in no way relieve CONTRACTOR of their obligation to conform to local, DISTRICT, state, and federal regulations.

5.2 Plans and Supplemental Drawings

The Plans shall be supplemented by such drawings as are necessary to define the Work adequately. All such drawings delivered to CONTRACTOR by DISTRICT's Representatives shall be deemed written instructions to CONTRACTOR.

5.3 Land and Rights-of-Way

5.3.1 Unless otherwise specified in the Special Provisions, DISTRICT shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way, easements, entry and encroachment permits for access, and such other lands that are designated for the use of CONTRACTOR. Lands and easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by DISTRICT, unless otherwise provided in the Contract Documents. CONTRACTOR shall make their own arrangements and pay all expenses for additional area required by them outside the limits of DISTRICT's lands and rights-of-way.

5.3.2 Work in rights-of-way shall be done in accordance with the requirements of the permit, easement or license issued by the public agency or owner in whose right-of-way the work is located in addition to conforming to the Contract Documents.

5.4 DISTRICT Communications and Access

5.4.1 DISTRICT shall generally issue all communications to CONTRACTOR through DISTRICT's Representatives.

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5.4.2 All approvals and comments by DISTRICT will be in writing.

5.4.3 DISTRICT may allow its consultants, agents, attorneys, employees, and others access to site. CONTRACTOR shall cooperate with DISTRICT in allowing such access.

5.5 Surveying

DISTRICT will provide one (1) set of construction survey staking as described in the General Requirements. Work shall not proceed until construction staking has been provided. The cost of restaking after initial staking shall be charged to CONTRACTOR.

5.6 DISTRICT May Stop the Work

5.6.1 If the Work is defective and CONTRACTOR has been notified by DISTRICT, or if CONTRACTOR fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, or if CONTRACTOR fails to supply sufficient supervisory personnel or skilled workers or suitable materials or equipment, or if CONTRACTOR has failed to correct any breach or violation of this Agreement after written notification, or if CONTRACTOR fails to obtain, maintain, or renew insurance required by the Contract Documents in a form acceptable to DISTRICT, or if any insurance company CONTRACTOR has obtained insurance from declares bankruptcy or is declared bankrupt, DISTRICT may order CONTRACTOR to stop the Work, or any portion of the Work, until the cause for the order has been eliminated. This right of DISTRICT to stop the Work shall not give rise to any duty on the part of DISTRICT to exercise this right for the benefit of CONTRACTOR or any other party and shall not be construed as an assumption by DISTRICT of supervisory control of the Work. CONTRACTOR shall bear all direct, indirect, and consequential costs of the order to stop the Work (including but not limited to fees and charges of engineers, attorneys, and other professionals, any additional expenses incurred by DISTRICT due to delays to others performing work under a separate contract with DISTRICT, and other obligations), and CONTRACTOR shall further bear the responsibility for maintaining the Progress Schedule and shall not be entitled to any extension of the Contract Time or increase in the Contract Price.

5.6.2 If such costs exceed the unpaid balance of the Contract Price, CONTRACTOR shall pay the difference to DISTRICT promptly upon demand; on failure of CONTRACTOR to pay, the surety shall pay on demand by DISTRICT. Any portion of such difference not paid by CONTRACTOR or surety within thirty (30) days following the mailing of a demand for such costs by DISTRICT shall earn interest at the maximum rate authorized by California law.

5.7 DISTRICT'S Right to Carry Out the Work

5.7.1 If CONTRACTOR defaults or fails within a reasonable time after written notice by DISTRICT to correct defective or nonconforming work or to remove and replace

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rejected work as required by DISTRICT, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents (including any requirements of the Progress Schedule), DISTRICT may, after seven (7) days written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising their rights under this paragraph, DISTRICT shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, DISTRICT may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work and suspend CONTRACTOR'S related services, take possession of CONTRACTOR'S tools, appliances, construction equipment and machinery at the site and incorporate into the Work all materials and equipment stored at the site or for which DISTRICT has paid CONTRACTOR but is stored elsewhere. CONTRACTOR shall allow DISTRICT, DISTRICT's Representatives, agents and employees access to the site as may be necessary to enable DISTRICT to exercise their rights under this paragraph. All direct and indirect costs of DISTRICT in exercising such rights shall be charged against CONTRACTOR in an amount documented by DISTRICT, and a Change Order shall be issued incorporating the necessary revisions to the Contract Documents and a reduction in Contract Price.

5.7.2 If such costs exceed the unpaid balance of the Contract Price, CONTRACTOR shall pay the difference to DISTRICT promptly upon demand; on failure of CONTRACTOR to pay, the surety shall pay on demand by DISTRICT. Any portion of such difference not paid by CONTRACTOR or surety within thirty (30) days following the mailing of a demand for such costs by DISTRICT shall earn interest at the maximum rate authorized by California law.

5.8 DISTRICT Removal of Personnel

DISTRICT shall be able to object to and require CONTRACTOR to remove any person employed by CONTRACTOR (or their Subcontractors) in or about the execution or maintenance of the Work, who in the opinion of DISTRICT misconducts themselves or is incompetent or negligent in the proper performance of their duties or whose employment is considered by DISTRICT to be undesirable. Any person so removed shall be at CONTRACTOR'S sole expense and shall not be allowed on the site for any reason without DISTRICT'S written consent.

5.9 Use of Completed Portions

5.9.1 When the Work or any portion of it is sufficiently complete to be used or placed into service, DISTRICT shall have the right upon written notification to CONTRACTOR to utilize such portions of the Work and to place the operable portions into service and to operate same.

5.9.2 Upon said notice and commencement of use or operation by DISTRICT, CONTRACTOR shall be relieved of the duty of maintaining the portions so used or placed into operation; provided, however, that nothing in this Article shall be construed as relieving CONTRACTOR of the full responsibility for completing the Work in its entirety, for making good defective work and materials, for protecting the Work from

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damage, and for being responsible for damage and for the Work as set forth in the general provisions and other Contract Documents, nor shall such action by DISTRICT be deemed completion and acceptance, and such action shall not relieve CONTRACTOR, their sureties or insurers of the provisions in the Contract Documents on guarantees, indemnity, and CONTRACTOR'S insurance.

END OF ARTICLE

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ARTICLE 6 CONTRACTOR'S RESPONSIBILITIES

6.1 Observing Laws and Ordinances

6.1.1 CONTRACTOR shall keep themselves fully informed of all laws, ordinances, and regulations that in any manner affect those engaged or employed on the Work or the materials used in the Work or that in any way affect the conduct of the Work, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If any discrepancy or inconsistency is discovered in the Contract Documents in relation to any such law, ordinance, regulation, order or decree, CONTRACTOR shall immediately report the same to DISTRICT's Representative in writing and cease operations on the affected part of the Work until receipt of instructions from DISTRICT's Representative as provided in paragraph 6.14.

6.1.2 CONTRACTOR shall at all times observe and comply with and shall cause all their agents, employees, suppliers, and Subcontractors to observe and comply with all laws, ordinances, regulations, orders, and decrees, and shall hold harmless, indemnify, and defend DISTRICT, DISTRICT's Representative, the Engineer/Architect, and their consultants, and each of their officers, directors, employees, and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree by CONTRACTOR, their employees, their agents, their Subcontractors, or their suppliers.

6.1.3 CONTRACTOR shall post on the jobsite all notices as prescribed by law or regulation.

6.2 Permits and Licenses

6.2.1 Certain permits are required for construction of the Work. These permits are hereby made a part of these Contract Documents, and all requirements shall be met solely and fully by CONTRACTOR. All costs incurred due to the permit requirements shall be included in the various bid items and no additional allowance will be made for them.

6.2.2 CONTRACTOR shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the Work, except as provided in the Special Provisions.

6.2.3 Copies of any permits and licenses, including current CONTRACTOR's licenses from the State of California, shall be provided to DISTRICT upon request.

6.3 Patents

CONTRACTOR shall assume all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated in the Work and shall hold harmless, indemnify and defend DISTRICT, DISTRICT's Representative, the Engineer/Architect, and their consultants, and each of their officers, employees, and

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agents from all lawsuits or actions of every nature for or on account of the use of any patented materials, equipment, devices, or processes, and all costs of defense and attorneys' fees incurred therein by any of the foregoing indemnified persons.

6.4 Safety

6.4.1 In accordance with generally accepted construction practices, CONTRACTOR shall be solely and completely responsible for conditions of the site, including safety of all persons and property during performance of the Work, and CONTRACTOR shall fully comply with all local, state and federal laws, rules, regulations, and orders relating to the safety of the public and workers.

6.4.2 The right of the Engineer/Architect or DISTRICT's Representative to conduct construction review or inspection of CONTRACTOR'S performance is not intended to include review or inspection of the adequacy of CONTRACTOR'S safety measures in, on, or near the site.

6.5 Emergencies

In emergencies affecting the safety or protection of persons or the Work or property at or adjacent to the site, CONTRACTOR, without special instruction or authorization from the Engineer/Architect or DISTRICT, is obligated to act to prevent threatened damage, injury, or loss. CONTRACTOR shall give DISTRICT prompt written notice if CONTRACTOR believes that any significant changes in the Work have resulted because of the action taken in response to an emergency. If the emergency was not due to the fault or negligence of CONTRACTOR, and DISTRICT determines that changes are required, DISTRICT shall authorize the changes by Change Order or Change Request.

6.6 Concerning Subcontractors, Suppliers, and Others

6.6.1 CONTRACTOR is prohibited from performing any of the Work with a Subcontractor who is ineligible to perform such Work pursuant to Section 1777.1 or 1777.7 of the Labor Code. CONTRACTOR agrees that in accordance with Public Contract Code Section 6109, a subcontract with an ineligible Subcontractor is void as a matter of law, amounts paid to the Subcontractor shall be returned to DISTRICT, and CONTRACTOR is responsible for paying wages of the Subcontractor's employees if the Subcontractor is allowed to perform any part of the Work.

6.6.2 CONTRACTOR shall not award work to Subcontractors in excess of fifty (50) percent of the Contract Price without prior written approval of DISTRICT. Except as provided by law, CONTRACTOR shall not employ any Subcontractor, supplier, or other person or organization (including but not limited to those who are to furnish the principal items of materials or equipment), whether initially or as a substitute, against whom DISTRICT may have reasonable objection.

6.6.3 CONTRACTOR shall give prompt written notice to DISTRICT as to the identity

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and qualifications of any Subcontractor, supplier, or other person or organization to whom CONTRACTOR intends to award work, and of CONTRACTOR'S intent to remove or replace a Subcontractor, supplier, or other person.

6.6.4 CONTRACTOR shall be fully responsible for all acts and omissions of their Subcontractors and suppliers and of persons and organizations directly or indirectly employed by them. Nothing in the Contract Documents shall create any contractual relationship between DISTRICT or the Engineer/Architect and any Subcontractor or supplier or other person or organization having a subagreement with CONTRACTOR nor shall it create any obligation on the part of DISTRICT or the Engineer/Architect to pay or to see to the payment due any Subcontractor, supplier, or other person or organization, except as may otherwise be required by law. DISTRICT may furnish to any Subcontractor or other person or organization, to the extent practicable, evidence of amounts paid to CONTRACTOR on account of specific work done. No Subcontractor, supplier, or other person or organization shall be a third party beneficiary of this Agreement.

6.6.5 The divisions and sections of any specifications and the identifications of any drawings shall not control CONTRACTOR in dividing the work among Subcontractors or suppliers or delineating work to be performed by any specific trade. The divisions of the specifications are complementary, and anything mentioned or shown in a division of the specifications or in a specific trade drawing shall be of like effect as if shown in all divisions of the specifications and in all drawings.

6.6.6 All work performed for CONTRACTOR by a Subcontractor, supplier or other person or organization will be in accordance with an appropriate subagreement between CONTRACTOR and the Subcontractor, supplier, or other person or organization which specifically binds the Subcontractor, supplier, or other person or organization to the applicable terms and conditions of the Contract Documents for the benefit of DISTRICT.

6.6.7 If requested in writing by DISTRICT, CONTRACTOR shall deliver to DISTRICT a copy of each subagreement with a Subcontractor, supplier, or other person or organization performing a part of the work within seven (7) days of DISTRICT'S request.

6.7 Assignment

6.7.1 The performance of the Agreement may not be assigned, except upon the written consent of DISTRICT. Consent will not be given to any proposed assignment that would relieve the original CONTRACTOR or their surety of their responsibilities under the Agreement nor will DISTRICT consent to any assignment of a part of the Work.

6.7.2 Upon obtaining a prior written consent of DISTRICT, CONTRACTOR may assign monies due or to become due them under the Agreement, to the extent permitted by law, but any assignment of monies shall be subject to all proper setoffs in favor of DISTRICT and to all deductions provided for in the Contract Documents, and

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particularly all monies withheld, whether assigned or not, shall be subject to being applied by DISTRICT for the completion of the Work in the event that CONTRACTOR should be in default.

6.7.3 No assignment of this Agreement will be approved unless it shall contain a provision that the funds to be paid to the assignee under the assignment are subject to a prior lien for services rendered or materials supplied for performance of the Work in favor of all persons, firms, or corporations rendering such services or supplying such materials, and that DISTRICT may withhold funds due until the Work is completed to DISTRICT'S satisfaction.

6.8 Time for Completion and Forfeiture Due to Delay

6.8.1 CONTRACTOR shall complete the Work and any designated portion of the Work within the Contract Time(s) set forth in the Agreement. Contract Time(s) shall include any early occupancy milestones and limited duration work set forth in the Agreement. Time is of the essence of this Agreement.

6.8.2 If CONTRACTOR fails to attain Substantial Completion of the Work or specified part of the Work within the applicable Contract Time, including any extensions granted by DISTRICT, CONTRACTOR is in default. In accordance with Government Code 53069.85, CONTRACTOR agrees to forfeit and pay DISTRICT the amount per day set forth in the Agreement for each and every day of delay. It is agreed that the specified daily sum is to be paid, not as a penalty, but as liquidated damages to compensate DISTRICT for increased administrative and engineering costs and other tangible and intangible costs. Such damages may, at DISTRICT'S option, be deducted from monies held by them which are payable to CONTRACTOR.

6.8.3 No forfeiture due to delay shall be made because of any delays in the completion of the Work due to unforeseeable causes beyond the control and without the fault or negligence of CONTRACTOR (including but not restricted to acts of God or of the public enemy, acts of the government, acts of DISTRICT, or acts of another contractor in the performance of a contract with DISTRICT, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather or delays caused by the failure of DISTRICT or the owner of a utility to provide for removal or relocation of main or trunk line facilities not indicated in the plans or specifications with reasonable accuracy). Except as provided for in Article 14, any such delays shall not entitle CONTRACTOR to any additional compensation, and the sole remedy of CONTRACTOR shall be an extension of time obtained in accordance with Article 14.

6.9 Prevailing Wage

6.9.1 Under the provisions of the California Labor Code, the Director of the Department of Industrial Relations has determined the prevailing rate of wages for the locality in which the Work is to be performed and DISTRICT has adopted said prevailing rate of wages. A copy of the prevailing wage rates can be found on-line with the State of

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California at <http://www.dir.ca.gov/dlsr/pwd>. A copy of such prevailing wage rates shall be posted on the jobsite by CONTRACTOR.

6.9.2 CONTRACTOR shall comply with Labor Code Section 1775. In accordance with said Section 1775, CONTRACTOR shall forfeit as a penalty to DISTRICT, up to two hundred dollars (\$200), as determined by the Labor Commissioner, for each calendar day or portion of a day for each worker paid less than the stipulated prevailing rates for such work or craft in which such worker is employed for any work done under the contract by them or, except as provided by the Labor Code, by any Subcontractor under them in violation of the provisions of the Labor Code, and in particular, Labor Code Sections 1770 to 1780, inclusive. In addition to said penalty and pursuant to Section 1775, the difference between the stipulated prevailing wage rates and the amount paid to each worker for each calendar day or portion of a day for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by CONTRACTOR.

6.9.3 CONTRACTOR shall forfeit as a penalty to DISTRICT \$25 for each worker employed in the execution of the Work by CONTRACTOR or any Subcontractor under them for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one (1) calendar day and forty (40) hours in any one calendar week in violation of the provisions of the Labor Code, in particular, Section 1810 to Section 1815 thereof, inclusive, except that work performed by employees of CONTRACTOR in excess of eight (8) hours per day and forty (40) hours during any one (1) week shall be permitted upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one half (1 1/2) times the basic rate of pay as provided in said Section 1815.

6.9.4 Qualification to engage in the performance of any of the Work requires that CONTRACTOR and Subcontractors maintain their current registration to perform public work pursuant to Labor Code Section 1725.5.

6.9.5 The Work is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

6.10 Apprentices

6.10.1 CONTRACTOR and any Subcontractor under them shall comply with the requirements of Sections 1777.5 and 1777.6 of the Labor Code in the employment of apprentices.

6.10.2 Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Department of Industrial Relations.

6.10.3 Willful violations of Section 1777.5 will result in forfeiture of one hundred dollars (\$100) for each calendar day of noncompliance, or up to three hundred dollars (\$300) for each calendar day of noncompliance for second and subsequent violations

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within a three-year period that result in apprenticeship training not being provided as required by the Labor Code, and may also result in debarment sanctions in the case of violations, as determined by the Labor Commissioner pursuant to Section 1777.7. Section 1777.7 also imposes requirements that, if not observed by CONTRACTOR, will result in CONTRACTOR's liability for Subcontractor violations of Section 1777.5.

6.11 Payroll Records

CONTRACTOR and each of their Subcontractors shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by them in connection with the Work. The records shall be in a format prescribed by the Labor Commissioner. The records may consist of printouts of payroll data maintained as computer records, if the printouts are in a format prescribed by the Labor Commissioner and are verified as required under this paragraph. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating that (1) the information contained in the payroll record is true and correct, and (2) CONTRACTOR (or the Subcontractor, as the case may be) has complied with the requirements of Sections 1771, 1811 and 1815 of the Labor Code for any of the work performed by their employees. The payroll records shall be submitted monthly to DISTRICT and directly to the Labor Commissioner and shall be available for inspection at all reasonable hours at the principal office of CONTRACTOR (or the Subcontractor, as the case may be) to the employee or their authorized representative on request, to the Division of Labor Standards Enforcement on request, and the public, provided that requests by the public must be made through DISTRICT or the Division of Labor Standards Enforcement in accordance with the requirements of Labor Code Section 1776. Copies shall be provided to the requesting entity within ten (10) days after receipt of a written request. Any copy of a payroll record made available to the public or any public agency by DISTRICT shall be marked or obliterated to prevent disclosure of individual workers' social security numbers. CONTRACTOR shall inform DISTRICT of the location address of payroll records of CONTRACTOR and each Subcontractor and notify DISTRICT of a change in any such location within five (5) working days. In the event CONTRACTOR or a subcontractor fails to comply with the above-specified 10-day period, CONTRACTOR or the subcontractor shall forfeit as a penalty to DISTRICT one hundred dollars (\$100) for each calendar day or portion of a day for each worker until strict compliance is effectuated. CONTRACTOR is not subject to a penalty under this paragraph due to the failure of a subcontractor to comply with this paragraph.

6.12 Underground Service Alert (USA) Contact Prior to Excavation

CONTRACTOR, except in an emergency, shall contact the appropriate regional notification center at least two (2) working days prior to commencing any excavation if the excavation will be conducted in an area that is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by DISTRICT, and obtain an inquiry identification number from that

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notification center. No excavation shall begin unless such an inquiry identification number has been assigned to CONTRACTOR or any Subcontractor of CONTRACTOR and DISTRICT has been given the identification number by CONTRACTOR.

6.13 Conformity with Contract Documents and Allowable Deviations

6.13.1 The work shall conform to the lines, grades, dimensions, tolerances, and material and equipment requirements shown on the plans or set forth in the specifications. Although measurement, sampling, and testing may be considered evidence as to such conformity, DISTRICT's Representatives shall be the sole judge as to whether the work or materials deviate from the plans and specifications, and their decision as to any allowable deviations shall be final.

6.13.2 Except as otherwise provided in the Contract Documents, all materials and equipment shall be installed, used and cleaned in accordance with the manufacturer's and supplier's instructions.

6.13.3 If specific lines, grades, and dimensions are not shown on plans, those furnished by DISTRICT's Representatives shall govern.

6.14 Errors or Discrepancies Noted by CONTRACTOR

6.14.1 If CONTRACTOR, either before commencing work or in the course of the Work, finds any discrepancy between the specifications and the Plans 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 plans or in any survey, they shall promptly notify DISTRICT's Representatives of the discrepancy, error, or omission. If CONTRACTOR observes that any plans or specifications are at variance with any applicable law, ordinance, regulation, order, or decree, they shall promptly notify DISTRICT's Representatives in writing of the conflict.

6.14.2 DISTRICT's Representatives, on receipt of any such notice, will promptly investigate the circumstances and give appropriate instructions to CONTRACTOR. Until such instructions are given, any work done by CONTRACTOR after the discovery of the error, discrepancy, or conflict which is directly or indirectly affected by the error, discrepancy, or conflict will be at their own risk. If CONTRACTOR believes that a defect or insufficiency exists in the design, materials, or specified method and fails to promptly notify DISTRICT's Representative in writing, CONTRACTOR waives any right to assert that defect or insufficiency in design, materials, or specified method at any later date in any legal, equitable, or arbitration proceeding against DISTRICT or related settlement conference.

6.15 Disputed Work

If there is a disagreement between DISTRICT and CONTRACTOR as to the interpretation of the Contract Documents and the disagreement becomes a dispute between DISTRICT and CONTRACTOR as to liability for work required, DISTRICT may direct CONTRACTOR to proceed with the work and accept payment in an amount

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as later agreed upon or as may be fixed in a court of law. In proceeding under protest, CONTRACTOR shall keep accurate records of their costs on the disputed portion of the Work and shall submit each day to DISTRICT'S Representative a daily summary of the hours and classification of equipment and labor used on the disputed portion of the Work, as well as a summary of any materials or any specialized services that are used. Failure to submit this information to DISTRICT in the required manner shall result in any discrepancy between DISTRICT'S and CONTRACTOR'S records being resolved in favor of DISTRICT'S records. CONTRACTOR is cautioned that when proceeding under the provisions of this paragraph, they are not working on an approved "time and material" basis.

6.16 Public Convenience and Safety

6.16.1 CONTRACTOR shall so conduct their operations as to offer the least possible obstruction and inconvenience to the public, and they shall have under construction no greater length or amount of work than can be prosecuted properly with due regard to the convenience and safety of the public.

6.16.2 Convenient access to driveways, houses, and buildings along the line of work shall be maintained and temporary crossings shall be provided and maintained in good condition. Not more than one crossing or intersecting street or road shall be closed at any one time.

6.16.3 CONTRACTOR shall provide and maintain such fences, barriers, directional signs, lights, and flaggers as are necessary to give adequate warning to the public at all times of any dangerous conditions to be encountered as a result of the Work and to give directions to the public.

6.17 Responsibility for Loss, Damage, or Injuries

CONTRACTOR shall be responsible for all claims, demands, or liability from any cause arising out of or resulting from or in connection with the performance of the Work, subject to limitations set forth in paragraph 19.2. Such responsibility shall extend to claims, demands, or liability for loss, damage, or injuries occurring after completion of the Work as well as during the progress of the Work.

6.18 CONTRACTOR'S Responsibility for the Work

6.18.1 Until Final Acceptance, CONTRACTOR shall have the responsible charge and care of the Work and of the materials to be used (including materials for which they have received partial payment or materials which have been furnished by DISTRICT) and shall bear the risk of injury, loss, or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the nonexecution of the Work.

6.18.2 CONTRACTOR shall rebuild, repair, restore, and make good all injuries, losses,

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or damages to any portion of the Work or the materials occasioned by any cause before its completion and acceptance and shall bear the related expenses. Where necessary to protect the Work or materials from damage, CONTRACTOR shall at their expense provide suitable drainage and erect such temporary structures as are necessary to protect the Work or materials from damage. The suspension of the Work for any cause whatever shall not relieve CONTRACTOR of their responsibility for the Work and materials as specified. If ordered by DISTRICT's Representative, CONTRACTOR shall at their expense properly store materials that have been partially paid for by DISTRICT or that have been furnished by DISTRICT. Such storage by CONTRACTOR shall be on behalf of DISTRICT, and DISTRICT shall at all times be entitled to the possession of such materials, and CONTRACTOR shall promptly return the same to the site for the Work when requested. CONTRACTOR shall not dispose of any of the materials so stored, except on written authorization from DISTRICT.

6.18.3 Notwithstanding the foregoing provisions of this Article, CONTRACTOR shall not be responsible for the cost of repairing or restoring damage to the Work, which damage is determined to have been proximately caused by the Act of God, in excess of five (5) percent of the contracted amount, provided the Work is built in accordance with accepted and applicable building standards and the approved Plans and specifications.

6.18.4 "Acts of God" shall include earthquakes in excess of a magnitude of 3.5 on the Richter Scale and tidal waves.

6.19 Preservation of Property

6.19.1 CONTRACTOR shall exercise due care to avoid injury to existing improvements or facilities, utilities, adjacent property, and trees and shrubbery that are not to be removed.

6.19.2 All trees and shrubbery that are not to be removed, and pole lines, fences, signs, survey markers and monuments, buildings and structures, conduits, pipelines under or above ground, sewer and waterlines, all highway or street facilities, and any other improvements or facilities within or adjacent to the Work shall be protected from injury or damage, and CONTRACTOR shall provide and install suitable safeguards to protect such objects from injury or damage. If such objects are injured or damaged by reason of CONTRACTOR'S operation, they shall be replaced or restored at CONTRACTOR'S expense to a condition as good as when CONTRACTOR entered upon the Work or as good as required by the Plans and specifications if any such objects are a part of the Work being performed.

6.19.3 All trees and plants, whether within or without the limits of work, shall be protected in place unless specified otherwise. Protection shall consist of adequate means to prevent tree trunks from being scarred or damaged and branches and limbs from being damaged or broken by CONTRACTOR'S operations. Trees encountered by CONTRACTOR shall not be removed without the consent of DISTRICT's Representative, unless specified otherwise.

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6.19.4 The fact that any pipe or other underground facility is not shown on the plans shall not relieve CONTRACTOR of their responsibility under this Article.

6.19.5 In addition to any requirements imposed by law, CONTRACTOR shall shore up, brace, underpin, and protect as may be necessary, all foundations and other parts of all existing structures adjacent to and adjoining the site of the Work which are in any way affected by the excavations or other operations connected with the performance of the Work. Whenever any notice is required to be given by DISTRICT or CONTRACTOR to any adjacent or adjoining landowner or other party before commencement of any work, such notice shall be given by CONTRACTOR.

6.20 Taxes

6.20.1. CONTRACTOR shall pay all sales, consumer, use, and other taxes.

6.20.2 NOTICE OF TAXABLE POSSESSORY INTEREST - The terms of this Agreement may result in the creation of a possessory interest. If such a possessory interest is vested in CONTRACTOR, CONTRACTOR may be subjected to the payment of property taxes levied on such interest.

6.21 CONTRACTOR Not Agent of DISTRICT

CONTRACTOR shall perform all work under this Agreement as an independent CONTRACTOR and shall not be considered an agent of DISTRICT, nor shall CONTRACTOR's Subcontractors or suppliers or employees be considered agents of DISTRICT. CONTRACTOR and not DISTRICT shall be solely responsible to any and all Subcontractors and suppliers and all those employed by them for their costs, expenses, fees and profits, if any, in performing the Work.

6.22 Inspection and Audit

6.22.1 DISTRICT shall have access to the Work and the right to audit all of CONTRACTOR's books, ledgers, records, correspondence, instructions, drawings, receipts, vouchers, memoranda, and other documents pertinent to all cost and pricing data used by CONTRACTOR in the determination of CONTRACTOR's bid for the Work, in pricing, negotiating, or costing work covered by a Change Order or claim, or otherwise relating to the Work, and CONTRACTOR shall preserve and make available at CONTRACTOR's office at all reasonable times all such records for a period of five (5) years after Final Progress Payment. In addition, pursuant to California Government Code Section 8546.7, this contract, and CONTRACTOR and DISTRICT as the contracting parties, are subject to the examination and audit of the California State Auditor, at the request of DISTRICT or as part of any audit of DISTRICT, for a period of three years after the final payment under the contract.

6.22.2 In the event of termination, the records relating to the Work, or part of it, affected

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by such termination shall be made available for five (5) years after any resulting final termination settlement. Records pertaining to claims, litigation, or the settlement of claims arising under or relating to the performance of the Work shall be made available until the disposition of such appeals, litigation, or claims.

6.23 Responsibility for Connecting to Existing Service and Utilities

At all points where the work constructed by CONTRACTOR connects to existing utilities and services, the actual work of making the necessary connection to the existing service or utility shall be arranged for by CONTRACTOR at no additional expense to DISTRICT (unless specifically indicated otherwise). Services and utilities included under (but not limited to) this responsibility are roads, ditches, electrical, sewer, mechanical utilities, water, fencing, and items of a similar nature. Connections shall be made at a time that will result in the least possible interference with existing services.

