

REQUEST FOR PROPOSAL (RFP) No. 734-24-02

for Adeline Maintenance Center
Carpentry Shop - Dust Collection
System

ADDENDA

Prospective bidders are responsible for reviewing any published addenda regarding this bid at ebmud.com/business-center/

CONTACT

Alex Grauer, Assistant Engineer
(510) 287-1874
alex.grauer@ebmud.com

RESPONSE DUE

June 28, 2024
4:00 p.m. PST

SUBMIT ELECTRONICALLY TO*

Alex Grauer, EBMUD
alex.grauer@ebmud.com

**Hardcopy proposals will not be accepted*

EAST BAY MUNICIPAL UTILITY DISTRICT

RFP

for

Adeline Maintenance Center Carpentry Shop - Dust Collection System

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I. STATEMENT OF WORK

A. SCOPE

It is the intent of these specifications, terms, and conditions to describe the general services needed for demolishing the existing dust collection system and installation/commissioning of the new dust collection system for the carpenter shop at Adeline Maintenance Center. East Bay Municipal Utility District (District) intends to award a 1-year contract to the Proposer(s) who best meets the District's requirements.

B. PROPOSER QUALIFICATIONS

1. Proposer Minimum Qualifications

- a. Proposer, Proposer's principal, or Proposer's staff shall have been regularly engaged in the business of providing HVAC, electrical, and control systems installation/commissioning and experience with the installation of dust collection systems for at least three (3) years.
- b. Proposer shall possess all permits, licenses, and professional credentials necessary to perform services as specified under this RFP.

C. SPECIFIC REQUIREMENTS

- 1. Proposer shall demolish the existing dust collection system in accordance with Project Drawings, that consists of:
 - a. Two (2) existing Ecogate 8 controllers.
 - b. Blast gates and pressure sensors.
 - c. Control wiring and conduit, as needed.
 - d. Terminal blocks, cabling, and the control power transformer (CPT) located within the motor starter panel.
- 2. Proposer shall procure all equipment outlined in specification 25 35 13 and verify equipment type, number of items, and equipment size in accordance with Project Drawings and specifications.
- 3. Proposer shall install new dust collection system in accordance with Project Drawings, that consists of:
 - a. Modifying and installing new duct work at selective locations per attached drawings.
 - b. Install two (2) automatic dust collection system controllers.

- c. Install new blast gates and balancing slide gates at the locations identified on the drawings. The Proposer shall identify locations where Unistrut is necessary during the initial phase of the project and provide EBMUD with details in the initial submittal phase.
 - d. Install new control wiring between the blast gates, tools, sensors, and controllers.
 - e. Install voltage sensors and timers as identified on the drawings. The Proposer shall determine the location and method of connecting and housing such sensors in the field.
 - f. Install new conduit and determine conduit routing from controllers to tools, junction boxes, and blast gates. The Proposer shall install junction boxes and conduit supports as needed.
 - g. Proposer shall furnish all necessary labor, tools, and materials for installation of the dust collection system.
 - h. All electrical conductors must meet the standards of the specifications per 852-Z-002.1 and 26 05 19.
- 4. If the Proposer is not qualified, the Proposer shall hire a subcontractor to commission the system with an EBMUD Engineer upon installation to verify correct operation of all tools and equipment.
 - 5. Proposer shall be responsible for all work necessary to complete the scope of work that is not explicitly defined in this document including, but not limited to, electrical, plumbing, fire-proofing, painting, or other minor repairs.

D. DELIVERABLES / REPORTS

Submittals

- 1. Provide submittals for the following:
 - a. Schedule of values (SOV) for payment purposes.
 - b. Security submittals. See specification 01 35 53 (attached).
 - c. Duct work. See specifications per EBMUD General Cover Sheet drawing, 852-Z-002.1.
 - d. Control cables. See specifications per EBMUD General Cover Sheet drawing, 852-Z-002.1, and specification 26 05 19 for all other cables.
 - e. EMT, flexible metallic and non-metallic conduit.

- f. All equipment outlined in specification 25 35 13, including automatic controllers, automatic blast gates, balancing slide gates, flange rings, voltage sensors, current sensors, timers, workstation PC, terminal blocks, control power transformer, ice cube relay, and junction boxes.
- 2. Notice to proceed field work shall be issued after all submittals have been received and approved.
- 3. Submittals shall be provided to the District for review and approval. Product literature, O&M manuals, and Manufacturer’s data sheets shall all be submitted as electronic files in PDF format.

Reports

- 1. Weekly construction reports detailing major demolition and construction activities.

As-Builts & Equipment Documentation

- 1. As-built drawings shall be submitted as electronic files in PDF format.
- 2. Electronic documentation of warranty information for installed materials, in PDF format.

II. CALENDAR OF EVENTS

EVENT	DATE/LOCATION	
RFP Issued	May 3, 2024	
MANDATORY Site Walk	June 4, 2024 @ 10:00 a.m.	at: Adeline Maintenance Center (AMC) Shops Building (Carpentry Shop) 1200 21 st Street Oakland, CA 94607
Addendum to Announce Pre-Approved Equivalents (if necessary)		
Response Due	June 28, 2024 by 4:00 p.m.	
Anticipated Contract Start Date	September 9, 2024	

Note: All dates are subject to change **by District.**

Proposers are responsible for reviewing <https://www.ebmud.com/business-center/requests-proposal-rfps/> for any published addenda. Hard copies of addenda will not be mailed out.

A. MANDATORY SITE WALK/ PROPOSAL CONFERENCE

Mandatory site walk/Proposal conference will be held to:

1. Allow the District to discuss the scope of the project.
2. Provide Proposers an opportunity to view a site, receive documents, etc. necessary to respond to this RFP.
3. Provide an opportunity for Proposers to ask specific questions about the project and request RFP clarifications.
4. Provide the District with an opportunity to receive feedback regarding the project and RFP.

All questions deemed to be pertinent by the District will be addressed in Addenda following the site walk/Proposal conference.

*****In order to be eligible to Proposal on this RFP, a representative from the Proposer's company MUST attend site walk/Proposal conference and sign into confirm her/his attendance. If an RFP response is submitted by a company that was not in attendance at this meeting, its RFP response WILL be rejected*****

III. DISTRICT PROCEDURES, TERMS, AND CONDITIONS

A. RFP ACCEPTANCE AND AWARD

1. RFP responses will be evaluated by the Selection Committee and will be scored and ranked in accordance with the RFP section entitled "Evaluation Criteria/Selection Committee."
2. The Selection Committee will recommend award to the Proposer who, in its opinion, has submitted the RFP response that best serves the overall interests of the District. Award may not necessarily be made to the Proposer with the lowest overall cost.
3. The District reserves the right to award to a single or to multiple General or Professional Service Providers, dependent upon what is in the best interest of the District.
4. The District has the right to decline to award this contract or any part of it for any reason.

5. Any specifications, terms, or conditions issued by the District, or those included in the Proposer’s submission, in relation to this RFP, may be incorporated into any purchase order or contract that may be awarded as a result of this RFP.
6. Award of contract. The District reserves the right to reject any or all proposals, to accept one part of a proposal and reject the other, unless the proposer stipulates to the contrary, and to waive minor technical defects and administrative errors, as the interest of the District may require. Award will be made, or proposals rejected by the District as soon as possible after proposals have been opened.

B. EVALUATION CRITERIA/SELECTION COMMITTEE

All proposals will be evaluated by a Selection Committee. The Selection Committee may be composed of District staff and other parties that have expertise or experience in this type of procurement. The Selection Committee will select a Proposer in accordance with the evaluation criteria set forth in this RFP. The evaluation of the RFP responses shall be within the sole judgment and discretion of the Selection Committee.

The Selection Committee will evaluate each RFP response meeting the qualification requirements set forth in this RFP. Proposer should bear in mind that any RFP response that is unrealistic in terms of the technical or schedule commitments, or unrealistically high or low in cost, will be deemed reflective of an inherent lack of technical competence or indicative of a failure to comprehend the complexity and risk of the District’s requirements as set forth in this RFP.

RFP responses will be evaluated and scored according to the Evaluation Criteria below and scored according to a zero to five-point scale. The scores for all Evaluation Criteria will then be added to arrive at a weighted score for each RFP response. An RFP response with a high weighted total will be ranked higher than one with a lesser-weighted total.

The Evaluation Criteria are as follows:

	Evaluation Criteria
A.	<p>Cost:</p> <p>The points for Cost will be computed by dividing the amount of the lowest responsive RFP response received by each Proposer’s total proposed cost.</p> <p>While not reflected in the Cost evaluation points, an evaluation may also be made of:</p> <ol style="list-style-type: none"> 1. Reasonableness (i.e., does the proposed pricing accurately reflect the Proposer’s effort to meet requirements and objectives?); 2. Realism (i.e., is the proposed cost appropriate to the nature of the products and services to be provided?); and 3. Affordability (i.e., the ability of the District to finance this project).

	<p>Consideration of price in terms of overall affordability may be controlling in circumstances where two or more RFP responses are otherwise judged to be equal, or when a superior RFP response is at a price that the District cannot afford.</p>
B.	<p>Relevant Experience:</p> <p>RFP responses will be evaluated against the RFP specifications and the questions below:</p> <ol style="list-style-type: none"> 1. Do the individuals assigned to the project have experience on similar projects? 2. Are resumes complete and do they demonstrate backgrounds that would be desirable
C.	<p>Implementation Plan and Schedule:</p> <p>An evaluation will be made of the likelihood that the Proposer’s implementation plan and schedule will meet the District’s schedule. Additional credit will be given for the identification and planning for mitigation of schedule risks which the Proposer believes may adversely affect any portion of the District’s schedule.</p>
D.	<p>Understanding of the Project:</p> <p>Contractor responses will be evaluated against the RFP specifications. The Contractor will demonstrate that they understand the deliverables the District expects it to provide and that they understand the scope and timeline of the project.</p>
E.	<p>Contract Equity Program:</p> <p>Proposer shall be eligible for SBE or DVBE preference points if they are a certified small business entity, as described in the guidelines contained in Exhibit A-Contract Equity Program, <u>and</u> they check the appropriate box, requesting preference, in Exhibit A-Proposer Information and Acceptance. Qualified DVBEs and/or SBEs will receive an additional 5 points to their total score.</p>

C. PRICING

1. Prices quoted shall be firm for the first twelve (12) months of any contract that may be awarded pursuant to this RFP.
2. All prices quoted shall be in United States dollars.
3. Price quotes shall include any and all payment incentives available to the District.

4. Proposers are advised that in the evaluation of cost, if applicable, it will be assumed that the unit price quoted is correct in the case of a discrepancy between the unit price and extended price.
5. Prevailing Wages:

All Contractors proposing on a public works project and all Subcontractors of any tier shall be registered with the State Department of Industrial Relations pursuant to Section 1725.5 of the Labor Code.

The Contractor shall post a copy of the general prevailing rate of per diem wages at the jobsite pursuant to Section 1773.2 of the Labor Code of the State of California.

Pursuant to the provisions of Division 2, Part 7, Chapter 1, Article 2, and any amendments thereof of the Labor Code of the State of California, the Contractor and any Subcontractor shall pay not less than the specified prevailing rate of wages to all workers employed in the execution of the contract.

The Contractor shall, as a penalty to the State or the District, forfeit Twenty-Five (\$25.00) Dollars for each calendar day, or portion thereof, for each worker paid less than the stipulated prevailing rates for any work or craft in which such worker is employed under the contract by the Contractor or by any Subcontractor. The difference between such stipulated prevailing wage rates and the amount paid to such worker for each calendar day or portion thereof for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the Contractor. The Contractor shall comply with the provisions of Section 1776 of the Labor Code of the State of California. For all classes of work not specified herein, the minimum wage shall be that specified for general laborer.

The specified wage rates are minimum rates only and the District will not consider and shall not be liable for any claims for additional compensation made by the Contractor because of payment by Contractor of any wage rate in excess of the general prevailing rates. All disputes in regard to the payment of wages in excess of those specified herein shall be adjusted by the Contractor at his own expense.

The holidays upon which such rates shall be paid shall be all holidays recognized in the collective bargaining agreement applicable to the particular craft, classification, or type of worker employed on the project.

D. NOTICE OF INTENT TO AWARD AND PROTESTS

At the conclusion of the RFP response evaluation process, all entities who submitted a proposal package will be notified in writing by e-mail or USPS mail with the name of the Proposer being recommended for contract award. The document providing this notification is the Notice of Intent to Award.

Negotiations for a Consulting Services Agreement with a “not to exceed” contract price (for time and expenses) will be scheduled shortly after the Notice of Intent to Award. If an Agreement cannot be achieved, the District will proceed to negotiate with the next highest ranked Proposer.

Protests must be in writing and must be received no later than seven (7) workdays after the District issues the Notice of Intent to Award. The District will reject the protest as untimely if it is received after this specified time frame. Protests will be accepted from proposers or potential proposers only.

If the protest is mailed and not received by the District, the protesting party bears the burden of proof to submit evidence (e.g., certified mail receipt) that the protest was sent in a timely manner so that it would be received by the District within the RFP protest period.

Proposal protests must contain a detailed and complete written statement describing the reason(s) for protest. The protest must include the name and/or number of the proposal, the name of the firm protesting, and include a name, telephone number, email address and physical address of the protester. If a firm is representing the protester, they shall include their contact information in addition to that of the protesting firm.

Protests must be mailed, hand delivered, or emailed to the Manager of Purchasing, Mailstop 102, East Bay Municipal Utility District, 375 Eleventh Street, Oakland, CA 94607 or P.O. Box 24055, Oakland, California 94623. Facsimile and electronic mail protests must be followed by a mailed or hand delivered identical copy of the protest and must arrive within the seven workday time limit. Any proposal protest filed with any other District office shall be forwarded immediately to the Manager of Purchasing.

In the event that the protest is denied, the protester can appeal the determination to the requesting organization’s Department Director. The appeal must be submitted to the Department Director no later than five workdays from the date which the protest determination was transmitted by the District, to the protesting party. The appeal shall focus on the points raised in the original protest, and no new points shall be raised in the appeal.

Such an appeal must be made in writing and must include all grounds for the appeal and copies of the original protest and the District's response. The proposal protester must also send the Purchasing Division a copy of all materials sent to the Department Director.

The Department Director will make a determination of the appeal and respond to the protester by certified mail in a timely manner. If the appeal is denied, the letter will include the date, time, and location of the Board of Directors meeting at which staff will make a recommendation for award and inform the protester it may request to address the Board of Directors at that meeting.

The District may transmit copies of the protest and any attached documentation to all other parties who may be affected by the outcome of the protest. The decision of the District as to the validity of any protest is final. This District's final decision will be transmitted to all affected parties in a timely manner.

E. WARRANTY

1. Proposer expressly warrants that all goods and services to be furnished pursuant to any contract awarded it arising from the Proposal will conform to the descriptions and specifications contained herein and in supplier catalogs, product brochures, and other representations, depictions, or models, and will be free from defects, of merchantable quality, good material, and workmanship. Proposer expressly warrants that all goods and services to be furnished pursuant to such award will be fit and sufficient for the purpose(s) intended. This warranty shall survive any inspections, delivery, acceptance, payment, or contract termination for any reason, by the District. Proposer warrants that all work and services furnished hereunder shall be guaranteed for a period of **1** year from the date of acceptance by the District.

F. INVOICING

1. Following the Districts acceptance of product(s) meeting all specified requirements, and/or the complete and satisfactory performance of services, the District will render payment within thirty (30) days of receipt of a correct invoice.
2. The District will notify the General or Professional Service Provider of any invoice adjustments required.
3. Invoices shall contain, at a minimum, District purchase order number, invoice number, remit to address, and itemized services description.

4. The District will pay General or Professional Service Provider in an amount not to exceed the negotiated amount(s) which will be referenced in the agreement signed by both parties.

G. LIQUIDATED DAMAGES

1. A deduction for liquidated damages of \$1000 per week. be assessed for not meeting proposer submitted schedule construction completion date.
2. It being impracticable or extremely difficult to fix the actual damage, the amount set forth above is hereby agreed upon as liquidated damages and will be deducted from any money due under the agreement arising from this RFP.
3. In the event performance and/or deliverables have been deemed unsatisfactory, the District reserves the right to withhold future payments until the performance and/or deliverables are deemed satisfactory.

H. BONDS

1. The successful Proposer will be required to post and maintain a payment bond for two percent (2%) of the total contract amount with the District. Bonds must be on District forms attached to this RFP as **Exhibit D - Bond Forms**.

IV. RFP RESPONSE SUBMITTAL INSTRUCTIONS AND INFORMATION

A. DISTRICT CONTACTS

All contact during the competitive process is to be through the contact listed on the first page of this RFP. The following persons are to be contacted only for the purposes specified below:

FOR INFORMATION REGARDING TECHNICAL SPECIFICATIONS:

Attn: Alex Grauer, Assistant Engineer

EBMUD-Plant Engineering Services

E-Mail: alex.grauer@ebmud.com

PHONE: (510) 287-1874

FOR INFORMATION ON THE CONTRACT EQUITY PROGRAM:

Attn: Contract Equity Office

PHONE: (510) 287-0114

B. SUBMITTAL OF RFP RESPONSE

1. At this time, no hardcopy proposals will be accepted. Upload your RFP response in pdf format and prior to the bid due date/time RFP submittals, in their entirety, shall be emailed to alex.grauer@ebmud.com. The District's email has limitations

on attachment size. Make sure your response is less than 25 megabytes. If the file exceeds the limit, you will need to send multiple emails. Proposers are solely responsible for ensuring timely delivery of the proposals. The District shall not be responsible for any issues related to transfer of files through email.

2. All costs required for the preparation and submission of an RFP response shall be borne by the Proposer.
3. California Government Code Section 4552: In submitting an RFP response to a public purchasing body, the Proposer offers and agrees that if the RFP response is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 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, materials, or services by the Proposer for sale to the purchasing body pursuant to the RFP response. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the Proposer.
4. Proposer expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms “claim” and “knowingly” are defined in the California False Claims Act, Cal. Gov. Code, §12650 et seq.), the District will be entitled to civil remedies set forth in the California False Claim Act.
5. The RFP response shall remain open to acceptance and is irrevocable for a period of one hundred eighty (180) days, unless otherwise specified in the RFP documents.
6. It is understood that the District reserves the right to reject any or all RFP responses.

C. RESPONSE FORMAT

1. **Proposers shall not modify any part of Exhibits A, B, C, D, E, F, or G or qualify their RFP responses. Proposers shall not submit to the District a re-typed or otherwise re-created version of these documents or any other District-provided document.**
2. RFP responses, in whole or in part, are NOT to be marked confidential or proprietary. The District may refuse to consider any RFP response or part thereof so marked. RFP responses submitted in response to this RFP may be subject to public disclosure. The District shall not be liable in any way for disclosure of any such records.



EXHIBIT A

RFP RESPONSE PACKET

RFP For – Adeline Maintenance Center Carpentry Shop - Dust Collection System

To: The EAST BAY MUNICIPAL UTILITY District (“District”)

From: _____
(Official Name of Proposer)

RFP RESPONSE PACKET GUIDELINES

- **SUBMITTAL SHALL CONTAIN THE FOLLOWING:**
 - **EXHIBIT A – RFP RESPONSE PACKET**
 - **INCLUDING ALL REQUIRED DOCUMENTATION AS DESCRIBED IN “EXHIBIT A-REQUIRED DOCUMENTATION AND SUBMITTALS”**
- **PROPOSERS THAT DO NOT COMPLY WITH THE REQUIREMENTS, AND/OR SUBMIT AN INCOMPLETE RFP RESPONSE MAY BE SUBJECT TO DISQUALIFICATION AND THEIR RFP RESPONSE REJECTED IN WHOLE.**
- **IF PROPOSERS ARE MAKING ANY CLARIFICATIONS AND/OR AMENDMENTS, OR TAKING EXCEPTION TO ANY PART OF THIS RFP, THESE MUST BE SUBMITTED IN THE EXCEPTIONS, CLARIFICATIONS, AND AMENDMENTS SECTION OF THIS EXHIBIT A – RFP RESPONSE PACKET. THE DISTRICT, AT ITS SOLE DISCRETION, MAY ACCEPT AMENDMENTS/EXCEPTIONS, OR MAY DEEM THEM TO BE UNACCEPTABLE, THEREBY RENDERING THE RFP RESPONSE DISQUALIFIED.**
- **PROPOSORS SHALL NOT MODIFY DISTRICT LANGUAGE IN ANY PART OF THIS RFP OR ITS EXHIBITS, NOR SHALL THEY QUALIFY THEIR RFP RESPONSE BY INSERTING THEIR OWN LANGUAGE OR FALSE CLAIMS IN THEIR RESPONSE. ANY EXCEPTIONS AND CLARIFICATIONS MUST BE PLACED IN THE “EXCEPTIONS/ CLARIFICATIONS” PAGE, NOT BURIED IN THE PROPOSAL ITSELF.”.**



PROPOSER INFORMATION AND ACCEPTANCE

1. The undersigned declares that all RFP documents, including, without limitation, the RFP, Addenda, and Exhibits, have been read and that the terms, conditions, certifications, and requirements are agreed to.
2. The undersigned is authorized to offer, and agrees to furnish, the articles and services specified in accordance with the RFP documents.
3. The undersigned acknowledges acceptance of all addenda related to this RFP. List Addenda for this RFP on the line below:

Addendum #	Date

4. The undersigned hereby certifies to the District that all representations, certifications, and statements made by the Proposer, as set forth in this RFP Response Packet and attachments, are true and correct and are made under penalty of perjury pursuant to the laws of California.
5. The undersigned acknowledges that the Proposer is, and will be, in good standing in the State of California, with all the necessary licenses, permits, certifications, approvals, and authorizations necessary to perform all obligations in connection with this RFP and associated RFP documents.
6. It is the responsibility of each Proposer to be familiar with all of the specifications, terms, and conditions and, if applicable, the site condition. By the submission of an RFP response, the Proposer certifies that if awarded a contract it will make no claim against the District based upon ignorance of conditions or misunderstanding of the specifications.
7. Patent indemnity: General or Professional Service Providers who do business with the District shall hold the District, its Directors, officers, agents, and employees harmless from liability of any nature or kind, including cost and expenses, for infringement or use of any patent, copyright or other proprietary right, secret process, patented or unpatented invention, article, or appliance furnished or used in connection with the contract or purchase order.
8. Insurance certificates are not required at the time of submission. However, by signing Exhibit A – RFP Response Packet, the Proposer agrees to meet the minimum insurance requirements stated in the RFP.

This documentation must be provided to the District prior to execution of an agreement by the District and shall include an insurance certificate which meets the minimum insurance requirements, as stated in the RFP.

- 9. The undersigned acknowledges that RFP responses, in whole or in part, are NOT to be marked confidential or proprietary. The District may refuse to consider any RFP response or part thereof so marked. RFP responses submitted in response to this RFP may be subject to public disclosure. The District shall not be liable in any way for disclosure of any such records.
- 10. The undersigned Proposer hereby submits this RFP response and binds itself to the District. The RFP, subsequent Addenda, Proposers Response Packet, and any attachments, shall be used to form the basis of a Contract, which once executed shall take precedence.

11. The undersigned acknowledges **ONE** of the following (please check only one box)*:

- Proposer is not an SBE nor a DVBE and is ineligible for any Proposal preference; **OR**
- Proposer is an SBE or DVBE as described in the Contract Equity Program (CEP) and Equal Employment Opportunity (EEO) Guidelines, **and** has completed the CEP and EEO forms at the hyperlink contained in the CEP and EEO section of this Exhibit A.

*If no box is checked it will be assumed that the Proposer is ineligible for Proposal preference, and none will be given. For additional information on SBE/DVBE Proposal preference please refer to the Contract Equity Program and Equal Employment Opportunity Guidelines at the above referenced hyperlink.

Official Name of Proposer (exactly as it appears on Proposer's corporate seal and invoice): _____

Street Address Line 1: _____

Street Address Line 2: _____

City: _____ State: _____ Zip Code: _____

Webpage: _____

Type of Entity / Organizational Structure (check one):

- Corporation Joint Venture
- Limited Liability Partnership Partnership
- Limited Liability Corporation Non-Profit / Church
- Other: _____

Jurisdiction of Organization Structure: _____

Date of Organization Structure: _____

Federal Tax Identification Number: _____

Department of Industrial Relations (DIR) Registration Number: _____

Primary Contact Information:

Name / Title: _____

Telephone Number: _____ Fax Number: _____

E-mail Address: _____

Street Address Line 1: _____

City: _____ State: _____ Zip Code: _____

Does proposer or any employee/representative/service provider have any relatives currently employed with EBMUD? (This does not impact award of a qualified proposal; required reporting purposes only.)

YES NO

If so, please list :

CONTRACTOR OR CONTRACTOR EMPLOYEE FIRST AND LAST NAME	DISTRICT EMPLOYEE FIRST AND LAST NAME	RELATIONSHIP

SIGNATURE: _____

Name and Title of Signer (printed): _____

Dated this _____ day of _____ 20_____



PROPOSAL FORM

Cost shall be submitted on this Proposal Form as is. The prices quoted shall not include Sales Tax or Use Tax; said tax, wherever applicable, will be paid by the District to the General or Professional Service Provider, if licensed to collect, or otherwise directly to the State.

No alterations or changes of any kind to the Proposal Form(s) are permitted. RFP responses that do not comply may be subject to rejection in total. The cost quoted below shall be the cost the District will pay for the term of any contract that is a result of this RFP process.

Quantities listed herein are annual estimates based on past usage and are not to be construed as a commitment. No minimum or maximum is guaranteed or implied.

Description	Cost	Extended Cost
Procurement of all equipment outlined in specification 23 35 13 Dust Collection Control System.	\$	\$
Demolition of existing dust collection control system and motor starter panel equipment including blast gates, balancing slide gates, controllers, cables, pressure sensors, conduit, terminal blocks, and CPT.	\$	\$
Installation of new dust collection control system equipment and motor starter panel equipment including controllers, cables, automatic blast gates, balancing slide gates, flange rings, voltage/current sensors, timers, cables, conduit, duct work, junction boxes, terminal blocks, CPT, and an ice cube relay.	\$	\$
Assistance during field commissioning and project startup	\$	\$
TOTAL COST		\$



REQUIRED DOCUMENTATION AND SUBMITTALS

All of the specific documentation listed below is required to be submitted with the Exhibit A – RFP Response Packet. Proposers shall submit all documentation, in the order listed below, and clearly label each section of the RFP response with the appropriate title (i.e., Table of Contents, Letter of Transmittal, Key Personnel, etc.).

1. **Letter of Transmittal**: RFP response shall include a description of the Proposer’s capabilities and approach in providing its services to the District, and provide a brief synopsis of the highlights of the RFP response and overall benefits to the District. This synopsis should not exceed three (3) pages in length and should be easily understood.
2. **Key Personnel**: RFP response shall include a complete list of all key personnel associated with the RFP. This list must include all key personnel who will provide services/training to District staff and all key personnel who will provide maintenance and support services. For each person on the list, the following information shall be included:
 - (a) The person’s relationship with the Proposer, including job title and years of employment with the Proposer;
 - (b) The role that the person will play in connection with the RFP;
 - (c) The person’s telephone number, fax number, and e-mail address;
 - (d) The person’s relevant experience, certifications, and/or merits
3. **Description of the Proposed Equipment/System**: RFP response shall include a description of the proposed equipment/system, as it will be finally configured during the term of the contract. The description shall specify how the proposed equipment/system will meet or exceed the requirements of the District and shall explain any advantages that this proposed equipment/system would have over other possible equipment/systems. The description shall include any disadvantages or limitations that the District should be aware of in evaluating the RFP response. Finally, the description shall describe all product warranties provided by the Proposer.
4. **Description of the Proposed Services**: RFP response shall include a description of the terms and conditions of services to be provided during the contract term including response times. The description shall contain a basis of estimate for services including its scheduled start and completion dates, the number of Proposer’s and District personnel involved, and the number of hours scheduled for each person. The description shall identify spare or replacement parts that will be required in performing maintenance services, the anticipated location(s) of the spare parts, and how quickly the parts shall be available for repairs. Finally, the description must: (1) specify how the services in the RFP response will meet or exceed the requirements of the District; (2) explain any special resources or approaches that make the services of the

Proposer particularly advantageous to the District; and (3) identify any limitations or restrictions of the Proposer in providing the services that the District should be aware of in evaluating its RFP response to this RFP.

5. **Implementation Plan and Schedule:** The RFP response shall include an implementation plan and schedule. The plan for implementing the proposed equipment/system and services shall include an Acceptance Test Plan. In addition, the plan shall include a detailed schedule indicating how the Proposer will ensure adherence to the timetables for the final equipment/system and/or services.

6. **Sustainability Statement:** Contractors shall submit a statement regarding any sustainable, environmental or socially responsible initiatives or practices that they or their suppliers engage in. This information can be in relation to the specific services or work products solicited via this RFP, or in relation to the manufacture, delivery, or business practices of your firm.

7. **References:**
 - (a) Proposers must use the templates in the “References” section of this Exhibit A – RFP Response Packet to provide references.
 - (b) References should have similar scope, volume, and requirements to those outlined in these specifications, terms, and conditions.
 - Proposers must verify the contact information for all references provided is current and valid.
 - Proposers are strongly encouraged to notify all references that the District may be contacting them to obtain a reference.
 - (c) The District may contact some or all of the references provided in order to determine Proposer’s performance record on work similar to that described in this RFP. The District reserves the right to contact references other than those provided in the RFP response and to use the information gained from them in the evaluation process.

8. **Exceptions, Clarifications, Amendments:**
 - (a) The RFP response shall include a separate section calling out all clarifications, exceptions, and amendments, if any, to the RFP and associated RFP documents, which shall be submitted with the proposer’s RFP response using the template in the “Exceptions, Clarifications, Amendments” section of this Exhibit A – RFP Response Packet.
 - (b) **THE DISTRICT IS UNDER NO OBLIGATION TO ACCEPT ANY EXCEPTIONS, AND SUCH EXCEPTIONS MAY BE A BASIS FOR RFP RESPONSE DISQUALIFICATION.**

9. **Contract Equity Program:**

- (a) Every proposer must fill out, sign, and submit the appropriate sections of the Contract Equity Program and Equal Employment Opportunity documents located at the hyperlink contained in the last page of this Exhibit A. Special attention should be given to completing Form P-25, "Employment Data and Certification". Any proposer needing assistance in completing these forms should contact the District's Contract Equity Office at (510) 287-0114 prior to submitting an RFP response.



REFERENCES

RFP For - Adeline Maintenance Center Carpentry Shop - Dust Collection System

Proposer Name: _____

Proposer must provide a minimum of 3 references.

Company Name:	Contact Person:
Address:	Telephone Number:
City, State, Zip:	E-mail Address:
Services Provided / Date(s) of Service:	

Company Name:	Contact Person:
Address:	Telephone Number:
City, State, Zip:	E-mail Address:
Services Provided / Date(s) of Service:	

Company Name:	Contact Person:
Address:	Telephone Number:
City, State, Zip:	E-mail Address:
Services Provided / Date(s) of Service:	

Company Name:	Contact Person:
Address:	Telephone Number:
City, State, Zip:	E-mail Address:
Services Provided / Date(s) of Service:	

Company Name:	Contact Person:
Address:	Telephone Number:
City, State, Zip:	E-mail Address:
Services Provided / Date(s) of Service:	



EXCEPTIONS, CLARIFICATIONS, AMENDMENTS

RFP For – Adeline Maintenance Center Carpentry Shop - Dust Collection System

Proposer Name: _____

List below requests for clarifications, exceptions, and amendments, if any, to the RFP and associated RFP documents, and submit with your RFP response.

The District is under no obligation to accept any exceptions and such exceptions may be a basis for RFP response disqualification.

Reference to:			Description
Page No.	Section	Item No.	
p. 23	D	1.c.	<i>Proposer takes exception to...</i>

*Print additional pages as necessary



CONTRACT EQUITY PROGRAM & EQUAL EMPLOYMENT OPPORTUNITY

The District's Board of Directors adopted the Contract Equity Program (CEP) to enhance equal opportunities for business owners of all races, ethnicities, and genders who are interested in doing business with the District. The program has contracting objectives, serving as the minimum level of expected contract participation for the three availability groups: white-men owned businesses, white-women owned businesses, and ethnic minority owned businesses. The contracting objectives apply to all contracts that are determined to have subcontracting opportunities, and to all General or Professional Service Providers regardless of their race, gender, or ethnicity.

