

SPECIFICATIONS AND OTHER BIDDING AND CONTRACT DOCUMENTS

**ALAMEDA COUNTY BID #902572
ENTERPRISE ELEVATOR MODERNIZATION
8477 Enterprise Way
Oakland, California**

MANDATORY PRE-BID SITE VISIT:

**Tuesday, March 4, 2025, at 10:00 AM
Location: 8477 Enterprise Way, Oakland, CA 94621
Bidders must park on the street and
meet on the corner of 85th Avenue and Enterprise Way.**

MANDATORY PRE-BID CONFERENCE (VIRTUAL):

**Tuesday, March 4, 2025, at 2:00 PM
Location: Online only via Microsoft Teams
To Attend Online Visit: [Join the meeting now](#)**

**Meeting ID: 261 097 969 088; Passcode: Y2xM2su3
or Dial in: 1 415-915-3950; Conference ID: 324 055 224#**

**ALAMEDA COUNTY
GENERAL SERVICES AGENCY
BUILDING MAINTENANCE DEPARTMENT
2054 FAIRMONT DRIVE
SAN LEANDRO, CALIFORNIA
PHONE: 510-268-5396
EMAIL: RAMON.DAVIS@ACGOV.ORG**



DOCUMENT 00 01 09

SUMMARY BIDDING CALENDAR

NOTICE – THIS SUMMARY IS FOR INFORMATIONAL PURPOSES ONLY AND DOES NOT LIST ALL DATES, OR TIMES IN THE BIDDING DOCUMENTS. The dates and times listed may not be relied upon or enforced. This summary does not form a part of the contract documents and does not establish contractual obligations. All bidders and contractors must refer to the actual documents for all applicable dates, times and time periods.

<u>Event</u>	<u>Date</u>	<u>Reference</u>
Contract Documents Available	February 18, 2025	00 11 16 Notice to Bidders
Mandatory Pre-Bid Site Visit	March 4, 2025, at 10:00 AM	00 11 16 Notice to Bidders
Mandatory Pre-Bid Conference	March 4, 2025, at 2:00 PM	00 11 16 Notice to Bidders
Last Day for Receipt of Requests for Substitutions before Receipt of Bids	March 18, 2025, by 5:00 PM	00 21 13 Instructions to Bidders
Last Day for Receipt of Questions	March 18, 2025, by 5:00 PM	00 21 13 Instructions to Bidders
Receipt of Bids and Bid Opening	April 1, 2025, by 10:00 AM	00 11 16 Notice to Bidders
Estimated Date of Notice of Intent to Award	April 10, 2025	TBD by County 00 51 13 Notice of Intent to Award
Last Day to Submit Bid Protest	5 th Business Day from Date of Notice of Intent to Award	00 21 13 Instructions to Bidders
Estimated Date of Notice of Award	May 28, 2025	TBD by County
Signing of Contract	7 Calendar days after Notice of Award	00 11 16 Notice to Bidders 00 51 00 Notice of Award
Submit Post-Award Documents	7 Calendar days after Notice of Award	00 21 13 Instructions to Bidders
Last Day to Submit Escrow Bid Documentation	7 Calendar days after Notice of Award	00 56 00 Escrow Bid Documentation
Contract Duration	260 Calendar Days	00 52 13 Agreement Form – Stipulated Sum (Single-Prime Contract)
Contract Duration Begins	June 25, 2025	00 55 00 Notice to Proceed
Contract Duration Ends	March 12, 2026	00 55 00 Notice to Proceed
Last Day to Submit Preliminary Schedule, etc. per Notice to Proceed	10 th Business Day following Notice to Proceed	00 55 00 Notice to Proceed

END OF DOCUMENT

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DOCUMENT 00 01 15

LIST OF DRAWINGS

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DOCUMENT 00 01 20

LIST OF SCHEDULES

SCHEDULES

Project Duration: 260 Calendar Days

Milestones:

No.	Milestones	Start	Complete
1	Anticipated Notice To Proceed	6/25/2025	6/25/2025
2	Preliminary Submittals	6/25/2025	7/10/2025
3	Product Submittals / Shop Drawings	7/17/2025	9/12/2025
4	Equipment Manufacturing	9/19/2025	1/7/2026
5	Elevator Modernization*	1/7/2026	3/4/2026
6	Final Inspections and Acceptance	3/5/2026	3/12/2026
7	Warranty Maintenance	TBD	TBD

Notes:

- The Start and Complete dates are for reference purposes only.
- The Notice to Proceed date is the anticipated date of issuance of the Notice to Proceed. If the Notice to Proceed is issued after the date indicated in the schedule, the start and completion dates of all Milestones should be adjusted by the number of days that the Notice to Proceed is delayed.
- * Elevator Modernization must be completed within 6 to 8 weeks after construction begins.

Refer to Summary of Work Document 00 11 00, Section 1.13 (Phasing Schedule) and Exhibit A, Elevator Specifications.

END OF DOCUMENT

DOCUMENT 00 11 16

NOTICE TO BIDDERS

1. Notice is hereby given that The County of Alameda General Services Agency (“GSA”) (“County” or “Owner”) will receive sealed bids for the following project, Bid No. 902572 (“Project” or “Contract”):

Enterprise Elevator Modernization (Project Name)

2. Sealed Bids will be received until 10:00 a.m., April 1, 2025, at 2054 Fairmont Drive, San Leandro, California, at or after which time the bids will be opened and publicly read aloud via online video conference.

To attend the online bid opening visit: [Join the meeting now](#); Meeting ID: 238 904 658 124 Passcode: BV3NL7rE or Dial in Number: 1 415-915-3950; Conference ID: 222 406 164#. Any claim by a bidder of error in its bid must be made in compliance with §5100 et seq. of the Public Contract Code. Any bid that is submitted after this time shall be considered non-responsive and returned to the bidder.

3. The Project consists of:

Contractor shall furnish all expertise, labor, materials, parts, equipment, and incidentals necessary to provide a modernization of one (1) hydraulic passenger elevator located at 8477 Enterprise Way, Oakland, California.

Modernization includes, but is not limited to, a full modernization of the existing elevator, including installation of a new controller with soft starter, submersible power unit, shut-off valves in the machine room and pit, and a new seismic rupture valve. Replacement of car and hoistway door equipment, fixtures, and the steel cab shell; furnishing a new cab interior. Installation of a new in-ground cylinder. All necessary and related work to be performed by other trades for associated electrical, fire/life safety, and HVAC. Refer to Exhibit A for additional details.

This is a “turn-key” project, and the Contractor is to be the prime contractor for any and all work by others to meet the specification, code, and Authority Having Jurisdiction (AHJ) requirements. All building modifications required to complete this “turn-key” project including, but not limited to mechanical, electrical, and fire life safety to meet code or AHJ requirements are the responsibility of the contractor. All engineering, equipment, labor, and permits required to satisfactorily complete elevator modernization required by Contract Documents.

Contractors bid pricing must include building modifications that you have identified. Any item not included but required will be the full responsibility of the elevator

contractor. A list of building modifications must be submitted to the County following contract award, but it is not the County's responsibility to review that list for accuracy and is merely being provided for facility coordination.

The budgetary estimate for the scope of work is approximately \$300,000.

The time to complete this project is two hundred sixty (260) calendar days from the Notice to Proceed.

4. All bids shall be on the Bid Form Document 00 41 13 provided by the County. Each bid must conform to and be responsive to all pertinent Contract Documents, including, but not limited to, the Instructions to Bidders Document 00 21 13.
5. Intentionally Omitted.
6. To bid on this Project, the Bidder is required to possess the following State of California Contractor Licenses:

C-11 Elevator Contractor

The Bidder's license must remain active and in good standing throughout the term of the Contract.

7. A bid bond by an admitted surety insurer on the form provided by the County, cash, or a cashier's check or a certified check, drawn to the order of the County of Alameda, in the amount of ten percent (10%) of the total bid price, shall accompany the Bid Form, as a guarantee that the Bidder will, within seven (7) calendar days after the date of the Notice of Award, enter into a contract with the County for the performance of the services as stipulated in the bid.
8. The successful Bidder shall be required to furnish a 100% Performance Bond and a 100% Payment Bond if it is awarded the contract for the Work.
9. The successful Bidder may substitute securities for any monies withheld by the County to ensure performance under the Contract, in accordance with the provisions of §22300 of the Public Contract Code.
 - A. The Contractor and all Subcontractors under the Contractor shall pay all workers on all work performed pursuant to this Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the County, pursuant to §§1770 et seq. of the California Labor Code. Prevailing wage rates are also available from the County or on the Internet at:
<http://www.dir.ca.gov>

10. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. The following requirements apply to this bid and contract:
 - A. No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code §1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code §1771.1(a)].
 - B. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code §1725.5.
11. Intentionally Omitted.
12. A mandatory site visit and mandatory pre-bid conference will be held on March 4, 2025. All participants are required to sign in at the site. If mandatory, failure to attend or arrival after the material start of the meeting will render bid ineligible.
 - A. The mandatory site visit will be held at 10:00 AM at 8477 Enterprise Way, Oakland, California. All participants are required to sign in at the site. The site visit is expected to take approximately 1 hour.
 - B. The mandatory pre-bid conference will be held at 2:00 PM, online only via Microsoft Teams. To Attend Online Visit: [Join the meeting now](#) Meeting ID: 261 097 969 088; Passcode: Y2xM2su3 or Dial In: 1 415-915-3950; Conference ID: 324 055 224#
 - C. Bidders must attend both meetings to be eligible to bid on this project.
13. Contract Documents are available on February 18, 2025, for review online at the County's Contracting Opportunities website at <https://gsa.acgov.org/do-business-with-us/contracting-opportunities/>. In addition, Contract Documents are available for bidders' review at the locations shown on Attachment 1 to this Document.
14. The County has found and determined that the following item(s) shall be used on this Project based on the purpose(s) indicated. (Public Contract Code §3400(b)): A particular material, product, thing, or service is designated by specific brand or trade name for the following purpose(s):
 - (1) **Motion Control Engineering Inc., GAL Galaxy, Elevator Controls, SEES, MEI, ELSCO, Forms and Surfaces, W.E. Palmer, Gunderlin LTC, Vator Accessories, Inc, Nylube Products Company, LLC, Monitor Controls, Innovation Industries: In order to match other products in use on a particular public improvement either completed or in the course of completion.**

15. It is County policy to minimize the expenditure of County funds on goods and services produced by any entity which buys, sell, leases or distributes commodities and/or professional services to (1) the government of Burma; or (2) any entity organized under the laws of Burma; or (3) any entity which does business with any private or public entity located in Burma, or conducts operations in Burma. Contractors are urged to comply with the policy in making purchases and subcontracts. (ref. Alameda County, Cal., Adm. Code tit.4, §4.32.050(B),(F))
16. Intentionally Left Blank.
17. The County reserves the right to reject any and all bids and/or waive any irregularity in any bid received. If the County awards the Contract, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.
18. The County shall award the Contract, if it awards it at all, to the lowest responsive responsible bidder based on:
 - A. The base bid amount only.

END OF DOCUMENT

ATTACHMENT 1

PLAN ROOM ADVERTISING LIST

☐ 1	Bay Area Builders Exchange** 3055 Alvarado Street San Leandro, CA 94577 Phone: (510) 483-8880 ;Fax: (925) 685-3424 Email: planroom@bayareabx.com (This is a merger of Builders Exchange of Alameda County and Contra Costa Builders Exchange 5/18/15.)	☐ 2	San Francisco Builders Exchange 850 South Van Ness Avenue San Francisco, CA 94110 Phone: (415) 282-8220 Fax: (415) 821-0363 Email: djohnsonsf@sbcglobal.net
☐ 3	Dodge Data and Analytics (Dodge Plan Room, formerly McGraw-Hill Construction Dodge) (Online) 3315 Central Avenue Hot Springs Arkansas (AR) 71913 (Contact: Gerry McCarthy) 626-531-6818; Fax: 626-226-1623 Email gerry.mccarthy@construction.com	☐ 4	Small Business Exchange 703 Market Street, Suite 1000 San Francisco, CA 94103 Phone: (415) 778-6250 Fax: (415) 778-6255 Email: sbe@sbeinc.com
☐ 5	Central California Builders Exchange 1244 N. Mariposa St. Fresno, Ca 93703 Phone (559) 237-1831; Fax (559) 264-2532 Email: megan@cencalbx.com	☐ 6	County of Alameda Current Contracting Opportunities Website located at http://www.acgov.org/gsa_app/gsa/purchasing/bid_content/contractopportunities.jsp
☐ 7	The Blue Book Building & Construction Network (www.bb-bid.com Online) Contact: Amanda Limitone, Project Communication Specialist Phone: (855) 805-2560, ext.3145; Email: alimitone@thebluebook.com		
☐ 8	Reed Construction Data** – Online/Electronic Plan Room 30 Technology Parkway South, Suite 100 Norcross, GA 30092-2912 Phone: (770) 209-3396 Jeannie Kwan; Fax (Addenda only): (800) 303-8629; Fax (Notice to Bidders/IFB): (800) 642-2437; Email (addenda only): docprocessing@reedbusiness.com -Send requests to advertise to above address/fax/phone- Local Email: jeannie.kwan@reedbusiness.com (EPR: http://www.reedconstructiondata.com)		
☐ 9	East Bay Blue Print & Supply Co. 1745 Fourteenth Ave Oakland, CA 94606 Phone: (510) 261-2990 Email: ebbp@eastbayblueprint.com		
☐ 10	Construction Bidboard, Inc.(Online)** 11622 El Camino Real, Suite 100 San Diego, CA 92130 800-479-5314 phone; 619-688-0585 fax (Contact Dorothy Ellithorpe dellithorpe@ebidboard.com) <u>Alternate: planroom@ebidboard.com * ebidboard@gmail.com</u>		

* Plans/Specs must be sent to individual Plan Rooms to ensure posting at that location.

**Construction trade journals specified for alternate bidding procedures for projects between \$25,000 and \$125,000 minimum advertising requirements. County policy is to post all construction projects over \$25,000 in all listed Plan Rooms, Press/Newspaper Publications and Local Chambers of Commerce/Trade Organizations

DOCUMENT 00 21 13

INSTRUCTIONS TO BIDDERS

Bidders shall follow the instructions in this document, and shall submit all documents, forms, and information required for consideration of a Bid.

County will evaluate information submitted by the apparent low Bidder and, if incomplete or unsatisfactory to County, Bidder's bid may be rejected at the sole discretion of County.

1. Bids are requested for a general construction contract, or work described in general, for the following project ("Project" or "Contract"):

Enterprise Elevator Modernization (Project Name)

2. County will receive sealed Bids from Bidders as stipulated in the Notice to Bidders Document 00 11 16.
3. Bidders must submit Bids on Document 00 41 13 (Bid Form) and all other required County forms. Bids not submitted on the County's required forms shall be deemed non-responsive and shall not be considered. Additional sheets required to fully respond to requested information are permissible.
4. Bidders must supply all information required by each Bid Document. Bids must be completed in full. County reserves the right in its sole discretion to reject any Bid as non-responsive as a result of any error or omission in the Bid. Bidders must complete and submit all of the following documents with Bid Form Document 00 41 13:
 - a. Document 00 43 13 Bid Security Form or other security
 - b. Document 00 43 36 Designated Subcontractors List
 - c. Document 00 45 01 Site-Visit Certification, if a site visit was required
 - d. Document 00 45 13 Non-Collusion Affidavit
 - e. Document 00 52 13.1 Completed Debarment Form.
5. Bidders must submit with their Bids cash, a cashier's check or a certified check payable to County, or a Bid Bond of not less than ten percent (10%) of amount of base Bid, plus all additive alternates. Required form of corporate surety, Bid Security Form, is provided by County and must be used and fully completed by Bidders choosing to provide a Bid Bond as security. The Surety on Bidder's Bid Bond must be an insurer admitted in the State of California and authorized to issue surety bonds in the State of California. Bids submitted without necessary bid security will be deemed non-responsive and will not be considered.

6. If Bidder to whom Contract is awarded shall for **SEVEN (7)** calendar days after the date of the Notice of Award, fail or neglect to enter into Contract and submit required bonds, insurance certificates, and all other required documents, County may deposit Bid Bond, cash, cashier's check, or certified check for collection, and proceeds thereof may be retained by County as liquidated damages for failure of Bidder to enter into Contract, in the sole discretion of County. It is agreed that calculation of damages County may suffer as a result of Bidder's failure to enter into the Contract would be extremely difficult and impractical to determine and that the amount of the Bidder's required bid security shall be the agreed and conclusively presumed amount of damages.
7. Bidders must submit with the Bid the Designated Subcontractors List for those subcontractors who will perform any portion of Work, including labor, rendering of service, or specially fabricating and installing a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of total Base Bid. Failure to submit this list when required by law shall result in Bid being deemed non-responsive and the Bid will not be considered.
8. If a mandatory pre-bid conference and site visit ("Site Visit") is requested as referenced in the Instructions to Bidders, then Bidders must submit the Site-Visit Certification with their Bid. County will transmit to all prospective Bidders of record such Addenda as County in its discretion considers necessary in response to questions arising at the Site Visit. Oral statements shall not be relied upon and will not be binding or legally effective. Addenda issued by the County as a result of the Site Visit, if any shall constitute the sole and exclusive record and statement of the results of the Site Visit.
9. Bidders shall submit the Non-Collusion Affidavit with their Bids. Bids submitted without the Non-Collusion Affidavit shall be deemed non-responsive and will not be considered.
10. Bids shall be clearly written without erasure or deletions. County reserves the right to reject any Bid containing erasures or deletions.
11. Bidders shall not modify Document 00 41 13 (Bid Form-Stipulated Sum) or qualify their Bids. Bidders shall not submit to the County a scanned, re-typed, word-processed, or otherwise recreated version of Document 00 41 13 (Bid Form-Stipulated Sum) or other County-provided document.
12. The successful Bidder and all its subcontractors shall pay all workers on all work performed pursuant to this Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the County, pursuant to §§1770 et seq. of the California Labor Code.

13. Intentionally Omitted.
14. Submission of Bid signifies careful examination of Contract Documents and complete understanding of the nature, extent, and location of Work to be performed. Bidders must complete the tasks listed below as a condition to bidding, and submission of Bid shall constitute the Bidder's express representation to County that Bidder has fully completed the following:
 - a. Bidder has visited the Site and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Site, locality, actual conditions, as-built conditions, and all local conditions and federal, state and local laws, and regulations that in any manner may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto;
 - b. Bidder has conducted or obtained and has understood all examinations, investigations, explorations, tests, reports, and studies that pertain to the subsurface conditions, as-built conditions, underground facilities, and all other physical conditions at or contiguous to the Site or otherwise that may affect the cost, progress, performance, or furnishing of Work, as Bidder considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time, and in accordance with the other terms and conditions of Contract Documents, including specifically the provisions of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies, or similar information or data are or will be required by Bidder for such purposes;
 - c. Bidder has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents;
 - d. Bidder has given County prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered in or among the Contract Documents and the actual conditions, and the written resolution thereof by County is acceptable to Bidder;
 - e. Bidder has made a complete disclosure in writing to County of all facts bearing upon any possible interest, direct or indirect, that Bidder believes any representative of County or other officer or employee of County presently has or will have in this Contract or in the performance thereof or in any portion of the profits thereof;
 - f. Bidder must, prior to bidding, perform the work, investigations, research, and analysis required by this document and that Bidder represents in its Document 00

41 13 (Bid form-Stipulated Sum) and the Agreement that it performed prior to bidding. Bidders are charged with all information and knowledge that a reasonable bidder would ascertain from having performed this required work, investigation, research, and analysis. Bid prices must include entire cost of all work "incidental" to completion of the Work.

- g. Conditions Shown on the Contract Documents: Information as to underground conditions, as-built conditions, or other conditions or obstructions, indicated in the Contract Documents, e.g., on Drawings or in Specifications, has been obtained with reasonable care, and has been recorded in good faith. However, County only warrants, and Bidder may only rely, on the accuracy of limited types of information.
 - (1) As to above-ground conditions or as-built conditions shown or indicated in the Contract Documents, there is no warranty, express or implied, or any representation express or implied, that such information is correctly shown or indicated. This information is verifiable by independent investigation and Bidder is required to make such verification as a condition to bidding. In submitting its Bid, Bidder shall rely on the results of its own independent investigation. In submitting its Bid, Bidder shall not rely on County-supplied information regarding above-ground conditions or as-built conditions.
 - (2) As to any subsurface condition shown or indicated in the Contract Documents, Bidder may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated. County is not responsible for the completeness of such information for bidding or construction; nor is County responsible in any way for any conclusions or opinions of Bidder drawn from such information; nor is County responsible for subsurface conditions that are not specifically shown (for example, County is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown).
- h. Conditions Shown in Reports and Drawings Supplied for Informational Purposes: Reference is made to the Document 00 31 32 Geotechnical Data, and the Document 00 31 19 Existing Conditions Information, for identification of:
 - (1) Subsurface Conditions: Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been utilized by Architect in preparing the Contract Documents; and

- (2) Physical Conditions: Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that has been utilized by Architect in preparing the Contract Documents.
 - (3) These reports and drawings are **not** Contract Documents and, except for any "technical" data regarding subsurface conditions specifically identified in Geotechnical Data and Document 00 31 19 Existing Conditions Information, and underground facilities data, Bidder may not in any manner rely on the information in these reports and drawings. Subject to the foregoing, Bidder must make its own independent investigation of all conditions affecting the Work and must not rely on information provided by County.
- 15. Bidders may examine any available "as-built" drawings of previous work by giving County reasonable advance notice. County will not be responsible for accuracy of "as-built" drawings. The Document 00 31 19 Existing Conditions Information applies to all supplied "as-built" drawings.
 - 16. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are on file at the County's principal office. Prevailing wage rates are also available from the County or on the internet at www.dir.ca.gov.
 - 17. All questions about the meaning or intent of the Contract Documents are to be directed in writing, including by e-mail, to County. Interpretations or clarifications considered necessary by County in response to such questions will be issued in writing by Addenda faxed, mailed, or delivered to all parties recorded by County as having received the Contract Documents. Questions received less than **TEN(10)** business days prior to the date for opening Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
 - 18. Addenda may also be issued to modify other parts of the Contract Documents as deemed advisable by County.
 - 19. Each Bidder must acknowledge each Addendum in its Document 00 41 13 (Bid Form-Single Prime Contract) by number or its Bid shall be considered non-responsive. Addenda shall be part of the Contract Documents. A complete listing of Addenda may be secured from County.
 - 20. Bids shall be based on products and systems specified in Contract Documents or listed by name in Addenda. County is not responsible and/or liable in any way for a Bidder's damages and/or claims related, in any way, to that Bidder's basing its bid on any

requested substitution that County has not approved. Bidders and materials suppliers who submit requests for substitutions prior to the award of the Contract must do so in writing and in compliance with Public Contract Code §3400. All requests must comply with the following:

- a. County must receive any request for substitution a minimum of **TEN (10)** business days prior to bid opening.
 - b. Requests for substitutions shall contain sufficient information to assess acceptability of product or system and impact on Project, including, without limitation, the requirements specified in the Document 00 73 13 (Special Conditions) and the Specifications. Insufficient information shall be grounds for rejection of substitution.
 - c. Approved substitutions shall be listed in Addenda. County reserves the right not to act upon submittals of substitutions until after bid opening.
 - d. Substitutions may be requested after Contract has been awarded only if indicated in and in accordance with requirements specified in the Document 00 73 13 (Special Conditions) and the Specifications.
21. All Bids must be sealed, and marked with name and address of the Bidder and the Project Number, Bid number, Bid package, and time of bid opening. Bids will be received as indicated in the Notice to Bidders.
- a. Mark envelopes with the name of the Project.
 - b. Bids must be submitted at the place and by date and time shown in the Instructions to Bidders.
 - c. Bids must contain all documents as required herein.
22. Bids will be opened publicly immediately after the time indicated for receipt of bids.
23. This Contract may include alternates. Alternates are defined as alternate products, materials, equipment, systems, methods, or major elements of the construction that may, at the County's option and under terms established in the Contract and pursuant to §20103.8 of the Public Contract Code, be selected for the Work. County shall award the Contract, if it awards it at all, to the lowest responsive responsible bidder based on the criteria as indicated in these contract documents.
24. Time for Completion: County may issue a Notice to Proceed within **NINETY (90)** calendar days from the date of the Notice of Award. Once Contractor has received the Notice to Proceed, Contractor shall complete the Work within the period of time indicated in the Contract Documents.

- a. In the event that County desires to postpone issuing the Notice to Proceed beyond the 90-day period above, it is expressly understood that with reasonable notice to the Contractor, County may postpone issuing the Notice to Proceed.
 - b. It is further expressly understood by Bidder that Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of the issuance of the Notice to Proceed beyond the 90-day period. If the Contractor believes that a postponement of issuance of the Notice to Proceed will cause a hardship to the Contractor, the Contractor may terminate the Contract. Contractor's termination due to a postponement beyond this 90-day period shall be by written notice to County within **TEN (10)** calendar days after receipt by Contractor of County's notice of postponement.
 - c. It is further understood by Bidder that in the event that Contractor terminates the Contract as a result of postponement by County, County shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement and which County had in writing authorized Contractor to perform prior to issuing a Notice to Proceed.
 - d. Should the Contractor terminate the Contract as a result of a notice of postponement, County shall have the authority to award the Contract to the next lowest responsive responsible bidder.
25. The Bidder to whom Contract is awarded shall execute and submit the following documents by 5:00 p.m. of the **SEVENTH (7TH)** calendar day following the date of the Notice of Award. Failure to properly and timely submit these documents entitles County to reject the bid as non-responsive.
- a. Document 00 52 13 Agreement: To be executed by successful Bidder. Submit four (4) copies, each bearing an original signature or one (1) copy bearing an original electronic DocuSign signature.
 - b. Document 00 56 00 Escrow of Bid Documentation: This must include all required documentation. See the document Escrow of Bid Documentation for more information.
 - c. Document 00 61 13.13 Performance Bond (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
 - d. Document 00 61 13.16 Payment Bond (100%) (Contractor's Labor and Material Bond): On the form provided in the Contract Documents and fully executed as indicated on the form.

- e. Insurance Certificates and Endorsements as required.
 - f. Document 00 45 26 Workers' Compensation Certification.
 - g. Document 00 45 46.01 Prevailing Wage and Related Labor Requirements Certification.
 - h. Document 00 45 46.04 Hazardous Materials Certification.
 - i. Document 00 45 46.06 Imported Materials Certification.
 - j. Document 00 52 13.1 Debarment and Suspension Certificate Form.
 - k. Contractor's Safety Plan specifically adapted for the Project.
26. Any Bid protest by any Bidder regarding any other Bid must be submitted in writing to the County's GSA–Office of Acquisition Policy, ATTN: Contract Compliance Officer, located at 1401 Lakeside Drive, 10th Floor, Oakland, CA 94612, Email: GSA-BidProtests@acgov.org, before 5:00 p.m. of the FIFTH (5th) business day following the date of issuance of the Document 00 51 13 (Notice of Intent to Award), not the date received by the Bidder. A Bid protest received after 5:00 p.m. is considered received as of the next business day.
- a. The Bid protest must contain a complete statement of the reasons and facts for the protest.
 - b. The protest must refer to the specific portions of all documents that form the basis for the protest.
 - c. The protest must include the name, address, email address, fax number and telephone number of the person representing the protesting party.
 - d. The County Agency/Department will notify all bidders of the protest as soon as possible.
 - e. Upon receipt of written protest, GSA–Office of Acquisition Policy, or designee, will review and evaluate the protest and issue a written decision. The GSA–Office of Acquisition Policy, may, at its discretion, investigate the protest, obtain additional information, provide an opportunity to settle the protest by mutual agreement, and/or schedule a meeting(s) with the protesting Bidder and others (as appropriate) to discuss the protest. The decision on the bid protest will be issued at least ten (10) business days prior to the Board hearing or GSA award date.

- f. The decision will be communicated by e-mail, fax, or US Postal Service mail, and will inform the bidder whether or not the recommendation to the Board of Supervisors or GSA in the Notice of Intent to Award is going to change. A copy of the decision will be furnished to all Bidders affected by the decision. As used in this paragraph, a Bidder is affected by the decision on a Bid protest if a decision on the protest could have resulted in the Bidder not being the apparent successful Bidder on the Bid.
- g. The decision of the GSA-Office of Acquisition Policy on the bid protest may be appealed to the Auditor-Controller's Office of Contract Compliance & Reporting (OCCR) located at 1221 Oak St., Room 249, Oakland, CA 94612, Fax: (510) 272-6502 unless the OCCR determines that it has a conflict of interest in which case an alternate will be identified to hear the appeal and all steps to be taken by OCCR will be performed by the alternate. The Bidder whose Bid is the subject of the protest, all Bidders affected by the GSA-Office of Acquisition Policy's decision on the protest, and the protestor have the right to appeal if not satisfied with the GSA-Office of Acquisition Policy's decision. All appeals to the Auditor-Controller's OCCR shall be in writing and submitted within five (5) business days following the issuance of the decision by the GSA-Office of Acquisition Policy, not the date received by the Bidder. An appeal received after 5:00 p.m. is considered received as of the next business day. An appeal received after the FIFTH (5th) business day following the date of issuance of the decision by the GSA-Office of Acquisition Policy shall not be considered under any circumstances by the GSA or the Auditor-Controller OCCR.
- h. The appeal shall specify the decision being appealed and all the facts and circumstances relied upon in support of the appeal.
- i. In reviewing protest appeals, the OCCR will not re-judge the proposal(s). The appeal to the OCCR shall be limited to review of the procurement process to determine if the contracting department materially erred in following the Bid or, where appropriate, County contracting policies or other laws and regulations.
- j. The appeal to the OCCR also shall be limited to the grounds raised in the original protest and the decision by the GSA-Office of Acquisition Policy. As such, a Bidder is prohibited from stating new grounds for a Bid protest in its appeal. The Auditor-Controller (OCCR) shall only review the materials and conclusions reached by the GSA-Office of Acquisition Policy or department designee, and will determine whether to uphold or overturn the protest decision.
- k. The Auditor's Office may overturn the results of a bid process for ethical violations by Procurement staff, County Selection Committee members, subject matter experts, or any other County staff managing or participating in the competitive bid process, regardless of timing or the contents of a bid protest.

- l. The decision of the Auditor-Controller's OCCR is the final step of the appeal process. A copy of the decision of the Auditor-Controller's OCCR will be furnished to the protestor, the Bidder whose Bid is the subject of the Bid protest, and all Bidders affected by the decision.
 - m. The County will complete the Bid protest/appeal procedures set forth in this paragraph before a recommendation to award the Contract is considered by the Board of Supervisor or GSA.
 - n. The procedures and time limits set forth in this paragraph are mandatory and are each Bidder's sole and exclusive remedy in the event of Bid Protest. A Bidder's failure to timely complete both the Bid protest and appeal procedures shall be deemed a failure to exhaust administrative remedies. Failure to exhaust administrative remedies, or failure to comply otherwise with these procedures, shall constitute a waiver of any right to further pursue the Bid protest, including filing a Government Code Claim or legal proceedings.
27. A responsive bid is a solicited bid that has been determined to be in conformance with the conditions, completion or delivery requirements, and specifications detailed in the solicitation for bid. Responsive bids are those submitted on time; contain complete information, and required submittals and/or supporting documentation.
28. A responsible bidder is defined by the California Public Contract Code §1103 as "a bidder who has demonstrated the attribute of trustworthiness, as well as quality, fitness, capacity, and experience to satisfactorily perform this public works contract."
29. County reserves the right to reject any or all bids, including without limitation the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional bids, to re-bid, and to reject the bid of any bidder if County believes that it would not be in the best interest of County to make an award to that bidder, whether because the bid is not responsive or the bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by County. County also reserves the right to waive inconsequential deviations not involving price, time, or changes in the Work. For purposes of this paragraph, an "unbalanced bid" is one having nominal prices for some work items and/or enhanced prices for other work items.
30. Discrepancies between written words and figures, or words and numerals, will be resolved in favor of the figures or numerals.
31. Prior to the award of Contract, County reserves the right to consider the responsibility of the Bidder. County may conduct investigations as County deems necessary to assist in the evaluation of any bid and to establish the responsibility, including, without limitation, qualifications and financial ability of Bidders, proposed subcontractors, suppliers, and

other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to County's satisfaction within the prescribed time.

END OF DOCUMENT

DOCUMENT 00 31 19

EXISTING CONDITIONS INFORMATION

1. Summary

This document describes existing conditions at or near the Project, and use of information available regarding existing conditions. This document is **not** part of the Contract Documents. See General Conditions for definition(s) of terms used herein.

2. Reports and Information on Existing Conditions

- 2.1. Documents providing a general description of the Site and conditions of the Work may have been collected by County its consultants, contractors, and tenants. These documents may include previous contracts, contract specifications, tenant improvement contracts, as-built drawings, utility drawings, and information regarding underground facilities.
- 2.2. Information regarding existing conditions may be inspected at the County offices or the Construction Manager's offices, if any, and copies may be obtained at cost of reproduction and handling upon Bidder's agreement to pay for such copies. These reports, documents, and other information are **not** part of the Contract Documents.
- 2.3. Information regarding existing conditions may also be included in the Project Manual, but shall **not** be considered part of the Contract Documents.
- 2.4. The reports and other data or information regarding existing conditions and underground facilities at or contiguous to the Project are the following:
 - 2.4.1. Original Construction Drawings.
 - 2.4.2. Survey of Site.
 - 2.4.3. Hazardous Material Reports
 - 2.4.3.1. Included in **Exhibit D**, Section 13 10 10 Asbestos Specification and Section 13 10 20 Lead Hazard Control Specification. Miscellaneous hazard sampling is available from GSA-CP Environmental.

3. Use of Information

- 3.1. Information regarding existing conditions was obtained only for use of County and its consultants, contractors, and tenants for planning and design and is **not** part of the Contract Documents.
- 3.2. County does not warrant, and makes no representation regarding, the accuracy or thoroughness of any information regarding existing conditions. Bidder represents and

agrees that in submitting a bid it is not relying on any information regarding existing conditions supplied by County.

- 3.3. Under no circumstances shall County be deemed to warrant or represent existing above-ground conditions, as-built conditions, or other actual conditions, verifiable by independent investigation. These conditions are verifiable by Contractor by the performance of its own independent investigation, which Contractor must perform as a condition to bidding, and Contractor should not and shall not rely on this information or any other information supplied by County regarding existing conditions.
- 3.4. Any information shown or indicated in the reports and other data supplied herein with respect to existing underground facilities at or contiguous to the Project may be based upon information and data furnished to County by the County's employees and/or consultants or builders of such underground facilities or others. County does not assume responsibility for the completeness of this information, and Bidder is solely responsible for any interpretation or conclusion drawn from this information.
- 3.5. County shall be responsible only for the general accuracy of information regarding underground facilities, and only for those underground facilities that are owned by County, and only where Bidder has conducted the independent investigation required of it pursuant to the Instructions to Bidders, and discrepancies are not apparent.

4. Investigations/Site Examinations

- 4.1. Before submitting a Bid, each Bidder is responsible for conducting or obtaining any additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the Site or otherwise, that may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or that Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.
- 4.2. On request, County will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies, as each Bidder deems necessary for submission of a Bid. Bidders must fill all holes and clean up and restore the Site to its former condition upon completion of its explorations, investigations, tests, and studies. Such investigations and Site examinations may be performed during any and all Site visits indicated in the Notice to Bidders and only under the provisions of the Contract Documents, including, but not limited to, proof of insurance and obligation to indemnify against claims arising from such work, and County's prior approval.

END OF DOCUMENT

DOCUMENT 00 31 32

GEOTECHNICAL DATA

1. Summary

- 1.1. This document describes geotechnical data at or near the Project that is in the County's possession available for Contractor's review, and use of data resulting from various investigations. This document is **not** part of the Contract Documents. **See General Conditions for definition(s) of terms used herein.**

2. Geotechnical Reports

- 2.1. Geotechnical reports may have been prepared for and around the Site by soil investigation engineers hired by County, and its consultants, contractors, and tenants.
- 2.2. Geotechnical reports may be inspected at the County offices or the Construction Manager's offices, if any, and copies may be obtained at cost of reproduction and handling upon Bidder's agreement to pay for such copies. These reports are **not** part of the Contract Documents.
- 2.3. The reports and drawings of physical conditions that may relate to the Project are the following:

Intentionally Left Blank.

3. Use of Data

- 3.1. Geotechnical data were obtained only for use of County and its consultants, contractors, and tenants for planning and design and are **not** a part of Contract Documents.
- 3.2. Except as expressly set forth below, County does not warrant, and makes no representation regarding, the accuracy or thoroughness of any geotechnical data. Bidder represents and agrees that in submitting a Bid it is not relying on any geotechnical data supplied by County, except as specifically allowed below.
- 3.3. Under no circumstances shall County be deemed to make a warranty or representation of existing above ground conditions, as-built conditions, or other actual conditions verifiable by independent investigation. These conditions are verifiable by Contractor by the performance of its own independent investigation that Contractor should perform as a condition to bidding and Contractor must not and shall not rely on information supplied by County.

4. Limited Reliance Permitted on Certain Information

4.1. Reference is made herein for identification of:

-Reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been utilized by County in preparation of the Contract Documents.

-Drawings of physical conditions in or relating to existing subsurface structures (except underground facilities) that are at or contiguous to the Site and have been utilized by County in preparation of the Contract Documents.

4.2. Bidder may rely upon the general accuracy of the "technical data" contained in the reports and drawings identified above, but only insofar as it relates to subsurface conditions, provided Bidder has conducted the independent investigation required pursuant to Instructions to Bidders, and discrepancies are not apparent. The term "technical data" in the referenced reports and drawings shall be limited as follows:

4.2.1. The term "technical data" shall include actual reported depths, reported quantities, reported soil types, reported soil conditions, and reported material, equipment or structures that were encountered during subsurface exploration. The term "technical data" does not include, and Bidder may not rely upon, any other data, interpretations, opinions or information shown or indicated in such drawings or reports that otherwise relate to subsurface conditions or described structures.

4.2.2. The term "technical data" shall not include the location of underground facilities.

4.2.3. Bidder may not rely on the completeness of reports and drawings for the purposes of bidding or construction. Bidder may rely upon the general accuracy of the "technical data" contained in such reports or drawings.

4.2.4. Bidder is solely responsible for any interpretation or conclusion drawn from any "technical data" or any other data, interpretations, opinions, or information provided in the identified reports and drawings.

5. Investigations/Site Examinations

5.1. Before submitting a Bid, each Bidder is responsible for conducting or obtaining any additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the Site or otherwise, that may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or that Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of Contract Documents.

- 5.2. On request, County will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies, as each Bidder deems necessary for submission of a Bid. Bidders must fill all holes and clean up and restore the Site to its former condition upon completion of its explorations, investigations, tests, and studies. Such investigations and Site examinations may be performed during any and all Site visits indicated in the Notice to Bidders and only under the provisions of the Contract Documents, including, but not limited to, proof of insurance and obligation to indemnify against claims arising from such work.

END OF DOCUMENT

DOCUMENT 00 41 13

BID FORM – STIPULATED SUM (SINGLE-PRIME CONTRACT)

Con

To: The County of Alameda

From: _____
(Proper Name of Bidder)

The undersigned declares that the Contract Documents including, without limitation, the Notice to Bidders Document 00 11 16 and the Instructions to Bidders Document 00 21 13 have been read and agrees and proposes to furnish all necessary labor, materials, and equipment to perform and furnish all work in accordance with the terms and conditions of the Contract Documents, including, without limitation, the Drawings and Specifications of Bid No. 902572.