6.24 Cutting and Fitting

CONTRACTOR shall be responsible for all cutting of masonry and other materials, and all fitting, drilling, or patching which may be necessary to complete the Work or to make its several parts fit together properly, whether or not such work is expressly specified in the Contract Documents.

END OF ARTICLE

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ARTICLE 7 COMMENCEMENT, PROSECUTION, AND COMPLETION OF THE WORK

7.1 Commencement of the Contract Time; Notice of Award; Notice to Proceed

7.1.1 Contract Time shall be measured from the date of commencement stated in the Notice of Award.

7.1.2 CONTRACTOR shall start to perform field work and order materials after the date set forth in the Notice to Proceed and shall occupy the site no later than fourteen (14) days after that date. No work shall be done at the site or materials ordered prior to the date of Notice to Proceed unless authorized by DISTRICT in a Change Order.

7.2 Work to be Done

The work to be done consists of furnishing all labor, materials, methods or processes, implements, tools, and machinery that are required for or appurtenant to the construction and completion of the entire project designated in the Agreement, and which are necessary to leave the grounds in a neat condition. Any work not shown in the Plans or specifications but necessary to complete the Work according to laws and regulations shall be performed by CONTRACTOR as if in the Contract Documents.

7.3 Preconstruction Conference

Prior to commencement of work at the site, a conference will be held for review of the schedules, to establish procedures for handling Shop Drawings and other submittals and for processing Progress Payment Requests, and to establish a clear understanding among the parties as to the Work. CONTRACTOR shall attend this conference and shall require any or all of its Subcontractors and suppliers, as DISTRICT directs, to attend the conference.

7.4 Project Meetings

CONTRACTOR along with appropriate Subcontractors shall attend all project meetings requested by DISTRICT for the purpose of discussing and resolving matters concerning the various elements of the Work. Representatives attending such meetings shall have the authority to make binding decisions regarding any subject consistent with the stated purpose of the meeting. If CONTRACTOR and/or their Subcontractors fail to attend a meeting, DISTRICT may deduct from progress payments or retainage the costs of DISTRICT, the Engineer/Architect, and other representatives attending the meeting.

7.5 Continuing the Work

CONTRACTOR shall carry on the Work and maintain the Progress Schedule during all disputes or disagreements with DISTRICT. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as CONTRACTOR and

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DISTRICT may otherwise agree in writing. Suspension of the Work by CONTRACTOR during any dispute or disagreement with DISTRICT shall entitle DISTRICT to terminate the CONTRACT for breach, except as otherwise provided in Article 17.

7.6 Progress of the Work

If DISTRICT determines that CONTRACTOR is failing to maintain progress of the Work in accordance with the Progress Schedules and Contract Documents, the CONTRACTOR shall take steps as may be necessary to improve their progress, and DISTRICT may require them to increase their work force, or hours, or days of work, or the amount of construction plant or all of them, and to submit to DISTRICT for approval such supplementary schedules as may be deemed necessary to demonstrate the manner in which the required progress will be regained and maintained, all without additional cost to DISTRICT.

7.7 Working Hours

Except in connection with the safety or protection of persons or the Work or property at or adjacent to the site, and except as otherwise indicated in the Special Provisions, all work at the site shall be performed during normal working hours, and CONTRACTOR will not permit overtime work or the performance of work on Saturdays, Sundays, or any holidays without DISTRICT's written consent. Normal working hours shall be defined as the period occurring between the hours beginning at 7:00 a.m. and ending at 3:30 p.m., exclusive of Saturdays, Sundays, or holidays.

7.7.1 Work during other than normal working hours may be scheduled by CONTRACTOR if written permission is obtained from DISTRICT and CONTRACTOR agrees to pay all additional costs incurred by DISTRICT for inspection and administration of the overtime work.

7.8 Supervision

7.8.1 CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention and applying such skills and expertise as may be necessary to perform the work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for all means, methods, techniques, sequences and procedures of construction, and for providing adequate safety precautions, coordinating all portions of the Work under the Contract Documents, and for enforcement of order and cooperation among CONTRACTOR's employees and all Subcontractors and suppliers and others having a subagreement for a part of the Work. CONTRACTOR shall be responsible to see that the finished work complies accurately with the Contract Documents.

7.8.2 CONTRACTOR shall provide competent supervision of the Work. Unless personally present on the premises where the work is done, CONTRACTOR shall designate an authorized representative who shall have the authority to represent and act for CONTRACTOR, and any written or verbal directions or requests of DISTRICT's

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Representative delivered to such representative shall have the same force and effect as if delivered to CONTRACTOR. This authorized representative shall be present at the site of the Work at all times while work is actually in progress. When work is not in progress and during periods when work is suspended, CONTRACTOR shall make arrangements acceptable to DISTRICT's Representative for any emergency work that may be required.

7.8.3 Whenever CONTRACTOR or their authorized representative is not present on any particular part of the Work where the DISTRICT's Representative desires to give directions, these shall be received and obeyed by the superintendent or foreman who may have charge of the particular work in reference to which the directions are given.

7.8.4 The superintendent and similar authorized representatives of any Subcontractor, supplier, or other person or organization shall attend all meetings pertaining to the Work, as requested by DISTRICT or the Engineer/Architect.

7.9 Quality of Materials and Equipment; Substitutions

7.9.1 All equipment, materials, and supplies to be incorporated in the Work shall be new, unless otherwise specified. When the quality of a material, process, or article is not specifically set forth in the Plans and specifications, the best available quality of the material, process, or article shall be provided.

7.9.2 Whenever materials or equipment are specified or described in the Plans or specifications by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, the name shall be deemed to be followed by the words "or approved equivalent" and materials or equipment of other suppliers may be accepted by DISTRICT if sufficient information is submitted by CONTRACTOR to allow DISTRICT to determine that the material or equipment proposed is equivalent to that named. Approval of proposed equivalent materials or equipment is at the sole discretion of DISTRICT.

7.9.3 Requests for review of substitute items of material and equipment will not be accepted by DISTRICT from anyone other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall make written application to DISTRICT for acceptance of the substitute, certifying that the proposed item will perform adequately the functions called for by the general design, be similar and of equal substance to that specified, and be suited to the same use and capable of performing the same function as that specified. The application shall state whether or not acceptance of the substitute for use in the Work will require a change in the drawings or specifications to adapt the design to the substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified shall be identified in the application and available maintenance, repair, and replacement service shall be indicated. The application shall also contain an itemized estimate of all increases or decreases in (1) the cost of, or the time required to perform any part of the

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Work, and the corresponding adjustments in the Contract Price and the Contract Time resulting directly or indirectly from evaluation and acceptance of the proposed substitute, including, but not as a way of limitation, costs and delays associated with redesign, or claims of other CONTRACTORS affected by the resulting substitute; and (2) increases or decreases in operating, maintenance, repair, replacement, or spare part costs, all of which will be considered by DISTRICT in evaluating the proposed substitute. DISTRICT may require CONTRACTOR to furnish, at CONTRACTOR's expense, additional data about the proposed substitute.

7.9.4 DISTRICT shall be the sole judge of acceptability, and no substitute shall be ordered or installed without DISTRICT's prior written acceptance.

7.9.5 CONTRACTOR assumes sole responsibility for verifying that the proposed substitute items are in accordance with the requirements of the Contract Documents, and that the dimensions, arrangement, design and construction details, and all other features of substitute items are suitable for their intended purpose.

7.9.6 In the event that a substitute item differs materially from the specified item of material or equipment, and said difference was not expressly identified in CONTRACTOR's request for the substitution, or the incorporation of the substitute into the Work results in a change(s) to the Work or in the function or general design of the project, which was not expressly identified in CONTRACTOR's request for the substitution, DISTRICT may require the removal and replacement of the substitute at CONTRACTOR's sole expense.

7.9.7 CONTRACTOR may submit data substantiating requests for substitutions of equivalent items at any time after notice of award. Under no circumstances shall CONTRACTOR be entitled to an increase in Contract Time as a result of the submission or review of a substitution request.

7.10 Storage of Materials and Equipment

7.10.1 All materials for use in the Work shall be stored by CONTRACTOR in such a manner as to prevent damage from exposure to the elements, contamination by foreign materials, or from any other cause. CONTRACTOR shall be entirely responsible for damage or loss by weather or other causes.

7.10.2 DISTRICT may require special methods for storage of materials and equipment. In addition, the storage of excavated material may require CONTRACTOR to make special arrangements. The specific requirements, if needed, are covered in the Special Provisions.

7.11 Advance Notification

7.11.1 At least forty eight (48) hours prior to start of construction and prior to any operations involving existing DISTRICT facilities, CONTRACTOR shall notify the

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DISTRICT's Representative.

7.11.2 It will be CONTRACTOR'S responsibility to determine and notify those agencies requiring advance notification for inspection or other purposes before beginning construction in any jurisdictional area of any agency. A minimum of forty eight (48) hours notice shall be given to those agencies before construction in the area unless specific advanced times and requirements are stated in these Contract Documents or related permits.

7.11.3 At least one (1) week before the start of construction, notification shall be given to police and fire departments under whose jurisdiction the Work lies, giving the expected starting and completion dates and the name and telephone number of the CONTRACTOR'S field representative who may be contacted on a twenty four (24) hour basis in the event of a condition requiring immediate correction.

7.12 Construction Power and Water

7.12.1 Unless otherwise specified in the General Requirements, CONTRACTOR shall make arrangements for developing water sources and shall supply all labor and equipment to collect, load, transport, and apply water as necessary for compaction of materials, concrete construction operations, testing, dust control, and other construction use.

7.12.2 Unless otherwise specified in the General Requirements, CONTRACTOR shall provide for the purchase of power or provide portable power for the Work. If necessary, the extension of utility lines shall be provided to the point of usage.

7.13 Disposal of Excess Excavated Soil Materials

Unless otherwise specified in the General Requirements, excess excavated soil material shall be removed and disposed of by CONTRACTOR off the project site at CONTRACTOR'S expense. Excess soil material shall be disposed of in accordance with local regulations.

7.14 Dust and Smoke Control

7.14.1 No fuel shall be used nor shall any operation be conducted that will emit into the atmosphere any smoke that is equal to Ringelmann No. 2 or darker.

7.14.2 No operation shall be conducted that will emit into the atmosphere any flying dust or dirt that is noticeable or that might constitute a nuisance.

7.14.3 Dust control operations shall be performed to prevent construction operations from producing dust in amounts harmful to, or causing a nuisance to, persons living nearby or occupying buildings in the vicinity of the Work. The use of water to clean streets will not be permitted in areas where earth shoulders will result in muddy public

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streets; other mechanical cleaning will be required in such areas.

7.14.4 Dry materials and rubbish shall be wet down to prevent blowing dust.

Excavated material leaving the site, or material being imported, shall be covered or wet down to prevent excessive dust from being created.

7.14.5 Construction activity that produces dust-causing disturbances shall be halted if winds exceed local code limits for construction activity.

7.15 Noise Control

Contractor shall abide by local noise ordinances.

7.16 Excavation Plans for Worker Protection

7.16.1 CONTRACTOR shall submit to DISTRICT for acceptance, in advance of excavation, 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 any trench or trenches five (5) feet or more in depth. The plan shall be prepared specifically for the work by a registered civil or structural engineer who is licensed by the State of California. The plan shall be in an original format, not a reproduced copy, and shall include the engineer's original signature and seal. As a part of the plan, a note shall be included stating that the registered civil or structural engineer certifies that the plan complies with the CAL

OSHA Construction Safety Orders, or stating that the registered civil or structural engineer certifies that the plan is not less effective than the shoring, bracing, sloping, or other provisions of the safety orders.

7.16.2 All shoring submittals shall include surcharge loads from adjacent embankments, construction loads and spoil bank. The submittal shall indicate the minimum horizontal distance from the top of trench to the edge of all surcharge loads for all cases of shoring and side slopes.

7.16.3 The detailed plan showing the design of shoring, etc., which CONTRACTOR is required to submit to DISTRICT for acceptance in advance of excavation, will not be accepted if the plan is based on subsurface conditions which are more favorable than those revealed by the investigations made by DISTRICT or the Engineer/Architect or their consultants; nor will the plan be accepted if it is based on soils related design criteria that are less restrictive than the criteria set forth in the report on the investigations of subsurface conditions.

7.16.4 Nothing contained in this paragraph shall be construed as relieving CONTRACTOR of the full responsibility for providing shoring, bracing, sloping, or other provisions which are adequate for worker protection.

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7.17 Construction Dewatering, Erosion Control, Stormwater Discharge

7.17.1 If dewatering is necessary, CONTRACTOR must comply with all requirements for permitting, establishing, operating, and monitoring a construction dewatering program. This program must meet all requirements of the California Regional Water Quality Control Board ~~(Santa Ana Region)~~, and the latest revision of the NPDES permit for General Dewatering and the Monitoring and Reporting Requirements specified by the Regional Water Quality Control Board for the permit the contract is operating under.

~~Should the CONTRACTOR not be able to obtain a Monitoring and Reporting Program under the General Dewatering Permit in a timely manner, CONTRACTOR may obtain written approval to operate under DISTRICT'S Permit and Monitoring and Reporting Program.~~

7.17.2 CONTRACTOR shall employ methods and approved devices for the control of erosion and stormwater runoff within the Work area. All work must meet the current requirements for permitting, reporting, and implementing best management practices of the California Regional Water Quality Control Board ~~(Santa Ana Region)~~.

7.18 Record Documents

CONTRACTOR shall maintain in a safe place at the site one (1) record copy of all drawings, specifications, Change Orders, correspondence, field test records, CONTRACTOR'S daily reports and construction photographs, and written interpretations and clarifications in good order and annotated to show all changes made during construction. These record documents together with all approved samples and Shop Drawings will be available to DISTRICT for reference. CONTRACTOR will be required to review with DISTRICT the status of all record documents in connection with DISTRICT'S evaluation of a Progress Payment Request. Failure to maintain current record documents shall be just cause to withhold payments for undocumented work. Upon completion of the Work, these record documents, samples, and Shop Drawings will be delivered to DISTRICT.

7.19 Substantial Completion

7.19.1 When CONTRACTOR considers that the entire Work or specified part of the Work has progressed to the point where it is substantially complete, CONTRACTOR shall, in writing to DISTRICT, certify that the entire Work is substantially complete, submit to DISTRICT record documents required by the contract, and request that DISTRICT issue a Certificate of Substantial Completion. Within a reasonable time, CONTRACTOR and DISTRICT shall make an inspection of the Work to determine the status of completion. If DISTRICT does not consider the Work, or any specified part of the Work, substantially complete, DISTRICT will notify CONTRACTOR of the reasons in writing. CONTRACTOR shall then accomplish the requisite work and then recertify that the entire Work, or any specified part, is substantially complete. If DISTRICT considers the Work, or specified part, substantially complete, DISTRICT will prepare and deliver to CONTRACTOR a certificate which shall fix the date of Substantial

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Completion. There shall be attached to the certificate a list of items (which should be minor in scope and nature) to be completed or corrected before Final Progress Payment. Until Final Progress Payment or use by DISTRICT, CONTRACTOR shall continue to be responsible for maintaining the Work.

7.19.2 DISTRICT shall have the right to exclude CONTRACTOR from the Work, or specified part, after the date of Substantial Completion, but DISTRICT will allow CONTRACTOR reasonable access to complete or correct items on the list attached to the Certificate of Substantial Completion.

7.19.3 Unless otherwise provided in the Contract Documents, the Work, or a specified part of the Work, is not substantially complete until after successful completion of all specified preoperational, startup and demonstration tests, which shall serve as evidence that the Work, or a specified part of it, can be utilized for the purposes for which it is intended.

7.20 Final Inspection

Upon written notice from CONTRACTOR that the minor items described in the list attached to the Certificate of Substantial Completion have been completed, DISTRICT will make a final inspection with CONTRACTOR and will notify CONTRACTOR in writing of the results of this inspection as to the items of the Work that appear to be incomplete, nonconforming, or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

7.21 CONTRACTOR's Continuing Obligation

CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither any progress or Final Progress Payment by DISTRICT, nor the issuance of a Certificate of Substantial Completion, nor any payment by DISTRICT to CONTRACTOR nor any partial utilization by DISTRICT nor any act of acceptance by DISTRICT nor any failure to do so, nor any review and approval of the Shop Drawings or samples, nor any review of a Progress Schedule, nor any statement of acceptability by DISTRICT, nor any correction of defective work by DISTRICT will constitute an acceptance of work not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents except as provided in a waiver of claims at the time of making and acceptance of the Final Progress Payment.

7.22 Cleaning During Construction and Final Cleanup

7.22.1 During execution of work, the site, adjacent properties, and public areas shall be cleaned daily and waste materials, debris, and rubbish disposed of to assure that buildings, grounds, and public properties are maintained free from accumulations of waste materials and rubbish. CONTRACTOR shall provide containers for collection and disposal of waste materials, debris, and rubbish.

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7.22.2 Grease, dust, dirt, stains, labels, fingerprints, and other foreign materials shall be removed from exposed and semi-exposed surfaces. Marred surfaces shall be repaired, patched, and touched up to specified finish to match adjacent surfaces.

7.22.3 Upon completion and before making application for Substantial Completion or final inspection of the Work, CONTRACTOR shall clean all right ways, streets, borrow pits, and all other grounds occupied by them in connection with the Work of all rubbish, excess materials, temporary structures, and equipment. All parts of the Work and ground occupied by CONTRACTOR shall be left in a neat and presentable condition and returned to original grade unless otherwise specified.

7.23 Operation and Maintenance Manuals

Six (6) copies of all manufacturer's operation and maintenance manuals and data pertinent to equipment supplied shall be submitted. The six (6) manuals are in addition to the individual operation and maintenance manuals submitted with each final Shop Drawing submittal. The material shall be prepared and organized in three ring binders with divider tabs and labels, shall include a table of contents, and the following:

- 7.23.1.1 list of equipment furnished for project with name, address, and telephone number of vendor
- 7.23.1.2 list of serial numbers of equipment furnished
- 7.23.1.3 a copy of Shop Drawings for mechanical, electrical, and instrument equipment in final form
- 7.23.1.4 manufacturer's operation and maintenance instructions, preventative maintenance instructions, parts lists, and recommended spare parts
- 7.23.1.5 tabulation of motor nameplate horsepower, nameplate current, field measured current, overload relay setting, and catalog number
- 7.23.1.6 list of fuses, lamps, seals, and other expendable equipment and devices. Specify size, type, and ordering description. List name, address, and telephone number of vendor
- 7.23.1.7 for equipment systems, recommended step-by-step procedures for starting, operating, stopping, and trouble-shooting the equipment under all modes of operation
- 7.23.2 Drafts of the manuals shall be submitted 30 days prior to startup and testing. Manuals shall be submitted in their final form prior to Final Progress Payment application.

END OF ARTICLE

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ARTICLE 8 SITE CONDITIONS

8.1 Removal of Obstructions

CONTRACTOR shall remove and dispose of all structures, debris, or other obstructions of any character necessary to accommodate the Work. Where such obstructions consist of improvements not required by law to be removed by the owner, all such improvements shall be removed, maintained, and permanently replaced at CONTRACTOR'S expense.

8.2 Location of Utilities and Structures

DISTRICT has endeavored to determine the existence of utilities and structures at the site of the Work from the records of the owners of known utilities in the vicinity of the Work. Unless otherwise noted, the positions of these utilities as derived from such records are shown on the plans. Unless otherwise noted, no excavations were made to verify the locations shown for underground utilities. The service connections to these utilities are not shown on the plans. It shall be the responsibility of CONTRACTOR to determine the exact location of all service connections. CONTRACTOR shall make their own investigations, including exploratory excavations, to determine the locations and type of service connections, prior to commencing work which could result in damage to such utilities. If CONTRACTOR while performing work discovers utility facilities not identified by DISTRICT or in a different position than identified in the Contract Documents, they shall immediately notify DISTRICT and responsible utility in writing.

8.3 Main or Trunk Line Facilities

8.3.1. Pursuant to Section 4215 of the Government Code, DISTRICT has the responsibility to identify, with reasonable accuracy, main or trunk line facilities on the plans and specifications. In the event that main or trunk line utility facilities are not identified with reasonable accuracy in the Contract Documents, DISTRICT shall assume the responsibility for their timely removal, relocation, or protection.

8.3.2. No later than two (2) days in advance of the work, CONTRACTOR shall expose all known main and trunk line crossings in the immediate area in order to provide for grade and alignment adjustments, if necessary.

8.3.3 CONTRACTOR shall be compensated by DISTRICT for the costs of locating, repairing damage not due to the failure of CONTRACTOR to exercise reasonable care, and removing, relocating, protecting, or temporarily maintaining such main or trunk line utility facilities not indicated with reasonable accuracy in the plans and specifications, and for equipment in the project necessarily idled during such work. In this regard, CONTRACTOR will be required to perform such work in accordance with Article 14. Alternatively, DISTRICT may make changes in the alignment and grade of the Work to obviate the necessity to remove, relocate, or temporarily maintain the utility, or DISTRICT may make arrangements with the owner of the utility for such work to be done at no cost to CONTRACTOR.

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8.4 Service Connections

When it is necessary to remove, relocate or temporarily maintain a service connection, the cost of which is not required to be borne by the owner, CONTRACTOR shall bear all expenses incidental to work on the service connection. The work on the service connection shall be done in a manner satisfactory to the owner; it being understood that the owner of the service connection has the option of doing such work with their own forces or permitting the work to be done by CONTRACTOR

8.5 Other Utilities or Structures

8.5.1 When it is necessary to remove, relocate, or temporarily maintain a utility or structure which is in the position shown on the plans, the cost of which is not required to be borne by the owner, CONTRACTOR shall bear all expenses incidental to the work on the utility. The work on the utility shall be done in a manner satisfactory to the owner; it being understood that the owner of the utility has the option of doing such Work with their own forces or permitting the work to be done by CONTRACTOR.

8.5.2 When it is necessary to remove, relocate, or temporarily maintain a utility or structure which is not shown on the plans or is in a position different from that shown on the plans and were it in the position shown on the plans would not need to be removed, relocated, or temporarily maintained, and the cost of which is not required to be borne by the owner, DISTRICT will make arrangements with the owner of the utility for such work to be done at no cost to CONTRACTOR, or will require CONTRACTOR to do such work or will make changes in the alignment and grade of the work to obviate the necessity to remove, relocate, or temporarily maintain the utility. All work or changes in alignment and grade will be ordered in accordance with Article 13.

8.5.3 No representations are made that the obligations to move or temporarily maintain any utility or structure and to pay the associated cost is or is not required to be borne by the owner of such utility, and it shall be the responsibility of CONTRACTOR to investigate to find out whether or not this cost is required to be borne by the owner of the utility.

8.5.4 The right is reserved for governmental agencies and owners of utilities to enter at any time upon any street, alley, right way, or easement for the purpose of making changes in their property made necessary by the Work and for the purpose of maintaining and making repairs to their property.

8.6 Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material

8.6.1 If asbestos or materials containing asbestos, petroleum or petroleum products, hazardous material or waste, or radioactive material is generated, uncovered, or revealed and is not shown or indicated in Contract Documents to be within the scope of the work, CONTRACTOR shall immediately: (i) stop all Work in connection with such hazardous condition and in any area affected thereby (except in an emergency as required by Article

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6.5), and (ii) notify Owner and DISTRICT (and thereafter confirm such notice in writing) of any material that the CONTRACTOR believes may be material that is a hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law. Owner will investigate such material and issue a Change Order if required, in the manner specified in paragraph 8.8.2, unless and to the extent paragraph 8.6.2 applies. CONTRACTOR shall not be required to resume Work in connection with such hazardous condition or in any such affected area until after Owner has obtained any required permits related thereto and delivered to CONTRACTOR special written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (ii) specifying any special conditions under which such Work may be resumed safely.

8.6.2 If after receipt of such special written notice CONTRACTOR does not agree to resume such work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then DISTRICT may order such portion of the Work that is in connection with such hazardous condition or in such affected area to be deleted from the Work.

8.7 Hazardous Materials Brought to the Site by CONTRACTOR

8.7.1 DISTRICT shall not be responsible for any hazardous material, asbestos, PCB's, petroleum, hazardous waste, or radioactive materials brought to the site by CONTRACTOR, Subcontractors, suppliers, or anyone else for whom CONTRACTOR is responsible.

8.8 Differing Physical Conditions

8.8.1 The CONTRACTOR shall promptly notify the DISTRICT of the following work site conditions (hereinafter called differing physical conditions), in writing, upon their discovery and before they are disturbed:

1. Subsurface or latent physical conditions differing from those indicated by information about the site made available to Bidders prior to the deadline for submitting bids;
2. Unknown physical conditions of any unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character being performed.

8.8.2 DISTRICT will promptly investigate conditions which appear to be differing physical conditions. If the DISTRICT determines that the conditions are differing physical conditions and will materially affect costs, a Change Order will be issued adjusting the compensation for such portion of the Work in accordance with Article 14. If the DISTRICT determines that conditions are differing physical conditions and they will materially affect performance time, the CONTRACTOR, upon submitting a written

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request, will be granted an extension of time subject to the provisions of Article 14.

8.8.3 If the DISTRICT determines that the conditions do not justify an adjustment in compensation or extension of time, the CONTRACTOR will be notified in writing. This notice will also advise the CONTRACTOR of its obligation to notify the DISTRICT in writing if the CONTRACTOR disagrees.

8.8.4 Should the CONTRACTOR disagree with the decision, it may submit a written notice of potential claim to the DISTRICT before commencing the disputed work. In the event of such a dispute, the CONTRACTOR shall not be excused from any scheduled completion date provided by the Contract and shall proceed with all work to be performed under the Contract. However, the CONTRACTOR shall retain any and all rights provided by either Contract or law which pertain to the resolution of disputes and protests between the contracting parties. The CONTRACTOR shall proceed as provided in Articles 6 and 14.

8.8.5 The CONTRACTOR'S failure to give notice of differing physical conditions promptly upon their discovery and before they are disturbed shall constitute a waiver of all claims in connection therewith.

END OF ARTICLE

GENERAL PROVISIONS

ARTICLE 9 SHOP DRAWINGS AND SAMPLES

9.1 General

9.1.1 CONTRACTOR shall submit Shop Drawings to DISTRICT for review and approval in accordance with the schedule of Shop Drawing submissions. All submittals shall be identified as DISTRICT may require. For each Shop Drawing, CONTRACTOR shall include an electronic file, in PDF format, and two (2) paper copies, except three (3) paper copies shall be submitted for Shop Drawings related to electrical and instrumentation, unless otherwise specified in the Special Provisions. The data shown on the Shop Drawings shall be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show DISTRICT the materials and equipment CONTRACTOR proposes to provide and to enable DISTRICT to review the information for the limited purposes required by this Article.

9.1.2 CONTRACTOR shall also submit samples to DISTRICT for review and approval in accordance with the accepted schedule of Shop Drawing submissions. Each sample shall be identified clearly as to material, supplier, pertinent data such as catalog numbers and the use for which intended and otherwise as DISTRICT may require to enable DISTRICT to review the submittal for the limited purposes required by this Article. At least two of each sample shall be submitted unless otherwise specified in the Special Provisions.

9.1.3 Within twenty-one (21) days after receipt of Shop Drawings or sample submittals, DISTRICT will return an electronic file, in PDF format, to CONTRACTOR with a review action and remarks, as necessary.

9.1.4 CONTRACTOR shall provide to DISTRICT, three (3) paper copies of approved Shop Drawings within seven (7) days of their approval.

9.2 Shop Drawings and Sample Submission Procedures

9.2.1 Before submitting each Shop Drawing or sample, CONTRACTOR shall have determined and verified:

- 9.2.1.1. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar information
- 9.2.1.2 all materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work
- 9.2.1.3 all information relative to CONTRACTOR'S means, methods, techniques, sequences and procedures of construction, and safety precautions and programs

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9.2.2 CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the Work and the Contract Documents.

9.2.3 The DISTRICT'S Shop Drawing Transmittal Form, a copy of which is included in the appendix, shall accompany all Shop Drawings and samples. Shop Drawings and samples shall be returned "un-reviewed", if not accompanied by a transmittal form or if the form is not completed in full.

9.2.4 At the time of each submission, CONTRACTOR shall give DISTRICT specific written notice of such variations, if any, that the Shop Drawing or sample submitted may have from the requirements of the Contract Documents. Such notice shall be in a written communication separate from the submittal. CONTRACTOR shall also cause a specific notation of each such variation to be made on each Shop Drawing and sample submitted to DISTRICT for review and approval.