All Contractors and their subcontractors performing work for the District must be Equal Employment Opportunity (EEO) employers and shall be bound by all laws prohibiting discrimination in employment. There shall be no discrimination against any person, or group of persons, on account of race, color, religion, creed, national origin, ancestry, gender including gender identity or expression, age, marital or domestic partnership status, mental disability, physical disability (including HIV and AIDS), medical condition (including genetic characteristics or cancer), genetic information, or sexual orientation.

Contractor and its subcontractors shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity, or national origin in the performance of this contract. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.

All Contractors shall include the nondiscrimination provisions above in all subcontracts.

Please include the required completed forms with your proposal. Non-compliance with the Guidelines may deem a proposal non-responsive, and therefore, ineligible for contract award. Your firm is responsible for:

- 1) Reading and understanding the CEP guidelines.
- 2) Filling out and submitting with your proposal the appropriate forms.

The CEP guidelines and forms can be found at the following direct link:

[Contract Equity Guidelines and Forms](#)

The CEP guidelines and forms can also be downloaded from the District website at the following link:

<http://ebmud.com/business-center/contract-equity-program/>

If you have questions regarding the Contract Equity Program, please call (510) 287-0114.



EXHIBIT B INSURANCE REQUIREMENTS

CONTRACTOR/COMPANY NAME: _____

PROPOSER shall take out and maintain during the life of the Agreement all insurance required and PROPOSER shall not commence work until such insurance has been approved by DISTRICT. The proof of insurance shall be on forms provided by DISTRICT directly following these Insurance Requirements.

PROPOSERS are not required to submit completed insurance verification documents with their bid but will be required to submit them upon notification of award. By signing Exhibit A – RFP Response Packet, the BIDDER agrees to meet the minimum insurance requirements stated in the RFP.

The following provisions are applicable to all required insurance:

- A. Prior to the beginning of and throughout the duration of Services, and for any additional period of time as specified below, CONTRACTOR shall, at its sole cost and expense, maintain insurance in conformance with the requirements set forth below.
- B. CONTRACTOR shall provide Verification of Insurance as required by this Agreement by providing the completed Verification of Insurance as requested below by signing and submitting Exhibit B (“Insurance Requirements”) to the DISTRICT. The Insurance Requirements may be signed by the insurance broker or the insurance broker’s agent (Insurance Broker/Agent) for the CONTRACTOR, or by an officer of the CONTRACTOR (Officer), or by the CONTRACTOR’s risk manager (Risk Manager). The Notice to Proceed shall not be issued, and CONTRACTOR shall not commence Services until a signed Verification of Insurance evidencing the specific coverages and limits required by this Agreement has been received by the DISTRICT.
- C. CONTRACTOR shall carry and maintain the minimum insurance requirements as defined in this Agreement. CONTRACTOR shall require any contractor/subcontractor to carry and maintain the minimum insurance required in this Agreement to the extent the insurance applies to the scope of the services to be performed by contractor/subcontractor.
- D. Receipt of a signed Verification of Insurance by the DISTRICT shall not relieve CONTRACTOR of any of the insurance requirements, nor decrease liability of CONTRACTOR.
- E. Insurance must be maintained, and an updated Verification of Insurance must be provided to the DISTRICT before the expiration of insurance by having the Insurance Broker/Agent, Officer, or Risk Manager update, sign and return the Insurance Requirements to the DISTRICT’s contract manager. The updated Insurance Requirements shall become a part of the Agreement but shall not require a change order to the Agreement. It is the CONTRACTOR’s sole responsibility to provide or to ensure that an updated Verification of Insurance is provided to the DISTRICT. The DISTRICT has no obligation to solicit, remind, prompt, request, seek, or otherwise obtain any updated Verification of Insurance, and any actual or alleged failure on the part of the DISTRICT to obtain any updated Verification of Insurance under this Agreement shall not in any way be construed to be a waiver of any right or remedy of the DISTRICT, in this or any regard.

- F. The insurance required hereunder may be obtained by a combination of primary, excess and/or umbrella insurance, and all coverage shall be at least as broad as the requirements listed in this Agreement.
- G. Any deductibles, self-insurance, or self-insured retentions (SIRs) applicable to the required insurance coverage must be declared to and accepted by the DISTRICT.
- H. At the option and request of the DISTRICT, CONTRACTOR shall provide documentation of its financial ability to pay the deductible, self-insurance, or SIR.
- I. CONTRACTOR is responsible for the payment of any deductibles or SIRs pertaining to the policies required under this Agreement. In the event CONTRACTOR is unable to pay the required SIR, CONTRACTOR agrees that such SIR may be satisfied, in whole or in part, by the DISTRICT as the additional insured at the DISTRICT's sole and absolute discretion, unless to do so would terminate or void the policy(ies).
- J. Unless otherwise accepted by the DISTRICT, all required insurance must be placed with insurers with a current A.M. Best's rating of no less than A- V.
- K. CONTRACTOR shall defend the DISTRICT and pay any damages as a result of failure to provide the waiver of subrogation from the insurance carrier required by this Agreement.
- L. For any coverage that is provided on a claims-made coverage form (which type of form is permitted only where specified), the retroactive date must be shown, must be before the date of this Agreement, and must be before the beginning of any Services related to this Agreement.
- M. For all claims-made policies the updated Verification of Insurance must be provided to the DISTRICT for at least three (3) years after expiration or termination of this Agreement.
- N. If claims-made coverage is canceled or is non-renewed and if the claims-made coverage is not replaced with another claims-made policy form with a retroactive date prior to the effective date of this Agreement and prior to the start of any Services related to this Agreement, CONTRACTOR must purchase an extended reporting period for a minimum of three (3) years after expiration or termination of the Agreement.
- O. In the event of a claim or suit, and upon request by the DISTRICT, CONTRACTOR agrees to provide a copy of the pertinent policy(ies) within 10 days of such request to the DISTRICT for review. Any actual or alleged failure on the part of the DISTRICT to request a copy of the pertinent policy(ies) shall not in any way be construed to be a waiver of any right or remedy of the DISTRICT, in this or any regard. Additionally, the DISTRICT may, at any time during CONTRACTOR's performance under this Agreement, request a copy of the Declarations pages and Schedule of Forms and Endorsements of any policy required to be maintained by CONTRACTOR hereunder, whether or not a suit or claim has been filed. Premium details may be redacted from any such documents requested.
- P. The defense and indemnification obligations of this Agreement are undertaken in addition to, and shall not in any way be limited by, the insurance obligations contained herein.
- Q. Where additional insured coverage is required, the additional insured coverage shall be primary and non-contributory, and will not seek contribution from the DISTRICT's insurance or self-insurance.
- R. CONTRACTOR agrees to provide immediate Notice to the DISTRICT of any loss or claim against CONTRACTOR arising out of, pertaining to, or in any way relating to this Agreement or to Services performed under this Agreement. The DISTRICT assumes no obligation or liability by such Notice but

has the right (but not the duty) to monitor the handling of any such claim(s) if the claim(s) is likely to involve the DISTRICT.

- S. It is the obligation of the CONTRACTOR to ensure all contractors/subcontractors performing services under this Agreement maintain the necessary coverages and limits. CONTRACTOR shall ensure that all contractors/subcontractors agree to the same indemnity obligation that CONTRACTOR agrees to in this Agreement based on the nature and scope of services being performed by each contractor/subcontractor. CONTRACTOR shall require that each contractor/subcontractor include the DISTRICT, its directors, officers, and employees as additional insureds on its liability policy(ies) (excepting Professional Liability and Workers' Compensation) for all ongoing and completed operations with coverage as broad as required of CONTRACTOR under this Agreement. Failure or inability to secure fully adequate insurance shall in no way relieve the CONTRACTOR or all contractors/subcontractors of the responsibility for its own acts or the acts of any contractors/subcontractors or any employees or agents of either. All contractors/subcontractors are to waive subrogation against the DISTRICT on all policies. CONTRACTOR shall be responsible for maintaining records evidencing contractors'/subcontractors' compliance with the necessary insurance coverages and limits, and such records shall be made available to the DISTRICT within 10 days upon request.
- T. It is CONTRACTOR's responsibility to ensure its compliance with the insurance requirements. Any actual or alleged failure on the part of the DISTRICT to obtain proof of insurance required under this Agreement shall not in any way be construed to be a waiver of any right or remedy of the DISTRICT, in this or any regard.
- U. Notice of Cancellation/Non-Renewal/Material Reduction. The insurance requirements hereunder are mandatory, and the DISTRICT may, at its sole and absolute discretion, terminate the services provided by CONTRACTOR, should CONTRACTOR breach its obligations to maintain the required coverage and limits set forth in this Agreement. No coverage required hereunder shall be cancelled, non-renewed or materially reduced in coverage or limits without the DISTRICT being provided at least thirty (30) days prior written notice, other than cancellation for the non-payment of premiums, in which event the DISTRICT shall be provided ten (10) days prior written notice. Replacement of coverage with another policy or insurer, without any lapse in coverage or any reduction of the stated requirements does not require notice beyond submission to the DISTRICT of an updated Verification of Insurance which shall be met by having the Insurance Broker/ Agent, or Officer, or Risk Manager update, sign and return the Insurance Requirements.

I. Workers' Compensation and Employer's Liability Insurance Coverage

- A. Workers' Compensation insurance including Employer's Liability insurance with minimum limits as follows:
 - Coverage A. Statutory Benefits Limits
 - Coverage B. Employer's Liability of not less than:
 - Bodily Injury by accident: \$1,000,000 each accident
 - Bodily Injury by disease: \$1,000,000 each employee
 - Bodily Injury by disease: \$1,000,000 policy limit
- B. If there is an onsite exposure of injury to CONTRACTOR, and/or contractor/subcontractor's employees under the U.S. Longshore and Harbor Workers' Compensation Act, the Jones Act, or under laws, regulations or statutes applicable to maritime employees, coverage is required for such injuries or claims.

- C. If CONTRACTOR is exempt from carrying Workers' Compensation Insurance, CONTRACTOR must return the completed Verification of Insurance confirming that CONTRACTOR has no employees and is exempt from the State of California Workers' Compensation requirements.
- D. If CONTRACTOR is self-insured with respect to Workers' Compensation coverage, CONTRACTOR shall provide to the DISTRICT a Certificate of Consent to Self-Insure from the California Department of Industrial Relations. Such self-insurance shall meet the minimum limit requirements and shall waive subrogation rights in favor of the DISTRICT as stated below in section "E."
- E. Waiver of Subrogation. Workers' Compensation policies, including any applicable excess and umbrella insurance, must contain a waiver of subrogation endorsement providing that CONTRACTOR and each insurer waive any and all rights of recovery by subrogation, or otherwise, against the DISTRICT, its directors, board, and committee members, officers, officials, employees, agents, and volunteers. CONTRACTOR shall defend and pay any and all damages, fees, and costs, of any kind arising out of, pertaining to, or in any way relating to CONTRACTOR's failure to provide waiver of subrogation from the insurance carrier.

Verification of Workers' Compensation and Employer's Liability Insurance Coverage

By checking the box and signing below, I hereby verify that the CONTRACTOR is exempt from the State of California's requirement to carry Workers' Compensation insurance.

As the CONTRACTOR's Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Workers' Compensation insurance as required by this Agreement, including the relevant provisions applicable to all required insurance.

Self-Insured Retention: Amount: \$ _____

Policy Limit: \$ _____

Policy Number: _____

Policy Period: from _____ to _____

Insurance Carrier Name: _____

Insurance Broker/Agent or Officer or Risk Manager - Print Name: _____

Insurance Broker/Agent or Officer or Risk Manager's Signature: _____

II. Commercial General Liability Insurance ("CGL") Coverage

- A. CONTRACTOR's insurance shall be primary, and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.
- B. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance

requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

- C. Minimum Requirements. CGL insurance with minimum per occurrence and aggregate limits as follows:
- | | |
|------------------------------------|--|
| Bodily Injury and Property Damage | \$2,000,000 per occurrence & aggregate |
| Personal Injury/Advertising Injury | \$2,000,000 per occurrence & aggregate |
| Products/Completed Operations | \$2,000,000 per occurrence & aggregate |
- D. Coverage must be on an occurrence basis and be as broad as Insurance Services Office (ISO) form CG 00 01.
- E. Coverage for Products, and Completed Operations, and Ongoing Operations must be included in the insurance policies and shall not contain any “prior work” coverage limitation or exclusion applicable to any Services performed by CONTRACTOR and/or contractor/subcontractor under this Agreement.
- F. There will be no exclusion for explosions, collapse, or underground liability (XCU).
- G. Insurance policies and Additional Insured Endorsement(s) shall not exclude liability and damages to work arising out of, pertaining to, or in any way relating to services performed by contractor/subcontractor on CONTRACTOR’s behalf.
- H. Contractual liability coverage shall be included and shall not limit, by any modification or endorsement, coverage for liabilities assumed by CONTRACTOR under this Agreement as an “insured contract.”
- I. Waiver of Subrogation. The policy shall be endorsed to include a Waiver of Subrogation ensuring that the CONTRACTOR and its insurer(s) waive any rights of recovery by subrogation, or otherwise, against the DISTRICT, its directors, board, and committee members, officers, officials, agents, volunteers, and employees. CONTRACTOR shall defend and pay any and all damages, fees, and costs, of any kind, arising out of, pertaining to, or in any way resulting from CONTRACTOR’s failure to provide the waiver of subrogation from its insurance carrier(s).
- J. Independent Contractor’s Liability shall not limit coverage for liability and/or damages arising out of, pertaining to, or in any way resulting from Services provided under this Agreement.
- K. To the fullest extent permitted by law, the DISTRICT, its directors, board, and committee members, officers, officials, employees, agents, and volunteers must be covered as Additional Insureds on a primary and noncontributory basis on all underlying, excess and umbrella policies that shall be evidenced in each case by an endorsement. Coverage for the Additional Insureds must be as broad as ISO forms CG 20 10 (ongoing operations) and CG 20 37 (completed operations) for liability arising in whole, or in part, from work performed by or on behalf of CONTRACTOR, or in any way related to Services performed under this Agreement.
- L. A severability of interest provision must apply for all the Additional Insureds, ensuring that CONTRACTOR’s insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the policies’ limit(s).

Verification of Commercial General Liability (CGL) Insurance Coverage

As the CONTRACTOR’S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Commercial General Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance:

Self-Insured Retention: Amount: \$ _____

Policy Limit: _____

Policy Number: _____

Policy Period: from _____ **to** _____

Insurance Carrier Name: _____

Insurance Broker/Agent or Officer or Risk Manager - Print Name: _____

Insurance Broker/Agent or Officer or Risk Manager's Signature: _____

III. Business Auto Liability Insurance Coverage

- A. CONTRACTOR's insurance shall be primary, and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.
- B. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.
- C. Minimum Requirements. Auto insurance with minimum coverage and limits as follows:
 - Each Occurrence Limit (per accident) and in the Aggregate: \$2,000,000
 - Bodily Injury and Property Damage: \$2,000,000
- D. Coverage must include either "owned, non-owned, and hired" autos or "any" automobile. This provision ensures the policy covers losses arising out of use of company-owned vehicles ("owned autos"), employee's personal autos ("non-owned autos" meaning not owned by company/insured) or autos that are rented or leased ("hired autos").
- E. If CONTRACTOR is transporting hazardous materials or contaminants, evidence of the Motor Carrier Act Endorsement-hazardous materials clean-up (MCS-90, or its equivalent) must be provided.
- F. If CONTRACTOR's Scope of Services under this Agreement exposes a potential pollution liability risk related to transport of potential pollutants, seepage, release, escape or discharge of any nature (threatened or actual) of pollutants into the environment arising out of, pertaining to, or in any way related to CONTRACTOR's and/or contractor's/subcontractor's performance under this Agreement, then Auto Liability Insurance policies must be endorsed to include Transportation Pollution Liability insurance. Alternatively, coverage may be provided under the CONTRACTOR's Pollution Liability Policies if such policy has no exclusions that would restrict coverage under this Agreement. Coverage shall also include leakage of fuel or other "pollutants" needed for the normal functioning of covered autos.
- G. To the fullest extent permitted by law, the DISTRICT, its directors, board, and committee members, officers, officials, employees, agents, and volunteers must be covered as Additional Insureds on a primary and noncontributory basis on all underlying and excess and umbrella policies.

H. A severability of interest provision must apply for all the Additional Insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the insurer's limits of liability.

Verification of Business Auto Liability Insurance Coverage

As the CONTRACTOR'S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Business Automobile Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance:

Self-Insured Retention: Amount: \$ _____

Policy Limit: \$ _____

Policy Number: _____

Policy Period: from _____ to _____

Insurance Carrier Name: _____

Insurance Broker/Agent or Officer or Risk Manager – Print Name: _____

Insurance Broker/Agent or Officer or Risk Manager's Signature: _____

IV. Professional Liability (also known as Errors and Omissions) Insurance Coverage

A. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

B. Minimum Requirements: Professional Liability Insurance with minimum limits as follows:

Each Claim: \$2,000,000

Aggregate Limit: \$2,000,000

If Coverage is written on a claims-made form, the following shall apply:

1. The retroactive date must be shown and must be before the date of the Agreement or the beginning of the Services.
2. Insurance must be maintained, and evidence of insurance must be provided for a minimum of three (3) years after completion of the Services.
3. If claims-made coverage is canceled or non-renewed, and not replaced with another claims-made policies form with a retroactive date prior to the effective date of the Agreement, CONTRACTOR must purchase an extended reporting period for a minimum of three (3) years after completion of the Services.

C. Insurance shall include prior acts coverage sufficient to cover the services under this Agreement.

Verification of Professional Liability (Errors and Omissions) Insurance Coverage

As the CONTRACTOR’S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Professional Liability insurance as required by this Agreement, including the relevant provisions applicable to all required insurance.

Self-Insured Retention: Amount: \$ _____

Policy Limit: \$ _____

Policy Number: _____

Policy Period: from _____ **to** _____

Insurance Carrier Name: _____

Insurance Broker/Agent or Officer or Risk Manager- Print Name: _____

Insurance Broker/Agent or Officer or Risk Manager’s Signature: _____

V. Pollution Liability Insurance Coverage

- A. CONTRACTOR’s insurance shall be primary, and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.
- B. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.
- C. Minimum Requirements: Pollution Liability Insurance with minimum limits, as follows:

Each Claim or Occurrence Limit:	\$2,000,000
Aggregate Limit:	\$2,000,000
- D. Coverage must be included for bodily injury and property damage, including coverage for loss of use and/or diminution in property value, and for clean-up costs arising out of, pertaining to, or in any way related to the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of contaminants or pollutants, arising out of, pertaining to, or in any way resulting from any Services performed by CONTRACTOR under this Agreement; including any transportation of hazardous wastes, hazardous materials, or contaminants.
- E. If Coverage is written on a claims-made form, the following shall apply:
 - 1. The retroactive date must be shown and must be before the date of the Agreement or the beginning of the Services.
 - 2. Insurance must be maintained, and evidence of insurance must be provided for a minimum of three (3) years after completion of the Services.

3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the effective date of the Agreement, CONTRACTOR must purchase an extended reporting period for a minimum of three (3) years after completion of the Services.

F. Insurance written on a claims-made basis shall include prior acts coverage sufficient to cover the services provided by CONTRACTOR under this Agreement.

Verification of Pollution Liability Insurance Coverage

As the CONTRACTOR’S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Pollution Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance.

Self-Insured Retention: Amount: \$ _____

Policy Limit: \$ _____

Policy Number: _____

Policy Period: from _____ **to** _____

Insurance Carrier Name: _____

Insurance Broker/Agent or Officer or Risk Manager - Print Name: _____

Insurance Broker/Agent or Officer or Risk Manager’s Signature: _____

VI. Excess and/or Umbrella Liability Insurance Coverage (Optional – See Paragraph A below)

A. The insurance requirements set forth above may be satisfied by a combination of primary and excess or umbrella policies. Where excess or umbrella policies are used the following shall apply:

B. CONTRACTOR’s insurance shall be primary, and any insurance or self-insurance procured or maintained by the DISTRICT shall not be required to contribute to it.

C. The insurance requirements under this Agreement shall be the greater of (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policies or proceeds available to the Named Insured. It is agreed that these insurance requirements shall not in any way act to reduce coverage that is broader or that includes higher limits than the minimums required herein. No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR.

D. Minimum Requirements: It is expressly understood by the parties that CONTRACTOR’s Excess and/or Umbrella Liability policies shall, at minimum, comply with all insurance requirements set forth within this Agreement, and shall be at least as broad as coverage required of the underlying policies required herein.

1. Coverage for Products, Completed Operations, and Ongoing Operations must be included in the insurance policies and shall not contain any “prior work” coverage limitation or exclusion applicable to any Services performed under this Agreement and, if it is a claims-made policy, it must be maintained for a minimum of three (3) years following final completion of the Services.

2. There will be no exclusion for explosions, collapse, or underground damage (XCU).

3. Insurance policies and Additional Insured Endorsements shall not exclude coverage for liability and damages from services performed by contractor/subcontractor on CONTRACTOR’s behalf.
4. Contractual liability coverage shall be included and shall not limit, by any modification or endorsement, coverage for liabilities assumed by CONTRACTOR under this Agreement as an “insured contract.”
5. Independent Contractor’s Liability shall not limit coverage for liability and/or damage arising out of, pertaining to, or in any way related to Services provided under this Agreement.
6. To the fullest extent permitted by law, the DISTRICT, its directors, officers, officials, agents, volunteers, and employees must be covered as Additional Insureds on a primary and noncontributory basis on all excess and umbrella policies. The Additional Insureds must be covered for liability arising in whole or in part from any premises, Products, Ongoing Operations, and Completed Operations by or on behalf of CONTRACTOR, in any way related to Services performed under this Agreement.
7. A severability of interest provision must apply for all the Additional Insureds, ensuring that the CONTRACTOR’s insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the policy’s limits.
8. CONTRACTOR and its excess and/or umbrella Liability insurance coverage must waive any rights of subrogation against the DISTRICT, its directors, officers, officials, employees, agents, and volunteers, and CONTRACTOR shall defend and pay any damages as a result of failure to provide the waiver of subrogation from the insurance carrier(s).

Verification of Excess and/or Umbrella Liability Insurance Coverage

As the CONTRACTOR’S Insurance Broker/Agent, Officer, or Risk Manager, I hereby verify that I have reviewed and confirmed that the CONTRACTOR carries Excess and/or Umbrella Liability insurance, as required by this Agreement, including the relevant provisions applicable to all required insurance.

Excess/Umbrella Limits: Amount \$ _____

Policy Limit: \$ _____

Policy Number: _____

Policy Period from _____ **to** _____

Insurance Carrier Name: _____

Underlying Policy(ies) listed above to which Excess/Umbrella applies:

Insurance Broker/Agent or Officer or Risk Manager - Print Name: _____

Insurance Broker/Agent or Officer or Risk Manager’s Signature: _____

EXHIBIT C - GENERAL REQUIREMENTS

GENERAL SERVICES AGREEMENT CONDITIONS

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GENERAL CONDITIONS

ARTICLE 1 - GENERAL PROVISIONS

1.1 Interpretation

1.1.1 The following interpretative rules apply throughout the Contract Documents.

- .1 The provisions of the Contract Documents are complementary and should be interpreted viewing the Contract Documents as a whole.
- .2 A concept phrased in the singular should be interpreted in the plural as required.
- .3 Masculine includes feminine, and feminine includes masculine.
- .4 The words “shall,” “will” and “must,” in any of their tenses, indicate mandatory requirements.
- .5 The use of examples like “such as” or “including” does not limit or exclude examples not specifically mentioned.
- .6 The words “provide,” “perform,” “construct,” and “install” mean, unless preceded by the word “only,” that the Contractor shall provide, perform, construct, and install and include all services necessary to provide, perform, construct and install.

1.2 Definitions

1.2.1 Throughout the Contract Documents, the terms below will have the following defined meanings:

- .1 **Act of God:** An occurrence or condition and effect as defined in Public Contract Code §7105.
- .2 **Addendum:** A written change, clarification, or correction to the Contract Documents issued by the East Bay Municipal Utility District prior to bid opening.
- .3 **Bidder:** Any vendor, individual, partnership, joint venture, or corporation submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.
- .4 **Board or Board of Directors:** The Board of Directors of the East Bay Municipal Utility District.

- .5 Business Entity:** Any individual, business, partnership, joint venture, corporation, sole proprietorship, or other private legal entity recognized by statute.
- ..6 Change Order:** A Change Order is a written instrument used for modifying the contract with regards to the scope of Work, Contract Sum, and/or Contract Time. An approved Change Order is a Change Order signed by the District. An executed Change Order is a Change Order signed by both the District and the Contractor.
- .7 Compensable Delay:** A period of delay to the Contractor's performance of the Work that meets all of the following criteria:
- a) the delay directly prevents the Contractor from performing critical path Work;
 - b) the delay is caused directly and solely by the District or by causes within the exclusive control of the District;
 - c) the delay is not concurrent with any other type of delay;
 - d) the delay could not have been avoided by the Contractor through work-arounds, rescheduling or other mitigation measures; and
 - e) the Contractor gave timely notice of the delay to the District in compliance with the terms of this contract.
- .8 Concurrent Delay:** Two or more independent causes of delay to the Contractor's performance of the Work that meet all of the following criteria:
- a) the delays occur at the same time during all or a portion of the delay period being considered;
 - b) the delays directly prevent the Contractor from performing critical path Work;
 - c) each of the delays would have delayed the Contractor's performance of critical path work even in the absence of any of the other delays;
 - d) none of the delays could have been avoided by the Contractor through work-arounds, rescheduling or other mitigation measures required under this contract; and
 - e) the Contractor gave timely notice of the delays to the District in compliance with the terms of this contract.
- .9 Contract Completion:** The Work has been fully completed in accordance with the Contract Documents as determined by the Engineer and all governmental authorities with jurisdiction over the project have issued acceptance or a certificate of occupancy.
- .10 Contract Documents:** See Article 1.3.

- .11 Contract Sum:** The contract price stated in the signed General Services Agreement plus all Approved Change Orders.
- .12 Contract Time:** The number of days set forth in the contract to achieve Contract Completion. The required completion date is computed by adding the number of days to the effective date of the Notice to Proceed. If the required completion date falls on a District holiday or non-Work Day, that day is excluded and the following Work Day is counted. The Contract Time may only be adjusted by approved Change Order.
- .13 Contractor:** The Business Entity with whom the District enters into a contractual agreement. Contractor shall be synonymous with “supplier”, “vendor”, “consultant” or other similar term.
- .14 Critical Path:** The sequence of schedule activities that determines the duration of the Work.
- .15 Day:** Unless otherwise specified, days are calendar days, measured from midnight to the next midnight.
- .16 Deficiency Notice:** A written notice issued by the Engineer informing the Contractor of non-conforming Work.
- .17 District:** The East Bay Municipal Utility District.
- .18 Engineer:** The Director of Engineering and Construction or the Director of Wastewater of the District acting directly or through authorized agents acting within the duties entrusted to them.
- .19 Excusable Delay:** A period of delay to the Contractor’s performance of the Work that meets all of the following criteria:
- a) the delay prevents the Contractor from performing critical path work;
 - b) the delay is directly caused by events beyond the control of both the District and the Contractor (including, but not limited to, adverse weather);
 - c) the delay is not concurrent with an Inexcusable Delay as defined in this contract;
 - d) the delay could not have been avoided by the Contractor through work-arounds, rescheduling or other mitigation measures required under the contract; and
 - e) the Contractor gave timely notice of the delay to the District in compliance with the terms of this contract.
- .20 Fixed Costs (also known as Fixed Price):** Any necessary labor, material, and equipment costs directly expended which remain constant regardless of the quantity of work done.

- .21 Force Account:** Method of compensation for Work performed that is billed at actual cost for labor, materials, equipment, taxes and other costs plus a specified percentage of markup for overhead and profit. Compensation rate for certain cost elements may be specified in the contract.
- .22 Force Majeure:** An event of force majeure is an event or circumstance which is beyond the control and without the fault or negligence of the Contractor or the District, and which by the exercise of reasonable diligence the Contractor or the District is unable to anticipate or prevent, provided that the event or circumstance is limited to: adverse weather conditions, including, but not limited to, National Weather Service Red Flag Warnings, public safety power shutoffs, drought, fires, or floods; wars; civil or military disturbances; acts of terrorism; epidemics; acts of civil or military authority; or governmental actions, that affect the Contractor's or District's ability to perform its contractual scope of work.
- .23 Free Float (also known as Activity Float):** The amount of time that a scheduled activity can be delayed without delaying the early start of any immediately following schedule activity.
- .24 Goods:** Off-the-shelf software and all types of tangible property, including but not limited to materials, supplies, and equipment.
- .25 Inexcusable Delay:** A period of delay to the Contractor's performance of the Work caused by circumstances within the Contractor's control or within the scope of the Contractor's contract responsibilities. Delays attributable to or within the control of a Subcontractor of any tier, or a Supplier, shall be deemed to be delays within the control of the Contractor. Inexcusable Delays include, but are not limited to, any of the following:
- a) delays caused by the Contractor's failure to perform its cooperation and coordination responsibilities required by this contract;
 - b) delays caused by the District's enforcement of any government act or regulation, or the provisions of the contract;
 - c) delays caused by the District's right to sequence the Work in a manner that would avoid disruption to the District's tenants, customers, contiguous property owners, and their contractors or other prime contractors and their respective Subcontractors;
 - d) any delay that is neither a Compensable Delay nor Excusable Delay as defined in this contract; and
 - e) delays of any kind that the Contractor fails to give timely notice to the District in compliance with the terms of this contract.
- .26 Lump Sum Price:** Pricing arrangement where the Contractor agrees to perform the scope of work for a fixed price that cannot be adjusted unless there is a

Change Order. For the purpose of this contract, the terms Lump Sum Price and Fixed Price adjustment are used interchangeably.

- .27 Notice to Proceed:** A written directive, issued by the District, authorizing the Contractor to start performance of the work and establishing date of commencement of the work. The effective date is the date the Contractor acknowledges receipt of the Notice to Proceed or five days from mailing, whichever is earlier.
- .28 Shop Drawings:** Includes all drawings, specifications, diagrams, calculations, illustrations, product samples, brochures, catalog cuts, schedules, and other data which are prepared by the Contractor, a Subcontractor, tier-subcontractor, manufacturer, Supplier, or distributor, illustrating how specific portions of the Work shall be fabricated or installed.
- .29 Shoring:** A temporary structural system designed to support any and all loads for the purposes of excavation. Sloping of the soil shall not be considered as shoring.
- .30 Subcontractor:** The person or persons, co-partnership, firm or entity in direct contract with the Contractor or with any other Subcontractor for the purpose of furnishing materials, equipment, and/or performing a part of the contract Work.
- .31 Superintendent:** The Contractor's authorized on-site representative in charge of supervising the Work. Instructions and information given by the Engineer to the Superintendent shall be considered to have been given to the Contractor.
- .32 Supplier:** A manufacturer, fabricator, distributor, or any person or organization who supplies materials or equipment for the contract Work, including that fabricated to a special design, but who does not ordinarily perform labor at the jobsite.
- .33 Total Float:** The amount of time that a schedule activity may be delayed from its early start without delaying the Contract Completion date, or violating a schedule constraint.
- .34 Underground Utilities:** All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities that are installed underground to furnish any of the following services or materials: water, sewage and drainage removal, electricity, gases, steam, liquid petroleum products, telephone or other communication systems, cable television, traffic, or other control or information systems.

- .35 Unit Price:** Pricing arrangement in which the total amount of compensation for performance of the work is computed by multiplying the actual quantity of Work performed by the line item unit price except as noted in Article 7.5. Measurement of the quantity of work performed shall be determined by the Engineer.
- .36 Work:** All labor, material, equipment, submittal, and appurtenances required to be furnished to properly fulfill the Contractor's obligations as required by the Contract Documents.
- .37 Work Day:** Unless specified elsewhere, work day includes all days of the year except Saturdays, Sundays, and District Holidays.