PROJECT: Enterprise Elevator Modernization

(“Project” or “Contract”) and will accept in full payment for that Work the following total lump sum amount, all taxes included:

Bid Item No.	Bid Item Description	Unit	Bid Price
1.	Elevator Modernization	Lump Sum	\$ _____
2.	Related Building Work	Lump Sum	\$ _____
3.	Elevator Maintenance for duration of the project and warranty period.	Lump Sum	\$ _____

Total Base Bid (Items 1 through 3):

_____ dollars \$ _____
Total Base Bid

Please list the manufactures used for this bid:

Descriptions of alternates are primarily scope definitions and do not necessarily detail the full range of materials and processes needed to complete the construction.

1. **Unit Prices.** The Bidder's Base Bid includes the following unit prices, which the Bidder must provide and County may, at its discretion, utilize in valuing additive and/or deductive change orders;
2. The undersigned has reviewed the Work outlined in the Contract Documents and fully understands the scope of Work required in this Bid, understands the construction and project management function(s) is described in the Contract Documents, and that the Bidder who is awarded a contract shall be in fact a prime contractor, not a subcontractor, to County, and agrees that its Bid, if accepted by County, will be the basis for the Bidder to enter into a contract with County in accordance with the intent of the Contract Documents.
3. The undersigned has notified County in writing of any discrepancies or omissions or of any doubt, questions, or ambiguities about the meaning of any of the Contract Documents, and has contacted the Construction Manager before bid date to verify the issuance of any clarifying Addenda.
4. The undersigned agrees to commence work under this Contract on the date established in the Contract Documents and to complete all work within the time specified in the Contract Documents.
5. The liquidated damages clause of the General Conditions and Agreement is hereby acknowledged.
6. It is understood that County reserves the right to reject this bid and that the bid shall remain open to acceptance and is irrevocable for a period of ninety (90) days.
7. Bidder acknowledges that the following documents are included with this Document 00 41 13 and has referred to Document 00 21 13 (Instructions to Bidders) for additional information:
 - a. Document 00 43 13 Bid Security Form or other security
 - b. Document 00 43 36 Designated Subcontractors List
 - c. Document 00 45 01 Site-Visit Certification, if a site visit was required
 - d. Document 00 45 13 Non-Collusion Affidavit
 - e. Document 00 52 13.1 Debarment and Suspension Certification Form
 - f. Bidder understands that failure to complete and submit the above documents with this Document 00 41 13 will deem the Bid to be non-responsive, in which case the Bid will be rejected by the County.

8. Receipt and acceptance of the following addenda is hereby acknowledged:

No.____, Dated _____	No.____, Dated _____
No.____, Dated _____	No.____, Dated _____
No.____, Dated _____	No.____, Dated _____
No.____, Dated _____	No.____, Dated _____

9. Bidder acknowledges that the license required for performance of the Work is a **C-11 Elevator Contractor** license.
10. The undersigned hereby certifies that Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work.
11. The Bidder represents that it is competent, knowledgeable and has special skills with respect to the nature, extent, and inherent conditions of the Work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the Work that may create, during the Work, unusual or peculiar unsafe conditions hazardous to persons and property.
12. Bidder expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the Work with respect to such hazards.
13. Bidder 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, California Government Code, §12650 et seq.), County 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.
14. The undersigned Bidder certifies that it is, at the time of bidding, and shall be throughout the period of the contract, licensed by the State of California to do the type of work required under the terms of the Contract Documents. Bidder further certifies that it is regularly engaged in the general class and type of work called for in the Contract Documents.
15. Intentionally Omitted.

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

Dated this _____ day of _____ 20 ____

Name of Bidder _____

Type of Organization _____

Signed by _____

Title of Signer _____

Address of Bidder _____

Taxpayer's Identification No. of Bidder _____

Telephone Number _____

Fax Number _____

E-mail _____ Web page _____

Contractor's License No(s): No.: _____ Class: _____ Expiration Date: _____

No.: _____ Class: _____ Expiration Date: _____

No.: _____ Class: _____ Expiration Date: _____

Department of Industrial Relations Registration Number: _____

If Bidder is a corporation, affix corporate seal.

Name of Corporation: _____

President: _____

Secretary: _____

Treasurer: _____

Manager: _____

END OF DOCUMENT

DOCUMENT 00 43 13

BID SECURITY FORM

(Bid Bond)

(Note: If Bidder is providing a bid bond as its bid security, Bidder must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, as _____ as Principal ("Principal"),

and _____ as Surety ("Surety"),

a corporation organized and existing under and by virtue of the laws of the State of _____ and authorized to do business as a surety in the State of California, are held and firmly bound unto the County of Alameda, State of California as Obligee, in the sum of

_____ (\$ _____)

lawful money of the United States of America, for the payment of which sum well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a bid to County for all Work specifically described in the accompanying bid;

Now, therefore, if the Principal is awarded the Contract and, within the time and manner required under the Contract Documents, after the prescribed forms are presented to Principal for signature, enters into a written contract, in the prescribed form in accordance with the bid, and files two bonds, one guaranteeing faithful performance and the other guaranteeing payment for labor and materials as required by law, and meets all other conditions to the contract between the Principal and the Obligee becoming effective, or if the Principal shall fully reimburse and save harmless the Obligee from any damage sustained by the Obligee through failure of the Principal to enter into the written contract and to file the required performance and labor and material bonds, and to meet all other conditions to the Contract between the Principal and the Obligee becoming effective, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. The full payment of the sum stated above shall be due immediately if Principal fails to execute the Contract within seven (7) days of the date of the County's Notice of Award to Principal.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its

obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or the call for bids, or to the work, or to the specifications.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorneys' fee to be fixed by the Court.

If the County awards the bid, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named, on the _____ day of _____, 20__.

(Affix Corporate Seal)

Principal

By

(Affix Corporate Seal)

Surety

By

Name of California Agent of Surety

Address of California Agent of Surety

Telephone Number of California Agent of Surety

Bidder must attach Power of Attorney and Certificate of Authority for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

END OF DOCUMENT

DOCUMENT 00 43 36

DESIGNATED SUBCONTRACTORS LIST

PROJECT: Enterprise Elevator Modernization

Bidder must list hereinafter the name and location of each subcontractor who will be employed, and the kind of Work that each will perform if the Contract is awarded to the Bidder. Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., it must clearly set forth below the name and location of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Work in an amount in excess of one-half of one percent (1/2 of 1%) of Bidder's total Bid, and that as to any Work that Bidder fails to list, Bidder agrees to perform that portion itself or be subjected to penalty under applicable law.

In case more than one subcontractor is named for the same kind of Work, state the portion that each will perform. Vendors or suppliers of materials only do not need to be listed.

If further space is required for the list of proposed subcontractors, additional sheets showing the required information, as indicated below, shall be attached hereto and made a part of this document.

Name and City of Subcontractor (1)	Description of Work: Reference to Contract Items (1)	Prices Under Subcontract (1)	Subcontractor's License Numbers.		
			State of California Contractor's License (1)	Dept. of Industrial Relations Registration No. (DIR) (1)	Business License and City/County Issued (1)

(Bidder to attach additional sheet(s) if necessary)

- (1) Submit this information with sealed bid.

END OF DOCUMENT

DOCUMENT 00 45 01

SITE-VISIT CERTIFICATION

For Projects Where A Site Visit Was Mandatory

PROJECT: Enterprise Elevator Modernization
(Project Name)

Check whichever option applies:

_____ I certify that I visited the Site of the proposed Work and became fully acquainted with the conditions relating to construction and labor. I fully understand the facilities, difficulties, and restrictions attending the execution of the Work under contract.

_____ I certify that _____ (Bidder's representative) visited the Site of the proposed Work and became fully acquainted with the conditions relating to construction and labor. The Bidder's representative fully understood the facilities, difficulties, and restrictions attending the execution of the Work under contract.

Bidder fully indemnifies the County of Alameda, its Architect, its Engineer, its Construction Manager, and all of their respective officers, agents, employees, and consultants from any damage, or omissions, related to conditions that could have been identified during my visit and/or the Bidder's representative's visit to the Site.

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

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 13

NON-COLLUSION AFFIDAVIT
Public Contract Code Section 7106

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

STATE OF CALIFORNIA)
) ss.
COUNTY OF _____)

_____ being first
duly sworn deposes and says that he or she is _____
of _____, the Bidder making the foregoing Bid that the Bid 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, or to secure any
advantage against the County of anyone interested in the proposed Contract; 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, or paid, and will not pay, any fee to any corporation,
partnership, company association, organization, bid depository, or to any member or agent
thereof to effectuate a collusive or sham bid.

I certify and declare under penalty of perjury under the laws of the State of California that
all the foregoing information in this Non-Collusion Affidavit is true and correct.

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

(ATTACH NOTARIAL ACKNOWLEDGMENT FOR THE ABOVE SIGNATURE)

END OF DOCUMENT

DOCUMENT 00 45 26

WORKERS' COMPENSATION CERTIFICATION

PROJECT/CONTRACT NO.: _____ between County of Alameda
(the "County" or the "Owner") and _____ (the
"Contractor" or the "Bidder") (the "Contract" or the "Project").

Labor Code section 3700 in relevant part provides:

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

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

I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

(In accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any Work under this Contract.)

END OF DOCUMENT

DOCUMENT 00 45 46.01

**PREVAILING WAGE AND
RELATED LABOR REQUIREMENTS CERTIFICATION**

PROJECT/CONTRACT NO.: _____ between County of Alameda
(the "County" or the "Owner") and _____ (the
"Contractor" or the "Bidder") (the "Contract" or the "Project").

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hours notice, payroll records, and apprentice and trainee employment requirements, for all Work on the above Project.

I hereby acknowledge that County will use the Alameda County Contract Compliance System, including the Elation Systems, Inc. program, to monitor contract labor compliance and Local Hiring Program compliance monitoring. Contractor shall use these Compliance Systems to meet County's requirements, and shall participate in training as directed by County in order to become and remain competent in the use of the Compliance Systems. Costs associated with the Alameda County Contract Compliance System, including the Elation Systems, Inc. programs shall be borne by Contractor and shall not increase the cost of the Contract.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 46.04

HAZARDOUS MATERIALS CERTIFICATION

PROJECT/CONTRACT NO.: _____ (“Contract” or “Project”)
between the County of Alameda (“County”) and _____
 (“Contractor”)

1. Contractor hereby certifies that no Asbestos, or Asbestos-Containing Materials, polychlorinated biphenyl (PCB), or any material listed by the federal or state Environmental Protection Agency or federal or state health agencies as a hazardous material, or any other material defined as being hazardous under federal or state laws, rules, or regulations (“New Hazardous Material”), shall be furnished, installed, or incorporated in any way into the Project or in any tools, devices, clothing, or equipment used to affect any portion of Contractor's work on the Project for County.
2. Contractor further certifies that it has instructed its employees with respect to the above-mentioned standards, hazards, risks, and liabilities.
3. Asbestos and/or asbestos-containing material shall be defined as all items containing detectable amounts of, but not limited to, chrysotile, crocidolite, amosite, anthophyllite, tremolite, and actinolite.
4. Any disputes involving the question of whether or not material is New Hazardous Material shall be settled by electron microscopy or other appropriate and recognized testing procedure, at the County’s determination. The costs of any such tests shall be paid by Contractor if the material is found to be New Hazardous Material.
5. All Work or materials found to be New Hazardous Material or Work or material installed with equipment containing “New Hazardous Material” will be immediately rejected and this Work will be removed at Contractor's expense at no additional cost to the County.
6. Contractor has read and understood the document Hazardous Materials Procedures & Requirements, and shall comply with all the provisions outlined therein.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 46.06

IMPORTED MATERIALS CERTIFICATION

PROJECT/CONTRACT NO.: _____ between County of Alameda
("County" or "Owner") and _____
("Contractor") ("Contract" or "Project").

This form shall be executed by the Contractor and by all entities that, in any way, provide or deliver and/or supply any soils, aggregate, or related materials ("Fill") to the Project Site. All Fill shall satisfy all requirements of any environmental review of the Project performed pursuant to the statutes and guidelines of the California Environmental Quality Act, and section 21000 et seq. of the Public Resources Code ("CEQA").

To the furthest extent permitted by California law, Contractor shall defend, indemnify, and hold harmless the County, its agents, representatives, officers, consultants, employees, trustees, and volunteers pursuant to the indemnification provisions in the Contract Documents for, without limitation, any claim(s) connected with providing, delivering, and/or supplying Fill.

Certification of: ☐ Delivery Firm/Transporter ☐ Supplier ☐ Manufacturer
 ☐ Wholesaler ☐ Broker ☐ Retailer
 ☐ Distributor ☐ Other _____

Type of Entity ☐ Corporation ☐ General Partnership
 ☐ Limited Partnership ☐ Limited Liability Company
 ☐ Sole Proprietorship ☐ Other _____

Name of firm ("Firm"): _____

Mailing address: _____

Addresses of branch office used for this Project: _____

If subsidiary, name and address of parent company: _____

By my signature below, I hereby certify that I am aware of section 25260 of the Health and Safety Code and the sections referenced therein regarding the definition of hazardous material. I further certify on behalf of the Firm that all soils, aggregates, or related materials provided, delivered, and/or supplied or that will be provided, delivered, and/or supplied by this Firm to the Project Site are free of any and all hazardous material as defined in section 25260 of the Health

and Safety Code. I further certify that I am authorized to make this certification on behalf of the Firm.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 51 00

NOTICE OF AWARD

Dated: _____ 20__

To: _____
(Contractor)

To: _____
(Address)

From: The County of Alameda

PROJECT: Enterprise Elevator Modernization (Project Name)

("Project" or "Contract").

Contractor has been awarded the referenced Contract on _____, 20__, by action of the County's Board of Supervisors.

The Contract Price is _____ Dollars (\$_____).

One (1) copy of each of the Contract Documents (except Drawings) accompany this Notice of Award.

The Bidder to whom Contract is awarded shall execute and submit the following documents by 5:00 p.m. of the **SEVENTH (7TH)** Calendar day following the date of the Notice of Award.

Failure to properly and timely submit these documents entitles County to reject the bid as non-responsive.

- a. Agreement: To be executed by successful Bidder. Submit one (1) copy bearing an original electronic DocuSign signature or four (4) copies, each bearing an original wet signature.
- b. Escrow of Bid Documentation: This must include all required documentation. See the document Escrow of Bid Documentation for more information.
- c. Performance Bond (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
- d. Payment Bond (100%) (Contractor's Labor and Material Payment Bond): On the form provided in the Contract Documents and fully executed as indicated on the form.
- e. Insurance Certificates and Endorsements as required.

- f. Workers' Compensation Certification.
- g. Prevailing Wage and Related Labor Requirements Certification.
- h. Hazardous Materials Certification.
- i. Imported Materials Certification.
- j. Completed, signed Document 00 52 13.1 Debarment And Suspension Certification Form

Failure to comply with these conditions within the time specified will entitle County to consider your bid abandoned, to annul this Notice of Award, and to declare your Bid Security forfeited, as well as any other rights the County may have against the Contractor.

After you comply with those conditions, County will return to you one fully signed counterpart of the Agreement.

The County of Alameda

BY: _____

NAME: _____

TITLE: _____

END OF DOCUMENT

DOCUMENT 00 51 13

NOTICE OF INTENT TO AWARD

[DATE]
[NAME]
[COMPANY]
[ADDRESS]
[CITY, STATE ZIP]

SUBJECT: **INTENT TO AWARD A CONTRACT FOR PROJECT NO. 25016**

Thank you for your participation and interest in the County of Alameda. Based on its evaluation and acceptance of the bids submitted, GSA will be recommending to its Board of Supervisors that the contract for project number 25016 be awarded to [CONTRACTOR].

GSA's recommendation to accept and award a contract should go before the Board on Tuesday, [DATE]. Upon Board approval a draft contract will be submitted to the awardee for review. A signed contract will be issued along with an Agreement Form and Notice to Proceed. The County is unable to pay for work without a signed contract.

Below is a summary of all bids/proposals received for this project.

Bidder	Location	Bid Price

Please refer to Document 00 21 13 - Instructions to Bidders for additional information.

For information on other contracting opportunities please visit our website at <https://gsa.acgov.org/do-business-with-us/contracting-opportunities/> Contracting Opportunities.

The County of Alameda

BY: _____

NAME: _____

TITLE: _____

END OF DOCUMENT

DOCUMENT 00 52 13

AGREEMENT FORM – STIPULATED SUM
(SINGLE-PRIME CONTRACT)

THIS AGREEMENT IS MADE AND ENTERED INTO THIS _____ DAY OF _____, 20____, by and between the County of Alameda (“County”) and _____ (“Contractor”) (“Agreement”).

WITNESSETH: That the parties hereto have mutually covenanted and agreed, and by these presents do covenant and agree with each other, as follows:

1. **The Work:** Contractor agrees to furnish all tools, equipment, apparatus, facilities, labor, and material necessary to perform and complete in a good and workmanlike manner the work of

PROJECT: Enterprise Elevator Modernization
(Project Name)

(“Project” or “Contract” or “Work”)

for which the Drawings and Specifications are identified by the signature of the parties to this Agreement. It is understood and agreed that the Work shall be performed and completed as required in the Contract Documents including, without limitation, the Drawings and Specifications, under the direction and supervision of, and subject to, the approval of County or its authorized representative.

2. **The Contract Documents:** The complete Contract consists of all Contract Documents as defined in the General Conditions and incorporated herein by this reference. Any and all obligations of the County and Contractor are fully set forth and described in the Contract Documents. All Contract Documents are intended to cooperate so that any Work called for in one and not mentioned in the other or vice versa is to be executed the same as if mentioned in all Contract Documents.
3. **Interpretation of Contract Documents:** Should any question arise concerning the intent or meaning of Contract Documents, including the Drawings or Specifications, the question shall be submitted to the County for interpretation. If a conflict exists in the Contract Documents, modifications, beginning with the most recent, shall control over this Agreement, which shall control over the Special Conditions, which shall control over the General Conditions, which shall control over the remaining Division 00 documents, which shall control over Division 01 Documents, which shall control over Division 02 through Division 49 documents, which shall control over figured dimensions, which shall control over large-scale drawings, which shall control over small-scale drawings. In no case shall a document calling for lower quality and/or quantity material or workmanship control. The decision of the County in the matter shall be final.

4. **Time For Completion:** It is hereby understood and agreed that the work under this contract shall be completed within two hundred sixty (260) consecutive calendar days ("Contract Time") from the date specified in the County's Notice to Proceed.
5. **Completion-Extension Of Time:** Should the Contractor fail to complete this Contract, and the Work provided herein, within the time fixed for completion, due allowance being made for the contingencies provided for herein, the Contractor shall become liable to the County for all loss and damage that the County may suffer on account thereof. The Contractor shall coordinate its work with the Work of all other contractors. County shall not be liable for delays resulting from Contractor's failure to coordinate its Work with other contractors in a manner that will allow timely completion of Contractor's Work. Contractor shall be liable for delays to other contractors caused by Contractor's failure to coordinate its Work with the work of other contractors.
6. **Liquidated Damages:** Time is of the essence for all work under this Agreement. It is hereby understood and agreed that it is and will be difficult and/or impossible to ascertain and determine the actual damage that County will sustain in the event of and by reason of Contractor's delay; therefore, Contractor agrees that it shall pay to the County the sum of Four Hundred Twenty Nine Dollars (\$429.00) per day as liquidated damages for each and every day's delay beyond the time herein prescribed in finishing the Work. It is hereby understood and agreed that this amount is not a penalty.

In the event any portion of the liquidated damages is not paid to County, County may deduct that amount from any money due or that may become due to the Contractor under this Agreement. County's right to assess liquidated damages is as indicated herein and in the General Conditions.

The time during which the Contract is delayed for cause as hereinafter specified may extend the time of completion for a reasonable time as County may grant. This provision does not exclude the recovery of damages for delay by either party under other provisions in the Contract Documents.

7. **Indemnity:** To the fullest extent permitted by law (including, without limitation, California Civil Code Section 2782), Contractor shall defend (with legal counsel reasonably acceptable to the County), indemnify and hold harmless County and its officers, agents, departments, officials, representatives and employees (collectively "Indemnitees") from and against any and all claims, loss, cost, damage, injury (including, without limitation, injury to or death of an employee of Contractor or its Subcontractors), expense and liability of every kind, nature and description (including, without limitation, incidental and consequential damages, court costs, attorneys' fees, litigation expenses and fees of expert consultants or expert witnesses incurred in connection therewith and costs of investigation) which arises out of or is in any way connected to the performance of this agreement (collectively "Liabilities") except where such Liabilities are caused solely by the negligence or willful misconduct of any indemnitee. The County may participate in the defense of any such claim without relieving Contractor of any obligation hereunder. This indemnification, defense, and hold harmless obligation includes any failure or

alleged failure by Contractor to comply with any provision of law or the Contract Documents, including, without limitation, any stop notice actions or liens by the California Department of Labor Standards Enforcement. This indemnity obligation shall be for the full amount of all damage to County, including defense costs, and shall not be limited by any insurance limits.

- 7.1 Contractor shall defend (with legal counsel reasonably acceptable to the County), indemnify and hold harmless the Indemnitees from all loss, cost, damage, expense, liability or claims, in law or in equity, including attorneys' fees, court costs, litigation expenses and fees of expert consultants or expert witnesses, that may at any time arise for any infringement of the patent rights, copyright, trade secret, trade name, trademark, service mark or any other proprietary right of any person or persons in consequence of the use by County, or any of the other Indemnitees, of articles or Services to be supplied in the performance of this Agreement.
- 7.2 Contractor shall place in its subcontracting agreements and cause its Subcontractors to agree to indemnities and insurance obligations in favor of County and other Indemnitees in the exact form and substance of those contained in this Agreement. Contractor shall require all subcontractors to comply with all indemnification and insurance requirements of this agreement, including, without limitation, requirements contained in Document 00 72 13 (General Conditions) and Document 00 73 13 (Special Conditions). Contractor shall verify subcontractor's compliance.
8. **Loss Or Damage:** County and its authorized representatives shall not in any way or manner be answerable or suffer loss, damage, expense, or liability for any loss or damage that may happen to the Work, or any part thereof, or in or about the same during its construction and before acceptance, and the Contractor shall assume all liabilities of every kind or nature arising from the Work, either by accident, negligence, theft, vandalism, or any cause whatever; and shall hold County and its authorized representatives harmless from all liability of every kind and nature arising from accident, negligence, or any cause whatever.
9. **Insurance and Bonds:** Contractor shall provide all required certificates of insurance and payment and performance bonds as evidence thereof.
10. **Prosecution of Work:** If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of this contract, County may, pursuant to the General Conditions and without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.
11. **Authority of Architect:** Contractor hereby acknowledges that the Architect has authority to approve and/or stop Work if the Contractor's Work does not comply with the requirements of the Contract Documents and all applicable laws. The Contractor shall be liable for any delay caused by its non-compliant Work.

12. **Assignment of Contract:** Neither the Contract, nor any part thereof, nor any moneys due or to become due thereunder, may be assigned by the Contractor without the written approval of the County, nor without the written consent of the Surety on the Contractor's Performance Bond (the "Surety"), unless the Surety has waived in writing its right to notice of assignment.
13. **Classification Of Contractor's License:** Contractor hereby acknowledges that it currently holds valid Type **C-11 Elevator Contractor** Contractor's license(s) issued by the State of California, Contractor's State Licensing Board, in accordance with division 3, chapter 9, of the Business and Professions Code and in the classification called for in the Contract Documents.
14. It is County policy to minimize the expenditure of County funds on goods and services produced by any entity which buys, sell, leases, or distributes commodities and/or professional services to (1) the government of Burma; or (2) any entity organized under the laws of Burma; or (3) any entity which does business with any private or public entity located in Burma or conducts operations in Burma. Contractors are urged to comply with the policy in making purchases and subcontracts. (ref. Alameda County, California, Administrative Code, §4.32.050(B),(F))
15. **Payment of Prevailing Wages:** The Contractor and all Subcontractors under the Contractor shall pay all workers on all Work performed pursuant to this Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of County, pursuant to §§1770 et seq. of the California Labor Code. Prevailing wage rates are also available from the County or on the Internet at: <http://www.dir.ca.gov>.
- 15.3 This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. The following requirements apply to this bid and contract:
- 15.3.1 No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- 15.3.2 No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
16. **Contract Price:** In consideration of the foregoing covenants, promises, and agreements on the part of the Contractor, and the strict and literal fulfillment of each and every

covenant, promise, and agreement, and as compensation agreed upon for the Work and construction, erection, and completion as aforesaid, County covenants, promises, and agrees that it will well and truly pay and cause to be paid to the Contractor in full, and as the full Contract Price and compensation for construction, erection, and completion of the Work hereinabove agreed to be performed by the Contractor, the following price:

Dollars

(\$ _____),

in lawful money of the United States, which sum is to be paid according to the schedule provided by the Contractor and accepted by County and subject to additions and deductions as provided in the Contract. This amount supersedes any previously stated and/or agreed to amount(s).

17. **Severability:** If any term, covenant, condition, or provision in any of the Contract Documents is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions in the Contract Documents shall remain in full force and effect and shall in no way be affected, impaired, or invalidated thereby.
18. **Contractor Registration:** Contractor represents that it is registered and qualified to perform public work pursuant to Labor Code § 1725.5. Contractor is required to maintain DIR registration as required by Labor Code § 1725.5, without interruption, as long as Contractor is performing work on the Project. Contractor is further obligated to ensure that subcontractors of every tier are registered with the DIR as required by Labor Code § 1725.5 as long as those subcontractors are performing work on the Project. Contractor will prohibit any unregistered subcontractor from performing work on the Project.
19. **The terms of the Agreement supersede the terms of the Purchase Order.**

IN WITNESS WHEREOF, accepted and agreed on the date indicated above:

CONTRACTOR

COUNTY OF ALAMEDA

By: _____

By: _____

Title: _____

Title: _____

NOTE: If the party executing this Contract is a corporation, a certified copy of the by-laws, or of the resolution of the Board of Directors, authorizing the officers of said corporation to execute the Contract and the bonds required thereby must be attached hereto.

Approved as to Form:

Donna R. Ziegler, County Counsel

By: _____

Kathleen J. Hall
Deputy County Counsel

END OF DOCUMENT

DOCUMENT 00 52 13.1

COUNTY OF ALAMEDA
DEBARMENT AND SUSPENSION CERTIFICATION FORM

The bidder, under penalty of perjury, certifies that, except as noted below, bidder, its Principal, and any named and unnamed subcontractor:

- Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;
- Has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past three years;
- Does not have a proposed debarment pending; and
- Has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessary result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Notes: Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Certification.

BIDDER: _____

PRINCIPAL: _____ TITLE: _____

SIGNATURE: _____ DATE: _____

END OF DOCUMENT

DOCUMENT 00 55 00

NOTICE TO PROCEED

Dated: _____

TO: _____

PROJECT: Enterprise Elevator Modernization (Project Name)

PROJECT/CONTRACT NO.: 25016 between County of Alameda and Contractor ("Contract").

You are notified that the Contract Time under the above Contract will commence to run on _____, 20____. By that date, you are to start performing your obligations under the Contract Documents. In accordance with the Agreement executed by Contractor, the date of completion is _____, 20____.

You must submit the following documents by 5:00 p.m. of the **TENTH (10TH)** business day following the date of this Notice to Proceed:

- a. Contractor's preliminary schedule of construction.
- b. Contractor's preliminary schedule of values for all of the Work.
- c. Contractor's preliminary schedule of submittals, including Shop Drawings, Product Data, and Samples submittals
- d. Contractor's Safety Plan specifically adapted for the Project.
- e. A complete subcontractors list, including the name, address, telephone number, facsimile number, California State Contractors License number, classification, and monetary value of all Subcontracts.

Thank you. We look forward to a very successful Project.

COUNTY OF ALAMEDA

BY: _____

NAME: _____

TITLE: _____

END OF DOCUMENT

DOCUMENT 00 56 00

ESCROW OF BID DOCUMENTATION

1. Requirement to Escrow Bid Documentation

- a. Contractor shall submit, within **SEVEN (7)** calendar days after the date of the Notice of Award, one copy of all documentary information received or generated by Contractor in preparation of bid prices for this Contract, as specified herein. This material is referred to herein as "Escrow Bid Documentation." The Escrow Bid Documentation of the Contractor will be held in escrow for the duration of the Contract.
- b. Contractor agrees, as a condition of award of the Contract, that the Escrow Bid Documentation constitutes all written information used in the preparation of its bid, and that no other written bid preparation information shall be considered in resolving disputes or claims. Contractor also agrees that nothing in the Escrow Bid Documentation shall change or modify the terms or conditions of the Contract Documents.
- c. The Escrow Bid Documentation will not be opened by County except as indicated herein. The Escrow Bid Documentation will be used only for the resolution of change orders and claims disputes.
- d. Contractor's submission of the Escrow Bid Documentation, as with the bonds and insurance documents required, is considered an essential part of the Contract award. Should the Contractor fail to make the submission within the allowed time specified above, County may deem the Contractor to have failed to enter into the Contract, and the Contractor shall forfeit the amount of its bid security, accompanying the Contractor's bid, and County may award the Contract to the next lowest responsive responsible bidder.
- e. NO PAYMENTS WILL BE MADE, NOR WILL COUNTY ACCEPT PROPOSED CHANGE ORDERS UNTIL THE ABOVE REQUIRED INFORMATION IS SUBMITTED AND APPROVED.
- f. The Escrow Bid Documentation shall be submitted in person by an authorized representative of the Contractor to County.

2. Ownership of Escrow Bid Documentation

- a. The Escrow Bid Documentation is, and shall always remain, the property of Contractor, subject to review by County, as provided herein.

- b. Escrow Bid Documentation constitute trade secrets, not known outside Contractor's business, known only to a limited extent and only by a limited number of employees of Contractor, safeguarded while in Contractor's possession, extremely valuable to Contractor, and could be extremely valuable to Contractor's competitors by virtue of it reflecting Contractor's contemplated techniques of construction. Subject to the provisions herein, County agrees to safeguard the Escrow Bid Documentation, and all information contained therein, against disclosure to the fullest extent permitted by law.

3. Format and Contents of Escrow Bid Documentation

- a. Contractor may submit Escrow Bid Documentation in its usual cost-estimating format; a standard format is not required. The Escrow Bid Documentation shall be submitted in the English language.
- b. Escrow Bid Documentation must clearly itemize the estimated costs of performing the work of each bid item contained in the bid schedule, separating bid items into sub-items as required to present a detailed cost estimate and allow a detailed cost review. The Escrow Bid Documentation shall include all subcontractor bids or quotes, supplier bids or quotes, quantity takeoffs, crews, equipment, calculations of rates of production and progress, copies of quotes from subcontractors and suppliers, and memoranda, narratives, add/deduct sheets, and all other information used by the Contractor to arrive at the prices contained in the bid proposal. Estimated costs should be broken down into Contractor's usual estimate categories such as direct labor, repair labor, equipment ownership and operation, expendable materials, permanent materials, and subcontract costs as appropriate. Plant and equipment and indirect costs should be detailed in the Contractor's usual format. The Contractor's allocation of indirect costs, contingencies, markup, and other items to each bid item shall be identified.
- c. All costs shall be identified. For bid items amounting to less than \$10,000, estimated unit costs are acceptable without a detailed cost estimate, provided that labor, equipment, materials, and subcontracts, as applicable, are included and provided that indirect costs, contingencies, and markup, as applicable, are allocated.
- d. Bid Documentation provided by County should not be included in the Escrow Bid Documentation unless needed to comply with the following requirements.

4. Submittal of Escrow Bid Documentation

- a. The Escrow Bid Documentation shall be submitted by the Contractor in a sealed container within **SEVEN (7)** calendar days after the date of the Notice of Award. The container shall be clearly marked on the outside with the Contractor's name, date of submittal, project name and the words "Escrow Bid Documentation –

Intended to be opened in the presence of Authorized Representatives of Both County and Contractor".

- b. By submitting Escrow Bid Documentation, Contractor represents that the material in the Escrow Bid Documentation constitutes all the documentary information used in preparation of the bid and that the Contractor has personally examined the contents of the Escrow Bid Documentation container and has found that the documents in the container are complete.
- c. If Contractor's proposal is based upon subcontracting any part of the work, each subcontractor whose total subcontract price exceeds 5 percent of the total contract price proposed by Contractor, shall provide separate Escrow Documents to be included with those of Contractor. Those documents shall be opened and examined in the same manner and at the same time as the examination described above for Contractor.
- d. If Contractor wishes to subcontract any portion of the Work after award, County retains the right to require Contractor to submit Escrow Documents for the Subcontractor before the subcontract is approved.

5. Storage, Examination and Final Disposition of Escrow Bid Documentation

- a. The Escrow Bid Documentation will be placed in escrow, for the life of the Contract, in a mutually agreeable institution. The cost of storage will be paid by Contractor for the duration of the project until final Contract payment. The storage facilities shall be the appropriate size for all the Escrow Bid Documentation and located conveniently to both County's and Contractor's offices.
- b. The Escrow Bid Documentation shall be examined by both County and Contractor, at any time deemed necessary by either County or Contractor, to assist in the negotiation of price adjustments and change orders or the settlement of disputes and claims. In the case of legal proceedings, Escrow Bid Documentation shall be used subject to the terms of an appropriate protective order if requested by Contractor and ordered by a court of competent jurisdiction. Examination of the Escrow Bid Documentation is subject to the following conditions:
 - (1) As trade secrets, the Escrow Bid Documentation is proprietary and confidential to the extent allowed by law.
 - (2) County and Contractor shall each designate, in writing to the other party **SEVEN (7)** calendar days prior to any examination, the names of representatives who are authorized to examine the Escrow Bid Documentation. No other person shall have access to the Escrow Bid Documentation.

- (3) Access to the documents may take place only in the presence of duly designated representatives of the County and Contractor. If Contractor fails to designate a representative or appear for joint examination on **SEVEN (7)** calendar days notice, then the County representative may examine the Escrow Bid Documents alone upon an additional **THREE (3)** calendar days notice if a representative of the Contractor does not appear at the time set.
 - (4) If a subcontractor has submitted sealed information to be included in the Escrow Bid Documents, access to those documents may take place only in the presence of a duly designated representative of the County, Contractor and that subcontractor. If that subcontractor fails to designate a representative or appear for joint examination on **SEVEN (7)** calendar days notice, then the County representative and/or the Contractor may examine the Escrow Bid Documentation without that subcontractor present upon an additional **THREE (3)** calendar days notice if a representative of that subcontractor does not appear at the time set.
- c. The Escrow Bid Documentation will be returned to Contractor at such time as the Contract has been completed and final settlement has been achieved.

END OF DOCUMENT

DOCUMENT 00 57 00

**ESCROW AGREEMENT FOR
SECURITY DEPOSITS IN LIEU OF RETENTION**

Public Contract Code Section 22300

This Escrow Agreement ("Escrow Agreement") is made and entered into this ____ day of _____, 20____, by and between County of Alameda, whose address is _____, _____, California ("County"); and

_____, whose place of business is located at _____, ("Contractor"); and

_____, a state or federally chartered bank in the state of California, whose place of business is located at _____, ("Escrow Agent").

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

1. Pursuant to section 22300 of Public Contract Code of the State of California, which is hereby incorporated by reference, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by County pursuant to the Construction Contract No. _____ entered into between County and Contractor for the _____ [Name of Project], in the amount of _____ dated, _____, 20____, (the "Contract"). Alternatively, on written request of Contractor, County shall make payments of the retention earnings directly to Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, Escrow Agent shall notify County within ten (10) calendar days of the deposit. The market value of the securities at the time of substitution and at all times from substitution until the termination of the Escrow Agreement shall be at least equal to the cash amount then required to be withheld as retention under terms of Contract between County and Contractor.

Securities shall be held in name of County of Alameda, and shall designate Contractor as beneficial owner.

2. County shall make progress payments to Contractor for those funds which otherwise would be withheld from progress payments pursuant to Contract provisions, provided that Escrow Agent holds securities in form and amount specified above.
3. When County makes payment of retention earned directly to Escrow Agent, Escrow Agent shall hold them for the benefit of Contractor until the time that the escrow created under this Escrow Agreement is terminated. Contractor may direct the investment of the payments into securities. All terms and conditions of this Escrow Agreement and the

rights and responsibilities of the Parties shall be equally applicable and binding when County pays Escrow Agent directly.

4. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account, and all expenses of County. These expenses and payment terms shall be determined by County, Contractor, and Escrow Agent.
5. Interest earned on securities or money market accounts held in escrow and all interest earned on that interest shall be for sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to County.
6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from County to Escrow Agent that County consents to withdrawal of amount sought to be withdrawn by Contractor.
7. County shall have the right to draw upon the securities and/or withdraw amounts from the Escrow Account in event of default by Contractor. Upon seven (7) days written notice to Escrow Agent from County of the default, if applicable, Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by County.
8. Upon receipt of written notification from County certifying that the Contract is final and complete, and that Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all monies and securities on deposit and payments of fees and charges.
9. Escrow Agent shall rely on written notifications from County and Contractor pursuant to Paragraphs 5 through 8, inclusive, of this Escrow Agreement and County and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of securities and interest as set forth above.
10. Names of persons who are authorized to give written notice or to receive written notice on behalf of County and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of County:

On behalf of Contractor:

Title

Title

Name

Name

Signature

Signature

Address

Address

On behalf of Escrow Agent:

Title

Name

Signature

Address

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

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

On behalf of County:

On behalf of Contractor:

Title

Title

Name

Name

Signature

Signature

Address

Address

On behalf of Escrow Agent:

Title

Name

Signature

Address

END OF DOCUMENT

DOCUMENT 00 61 13.13

PERFORMANCE BOND FORM
(100% of Contract Price)

(Note: Bidders must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

That WHEREAS, the Board of Supervisors of the County of Alameda ("County") and _____, ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

Enterprise Elevator Modernization (Project Name)

("Project" or "Contract")

which Contract dated _____, 20____, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof, and

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

NOW, THEREFORE, the Principal and _____ ("Surety") are held and firmly bound unto the Board of County in the penal sum of _____ DOLLARS (\$_____), lawful money of the United States, for the payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents, to perform all the work required to complete the Project and to pay to County all damages County incurs as a result of the Principal's failure to perform all the Work required to complete the Project.

The condition of the obligation is such that, if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract and any alteration thereof made as therein provided, on his or their part to be kept and performed at the time and in the intent and meaning, and shall indemnify and save harmless County, its trustees, officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise it shall be and remain in full force and virtue.

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed

thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the specifications.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the ____ day of _____, 20 ____.

(Affix Corporate Seal)

Principal

By

Surety

By

Name of California Agent of Surety

Address of California Agent of Surety

Telephone Number of California Agent of
Surety

Bidder must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

END OF DOCUMENT

DOCUMENT 00 61 13.16

PAYMENT BOND FORM
Contractor's Labor & Material Payment Bond
(100% of Contract Price)

(Note: Bidders must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

That WHEREAS, the Board of Supervisors of the County of Alameda ("County") and _____, ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to

Enterprise Elevator Modernization (Project Name)

("Project")

which Contract dated _____, 20____, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof, and

WHEREAS, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the work, to file a good and sufficient bond with the body by which the Contract is awarded in an amount equal to 100 percent (100%) of the Maximum Contract Value, to secure the claims to which reference is made in sections 9000, 9100, 9356 through 9560, and 9564 of the Civil Code of California, and division 2, part 7, of the Labor Code of California.

NOW, THEREFORE, WE, the Principal and _____, ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of _____ Dollars (\$ _____), lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of his or its subcontractors, of the heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, provender, 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, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the Court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under sections 9000, 9100, 9356 through 9560, and 9564 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise it shall be and remain in full force and affect.

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of Contract or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the _____ day of _____, 20____.

(Affix Corporate Seal)

Principal

By

Surety

By

Name of California Agent of Surety

Address of California Agent of Surety

Telephone Number of California Agent of Surety

Bidder must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

END OF DOCUMENT

DOCUMENT 00 65 19.26

FINAL SETTLEMENT CERTIFICATE FORM

THIS FINAL SETTLEMENT AGREEMENT AND RELEASE OF CLAIMS ("Agreement and Release") IS MADE AND ENTERED INTO THIS _____ DAY OF _____, 20____ by and between the County of Alameda ("County") and _____ ("Contractor"), whose place of business is _____.