9.2.5 DISTRICT will review and approve or disapprove or return as incomplete Shop Drawings and samples. DISTRICT'S review and approval or disapproval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed project as a functioning whole as indicated by the Contract Documents. DISTRICT'S review and approval or disapproval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. CONTRACTOR shall make corrections required by DISTRICT, and shall return the required number of corrected paper copies and corrected electronic files, in PDF format, of Shop Drawings and submit as required new samples for review and approval. Corrected Shop Drawings shall retain the number assigned to the Shop Drawing upon the first submittal and shall be given an R (for revision) and the number of revision of that Shop Drawing. Example: Submittal No. 15-R1 (Submittal No. 15, Revision 1). CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by DISTRICT on previous submittals.

9.2.6 DISTRICT'S review and approval of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called DISTRICT'S attention to each such variation at the time of submission as required by subparagraph 9.2.4 and DISTRICT has given written approval of each such variation by a specific written notation incorporated in or accompanying the Shop Drawing or sample approval; nor will any approval by DISTRICT relieve CONTRACTOR from responsibility for complying with the requirements of this Article.

9.2.7 No portion of the Work requiring a Shop Drawing submittal shall be started until the submittal has been reviewed by DISTRICT and returned to CONTRACTOR with a

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notation indicating that resubmittal is not required.

9.2.8 DISTRICT will review the initial submittal of Shop Drawings and sample submissions and one resubmittal without cost to CONTRACTOR. The cost of review of multiple resubmittals will be charged to CONTRACTOR.

END OF ARTICLE

GENERAL PROVISIONS

ARTICLE 10 SCHEDULES

10.1 General

10.1.1. CONTRACTOR shall prepare and submit to DISTRICT for review, a Progress Schedule showing the order in which CONTRACTOR proposes to carry out the Work, the dates on which the several salient features (including procurement of materials and equipment) will start and the contemplated dates for completing same. The Progress Schedule shall show the order in which CONTRACTOR proposes to accomplish the installation workdays by craft for each activity. The Progress Schedule shall be an amplification of, and shall concur with the interim and final completion requirements of the Contract Documents. The schedule shall show all of the work to be completed for each milestone and for partial utilization. The schedule breakdown shall be by divisions of work subdivided into areas or facilities in sufficient detail so that DISTRICT may readily evaluate CONTRACTOR'S progress at any given time during the course of the Work and shall be so arranged and itemized as to be of assistance to DISTRICT in the evaluation of CONTRACTOR'S Progress Payment Requests.

10.1.2 CONTRACTOR shall prepare and submit to DISTRICT for review, a schedule of Shop Drawing and sample submissions. This schedule shall consist of a list of the submittals to be made over the course of the project; anticipated and actual dates of submittal and return for both initial and resubmissions; and the anticipated dates of submittal approval so as not to delay the project. The schedule shall allow for review and processing time by DISTRICT.

10.1.3 CONTRACTOR shall prepare and submit to DISTRICT for review with the initial acceptable schedule, labor estimates contemplated or required by the schedule in a form acceptable to DISTRICT. Updated plan and actual expended labor estimate charts shall be submitted with each monthly or interim schedule submission when requested by DISTRICT.

10.2 Submittal of Schedules

10.2.1 The form and level of detail of the schedule shall be as detailed in the Special Provisions or as approved by DISTRICT. At a minimum, a schedule diagram shall be submitted that is neatly lettered and legibly drawn to a time scale.

10.2.2 CONTRACTOR shall enter on the schedules the actual progress on a monthly basis, or at such intervals as requested by DISTRICT, and shall deliver to DISTRICT three (3) copies of the schedule documentation.

10.2.3 Schedules are to be submitted as a part of each Progress Payment Request. Failure to submit an updated schedule and any corrections or clarifications that have been requested and accepted by DISTRICT may result in the withholding of a portion of the progress payment until CONTRACTOR submits schedule or updated schedule that is acceptable to DISTRICT. The amount withheld shall be in the amount of \$5,000 or 30

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percent of the progress payment amount, whichever is greater. If additional updated schedules are requested by DISTRICT they are to be provided within seven (7) days of the date of request, but do not constitute permission to submit additional Progress Payment Requests.

10.3 Review of Schedules

10.3.1 DISTRICT shall review schedule submittals. If, in the opinion of DISTRICT, the schedule (1) does not accurately reflect CONTRACTOR'S actual or anticipated progress or work plan or, (2) cannot be used to effectively evaluate CONTRACTOR'S progress or, (3) is not in compliance with this Article and other appropriate sections of the Contract Documents, it will be returned to CONTRACTOR for corrections or clarification. CONTRACTOR shall make the necessary corrections and resubmit or shall respond in detail to DISTRICT'S comments and request that the submittal be accepted without modification. Failure by CONTRACTOR to provide corrections or clarifications to schedule submittals as directed by DISTRICT shall constitute reason to withhold approval of any Progress Payment Request.

10.3.2 DISTRICT'S review of schedule submittals shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has, in writing, called DISTRICT'S attention to each such variation at the time of submission and DISTRICT has given written approval of each such variation; nor shall any approval by DISTRICT or DISTRICT'S Representative relieve CONTRACTOR from responsibility for compliance with any provision of the Contract Documents, except as specifically approved with respect to such variation.

10.4 Time of Performance

The Contract Time establishes the period and duration in which DISTRICT expects the Work to be performed. Any schedule that shows completion ahead of the Contract Time shall include additional supporting data to explain the basis of the shorter time for performance. DISTRICT may (1) notify CONTRACTOR that the Contract Time is being adjusted by Change Order to reflect the shorter schedule duration or (2) elect not to adjust the Contract Time and allow the use by all parties of the increased schedule flexibility that the shorter schedule represents. In any case, DISTRICT shall not be responsible for any costs to CONTRACTOR, actual or anticipated, resulting from delay of any cause that prevents completion of any part or all of the Work unless it prevents CONTRACTOR from meeting the interim or final completion requirements of the Agreement; nor shall DISTRICT be obligated to incur any additional costs for administration or inspection of accelerated work.

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10.5 Changes

It is understood that revisions to the schedule are inherent in the nature of construction. This may require that changes be made in the schedule to reflect the dynamic nature of the design and the work. Actions by DISTRICT, CONTRACTOR, or the Engineer/Architect that may affect the progress of any part or all of the work shall make use of the flexibility in the Progress Schedule, often expressed as schedule float or slack time, or as may result from changes in the sequencing of individual work items, to limit the impact of such actions. The concept of shared schedule flexibility shall not be limited by the inclusion of restraints, logic, or imposed dates into the schedule that cannot be reasonably justified. Excessive use of schedule flexibility by any party is contrary to this sharing concept. Excessive use of schedule flexibility by CONTRACTOR may be cause for denial of a request for an extension in Contract Time.

10.6 As-Built Schedule

After Substantial Completion, but prior to Final Progress Payment, CONTRACTOR shall submit an as built schedule. The schedule shall reflect (1) all as built critical paths, (2) all contract activities, including all added activities, with their actual start and finish dates, (3) the actual number of separate days during which work was performed on each activity, and (4) the actual number of installation workdays by craft that were required to complete each activity.

END OF ARTICLE

GENERAL PROVISIONS

ARTICLE 11 PAYMENTS TO CONTRACTOR

11.1 Schedule of Values

11.1.1 The schedule of values shall include quantities and unit prices aggregating the Contract Price, and shall subdivide the Work into component parts in sufficient detail to serve as the basis for Progress Payment Requests during the course of the Work. CONTRACTOR shall confirm in writing at the time of submission, that an appropriate amount of direct costs, supplemental costs, administrative expenses, contingencies, and profit have been allocated to each item of work.

11.1.2 If the bid form contains a bid item price for mobilization, the schedule of values shall distribute these costs such that no more than fifty (50) percent of the bid item amount shall be paid as mobilization in the first Progress Payment Request and at least five (5) percent of the bid item amount shall be paid in the Final Progress Payment Request as demobilization with the remainder paid in equal installments over the duration of the Work.

11.2 Measurement of Quantities for Unit Price Work

11.2.1 Unless otherwise specified, quantities of work shall be determined from measurements or dimensions in horizontal planes. However, linear quantities of pipe shall be determined by measurement along longitudinal axis.

11.2.2 Unless otherwise specified, volumetric quantities shall be the product of the mean area of vertical or horizontal sections and the intervening horizontal or vertical dimension.

11.2.3 Materials and items of work which are to be paid for on basis of measurement shall be measured in accordance with methods stipulated in the particular sections involved.

11.2.4 When payment is to be made on the basis of weight, the weighing shall be done on certified platform scales or, when approved by the DISTRICT, on a completely automated weighing and recording system. The CONTRACTOR shall furnish the DISTRICT with duplicate licensed weighmaster's certificates showing actual net weights. The DISTRICT will accept the certificates as evidence of weights delivered.

11.2.5 Units of measurement shall be in U.S. Customary Units, in accordance with General Provisions, Article 1.

11.3 Payment for Lump Sum and Unit Price Work

11.3.1 Work items for which quantities are indicated in the Schedule of Work Items (Bid) as "Lump Sum", or "L.S." shall be paid for at the price indicated in the Bid. Such

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payment shall be full compensation for the items of work and all work appurtenant thereto.

11.3.2 Unit price item quantities listed in the Schedule of Work Items (Bid) shall not govern final payment. Payment to CONTRACTOR shall be made only for actual quantities of Contract items constructed in accordance with the Contract Documents. If actual quantities differ from the quantities given in the Schedule of Work Items, payment shall be subject to the provisions of Paragraph 14.9 Unit Price Work, Article 14, Changes in Contract Price or Contract Time.

11.3.3 The unit and lump sum prices to be paid shall be full compensation for the items of work and all appurtenant work, including furnishing all materials, labor, equipment, tools, and incidentals.

11.3.4 Payment will not be made for materials wasted or disposed of in a manner not called for under the Contract Documents. This includes rejected material not unloaded from vehicles, material rejected after it has been placed, and material placed outside of plan lines. No compensation will be allowed for disposing of rejected or excess materials.

11.4 Progress Payments

11.4.1 DISTRICT shall, on or before the fifth day of each calendar month after actual construction work is started, except in case of the Final Progress Payment, cause an estimate in writing to be made by DISTRICT's Representative of the value of the total amount of the work completed by CONTRACTOR through the twenty fifth day of the preceding month. In estimating such value, DISTRICT's Representative may take into consideration, along with other facts and conditions deemed by them to be proper, the ratio of the difficulty or cost of the work done to the probable difficulty or cost of the work remaining to be done. This estimate will be provided to CONTRACTOR for inclusion into the Progress Payment Request to be submitted by CONTRACTOR.

11.4.2 DISTRICT shall retain five (5) percent of such estimated value as part security for fulfillment of the Agreement by CONTRACTOR and shall pay to CONTRACTOR the balance of such estimated value after deducting all previous payments and all sums to be kept or retained under the terms of the Agreement. Nothing herein shall require payment of a disputed amount or limit DISTRICT's ability to withhold an amount in respect of a disputed amount as provided for in Section 7107 of the Public Contract Code.

11.4.3 DISTRICT may condition payment of any undisputed contract amount, including Final Progress Payment and retention release, upon the release by CONTRACTOR of all claims related to that amount. Disputed claims of a stated amount may be expressly excluded by CONTRACTOR from such a release.

11.4.4 The following is a summary of the provisions of article 1.7 of Chapter 1 of Part 3 of Division 2 (commencing with Section 20104.50) of the Public Contract Code,

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regarding progress payments, and is subject to the actual provisions of that statute.

11.4.5 If DISTRICT fails to make any progress payment within thirty (30) days after receipt of an undisputed and properly submitted Progress Payment Request from CONTRACTOR, DISTRICT shall pay interest to CONTRACTOR equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure.

11.4.6 Upon receipt of a Progress Payment Request, DISTRICT shall act in accordance with both of the following:

11.4.6.1 Each payment request shall be reviewed by DISTRICT as soon as practicable after receipt for the purpose of determining that the payment request is a proper payment request.

11.4.6.2 Any payment request determined not to be a proper payment request 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 why the payment request is not proper.

11.4.7 The number of days available to DISTRICT to make a payment without incurring interest pursuant to subparagraph 11.4.5 shall be reduced by the number of days by which DISTRICT exceeds the seven (7) day return requirement set forth in subparagraph 11.4.6.

11.4.8 For purposes of this Article, a "progress payment" includes all payments due CONTRACTOR, except that portion of the final payment designated under this Agreement as retention.

11.4.9 If a higher retention amount is specified in the Notice Inviting Sealed Proposals, the higher amount shall supersede and replace all references in the Contract Documents indicating a five (5) percent retention amount.

11.5 Materials and Equipment Onsite

11.5.1 If unused materials and equipment are included in a Progress Payment Request by CONTRACTOR, DISTRICT may in its sole discretion determine whether to include payment for the unused materials and equipment or any portion thereof in the Progress Payment. If a determination is made to include any such materials or equipment, DISTRICT will determine and pay their value provided (i) such materials and equipment have been delivered on the ground and suitably stored at the site, or have been stored offsite subject to the control of DISTRICT, in a manner acceptable to DISTRICT and (ii) the timing of the advance delivery is reasonably necessary for the incorporation of the materials and equipment into the Work in accordance with the Progress Schedule approved under paragraph 10.1. When payment to CONTRACTOR is made for stored material and equipment, CONTRACTOR shall submit invoices marked "paid" by the supplier with the Progress Payment Request following such payment to CONTRACTOR

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documenting that CONTRACTOR has paid for said materials and equipment or the previously paid amount shall be deducted from remaining payments or retainage for stored materials and equipment not so properly documented.

11.5.2 If payment is requested on the basis of materials and equipment not incorporated into the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Progress Payment Request shall be accompanied by such data, satisfactory to DISTRICT, as will establish DISTRICT'S title to the material and equipment and protect DISTRICT'S interest, including applicable insurance.

11.5.3 In no event shall the quantity of material and equipment submitted for payment be in excess of the actual final installed quantity. Payments made according to this paragraph shall be no greater than ninety-five (95) percent of the unit price for the item to be installed regardless of the actual cost.

11.6 Final Progress Payment and Retention Release

11.6.1 When the Work, including minor items identified on the certificate of Substantial Completion, delivery of record documents, O&M Manuals, and final cleanup, has been completed to the satisfaction of DISTRICT'S Representatives, they shall make a final estimate of the total amount of work done and the amount to be paid under the terms of the Agreement. If DISTRICT finds the Work has been completed according to the Contract Documents, they shall accept the Work and pay the entire sum so found to be due after deducting all previous payments and all amounts to be retained under the provisions of the Agreement. All prior progress estimates and payments shall be subject to correction in the final estimate and payment. The retention payment shall not be due and payable until the expiration of thirty-five (35) days from the date of recording by the County a Notice of Completion of the Work by DISTRICT.

11.6.2 It is agreed by CONTRACTOR that no certificate given or payment made under the Agreement shall be conclusive evidence of performance of the Work and no payment shall be construed to be an acceptance of any defective work or improper materials.

11.6.3 CONTRACTOR further agrees that the payment of the final amount due under the Agreement shall release DISTRICT, DISTRICT'S Representative, the Engineer/Architect, and each of their officers, directors, employees, and agents from any and all claims or liability arising out of the Work related to the amount paid.

11.7 DISTRICT'S Right to Withhold and Use Certain Amounts

11.7.1 In addition to the amount that DISTRICT may retain in accordance with paragraph 11.4, DISTRICT may withhold a sufficient amount from any payment otherwise due to CONTRACTOR as in their judgment may be necessary to cover:

GENERAL PROVISIONS

11.7.1.1 payments which may be past due and payable for just claims against CONTRACTOR or any Subcontractors for labor or materials furnished in or about the performance of the Work

11.7.1.2 estimated or actual costs for correcting defective work not remedied

11.7.1.3. amounts claimed by DISTRICT as forfeiture due to delay or other offsets

11.7.2 DISTRICT may apply such withheld amounts to the payment of such claims at their discretion. In so doing, DISTRICT shall be deemed the agent of CONTRACTOR and any payments so made by DISTRICT shall be considered as a payment made under the Agreement by DISTRICT to CONTRACTOR, and DISTRICT shall not be liable to CONTRACTOR for such payment made in good faith. Such payments may be made without prior judicial determination of the claim or claims. DISTRICT will render to CONTRACTOR a proper account of such funds disbursed in behalf of CONTRACTOR.

11.8 Substitution of Securities for Amounts Withheld

11.8.1 Pursuant to Section 22300 of the Public Contract Code, CONTRACTOR may substitute securities for any monies withheld by DISTRICT to ensure performance of the Work. At the request and expense of CONTRACTOR, securities equivalent to the amount withheld shall be deposited with DISTRICT or with a state or federally chartered bank in California as the escrow agent. Such securities shall be released to CONTRACTOR at the same time as amounts retained would be released under paragraph 11.6 upon satisfactory completion of the Work, to the extent such securities have not previously been utilized or are not then being held by DISTRICT or the escrow agent for purposes as provided in this Agreement. Alternately, CONTRACTOR may request, and DISTRICT shall make, payment of retentions earned directly to the escrow agent at the expense of CONTRACTOR as provided in Section 22300 of the Public Contract Code.

11.8.2 If such securities are deposited with DISTRICT, DISTRICT shall determine their value. DISTRICT shall also be entitled in their discretion to sell, redeem, or otherwise convert them or portions thereof to cash in order to apply them to any of the purposes set forth in the Agreement for which amounts may be withheld from CONTRACTOR and used. CONTRACTOR shall furnish such documents as are deemed necessary by DISTRICT to enable DISTRICT to make such sales, redemptions, or conversions.

11.8.3 If the securities are deposited with an escrow agent, CONTRACTOR, escrow agent, and DISTRICT shall execute the form entitled "Escrow Agreement for Security Deposits in Lieu of Retention."

11.8.4 Securities eligible for investment under this paragraph shall be those listed in California Government Code Section 16430 or 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 CONTRACTOR and DISTRICT.

GENERAL PROVISIONS

11.8.5 CONTRACTOR shall be the beneficial owner of any securities substituted for monies withheld and shall receive any accrued interest.

END OF ARTICLE

GENERAL PROVISIONS

ARTICLE 12 OTHER WORK ONSITE

12.1 Cooperation with Other Work

12.1.1 Nothing in the Contract Documents shall be interpreted as granting to CONTRACTOR exclusive occupancy of the site of the Work. CONTRACTOR must ascertain to their own satisfaction the scope of the project and the nature of any other contracts that have been or may be awarded by DISTRICT in the construction of the project, to the end that CONTRACTOR may perform the Work in the light of such other contracts, if any.

12.1.2 CONTRACTOR shall schedule their work and cooperate with all other forces working in the area so that all improvements in the project area may be installed in a logical, professional manner.

12.1.3 CONTRACTOR shall take due precautions to protect all improvements placed by others in the vicinity of their operations.

12.1.4 CONTRACTOR shall restrict operations of stockpiling material, equipment, spoil, etc., to within the easements, street right-of-way, or other designated areas as shown on the plans.

12.1.5 CONTRACTOR shall not cause any unnecessary hindrance or delay to any other contractor working in the area.

12.1.6 If through acts or neglect on the part of CONTRACTOR, any other contractor or subcontractor shall suffer loss or damage to their work, CONTRACTOR agrees to settle with such other contractor or subcontractor by agreement or arbitration, if such other contractor or subcontractor will so settle. If such other contractor or subcontractor shall assert any claim against DISTRICT, DISTRICT's Representative, the Engineer/Architect, or their consultants on account of any damage alleged to have been so sustained, DISTRICT shall notify CONTRACTOR who shall hold harmless, indemnify and defend DISTRICT, DISTRICT's Representative, the Engineer/Architect, and their consultants, and each of their officers, directors, employees, and agents against any such claim, including attorney's fees and any other costs incurred by the indemnified parties relative to any such claim, provided, however, that the foregoing shall not relieve any indemnified party from liability to the extent that such liability arises from such parties' active negligence.

END OF ARTICLE

GENERAL PROVISIONS

ARTICLE 13 CHANGES IN THE WORK

13.1 Changes In the Work

13.1.1. Without invalidating the Agreement and without notice of any surety, DISTRICT may, at any time, by duly executed Change Order or Change Request, order changes consisting of additions, deletions, or other revisions in the Work. Upon receipt of that order, CONTRACTOR shall promptly proceed or continue with the work involved. All such work shall be executed under the applicable conditions of the Contract Documents. If a change under this Article causes an increase or decrease in the Contract Price or any extension or shortening of the Contract Time, DISTRICT will make an adjustment as provided in Article 14.

13.1.2 DISTRICT may present to CONTRACTOR an unsigned proposed Change Request requesting that CONTRACTOR submit a proposal for an adjustment in the Contract Price or the Contract Time for a proposed change in the Work. CONTRACTOR shall submit a proposed adjustment with all supporting data in accordance with Article 14 and the directions given in the Change Request within fourteen (14) days of receipt. The proposed adjustment shall include an itemized estimate of all costs and time for the performance that will result directly or indirectly from the changes described. Estimates shall be presented in sufficient detail and with documentation such that DISTRICT can (1) analyze all material, labor, equipment, subcontract, overhead costs and fees, and any other costs covering all aspects of the work involved in the change, whether such was added, deleted, changed, or impacted; (2) determine that the proposal reflects all impacts on the Work of the proposed change; and (3) establish that all provisions of the Contract Documents have been complied with. Any amount claimed for Subcontractors or suppliers shall be similarly supported.

13.1.3 DISTRICT may give instructions that may result in changes in the Work not involving an adjustment in the Contract Price or the Contract Time when such changes are necessary or expedient to the satisfactory performance and completion of the Work. These instructions shall be binding on CONTRACTOR. CONTRACTOR shall promptly notify DISTRICT when an instruction, direction, interpretation, or determination is received from any source that may cause any change in the Work. Any instruction, direction, interpretation, or determination from DISTRICT, the Engineer/Architect or any other source that causes a change in Contract Price or Contract Time shall be treated as a change under this Article provided that CONTRACTOR gives DISTRICT written notice stating the date, circumstances, specific order, and that CONTRACTOR regards the instruction as a change. Such written notification shall be given to DISTRICT within seven (7) days after receipt and before CONTRACTOR acts on said instruction, direction, interpretation, or determination. No claim, change, or notice by CONTRACTOR will be allowed if asserted after work has commenced on, or if notice is not provided within the stated time limit provided after receipt of the instruction, direction, interpretation, or determination from DISTRICT, the Engineer/Architect, or any other source.

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13.1.4 In making changes under this Article, DISTRICT may give consideration to a notice, proposal, or claim from CONTRACTOR, provided the proposal or claim is presented in accordance with the requirements of this Article and Article 14. CONTRACTOR shall provide DISTRICT any additional or supplemental information requested for purposes of evaluation of CONTRACTOR'S submittal, but such requests by DISTRICT will not constitute acceptance of the notice, proposal, or claim.

13.1.5 It shall be CONTRACTOR's responsibility to notify the surety of any change affecting the general scope of the Work or change in the Contract Price, and the amount of each applicable bond shall be adjusted accordingly. CONTRACTOR shall furnish proof of such adjustment to DISTRICT if requested.

13.2 Change Orders and Change Requests

13.2.1. Contract Price or Contract Time shall be changed only by Change Order. The basis for a subsequent change in Contract Price or Contract Time may also be authorized by Change Request duly executed by DISTRICT.

13.2.2 A Change Order duly executed by DISTRICT and CONTRACTOR provides for an all inclusive settlement for all changes and direct, supplemental, indirect, consequential, and cumulative costs and delays. CONTRACTOR'S signature represents a waiver of any and all rights to file a claim on account of these changes.

13.2.3 DISTRICT may use Change Requests to order changes in the Work, provide the basis for a subsequent adjustment in the Contract Price or the Contract Time, or authorize deviations in the Work. Amounts for work directed by a Change Request shall not be included in Progress Payment Requests until that Change Request has been incorporated into an approved Change Order.

13.2.4 An unsigned Change Request may be used by DISTRICT and CONTRACTOR to negotiate changes in the Work, or in the Contract Price or the Contract Time. A Change Request will be the instrument used by DISTRICT to direct work on a time and material basis as described in Article 14. A Change Order will be issued to incorporate the instruction to proceed with a change on a time and material basis into the Agreement after the actual cost of the work has been determined.

13.3 Waivers

13.3.1 No proposal or claim by CONTRACTOR for an adjustment under this Article shall be allowed for any costs or delay incurred more than seven (7) days before CONTRACTOR gives written notice, as required.

13.3.2 No proposal or claim by CONTRACTOR for an adjustment under this Article shall be allowed if made after the date of Final Progress Payment.

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13.3.3 Additional work performed without authorization of a Change Order or properly executed Change Request will not entitle CONTRACTOR to an increase in Contract Price or an extension of Contract Time, except in the case of an emergency.

13.3.4 CONTRACTOR acknowledges that there may be changes during the course of the Work and acknowledges that the probable effect of changes has been accounted for in the development of the Contract Price and Progress Schedule. Whenever CONTRACTOR makes a proposal or claim such proposal or claim shall include the total amount of adjustment in Contract Price and Contract Time to which the CONTRACTOR believes they are entitled. Except as DISTRICT and CONTRACTOR may otherwise agree in writing, CONTRACTOR shall be deemed to have waived (1) any adjustment to which it might otherwise be entitled where such proposal or claim fails to request such adjustments, (2) any increase in the amount of adjustment additional to that requested in the proposal or claim, and (3) any claim for reimbursement of impact allegedly resulting from the cumulative effect of the number, nature, or extent of any changes.

END OF ARTICLE

GENERAL PROVISIONS

ARTICLE 14 CHANGES IN CONTRACT PRICE OR CONTRACT TIME

14.1 Changes in Contract Price or Contract Time

The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for all duties, responsibilities, and obligations required to perform the work. All duties, responsibilities, and obligations assigned or undertaken by CONTRACTOR shall be at their expense without change in the Contract Price except as set out below.

14.2 Proposal or Claims Substantiating Adjustments

14.2.1 Supporting data for any proposal or claim by CONTRACTOR shall include at a minimum a complete and detailed breakdown of the proposed price and a detailed explanation of any time impact for the change. The proposed price shall be based on the lowest reasonable cost consistent with sound construction practice. Trade estimating guides (such as NECA guides) shall not be used as the basis for determining labor rates. The breakdown shall include itemizations by trade of all labor with labor hours and hourly rates, equipment with hours of use and rates, and material by item with costs, all in sufficient detail to evaluate the cost of the individual components of the work, including copies of purchase orders, invoices, and subcontract change orders. CONTRACTOR must prove that additional costs arising out of the events were necessarily incurred despite CONTRACTOR's reasonable, prudent, and diligent efforts to prevent such costs.

14.2.2 CONTRACTOR's proposal and claim supporting data shall become due within fourteen (14) days of delivery of the unsigned Change Request or receipt by DISTRICT of written notice of claim (unless DISTRICT allows an additional period), and shall remain firm for a period of not less than sixty (60) days from receipt by DISTRICT of the proposal or supporting data. Any delay in the submittal of a proposal or claim will not justify or constitute basis for an increase in the Contract Price or the Contract Time. Proposals or claims shall be submitted on forms acceptable to DISTRICT.

14.2.3 Failure of CONTRACTOR to comply with the time requirements for written notice or for submittal of supporting data shall be considered a waiver by CONTRACTOR of any claim for an addition to the Contract Price or an adjustment to the Contract Time and CONTRACTOR agrees that no additional compensation or time adjustments are due if the provisions of Article 13 and this Article are not complied with.

14.2.4 Where the change in the Contract Price arises from changes in the schedule of all or part of the Work, or where a change in the Contract Time is requested, the proposal shall be based on a detailed analysis of the Progress Schedule, and shall cover all applicable elements affecting the work involved, including, but not limited to, labor crews, craft levels, equipment utilization, work during other than normal working hours, productivity and production rates, shop drawing preparation, submittal and review, material and equipment delivery, and testing and startup times.

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14.3 Methods for Determining Adjustments in the Contract Price

14.3.1 The methods to be used to determine an adjustment in the Contract Price required by changes ordered or negotiated according to these general provisions, or work covered by a proposal or a claim, also termed the "work involved," are limited to the following:

- 14.3.1.1 Contract Unit Prices: Where the work involved is covered or is of the same character as unit price work, by application of those unit prices to the quantities of the items involved (subject to the provisions covering unit price work). No additional allowances or charges shall be added to these unit prices.
- 14.3.1.2 Negotiated Unit Prices: Where the work involved is not covered by unit prices contained in the Contract Documents, unit prices may be negotiated on the basis of costs calculated in accordance with this Article.
- 14.3.1.3 Negotiated Lump Sum: By mutual acceptance of a lump sum price negotiated on the basis of CONTRACTOR's itemized estimate of the anticipated cost of the work involved.
- 14.3.1.4 Time and Material Work: Where DISTRICT and CONTRACTOR cannot agree on any of the methods described above, DISTRICT may direct CONTRACTOR to proceed with the work involved on the basis of actual costs. When time and material work is directed by DISTRICT, DISTRICT shall prescribe the required procedures for accounting of the allowed costs. These procedures shall include daily accounting of the material and equipment used and labor employed. Failure to submit this information for acknowledgement by DISTRICT within one (1) day after any part of the work is performed shall result in any discrepancy between DISTRICT's and CONTRACTOR's records being resolved in favor of the DISTRICT's records.
- 14.3.1.5 Estimated Adjustment: Where DISTRICT and CONTRACTOR cannot agree on any of the methods described, and DISTRICT does not wish to proceed on a time and material basis, DISTRICT shall establish a reasonable adjustment to the Contract Price for the work involved. The adjustment in the Contract Price and the Contract Time will be issued by Change Request, incorporated into the Agreement by Change Order and CONTRACTOR shall be paid on that basis. CONTRACTOR may file a claim if it does not agree with the adjustment.
- 14.3.1.6 Where the work involved is not covered by any of the preceding methods, and when payment is to be determined by a court of competent jurisdiction or other agreed method of dispute resolution, it is agreed that the actual

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cost method shall be the appropriate method for determining the cost of the work involved. Payroll, equipment, material, and other costs will only be allowable when determined from daily time sheets which expressly correlate to the work involved, that were prepared while work was in progress, clearly listing actual units and usage, and were submitted to DISTRICT as the work was performed.