1.3 Contract Documents

- 1.3.1** The Contract Documents comprise the entire agreement between the District and the Contractor concerning the Work. The Contractor shall properly perform all requirements of the Contract Documents.
- 1.3.2** The Contract Documents include the District's General Services Agreement and any exhibits attached thereto, purchase order, Request for Proposal (RFP), Request for Quotation (RFQ) or Contractor response packet, drawings, specifications, addenda, and approved Change Orders or amendments, if any.
- 1.3.3** The Contract Documents are intended to be complementary and include all items necessary for the Contractor's proper execution and completion of the Work. Anything mentioned in the specifications and not shown on the drawings or shown on the drawings and not mentioned in the specifications shall be as if shown or mentioned in both. Any part of the Work not shown or mentioned on the drawings or in the specifications that is reasonably implied by either, or is necessary or usual for proper performance of the Work, shall be provided by the Contractor at its expense.
 - .1** In the case of conflicts, errors, or discrepancies in any of the Contract Documents, the order of precedence is as follows. Within the same order of precedence, specific requirements shall take precedence over general requirements.
 - 1.** Approved change Orders
 - 2.** Addenda
 - 3.** RFQ or RFP
 - 4.** General Services Agreement General Conditions
 - 5.** Referenced Standard Specifications and Drawings
 - 6.** Contractor's Response packet
 - 7.** Referenced Standard Specifications

.2 With reference to the Drawings:

- 1.** Numerical dimensions govern over scaled dimensions
- 2.** Detailed drawings govern over general drawings
- 3.** Addenda/Change Order drawings govern over contract drawings
- 4.** Contract drawings govern over standard drawings
- 5.** Notes apply only to the drawing where the notes appear, unless classified as “typical” or intended to apply elsewhere in which case they apply to all drawings where the conditions or circumstance noted occurs
- 6.** Typical details apply to all drawings unless a specific different detail is shown

1.3.4 “Related Sections” are referenced solely for the convenience of the Contractor and its Subcontractors and Suppliers, but does not, whether by omission or otherwise, lessen the requirements of the specification section where the related section is referenced.

1.3.5 Command type sentences used in the specifications refer to and are directed to the Contractor.

1.3.6 No interest in the contract shall be transferred to any other party without permission of the Board of Directors.

ARTICLE 2 - RIGHTS-OF-WAY AND PROPERTY

2.1 Provided by the District

2.1.1 The District will provide reasonable access to the site for performance of the Work. Upon approval by the Engineer, the Contractor may use a suitable portion of the District's rights-of-way or property for working space and for storage of equipment and materials. The Contractor is responsible for any damage resulting from its use of the District's rights-of-way or property and shall return and restore it to its pre-existing condition. The District will not be responsible for any loss or damage to equipment or materials stored on the work site or on the District's rights-of-way or property.

2.1.2 The Contractor does not have exclusive use of the site or the rights-of-way and must coordinate its use with the District and others.

2.2 Additional Property

2.2.1 If the Contractor's operations cause the contractor to require additional property that is not within the District's rights-of-way or property for its operations, the

Contractor shall, at its own expense, arrange with the property owners to use the additional property.

- 2.2.2 Agreements with property owners for storing materials and equipment, or other purpose related to the Work shall be made in writing with a copy submitted to the Engineer.

ARTICLE 3 - ADMINISTRATION OF THE CONTRACT

3.1 Authority of the Engineer

- 3.1.1 The decision of the Engineer will be final and binding on both parties with respect to all questions concerning the intent of the Contract Documents, the acceptability of material or equipment, the classification of material, the execution of the Work, and/or conflicting interests of separate contractors performing related work.

3.2 Inspection and Non-Conforming Work

- 3.2.1 All materials furnished and Work completed under the contract is subject to inspection by the Engineer. The Engineer's inspections are solely for the District's benefit and do not constitute acceptance of any of the Contractor's work or waiver of the requirement that the Contractor's work conform to the requirements of the Contract Documents. The Contractor shall furnish, without extra charge, all necessary test pieces and samples, including facilities and labor for obtaining those pieces, as requested by the Engineer. The Engineer will have safe access to the work site or shop where the work, material or equipment subject to inspection is being performed or manufactured or where any off-site work is being performed, including shops, sites, and assembly facilities of Subcontractors and Suppliers.
- 3.2.2 All material, equipment or Work that does not conform to the Contract Documents is non-conforming work and will be rejected regardless of whether it may have been inspected by the Engineer or its representative. Installation of unapproved materials and equipment is non-conforming work until the materials or equipment are approved by the Engineer. Deficiency Notices may be issued by the Engineer to advise the Contractor of non-conforming work. However, lack of a Deficiency Notice shall not waive the Contractor's obligation to correct any and all non-conforming work, patent or latent, through the expiration of the warranty period, or other such longer period as specified in the Contract Documents.
- 3.2.3 Within 10 Work Days after receipt of a Deficiency Notice, the Contractor shall submit its proposal and schedule for correcting all non-conforming work. The District may withhold 150% of the installed value identified or such reasonable costs as determined by the Engineer until the non-conforming work is completed in accordance with the requirements of the Contract Documents. Additional costs for

engineering, observation, administrative, clerical or other work associated with or resulting from the Contractor's failure to perform its work in conformance with the Contract Documents shall be borne solely by the Contractor, and the Engineer may elect to deduct the District's additional costs from any future payments to the Contractor. If the Contractor refuses or neglects to replace the non-conforming work, the District may correct or replace the non-conforming work at the Contractor's expense. The District's expenses in correcting any non-conforming work will be calculated as fully burdened costs for labor, plus actual costs for materials and equipment, plus a 15% markup on materials and equipment.

- 3.2.4** Work completed without the Engineer's inspection and approval may be required to be reconstructed or replaced upon the Engineer's inspection. Work covered without prior approval of the Engineer may be required to be uncovered to the extent necessary for the Engineer to determine if the covered Work is satisfactory. The entire cost of replacing or uncovering and re-covering the Work, including the cost of materials furnished by the District, shall be borne by the Contractor, whether or not the Work uncovered or replaced is found to be defective.

3.3 Lines, Grades, and Measurements

- 3.3.1** Lines and grades will be established by the Engineer, unless otherwise noted, and the Contractor shall provide such assistance and materials as may be required. The Contractor shall be responsible for transferring grades from the survey stakes provided by the Engineer. The Contractor shall carefully preserve all stakes and reference points. Should any stakes, points or monuments be removed or destroyed without the approval of the Engineer, the stakes, points or monuments shall be reset, as necessary, at the Contractor's expense.

- 3.3.2** The Contractor shall inform the Engineer at least four full Work Days in advance of the times and places that the Contractor requires establishment of lines, grades, or quantity surveys.

- 3.3.3** If the Contractor fails to provide timely notice to the Engineer regarding its survey requirements, no compensation will be made for the impact to the Contractor for resulting delays.

3.4 Disputes and Claims

3.4.1 Disputes

- .1** If the Engineer issues an order or decision that requires the Contractor to perform Work that the Contractor believes is not required by the Contract Documents, the Contractor shall, within 48 hours of the order or decision, notify the Engineer in writing that it disputes the order or decision. The Contractor's notice shall include the date and circumstances of the Engineer's order or decision and the detailed basis for disputing the order or decision. Regardless

of the basis of the dispute, the Contractor shall immediately perform the disputed Work or conform to the Engineer's order or decision.

- .2 **Notice of Intent To File a Claim:** The Engineer will consider and investigate the dispute and issue a written and final decision regarding the dispute. If the Contractor disagrees with the Engineer's final decision, the Contractor shall, within 10 days of receipt of the decision, send the Engineer a written Notice of Intent To File a Claim.
- .3 **Waiver:** Failure of the Contractor to comply with the notifications of Articles 3.4.1.1 and 3.4.1.2 within the specified time constitutes a waiver of the Contractor's right to assert a Claim concerning such matter.

3.4.2 Claims

- .1 **Time to Submit Claim:** The Contractor shall submit a written Claim within 30 days after submitting a Notice of Intent to File a Claim. The Claim shall relate directly to the circumstances addressed in the Notice of Intent to File a Claim, must identify the date of the Notice of Intent to File a Claim to which the Claim relates, and may not raise new issues or circumstances that were not identified in the Notice of Intent to File a Claim. The Claim shall clearly state that it is a Claim being submitted under this Article. Failure to submit a written Claim within the 30-day period waives any right to recover compensation or obtain an extension of Contract Time due to the issues referenced in the Notice of Intent to File a Claim.
- .2 **Contents of Written Claim:** The written Claim shall provide detailed information sufficient to allow the Engineer to evaluate entitlement and value of the Claim, including:
 - a) Description of the event or events giving rise to the Claim;
 - b) Identification of the date or dates of the event, or events giving rise to the Claim;
 - c) Identification of all statutory or contractual support for the Claim; and
 - d) Detailed analysis of the asserted effect on the Contract Sum and the Contract Time.
- .3 **Extensions in Contract Time:** The Claim shall provide an analysis of schedule impact that describes how the Contractor will incorporate the alleged changed Work in the schedule and how that Work impacts the current accepted schedule. The analysis of schedule impacts shall contain a written narrative and a schedule diagram depicting how the alleged changed Work affects other schedule activities and an analysis of the potential mitigation efforts. The written narrative shall describe the sequence of events surrounding the alleged change, the effect the events had or will have on the progress of the Work, an explanation regarding the cause of delay, the Contractor's mitigation efforts

taken to minimize time impacts to the project, and the Contractor's determination whether additional compensation and/or an extension of the Contract Time is sought for delay. If the Contractor is requesting an extension in the Contract Time, the magnitude and cause of the delay shall be demonstrated in the analysis of schedule impacts.

- .4 Delay Analysis Diagrams:** The analysis diagram shall be provided in an editable, electronic, file format as well as a printed copy. The results of the analysis diagram shall be tied to the affected sequence of schedule activities to enable the Engineer to evaluate the impact to the critical path as a result of the alleged changed work. The schedule diagram shall also show logic relationships and durations of new activities associated with the alleged change and logic and duration revisions to existing schedule activities due to the alleged change and mitigations taken to minimize impacts to the project. The Contractor is responsible for requesting extensions to its Contract Time based on the analysis of schedule impact.

- .5 Adjustments to Contract Sum:** The Claim shall also provide adequate financial data supporting any request for a change in Contract Sum. The Claim shall include a detailed cost breakdown of all items claimed, including all costs associated with delays, acceleration, overhead and profit, and the computations used in determining such costs. The Contractor's proposal shall include detailed estimates with cost breakdowns for each Subcontractor whose break down will include the following categories: labor, material, equipment, overhead, and profit. Labor shall be broken down into hours and rate per hour. If applicable, the proposal shall include a breakdown for off-site labor (including factory labor, engineering, etc.). If the exact amount of a Claim is not ascertainable at the time the claim is made, the available supporting data shall be submitted and any supplemental data supporting the exact amount of the Claim shall be submitted as soon as available.

.6 Claim Format:

- a) The Contractor shall submit the claim in the following format:
 - 1) Cover letter and certification.
 - 2) Summary of claim including:
 - (a) Underlying Facts.
 - (b) Entitlement.
 - (c) Mitigation Efforts.

- 2) Supporting data are accurate and complete to the best of the Contractor's knowledge and belief; and
 - 3) The amount requested accurately reflects the contract adjustment for which the Contractor believes the District is liable.
- .7 If Contractor does not certify the Claim as required above, the Claim will be considered incomplete and subject to denial without any further recourse by, or remedy to, the Contractor.
- .8 A claim complying with the requirements of Article 3.4 by the Contractor sent to the District by registered or certified mail with return receipt requested, either on its own behalf, or on behalf of one of its subcontractors of any tier that is a separate demand for a time extension, including without limitation, for relief from damages or penalties for delay, for money or damages arising from work done by, or on behalf of the Contractor for which payment is not otherwise provided, or to which the Contractor is not otherwise entitled, or payment of an amount disputed by the District shall be subjected to the following procedures:
- a) Upon receipt of a Claim, the District will conduct a reasonable review of the Claim and will provide to the Contractor a written statement identifying what portion of the Claim is disputed and what portion is undisputed within 45 days from the date of receipt. The time for providing the written statement may be extended by mutual agreement between the District and the Contractor. If the District requires approval from its governing Board, and its Board does not meet within the 45-day period from receipt of a Claim, then the 45-day period shall be extended to three days following the next duly publicly noticed meeting of the District's Board.
 - b) Upon request by the District, the Contractor shall furnish reasonable documentation to support the Claim, as outlined in Article 3.4.2.
 - c) Any payment due on an undisputed portion of the Claim will be paid within 60 days after the District issues the written statement referenced in Subparagraph 3.4.2.8.a, above.
 - d) If the Contractor disputes the District's written statement, or if the District fails to timely respond to a Claim, the Contractor may demand in writing by registered or certified mail with "return receipt requested", an informal conference to meet and confer for settlement of the issues in dispute with the District. Within 30 days from the date of receipt of such demand to meet and confer, the District will schedule and hold a meet and confer conference, unless the timing is extended by mutual agreement of the Contractor and the District.

- e) 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, the District will provide the Contractor a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed. If additional unpaid undisputed portions of the Claim are identified, payment on such undisputed portions will be made within 60 days after the District issues the written statement referenced in this Subparagraph 3.4.2.8.e.
- f) Following receipt of the District's written statement in Subparagraph 3.4.2.8.e, the Contractor may identify in writing any disputed portion of the Claim and request mediation. The disputed portion of the Claim, as identified in writing by the Contractor, shall be submitted to nonbinding mediation. The costs of mediation shall be shared equally by the District and the Contractor. The District and the Contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the Claim has been identified in writing as provided herein. If the District and the Contractor cannot agree upon a mediator, they shall each 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. Alternatively, the parties may agree to any nonbinding process, included but not limited to neutral evaluation or a dispute review board, and such nonbinding process shall be considered to comply with the mediation requirements set forth herein. Unless otherwise agreed by the District and the Contractor in writing, the mediation shall excuse any further obligation under Public Contract Code § 20104.4 to mediate after litigation has been commenced. The District and the Contractor may mutually agree to waive mediation in writing, at which time the procedures set forth in Article 3.4 shall be deemed complete and complied with, other than the mediation provided herein.
- g) If mediation of the disputed portion of the Claim is unsuccessful, the Contractor shall be required to follow all of the other claim procedures set forth in Article 3.4.
- h) Failure by the District to respond to a Claim within the time periods set forth herein will result in the Claim being deemed rejected in its entirety. A Claim that is denied by reason of the District's failure to have responded to a Claim, or its failure to otherwise meet the time requirements of Subparagraph 3.4.2.8, shall not constitute an adverse finding with regard to the merits of the Claim or the responsibility or qualifications of the Contractor.

- i) Amounts not paid in a timely manner as required in Subparagraph 3.4.2.8 will bear interest at 7 percent per annum.
- j) It is intended that the provisions stated in this Subparagraph 3.4.2.8 be a summary of the requirements of Public Contract Code § 9204, and it is not intended that the provisions herein shall waive or alter the requirements of Public Contract Code § 9204, except to the extent permitted by law upon mutual written agreement by the Contractor and the District.

.9 Condition Precedent (Government Code, Sections 930, et seq.):

- a) The Disputes and Claims procedures set forth in Article 3.4 are the exclusive procedures for presenting any Claims and are a condition precedent to filing a Government Code Claim, which, in turn, is a condition precedent to the right to initiating any action against the District related to the Claim. Failure to comply with the Disputes and Claims procedures set forth in Article 3.4 is a waiver of any Claim arising from or related to the facts and circumstances described in the Claim or the Notice of Intent to File a Claim.

.10 The parties specifically and expressly agree that Government Code, Section 12650, et seq., applies. If a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Government Code, Section 12650, et seq.), the District will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the Contractor may be subject to criminal prosecution.

.11 Under no circumstances will the Contractor be entitled to indirect, consequential, special and incidental damages.

ARTICLE 4 - CONTRACTOR'S RESPONSIBILITIES

4.1 Responsibility of the Contractor

4.1.1 Means and Methods. The Contractor shall complete the entire Work to the satisfaction of the Engineer in accordance with the Contract Documents. The Contractor is solely responsible for the means, methods, techniques, sequence, scheduling, workforce, and procedures of construction unless otherwise specified. The Contractor is solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with performance of Work under the contract and shall comply and enforce all Cal/OSHA requirements on this project. The Contractor is the "controlling employer" for this project as defined by Cal/OSHA.

- 4.1.2 Work.** The Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, transportation, utilities, and other facilities and services required for the proper execution and completion of the Work included in this contract.
- 4.1.3 Permit, Fee and Licenses.** Unless otherwise specified, the Contractor shall secure and pay for all licenses, royalties, government fees, and permits necessary for proper execution and completion of the Work. The Contractor shall give notices as required by permits prior to commencement of the Work, and provide copies of all permits to the Engineer before starting on the Work.
- 4.1.4 Contractor's Licensing Requirements.** The Contractor shall have all required California State and local licenses and certificates for performance of the Work, and shall furnish satisfactory proof of licensing and certifications to the Engineer upon request. All required licenses and certificates shall be valid throughout construction of the project.
- 4.1.5 Taxes.** The Contractor shall pay all State, Federal, and local taxes applicable to the project, including all sales, use, gross receipts and similar taxes properly assessed against its equipment, materials, or property used or required in connection with the Work.
- 4.1.6 Compensation for Employees.** In accordance with the provisions of Section 3700 of the Labor Code, the Contractor shall secure the payment of compensation to its employees, Subcontractors and Suppliers.

4.2 Supervision of the Work

4.2.1 Superintendent. The Contractor shall provide a qualified, competent superintendent at the project site to supervise and direct all Work being performed by the Contractor, Subcontractors, and their respective agents and employees to ensure that the Work is being carried out in accordance with the Contract Documents. The Contractor shall designate, in writing, the scope and authority of the superintendent before the Work begins. Instructions and information given by the Engineer to the Contractor's superintendent about the Work are binding on the Contractor.

4.2.2 Coordination of the Work. Before starting each portion of the Work, the Contractor shall: (i) review and compare the various Contract Documents relative to that portion of the Work, as well as any additional information furnished by the Engineer and approved Subcontractor submittals that may affect proper installation of the Work; (ii) field measure existing conditions related to that portion of the Work; and (iii) observe any conditions at the site that may directly impact that portion of the Work, promptly reporting any improper or defective Work to the Engineer. Any errors or inconsistencies in the Contract Documents shall be promptly reported to the Engineer in writing as a request for information or clarification.

4.2.3 Duty of Care. All Work shall be performed in a workmanlike manner meeting construction industry standards for a similar project located in California, regardless of any omission from the Contract Documents.

4.3 Contractor's Employees

4.3.1 The Contractor shall employ competent qualified personnel to construct the Work and shall maintain discipline and order at the project site.

4.3.2 Substitution of Key Personnel. The Contractor cannot substitute key personnel, lessen their level of effort, or reduce the amount of time key personnel are assigned to the project without written consent from the Engineer. If the Contractor proposed specific key personnel during prequalification, or in response to an invitation to bid, the Contractor shall provide the same personnel at the same level of effort and for the same duration and amounts of time per week.

4.3.3 Removal of Personnel. The Contractor shall not remove or replace any key personnel without the prior written consent of the Engineer, which will not be unreasonably withheld. When required by the Engineer, the Contractor shall remove from the project any person who, in the Engineer's opinion, is unfit, disorderly, dangerous, insubordinate, incompetent, or otherwise objectionable. Removed personnel may not be reemployed on the project without the Engineer's prior written consent. Such removal shall not be the basis of any claim for

compensation or damages against the District or any of its officers, directors or employees. Within one week of removal, the Contractor shall propose a replacement to the Engineer. The replacement person shall hold the same position or title and have approximately the same number of years of experience or more as the person that was removed from the project.

- 4.3.4** All personnel including sole proprietors performing electrical work covered by Division 26 of the contract documents shall be journeymen or registered apprentices or shall be certified as electricians pursuant to certification standards established by the Division of Labor Standards Enforcement. Personnel shall submit satisfactory proof of certification or registration to the Engineer prior to performing electrical work.

4.4 Materials and Workmanship

- 4.4.1 Samples or Specimens.** The Contractor shall submit samples or prepare test specimens of such materials to be furnished or used in the work as the Engineer may require.
- 4.4.2 Materials and Workmanship.** All materials and equipment incorporated into the Work shall be new, unexpired, of good quality, and of current manufacture unless otherwise specified. All materials shall be of the specified quality and equal to approved samples, if samples were required.
- 4.4.3 Defective Work.** All materials furnished and all Work shall be satisfactory to the Engineer. In the event any goods or materials furnished, or services provided by the Contractor in the performance of the Contract fail to conform to the requirements, or to the samples submitted by the Contractor, the District may reject the same, and it shall be the duty of the Contractor to reclaim and remove the item promptly or to correct the performance of services, without expense to the District, and immediately replace all such rejected items with others conforming to the Contract. If Contractor refuses or neglects to replace such defective work, it may be replaced by the District at the expense of the Contractor, and its sureties shall be liable therefor.
- 4.4.4 Omissions.** All Work shall be completed in a thorough, workmanlike manner, notwithstanding any omission from the specifications or the drawings, and it shall be the duty of the Contractor to call attention to apparent errors or omissions and request instruction before proceeding with the Work. The Engineer may, by appropriate instructions, correct errors and supply omissions, which instructions shall be binding upon the Contractor as though contained in the original Contract Documents.
- 4.4.5 Substitution of Materials or Equipment.** Materials, products, services or equipment specified or designated in the Contract Documents are intended to

indicate the measure of quality and utility. Unless the Contract Documents specifically state that there are no substitutions, the Contractor may submit other brands of the specified product provided that the submitted product is of equal or better quality, possesses the required characteristics for the purpose intended and shall not involve additional cost to the District. By proposing a substitute, the Contractor warrants that it is equal to that specified and takes complete responsibility for any errors, omissions, conflicts, all modifications to existing piping, ductwork or electrical connections, or inconsistencies caused by using the substitute, including any additional costs of engineering or inspection, or necessary coordination with connections to make the substitute perform as specified. All submittals shall receive written approval from the Engineer prior to installation.

4.4.6 Procurement and Storage. All materials and equipment shall be furnished in ample quantities and procured in a timely manner to ensure uninterrupted progress of the Work. All materials and equipment shall be properly stored and protected and any loss or damage due to improper storage or protection shall be borne by the Contractor.

4.4.7 Site Logistics. The Contractor shall maintain its storage area and shall keep its storage areas clean, safe and secure. Any materials or equipment stored offsite shall be insured. The risk of loss shall remain on the Contractor for all materials and equipment stored off-site.

4.5 District's Right to Perform Separate Work

4.5.1 Separate Work. The District reserves the right to perform separate work at or near the project site at any time by the use of its own forces or other contractors. The Contractor shall coordinate its Work with the District and/or the District's other contractors and shall cooperate with the District to avoid any delay or hindrance to the project schedule and the other's work.

4.5.2 Delays and Defective Construction. The District shall be reimbursed by the Contractor for costs incurred by the District that are payable to its separate contractors as a result of the Contractor caused delays, improperly timed activities, damaged work, or defective construction.

4.6 Patents and Copyrights

4.6.1 The Contractor shall pay all license fees and royalties and all other costs incidental to use in the Work of any patented or copyrighted design, process, or product. The Contractor shall indemnify and hold harmless the District, its officers, agents, and employees against all costs and claims arising from any infringement of patents or copyrights incidental to use in the Work of any design, process, or product not specified in the Contract Documents.

4.7 Contractor's Responsibility for Losses and Liabilities

4.7.1 Risk of Loss. Until acceptance of the Work by the District, the Contractor bears all risk of loss or damage to the Work or to any part of the Work and to any materials or equipment ordered or purchased for the Work whether located at the project, suitably stored off-site or in transit regardless of the cause of loss or damage. The Contractor shall sustain all losses arising from unforeseen obstructions or difficulties, either natural or artificial, encountered in the prosecution of the Work, or from any action of the elements prior to final acceptance of the Work, or from an act or omission on the part of the Contractor not authorized by the Contract Documents.

4.7.2 Protection of Materials and Facilities

- .1** The Contractor is responsible for the preservation, protection and care of equipment, materials and facilities whether located on the project site or elsewhere and if it does not do so, the District may, at its option, do so at the Contractor's expense.
- .2** The Contractor is responsible for any District-furnished material upon receipt and for protection of the Work until it is completed and accepted. The Contractor shall at its own expense replace damaged or lost material and repair damaged parts of the Work.
- .3** The Contractor shall protect District facilities from damage resulting from its Work. District facilities damaged by or as a result of the Contractor's Work shall be repaired or replaced, at the Contractor's expense.
- .4** The Contractor shall maintain the project site in a clean, safe and orderly condition. Upon completion of the Work, the Contractor shall remove all temporary buildings and structures, rubbish, debris, abrasive blast media, unused material, concrete forms, and other materials used during construction that are not part of the completed work.
- .5** The Contractor shall provide fire watch and be responsible for all fire prevention in connection with the Work. Open fires will not be permitted on the project site. The Contractor shall notify the Engineer before undertaking any torch cutting and welding operations. The Contractor shall take all necessary safety precautions during torch cutting and welding operations including, but not limited to, fire watch, providing fire extinguishers and fire blankets at the location where the operations are occurring. The Contractor shall be responsible for any damages caused by the Contractor or Subcontractor during such operations.

4.7.3 Laws and Regulations

- .1 The Contractor, its agents and employees shall observe and comply with all Federal, State, Municipal and local laws, ordinances, rules, regulations, building codes and standards, orders, notices and requirements applicable to its Work on this project. Nothing in these Contract Documents may be construed to permit Work not conforming to such laws, ordinances, and regulations. If the Contractor should discover any aspect or portion of the Contract Documents that conflicts with any law, ordinance, regulation, order, or decree, the Contractor shall immediately report the conflict in writing to the Engineer. Where the applicable legal requirements of public authorities differ from those of the Contract Documents, the more stringent requirements shall apply.
- .2 If an applicable law requirement was not in effect on the date of submission of bids, the Contract Sum and the Contract Time will be adjusted, if necessary, as provided in Article 7. Under no other circumstance will the Contract Sum or Contract Time be adjusted because of the effect of any applicable law, ordinance, regulation, order, decree or other legal requirement of public authorities in effect on the date of bid submission.

4.7.4 Duty to Defend. Notwithstanding assertions that the District, the Board, any member of the Board, or the District's officers, agents, or employees may have been actively or solely negligent, the Contractor shall assume the defense of the District, the Board, each member of the Board, and the District's officers, agents, and employees from all claims of any kind arising directly or indirectly out of the performance of, or on account of, the Work.

4.7.5 Indemnity

- .1 To the fullest extent allowed by law (including, but not limited to, Civil Code Section 2782), the Contractor shall indemnify and save harmless the District, the Board, each member of the Board, and the District's officers, agents, and employees (collectively "Indemnitees") from all liability, claims, damage and loss, of any kind, including attorneys' fees, subject to the limitations set forth by law, that arise out of, on account of, or in connection with the performance of the Work, including, but not limited to, liability or claims arising out of or resulting from:
 - a) Any act or omission of the Contractor, its Subcontractors and Suppliers, or anyone directly employed by any of them for whom the Contractor may be liable, during the performance of the Work; in guarding or maintaining the Work; or from any improper materials, implement, or appliances used in construction of the Work;

- b) Violation of any law, ordinance, regulation, order, or decree, whether by the Contractor, its Subcontractors, Suppliers or anyone directly employed by any of them for whom the Contractor may be liable;
 - c) The use or manufacture by the Contractor, its agents, or the District of any copyrighted composition, secret process, patented invention, article, or appliance, unless specifically specified in the Contract Documents;
 - d) Any breach of warranties, whether express or implied, made to the District by the Contractor, its Subcontractors, Suppliers or anyone directly employed by any of them for whom the Contractor may be liable;
 - e) The willful misconduct of the Contractor, its Subcontractors, Suppliers or anyone directly employed by any of them for whom the Contractor may be liable;
 - f) Any breach or default of the obligations assumed by the Contractor under this contract;
 - g) Injuries, sickness, disease or death of employees of the Contractor or its Subcontractors, Suppliers or anyone directly employed by any of them for whom the Contractor may be liable in connection with performance of the Work; and
 - h) Destruction of tangible property (other than the Work itself).
- .2 The Contractor's duty to indemnify is not affected or in any way diminished because the District, the Board, any member of the Board, or the District's officers, agents, or employees jointly caused or contributed to the liability or claim by their acts, omissions, conduct, or negligence, except that the Contractor is not obligated to indemnify an Indemnitee against its sole or active negligence, willful misconduct, or for defects in designs furnished by the Indemnitee. The Contractor's indemnification obligation is not limited by the Contractor's insurance, if any, or by the amount or type of damages, compensation, or benefits payable by or for the Contractor or any Subcontractor or other person or organization under the Workers' Compensation Act, Disability Benefit Act, or other employee benefit act. Said duty to indemnify shall not apply to the District's active negligence, consistent with Civil Code Section 2782.

4.8 Protection of Property

- 4.8.1** The Contractor shall take all necessary precautions to provide for the safety and protection of all persons who may come in contact with the Work and for all property within and adjacent to the project site including, but not limited to,

adequate precautions to protect existing sidewalks, curbs, pavements, utilities, shrubs, trees, and other adjoining property and structures. Should any facility, structure, or property be damaged by the operations of the Contractor, the Contractor shall immediately notify the proper owners or authorities and the Engineer. The precautionary measures shall apply continuously and not be limited to normal work hours.

4.8.2 If damage to persons or property occur as a result of the Work, the Contractor shall be responsible for proper investigation, documentation, including video or photography, to adequately memorialize and make a record of what transpired. The Contractor, at its own expense, shall rebuild, repair and restore, to the Engineer's satisfaction, all damage resulting from its operations as a condition of contract acceptance.

4.8.3 Pursuant to Public Contract Code, Section 9201, the District will provide timely notification to the Contractor of the receipt of any third-party claims relating to damaged property.

4.9 Contractor Use of Premises

4.9.1 The Contractor shall confine operations at the project site to areas permitted by the Contract Documents and shall not encumber the site with excessive material or equipment. The Contractor shall not impose load on any structure that will damage or endanger the structure. The Contractor shall take all actions necessary to prevent annoyance to occupants adjacent to or in the vicinity of the Work and shall not hinder access or operations of District personnel or equipment.

4.10 Documents On-site

4.10.1 Contract Documents. The Contractor shall maintain a copy of all Contract Documents at the project site, including but not limited to, subcontracts; Change Orders; requests for information; site, health and safety plan; material safety data sheets; the current construction progress schedule; updated as-built drawings; all approved submittals and samples pertaining to the Work; and any governing authority required documents. The Engineer shall have access to the Contract Documents during the Contractor's normal business hours.

4.11 Review of Contract Documents and Field Conditions

4.11.1 The Contractor shall carefully study and compare the Contract Documents for any errors, omissions, or discrepancies; and shall take field measurements and carefully compare such field measurements with the Contract Documents. The Contractor shall immediately inform the Engineer in writing of any apparent errors, omissions, or discrepancies and shall await instructions before proceeding with the Work. Instructions given by the Engineer, which are manifestly necessary to carry out the

intent of the Contract Documents or which are customarily performed, shall be performed by the Contractor as if fully and correctly set forth in the Contract Documents at no additional cost to the District.

- 4.11.2** If the Contractor performs any construction activity that it either knows or should have known involves an error, omission, or discrepancy referred to in Article 4.11.1 without notifying and receiving written instructions from the Engineer, the Contractor shall be responsible for resultant losses, including without limitation, the costs and time of correcting the defective Work.
- 4.11.3** Drawings indicate general and typical details of construction. Where conditions are not specifically indicated but are of similar character to details shown, similar details for construction shall be used, subject to review by the Engineer.

ARTICLE 5 – SUBCONTRACTORS AND SUPPLIERS

- 5.1.1** The Contractor is fully responsible to the District for the acts and omissions of Subcontractors, Suppliers, and of persons and/or persons or entities employed by the Contractor to the same extent the Contractor is responsible for its own acts and omissions.
- 5.1.2** All Subcontractors shall possess the appropriate California State contractor's license and certifications at time of bid and during the performance of the Work. The Contractor shall comply with all requirements of the Subletting and Subcontracting Fair Practices Act commencing with Public Contract Code, Section 4100, et seq. Violation of the Subletting and Subcontracting Fair Practice Act are grounds for cancellation of the Contract under Public Contract Code, Section 4110, and disciplinary actions under Section 4111.
- 5.1.3** The Contractor shall coordinate all Subcontractors and Suppliers engaged in the Work. The Contractor shall ensure that all of its Subcontractors commence their respective work at the proper time and proceed with due diligence to avoid delays and/or damage to the Work. Any property damage caused by Subcontractors or Suppliers during the Work shall be repaired or paid for by the Contractor.
- 5.1.4** Nothing contained in the Contract Documents shall be construed as creating any contractual relationship between any Subcontractor, or Supplier, and the District. The District will not undertake to settle differences between the Contractor and its Subcontractors or Suppliers.