RECITALS:

1. County and Contractor entered into PROJECT/CONTRACT NO.: _____ ("Contract" or "Project") in the County of Alameda, California.
2. The Work under the Contract has been completed.

NOW, THEREFORE, it is mutually agreed between County and Contractor as follows:

AGREEMENT

3. Contractor will only be assessed liquidated damages as detailed below:

Original Contract Sum	\$ _____
Modified Contract Sum	\$ _____
Payment to Date	\$ _____
Liquidated Damages	\$ _____
Payment Due Contractor	\$ _____

4. Subject to the provisions hereof, County shall forthwith pay to Contractor the undisputed sum of \$ _____ (_____ Dollars and _____ Cents) under the Contract, less any amounts represented by any notice to withhold funds on file with County as of the date of such payment.
5. Contractor acknowledges and hereby agrees that there are no unresolved or outstanding claims in dispute against County arising from the performance of work under the Contract, except for the claims described in Paragraph 6 and continuing obligations described in Paragraph 8. It is the intention of the parties in executing this Agreement and Release that this Agreement and Release shall be effective as a full, final and general release of all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities of Contractor against County, all its respective agents,

employees, inspectors, assignees and transferees except for the Disputed Claim is set forth in Paragraph 6 and continuing obligations described in Paragraph 8 hereof.

6. The following claims are disputed (hereinafter, the "Disputed Claims") and are specifically excluded from the operation of this Agreement and Release:

<u>Claim No.</u>	<u>Description of Claim</u>	<u>Amount of Claim</u>	<u>Date Claim Submitted</u>

[Insert information, including attachment if necessary]

7. Consistent with California Public Contract Code section 7100, Contractor hereby agrees that, in consideration of the payment set forth in Paragraph 4 hereof, Contractor hereby releases and forever discharges County, all its agents, employees, inspectors, assignees, and transferees from any and all liability, claims, demands, actions, or causes of action of whatever kind or nature arising out of or in any way concerned with the Work under the Contract.
8. Guarantees and warranties for the Work, and any other continuing obligation of Contractor, shall remain in full force and effect as specified in the Contract Documents.
9. To the furthest extent permitted by California law, Contractor shall defend, indemnify, and hold harmless the County, its agents, representatives, officers, consultants, employees, trustees, and volunteers (the "indemnified parties") from any and all losses, liabilities, claims, suits, and actions of any kind, nature, and description, including, but not limited to, attorneys' fees and costs, directly or indirectly arising out of, connected with, or resulting from the performance of the Contract unless caused wholly by the sole negligence or willful misconduct of the indemnified parties.
10. Contractor hereby waives the provisions of California Civil Code section 1542 which provides as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

11. The provisions of this Agreement and Release are contractual in nature and not mere recitals and shall be considered independent and severable. If any such provision or any part thereof shall be at any time held invalid in whole or in part under any federal, state, county, municipal, or other law, ruling, or regulations, then such provision, or part thereof, shall remain in force and effect to the extent permitted by law, and the remaining provisions of this Agreement and Release shall also remain in full force and effect, and shall be enforceable.

12. All rights of County shall survive completion of the Work or termination of Contract, and execution of this Release.

* * * CAUTION: THIS IS A RELEASE - READ BEFORE EXECUTING * * *

COUNTY OF ALAMEDA

TITLE: _____

NAME: _____

SIGNATURE: _____

CONTRACTOR

TITLE: _____

NAME: _____

SIGNATURE: _____

END OF DOCUMENT

DOCUMENT 00 65 36

WARRANTY FORM

_____ ("Contractor") hereby agrees that the _____
_____ ("Work" of Contractor) which Contractor has installed for County of
Alameda ("County") for the following project:

PROJECT: Enterprise Elevator Modernization
(Project Name)

("Project" or "Contract")

has been performed in accordance with the requirements of the Contract Documents and that the
Work as installed will fulfill the requirements of the Contract Documents.

The undersigned agrees to repair or replace any or all of such Work that may prove to be defective in
workmanship or material together with any other adjacent Work that may be displaced in connection
with such replacement within a period of 2 year(s) from the date of completion as defined in Public
Contract Code section 7107, subdivision (c), ordinary wear and tear and unusual abuse or neglect
excepted. The date of completion is _____, 20 ____.

In the event of the undersigned's failure to comply with the above-mentioned conditions within a
reasonable period of time, as determined by County, but not later than seven (7) days after being
notified in writing by County, the undersigned authorizes the County to proceed to have said defects
repaired and made good at the expense of the undersigned. The undersigned shall pay the costs and
charges therefor upon demand.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

Representatives to be contacted for service subject to terms of Contract:

NAME: _____

ADDRESS: _____

PHONE NO.: _____

END OF DOCUMENT

DOCUMENT 00 72 13

GENERAL CONDITIONS

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GENERAL CONDITIONS

1. CONTRACT TERMS AND DEFINITIONS

1.1 Definitions

Wherever used in the Contract Documents, the following terms shall have the meanings indicated, which shall be applicable to both the singular and plural thereof:

1.1.1 Adverse Weather: Shall be only weather that satisfies all of the following conditions: (1) unusually severe precipitation, sleet, snow, hail, heat, or cold conditions in excess of the norm for the location and time of year it occurred, (2) unanticipated, and (3) at the Project.

1.1.2 Approval, Approved, and/or Accepted: Refer to written authorization, unless stated otherwise.

1.1.3 Architect: The individual, partnership, corporation, joint venture, or any combination thereof, named as Architect, who will have the rights and authority assigned to the Architect in the Contract Documents. The term Architect means the County's Architect on this Project or the Architect's authorized representative.

1.1.4 Architect's Supplemental Instruction: A document prepared by the Architect to provide supplemental instructions or interpretations or to order minor changes in the work not involving an adjustment in the Contract Amount or Contract Time.

1.1.5 Bidder: A contractor who intends to provide a bid to the County to perform the Work of this Contract.

1.1.6 Change Order: A written order to the Contractor authorizing an addition to, deletion from, or revision in the Work, and/or authorizing an adjustment in the Contract Price or Contract Time.

1.1.7 Construction Change Directive: A written order prepared and issued by the County, the Construction Manager, and/or the Architect and signed by the County and the Architect, directing a change in the Work.

1.1.8 Construction Manager: The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the County. If no Construction Manager is used on the Project that is the subject of this contract, then all references to Construction Manager herein shall be read to refer to County.

1.1.9 Construction Schedule: The progress schedule of construction of the Project as provided by Contractor and approved by County.

1.1.10 Contract, Contract Documents: The Contract consists exclusively of the documents evidencing the agreement of the County and Contractor, identified as the Contract Documents. The Contract Documents consist of the following documents:

1.1.10.1 Document 00 11 16 (Notice to Bidders)

1.1.10.2 Document 00 21 13 (Instructions to Bidders)

- 1.1.10.3 Document 00 41 13 (Bid Form)
- 1.1.10.4 Document 00 43 16 (Bid Security Form)
- 1.1.10.5 Document 00 43 46 (Designated Subcontractors List)
- 1.1.10.6 Document 00 45 01 (Site-Visit Certification), if a site visit was required.
- 1.1.10.7 Document 00 45 13 (Non-Collusion Affidavit)
- 1.1.10.8 Document 00 45 26 (Workers' Compensation Certification)
- 1.1.10.9 Document 00 45 46.01 (Prevailing Wage and Related Labor Requirements Certification)
- 1.1.10.10 Document 00 45 46.04 Hazardous Materials Certification
- 1.1.10.11 Document 00 45 46.06 Imported Materials Certification
- 1.1.10.12 Document 00 51 00 Notice of Award
- 1.1.10.13 Document 00 52 13 Agreement
- 1.1.10.14 Document 00 55 00 Notice to Proceed
- 1.1.10.15 Document 00 56 00 Escrow of Bid Documentation
- 1.1.10.16 Document 00 57 00 Escrow Agreement for Security Deposits in Lieu of Retention
- 1.1.10.17 Document 00 61 13.13 Performance Bond
- 1.1.10.18 Document 00 61 13.16 Payment Bond
- 1.1.10.19 Document 00 72 13 General Conditions
- 1.1.10.20 Document 00 73 13 Special Conditions
- 1.1.10.21 Document 00 73 56 Hazardous Materials Procedures and Requirements
- 1.1.10.22 Divisions 01 through 49
- 1.1.10.23 All Plans, Technical Specifications, and Drawings
- 1.1.10.24 Any and all addenda to any of the above documents
- 1.1.10.25 Any and all change orders or written modifications to the above documents if approved in writing by the County.

1.1.11 Contract Price: The total monies payable to the Contractor under the terms and conditions of the Contract Documents.

1.1.12 Contract Time: The time period stated in the Agreement for the completion of the Work.

1.1.13 Contractor: The person or persons identified in the Agreement as contracting to perform the Work to be done under this Contract, or the legal representative of such a person or persons.

1.1.14 County: County of Alameda, acting through its Board of Supervisors or any of its authorized agents. The County may, at any time:

1.1.14.1 Direct the Contractor to communicate with or provide notice to the Construction Manager or the Architect on matters for which the Contract Documents indicate the Contractor will communicate with or provide notice to the County; and/or

1.1.14.2 Direct the Construction Manager or the Architect to communicate with or direct the Contractor on matters for which the Contract Documents indicate the County will communicate with or direct the Contractor.

1.1.15 Daily Job Report(s): Daily Project reports prepared by the Contractor's employee(s) who are present on Site, which shall include the information required herein.

1.1.16 Day(s): Unless otherwise designated, day(s) means calendar day(s).

1.1.17 Drawings: (or "Plans") The graphic and pictorial portions of the Contract Documents showing the design, location, scope and dimensions of the work, generally including plans, elevations, sections, details, schedules, sequence of operation, and diagrams.

1.1.18 Force Account Directive: A process that may be used when the County and the Contractor cannot agree on a price for a specific portion of work or before the Contractor prepares prices for a specific portion of work and whereby the Contractor performs the work as indicated herein on a time and materials basis.

1.1.19 Premises: The real property owned by the County on which the Site is located.

1.1.20 Product(s): New material, machinery, components, equipment, fixtures, and systems forming the Work, including existing materials or components required and approved by the County for reuse.

1.1.21 Product Data: Illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate a material, product, or system for some portion of the Work.

1.1.22 Project: The planned undertaking as provided for in the Contract Documents.

1.1.23 Program Manager: The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the County. If no Program Manager is designated for Project that is the subject of this Contract, then all references to Project Manager herein shall be read to refer to County.

1.1.24 Provide: Shall include "provide complete in place," that is, "furnish and install," and "provide complete and functioning as intended in place" unless specifically stated otherwise.

1.1.25 Request for Information: A written request prepared by the Contractor requesting that the Architect provide additional information necessary to clarify or amplify an item in the Contract Documents that the Contractor believes is not clearly

shown or called for in the Drawings or Specifications or other portions of the Contract Documents, or to address problems that have arisen under field conditions.

1.1.26 Request for Substitution: A request by Contractor to substitute an equal or superior material, product, thing, or service for a specific material, product, thing, or service that has been designated in the Contract Documents by a specific brand or trade name.

1.1.27 Safety Orders: Written and/or verbal orders for construction issued by the California Division of Industrial Safety ("CalOSHA") or by the United States Occupational Safety and Health Administration ("OSHA").

1.1.28 Safety Plan: Contractor's safety plan specifically adapted for the Project. Contractor's Safety Plan shall comply with all provisions regarding Project safety, including all applicable provisions in these General Conditions.

1.1.29 Samples: Physical examples that illustrate materials, products, equipment, finishes, colors, or workmanship and that, when approved in accordance with the Contract Documents, establish standards by which portions of the Work will be judged.

1.1.30 Shop Drawings: All drawings, prints, diagrams, illustrations, brochures, schedules, and other data that are prepared by the Contractor, a subcontractor, manufacturer, supplier, or distributor, that illustrate how specific portions of the Work shall be fabricated or installed.

1.1.31 Site: The Project site as shown on the Drawings.

1.1.32 Specifications: That portion of the Contract Documents, Division 01 through Division 49, and all technical sections, and addenda to all of these, if any, consisting of written descriptions and requirements of a technical nature of materials, equipment, construction methods and systems, standards, and workmanship.

1.1.33 Subcontractor: A contractor and/or supplier who is under contract with the Contractor or with any other subcontractor, regardless of tier, to perform a portion of the Work of the Project.

1.1.34 Submittal Schedule: The schedule of submittals as provided by Contractor and approved by County.

1.1.35 Surety: The person, firm, or corporation that executes as surety the Contractor's Performance Bond and Payment Bond, and must be a California admitted surety insurer as defined in the Code of Civil Procedure § 995.120.

1.1.36 Work: All labor, materials, equipment, components, appliances, supervision, coordination, and services required by, or reasonably inferred from, the Contract Documents, that are necessary for the construction and completion of the Project.

1.2 Laws Concerning The Contract

Contract is subject to all provisions of the Constitution and laws of California governing, controlling, or affecting County, or the property, funds, operations, or powers of County, and such provisions are by this reference made a part hereof. Any provision required by law to be included in this Contract shall be deemed to be inserted.

1.3 No Oral Agreements

No oral agreement or conversation with any officer, agent, or employee of County, either before or after execution of Contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising the Contract.

1.4 No Assignment

Contractor shall not assign this Contract or any part thereof including, without limitation, any services or money to become due hereunder without the prior written consent of the County. Assignment without County's prior written consent shall be null and void. Any assignment of money due or to become due under this Contract shall be subject to a prior lien for services rendered or material supplied for performance of work called for under this Contract in favor of all persons, firms, or corporations rendering services or supplying material to the extent that claims are filed pursuant to the Civil Code, Code of Civil Procedure, Government Code, Labor Code, and/or Public Contract Code, and shall also be subject to deductions for liquidated damages or withholding of payments as determined by County in accordance with this Contract. Contractor shall not assign or transfer in any manner to a Subcontractor or supplier the right to prosecute or maintain an action against the County.

1.5 Notice And Service Thereof

1.5.1 Any notice from one party to the other or otherwise under Contract shall be in writing and shall be dated and signed by the party giving notice or by a duly authorized representative of that party. Any notice shall not be effective for any purpose whatsoever unless served in one of the following manners:

- 1.5.1.1** If notice is given by personal delivery thereof, it shall be considered delivered on the day of delivery.
- 1.5.1.2** If notice is given by overnight delivery service, it shall be considered delivered on (1) day after date deposited, as indicated by the delivery service.
- 1.5.1.3** If notice is given by depositing same in United States mail, enclosed in a sealed envelope, it shall be considered delivered three (3) days after date deposited, as indicated by the postmarked date.
- 1.5.1.4** If notice is given by registered or certified mail with postage prepaid, return receipt requested, it shall be considered delivered on the day the notice is signed for.

1.6 No Waiver

The failure of County in any one or more instances to insist upon strict performance of any of the terms of this Contract or to exercise any option herein conferred shall not be construed as a waiver or relinquishment to any extent of the right to assert or rely upon any such terms or option on any future occasion. No action or failure to act by the County, Architect, or Construction Manager shall constitute a waiver of any right or duty afforded the County under the Contract, nor shall any action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

1.7 Substitutions For Specified Items

See Special Conditions.

1.8 Materials and Work

1.8.1 Except as otherwise specifically stated in this Contract, Contractor shall provide and pay for all materials, labor, tools, equipment, transportation, supervision, temporary constructions of every nature, and all other services, management, and facilities of every nature whatsoever necessary to execute and complete this Contract within the Contract Time.

1.8.2 Unless otherwise specified, all materials shall be new, and the best of their respective kinds and grades as noted or specified and workmanship shall be of good quality.

1.8.3 Materials shall be furnished in ample quantities and at such times as to ensure uninterrupted progress of Work and shall be stored properly and protected as required.

1.8.4 For all materials and equipment specified or indicated in the Drawings, the Contractor shall provide all labor, materials, equipment, and services necessary for complete assemblies and complete working systems, functioning as intended. Incidental items not indicated on Drawings, nor mentioned in the Specifications, that can legitimately and reasonably be inferred to belong to the Work described, or be necessary in good practice to provide a complete assembly or system, shall be furnished as though itemized here in every detail. In all instances, material and equipment shall be installed in strict accordance with each manufacturer's most recent published recommendations and specifications.

1.8.5 Contractor shall, after award of Contract by County and after relevant submittals have been approved, place orders for materials and/or equipment as specified so that delivery of same may be made without delays to the Work. Contractor shall, upon demand from County, present documentary evidence showing that orders have been placed.

1.8.6 County reserves the right but has no obligation, for any neglect in complying with the above instructions, to place orders for such materials and/or equipment as it may deem advisable in order that the Work may be completed at the date specified in the Agreement, and all expenses incidental to the procuring of said materials and/or equipment shall be paid for by Contractor or withheld from payment(s) to Contractor.

1.8.7 Contractor warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon completion of all Work to deliver the Site to County, together with all improvements and appurtenances constructed or placed thereon by it, and free from any claims, liens, or charges. Contractor further agrees that neither it nor any person, firm, or corporation furnishing any materials or labor for any work covered by the Contract shall have any right to lien any portion of the Premises or any improvement or appurtenance thereon, except that Contractor may install metering devices or other equipment of utility companies or of political subdivision, title to which is commonly retained by utility company or political subdivision. In the event of installation of any such metering device or equipment, Contractor shall advise County as to owner thereof.

1.8.8 Nothing contained in this Article, however, shall defeat or impair the rights of persons furnishing materials or labor under any bond given by Contractor for their

protection or any rights under any law permitting such protection or any rights under any law permitting such persons to look to funds due Contractor in hands of County (e.g., Stop Notices), and this provision shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing material for work when no formal contract is entered into for such material.

1.8.9 Title to new materials and/or equipment for the Work of this Contract and attendant liability for its protection and safety shall remain with Contractor until incorporated in the Work of this Contract and accepted by County. No part of any materials and/or equipment shall be removed from its place of storage except for immediate installation in the Work of this Contract. Contractor shall keep an accurate inventory of all materials and/or equipment in a manner satisfactory to County or its authorized representative and shall, at the County's request, forward it to the County.

2. COUNTY

2.1 Occupancy

County reserves the right to occupy portions of the Project at any time before completion. Neither the County's Final Acceptance, the making of Final Payment, any provision in Contract Documents, nor the use or occupancy of the Work, in whole or in part, by County shall constitute acceptance of Work not in accordance with the Contract Documents nor relieve the Contractor or the Contractor's Performance Bond Surety from liability with respect to any warranties or responsibility for faulty or defective Work or materials, equipment and workmanship incorporated therein.

3. ARCHITECT

3.1 Role and Authority

The Architect shall represent County during the Project and will observe the progress and quality of the Work on behalf of County. Architect shall have the authority to act on behalf of County to the extent expressly provided in the Contract Documents and to the extent determined by County. Architect shall have authority to reject materials, workmanship, and/or the Work whenever rejection may be necessary, in Architect's reasonable opinion, to ensure the proper execution of the Contract.

3.2 Interpretations

Architect shall, with County and on behalf of County, determine the amount, quality, acceptability, and fitness of all parts of the Work, and interpret the Specifications, Drawings, and shall, with County, interpret all other Contract Documents.

3.3 Laws

Architect shall have all authority and responsibility established by law, including Title 24 of the California Code of Regulations.

3.4 Communications

Contractor shall provide County and the Construction Manager with a copy of all written communication between Contractor and Architect at the same time as that communication is made to Architect, including, without limitation, all RFIs, correspondence, submittals, claims, and proposed change orders.

4. CONSTRUCTION MANAGER

4.1 Role and Authority

If a construction manager is used on this Project (“Construction Manager” or “CM”), the Construction Manager will provide administration of the Contract on the County's behalf. After execution of the Contract and Notice to Proceed, all correspondence, and/or instructions from Contractor and/or County shall be forwarded through the Construction Manager. The Construction Manager will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences, or procedures or for safety precautions in connection with the Work, which shall all remain the Contractor's responsibility.

4.2 Authority to Reject

The Construction Manager, however, will have authority to reject materials and/or workmanship not conforming to the Contract Documents, as determined by the County and/or the Architect. The Construction Manager shall also have the authority to require special inspection or testing of any portion of the Work, whether it has been fabricated, installed or fully completed. Any decision made by the Construction Manager, in good faith, shall not give rise to any duty or responsibility of the Construction Manager to the Contractor, any Subcontractor, their agents, employees, or other persons performing any of the Work. The Construction Manager shall have free access to any or all parts of the Work at any time.

4.3 If No Construction Manager

If the County does not use a Construction Manager on this Project, all references to Construction Manager or CM shall be read as County.

5. INSPECTIONS AND TESTS

5.1 Tests and Inspections

5.1.1 The County will select an independent testing laboratory to conduct tests. Selection of the materials required to be tested shall be by the laboratory or the County's representative and not by the Contractor. The Contractor shall notify the County's representative a sufficient time in advance of its readiness for required observation or inspection.

5.1.2 The Contractor shall notify the County's representative a sufficient time in advance of the manufacture of material to be supplied under the Contract Documents that must by terms of the Contract Documents be tested, in order that the County may arrange for the testing of same at the source of supply. This notice shall be, at a minimum, seventy-two (72) hours prior to the manufacture of the material that needs to be tested.

5.1.3 Any material shipped by the Contractor from the source of supply prior to having satisfactorily passed such testing and inspection or prior to the receipt of notice from said representative that such testing and inspection will not be required, shall not be incorporated into and/or onto the Project.

5.1.4 The County will select and pay testing laboratory costs for all tests and inspections. Costs of tests of any materials found to be not in compliance with the

Contract Documents shall be paid for by the County and reimbursed by the Contractor or deducted from the Contract Price.

5.2 Costs for After Hours and/or Off Site Inspections

If the Contractor performs Work outside the County's regular working hours or requests the County to perform inspections off Site, costs of any inspections required outside regular working hours or off Site shall be borne by the Contractor and may be invoiced to the Contractor by the County or the County may deduct those expenses from the next Progress Payment.

6. CONTRACTOR

Contractor shall construct the Work for the Contract price including any adjustment(s) to the Contract Price pursuant to provisions herein regarding changes to the Contract Price. Except as otherwise noted, Contractor shall provide and pay for all labor, materials, equipment, permits, fees, licenses, facilities, transportation, taxes, and services necessary for the proper execution and completion of the Work, except as indicated herein.

6.1 Status of Contractor

6.1.1 Contractor is and shall at all times be deemed to be an independent contractor and shall be wholly responsible for the manner in which it and its Subcontractors perform the services required of it by the Contract Documents. Nothing herein contained shall be construed as creating the relationship of employer and employee, or principal and agent, between the County, or any of the County's employees or agents, and Contractor or any of Contractor's Subcontractors, agents or employees. Contractor assumes exclusively the responsibility for the acts of its employees as they relate to the services to be provided during the course and scope of their employment. Contractor, its agents, its employees and its Subcontractors shall not be entitled to any rights or privileges of County employees. County shall be permitted to monitor the Contractor's activities to determine compliance with the terms of this Contract.

6.1.2 As required by law, Contractor and all Subcontractors shall be properly licensed and regulated by the Contractor's State License Board, 3132 Bradshaw Road, Post Office Box 2600, Sacramento, California 98826, <http://www.cslb.ca.gov>.

6.2 Contractor's Supervision

6.2.1 At all times during progress of the Work, while any work is being performed, Contractor shall keep on the Premises, and at all other locations where any Work related to the Contract is being performed, a competent project manager and construction superintendent who are employees of the Contractor, to whom the County does not object and at least one of whom shall be fluent in English, written and verbal.

6.2.2 The project manager and construction superintendent shall both speak fluently the predominant language of the Contractor's employees fluently. All workers shall be sufficiently competent in English to respond to inquiries and instructions and give directions concerning matters of safety and concerning the identification and location of site foremen, the Contractor's construction superintendent, and the Contractor's project manager.

6.2.3 Before commencing the Work herein, Contractor shall give written notice to County of the name and relevant credentials of its project manager and

construction superintendent. Neither the Contractor's project manager nor construction superintendent shall be changed except with prior written notice to County and County's approval, unless the Contractor's project manager and/or construction superintendent proves to be unsatisfactory to Contractor, County, any of the County's employees, agents, the Construction Manager, or the Architect, in which case, Contractor shall notify County in writing. The Contractor's project manager and construction superintendent shall each represent Contractor, and all directions given to Contractor's project manager and/or construction superintendent shall be as binding as if given to Contractor.

6.2.4 Contractor shall give efficient supervision to Work, using its best skill and attention. Contractor shall carefully study and compare all Contract Documents, Drawings, Specifications, and other instructions and shall at once report to County, Construction Manager, and Architect any error, inconsistency, or omission that Contractor or its employees and Subcontractors may discover, in writing. The Contractor shall have responsibility for discovery of errors, inconsistencies, or omissions.

6.3 Duty to Provide Fit Workers

6.3.1 Contractor and Subcontractor(s) shall at all times enforce strict discipline and good order among their employees and shall not employ or work any unfit person or anyone not skilled in work assigned to that person. It shall be the responsibility of Contractor to ensure compliance with this requirement. County may require Contractor to permanently remove unfit persons from Project Site.

6.3.2 Any person in the employ of Contractor or Subcontractor(s) whom County may deem incompetent or unfit shall be excluded from working on the Project and shall not again be employed on the Project except with the prior written consent of County.

6.3.3 The Contractor shall furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work.

6.3.4 If Contractor intends to make any change in the name or legal nature of the Contractor's entity, Contractor must first notify the County. The County shall determine if Contractor's intended change is permissible while performing this Contract.

6.4 Purchase of Materials and Equipment

The Contractor is required to order, obtain, and store materials and equipment sufficiently in advance of its Work at no additional cost or advance payment from County to assure that there will be no delays.

6.5 Documents On Work Site

6.5.1 Contractor shall at all times keep on the Work Site, or such other location as County may authorize in writing one legible copy of all Contract Documents, including Addenda and Change Orders, and titles 19 and 24 of the California Code of Regulations, the specified edition(s) of the Uniform Building Code, all approved Drawings, Plans, Schedules, and Specifications, and all codes and documents referred to in the Specifications, and made part thereof. These documents shall be kept in good order and available to County, Construction Manager, Architect, Architect's representatives, and all authorities having jurisdiction. Contractor shall be acquainted with and comply with the provisions of these titles as they relate to this Project. Contractor shall also be acquainted

with and comply with all California Code of Regulations provisions relating to conditions on this Project. Contractor shall coordinate with Architect and Construction Manager.

6.5.2 Daily Job Reports. Contractor shall maintain, at a minimum, at least one (1) set of Daily Job Reports on the Project. These must be prepared by the Contractor's employee(s) who are present on Site and must include, at a minimum, the following information:

- 6.5.2.1** A brief description of all Work performed on that day. This shall include a listing of what was done, which contractors were on site that day, and where on the site the work was performed.
- 6.5.2.2** A summary of all other pertinent events and/or occurrences on that day.
- 6.5.2.3** The weather conditions on that day.
- 6.5.2.4** A list of all Subcontractor(s) working on that day,
- 6.5.2.5** A list of each Contractor employee working on that day and the total hours worked for each employee.
- 6.5.2.6** A complete list of all equipment on Site that day, whether in use or not.
- 6.5.2.7** All complete list of all materials, supplies, and equipment delivered on that day.
- 6.5.2.8** A complete list of all inspections and tests performed on that day.
- 6.5.2.9** Each day Contractor shall provide a copy of the previous day's Daily Job Report to the County or the County's Construction Manager.

6.6 Preservation of Records

The County shall have the right to examine and audit all Daily Job Reports or other Project records of Contractor's project manager(s), project superintendent(s), and/or project foreperson(s), all certified payroll records and/or related documents including, without limitation, payroll, payment, timekeeping and tracking documents; all books, estimates, records, contracts, documents, bid documents, bid cost data, subcontract job cost reports, and other data of the Contractor, any Subcontractor, and/or supplier, including computations and projections related to bidding, negotiating, pricing, or performing the Work or Contract modification, in order to evaluate the accuracy, completeness, and currency of the cost, manpower, coordination, supervision, or pricing data at no additional cost to the County. These documents may be duplicative and/or be in addition to any Bid Documents held in escrow by the County. The Contractor shall make available at its office at all reasonable times the materials described in this paragraph for the examination, audit or reproduction until three (3) years after final payment under this Contract. Notwithstanding the provisions above, Contractor shall provide any records requested by any governmental agency if available, after the time set forth above.

6.7 Integration of Work

6.7.1 Contractor shall do all cutting, fitting, patching, and preparation of Work as required to make its several parts come together properly, to fit it to receive or be received by work of other contractors, and to coordinate tolerances to various pieces of

work, showing upon, or reasonably implied by, the Drawings and Specifications for the completed structure, and shall conform them as County and/or Architect may direct.

6.7.2 All cost caused by defective or ill-timed Work shall be borne by Contractor, inclusive of repair work.

6.7.3 Contractor shall not endanger any work performed by it or anyone else by cutting, excavating, or otherwise altering work and shall not cut or alter work of any other contractor except with the consent of County.

6.8 Obtaining of Permits and Licenses

Contractor shall secure and pay for all permits, licenses, and certificates necessary for prosecution of Work before the date of the commencement of the Work or before the permits, licenses, and certificates are legally required to continue the Work without interruption. The Contractor shall obtain and pay, only when legally required, for all licenses, permits, inspections, and inspection certificates required to be obtained from or issued by any authority having jurisdiction over any part of the Work included in the Contract. All final permits, licenses, and certificates shall be delivered to County before demand is made for final payment.

6.9 Work to Comply With Applicable Laws and Regulations

6.9.1 Contractor shall give all notices and comply with the following specific laws, ordinances, rules, and regulations and all other applicable laws, ordinances, rules, and regulations bearing on conduct of Work as indicated and specified, including but not limited to the appropriate statutes and administrative code sections. If Contractor observes that Drawings and Specifications are at variance therewith, or should Contractor become aware of the development of conditions not covered by Contract Documents that will result in finished Work being at variance therewith, Contractor shall promptly notify County in writing, including by e-mail, and any changes deemed necessary by County shall be made as provided in Contract for changes in Work.

- 6.9.1.1** National Electrical Safety Code, U. S. Department of Commerce
- 6.9.1.2** National Board of Fire Underwriters' Regulations
- 6.9.1.3** Uniform Building Code, latest addition, and the California Code of Regulations, title 24, including amendments
- 6.9.1.4** Manual of Accident Prevention in Construction, latest edition, published by A.G.C. of America
- 6.9.1.5** Industrial Accident Commission's Safety Orders, State of California
- 6.9.1.6** Regulations of the State Fire Marshall (title 19, California Code of Regulations) and Pertinent Local Fire Safety Codes
- 6.9.1.7** Americans with Disabilities Act
- 6.9.1.8** Government Code of the State of California
- 6.9.1.9** Labor Code of the State of California, Division 2, part 7, Public Works and Public Agencies
- 6.9.1.10** Public Contract Code of the State of California
- 6.9.1.11** California Art Preservation Act

6.9.1.12 U. S. Copyright Act

6.9.1.13 U. S. Visual Artists Rights Act

6.9.2 Contractor shall comply with all applicable mitigation measures, if any, adopted by any public agency with respect to this Project pursuant to the California Environmental Quality Act (Public Resources Code § 21000 et. Seq.)

6.9.3 If Contractor performs any Work that it knew, or through exercise of reasonable care should have known, to be contrary to any applicable laws, ordinance, rules, or regulations, Contractor shall bear all costs arising therefrom.

6.9.4 Where Specifications or Drawings state that materials, processes, or procedures must be approved by the State Fire Marshall, or other body or agency, Contractor shall be responsible for satisfying requirements of such bodies or agencies.

6.10 Safety/Protection of Persons and Property

6.10.1 The Contractor will be solely and completely responsible for conditions of the Work Site, including safety of all persons and property during performance of the Work. This requirement will apply continuously and not be limited to normal working hours.

6.10.2 The wearing of hard hats and other personal protection equipment (“PPE”) shall be mandatory at all times for all personnel on Site. Contractor shall supply sufficient hard hats and PPE to properly equip all employees and visitors.

6.10.3 Any construction review of the Contractor’s performance is not intended to include a review of the adequacy of the Contractor’s safety measures in, on, or near the Work Site.

6.10.4 Implementation and maintenance of safety programs shall be the sole responsibility of the Contractor.

6.10.5 The Contractor shall furnish to the County a copy of the Contractor's safety plan within the time frame indicated in the Contract Documents and specifically adapted for the Project.

6.10.6 Contractor shall be responsible for all damages to persons or property that occur as a result of its fault or negligence in connection with the prosecution of this Contract and shall take all necessary measures and be responsible for the proper care and completion and final acceptance by County. All Work shall be solely at Contractor’s risk with the exception of damage to the Work caused by “acts of God” as defined in Public Contract Code § 7105.

6.10.7 Contractor shall take, and require Subcontractors to take, all necessary precautions for safety of workers on the Project and shall comply with all applicable federal, state, local, and other safety laws, standards, orders, rules, regulations, and building codes to prevent accidents or injury to persons on, about, or adjacent to premises where Work is being performed and to provide a safe and healthful place of employment. Contractor shall furnish, erect, and properly maintain at all times, all necessary safety devices, safeguards, construction canopies, signs, nets, barriers, lights, and watchmen for protection of workers and the public and shall post danger signs warning against hazards created by such features in the course of construction.

6.10.8 Hazards Control – Contractor shall store volatile wastes in covered metal containers and remove them from the Site daily. Contractor shall prevent the accumulation of wastes that create hazardous conditions. Contractor shall provide adequate ventilation during use of volatile or noxious substances.

6.10.9 Contractor shall designate a responsible member of its organization on the Project, whose duty shall be to post information regarding protection and obligations of workers and other notices required under occupational safety and health laws, to comply with reporting and other occupational safety requirements, and to protect the life, safety, and health of workers. Name and position of person so designated shall be reported to County by Contractor.

6.10.10 Contractor shall correct any violations of safety laws, rules, orders, standards, or regulations. Upon the issuance of a citation or notice of violation by the Division of Occupational Safety and Health, Contractor shall correct such violation promptly.

6.10.11 Contractor shall comply with any County stormwater requirements that are approved by the County and applicable to the Project, at no additional cost to the County.

6.10.12 In an emergency affecting safety of life or of work or of adjoining property, Contractor, without special instruction or authorization, shall act, at its discretion, to prevent such threatened loss or injury. Any compensation claimed by Contractor on account of emergency work shall be determined by agreement.

6.10.13 All connections to public utilities and/or existing on-site services shall be made and maintained in such a manner as to not interfere with the continuing use of same by the County during the entire progress of the Work.

6.10.14 Contractor shall provide such heat, covering, and enclosures as are necessary to protect all Work, materials, equipment, appliances, and tools against damage by weather conditions, such as extreme heat, cold, rain, snow, dry winds, flooding, or dampness.

6.10.15 The Contractor shall protect and preserve the Work from all damage or accident, providing any temporary roofs, window and door coverings, boxing, or other construction. The Contractor shall be responsible for existing structures, walks, roads, trees, landscaping, and/or improvements in working areas; and shall provide adequate protection therefor. If temporary removal is necessary of any of the above items, or damage occurs due to the Work, the Contractor shall replace same at his expense with same kind, quality, and size of Work or item damaged. This shall include any adjoining property of the County and others.

6.10.16 Contractor shall take adequate precautions to protect existing roads, sidewalks, curbs, pavements, utilities, adjoining property, and structures (including, without limitation, protection from settlement or loss of lateral support), and to avoid damage thereto, and repair any damage thereto caused by construction operations.

6.10.17 Contractor shall confine apparatus, the storage of materials, and the operations of workers to limits indicated by law, ordinances, permits, or directions of Architect, and shall not interfere with the Work or unreasonably encumber Premises or overload any structure with materials. Contractor shall enforce all instructions of County

and Architect regarding signs, advertising, fires, and smoking, and require that all workers comply with all regulations while on Project Site.

6.10.18 Contractor, Contractor's employees, Subcontractors, Subcontractors' employees, or any person associated with the Work shall conduct themselves in a manner appropriate for a public site. No verbal or physical contact with the public, neighbors, or tenants, or profanity, or inappropriate attire or behavior will be permitted. County may require Contractor to permanently remove non-complying persons from Project Site.

6.10.19 Contractor shall take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed, Contractor shall have a civil engineer, registered as a professional engineer in California, replace them at no cost to County.

6.10.20 In the event that the Contractor enters into any agreement with owners of any adjacent property to enter upon the adjacent property for the purpose of performing the Work, Contractor shall fully indemnify, defend, and hold harmless each person, entity, firm, or agency that owns or has any interest in adjacent property. The form and content of the agreement of indemnification shall be approved by the County prior to the commencement of any Work on or about the adjacent property. The Contractor shall also indemnify the County as provided in the indemnification provision herein. These provisions shall be in addition to any other requirements of the owners of the adjacent property.

6.11 Working Evenings and Weekends

Contractor may be required to work evenings and/or weekends at no additional cost to the County. Contractor shall give the County seventy-two (72) hours notice prior to performing any evening and/or weekend work. Contractor shall perform all evening and/or weekend work only upon County's approval and in compliance with all applicable rules, regulations, laws, and local ordinances including, without limitation, all noise and light limitations. Contractor shall reimburse the County for any expenses necessitated by the Contractor's evening and/or weekend work.

6.12 Badge Policy For Contractors

All Contractors doing work for Alameda County will provide their workers with identification badges. These badges will be worn by all members of the Contractor's staff who are working in a County facility.

6.12.1 Badges must be filled out in full and contain the following information:

- 6.12.1.1** Name of Contractor and Contractor's Company logo, if any
- 6.12.1.2** Name and front facial photograph of Employee
- 6.12.1.3** Contractor's address and phone number
- 6.12.1.4** Name and phone number of Project Manager (County)

6.12.2 Badges are to be worn when the Contractor or his/her employees are on site and must be visible at all times. Contractors must inform their employees that they are required to allow County employees to review the information on the badges upon request

6.12.3 Failure to display identification badges as required by this policy may result in the assessment of fines against the Contractor.

6.13 County Drug Policy - Drug-Free Work Place

6.13.1 Contractor, Contractor's employees, and Contractor's Subcontractors and their employees shall comply with the County's policy of maintaining a drug-free workplace. Neither Contractor/Subcontractor nor Contractor's/Subcontractor's employees shall unlawfully manufacture, distribute, dispense, possess or use controlled substances, as defined in 21 U.S. Code § 812, including marijuana, heroin, cocaine, and amphetamines, at any County facility or work site. If Contractor or any employee of contractor is convicted or pleads nolo contendere to a criminal drug statute violation occurring at a County facility or work site, the Contractor within five (5) calendar days thereafter shall notify the head of the County department/agency for which the contract services are performed. Violation of this provision shall constitute a material breach of this contract.

6.14 Cleaning Up

6.14.1 The Contractor shall provide all services, labor, materials, and equipment necessary for protecting the Work, all Project occupants, furnishings, equipment, and building structure from damage until its completion and final acceptance by County. Dust barriers shall be provided to isolate dust and dirt from construction operations. At completion of the Work and portions thereof, Contractor shall clean to the original state any areas beyond the Work area that become dust laden as a result of the Work. The Contractor must erect the necessary warning signs and barricades to ensure the safety of all Project occupants. The Contractor at all times must maintain good housekeeping practices to reduce the risk of fire damage and must make a fire extinguisher, fire blanket, and/or fire watch, as applicable, available at each location where cutting, braising, soldering, and/or welding is being performed and locations where there is an increased risk of fire.