14.3.2 CONTRACTOR shall provide to DISTRICT, if requested, proof of any burdens, including insurance costs, added to base wages to determine payroll costs described in this Article.

14.4 Labor, Installed Material and Equipment, and Subcontract Costs

14.4.1 Payroll costs for craft labor in the direct employ of CONTRACTOR assigned to the site and engaged in the work involved are reimbursable. Payroll costs shall include wages plus the necessary labor burdens, which may include social security, unemployment, worker's compensation, health and retirement benefits, vacation and holiday pay, and other payments according to prevailing wage rates but shall exclude profit sharing, bonuses, and similar remuneration's. Labor charges shall be allowed only for hourly labor directly involved in the work. Such personnel may include working foremen at the site. The cost of all salaried employees shall be considered as a part of allowances allowed in this Article. Labor rates shall be as actually paid based on certified payroll records or in accordance with general rates for various pay categories established by prevailing wage rates or by mutual agreement between DISTRICT and CONTRACTOR prior to the commencement of work. The expenses of performing work after regular hours, on weekends or holidays, shall be included in the above to the extent authorized by DISTRICT as set out in the Contract Documents.

14.4.2 Payments by CONTRACTOR to suppliers for all installed material and equipment in the work involved, including transportation and storage costs, and necessary suppliers field services are reimbursable. All cash deposits shall accrue to DISTRICT, if DISTRICT advances funds to CONTRACTOR with which to make payments. All trade discounts, rebates, and refunds and all returns from the sale of surplus items shall accrue to DISTRICT and CONTRACTOR shall make provisions so that they may be obtained. When required by DISTRICT, CONTRACTOR shall obtain competitive bids from suppliers nominated by DISTRICT and shall deliver such bids to DISTRICT for selection of a bid. When determining material and equipment costs, actual invoices segregating items associated with work involved shall be the record upon which actual costs shall be based.

14.4.3 Payments by CONTRACTOR to Subcontractors for work involved performed by Subcontractors are reimbursable. If required by DISTRICT, CONTRACTOR shall obtain competitive detailed bids from three (3) Subcontractors and shall deliver them to DISTRICT who will then determine which bid will be selected. When determining Subcontractor costs at any tier, the Subcontractor's cost shall be determined in the same

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manner as CONTRACTOR's costs. All subcontracts shall be subject to the provisions of this Article insofar as applicable.

14.5 Construction Equipment Costs

14.5.1 Equipment costs required solely in connection with the work involved reflecting rented or leased or owned equipment for individual construction equipment or machinery whose replacement value is in excess of \$1,000.00 is reimbursable. Transportation, loading and unloading, installation, dismantling, and removal costs shall be included only if such equipment is or was transported to the site solely to perform the work involved. All charges for equipment shall cease when the equipment is no longer necessary to perform the work involved. Equipment costs shall be computed using the same accounting and estimating rules regardless of whether related to added or deleted items of work.

14.5.2 For equipment owned, rented or leased by CONTRACTOR, CONTRACTOR shall be entitled to actual costs based on negotiated rental or lease rates, but in no event shall the amounts exceed the rates listed in the most current and appropriate "Labor Surcharge and Equipment Rental Rates" Guide (Guide) published by State of California Business, Transportation and Housing Agency, Department of Transportation, Division of Construction. Rates for equipment not included in the Guide shall be interpolated or extrapolated from the information contained in the Guide. In addition to the rental or leasing rate, operating costs shall not exceed the estimated hourly operation rate in the Guide. For multiple shift work, the allowable equipment rate for second or third shifts shall not exceed fifty (50) percent of the base rate. Costs for rented or lease equipment shall not be billed to DISTRICT in excess of the following:

<u>Actual or Anticipated Usage</u>	<u>Payment Rate</u>
Less than 8 hours	Hourly Rate
1 day but less than 7 days	75 percent of Hourly Rate
8 days but less than 30 days	50 percent of Hourly Rate
30 days or more	40 percent of Hourly Rate

14.6 Supplemental Costs

14.6.1 Costs of special consultants who are not employees in the direct employ of CONTRACTOR or any of the Subcontractors or suppliers, or special Subcontractors are reimbursable; provided that those costs are or were authorized by DISTRICT prior to proceeding with the work involved, and only if their activities are not covered by costs included under paragraph 14.4, or are not excluded by paragraph 14.7.

14.6.2 Sales, consumer, or similar taxes, royalty payments, and fees for permits and licenses, related solely to the work involved for which CONTRACTOR is liable, are reimbursable.

GENERAL PROVISIONS

14.6.3 Deposits to be lost for causes other than negligence of CONTRACTOR related solely to the work involved are reimbursable.

14.6.4 Increased costs of premiums for Bonds and Insurance resulting solely because of the work involved will be paid as an allowance in accordance with paragraph 14.8.

14.7 Costs Covered by CONTRACTOR'S Allowances

14.7.1 The cost of work involved shall not include any of the following costs, all of which are considered to be covered by CONTRACTOR'S allowances:

- 14.7.1.1 payroll costs and other compensation of (a) personnel employed by CONTRACTOR whether at the site or in CONTRACTOR'S principal or a branch office for management or administration of the Work, including, but not limited to, CONTRACTOR'S officers, executives, principals, general managers, project managers, construction managers, resident superintendents, nonworking foremen, estimators and schedulers, detailers, claims consultants, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, and (b) personnel employed by CONTRACTOR in CONTRACTOR'S principal or branch office in support of the performance, management or administration of the Work, including, but not limited to, engineers, architects, timekeepers, and clerks expenses of CONTRACTOR's principal, branch, and site offices except as authorized in writing by DISTRICT prior to proceeding with the work involved
- 14.7.1.2 expenses of CONTRACTOR'S principal, branch, and site offices except as authorized in writing by DISTRICT prior to proceeding with the work involved
- 14.7.1.3 any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the work involved and charges for delinquent payments
- 14.7.1.4 costs due to the fault or negligence of CONTRACTOR, including but not limited to deposits to be lost, costs to correct defective work, disposal of materials or equipment wrongly supplied, and making good any damage to property
- 14.7.1.5 cost of field supplies consumed in the performance of the work involved and purchase costs of small tools used or consumed in the performance of the work involved, which are individually valued at less than \$1,000.00. Consumables shall include such items as rags, nails, fasteners, weld rod, gases, lubricants, paper, grout, stakes, power and fuel for tools and equipment, chains, cables, hoses, water, and similar items normally used in the course of the Work. This allowance will apply to CONTRACTOR

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or a Subcontractor only if CONTRACTOR or the Subcontractor provides direct labor, equipment, and material cost elements in the performance of the work involved. If this allowance is proposed to exceed \$2,000, it must be supported by substantiating data.

- 14.7.1.6 costs associated with the preparation of Change Orders or Change Requests (whether or not ultimately authorized by DISTRICT), or the preparation of filing of claims
- 14.7.1.7 expenses of CONTRACTOR associated with anticipated lost profits or lost revenues, lost income or earnings, lost interest on earnings, or unpaid retainage
- 14.7.1.8 costs derived from the computation of a "home office overhead" rate by application of the Eichleay, Allegheny, Burden Fluctuation, or other similar methods
- 14.7.1.9 costs of special consultants or attorneys, whether or not in the direct employ of CONTRACTOR, employed for services specifically related to the resolution of a claim, dispute, or other matter relating to the acceptability of the Work
- 14.7.1.10 other administrative expense or contingent costs of any kind and the costs of any item not specifically and expressly included in these general provisions

14.8 CONTRACTOR Allowances for Changes and Additions to the Work

CONTRACTOR's allowances, which include (1) costs not directly chargeable under this Article, (2) expenses itemized in paragraph 14.7, and (3) profit, shall not exceed the following percentages of the various portions of the work involved. No other allowances in addition to these will be allowed.

<u>Cost Element</u>	<u>Allowances for Additions</u>	<u>Allowances for Deletions</u>
CONTRACTOR and lower tier subcontractor labor (percentage of direct labor) per 14.4.1	15%	(7.5%)
CONTRACTOR and lower tier Subcontractor installed equipment and materials per 14.4.2	15%	(7.5%)

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<u>Cost Element</u>	<u>Allowances for Additions</u>	<u>Allowances for Deletions</u>
Subcontractor costs resulting from direct subagreement with CONTRACTOR per 14.4.3	5%	(2.5%)
CONTRACTOR and lower tier Subcontractor owned or rented construction equipment per 14.5	15%	(7.5%)
Travel expenses, subsistence allowances, supplemental costs per 14.6, premium portion of direct labor costs, and other authorized costs	0%	0%
CONTRACTOR insurance and bond premiums per 14.6	1%	(1%)
CONTRACTOR or lower tier Subcontractor performing work, allowance for small tools and consumables per 14.7.1.5	2%, not to exceed \$2,000	0%

In calculating the allowances, the 2% allowance per 14.7.1.5 will be applied and added to direct labor, equipment, and material cost elements before calculating the 15% allowance per 14.4.1, 14.4.2 or 14.5. After the 15% allowance is added, the 5% allowance per 14.4.3 will be added when applicable, and then the 1% allowance per 14.6 will be added. No other compounding of the allowance percentages shall be permitted. Where a substitution is made replacing deleted work with other work, the allowances shall be calculated only on the net difference in the cost elements, using the allowances for additions if there is a net increase and the allowances for deletions if there is a net decrease.

14.9 Unit Price Work

14.9.1 Where the Contract Documents provide for unit price work, the Contract Price stated in the Agreement will include for all unit price work an amount equal to the sum of each unit price item times the estimated quantity for each item as indicated in the Agreement. Each unit price will be deemed to include an amount considered by

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CONTRACTOR to be adequate to cover all costs, including supplemental and administrative costs, and profit. The estimated quantities of unit price work indicated in the Agreement are given solely for the purpose of comparison of bids and determining the Contract Price for the Work as awarded.

14.9.2 CONTRACTOR shall promptly, after becoming aware of, and before proceeding with any significant quantities of affected work, notify DISTRICT in writing of any additional or reduced quantities for an item of unit price work that will require a twenty (20) percent or higher adjustment in the as awarded quantity for that item or an increase in Contract Price greater than five (5) percent.

14.9.3 Prior to Final Progress Payment, or before the total amount paid exceeds the established Contract Price, a Change Order will be issued to adjust the estimated quantities for unit price work and to correspondingly adjust the Contract Price.

14.9.4 If DISTRICT determines that the additional or reduced quantities for an item of unit price work justify an adjustment in the unit price, DISTRICT shall authorize such an adjustment. No adjustment shall be allowed under this paragraph unless the variation between actual and estimated quantities for all unit price work result in an increase or decrease in the Contract Price by more than five (5) percent.

14.9.5 In re-evaluating unit prices contained in the Contract Documents, CONTRACTOR and DISTRICT shall take into account increases or decreases in CONTRACTOR's supplemental and administrative costs for the performance of the Work solely as a result of the variation in quantities, as opposed to as a result of CONTRACTOR's fault or negligence, or bid estimate errors.

14.10 Adjustments in Contract Time

14.10.1 An extension in Contract Time will not be granted unless CONTRACTOR can demonstrate through an analysis of the Progress Schedule that the increase in the time to perform or complete the Work, or specified part of the Work, beyond the corresponding Contract Time(s) arise from unforeseeable causes beyond the control and without the fault or negligence of CONTRACTOR, and that such causes in fact lead to performance or completion of the Work, or specified part in question, beyond the corresponding Contract Time. An adjustment in the Contract Time will be based solely upon net increases in the time required for the performance or completion of the parts of the Work controlling achievement of the corresponding Contract Times(s) at the time that the incident that causes the change occurs. However, even if the time required for the performance or completion of controlling parts of the Work is extended, an extension in Contract Time will not be granted unless performance or completion of the controlling work necessarily extends beyond the Contract Time in question despite CONTRACTOR'S reasonable and diligent actions to guard against these effects. Examples of unforeseeable causes include: (1) acts of God or the public enemy; (2) acts of DISTRICT or the Engineer/Architect in its sovereign or contractual capacity; (3) acts of the government or another public entity in its sovereign capacity; (4) fires, floods,

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epidemics, quarantine restrictions; (5) archaeological finds; (6) strikes, freight embargoes; (7) unusually severe weather related conditions; (8) differing physical conditions, excluding conditions for which CONTRACTOR is responsible under Instructions to Bidders, Article 2; (9) unusually severe shortages of construction materials from such causes as area wide shortages, and industry wide strike, or a natural disaster that affects all feasible sources of supply, and (10) hazardous material conditions covered by Article 8, Paragraph 8.6.

14.10.2 Notwithstanding any provisions in the Contract Documents to the contrary, an extension of Contract Time shall be the sole remedy of CONTRACTOR for any delay of any kind. The only exception shall be if the delay has been caused solely by acts for which the DISTRICT is responsible and which delay is unreasonable under the circumstances involved, is not within the contemplation of the parties, and continues after CONTRACTOR'S notice to DISTRICT of such acts. DISTRICT'S exercise of any of their rights, or DISTRICT'S exercise of their remedies of stopping the Work or requiring correction or re-execution of any defective work shall not under any circumstances be construed as unreasonable interference with CONTRACTOR'S performance of the Work. No adjustment in the Contract Price under this paragraph shall be provided for any reason if: (1) performance would have been so extended by any other cause, including fault or negligence of CONTRACTOR; (2) an adjustment is provided or excluded under any other provision of the Contract Documents or; (3) delays merely prevent CONTRACTOR'S achievement of completion of the Work, or part in question, ahead of the corresponding Contract Times(s), including any authorized adjustments.

END OF ARTICLE

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ARTICLE 15 TESTS AND INSPECTIONS

15.1 Site Access

DISTRICT's Representatives, testing agencies, and governmental agencies with jurisdictional interest shall have access to the Work at reasonable times for their observation, inspection, and testing. CONTRACTOR shall provide proper and safe conditions for such access.

15.2 Inspection

15.2.1 DISTRICT's Representative shall at all times have access to the Work during construction and shall be furnished with every reasonable facility for ascertaining full knowledge respecting the progress, workmanship, and character of materials and equipment used and employed in the Work.

15.2.2 CONTRACTOR shall give DISTRICT timely notice of readiness of the Work for all required inspections, tests, or approvals. Inspections, tests, or observations by the Engineer/Architect, DISTRICT or their agents may be performed to provide information to DISTRICT on the progress of the Work. However, such information is not intended to fulfill CONTRACTOR'S obligations under the Contract Documents.

15.2.3 If any law, ordinance, rule, regulation, code or order of any public body, government entity, or court having jurisdiction requires any work to specifically be inspected, tested, or approved, CONTRACTOR shall assume full responsibility, pay all associated costs and furnish DISTRICT the required certificates of inspection, testing or approval. All inspections, tests, or approvals shall be performed by persons or organizations acceptable to DISTRICT.

15.2.4 CONTRACTOR shall test the whole Work, performing sufficient testing and inspection to support the warranty and guaranty requirements. All test and inspection reports will be provided to DISTRICT as requested.

15.2.5 Whenever CONTRACTOR varies the period during which work is carried on each day, they shall give due notice to DISTRICT's Representatives so that DISTRICT's Representatives may, if they wish, observe the work in progress. Any work done in the absence of DISTRICT's Representatives will be subject to rejection if proper notice was not given.

15.2.6 All installations, which are to be backfilled or otherwise covered, shall be inspected by DISTRICT's Representatives prior to backfilling or covering, and CONTRACTOR shall give due notice in advance of backfilling or covering to DISTRICT's Representatives so that DISTRICT's Representatives may observe the work to be concealed.

15.2.7 If any work that is to be inspected, tested, or approved is covered without written

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concurrence of DISTRICT, it must, if requested by DISTRICT, be uncovered for observation. Such uncovering shall be at CONTRACTOR'S expense and will exclude the right to a time extension.

15.2.8 The inspection of the Work shall not relieve CONTRACTOR of their obligations to complete the Work as prescribed. Defective work shall be made good, and unsuitable materials and equipment may be rejected notwithstanding the fact that such defective work and unsuitable materials and equipment have been previously inspected by DISTRICT's Representatives or that payment has been included in a Progress Payment Request.

15.3 DISTRICT's Tests

15.3.1 CONTRACTOR shall furnish DISTRICT's Representative with a list of their sources of materials in sufficient time to permit proper inspection and testing of materials to be furnished from such listed sources in advance of their use. CONTRACTOR shall furnish without charge such samples as may be required by DISTRICT's Representative.

15.3.2 Inspection and tests will be made by DISTRICT's Representatives or their designated representative. It is understood that such inspections and tests if made at any point other than the point of incorporation in the Work in no way shall be considered as a guarantee of acceptance of such material nor of continued acceptance of material presumed to be similar to that upon which inspections and tests have been made.

15.3.3 Tests of materials shall be made in accordance with commonly recognized procedures of technical organizations and such special procedures as prescribed in the specifications. Materials shall be sampled and tested at such times during the progress of the Work as deemed desirable by DISTRICT's Representative, and CONTRACTOR shall cooperate in obtaining the samples.

15.3.4 DISTRICT will test materials or work in place after notification by CONTRACTOR that the work is ready for testing. All costs for retesting nonconforming work will be charged to CONTRACTOR.

END OF ARTICLE

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ARTICLE 16 WARRANTY AND GUARANTEE, DEFECTIVE WORK

16.1 Guarantees

16.1.1 Besides guarantees required elsewhere, CONTRACTOR shall and hereby does guarantee all work for a period of one (1) year after the date of recording by the county of the Notice of Completion of the Work and shall repair and replace any and all such work, together with any other work which may be displaced in so doing, that may prove defective in workmanship and/or materials within the one (1) year period from the date of recording, without expense whatsoever to DISTRICT, ordinary wear and tear and unusual abuse or neglect excepted. In the event of failure to comply with the above mentioned conditions within seven (7) days after being notified in writing, DISTRICT is hereby authorized to proceed to have the defects repaired and made good at the expense of CONTRACTOR who hereby agrees to pay the cost and charges therefor immediately on demand.

16.1.2 The faithful performance bond and the payment bond shall continue in full force and effect for the guarantee period.

16.1.3 If, in the opinion of DISTRICT, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to DISTRICT or to prevent interruption of operations of DISTRICT, DISTRICT will attempt to give the notice required by this Article. If CONTRACTOR cannot be contacted or does not comply with DISTRICT'S request for correction within a reasonable time as determined by DISTRICT, DISTRICT may, notwithstanding the provisions of this Article, proceed to make such correction or provide such attention; and the costs of such correction or attention shall be charged to CONTRACTOR.

16.1.4 Action by DISTRICT under this Article shall not relieve CONTRACTOR of the guarantees provided in this Article or elsewhere in this Agreement.

16.1.5 This Article does not in any way limit the guarantee on any items for which a longer guarantee is specified or on any items for which a manufacturer gives a guarantee for a longer period. CONTRACTOR shall furnish DISTRICT all appropriate guarantee or warranty certificates upon completion of the Agreement.

16.2 Removal of Defective and Unauthorized Work

16.2.1 All work that has been rejected shall be remedied or removed and replaced by CONTRACTOR in an acceptable manner, and no compensation will be allowed for such removal, replacement, or remedial work. Any work done beyond the lines and grades shown on the plans or established by DISTRICT's Representative or any changes in, additions to, or deductions from the Work done without written authority will be considered as unauthorized and shall not be paid for. Work so done may be ordered remedied, removed, or replaced at CONTRACTOR's expense.

GENERAL PROVISIONS

16.2.2 Upon failure on the part of CONTRACTOR to comply promptly with any order of DISTRICT's Representative made under the provisions of this Article, DISTRICT's Representative shall have authority to cause rejected or unauthorized work to be remedied, removed, or replaced and to deduct the costs of making corrections from any monies due or to become due CONTRACTOR.

16.3 Defective Materials

16.3.1 All materials not conforming to the specifications shall be considered defective, and all such materials, whether in place or not, shall be rejected and shall be removed immediately from the site of the Work. No rejected material, the defects of which have been subsequently corrected, shall be used until permitted by DISTRICT's Representative.

16.3.2 Upon failure on the part of CONTRACTOR to comply with any requirement of DISTRICT's Representative made under the provisions of this Article, DISTRICT shall have authority to remove or replace defective material at the expense of CONTRACTOR.

16.4 Acceptance of Defective Work

Instead of requiring correction or removal and replacement of defective work, DISTRICT may, at their sole discretion, accept it provided a suitable reduction in the Contract Price can be established. In that case, if acceptance occurs prior to DISTRICT's recommendation of Final Progress Payment, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents, including appropriate reduction in the Contract Price. If the acceptance occurs after such recommendation, an appropriate amount shall be paid by CONTRACTOR to DISTRICT.

16.5 Warranty of Title

16.5.1 No materials, supplies, or equipment for the Work shall be purchased subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest in it or any part of it is retained by the seller or supplier.

16.5.2 CONTRACTOR warrants clear and good title to all materials, supplies, and equipment installed and incorporated in the Work and agrees upon completion of all work to deliver the premises together with all improvements and appurtenances constructed or placed by them to DISTRICT free from any claims, liens, encumbrances, or charges and further agrees that neither they nor any person, firm, or corporation furnishing any material or labor for any work shall have any right to a lien upon the premises or any improvement or appurtenance thereon, provided that this shall not preclude CONTRACTOR from installing metering devices or other equipment of utility companies or of municipalities, the title of which is commonly retained by the utility company or the municipality. Nothing contained in this Article, however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by CONTRACTOR for their protection, or any right under any law permitting such persons

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to look to funds due CONTRACTOR in the hands of DISTRICT. The provisions of this Article shall be inserted in all subcontracts and material contracts, and notices of this provision shall be given to all persons furnishing materials for the Work when no formal contract is entered into for such materials.

END OF ARTICLE

GENERAL PROVISIONS

ARTICLE 17 SUSPENSION AND TERMINATION

17.1 Suspension for Convenience

17.1.1 Without invalidating the Agreement, and without notice to any surety, DISTRICT may, at any time, order CONTRACTOR in writing to stop, delay, or interrupt work for such a period of time as DISTRICT may deem appropriate. Upon receipt of that order, CONTRACTOR shall immediately proceed in accordance with any specific provisions or instructions, protect and maintain the Work, and make reasonable and diligent efforts to mitigate costs associated with the suspension order.

17.1.2 If any suspension of work under this Article causes an increase or decrease in CONTRACTOR's cost or the time required to perform or complete any part of the Work, DISTRICT shall make a change in Contract Price or Contract Time, as provided in Article 14; except that no change in Contract Price will be made for any suspension of work to the extent that performance would have been suspended anyhow by causes not meeting the criteria in Article 14, or for which an adjustment is provided or excluded under any other provision of the Contract Documents.

17.2 Termination for Breach

17.2.1 If CONTRACTOR refuses or fails to execute the Work or any separable part with such diligence as will ensure its completion within the time specified, including any extensions, or fails to complete the Work within such time, or if CONTRACTOR should be adjudged bankrupt, or if they should make a general assignment for the benefit of their creditors, or if a receiver should be appointed on account of their insolvency, or if they or any of their Subcontractors should violate any of the provisions of the Agreement, or if they should persistently or repeatedly refuse or should fail, except in cases for which an extension of time is provided, to supply enough properly skilled labor or proper materials to complete the Work in the time specified, or if they should fail to make prompt payment to Subcontractors or for material or labor or if they should persistently disregard laws, ordinances, or instructions given by DISTRICT or DISTRICT's Representative, DISTRICT may serve written notice upon CONTRACTOR and their surety of their intention to terminate the Agreement, said notice will contain the reasons for such intention to terminate the Agreement, and unless within ten (10) days after the service of such notice such violations shall cease and satisfactory arrangements for the corrections thereof be made, the Agreement shall upon the expiration of said ten (10) days cease and terminate. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Work is finished.

17.2.2 In the event of any such termination, DISTRICT shall immediately serve written notice upon the surety and CONTRACTOR, and the surety shall have the right to take over and perform the Work; provided, however, that if the surety within fifteen (15) days after the serving upon it of a notice of termination does not give DISTRICT written notice of their intention to take over and perform the Work or does not commence performance thereof within (30) days from the date of serving said notice upon surety,

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DISTRICT may take over the Work and prosecute the same to completion by contract or by any other method they may deem advisable for the account and at expense of CONTRACTOR, and CONTRACTOR'S surety shall be liable to DISTRICT for any excess cost or other damage occasioned DISTRICT thereby, and in such event DISTRICT may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plants, and other property belonging to CONTRACTOR that may be on the site of the Work. For any portion of such work that DISTRICT elects to complete by furnishing their own employees, materials, tools, and equipment, DISTRICT shall be compensated for such in accordance with the schedule of compensation for Time and Material Work in Article 14.

17.2.3 If the unpaid balance of the Contract Price exceeds the direct and indirect costs of completing the Work, including, but not limited to, all costs to DISTRICT arising from professional services and attorneys' fees and all costs generated to insure or bond the work of substituted contractors or subcontractors utilized to complete the Work, such excess shall be paid to CONTRACTOR. If such costs exceed the unpaid balance, CONTRACTOR shall pay the difference to DISTRICT promptly upon demand; on failure of CONTRACTOR to pay, the surety shall pay on demand by DISTRICT. Any portion of such difference not paid by CONTRACTOR or surety within thirty (30) days following the mailing of a demand for such costs by DISTRICT shall earn interest at the maximum rate authorized by California law.

17.2.4 The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to DISTRICT.

17.3 Termination for Convenience

17.3.1 DISTRICT may, without prejudice to any other right or remedy, terminate the Agreement in whole or in part at any time for its convenience by giving CONTRACTOR ten (10) days written notice. DISTRICT shall have the right, in that event, to take over any or all of CONTRACTOR'S materials, (whether stored on or off site) supplies, equipment, contracts or other obligations to complete the Work and CONTRACTOR shall assign them to DISTRICT upon DISTRICT'S request. CONTRACTOR shall proceed to complete any part of the Work, as directed by DISTRICT, and shall settle all their claims and obligations under the Agreement. CONTRACTOR shall be paid for all work executed and any expense sustained plus reasonable termination expenses. CONTRACTOR shall justify their claims as requested by DISTRICT with thorough, accurate records and data.

17.3.2 In any such termination for the convenience of DISTRICT, CONTRACTOR shall be paid for work completed in accordance with the Contract Documents prior to receipt of the notice of termination, and for reasonable termination settlement costs relating to commitments which had become firm prior to the termination; however, payment to CONTRACTOR will exclude any and all anticipated supplemental costs, administrative expenses, and profit on uncompleted work.

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17.3.3 If, after notice of Termination for Breach of contractor, it is determined that CONTRACTOR was not in default, the termination shall be deemed to have been for the convenience of DISTRICT. In such event, CONTRACTOR may recover from DISTRICT payment in accordance with this paragraph.

END OF ARTICLE

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ARTICLE 18 DISPUTES

18.1 Resolution of Construction Claims

18.1.1 This Article is intended as a summary of the provisions of article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3 of Division 2 of the Public Contract Code ("Claims Resolution Statute") and is subject to the actual provisions of the Claims Resolution Statute. This article shall govern the resolution of any claim of \$375,000 or less which may be made by CONTRACTOR.

18.1.2 As used in this Article, "claim" is defined as a separate demand by CONTRACTOR for (a) a time extension, (b) payment of money or damages arising from the Work, payment for which is not otherwise expressly provided for or CONTRACTOR is not otherwise entitled to, or (c) an amount, the payment of which is disputed by DISTRICT.

18.1.3 CONTRACTOR shall make all claims in writing and include the documents necessary to substantiate the claims. Any claim by CONTRACTOR which is intended to invoke the procedures under the Claims Resolution Statute shall specify that the claim is being made pursuant to the Claims Resolution Statute. All claims by CONTRACTOR must be filed on or before the date of Final Progress Payment; provided, however, nothing in this Article is intended to extend the time limits or supersede notice requirements which may otherwise be provided within the Contract Documents for the filing of claims by CONTRACTOR including, but not limited to, those provided in Article 13 and Article 14.