ARTICLE 6 - SAFETY OF PERSONS AND PROPERTY

6.1 Contractor's Responsibility

- 6.1.1** Notwithstanding any other provision of the specifications, the Contractor is solely and completely responsible for conditions of the jobsite, including safety of all persons and property, during performance of the Work. This requirement applies continuously and is not limited to normal work hours. Health and safety provisions shall conform to any specific safety requirements contained in the Contract Documents, applicable Federal, State, County, and local laws, regulations, ordinances, standards, and codes, including the Federal Occupational Safety and Health Act of 1970 (29 U.S.C., Section 651, et seq.) and California Code of Regulations, Title 8, Industrial Relations Division 1, Department of Industrial Relations, Chapter 4. Where any of these are in conflict, the more stringent requirement shall be followed.
- 6.1.2** Contractor shall take any additional precautions the District may reasonably require for safety and accident prevention purposes. Any violation of such rules and requirements, unless promptly corrected, shall be grounds for termination of the Contract or Contractor's right to proceed in accordance with the default provisions of the Contract Documents.

6.2 Public Safety

- 6.2.1** During the performance of the Work, the Contractor shall erect and maintain necessary temporary fences, bridges, railings, lights, signals, barriers, or other safeguards as appropriate under the circumstance for the prevention of accidents. In addition, the Contractor shall take other precautions as necessary for public safety including, but not limited to, traffic control.

6.3 Engineer's Responsibility

- 6.3.1** The Engineer's review of the Contractor's construction performance and submittal documents is not intended to include review of the adequacy of the Contractor's safety measures in, on, or near the construction site.
- 6.3.2** The Engineer may suspend operations if it determines that an imminent safety hazard exists.

6.4 Emergency Work

- 6.4.1 During Work Hours.** The Contractor shall act, without previous direction from the Engineer in case of an emergency arising from the performance of the Work that threatens loss or injury to property and/or safety of life. The Contractor shall notify the Engineer of the emergency as soon as possible. Any compensation

claimed by the Contractor, together with substantiated documents in regard to expense, shall be submitted to the Engineer within 15 calendar days after the emergency. Additional compensation, if allowed, will be paid for through Article 7.

6.4.2 Outside of Work Hours. The Engineer will notify the Contractor of all emergencies for which it is aware that arise outside of regular work hours as a result of the Work. The Contractor shall respond to the emergency immediately without delay and shall, with the least practicable inconvenience, make the necessary repairs, replacements, or perform other necessary work. If the Contractor does not act promptly in accordance with this requirement, or should the circumstances of the case require repairs, replacements, or performance of other necessary work before the Contractor can be notified or can respond, the District may, at its option, make the necessary repairs, replacements, or perform the necessary work and deduct its cost of labor, materials and equipment from the Contractor's next progress payment. Performance of emergency work by District forces will not relieve the Contractor of any of its responsibilities, obligations, or liabilities under the contract.

ARTICLE 7 - CHANGES

7.1 General

The District reserves the right to make changes in the design of materials, equipment, or machinery; to make alterations or additions to, or deviations or subtractions from the Contract and any specifications and drawings; to increase or decrease the required quantity of any item or portion of the Work; to omit any item or portion of the Work as may be deemed by the Engineer to be necessary or advisable; and to order such extra work as may be determined by the Engineer to be required for the proper execution and completion of the whole Work contemplated. No change in the scope of work shall be authorized, and the Contractor shall not be eligible for compensation for any extra work performed, unless the change is ordered by the Engineer in writing.

7.2 Change Orders

7.2.1 Changes in the Work can only be made through a written contract Change Order issued by the Engineer. If the change causes an increase or decrease in the Contractor's Contract Sum, or a change in the Contract Time, an adjustment may be made as determined by the Engineer. The approved Change Order will specify increase or decrease to the Contract Sum and adjustment to the Contract Time, if any.

7.2.2 Prior to issuing an approved Change Order, the Engineer may request that the Contractor submit a proposal covering the changes. The Change Order request will

include a description of the work or revised drawings or specifications reflecting the proposed changes. Within 10 Work Days after receiving the request, the Contractor shall submit its proposal to the Engineer of all costs associated with the proposed change and any request for an extension of Contract Time. Contractor's proposal shall include detailed estimates with cost breakdowns for each Subcontractor, including labor, material, equipment, overhead, and profit. Labor shall be broken down into hours and rate per hour. If applicable, the proposal shall include a breakdown for off-site labor (including factory labor, engineering, etc.). The Contractor's proposal shall include an Analysis of Schedule Impact (See Article 3.4.2.3) when the Contractor is requesting an adjustment in Contract Time. Costs associated with preparation of the proposal, including the Analysis of Schedule Impact, are considered to be covered in the markup allowances in Article 7.3.4. The Contractor shall be responsible for any delay associated with its failure to submit its change proposal within the time specified. If the Engineer decides not to issue an approved Change Order after requesting a proposal from the Contractor, the Contractor will be notified in writing. The Contractor is not entitled to reimbursement for Change Order preparation costs for cancelled Change Order requests.

7.2.3 If the Contractor agrees with the terms and conditions of the approved Change Order, the Contractor shall indicate its acceptance by signing the original copy and returning it to the Engineer within 10 Work Days after receipt or with reasonable promptness and in such sequence as to not delay the Work or activities of the District or of separate contractors, whichever is sooner. If notice of any change is required to be given to a surety by the provisions of any bond, the Contractor shall provide notice and the amount of each applicable bond shall be adjusted separately. Payment in accordance with the terms and conditions set forth in the executed Change Order shall constitute full compensation for all Work included in the Change Order and the District will be released from any and all claims for direct, indirect, and impact expenses and additional time impact resulting from the Work. If the Contractor disagrees with the terms and conditions of the approved Change Order, the Contractor shall indicate specific areas of disagreement and return the approved Change Order to the Engineer. The Contractor shall submit a written dispute in accordance with Article 3.4. No payment will be made on the disputed work until the approved Change Order is returned to the Engineer. However, whether or not the Contractor agrees with the terms and conditions of an approved Change Order, the Contractor shall immediately revise its sequence of operations as required to facilitate timely completion of the changed work and shall proceed with the revised work sequence.

7.2.4 The Engineer may, after having received a written cost quotation from the Contractor, order the Contractor, in writing, to proceed with the work prior to issuance of an approved Change Order through a change directive. The change directive will authorize the Contractor to proceed with the work subject to the cost quotation submitted by the Contractor. Within five days following receipt of the

change directive, the Contractor shall submit a detailed change proposal as described in Article 7.2.2 documenting the amount of compensation. The Engineer will review the change proposal and, at its option, will either issue an approved Change Order for the work or direct the Contractor to perform the work through Force Account. Until the method of compensation is determined and the approved Change Order is received, the Contractor shall keep full and complete time and material records of the cost of the ordered work and shall permit the Engineer to have access to such records. An approved Change Order shall supersede any previously issued written change directive covering the same Work.

7.2.5 Accord and Satisfaction and Reservations of Rights: Every executed Change Order shall constitute a full accord and satisfaction, and release of all Contractor (and, if applicable, Subcontractor) claims for additional time, money or other relief arising from or relating to the subject matter of the change including, without limitation, impacts of all types, cumulative impacts, inefficiency, overtime, delay, and any other type of claim.

7.3 Determination of Costs for Force Account Change Order Work

7.3.1 Labor. The cost of labor used in performing the Change Order work, whether the employer is the Contractor and/or its Subcontractor, shall be the sum of the following:

- .1 Actual Wages:** Actual wages paid to workers, including foremen devoting their exclusive attention to the work in question. The actual wages shall include payments to, or on behalf of, workers for health and welfare, pension, vacation, travel, subsistence, and similar purposes, and shall be paid at the wage rate demonstrated by submitted certified payrolls or, if the certified payrolls were not available, at the rate set forth in the pertinent prevailing wage determinations issued by the Director of Industrial Relations for the wage class common to the work performed. Superintendent's wages are included under the allowance for overhead and profit and shall not be included as part of these computations.
- .2 Labor Surcharge:** To the actual wages, as defined in Article 7.3.1.1 above less those for travel and subsistence, will be added 27 percent, which shall constitute full compensation for all payments imposed by State and Federal laws, such as taxes, and for insurance and all other payments made to, or on behalf of, the workers, other than actual wages as defined in Article 7.3.1.1 above.

7.3.2 Materials. Only materials incorporated in the Change Order work will be paid for, the cost of which shall be the cost to the purchaser, including sales tax, if applicable, whether the Contractor and/or its Subcontractor, from the Supplier thereof, except as the following are applicable:

- .1 If a cash or trade discount by the actual Supplier is offered or available to the purchaser, it shall be credited to the District notwithstanding the fact that such discount may not have been taken.
- .2 If materials are procured by the purchaser by any method which is not a direct purchase from a direct billing by the actual Supplier to such purchaser, the cost of such materials shall be deemed to be the price paid to the actual Supplier as determined by the Engineer. No markup except for actual costs incurred in the handling of such materials will be permitted, and only application of one common markup to cover multiple handling.
- .3 If the materials are obtained from a supply or source owned wholly or in part by the purchaser, payment therefor will not exceed the price paid by the purchaser for similar materials furnished from said source on contract items or the current wholesale price for such materials delivered on the job site, whichever price is lower.
- .4 If the cost of such materials is excessive in the opinion of the Engineer, then the cost of such materials shall be deemed to be the lowest current wholesale price at which such materials are available in the quantities concerned and timely delivered to the job site, less any discounts as provided in Article 7.3.2.1 above.

7.3.3 Equipment. The Contractor and/or its Subcontractor will be paid for the use of equipment at the rental rates established as provided in Articles 7.3.3.1 and 7.3.3.2 below, which rates shall include the cost of fuel oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals. Operators of rented equipment will be paid for as provided in Article 7.3.1 above.

Unless otherwise specified, manufacturers' ratings shall be used to classify equipment for the determination of applicable rental rates.

- .1 **Equipment on the Work:** For the use of any equipment normally required for the contract regardless of whether the equipment is already on the work or is to be delivered to the project, the Contractor and/or its Subcontractor will be paid for the use of such equipment as follows:
 - a) If equipment is owned by the Contractor and/or its Subcontractor, payment will be at the rental rates listed for such equipment in the State of California's Department of Transportation publication titled "Labor Surcharge and Equipment Rental Rates" that is in effect on the date that the Work is performed. The rental rates for equipment not listed under the schedules of rental rates set forth by the State of California shall be those agreed upon by the Contractor and/or its Subcontractor, and the Engineer, except that in no case shall the rental rates exceed those of established

distributors or equipment rental agencies within the locality of the project. The Contractor and/or its Subcontractor shall provide full documentation to the satisfaction of the Engineer to support any proposed equipment rental rates. Documentation shall include a breakdown of costs per Article 7.3.3, including amortized depreciation versus wear and tear, and maintenance expenses versus operating expenses.

Compensation for idle time of equipment through delays caused by the District will be made by applying the delay factor listed in the Caltrans User's Guide for Labor Surcharge and Equipment Rental Rates (current version), or if unlisted at 50 percent of the rental rates listed in the State of California Department of Transportation publication entitled "Labor Surcharge and Equipment Rental Rates." Compensation for idle time shall not exceed eight (8) hours per day and forty (40) hours per week.

- b) If equipment is rented, payment will be the actual rental cost as indicated on the rental invoice.

Individual pieces of equipment or tools not listed and having a replacement value of \$1,000 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made for their use on the Work.

In computing the rental of equipment, the minimum rental time to be paid per day shall be one hour. Rental time shall not be allowed while equipment is inoperative due to breakdowns or non-Work Days. Loading and transporting costs shall be allowed when the equipment is moved by means other than its own power.

- .2 Equipment for Change Order Work:** For the use of equipment not required under the Contract Documents, moved on the Work and used exclusively for Change Order work, the Contractor will be paid at the rates agreed upon by the Contractor and/or Subcontractor, and the Engineer through the Change Order process, except that in no case shall the rental rates paid exceed those of established distributors or equipment rental agencies.

The rental period shall begin at the time the equipment is required and unloaded at the site and shall terminate on the day that the Change Order work is completed, except that the minimum total rental time to be paid for shall be not less than four hours.

The Contractor and/or its Subcontractor will be reimbursed for the cost of transporting the equipment to and from the Work. Should the equipment be transported by low bed trailers, hourly rates charged by established haulers will be paid. Also, the District will pay for loading and unloading costs. Should the

Contractor and/or its Subcontractor desire the return of the equipment to a location other than its original location, the District will pay the cost of transportation in accordance with the above provisions, provided such cost does not exceed the cost of moving the equipment to the project.

7.3.4 Markup Allowances. The Contractor and/or its Subcontractors or Suppliers that perform on-site work are entitled to compensation for overhead and profit for the performance of Change Order work. This compensation shall be in the form of markup percentages applied to the costs computed as provided for in Articles 7.3.1 through 7.3.3 and is full and complete payment for overhead and profit. Overhead includes, but is not limited to, superintendent costs, bond and insurance premiums, financing costs, project engineer, project manager, scheduler, estimator, drafting, small tools, home office expenses, field office expenses, and utilities (gas, electricity, sewer, water, telephone, fax, copier, etc.). The Contractor shall not receive payment for itemized costs which are considered to be included under the profit and overhead percentage markup.

.1 For work by the Contractor’s own organization or by its Subcontractor’s own workforce, the Contractor may apply, as a maximum, the following markup percentages as overhead and profit:

1. Labor	20 percent
2. Materials	15 percent
3. Equipment (owned or rented)	15 percent

.2 Under a fixed price adjustment basis, if work is performed by a Subcontractor with its own workforce, the Contractor may apply an additional 5 percent markup to the total which has been computed in accordance with Article 7.3.4.1. The Contractor shall reach agreement with the Subcontractor and any intermediate Subcontractor as to the division of the markup percentages between them.

.3 Under a force account basis, if work is performed by a Subcontractor with its own workforce, the Contractor may not apply an additional 5 percent markup, as provided for under Article 7.3.4.2, to the total which has been computed in accordance with Article 7.3.4.1. The Contractor shall reach agreement with the Subcontractor and any intermediate Subcontractor as to the division of the markup percentages between them.

7.4 Lump Sum or Force Account Adjustments

7.4.1 Change Order work will be paid for by either a Lump Sum adjustment of the Contract Sum or on a Force Account basis, or a combination of both, as determined by the Engineer. Change Order work will not be paid for unless ordered in writing by the Engineer.

7.4.2 In the event the Contractor fails to submit its proposal within 15 days after receipt of a written request for proposal, or the Engineer and the Contractor fail to agree upon a negotiated Lump Sum adjustment, within a reasonable time, or if in the judgement of the Engineer, it is impracticable because of the nature of the Work or for any other reason to fix the price for completion before the work order is issued, the Engineer has the option of authorizing payment on the basis of a Force Account.

7.4.3 The Contractor shall notify the Engineer in writing of the day and time on which Force Account work will commence prior to beginning work. All Force Account work shall be reported daily on daily extra work reports furnished by the Contractor to the Engineer and signed by both parties, which daily reports shall thereafter be considered the true record of Force Account work completed. Completely detailed invoices covering the Force Account work shall be submitted for payment consideration not later than 15 days after the completion of the work. The charges for Work performed by the Contractor or a Subcontractor shall be reported separately. Substantiating invoices from Suppliers and Subcontractors shall be included with the Contractor's invoices. The Contractor shall permit examination of accounts, bills, and vouchers relating to the Force Account work when requested by the Engineer. Payment for the Work done under Force Account will be made after receipt of an executed Change Order issued to cover the increase in the Contract Sum.

7.4.4 Payment for the Work completed under Lump Sum adjustment will be made after receipt of an executed Change Order issued to cover the change in the Contract Sum and/or Contract Time.

7.5 Variation in Quantity in Unit Price Work

7.5.1 General. The estimated quantities for Unit Price work listed in the Bid Form are established for the sole purpose of bid comparison and do not constitute a guarantee to the Contractor of the quantities of work to be performed under this contract. The Contractor shall be compensated only for the actual quantities of work performed which were directed by the Engineer. The amount of compensation for each item of Work shall be computed by multiplying the actual quantity by the appropriate bid Unit Price except as follows:

- .1 Increases of more than 20 percent:** If the actual quantity of work performed on an item of Work exceeds the estimated quantity by more than 20 percent, the quantity in excess of 120 percent of the estimated quantity shall be paid for based upon (a) actual unit cost or (b) as mutually agreed to by the Contractor and the Engineer. The Engineer will determine which method is to be utilized. If the actual unit cost method is utilized, the actual unit cost is determined by calculating the total cost incurred for completing 120 percent of the estimated quantity using the markups allowed under Article 7.3.4, which is then divided

by the quantity of work performed, i.e., 120 percent of the estimated quantity. If costs applicable to the Work performed include fixed costs, such fixed costs shall be deemed to have been recovered by the Contractor by the payments made to the Contractor for 120 percent of the estimated quantity at the bid Unit Price. In computing the actual unit cost, such fixed costs shall be excluded.

At the discretion of the Engineer, the Engineer can make payment on the quantity in excess of 120 percent of the estimated quantity using exactly the provisions and procedures in the “Force Account” Articles 7.3 and 7.4.3.

- .2 Decreases of more than 20 percent:** If the actual quantity of work performed on an item of Work is less than 80 percent of the estimated quantity, the quantity shall be paid for (a) based upon actual cost using the markups allowed under Article 7.3.4, or (b) as mutually agreed to by the Contractor and the Engineer.

Payment for the actual quantity of work performed shall, in no case, exceed the payment which would have been made for performance of 80 percent of the estimated quantity at the bid Unit Price.

7.6 Deleted Work

- 7.6.1 Deleted Work.** If work is deleted, payment will be made to the Contractor for costs incurred in connection with the deleted work if incurred prior to notification of deletion by the Engineer.

If approved material is ordered by the Contractor for the deleted work prior to the notification by the Engineer, and if orders for such materials cannot be canceled, payment for such material will be the actual cost to the Contractor. In such case, the material shall become the property of the District. If the material can be returned to the vendor, and if the Engineer so directs, the material shall be returned and the Contractor will be paid for the actual costs or charges made by the vendor for returning the material including any stocking charges.

The costs incurred or charges paid to the Contractor for Work completed prior to deletion shall be computed using the markups allowed in Article 7.3.4. Payment for deleted work will be based on the approved schedule of costs or other mutually agreed value. A minimum of a 10 percent credit shall be provided to the District for overhead, profit and markup associated with the deleted work.

7.7 Differing or Unusual Site Conditions

- 7.7.1** Pursuant to Public Contract Code, Section 7104, the Contractor shall promptly, and before such conditions are disturbed, notify the Engineer in writing of: (1) material that the Contractor believes may be hazardous waste, as defined in Section 25117 of

the Health and Safety Code (other than material indicated in the Contract Documents) and that is required by law to be removed to a Class I, Class II, or Class III disposal site; (2) subsurface or latent physical conditions at the site differing materially from those indicated in this contract; or (3) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this contract.

7.7.2 The Engineer will promptly investigate the conditions. If the Engineer finds that the conditions do materially differ, or do involve hazardous waste, and do cause an increase or decrease in the Contractor's Contract Sum and/or the Contract Time a contract adjustment will be made through the Change Order process, as determined by the Engineer.

7.7.3 If the Contractor and the Engineer disagree whether the conditions do materially differ or whether a hazardous waste is involved or whether the conditions cause an increase or decrease in the Contractor's Contract Sum and/or Contract Time, the Contractor shall nevertheless proceed with all Work to be performed under the contract and shall comply with the completion dates required by the contract. The Contractor waives any rights to an increase in Contract Time, or an increase in Contract Sum, unless it timely follows the Disputes and Claims procedures in Article 3.4.

ARTICLE 8 - TIME

8.1 Commencement, Prosecution, and Completion of Work

8.1.1 Notice to Proceed. The Notice to Proceed will not be issued until the contract is properly executed, bonds are furnished, proof of insurance submitted by the Contractor, and both the bonds and the insurance are approved by the District. The Contract Time will not be extended, and the Contractor will not receive any additional compensation, because of delays caused by receipt, review and approval by the District of the Contractor's bonds and insurance. Except as required elsewhere, the Contractor is not authorized to perform any Work under this contract until it has received an official Notice to Proceed.

8.1.2 Prosecution of the Work. Work shall proceed at all times with such force and equipment as will be sufficient to complete the Work within the Contract Time.

8.1.3 Required Contract Completion. The Contractor expressly agrees that it will complete the Work within the Contract Time, subject to approved Change Orders that impact time.

8.1.5 Early Completion. The Contractor shall not be entitled to claim damages for expenses due to the District not authorizing early completion.

8.2 Liquidated Damages

8.2.1 Should the Contractor fail to complete all or any portion of the Work within the specified time therefor or within such extra time as may be allowed for delays by formal extensions granted by the District, deductions will be made from the Contractor's earnings for the time that the Work remains incomplete beyond the specified completion time. Liquidated damages will be apportioned such that the Contractor will be responsible for all delays not otherwise properly subject to time extensions.

8.2.2 Liquidated damages cover only certain damages and are limited to the cost of administration, overhead, and general loss of use of the facility by the District as a result of a delay, and does not cover any other type of damages set forth in Section 8.2.3. It being impracticable or extremely difficult to fix the actual amount of damage for the above-referenced categories of damages, the parties agree that the amounts set forth in this Contract as liquidated damages will be deducted from any money due the Contractor under the contract. Should the amount of the damages exceed the amount due the Contractor, the Contractor and its sureties shall be liable for the excess.

8.2.3 Liquidated damages shall not be deemed to include within their scope additional damages or administrative costs arising from defective work, lost revenues, interest expenses, cost of completion of the Work, cost of substitute facilities, claims and fines of regulatory agencies, damages suffered by others or other forms of liability claimed against the District as a result of delay (e.g., delay or delay-related claims of other contractors, Subcontractors or tenants), and defense cost thereof. The Contractor shall be fully responsible for the actual amount of any such damages it causes, in addition to the liquidated damages otherwise due the District.

8.2.4 At the District's option, the deduction for liquidated damages will begin with the first progress payment following the incurrence of liquidated damages.

8.2.5 The above liquidated damages are necessary to ensure timely completion and to defray costs of additional construction inspection and contract administration.

8.3 Use of Facilities Prior to Completion of Contract

8.3.1 If the Contractor has received and provided to the District a temporary certificate of occupancy from governmental authorities having jurisdiction over the project and/or in the Engineer's opinion, the Work under the contract, or any portion of the Work, is in a condition suitable for the District's use, the District may, after written

notice from the Engineer to the Contractor, use (which includes, but is not limited to, taking over or placing into service) any portion or portions of the project designated by the Engineer.

- 8.3.2** Even if the District elects to use the Work or a portion of the Work prior to Contract Completion, the Contractor will nonetheless make all necessary repairs, renewals, changes, or modifications in the Work or any portion of the Work that does not meet the requirements of the Contract Documents or is deficient due to defective materials or workmanship, unless the deficiency is solely caused by ordinary wear and tear.
- 8.3.3** The use of any portion of the Work by the District does not relieve the Contractor of any of its responsibilities or liabilities under the Contract Documents or constitute a waiver by the District of any claims. Said use shall not cancel liquidated damages as of the first date of use, or any continuance thereof, nor impair, reduce, or change the amount of liquidated damages.

8.4 Delays and Extensions of Time

- 8.4.1** The Contractor shall take reasonable precautions to foresee and prevent delays to the Work including, but not limited to, maintaining construction schedules that are properly updated to reflect current conditions and the actual critical path, and continuous monitoring of critical and dependent activities of the Contractor, Subcontractors, Suppliers, the District, agencies and other third parties. When the Contractor foresees a delay event, and in any event upon the occurrence of a delay event, the Contractor shall immediately notify the Engineer in writing of the probability or the actual occurrence of a delay in the Contract Time, and its cause. With respect to all delays (compensable, excusable and/or inexcusable), the Contractor shall reschedule its Work and/or revise its operations, to the extent possible under the terms of the contract, to mitigate the effects of the delay through work-arounds, overtime and acceleration of the project schedule, re-sequencing the Work, or other methods commonly utilized in the construction industry.
- 8.4.2** For Inexcusable Delay (as defined in Article 1.2.1.25), the Contractor shall not be entitled to an extension of time or compensation for any loss, cost, damage, expense or liability resulting directly or indirectly from the Inexcusable Delay including, but not limited to, extended field or home office overhead, field supervision, cost of capital, interest, escalation charges, labor costs, materials expense, or acceleration costs.
- 8.4.3** For Excusable Delay (as defined in Article 1.2.1.19), the Engineer will grant the Contractor an extension of time in an amount equal to the period of Excusable Delay based on the analysis of schedule impact and delay analysis diagram, which shall be the Contractor's sole and exclusive remedy

for such delay. Excusable Delays shall include labor strikes, adverse weather as defined in Article 8.5, and Acts of God.

- 8.4.4** For Compensable Delay (as defined in Article 1.2.1.7), the Engineer will grant the Contractor an extension of Contract Time with compensation in an amount that represents the Contractor's actual direct costs incurred as a direct result of the Compensable Delay. The Contractor may recover its direct costs only and may not recover (and waives) all other types of indirect, consequential, special and incidental damages.
- 8.4.5** For Concurrent Delay (as defined in Article 1.2.1.8), the following rules apply: if one or more of the Concurrent Delays are excusable or compensable, then the District will treat the period of Concurrent Delay as an Excusable Delay; and if all of the Concurrent Delays are inexcusable, then the District will treat the Concurrent Delay as inexcusable. These rules for Concurrent Delay shall be the Contractor's sole and exclusive remedy for periods of Concurrent Delay, and the Contractor's entitlement shall be limited to the measures of recovery defined herein for Inexcusable, Excusable and Compensable Delay, as applicable.
- 8.4.6** No time extension will be granted to the Contractor for encountering delays while performing Work after the specified or formally extended Contract Completion date, except for causes of delay specified in Article 8.4.4.
- 8.4.7** The Contractor shall provide notice and documentation of delays in accordance with the following rules:
- .1** Within five days of knowing about an event that may cause a delay in the project schedule, the Contractor shall notify the Engineer in writing about the delay in the Work, the impact it may have on the project schedule, and the causes of the delay. The Contractor's notice shall set forth the anticipated impact of the delay on the critical path, specify any additional time requested, and provide a detailed description of the cause or causes of the delays.
 - .2** If the Contractor intends to request an extension of time or compensation for damages resulting from delay, then the Contractor shall make the request in writing to the Engineer not more than 15 days after the end of such delay. If any delay exceeds 30 days, however, then the request shall be made monthly and then updated every month after that (as applicable). The Contractor shall provide an Analysis of Schedule Impact of the delay (see Article 3.4.2.3 and 3.4.2.4) and update it monthly (as applicable). The Contractor shall also provide documentation showing that the delay was either excusable or compensable and that the Contractor has revised its construction schedule, to the extent possible, to mitigate the delay. No compensation

for damages resulting from delay will be granted unless supported by cost records justifying the costs claimed in connection with the delay.

- 8.4.8** The Contractor's failure to give written notice of a delay or to submit or document a request for an extension of time or for damages resulting from delay in the manner and within the times stated above shall constitute a waiver of all rights thereto.
- 8.4.9** An extension in Contract Time must be approved by the Engineer to be effective. An extension of Contract Time with or without consent of the sureties, shall not release the sureties from their obligations, which shall remain in full force until the discharge of the contract.
- 8.4.10** The Engineer will investigate the facts and ascertain the extent of the delay, and issue a written statement regarding its findings. If the Contractor disagrees with any decision of the Engineer regarding delays and extensions in Contract Time, the Contractor may dispute the Engineer's decision in accordance with Article 3.4.

8.5 Weather Conditions Unfavorable for Prosecution of Work

- 8.5.1** The Engineer may suspend the Work whenever weather conditions or conditions resulting from inclement weather are unfavorable for the prosecution of the Work. The delay caused by such suspension may entitle the Contractor to an extension in Contract Time, but not to any other compensation.
- 8.5.2** If the Contractor believes that the Work should be suspended under this Article, the Contractor may request such suspension. The delay caused by the suspension may entitle the Contractor to an extension of Contract Time, but not to any other compensation. The Contractor's request for suspension must be agreed to by the Engineer in order to be granted an extension of Contract Time.
- 8.5.3** No extension of time will be granted for suspension of Work unless the suspension impacts the Contract Completion date or the timely completion of a milestone completion date for a portion of the Work. Determination that suspension of the Work for inclement weather conditions or conditions resulting from inclement weather impacts timely completion and entitles the Contractor to an extension of Contract Time shall be made and agreed to in writing by the Engineer and the Contractor for each day that work is suspended. In the event of failure to agree, the Contractor may protest under the provisions of Article 3.4.
- 8.5.4** If the Work is suspended and an extension of Contract Time is granted under this Article, the Contractor will be entitled to a one Work Day extension of time for each Work Day that the Contractor is unable to perform the Work for at least onehalf of its current normal Work Day; and if the Work is suspended at the regular starting time on any Work Day and the Contractor's workforce is dismissed as a result of the suspension, then the Contractor will be entitled to a one Work Day

extension of Contract Time whether or not conditions change thereafter and the major portion of the day is suitable for work.

- 8.5.5** The Contractor shall use best available technologies to secure the site to mitigate/minimize the effects of inclement weather in conformance with applicable Federal, State, and regional regulatory requirements.

ARTICLE 9 - INSURANCE AND BONDS

9.1 Faithful Performance and Payment Bonds

- 9.1.1** The Contractor shall furnish to the District a Faithful Performance Bond, and maintain it in an amount not less than 100 percent of the current Contract Sum, conditioned upon the faithful performance by the Contractor of all covenants and stipulations in the contract.
- 9.1.2** The Contractor shall furnish to the District a Payment Bond and maintain it, in an amount not less than 100 percent of the current Contract Sum.
- 9.1.3** The Payment Bond and the Faithful Performance Bond shall be on the forms of the District as provided for in the RFP and shall be properly executed as described therein.
- 9.1.4** The bonds shall be executed by a sufficient, admitted surety insurer admitted to transact such business in California by the California Department of Insurance. After acceptance of the bond(s) by the District, a copy of the bond(s) will be returned to the Contractor.
- 9.1.5** If, at any time, during the performance of the Work any of the sureties, in the opinion of the District, are or become financially irresponsible, the District may require the Contractor to furnish other or additional sureties to the satisfaction of the District within 10 days after receipt of notice. If the Contractor fails to provide satisfactory sureties within the 10-day period, the contract may be terminated for cause under Article 11, and the materials purchased or the Work completed as provided in Article 11.
- 9.1.6** The Contractor and its sureties understand and agree that no modifications or alterations made in the Contract Documents shall operate to release any surety from liability on any bond or bonds required to be provided in this contract.

9.2 Insurance Requirements

- 9.2.1** The Contractor shall procure and maintain during the period of the contract all required insurance and shall submit certificates of insurance and additional insured endorsements to the policies to the Engineer for review and approval. The certificates of insurance shall be on the forms provided by the District. The insurance requirements must be met within the same period allowed for contract execution, as stated in the RFP or RFQ.
- 9.2.2** The Contract will not be executed until the certificates of insurance and endorsements to the policies have been received and accepted by the District. Acceptance of the certificates of insurance and endorsements by the District shall not relieve the Contractor from compliance with any of the insurance requirements or liability arising from said failure.
- 9.2.3** The District may require the Contractor to provide insurance policies to the Engineer for review. If requested, the Contractor agrees to provide the District with complete copies of the policies within 10 days following the request.
- 9.2.4** If the Contractor does not maintain all of the required insurance, or fails to timely deliver requested insurance policies to the District, the District reserves the right to stop the Work, and/or terminate the Contractor's right to proceed under the contract, in whole or in part. Any delay caused by the Work stoppage is an Inexcusable Delay.