6.14.2 Contractor at all times shall keep Premises free from debris such as waste, rubbish, and excess materials and equipment caused by the Work. Contractor shall not leave debris under, in, or about the Premises, but shall promptly remove same from the Premises on a daily basis. If Contractor fails to clean up, County may do so, and the cost thereof shall be charged to Contractor. If Contract is for work on an existing facility, Contractor shall also perform specific clean-up on or about the Premises upon request by the County as it deems necessary for the continuing use of the facility. Contractor shall comply with all related provisions of the Specifications.

6.14.3 If the Construction Manager, Architect, or County observes the accumulation of trash and debris, the County will give the Contractor a 24-hour written notice to mitigate the condition.

6.14.4 Should the Contractor fail to perform the required clean-up, or should the clean-up be deemed unsatisfactory by the County, the County will then perform the clean-up. All cost associated with the clean-up work (including all travel, payroll burden, and costs for supervision) will be deducted from the Contract Price, or County may withhold those amounts from payment(s) to Contractor.

7. SUBCONTRACTORS

7.1 Contractor Shall Provide Subcontractor Information

Contractor shall provide the County with information for all Subcontracts as indicated in the Contractor's Submittals and Schedules Section herein.

7.2 No Contractual Relationship Between County and Subcontractors

No contractual relationship exists between the County and any Subcontractor, Supplier, or sub-subcontractor supplier, or sub-subcontractor by reason of this Contract.

7.3 Contractor Binds Every Subcontractor by Terms of Contract

Contractor agrees to bind every Subcontractor by terms of Contract as far as those terms are applicable to Subcontractor's work. If Contractor shall subcontract any part of this Contract, Contractor shall be as fully responsible to County for acts and omissions of any Subcontractor and of persons either directly or indirectly employed by any Subcontractor, as it is for acts and omissions of persons directly employed by Contractor. The divisions or sections of the Specifications are not intended to control the Contractor in dividing the Work among Subcontractors or limit the work performed by any trade.

7.4 No Waiver of Obligations

County's consent to, or approval of, or failure to object to, any Subcontractor under this Contract shall not in any way relieve Contractor of any obligations under this Contract, and no such consent shall be deemed to waive any provisions of this Contract.

7.5 Contractor to Familiarize Itself with Laws

Contractor is directed to familiarize itself with §§4100 through 4114 of the Public Contract Code of the State of California, as regards subletting and subcontracting, and to comply with all applicable requirements therein. In addition, Contractor is directed to familiarize itself with §§1720 through 1861 of the Labor Code of the State of California, as regards the payment of prevailing wages and related issues, and to comply with all applicable requirements therein all including, without limitation, § 1775 and the Contractor's and Subcontractors' obligations and liability for violations of prevailing wage law and other applicable laws.

7.6 Subcontractor Substitutions

No Contractor whose Bid is accepted shall, without consent of the awarding authority and in full compliance with § 4100, et seq, of the Public Contract Code, including, without limitation, §§4107, 4107.5, and 4109 of the Public Contract Code, either:

7.6.1 Substitute any person as a Subcontractor in place of the Subcontractor designated in the original Bid; or

7.6.2 Permit any Subcontract to be assigned or transferred, or allow any portion of the Work to be performed by anyone other than the original Subcontractor listed in the Bid; or

7.6.3 Sublet or subcontract any portion of the Work in excess of one-half of one percent (1/2 of 1%) of the Contractor's total bid as to which his original bid did not designate a Subcontractor.

7.7 Subcontractor Coordination

The Contractor shall be responsible for the coordination of the trades, Subcontractors, sub-subcontractors, and material or equipment suppliers working on the Project.

7.8 Subcontractor Relations

Contractor is solely responsible for settling any differences between the Contractor and its Subcontractor(s) or between Subcontractors.

7.9 Assignment or Termination

Contractor must include in all of its subcontracts the assignment provisions as indicated in the Termination section of these General Conditions.

8. OTHER CONTRACTS/CONTRACTORS

8.1 County Right to Perform

County reserves the right to let other contracts, and/or to perform work with its own forces, in connection with the Project. Contractor shall afford other County and other contractors' reasonable opportunity for introduction and storage of their materials and execution of their work and shall properly coordinate and connect Contractor's Work with the work of County and other contractors.

8.2 Protection of Work

In addition to Contractor's obligation to protect its own Work, Contractor shall protect the work of County and any other contractor that Contractor encounters while working on the Project.

8.3 Coordination with Other Work

If any part of Contractor's Work depends for proper execution or results upon work of County or any other contractor, the Contractor shall inspect and promptly report to the County in writing, including by e-mail, before proceeding with its Work any defects in County's or any other contractor's work that render Contractor's Work unsuitable for proper execution and results. Contractor shall be held accountable for damages to County for County's or any other contractor's work that Contractor failed to inspect or should have inspected. Contractor's failure to inspect and report shall constitute Contractor's acceptance of all County's or other contractor's work as fit and proper for reception of Contractor's Work, except as to defects that may develop in County's or other contractor's work after execution of Contractor's Work.

8.4 Measurement of Work Performed

To ensure proper execution of its subsequent work, Contractor shall measure and inspect work already in place and shall at once report to the County in writing, including by e-mail, any discrepancy between that executed work and the Contract Documents.

8.5 Knowledge of Other Work

Contractor shall ascertain to its own satisfaction the scope of the Project and nature of any County-performed work or other contracts that have been or may be awarded by County in prosecution of the Project to the end that Contractor may perform this Contract in light of the other contracts, if any.

8.6 No Exclusive Occupancy of Site

Nothing herein contained shall be interpreted as granting to Contractor exclusive occupancy of the Site, the Premises, or of the Project. Contractor shall not cause any unnecessary hindrance or delay to the use and/or operation(s) of the Premises and/or to County or any other contractor working on the Project. If simultaneous execution of any contract or operation is likely to cause interference with performance of Contractor's Contract, Contractor shall coordinate with those contractor(s), person(s), and/or entity(s) and shall notify the County of the resolution.

9. DRAWINGS AND SPECIFICATIONS

9.1 List of all Drawings

A complete list of all Drawings that form a part of the Contract is to be found in Document 00 11 15 (List of Drawing Sheets)

9.2 Technical and Trade Words

Materials or Work described in words that so applied have a well-known technical or trade meaning shall be deemed to refer to recognized standards unless noted otherwise.

9.3 Trade Name or Trade Term

It is not the intention of this Contract to go into detailed descriptions of any materials and/or methods commonly known to the trade under "trade name" or "trade term." The mere mention or notation of "trade name" or "trade term" shall be considered a sufficient notice to Contractor that it will be required to complete the work so named, complete, finished, and operable, with all its appurtenances, according to the best practices of the trade.

9.4 The Naming of any Material and/or Equipment Shall Mean Furnishing

The naming of any material and/or equipment shall mean furnishing and installing of same, including all incidental and accessory items thereto and/or labor, therefore, as per best practices of the trade(s) involved, unless specifically noted otherwise.

9.5 Contract Documents are Complementary

Contract Documents are complementary, and what is called for by one shall be binding as if called for by all. As such, Drawings and Specifications are intended to be fully cooperative and to agree. However, if Contractor observes that Drawings and Specifications are in conflict, Contractor shall promptly notify County and Architect in writing, including by e-mail, and any necessary changes shall be made as provided in the Contract Documents.

9.6 Drawings and Specifications are Intended to Comply With All Laws

Drawings and Specifications are intended to comply with all laws ordinances, rules, and regulations of constituted authorities having jurisdiction, and where referred to in the Contract Documents, the laws, ordinances, rules, and regulations shall be considered as a part of the Contract within the limits specified. Contractor shall bear all expense of correcting work done contrary to said laws, ordinances, rules, and regulations.

9.7 Plans, Drawings, Designs, Specifications are County Property

All copies of Plans, Drawings, Designs, Specifications and copies of other incidental architectural and engineering work, or copies of other Contract Documents furnished by County, are the property

of County. They are not to be used by Contractor in other work and, with the exception of signed sets of Contract Documents, are to be returned to County on request at completion of Work, or may be used by County as it may require without any additional costs to County. Neither the Contractor nor any Subcontractor, or material or equipment supplier shall own or claim copyright in the Drawings, Specifications, and other documents prepared by the Architect. County hereby grants the Contractor, Subcontractors, sub-subcontractors, and material or equipment suppliers a limited license to use applicable portions of the Drawings prepared for the Project in the execution of their Work under the Contract Documents.

9.8 Order of Precedence

In the case of discrepancy or ambiguity in the Contract Documents, the order of precedence in Document (Agreement Form Stipulated sum (Single Prime Contract)) shall prevail.

9.9 Resolution of Discrepancy or Ambiguity

However, in the case of discrepancy or ambiguity solely between and among the Drawings and Specifications, the discrepancy or ambiguity shall be resolved in favor of the interpretation that will provide County with the functionally complete and operable Project described in the Drawings and Specifications.

9.10 County Clarification

In case of ambiguity, conflict, or lack of information, County will furnish clarifications with reasonable promptness. Should any clarification, in the opinion of Contractor, cause an increase in the Contract Price, Contractor may request a change in the Contract Price and/or Contract. Within seven (7) days after receipt of the interpretation or request, Contractor to submit to the Construction Manager a detailed description of the contract requirements that were exceeded and the resulting change in cost.

10. CONTRACTOR'S SUBMITTALS AND SCHEDULES

Refer to § 01 33 00 "Submittal Procedures." Contractor's submittals shall comply with the provisions and requirements of the Specifications.

10.1 Schedule of Work, Schedule of Submittals, and Schedule of Values

Within TEN (10) calendar days after the date of the Notice to Proceed (unless otherwise specified in the Specifications), the Contractor shall prepare and submit to the County for review, in a form supported by sufficient data to substantiate its accuracy as the County may require:

10.1.1 Preliminary Schedule

A preliminary schedule of construction indicating the starting and completion dates of the various stages of the Work, including any information and following any form as may be specified in the Specifications. Once approved by County, this shall become the Construction Schedule. This schedule shall include and identify all tasks that are on the Project's critical path with a specific determination of the start and completion of each critical path task as well as all contract milestones and each milestone's completion date(s) as may be required by the County.

10.1.2 Preliminary Schedule of Values

A preliminary schedule of values for all of the Work, which must include quantities and prices of items aggregating the Contract Price and must subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. This preliminary schedule of values shall include, at a minimum, the following information, and the following structure:

10.1.2.1 Divided into at least the following categories:

- 10.1.2.1.1** Overhead and profit;
- 10.1.2.1.2** Supervision;
- 10.1.2.1.3** General conditions;
- 10.1.2.1.4** Layout;
- 10.1.2.1.5** Mobilization;
- 10.1.2.1.6** Submittals;
- 10.1.2.1.7** Bonds and insurance;
- 10.1.2.1.8** Close-out documentation;
- 10.1.2.1.9** Demolition;
- 10.1.2.1.10** Installation;
- 10.1.2.1.11** Rough-in;
- 10.1.2.1.12** Finishes;
- 10.1.2.1.13** Testing;
- 10.1.2.1.14** Punch list and acceptance.

10.1.2.2 Divided by each of the following areas:

- 10.1.2.2.1** Site work;
- 10.1.2.2.2** By each building;
- 10.1.2.2.3** By each floor.

10.1.3 The preliminary schedule of values shall not provide for values any greater than the following percentages of the Contract value:

- 10.1.3.1** Mobilization and layout combined to equal not more than 1%;
- 10.1.3.2** Submittals, samples and shop drawings combined to equal not more than 3%, bonds and insurance combined to equal not more than 2%.
- 10.1.3.3** Closeout documentation shall have a value in the preliminary schedule of not less than 5%.

10.1.4 Notwithstanding any provision of the Contract Documents to the contrary, payment of the Contractor's overhead, supervision, general conditions costs, and profit, as reflected in the Cost Breakdown, shall be paid by the County in equal installments, based on percentage complete, with the disbursement of Progress Payments and the Final Payment.

10.1.5 Contractor shall certify that the preliminary schedule of values, as submitted to the County, is accurate and reflects the costs as developed in preparing Contractor's bid. The preliminary schedule of values shall be subject to the County's review and approval of the form and content thereof. In the event that the County objects to any portion of the preliminary schedule of values, the County shall notify the Contractor, in writing, including by e-mail, of the County's objection(s) to the preliminary schedule of values. Within five (5) calendar days of the date of the County's written objection(s), Contractor shall submit a revised preliminary schedule of values to the County for review and approval. The foregoing procedure for the preparation, review, and approval of the preliminary schedule of values shall continue until the County has approved the entirety of the preliminary schedule of values.

10.1.6 Once the preliminary schedule of values is approved by the County, this shall become the Schedule of Values. The Schedule of Values shall not be thereafter modified or amended by the Contractor without the prior consent and approval of the County, which may be granted or withheld in the sole discretion of the County.

10.1.7 Preliminary Schedule of Submittals

A preliminary schedule of submittals, including Shop Drawings, Product Data, and Samples submittals. Once approved by County, this shall become the Submittal Schedule. All submittals shall be forwarded to the County by the date indicated on the approved Submittal Schedule unless an earlier date is necessary to maintain the Construction Schedule, in which case those submittals shall be forwarded to the County so as not to delay the Construction Schedule.

10.1.8 Safety Plan

Contractor's Safety Plan specifically adapted for the Project. Contractor's Safety Plan shall comply with the following requirements:

10.1.8.1 All applicable requirements of California Division of Industrial Safety ("CalOSHA") and/or of the United States Occupational Safety and Health Administration ("OSHA").

10.1.8.1.1 All provisions regarding Project safety, including all applicable provisions of these General Conditions.

10.1.8.2 Contractor's Safety Plan shall be in English and in the language(s) of the Contractor's and its Subcontractors' employees.

10.1.9 Site Security and Logistics Plan

10.1.9.1 Contractor's Site Logistics and Security Plan, based on the Project's security requirements and to be approved by the County before commencement of the work shall comply with the following requirements and include, but not necessarily be limited to the following: Working Hours, Tool Control, Crew Size, Delivery Plan, Staging Area, Security Clearances, Cutting/Drilling/Demolition, Working around inmates, and Materials Control.

10.1.10 Complete Subcontractor List

The name, address, telephone number, facsimile number, California State Contractors License number, classification, and monetary value of all Subcontracts for parties furnishing labor, material, or equipment for completion of the Project.

10.1.11 General Requirements

- 10.1.11.1** Contractor must provide all schedules both in hard copy and electronically, in a format (e.g., Microsoft Project or Primavera) approved in advance by the County.
- 10.1.11.2** The County will review the schedules submitted, and the Contractor shall make changes and corrections in the schedules as requested by the County and resubmit the schedules until approved by the County.
- 10.1.11.3** The County shall have the right at any time to revise the schedule of values if, in the County's sole opinion, the schedule of values does not accurately reflect the value of the Work performed.
- 10.1.11.4** All submittals and schedules must be approved by the County before Contractor can rely on them as a basis for payment.

10.2 Monthly Progress Schedule(s)

10.2.1 Upon request by the County, Contractor shall provide Monthly Progress Schedule(s) to the County. A Monthly Progress Schedule shall update the approved Construction Schedule or the last Monthly Progress Schedule, showing all work completed and to be completed. The monthly Progress Schedule shall be sent within the timeframe requested by the County and shall be in a format acceptable to the County and contain a written narrative of the progress of work that month and any changes, delays, or events that may affect the work. The process for County approval of the Monthly Progress Schedule shall be the same as the process for approval of the Construction Schedule.

10.2.2 Contractor shall also submit Monthly Progress Schedule(s) with all payment applications.

10.3 Material Safety Data Sheets (MSDS)

Contractor is required to ensure Material Safety Data Sheets are available in a readily accessible place at the Work Site for any material requiring a Material Safety Data Sheet per the Federal "Hazard Communication" standard, or employees right to know law. The Contractor is also required to ensure proper labeling on substance brought onto the job site and that any person working with the material or within the general area of the material is informed of the hazards of the substance and follows proper handling and protection procedures. Two additional copies of the Material Safety Data Sheets shall also be submitted directly to the County.

11. SITE ACCESS, CONDITIONS, AND REQUIREMENTS

11.1 Site Investigation

Before bidding on this Work, Contractor shall make a careful investigation of the Site and thoroughly familiarize itself with the requirements of the Contract. By the act of submitting a bid for the Work included in this Contract, Contractor shall be deemed to have made a complete study and investigation, and to be familiar with and accepted the existing conditions of the Site.

11.2 Soils Investigation Report

11.2.1 When a soils investigation report obtained from test holes at Site is available, that report shall be available to the Contractor but shall not be a part of this Contract. Any information obtained from that report or any information given on Drawings as to subsurface soil condition or to elevations of existing grades or elevations of underlying rock is approximate only, is not guaranteed, does not form a part of this Contract, and Contractor may not rely thereon. By submitting its bid, Contractor acknowledges that it has made a visual examination of Site and has made whatever tests Contractor deems appropriate to determine underground condition of the soil.

11.2.2 Contractor agrees that no claim against County will be made by Contractor for damages and hereby waives any rights to damages if, during progress of Work, Contractor encounters subsurface or latent conditions at Site materially differing from those shown on Drawings or indicated in Specifications, or for unknown conditions of an unusual nature that differ materially from those ordinarily encountered in the work of the character provided for in Plans and Specifications, except as indicated in the provisions of these General Conditions regarding trenches, trenching, and/or existing utility lines.

11.3 Access to Work

County and its representatives shall at all times have access to Work wherever it is in preparation or progress, including storage and fabrication. Contractor shall provide safe and proper facilities for such access so that County's representatives may perform their functions.

11.4 Layout and Field Engineering

11.4.1 All field engineering required for layout of this Work and establishing grades for earthwork operations shall be furnished by Contractor at its expense. This Work shall be done by a qualified, California-registered civil engineer approved in writing by County and Architect. Any required "Record" drawings of Site development shall be prepared by the approved civil engineer.

11.4.2 The Contractor shall be responsible for having ascertained pertinent local conditions such as location, accessibility, and general character of the Site and for having satisfied itself as to the conditions under which the Work is to be performed. County shall not be liable for any claim for allowances because of Contractor's error or negligence in acquainting itself with the conditions at the Site.

11.4.3 Contractor shall protect and preserve established benchmarks and monuments and shall make no changes in locations without the prior written approval of County. Contractor shall replace any benchmarks or monuments that are lost or destroyed subsequent to proper notification of County and with County's approval.

11.5 Utilities

Utilities shall be provided as indicated in the Specifications.

11.6 Sanitary Facilities

Sanitary facilities shall be provided as indicated in the Specifications.

11.7 Surveys

Contractor shall provide surveys done by a California-licensed civil engineer surveyor to determine locations of construction, grading, and site work as required to perform the Work.

11.8 Regional Notification Center

The Contractor, except in an emergency, shall contact the appropriate regional notification center at least two (2) days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement that is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the County, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and/or carried out by the Contractor unless an inquiry identification number has been assigned to the Contractor or any Subcontractor, and the Contractor has given the County the identification number. Any damages arising from Contractor's failure to make appropriate notification shall be at the sole risk and expense of the Contractor. Any delays caused by failure to make appropriate notification shall be at the sole risk of the Contractor and shall not be considered for an extension of the Contract time.

11.9 Existing Utility Lines

11.9.1 Pursuant to Government Code § 4215, County assumes the responsibility for removal, relocation, and protection of main or trunk utility lines and facilities located on the Construction Site at the time of commencement of construction under this Contract with respect to any such utility facilities that are not identified in the Plans and Specifications. Contractor shall not be assessed for liquidated damages for delay in completion of the Project caused by failure of County or the owner of a utility to provide for removal or relocation of such utility facilities.

11.9.2 Locations of existing utilities provided by County shall not be considered exact, but approximate within reasonable margin and shall not relieve Contractor of responsibilities to exercise reasonable care nor costs of repair due to Contractor's failure to do so. County shall compensate Contractor for the costs of locating, repairing damage, not due to the failure of Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the Plans and Specifications with reasonable accuracy, and for equipment necessarily idle during such work.

11.9.3 No provision herein shall be construed to preclude assessment against Contractor for any other delays in completion of the Work. Nothing in this Article shall be deemed to require County to indicate the presence of existing service laterals, appurtenances, or other utility lines, with the exception of main or trunk utility lines. Whenever the presence of these utilities on the Site of the construction Project can be inferred from the presence of other visible facilities, such as buildings, meter junction boxes, on or adjacent to the Site of the construction.

11.9.4 If Contractor, while performing Work under this Contract, discovers utility facilities not identified by County in Contract Plans and Specifications, Contractor shall immediately notify the County and the utility in writing. The cost of repair for damage to above-mentioned visible facilities without prior written notification to the County shall be borne by the Contractor.

11.10 Notification

Contractor understands, acknowledges and agrees that the purpose for prompt notification to the County pursuant to these provisions is to allow the County to investigate the condition(s) so that the County shall have the opportunity to decide how the County desires to proceed as a result of the condition(s). Accordingly, failure of Contractor to promptly notify the County in writing, including

by e-mail, pursuant to these provisions, shall constitute Contractor's waiver of any claim for damages or delay incurred as a result of the condition(s).

11.11 Hazardous Materials

Contractor shall comply with all provisions and requirements of the Contract Documents related to hazardous materials including, without limitation, Hazardous Materials Procedures, and Requirements.

11.12 No Signs

Neither the Contractor nor any other person or entity shall display any signs not required by law or the Contract Documents at the Site, fences trailers, offices, or elsewhere on the Site without specific prior written approval of the County.

12. TRENCHES

12.1 Trenches Greater Than Five Feet

Pursuant to Labor Code § 6705, if the Contract Price exceeds \$25,000 and involves the excavation of any trench or trenches five (5) feet or more in depth, the Contractor shall, in advance of excavation, promptly submit to the County and/or a registered civil or structural engineer employed by the County or Architect, a detailed plan showing the design of shoring for protection from the hazard of caving ground during the excavation of such trench or trenches.

12.2 Excavation Safety

If such plan varies from the Shoring System Standards established by the Construction Safety Orders, the plan shall be prepared by a registered civil or structural engineer, but in no case shall such plan be less effective than that required by the Construction Safety Orders. No excavation of such trench or trenches shall be commenced until said plan has been accepted by the County or by the person to whom authority to accept has been delegated by the County.

12.3 No Tort Liability of County

Pursuant to Labor Code § 6705, nothing in this Article shall impose tort liability upon the County or any of its employees.

12.4 No Excavation Without Permits

The Contractor shall not commence any excavation Work until it has secured all necessary permits including the required CalOSHA excavation/shoring permit. Any permits shall be prominently displayed on the Site prior to the commencement of any excavation.

12.5 Discovery of Hazardous Waste and/or Unusual Conditions

12.5.1 Pursuant to Public Contract Code § 7104, if the Work involves digging trenches or other excavations that extend deeper than four feet below the Surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the County, in writing, including by e-mail, of any:

12.5.1.1 Material that the Contractor believes may be material that is hazardous waste, as defined in § 25117 of the Health and Safety Code

that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.

12.5.1.2 Subsurface or latent physical conditions at the Site differing from those indicated.

12.5.1.3 Unknown physical conditions at the Site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

12.5.2 The County shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work, shall issue a Change Order under the procedures described herein.

12.5.3 In the event that a dispute arises between County and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date provided for in the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by Contract or by law that pertains to the resolution of disputes and protests.

13. INSURANCE AND BONDS

13.1 Insurance

All insurance required of Contractor and/or its Subcontractor(s) shall be in amounts set forth in the Special Conditions and include the provisions as set forth herein.

13.1.1 Commercial General Liability and Automobile Liability Insurance

13.1.1.1 Contractor shall procure and maintain, during the life of this Contract, Commercial General Liability Insurance and Automobile Liability Insurance that shall protect Contractor, County, Construction Manager(s), and Architect(s) from all claims for bodily injury, property damage, personal injury, death, advertising injury, and medical payments arising from operations under this Contract. Contractor shall ensure that Products Liability and Completed Operations coverage and Fire Damage Liability is included within the above policies and within the required limits, or Contractor shall procure and maintain these coverages separately.

13.1.1.2 Subcontractor: Contractor shall require its Subcontractors if any, to procure and maintain similar Commercial General Liability Insurance and Automobile Liability Insurance with minimum limits equal to the amount required of the Contractor. Contractor shall verify Subcontractor's compliance.

13.1.2 Excess Liability Insurance

- 13.1.2.1** Contractor shall procure and maintain, during the life of this Contract, Excess Liability Insurance that shall protect Contractor, County, Construction Manager(s), and Architect(s) in amounts and including the provisions as set forth in the Special Conditions, and that complies with all requirements for Commercial General Liability and Automobile Liability and Employers' Liability Insurance.
- 13.1.2.2** Subcontractor: Contractor shall require its Subcontractor(s) if any, to procure and maintain similar Excess Liability Insurance with minimum limits equal to the amount required of the Contractor. Contractor shall verify Subcontractor's compliance.

13.1.3 Workers' Compensation and Employers' Liability Insurance

- 13.1.3.1** In accordance with provisions of § 3700 of the California Labor Code, the Contractor and every Subcontractor shall be required to secure the payment of compensation to its employees.
- 13.1.3.2** Contractor shall procure and maintain, during the life of this Contract, Workers' Compensation Insurance and Employers' Liability Insurance for all of its employees engaged in work under this Contract, on/or at the Site of the Project. This coverage shall cover, at a minimum, medical and surgical treatment, disability benefits, rehabilitation therapy, and survivors' death benefits. Contractor shall require its Subcontractor(s) if any, to procure and maintain Workers' Compensation Insurance and Employers' Liability Insurance for all employees of Subcontractor(s). Any class of employee or employees not covered by a Subcontractor's insurance shall be covered by Contractor's insurance. If any class of employee or employees engaged in Work under this Contract, on or at the Site of the Project, is not protected under the Workers' Compensation Statute, Contractor shall provide, or shall cause a Subcontractor to provide, adequate insurance coverage for the protection of any employee(s) not otherwise protected before any of those employee(s) commence work.

13.1.4 Builder's Risk Insurance: Builder's Risk "All-Risk" Insurance.

Contractor shall procure and maintain, during the life of this Contract, Builder's Risk (Course of Construction), or similar first party property coverage acceptable to the County, issued on a replacement cost value basis. The cost shall be consistent with the total replacement cost of all insurable Work of the Project included within the Contract Documents. Coverage is to insure against all risks of accidental physical loss and shall include without limitation the perils of vandalism and/or malicious mischief (both without any limitation regarding vacancy or occupancy), sprinkler leakage, civil authority, sonic disturbance, earthquake, flood, collapse, wind, fire, war, terrorism, lightning, smoke, and rioting. Coverage shall include debris removal, demolition, increased costs due to enforcement of all applicable ordinances and/or laws in the repair and replacement of damaged and undamaged portions of the property, and reasonable costs for the Architect's and engineering services and expenses required as a result of any insured loss upon the Work and Project, including completed Work and Work in Progress, to the full insurable value thereof.

**13.1.5 Proof of Carriage of Insurance and Other Requirements:
Endorsements and Certificates.**

13.1.5.1 Contractor shall not commence Work nor shall it allow any Subcontractor to commence Work under this Contract, until Contractor and its Subcontractor(s) have procured all required insurance and Contractor has delivered in duplicate to the County complete endorsements (or entire insurance policies) and certificates indicating the required coverages have been obtained, and the County has approved these documents.

13.1.5.2 Endorsements, certificates, and insurance policies shall include the following:

13.1.5.2.1 A clause stating:

“This policy shall not be amended, canceled or modified and the coverage amounts shall not be reduced until notice has been mailed to County, Architect, and Construction Manager stating date of amendment, modification, cancellation or reduction. Date of amendment, modification, cancellation or reduction may not be less than thirty (30) days after date of mailing notice.”

13.1.5.2.2 Language stating, in particular, those insured, extent of insurance, location and operation to which insurance applies, expiration date, to whom cancellation and reduction notice will be sent, and length of notice period.

13.1.5.3 All endorsements, certificates and insurance policies shall state that County, its Supervisors, employees, and agents, Construction Manager(s), and Architect(s) are named additional insureds under all policies except Workers’ Compensation Insurance and Employers’ Liability Insurance. Contractor’s and Subcontractors’ insurance policy(s) shall be primary and non-contribution to any insurance or self-insurance maintained by County, its Supervisors, employees and/or agents, Construction Manager(s), and/or Architect(s). All endorsements shall waive any right to subrogation against any of the named additional insureds.

13.1.5.4 All policies shall be written on an occurrence form.

13.2 Contract Security - Bonds

13.2.1 Contractor shall furnish two surety bonds issued by a California admitted surety insurer as follows:

13.2.1.1 Performance Bond: A bond in an amount at least equal to one hundred percent (100%) of Contract Price as security for faithful performance of this Contract.

13.2.1.2 Payment Bond: A bond in an amount at least equal to one hundred percent (100%) of the Contract Price as security for payment of persons performing labor and/or furnishing materials in connection with this Contract.

13.2.2 Cost of bonds shall be included in the Bid and Contract Price.

13.2.3 All bonds related to this Project shall be in the forms set forth in these Contract Documents and shall comply with all requirements of the Contract Documents, including, without limitation, the bond forms.

14. WARRANTY/GUARANTEE/INDEMNITY

14.1 Warranty/Guarantee

14.1.1 The Contractor shall obtain and preserve for the benefit of the County, manufacturer's warranties on materials, fixtures, and equipment incorporated into the Work.

14.1.2 In addition to guarantees required elsewhere, Contractor shall, and hereby does guarantee and warrant all Work furnished on the job against all defects for a period of TWO (2) years after the later of the following dates:

14.1.2.1 The date of completion as defined in Public Contract Code § 7107, subdivision (c),

14.1.2.2 The commissioning date for the Project, if any.

14.1.3 At the County's sole option, Contractor shall repair or replace any and all of that Work, together with any other Work that may be displaced in so doing, that may prove defective in workmanship and/or materials within the warranty period specified in § 00 65 36 Warranty Form, from date of completion as defined above without expense whatsoever to County. In the event of failure of Contractor and/or Surety to commence and pursue with diligence said replacements or repairs within ten (10) days after being notified in writing, including by e-mail, Contractor and Surety hereby acknowledge and agree that County is authorized to proceed to have defects repaired and made good at expense of Contractor and/or Surety who hereby agree to pay costs and charges therefore immediately on demand. Said notice period shall be forty-eight (48) hours for components essential to operation of the facility, including without limitation fire alarms, water, heat, security systems, and electrical systems.

14.1.4 If, in the opinion of County, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to County or to prevent interruption of operations of County, County will attempt to give the notice required above. If Contractor or Surety cannot be contacted or does not comply with County's request for correction within a reasonable time as determined by County, County may, notwithstanding the above provision, proceed to make any and all corrections and/or provide attentions the County believes are necessary. The costs of correction or attention shall be charged against Contractor and Surety of the guarantees provided in this Article or elsewhere in this Contract.

14.1.5 The above provisions do not in any way limit the guarantees on any items for which a longer guarantee is specified or on any items for which a manufacturer gives a guarantee for a longer period. Contractor shall furnish to County all appropriate guarantee or warranty certificates as indicated in the Specifications or upon request by County.

14.1.6 Nothing herein shall limit any other rights or remedies available to County.

14.2 Indemnity

14.2.1 To the fullest extent permitted by California law, the Contractor shall indemnify, defend with legal counsel reasonably acceptable to the County, keep and hold harmless the County and its consultants, the Architect and its consultants, the Construction Manager and its consultants, separate contractors, and their respective board members, officers, representatives, contractors, agents, and employees, in both individual and official capacities ("Indemnitees"), against all suits, claims, liabilities, damages, losses, and expenses caused by, arising out of, resulting from, or incidental to, the performance of the Work under this Contract by the Contractor or its Subcontractors to the full extent allowed by the laws of the State of California, and not to any extent that would render these provisions void or unenforceable, including, without limitation, any such suit, claim, damage, loss, or expense attributable to, without limitation, bodily injury, sickness, disease, death, alleged patent violation or copyright infringement, or to injury to or destruction of tangible property (including damage to the Work itself) including the loss of use resulting therefrom, except to the extent caused solely by the negligence, or willful misconduct of the Indemnitees. The County may participate in the defense of any such claim without relieving Contractor of any obligation hereunder. This agreement and obligation of the Contractor shall not be construed to negate, abridge, or otherwise reduce any right or obligation of indemnity that would otherwise exist as to any party or person described herein. This indemnification, defense, and hold harmless obligation includes any failure or alleged failure by Contractor to comply with any provision of law or the Contract Documents, including, without limitation, any stop notice actions, or liens by the California Department of Labor Standards Enforcement. This indemnity obligation shall be for the full amount of all damage to County, including defense costs, and shall not be limited by any insurance limits.

14.2.2 The Contractor shall give prompt notice to the County in the event of any injury (including death), loss or damage included herein. Without limitation of the provisions herein, if the Contractor's agreement to indemnify, defend, and hold harmless the Indemnitees as provided herein against liability for damage arising out of bodily injury to persons or damage to property caused by or resulting from the negligence of any of the Indemnitees shall to any extent be or be determined to be void or unenforceable, it is the intention of the parties that these circumstances shall not otherwise affect the validity or enforceability of the Contractor's agreement to indemnify, defend, and hold harmless the rest of the Indemnitees, as provided herein, and in the case of any such suits, claims, damages, losses, or expenses caused in part by the default, negligence, or act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, and in part by any of the Indemnitees, the Contractor shall be and remain fully liable on its agreements and obligations herein to the full extent permitted by law.

14.2.3 In any and all claims against any of the Indemnitees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the Contractor's indemnification obligation herein shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

14.2.4 Contractor shall place in its Subcontractor agreements and cause its Subcontractors to agree to indemnities and insurance obligations in favor of County and other Indemnities in the exact form and substance of those contained in these General Conditions (00 72 13). Contractor shall require all Subcontractors to comply with all indemnification and insurance requirements of this agreement. Contractor shall verify Subcontractor's compliance.

15. TIME

15.1 Notice to Proceed

15.1.1 County may issue a Notice to Proceed within ninety (90) days from the date of the Notice of Award. Once Contractor has received the Notice to Proceed, Contractor shall complete the Work within the period of time indicated in the Contract Documents.

15.1.2 In the event that the County desires to postpone issuing the Notice to Proceed beyond this 90-day period, it is expressly understood that with reasonable notice to the Contractor, the County may postpone issuing the Notice to Proceed. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of the issuance of the Notice to Proceed.

15.1.3 If the Contractor believes that a postponement of issuance of the Notice to Proceed will cause a hardship to Contractor, Contractor may terminate the Contract. Contractor's termination due to a postponement shall be by written notice to County within ten (10) days after receipt by Contractor of County's notice of postponement. It is further understood by Contractor that in the event that Contractor terminates the Contract as a result of postponement by the County, the County shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement. Should Contractor terminate the Contract as a result of a notice of postponement, County shall have the authority to award the Contract to the next lowest responsive, responsible bidder.

15.2 Computation of Time / Adverse Weather

15.2.1 The Contractor will only be allowed a time extension for Adverse Weather conditions if requested by Contractor and only if all of the following conditions are met:

- 15.2.1.1** The weather conditions constitute Adverse Weather, as defined herein and further specified in the Special Conditions;
- 15.2.1.2** Contractor can verify that the Adverse Weather caused delays in excess of seventy-five percent (75%) for at least five hours, of the normal labor and equipment force toward completion of the day's current controlling item(s) on the latest accepted schedule;
- 15.2.1.3** The Contractor's crew is dismissed as a result of the Adverse Weather; and
- 15.2.1.4** The number of days of delay for the month exceeds those indicated in the Special Conditions.

15.2.2 A day-for-day extension will only be allowed for those days in excess of those indicated in the Special Conditions. Weather delay time extensions to the contract period will be non-compensable.

15.2.3 The Contractor shall work seven (7) days per week, if necessary, irrespective of inclement weather, to maintain access and the Construction Schedule, and to protect the Work under construction from the effects of Adverse Weather, all at no further cost to the County.

15.2.4 The Contract Time has been determined with consideration given to the average climate weather conditions prevailing in the County in which the Project is located.

15.3 Hours of Work

15.3.1 Sufficient Forces

Contractor and Subcontractors shall continuously furnish sufficient forces to ensure the prosecution of the Work in accordance with the Construction Schedule.

15.3.2 Performance During Working Hours

Work shall be performed during regular working hours as permitted by the appropriate governmental agency except that in the event of an emergency, or when required to complete the Work in accordance with job progress, Work may be performed outside of regular working hours with the advance written consent of the County and approval of any required governmental agencies.

15.4 Progress and Completion

15.4.1 Time of the Essence

Time limits stated in the Contract Documents are of the essence to the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

15.4.2 No Commencement Without Insurance

The Contractor shall not commence operations on the Project or elsewhere prior to the effective date of insurance and bonds. The date of commencement of the Work shall not be changed by the effective date of such insurance. If Contractor commences Work without insurance and bonds, all Work is performed at Contractor's peril and shall not be compensable until and unless Contractor secures bonds and insurance pursuant to the terms of the Contract Documents and subject to County claim for damages.

15.5 Expeditious Completion

The Contractor shall proceed expeditiously with adequate forces and shall achieve Completion within the Contract Time.

16. EXTENSIONS OF TIME – LIQUIDATED DAMAGES

16.1 Liquidated Damages

Contractor and County hereby agree that the exact amount of damages for failure to complete the Work within the time specified is extremely difficult or impossible to determine. If the Work is not

completed within the time specified in the Contract Documents, it is understood that the County will suffer damage. It being impractical and unfeasible to determine the amount of actual damage, it is agreed the Contractor shall pay to County as fixed and liquidated damages, and not as a penalty, the amount set forth in the Agreement for each calendar day of delay in completion. Contractor and its Surety shall be liable for the amount thereof pursuant to Government Code § 53069.85.

16.2 Excusable Delay

16.2.1 Contractor shall not be charged for liquidated damages because of any delays in completion of Work which are not the fault of Contractor or its Subcontractors, including acts of God as defined in Public Contract Code § 7105, acts of enemy, epidemics, and quarantine restrictions. Contractor shall, within five (5) calendar days of beginning of any delay, notify County in writing of causes of delay including documentation and facts explaining the delay. County shall review the facts and extent of any delay and shall grant extension(s) of time for completing Work when, in its judgment, the findings of fact justify an extension. Extension(s) of time shall apply only to that portion of Work affected by delay, and shall not apply to other portions of Work not so affected. An extension of time may only be granted if Contractor has timely submitted the Construction Schedule as required herein.

16.2.2 Contractor shall notify the County pursuant to the claims provisions in these General Conditions of any anticipated delay and its cause. Following submission of a claim, the County may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the Work might be delayed thereby.

16.2.3 In the event the Contractor requests an extension of Contract Time for unavoidable delay, such request shall be submitted in accordance with the provisions in the Contract Documents governing changes in Work. When requesting time, requests must be submitted with full justification and documentation. If the Contractor fails to submit justification, it waives its right to a time extension at a later date. Such justification must be based on the official Construction Schedule as updated at the time of occurrence of the delay or execution of Work related to any changes to the Scope of Work. Any claim for delay must include the following information as support, without limitation:

16.2.3.1 The duration of the activity relating to the changes in the Work and the resources (manpower, equipment, material, etc.) required to perform the activities within the stated duration.

16.2.3.2 Specific logical ties to the Contract Schedule for the proposed changes and/or delay showing the activity/activities in the Construction Schedule that are affected by the change and/or delay.

16.2.3.3 A recovery schedule must be submitted.

16.3 No Additional Compensation for Delays Within Contractor's Control

16.3.1 Contractor is aware that governmental agencies, including, without limitation, the Department of General Services, gas companies, electrical utility companies, water companies, and other agencies may have to approve Contractor-prepared drawings or approve a proposed installation. Accordingly, Contractor shall include in its bid, time for possible review of its drawings and for reasonable delays and damages that may be caused

by such agencies. Thus, Contractor is not entitled to make a claim for damages or delays arising from the review of Contractor's drawings.