18.1.4 For claims less than \$50,000, DISTRICT shall respond in writing within forty-five (45) days of receipt of the claim, or DISTRICT may request, in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims DISTRICT may have against CONTRACTOR. If additional information is thereafter required, it shall be requested and provided upon mutual agreement of DISTRICT and CONTRACTOR. If DISTRICT requests additional documentation, DISTRICT'S written response to the claim shall be submitted to CONTRACTOR within fifteen (15) days after receipt of the additional documentation, or within the same time period as used by CONTRACTOR in producing the additional documentation, whichever is greater.

18.1.5 For claims over \$50,000 but less than \$375,000, DISTRICT shall respond in writing within sixty (60) days of receipt of the claim, or may request, in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims DISTRICT may have against CONTRACTOR. If additional information is thereafter required, it shall be requested and provided upon mutual agreement of DISTRICT and CONTRACTOR. If DISTRICT requests additional documentation, DISTRICT'S written response to the claim shall be submitted to CONTRACTOR within thirty (30) days after receipt of the additional documentation, or

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within the same time period as used by CONTRACTOR in producing the additional documentation, whichever is greater.

18.1.6 If CONTRACTOR disputes DISTRICT'S written response, or DISTRICT fails to respond within the time prescribed, CONTRACTOR may, by giving written notice to DISTRICT within fifteen (15) days of receipt of DISTRICT'S response (or within fifteen (15) days of DISTRICT'S failure to respond), demand an informal conference to meet and confer for settlement of the issues in dispute. Upon such demand, DISTRICT shall schedule a "meet and confer" conference within thirty (30) days.

18.1.7 If after the "meet and confer" conference, any portion of the claim remains in dispute, CONTRACTOR may file a claim pursuant to Government Code Section 900 et seq. If a court action is thereafter filed to resolve the claim, the court must, within the time specified by law, submit the matter to nonbinding mediation unless waived by mutual stipulation of DISTRICT and CONTRACTOR. If after the mediation process, the matter remains in dispute, the case must then be submitted to judicial arbitration pursuant to the applicable law.

END OF ARTICLE

GENERAL PROVISIONS

ARTICLE 19 MISCELLANEOUS

19.1 Personal Liability

No director, officer, employee, or agent of DISTRICT, DISTRICT's Representative, the Engineer/Architect, or their consultants shall have any individual or personal liability for any amount due to CONTRACTOR or for any obligations of DISTRICT under the Agreement or for any claim based on such obligations or their creation.

19.2 Indemnity

19.2.1 To the fullest extent permitted by law, CONTRACTOR shall indemnify and hold harmless DISTRICT, DISTRICT's Representative, the Engineer/Architect, and their consultants, and each of their directors, officers, agents, and employees from and against all claims, damages, losses, expenses, and other costs, including costs of defense and attorneys' fees, arising out of or resulting from or in connection with the performance of the Work, both on and off the site, provided that any of the foregoing (1) is attributable to personal injury, bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use, and (2) is caused in whole or in part by any act or omission of CONTRACTOR, any Subcontractor, any supplier, anyone directly or indirectly employed by any of them or anyone for whose acts or omissions any of them may be liable, regardless of whether or not it is caused in part by any act or omission of a party indemnified hereunder. However, to the extent that liability is caused by the active negligence or willful misconduct of a party indemnified hereunder, CONTRACTOR's indemnification obligation shall be reduced in proportion to the indemnified party's share of liability for its active negligence or willful misconduct, if any, but the acceptance or approval of CONTRACTOR's work by DISTRICT or any other indemnified party shall not reduce CONTRACTOR's indemnification obligation. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person indemnified in this subparagraph and subparagraph 19.2.5.

19.2.2 In addition to the obligations set forth in subparagraph 19.2.1 and in subparagraph 19.2.5, CONTRACTOR, at its sole cost and expense, shall defend each and every claim, demand, action and other proceeding within the scope of subparagraph 19.2.1 and subparagraph 19.2.5, initiated against any party indemnified under subparagraph 19.2.1 or subparagraph 19.2.5, regardless of whether the indemnified party is the sole party named in the claim, demand, action or other proceeding. Such obligation to defend shall apply upon tender to CONTRACTOR at any stage of the claim, demand, action or other proceeding. Any such defense must be conducted by knowledgeable and experienced legal counsel retained by CONTRACTOR at its cost and reasonably acceptable to DISTRICT. Without limiting anything else in any indemnity provision under subparagraph 19.2.1 or subparagraph 19.2.5, CONTRACTOR shall also pay the full cost to DISTRICT of the monitoring of, and, if necessary, participation by DISTRICT's legal counsel in, the defense of DISTRICT and the other indemnified parties.

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19.2.3 In any and all claims against the indemnified parties by any employee of CONTRACTOR, any Subcontractor, any supplier, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under subparagraphs 19.2.1 and 19.2.5 shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for CONTRACTOR, or any Subcontractor, or any supplier or other person under Worker's Compensation acts, disability benefit acts, or other employee acts.

19.2.4 The obligations of CONTRACTOR under subparagraphs 19.2.1 and 19.2.5 shall not extend to the liability of DISTRICT, DISTRICT's Representatives, the Engineer/Architect, and their consultants, and each of their directors, officers, employees, and agents, arising out of or resulting from or in connection with the preparation or approval of maps, drawings, opinions, reports, surveys, designs or Specifications, providing that the foregoing was the sole and exclusive cause of the loss, damage, or injury.

19.2.5 CONTRACTOR shall also indemnify and hold harmless DISTRICT, DISTRICT's Representative, the Engineer/Architect, and their consultants, and each of their directors, officers, employees, and agents from and against all losses, expenses, damages (including damages to the Work itself), attorneys' fees, and other costs, including all costs of defense, which any of them may incur with respect to the failure, neglect or refusal of CONTRACTOR to faithfully perform the work and all of CONTRACTOR'S obligations under the contract. Such costs, expenses, and damages shall include all costs, including attorneys' fees, incurred by the indemnified parties in any lawsuit to which they are a party, and/or in defending against any claims or stop notices.

19.2.6 Without jeopardizing or compromising any of its other rights, DISTRICT shall have the authority to settle any claim, demand, action or other legal proceeding on terms determined by DISTRICT to be reasonable and in the best interests of DISTRICT and/or any party indemnified under paragraph 19.2. As part of its obligations pursuant to subparagraph and subparagraphs 19.2.1 and 19.2.5, within thirty (30) days of receiving an invoice from DISTRICT, CONTRACTOR shall reimburse DISTRICT for any and all: (i) judgments paid by DISTRICT; (ii) amounts paid by DISTRICT in settling such claim, demand, action or other proceeding; and (iii) any other legal or other costs and expenses reasonably incurred by DISTRICT in connection with such claim, demand, action or other proceeding. If CONTRACTOR fails to pay any such amount within the required time, the unpaid amount shall accrue interest at the legal rate.

19.2.7 In accordance with Public Contract Code Section 9201, DISTRICT shall timely notify CONTRACTOR if DISTRICT receives any third-party claim relating to the Work. DISTRICT shall be entitled to recover from CONTRACTOR the reasonable costs incurred by DISTRICT in providing such notification.

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19.3 Partial Invalidity

If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

19.4 Waiver of Rights

Except as otherwise specifically provided in the Contract Documents, no action or failure to act by DISTRICT, the engineer/Architect, DISTRICT's Representatives, or CONTRACTOR shall constitute a waiver of any right or duty afforded any of them under the Contract Documents, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder.

END OF ARTICLE

SECTION 0

SPECIAL PROVISIONS

PROJECT NO. XXXXX

SECTION 0
SPECIAL PROVISIONS

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SECTION 00100

BID MODIFICATIONS

1.01 BASIS FOR DETERMINING LOWEST RESPONSIBLE BIDDER

See Paragraph 3.1.4 of Instructions to Bidders for specification on basis for determining lowest responsible bidder when there are any Alternative Bid Items (additive or deductive). If a different basis for determining lowest responsible bidder is desired when there are Alternative Bid Items, describe the basis here. It must be a method that ranks the bidders before the District learns who the low bidder is.

1.02 BIDDING ON SUBSTITUTE ITEMS

See language in Instruction to Bidders IB 1.7

1.03 TIME ALLOWED FOR ACCEPTANCE OF BIDS

Modify 60-day acceptance period as needed; see Instructions to Bidders IB 3.1.2.

END OF SECTION

SECTION 00110

DEFINITIONS

1.01 DEFINITIONS

List any terms specific to the project that are not found in Article 1, Definition of the General Provisions.

END OF SECTION

SECTION 00120

CLAIMS RESOLUTION

1.01 GENERAL

- A. This Section is intended as a summary of the provisions of Section 9204 of the Public Contract Code ("Claims and Disputes Statute") and is subject to the actual provisions of the Claims and Disputes Statute. Notwithstanding any provisions contained in the Claims Resolution Statute summarized in Article 18 of the General Provisions, this Section shall additionally govern the resolution of any claim which may be made by CONTRACTOR.
- B. For purposes of this Section, the following terms defined in the Claims and Disputes Statutes shall have the following meanings.
1. For purposes of this Section, "claim" as defined in the Claims and Disputes Statute means a separate demand by CONTRACTOR sent by registered mail or certified mail with return receipt requested for one or more of the following: (a) a time extension, including, without limitation, for relief from forfeiture due to delay assessed in the applicable amount per day set forth in the Agreement, pursuant to Section 6.8 or Section 14.10 of the General Provisions; (b) payment of money or damages arising from the Work, payment for which is not otherwise expressly provided for or to which CONTRACTOR is not otherwise entitled; or (c) payment of an amount that is disputed by DISTRICT.
 2. For purposes of this Section, CONTRACTOR is a "contractor" as defined in the Claims and Disputes Statute.
 3. For purposes of this Section, DISTRICT is a "public entity" as defined in the Claims and Disputes Statute.
 4. For purposes of this Section, the Work is a "public works project" as defined in the Claims and Disputes Statute.
 5. For purposes of this Section, any Subcontractor, including any lower tier Subcontractor, is a "subcontractor" as defined in the Claims and Disputes Statute.
- C. Upon receipt of a claim pursuant to this section, DISTRICT shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide to CONTRACTOR a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, DISTRICT and CONTRACTOR may, by mutual agreement, extend the time period provided in this subsection.
1. CONTRACTOR shall furnish reasonable documentation to support the claim.
 2. If DISTRICT needs approval from District Board of Directors to provide to CONTRACTOR a written statement identifying the disputed portion and the undisputed portion of the claim, and District Board of Directors does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return

receipt requested, DISTRICT shall have up to three days following the next duly publicly noticed meeting of District Board of Directors after the 45-day period, or extension, expires to provide to CONTRACTOR a written statement identifying the disputed portion and the undisputed portion.

3. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after DISTRICT issues its written statement. If the public entity fails to issue a written statement, paragraph 1.01.E shall apply.

D. If CONTRACTOR disputes DISTRICT's written response, or if DISTRICT fails to respond to a claim issued pursuant to this section within the time prescribed, CONTRACTOR may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, DISTRICT shall schedule a meet and confer conference within 30 days for settlement of the dispute.

1. Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, DISTRICT shall provide to CONTRACTOR a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after DISTRICT issues its written statement. Any disputed portion of the claim, as identified by CONTRACTOR in writing, shall be submitted to nonbinding mediation, with DISTRICT and CONTRACTOR sharing the associated costs equally. DISTRICT and CONTRACTOR shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.
2. For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.
3. Unless otherwise agreed to by DISTRICT and CONTRACTOR in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 18.1.7 of the General Provisions to mediate after litigation has been commenced.
4. This section does not preclude DISTRICT from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

E. Failure by DISTRICT to respond to a claim from CONTRACTOR within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of DISTRICT's failure to have responded to a claim, or its

failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

- F. Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.
- G. If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against DISTRICT because privity of contract does not exist, CONTRACTOR may present to DISTRICT a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that CONTRACTOR present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to DISTRICT shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, CONTRACTOR shall notify the subcontractor in writing as to whether CONTRACTOR presented the claim to DISTRICT and, if CONTRACTOR did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.
- H. A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) DISTRICT may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

END OF SECTION

SECTION 00200

THE WORK

1.01 GENERAL

The work to be done by the Contractor under these Specifications shall consist of performing all operations necessary for the construction of _____

at the locations, in the positions, to the elevations and dimensions and conforming to the design shown on the plans and in accordance with these specifications.

The Contractor shall furnish all transportation, materials (except where stipulated otherwise), equipment, labor, and supplies to complete installation of _____

together with all appurtenant work necessary or incidental to complete in a workmanlike manner the improvements as contemplated and as intended by the plans and these specifications.

1.02 LOCATION OF PROJECT SITE

Describe location of project site

1.03 DESCRIPTION OF THE WORK

Describe the major components of the work.

1.04 ORDER OF WORK

Indicate constraints on the project, such as work that is required to be completed within certain time frames, other work that is going on in the vicinity of the project, work sequences, etc.

1.05 WORK BY OTHERS

List work by others that is taking place in the vicinity of the project.

1.06 WORKING HOURS AND HOLIDAYS

Normal working hours are from _____, Monday through ~~Thursday and alternate~~ Fridays, excluding holidays. District inspection hours are from 7:00 a.m. to 3:30 p.m., Monday through ~~Thursday and alternate~~ Fridays. No work shall be performed on ~~non-alternate Fridays~~, Saturdays, Sundays, or District holidays. See appendix for list of ~~non-alternate Fridays and~~ District holidays. In instances where contract time extends past the year's list of District holidays, regularly observed holidays shall be followed.

The Contractor shall be responsible for all costs associated with inspection services outside District inspection hours at the rate of \$~~175~~200.00 per hour.

If working hours differ from the 7:00 a.m. to 3:30 p.m. period listed in General Provisions GP 7.7, the deviation should be noted here. Modify Monday through Friday work~~ing~~ days as necessary to fit City and County work schedules.

1.07 OBSTRUCTIONS AND COORDINATION WITH OTHER WORK

At least forty-eight (48) hours prior to construction and prior to any operations involving existing Irvine Ranch Water District facilities, the Contractor shall notify the District's Representative.

Prior to construction, the Contractor shall expose all known utility crossings in order to provide for grade and alignment adjustments, if necessary.

END OF SECTION

SECTION 00210
INVESTIGATIONS AND REPORTS

1.01 INVESTIGATIONS AND REPORTS

A. The following investigations and reports are included herewith in Appendix:

- 1.
- 2.
- 3.

List reports in space above; and include copies in Appendix.

B. The following investigations and reports are available at District for review:

- 1.
- 2.
- 3.

List reports in space above; and arrange for reports to be available at Engineering Department counter.

END OF SECTION

SECTION 00220

LANDS AND RIGHTS-OF-WAY

1.01 LANDS AND RIGHTS-OF-WAY

See General Provisions GP 5.4 if lands and rights-of-way are to be furnished and/or paid for by someone other than the District.

END OF SECTION

SECTION 00300

CONTRACTOR'S INSURANCE

1.01 GENERAL

- A. Contractor's insurance coverage shall be as specified in the General Provisions, shall provide the following amounts of coverage, shall include additional insureds, and shall include additional information as set forth below.

B. An Umbrella/Excess policy may be used to meet the required coverage limits specified for Commercial General Liability and Automobile Liability Insurance.

B-C. Builder's Risk Insurance, as specified in the General Provisions, shall not be required.

For projects that include vertical structures (such as buildings, concrete basins, or storage tanks) and are greater than \$10 million in estimated construction value: (1) Add a new lump sum Bid Item to the Bid Form titled "Builder's Risk Insurance" and (2) delete Paragraph 1.01.B-C above.

1.02 COMMERCIAL GENERAL LIABILITY INSURANCE

- A. Bodily injury and property damage coverage shall be for not less than _____ (\$_____) for each occurrence and for not less than _____ (\$_____) per project aggregate.
- B. Products/Completed Operations coverage shall be for not less than _____ (\$_____) aggregate.

1.03 AUTOMOBILE LIABILITY INSURANCE

- A. Contractor shall carry and maintain a business automobile policy or equivalent coverage for bodily injury and property damage on all owned, non-owned and hired automobiles or other licensed highway vehicles used in the performance of the Contract. The limit shall be for not less than _____ (\$_____) for each accident.

Fill in insurance coverage amounts in blanks above. Suggested insurance coverages for varying exposure risks are:

<u>1.02 General Liability</u>			
<u>1.02A</u>	<u>1.02B</u>		
<u>Bodily Injury</u>	<u>Products/</u>		
<u>Property Damage</u>	<u>Completed</u>	<u>1.03</u>	
<u>Personal Injury</u>	<u>Operations</u>	<u>Auto</u>	
<u>(Occur/Aggr)</u>	<u>(Occur/Aggr)</u>	<u>Liability</u>	
<u>Pipeline/Pump Station/Well</u>	<u>\$2M/3M</u>	<u>\$2M/3M</u>	<u>\$2M</u>
<u>Reservoir/Treatment Plant/Chlorine</u>	<u>\$2M/4M</u>	<u>\$2M/4M</u>	<u>\$3M</u>
<u>Projects Over \$5M Construction Value – Check with Risk Management</u>			

1.04 WORKER'S COMPENSATION INSURANCE AND EMPLOYER'S LIABILITY INSURANCE

- A. Worker's Compensation Insurance coverage shall comply with statutory limits.
- B. Employer's Liability Insurance shall be for not less than:
 - \$1,000,000 Each Accident
 - \$1,000,000 Each Disease – Policy Limit
 - \$1,000,000 Each Disease – Each Employee
- C. State Compensation Insurance Fund: Notwithstanding the requirements of General Provisions Section 4.2, DISTRICT will accept Workers Compensation Insurance from the State Compensation Fund (State Fund) that is not rated and that is evidenced on the State Fund's certificate form. Except as provided above with respect to State Fund, all other insurance shall comply with all requirements of the General and Special Provisions.

1.05 ADDITIONAL INSURED

- A. Commercial General Liability Insurance shall include as additional insureds:_____

Fill in name of additional insured here. Include names of any municipality or homeowner association in which work occurs.

1.06 ADDITIONAL INFORMATION

- A. Certificates of Insurance shall:
 - 1. List all Endorsement forms that are part of said policy.
 - 2. List all entities required to be named as additional insureds.
 - 3. Include a statement that no less than 30 days written notice will be provided by certified mail to the District prior to any material change or cancellation of said policy.

END OF SECTION

SECTION 00400
SHOP DRAWINGS

1.01 SHOP DRAWING SUBMITTALS

- A. Shop drawings shall be submitted in accordance with Article 9 of the General Provisions.

Include any submittal requirements not called for by the General Provisions and General Requirements, such as whether more or less than six copies of each submittal are required, deviations from the 21-day turn-around time, etc.

END OF SECTION

SECTION 00500

CONSTRUCTION SCHEDULE

This specification section is for use on non-complex projects requiring few interfaces and minimal coordination with sub-contractors, material suppliers, and other projects.

1.01 CONSTRUCTION SCHEDULE

- A. The Contractor shall submit a construction progress schedule in compliance with Article 10 of the General Provisions. The schedule shall be a Gantt Chart, and shall show the various parts of the work in sufficient detail so as to identify the beginning and end of each of the various construction activities. The schedule shall include the following at the minimum:

Submittal milestones
All construction activities
Equipment/material procurement and deliveries
Permit imposed work times
Partial, substantial, and final completion milestones
Critical path activities

List any other activities or milestones that should be included in schedule. If particular scheduling software (e.g. Microsoft Project) is required, list it above.

1.02 SCHEDULE CONSTRAINTS

List any scheduling constraints that the Contractor should incorporate into the construction schedule.

END OF SECTION

SECTION 00500A

CONSTRUCTION SCHEDULE

This specification section is for use on complex projects requiring several interfaces and coordination with sub-contractors and other projects.

1.01 CONSTRUCTION SCHEDULE

- A. CONTRACTOR shall submit a construction progress schedule in compliance with Article 10 of the General Provisions. The schedule shall show the various parts of the work in detail so as to identify the beginning and end of each of the various construction activities. The schedule shall include the following at the minimum:

Submittal milestones
All construction activities
Equipment/material procurement and deliveries
Permit imposed work times
Partial, substantial, and final completion milestones
Critical path activities

List any other activities or milestones that should be included in schedule.

- B. Within ten (10) days after Notice of Award, DISTRICT will schedule and conduct a Preconstruction Scheduling Conference to commence development of the required project schedule. At this meeting, scheduling requirements will be reviewed with CONTRACTOR. CONTRACTOR shall be prepared to review and discuss methodology for the schedule and sequence of operations plus cost and manpower loading methodology.
- C. CONTRACTOR shall submit Construction Schedule to DISTRICT for review within thirty (30) days after Notice of Award. CONTRACTOR's Construction Schedule shall be comprised of a detailed Network Diagram as described in Paragraph F. All on site construction activities shall be cost loaded. The cost value of all on site construction activities shall equal the Contract value.
- D. Time extensions shall not be granted nor delay damages paid until a delay occurs which is beyond the control and without the fault or negligence of CONTRACTOR and its SUBCONTRACTORS or SUPPLIERS, at any tier and which extends actual performance of the work beyond the current Contract Completion Date. If the delay occurs along a path which the current approved Construction Schedule update projects late completion prior to addition of any DISTRICT caused delay, then the time extension allowed will be only for the additional delay demonstrated by the approved Time Impact Analysis. Time extensions shall be granted only if they are clearly demonstrated by CONTRACTOR through the submittal of a Time Impact Analysis which demonstrates the estimated impact on the end date of the work; is based upon the updated Construction Schedule current as of the month the delay occurred; and demonstrates that the delay cannot be mitigated, offset, or eliminated through such actions as revising the intended sequence of work or other means. Since float time within the Construction Schedule is jointly owned, it is acknowledged that DISTRICT caused delays on the project may be offset by DISTRICT caused time savings (e.g. critical path submittals returned in less time than allowed by the Contract, approval of substitution requests which result in a savings of time to CONTRACTOR). In such an event, CONTRACTOR shall not be

entitled to receive a time extension or delay damages until all DISTRICT caused time savings are exceeded and the Contract completion date is also exceeded.

- E. Upon DISTRICT's request, CONTRACTOR shall participate in the review of CONTRACTOR's Construction Schedule submissions (including the original material, all update submittals, and any resubmittals). All revisions shall be submitted within fifteen (15) calendar days after DISTRICT's review.
- F. The Detailed Network Diagram shall provide a workable plan for performing the work, establish and clearly display the critical elements of the work, forecast completions of the construction, and match the Contract duration in time. Exclusive of those activities for submittal review and material fabrication and delivery, activity durations shall not be less than one (1) nor more than thirty (30) calendar days, unless otherwise approved by DISTRICT. In addition to the detailed network diagram, CONTRACTOR shall submit the following reports with the original submittal:
 - 1. Predecessor/ Successor Report or a list showing the predecessor activities and successor activities for each activity in the schedule sorted by Early Start.
 - 2. Activity Report sorted by activity number or a list showing each activity in the schedule.
- G. An updated Construction Schedule shall be submitted to DISTRICT with the submittal of CONTRACTOR's monthly payment request. For those activities started but not yet completed at the time of submittal, the updated schedule shall reflect the percentage complete, as agreed between CONTRACTOR and DISTRICT, and an estimate of the remaining duration. The monthly update of the construction schedule shall include a copy of the following:
 - 1. A bar chart diagram showing target versus actual dates for each activity remaining to be completed.
 - 2. The Predecessor/Successor report sorted by Early Start.
 - 3. The Activity Report sorted by activity number.
 - 4. The updated network diagram or the data necessary to produce such a diagram on computer diskette(s), as agreed with DISTRICT.
- H. Upon approval of a change order or issuance of a notice to proceed with a change, the approved change shall be reflected in the next schedule update submittal by CONTRACTOR.
- I. If completion of any part of the work, the delivery of equipment or materials, or submittal of CONTRACTOR submittals is behind the updated Construction Schedule, and will impact the end date of the work past the contract completion date, CONTRACTOR shall submit in writing, a recovery plan acceptable to DISTRICT for completing the work by the current Contract completion date, if requested by DISTRICT.

1.02 SCHEDULE CONSTRAINTS

List any scheduling constraints that the Contractor should incorporate into the construction schedule.

END OF SECTION

SECTION 00600

PERMITS

1.01 PERMITS OBTAINED BY DISTRICT

- A. The District has obtained or applied for and not yet received the following permits required to construct the project. Proper notification to the agencies affected is the responsibility of the Contractor. The Contractor shall conform to the requirements of the permits and all costs therefor shall be included in the contract prices bid for the items involved. Copies or sample copies of these permits are included in the Appendix of these specifications.

1. Permits that have been obtained.

Permits which may be required; delete those that are not required, list any other permits that are required.

- a. California Regional Water Quality Control Board (CRWQCB) NPDES Permit.
- b. City of Irvine Encroachment or Construction Permit.
- c. City of Tustin Encroachment or Construction Permit.
- d. Orange County EMA Public Property Encroachment Permit.
- e. State of California, Department of Fish and Game Permit.
- f. California Department of Safety and Health Administration, Mining and Tunneling Classification.
- g. United States Army Corps of Engineers Construction Permit.
- h. The Irvine Company Entry Permit
- i. Atchison, Topeka and Santa Fe Railroad Encroachment Permit.
- j. CALTRANS
- k. Encroachment or Construction Permits for Cities of Newport Beach, Costa Mesa, Santa Ana, and Lake Forest.

List other permits as required.

2. Permits that have been applied for but not yet received.

*List permits that have been applied for but not yet received.
Include copies of Standard Conditions for permits that have not been received. Delete those that are not required.*

- a. Construction General Permit - Storm Water Pollution Prevention (SWPPP).

1.02 PERMITS TO BE OBTAINED BY CONTRACTOR

List permits that Contractor is to obtain. IRWD should obtain all permits unless special circumstances prevent doing so.

1.03 PERMIT-REQUIRED INSPECTION COSTS

CONTRACTOR shall pay the cost of inspection by Permit Issuer for work that is required by permit conditions to be performed on weekends or outside normal working hours. See individual permits for information on weekend work.

END OF SECTION

SECTION 00700

CONNECTIONS TO EXISTING SERVICES

1.01 COSTS OF CONNECTION EXISTING SERVICES

*General Provisions Article GP 6.23 calls for Contractor to make connections to existing services at no additional expense to District. If service connections are to be done by others, **connections and responsibility for costs** should be specified here.*

END OF SECTION

SECTION 00800

SPECIAL STORAGE REQUIREMENTS

1.01 SPECIAL STORAGE REQUIREMENTS

General Provisions Article GP 7.10.2 indicates special methods may be required for storing excavated materials and materials and equipment in general. If such special methods are required, they should be specified here.

END OF SECTION

PROJECT TECHNICAL SPECIFICATIONS

SECTION 1

PROJECT NO. XXXXX

SECTION 1 GENERAL REQUIREMENTS

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Section 1 – General Requirements

Revised 3/2022

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SECTION 01000

INITIAL SUBMITTAL REQUIREMENTS

General Provisions Article GP 2.5 calls out timing for submittals after the Notice of Award is issued. Deviations from this requirement should be listed here.

SECTION 01100

CONSTRUCTION SURVEY STAKING

1.01 SURVEY STAKING FOR CLEARING LANDS AND RIGHTS-OF-WAY:

- A. District shall provide field markers along both sides of the construction right-of-way (except where a side is contiguous with an improved road, street, or property) at horizontal curve BCs and ECs, at angle points, and at 100-foot-maximum intervals in horizontal curves and 500-foot-maximum intervals along horizontal tangent runs.
- B. Markers will be wooden laths in open terrain and painted marks on structures and pavements.

1.02 SURVEY STAKING FOR CONSTRUCTING PIPELINES

- A. For use in constructing pipelines, construction stakes and grade sheets shall be provided by District as follows based upon the CONTRACTOR'S pipeline installation drawings:
- B. For pipelines not installed in tunnels or casings, one stake will be set at 50-foot intervals , for water lines, 25-foot intervals for sewer lines, and at all angle points and grade breaks. One additional reference stake and/or witness lath will be provided for each pipeline appurtenance. Stakes will be set at the surface of the ground or painted on the paved surface of the ground or painted on the paved surface along a mutually acceptable offset to the centerline of the pipeline. The offset shall be constant both as to side and distance from centerline for runs of not less than 2,000 feet where physically practicable with the provided easements. Station, offset, and cut/fill to flow line will appear on these stakes. The elevation of each point and the cut/fill to the pipe invert will be given on grade sheets. The Contractor shall exercise care in determining what offset is to be used, if sloping of the trench is anticipated. In no instance will the DISTRICT'S Representative stake safety sloping. It shall be the CONTRACTOR'S responsibility to accurately transfer the line and grade for the facility to the trench bottom. Pavement scoring, cutting, and removal shall be accomplished from this same set of construction stakes. No additional stakes will be set for such purpose.
- C. For pipe inside tunnels, two benchmarks and principal control monuments shall be provided for line and grade inside the tunnel or casing. The exact location of these benchmarks and monuments will be dictated by conditions at the site.