ARTICLE 10 - WARRANTY

10.1 Warranty of Work

- 10.1.1** The Contractor warrants that any Work performed under the contract shall be performed in a competent manner in accordance with the duty of care set forth in Section 4.2.3; that any material furnished will be the best of its class; and that the Work shall fully meet the requirements of the Contract Documents.
- 10.1.2** The Contractor warrants workmanship, including subcontracted work, against defects for a period of one year from the date of Contract Completion unless a longer period of time is required by the Contract Documents.
- 10.1.3** The Contractor shall provide a similar one-year warranty for all materials and equipment provided under this contract unless a longer period of time is required by the Contract Documents.
- 10.1.4** If the District elects to use any portion or portions of the Work before Contract Completion, the warranty for those portions shall begin upon commencement of

such use. The warranty for the remainder of the Work shall begin on the Contract Completion date.

- 10.1.5** If the District notifies the Contractor, within one year from the Contract Completion, or within any longer period of time required by the Contract Documents or another warranty period for partial occupancy as established under Article 10.4.1, that any portion of the Work fails to fulfill any of the requirements of the Contract Documents, the Contractor shall repair or replace the defective, non-conforming or otherwise unsatisfactory Work, without delay or further cost to the District in a manner that least inconveniences the District's operations. With regard to any defective work or material repaired or replaced by the Contractor, the one-year warranty will be measured from the date of the latest repair or replacement.
- 10.1.6** Should the Contractor fail to act promptly in accordance with this requirement, or should the exigencies of the case require repairs or replacements to be made before the Contractor can be notified or can respond to the notification, the District may, at its option, make the necessary repairs or replacements, or perform the necessary Work, and the Contractor shall pay to the District the actual cost of such repairs plus the markup percentages shown in Article 3.2.3.
- 10.1.7** If equipment has repeatedly malfunctioned, is unreliable, requires excessive maintenance, or if repair of the equipment will not result in equipment that is equivalent to that required by the Contract Documents (both in functionality and useful life), the Contractor shall replace, rather than repair, the equipment under the warranty.
- 10.1.8** The Contractor is responsible for all costs incidental to making good any and all of its warranties and agreements. These warranties and agreements are covenants that are binding on the Contractor and its sureties.

10.2 Warranty of Goods

- 10.2.1** The Contractor warrants that all goods furnished will conform strictly with the specifications and requirements contained herein and with all approved submittals, samples and/or models and information contained or referenced therein, all affirmation of fact or promises, and will be new, of merchantable quality, free from defects in materials and workmanship, including but not limited to leaks, breaks, penetrations, imperfections, corrosion, deterioration, or other kinds of product deficiencies.
- 10.2.2** The Contractor warrants that all goods to be furnished will be fit and sufficient for the purpose(s) intended.
- 10.2.3** The Contractor warrants that all goods shall be delivered free from any security interest, lien or encumbrance of any kind, and free from any claim of infringement,

copyright or other intellectual property violation, or other violation of laws, statutes, regulations, ordinances, rules, treaties, import restrictions, embargoes or other legal requirements.

- 10.2.4** The Contractor guarantees all products and services against faulty or inadequate design, manufacture, negligent or improper transport, handling, assembly, installation or testing, and further guarantees that there shall be strict compliance with all manufacturer guidelines, recommendations, and requirements, and that Contractor guarantees that it will conform to all requirements necessary to keep all manufacturer warranties and guarantees in full force and effect.
- 10.2.5** These warranties and guarantees are inclusive of all parts, labor and equipment necessary to achieve strict conformance, and shall take precedence over any conflicting warranty or guarantee.
- 10.2.6** These warranties and guarantees shall not be affected, limited, discharged or waived by any examination, inspection, delivery, acceptance, payment, course of dealing, course of performance, usage of trade, or termination for any reason and to any extent.
- 10.2.7** In the absence of any conflicting language as to duration, which conflicting language will take precedence as being more specific, Contractor's aforesaid warranties and guarantees shall be in full force and effect for a period of one year from the date of acceptance by the District but shall continue in full force and effect following notice from District of any warranty or guarantee issue, until such issue has been fully resolved to the satisfaction of the District.

ARTICLE 11 - TERMINATION OR SUSPENSION OF THE CONTRACT

11.1 Termination by the District for Cause or Default

- 11.1.1** The District may terminate the Contractor's right to proceed under the contract, in whole or in part, for cause at any time after the occurrence of any of the following events:
- .1** The Contractor becomes insolvent or files for relief under the bankruptcy laws of the United States.
 - .2** The Contractor makes a general assignment for the benefit of its creditors or fails to pay its debts as the same become due.
 - .3** A receiver is appointed to take charge of the Contractor's property.

- .4 The Contractor abandons the Work. Abandonment is conclusively presumed when the District requests a written plan to cure a default and the Contractor does not submit the plan within five Work Days of the District's request.

11.1.2 If any of the following events occur, the District may require that the Contractor submit a written plan to cure its default:

- .1 The Contractor fails to supply skilled supervisory personnel, an adequate number of properly skilled workers, proper materials, or necessary equipment to prosecute the Work in accordance with the Contract Documents.
- .2 The Contractor fails to make progress so as to endanger performance of the Work within the Contract Time.
- .3 The Contractor disregards legal requirements of agencies having jurisdiction over the Work, the Contractor, or the District.
- .4 The Contractor materially fails to execute the Work in accordance with the Contract Documents.
- .5 The Contractor is in default of any other material obligation under the Contract Documents.

11.1.3 The District may terminate the Contractor's right to proceed under the contract in whole or in part for default if the written plan is not received by the District within five days after the District's request; if the District does not accept the Contractor's plan for curing its default; or the Contractor does not fully carry out an accepted plan to cure.

11.1.4 Upon any of the occurrences referred to in Articles 11.1.1, 11.1.2 and 11.1.3, the District may, at its election and by notice to the Contractor, terminate the contract in whole or in part; accept the assignment of any or all of the subcontracts; and then complete the Work by any method the District may deem expedient. If requested by the District, the Contractor shall remove any part or all of the Contractor's materials, supplies, equipment, tools, and construction equipment and machinery from the Work within seven days of such request; and, if the Contractor fails to do so, the District may remove or store, and after 90 days sell, any of the same at the Contractor's expense.

11.1.5 If the contract is terminated by the District as provided in Article 11.1, the Contractor shall not be entitled to receive any further payment until the expiration of 35 days after acceptance of all Work by the District.

11.1.6 No termination or action taken by the District after termination shall prejudice any other rights or remedies of the District provided by law or by the Contract Documents.

11.1.7 If, after termination for default, it is determined that the Contractor was not in default, or that default was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for convenience pursuant to Article 11.2.

11.2 Termination by the District for Convenience

11.2.1 The District may, at its option, and for its convenience, terminate this contract at any time by giving written notice to the Contractor specifying the effective date of termination. Upon such termination, the Contractor agrees to comply with the notice and further agrees to waive any claims for damages, including loss of anticipated profits, on account of the termination in accordance with Article 11.2.5; and, as the sole right and remedy of the Contractor, the District shall pay the Contractor in accordance with Article 11.2.4.

11.2.2 Upon receipt of notice of termination under Article 11.2, the Contractor shall, unless the notice directs otherwise, do the following:

- .1** Immediately discontinue the Work to the extent specified in the notice.
- .2** Place no further orders or subcontracts for materials, equipment, services, or facilities, except as may be necessary for completion of a portion of the Work that is not discontinued or is necessary to secure the project site.
- .3** Promptly cancel, on the most favorable terms reasonably possible, all subcontracts to the extent they relate to the performance of the discontinued portion of the Work.
- .4** Thereafter, do only such Work as may be necessary to preserve and protect Work already in progress and to protect materials, plants, and equipment in transit to or on the project site.

11.2.3 Upon termination, the obligations of the contract shall continue as to portions of the Work already performed and, subject to the Contractor's obligations under Article 11.2.2, as to bona fide obligations assumed by the Contractor prior to the date of termination.

11.2.4 Upon such termination, the District will pay to the Contractor the sum of the following:

- .1 The amount of the Contract Sum allocable to the portion of the Work properly performed by the Contractor as of the effective date of termination, less sums previously paid to the Contractor.
- .2 Previously unpaid costs of any items delivered to the project site that were already fabricated for subsequent incorporation into the Work.
- .3 Any proven losses with respect to materials and equipment directly resulting from the termination.
- .4 Reasonable demobilization costs.

11.2.5 The above reimbursement is the sole and exclusive remedy to which the Contractor is entitled in the event the contract is terminated for convenience; and the Contractor expressly waives any other claims, damages, demands, compensation or recovery related to this contract or project. The Contractor agrees to sign a general release incorporating this waiver.

11.3 Suspension by the District

11.3.1 The Engineer may, in his or her sole discretion, order the Contractor, in writing, to suspend, delay, or interrupt the Work in whole or in part for as long as 90 days from the date of delivery of a written order of suspension. The order shall be specifically identified as a "suspension order" under this Article. The work may be suspended for a longer period or periods if the parties agree. Upon receipt of a suspension order, the Contractor shall comply with its terms and take all reasonable steps to minimize costs related to the suspension of the Work or the portion of the Work. Within 90 days after the issuance of the suspension order, or such extension to that period as is agreed upon by the Contractor and the District, the District will either cancel the suspension order or delete the suspended Work.

11.3.2 If a suspension order is canceled or expires, the Contractor shall resume the suspended Work. A Change Order may be issued to cover any adjustments of the Contract Sum or an extension of Contract Time necessarily caused by the suspension. If the Contractor disputes the adjustment of the Contract Sum or the Contract Time, the Contractor shall submit a claim per Article 3.4.

11.3.3 Costs directly associated with the suspension will be at the District's expense if the suspension is not due to any fault of the Contractor.

11.3.4 A suspension order shall not be required to stop the Work as permitted or required under any other provision of the Contract Documents.

11.4 Termination or Suspension of the Contract - Act of God or Force Majeure

11.4.1 If an Act of God or Force Majeure occurs, the Engineer may, by written notice, either suspend this contract pursuant to Article 11.3, or terminate this contract pursuant to Article 11.2. In the case of suspension pursuant to Article 11.4, the 90-day suspension period limitation in Article 11.3.1 shall not apply. If the contract is not suspended or terminated, or if the contract is resumed after suspension, the Contractor shall fully restore the work except as limited by Public Contract Code, Section 7105(a), in the case of an “Act of God.”

11.4.2 If the contract is terminated because of an Act of God or Force Majeure, the Contractor will be paid for Work performed prior to the Act of God or Force Majeure at either (i) the Unit Prices named in the contract; or (ii) in the event no unit prices are named, a sum equal to the percentage that the Contract Sum for the Work completed, at the time of occurrence of the Act of God or Force Majeure bears to the Contract Sum for all Work to be performed under the contract as determined by the Engineer. In no event will the District be liable to the Contractor for breach of contract, extra work, or damages because the contract is terminated due to an Act of God or Force Majeure.

ARTICLE 12 - LABOR PROVISIONS

12.1 Prevailing Wages

12.1.1 Please see www.dir.ca.gov for further information regarding the below.

12.1.2 All Contractors and Subcontractors of any tier bidding on or offering to perform work on a public works project shall first be registered with the State Department of Industrial Relations (DIR) pursuant to Section 1725.5 of the Labor Code. No proposal or bid will be accepted, nor any contract entered into, without proof of the Contractor and Subcontractors’ current registration with the DIR (LC § 1771.1). All Contractors and Subcontractors shall remain registered for the duration of the Project. and for the duration of the project pursuant to Section 1725.5 of the Labor Code.

12.1.3 All public works projects awarded after January 1, 2015, are subject to compliance monitoring and enforcement by the DIR (LC § 1771.4) and all Contractors are required to post job site notices, “as prescribed by regulation” (LC § 1771.4).

12.1.4 Pursuant to Section 1773 of the Labor Code, the District has obtained from the Director of Industrial Relations of the State of California, the general prevailing rates of per diem wages and the general prevailing rates for holiday and overtime work in the locality in which the Work is to be performed, for each craft, classification, or type of worker needed to execute the contract. Pursuant to Section 1773.2 of the Labor Code, a copy of the prevailing wage rates is on file with the District and available for inspection by an interested party at www.dir.ca.gov.

- 12.1.5** The holidays upon which such rates shall be paid shall be all holidays recognized in the collective bargaining agreement applicable to the particular craft, classification, or type of worker employed on the Work.
- 12.1.6** The Contractor shall post a copy of the general prevailing rate of per diem wages at the jobsite pursuant to Section 1773.2 of the Labor Code and comply with all wage related workplace postings.
- 12.1.7** Pursuant to Section 1774 of the Labor Code, the Contractor and any of its Subcontractors shall not pay less than the specified prevailing rate of wages to all workers employed in the execution of the contract.
- 12.1.8** As set forth with more specificity in Section 1773.1 of the Labor Code, "per diem" wages include employer payments for health and welfare, pension, vacation, travel, subsistence and, in certain instances, apprenticeship or other training programs, and shall be paid at the rate and in the amount spelled out in the pertinent prevailing wage determinations issued by the Director of Industrial Relations.
- 12.1.9** The Contractor shall, as a penalty to the State or the District, forfeit not more than the maximum set forth in Section 1775 of the Labor Code for each calendar day, or portion thereof, for each worker paid less than the prevailing rates for the work or craft in which the worker is employed under the contract by the Contractor or by any Subcontractor under him. The difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which such worker was paid less than the stipulated prevailing wage rate shall be paid to such worker by the Contractor.
- 12.1.10** The specified wage rates are minimum rates only and the District will not consider and shall not be liable for any claims for additional compensation made by the Contractor because of its payment of any wage rate in excess of the general prevailing rates. All disputes in regard to the payment of wages in excess of those specified herein shall be adjusted by the Contractor at its own expense.
- 12.1.11** General prevailing wage determinations have expiration dates with either a single asterisk or a double asterisk. Pursuant to California Code of Regulations, Title 8, Section 16204(b), the single asterisk means that the general prevailing wage determination shall be in effect for the specified contract duration. The double asterisk means that the predetermined wage modification shall be paid after the expiration date. Notwithstanding what is stated in Article 3.4 and Article 4.7 of the General Conditions, no adjustment in the Contract Sum will be made for the Contractor's payment of these predetermined wage modifications.

12.2 Payroll Records for Prevailing Wages

12.2.1 The Contractor and each Subcontractor 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 in connection with the Work. The payroll records shall be certified and shall be available for inspection in accordance with the provisions of Section 1776 of the Labor Code.

12.2.2 The Contractor shall submit for each week in which any contract Work is performed a copy of all payroll records to the Engineer. The Contractor shall be responsible for submission of copies of payroll records of all Subcontractors.

12.2.3 Certified payroll records shall be on the forms provided by the Department of Industrial Relations or contain the same information required on the Department's form. Copies of the form may be obtained from:

Division of Labor Standards Enforcement
Bureau of Field Enforcement
2031 Howe Avenue, Suite 100
Sacramento, CA 95825-5378
(916) 263-1811
(916) 263-5378

The Contractor or Subcontractor shall certify the payroll records as shown on the reverse of the State form. In addition, the records shall be accompanied by a statement signed by the Contractor or Subcontractor certifying that the classifications truly reflect the Work performed and that the wage rates are not less than those required to be paid.

12.2.4 In the event of noncompliance with the requirements of Section 1776 of the Labor Code, the Contractor shall have 10 days in which to comply subsequent to receipt of written notice specifying in what respects such Contractor must comply with said Section. Should noncompliance still be evident after such 10-day period, the Contractor shall, as a penalty to the State or the District, forfeit the amount set forth in Section 1776(h) of the Labor Code for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments then due.

12.2.5 The Contractor and all subcontractors are required to submit certified payroll records online, on a monthly basis to the Labor Commissioner.

12.3 Hours of Labor

12.3.1 Pursuant to the provisions of Sections 1810, et seq. of the Labor Code and any amendments thereof:

- .1** Eight hours of labor constitutes a legal day's Work under the contract.
- .2** The time of service of any worker employed upon the work shall be limited and restricted to eight hours during any one calendar day, and forty hours during any one calendar week except as provided in Article 12.3.1.4 below.
- .3** The Contractor shall, as a penalty to the State or the District, forfeit the amount set forth in Section 1813 of the Labor Code for each worker employed in the execution of the contract by the Contractor or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight hours in any calendar day and forty hours in any one calendar week in violation of this Article and the provisions of Labor Code, Sections 1810, et seq.
- .4** Work performed by employees of the Contractor in excess of eight hours per day, and forty hours during any one calendar week, shall be permitted upon compensation for all hours worked in excess of eight hours per day at not less than one and one-half times the basic rate of pay.
- .5** The Contractor and every Subcontractor shall keep an accurate record showing the name of and the actual hours worked each calendar day and each calendar week by each worker employed by him in connection with the Work; the record shall be kept open at all reasonable hours to the inspection of the District and to the Division of Labor Standards Enforcement of the State of California.

12.4 Employment of Apprentices

12.4.1 In the performance of the contract, the Contractor and any Subcontractor shall comply with the provisions concerning the employment of apprentices in Section 1777.5 of the Labor Code and any amendments thereof.

12.4.2 In the event the Contractor or any Subcontractor willfully fails to comply with the aforesaid section, such Contractor or Subcontractor shall be subject to the penalties for noncompliance in Labor Code, Section 1777.7.

ARTICLE 13 - MISCELLANEOUS PROVISIONS

13.1 Governing Law

The contract is governed by the laws of the State of California.

13.2 Antitrust Claims

By entering into the contract, the Contractor offers and agrees to assign to the District 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. Sec. 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 contract. The Contractor shall include in each subcontract a provision corresponding to the foregoing binding the Subcontractor to offer and agree to assign to the District such rights, title, and interest held by the Subcontractor. Such assignment shall be made and become effective at the time the District tenders final payment to the Contractor without further acknowledgment by the parties.

13.3 Non-Discrimination Clauses

13.3.1 There shall be no discrimination against any person, or groups of persons, per Government Code Section 12940, Labor Code Section 1735, or any other applicable law or regulation in the performance of this contract.

13.3.2 There shall be no discrimination in the performance of this contract, against any person, or group of persons, on account of race, color, religion, religious creed, national origin, ancestry, gender including gender identity or expression, age (over 40), marital or domestic partnership status, mental disability, physical disability (including HIV and AIDS), medical condition (including genetic characteristics or cancer), veteran or military status, family or medical leave status, genetic information, or sexual orientation. The Contractor shall not establish or permit any such practice(s) of discrimination with reference to the contract. Contractors determined to be in violation of this section will be deemed to be in material breach of the contract.

13.3.3 Contractor and its subcontractors shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity, or national origin in the performance of this contract. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.

13.3.4 The Contractor shall include the nondiscrimination and compliance provisions of these clauses in all subcontracts.

13.4 Trenching and Shoring

The Contractor shall comply with Labor Code, Sections 6500, 6705, and 6707, and Public Contract Code, Section 7104, regarding trenching and shoring, and notwithstanding any other provisions of the Contract Documents.

13.5 Third Party Claims

Pursuant to Public Contract Code, Section 9201, the District will provide Contractor with timely notification of the receipt of any third-party claims relating to this contract.

13.6 Prohibition of Assignment

The Contractor shall not assign, transfer, or otherwise dispose of any of its rights, duties or obligations under this Contract. This prohibition does not apply to the District. The District retains the right to assign this Contract in whole or in part at any time upon reasonable terms.

13.7 News Releases

The Contractor, its employees, subcontractors, and agents shall not refer to the District, or use any logos, images, or photographs of the District for any commercial purpose, including, but not limited to, advertising, promotion, or public relations, without the District's prior written consent. Such written consent shall not be required for the inclusion of the District's name on a customer list.

13.8 Severability

Should any part of the Contract be declared by a final decision by a court or tribunal of competent jurisdiction to be unconstitutional, invalid or beyond the authority of either party to enter into or carry out, such decision shall not affect the validity of the remainder of the Contract, which shall continue in full force and effect, provided that the remainder of the Contract can be interpreted to give effect to the intentions of the parties.

13.9 Covenant Against Gratuities

The Contractor warrants that no gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the Contractor, or any agent or representative of the Contractor, to any officer or employee of the District with a view toward securing the Contract or securing favorable treatment with respect to any determinations concerning the performance of the Contract. For breach or violation of this warranty, the District shall have the right to terminate the Contract, either in whole or in part, and any loss or damage sustained by the District in procuring on the open market any items which Contractor agreed to supply shall be borne and paid for by the Contractor. The rights and remedies of

the District provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or in equity.

13.10 Rights and Remedies of the District

The rights and remedies of the District provided herein shall not be exclusive and are in addition to any other rights and remedies provided by law or under the Contract.

13.11 Waiver of Rights

Any action or inaction by the District, or the failure of the District on any occasion, to enforce any right or provision of the Contract, shall not be construed to be a waiver by the District of its rights and shall not prevent the District from enforcing such provision or right in any future occasion. Rights and remedies are cumulative and are in addition to any other rights or remedies that the District may have at law or in equity.

13.12 Confidentiality

Contractor agrees to maintain in confidence and not disclose to any person or entity, without the District's prior written consent, any trade secret or confidential information, knowledge or data relating to products, process, or operation of the District. Contractor further agrees to maintain in confidence and not disclose to any person or entity, any data, information, technology, or material developed or obtained by Contractor during term of the Contract. The covenants contained in this paragraph shall survive the termination of this Contract for whatever cause.

END OF DOCUMENT

EXHIBIT D – BOND FORMS



DATE _____

PAYMENT BOND

CONTRACTOR (Name and California address where service may be effected)

SURETY (Name and California address where service may be effected)

AMOUNT OF BOND (Sum in words and figures)

CONTRACT DOCUMENTS (As named in the Contract)

KNOW ALL PERSONS BY THESE PRESENTS:

THAT, WHEREAS, the contractor named above, hereinafter called the Contractor, has this day entered into a Contract with East Bay Municipal Utility District, hereinafter called the District, to perform and complete the work set forth in the Contract Documents named in the Contract, all now on file in the office of the Secretary of the District, as will more fully appear by reference to said Contract, which is made a part hereof; and

WHEREAS, Sections 9550 to 9566 inclusive of the Civil Code of the State of California, and any amendments thereof, require contractors upon public work to file with the body by whom such contract was awarded a good and sufficient bond to secure the claims to which reference is made in said sections, NOW THESE PRESENTS

WITNESSETH: That the Contractor, as Principal, and the Surety named above, as Surety, are held and firmly bound unto any and all materialmen, persons, firms, or corporations furnishing materials, provisions, or other supplies used in, upon, for, or about the performance of the work contracted to be done, and to all persons, firms or corporations renting or hiring implements or machinery for or contributing to the said work to be done and to all persons who perform work or labor of any kind or nature thereon, or in connection therewith, and to all persons who supply both work and materials, in the sum entered on the first page hereof, lawful money of the United States of America, being not less than the total amount payable by the terms of said Contract, for which payment well, truly and promptly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly, and severally, firmly by these presents.

PAYMENT BOND

The condition of the above obligation is such that if the Contractor, or the Contractor’s subcontractors, fail to pay for any materials, provisions or other supplies used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, the Surety will pay for the same, in an amount not exceeding the sum specified in this Bond, provided that any and all claims hereunder shall be filed and proceedings had in connection therewith as required by the provisions of said Sections 9550 to 9566 inclusive of the Civil Code of the State of California, and any amendments thereof: PROVIDED ALSO, that in case suit is brought upon this Bond a reasonable attorney’s fee shall be awarded by the court to the prevailing party in said suit, said attorney’s fee to be fixed as costs in said suit, and to be included in the judgment therein rendered.

No prepayment or delay in payment and no change, extension, addition, or alteration of any provision of said Contract or Contract Documents agreed to between the Contractor and the District, and no forbearance on the part of the District, shall operate to release the Surety from liability on this Bond, and consent to make such alterations without further notice to or consent by the Surety is hereby given, and the Surety hereby waives the provisions of Section 2819 of the Civil Code of the State of California.

Dated the day and year entered on the first page hereof.

Each signator to this bond hereby declares under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Contractor

By _____

*Title _____

By _____

**Title _____

(SEAL OF SURETY)

Surety

By _____

Title _____

Note: The signature of the Surety on this bond must be acknowledged before a Notary Public. An executed Power of Attorney indicating that the Surety’s representative is authorized to bind the Surety must accompany this bond.

The foregoing Bond was accepted and approved this _____ day of _____, 20 _____

_____, East Bay Municipal Utility District

Specifications / Proposal No. _____

*If corporation, Corporate President or CEO; if Partnership, Partner.
**Corporate Secretary or financial officer.

EXHIBIT E – PUBLIC WORKS PROJECTS



DECLARATION OF NONCOLLUSION

The undersigned declares, under penalty of perjury under the laws of the State of California, that the bid submitted to the East Bay Municipal Utility District for

is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that 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; that all statements contained in the bid are true; and, further, that 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.

Firm: _____

By: _____ Date: _____
(Signature of Bidder)

Title: _____

Signed at: _____ County, State of: _____



DECLARATION OF ELIGIBILITY TO WORK ON PUBLIC WORKS PROJECTS

The undersigned hereby certifies under penalty of perjury under the laws of the State of California that in connection with bidding on:

The bidder is eligible to bid on public works projects in the State of California;

The bidder is not barred from bidding on or being awarded a contract for public works pursuant to California Labor Code Sections 1725.5, 1777.1 or 1777.7;

The bidder has obtained from each and every sub-contractor it intends to employ on this project, a statement of eligibility to work on public works projects in the State of California indicating that the subcontractor is not barred from performing work on a public works project pursuant to California Labor Code Sections 1725.5, 1777.1 or 1777.7;

If at any time during the course of performing work for East Bay Municipal Utility District, the contractor (formerly known as the bidder) becomes, or any of its sub-contractors become, ineligible to work on public works projects in the State of California, the contractor will immediately notify East Bay Municipal Utility District of this fact in writing.

Firm: _____

By: _____ Date: _____
(Signature of Bidder)

Title: _____

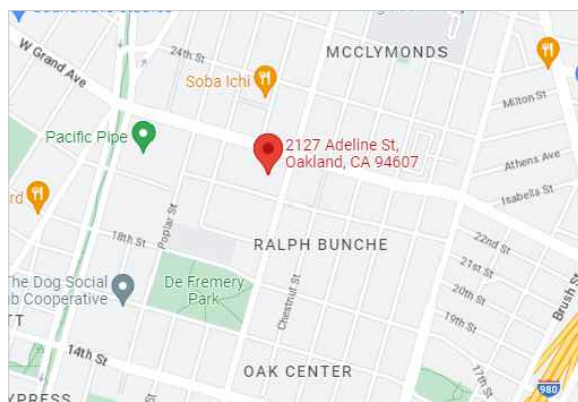
Signed at: _____ County, State of: _____

EXHIBIT F – DRAWINGS

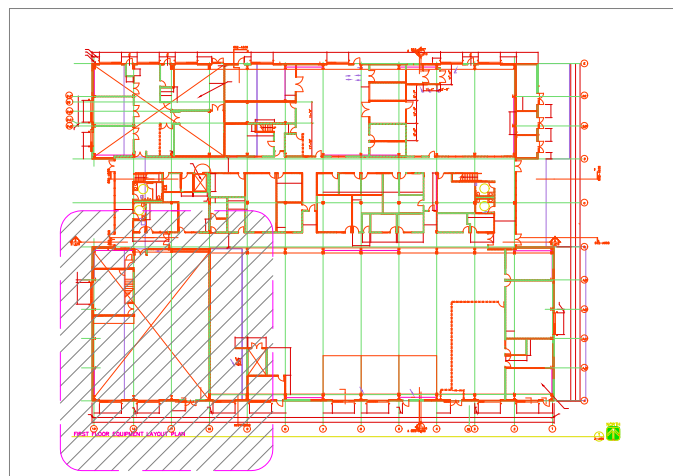


EAST BAY MUNICIPAL UTILITY DISTRICT ADELINE MAINTENANCE CENTER CARPENTRY SHOP - DUST COLLECTION SYSTEM 2127 ADELINE STREET OAKLAND, CA 94067

DRAWING INDEX	
Z-002.1	GENERAL COVER SHEET
MECHANICAL	
M-103	EXISTING TOOL INVENTORY
M-104	CONTROLLER DEMOLITION
M-105	NEW DUCT CONSTRUCTION AND CONTROLLER
ELECTRICAL	
E-669	CONTROL SCHEMATICS AND DUCT WORK-1
E-670	CONTROL SCHEMATICS AND DUCT WORK-2
E-671	CONTROL SCHEMATICS AND DUCT WORK-3
E-672	CONTROL SCHEMATICS AND DUCT WORK-4
E-673	MOTOR STARTER PANEL DEMOLITION
E-674	MOTOR STARTER PANEL



VICINITY MAP
NOT TO SCALE



SITE PLAN
NOT TO SCALE

PROJECT DESCRIPTION

PERFORM MODIFICATIONS TO EXISTING CARPENTRY SHOP DUST COLLECTION SYSTEM.

MODIFICATIONS WILL GENERALLY INCLUDE:

- REMOVE AND REPLACE EXISTING DUST COLLECTION CONTROLLER. NEW CONTROLLERS SHALL BE AN ECOGATE GREENBOX 12 OR EQUIVALENT APPROVED BY ENGINEER.
- REMOVE AND REPLACE AUTOMATIC BLAST GATES AT WORK STATIONS.
- INSTALL DUCT WORK BETWEEN BLAST GATES AND TOOLS AS SHOWN ON SCHEMATICS.
- INSTALL NEW MANUAL BALANCING SLIDE GATES BETWEEN AUTOMATIC BLAST GATES AND TOOLS AS SHOWN IN SCHEMATICS.
- INSTALL NEW VOLTAGE, CURRENT, AND TIMER SWITCHES AS SHOWN IN SCHEMATICS.
- PROVIDE AND INSTALL ALL NECESSARY ELECTRICAL JUNCTION BOXES, CONDUITS, AND OTHER FITTINGS BETWEEN SENSORS, BLAST GATES, AND CONTROLLERS AS NEEDED. LOCATION SHALL BE DETERMINED BY CONTRACTOR.
- CONTRACTOR SHALL PROCURE ALL BLAST GATES, MANUAL BALANCING SLIDE GATES, FLANGE RINGS, CONTROLLERS, CURRENT/VOLTAGE SWITCHES, WORKSTATION PC, TIMERS, TERMINAL BLOCKS, CONTROL POWER TRANSFORMER, AND ICE CUBE RELAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROCURING ALL DUCT WORK, CABLE, CONDUIT, SUPPORTS, AND JUNCTION BOXES.
- THE CONTRACTOR SHALL COMMISSION THE SYSTEM WITH EBMUD ENGINEERING UPON CONSTRUCTION COMPLETION.

SPECIFICATIONS

DUCTWORK

- NEW RIGID DUCT SHALL BE ROUND GALVANIZED SHEET METAL.
 - GALVANIZED: ASTM A653 WITH A G90 RATING
 - NORFAB QUICK-FIT DUCTING OR EQUAL
- NEW FLEXIBLE DUCT SHALL BE STATIC DISSIPATIVE URETHANE CLEAR HOSE REINFORCED WITH SPRING STEEL WIRE.
 - NORFAB STATIC DISSIPATIVE URETHANE CLEAR HOSE OR EQUAL
- ALL DUCT WORK SHALL BE BONDED AND GROUNDED TO AVOID THE ACCUMULATION OF STATIC ELECTRICITY.
- ALL JOINTS SHALL BE AIR TIGHT.
- CLAMPING SYSTEMS COMPATIBLE WITH THE RIGID SHEET METAL DUCT AND FLEXIBLE HOSE IS ALLOWED.

BLAST & BALANCING GATES

- NEW BLAST GATES SHALL BE ECOGATE ROTATING BLADE STYLE GATES OR EQUIVALENT APPROVED BY ENGINEER. SEE SPECIFICATION 23 35 13.
- NEW BALANCING GATES SHALL BE MANUALLY OPERATED SLIDE GATES WITH LOCKING THUMB SCREW.

ELECTRICAL CONDUCTORS AND CABLES

- CABLE BETWEEN CONTROLLER AND BLAST GATES SHALL BE BELDEN 5503UE OR SIMILIAR, 22 AWG, 5 CONDUCTOR STRANDING (7 X 28), OUTER DIAMETER 0.162", VOLTAGE RATING 300V, TEMPERATURE RATING 75C
- CABLE BETWEEN BLAST GATES AND SENSORS SHALL BE ALPHA WIRE P/N 6632 OR SIMILIAR, 22 AWG, TWO CONDUCTOR (7 X 30), CORE WRAP BY MYLAR TAPE, VOLTAGE RATING 600V, TEMPERATURE RATING 105C
- FOR ALL OTHER CABLES SEE SPECIFICATION 26 05 19.