16.3.2 Contractor shall only be entitled to compensation for delay when all of the following conditions are met:

- 16.3.2.1** The County is responsible for the delay;
- 16.3.2.2** The delay is unreasonable under the circumstances involved;
- 16.3.2.3** The delay was not within the contemplation of County and Contractor; and
- 16.3.2.4** Contractor complies with the claims procedure of the Contract Documents.

16.4 Float or Slack in the Schedule

Float or slack is the amount of time between the early start date and the late start date, or the early finish date and the late finish date, of any of the activities in the schedule. Float or slack is not for the exclusive use of or benefit of either the County or the Contractor, but its use shall be determined solely by the County.

17. CHANGES IN THE WORK

17.1 No Changes Without Authorization

17.1.1 There shall be no change whatsoever in the Drawings, Specifications, or in the Work without an executed Change Order or a written Construction Change Directive authorized by the County as herein provided. County shall not be liable for the cost of any extra work or any substitutions, changes, additions, omissions, or deviations from the Drawings and Specifications unless the County's governing board has authorized the same and the cost thereof has been approved in writing by Change Order or Construction Change Directive. No extension of time for performance of the Work shall be allowed hereunder unless claim for such extension is made at the time changes in the Work are ordered, and such time duly adjusted in writing in the Change Order or Construction Change Directive. The provisions of the Contract Documents shall apply to all such changes, additions, and omissions with the same effect as if originally embodied in the Drawings and Specifications.

17.1.2 Contractor shall perform immediately all work that has been authorized by a fully executed Change Order or Construction Change Directive. Contractor shall be fully responsible for any and all delays and/or expenses caused by Contractor's failure to expeditiously perform this Work.

17.1.3 Should any Change Order result in an increase in the Contract Price, the cost of that Change Order shall be agreed to, in writing, in advance by Contractor and County and be subject to the monetary limitations set forth in Public Contract Code § 20137. In the event that Contractor proceeds with any change in Work without a Change Order executed by the County or Construction Change Directive, Contractor waives any claim for additional compensation or time for that additional work.

17.1.4 Contractor understands, acknowledges, and agrees that the reason for County authorization is so that County may have an opportunity to analyze the Work and

decide whether the County shall proceed with the Change Order or alter the Project so that a change in Work becomes unnecessary.

17.2 Architect Authority to Order Minor Changes

The Architect will have authority to order minor changes in the Work not involving any adjustment in the Contract Price, or an extension of the Contract Time, or a change that is inconsistent with the intent of the Contract Documents. These changes shall be effected by written Change Order, Construction Change Directive, or by Architect's response(s) to RFI(s).

17.3 Change Orders

17.3.1 A Change Order is a written instrument prepared and issued by the County and/or the Architect and signed by the County (as authorized by the County's Board of Supervisors), the Contractor, and the Architect, stating their agreement regarding all of the following:

- 17.3.1.1** A description of a change in the Work;
- 17.3.1.2** The amount of the adjustment in the Contract Price, if any; and
- 17.3.1.3** The extent of the adjustment in the Contract Time, if any.

17.4 Construction Change Directives

17.4.1 A Construction Change Directive is a written order prepared and issued by the County, the Construction Manager, and/or the Architect and signed by the County and the Architect, directing a change in the Work. The County may as provided by law, by Construction Change Directive and without invalidating the Contract, order changes in the Work consisting of additions, deletions, or other revisions. Any dispute as to the sum of the Construction Change Directive or timing of payment shall be resolved pursuant to the Payment and Claims and Disputes provisions herein.

17.4.2 The County may issue a Construction Change Directive in the absence of agreement on the terms of a Change Order.

17.5 Force Account Directives

17.5.1 When work, for which a definite price has not been agreed upon in advance, is to be paid for on a force account basis, all direct costs necessarily incurred and paid by the Contractor for labor, material, and equipment used in the performance of that Work, shall be subject to the approval of the County and compensation will be determined as set forth herein.

17.5.2 The County will issue a Force Account Directive to proceed with the Work on a force account basis, and a not-to-exceed budget will be established by the County.

17.5.3 All requirements regarding direct cost for labor, labor burden, material, equipment, and markups on direct costs for overhead and profit described in this section shall apply to Force Account Directives. However, the County will only pay for actual costs verified in the field by the County or its authorized representative(s) on a daily basis.

17.5.4 The Contractor shall be responsible for all cost related to the administration of Force Account Directive. The markup for overhead and profit for

Contractor modifications shall be full compensation to the Contractor to administer Force Account Directive.

17.5.5 The Contractor shall notify the County or its authorized representative(s) at least twenty-four (24) hours prior to proceeding with any of the force account work. Furthermore, the Contractor shall notify the County when it has consumed eighty percent (80%) of the budget and shall not exceed the budget unless specifically authorized in writing by the County. The Contractor will not be compensated for force account work in the event that the Contractor fails to timely notify the County regarding the commencement of force account work, or exceeding the force account budget.

17.5.6 The Contractor shall diligently proceed with the work, and on a daily basis, submit a daily force account report on a form supplied by the County no later than 5:00 p.m. each day. The report shall contain a detailed itemization of the daily labor, material, and equipment used on the force account work only. The names of the individuals performing the force account work shall be included in the daily force account reports. The type and model of equipment shall be identified and listed. The County will review the information contained in the reports, and sign the reports no later than the next work day, and return a copy of the report to the Contractor for their records. The County will not sign, nor will the Contractor receive compensation for work the County cannot verify. The Contractor will provide a weekly force account summary indicating the status of each Force Account Directive in terms of percent complete of the not-to-exceed budget and the estimated percent complete of the work.

17.5.7 In the event the Contractor and the County reach a written agreement on a set cost for the work while the work is proceeding based on a Force Account Directive, the Contractor's signed daily force account reports shall be discontinued, and all previously signed reports shall be invalid.

17.6 Price Request

17.6.1 Definition of Price Request

A Price Request ("PR") is a written request prepared by the Architect requesting the Contractor to submit to the County and the Architect an estimate of the effect of a proposed change in the Work on the Contract Price and the Contract Time.

17.6.2 Scope of Price Request

A Price Request shall contain adequate information, including any necessary Drawings and Specifications, to enable Contractor to provide the cost breakdowns required herein. The Contractor shall not be entitled to any additional compensation for preparing a response to a Price Request, whether ultimately accepted or not.

17.7 Proposed Change Order

17.7.1 Definition of Proposed Change Order

A Proposed Change Order ("PCO") is a written request prepared by the Contractor requesting that the County and the Architect issue a Change Order based upon a proposed change to the Work.

17.7.2 Changes in Contract Price

A PCO shall include breakdowns pursuant to the revisions herein to validate any change in Contract Price.

17.7.3 Changes in Time

A PCO shall also include any changes in time required to complete the Project. Any additional time requested shall not be the number of days to make the proposed change, but must be based upon the impact to the Construction Schedule as defined in the Contract Documents. If Contractor fails to request a time extension in a PCO, then the Contractor is thereafter precluded from requesting time and/or claiming a delay.

17.7.4 Unknown and/or Unforeseen Conditions

If Contractor submits a PCO requesting an increase in Contract Price and/or Contract Time that is based at least partially on Contractor's assertion that Contractor has encountered unknown and/or unforeseen condition(s) on the Project, then Contractor shall base the PCO on provable information that, beyond a reasonable doubt and to the County's satisfaction, demonstrates that the unknown and/or unforeseen condition(s) were actually unknown and/or unforeseen and that the condition(s) were reasonably unknown and/or unforeseen. If not, the County shall deny the PCO and the Contractor shall complete the Project without any increase in Contract Price and/or Contract Time based on that PCO.

17.8 Format for Proposed Change

17.8.1 The following format shall be used as applicable by the County and the Contractor (e.g. Change Orders, PCO's) to communicate proposed additions and deductions to the Contract, supported by attached documentation. In no case shall the Contractor's total mark-up exceed 26.5%.

	<u>SUBCONTRACTOR PERFORMED WORK</u>	<u>AAD</u> <u>D</u>	<u>DEDUCT</u>
(a)	<u>Material</u> (attach itemized quantity and unit cost plus sales tax)		
(b)	<u>Add Labor</u> (attach itemized hours and rates, fully encumbered)		
(c)	<u>Add Equipment</u> (attach suppliers' invoice)		
(d)	<u>Subtotal</u>		
(e)	<u>Add Subcontractor's overhead and profit,</u> not to exceed ten percent (10%) of item (d)		
(f)	<u>Subtotal</u>		
(g)	<u>Add Contractor's overhead and profit,</u> not to exceed ten percent (10%) of Item (f)		

(h)	<u>Subtotal</u>		
(i)	<u>Add Bond and Insurance</u> , not to exceed one percent (1%) of Item (h)		
(j)	<u>TOTAL</u>		
(k)	<u>Time</u>	<u>Days</u>	
	<u>CONTRACTOR PERFORMED WORK</u>	<u>ADD</u>	<u>DEDUCT</u>
(a)	<u>Material</u> (attach itemized quantity and unit cost plus sales tax)		
(b)	<u>Add Labor</u> (attach itemized hours and rates, fully encumbered)		
(c)	<u>Add Equipment</u> (attach suppliers' invoice)		
(d)	<u>Subtotal</u>		
(e)	<u>Add Contractor's overhead and profit</u> , not to exceed ten percent (10%) of item (d)		
(f)	<u>Subtotal</u>		
(g)	<u>Add Bond and Insurance</u> , not to exceed one percent (1%) of Item (f)		
(h)	<u>TOTAL</u>		
(i)	<u>Time</u>	<u>Days</u>	

17.9 Change Order Certification

17.9.1 All Change Orders and PCOs must include the following certification by the Contractor:

17.9.1.1 The undersigned Contractor approves the foregoing as to the changes, if any, and the Contract Price specified for each item and as to the extension of time allowed, if any, for completion of the entire Work as stated herein, and agrees to furnish all labor, materials, and service, and perform all work necessary to complete any additional work specified for the consideration stated herein. Submission of sums which have no basis in fact or which Contractor knows are false are at the sole risk of Contractor and may be a violation of the False Claims

Act set forth under Government Code § 12650 et seq. It is understood that the changes herein to the Contract shall only be effective when approved by the Board of Supervisors.

- 17.9.1.2** It is expressly understood that the value of the extra Work or changes expressly includes any and all of the Contractor's costs and expenses, both direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Any costs, expenses, damages, or time extensions not included are deemed waived.

17.10 Determination of Change Order Cost

The amount of the increase or decrease in the Contract Price from a Change Order, if any, shall be determined by one or more of the following ways as applicable to a specific situation and at the County's discretion:

- 17.10.1** County acceptance of a PCO;
- 17.10.2** By unit prices contained in Contractor's original bid;
- 17.10.3** By agreement between County and Contractor.

17.11 Allowable Costs

Allowable costs for any change order shall be limited to the following:

- 17.11.1** Costs of labor, including social security, Medicare, and unemployment insurance, fringe benefits required workers' compensation insurance.
- 17.11.2** Costs of first line supervision labor, including labor burden as described in paragraph 1. "First-Line Supervision" shall mean a working foreman or lead craft worker other than the project superintendent;
- 17.11.3** Actual costs of the project superintendent associated with any period of compensable delay caused by issuance of the change order. In the absence of a compensable delay, all of the project superintendent's time is considered to have been paid for as part of the overhead;
- 17.11.4** Actual costs of materials, including sales tax and delivery;
- 17.11.5** Rental costs of machinery and equipment, exclusive of small tools, whether rented from the Contractor or others. For Contractor and Subcontractor-owned equipment, payment will be made at rental rates listed for equipment in California Department of Transportation official equipment rental rate schedule. For rental equipment, payment will be made based on actual rental invoices. Rental rates paid shall be deemed to cover cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance and all incidentals;
- 17.11.6** Overhead and Profit as specified below. "Overhead" shall include the following:
 - 17.11.6.1** Preparation of all paperwork related to changes in the Work, including field review, estimating and cost breakdown; coordination and supervision, both office and field, including the project superintendent; vehicles including has and maintenance; small tools, incidentals and

consumables; engineering, detailing, and revisions to shop drawings and as-built drawings; general office expense; extended and unabsorbed home office overhead; warranty, all taxes; and all other expenses not specifically described in items 17.11.1 through 17.11.5.

17.11.6.2 The actual costs of insurance premiums required by this contract and associated with the change order work will be reimbursed by the County

17.11.7 Upon receipt of a PCO/Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Construction Manager within seven (7) calendar days of the Contractor's agreement or disagreement with the method, if any, provided in the PCO/Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

17.11.8 Failure to respond to and return a PCO/Change Directive to the County within (7) days indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

17.12 Deductive Change Orders

All deductive Change Order(s) must be prepared pursuant to the provisions herein. If Contractor offers a proposed amount for a Deductive Change Order(s), Contractor shall include a minimum of five percent (5%) total profit and overhead to be deducted with the amount of the work of the Change Order(s). If Subcontractor work is involved, Subcontractors shall also include a minimum of five percent (5%) profit and overhead to be deducted with the amount of its deducted work. Any deviation from this provision shall not be allowed.

17.13 Discounts, Rebates, and Refunds

For purposes of determining the cost, if any, of any change, addition, or omission to the Work hereunder, all trade discounts, rebates, refunds, and all returns from the sale of surplus materials and equipment shall accrue and be credited to the Contractor, and the Contractor shall make provisions so that such discounts, rebates, refunds, and returns may be secured, and the amount thereof shall be allowed as a reduction in the Contractor's cost in determining the actual cost of construction for purposes of any change, addition, or omission in the Work as provided herein.

17.14 Accounting Records

With respect to portions of the Work performed by Change Orders and Construction Change Directives, the Contractor shall keep and maintain cost-accounting records satisfactory to the County, which shall be available to the County on the same terms as any other books and records the Contractor is required to maintain under the Contract Documents.

17.15 Notice Required

If the Contractor desires to make a claim for an increase in the Contract Price or any extension of the Contract Time for completion, it shall notify the County pursuant to the provisions herein. No claim shall be considered unless made in accordance with this subparagraph. Contractor shall proceed to execute the Work, even though, the adjustment may not have been agreed upon. Any change in the Contract Price or extension of the Contract Time resulting from such claim shall be authorized by a Change Order.

17.16 Applicability to Subcontractors

Any requirements under this Article shall be equally applicable to Change Orders, or Construction Change Directives issued to Subcontractors by the Contractor to the extent as required by the Contract Documents.

17.17 Alteration to Change Order Language

Contractor shall not alter Change Orders or reserve time in Change Orders. Contractor shall execute finalized Change Orders and proceed under the provisions herein with proper notice.

17.18 Failure of Contractor to Execute Change Order

Contractor shall be in default of the Contract if Contractor fails to execute a Change Order when the Contractor agrees with the addition and/or deletion of the Work in that Change Order.

18. REQUEST FOR INFORMATION

18.1 Contractor

The Contractor shall coordinate the Work so that dimensions are verified, and clarifications that may affect the work are identified to allow for resolution without delaying the Work. The Contractor is responsible to submit a Request for Information as soon as the issue requiring clarification is identified. The Contractor shall be responsible for any delay in the construction progress due to any untimely submission of a Request for Information for A/E's review. Non-receipt of a Request for Information, or proceeding with Work pertaining to the Request for Information shall be construed as relieving the County of any Claim for added cost or extension of time.

18.2 Reference Contract Documents

Any Request for Information shall reference all applicable Contract Document(s), including Specification section(s), detail(s), page number(s), drawing number(s), and sheet number(s), etc. The Contractor shall make suggestions and interpretations of the issue raised by each Request for Information. A Request for Information cannot modify the Contract Price, Contract Time, or the Contract Documents.

18.3 Contractor Responsible For Costs

Contractor shall be responsible for any costs incurred for professional services which County may deduct from any amounts owing to the Contractor if a Request for Information requests an interpretation or decision of a matter where the information sought is equally available to the party making the request. County, at its sole discretion, shall deduct from and/or invoice Contractor for all the professional services arising herein.

19. PAYMENTS

19.1 Contract Price

The Contract Price is stated in the Agreement and, including authorized adjustments, is the total amount payable by the County to the Contractor for performance of the Work under the Contract Documents.

19.2 Applications for Progress Payments

19.2.1 Procedures for Applications for Progress Payments

- 19.2.1.1** Not before the fifth (5th) day of each calendar month during the progress of the Work, Contractor shall submit to the County and the Architect an itemized Application for Payment for operations completed in accordance with the Schedule of Values. Such application shall be notarized, if required and supported by the following or each portion thereof unless waived by the County in writing:
- 19.2.1.1.1** The amount paid to the date of the Application to the Contractor, to all its Subcontractors, and all others furnishing labor, material, or equipment for its Contract;
 - 19.2.1.1.2** The amount being requested under the Application for Payment by the Contractor on its own behalf and separately stating the amount requested on behalf of each of the Subcontractors and all others furnishing labor, material, and equipment under the Contract;
 - 19.2.1.1.3** The balance that will be due to each of such entities after said payment is made;
 - 19.2.1.1.4** A certification that the Record Drawings and annotated Specifications are current;
 - 19.2.1.1.5** Itemized breakdown of work done for the purpose of requesting partial payment;
 - 19.2.1.1.6** An updated and acceptable construction schedule in conformance with § 10.1 above;
 - 19.2.1.1.7** The additions to and subtractions from the Contract Price and Contract Time;
 - 19.2.1.1.8** A total of the retentions held;
 - 19.2.1.1.9** Material invoices, evidence of equipment purchases, rentals, and other support and details of cost as the County may require from time to time;
 - 19.2.1.1.10** The percentage of completion of the Contractor's Work by line item;
 - 19.2.1.1.11** Schedule of Values updated from the preceding Application for Payment;
 - 19.2.1.1.12** A duly completed and executed conditional waiver and release upon progress payment compliant with Civil Code § 8132 from the Contractor and each subcontractor of any tier and supplier to be paid from the current progress payment;
 - 19.2.1.1.13** A duly completed and executed unconditional waiver and release upon progress payment compliant with Civil Code § 8134 from the Contractor and each subcontractor of any tier and supplier that was paid from the previous progress payment; and

19.2.1.1.14 A certification by the Contractor of the following:

The Contractor warrants title to all Work performed as of the date of this payment application. The Contractor further warrants that all Work performed as of the date of this payment application is free and clear of liens, claims, security interests, or encumbrances in favor of the Contractor, Subcontractors, material and equipment suppliers, workers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work, except those of which the County has been informed.

19.2.2 The Contractor shall be subject to the False Claims Act set forth under Government Code § 12650 et seq., for information provided with any Application for Progress Payment.

19.2.3 Prerequisites for Progress Payments

19.2.3.1 First Payment Request: The following items, if applicable, must be completed before the County will accept and/or process the Contractor's first payment request:

19.2.3.1.1 Installation of the Project sign;

19.2.3.1.2 Installation of field office;

19.2.3.1.3 Installation of temporary facilities and fencing;

19.2.3.1.4 Schedule of Values;

19.2.3.1.5 Contractor's Construction Schedule in conformance with § 10.1.1.1 above;

19.2.3.1.6 Schedule of unit prices, if applicable;

19.2.3.1.7 Submittal Schedule;

19.2.3.1.8 Receipt by Architect of all submittals due as of the date of the payment application;

19.2.3.1.9 Copies of necessary permits;

19.2.3.1.10 Copies of authorizations and licenses from governing authorities;

19.2.3.1.11 Initial progress report;

19.2.3.1.12 Surveyor qualifications;

19.2.3.1.13 Written acceptance of County's survey of rough grading, if applicable;

19.2.3.1.14 List of all Subcontractors, with names, license numbers, telephone numbers, and Scope of Work;

19.2.3.1.15 All bonds and insurance endorsements;

19.2.3.1.16 Resumes of Contractor's project manager, and if applicable, job site secretary, record documents recorder, and job site superintendent; and

19.2.3.1.17 Safety plan.

19.2.3.2 Second Payment Request. The County will not process the second payment request until and unless all submittals and Shop Drawings have been accepted for review by the Architect, and Contractor's Schedule has been accepted as in compliance with § 10.1.1.1 above.

19.2.3.3 No Waiver of Criteria. Any payments made to Contractor where criteria set forth herein have not been met shall not constitute a waiver of said criteria by County. Instead, such payment shall be construed as a good faith effort by County to resolve differences so Contractor may pay its Subcontractors and suppliers. Contractor agrees that failure to submit such items may constitute a breach of contract by Contractor and may subject Contractor to termination.

19.3 Progress Payments

19.3.1 County's Approval of Application for Payment

19.3.1.1 Upon receipt of an Application for Payment, the County shall act in accordance with both of the following:

19.3.1.1.1 Each Application for Payment shall be reviewed by the County as soon as practicable after receipt for the purpose of determining that the Application for Payment is a proper Application for Payment.

19.3.1.1.2 Any Application for Payment determined not to be a proper Application for Payment suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven (7) calendar days, after receipt. An Application for Payment returned pursuant to this paragraph shall be accompanied by a document setting forth in writing, including by e-mail, the reasons why the Application for Payment is not proper. The number of days available to the County to make a payment without incurring interest pursuant to this section shall be reduced by the number of days by which the County exceeds this seven-day return requirement.

19.3.1.1.3 An Application for Payment shall be considered properly executed if funds are available for payment of the Application for Payment, and payment is not delayed due to an audit inquiry by the financial officer of the County.

19.3.1.2 The County's review of the Contractor's Application for Payment will be based on the County's and the Architect's observations at the Site and the data comprising the Application for Payment that the Work has progressed to the point indicated and that, to the best of the County's and the Architect's knowledge, information, and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to:

19.3.1.2.1 Observation of the Work for general conformance with the Contract Documents,

19.3.1.2.2 Results of subsequent tests and inspections,

19.3.1.2.3 Minor deviations from the Contract Documents correctable prior to completion, and

19.3.1.2.4 Specific qualifications expressed by the Architect.

19.3.1.3 County's approval of the certified Application for Payment shall be based on Contractor complying with all requirements for a fully complete and valid certified Application for Payment.

19.3.2 Payments to Contractor

19.3.2.1 Within thirty (30) days after approval of the Application for Payment, Contractor shall be paid a sum equal to ninety five percent (95%) of the value of the Work performed (as verified by Architect and certified by Contractor) up to the last day of the previous month, less the aggregate of previous payments and amount to be withheld. The value of the Work completed shall be Contractor's best estimate. No inaccuracy or error in said estimate shall operate to release the Contractor, or any Surety upon any bond, from damages arising from such Work, or from the County's right to enforce each and every provision of this Contract, and the County shall have the right subsequently to correct any error made in any estimate for payment.

19.3.2.2 The Contractor shall not be entitled to have any payment requests processed, or be entitled to have any payment made for Work performed, so long as any lawful or proper direction given by the County concerning the Work or any portion thereof remains incomplete.

19.3.2.3 If the County fails to make any progress payment within thirty (30) days after receipt of an undisputed and properly submitted Application for Payment by the Contractor, the County shall pay interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of § 685.010 of the Code of Civil Procedure.

19.3.3 No Waiver

No payment by County hereunder shall be interpreted so as to imply that County has inspected, approved, or accepted any part of the Work. Notwithstanding any payment, the County may enforce each and every provision of this Contract. The County may correct or require correction of any error subsequent to any payment.

19.3.4 Removal of Liens

19.3.4.1 If a lien or a claim based on a stop notice of any nature should at any time be filed against the Work or any County property, by any entity that has supplied material or services at the request of the Contractor, Contractor and Contractor's Surety shall promptly, on demand by County and at Contractor's and Surety's own expense, take any and

all action necessary to cause any such lien or a claim based on a stop notice to be released or discharged immediately therefrom.

- 19.3.4.2** If the Contractor fails to furnish to the County within ten (10) calendar days after demand by the County, satisfactory evidence that a lien or a claim based on a stop notice has been so released, discharged, or secured, the County may discharge such indebtedness and deduct the amount required therefor, together with any and all losses, costs, damages, and attorney's fees and expense incurred or suffered by County from any sum payable to Contractor under the Contract.

19.4 Decisions to Withhold Payment

19.4.1 Reasons to Withhold Payment

The County may withhold payment in whole, or in part, to the extent reasonably necessary to protect the County if, in the County's opinion, the representations to the County required herein cannot be made. The County may withhold payment, in whole, or in part, to such extent as may be necessary to protect the County from loss because of, but not limited to:

- 19.4.1.1** Defective Work not remedied within the time frames noted in § 14 hereof of written notice to Contractor;
- 19.4.1.2** Stop Notices, or other liens served upon the County as a result of the Contract;
- 19.4.1.3** Liquidated damages assessed against the Contractor;
- 19.4.1.4** The cost of completion of the Contract, if there exists reasonable doubt that the Work can be completed for the unpaid balance of the Contract Price or by the completion date;
- 19.4.1.5** Damage to the County or other contractor(s);
- 19.4.1.6** Unsatisfactory prosecution of the Work by the Contractor;
- 19.4.1.7** Failure to store and properly secure materials;
- 19.4.1.8** Failure of the Contractor to submit, on a timely basis, proper, sufficient, and acceptable documentation required by the Contract Documents, including, without limitation, a Construction Schedule, Schedule of Submittals, Schedule of Values, Monthly Progress Schedules, Shop Drawings, Product Data and Samples, Proposed product lists, executed Change Orders, and/or properly completed Elation updates;
- 19.4.1.9** Failure of the Contractor to maintain Record Drawings;
- 19.4.1.10** Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment;
- 19.4.1.11** Unauthorized deviations from the Contract Documents;

- 19.4.1.12 Failure of the Contractor to prosecute the Work in a timely manner in compliance with the Construction Schedule established progress schedules, and/or completion dates;
- 19.4.1.13 Failure to properly pay prevailing wages as defined in Labor Code § 1720 et seq., and/or failure to comply with any other Labor Code requirements,
- 19.4.1.14 Failure to properly maintain or clean up the Site;
- 19.4.1.15 Payments to indemnify, defend, or hold harmless the County;
- 19.4.1.16 Any payments due to the County, including but not limited to payments for failed tests, utility changes or permits;
- 19.4.1.17 Failure to pay Subcontractor(s) or supplier(s) as required by law and by the Contract Documents;
- 19.4.1.18 Contractor is otherwise in breach, default, or in substantial violation of any provision of this Contract.

19.4.2 Reallocation of Withheld Amounts

- 19.4.2.1 County may, at its discretion, apply any withheld amount to pay outstanding claims or obligations as defined herein. In so doing, County shall make such payments on behalf of Contractor. If any payment is so made by County, then that amount shall be considered a payment made under Contract by County to Contractor and County shall not be liable to Contractor for any payment made in good faith. These payments may be made without prior judicial determination of claim or obligation. County will render Contractor an accounting of funds disbursed on behalf of Contractor.
- 19.4.2.2 If Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents or fails to perform any provision thereof, County may, after FORTY-EIGHT (48) hours written notice to the Contractor and, without prejudice to any other remedy, make good such deficiencies. The County shall adjust the total Contract Price by reducing the amount thereof by the cost of making good such deficiencies. If County deems it inexpedient to correct Work that is damaged, defective, or not done in accordance with Contract provisions, an equitable reduction in the Contract Price (of at least one hundred twenty-five percent (125%) of the estimated reasonable value of the nonconforming Work) shall be made therefor.

19.4.3 Payment After Cure

When Contractor removes the grounds for declining approval, payment shall be made for amounts withheld because of them. No interest shall be paid on any retainage or amounts withheld due to the failure of the Contractor to perform in accordance with the terms and conditions of the Contract Documents.

19.5 Subcontractor Payments

19.5.1 Payments to Subcontractors

No later than seven (7) days after receipt, or pursuant to Business and Professions Code § 7108.5 and Public Contract Code § 7107, the Contractor shall pay to each Subcontractor, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to its Sub-subcontractors in a similar manner.

19.5.2 No Obligation of County for Subcontractor Payment

The County shall have no obligation to pay or to see to the payment of, money to a Subcontractor except as may otherwise be required by law.

19.5.3 Joint Checks

County shall have the right in its sole discretion if necessary for the protection of the County, to issue joint checks made payable to the Contractor and Subcontractors and material or equipment suppliers. The joint check payees shall be responsible for the allocation and disbursement of funds included as part of any such joint payment. In no event shall any joint check payment be construed to create any contract between the County and a Subcontractor of any tier, any obligation from the County to such Subcontractor, or rights in such Subcontractor against the County.

20. COMPLETION OF THE WORK

20.1 Completion

20.1.1 County will accept completion of the Contract and have the Notice of Completion recorded when the entire Work shall have been completed to the satisfaction of County.

20.1.2 The Work may only be accepted as complete by action of the County Board of Supervisors.

20.1.3 County, at its sole option, may accept completion of Contract and have the Notice of Completion recorded when the entire Work shall have been completed to the satisfaction of County, except for minor corrective items, as distinguished from incomplete items. If Contractor fails to complete all minor corrective items within thirty (30) days after the date of the County's acceptance of completion, County shall withhold from the final payment one hundred fifty percent (150%) of an estimate of the amount sufficient to complete the corrective items, as determined by County, until the item(s) are completed.

20.1.4 At the end of the thirty-five (35) day period, if there are any items remaining to be corrected, County may elect to proceed as provided herein related to adjustments to Contract Price, and/or County's right to perform the Work of the Contractor.

20.2 Close-Out Procedures

20.2.1 Punch List

The Contractor shall notify the Architect when Contractor considers the Work complete. Upon notification, Architect will prepare a list of minor items to be completed or corrected ("Punch List"). The Contractor and/or its Subcontractors shall proceed promptly to complete and correct items on the Punch List. Failure to include an item on Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

20.2.2 Close-Out Requirements

20.2.2.1 Utility Connections

Buildings shall be connected to water, gas, sewer, and electric services, complete and ready for use. Service connections shall be made, and existing services reconnected.

20.2.2.2 Record Drawings

20.2.2.2.1 Contractor shall provide exact “as-built” Record Drawings of the Work upon completion of the Project as indicated in the Specifications.

20.2.2.2.2 Contractor is liable and responsible for any and all inaccuracies in as-built Record Drawings, even if inaccuracies become evident at a future date.

20.2.2.2.3 Upon completion of the Work and as a condition precedent to approval of final payment, Contractor shall obtain the Architect’s approval of the corrected prints and employ a competent draftsman to transfer the “as-built” information to the most current version of AutoCAD that is, at that time, currently utilized for plan check submission by either the County, the Construction Manager and/or the Architect, and submit electronic files. When completed, Contractor shall deliver corrected electronic files acceptable to County with AutoCAD file to the County.

20.2.2.2.4 Maintenance Manuals: Contractor shall prepare all operation and maintenance manuals and date as indicated in the Specifications.

20.3 Final Inspection

20.3.1 Contractor shall comply with Punch List procedures as provided herein, and maintain the presence of a Project Superintendent and Project Manager until the Punch List is complete to ensure proper and timely completion of the Punch List. Under no circumstances shall Contractor demobilize its forces prior to completion of the Punch List. Upon receipt of Contractor’s written notice that all of the Punch List items have been fully completed, and the Work is ready for final inspection and acceptance, Architect and Construction Manager will inspect the Work and shall submit to Contractor and County a final inspection report noting the Work, if any, required in order to complete in accordance with the Contract Documents. Absent unusual circumstances, this report shall consist of the Punch List items not yet satisfactorily completed.

20.3.2 Upon Contractor's completion of all items on the Punch List and any other uncompleted portions of the Work, the Contractor shall notify the County and Architect, who shall again inspect such Work. If the Architect finds the Work complete and acceptable under the Contract Documents, the Architect will notify Contractor, who shall then jointly submit to the Architect and the County its final Application for Payment.

20.3.3 Final Inspection Requirements

Before calling for final inspection, Contractor shall determine that the following have been performed:

- 20.3.3.1 The Work has been completed.
- 20.3.3.2 All life-safety items are completed and in working order.
- 20.3.3.3 Mechanical and Electrical Work are complete and tested, fixtures are in place, connected, and ready for tryout.
- 20.3.3.4 Electrical circuits scheduled in panels and disconnect switches labeled.
- 20.3.3.5 Painting and special finishes complete.
- 20.3.3.6 Doors complete with hardware, cleaned of protective film, relieved of sticking or binding, and in working order.
- 20.3.3.7 Tops and bottoms of doors sealed.
- 20.3.3.8 Floors waxed and polished as specified.
- 20.3.3.9 Broken glass replaced and glass cleaned.
- 20.3.3.10 Grounds cleared of Contractor's equipment, raked clean of debris, and trash removed from Site.
- 20.3.3.11 Work cleaned, free of stains, scratches, and other foreign matter, of damaged and broken material, replaced.
- 20.3.3.12 Finished and decorative work shall have marks, dirt, and superfluous labels removed.
- 20.3.3.13 Final cleanup, as provided herein.
- 20.3.3.14 Any other items contained in the Scope of Work.

20.4 Costs of Multiple Inspections

More than two (2) requests of the County to make a final inspection shall be considered an additional service of County, Architect, and/or Construction Manager, and all subsequent costs will be invoiced to Contractor and if funds are available, withheld from remaining payments.

20.5 Partial Occupancy or Use Prior to Completion

20.5.1 County's Rights

The County may occupy or use any completed or partially completed portion of the Work at any stage. The County and the Contractor shall agree in writing to the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents. Any dispute as to responsibilities shall be resolved pursuant to the Claims and Disputes provisions herein, with the added provision that during the dispute process, the County shall have the right to occupy or use any portion of the Work that it needs or desires to use.

20.5.2 Inspection Prior to Occupancy or Use

Immediately prior to partial occupancy or use, the County, the Contractor, and the Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

20.5.3 No Waiver

Unless otherwise agreed upon, partial or entire occupancy or use of a portion or portions of the Work shall not constitute beneficial occupancy or acceptance of the Work not complying with the requirements of the Contract Documents.

21. FINAL PAYMENT AND RETENTION

21.1 Final Payment

Upon receipt and approval of a valid and final Application for Payment, the Architect will issue a final Certificate of Payment. The County shall thereupon jointly inspect the Work and either accept the Work as complete or notify the Architect and the Contractor in writing of reasons why the Work is not complete. Upon acceptance of the Work of the Contractor as fully complete (that, absent unusual circumstances, will occur when the Punch List items have been satisfactorily completed), the County shall record a Notice of Completion with the County Recorder, and the Contractor shall, upon receipt of final payment from the County, pay the amount, due Subcontractors.

21.2 Prerequisites for Final Payment

The following conditions must be fulfilled prior to Final Payment:

21.2.1 A full and final waiver or release of all Stop Notices in connection with the Work shall be submitted by Contractor, including a release of Stop Notice in recordable form, together with (to the extent permitted by law) a copy of the full and final release of all Stop Notice rights.

21.2.1.1 A duly completed and executed conditional waiver and release upon final payment compliant with Civil Code § 8136 from the Contractor and each subcontractor of any tier and supplier to be paid from the current progress payment;

21.2.1.2 A duly completed and executed unconditional waiver and release upon progress payment compliant with Civil Code § 8134 from the Contractor and each subcontractor of any tier and supplier that was paid from the previous progress payment; and

21.2.1.3 The Contractor shall have made all corrections to the Work that are required to remedy any defects therein, to obtain compliance with the Contract Documents or any requirements of applicable codes and ordinances, or to fulfill any of the orders or directions of County required under the Contract Documents.

21.2.2 Each Subcontractor shall have delivered to the Contractor all written guarantees, warranties, applications, and bonds required by the Contract Documents for its portion of the Work.

21.2.3 Contractor must have completed all requirements set forth under “Close-Out Procedures,” Including, without limitation, an approved set of complete “as-built” Record Drawings.

21.2.4 Architect shall have issued its written approval that final payment can be made.

21.2.5 The Contractor shall have delivered to the County all manuals and materials required by the Contract Documents.

21.2.6 The Contractor shall have completed final clean up as provided herein.

21.3 Retention

21.3.1 The retention, less any amounts disputed by the County or that the County has the right to withhold pursuant to provisions herein, shall be paid:

21.3.1.1 After approval of the County by the Architect’s Certificate of Payment,

21.3.1.2 After the satisfaction of the conditions set forth herein, and

21.3.1.3 After thirty-five (35) days after the recording of the Notice of Completion by County.

21.3.2 No interest shall be paid on any retention, or on any amounts withheld due to a failure of the Contractor to perform, in accordance with the terms and conditions of the Contract Documents, except as provided to the contrary in any Escrow Agreement between the County and the Contractor pursuant to Public Contract Code § 22300.

21.4 Substitution of Securities

The County will permit the substitution of securities in accordance with the provisions of Public Contract Code § 22300.

22. UNCOVERING OF WORK

If a portion of the Work is covered without Architect approval or not in compliance with the Contract Documents, it must, if required in writing, including by email, by the County or the Architect, be uncovered for the Architect’s observation and be replaced at the Contractor’s expense without change in the Contract Price or Contract Time.

If a portion of the Work has been covered, which the Project Inspector or the Architect has not specifically requested to observe prior to its being covered, the County, Project Inspector, or the Architect may request to see that Work, and it shall be uncovered by the Contractor. If that Work is in accordance with the Contract Documents, costs of uncover and replacement shall, by appropriate Change Order, be charged to the County. If that Work is not in accordance with Contract Documents, the Contractor shall pay these costs unless the condition was caused by the County or a separate contractor, in which event the County shall be responsible for payment of such costs to the Contractor.

23. NONCONFORMING WORK, CORRECTION OF WORK AND COUNTY’S RIGHT TO PERFORM WORK

23.1 Nonconforming Work

23.1.1 Contractor shall promptly remove from Premises all Work identified by County as failing to conform to the Contract Documents whether incorporated or not. Contractor shall promptly replace and re-execute its own Work to comply with the Contract Documents without additional expense to the County and shall bear the expense of making good all work of other contractors destroyed or damaged by any removal or replacement pursuant hereto and/or any delays to the County or other Contractors caused thereby.

23.1.2 If Contractor does not remove Work that County has identified as failing to conform to the Contract Documents within a reasonable time, not to exceed FORTY-EIGHT (48) hours, County may remove it and may store any material at Contractor's expense. If Contractor does not pay expense(s) of that removal within ten (10) days' time thereafter, County may, upon ten (10) days' written notice, sell any material at auction or at private sale and shall deduct all costs and expenses incurred by the County and/or County may withhold those amounts from payment(s) to Contractor.

23.2 Correction of Work

23.2.1 Correction of Rejected Work

Pursuant to the notice provisions herein, the Contractor shall promptly correct the Work rejected by the County or the Architect as failing to conform to the requirements of the Contract Documents, whether observed before or after Completion and whether or not fabricated, installed, or completed. The Contractor shall bear costs of correcting the rejected Work, including additional testing, inspections, and compensation for the Architect's services and expenses made necessary thereby.

23.2.2 Warranty Corrections

If, within the warranty period specified in 00 65 36 Warranty Form, after the date of Completion of the Work or a designated portion thereof, or after the date of commencement of warranties established hereunder, or by the terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the County to do so. This period of two (2) years shall be extended with respect to portions of the Work first performed after Completion by the period of time between Completion and the actual performance of the Work. This obligation hereunder shall survive acceptance of the Work under the Contract and termination of the Contract. The County shall give such notice promptly after discovery of the condition.

23.3 County's Right to Perform Work

23.3.1 If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of this contract, the County, after FORTY-EIGHT (48) hours written notice to the Contractor, may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

23.3.2 If it is found at any time, before or after completion of the Work, that Contractor has varied from the Drawings and/or Specifications, including, but not limited to, variation in material, quality, form, or finish, or in the amount or value of the materials and labor used, County may require at its option:

- 23.3.2.1 That all such improper Work be removed, remade or replaced, and all work disturbed by these changes be made good by Contractor at no additional cost to the County;
- 23.3.2.2 That the County deduct from any amount due Contractor the sum of money equivalent to the difference in value between the work performed and that called for by the Drawings and Specifications; or
- 23.3.2.3 That the County exercise any other remedy it may have at law or under the Contract Documents, including but not limited to the County hiring its own forces or another contractor to replace the Contractor's nonconforming Work, in which case the County shall either issue a Deductive Change Order, a Construction Change Directive or invoice the Contractor for the cost of that work. Contractor shall pay any invoices within thirty (30) days of receipt of same or County may withhold those amounts from payment(s) to Contractor.