1.03 SURVEY STAKING FOR CONSTRUCTING STRUCTURES AND APPURTENANCES

- A. District shall provide survey staking and reference points.
- B. Major structures will be controlled by two lines set at right angles to each other, along two faces of the structure, the ends of each line to be beyond the limits of the work, and with elevations only marked on at least two of these control points.
- C. Minor structures, manways, and appurtenances will have a stake set along the pipeline construction offset, with the respective pipeline station for its centerline shown.
- D. Stakes will be provided after site rough grading has been completed.

1.04 SURVEY STAKING FOR CONSTRUCTING JACKING PITS AND RECEIVING PITS

- A. The Contractor shall submit to the DISTRICT'S Representative a separate diagram for each jacking and receiving pit showing the desired control and offset. No more than six (6) stakes will be set for each such pit. Grade sheets (with diagram) will show the stake elevations and the pipeline elevations calculated from the elevations and grades shown on the construction drawings.
- B. District shall provide survey staking and reference points.

1.05 CONSTRUCTION STAKING PROVIDED BY THE DISTRICT SHALL BE SUBJECT TO THE FOLLOWING CONDITIONS

- A. The request for construction stakes shall be received in writing at least three (3) working days in advance of needed staking on the form provided in the Appendix.
- B. The stakes, reference markers, and other survey points shall be carefully preserved. Otherwise, the Contractor will be charged for their replacement and will assume any expense resulting from their loss or disturbance. Should the DISTRICT'S Representative be required to reset construction stakes, the cost for such resetting will be at the then current per diem rates. The full charges will include additional administrative and supervisory time charges as billed to the District and will be deducted by the District from the progress payments to the Contractor for the month in which the surveying work is done, and thereon paid to the DISTRICT'S Representative.
- C. Unless otherwise specified, the construction staking provided by the DISTRICT'S Representative will be only for those items specified to be constructed or reconstructed on the plans or in the specifications. Any additional construction stakes required for the replacement of existing improvements that have been

removed or disturbed at the CONTRACTOR'S option shall be the CONTRACTOR'S responsibility.

1.06 COMMENCEMENT OF WORK

- A. Work shall not proceed until construction stakes, which constitute instructions from the DISTRICT'S representative, are provided.

END OF SECTION

SECTION 01110

COMPACTION TESTING

1.01 REQUIREMENTS

- A. The District shall perform all compaction tests on backfill.
- B. The request for compaction testing shall be made to the District in writing at least forty-eight (48) hours before the Contractor is ready for compaction tests to be taken.
- C. The Contractor shall make available construction equipment necessary to assist the DISTRICT'S Representative in taking the tests.
- D. If the backfill should fail the compaction test, the Contractor shall pay the cost of retesting.
- E. If the Contractor is not ready to have compaction tests taken at the time and in the locations indicated on the written request, the Contractor shall be responsible for all standby charges and/or return visit costs to take the requested tests.
- F. If the Contractor plans to use imported sand or other imported material for backfill, a sample of the material to be used for the backfill shall be delivered to the District for testing, prior to the commencement of backfilling. If the test fails, the Contractor shall pay the cost of retesting.

END OF SECTION

SECTION 01120

EROSION CONTROL

1.01 REQUIREMENTS

- A. The Contractor shall employ methods and approved devices for the control of erosion within the project construction area during the contract period.
- B. All work shall be in accordance with the grading code of _____ and any special requirements of the California Regional Water Quality Control Board, Santa Ana Region.

List jurisdictional agency having authority over grading operations.

- C. Erosion Control Plans are required from October 15 to May 15, and shall be submitted to the District for approval prior to September 25. If plans are not submitted by September 25, or within 21 days from Notice of Award for projects that commence work after September 25, DISTRICT will withhold 30 percent of progress payment amount until plans are submitted and approved.
- D. Loose excavated material shall not be placed or stored in waterways or storm drain channels.
- E. All excess excavated soil and materials shall be removed and disposed of in a proper and legal manner by the Contractor.
- F. All disturbed surface areas shall be shaped to facilitate drainage and avoid ponding and restored to near natural or preconstruction conditions. Work under this section shall also extend to include those erosion control measures indicated on the plans.
- G. In the event that erosion control repairs or corrections are required, if CONTRACTOR does not initiate erosion control repair or corrective action within four (4) hours of notification by DISTRICT, DISTRICT may take action it deems necessary to prevent erosion. CONTRACTOR shall be responsible for all costs of repairs performed by DISTRICT.

END OF SECTION

SECTION 01130

DEWATERING

1.01 GENERAL

- A. No excavation shall take place below the water level until the area has been dewatered. Dewatering shall be done in such a manner as to protect adjacent structures.
- B. Dewatering shall consist of furnishing all ~~permits,~~ plans, labor, equipment and materials, and performing all work to design, construct, and operate dewatering systems, dispose of the water from the operation and maintain in a safe and dewatered condition the areas on which the construction work will be performed, and remove the dewatering system upon completion of the work. ~~If CONTRACTOR is unable to obtain a permit with a project specific monitoring and reporting program in a timely manner from the Regional Water Quality Control Board, CONTRACTOR may request and on approval be allowed to perform dewatering under DISTRICT dewatering permit and monitoring and reporting program.~~
- C. Dewatering systems shall be equipped with calibrated meters that register in gallons ~~in order to~~ measure dewatering volumes.

1.02 DEWATERING PLAN

- A. CONTRACTOR shall submit for the DISTRICT'S review, drawings and data showing proposed plan for dewatering of all work areas, which shall include the planned method of dewatering, excavation plan, location and capacity of such facilities as dewatering wells, well points, pumps, sumps, collection and discharge lines, standby units proposed, receiving streams, and protective fills and ditches required for control of ~~ground-water~~groundwater and surface water. The plan for dewatering shall be submitted a minimum of sixty (60) calendar days in advance of commencing dewatering activities~~within fifteen (15) days after the date of receipt of the Notice to Proceed.~~ CONTRACTOR shall furnish such other information as may be required for the complete understanding and analysis of the dewatering and excavation plan by DISTRICT. Information on groundwater conditions may be found in the Soil Investigation Reports listed in Section 00210, Investigations and Reports of the Special Provisions. CONTRACTOR is advised that the reports present conditions which existed at the time of the investigation.
- B. Review by DISTRICT will not relieve CONTRACTOR of the responsibility for the adequacy of the dewatering and excavation plan, compliance with dewatering permit requirements or for furnishing all equipment, labor, and materials necessary for performing the various parts of the work. If, during the progress of the work, it is determined by DISTRICT that the dewatering system and

excavation plan are inadequate, not in compliance with discharge requirements, or CONTRACTOR'S plan of construction is inoperative, CONTRACTOR shall, at CONTRACTOR'S expense, furnish, install, and operate such additional dewatering equipment and make such changes in other features of the plan or operation as may be necessary to perform the work in a manner satisfactory to the DISTRICT. CONTRACTOR shall, at CONTRACTOR'S expense, pay any fines or penalties assessed against CONTRACTOR ~~or, DISTRICT, Owner, ENGINEER, or their affiliates~~ by the Regional Water Quality Control Board (RWQCB) and other applicable agencies as a result of noncompliance with dewatering discharge requirements under ~~CONTRACTOR'S or DISTRICT'S~~ permit. ~~_(whichever permit CONTRACTOR is performing dewatering under)_~~. In addition, CONTRACTOR shall be subject to, at DISTRICT's discretion, a fee by DISTRICT as compensation for DISTRICT administrative costs associated with each non-compliance occurrence. The fee shall be in an amount to pay DISTRICT's actual costs, or \$~~25~~,000, whichever is greater.

1.03 DEWATERING REPORTING

CONTRACTOR shall comply with all permit and monitoring and reporting requirements for the permit under which CONTRACTOR is operating. Specifically, CONTRACTOR shall prepare and submit the below report to DISTRICT for submittal to the RWQCB at least sixty~~thirty~~(360) calendar days prior to the planned discharge. The CONTRACTOR shall be responsible for responding to DISTRICT or RWQCB comments and for incorporating any requested revisions into the report. The CONTRACTOR shall not commence work until receiving written acknowledgement from the DISTRICT and/or RWQCB that the report is accepted.:

- A. ~~Prepare a r~~Report ~~which~~ shall include the following:
 - 1. Characterization of the proposed ~~wastewater~~ discharge
 - 2. The estimated average and maximum daily flow rates
 - 3. A schedule detailing the frequency and duration of the planned discharge(s)
 - 4. The affected receiving water(s)
 - 5. A description of the proposed treatment system (if appropriate)
 - 6. A map showing the path from the point of initial discharge to the ultimate location of the discharge
- ~~B. Submit report from Paragraph A to: (1) the RWQCB and copy DISTRICT five (5) days prior to the planned discharge if CONTRACTOR is operating under CONTRACTOR'S permit, or (2) DISTRICT for submittal to the RWQCB ten (10) days prior to the planned discharge; if CONTRACTOR is operating under DISTRICT's permit.~~
- ~~C. Not commence work until receiving written acknowledgement on the information provided to DISTRICT from paragraph A.~~
- ~~D. CONTRACTOR shall be responsible for conducting monitoring required under the permit and any additional monitoring requested by the DISTRICT and/or~~

RWQCB. All monitoring and report preparation shall be conducted as specified in the permit under which dewatering is occurring. ~~If CONTRACTOR is operating under the DISTRICT permit, r~~Reports shall be forwarded to DISTRICT by the 20th of the month for submittal by DISTRICT to the RWQCB. The~~is~~ reports shall include a cover letter noting any violations and a description of any actions taken ~~stating what action was taken~~ to correct these violations. ~~If CONTRACTOR is operating under CONTRACTOR'S~~

~~E.~~_____

~~F.B.~~ permit, copies of reports that CONTRACTOR submits to the RWQCB shall be provided to DISTRICT.

END OF SECTION

SECTION 01200

REQUESTS FOR INFORMATION (RFI)

1.01 GENERAL

- A. CONTRACTOR shall submit a Request for Instruction (RFI) to DISTRICT if CONTRACTOR:
1. requires instruction pursuant to General Provision Article 6.1514, Errors or Discrepancies Noted by CONTRACTOR,
 2. raises a question requiring clarification,
 3. requests product or material changes,
 4. requests design changes, or
 5. requires other information from DISTRICT.

1.02 RFI SUBMITTAL PROCEDURE

All RFIs shall be submitted on DISTRICT Forms and shall include all backup information. Backup information shall include, but not be limited to, CONTRACTOR verified field measurements, quantities, dimensions, installation requirements, materials, catalog number, and any other information that will assist the DISTRICT in reviewing the RFI. A copy of RFI form can be found in Appendix.

1.03 DISTRICT RESPONSE

Within seven (7) days of receipt of RFI, DISTRICT will either return a response to the RFI or notify CONTRACTOR when a response will be issued.

1.04 COMMENCEMENT OF RFI-RELATED WORK

No portion of the work requiring instruction from DISTRICT shall begin until RFI has been reviewed by DISTRICT and returned to CONTRACTOR with instruction or with notation indicating DISTRICT response is not necessary.

END OF SECTION

SECTION 01300

TRAFFIC REGULATION

1.01 GENERAL

- A. Traffic shall be maintained at those locations indicated and in conformance with the plans and specifications.
- B. Furnish, construct, maintain, and remove detours, road closures, lights, signs, barricades, fences, flares, miscellaneous traffic devices, flagmen, drainage facilities, paving, and such other items and services as are necessary to adequately safeguard the public from hazard and inconvenience. All such work shall comply with the ordinances, directives, permits, and regulations of authorities with jurisdiction over the public roads in which the construction takes place and over which detoured traffic is routed by the Contractor.
- C. Prior to the start of construction operations, notification shall be given to the police and fire departments in whose jurisdiction the project lies, giving the expected starting date, completion date, and the name and telephone number of the responsible person who may be contacted at any hour in the event of a condition requiring immediate correction.

1.02 CONSTRUCTION SIGNING

- A. Construction signing used for handling traffic and public convenience shall conform to the latest edition of the State of California, Department of Transportation, "Manual of Traffic Controls for Construction and Maintenance Work Zones" and "Work Area Traffic Control Hand-book" (WATCH) published by Buildings News Incorporated. In case of conflict between the two previously referenced manuals with regard to recommended sign spacing, the manual, which is more stringent, shall be used.
- B. Signs shall be illuminated or reflectorized when they are used during hours of darkness. Cones, pylons, barricades, or posts used in the diversion of traffic shall be provided with flashers or other illumination if in place during hours of darkness.
- C. A 24-hour emergency service shall be maintained to remove, install, relocate, and maintain warning devices. The names and telephone numbers of three persons responsible for this emergency service shall be furnished to the agency having jurisdiction over traffic control for the project. If any of these persons do not promptly respond or the jurisdictional agency deems it necessary to call out other forces to accomplish emergency service, the Contractor will be held responsible for the cost of such emergency service.

1.03 VEHICULAR TRAFFIC CONTROL

- A. Traffic control within the _____ shall conform to the ordinances and regulations of the _____.

List the jurisdictional agency having authority over traffic control.

- B. The failure of the Contractor to maintain construction signing, delineators, or barricading at all times to the satisfaction of the _____ shall be sufficient cause for closing down the work until such equipment is in satisfactory condition. All costs associated with the stoppage of work, loss of production, costs of restart, etc., shall be borne by the Contractor.
- C. A minimum 2-foot clearance between the curb face or edge of pavement, and a 5-foot clearance between the edge of excavation and the edge of any traffic lane shall be maintained at all times. Shoring members, beams, or other obstructions shall not be permitted within the 2-foot clearance between the edge of excavation and the edge of any traffic lane. Any projections or activity within 2 feet to 5 feet from the adjacent traffic lane must be protected by a solid concrete barrier (K-rail). "NO PARKING" signs shall be placed as necessary.
- D. Work areas adjacent to the existing traffic lane shall be delineated in accordance with the requirements for the normal posted speed limit. The Contractor shall post signing, barricades, and delineators to provide clear guidance to traffic as approved by the jurisdictional agency having authority over traffic control.

1.04 PEDESTRIAN TRAFFIC CONTROL AND SAFETY

- A. Fencing or other means of securement shall be provided to preclude unauthorized entry to any excavation during all nonworking hours on a 24-hour basis including weekends and holidays. Fencing shall be a minimum of 6 feet high around the entire excavation, and shall consist of a minimum 9-gage chain link type fence sturdy enough to prohibit toppling by children or adults. There shall be no openings under the wire large enough for any child to crawl through. Gates shall be locked if no adult is in attendance. Warning signs shall be placed at 50-foot centers on the outside of the fence with the statement "DEEP HOLE DANGER."

1.05 ACCESS TO ADJACENT PROPERTIES

- A. Reasonable access from public streets to all adjacent properties shall be maintained at all times during construction. Prior to restricting normal access from public streets to adjacent properties, each property owner or responsible person shall be informed of the nature of the access restriction, the approximate duration of the restriction, and the best alternate access route for that particular property.

1.06 PERMANENT TRAFFIC CONTROL DEVICES

- A. Existing permanent traffic control signs, barricades, and devices shall remain in effective operation unless a substitute operation is arranged for and approved as a portion of vehicular traffic control above. Replacement work shall be in accordance with the ordinances and regulations of the _____.

List the jurisdictional agency having authority over traffic control.

- B. Restriping of Streets

Any permanent restriping that is required shall be done by the Contractor. The Contractor is cautioned to check with the _____ to ascertain the extent and specifications for restriping. Full compensation for restriping within the _____

_____ shall be included in the contract unit price for which such work is appurtenant thereto. Temporary striping required for traffic control during construction shall also be done by the Contractor with full compensation to be included in the contract unit price for which such work is appurtenant, and no additional allowance shall be given. Temporary striping includes any striping required on any pavement replaced prior to the final surface course. The Contractor shall remove any permanent striping that conflicts with the detour plan and all detour striping completely, prior to replacement of any final striping, by sandblasting only. Painting out existing striping shall not be permitted. Any damaged or obliterated raised pavement markers shall also be replaced in accordance with the appropriate standard with compensation for such work and materials included in the unit contract price for which such work is appurtenant.

List the jurisdictional agency having authority over traffic control and the limits of street restriping.

- C. Traffic Control Wire Loops

Traffic control wire loops which are cut, removed, or otherwise disturbed for construction of the pipeline shall be replaced to the exact original position. Replacement work shall be in accordance with Section 86-5.01A of the State of California, Department of Transportation, Standard Specifications. The number of turns in the loop shall be in accordance with the manufacturer's specifications for the vehicle detector.

Detector lead-in conductors, cable, inductive loop conductor, and epoxy shall conform to the provisions of Section 86 of the State of California, Department of Transportation, Standard Specifications. The cable shall not be spliced. Splices to lead-in conductors shall be made in pull boxes and soldered, wrapped, and waterproofed after sensitivity check at tuning turn on. Inductive loop wires shall be labeled in the pull box, identifying the loop and the direction of current flow. Saw cuts for inductive loop wire shall be of a width such that the loop wires will fit within the cut snugly but without need for forcing of the wire.

Damaged traffic signal conduits shall be replaced to the nearest pull box, including new wire, back to the terminal, and/or back to the signal controller to the satisfaction of the agency having jurisdiction over the equipment.

Damaged traffic loops or signal conduit shall be repaired before proceeding to the construction phase. Two traffic signal vehicle heads shall be visible at all times to vehicular traffic at signalized intersections during construction.

1.07 PAYMENT

Payment for conforming to all of the traffic control and pedestrian safety requirements of these specifications shall be considered to be included in the contract unit or lump-sum price paid for the various items of work wherein maintenance of traffic control and detours is required. No additional allowance will be given for maintenance of traffic control and detours.

END OF SECTION

SECTION 01330

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

1.01 GENERAL

- A. The CONTRACTOR shall procure, implement, monitor and maintain the Storm Water Pollution Prevention Plan (SWPPP) for the purpose of preventing the discharge of pollutants from the Project site into receiving waters. This includes the elimination of pollution discharges such as improper dumping, spills or leakage from storage tanks or transfer areas.
- B. The CONTRACTOR shall comply with local, state and federal regulations, with the following as a minimum requirement:
 - 1. California Storm Water Best Management Practice Handbook for Construction Activity (BMP Handbook), latest edition.
 - 2. Project specific SWPPP.
- C. The CONTRACTOR shall certify the Project has met all of the conditions of the General Construction Activity Storm Water Permit (GCASP).

1.02 MATERIALS

Provide the quality, grade and type of materials as specified in BMP Handbook and project SWPPP.

1.03 STORM WATER POLLUTION PREVENTION PLAN

- A. Draft SWPPP and related permit application is included in the Appendix.
- B. The DISTRICT's consultant will be the Qualified SWPPP Developer (QSD).
- C. The DISTRICT will assign a Legally Responsible Person (LRP).
- D. The CONTRACTOR shall finalize SWPPP with Qualified SWPPP Practitioner's (QSP) information, and shall implement, manage, maintain, and ensure compliance with the Construction General Permit.

1.04 IMPLEMENTATION

- A. Complete application form and upload the Notice of Intent to SMARTS. CONTRACTOR shall pay all permit fees.

- B. Install perimeter controls prior to starting Work at the Project Site. Install erosion controls on disturbed areas after 14 days of inactivity or sooner if rain is imminent. BMPs shall match the SWPPP map at all times.
- C. The CONTRACTOR shall designate a Qualified SWPPP Practitioner (QSP) to implement the inspections and reporting as required by the GCASP.
- D. The QSP shall revise the SWPPP to suit changing site conditions and also when properly installed systems of BMPs are ineffective.
- E. The CONTRACTOR shall coordinate with the DISTRICT's designated QSD for the project in modifying and implementing changes to SWPPP as required.
- F. Upon Substantial Completion:
 - 1. Leave storm water pollution prevention controls in place when required for post-construction storm water management and remove those that are not needed as determined by DISTRICT.
 - 2. Post-construction storm water operation and the management plan as mentioned in the compliance certifications are considered to be in place at Final Completion.
 - 3. Prepare and upload Notice of Termination (NOT); and pay any outstanding permit fees.

1.07 MONITORING

- A. The designated QSP shall conduct daily visual BMP inspections. The QSP shall ensure that the site BMPs are in line with the SWPPP requirements at all times.
- B. The designated QSP is responsible for uploading the monitoring information to the California Storm Water Multiple Application and Report Tracking System (SMARTS) as required.

1.08 LIABILITIES AND PENALTIES

- A. Review of the SWPPP and inspection log by DISTRICT shall not relieve CONTRACTOR from liabilities arising from non-compliance of storm water pollution regulations.
- B. Payment of penalties for non-compliance by CONTRACTOR shall be the sole responsibility of CONTRACTOR.

- C. Compliance with the Clean Water Act pertaining is the sole responsibility of CONTRACTOR. Any fine against DISTRICT due to non-compliance by CONTRACTOR, shall entitle the DISTRICT to recover all costs of the fine by appropriate assessment.

1.09 CHANGE OF INFORMATION

CONTRACTOR shall upload to SMARTS and notify DISTRICT of completed form for change of information (Construction Site Information and Material Handling/Management Practices).

1.10 MISCELLANEOUS

- A. CONTRACTOR's Water Pollution Control Manager shall:
 - 1. Be responsible for all water pollution control work.
 - 2. Be the QSP's primary contact for all water pollution control work.
 - 3. Have the authority to mobilize resources (crews, supplies, equipment, etc.) to make immediate repairs of water pollution control measures or to supplement water pollution control measures to maintain compliance with all federal, state, and local laws, ordinances, and regulations related to the protection of water quality, including the General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.
- B. Unless otherwise directed by the DISTRICT, the CONTRACTOR's responsibility for SWPPP/CSMP implementation shall continue throughout any temporary suspension of work.
- C. The DISTRICT may withhold progress payments or order the suspension of construction operations without an extension of the contract time if the CONTRACTOR fails to comply with the requirements of "Water Pollution Control" as determined by the DISTRICT.
- D. All BMP repairs shall be implemented by the CONTRACTOR within 72 hrs. All BMP repairs shall also be implemented by the CONTRACTOR prior to a qualifying storm event, as defined in the Construction General Permit.
- E. Payment for Water Pollution Control shall be on a bid item basis, and shall include full compensation for the work performed, including implementing, installing, constructing, operating, maintaining, and removing and disposing of temporary BMPs, performing the observations, inspections, sampling, analysis, reporting, and street sweeping, and as specified in the CASQA Handbooks, Construction General Permit, SWPPP, Municipal Permit and these Special Provisions, and as directed by the DISTRICT. CONTRACTOR shall include per

item costs for all BMP consumables, as shown in the SWPPP. Generally these shall include, but not limited to, fiber rolls, silt fence, tracking controls, erosion controls (spray-on binders or rolled erosion control products, etc.).

- F. This work includes street sweeping. The SWPPP/CSMP shall describe and include the use of street sweeping as a Water Pollution Control practice for sediment control and tracking control. Street sweeping shall also conform to all applicable AQMD requirements. No dirt shall be allowed to be tracked on project roadways, or roadways adjacent to the project
- G. After the project is awarded to a CONTRACTOR, the CONTRACTOR shall upload the final SWPPP with the CONTRACTOR's and QSP contact information, and other missing information.
- H. At project closeout, CONTRACTOR shall submit SWPPP binder to DISTRICT.

END OF SECTION

SECTION 01400

PRECONSTRUCTION AND POST CONSTRUCTION CONFERENCES

1.01 PRECONSTRUCTION CONFERENCE

- A. Upon issuance of Notice to Proceed, or earlier when mutually agreeable, DISTRICT will arrange a preconstruction conference.
- B. CONTRACTOR'S superintendent, DISTRICT, Engineer/Architect representatives of utilities, major subcontractors and others involved in performance of the Work, and others necessary to agenda shall attend Preconstruction Conference.
- C. DISTRICT will preside at conference.
- D. Purpose of Conference: To establish working understanding between parties and to discuss Construction Schedule, shop drawing and other submittals, cost breakdown of major lump sum items, processing of submittals and applications for payment, and other subjects pertinent to execution of the Work.
- E. Agenda will include:
 - 1. Adequacy of distribution of Contract Documents.
 - 2. Distribution and discussion of list of major subcontractors and suppliers.
 - 3. Proposed progress schedules and critical construction sequencing.
 - 4. Major equipment deliveries and priorities.
 - 5. Project coordination.
 - 6. Permits and Permit Conditions.
 - 7. Environmental (CEQA) Mitigation Requirements.
 - 8. Designation of responsible personnel.
 - 9. Procedures and Processing of:
 - a. Field decisions
 - b. Proposal requests

- c. Submittals
 - d. Change Orders
 - e. Applications for Payment
 - f. Record Documents
 - 10. Use of Premises:
 - a. Office, construction, and storage areas
 - b. DISTRICT'S requirements
 - 11. Construction facilities, controls, and construction aids
 - 12. Coordination of construction with DISTRICT operations and others
 - 13. Temporary utilities
 - 14. Safety and first aid procedures
 - 15. Security procedures
 - 16. Housekeeping procedures
- F. DISTRICT will record minutes of meeting and distribute copies of minutes within seven (7) days of meeting to participants and interested parties.

1.02 POST CONSTRUCTION MEETING

- A. Meet with DISTRICT and inspect the Work eleven (11) months after the date of recording by the County of the Notice of Completion of the Work.
- B. Arrange meeting at least seven (7) days before meeting.
- C. Meet in DISTRICT'S office or other mutually agreed upon place.
- D. Inspect the Work and draft list of items to be completed or corrected.
- E. Review service and maintenance contracts, and take appropriate corrective action when necessary.
- F. Complete or correct defective work and extend correction period accordingly.

- G. Require attendance of Superintendent, appropriate manufacturers and installers of major units of constructions, and affected subcontractors.

END OF SECTION

SECTION 01410

CONSTRUCTION SAFETY PROCEDURES

1.01 GENERAL

- A. CONTRACTOR shall assure that each employee is trained in the work practices necessary to safely perform his/her job.
- B. CONTRACTOR shall assure that each employee is instructed in the known potential hazards related to his/her job and the process, and the applicable provisions of the emergency action plan for the plant or facility as covered during CONTRACTOR safety orientation.
- C. CONTRACTOR shall document that each employee has received and understood the training required. The documentation shall contain the identity of the employee, the date of training, and the means used to verify that the employee understood the training. Documentation shall be submitted to DISTRICT upon request.
- D. CONTRACTOR shall advise DISTRICT of any unique hazards presented by the CONTRACTOR'S work.
- E. CONTRACTOR shall immediately notify DISTRICT of any hazards found or discovered during the course of the work.
- F. CONTRACTOR shall submit copy of OSHA T1 Annual Trench Excavation Permit upon request.

1.02 CONSTRUCTION SAFETY

- A. CONTRACTOR shall submit a Construction Safety Plan detailing the methods and procedures for complying with California Labor Code Section 6401.7, Federal, and local health and safety laws, rules and requirements for the duration of the contract time. The plan shall include the following:
 - 1. Identification of the Safety Officer (or Consultant), who will prepare, initiate, maintain and supervise safety programs, and procedures.
 - 2. Procedures for providing workers with an awareness of safety and health hazards expected to be encountered in the course of construction.
 - 3. Safety equipment appropriate to the safety and health hazards expected to be encountered during construction.

4. Methods for minimizing employees' exposure to safety and health hazards expected during construction.
 5. Procedures for reporting safety or health hazards.
 6. Procedures to follow to correct a recognized safety and health hazard.
 7. Procedures for investigation of accidents, injuries, illnesses and unusual events that have occurred at the construction site.
 8. Periodic and scheduled inspections of general work areas and specific workstations.
 9. Training for employees and workers at the jobsite.
 10. Methods of communication of safe working conditions, work practices and required personal protection equipment.
- B. CONTRACTOR shall assume responsibility for every aspect of Health and Safety on the jobsite, including the health and safety of Subcontractors, suppliers, and other persons on the jobsite.
- C. CONTRACTOR'S Safety Officer shall periodically review job safety information and reports and make recommendations concerning worker health and safety at the jobsite.
- D. CONTRACTOR shall employ health and safety measures specified by the Safety Officer, as necessary, for workers in accordance with OSHA guidelines.
- E. CONTRACTOR shall transmit to DISTRICT copies of reports and other documents related to accidents or injuries encountered during construction.

1.03 SAFETY PROCEDURES

- A. Accident Prevention:
1. Exercise precautions throughout construction for protection of persons and property.
 2. Observe safety provisions of applicable Laws and Regulations.
 3. Guard machinery and equipment, and eliminate other hazards.