GENERAL NOTES

NOTE: THE TERM "CONTRACTOR" OR "CONTRACTORS" AS USED IN THESE GENERAL NOTES SHALL REFER TO THE PRIME CONTRACTOR AND ALL SUB-CONTRACTORS.

- THIS SET OF CONSTRUCTION DOCUMENTS COVERS THE CARPENTRY SHOP DUST COLLECTION SYSTEM IMPROVEMENTS ONLY AND MAY NOT SHOW ALL EXISTING SITE IMPROVEMENTS FOR THE FACILITY.
- THE CONTRACTORS SHALL PRESERVE AND MAINTAIN ACCESS TO EXISTING EXITS AND MAKE EVERY EFFORT TO MINIMIZE DISRUPTIONS TO EXISTING OPERATIONS AT ALL TIMES DURING CONSTRUCTION.
- THE CONTRACTORS SHALL BE RESPONSIBLE FOR VERIFYING THAT ALL MATERIALS, LABOR, INSTALLATION, FABRICATION, ETC. CONFORM TO ALL CODES AND REGULATIONS OF APPLICABLE GOVERNING AGENCIES.
- THE CONTRACTOR SHALL VERIFY DIMENSIONS AND SITE CONDITIONS PRIOR TO COMMENCING ANY WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCY CONTAINED WITHIN THESE CONSTRUCTION DOCUMENTS WHICH ARE RELATED TO THE CONTRACTOR'S SCOPE OF WORK. SHOULD AN ERROR APPEAR IN THESE CONSTRUCTION DOCUMENTS OR RELATED WORK PERFORMED BY OTHER CONTRACTORS AFFECTING THE CONTRACTOR'S SCOPE OF WORK, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT ONCE FOR INSTRUCTIONS AS TO THE PROCEDURE FOR CONTINUATION OF WORK. SHOULD THE CONTRACTOR PROCEED WITH WORK AFTER IDENTIFYING SUCH A CONFLICT WITHOUT OBTAINING INSTRUCTIONS FROM THE ENGINEER, THE CONTRACTOR SHALL ASSUME THE FULL RESPONSIBILITY FOR ALL REMEDIAL WORK NECESSARY TO SATISFY THE REQUIREMENTS OF THESE CONSTRUCTION DOCUMENTS AND THE APPLICABLE BUILDING CODES.
- THE CONTRACTOR SHALL REFER TO THE BID DRAWINGS AND WRITTEN TECHNICAL SPECIFICATIONS.

6. CONTRACTOR SHALL MAINTAIN THE JOB SITE IN A CLEAN, ORDERLY CONDITION, FREE OF DEBRIS AND LITTER. EACH CONTRACTOR SHALL, IMMEDIATELY UPON COMPLETION OF EACH PHASE OF HIS WORK, REMOVE ALL TRASH AND DEBRIS THAT RESULTS FROM THE PERFORMANCE OF HIS WORK.

7. CONSTRUCTION MATERIALS STORED ON THE SITE SHALL BE PROPERLY STACKED AND PROTECTED TO PREVENT DAMAGE AND DETERIORATION UNTIL USED. FAILURE TO PROTECT MATERIALS MAY BE CAUSE FOR REJECTION OF WORK.

8. CONTRACTORS SHALL PROTECT NEW AND EXISTING FINISHES AND CONSTRUCTION FROM DAMAGE THAT MAY OCCUR DURING CONSTRUCTION. DAMAGE TO NEW AND/OR EXISTING FINISHES AND CONSTRUCTION SHALL BE REPAIRED OR REPLACED (THE OWNER'S DECISION) WITH IDENTICAL MATERIAL AT THE CONTRACTOR'S EXPENSE.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE OWNER WITH ACCURATE "AS-BUILT" RECORD DRAWINGS AT THE COMPLETION OF CONSTRUCTION. RECORD DRAWINGS WILL BE MADE BY "RED-LINING" FORMAL CONSTRUCTION DRAWINGS TO IDENTIFY ANY AND ALL CHANGES WHICH MAY HAVE BEEN MADE IN THE FIELD.

10. ALL WORK SHOWN ON THESE DRAWINGS SHALL BE CONSTRUED AS BEING NEW WORK AND PART OF THIS CONTRACT UNLESS NOTED BEING EXISTING OR OTHERWISE.

RELEVANT CODES AND STANDARDS

THE WORK SHALL CONFORM TO THE MOST RECENT EDITION OF THE FOLLOWING CODES AND STANDARDS AS SUPPLEMENTED, AMENDED, OR OTHERWISE MODIFIED BY STATE AND LOCAL REQUIREMENTS:

- CALIFORNIA BUILDING CODE (CBC) 2023
- CALIFORNIA MECHANICAL CODE (CMC) 2022
- CALIFORNIA ELECTRICAL CODE (CEC) 2023
- CALIFORNIA FIRE CODE (CFC) 2022

IN THE EVENT OF A CONFLICT BETWEEN DRAWINGS, WRITTEN SPECIFICATIONS, AND/OR REFERENCED STANDARDS, THE MOST STRINGENT SHALL GOVERN.

PROJECT TEAM

PROPERTY OWNER(S) EAST BAY MUNICIPAL UTILITY DISTRICT
375 11TH STREET
OAKLAND, CA 94067

GENERAL CONTRACTOR(S) TBD

DESIGN	DESIGNED BY	ALEX GRAUER	EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA AMC CENTRAL SHOP CARPENTRY SHOP GENERAL COVER SHEET MECHANICAL AMC SHOP CARPENTRY			
	DESIGN CHECKED BY					
	DRAWN BY	ALEX GRAUER				
	PROJECT MANAGER R.P.E. NO.					
REVIEW	PROJECT ENGINEER R.P.E. NO.		PROJ NO.	TBD	852-Z-002.1	0
	RECOMMENDED: SR. ELEC. ENGR. R.P.E. NO.		SCALE	AS NOTED		
	APPROVED: MGR. OF DESIGN R.P.E. NO.		DATE	09NOV23		
			STRUCT.	DISC.		

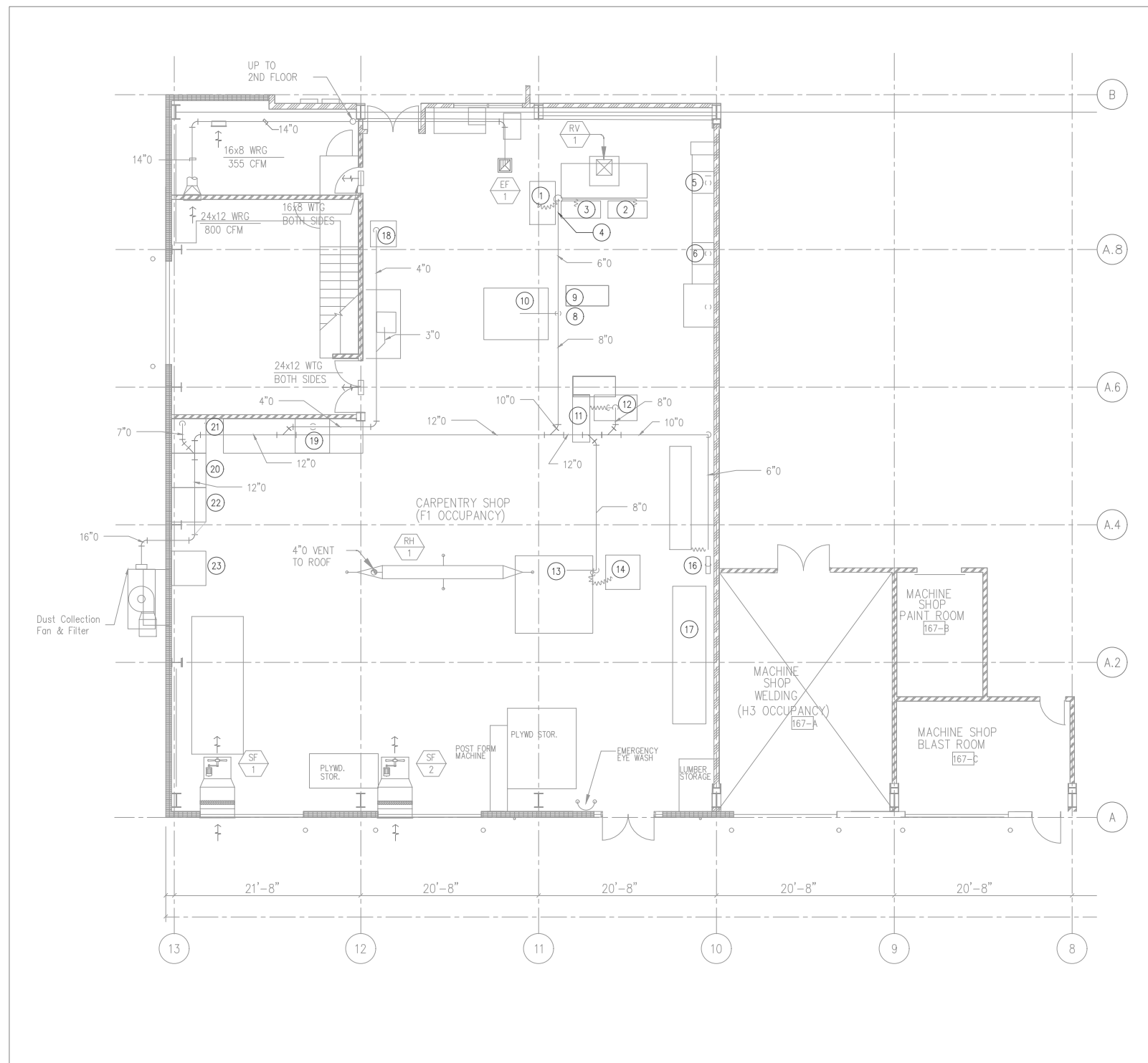


NO.	DATE	REVISION	BY	REC.	APP.

TOOL INVENTORY								
#	TOOL DESCRIPTION	CONTROLS	TOOL VOLTAGE	PANEL	CKT NO.	DUCT PORT SIZE (IN)	APPRX. CFM @ 4,000 FPM	BLASTGATE NO.
1	BENCH SANDER	AUTOMATIC	480	H5-1	14, 16, 18	6	785	1
2	POCKET HOLE MACHINE - KREG	MANUAL	120			3	195	1
3	ROUTER TABLE	MANUAL	120			3	195	1
4	SWEeper	MANUAL	N/A			5	550	1
5	MITER CHOP SAW - FESTOOL	MANUAL	120	L6	19	4	350	3
6	MITER CHOP SAW - OMEGA	MANUAL	240	L6	2, 4	4	350	3
7								
8	LINE BORE MACHINE							
9	OPEN HOSE							
10	TABLE SAW	AUTOMATIC	480	H5-1	13, 15, 17	5	550	2
11	JOINTER - POWERMATIC	AUTOMATIC	240	H5-1	Note 1	5	550	5
12	SANDER - TIMESAVER	AUTOMATIC	480	H5-1	Note 1	7	1000	9
13	TABLE SAW	AUTOMATIC	240	H5-1	1, 3, 5	5	550	6
14	PLANER - SMCI	AUTOMATIC	240	Note 2		7	1000	10
15								
16	SWEeper	MANUAL	N/A			5	550	4
17	PANEL SAW - HOLZ-HER	MANUAL	N/A			5	550	
18	BAND SAW	AUTOMATIC	480	H5-1	2, 4, 6	4	350	7
19	RADIAL SAW	AUTOMATIC	480	H5-1	Note 1	4	350	7
20	CNC MACHINE	AUTOMATIC	240			6	1550	11
21	SANDER - SPINDEL	AUTOMATIC	480	H5-1	14, 16, 18	4	350	8
22	SWEeper							
23	PLANER - POWERMATIC							

SHEET NOTES:

- CONTRACTOR TO EXERCISE BREAKERS AND FIELD VERIFY CKT NO.
- TO DE-ENERGIZE, OPEN DISCONNECT LOCATED IN MACHINE SHOP.
- SITE PLAN SHOWS EXISTING DUCT WORK TO BE CONNECTED TO AND TOOL LOCATIONS ONLY.



CARPENTER SHOP SITE PLAN - DUST COLLECTION SYSTEM
1/8" = 1'-0"

Note 3



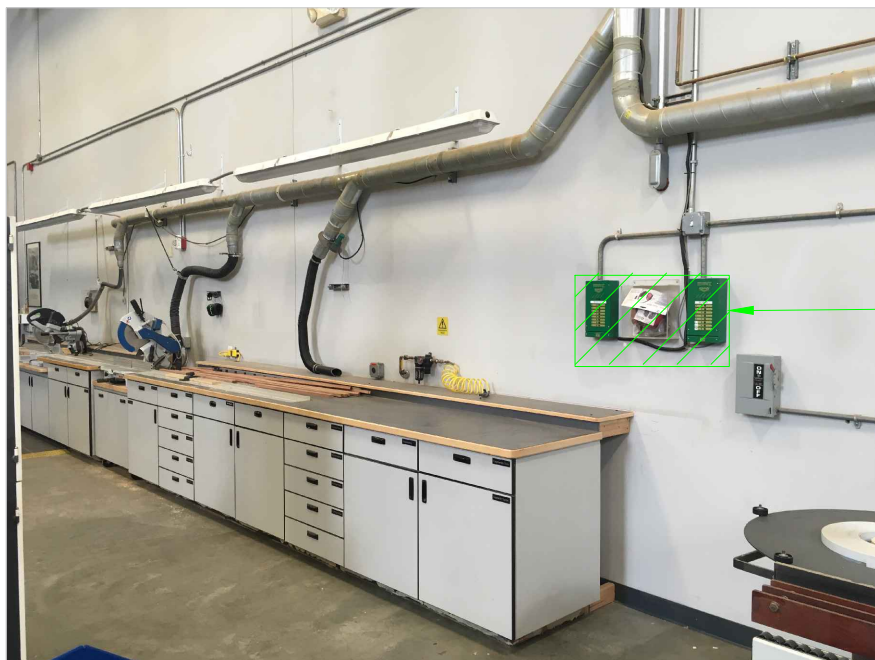
3" ON ORIGINAL DOCUMENT

NO.	DATE	REVISION	BY	REC.	APP.

DESIGNED BY	ALEX GRAUER	EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA			
DESIGN CHECKED BY		AMC CENTRAL SHOP CARPENTRY SHOP			
DRAWN BY	ALEX GRAUER	MECHANICAL			
PROJECT MANAGER R.P.E. NO.		DUST COLLECTION SYSTEM UPGRADE EXISTING TOOL INVENTORY			
PROJECT ENGINEER R.P.E. NO.		PROJ NO.	TBD	852-M-103	0
RECOMMENDED: SR. ELEC. ENGR. R.P.E. NO.		SCALE	AS NOTED		
APPROVED: MGR. OF DESIGN R.P.E. NO.		DATE	09NOV23	STRUCT.	DISC.
				NUMBER	REV.

SHEET NOTES:

- 1. DEMOLISH EXISTING DUST COLLECTION CONTROLLERS. SEE PICTURE BELOW.



CARPENTER SHOP – DUST COLLECTION SYSTEM
 1/8" = 1'-0"

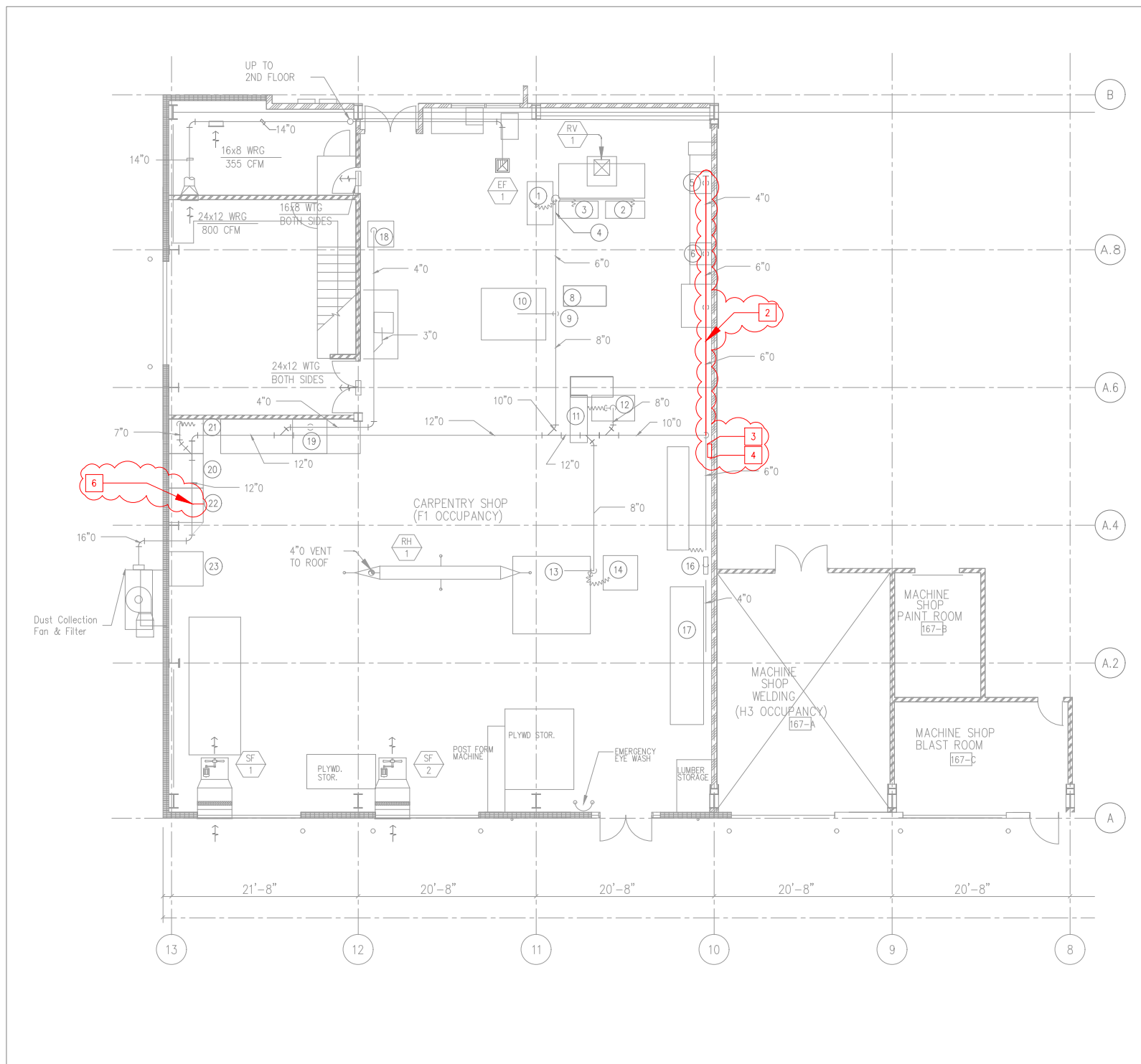
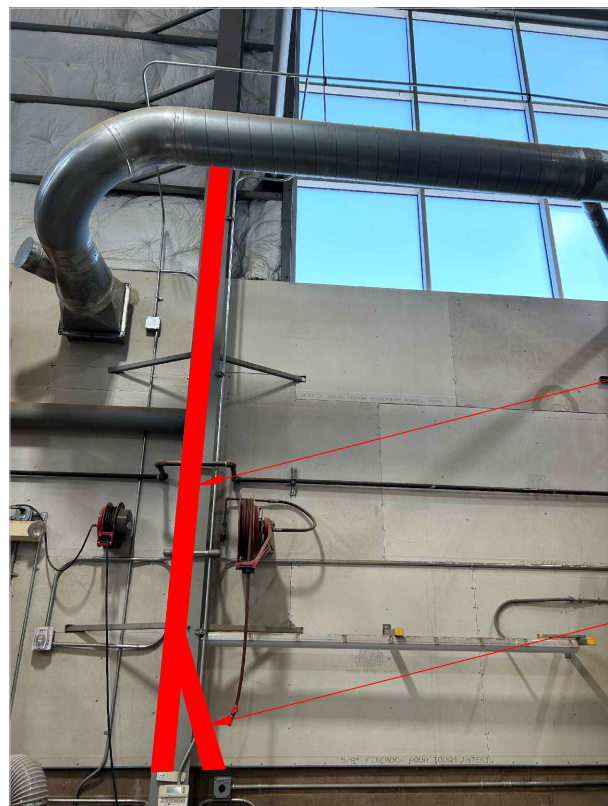
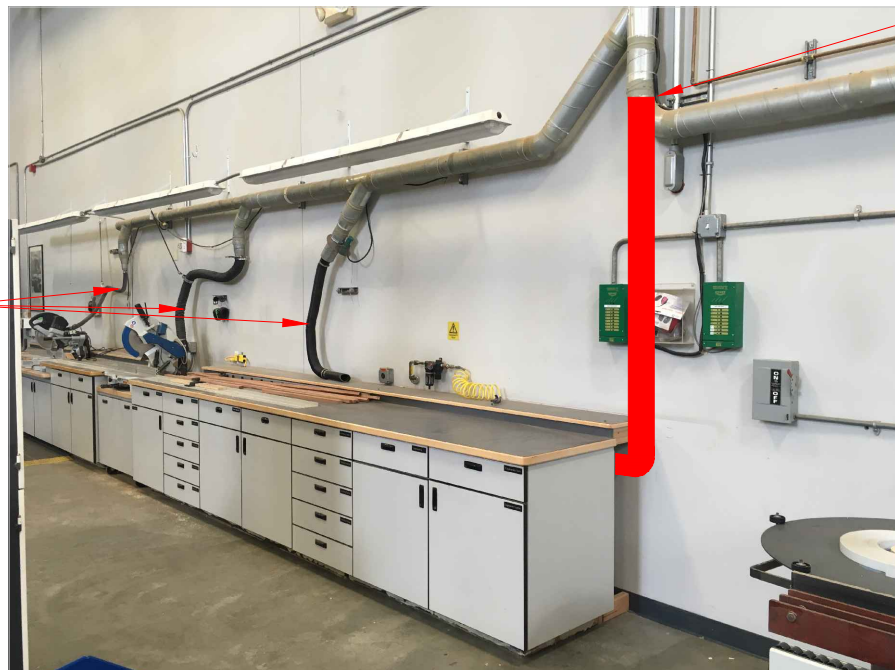


NO.	DATE	REVISION	BY	REC.	APP.

DESIGNED BY	ALEX GRAUER	EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA			
DESIGN CHECKED BY		AMC CENTRAL SHOP CARPENTRY SHOP MECHANICAL DUST COLLECTION SYSTEM UPGRADE CONTROLLER DEMOLITION			
DRAWN BY	ALEX GRAUER				
PROJECT MANAGER		PROJ NO.	TBD	852-M-104	0
R.P.E. NO.		SCALE	AS NOTED		
PROJECT ENGINEER		DATE	09NOV23	STRUCT.	
R.P.E. NO.		DISC.		NUMBER	
RECOMMENDED:		REV.			
SR. ELEC. ENGR.					
R.P.E. NO.					
APPROVED:					
MGR. OF DESIGN					
R.P.E. NO.					

SHEET NOTES:

1. NEW RIGID AND FLEXIBLE DUCT WORK SHALL BE INSTALLED BETWEEN BLAST GATES AND TOOLS NOT SHOWN ON THIS DRAWING. SEE SYSTEM SCHEMATIC DRAWINGS.
2. INSTALL VERTICAL TRANSITION AND EXTEND DUCT 10 FEET DOWN. INSTALL FLEXIBLE DUCT BETWEEN BLAST GATE AND TOOL.
3. INSTALL TWO (2) GREENBOX 12 DUST COLLECTION SYSTEM CONTROLLERS OR EQUIVALENT AS APPROVED BY ENGINEER. RE-USE EXISTING CONDUIT BETWEEN EXISTING CONTROLLERS AND MOTOR STARTER PANEL AND CONNECT TO JB-001. RUN NEW CONDUIT TO CONTROLLERS FROM JB-001.
4. INSTALL JB-001 IN LOCATION ALONGSIDE NEW DUST COLLECTION CONTROLLERS.
5. ROUTE NEW DUCT UNDER CABINET. SEE PICTURE BELOW. THE COUNTER TOP CAN BE REMOVED BY EBMUD FOR INSTALLATION OF NEW DUCT. ROUTE FLEX DUCT UNDER CABINET TO CONNECT TO NEW DUCT.
6. INSTALL NEW 5" VERTICAL DUCT WORK EXTENDING FROM EXISTING OVERHEAD DUCT TO TOOL 22, SWEEPER.
7. INSTALL 5" OPEN HOSE CONNECTED TO NEW VERTICAL DUCT.



CARPENTER SHOP - DUST COLLECTION SYSTEM
1/8" = 1'-0"



3" ON ORIGINAL DOCUMENT
0 1 2 3

NO.	DATE	REVISION	BY	REC.	APP.

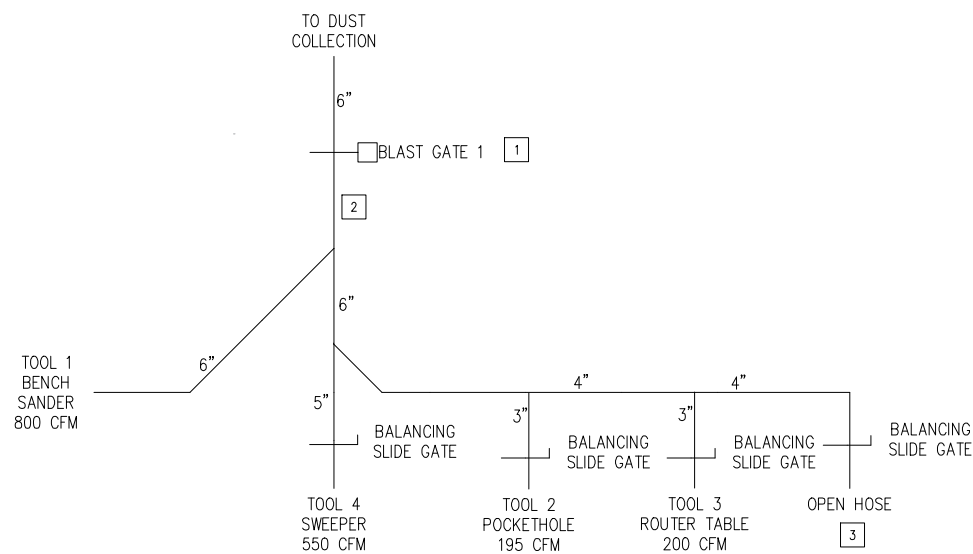
DESIGNED BY	ALEX GRAUER	EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA			
DESIGN CHECKED BY		AMC CENTRAL SHOP CARPENTRY SHOP MECHANICAL			
DRAWN BY	ALEX GRAUER				
PROJECT MANAGER R.P.E. NO.		DUST COLLECTION SYSTEM UPGRADE NEW DUCT CONSTRUCTION AND CONTROLLER			
PROJECT ENGINEER R.P.E. NO.					
RECOMMENDED: SR. ELEC. ENGR. R.P.E. NO.		PROJ. NO.	TBD	852-M-105	0
APPROVED: MGR. OF DESIGN R.P.E. NO.		SCALE	AS NOTED	DATE	09NOV23
		STRUCT.		DISC.	
		NUMBER			
		REV.			

SHEET NOTES:

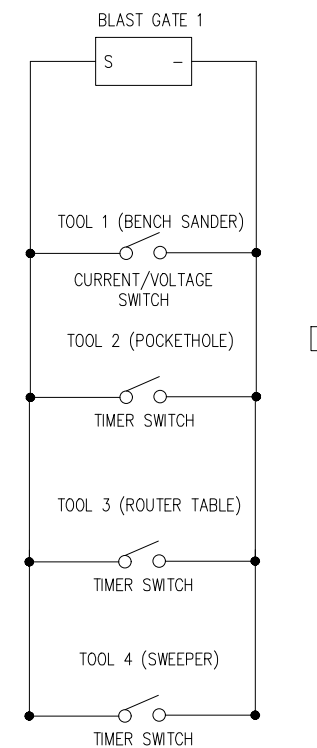
1. SUPPORT BLAST GATE ON EXISTING UNISTRUT AS REQUIRED BY MANUFACTURER.
2. ALL DUCT WORK AND BALANCING SLIDE GATES BELOW NEW BLAST GATE SHALL BE NEW. CONTRACTOR SHALL DEMOLISH EXISTING BLAST GATES, CABLES, CONDUIT, AND PRESSURE SENSORS.
3. OPEN HOSE EXISTING DUCT WORK DOES NOT EXIST. CONTRACTOR SHALL INSTALL NEW DUCT WORK AND BALANCING SLIDE GATE.
4. ALL CURRENT/VOLTAGE SWITCHES, TIMERS, AND CABLES SHALL BE NEW.

GENERAL NOTES:

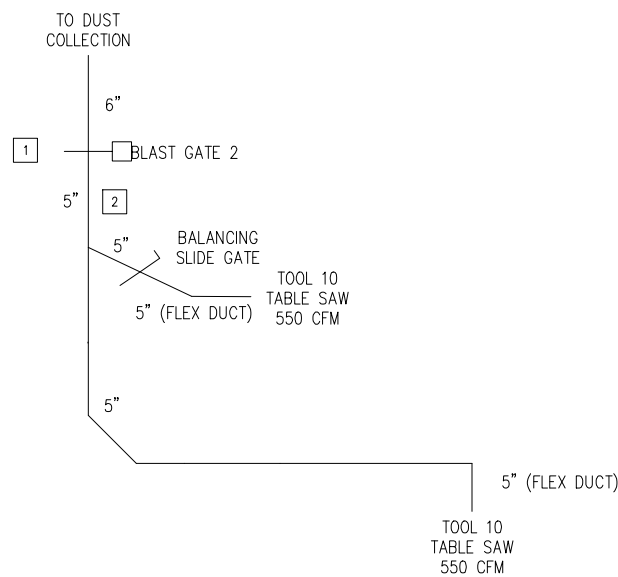
1. CONTRACTOR SHALL DETERMINE EXACT ROUTING BETWEEN BLAST GATES, SENSORS, CONTROLLERS, AND TOOLS IN THE FIELD.
2. CONTRACTOR SHALL INSTALL UNISTRUT AND SUPPORTS FOR DUCT WORK AND CONDUIT AS NEEDED.
3. ALL DUCT WORK, TRANSITIONS, AND JOINTS SHALL BE AIR TIGHT.
4. DUCT WORK VALUES SHOWN ABOVE NEW BLAST GATE ARE FOR FIELD REFERENCE ONLY.



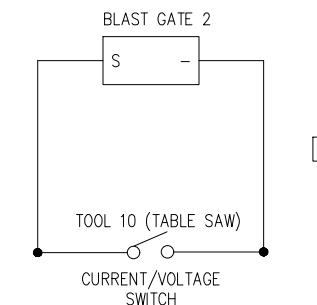
1 BLAST GATE 1 – SCHEMATIC & DUCT WORK
N.T.S.



2 BLAST GATE 1 – CONTROL SCHEMATIC
N.T.S.



3 BLAST GATE 2 – SCHEMATIC & DUCT WORK
N.T.S.

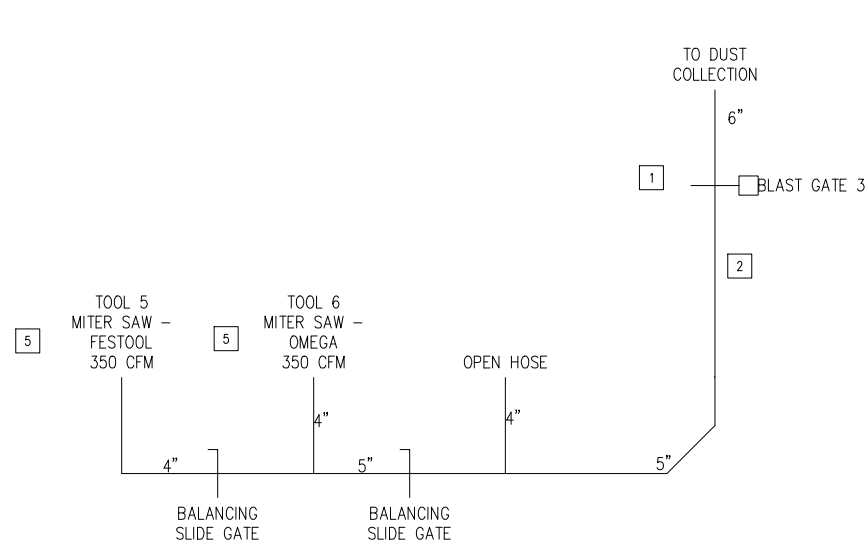


4 BLAST GATE 2 – CONTROL SCHEMATIC
N.T.S.

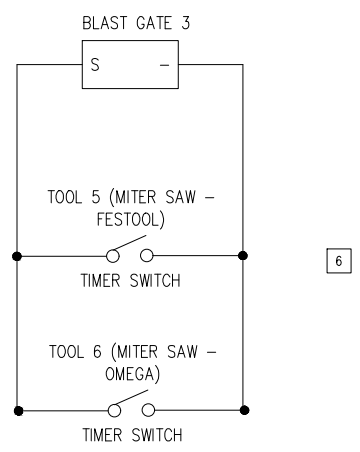
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NO.	DATE	REVISION	BY	REC.	APP.