24. TERMINATION AND SUSPENSION

24.1 County's Right to Terminate Contractor for Cause

24.1.1 Grounds for Termination.

The County, in its sole discretion, may terminate the Contract and/or terminate the Contractor's right to perform the work of the Contract based upon the following:

- 24.1.1.1 Contractor refuses or fails to execute the Work or any separable part thereof with sufficient diligence as will ensure its completion within the time specified or any extension thereof, or
- 24.1.1.2 Contractor fails to complete said Work within the time specified or any extension thereof, or
- 24.1.1.3 Contractor persistently fails or refused to perform Work or provide material of sufficient quality as to be in compliance with Contract Documents; or
- 24.1.1.4 Contractor files a petition for relief as a debtor, or a petition is filed against the Contractor without its consent, and the petition not dismissed within sixty (60) days; or
- 24.1.1.5 Contractor makes a general assignment for the benefit of its creditors, or a receiver is appointed on account of its insolvency; or
- 24.1.1.6 Contractor persistently or repeatedly refuses or fails, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials to complete the Work in the time specified; or
- 24.1.1.7 Contractor fails to make prompt payment to Subcontractors, or for material, or for labor; or
- 24.1.1.8 Contractor persistently disregards laws or ordinances, or instructions of County; or

24.1.1.9 Contractor fails to supply labor, including that of Subcontractors, that can work in harmony with all other elements of labor employed or to be employed on the Work; or

24.1.1.10 Contractor or its Subcontractor(s) is/are otherwise in breach, default, or in substantial violation of any provision of this Contract.

24.1.2 Notification of Termination

24.1.2.1 Upon the occurrence of County's sole determination of any of the above conditions, County may, without prejudice to any other right or remedy, serve written notice upon Contractor and its Surety of County's termination of this Contract and/or the Contractor's right to perform the work of the Contract. This notice will contain the reasons for termination. Unless, within three (3) days after the service of the notice, any and all condition(s) shall cease, and any and all violation(s) shall cease, or arrangement satisfactory to County for the correction of the condition(s) and/or violation(s) be made, this Contract shall cease and terminate. Upon Determination, Contractor shall not be entitled to receive any further payment until the entire Work is finished.

24.1.2.2 Upon Termination, County may immediately serve written notice of tender upon Surety whereby Surety shall have the right to take over and perform this Contract only if Surety:

24.1.2.2.1 Within three (3) days after service upon it of the notice of tender, gives County written notice of Surety's intention to take over and perform this Contract; and

24.1.2.2.2 Commences performance of this Contract within (three (3) days from the date of serving of its notice to County.

24.1.2.3 If Surety fails to notify County or begin performance as indicated herein, County may take over the Work and execute the Work to completion by any method it may deem advisable at the expense of Contractor and/or its Surety. Contractor and/or its Surety shall be liable to County for any excess cost or other damages the County incurs thereby. Time is of the essence in this Contract. If the County takes over the Work as herein provided, County may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plan, and other property belonging to Contractor as may be on the Site of the Work, in bonded storage, or previously paid for.

24.1.3 Effect of Termination

24.1.3.1 Contractor shall, only if ordered to do so by the County, immediately remove from the Site all or any materials and personal property belonging to Contractor that have not been incorporated in the construction of the Work, or which are not in place in the Work. The County retains the right, but not the obligation, to keep and use any materials and personal property belonging to Contractor that have not

been incorporated in the construction of the Work, or which are not in place in the Work. The Contractor and its Surety shall be liable upon the performance bond for all damages caused the County by reason of the Contractor's failure to complete the Contract.

- 24.1.3.2** In the event that the County shall perform any portion of, or the whole of the Work, pursuant to the provisions of the General Conditions, the County shall not be liable nor account to the Contractor in any way for the time within which, or the manner in which, the Work is performed by the County or for any changes the County may make in the Work or for the money expended by the County in satisfying claims and/or suits and/or other obligations in connection with the Work.
- 24.1.3.3** In the event, that the Contract is terminated for any reason, no allowances or compensation will be granted for the loss of any anticipated profit by the Contractor.
- 24.1.3.4** If the expense to the County to finish the Work exceeds the unpaid Contract Price, Contractor and Surety shall pay the difference to County within twenty-one (21) days of County's request.
- 24.1.3.5** The County shall have the right (but shall have no obligation) to assume and/or assign to a general contractor or construction manager or other third party who is qualified and has sufficient resources to complete the Work, the rights of the Contractor under its subcontracts with any or all Subcontractors. In the event of an assumption or assignment by the County, no Subcontractor shall have any claim against the County or third party for Work performed by Subcontractor or other matters arising prior to termination of the Contract. The County or any third party, as the case may be, shall be liable only for obligations to the Subcontractor arising after assumption or assignment. Should the County so elect, the Contractor shall execute and deliver all documents and take all steps, including the legal assignment of its contractual rights, as the County may require, for the purpose of fully vesting in the County the rights and benefits of it Subcontractor under Subcontracts or other obligations or commitments. All payments due the Contractor hereunder shall be subject to a right of offset by the County for expenses and damages suffered by the County as a result of any default, acts, or omissions of the Contractor. Contractor must include this assignment provision in all of its contracts with its Subcontractors.
- 24.1.3.6** The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to County.

24.2 Termination of Contractor for Convenience

24.2.1 County in its sole discretion may terminate the Contract upon three (3) days written notice to the Contractor. Under a termination for convenience, the County retains the right to all the options available to the County if there is a termination for cause.

In case of a termination for convenience, the Contractor shall have no claims against the County except:

- 24.2.1.1 The actual cost of labor, materials, and services performed that is unpaid and can be documented through timesheets, invoices, receipts, or otherwise, and
- 24.2.1.2 Five percent (5%) of the total cost of work performed as of the date of termination, or five percent (5%) of the value of the Work yet to be performed, whichever is less. This five percent (5%) amount shall be full compensation for all Contractor's and its Subcontractor(s)' mobilization and/or demobilization costs and any anticipated loss profits resulting from termination of the Contractor for convenience.

24.3 Emergency Termination of Public Contracts Act of 1949

24.3.1 This Contract is subject to termination as provided by §§4410 and 4411 of the Government Code of the State of California, being a portion of the Emergency Termination of Public Contracts Act of 1949.

24.3.1.1 § 4410 of the Government Code states:

In the event a national emergency occurs, and public work, being performed by contract, is stopped, directly or indirectly, because of the freezing or diversion of materials, equipment or labor, as the result of an order or a proclamation of the President of the United States, or of an order of any federal authority, and the circumstances or conditions are such that it is impracticable within a reasonable time to proceed with a substantial portion of the work, then the public agency and the contractor may, by written agreement, terminate said contract.

24.3.1.2 § 4411 of the Government Code states:

Such an agreement shall include the terms and conditions of the termination of the contract and provision for the payment of compensation or money, if any, which either party shall pay to the other or any other person, under the facts and circumstances in the case.

24.3.1.3 Compensation to the Contractor shall be determined at the sole discretion of County on the basis of the reasonable value of the Work done, including preparatory work. As an exception to the foregoing and at the County's discretion, in the case of any fully completed separate item or portion of the Work for which there is a separate previously submitted unit price or item on the accepted schedule of values, that price shall control. The County, at its sole discretion, may adopt the Contract Price as the reasonable value of the work done or any portion thereof.

25. CLAIMS AND DISPUTES

25.1 Performance During Claim Process

The Contractor shall continue to perform its Work under the Contract and shall not cause a delay in the Work during any dispute, claims definition, negotiation, mediation, or arbitration proceeding, except by written agreement by the County.

25.2 Definition of Claim

25.2.1 For purposes of this section, a “Claim” means a separate demand by the Contractor for:

25.2.1.1 A time extension,

25.2.1.2 Payment of money or damages arising from Work done by or on behalf of the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or

25.2.1.3 Payment of money that the County disputes is owing.

25.3 Claim Presentations

25.3.1 The attention of the Contractor is drawn to Government Code § 12650, et seq. regarding penalties for false claims.

25.3.2 Contractor shall file with the County any written Claim, including the documents necessary to substantiate it, on or before the day of final payment on the Contract.

25.3.3 The Contractor shall not cause a delay in the Work during any dispute, claims definition, negotiation, mediation, or arbitration proceeding, except by written agreement by the County.

25.3.4 The Contractor shall bind all its Subcontractors, material persons, and suppliers to the provisions of this section on mediation and arbitration and will hold the County harmless against disputes and claims by Subcontractors, material persons, or suppliers.

25.4 Claim Resolution

25.4.1 In the event of a dispute between the parties as to performance of the Work, the interpretation of this Contract, or payment or nonpayment for Work performed or not performed, the parties shall attempt to resolve the dispute by those procedures set forth in Public Contract Code § 9204, if applicable. Pending resolution of the dispute, if the dispute is not resolved, Contractor agrees it will neither rescind the Contract nor stop the progress of the Work but will allow determination by a court of the State of California having competent

jurisdiction of the dispute, after the Project has been completed, and not before.

25.4.2 For all Claims which arise between a Contractor and a local agency, the procedure set forth in Public Contract Code § 9204 shall apply:

25.4.2.1 The County shall respond in writing within forty-five (45) days of receipt of the Claim identifying what portion of the Claim is disputed and what portion is undisputed.

25.4.2.1.1 Upon receipt of a Claim, County, and Contractor may by mutual agreement, extend the time period for County to respond.

25.4.2.1.2 Any payment due on an undisputed portion of the Claim shall be processed and made within sixty (60) days after the County issues its written response to the Claim.

25.4.3 If Contractor disputes County's written response, or if County fails to respond to a Claim issued pursuant to this § 25 within the time prescribed, Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute.

25.4.3.1 Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, County shall schedule a meet and confer conference within thirty (30) days for settlement of the dispute.

25.4.4 Within ten (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 County shall provide Contractor a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed.

25.4.4.1 Any payment due on an undisputed portion of the Claim shall be processed and made within sixty (60) days after the County issues its written statement.

25.4.5 Any disputed portion of the Claim, as identified by the statement referenced in § 25.4.4 shall be submitted to nonbinding mediation, with the County and Contractor sharing the associated costs equally.

25.4.5.1 County and Contractor shall mutually agree to a mediator within ten (10) business days after the disputed portion of the claim has been identified in writing.

25.4.5.2 If County and Contractor cannot agree to a mediator, each party shall select a mediator, and those mediators shall select a

qualified neutral third party to mediate with regard to the disputed portion of the claim.

25.4.5.3 County and Contractor shall each bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.

25.4.5.4 If mediation is unsuccessful the parts of the claim remaining in dispute shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with § 1141.10) of the Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding § 1141.11 of that code. The Civil Discovery Act of 1986, (Article 3 (commencing with § 2016) of Chapter 3 of Title 3 of part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

25.4.6 The County shall not fail to pay money as to any portion of a claim which is undisputed except as otherwise provided in the Contract Documents. Unpaid claim amounts not paid in a timely manner will accrue interest at seven percent (7%) per annum. In any suit filed pursuant to this section, the County shall pay interest at the legal rate on any arbitration award or judgment. Interest shall begin to accrue on the date the suit is filed in a court of law.

25.4.7 If a Subcontractor or lower-tier subcontractor lacks legal standing to assert a Claim against County because privity of contract does not exist, Contractor may present County a Claim on behalf of a Subcontractor or lower-tier Subcontractor. A Subcontractor may request, in writing, either on his or her own behalf or that of a lower-tier Subcontractor, that Contractor present a Claim for work which was performed by Subcontractor, or by a lower-tier Subcontractor on behalf of Subcontractor. Subcontractor requesting that the claim be presented to County must furnish reasonable documentation to support the Claim. Within forty-five (45) days of receipt of this written request, Contractor must notify Subcontractor in writing as to whether Contractor presented the Claim to County, and, if Contractor did not present the Claim, provide Subcontractor with a written statement of the reasons for not having done so.

26. LABOR, WAGE & HOUR, APPRENTICE, AND RELATED PROVISIONS

26.1 Wage Rates, Travel, and Subsistence – (For Projects over \$1M see also PROJECT STABILIZATION/ COMMUNITY BENEFITS AGREEMENT of the COUNTY OF ALAMEDA Document 00 73 49).

26.1.1 Pursuant to the provisions of Article 2 (commencing with § 1770), chapter 1, part 7, division 2, of the Labor Code of California, the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this public work is to be performed for each craft, classification or type of

worker needed to execute this Contract is on file at the County's principal office, and copies will be made available to any interested party on request. Contractor shall obtain and post a copy of these wage rates at the job site.

26.1.2 Holiday and overtime work, when permitted by law, shall be paid for at a rate of at least one and one-half times the above-specified rate of per diem wages unless otherwise specified. The holidays upon which those rates shall be paid need not be specified by the County but shall be all holidays recognized in the applicable collective bargaining agreement. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in § 6700 of the Government Code.

26.1.3 Contractor shall pay and shall cause to be paid each worker engaged in Work on the Project not less than the general prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations ("DIR") ("Director"), regardless of any contractual relationship which may be alleged to exist between Contractor or any Subcontractor and such workers.

26.1.4 Contractor shall pay and shall cause to be paid to each worker needed to execute the Work on the Project travel and subsistence payments, as such travel and subsistence payments are defined in the applicable Collective Bargaining Agreements filed with the Department of Industrial Relations in accordance with Labor Code § 1773 et seq.

26.1.5 If during the period this bid is required to remain open, the Director determines that there has been a change in any prevailing rate of per diem wages in the locality in which the Work under the Contract is to be performed, such change shall not alter the wage rates in the Notice to Bidders or the Contract subsequently awarded.

26.1.6 Pursuant to Labor Code § 1775, Contractor shall, as a penalty to County, forfeit the statutory amount for each calendar day, or portion thereof, for each worker paid less than the prevailing rates, determined by the County and/or the Director, for the work or craft in which that worker is employed for any public work done under Contract by Contractor or by any Subcontractor under it. The difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate, shall be paid to each worker by Contractor.

26.1.7 Any worker employed to perform Work on the Project, which Work is not covered by any classification listed in the general prevailing wage rate of per diem wages determined by the Director, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to Work to be performed by him, and such minimum wage rate shall be retroactive to time of initial employment of such person in such classification.

26.1.8 Pursuant to Labor Code § 1773.1, per diem wages, are deemed to include employer payments for health and welfare, pension, vacation, travel time, subsistence pay, and apprenticeship or other training programs authorized by § 3093, and similar purposes.

26.1.9 Contractor shall post at appropriate conspicuous points on the Site of Project, a schedule showing all determined minimum wage rates and all authorized deductions if any, from unpaid wages, actually earned. In addition, Contractor shall post a

sign-in log for all workers and visitors to the Site, a list of all subcontractors of any tier on the Site, and the required Equal Employment Opportunity poster(s).

26.1.10 Contractor stipulates that it shall comply with all requirements of PROJECT STABILIZATION/COMMUNITY BENEFITS AGREEMENT (**For projects over \$1M**) of the COUNTY OF ALAMEDA, and shall pay to persons performing labor in and about the Work provided for in the Contract an amount equal to or more than the following:

26.1.10.1 Wage rate and fringe benefit payments and classification for that person's corresponding labor classification as required by the Department of Industrial Relations;

26.1.10.2 Wage rate and fringe benefit payments and classification for that person's corresponding labor classification as required under the PROJECT STABILIZATION/COMMUNITY BENEFITS AGREEMENT of the COUNTY OF ALAMEDA (**For projects over \$1M**) and California Labor Code.

26.1.11 If there are conflicts between the Wage rate and fringe benefit payments and classification between the Department of Industrial Relations and the PROJECT STABILIZATION/COMMUNITY BENEFITS AGREEMENT of the COUNTY OF ALAMEDA (**For projects over \$1M**), Contractor shall pay the higher wage rate and fringe benefits.

26.2 Hours of Work

26.2.1 As provided in Article 3 (commencing with § 1810), chapter 1, part 7, division 2, of the Labor Code, eight (8) hours of labor shall constitute a legal days work. The time of service of any worker employed at any time by Contractor or by any Subcontractor on any subcontract under this Contract upon the Work or upon any part of the Work contemplated by this Contract shall be limited and restricted by Contractor to eight (8) hours per day, and forty (40) hours during any one week, except as hereinafter provided. Notwithstanding the provisions hereinabove set forth, Work performed by employees of Contractor in excess of eight (8) hours per day and forty (40) hours during any one week, shall be permitted upon this public work upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half times the basic rate of pay.

26.2.2 Contractor shall keep and shall cause each Subcontractor to keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by Contractor in connection with the Work or any part of the Work contemplated by this Contract. The record shall be kept open at all reasonable hours to the inspection of County and to the Division of Labor Standards Enforcement of the DIR.

26.2.3 Pursuant to Labor Code § 1813, Contractor shall as a penalty to the County forfeit the statutory amount for each worker employed in the execution of this Contract by Contractor or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of Article 3 (commencing with § 1810), chapter 1, part 7, division 2, of the Labor Code.

26.2.4 Any Work necessary to be performed after regular working hours, or on Sundays or other holidays shall be performed without additional expense to the County.

26.3 Payroll Records

26.3.1 County will use the Alameda County Contract Compliance System, including the Elation Systems, Inc. program, to monitor contract and labor compliance. Contractor shall use the Compliance System to meet County's requirements, and shall participate in training as directed by County in order to become and remain competent in the use of the Compliance System.

26.3.2 Pursuant to the provisions of § 1776 of the Labor Code, notice is hereby given that Contractor shall prepare and provide to the County and shall cause each Subcontractor performing any portion of the Work under this Contract to prepare and provide to the County an accurate and certified payroll record ("CPR(s)"), showing the name, address, social security number, work classification, straight time, and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work.

26.3.3 The CPRs enumerated hereunder shall be certified and shall be provided to the County on a weekly basis. The CPRs from the Contractor and each Subcontractor for each week shall be provided on or before Wednesday of the week following the week covered by the CPRs. County shall not make any payment to Contractor until:

26.3.3.1 Contractor and/or its Subcontractor(s) provide CPRs acceptable to the County, and

26.3.3.2 The County is given sufficient time to review and/or audit the CPRs to determine their acceptability. Any delay in Contractor and/or its Subcontractor(s) providing CPRs to the County in a timely manner will directly delay the County's review and/or audit of the CPRs and Contractor's payment.

26.3.4 All CPRs shall be available for inspection at all reasonable hours at the principal office of Contractor on the following basis:

26.3.4.1 A certified copy of an employee's CPR shall be made available for inspection or furnished to the employee or his/her authorized representative on request.

26.3.4.2 CPRs shall be made available for inspection or furnished upon request to a representative of County, Division of Labor Standards Enforcement, Division of Apprenticeship Standards, and/or the Department of Industrial Relations.

26.3.4.3 CPRs shall be made available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the County, Division of Apprenticeship Standards or the Division of Labor Standards Enforcement. If the requested CPRs have not been provided pursuant to the provisions herein, the requesting party shall, prior to being provided the records reimburse the costs of preparation by Contractor,

Subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of Contractor.

26.3.5 The form of certification for the CPRs shall be as follows:

I, (Name-Print), the undersigned, am the (Position in business) with the authority to act for and on behalf of (Name of business and/or Contractor), certify under penalty of perjury that the records or copies thereof submitted and consisting of (Description, number of pages) are the originals or true, full, and correct copies of the originals which depict the payroll record(s) of actual disbursements by way of cash, check, or whatever form to the individual or individual named, and (b) we have complied with the requirements of §§1771, 1811, and 1815 for any work performed by our employees on the Project.

Date:

Signature:

(§ 16401 of the California Code of Regulations)

26.3.6 Each Contractor shall file a certified copy of the CPRs with the entity that requested the records within ten (10) days after receipt of a written request.

26.3.7 Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by County, Division of Apprenticeship Standards, or Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of Contractor awarded Contract or performing Contract shall not be marked or obliterated.

26.3.8 Contractor shall inform County of the location of the records enumerated hereunder, including the street address, city, and county, and shall, within five (5) working days, provide a notice of change of location and address.

26.3.9 In the event of noncompliance with the requirements of this section, Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects Contractor must comply with this section. Should noncompliance still be evident after the ten (10) day period, Contractor shall, as a penalty to County, forfeit twenty-five dollars (\$25) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of Division of Apprenticeship Standards or Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

26.3.10 It shall be the responsibility of Contractor to ensure compliance with the provisions of Labor Code § 1776.

26.4 Apprentices

26.4.1 Contractor acknowledges and agrees that, if this Contract involves a dollar amount greater than or a number of working days greater than that specified in Labor Code § 1777.5, then this Contract is governed by the provisions of Labor Code § 1777.5. It shall be the responsibility of Contractor to ensure compliance with this Article and with Labor Code § 1777.5 for all apprenticeship occupations.

26.4.2 Apprentices of any crafts or trades may be employed and, when required by Labor Code § 1777.5, shall be employed provided they are properly registered in full compliance with the provisions of the Labor Code.

26.4.3 Every such apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which he/she is employed, and shall be employed only in the work of the craft or trade to which she/he is registered.

26.4.4 Only apprentices, as defined in § 3077 of the Labor Code, who are in training under apprenticeship standards and written apprentice agreements under Chapter 4 (commencing at § 3070), Division 3, of the Labor Code, are eligible to be employed. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which he/she is training.

26.4.5 Pursuant to Labor Code § 1777.5, if that § applies to this Contract as indicated above, Contractor and any Subcontractors employing workers in any apprentice able craft or trade in performing any Work under this Contract shall apply to the applicable joint apprenticeship committee for a certificate approving the Contractor or Subcontractor under the applicable apprenticeship standards and fixing the ratio of apprentices to journeymen employed in performing the Work.

26.4.6 Pursuant to Labor Code § 1777.5, if that § applies to this Contract as indicated above, Contractor and any Subcontractor may be required to make contributions to the apprenticeship program.

26.4.7 If Contractor or Subcontractor willfully fails to comply with Labor Code § 1777.5, then, upon a determination of noncompliance by the Administrator of Apprenticeship, it shall:

26.4.7.1 Be denied the right to bid on any subsequent project for one (1) year from the date of such determination;

26.4.7.2 Forfeit as a penalty to County the full amount as stated in Labor Code § 1777.7. Interpretation and enforcement of these provisions shall be in accordance with the rules and procedures of the California Apprenticeship Council and under the authority of the Chief of the Division of Apprenticeship Standards.

26.4.8 Contractor and all Subcontractors shall comply with Labor Code § 3073.9, which § forbids certain discriminatory practices in the employment of apprentices.

26.4.9 Contractor shall become fully acquainted with the law regarding apprentices prior to commencement of the Work. Special attention is directed to Article 2 (commencing with §3075) of Division 4, Chapter 4 of the Labor Code, and §§1777.5, 1777.6, and 1777.7 of the Labor Code, and title 8, California Code of Regulations, §200 et seq. Questions may be directed to the State Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, California 94102.

26.5 Non-Discrimination

26.5.1 Contractor herein agrees not to discriminate in its recruiting, hiring, promotion, demotion, or termination practices on the basis of race, religious creed, national origin, ancestry, sex, age, or physical handicap in the performance of this Contract and to comply with the provisions of the California Fair Employment and Housing Act as set

forth in part 2.8 of Division 3 of the California Government Code, commencing at §12900; the Federal Civil Rights Act of 1964, as set forth in Public Law 88-352, and all amendments thereto; Executive Order 11246, and all administrative rules and regulations found to be applicable to Contractor and Subcontractor.

26.5.2 Special requirements for Federally Assisted Construction Contracts: During the performance of this Contract, Contractor agrees to incorporate in all subcontracts the provisions set forth in Chapter 60-1.4(b) of Title 41 published in Volume 33 No. 104 of the Federal Register dated May 28, 1968.

26.6 Labor First Aid

Contractor shall maintain emergency first aid treatment for Contractor's workers on the Project which complies with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 et seq.) and the California Occupational Safety and Health Act of 1973 (8 Cal. Code of Regs., §1 et seq. 33400 of Article 10, Group 2, Subchapter 7).

27. MISCELLANEOUS

27.1 Assignment of Antitrust Actions

27.1.1 §7103.5(b) of the Public Contract Code states:

In entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under § 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with § 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

27.1.2 § 4552 of the Government Code states:

In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under § 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with § 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

27.1.3 § 4553 of the Government Code states:

If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

27.1.4 § 4554 of the Government Code states:

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action.

27.1.5 Under this Article, “public purchasing body” is County and “bidder is Contractor.

27.2 Excise Taxes

If, under Federal Excise Tax Law, any transaction hereunder constitutes a sale on which a Federal Excise Tax is imposed, and the sale is exempt from such Federal Excise Tax because it is a sale to a State or Local Government for its exclusive use, County, upon request, will execute documents necessary to show (1) that County is a political subdivision of the State for the purposes of such exemption, and (2) that the sale is for the exclusive use of County. No Federal Excise Tax for such materials shall be included in any Contract Price.

27.3 Taxes

Contract Price is to include any and all applicable sales taxes or other taxes that may be due in accordance with § 7051 of the Revenue and Taxation Code; Regulation 1521 of the State Board of Equalization or any other tax code that may be applicable.

27.4 Shipments

All shipments must be F.O.B. destination to Site or sites, as indicated in the Contract Documents. There must be no charge for containers, packing, unpacking, drayage or insurance. The total Contract Price shall be all inclusive (including sales tax), and no additional costs of any type will be considered.

END OF DOCUMENT

DOCUMENT 00 73 13

SPECIAL CONDITIONS

1. Mitigation Measures

Contractor shall comply with all applicable mitigation measures, if any, adopted by any public agency with respect to this Project pursuant to the California Environmental Quality Act. (Public Resources Code section 21000 et. seq.)

2. Substitution for Specified Items

- 2.2. Requests for substitutions prior to award of the Contract shall be done within the time period indicated in the Instructions to Bidders.

[AND/OR]

Requests for substitutions after award of the Contract shall be within **THIRTY-FIVE (35)** days of the date of the Notice of Award.

- 2.3. Whenever in the Specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be followed by the words "or equal." Contractor may, unless otherwise stated, offer any material, process, or article that shall be substantially equal or better in every respect to that so indicated or specified.

2.3.1. If the material, process, or article offered by Contractor is not, in the opinion of the County, substantially equal or better in every respect to that specified, then Contractor shall furnish the material, process, or article specified in the Specifications without any additional compensation or change order.

2.3.2. This provision shall not be applicable with respect to any material, product, thing or service for which County made findings and gave notice in accordance with Public Contract Code section 3400(b); therefore, Contractor shall not be entitled to request a substitution with respect to those materials, products or services.

- 2.4. A request for a substitution shall be in writing and shall include:

2.4.1. All variations of the proposed substitute from the material specified including, but not limited to, principles of operation, materials, or construction finish, thickness or gauge of materials, dimensions, weight, and tolerances;

2.4.2. Available maintenance, repair or replacement services;

- 2.4.3. Increases or decreases in operating, maintenance, repair, replacement, and spare parts costs;
 - 2.4.4. Whether or not acceptance of the substitute will require other changes in the Work (or in work performed by the County or others under Contract with the County); and
 - 2.4.5. The time impact on any part of the Work resulting directly or indirectly from acceptance of the proposed substitute.
- 2.5.** No substitutions shall be made until approved, in writing, by the County. The burden of proof as to equality of any material, process, or article shall rest with Contractor. The Contractor warrants that if substitutes are approved:
- 2.5.1. The proposed substitute is equal or superior in all respects to that specified, and that such proposed substitute is suitable and fit for the intended purpose and will perform adequately the function and achieve the results called for by the general design and the Contract Documents;
 - 2.5.2. The Contractor provides the same warranties and guarantees for the substitute that would be provided for that specified;
 - 2.5.3. The Contractor shall be fully responsible for the installation of the substitute and any changes in the Work required, either directly or indirectly, because of the acceptance of such substitute, with no increase in Contract Price or Contract Time. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change in the Contract Price or Contract Time;
 - 2.5.4. The Contractor shall be responsible for any re-design costs occasioned by County's acceptance and/or approval of any substitute; and
 - 2.5.5. The Contractor shall, in the event that a substitute is less costly than that specified, credit the County with one hundred percent (100%) of the net difference between the substitute and the originally specified material. In this event, the Contractor agrees to execute a deductive Change Order to reflect that credit.
- 2.6.** In the event Contractor furnishes a material, process, or article more expensive than that specified, the difference in the cost of that material, process, or article so furnished shall be borne by Contractor.
- 2.7.** In no event shall the County be liable for any increase in Contract Price or Contract Time due to any claimed delay in the evaluation of any proposed substitute or in the acceptance or rejection of any proposed substitute.

3. Weather Days

- 3.1** Delays due to adverse weather conditions will only be permitted in compliance with the provisions in the General Conditions and only if the number of days of adverse weather exceeds the following parameters and only if Contractor can verify that adverse weather caused delays exceeded the following number of days:

January	<u>[11]</u>	July	<u>[0]</u>
February	<u>[10]</u>	August	<u>[0]</u>
March	<u>[10]</u>	September	<u>[1]</u>
April	<u>[6]</u>	October	<u>[4]</u>
May	<u>[3]</u>	November	<u>[7]</u>
June	<u>[1]</u>	December	<u>[10]</u>

- 4. Insurance Policy Limits.** All of Contractor's insurance shall be with insurance companies with an A.M. Best rating of no less than A: XI.

The limits of insurance shall not be less than:

Commercial General Liability	Each Occurrence	Refer to Exhibit C
	General Aggregate	Refer to Exhibit C
	Product Liability and Completed Operations	Refer to Exhibit C
Automobile Liability – Any Auto	Combined Single Limit	Refer to Exhibit C
Excess Liability		Refer to Exhibit C
Workers Compensation		Statutory limits pursuant to state law
Employers' Liability		Refer to Exhibit C.
Builders Risk (Course of Construction)		Issued for the value of the Contract

5. **Permits, Certificates, Licenses, Fees, Approval**

- 5.1 **Payment for Permits, Certificates, Licenses, and Fees.** As required in the General Conditions, the Contractor shall secure and pay for all permits, licenses and certificates necessary for the prosecution of the Work with the exception of the following:

2.7.1. Any and all required for completion of project.

With respect to the above listed items, Contractor shall be responsible for securing such items, however, County will be responsible for payment of these charges or fees. Contractor shall notify the County of the amount due with respect to such items and to whom the amount is payable. Contractor shall provide the County with an invoice and receipt with respect to such charges or fees.

6. **Work Restrictions**

1. Hours of Work:

- a. **Normal Work Hours:** Monday through Friday, 6:00 AM to 5:00 PM.
- b. **High Decibel Work:** Monday through Friday, 4:00 AM to 6:59AM or after 5:00 PM.
- c. **Welding/Hot Work:** Monday through Friday, 4:00 AM to 6:59AM or after 5:00 PM. Hot work permit must be approved and posted prior to working.
- d. **Audible Testing/Inspections:** Monday through Friday, 4:00 AM to 6:59AM or after 5:00 PM. Must be performed outside of normal business hours and approved in advance.
- e. **Additional Working Hours (Including High Decibel Work):** Must be preapproved and scheduled with County personnel. If contractor requires work to be performed outside of business hours, it will be at the contractors expect and not of additional expense to the County.
- f. Any work performed outside of these hours shall be coordinated with the County.

2. Site Requirements:

- a. Contractor shall report any safety hazards, evident misuse or damage, or environmental problems directly to the County.

- b. Contractor must submit a material delivery plan for approval to the County. It is the contractor's responsibility to work with County on an acceptable material delivery schedule.
- c. Contractor shall properly dispose of all materials off-site. If dumpster is required or requested, it must be provided by the Contractor. Any on-site dumpsters must be secured with a lockable lid Location must be approved in advance.
- d. Contractor shall provide storage of their own materials off site or provide their own lockable container. If a storage contain is required, it must be provided by the Contractor and shall be secured in a location to be approved by the County in advance.
- e. The contractor must minimize noise and vibration as much as possible. Extreme noisy operations require 48 hours advance notice and may need to be scheduled and performed after normal business hours.
- f. The contractor must minimize generation of dust and dirt and prevent accumulation in areas whenever possible. Daily cleanup of all workspaces is required.
- g. Protect all interior spaces from dust and debris prior to starting work. Provide floor protection for any material being rolled across finished floors.
- h. Install all necessary safety barriers and warning signs around working areas. Include all necessary work precautions such as fall protection, weather, and emergency procedures in the site-specific safety plan.
- i. Contractor shall repair or replace any building finishes or systems that were damaged during construction by the contractor or any sub-contractors.
- j. Contractor shall email Daily Job Reports to the County each day. Daily Job Reports shall include, at minimum, the following:
 - i. Daily attendance log.
 - ii. List of visitors (including County staff).
 - iii. Written description of work accomplished.
 - iv. Photos of work accomplished.
 - v. Refer to Document 00 72 13, Section 6.5.2 for additional requirements.
- k. Contractor shall name an on-site supervisor. The on-site supervisor shall:
 - i. Be the point of contact for the County for site access and immediate questions.

- ii. Be on site every day directing the work.
- iii. Responsible for knowing the scope of work.
- iv. Refer to Document 00 72 13, Section 6.2 (Contractor's Supervision) for specific requirements.

1. Contractor shall comply with all applicable safety requirements on-site.

7. Alameda County Contract Compliance System

- 7.1 Alameda County utilizes the Elation Systems contract compliance application as part of its commitment to assist contractors to comply with certain legal and contractual requirements.
- 7.2 The prime contractor and all subcontractors awarded contracts as a result of the bid process for this project are required to use the Elation System to submit information including, but not limited to, weekly certified payrolls, monthly progress payment reports and other information. Use of the Elation System, support and training are available at no charge to prime and subcontractors participating in County contracts.
- 7.3 Upon contract award:
 - 7.3.1 The County will provide contractors and subcontractors participating in any contract awarded as a result of this bid process, a code that will allow them to register and use the Elation System free of charge.
 - 7.3.2 Contractors should schedule a representative from their office/company, along with each of their subcontractors, to attend Elation Systems training.
 - 7.3.2.1 Free multi-agency Elation Systems one-hour training sessions require reservations and are held monthly in the Pleasanton, California area.
- 7.4 It is the Contractor's responsibility to ensure that they and their subcontractors are registered and trained as required to utilize Elation Systems.
 - 7.4.1 For systems support visit Elation Systems online at <http://www.elationsys.com/> or contact them at (925) 924-0340.
 - 7.4.2 If you have questions regarding the utilization of the Elation Systems, please contact the Project Manager.

END OF DOCUMENT

DOCUMENT 00 73 56

HAZARDOUS MATERIALS
PROCEDURES & REQUIREMENTS

1. Summary

This document includes information applicable to hazardous materials and hazard waste abatement.

2. Notice of Hazardous Waste or Materials Conditions

- 2.1. Contractor shall give notice in writing, including by e-mail, to the County, the Construction Manager, and the Architect promptly, before any of the following conditions are disturbed, and in no event later than twenty-four (24) hours after first observance, of any:
 - 2.1.1. Material that Contractor believes may be material that is hazardous waste or hazardous material, as defined in section 25117 or 25260 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law;
 - 2.1.2. Other material that may present a substantial danger to persons or property exposed thereto in connection with Work at the site.
- 2.2. Contractor's written notice shall indicate whether the hazardous waste or material was shown or indicated in the Contract Documents to be within the scope of Work, and whether the materials were brought to the site by Contractor, its Subcontractors, suppliers, or anyone else for whom Contractor is responsible. As used in this section the term "hazardous materials" shall include, without limitation, asbestos, lead, mercury, Polychlorinated biphenyl (PCB), petroleum and related hydrocarbons, and radioactive material.
- 2.3. In response to Contractor's written notice, the County shall investigate the identified conditions.
- 2.4. If the County determines that conditions do not involve hazardous materials or that no change in terms of Contract is justified, the County shall so notify Contractor in writing, stating reasons. If the County and Contractor cannot agree on whether conditions justify an adjustment in Contract Price or Contract Times, or on the extent of any adjustment, Contractor shall proceed with the Work as directed by the County.
- 2.5. If after receipt of notice from the County, Contractor does not agree to resume Work

based on a reasonable belief it is unsafe, or does not agree to resume Work under special conditions, then County may order such portion of Work that is in connection with such hazardous condition or such affected area to be deleted from the Work, or performed by others, or County may invoke its rights to terminate the Contract in whole or in part. County will determine entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of deleting such portion of Work, or performing the Work by others.

- 2.6. If Contractor stops Work in connection with any hazardous condition and in any area affected thereby, Contractor shall immediately redeploy its workers, equipment, and materials, as necessary, to other portions of the Work to minimize delay and disruption.

3. Additional Warranties and Representations

- 3.1. Contractor represents and warrants that it, its employees, and its subcontractors and their employees, shall at all times have the required levels of familiarity with the Site and the Work, training, and ability to comply fully with all applicable law and contract requirements for safe and expeditious performance of the Work, including whatever training is or may be required regarding the activities to be performed (including, but not limited to, all training required to address adequately the actual or potential dangers of Contract performance).
- 3.2. Contractor represents and warrants that it, its employees, and its subcontractors and their employees, shall at all times have and maintain in good standing any and all certifications and licenses required by applicable federal, state, and other governmental and quasi-governmental requirements applicable to the Work.
- 3.3. Contractor represents and warrants that it has studied carefully all requirements of the Specifications regarding procedures for demolition, hazardous waste abatement, or safety practices, specified in the Contract, and prior to submitting its bid, has either (a) verified to its satisfaction that the specified procedures are adequate and sufficient to achieve the results intended by the Contract Documents, or (b) by way of approved "or equal" request or request for clarification and written Addenda, secured changes to the specified procedures sufficient to achieve the results intended by the Contract Documents. Contractor accepts the risk that any specified procedure will result in a completed Project in full compliance with the Contract Documents.

4. Monitoring and Testing

- 4.1. County reserves the right, in its sole discretion, to conduct air monitoring, earth monitoring, Work monitoring, and any other tests (in addition to testing required under the agreement or applicable law), to monitor Contract requirements of safe and statutorily compliant work methods and (where applicable) safe re-entry level air standards under state and federal law upon completion of the job, and compliance of the

work with periodic and final inspection by public and quasi-public entities having jurisdiction.

- 4.2. Contractor acknowledges that County has the right to perform, or cause to be performed, various activities and tests including, but not limited to, pre-abatement, during abatement, and post-abatement air monitoring, that County shall have no obligation to perform said activities and tests, and that a portion of said activities and tests may take place prior to the completion of the Work by Contractor. In the event County elects to perform these activities and tests, Contractor shall afford County ample access to the Site and all areas of the Work as may be necessary for the performance of these activities and tests. Contractor will include the potential impact of these activities or tests by County in the Contract Price and the Scheduled Completion Date.
- 4.3. Notwithstanding County's rights granted by this paragraph, Contractor may retain its own industrial hygiene consultant at Contractor's own expense and may collect samples and may perform tests including, but not limited to, pre-abatement, during abatement, and post-abatement personal air monitoring, and County reserves the right to request documentation of all such activities and tests performed by Contractor relating to the Work and Contractor shall immediately provide that documentation upon request.

5. Compliance with Laws

- 5.1. Contractor shall perform safe, expeditious, and orderly work in accordance with the best practices and the highest standards in the hazardous waste abatement, removal, and disposal industry, the applicable law, and the Contract Documents, including, but not limited to, all responsibilities relating to the preparation and return of waste shipment records, all requirements of the law, delivering of all requisite notices, and obtaining all necessary governmental and quasi-governmental approvals.
- 5.2. Contractor represents that it is familiar with and shall comply with all laws applicable to the Work or completed Work including, but not limited to, all federal, state, and local laws, statutes, standards, rules, regulations, and ordinances applicable to the Work relating to:
 - 5.2.1. The protection of the public health, welfare and environment;
 - 5.2.2. Storage, handling, or use of asbestos, PCB, lead, petroleum based products or other hazardous materials;
 - 5.2.3. The generation, processing, treatment, storage, transport, disposal, destruction, or other management of asbestos, PCB, lead, petroleum, or hazardous waste materials or other waste materials of any kind; and
 - 5.2.4. The protection of environmentally sensitive areas such as wetlands and coastal

areas.