4. Make reports required by authorities having jurisdiction, and permit safety inspections of the Work.
 5. Before commencing construction Work, take necessary action to comply with provisions for safety and accident prevention.
- B. Barricades:
1. Place barriers at ends of excavations and along excavations to warn pedestrian and vehicular traffic of excavations.
 2. Provide barriers with flashing lights after dark.
 3. Keep barriers in place until excavations are entirely backfilled and compacted.
 4. Barricade excavations to prevent persons from entering excavated areas in streets, roadways, parking lots, treatment plants, or other public or private areas.
- C. Warning Devices and Barricades: Adequately identify and guard hazardous areas and conditions by visual warning devices and, where necessary, physical barriers.
1. Devices shall conform to minimum requirements of OSHA and State agency which administers OSHA regulations where Project is located.
- D. Hazards in Public Right-of-Way:
1. Mark at reasonable intervals, trenches and other continuous excavations in public right-of-way, running parallel to general flow of traffic, with traffic cones, barricades, or other suitable visual markers during daylight hours.
 - a. During hours of darkness, provide markers with torches, flashers, or other adequate lights.
 2. At intersections or for pits and similar excavations, where traffic may reasonably be expected to approach head on, protect excavations by continuous barricades.
 - a. During hours of darkness, provide warning lights at close intervals.
- E. Hazards in Protected Areas: Mark or guard excavations in areas from which public is excluded, in manner appropriate for hazard.

- F. Above Grade Protection: On multi-level structures, provide safety protection that meets requirements of OSHA and State agency which administers OSHA regulations where Project is located.
- G. Protect existing structures, trees, shrubs, and other items to be preserved on Project site from injury, damage or destruction by vehicles, equipment, worker or other agents with substantial barricades or other devices commensurate with hazards.
- H. Fences: Enclose site of the Work with fence adequate to protect the Work against acts of theft, violence and vandalism.

END OF SECTION

SECTION 01420
CONFINED SPACES

1.01 GENERAL

- A. Attention is directed to the provisions of :
1. Article 108 of the General Industry Safety Orders, Title 8, California Code of Regulations.
 2. Article 4 of the Construction Safety Orders, Title 8, California Code of Regulations.
- B. The General Industry Safety Orders define a confined space as a space that: (1) is large enough and so configured that a person can bodily enter and perform work, and (2) has limited or restricted means for entry and exit, and (3) is not designed for continuous occupancy.
- C. Confined spaces shall be as described above, and shall include the interior of storm drains, sewers, vaults, utility pipelines, manholes, reservoirs, and any other such structure which is similarly surrounded by confining surfaces so as to permit an oxygen deficient atmosphere or the accumulation of dangerous gases or vapors.
- D. A Permit Required Confined Spaces is defined as a confined space that has one or more of the following characteristics:
1. Contains a hazardous atmosphere,
 2. Contains a liquid or solid materials that can engulf an entrant,
 3. A configuration that can trap and suffocate an entrant,
 4. Mechanical or electrical hazards, or
 5. Contains any other recognized serious safety and health hazard.
 6. Contains unknown atmospheric environment.

The general industry regulations define a Non-Permit Required Confined Space as a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or physical harm.

- E. Confined spaces shall be considered permit-required confined spaces (PRCS) until proven safe from atmospheric hazards by testing and ventilation; and until evaluated as safe from any other serious safety or health hazards.

1.02 CONFINED SPACE OPERATING PROCEDURES

- A. CONTRACTOR shall submit confined space operating and rescue procedures to the DISTRICT for record keeping purposes. Procedures shall conform to the applicable provisions of Article 108, General Industry Safety Orders, Title 8, California Code of Regulations.
- B. CONTRACTOR shall test for the presence of combustible or dangerous gases and/or oxygen deficiency in confined spaces using an approved device immediately prior to a worker entering the confined space, and at intervals frequent enough to ensure a safe atmosphere during the time a worker is in such a structure. A record of such tests shall be kept at the jobsite.
- C. Employees shall not be permitted to enter a confined space, where tests indicate the presence of a hazardous atmosphere, unless the employee is wearing suitable and approved respiratory equipment, or until such time that continuous forced air ventilation has removed the hazardous atmosphere from the confined space.
- D. Confined spaces that contain or that have last been used as containers of toxic gases, light oils, hydrogen sulfide, corrosives, or poisonous substances, shall, in every case, be tested by means of approved devices or chemical analysis before being entered without wearing approved respiratory equipment.
- E. Sources of ignition shall be prohibited in any confined space until after the atmosphere within the confined space has been tested and found safe.
- F. Reservoirs, vessels, or other confined spaces having openings or manholes in the side as well as in the top shall be entered from the side openings or manholes when practicable.
- G. CONTRACTOR shall coordinate entry operations with DISTRICT when both CONTRACTOR personnel and DISTRICT personnel will be working together as authorized entrants into a permit-required confined space.
- H. CONTRACTOR shall submit to DISTRICT a photocopy of the canceled permit at the conclusion of the entry operation. This information is for record-keeping purposes only, and is not intended to provide enforcement of confined space regulations.

END OF SECTION

SECTION 01430

HAZARDOUS SUBSTANCES COMMUNICATION

1.01 REFERENCE

- A. General Requirements Section 01430

1.02 GENERAL

- A. The following hazardous substances are known to be present or will be encountered during performance of the work.
 - 1. *List all hazardous substances, or if none, indicate “none” in the space above. A listing of hazardous substances for various District facilities as compiled by local fire departments is available from the IRWD Water Quality Department.*
- B. Material Safety Data Sheets (MSDS) for each known hazardous substance can be found in the Appendix.

1.03 PROCESS OVERVIEW

For projects where work on existing chlorine, ammonia, or other hazardous chemical facility will take place, describe the existing process and known potential hazards.

SECTION 01435

HAZARDOUS SUBSTANCE PROCEDURES

1.01 REFERENCES

- A. California Health and Safety Code, Section 25117.
- B. United States Code of Federal Regulation (CFR), Title 29 and Title 40.
- C. State of California Code of Regulations (CCR), Title 8 and Title 22.
- D. Steel Structure Painting Council – PA Guide 3.
- E. 29 CFR 1910.1000.
- F. 29 CFR 1910.134.
- G. Steel Structure Painting Council:
 - 1. Guide 61 – Guide for Containing Debris Generated During Paint Removal Operations.
 - 2. Guide 71 – Guide for the Disposal of Lead-Contaminated Surface Preparation Debris.

1.02 GENERAL

- A. CONTRACTOR shall inform DISTRICT and other affected persons of hazardous substances that are brought onto the jobsite or suspected hazardous substances which are encountered during performance of the work. CONTRACTOR shall notify such agencies as required to be notified by law or by regulation of the presence of hazardous substances.
- B. Definitions
 - 1. Hazardous substance: Defined as any substance included in the list (Director's List) of hazardous substances prepared by the Director, California Department of Industrial Relations, pursuant to Labor Code Section 6382. Includes hazardous waste as defined herein.
 - 2. Hazardous waste: A waste or combination of wastes as defined in 40 CFR 261.3, or regulated as hazardous waste in California pursuant to Chapter 11, Division 4.5, Title 22, California Code of Regulations, and Chapter

6.5, Division 20, California Health and Safety Code, or those substances defined as hazardous wastes in 49 CFR 171.8.

- C. CONTRACTOR shall provide plans, procedures, and controls to be used when encountering hazardous substances during performance of the work.
- D. Prior to commencing work, and where it is known or suspected that hazardous substances will be encountered, CONTRACTOR shall submit a copy of its hazard communication program to DISTRICT. Program shall describe CONTRACTOR'S communication procedures and shall give evidence of employees training for complying with procedures.
- E. CONTRACTOR shall designate a Certified Industrial Hygienist to issue instructions and recommendations for worker safety in the event a hazardous substance is encountered.
- F. CONTRACTOR shall file request for adjustment of Contract Price or Time due to the finding of hazardous materials at the work-site, in accordance with Article 14 of the General Provisions.

1.03 HAZARDOUS SUBSTANCE PROCEDURES

- A. For work where hazardous substances will be present or encountered, CONTRACTOR shall:
 - 1. Submit to DISTRICT a Site Safety and Health Plan. A copy of the plan shall be made available to the jobsite while work is being performed.
 - 2. Submit to DISTRICT a Materials Disposal Plan.
 - 3. Submit to DISTRICT a Material Safety Data Sheet (MSDS) for each hazardous substance proposed to be used or encountered at the jobsite. MSDS shall be submitted prior to commencing work.
 - 4. Exercise extreme care when handling or disposing of materials or substances that are listed as hazardous substances in Section 8-339 of California Occupational Safety and Health Regulations, Title 8, California Code of Regulations, or in Title 26 (Toxics) of the California Code of Regulations, or as evidenced by the manufacturer's MSDS.
 - 5. Immediately notify DISTRICT of any spill of material that is, or contains, a hazardous substance, including, but not limited to, motor oil, hydraulic fluid, or other petroleum products and hazardous materials or wastes used or generated on site. DISTRICT personnel will notify the proper

authorities of the spill and will specify the necessary measures to be taken by the CONTRACTOR to neutralize and/or remove the hazardous substance.

- B. For work where materials suspected of containing hazardous substances are encountered, CONTRACTOR shall immediately comply with the requirement set forth above in Paragraph A, as well as the following:

1. Sampling and Testing

Contractor shall sample and test all materials suspected of containing hazardous substances to determine if they are classifiable as hazardous wastes that must be disposed of at a Class I disposal site, or non-hazardous wastes that must be disposed of at a Class II or Class III disposal site. All sampling and testing shall be performed by a laboratory that complies with and is certified under the Environmental Laboratory Accreditation Program (ELAP) of the California Department of Health Services.

2. Hazardous Substances that may be Encountered

All the materials listed below that are to be disposed of from the site shall be sampled and analyzed for hazardous constituents. Analytical reports shall be submitted to the DISTRICT prior to disposing of each material.

- a. Sandblast Media, sealant, soil
- b. Wastewater, sediments
- c. Metals analyses will include the following 17 metals:

Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Cobalt, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium and Zinc

3. Handling Samples

- a. Each sample shall have an identifying sample number assigned by the CONTRACTOR when the sample is taken. Sample number shall be included on the sampling chain of custody and in all reports, correspondence, and other documentation related to the sample. Each sample shall have a sampling chain of custody. Chain of custody shall show the name and organization of each person having custody of the sample, and shall also show the sample number, job name and location, time of day and date sample taken, material sampled, and tests to be performed.

District's Representative will witness sampling and may take samples for DISTRICT records and for additional analyses if required. Notify the DISTRICT at least 24 hours prior to sampling.

- b. District's Representative will witness sampling and may take samples for DISTRICT records and for additional analyses if required.
- c. District's Representative will review laboratory analysis results and will obtain a Hazardous Waste Generator's EPA ID Number if required.

4. Disposal

- a. District's Representative will give CONTRACTOR written notice to dispose of all or a portion of material at a Class I disposal site if the District's Representative determines that such disposal is required based on review of analytical results of samples collected in accordance with sampling plan. Non-hazardous waste shall be disposed of in either a Class II or Class III facility dependent on material composition and landfill requirements.
- b. Remove and handle the material as hazardous until the District's Representative has reviewed the required laboratory analysis and determined the appropriate classification. Materials from different sites shall not be transported or mixed until the material is determined to be non-hazardous. Excavation materials shall be stored or stockpiled at each site until classified.
- c. Transport materials in accordance with all local, state, and federal laws, rules, and regulations. Submit hazardous waste shipping manifests to the DISTRICT'S Representative within five (5) days of offhaul. Include the name, address, EPA Identification Number and Hauler License Number of the transport company and the EPA Identification Number of the disposal site.

1.04 SUBMITTALS

A. Site Safety and Health Plan

- 1. Plan shall be approved by a Certified Industrial Hygienist and shall comply with all applicable requirements of the Federal Resource

Conservation and Recovery Act, Title 8, Title 22, and Title 26 of the California Code of Regulations, and all applicable regulations of all local, state, and federal agencies having jurisdiction over the safety and health hazards of all phases of the work to be performed.

2. Submit name of individual who has been designated as the site safety and health supervisor.

B. Materials Disposal Plan

1. Prepare a materials disposal plan that complies with all applicable requirements of the Federal Resource Conservation and Recovery Act, Title 8, Title 11, and Title 26 of the California Code of Regulations; and all applicable regulations of all local, state and federal agencies having jurisdiction over the disposal of removed materials, and other waste, whether hazardous or non-hazardous. Submit a copy of the plan for the DISTRICT'S Representative prior to disposing of any material.
2. Submit permission to dispose of material from disposal site owner prior to disposing of any material. Include name, address, and telephone number of disposal site and of owner.
3. Hazardous wastes:
 - a. CONTRACTOR shall prepare and DISTRICT shall accept all hazardous waste manifests prior to use.
 - b. Submit manifests, Bill of Lading, land disposal restriction, or other documentation required by applicable regulations governing transport and disposal of hazardous wastes for disposal of hazardous substances within five (5) days of transport. Manifests or Bill of Lading (or other listed documentation) shall identify disposed material and source, show quantity of disposed material in pounds or tons, and show method used for final disposition as buried, incinerated, chemically treated and/or other means.
 - c. Submit proof that the transporter and disposal site are regulated by the State to handle and dispose of hazardous wastes.

D. Sampling and Analysis, Laboratory Designation, and Test Results

1. Submit project sampling plan prior to any sampling. Include collection methods, locations, and frequencies. Include analytical methods for each material sampled.

2. Submit name and Environmental Laboratory Accreditation Program Certificate number of laboratory that will sample and test suspected hazardous substances. Include statement of laboratory's certified testing areas and analyses that laboratory is qualified to perform. Submit prior to any laboratory testing.
3. Submit laboratory analysis results of samples taken per sampling plan. Specify any deviations from original sampling plan.

END OF SECTION

SECTION 01440

TEMPORARY FACILITIES AND CONTROLS

1.01 CONSTRUCTION WATER

General Provisions Article GP 7.12.1 requires Contractor to provide construction water. If other arrangements have been made, they should be described here.

1.02 CONSTRUCTION POWER

General Provisions Article GP 7.12.2 requires Contractor to provide construction power. If other arrangements have been made, they should be described here.

1.03 DUST CONTROL

- A. Submit a plan detailing the means and methods for controlling dust generated by work on the site at or below ambient dust levels for the DISTRICT'S acceptance. The plan shall also make provision for the control of paint overspray generated during painting operations. The plan shall detail equipment and methods for monitoring compliance with the plan.
- B. One or more operable street sweeping machines with vacuums in combination with a water truck for dust abatement purposes shall be maintained on the jobsite.

General Provisions Article 7.14 lists dust and smoke control requirements. If special precautions are required, include above, as appropriate.

1.04 NOISE ABATEMENT

Add specifications as needed.

1.05 DISPOSAL OF EXCESS EXCAVATED SOIL MATERIALS

General Provisions Article GP 7.13 calls for Contractor to dispose of excess soil materials off site. If alternative disposal sites have been identified, their location should be noted here.

1.06 TEMPORARY FACILITIES

Add specifications as needed.

1.07 CULTURAL RESOURCES

If work is to be performed in archeologically or paleontologically sensitive areas, include language here describing the nature of the sensitive cultural resource. If monitoring during construction is required, describe the monitoring program and state who will perform monitoring.

1.08 BIOLOGICAL RESOURCES

If work is to be performed in biologically sensitive areas or in NCCP areas, include language here describing the nature and extent of the areas. If necessary, include NCCP documents in appendix. If mitigation is required, describe here.

END OF SECTION

SECTION 01500

EQUIPMENT AND EQUIPMENT SYSTEMS OPERATION

1.01 GENERAL

This section describes the intended function and operation of equipment and equipment systems.

1.02 EQUIPMENT FUNCTIONS

Describe individual equipment items and their intended function.

1.03 EQUIPMENT SYSTEM FUNCTIONS

Describe equipment systems and their intended function. Include P&ID and other operating descriptions from Preliminary Design Report for the project.

SECTION 01510

TESTING, TRAINING, AND FACILITY START-UP

1.01 SUMMARY

- A. This section includes equipment and system testing and start-up, services of manufacturer's representatives, training of DISTRICT'S personnel, and final testing requirements for the complete facility.

1.02 CONTRACT REQUIREMENTS

The contract requirements include the following, at a minimum.

- A. Satisfactory completion of testing, training, and start-up within the Contract Time.
- B. Realistic durations in the Progress Schedule for testing, training, and start-up activities.
- C. The CONTRACTOR shall furnish labor, power, chemicals, tools, equipment, instruments, and services required for, and incidental to, completing all start-up and testing defined herein.
- D. The CONTRACTOR shall provide competent, experienced technical representatives of equipment manufacturers for assembly, installation and testing guidance, and operator training.

1.03 START-UP AND TESTING PROCESS OVERVIEW

- A. This section describes the start-up and testing process. The following definitions are provided for terms that are used in this section and which describe the steps of the process. Figure 1 located at the end of this section summarizes the process.
- B. Start-up Plan: A complete written outline and schedule of the work that describes the entire start-up and testing process that will be performed to meet the requirements of the Contract Documents. Every effort has been made by the DISTRICT to point the CONTRACTOR to the various specifications within the Contract Documents pertaining to start-up and testing. This does not relieve the CONTRACTOR from reviewing the Contract Documents for individual equipment requirements not shown herein.
- C. Factory Acceptance Testing: Factory Acceptance Testing (FAT) is the testing that takes place at the manufacturer's/supplier's facility to test equipment performance and fabrication prior to shipment of the equipment to the job site.

- D. Factory/Field Demonstration Test: Factory/Field Demonstration Test (F/FDT) is the testing of equipment performance and fabrication witnessed by DISTRICT. This testing is independent and separate from the manufacturer's/supplier's testing conducted as part of FAT.
- E. General Start-up and Testing: These tasks include initial adjustments, alignments, inspections and testing which are performed to confirm equipment is installed correctly and ready to be operated. As a result the CONTRACTOR shall submit Certificates of Proper Installation (COPI) and InterNational Electrical Testing Association (NETA) test forms.
- F. Individual Equipment Functional Testing: Individual Equipment Functional Testing includes verification of factory/source performance test results, performing factory/field demonstration test to confirm equipment being provided meets the contract requirements such as, but not limited to, flow, pressure, amps, vibration, and motor controls.
- G. DISTRICT Training: Training shall comprise of two identical sessions, one in the morning on day 1 and the second in the afternoon on day 2. The training shall include equipment training and operational system/facility training. Mechanical training shall be required for all equipment provided by the CONTRACTOR and shall be given by DISTRICT approved qualified individuals. Operational system/facility training shall cover the system process controls, operations and items unique to the facility.
- H. Control System Testing: The Control System Testing shall test the wiring and controls and occur in three sequential steps as follows.
1. The first step is the Loop Check Testing (LCT), which shall occur in two phases. The first phase, LCT1, is an independent test performed by the CONTRACTOR and unwitnessed by the DISTRICT. The second phase, LCT2, is the CONTRACTOR repeating the successful LCT1 in the presence of, and witnessed by, the DISTRICT.
 2. The second step is the Operational Train Testing (OTT), which shall occur in two phases. The first phase, OTT1, is an independent test that includes the functionality of the field panel MCC, LCP or VCP performed by the CONTRACTOR and unwitnessed by the DISTRICT. The second phase, OTT2, is the CONTRACTOR repeating the successful OTT1 in the presence of, and witnessed by, the DISTRICT.
 3. The third step is the System Acceptance Testing (SAT), which is a single test witnessed by the DISTRICT. SAT shall prove the wiring and controls of the entire system.

- I. Reliability Acceptance Testing: The Reliability Acceptance Test (RAT) is a continuous test of the entire facility which demonstrates that the individual equipment operates as a system and meets the operational requirements of the facility design. The entire system/facility shall operate for seven (7) continuous days without failure. Any failure shall require the testing to restart at day zero. Operational requirements to test shall include, but are not limited to, system control features and facility performance requirements, such as flow and pressure.

1.04 START-UP PLAN

- A. The CONTRACTOR shall submit a start-up plan for all pieces of equipment and each system provided under the Contract Documents, not less than ninety (90) days prior to the factory/source performance or factory/field test, whichever is first. The start-up plan shall address all operating requirements set forth herein.
- B. The start-up plan shall include a detailed schedule with the following activities identified.
 1. Factory Acceptance Testing
 2. General Start-up and Testing:
 - a. Certificate of Proper Installation (COPI)
 - b. HVAC Start-up and Testing
 - c. Mechanical Final Inspection
 - d. Instrument/Equipment Calibration
 - e. InterNational Electrical Testing Association (NETA)/Electrical Testing
 3. Factory/Field Demonstration Test (F/FDT)
 4. Individual Equipment Functional Testing:
 - a. Certification of Proper Operation (COPO)
 5. DISTRICT Training
 - a. Equipment Training
 - b. Operational System/Facility Process Training
 - c. Submit to the DISTRICT the training syllabus and proposed training material for review and approval at least three weeks prior to each training session.
 6. Submission of Operation and Maintenance Manual

7. Control System Testing:
 - a. Loop Check Testing (LCT)
 - i.) Submit Loop Check Testing forms with all loops identified and numbered.
 - b. Operational Train Testing (OTT)
 - i.) Submit OTT forms with all loops identified and numbered, the description of the test, the action and the expected reaction shown.
 - c. System Acceptance Testing (SAT)
 - i.) Submit SAT plan with all loops identified and numbered with the action and expected reaction.
8. Reliability Acceptance Testing (RAT)
9. The CONTRACTOR shall prepare and maintain an onsite Start-up and Testing Binder with the following tabs.
 - a. Factory Acceptance Testing
 - b. HVAC Start-up and Testing
 - c. Certificate of Proper Installation (COPI)
 - d. NETA/Electrical Testing Results
 - e. Factory/Field Demonstration Test (F/FDT)
 - f. Instrument/Equipment Calibration
 - g. DISTRICT Verification Check Sheet
 - h. Equipment Start-up/Certificate of Proper Operation (COPO)
 - i. Equipment Training Manuals
 - j. Loop Check Test Forms (LCT1 and LCT2).
 - k. Operational Train Testing Forms (OTT1 and OTT2)
 - l. System Acceptance Testing Forms (SAT)
 - m. Operational System/Facility Training
 - n. Reliability Acceptance Testing
 - o. Record Keeping. RFI/Submittal/Change Order Logs with documents as requested.
- C. The tabs in the Start-up and Testing Binder shall be filled with test logs and forms for each task as listed. The CONTRACTOR shall submit blank forms for review, as needed, and shall be completed as the tasks occur.
- D. The start-up plan shall include a summary of shutdown requirements for existing systems, which are necessary to complete start-up of new equipment and systems.
- E. The CONTRACTOR shall revise and update start-up plan weekly based upon the DISTRICT'S review comments, actual progress, and to accommodate changes in the sequence of activities.

1.05 FACTORY ACCEPTANCE TESTING

- A. As part of FAT, the CONTRACTOR shall independently test the equipment for proper performance at point of manufacture or assembly prior to shipping the product. At the DISTRICT'S discretion, the DISTRICT-witnessed testing under F/FDT shall be witnessed either in person at the factory or in the field or, if available, via remote viewing. It shall be the equipment manufacturer's responsibility to provide the necessary equipment and bear all cost associated with remote viewing.
- B. Performance testing shall include, but is not limited to, the following.
 - 1. Demonstrate that all equipment meets specified performance requirements.
 - 2. Confirm equipment materials of construction comply with the specified requirements.
 - 3. Provide certified test results.
 - 4. Do not ship equipment until certified test results have received written acceptance from DISTRICT. Written acceptance does not constitute final acceptance.
- C. Factory Witnessed Test
 - 1. Factory Witnessed Pump Test: Pumps having a motor drive of 100 horsepower or greater shall undergo factory witnessed pump testing. Each pumping unit, complete with the actual job motor drive, shall be tested at the factory in the presence of the DISTRICT. Tests shall be performed in accordance with the applicable provisions of AWWA E101 or the standards of the Hydraulic Institute. To successfully pass a laboratory performance test, a pumping unit shall meet all performance requirements specified.
 - 2. DISTRICT will pay all costs for DISTRICT to travel to and from the location of the laboratory performance test, and all costs incurred during testing. Should results of the tests indicate, in the opinion of the DISTRICT that the equipment fail to meet any of the specified requirements, the DISTRICT will notify the CONTRACTOR of such failure. The manufacturer shall thereupon, at no expense to the DISTRICT, make such modifications and perform additional testing as may be necessary to comply with these specifications. Any additional costs for travel and subsistence associated with additional testing for failed performance tests shall be reimbursed to the DISTRICT by the CONTRACTOR.

1.06 GENERAL START-UP AND TESTING

A. Mechanical Systems:

1. Remove rust preventatives and oils applied to protect equipment during construction.
2. Flush lubrication systems and dispose of flushing oils. Recharge lubrication system with lubricant recommended by manufacturer.
3. Flush fuel system and provide fuel for testing and start-up. At completion of test, fill fuel tank.
4. Install and adjust packing, mechanical seals, O-rings, and other seals. Replace defective seals.
5. Remove temporary supports, bracing, or other foreign objects installed to prevent damage during shipment, storage, installation and construction.
6. Check rotating machinery for correct direction of rotation and for freedom of moving parts before connecting driver.
7. Perform cold alignment and hot alignment to manufacturer's tolerances.
8. Adjust V-belt tension and variable pitch sheaves.
9. Inspect hand and motorized valves for proper adjustment. Tighten packing glands to insure no leakage, but permit valve stems to rotate without galling. Verify valve seats are positioned for proper flow direction.
10. Tighten leaking flanges or replace flange gaskets. Inspect screwed joints for leakage.
11. Install gratings, safety chains, handrails, shaft guards, and sidewalks prior to operational testing.

B. Electrical Systems:

1. Perform NETA testing as called out in Section 16950, Electrical Testing, and submit completed test forms for approval prior to energizing electrical equipment.

C. Instrumentation Systems:

1. Field calibrate/verify instruments and make required adjustments and control point settings per Section 17200, Miscellaneous Instrumentation Equipment. Provide data on DISTRICT'S calibration sheets.
2. Leak test pneumatic controls and instrument air piping.
3. Energize transmitting and control signal systems verify proper operation, ranges, and settings.

D. Heating, Ventilation and Air Conditioning (HVAC) Start-up and Testing

1. The CONTRACTOR shall provide for a qualified manufacturer's representative to start-up the HVAC system.
2. Ensure that the system is properly charged with the manufacturer's recommended refrigerant.
3. Verify that all drains and drip pans/shields are installed and operational to protect surrounding equipment and materials.
4. Provide a Third Party Tester who does not work for or associated with the CONTRACTOR their sub or supplier to balance and verify the HVAC system complies with the specifications.
5. The Third Party Tester shall mark and secure all valves, vents and dampeners at the correct positions after balancing is complete.
6. The CONTRACTOR shall co-sign the report along with the Third Party Tester.

E. Certificate of Proper Installation (COPI)

1. At Completion of General Start-up and Testing, the CONTRACTOR shall furnish a written report prepared and signed by manufacturer's authorized representative, CONTRACTOR, supplier or electrical CONTRACTOR certifying equipment is ready for operation and the following has been completed.
 - a. Has been properly installed, adjusted, aligned, and lubricated.
 - b. Is free of any stresses imposed by connecting piping or anchor bolts.
 - c. Verify that the anchorage is of the size, type, quantity and location as required by the Structural Engineer or as recommended by the manufacturer.

- d. Verify the lubrication system has flushed and filled with the type and quantity required by the specifications and approved by the manufacturer.
- e. Verify that the fuel system has been flushed and filled with the proper fuel.
- f. Verify proper voltage and rotation and that the controls, protective devices, instrumentation, and control panels furnished as part of the equipment package are properly installed, calibrated, and functioning.
- g. Certify that the equipment is suitable for satisfactory full-time operation under full load conditions and that it operates within the allowable limits for vibration.

F. DISTRICT Piping and Valve Verification

- 1. The CONTRACTOR shall obtain from, and complete in collaboration with, the DISTRICT Verification Check Sheet. The DISTRICT Verification Check Sheet will include non-electrical items that require testing prior to start-up and testing. At the CONTRACTOR's discretion, the CONTRACTOR may prepare their own checklist for the DISTRICT'S review and acceptance.
- 2. All valves and piping hydrostatically tested as required per the technical specifications of the Contract Documents have passed the required testing.
- 3. All pipelines, reservoirs, tanks and equipment have been disinfected and passed Bac-T testing as required by specifications in the Contract Documents.
- 4. All valves closed for construction isolation by the DISTRICT have been put back into service and the system is ready to commence testing at full operational conditions.

1.07 INDIVIDUAL EQUIPMENT FUNCTIONAL TESTING

A. Factory/Field Demonstration Test (F/FDT)

- 1. The CONTRACTOR shall coordinate and schedule time for the DISTRICT to visit the manufacturer's facility to inspect and test all electrical and control panels. This shall include the Control Panels (CP), Local Control Panels (LCP), Vendor Control Panels (VCP), Switchgears (SWGR), Switchboards (SWBD), Motor Control Centers (MCC), stand-alone Variable Frequency Drives (VFD), and Reduced Voltage Soft-

Starters (RVSS). The equipment shall be tested in the field after shipment. At the DISTRICT'S discretion the DISTRICT may choose, if available, to remotely view the test or perform the testing at the project site. If the DISTRICT chooses to remotely view the test it shall be upon the manufacturer to provide all the necessary equipment and bear all cost associated with the remote viewing. Prior to F/FDT, the manufacturer shall verify that each panel matches the size, layout and form as shown on the submittal and confirm it functions per the schematics and control descriptions shown in the Contract Documents.