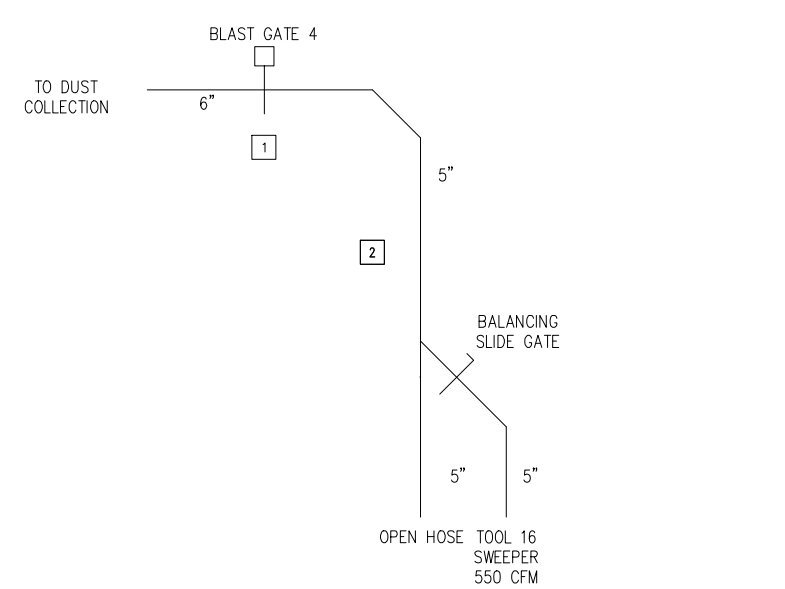
DESIGNED BY	ALEX GRAUER	EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA			
DESIGN CHECKED BY		AMC CENTRAL SHOP CARPENTRY SHOP ELECTRICAL			
DRAWN BY	ALEX GRAUER				
PROJECT MANAGER R.P.E. NO.		DUST COLLECTION SYSTEM UPGRADE CONTROL SCHEMATICS AND DUCT WORK – 1			
PROJECT ENGINEER R.P.E. NO.					
RECOMMENDED: SR. ELEC. ENGR. R.P.E. NO.		PROJ NO.	TBD	852-E-669	0
APPROVED: MGR. OF DESIGN R.P.E. NO.		SCALE	AS NOTED		
		DATE	09NOV23	STRUCT.	
				DISC.	
				NUMBER	
				REV.	



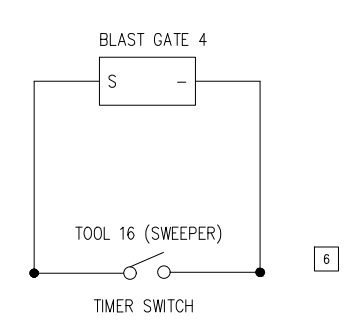
1 BLAST GATE 3 - SCHEMATIC & DUCT WORK
N.T.S.



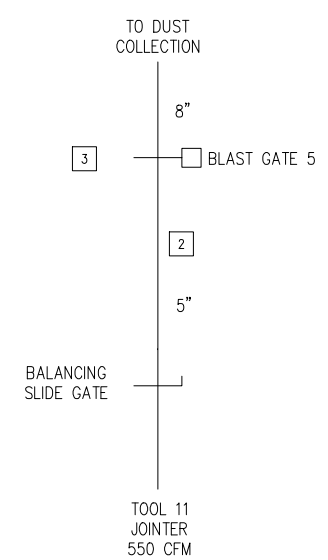
2 BLAST GATE 3 - CONTROL SCHEMATIC
N.T.S.



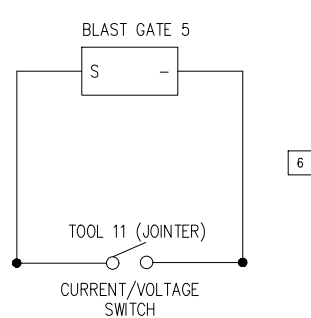
3 BLAST GATE 4 - SCHEMATIC & DUCT WORK
N.T.S.



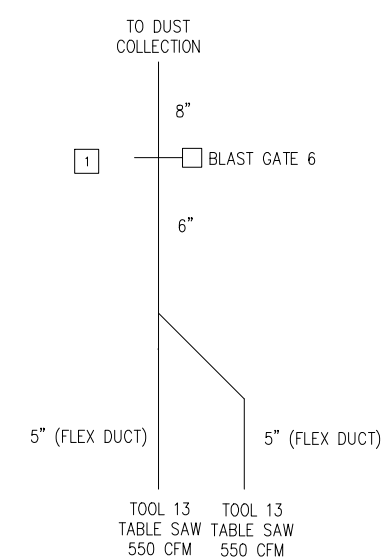
4 BLAST GATE 4 - CONTROL SCHEMATIC
N.T.S.



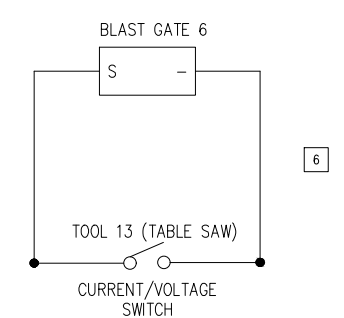
5 BLAST GATE 5 - SCHEMATIC & DUCT WORK
N.T.S.



6 BLAST GATE 5 - CONTROL SCHEMATIC
N.T.S.



7 BLAST GATE 6 - SCHEMATIC & DUCT WORK
N.T.S.



8 BLAST GATE 6 - CONTROL SCHEMATIC
N.T.S.

SHEET NOTES:

- SUPPORT BLAST GATE ON WALL AS REQUIRED BY MANUFACTURER.
- ALL DUCT WORK AND BALANCING SLIDE GATES BELOW NEW BLAST GATE SHALL BE NEW. CONTRACTOR SHALL DEMOLISH EXISTING BLAST GATES, CABLES, CONDUIT, AND PRESSURE SENSORS.
- CONTRACTOR SHALL CONSTRUCT A FLOOR MOUNTED UNISTRUT STRUCTURE TO SUPPORT NEW BLAST GATE TO BE LOCATED APPROXIMATELY 12 FEET FROM THE FLOOR. SUPPORT BLAST GATE AS REQUIRED BY MANUFACTURE.
- SUPPORT BLAST GATE ON EXISTING UNISTRUT AS REQUIRED BY MANUFACTURE.
- INSTALL 30" x 30" x 6" ENCLOSURE. SEE RADIAL SAW ON SHOP FLOOR AS AN EXAMPLE.
- ALL CURRENT/VOLTAGE SWITCHES, TIMERS, AND CABLES SHALL BE NEW..

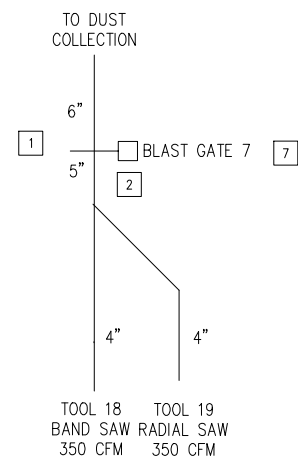
GENERAL NOTES:

- CONTRACTOR SHALL DETERMINE EXACT ROUTING BETWEEN BLAST GATES, SENSORS, CONTROLLERS, AND TOOLS IN THE FIELD.
- CONTRACTOR SHALL INSTALL UNISTRUT AND SUPPORTS FOR DUCT WORK AND CONDUIT AS NEEDED.
- ALL DUCT WORK, TRANSITIONS, AND JOINTS SHALL BE AIR TIGHT.
- DUCT WORK VALUES SHOWN ABOVE NEW BLAST GATE ARE FOR FIELD REFERENCE.

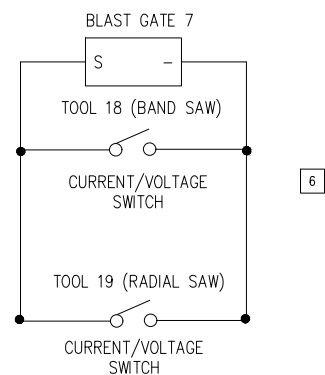


NO.	DATE	REVISION	BY	REC.	APP.

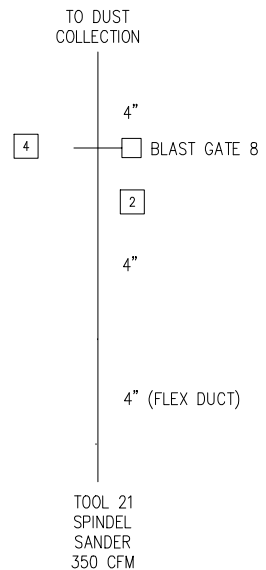
DESIGNED BY	ALEX GRAUER	EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA AMC CENTRAL SHOP CARPENTRY SHOP ELECTRICAL DUST COLLECTION SYSTEM UPGRADE CONTROL SCHEMATICS AND DUCT WORK - 2			
DESIGN CHECKED BY					
DRAWN BY	ALEX GRAUER				
PROJECT MANAGER R.P.E. NO.					
PROJECT ENGINEER R.P.E. NO.		PROJ NO.	TBD	852-E-670	0
RECOMMENDED: SR. ELEC. ENGR. R.P.E. NO.		SCALE	AS NOTED		
APPROVED: MGR. OF DESIGN R.P.E. NO.		DATE	09NOV23	STRUCT.	
				DISC.	
				NUMBER	
				REV.	



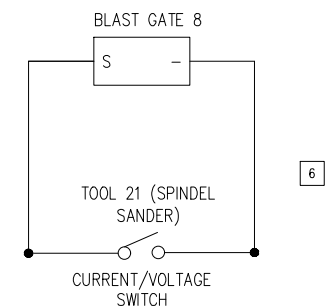
1 BLAST GATE 7 – SCHEMATIC & DUCT WORK
N.T.S.



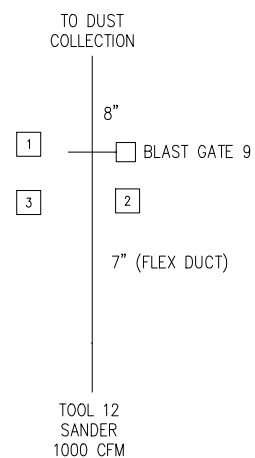
2 BLAST GATE 7 – CONTROL SCHEMATIC
N.T.S.



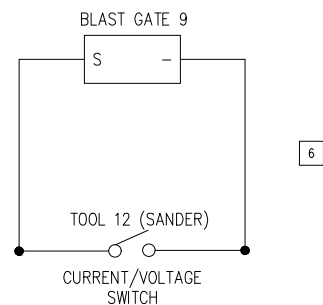
3 BLAST GATE 8 – CONTROL VALVE SCHEMATIC
N.T.S.



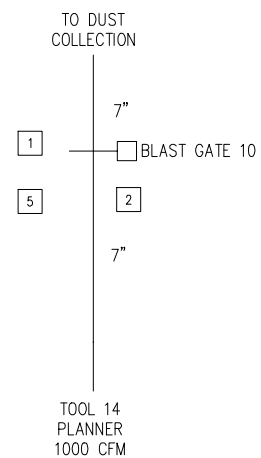
4 BLAST GATE 8 – CONTROL SCHEMATIC
N.T.S.



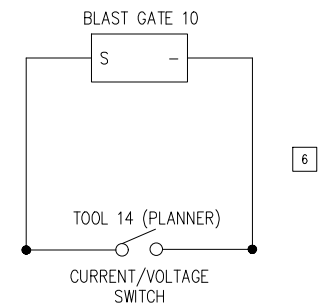
5 BLAST GATE 9 – SCHEMATIC & DUCT WORK
N.T.S.



6 BLAST GATE 9 – CONTROL SCHEMATIC
N.T.S.



7 BLAST GATE 10 – SCHEMATIC & DUCT WORK
N.T.S.



8 BLAST GATE 9 – CONTROL SCHEMATIC
N.T.S.

SHEET NOTES:

- SUPPORT BLAST GATE ON WALL AS REQUIRED BY MANUFACTURE.
- ALL DUCT WORK AND BALANCING SLIDE GATES BELOW NEW BLAST GATE SHALL BE NEW. CONTRACTOR SHALL DEMOLISH EXISTING BLAST GATES, CABLES, CONDUIT, AND PRESSURE SENSORS.
- CONTRACTOR SHALL CONSTRUCT A FLOOR MOUNTED UNISTRUT STRUCTURE TO SUPPORT NEW BLAST GATE TO BE LOCATED APPROXIMATELY 12 FEET FROM THE FLOOR. SUPPORT BLAST GATE AS REQUIRED BY MANUFACTURE.
- UNISTRUT SHALL BE INSTALLED AT THE WALL TO SUPPORT BLAST GATE.
- CONNECT TO SAME EXISTING 8" DUCT WORK AS TOOL 13, TABLE SAW.
- ALL CURRENT/VOLTAGE SWITCHES, TIMERS, AND CABLES SHALL BE NEW.
- INSTALL BLAST GATE AT 6" DUCT.

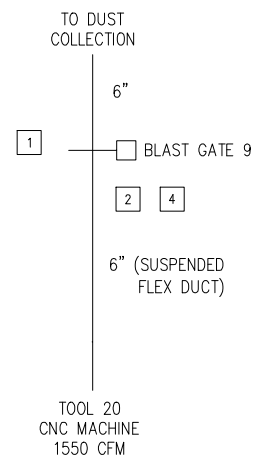
GENERAL NOTES:

- CONTRACTOR SHALL DETERMINE EXACT ROUTING BETWEEN BLAST GATES, SENSORS, CONTROLLERS, AND TOOLS IN THE FIELD.
- CONTRACTOR SHALL INSTALL UNISTRUT AND SUPPORTS FOR DUCT WORK AND CONDUIT AS NEEDED.
- ALL DUCT WORK, TRANSITIONS, AND JOINTS SHALL BE AIR TIGHT.
- DUCT WORK VALUES SHOWN ABOVE NEW BLAST GATE ARE FOR FIELD REFERENCE.

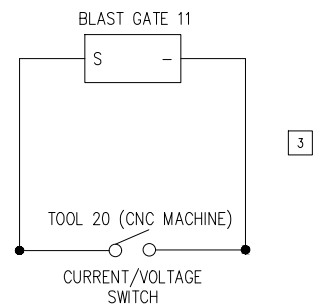


NO.	DATE	REVISION	BY	REC.	APP.

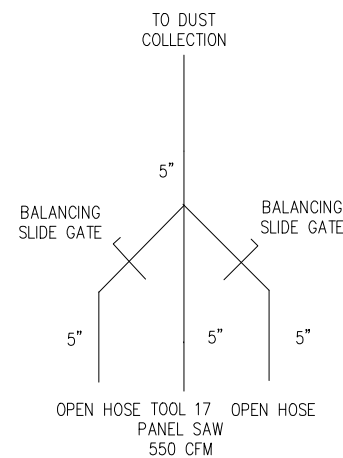
DESIGNED BY	ALEX GRAUER	EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA			
DESIGN CHECKED BY					
DRAWN BY	ALEX GRAUER	AMC CENTRAL SHOP CARPENTRY SHOP ELECTRICAL			
PROJECT MANAGER R.P.E. NO.					
PROJECT ENGINEER R.P.E. NO.		DUST COLLECTION SYSTEM UPGRADE CONTROL SCHEMATICS AND DUCT WORK – 3			
RECOMMENDED: SR. ELEC. ENGR. R.P.E. NO.					
APPROVED: MGR. OF DESIGN R.P.E. NO.		PROJ NO.	TBD	852-E-671	0
		SCALE	AS NOTED		
		DATE	09NOV23	STRUCT.	
				DISC.	
				NUMBER	
				REV.	



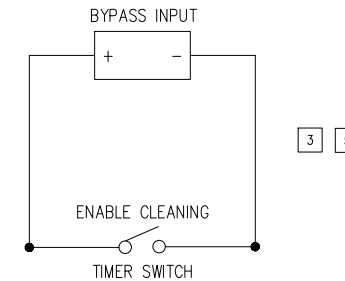
1 BLAST GATE 11 – SCHEMATIC & DUCT WORK
N.T.S.



2 BLAST GATE 11 – CONTROL SCHEMATIC
N.T.S.



3 SCHEMATIC & DUCT WORK
N.T.S.



4 BYPASS INPUT – CONTROL SCHEMATIC
N.T.S.

SHEET NOTES:

1. SUPPORT BLAST GATE ON WALL AS REQUIRED BY MANUFACTURE.
2. ALL DUCT WORK AND BALANCING SLIDE GATES BELOW NEW BLAST GATE SHALL BE NEW. CONTRACTOR SHALL DEMOLISH EXISTING BLAST GATES, CABLES, CONDUIT, AND PRESSURE SENSORS.
3. ALL CURRENT/VOLTAGE SWITCHES, TIMERS, AND CABLES SHALL BE NEW.
4. CONTRACTOR SHALL LENGTHEN VERTICAL DUCT AND INSTALL BLAST GATE ON LENGTHENED VERTICAL DUCT. CONTRACTOR SHALL DEMOLISH EXISTING MANUAL GATE EQUIPMENT.
5. CONNECT TO BYPASS INPUT ON DUST COLLECTION CONTROLLER. BYPASS INPUT SHALL OPEN ALL GATES.

GENERAL NOTES:

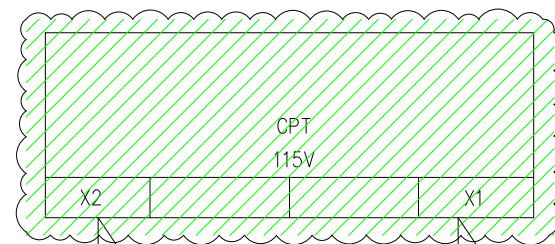
1. CONTRACTOR SHALL DETERMINE EXACT ROUTING BETWEEN BLAST GATES, SENSORS, CONTROLLERS, AND TOOLS IN THE FIELD.
2. CONTRACTOR SHALL INSTALL UNISTRUT AND SUPPORTS FOR DUCT WORK AND CONDUIT AS NEEDED.
3. ALL DUCT WORK, TRANSITIONS, AND JOINTS SHALL BE AIR TIGHT.
4. DUCT WORK VALUES SHOWN ABOVE NEW BLAST GATE ARE FOR FIELD REFERENCE ONLY.



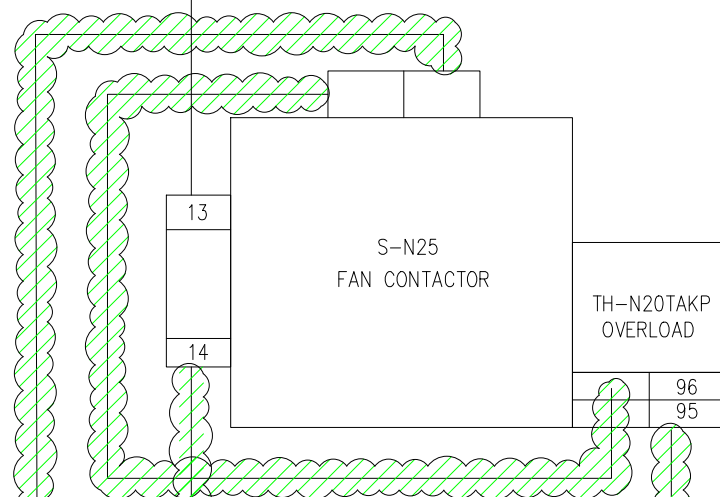
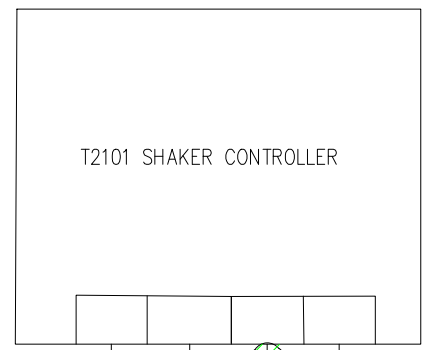
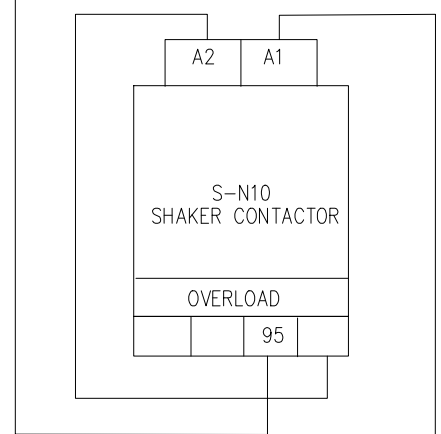
NO.	DATE	REVISION	BY	REC.	APP.

DESIGNED BY	ALEX GRAUER	EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA			
	DESIGN CHECKED BY				
DRAWN BY	ALEX GRAUER	AMC CENTRAL SHOP CARPENTRY SHOP ELECTRICAL			
PROJECT MANAGER R.P.E. NO.					
PROJECT ENGINEER R.P.E. NO.		DUST COLLECTION SYSTEM UPGRADE CONTROL SCHEMATICS AND DUCT WORK – 4			
RECOMMENDED: SR. ELEC. ENGR. R.P.E. NO.					
APPROVED: MGR. OF DESIGN R.P.E. NO.		PROJ NO.	TBD	852-E-672	0
		SCALE	AS NOTED		
		DATE	09NOV23	STRUCT.	
				DISC.	
				NUMBER	
				REV.	

MOTOR STARTER PANEL



- # SHEET NOTES:
1. TRACE EXISTING WIRING FROM FAN CONTACTOR SHOWN TO EXISTING ECOGATE CONTROLLER PRIOR TO DEMOLISHING. REPLACE WIRING UPON VERIFICATION.
 2. TO DE-ENERGIZE, OPEN DISCONNECT LOCATED NEAR THE SIDE OF THE PANEL. CONFIRM ZERO ENERGY PRIOR TO PERFORMING WORK.



TO EXISTING CONTROLLER
CARPENTRY SHOP

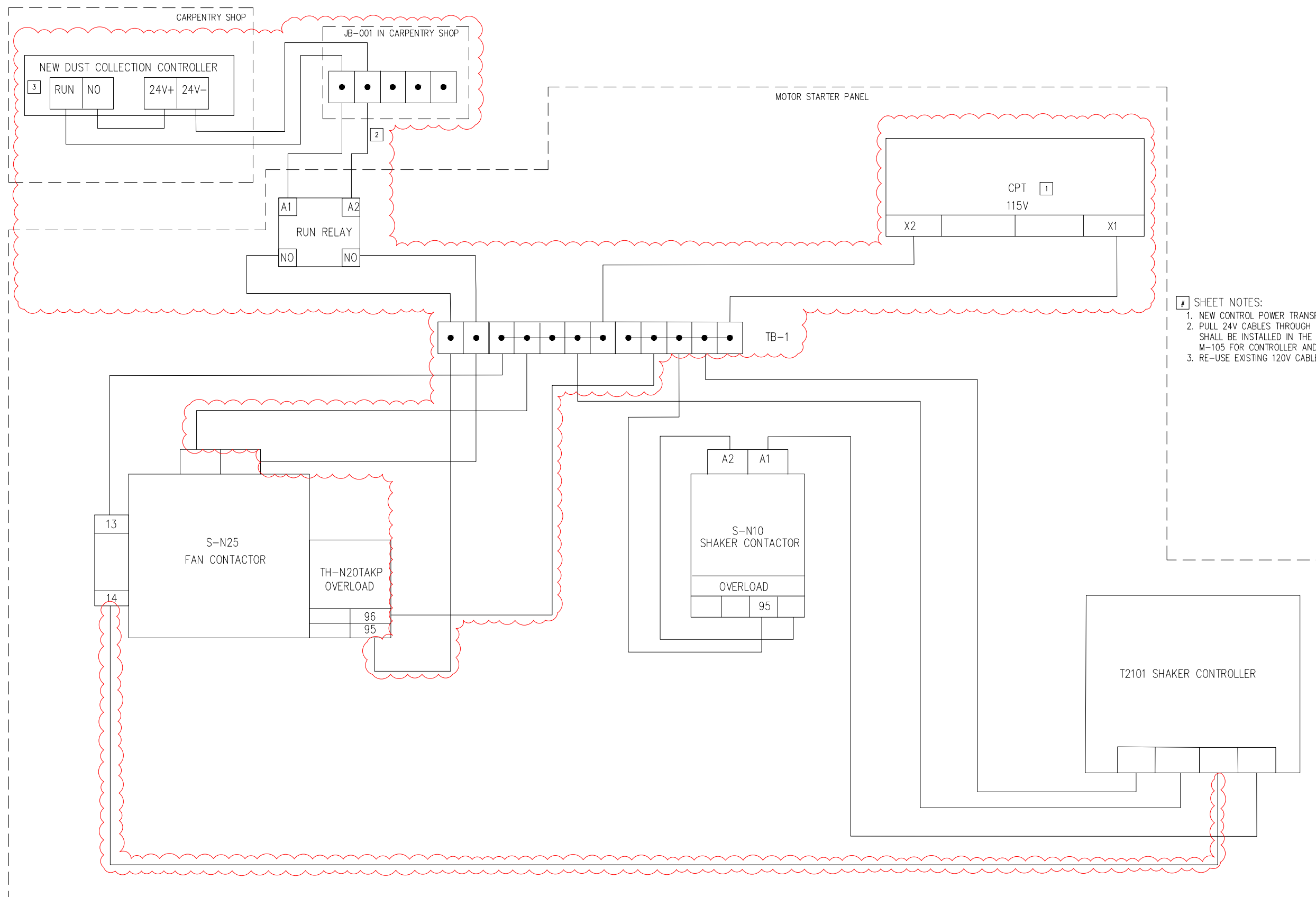
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3" ON ORIGINAL DOCUMENT
0 1 2 3

NO.	DATE	REVISION	BY	REC.	APP.

DESIGNED BY	ALEX GRAUER
DESIGN CHECKED BY	
DRAWN BY	ALEX GRAUER
PROJECT MANAGER	
R.P.E. NO.	
PROJECT ENGINEER	
R.P.E. NO.	
RECOMMENDED:	
SR. ELEC. ENGR.	
R.P.E. NO.	
APPROVED:	
MGR. OF DESIGN	
R.P.E. NO.	

EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA			
AMC CENTRAL SHOP CARPENTRY SHOP ELECTRICAL			
DUST COLLECTION SYSTEM UPGRADE MOTOR STARTER PANEL DEMOLITION			
PROJ NO.	TBD	852-E-673	0
SCALE	AS NOTED		
DATE	09NOV23	STRUCT.	DISC. NUMBER REV.



- # SHEET NOTES:
1. NEW CONTROL POWER TRANSFORMER (CPT) SHALL HAVE AN INTEGRATED FUSE BLOCK.
 2. PULL 24V CABLES THROUGH EXISTING CONDUIT ROUTE. NEW CONTROLLER AND JB-001 SHALL BE INSTALLED IN THE SAME LOCATION AS THE EXISTING CONTROLLER. SEE DWG M-105 FOR CONTROLLER AND JB-001 LOCATION.
 3. RE-USE EXISTING 120V CABLES TO SUPPLY POWER TO NEW CONTROLLER.



NO.	DATE	REVISION	BY	REC.	APP.

DESIGNED BY	ALEX GRAUER
DESIGN CHECKED BY	
DRAWN BY	ALEX GRAUER
PROJECT MANAGER	
R.P.E. NO.	
PROJECT ENGINEER	
R.P.E. NO.	
RECOMMENDED BY	
Sr. ELEC. ENGR.	
R.P.E. NO.	
APPROVED:	
MGR. OF DESIGN	
R.P.E. NO.	

EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA			
AMC CENTRAL SHOP CARPENTRY SHOP			
ELECTRICAL			
DUST COLLECTION SYSTEM UPGRADE MOTOR STARTER PANEL			
PROJ. NO.	TBD	852-E-674	0
SCALE	AS NOTED		
DATE	09NOV23	STRUCT.	DISC. NUMBER REV.

EXHIBIT G – SPECIFICATIONS

ADELINE MAINTENANCE CENTER CARPENTRY SHOP - DUST COLLECTION
SYSTEM

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SECTION 01 35 53

SECURITY PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Requirements of this section apply to work sites located at or near critical District facilities or infrastructure. This project involves:
 - 1. Staffed facilities
- B. Contractor shall comply with the District's protocol as described herein for personnel identification, site access control, and contractor deliveries.
- C. Unless otherwise specified in the Contract Documents, Security of this (these) site(s) and the Contractor's equipment and tools shall be the Contractor's responsibility from commencement of work through contract completion.
- D. Contractor's site security monitor shall be on-site and available at all times while work is being performed ensuring that requirements of this section are met. This individual may be the superintendent.
- E. The District reserves the right to deny access to the site to any person as allowed by law.

1.2 SUBMITTALS

- A. Provide daily sign-in log to the Engineer identifying all personnel on the job for that workday. Logs shall be provided to the Engineer at the end of each workday. Log shall include: individuals' full name, company and company phone number.
- B. Provide a legible photo copy of the personnel's current California Driver's License, California Identification Card (issued by the California Department of Motor Vehicles), or other current government issued driver's license or photo identification for all personnel working on site whether or not they have been issued a District photo identification badge. Provide these copies no later than the first day the personnel report to the work site. These copies shall be retained by the Engineer for the duration of the project and will be returned to the contractor or shredded, at Contractor's discretion, once the project is completed and all materials between District and Contractor are closed out.
- C. Submit individual District photo identification badge application forms for all personnel who will work at the site and require badges per Paragraph 1.3.B. Along with each application form, provide the Engineer with the following:
 - 1. A copy of the individual's current California Driver License, California DMV Issued ID card, or the equivalent from another governmental entity. Contractor

shall verify that each employee provides valid proof of his/her identity and that those employees who drive are properly licensed.

1.3 PERSONNEL IDENTIFICATION AND BADGING

- A. Contractor's personnel and all people associated with the work will be issued individual District Photo Identification (ID) Badges that will be valid for the duration of the project.
- B. Contractor shall complete a Non-Employee Access Card Request (Form K-073A, see Appendix A) for each of Contractor's personnel and all people associated with the work. Provide the Engineer with a list of contractor's personnel and all people associated with the work and completed K-073A form for each individual. The Engineer will forward that list and the completed K-073A forms to the District's Security Administration. After the Engineer notifies the Contractor that the list and request forms have been sent to Security Administration, Contractor shall contact the District's Security Administration at 510/287-0892 to arrange the date and time for those listed people to take personnel photographs at the District's Security Office at the main Administration Building in Oakland, or arrange for remote badging. Proof of Identification, such as a current California driver's license or other current government photo identification must be provided for each individual at the time they come to the District to have their photo taken for issuance of a Photo ID Badge. For remote badging, the Contractor shall provide a photo and identifying information for each contract employee to the District Sponsor for the project. The District Sponsor will submit the completed Form K-073A for each contract employee to Security Administration. The badge will be created remotely and then routed to the District Sponsor for distribution. The Contractor shall repeat the badging procedure on an as-needed basis when additional Photo ID Badges are required for contractor's staff during the course of the project.
- C. Record Keeping
 - 1. Contractor shall keep a written record of the name, employer, work telephone number and a copy of the current driver's license or current State issued identification card of each person issued a Photo ID Badge.
 - 2. Lost or missing badges shall be reported immediately to the Engineer and to the District's Security Administration so the lost card can be de-activated in the security system. Upon request, the District may issue a replacement card at expense of the Contractor.
 - 3. A cumulative list of lost or missing Photo ID Badges shall be kept by the Contractor and submitted to the Engineer with monthly progress documentation, or upon the request of the Engineer.
 - 4. All project-specific Photo ID Badges shall be surrendered to the District no later than at the completion of the contract.