6. Disposal

- 6.1. Contractor has the sole responsibility for determining current waste storage, handling, transportation, and disposal regulations for the job Site and for each waste disposal facility. Contractor must comply fully at its sole cost and expense with these regulations and any applicable law. County may, but is not obligated to, require submittals with this information for it to review consistent with the Contract Documents.
- 6.2. Contractor shall develop and implement a system acceptable to County to track hazardous waste from the Site to disposal, including appropriate "Hazardous Waste Manifests" on the EPA form, so that County may track the volume of waste it put in each landfill and receive from each landfill a certificate of receipt.
- 6.3. Contractor shall provide County with the name and address of each waste disposal facility prior to any disposal, and County shall have the express right to reject any proposed disposal facility. Contractor shall not use any disposal facility to which County has objected. Contractor shall document actual disposal or destruction of waste at a designated facility by completing a disposal certificate or certificate of destruction forwarding the original to the County.

7. Permits

- 7.1. Before performing any of the Work, and at such other times as may be required by applicable law, Contractor shall deliver all requisite notices and obtain the approval of all governmental and quasi-governmental authorities having jurisdiction over the Work. Contractor shall submit evidence satisfactory to County that it and any disposal facility
 - 7.1.1. have obtained all required permits, approvals, and the like in a timely manner both prior to commencement of the Work and thereafter as and when required by applicable law, and
 - 7.1.2. are in compliance with all such permits, approvals and the regulations.

For example, before commencing any work in connection with the Work involving asbestos-containing materials, or PCBs, or other hazardous materials subject to regulation, Contractor agrees to provide the required notice of intent to renovate or demolish to the appropriate state or federal agency having jurisdiction, by certified mail, return receipt requested, or by some other method of transmittal for which a return receipt is obtained, and to send a copy of that notice to County. Contractor shall not conduct any Work involving asbestos-containing materials or PCBs unless Contractor has first confirmed that the appropriate agency having jurisdiction is in receipt of the required notification.

All permits, licenses, and bonds that are required by governmental or quasi-governmental authorities, and all fees, deposits, tap fees, offsite easements, and asbestos and PCB disposal facilities expenses necessary for the prosecution of the Work, shall be procured and paid for by Contractor. Contractor shall give all notices and comply with the all applicable laws bearing on the conduct of the Work as drawn and specified. If Contractor observes or reasonably should have observed that Plans and Specifications and other Contract Documents are at variance therewith, it shall be responsible for promptly notifying County in writing, including by e-mail, of such fact. If Contractor performs any Work contrary to applicable laws, it shall bear all costs arising therefrom.

- 7.2. In the case of any permits or notices held in County's name or of necessity to be made in County's name, County shall cooperate with Contractor in securing the permit or giving the notice, but the Contractor shall prepare for County review and execution upon approval, all necessary applications, notices, and other materials.

8. Indemnification

- 8.1. To the extent permitted by law, the indemnities and limitations of liability expressed throughout the Contract Documents apply with equal force and effect to any claims or liabilities imposed or existing by virtue of the removal, abatement, and disposal of hazardous waste. This includes, but is not limited to, liabilities connected to the selection and use of a waste disposal facility, personal injury, property damage, loss of use of property, damage to the environment or natural resources, or "disposal" and "release" of materials associated with the Work (as defined in 42 U.S.C. § 9601 et seq.).

9. Termination

- 9.1. County shall have an absolute right to terminate for default immediately without notice and without an opportunity to cure should Contractor knowingly or recklessly commit a material breach of the terms of the Contract Documents, or any applicable law, on any matter involving the exposure of persons or property to hazardous waste. However, if the breach of contract exposing persons or property to hazardous waste is due solely to an ordinary, unintentional, and non-reckless failure to exercise reasonable care, then the procedures for termination for cause shall apply without modification.

END OF DOCUMENT

DOCUMENT 01 11 00

SUMMARY OF WORK

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents must be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions
- B. Special Conditions.
- C. Construction Waste Management Document 01 74 19
- D. LEED™ Requirements 01 35 13.23
- E. General Commissioning Requirements 01 91 13

1.02 SUMMARY OF WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of this Contract may consist of the following:
 - (1) Contractor shall furnish all expertise, labor, materials, parts, equipment, and incidentals necessary to provide a complete elevator modernization project at the 8477 Enterprise Way, Oakland, California.
 - (2) Contractor shall provide a complete elevator modernization project which consists of the following:
 - a. Modernization of one (1) hydraulic passenger elevator.
 - b. Modernization will include, but is not limited to, a full modernization of the existing elevator, including installation of a new controller with soft starter, submersible power unit, shut-off valves in the machine room and pit, and a new seismic rupture valve. Replacement of car and hoistway door equipment, fixtures, and the steel cab shell; furnishing a new cab interior. Installation of a new in-ground cylinder.
 - c. Provide a complete “turn-key” project, and the elevator contractor is to be the prime contractor for any and all work by others to meet the specification, code, and Authority Having Jurisdiction (AHJ) requirements.

- d. All engineering, equipment, labor, and permits required to satisfactorily complete elevator modernization required by Contract Documents.
- e. Refer to Exhibit A – Elevator Modernization Specifications for detailed specifications and requirements.
- f. Provide elevator maintenance upon issuance of Notice to Proceed and during Warranty Period as specified in Exhibit B – Elevator Maintenance Requirements.

(3) Related Building Work:

- a. This project will be a “turn-key” project with all work requirements included under the Related Building Work section of Exhibit A, Elevator Specifications.
- b. All work necessary for a complete and useable elevator system, shall be the responsibility of the Contractor and included with the original base bid.
- c. All building modifications required to complete this “turn-key” project including, but not limited to mechanical, electrical, and fire life safety to meet code or AHJ requirements is the responsibility of the contractor.
 - i. Contractors bid pricing should include building modifications that you have identified. Any item not included but required will be the full responsibility of the elevator contractor.
 - ii. A list of building modifications must be submitted to the County following contract award, but it is not the County’s responsibility to review that list for accuracy and is merely being provided for facility coordination.
- d. The newly installed system shall be compatible with any retained equipment. Any additional work required to the building or system will be at the contractor’s sole expense.
- e. Contractor shall coordinate as required with other contractors to ensure that Project schedules are met, and all work being performed in association with the elevator modernization project is acceptable.

(4) Hazardous Materials Requirements:

- a. Fire insulation within the elevators doors is assumed to contained asbestos materials.
- b. Hydraulic fluids must be tested for PCBs prior to removal.
- c. Various paints throughout the facility have been tested and confirmed positive for lead including paints in the elevator mechanical room, on the elevator doors, and on the elevator door frames.
- d. Removal and disposal work of all hazardous materials shall be performed in accordance with the Asbestos and Lead Hazard Control specifications and requirements from the County Environmental Department included in Exhibit D - Existing Conditions Specifications.

(5) Other Contractor Requirements:

- a. Contractor shall repair or replace any building finishes or systems that were damaged during construction by the contractor or any sub-contractor working for the contractor at their expense.
- b. Clean and paint areas and equipment as specified including, but not limited to pits, machine room, machine room floor, and elevator equipment.
- c. Perform code and performance related tests as specified or required.
- d. Remove and properly dispose of all discarded equipment and materials, including debris, rubbish, oil, and lubricants.
- e. Adjust all safety and emergency control related devices and perform code mandated safety tests.
- f. Perform daily cleanup of all workspaces.
- g. Provide all code required items, permits, testing, records, and inspection costs.

(6) Finishes shall be selected by the County based on all available color samples and qualities provided by the Contractor prior to the installation.

(7) It is solely the Contractor's responsibility to confirm all dimensions, measurements, and quantities required for this project.

- (8) Contractor shall do a pre-construction walk through with the County to review all aspects of the work including, but not limited to, the schedule, work hours, access, tenant impacts, and work procedures.
- (9) Site Requirements:
 - a. The contractor must minimize noise and vibration as much as possible. Extreme noisy operations require 48 hours advance notice and may need to be scheduled and performed after normal business hours.
 - b. The contractor must minimize generation of dust and dirt and prevent accumulation in areas whenever possible. Daily cleanup of all workspaces is required.
 - c. Protect all interior spaces from dust and debris prior to starting work. Provide floor protection for any material being rolled across finished floors. All barricades and warning signs are to be provided by contractor.
 - d. Install all necessary safety barriers and warning signs around working areas. Include all necessary work precautions such as fall protection, weather, and emergency procedures in the site-specific safety plan.
 - e. Submit a material delivery plan for approval to the County. It is the contractor's responsibility to work with County on an acceptable material delivery schedule.
 - f. Contractor shall repair or replace any building finishes or systems that were damaged during construction by the contractor or any sub-contractor working for the contractor at their expense.
 - g. Contractor shall properly dispose of all materials off-site. If dumpster is required or requested, it must be provided by the Contractor. Any on-site dumpsters must be secured with a lockable lid Location must be approved in advance.
 - h. Contractor shall provide storage of their own materials off site or provide their own lockable container. If a storage container is required, it must be provided by the Contractor and shall be secured in a location to be approved by the County in advance.
 - i. Contractor shall email Daily Job Reports to the County. Daily Job Reports shall include, at minimum, the following:

- i. Daily attendance log.
 - ii. List of visitors (including County staff).
 - iii. Written description of work accomplished.
 - iv. Photos of work accomplished.
 - v. Refer to Document 00 72 13, Section 6.5.2 for additional requirements.
 - j. Contractor shall name an on-site supervisor. The on-site supervisor shall:
 - i. Be the point of contact for the County for site access and immediate questions.
 - ii. Be on site every day directing the work.
 - iii. Responsible for knowing the scope of work.
 - iv. Refer to Document 00 72 13, Section 6.2 (Contractor's Supervision) for specific requirements.
 - k. Refer to Special Conditions Document 00 73 13 for additional site requirements.
- (10) Refer to **Exhibit A** for Elevator Modernization Specifications
 - (11) Refer to **Exhibit B** for Elevator Maintenance Requirements
 - (12) Refer to **Exhibit C** for Insurance Requirements
 - (13) Refer to **Exhibit D** for Existing Conditions Requirements, Reports, and Specifications.

1.03 CONTRACTS

- A. Perform the Work under a single, fixed-price Contract.
- B. Any bid item may be deleted in total or in part prior to or after award of Contract without compensation in any form or adjustment of other bid items or prices.

1.04 WORK BY OTHERS

- A. Work on the Project that will be performed and completed prior to the start of the Work of this Contract:
 - (1) None at this time.
- B. Work on the Project that will be performed by others concurrent with the Work of this Contract:

- (1) None at this time.

1.05 CODES, REGULATIONS, AND STANDARDS

- A. The codes, regulations, and standards adopted by the state and federal agencies having jurisdiction shall govern minimum requirements for this project. Where codes, regulations, and standards conflict with the Contract Documents, these conflicts shall be brought to the immediate attention of the County and the Architect.
- B. Codes, regulations, and standards shall be as published effective as of date of bid opening, unless otherwise specified or indicated.

1.06 PROJECT RECORD DOCUMENTS:

- A. Contractor shall maintain on Site one set of the following record documents; Contractor shall record actual revisions to the Work:
 - (1) Contract Drawings.
 - (2) Specifications.
 - (3) Addenda.
 - (4) Change Orders and other modifications to the Contract.
 - (5) Reviewed shop drawings, product data, and samples.
 - (6) Field test records.
 - (7) Inspection certificates.
 - (8) Manufacturer's certificates.
- B. Contractor shall store Record Documents separate from documents used for construction. Provide files, racks, and secure storage for Record Documents and samples.
- C. Contractor shall record information concurrent with construction progress.
- D. Specifications: Contractor shall legibly mark and record at each product section of the Specifications the description of the actual product(s) installed, including the following:

- (1) Manufacturer's name and product model and number.
- (2) Product substitutions or alternates utilized.
- (3) Changes made by Addenda and Change Orders and written directives.

1.07 EXAMINATION OF EXISTING CONDITIONS

- A. The Contractor shall be held to have examined the Project Site and acquainted itself with the conditions of the Site or of the streets or roads approaching the Site.
- B. Prior to commencement of Work, Contractor shall survey the Site and existing buildings and improvements to observe existing damage and defects such as cracks, sags, broken, missing or damaged glazing, other building elements and Site improvements, and other damage.
- C. Should Contractor observe cracks, sags, and other damage to and defects of the Site and adjacent buildings, paving, and other items not indicated in the Contract Documents, Contractor shall immediately report same to the County and the Architect.

1.08 CONTRACTOR'S USE OF PREMISES

- A. If unoccupied and only with County's prior written approval, Contractor may use the building(s) at the Project Site without limitation for its operations, storage, and office facilities for the performance of the Work. If the County chooses to beneficially occupy any building(s), Contractor must obtain the County's written approval for Contractor's use of spaces and types of operations to be performed within the building(s) while so occupied. Contractor's access to the building(s) shall be limited to the areas indicated.
- B. If the space at the Project Site is not sufficient for Contractor's operations, storage, office facilities and/or parking, Contractor shall arrange and pay for any additional facilities needed by Contractor.
- C. Contractor shall not interfere with use of or access to occupied portions of the building(s) or adjacent property.
- D. Contractor shall maintain corridors, stairs, halls, and other exit-ways of building clear and free of debris and obstructions at all times.
- E. No one other than those directly involved in the demolition and construction, or specifically designated by the County or the Architect shall be permitted in the areas of work during demolition and construction activities.

- F. The Contractor shall install the construction security fence and maintain that it will be locked when not in use. Keys to this fencing will be provided to the County.

1.09 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

- A. The Drawings show above-grade and below-grade structures, utility lines, and other installations that are known or believed to exist in the area of the Work. Contractor shall locate these existing installations before proceeding with excavation and other operations that could damage same; maintain them in service, where appropriate; and repair damage to them caused by the performance of the Work. Should damage occur to these existing installations, the costs of repair shall be at the Contractor's expense and made to the County's satisfaction.
- B. Contractor shall be alert to the possibility of the existence of additional structures and utilities. If Contractor encounters additional structures and utilities, Contractor will immediately report to the County for disposition of same as indicated in the General Conditions.
- C. Contract shall employ utility locating services to locate any underground utilities within the limits of work prior to the start of any excavating work. Contractor shall subsequently be responsible for repairs of any located underground utilities damaged by construction activities.

1.10 UTILITY SHUTDOWNS AND INTERRUPTIONS

- A. Contractor shall give the County a minimum of three (3) days written notice in advance of any need to shut off existing utility services or to effect equipment interruptions. The County will set exact time and duration for shutdown, and will assist Contractor with shutdown. Work required to re-establish utility services shall be performed by the Contractor.
- B. Contractor shall obtain County's written approval as indicated in the General Conditions in advance of deliveries of material or equipment or other activities that may conflict with County's use of the building(s) or adjacent facilities.

1.11 STRUCTURAL INTEGRITY

- A. Contractor shall be responsible for and supervise each operation and work that could affect structural integrity of various building elements, both permanent and temporary.

- B. Contractor shall include structural connections and fastenings as indicated or required for complete performance of the Work.

1.12 WORK SEQUENCE

- A. Contractor shall be responsible for compliance with all requirements outlined in the hazardous materials sections of the Contract Documents.
- B. Construct Work in stages and at times to accommodate County operation requirements during the construction period; coordinate construction schedule and operations with the County.
- C. Phasing Schedule included in item 1.13 must be adhered to. Moving dates are included in the Phasing Schedule to show planned windows for relocation of building occupants. Liquidated damages may be assessed as described in the Contract Documents for failure to achieve milestone dates.
- D. This facility may be occupied during construction. In that case: County will provide contractor with schedule of uses; at the site during the construction period; Contractor is to coordinate work with the County and maintain safe access to all buildings at all times and to not disrupt ongoing uses. Contractor must comply with the following requirements:
- (1) If Contractor must shut down power to any part of the site, Contractor must provide temporary power for that section of the site.
 - (2) Scope of work includes utility and systems upgrade and replacement that may impact the entire site. Work must be coordinated so that site-wide systems remain functional at all times until new systems work is complete and tested.

1.13 PHASING SCHEDULE

No.	Milestones	Start	Complete
1	Anticipated Notice To Proceed	6/25/2025	6/25/2025
2	Preliminary Submittals	6/25/2025	7/10/2025
3	Product Submittals / Shop Drawings	7/17/2025	9/12/2025
4	Equipment Manufacturing	9/19/2025	1/7/2026
5	Elevator Modernization	1/7/2026	3/4/2026
6	Final Inspections and Acceptance	3/5/2026	3/12/2026
7	Warranty Maintenance	TBD	TBD

- A. The “Start” dates included in the phasing schedule indicate the date that work is to begin on the identified milestone scope of work.
- B. The “Complete” dates included in the phasing schedule indicates that the following must be complete:
 - (1) The entire scope of work for the milestone work must be complete, including all utility work up to the building and all final termination and operation of all building systems.
 - (2) Fire alarm, telephone, data, public address and all other systems final connections must be complete and systems programmed and tested so that fully functional systems are provided.
 - (3) All punch list work must be complete.
 - (4) Maintenance and Operations Manuals must be submitted to the County.
 - (5) All required testing must be complete.
 - (6) All training for all building systems must be complete.
 - (7) A minimum of six (6) keys for each and every lock must be provided. Where fewer keys are specified elsewhere in the Contract Documents, provide a minimum of 6 keys. All keys must be permanently stamped with three (3) characters identification as directed by the County.
- C. Record Documents for the scope of work of each Milestone included in the Phasing Schedule must be submitted within one week after completion of the Milestone. AutoCAD files to be provided at Final Contract Completion
- D. Notice to proceed date is the anticipated date of issuance of the Notice to Proceed. If the Notice to Proceed is issued after the date indicated in the Phasing schedule, the start and completion dates of Milestone No. 1 and No. 7 should be adjusted by the number of days that the Notice to Proceed is delayed.

PART 2 – PRODUCTS Not Used.

PART 3 – EXECUTION Not Used.

END OF DOCUMENT

DOCUMENT 01 22 00

UNIT PRICES AND ALTERNATES

PART I – ALTERNATES

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- F. General Conditions;
- G. Special Conditions;
- H. Bid Form;
- I. Instruction to Bidders.

1.02 DESCRIPTION

The items of work indicated below propose modifications to, substitutions for, additions to and/or deletions from the various parts of the Work specified in other Sections of the Specifications. The acceptance or rejection of any of the alternates is strictly at the option of the County subject to County's acceptance of Contractor's stated prices contained in this Proposal.

1.03 GENERAL

Where an item is omitted, or scope of Work is decreased, all Work pertaining to the item whether specifically stated or not, shall be omitted and where an item is added or modified or where scope of Work is increased, all Work pertaining to that required to render same ready for use on the Project in accordance with the intention of the Drawings and Specifications shall be included in an agreed upon price amount.

1.04 BASE BID

The Base Bid includes all work required to construct the Project completely and in accordance with the Contract Documents.

1.05 ALTERNATES

- A. Not used.

The above Alternate descriptions are general in nature and for reference purposes only. The Contract Documents, including, without limitation, the Drawings and Specifications, must be referred to for the complete scope of Work.

PART 2 - UNIT PRICING

2.01 GENERAL

Contractor shall completely state all required figures based on Unit Prices listed below. Where scope of Work is decreased, all Work pertaining to the item, whether specifically stated or not, shall be omitted and where scope of Work is increased, all work pertaining to that item required to render same ready for use on the Project in accordance with intention of Drawings and Specifications shall be included in an agreed upon price amount.

2.02 UNIT PRICES

Furnish unit prices for each of the named items on a square foot, lineal foot, or per each basis, as applies. Unit prices shall include all labor, materials, services, profit, overhead, insurance, bonds, taxes, and all other incidental costs of Contractor, subcontractors, and supplier(s).

END OF DOCUMENT

DOCUMENT 01 26 00

CONTRACT MODIFICATIONS

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DOCUMENT 01 29 00

PAYMENT PROCEDURES

1. County will use its best efforts to make payment to Contractor upon successful completion and acceptance of the work performed within thirty (30) days upon receipt and approval of invoices.
2. Contractor must submit a scheduled of values with all invoices. Contractor shall list payments to subcontractors, which must be entered and verified in Elations.
3. Refer to DOCUMENT 00 72 13, Item #19 (Payments) for additional requirements

END OF DOCUMENT

DOCUMENT 01 31 19

PROJECT MEETINGS

PART I – GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions
- B. Special Conditions

1.02 PRECONSTRUCTION CONFERENCE:

The contractor shall attend a conference at the Project Site prior to the start of construction for the purpose of determining Contractor's access to, and use of the site, verifying utilities, review construction administrative procedures, and such other items as may be pertinent to the start of construction.

1.03 PROGRESS MEETINGS:

- A. Construction Manager shall schedule and hold regular weekly progress meetings after a minimum of one week's prior written notice of the meeting date and time to all Invitees as indicated below.
- B. Location: Contractor's field office.
- C. The Contractor shall notify and invite the following entities ("Invitees"):
 - (1) County Representative(s).
 - (2) Contractor.
 - (3) Contractor's Project Manager.
 - (4) Contractor's Superintendent.
 - (5) Subcontractors/suppliers, as appropriate to the agenda of the meeting.
 - (6) Inspector of record.
 - (7) Construction Manager, if any.

- (8) Project Manager
 - (9) Architect
 - (10) Engineer(s), if any and as appropriate to the agenda of the meeting.
 - (11) Others, as appropriate to the agenda of the meeting.
- D. The County's, the Architect's, and/or an engineer's Consultants will attend at their discretion, in response to the agenda.
- E. The County representative, the Construction Manager, and/or another County Agent shall take and distribute meeting notes to attendees and other concerned parties. If exceptions are taken to anything in the meeting notes, those exceptions shall be stated in writing to the County within five (5) working days following County's distribution of the meeting notes.

1.04 PRE-INSTALLATION/PERFORMANCE MEETING:

- A. Contractor shall schedule a meeting prior to the start of each of the following portions of the Work: cutting and patching of plaster and roofing, and other weather-exposed and moisture-resistant products. Contractor shall invite all Invitees to this meeting, and others whose work may affect or be affected by the quality of the cutting and patching work.
- B. Contractor shall review in detail prior to this meeting, the manufacturer's requirements and specifications, applicable portions of the Contract Documents, Shop Drawings, and other submittals, and other related work. At this meeting, invitees shall review and resolve conflicts, incompatibilities, or inadequacies discovered or anticipated.
- C. Contractor shall review in detail Project conditions, schedule, requirements for performance, application, installation, and quality of completed Work, and protection of adjacent Work and property.
- D. Contractor shall review in detail means of protecting the completed Work during the remainder of the construction period.

1.05 SPECIAL MEETINGS:

Special meetings may be requested by the County. Contractor, subcontractors, material suppliers and any other members of the project team may be required to attend.

END OF DOCUMENT

DOCUMENT 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Contractor's Submittals and Schedules, Drawings and Specifications;
- B. Special Conditions.

1.02 SECTION INCLUDES:

- A. Definitions:
 - (1) Shop Drawings and Product Data are as indicated in the General Conditions and include, but are not limited to, fabrication, erection, layout and setting drawings, formwork and falsework drawings, manufacturers' standard drawings, descriptive literature, catalogues, brochures, performance and test data, wiring and control diagrams. In addition, there are other drawings and descriptive data pertaining to materials, equipment, piping, duct and conduit systems, and methods of construction as may be required to show that the materials, equipment or systems and all positions conform to the requirement of the Contract Documents, including, without limitation, the Drawings.
 - (2) "Manufactured" applies to standard units usually mass-produced; "fabricated" means specifically assembled or made out of selected materials to meet design requirements. Shop Drawings shall establish the actual detail of manufactured or fabricated items, indicate proper relation to adjoining work and amplify design details of mechanical and electrical equipment in proper relation to physical spaces in the structure.
 - (3) Manufacturer's Instructions: Where any item of Work is required by the Contract Documents to be furnished, installed, or performed, at a minimum, in accordance with a specified product manufacturer's instructions, the Contractor shall procure and distribute copies of these to the County, the Architect, and all other concerned parties and shall furnish, install, or perform the work, at a minimum, in accordance with those instructions.

- B. Samples, Shop Drawings, Product Data, and other items as specified, in accordance with the following requirements:
- (1) Contractor shall submit all Shop Drawings, Product Data, and Samples to the County, the Architect, and the Construction Manager.
 - (2) Contractor shall comply with all time frames herein and in the General Conditions and, in any case, shall submit required information in sufficient time to permit proper consideration and action before ordering any materials or items represented by such Shop Drawings, Product Data, and/or Samples.
 - (3) Contractor shall comply with all time frames herein and in the General Conditions and, in any case, shall allow sufficient time so that no delay occurs due to required lead time in ordering or delivery of any item to the Site. Contractor shall be responsible for any delay in progress of Work due to its failure to observe these requirements.
 - (4) Time for completion of Work shall not be extended on account of Contractor's failure to promptly submit Shop Drawings, Product Data, and/or Samples.
 - (5) Reference numbers on Shop Drawings shall have Architectural and/or Engineering Contract Drawings reference numbers for details, sections, and "cuts" shown on Shop Drawings. These reference numbers shall be in addition to any numbering system that Contractor chooses to use or has adopted as standard.
 - (6) When the magnitude or complexity of submittal material prevents a complete review within the stated time frame, Contractor shall make this submittal in increments to avoid extended delays.
 - (7) Contractor shall certify on submittals for review that submittals conform to Contract requirements. In event of any variance, Contractor shall specifically state in transmittal and on Shop Drawings, portions vary and require approval of a substitute. Also certify that Contractor-furnished equipment can be installed in allocated space.
 - (8) Unless specified otherwise, sampling, preparation of samples, and tests shall be in accordance with the latest standard of the American Society for Testing and Materials.

- (9) Upon demand by Architect or County, Contractor shall submit samples of materials and/or articles for tests or examinations and consideration before Contractor incorporates same in Work. Contractor shall be solely responsible for delays due to sample(s) not being submitted in time to allow for tests. Acceptance or rejection will be expressed in writing. Work shall be equal to approved samples in every respect. Samples that are of value after testing will remain the property of Contractor.

C. Submittal Schedule:

- (1) Contractor shall prepare its proposed submittal schedule that is coordinated with its proposed construction schedule and submit both to the County within ten (10) days after the date of the Notice to Proceed. Contractor's proposed schedules shall become the Project Construction Schedule and the Project Submittal Schedule after each is approved by the County.
- (2) Contractor is responsible for all lost time should the initial submittal be rejected, marked "revised and resubmit", etc.
- (3) All Submittals shall be forwarded to the County by the date indicated on the approved Submittal Schedule, unless an earlier date is necessary to maintain the Construction Schedule, in which case those Submittals shall be forwarded to the County so as not to delay the Construction Schedule.

1.03 SHOP DRAWINGS:

- A. Contractor shall submit one reproducible transparency and six (6) opaque reproductions. The County will review and return the reproducible copy and one (1) opaque reproduction to Contractor.
- B. Before commencing installation of any Work, the Contractor shall submit and receive approval of all drawings, descriptive data, and material list(s) as required to accomplish Work.
- C. Review of Shop Drawings is regarded as a service to assist Contractor and in all cases original Contract Documents shall take precedence as outlined under General Conditions.
- D. No claim for extra time or payment shall be based on work shown on Shop Drawings unless the claim is (1) noted on Contractor's transmittal letter accompanying Shop Drawings and (2) Contractor has complied with all applicable provisions of the General Conditions, including, without limitation, provisions regarding changes and payment, and all required written approvals.

- E. County shall not review Shop Drawings for quantities of materials or number of items supplied.
- F. County's and/or Architect's review of Shop Drawings will be general. County and/or Architect review does not relieve Contractor of responsibility for accuracy, proper fitting, construction of Work, furnishing of materials, or Work required by Contract Documents and not indicated on Shop Drawings. Shop Drawings reviewed by County and/or Architect is not to be construed as approving departures from Contract Documents.
- G. Review of Shop Drawings and Schedules does not relieve Contractor from responsibility for any aspect of those Drawings or Schedules that is a violation of local, County, State, or Federal laws, rules, ordinances, or rules and regulations of commissions, boards, or other authorities or utilities having jurisdiction.
- H. Before submitting Shop Drawings for review, Contractor shall check Shop Drawings of its subcontractors for accuracy, and confirm that all Work contiguous with and having bearing on other work shown on Shop Drawings is accurately drawn and in conformance with Contract Documents.
- I. Submitted drawings and details must bear stamp of approval of Contractor:
 - (1) Stamp and signature shall clearly certify that Contractor has checked Shop Drawings for compliance with Drawings.
 - (2) If Contractor submits a Shop Drawing without an executed stamp of approval, or whenever it is evident (despite stamp) that Drawings have not been checked, the County and/or Architect will not consider them and will return them to the Contractor for revision and resubmission. In that event, it will be deemed that Contractor has not complied with this provision and Contractor shall bear risk of all delays to same extent as if it had not submitted any Shop Drawings or details.
- J. Submission of Shop Drawings (in either original submission or when resubmitted with correction) constitutes evidence that Contractor has checked all information thereon and that it accepts and is willing to perform Work as shown.
- K. Contractor shall pay for cost of any changes in construction due to improper checking and coordination. Contractor shall be responsible for all additional costs, including coordination. Contractor shall be responsible for costs incurred by itself, the County, the Architect, the Construction Manager, any other Subcontractor or contractor, etc., due to improperly checked and/or coordination of submittals.

- L. Shop Drawings must clearly delineate the following information:
- (1) Project name and address.
 - (2) Architect's name and project number.
 - (3) Shop Drawing title, number, date, and scale.
 - (4) Names of Contractor, Subcontractor(s) and fabricator.
 - (5) Working and erection dimensions.
 - (6) Arrangements and sectional views.
 - (7) Necessary details, including complete information for making connections with other Work.
 - (8) Kinds of materials and finishes.
 - (9) Descriptive names of materials and equipment, classified item numbers, and locations at which materials or equipment are to be installed in the Work. Contractor shall use same reference identification(s) as shown on Contract Drawings.
- M. Contractor shall prepare composite drawings and installation layouts when required to solve tight field conditions.
- (1) Shop Drawings shall consist of dimensioned plans and elevations and must give complete information, particularly as to size and location of sleeves, inserts, attachments, openings, conduits, ducts, boxes, structural interferences, etc.
 - (2) Contractor shall coordinate these composite Shop Drawings and installation layouts in the field between itself and its Subcontractor(s) for proper relationship to the Work, the work of other trades, and the field conditions. The Contractor shall check and approve the submittal(s) before submission for final review.

1.04 PRODUCT DATA OR NON REPRODUCIBLE SUBMITTALS:

- A. Contractor shall submit manufacturer's printed literature in original form. Any fading type of reproduction will not be accepted. Contractor must submit a minimum of six (6) each, to the County. County shall return one (1) to the

Contractor, who shall reproduce whatever additional copies it requires for distribution.

- B. Contractor shall submit six (6) copies of a complete list of all major items of mechanical, plumbing, and electrical equipment and materials in accordance with the approved Submittal Schedule, except as required earlier to comply with the approved Construction Schedule. Other items specified are to be submitted prior to commencing Work. Contractor shall submit items of like kind at one time in a neat and orderly manner. Partial lists will not be acceptable.
- C. Submittals shall include manufacturer's specifications, physical dimensions, and ratings of all equipment. Contractor shall furnish performance curves for all pumps and fans. Where printed literature describes items in addition to that item being submitted, submitted item shall be clearly marked on sheet and superfluous information shall be crossed out. If highlighting is used, Contractor shall mark all copies.
- D. Equipment submittals shall be complete and include space requirements, weight, electrical and mechanical requirements, performance data, and supplemental information that may be requested.

1.05 SAMPLES:

- A. Contractor shall submit for approval Samples as required and within the time frame in the Contract Documents. Materials such as concrete, mortar, etc., which require on-site testing will be obtained from Project Site.
- B. Contractor shall submit six (6) samples except where greater or lesser number is specifically required by Contract Documents including, without limitation, the Specifications.
 - (1) Samples must be of sufficient size and quality to clearly illustrate functional characteristics, with integrally related parts and attachment devices.
 - (2) Samples must show full range of texture, color, and pattern.
- C. Contractor shall make all Submittals, unless it has authorized Subcontractor(s) to submit and Contractor has notified the County in writing to this effect.
- D. Samples to be shipped prepaid or hand-delivered to the County.
- E. Contractor shall mark samples to show name of Project, name of Contractor submitting, Contract number and segment of Work where representative Sample

will be used, all applicable Specifications Sections and documents, Contract Drawing Number and detail, and ASTM or FS reference, if applicable.

- F. Contractor shall not deliver any material to Site prior to receipt of County's and/or Architect's completed written review and approval. Contractor shall furnish materials equal in every respect to approved Samples and execute Work in conformance therewith.
- G. County's and/or Architect's review, acceptance, and/or approval of Sample(s) will not preclude rejections of any material upon discovery of defects in same prior to final acceptance of completed Work.
- H. After a material has been approved, no change in brand or make will be permitted.
- I. Contractor shall prepare its Submittal Schedule and submit Samples of materials requiring laboratory tests to specified laboratory for testing not less than ninety (90) days before such materials are required to be used in Work.
- J. Samples which are rejected must be resubmitted promptly after notification of rejection and be marked "Resubmitted Sample" in addition to other information required.
- K. Field Samples and Mock-Ups are to be removed by Contractor at County's direction:
 - (1) Size: As Specified.
 - (2) Furnish catalog numbers and similar data, as requested.

1.06 REVIEW AND RESUBMISSION REQUIREMENTS:

- A. The County will arrange for review of Sample(s), Shop Drawing(s), Product Data, and other submittal(s) by appropriate reviewer and return to Contractor as provided below within twenty one (21) days after receipt or within twenty one (21) days after receipt of all related information necessary for such review, whichever is later.
- B. One (1) copy of product or materials data will be returned to Contractor with the review status.
- C. Samples to be incorporated into the Work will be returned to Contractor, together with a written notice designating the Sample with the appropriate review status and indicating errors discovered on review, if any. Other Samples will not be

returned, but the same notice will be given with respect thereto, and that notice shall be considered a return of the Sample.

- D. Contractor shall revise and resubmit any Sample(s), Shop Drawing(s), Product Data, and other submittal(s) as required by the reviewer. Such resubmittals will be reviewed and returned in the same manner as original Sample(s), Shop Drawing(s), Product Data, and other submittal(s), within fourteen (14) days after receipt thereof or within fourteen (14) days after receipt of all related information necessary for such review.
- E. Contractor may proceed with any of the Work covered by Sample(s), Shop Drawing(s), Product Data, and other submittal(s) upon its return if designated as no exception taken, or revise as noted, provided the Contractor proceeds in accordance with the County's and/or the Architect's notes and comments.
- F. Contractor shall not begin any of the work covered by a Sample(s), Shop Drawing(s), Product Data, and other submittal(s), designated as revise and resubmit or rejected, until a revision or correction thereof has been reviewed and returned to Contractor.
- G. Sample(s), Shop Drawing(s), Product Data, and other submittal(s) designated as revise and resubmit or rejected and requiring resubmittal, shall be revised or corrected and resubmitted to the County no later than fourteen (14) days or a shorter period as required to comply with the approved Construction Schedule, after its return to Contractor.
- H. Neither the review nor the lack of review of any Sample(s), Shop Drawing(s), Product Data, and other submittal(s) shall waive any of the requirements of the Contract Documents, or relieve Contractor of any obligation thereunder.
- I. County's and/or Architect's review of Shop Drawings does not relieve the Contractor of responsibility for any errors that may exist. Contractor is responsible for the dimensions and design of adequate connections and details and for satisfactory construction of all the Work.

END OF DOCUMENT

DOCUMENT 01 35 13.23

LEED™ REQUIREMENTS

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DOCUMENT 01 41 00

REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Obtaining of Permits and Licenses and Work To Comply With All Applicable Regulations;
- B. Special Conditions;
- C. Quality Control.

1.02 DESCRIPTION:

- A. This section covers the general requirements for regulatory requirements pertaining to the Work and is supplementary to all other regulatory requirements mentioned or referenced elsewhere in the Contract Documents.

1.03 REQUIREMENTS OF REGULATORY AGENCIES:

- A. All statutes, ordinances, laws, rules, codes, regulations, standards, and the lawful orders of all public authorities having jurisdiction of the Work, are hereby incorporated into these Contract Documents as if repeated in full herein and are intended to be included in any reference to Code or Building Code, unless otherwise specified, including, without limitation, the references in the list below. Contractor shall make available at the Site copies of all the listed documents applicable to the Work as the County and/or Architect may request, including, without limitation, applicable portions of the California Code of Regulations ("CCR").
- B. Items of deferred approval shall be clearly marked on the first sheet of the Architect's and/or Engineer's approved Drawings.
 - (1) Building Standards Administrative Code, Part 1, Title 24, CCR
 - (2) California Building Code (CBC), Part 2, Title 24, CCR; (Uniform Building code volumes 1-3 and California Amendments).

- (3) California Electrical Code (CEC), Part 3, Title 24, CCR; (National Electrical Code and California Amendments).
- (4) California Mechanical Code (CMC), Part 4, Title 24, CCR; (Uniform Mechanical Code and California Amendments).
- (5) California Plumbing Code (CPC), Part 5, Title 24, CCR; (Uniform Plumbing Code and California Amendments).
- (6) California Fire Code (CFC), Part 9, Title 24, CCR; (Fire Plumbing Code and California Amendments).
- (7) California Referenced Standards Code, Part 12, Title 24, CCR
- (8) Title 19, CCR, Public Safety, State Fire Marshal Regulations.
- (9) Partial List of Applicable NFPA Standards:
 - (a) NFPA 13 - Automatic Sprinkler System.
 - (b) NFPA 14 - Standpipes Systems.
 - (c) NFPA 17A - Wet Chemical System
 - (d) NFPA 24 - Private Fire Mains.
 - (e) (California Amended) NFPA 72 - National Fire Alarm Codes.
 - (f) NFPA 253 - Critical Radiant Flux of Floor Covering System.
 - (g) FPA 2001 - Clean Agent Fire Extinguishing Systems.
- (10) ASME A17.1-2004 Safety Code for Elevators and Escalators
- (11) Elevator Industry Field Employees' Safety Handbook 2020
- (12) O.S.H.A.