B. Field Performance Testing (FPT)

1. The CONTRACTOR shall demonstrate proper rotation, alignment, speed, flow, pressure, vibration, sound level, adjustments, and calibration as required in specifications. Perform initial checks in the presence of, and with the assistance of, the manufacturer's representative.
2. Conduct continuous 8-hour test under full load conditions. Replace parts that operate improperly.
3. The CONTRACTOR shall provide to the DISTRICT a complete report that the equipment meets the operational requirements of the Contract Documents.

1.08 CERTIFICATE OF PROPER OPERATION (COPO)

- A. At completion of Individual Equipment Functional Testing, the CONTRACTOR shall furnish written report prepared and signed by manufacturer's authorized representative, certifying the following.
1. Equipment meets the contract requirements related to operational performance.
 2. Equipment provides the flow, pressure as specified in the Contract Documents.
 3. Equipment meets the noise and vibration requirements.
- B. The CONTRACTOR shall demonstrate proper operation of each instrument loop function including alarms, local and remote controls, instrumentation and other equipment functions. Generate signals with test equipment to simulate operating conditions in each control mode.
- C. The CONTRACTOR shall submit the signed COPO to the DISTRICT and place a copy in the Start-up and Testing Binder.

1.09 DISTRICT APPROVAL OF INSTALLATION

All of the work described in sections 1.04 to 1.08 shall be completed and documentation submitted for approval to the DISTRICT prior to commencing any of the tasks specified in sections 1.10 to 1.16.

1.10 EQUIPMENT TRAINING FOR DISTRICT PERSONNEL

- A. The training of DISTRICT personnel shall include the following, at a minimum, in addition to the specific requirements listed in the technical specifications.
 - 1. Provide operations and maintenance training for mechanical, electrical and instrumentation equipment. Utilize manufacturer's representatives to conduct training sessions.
 - 2. Coordinate training sessions to prevent overlapping sessions. Each training session shall be provided in two identical sessions. Arrange sessions so that individual operators and maintenance technicians attend a maximum of two sessions per week.
 - 3. Coordinate the training periods with DISTRICT and manufacturer's representatives and submit a complete training schedule for all equipment or system for which training is to be provided. Training shall be based upon equipment as provided to the DISTRICT. Such training schedule shall be submitted not less than 21 calendar days prior to the time that the associated training is to be provided and shall be based on the current plan of operation.
 - 4. Satisfactorily complete Individual Equipment Functional Testing, COPI and COPO before conducting operator training.
 - 5. The training session for each piece of equipment or system shall include all appurtenances associated with that equipment or system, including LCP, VCP instruments or devices necessary for the equipment to operate correctly.

1.11 LOOP CHECK TESTING

- A. The CONTRACTOR shall refer to Section 17332, Instrumentation and Control System Testing and Start-up, for complete LCT requirements.
- B. Analog and discrete signals may be simulated during LCT1 and LCT2 testing.
- C. Loop Check Testing shall prove that the installed wiring matches the submitted termination locations, verifies correct polarity, contact status Normally Open (NO) or Normally Closed (NC) and labeling.

- D. LCT1 shall be completed, and all corrections made prior to submitting the LCT1 test form for DISTRICT approval.
- E. LCT2 may only proceed after the DISTRICT approves LCT1 submittal.
- F. The CONTRACTOR shall provide all tools and equipment required for the LCT1 and LCT2 testing.
- G. LCT2 shall be completed, and all necessary corrections made and witnessed, prior to submitting the LCT2 test form for DISTRICT approval. The CONTRACTOR shall proceed to OTT1 when LCT2 submittal is accepted and approved by the DISTRICT.

1.12 OPERATIONAL TRAIN TESTING (OTT)

- A. The CONTRACTOR shall refer to Section 17332, Instrumentation and Control System Testing and Start-up, for complete OTT requirements.
- B. OTT shall include all start, stop, warning, alarm and fail operations in local/remote and auto/manual as shown in the Contract Documents.
- C. OTT may be conducted with water or with process fluids.
- D. The OTT testing shall be performed “End to End” from the field device through field panels to SCADA and the auto dialer.
- E. Instruments/field devices shall be operated through the sensing element in situ under the system conditions or, where required, with the use of an external source.
- F. OTT1 shall be completed, and all corrections made prior to submitting the OTT1 test form for approval by the DISTRICT and proceeding to OTT2. OTT2 may only proceed after DISTRICT approves OTT1.
- G. OTT 2 shall be completed, and all corrections made prior to submitting the OTT2 test form for approval by the DISTRICT. The CONTRACTOR shall proceed to SAT when OTT2 is witnessed, accepted and approved by the DISTRICT.
- H. The CONTRACTOR shall provide all tools and equipment required for the OTT1 and OTT2 testing.
- I. The CONTRACTOR shall provide and construct any temporary loops, tanks, equipment as required to complete the OTT testing.

1.13 SYSTEM ACCEPTANCE TESTING (SAT)

- A. System Acceptance Testing shall prove that the individual trains work together as a system. The testing shall include both auto and manual functionality in local and remote modes. SAT shall confirm that the system can adjust to changes in flow, pressure, level, starts, stops and other such actions due to changes in set points, system demands, failures and other such actions.
- B. The SAT is a single phase test conducted as a whole system with all components online and operational. The facility will be tested as if the facility were online and operational.
- C. The SAT testing shall be “End to End” from the field device through to SCADA and the Auto Dialer.
- D. SAT may be conducted either with water or process fluids at the DISTRICT’S discretion.
- E. Instruments/field devices shall be operated through the sensing element using changing system conditions. This may occur by the opening or closing of valves to manipulate system conditions.
- F. The CONTRACTOR shall provide all tools and equipment required for the SAT testing.
- G. The CONTRACTOR shall provide and construct any temporary loops, tanks, equipment as required to complete the SAT testing.

1.14 FACILITY AND PROCESS TRAINING OF DISTRICT PERSONNEL

- A. Facility and process training shall be a joint effort by the CONTRACTOR and the DISTRICT. The DISTRICT shall take the lead in developing the training agenda requesting assistance from the CONTRACTOR as necessary.
- B. The training shall explain the design intent, the process, operational options, limitations and overall integration with the DISTRICT’S system.
- C. Any and all confined spaces or hazardous conditions shall be explained and identified.
- D. Any and all facility or system disconnects or isolation valves or other devices shall be shown and identified.
- E. SCADA and PLC programing shall be presented with emphasis on any new or unique programing features.

1.15 RELIABILITY ACCEPTANCE TESTING (RAT)

- A. Reliability Acceptance Testing (RAT) shall be performed by the DISTRICT operating the entire facility to the system under normal conditions. The DISTRICT shall operate the facility as intended by starting, stopping, rotating equipment, changing set points and other such action required to properly operate the facility. The test shall run for seven (7) consecutive days without any failures of any equipment, instruments or vendor package controls or programming. Any failure shall re-start the test to day zero and testing shall continue until seven (7) consecutive days of operation without failure has been achieved.
- B. Conduct RAT of the entire facility after completion of Facility Process Training. Demonstrate satisfactory operation of equipment and systems in actual operation.
- C. The DISTRICT shall notify the CONTRACTOR of any failure at the first opportunity during working hours. The CONTRACTOR shall provide a contact list for failure response to the DISTRICT prior to the start of the RAT.
- D. In the event that an item of equipment cannot be tested continuously for seven (7) days, provide information for an alternative test. For high horsepower equipment where testing will impact Time of Use (TOU) energy limitations, describe an intermittent test procedure.
- E. The in the event of failure, CONTRACTOR shall make required repairs, adjustments, and replacements.
- F. DISTRICT will provide operations personnel, power, fuel, and other consumables for duration of operational test.
- G. Immediately correct defects in material, workmanship, or equipment which became evident during RAT.
- H. Repeat RAT when malfunctions or deficiencies cause shutdown or partial operation of the facility or results in performance that is less than specified.

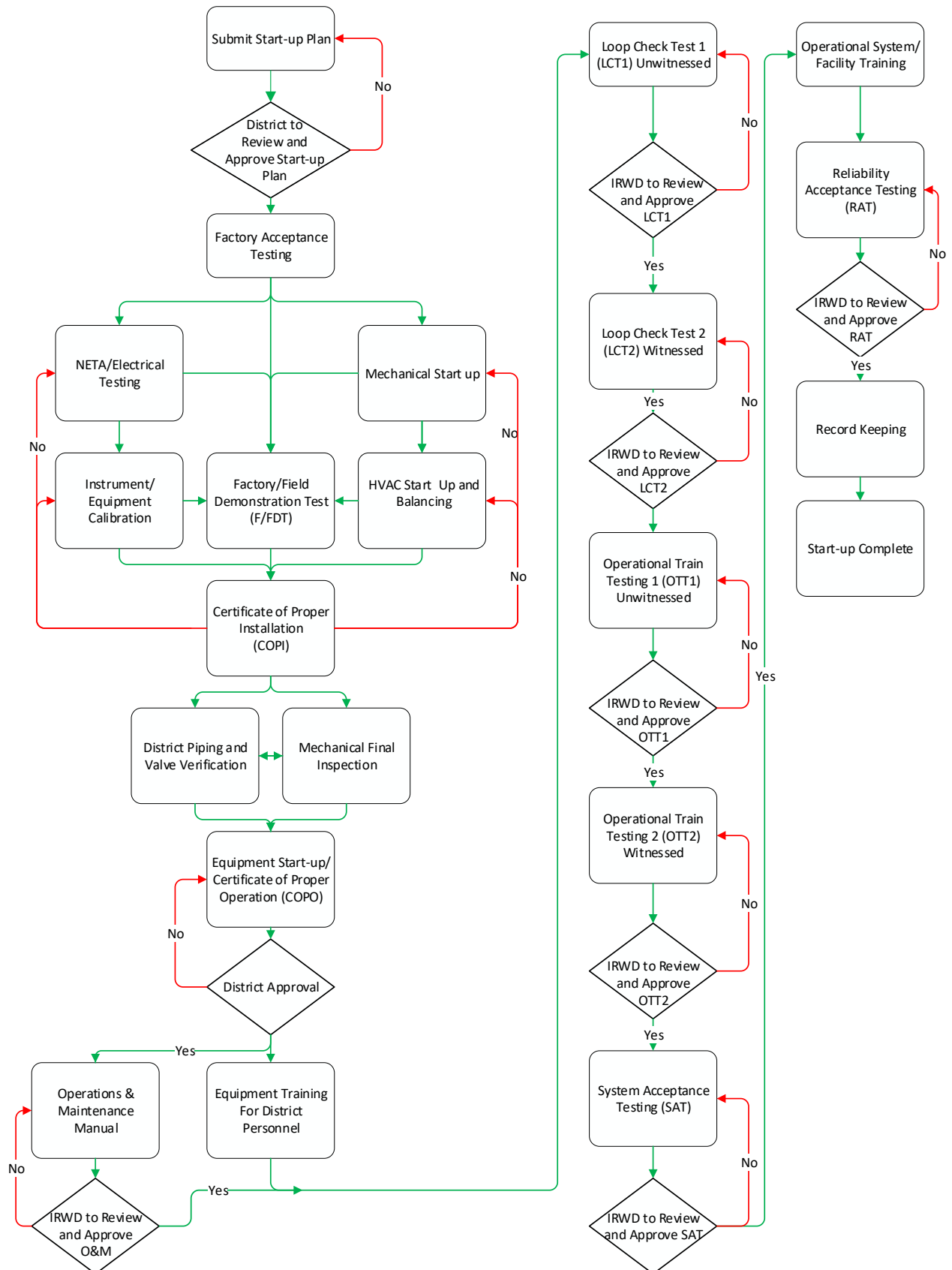
1.16 RECORD KEEPING

- A. Maintain and submit the following records generated during start-up and testing phase of project.
 - 1. Daily logs of equipment testing identifying all tests conducted and outcomes.
 - 2. Logs of time spent by manufacturer's representatives performing services on the job site.

3. Equipment lubrication records.
4. Electrical phase, voltage, and amperage measurements.
5. Insulation resistance measurements.
6. Data sheets of control loop testing including testing and calibration of instrumentation devices and set points.
7. The CONTRACTOR shall provide within the Start-up and Testing Binder, current copies of the RFI, submittal and change order logs. The CONTRACTOR shall have on site and readily available for reference, as required elsewhere in the Contract Documents, all RFI, submittals and change orders for review during start-up.

END OF SECTION

FIGURE 1: START-UP AND TESTING PROCESS OVERVIEW



Section 1 – General Requirements

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SECTION 01520
CLOSEOUT PROCEDURES

1.01 FINAL CLEANING

- A. Perform final cleaning prior to inspections for Final Acceptance.
- B. Use cleaning materials which are recommended by manufacturers of surfaces to be cleaned.
- C. Prevent scratching, discoloring, and otherwise damaging surfaces being cleaned.
- D. Clean roofs, gutters, downspouts, and drainage systems.
- E. Broom clean exterior paved surfaces and rake clean other surfaces of sitework. Police yards and grounds to keep clean.
- F. Remove dust, cobwebs, and traces of insects and dirt.
- G. Clean grease, mastic, adhesives, dust, dirt, stains, fingerprints, paint, blemishes, sealants, plaster, concrete, and other foreign materials from sight-exposed surfaces, and fixtures and equipment.
- H. Remove non-permanent protection and labels.
- I. Polish glossy surfaces to clear shine.
- J. Vacuum carpeted and soft surfaces.
- K. Clean light fixtures and replace burned-out or dim lamps.

1.02 WASTE DISPOSAL

- A. Surplus materials, waste products, and other debris shall be disposed off-site

1.03 TOUCH-UP AND REPAIR

- A. Touch-up, repair, or replace finished surfaces on structures, equipment and installation that have been damaged prior to inspection for final acceptance.

1.04 CLOSEOUT DOCUMENTS

A. Submit following closeout documents upon completion of the Work, and at least 7 days prior to application for Final Payment:

1. Project Record Documents, including:

Record drawings
Testing reports
Survey data
Instrument calibration sheets

Add other items as may be required.

2. Operation and Maintenance Manuals

3. Warranties and Bonds.

4. Spare Parts

END OF SECTION

SECTION 01600

DISTRICT FURNISHED EQUIPMENT

1.01 EQUIPMENT FURNISHED BY DISTRICT

List equipment and include scheduled delivery date(s). Include copy of purchase order in appendix. List any equipment or parts that are necessary for installing equipment.

1.02 DISTRICT RESPONSIBILITIES

- A. Arrange for and deliver necessary shop drawings, installation instructions, product data and samples to CONTRACTOR.
- B. Arrange and pay for product delivery to site in accordance with construction schedule.
- C. Deliver supplier's bill of materials to CONTRACTOR.
- D. Inspect deliveries jointly with CONTRACTOR.
- E. Submit claims for transportation damage.
- F. Arrange for replacement of damaged, defective, or missing items.
- G. Arrange for manufacturer's warranties, bonds, service, and inspections, as required.

1.03 CONTRACTOR RESPONSIBILITIES

- A. Designating required delivery date for each DISTRICT furnished product.
- B. Reviewing shop drawings, product data and samples.
- C. Submitting notification of discrepancies or anticipated problems.
- D. Receiving and unloading products at site.
- E. Promptly inspecting products jointly with DISTRICT and recording shortages, damaged or defective items.
- F. Handling products at site, including uncrating and storage.
- G. Protecting products from damage.

- H. Installing, including assembly, connections, adjustments, tests, and finish products in accordance with Contract Documents.
- I. Providing operating oils, lubricants, and incidental materials required for complete installation.
- J. Repairing or replacing items damaged after receipt until Date of Acceptance of the Work by DISTRICT.

1.04 DELIVERY

- A. If DISTRICT fails to deliver products in accordance with approved Construction Schedule, adjustments will be made to Contract Time and Contract Price as stipulated in General Provisions.

END OF SECTION

SECTION 01700

EARLY OCCUPANCY OF PORTIONS OF WORK

1.01 PORTIONS OF WORK SCHEDULED FOR EARLY OCCUPANCY

- A. CONTRACTOR shall complete following portions of Work for DISTRICT'S utilization including specified testing, training of DISTRICT'S personnel, and other preparations necessary for DISTRICT'S occupancy or use:

Designate portions of work scheduled for early occupancy. List early occupancy milestones and associated liquidated damage rates on the Agreement form.

1.02 SUBSTANTIAL COMPLETION CERTIFICATIONS

- A. Certificates of Substantial Completion will be executed for each designated portion of Work prior to DISTRICT occupancy. Such certificate of substantial completion will describe the portion of the Work to be occupied by DISTRICT, items that may be incomplete or defective, date of occupancy by DISTRICT, and other information required by DISTRICT and CONTRACTOR.

1.03 FOLLOWING OCCUPANCY

- A. Occupancy by DISTRICT will relieve CONTRACTOR of responsibility for injury or damage to the above-listed completed portions of the Work resulting from use by DISTRICT or from the action of the elements, or from other cause, except CONTRACTOR operations or negligence.
- B. After DISTRICT occupancy, allow access for DISTRICT'S personnel, access for others authorized by DISTRICT, and access by DISTRICT for operation of equipment and systems.
- C. Following Occupancy, DISTRICT will provide power to operate equipment and systems, and repair damage caused by DISTRICT occupancy.
- D. CONTRACTOR will not be required to reclean early occupied portions of Work prior to final acceptance, except for cleanup made necessary by CONTRACTOR's operations.
- E. Guarantee period for portions of the Work occupied by DISTRICT shall commence with date of Certificate of Substantial Completion of portions of Work for use by DISTRICT. Progress payment retentions for portions of the Work occupied by DISTRICT will be released as part of the retention for the total Work.

- F. DISTRICT'S use of occupied facilities shall not relieve CONTRACTOR from responsibility for correcting defective work or materials.
- G. No partial acceptance of the Work will be made and no acceptance other than the final acceptance of the completed Work will be made except for those portions of Work designated for early occupancy by DISTRICT.

END OF SECTION

SECTION 01800

TESTING AND LABORATORY SERVICES

Add specifications as needed.

SECTION 01810
SPECIAL MEETINGS

Add specifications as needed.

SECTION 01820

SPECIAL CONTRACT CLOSE OUT

Add specifications as needed.

SECTION 01830

SPECIAL SIGNAGE

Modify this specification as needed for the number of signs and location of the project.

Contractor shall furnish and install *one/two* project signs. The District inspector and *City of xxx or County of Orange* shall approve sign locations in the field. Dimensions of the signs shall be 4-feet by 8-feet mounted on 4-inch by 4-inch wooden posts. Signs shall be white with black letters and include the District logo, project name, District Public Affairs phone number: (949) 453-5500 and website, contractor's name and emergency contact information, and the scheduled completion date. An example of the sign layout is included in the appendix to these specifications.

SECTION 01840

BASIS OF MEASUREMENT FOR PAYMENT

Add specifications as needed.

SECTION 01900
GENERAL DESIGN REQUIREMENTS

Add specifications as needed.

PROJECT TECHNICAL SPECIFICATIONS

SECTIONS 2 – 17

PROJECT NO. XXXXX

*Include Sections 2 through 17 following
this page, or reference the document
that contains Sections 2-17.*

APPENDIX

APPENDIX

Table of Contents

Shop Drawing Transmittal Form

Survey Request Form

Soil Testing Request Form

~~Dewatering Report Form~~

Request for Information Form

Contract Change Request Form

Contract Change Order Form

Progress Payment Form

Confirmation of Subcontractors for Progress Payment Form

Certificate of Substantial Completion Form

Escrow Agreement for Security Deposits in Lieu of Retention Form

~~IRWD Alternating Friday Closure Schedule~~

IRWD Holiday Schedule

Project Sign Example

Storm Water Pollution Prevention Plan (SWPPP)

General Dewatering Permit Order No. R8-~~2007-0041~~2019-0061

General Dewatering Permit Order No. R8-~~2015-0004~~2020-0006

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Irvine Ranch Water District

15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000
(949) 453-5300

Project: _____

Project No.: _____

Contractor: _____

Address: _____

To: Irvine Ranch Water District
P.O. Box 57000
Irvine, CA 92619-7000

Date: _____

Attention: _____
IRWD PROJECT MANAGER

Phone No.: _____

Fax No.: _____

e-mail: _____

SHOP DRAWING TRANSMITTAL

SUBMITTAL No.:

SUBJECT OF SUBMITTAL: _____

SPECIFICATION SECTION(S): _____

CONTRACTOR'S CERTIFICATION: Check and complete either statement below:

☐ Contractor has verified that the material or equipment contained in this submittal meets all the requirements specified in or shown on the contract documents with no exceptions.

☐ Contractor has verified that the material or equipment contained in this submittal meets all the requirements specified in or shown on the contract documents except for the following deviations:

REQUIREMENT:

Contractor shall use this **Transmittal Form** for submittal of shop drawings to the Owner's Representative. The procedure governing shop drawings submittal is contained in the General Provisions of the Specifications. Failure to comply with all the requirements specified therein will constitute grounds for return of the shop drawings for proper resubmittal.

Contractor's Authorized Signature

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Irvine Ranch Water District

15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000
(949) 453-5300

Project: _____

Project No.: _____

Contractor: _____

Address: _____

To: Irvine Ranch Water District

P.O. Box 57000

Irvine, CA 92619-7000

Date: _____

Attention: _____

IRWD PROJECT MANAGER

Phone No.: _____

Fax No.: _____

e-mail: _____

SURVEY REQUEST

TYPE OF SURVEY	DESCRIPTION, STRUCTURE, STA.	OFFSET	STATION	DESIRED BY:	
				TIME	DATE
1					
2					
3					
4					
5					

ADDITIONAL INSTRUCTIONS, REMARKS, ETC., BY NUMBER:

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Irvine Ranch Water District

15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000
(949) 453-5300

Project: _____

Project No.: _____

Contractor: _____

Address: _____

To: Irvine Ranch Water District
P.O. Box 57000
Irvine, CA 92619-7000

Date: _____

Attention: _____
IRWD PROJECT MANAGER

Phone No.: _____

Fax No.: _____

e-mail: _____

SOIL TESTING REQUEST

TYPE OF TEST		DESCRIPTION, STRUCTURE, STA. TO STA., ETC...	DESIRED BY:	
			TIME	DATE
1				
2				
3				
4				
5				

ADDITIONAL INSTRUCTIONS, REMARKS, ETC., BY NUMBER:

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Irvine Ranch Water District

15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000
(949) 453-5300

Project: _____

Project No.: _____

Contractor: _____

Address: _____

To: Irvine Ranch Water District
P.O. Box 57000
Irvine, CA 92619-7000

Date: _____

Attention: _____
IRWD PROJECT MANAGER

Phone No.: _____

Fax No.: _____

e-mail: _____

REQUEST FOR INFORMATION

RFI No.:

INFORMATION REQUESTED:

BY:

REQUESTED DATE OF REPLY:

REPLY:

BY:

DATE:

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15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000
(949) 453-5300

Project No.

Date: _____

DAYS +

We hereby agree to make the above change subject to the terms of this change order for the sum of

Date _____ Contractor _____ By: _____

DATE _____

☐ Change Initiated by the District

☐ Change Initiated by the Contractor

CHANGES: All workmanship and materials called for by this Change Request shall be fully in accordance with the original Contract Documents insofar as the same may be applied without conflict to the conditions set forth by this Change Request. The time for completing the contract will not be extended unless expressly provided for in this Change Request

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15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000
(949) 453-5300

□ Final _____

Date: _____

THE FOLLOWING CHANGE TO CONTRACT, DRAWINGS AND SPECIFICATIONS IS PROPOSED.	\$ ADDITIONS	\$ DELETIONS	DAYS ±
TOTAL			

1. NET AMOUNT THIS CHANGE ORDER	=		
2. ORIGINAL CONTRACT AMOUNT	=		
3. TOTAL PREVIOUS CHANGE ORDER(S)	=		
4. TOTAL BEFORE THIS CHANGE ORDER (2+ 3)	=		
5. PROPOSED REVISED CONTRACT AMOUNT TO DATE (1+4)	=		

----- Dollars

SIGNATURE		DATE	APPROVAL LEVEL REQUIRED
IRWD Engineer or Consulting Engineer	Date	Department Director Approval Required Executive Director Approval Required General Manager Approval Required Board Approval Required	
Engineering Manager	Date		
Executive Director of Technical Services	Date		
General Manager	Date		Purchase Order No.

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Irvine Ranch Water District

15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000
(949) 453-5300

CONTRACTOR:

TELEPHONE:

PROJECT:

PROJECT NUMBER:

DATE PREPARED:

PO NUMBER:

CONTRACT START DATE:

CONTRACT COMPLETION DATE:

**PROGRESS PAY REQUEST NO.:
FOR PERIOD:**

CONTRACT SUMMARY

DAYS	CONTRACT AMOUNT	% COMPLETED	COMPLETED TO DATE
ORIGINAL CONTRACT			
CHANGE ORDERS			
Totals			
Less 5% Retention			
Total Due to Date			
Less Stop Payment Notices			
Less Previous Payments			
Total Amount of Payment to Contractor:			

CONTRACTOR

Payment to: *Contractor's Name*

Name, Project Manager DATE

\$0.00

Approved

IRVINE RANCH WATER DISTRICT

Name, Project Manager Date

Name Date
Engineering Manager, IRWD

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15600 Sand Canyon Avenue
P.O. Box 57000
Irvine, CA 92619-7000
(949) 453-5300

CONTRACTOR CONFIRMATION OF SUBCONTRACTORS FOR PROGRESS PAYMENT REQUESTS

PROJECT: _____

PROJECT NO.: _____

PROGRESS PAYMENT NO.: _____

FOR PERIOD: _____

Contractor shall provide the following information for all subcontractors who worked on the project during this payment period.

If no subcontractors performed work during this payment period, please check the following:

☐ No subcontractor work during this period[illegible]

Contractor's Name

Name, Project Manager

DATE

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Project Title: _____

_____ Project No: _____

Contractor: _____

Contract Start (Award) Date: _____ Contract Time: _____

Contract Completion Date: _____

Date of Substantial Completion: _____

The work performed under this contract has been inspected by the District and its representatives and is hereby accepted by the District as being substantially completed on the above date.

Substantial Completion is defined as meaning all work is complete except for minor corrections to work that has already been performed, and the date of substantial completion is the date when this level of completion has been achieved, in accordance with the contract documents, as modified by any change orders.

A list of all of the items remaining to be corrected is appended hereto. All such work shall be corrected to the satisfaction of the District before final acceptance of the project, otherwise the Contractor does hereby waive any and all claims to all moneys retained by the District under the Contract to cover the value of all such uncorrected items.

The Contractor hereby accepts the above conditions of substantial completion:

Contractor's Authorized Representative_____
Date_____
Irvine Ranch Water District's Authorized Representative_____
Date

The following items or supplementary sheets listing such items remaining to be corrected are hereby made a part of this document by reference thereto:

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ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into by and between IRVINE RANCH WATER DISTRICT whose address is 15600 Sand Canyon Avenue, Irvine, California 92618-3102

hereinafter called "DISTRICT," and _____
whose address is _____

hereinafter called "Contractor" and _____
whose address is _____

hereinafter called "Escrow Agent."

For the consideration hereinafter set forth, the DISTRICT, 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 DISTRICT pursuant to the Construction Contract entered into between DISTRICT and Contractor for _____ in the amount of _____ dated _____, (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the DISTRICT shall make payments of the retention earnings directly to the Escrow Agent. When the Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the DISTRICT within ten (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 DISTRICT and Contractor. Securities shall be held in the name of Irvine Ranch Water District, and shall designate the Contractor as the beneficial owner.

(2) The DISTRICT shall make progress payments to the Contractor for those 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 retentions earned directly to the Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until the time that the escrow created hereunder 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 DISTRICT 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 DISTRICT. These expenses and payment terms shall be determined by the DISTRICT, Contractor, and Escrow Agent.

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(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 DISTRICT.

(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 DISTRICT to the Escrow Agent that DISTRICT 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 Contractor. Upon seven (7) days' written notice to the Escrow Agent from DISTRICT of the default, Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the DISTRICT.

(8) Upon receipt of written notification from the DISTRICT 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 DISTRICT and Contractor pursuant to Sections (5) through (8), inclusive, of this agreement and the DISTRICT 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 DISTRICT and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of DISTRICT:

Title

Name

Signature

Address

On behalf of Contractor:

Title

Name

Signature

Address

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On behalf of Escrow Agent:

Title

Name

Signature

Address

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

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

DISTRICT:

CONTRACTOR:

Title

Title

Name

Name

Signature

Signature

Storm Water Pollution Prevention Plan (SWPPP)

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Order No. R8-2019-0061

NPDES No. CAG918002

General Dewatering Permit
(San Diego Creek/Newport Bay)

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Order No. R8-2020-0006~~2015-0004~~

NPDES No. CAG998001~~CAG998001~~

General Dewatering Permit
(Non-San Diego Creek/Newport Bay)

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