5. The Contractor shall immediately surrender to the District the badges of any Contractor's employee that is reassigned to other sites or terminated during the construction. The Contractor shall be responsible for collecting and returning the badges to the District when a contractor's staff leaves the company or is no longer assigned on that project; and all Photo ID Badges must be returned to the Engineer (who will return them to Security Administration) when the project is complete, with no exceptions.
- D. All personnel associated with the work shall be required to wear District-issued Photo ID Badge at all times while working at the site. Photo ID Badges shall be attached above the waist on outer garments or affixed to a hard hat and shall be visible at all times. Any Contractor employee or worker who does not display a Photo ID Badge while on site shall be required to leave the site or will be denied access until such time as they have an approved badge.
- E. Upon request, badges shall be shown to District's staff or security officers. Persons without badges shall be required to immediately leave the site unless the Contractor's site security monitor can verify that the person is required on site.
- F. Emergency (unplanned) site access – For emergency access as determined by the Contractor and approved by the Engineer, the Contractor's site security monitor shall verify the identity of the person entering without a Photo ID Badge. That person will be deemed to be a visitor and must be escorted at all times while on the site, by a District employee or a Contractor employee that does have a Photo ID Badge and is to be held responsible for that visitor. A legible photo copy of the visitors current California Driver's License, California Identification Card (issued by the California Department of Motor Vehicles), or current driver's license or photo identification card from another governmental entity must be made on the site by the Contractor or the Engineer, and attached to the daily log of site personnel for that day.
- G. The Contractor will be assessed a \$250 fee for each unreturned Photo ID Badge or each replacement badge, which will be withheld from final payment.
- H. Contractor and all other people associated with the work that enter the site are required to possess and carry a valid and current California Driver's License, California Identification Card (issued by the California Department of Motor Vehicles), or current driver's license or photo identification card from another governmental entity. This identification shall include a photograph and signature of the holder. Personnel without such identification shall be removed from the site by the Contractor.

1.4 BACKGROUND CHECKS

- A. Upon request and at no additional cost to the District, the Contractor shall provide such information as necessary and as allowed by law to complete a background check on any person that enters the site.

- B. The District reserves the right to deny access to the site to any person as allowed by law.

1.5 SITE ACCESS CONTROL

- A. The Adeline Maintenance Facility has established security checkpoints.
- B. The District reserves the right to establish a Security Check-in/Out location for any job site.
- C. The District reserves the right to assign a District's security officer to provide security for any job site.
- D. The Contractor is advised that all persons seeking entry to the site will be required to show proof of identification (e.g. driver's license). All Contractor's trucks and drivers are subject to the same identification and search requirements.
- E. At all times, security measures at the site shall, at a minimum, be equal to the security measures prior to initiation of the project as determined by the Engineer.

1.6 DAILY SITE ACCESS PATH

- A. General:
 - 1. All personnel shall take the most direct path from their point of site entry to their work area and shall not loiter in non-work areas.
- B. At the Adeline Maintenance Complex
 - 1. All personnel shall enter the site through the Warehouse/Shops _____ at 1200 21st Street _____ and proceed directly to the work area of contractor's on-site office.

1.7 PHOTO CONTROL

- A. Complete the Photo Confidentiality Agreement in Appendix A.
- B. Restrict photos to work zone.
- C. Photos, negatives, and other images of the project shall be destroyed at project completion when all claims are resolved.
- D. The District reserves the right, at any time, to disallow photography at any site, of any District facilities, equipment, or processes which are deemed to be sensitive in nature, either due to current threat-level conditions or internal assessment of the business need and benefit to the District.

1.8 PRODUCTIVITY LOST AND COST INCURRED DUE TO SECURITY REQUIREMENTS

- A. Time lost and/or costs incurred due to compliance with District security measures (e.g., deliveries or personnel held at the gate without badges or identification, refusal of package deliveries, etc.) shall be deemed an inexcusable delay.
- B. Failure to comply with these security measures may lead to the termination of the Contractor's right to proceed under the contract.

1.9 PAYMENT

- A. Full compensation for doing all work and furnishing all materials required to comply with site security requirements as specified in these Specifications shall be included in the price bid for the contract.

PART 2 - NOT USED

PART 3 - NOT USED

END OF SECTION

SECTION 23 35 13

DUST COLLECTION CONTROL SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Furnish and install automatic dust collection system controllers, automatic blast gates, balancing slide gates, flange rings, voltage sensors, current sensors, timers, workstation PC, terminal blocks, control power transformer (CPT), ice cube relay, and junction boxes as shown on the drawings and as specified herein.

B. Related sections:

1. Section 26 05 19 – Low Voltage Electrical Power Conductors and Cables

1.2 REFERENCES

A. National Fire Protection Association (NFPA):

1. NFPA 70 – National Electrical Code

1.3 SUBMITTALS

- A. Provide submittals in accordance with the Carpentry Shop Dust Collection System Request for Proposal (RFP) No. 734-24-02, Deliverable/Reports, 1D.
- B. Submit full details, catalog cut sheets, and such descriptive literature and documentation as may be required to demonstrate conformance to the drawings and specifications. These submittals shall clearly identify specific items and options to be provided.
- C. O&M manual submittals shall be submitted for all equipment outlined within Part 2 – Products.

PART 2 - PRODUCTS

2.1 AUTOMATIC CONTROLLER

- A. Provide two (2) automatic control units capable of supporting up to twelve (12) workstations per controller.
- B. Controller shall provide the following functionality:
 1. Maintain minimum airflow in a single duct zone.

2. Power supply requirements shall be 115V-230 VAC, 50-60Hz, 40 VA max; 24 VDC, 2 A.
 3. Sensor inputs for each automatic blast gate and the ability to interface with voltage, current, and timer sensors. Input for a bypass switch to open all gates and start the dust collector fan unit.
 4. Run contact to energize the dust collector fan unit contactor coil upon sensing automatic gate status.
 5. RS-232 compatible.
 6. Compatible software that communicates via RS-232 to USB and provides monitoring and troubleshooting of gate status, gate timing, cleaning and security functionality.
 7. Underwriters Laboratories (UL) listed with the UL mark on the front of the controller enclosure.
- C. Acceptable Manufacturers:
1. Ecogate Greenbox 12
 2. Or equal as approved by the Engineer

2.2 AUTOMATIC BLAST GATES

- A. Automatic blast gates shall be rotating blade style gates sized in accordance with Project Drawings.
- B. Automatic blast gates shall provide the following functionality:
1. Gate motor shall be 24 VDC and gate shall be equipped with Open/Close limit switches.
 2. Provisions for voltage, current, or timer sensor connections from tool or workstation.
 3. Red and green indicator lights to verify correct gate operation.
- C. Provide one (1) spare automatic blast gate for each automatic blast gate size installed per Project Drawings.
- D. Acceptable Manufacturers:
4. Ecogate Automatic Blast Gates
 5. Or equal as approved by the Engineer

2.3 BALANCING SLIDE GATES

- A. Balancing slide gates shall be manually operated galvanized steel with locking thumb screw and sized in accordance with Project Drawings.
- B. Balancing slide gates shall provide the following functionality:
 - 1. Cannot be completely closed.
 - 2. Gate blade shall be angled at sixty (60) degrees.
 - 3. Blade stop functionality to prevent the gate blade from inadvertently slipping out.
- C. Provide one (1) spare balancing slide gate for each balancing slide blast gate size installed per Project Drawings.
- D. Acceptable Manufacturers:
 - 1. Atmos 360 Balancing Slide Gates
 - 2. Or equal as approved by the Engineer

2.4 FLANGE RINGS

- A. Flange rings shall be required to facilitate installation of automatic blast gates with duct work. Flange rings shall be sized in accordance with automatic blast gates and Project Drawings.
- B. Acceptable Manufacturers:
 - 1. Ecogate Flange Rings
 - 2. Or equal as approved by the Engineer

2.5 VOLTAGE SENSOR

- A. Voltage sensors shall be connected to tools and shall provide provisions for signal wire connections to be made to automatic blast gates in accordance with Project Drawings.
- B. Voltage sensors shall provide the following functionality:
 - 1. Capable of detecting input voltages rated for 110 – 690 VAC or 24 – 230V AC or DC.
 - 2. Red and green indicator lights to verify correct sensor operation.
- C. Provide nine (9) voltage sensors and three (3) spare voltage sensors.

- D. Acceptable Manufacturers:
 - 1. Ecogate AC Volt Sensor
 - 2. Ecogate AC/DC Volt Sensor
 - 3. Or equal as approved by the Engineer

2.6 CURRENT SENSOR

- A. Current sensors shall read a tool's variable frequency drive (VFD) or motor current and shall provide provisions for signal wire connections to be made to automatic blast gates in accordance with Project Drawings.
- B. Current sensors shall provide the following functionality:
 - 1. Capable of detecting current rated for 0.5 - 175A for both single phase and three phase motors.
 - 2. Red and green indicator lights to verify correct sensor operation.
 - 3. Adjustable current sensitivity via potentiometer.
- C. Provide seven (7) current sensors and two (2) spare current sensors.
- D. Acceptable Manufacturers:
 - 1. Ecogate Hawkeye Current Sensor
 - 2. Or equal as approved by the Engineer

2.7 TIMERS

- A. Timers shall be single pole single throw (SPST) and provide automatic timing for a maximum of sixty (60) minutes. Timers shall be connected in accordance with Project Drawings.
- B. Provide seven (7) timers and three (3) spare timers.
- C. Acceptable Manufacturers:
 - 1. Ecogate Auto Shut-Off Timer
 - 2. Or equal as approved by the Engineer

2.8 WORKSTATION PC

- A. The Contractor shall procure a Windows Notebook PC with setup and monitoring software that will integrate with the dust collection system controller.

- B. A USB to RS-232 converter shall be required for communication between the workstation and the controller.
- C. Acceptable Manufacturers:
 - 1. Ecogate Netbook – for Greenbox 12
 - 2. Or equal as approved by the Engineer

2.9 TERMINAL BLOCKS

- A. Terminal blocks shall be of feed-through type and installed in accordance with Project Drawings.
- B. Terminal blocks shall provide the following minimum functionality:
 - 1. Rated for 600 V, 24A, AWG: 26 – 10.
 - 2. Provide one (1) twelve (12) pole connection with an equal number of jumpers.
 - 3. Provide one (1) six (6) pole connection with an equal number of jumpers.
 - 4. Provide twelve (12) eight (8) pole connections with an equal number of jumpers.
 - 5. DIN-rail mounted.

2.10 CONTROL POWER TRANSFORMER (CPT)

- A. The CPT shall replace the existing CPT in the Motor Starter Panel and shall provide a fuse block with primary protection in accordance with Project Drawings.
- B. The CPT shall provide the following functionality:
 - 1. Rated at 50 VA, 230/460 VAC primary with a 115 VAC secondary.
 - 2. 2-Pole primary fuse block with Class CC primary fusing with secondary fusing. Primary fuse rating: 0.3A. Secondary fuse rating: 1A.
- C. Acceptable Manufacturers:
 - 1. Siemens KT8050P Control Transformer
 - 2. Or equal as approved by the Engineer

2.11 ICE CUBE RELAY

- A. The ice cube relay shall be connected in accordance with Project Drawings.
- B. The ice cube relay shall provide the following functionality:

1. Provide one (1) ice cube relay with coil voltage rated at 24 VDC with contact voltage rated at 120 VAC at 10 A.
2. LED indicator to indicate relay status.
3. DIN-Rail Socket mounted 8 pin relay.

2.12 JUNCTION BOXES

- A. Junction boxes shall be installed in accordance with Project Drawings. Location of junction boxes, method of installation, number, and size shall be determined in the field.
- B. Junction boxes shall be rated NEMA 12.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Follow manufacturers' installation instructions explicitly, unless otherwise indicated. Wherever any conflict arises between the manufacturers' instructions, codes and regulations, and these Contract Documents, follow Engineer's decision. Keep a copy of manufacturers' installation instructions on the jobsite available for review at all times.
- B. All dust collection control system equipment components shall be compatible with one another and shall operate within the manufacturer's specifications.
- C. Install materials and equipment in a workmanlike manner utilizing craftsmen skilled in the particular trade. Provide work which has a neat and finished appearance.

END OF SECTION

SECTION 26 05 19

LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Work necessary to provide a complete and operable low voltage cable system as specified herein.

1.2 REFERENCES

A. Low-Voltage cables shall be installed in accordance with the latest editions and revisions of the following:

1. ASTM International (ASTM)
 - a. B3 – Standard Specification for Soft or Annealed Copper Wire
 - b. B8 – Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft
 - c. B33 – Standard Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes
2. Insulated Cable Engineers Association (ICEA)
 - a. S-73-532 – Standard for Control, Thermocouple Extension and Instrumentation Cables
 - b. S-95-658 – Standard for Power Cables rated 2000 Volts or less for the Distribution of Electrical Energy
3. National Fire Protection Association (NFPA)
 - a. NFPA 70 – National Electrical Code
4. National Electrical Manufacturers Association (NEMA)
5. Underwriters Laboratory (UL)
 - a. Standard 44 – Thermoset Insulated Wires and Cables
 - b. Standard 83 – Thermoplastic Insulated Wires and Cables

- c. Standard 1063 – Machine Tool Wires and Cables
- d. Standard 1277 – Standard for Electrical Power and Control Tray Cables with Optional Optical-Fiber Members
- e. Standard 1581 – Reference Standard for Electrical Wires, Cables and Flexible Cords

1.3 SQUALITY ASSURANCE

A. Electrical Safety

1. On-site personnel shall meet all project safety requirements specified in the Contract Documents.
2. Contractor personnel energizing equipment shall have documented and current training for the specific type of equipment that will be energized as required by the latest edition of NFPA 70E, Article 110.5. Reference also the general electrical safety-related work practice requirements in Section 01 35 24 – Project Safety Requirements.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Storage of cable after pulling or splicing shall include purging of entire cable with nitrogen or otherwise seal with tape at both ends.
- B. The Contractor shall inspect the reels as they are unloaded from the delivery truck. If the reel arrives on its side (one flange on the truck; the other in the air), notify the Engineer and the cable manufacturer before accepting shipment.
- C. Provide a crane, special lift truck or forklift to unload the cable reels.
- D. Cables shall be packaged on spools or reels. Each package shall contain only one continuous length of cable. Construct the packaging so as to prevent damage to the cable during shipping and handling.
- E. All conductor ends shall be sealed at the factory, and these seals shall be intact when the conductors are delivered.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

- A. Provide cables as specified under the type number in this section (Type 1, Type 2, etc.). Conduits shown on the drawings have been sized to accommodate the outside diameter for each type.
- B. Type 11 (Power and control cables 600 Volts and less)

1. Unless otherwise indicated, provide stranded copper conductors with size as indicated on the drawings.
 2. Provide the following types of insulation:
 - a. Type XHHW-2 insulation for conductors No.14 and larger having cross linked polyethylene insulation rated at 90 degrees C in wet and dry locations.
 - b. Insulation shall be self-lubricating for sizes #8 AWG and larger.
 3. Single conductor control wiring shall be No.14 AWG and shall have insulation type XHHW-2.
 4. Acceptable Manufacturers:
 - a. Southwire, SIMpull Type XHHW-2
 - b. Cerrowire, SLiPWire XHHW-2
 - c. Or equal as approved by the Engineer
- C. Multi-conductor Power, Control, and Instrumentation Cable 600 Volts and Less:
1. Provide cable that is UL listed and conforms to the requirements of UL 1277 and CEC Article 340, or UL listed Power Limited Circuit Cable that conforms to the requirements of Article 725 of the National Electrical Code. Provide cables permanently and legibly marked with the manufacturer's name, the nominal voltage, the type of cable, and the UL label (or submit evidence of UL listing).
 2. Type 10 (600-Volt, Twisted, Shielded Pair or Triad Instrumentation Cable):
 - a. General: Type TC, single pair or triad instrumentation cable designed for noise rejection for process control, computer, or data log applications. Suitable for installation in conduit, cable tray, or other approved raceways. Minimum cable temperature rating shall be 90 degrees C dry locations, 75 degrees C wet locations.
 - b. Individual Conductors: No.18 AWG stranded bare soft annealed copper, Class B, 7-strand concentric per ASTM B8, size as indicated on the drawings; 7-strand tinned copper drain wire.
 - c. Insulation and Jacket: Each conductor 15-mil nominal PVC/nylon insulation. Pair conductors pigmented black and white; triad conductors pigmented black, white, and red. Jacket flame-retardant and sunlight- and oil-resistant PVC with 45 mil nominal thickness. Aluminum/polyester shield overlapped to provide 100 percent coverage.

- 1) Acceptable Manufacturers:
 - a) Belden No. 3088A (pairs);
 - b) Okonite Okoseal-N Type P-OS (triads)
 - c) Or equal as approved by the Engineer

3. Type 14 (600-Volt Individually Shielded Pairs with a Common Overall Shield Instrumentation Cable):
 - 1) General: Type TC, twisted, shielded pairs of instrument cables, grouped in a single cable, designed for use for instrumentation, process control, and computer applications. Suitable for installation in conduit, wireway, or other approved raceways. Minimum cable temperature rating shall be 90 degrees C dry locations and 75 degrees C wet locations.
 - 2) Conductors: No. 18 stranded bare annealed copper, Class B, 7-strand, concentric per ASTM B8. Tinned copper drain wires sized as shown on the Drawings, one for each pair and one for the overall group.
 - 3) Insulation and Jacket: Each conductor 15-mil PVC and 4-mil nylon insulation. Pair conductors pigmented black and red or black and white, with red or white conductor numerically printed for group identification. Outer jacket flame-retardant and sunlight- and oil-resistant PVC with 45 mil minimum thickness. Individual pair shield aluminum/polyester. Group shield aluminum/polyester, overlapped for 100 percent coverage.
 - 4) Acceptable Manufacturers:
 - a) Belden No. 1048A (2 pairs), 1049A (4 pairs), 1050A (8 pairs)
 - b) Okonite Okoseal-N Type P-OS
 - c) Or equal as approved by the Engineer

4. Type 19 (600-Volt Multi-Conductor Control Cable):
 - 1) General: UL listed, Type TC-ER, 600V multi-conductor copper control cable with Class B stranding per ASTM B8, #10 AWG unless noted otherwise on the drawings. Suitable for installation in conduit, cable tray, or other approved raceways. Minimum cable temperature rating of 90 degrees C for dry and wet locations.
 - 2) Insulation and jacket: Provide conductors having 30-mil ethylene-propylene rubber (EPR) insulation and 60-mil chlorinated

polyethylene (CPE) jacket. Color-code the conductor group in accordance with ICEA S-61-402, Appendix K, Method 1, Table E-2.

- 3) Acceptable Manufacturers:
 - a) The Okonite Company, Okonite-FRM Okolon TS-CPE Type TC-ER Cable
 - b) Allied Wire and Cable, FR-EPR/CPE Unshielded Control Cable (E-2 Color Code)
 - c) Or equal as approved by the Engineer.

5. Type 27 (600-Volt, Individually Shielded Triads with a Common Overall Shield Instrumentation Cable):

- 1) General: Twisted, shielded triads of instrument cables, grouped in a single cable, designed for use for instrumentation, process control, and computer applications. Suitable for installation in conduit, wireway, or other approved raceways. Minimum cable temperature rating shall be 90 degrees C dry locations and 75 degrees C wet locations.
- 2) Conductors: No. 18 AWG stranded bare annealed copper, Class B, 7-strand, concentric per ASTM B8, size as indicated on the drawings. Tinned copper drain wires, one for each triad and one for the overall group.
- 3) Insulation and Jacket: Each conductor 15-mil PVC and 4-mil nylon insulation. Triad conductors pigmented black, red, and blue, or black, white, and red, with red or white conductor numerically printed for group identification. Outer jacket flame-retardant and sunlight- and oil-resistant PVC with 60 mil minimum thickness. Individual triad shield 1.35-mil aluminum/polyester. Group shield 2.35-mil aluminum/polyester, overlapped for 100 percent coverage.
- 4) Conductors shall be numerically printed for group identification.
- 5) Acceptable Manufacturers:
 - a) Belden No. 1094A (8 triads)
 - b) Okonite Okoseal-N Type P-OS(multiple triads)
 - c) Or equal as approved by the Engineer

D. Type 15 (RS-485):

1. General: Industrial low-capacitance shielded cables for EIA RS-485 applications, including security access card readers, suitable for outdoor use and installation in conduit and other approved raceways.
 2. Conductors:
 - a. One (1) Pair of 22 AWG, 7x30 strand tinned copper
 - b. One (1) Conductor of 22 AWG, 7x30 strand tinned copper
 3. Conductor Insulation:
 - a. Pair(s) shall be insulated with foam high density polyethylene and color coded in White w/ Orange Stripe & Orange w/White Stripe.
 - b. Conductor(s) shall be insulated with Polyvinyl Chloride and color coded in Blue w/ White Stripe.
 4. Shield:
 - a. Pair(s) shall be individually shielded via aluminum foil polyester tape providing 100% coverage.
 - b. Overall shield shall be aluminum foil polyester tape providing 100% coverage and a tinned copper braid providing 65% percent coverage and, 7x30 strand tinned copper 22 AWG drain wire.
 5. Jacket: UV and oil resistant PVC, 0.300 inch overall nominal diameter, 300 volt, -20 degrees C to +60 degrees C operating temperature.
 6. Characteristic Impedance: 120 Ohms per pair
 7. Applicable Standards: CEC/UL CM and PLTC OIL RES II, UL 1685 Flame Test, UL 1581 Sunlight Resistance Test.
 8. Acceptable Manufacturers:
 - a. Belden No. 3106A (for one pair RS-485 applications)
 - b. Belden No. 3107A (for two pair RS-485 applications)
 - c. Or equal as approved by the Engineer
- E. Flexible Cord and Cable Sealing Fittings:
1. Provide liquid-tight strain relief connectors for exposed flexible cord and power cable where cables enter electrical panels and enclosures.
 2. Acceptable manufacturers:

- a. OZ Gedney
- b. Hubbell
- c. Appleton
- d. Or equal as approved by the Engineer

F. Electrical Tape for Color Coding:

1. Electrical tape shall be premium grade, not less than 7 mils thick, rated for 90 degree C minimum, flame-retardant, weather resistant, and available in suitable colors for color coding. The tape shall be resistant to abrasion, ultraviolet rays, moisture, alkalis, solvents, acids, and suitable for indoor and weather-protected outdoor use. The tape shall be suitable for use with PVC and polyethylene jacketed cables, and meet or exceed the requirements of UL 510.
2. Acceptable manufacturers:
 - a. 3M 35 Scotch Vinyl Electrical Tape for Color Coding
 - b. Plymouth Rubber Company Premium 37 Color Coding Tape
 - c. Or equal as approved by the Engineer

G. Low Voltage Splices, 600 volts and below:

1. General: Provide low voltage splices consisting of 600 volt compression type connectors and connector insulators, suitable for indoor and outdoor field installations.
2. Long Barrel compression connectors
 - a. Acceptable manufacturers:
 - 1) Burndy
 - 2) Thomas and Betts
 - 3) Panduit
 - 4) Or equal as approved by the Engineer
 - b. Provide two-way, un-insulated, compression connectors, long barrel type, suitable for use with stranded copper conductors. Provide UL listed connectors rated 600 volts minimum.
3. Connector Insulation

- a. Connector insulators shall be cold shrink type factory expanded and assembled tubular EPDM rubber sleeves, suitable for field installation. Insulators shall shrink over in-line connections, forming a water-proof seal. Provide insulators rated for 1000 volts, minimum.
- b. Acceptable manufacturers:
 - 1) 3M
 - 2) Or equal as approved by the Engineer

PART 3 - EXECUTION

3.1 GENERAL

- A. Do not exceed cable manufacturer's recommendations for maximum pulling tensions and minimum bending radius. Where pulling compound is used, use only UL listed compound compatible with the cable outer jacket, voltage rating, and with the raceway involved.
- B. Submit a schedule of cable pulls 2 weeks prior to installation.
- C. Monitor pulling tensions while pulling on runs between manholes and handholes and record the maximum tensions used. Advise the Engineer of cases exceeding the manufacturer's recommendations and remove and replace cables subjected to tensions in excess of those recommended.
- D. Perform pulling of cable in such a manner that the cable outer jacket does not scrape against the edge of the conduit, at both the inlet and outlet ends of the conduit. Cable shall be free of sandy or gritty material during pulling. If cable is laid on ground during pulling, cable shall be wiped free of sandy or gritty material prior to entry of cable into conduit and prior to application of any pulling compound.
- E. Tighten all screws and terminal bolts using torque type wrenches and/or drivers to tighten to the inch-pound requirements of the CEC and UL.
- F. Where single conductors and cables in manholes, handholes, vaults, and other indicated locations are not wrapped together by some other means such as arc and fireproofing tapes, bundle throughout their exposed length all conductors entering from each conduit with nylon, self-locking, releasable, cable ties placed at intervals not exceeding 18 inches on centers.
- G. Terminate no more than two control conductors per terminal point. Terminate all spare conductors on terminal blocks.
- H. Low voltage power and control conductors shall be in separate conduits.

- I. Only combine conductors with no more than two wire sizes difference to prevent possible installation damage to the smaller conductors; otherwise use separate conduits.

3.2 CONDUCTOR 600 VOLTS AND BELOW

- A. Provide conductor sizes indicated on drawings with no splices except as accepted in writing by the Engineer.
- B. Wire nuts may be used on 120-volt lighting and 120-volt receptacle circuits only. Place no more than one conductor in any single-barrel pressure connection. Use crimp connectors with tools by same manufacturer and/or UL listed for connectors of all stranded conductors.
- C. Soldered mechanical joints insulated with tape will not be acceptable.
- D. Color coding on wire sizes larger than No. 6 AWG shall be by taping the individual conductors with the appropriate colored self-adhesive vinyl electrical tape. Vinyl plastic insulating tape for wire and cable splices and terminations shall be flame retardant, 7-mil thick minimum, rated for 90 degrees C minimum meeting the requirements of UL 510.
- E. Provide terminals and connectors acceptable for the type of material used.
- F. Arrange wiring inside control panels, motor starters, switchgear, etc., neatly cut to proper length, remove surplus wire, and bridle and secure in an acceptable manner. Identify all circuits entering switchgear, motor starters, control panels, etc., in accordance with the cable schedules on the drawings. Terminate cable conductors on the same side of the terminal blocks as shown on the drawings.
- G. Terminate control and instrumentation wiring with methods consistent with terminals provided, and in accordance with terminal manufacturer's instructions. Where terminals provided will accept such lugs, terminate all control and instrumentation wiring with insulated, ring terminal compression lugs. Control panel incoming field wireway sizes indicated on the drawings are considered minimum. Contractor shall adjust wireway sizes to meet CEC percentage fill requirements.
- H. For control and instrumentation wire terminals designed to accept only bare wire compression terminations, use insulated wire ferrules on ends of wire. Tighten all terminal screws with torque screwdriver to recommended torque values.
- I. Attach compression lugs with a tool specifically designed for that purpose which provides a complete, controlled crimp where the tool will not release until the crimp is complete. Use of plier type crimpers is not acceptable.
- J. Cap spare conductors and conductors not terminated with UL listed end caps.

- K. Where conductors pass through holes or over edges in sheet metal, remove all burrs, chamfer all edges, and install bushings and protective strips of insulating material to protect the conductors.
- L. For conductors that will be connected by others, provide at least 6 feet spare conductor in freestanding panels and at least 2 feet spare in other assemblies. Provide additional spare conductor length in any particular assembly where it is obvious that more conductor length will be needed to reach the termination point.
- M. Train cables passing through manholes and handholes along the walls on cable racks. Allow 2 feet of slack in each run in a "drip loop" at least once along a wall. Loops and cables shall be organized, trained, and neatly installed.
- N. Do not strip cables more than eight inches from the nearest termination point of that cable.
- O. Bundle and label all spare pairs with the cable designation. Tag all individual pairs to enable identification of spare pairs when making future terminations.
- P. Splices will not be permitted except as accepted in writing by the Engineer.
- Q. Ends of cable shall not be exposed to environment more than 24 hours after pulling or splicing. After 24 hours, purge the cable with nitrogen and seal with tape.

3.3 MULTI-CONDUCTOR POWER, CONTROL, AND INSTRUMENTATION CABLES 600 VOLTS AND LESS

- A. Splices will not be permitted except as accepted in writing by the Engineer.
- B. Where connections of cables installed under this section are to be made under Div. 40, Process Integration, leave pigtails of adequate length for neat bundled type connections.
- C. Maintaining the integrity of shielding of instrumentation cables is essential to the operation of the control systems. Take special care in cable installation to ensure that grounds do not occur because of damage to the jacket over the shield. Shields shall be grounded at one location only as shown on the drawings.

3.4 CONDUCTOR COLOR CODING

- A. Color coding of multiconductor control and instrumentation cable is specified in the individual cable type specification.
- B. For power conductors, provide all single conductors and individual conductors of multiconductor power cables with integral insulation pigmentation of the designated colors, except conductors larger than No. 6 AWG may be provided with color coding by wrapping the conductor at each end and at all accessible locations with vinyl tape. Where this method of color coding is used, wrap at least six full

overlapping turns of tape around the conductor covering an area 1-1/2 to 2 inches wide at a visible location at all conductor termination and pulling points.

C. Phase A, B, C implies a positive sequence connection (i.e., counterclockwise electrical phasor rotation and clockwise motor rotation).

D. Use the following colors:

<u>System</u>	<u>Conductor</u>	<u>Color</u>
All Systems	Equipment Grounding	Green
240/120V 1-Phase, 3-Wire	Grounded Neutral	White
	Phase A	Black
	Phase B	Red
208Y/120 Volts, 3-Phase, 4-Wire	Grounded Neutral	White
	Phase A	Black
	Phase B	Red
	Phase C	Blue
480Y/277 Volts, 3-Phase, 4-Wire	Grounded Neutral (if used)	White, Black Tracer
	Phase A	Brown
	Phase B	Orange
	Phase C	Yellow
48V DC Positive		Red
48V DC Negative		Black
Single Conductor, AC		Red
Multiple Conductor Control Cables		ICEA Method 1 Table K-2
Multiple Conductor Power Cables		ICEA Method 1, Option D
Twisted shield pair	Positive	White
	Return	Black
Twisted shield triad (for RTDs)	Positive	Red
	Compensation	White
	Return	Black
24V DC Positive		Blue

24V DC Negative	Gray
Single-Conductor, DC Alarm, Annunciator, Instrumentation, and Telemetry (if not shielded)	Purple

- E. All conductors carrying AC foreign voltage over 100 VAC into control panels, switchboards, and other enclosures shall be yellow. Multi-conductor cables carrying such foreign voltage shall be marked with yellow tape at each termination point.

3.5 LACING OF WIRES AND CABLES

- A. Lace all wires and cables in pull or junction boxes, manholes, handholes, wireways, and at each termination. Lace wires and cables so that the wires of the individual circuits are laced together by circuit and the laced-together circuit or cable shall be tagged with the cable number. Bundle all wiring entering and exiting the control panels into groups. Bundle and lace power, lighting, control, alarm, annunciator, and instrumentation wiring as specified herein.

3.6 PRE-ENERGIZATION CHECKOUT

- A. Conduct a complete inspection of the cable installation, including checking that all installation all accessible connections for tightness and correct torque, visually checking insulators for cracks and supports for damages, verifying that all shipping and packing material has been removed, and that all relay, meter, instrumentation, and other accessory wiring is correct.
- B. Check that all raceways and conductors are identified and tagged in accordance with the contract drawings and the Contractor's approved interconnection diagrams. Do this before replacing all covers.
- C. Verify that all cable shields are bonded at the equipment endpoints.

3.7 ENERGIZATION

- A. Energizing of low-voltage cables shall comply with the requirements specified in Article 1.3 - Quality Assurance.
- B. There shall be no load on the Type 11 power cables while they are being energized. Turn off all downstream loads.
- C. Prior to energizing any circuit that supplies rotating machinery, measure the phase sequence and verify that it is correct.

END OF SECTION