END OF DOCUMENT

DOCUMENT 01 42 13

ABBREVIATIONS AND ACRONYMS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions including without limitation, Definitions
- B. Special Conditions

1.02 DOCUMENT INCLUDES:

- A. Abbreviations used throughout the Contract Documents.
- B. Reference to a technical society, organization, or body is by abbreviation, as follows:

1.	AA	Aluminum Association
2.	AAMA	Architectural Aluminum Manufacturers Association
3.	AASHTO	American Association of State Highway and Transportation Officials
4.	ABPA	Acoustical and Board Products Association
5.	ACI	American Concrete Institute
6.	AGA	American Gas Association
7.	AGC	Associated General Contractors
8.	AHC	Architectural Hardware Consultant
9.	AI	Asphalt Institute
10.	AIA	American Institute of Architects
11.	AIEE	American Institute of Electrical Engineers
12.	AISC	American Institute of Steel Construction
13.	AISI	American Iron and Steel Institute
14.	AMCA	Air Moving and Conditioning Association
15.	ANSI	American National Standards Institute
16.	APA	American Plywood Association
17.	ARI	Air Conditioning and Refrigeration Institute
18.	ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers
19.	ASME	American Society of Mechanical Engineers

20.	ASSE	American Society of Structural Engineers
21.	ASTM	American Society of Testing and Materials
22.	AWPB	American Wood Preservers Bureau
23.	AWPI	American Wood preservers Institute
24.	AWS	American Welding Society
25.	AWSC	American Welding Society Code
26.	AWI	Architectural Woodwork Institute
27.	AWWA	American Water Works Association
28.	BIA	Brick Institute of America
29.	CCR	California Code of Regulations
30.	CLFMI	Chain Link Fence Manufacturers Institute
31.	CMG	California Masonry Guild
32.	CRA	California Redwood Association
33.	CRSI	Concrete Reinforcing Steel Institute
34.	CS	Commercial Standards
35.	CSI	Construction Specifications Institute
36.	CTI	Cooling Tower Institute
37.	FGMA	Flat Glass Manufacturer's Association
38.	FIA	Factory Insurance Association
39.	FM	Factory Mutual
40.	FS	Federal Specification
41.	FTI	Facing Title Institute
42.	GA	Gypsum Association
43.	ICBO	International Conference of Building Officials
44.	IEEE	Institute of Electrical and Electronic Engineers
45.	IES	Illumination Engineering Society
46.	LIA	Lead Industries Association
47.	MIA	Marble Institute of America
48.	MLMA	Metal Lath Manufacturers Association
49.	MS	Military Specifications
50.	NAAMM	National Association of Architectural Metal Manufacturers
51.	NBHA	National Builders Hardware Association
52.	NBFU	National Board of Fire Underwriters
53.	NBS	National Bureau of Standards
54.	NCMA	National Concrete Masonry Association
55.	NEC	National Electrical Code
56.	NEMA	National Electrical Manufacturers Association
57.	NFPA	National Fire Protection Association/National Forest Products Association
58.	NMWIA	National Mineral Wool Insulation Association
59.	NTMA	National Terrazzo and Mosaic Association
60.	NWMA	National Woodwork Manufacturer's Association
61.	ORS	Office of Regulatory Services (California)

62.	OSHA	Occupational Safety and Health Act
63.	PCI	Precast Concrete Institute
64.	PCA	Portland Cement Association
65.	PDCA	Painting and Decorating Contractors of America
66.	PDI	Plumbing Drainage Institute
67.	PEI	Porcelain Enamel Institute
68.	PG&E	Pacific Gas & Electric Company
69.	PS	Product Standards
70.	SDI	Steel Door Institute; Steel Deck Institute
71.	SJI	Steel Joist Institute
72.	SSPC	Steel Structures Painting Council
73.	TCA	Tile Council of America
74.	TPI	Truss Plate Institute
75.	UBC	Uniform Building Code
76.	UL	Underwriters Laboratories Code
77.	UMC	Uniform Mechanical Code
78.	USDA	United States Department of Agriculture
79.	VI	Vermiculite Institute
80.	WCLA	West Coast Lumberman's Association
81.	WCLB	West Coast Lumber Bureau
82.	WEUSER	Western Electric Utilities Service Engineering Requirements
83.	WIC	Woodwork Institute of California
84.	WPOA	Western Plumbing Officials Association

END OF DOCUMENT

OCUMENT 01 42 16

DEFINITIONS AND REFERENCE STANDARDS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISION

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions including without limitation, Definitions;
- B. Special Conditions;

1.02 QUALITY ASSURANCE:

- A. For products or workmanship specified by association, trade, or Federal Standards, Contractor shall comply with requirements of the standard, except when more rigid requirements are specified in the Contract Documents, or are required by applicable codes.
- B. Contractor shall conform to current reference standard publication date in effect on the date of bid opening.
- C. Contractor shall obtain copies of standards unless specifically required not to by the Contract Documents.
- D. Contractor shall maintain a copy of all standards at jobsite during submittals, planning, and progress of the specific Work, until final completion, unless specifically required not to by the Contract Documents.
- E. Should specified reference standards conflict with Contract Documents, Contractor shall request clarification from the County and./or the Architect before proceeding.
- F. The contractual relationship of the parties to the Contract shall not be altered from the contractual relationship as indicated in the Contract Documents by mention or inference otherwise in any referenced document.
- G. Governing Codes shall be as shown in the Contract Documents including, without limitation, the Specifications.

1.03 SCHEDULE OF REFERENCES:

The following information is intended only for the general assistance of the Contractor, and the County does not represent that all of the information is current. It is the Contractor's responsibility to verify the correct information for each of the entities listed.

AA	Aluminum Association 900 19 th Street NW, Suite 300 Washington, DC 20006 www.aluminum.org	202/862-5100
AABC	Associated Air Balance Council 1518 K Street, NW, Suite 503 Washington, DC 20005 www.aabchq.com	202/737-0202
AAMA	American Architectural Manufacturers Association 1827 Walden Office Sq., Suite 104 Schaumburg, IL 60173-4268 www.aamanet.org	847/303-5664
AASHTO	American Association of State Highway and Transportation Officials 444 North Capitol Street, Suite 249 Washington, DC 20001 www.aashto.org	202/624-5800
AATCC	American Association of Textile Chemists and Colorists P.O. Box 12215 One Davis Drive Research Triangle Park, NC 27709-2215 www.aatcc.org	919/549-8141
ACI	American Concrete Institute P.O. Box 9094 Farmington Hills, MI 48333-9094 www.aci-int.org	248/848-3700
ACPA	American Concrete Pipe Association 222 West Las Colinas Blvd., Suite 641 Irving, TX 75039-5423 www.concrete-pipe.org	972/506-7216

ADC	Air Diffusion Council 11 South LaSalle St., Suite 1400 Chicago, IL 60603	312/201-0101
AFPA	American Forest and Paper Association 1111 19th St., NW, Suite 800 Washington, DC 20036	202/463-2700
AGA	American Gas Association 1515 Wilson Blvd. Arlington VA 22209 www.aga.com	703/841-8400
AHA	American Hardboard Association 1210 W. Northwest Hwy Palatine, IL 60067-1897	847/934-8800
AI	Asphalt Institute Research Park Drive P.O. Box 14052 Lexington, KY 40512-4052 www.asphaltinstitute.org	606/288-4960
AIA	The American Institute of Architects 1735 New York Avenue, NW Washington, DC 20006-5292 www.aia.org	202/626-7300
AISC	American Institute of Steel Construction One East Wacker Drive, Suite 3100 Chicago, IL 60601-2001	800/644-2400
AITC	American Institute of Timber Construction 7012 S. Revere Pkwy., Suite 140 Englewood, CO 80112 www.aitc-glulam.org	303/792-9559
ALCA	Associated Landscape Contractors of America 12200 Sunrise Valley Drive, Suite 150 Reston, VA 20191 www.alca.org	703/620-6363
ALI	Associated Laboratories, Inc.	214/565-0593

P.O. Box 152837
1323 Wall St.
Dallas, TX 75315

ALSC	American Lumber Standards Committee P.O. Box 210 Germantown, MD 20875	301/972-1700
AMCA	Air Movement and Control Association International, Inc. 30 W. University Drive Arlington Heights, IL 60004-1893 www.amca.org	847/394-0150
ANLA	American Nursery and Landscape Association 1250 Eye Street, NW, Suite 500 Washington, DC 20005	202/789-2900
ANSI	American National Standards Institute 11 West 42nd Street, 13th Floor New York, NY 10036-8002 www.ansi.org	212/642-4900
APA	APA-The Engineered Wood Association P.O. Box 11700 Tacoma, WA 98411-0700 www.apawood.org	206/565-6600
APA	Architectural Precast Association P.O. Box 08669 Fort Myers, FL 33908-0669	941/454-6989
ARI	Air Conditioning and Refrigeration Institute 4301 Fairfax Drive, Suite 425 Arlington, VA 22203 www.ari.org	703/524-8800
ARMA	Asphalt Roofing Manufacturers Association Center Park 4041 Powder Mill Road, Suite 404 Calverton, MD 20705	301/231-9050
ASA	Acoustical Society of America 500 Sunnyside Blvd.	516/576-2360

ASCE	Woodbury, NY 11797 American Society of Civil Engineers- World Headquarters 1801 Alexander Bell Drive Reston, VA 20190-4400 www.asce.org	800/548-2723 703/295-6000
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers 1791 Tullie Circle, NE Atlanta, GA 30329-2305 www.ashrae.org	800/527-4723 404/636-8400
ASLA	American Society of Landscape Architects 4401 Connecticut Ave., NW, 5th Floor Washington, DC 20008-2369 www.asla.org	202/686-2752
ASME	American Society of Mechanical Engineers 345 East 47 th Street New York, NY 10017-2392 www.asme.org	800/434-2763
ASPE	American Society of Plumbing Engineers 3617 Thousand Oaks Blvd., Suite 210 Westlake, CA 91362-3649	805/495-7120
ASQC	American Society for Quality Control 611 E. Wisconsin Avenue Milwaukee, WI 53201-3005 www.asqc.org	800/248-1946 414/272-8575
ASSE	American Society of Sanitary Engineering 28901 Clemens Road Westlake, OH 44145 www.asse-plumbing.org	216/835-3040
ASTM	American Society for Testing and Materials 100 Barr Harbor Drive West Conshohocken, PA 19428-2959 www.astm.org	610/832-9500

AWCI	Association of the Wall and Ceiling Industries--International 307 E. Annandale Road, Suite 200 Falls Church, VA 22042-2433 www.awci.org	703/534-8300
AWPA	American Wood-Preservers' Association 3246 Fall Creek Highway, Suite 1900 Granbury, TX 76049-7979	817/326-6300
AWS	American Welding Society 550 NW LeJeune Road Miami, FL 33126 www.amweld.org	800/443-9373 305/443-9353
AWWA	American Water Works Association 6666 West Quincy Avenue Denver, CO 80235 www.awwa.org	800/926-7337 303/794-7711
BHMA	Builders' Hardware Manufacturers Association 355 Lexington Avenue, 17th Floor New York, NY 10017-6603	212/661-4261
CBM	Certified Ballast Manufacturers Association 1422 Euclid Avenue, Suite 402 Cleveland, OH 44115-2094	216/241-0711
CGA	Compressed Gas Association 1725 Jefferson Davis Hwy, Suite 1004 Arlington, VA 22202-4102 www.cganet.com	703/412-0900
CISCA	Ceilings & Interior Systems Construction Association 1500 Lincoln Hwy, Suite 202 St. Charles, IL 60174 www.cisca.org	630/584-1919
CISPI	Cast Iron Soil Pipe Institute 5959 Shallowford Road, Suite 419 Chattanooga, TN 37421	423/892-0137

CPSC	Consumer Product Safety Commission East West Towers 4330 East-West Hwy. Bethesda, MD 20814	800/638-2772
CPPA	Corrugated Polyethylene Pipe Association 432 N. Superior Street Toledo, OH 43604	800/510-2772 419/241-2221
CRA	California Redwood Association 405 Enfrente Drive, Suite 200 Novato, CA 94949	415/382-0662
CRI	Carpet and Rug Institute 310 S. Holiday Avenue Dalton, GA 30722-2048 www.carpet-rug.com	800/882-8846 706/278-3176
CRSI	Concrete Reinforcing Steel Institute 933 N. Plum Grove Road Schaumburg, IL 60173-4758 www.crsi.org	847/517-1200
CTI	Ceramic Tile Institute of America 12061 W. Jefferson Blvd. Culver City, CA 90230-6219	310/574-7800
DHI	Door and Hardware Institute 14170 Newbrook Drive Chantilly, VA 20151-2223 www.dhi.org	703/222-2010
DIPRA	Ductile Iron Pipe Research Association 245 Riverchase Pkwy East, Suite O Birmingham, AL 35244	205/988-9870
DOC	Department of Commerce 14 th Street and Constitution Avenue, NW Washington, DC 20230	202/482-2000
DOT	Department of Transportation 400 Seventh Street, SW Washington, DC 20590	202/366-4000

EJMA	Expansion Joint Manufacturers Association 25 N. Broadway Tarrytown, NY 10591-3201	914/332-0040
EPA	Environmental Protection Agency 401 M Street, SW Washington, DC 20460	202/260-2090
FCICA	Floor Covering Installation Contractors Association P.O. Box 948 Dalton, GA 30722-0948	706/226-5488
FM	Factory Mutual 1151 Boston-Providence Turnpike P.O. Box 9102 Norwood, MA 02062-9102 www.factorymutual.com	781/255-4300
FS	Federal Specifications Unit (Available from GSA) 470 East L'Enfant Plaza, SW, Suite 8100 Washington, DC 20407	202/619-8925
GA	Gypsum Association 810 First Street NE, Suite 510 Washington, DC 20002 www.usg.com	202/289-5440
GANA	Glass Association of North America 3310 SW Harrison Street Topeka, KS 66611-2279 www.glasswebsite.com/gana	913/266-7013
HMA	Hardwood Manufacturers Association 400 Penn Center Blvd., Suite 530 Pittsburgh, PA 15235-5605 www.hardwood.org	412/828-0770
HPVA	Hardwood Plywood and Veneer Association 1825 Michael Farraday Drive P.O. Box 2789 Reston, VA 22195-0789	703/435-2900

www.hpva.org

IEEE	Institute of Electrical and Electronic Engineers 345 E. 47 th Street New York, NY 10017-2394 www.ieee.org	800/678-4333 212/705-7900
IESNA	Illuminating Engineering Society of North America 120 Wall Street, 17th Floor New York, NY 10005-4001 www.iesna.org	212/248-5000
ITS	Intertek Testing Services P.O. Box 2040607/753-6711 3933 US Route 11 Cortland, NY 13045-7902 www.itsglobal.com	800/345-3851
LMA	Laminating Materials Association 116 Lawrence Street Hillsdale, NJ 07642-2730 www.lma.org	201/664-2700
MCAA	Mechanical Contractors Association of America 1385 Piccard Drive Rockville, MD 20850-4329	301/869-5800
ML/SFA	Metal Lath/Steel Framing Association (A Division of the NAAMM) 8 South Michigan Avenue, Suite 1000 Chicago, IL 60603	312/456-5590
MSS	Manufacturers Standardization Society for the Valve and Fittings Industry 127 Park Street, NE Vienna, VA 22180-4602	703/281-6613
NAA	National Arborist Association P.O. Box 1094603/673-3311 Amherst, NH 03031-1094 www.natlarb.com	800/733-2622
NAAMM	National Association of Architectural Metal Manufacturers	312/782-5590

8 South Michigan Avenue, Suite 1000
Chicago, IL 60603
www.gss.net/naamm

NAIMA	North American Insulation Manufacturers Association 44 Canal Center Plaza, Suite 310 Alexandria, VA 22314 www.naima.org	703/684-0084
NAPA	National Asphalt Pavement Association NAPA Building 5100 Forbes Blvd. Lanham, MD 20706-4413	301/731-4748
NCSPA	National Corrugated Steel Pipe Association 1255 23rd Street, NW, Suite 850 Washington, DC 20037 www.ncspa.org	202/452-1700
NEBB	National Environmental Balancing Bureau 8575 Grovemont Circle Gaithersburg, MD 20877-4121	301/977-3698
NECA	National Electrical Contractors Association 3 Bethesda Metro Center, Suite 1100 Bethesda, MD 20814-5372	301/657-3110
NEI	National Elevator Industry 185 Bridge Plaza North, Suite 310 Fort Lee, NJ 07024	201/944-3211
NEMA	National Electrical Manufacturers' Association 1300 N. 17 th Street, Suite 1847 Rosslyn, VA 22209 www.nema.org	703/841-3200
NFPA	National Fire Protection Association One Batterymarch Park P.O. Box 9101 Quincy, MA 02269-9101 www.nfpa.org	800/344-3555 617/770-3000
NHLA	National Hardwood Lumber Association	901/377-1818

P.O. Box 34518
Memphis, TN 38184-0518
www.natlhardwood.org

NIA	National Insulation Association 99 Canal Center Plaza, Suite 222 Alexandria, VA 22314 www.insulation.org	703/683-6422
NPA	National Particleboard Association 18928 Premiere Court Gaithersburg, MD 20879-1569 www.pbmdf.com	301/670-0604
NPCA	National Paint and Coatings Association 1500 Rhode Island Avenue, NW Washington, DC 20005-5597 www.paint.org	202/462-6272
NRCA	National Roofing Contractors Association O'Hare International Center 10255 W. Higgins Road, Suite 600 Rosemont, IL 60018-5607 www.roofonline.org	800/323-9545
NRMCA	National Ready Mixed Concrete Association 900 Spring Street Silver Spring, MD 20910 www.nrmca.org	301/587-1400
NSF	NSF International P.O. Box 130140 Ann Arbor, MI 48113-0140 www.nsf.org	313/769-8010
NUSIG	National Uniform Seismic Installation Guidelines 12 Lahoma Court Alamo, CA 94526	510/946-0135
NWWDA	National Wood Window and Door Association 1400 E. Touhy Avenue, G-54 Des Plaines, IL 60018 www.nwwda.org	800/223-2301

SHA	Occupational Safety and Health Administration (U.S. Department of Labor) 200 Constitution Ave., NW Washington, DC 20210	202/219-8148
PCA	Portland Cement Association 5420 Old Orchard Road Skokie, IL 60077-1083 www.portcement.org	847/966-6200
PDCA	Painting and Decorating Contractors of America 3913 Old Lee Hwy, Suite 33-B Fairfax, VA 22030 www.pdca.com	800/332-7322 703/359-0826
PDI	Plumbing and Drainage Institute 45 Bristol Drive, Suite 101 South Easton, MA 02375	800/589-8956 508/230-3516
RFCI	Resilient Floor Covering Institute 966 Hungerford Drive, Suite 12-B Rockville, MD 20805-1714	301/340-8580
RIS	Redwood Inspection Service c/o California Redwood Association 405 Enfrente Drive, Suite 200 Novato, CA 94949-7206	415/382-0662
SDI	Steel Deck Institute P.O. Box 25 Fox River Grove, IL 60012 www.sdi.org	847/462-1930
SDI	Steel Door Institute 30200 Detroit Road Cleveland, OH 44145-1967	216/889-0010
SMA	Stucco Manufacturers Association 14006 Ventura Blvd. Sherman Oaks, CA 91403	213/789-8733
SMACNA	Sheet Metal and Airconditioning Contractors National Association, Inc.	703/803-2980

	P.O. Box 221230 Chantilly, VA 20151-1209 www.smacna.org	
SPI	Society of the Plastics Industry, Inc. Spray Polyurethane Division 202/974-5200 1801 K Street, NW, Suite 600K Washington, DC 20006 www.socplas.org	800/951-2001
SSPC	Steel Structures Painting Council 40 24th Street, 6th Floor Pittsburgh, PA 15222-4643	412/281-2331
TCA	Tile Council of America 100 Clemson Research Blvd. Anderson, SC 29625	864/646-8453
TPI	Turfgrass Producers International 1855-A Hicks Road Rolling Meadows, IL 60008	800/405-8873 847/705-9898
UL	Underwriters Laboratories, Inc. 333 Pfingston Road 847/272-8800 Northbrook, IL 60062 www.ul.com	800/704-4050
UNI	Uni-Bell PVC Pipe Association 2655 Villa Creek Drive, Suite 155 Dallas, TX 75234 www.members.aol.com/unibell1	972/243-3902
USDA	U.S. Department of Agriculture 14th St. and Independence Ave., SW Washington, DC 20250	202/720-8732
WA	Wallcoverings Association 401 N. Michigan Avenue Chicago, IL 60611-4267	312/644-6610
WCLIB	West Coast Lumber Inspection Bureau P.O. Box 23145 Portland, OR 97281-3145	503/639-0651
WCMA	Window Covering Manufacturers Association	212/661-4261

355 Lexington Ave., 17th Floor
New York, NY 10017-6603

WIC	Woodwork Institute of California P.O. Box 980247 West Sacramento, CA 95798-0247	916/372-9943
WLPDIA	Western Lath/Plaster/Drywall Industries Association 8635 Navajo Road San Diego, CA 92119	619/466-9070
WMMPA	Wood Moulding & Millwork Producers Association 507 First Street Woodland, CA 95695 www.wmmpa.com	800/550-7889 916/661-9591
WRI	Wire Reinforcement Institute 203 Loudoun Street, SW Leesburg, VA 20175-2718	703/779-2339
WWPA	Western Wood Products Association Yeon Building 522 S.W. 5th Avenue Portland, OR 97204-2122	503/224-3930

END OF DOCUMENT

DOCUMENT 01 43 00

QUALITY ASSURANCE - MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Purchase of Materials and Equipment;
- B. Special Conditions;
- C. Imported Materials Certification.

1.02 MATERIAL AND EQUIPMENT

- A. Only items approved by the County and/or Architect shall be used.
- B. Contractor shall submit lists of products and other product information in accordance with the Contract Documents, including, without limitation, the provisions regarding the submittals.

1.03 MATERIAL AND EQUIPMENT COLORS

- A. The County and/or Architect will provide a schedule of colors.
- B. No individual color selections will be made until after approval of all pertinent materials and equipment and after receipt of appropriate samples in accordance with the Contract Documents, including, without limitation, the provisions regarding the submittals.
- C. Contractor shall request priority in writing for any item requiring advance ordering to maintain the approved Construction Schedule.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Contractor shall deliver manufactured materials in original packages, containers, or bundles (with seals unbroken), bearing name or identification mark of manufacturer.

- B. Contractor shall deliver fabrications in as large assemblies as practicable; where specified as shop-primed or shop-finished, package or crate as required to preserve such priming or finish intact and free from abrasion.
- C. Contractor shall store materials in such a manner as necessary to properly protect them from damage. Materials or equipment damaged by handling, weather, dirt, or from any other cause will not be accepted.
- D. Materials are not be acceptable that have been warehoused for long periods of time, stored or transported in improper environment, improperly packaged, inadequately labeled, poorly protected, excessively shipped, deviated from normal distribution pattern, or reassembled.
- E. Contractor shall store material so as to cause no obstructions of sidewalks, roadways, and underground services. Contractor shall protect material and equipment furnished under Contract.
- F. Contractor may store materials on Site with prior written approval by the County, all material shall remain under Contractor's control and Contractor shall remain liable for any damage to the materials. Should the Project Site not have storage area available, the Contractor shall provide for off-site storage at no cost to County.
- G. When any room in Project is used as a shop or storeroom, the Contractor shall be responsible for any repairs, patching, or cleaning necessary due to that use. Location of storage space shall be subject to prior written approval by County.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturers listed in various sections of Contract Documents are names of those manufacturers that are believed to be capable of supplying one or more of items specified therein.
- B. The listing of a manufacturer does not imply that every product of that manufacturer is acceptable as meeting the requirements of the Contract Documents.

2.02 FACILITIES AND EQUIPMENT

- A. Contractor shall provide, install, maintain, and operate a complete and adequate facility for handling, the execution, disposal, and distribution of material and

equipment as required for proper and timely performance of Work connected with Contract.

2.03 MATERIAL REFERENCE STANDARDS

- A. Where material is specified solely by reference to “standard specifications” and if requested by County, Contractor shall submit for review data on actual material proposed to be incorporated into Work of Contract listing name and address of vendor, manufacturer, or producer, and trade or brand names of those materials, and data substantiating compliance with standard specifications.

PART 3 - EXECUTION

3.01 WORKMANSHIP

- A. Where not more specifically described in any other Contract Documents, workmanship shall conform to methods and operations of best standards and accepted practices of trade or trades involved and shall include items of fabrication, construction, or installation regularly furnished or required for completion (including finish and for successful operation, as intended).
- B. Work shall be executed by tradespersons skilled in their respective lines of Work. When completed, parts shall have been durably and substantially built and present a neat appearance.

3.02 COORDINATION

- A. Contractor shall coordinate installation of Work so as to not interfere with installation of others. Adjustment or rework because of Contractor’s failure to coordinate will be at no additional cost to County.
- B. Contractor shall examine in-place work for readiness, completeness, fitness to be concealed or to receive other work, and in compliance with Contract Documents. Concealing or covering Work constitutes acceptance of additional cost which will result should in-place Work be found unsuitable for receiving other Work or otherwise deviating from the requirements of the Contract Documents.

3.03 COMPLETENESS

- A. Contractor shall provide all portions of the Work, unless clearly stated otherwise, installed complete and operational with all elements, accessories, anchorages, utility connections, etc., in manner to assure well-balanced performance, in accordance with manufacturer's recommendations and by Contract Documents. For example, electric water coolers require water, electricity, and drain services;

roof drains require drain system; sinks fit within countertop, etc. Terms such as "installed complete," "operable condition," "for use intended," "connected to all utilities," "terminate with proper cap," "adequately anchored," "patch and refinish," "to match similar," should be assumed to apply in all cases, except where completeness of functional or operable condition is specifically stated as not required.

3.04 APPROVED INSTALLER OR APPLICATOR

- A. Installation by a manufacturer's approved installer or applicator is an understood part of Specifications and only approved installer or applicator is to provide on-site Work where specified manufacturer has on-going program of approving (i.e. certifying, bonding, re-warranting) installers or applicators. Newly established relationships between a manufacturer and an installer or applicator that does not have other approved applicator work in progress or completed is not approved for this Project.

3.05 MANUFACTURER'S RECOMMENDATIONS

- A. All installations shall be in accordance with manufacturer's published recommendations and specific written directions of manufacturer's representative. Should Contract Documents differ from recommendations of manufacturer or directions of his representative, Contractor shall analyze differences, make recommendations to the County and the Architect in writing, and shall not proceed until interpretation or clarification has been issued by the County and/or the Architect.

END OF DOCUMENT

DOCUMENT 01 45 00

QUALITY CONTROL

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Inspections and Tests, Uncovering of Work and Non-conforming of Work and Correction of Work;
- B. Special Conditions.

1.02 RELATED CODES:

- A. The Work is governed by requirements of Title 24, California Code of Regulations ("CCR"), and the Contractor shall keep a copy of these available at the job Site for ready reference during construction.

1.03 OBSERVATION AND SUPERVISION:

The County and Architect or their appointed representatives will review the Work and the Contractor shall provide facilities and access to the Work at all times as required to facilitate this review. Administration by the Architect and any consulting Structural Engineer will be in accordance with applicable regulations.

1.04 TESTING AGENCIES:

- A. Testing agencies and tests shall be in conformance with the General Documents. .
- B. Testing and inspection in connection with earthwork shall be under the direction of the County's consulting soils engineer, if any, referred to hereinafter as the "Soils Engineer."
- C. Testing and inspection of construction materials and workmanship shall be performed by a qualified laboratory, referred to hereinafter as the "Testing Laboratory." The Testing Laboratory shall be under direction of an engineer registered in the State of California, shall conform to requirements of ASTM E329, and shall be employed by or in contract with the County.

1.05 TESTS AND INSPECTIONS:

- A. The Contractor shall be responsible for notifying the Construction Manager of all required tests and inspections. Contractor shall notify the Construction Manager forty-eight (48) hours in advance of performing any Work requiring testing or inspection.
- B. The Contractor shall provide access to Work to be tested and furnish incidental labor, equipment, and facilities to facilitate all inspections and tests.
- C. The County will pay for first inspections and tests required by the “CCR”, and other inspections or tests that the County and/or the Architect may direct to have made, including the following principal items:
 - (1) Tests and observations for earthwork and paving.
 - (2) Tests for concrete mix designs, including tests of trial batches.
 - (3) Tests and inspections for structural steel work.
 - (4) Field tests for framing lumber moisture content.
 - (5) Additional tests directed by the County that establish that materials and installation comply with the Contract Documents.
 - (6) Test and observation of welding and expansion anchors.
- D. The County may at its discretion, pay and back charge the Contractor for:
 - (1) Retests or reinspections, if required, and tests or inspections required due to Contractor error or lack of required identifications of material.
 - (2) Uncovering of work in accordance with Contract Documents.
 - (3) Testing done on weekends, holidays, and overtime will be chargeable to the Contractor for the overtime portion.
 - (4) Testing done off Site.
- E. Testing and inspection reports and certifications:

- (1) If initially received by Contractor, Contractor shall provide to each of the following a copy of the agency or laboratory report of each test or inspection or certification.
 - a. The County;
 - b. The Construction Manager, if any;
 - c. The Architect;
 - d. The Consulting Engineer, if any;
 - e. Other Engineers on the Project, as appropriate; and
 - f. The Contractor.

PART 2 - PRODUCTS

2.01 TYPE OF TEST AND INSPECTIONS:

- A. Refer to Exhibit A sections: 1.8 E and 3.1 H.

END OF DOCUMENT

DOCUMENT 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions
- B. Special Conditions
- C. Site Standards

1.02 TEMPORARY UTILITIES:

- A. Electric Power and Lighting
 - (1) The County will furnish and pay for power during the course of the work to the extent power is available in the building(s) or on the Site. The Contractor shall be responsible for providing temporary facilities required to deliver that power service from its existing location in the building(s) or on the Site to point of intended use.
 - (2) Contractor shall verify characteristics of power available in building(s) or on the Site. Contractor shall take all actions required to make modifications where power of higher voltage or different phases of current are required. Contractor shall be fully responsible for providing that service and shall pay all costs required therefor.
 - (3) The Contractor shall furnish, wire for, install, and maintain temporary electrical lights wherever it is necessary to provide illumination for the proper performance and/or observation of the Work: a minimum of 20 foot-candles for rough work and 50 foot-candles for finish work.
- B. Heat and Ventilation
 - (1) Contractor shall provide temporary heat to maintain environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for the installation and curing of materials, and to protect materials and finishes from damage due to improper temperature and

humidity conditions. Portable heaters shall be standard units complete with controls.

- (2) Contractor shall provide forced ventilation and dehumidification, as required, of enclosed areas for proper installation and curing of materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors, and gases.
- (3) Contractor shall pay the costs of installation, maintenance, operation, and removal of temporary heat and ventilation, including costs for fuel consumed, required for the performance of the Work.

C. Water

- (1) The County will furnish and pay for water during the course of the work to the extent water is then available in the building(s) or on the Site. The Contractor shall be responsible for providing temporary facilities required to deliver such utility service from its existing location in the building(s) or on the Site to point of intended use.
- (2) Contractor shall use backflow preventers on water lines at point of connection to County's water supply. Backflow preventers shall comply with requirements of Uniform Plumbing Code.
- (3) Contractor shall make potable water available for human consumption.

D. Sanitary Facilities

- (1) Contractor shall provide sanitary temporary facilities in no fewer numbers than required by law and such additional facilities as may be directed by the County for the use of all workers. The facilities shall be maintained in a sanitary condition at all times and shall be left at the Site until removal is directed by the County or Contractor completes all other work at the Site.
- (2) Use of toilet facilities in the Work under construction shall not be permitted except by consent of the County.

E. Telephone Service

- (1) Contractor shall arrange with local telephone service company for telephone service for the performance of the Work. Contractor shall, at a minimum, provide in its field office one line for telephone and one line for fax machine.

- (2) Contractor shall pay the costs for telephone and fax lines installation, maintenance, service, and removal.

F. Fire Protection:

- (1) Contractor shall provide and maintain fire extinguishers and other equipment for fire protection. Such equipment shall be designated for use for fire protection only and shall comply with all requirements of the California Fire, State Fire Marshall and/or its designee.
- (2) Where on-site welding and burning of steel is unavoidable, Contractor shall provide protection for adjacent surfaces.

G. Trash Removal:

- (1) See Document 01 74 19

[ADD REQUIREMENTS]

1.03 CONSTRUCTION AIDS:

A. Plant and Equipment:

- (1) Contractor shall furnish, operate, and maintain a complete plant for fabricating, handling, conveying, installing, and erecting materials and equipment; and for conveyances for transporting workmen. Include elevators, hoists, debris chutes, and other equipment, tools, and appliances necessary for performance of the Work.
- (2) Contractor shall maintain plant and equipment in safe and efficient operating condition. Damages due to defective plant and equipment, and uses made thereof, shall be repaired by Contractor at no expense to the County.

B. None of the County's tools and equipment shall be used by Contractor for the performance of the Work

1.04 BARRIERS AND ENCLOSURES:

A. Contractor shall obtain the County's written permission for locations and types of temporary barriers and enclosures, including fire-rated materials proposed for use, prior to their installation.

- B. Contractor shall provide and maintain temporary enclosures to prevent public entry and to protect persons using other buildings and portions of the Site and/or Premises, the public, and workers. Contractor shall also protect the Work and existing facilities from the elements, and adjacent construction and improvements, persons, and trees and plants from damage and injury from demolition and construction operations.
- C. Contractor shall provide site access to existing facilities for persons using other buildings and portions of the Site, the public, and for deliveries and other services and activities.
- D. Tree and Plant Protection:
 - (1) Contractor shall preserve and protect existing trees and plants on the Premises that are not designated or required to be removed, and those adjacent to the Premises.
 - (2) Contractor shall provide barriers to a minimum height of 4'-0" around drip line of each tree and plant, around each group of trees and plants, as applicable, in the proximity of demolition and construction operations.
 - (3) Contractor shall not park trucks, store materials, perform Work or cross over landscaped areas. Contractor shall not dispose of paint thinners, water from cleaning, plastering or concrete operations, or other deleterious materials in landscaped areas, storm drain systems, or sewers. Plant materials damaged as a result of the performance of the Work shall, at the option of the County and at Contractor's expense, either be replaced with new plant materials equal in size to those damaged or by payment of an amount representing the value of the damaged materials as determined by the County.
 - (4) Contractor shall remove soil that has been contaminated during the performance of the Work by oil, solvents, and other materials which could be harmful to trees and plants, and replace with good soil, at Contractor's expense
 - (5) Excavation Around Trees:
 - (a) Excavation within drip lines of trees shall be done only where absolutely necessary and with written permission from the County.
 - (b) Where trenching for utilities is required within drip lines, tunneling under and around roots shall be by hand digging and shall be approved by the County. Main lateral roots and taproots shall not

be cut. All roots 2 inches in diameter and larger shall be tunneled under and heavily wrapped with wet burlap so as to prevent scarring or excessive drying. Smaller roots that interfere with installation of new work may be cut with prior approval by the County. Roots must first be cut with a Vermeer, or equivalent, root cutter prior to any trenching.

- (c) Where excavation for new construction is required within drip line of trees, hand excavation shall be employed to minimize damage to root system. Roots shall be relocated in backfill areas wherever possible. If encountered immediately adjacent to location of new construction, roots shall be cut approximately 6 inches back from new construction.
- (d) Approved excavations shall be carefully backfilled with the excavated materials approved for backfilling. Backfill shall conform to adjacent grades without dips, sunken areas, humps, or other surface irregularities. Do not use mechanical equipment to compact backfill. Tamp carefully using hand tools, refilling and tamping until Final Acceptance as necessary to offset settlement.
- (e) Exposed roots shall not be allowed to dry out before permanent backfill is placed. Temporary earth cover shall be provided, or roots shall be wrapped with four layers of wet, untreated burlap and temporarily supported and protected from damage until permanently relocated and covered with backfill.
- (f) Accidentally broken roots should be sawed cleanly 3 inches behind ragged end.

1.05 SECURITY AND PARKING:

- A. The Contractor shall be responsible for project security for materials, tools, equipment, supplies, and completed and partially completed Work.
- B. Contractor is responsible for any charges associated with parking of Contractor and Contractor employee's vehicles either at County facilities or off-site. Unless otherwise stated, all parking at County facilities requires payment.

1.06 TEMPORARY CONTROLS:

- A. Noise Control

- (1) Contractor acknowledge, that adjacent facilities may remain in operation during all or a portion of the Work period, and it shall take all reasonable precautions to minimize noise as required by applicable laws and the Contract Documents.
- (2) Notice of proposed noisy operations, including without limitation, operation of pneumatic demolition tools, concrete saws, and other equipment, shall be submitted to the County a minimum of forty-eight (48) hours in advance of their performance.

B. Noise and Vibration

- (1) Equipment and impact tools shall have intake and exhaust mufflers.
- (2) Contractor shall cooperate with County to minimize and/or seize the use of noisy and vibratory equipment if that equipment becomes objectionable by its longevity.

C. Dust and Dirt

- (1) Contractor shall conduct demolition and construction operations to minimize the generation of dust and dirt, and prevent dust and dirt from interfering with the progress of the Work and from accumulating in the Work and adjacent areas including, without limitation, occupied facilities.
- (2) Contractor shall periodically water exterior demolition and construction areas to minimize the generation of dust and dirt.
- (3) Contractor shall ensure that all hauling equipment and trucks carrying loads of soil and debris shall have their loads sprayed with water or covered with tarpaulins, and as otherwise required by local and state ordinance.
- (4) Contractor shall prevent dust and dirt from accumulating on walks, roadways, parking areas, and planting, and from washing into sewer and storm drain lines.

D. Water

Contractor shall not permit surface and subsurface water, and other liquids, to accumulate in or about the vicinity of the Premises. Should accumulation develop, Contractor shall control the water or other liquid, and suitably dispose of it by means of temporary pumps, piping, drainage lines, troughs, ditches, dams, or other methods.

E. Pollution

- (1) No burning of refuse, debris, or other materials shall be permitted on or in the vicinity of the Premises.
- (2) Contractor shall comply with applicable regulatory requirements and anti-pollution ordinances during the conduct of the Work including, without limitation, demolition, construction, and disposal operations.

F. Lighting:

- (1) If portable lights are used after dark, all light must be located so as not to direct light into neighboring property.

1.07 JOB SIGN(S):

A. General:

- (1) If required, contractor shall provide and maintain a Project identification sign with the design, text, and colors designated by the County and/or the Architect; locate sign as approved by the County.
- (2) Signs other than the specified Project sign and or signs required by law, for safety, or for egress, shall not be permitted, unless otherwise approved in advance by the County.

B. Materials:

- (1) Structure and Framing: Structurally sound, new or used wood or metal; wood shall be nominal 3/4-inch exterior grade plywood.
- (2) Sign Surface: Minimum 3/4-inch exterior grade plywood.
- (3) Rough Hardware: Galvanized.
- (4) Paint: Exterior quality, of type and colors selected by the County and/or the Architect.

C. Fabrication:

- (1) Contractor shall fabricate to provide smooth, even surface for painting.

- (2) Size: 4'-0" x 8'-0", unless otherwise indicated.
- (3) Contractor shall paint exposed surfaces of supports, framing, and surface material with exterior grade paint: one coat of primer and one coat of finish paint.
- (4) Text and Graphics: As indicated.

1.08 PUBLICITY RELEASES:

- A. Contractor shall not release any information, story, photograph, plan, or drawing relating information about the Project to anyone, including press and other public communications medium, including, without limitation, on website(s).

END OF DOCUMENT

DOCUMENT 01 62 00

PRODUCT OPTIONS AND SUBSTITUTIONS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- D. Instructions to Bidders;
- E. General Conditions, including, without limitation, Substitutions For Specified Items;
- F. Special Conditions.
- G. LEED™ Requirements Document 01 35 13.23

1.02 SUBSTITUTIONS OF MATERIALS AND EQUIPMENT:

- A. Catalog numbers and specific brands or trade names followed by the designation "or equal" are used in conjunction with material and equipment required by the Specifications to establish the standards of quality, utility, and appearance required. Substitutions which are equal in quality, utility, and appearance to those specified may be reviewed subject to the provisions of the General Conditions.
- B. Wherever more than one manufacturer's product is specified, the first-named product is the basis for the design used in the work and the use of alternative-named manufacturers' products or substitutes may require modifications in that design. If such alternatives are proposed by Contractor and are approved by the County and/or the Architect, Contractor shall assume all costs required to make necessary revisions and modifications of the design resulting from the substitutions requested by the Contractor.
- C. When materials and equipment are specified by first manufacturer's name and product number, second manufacturer's name and "or approved equal," supporting data for the second product, if proposed by Contractor, shall be submitted in accordance with the requirements for substitutions.
- D. If the County and/or Architect, in reviewing proposed substitute materials and equipment, require revisions or corrections to be made to previously accepted Shop Drawings and supplemental supporting data to be resubmitted, Contractor

shall promptly do so. If any proposed substitution is judged by the County and/or Architect to be unacceptable, the specified material or equipment shall be provided.

- E. Samples may be required. Tests required by the County and/or Architect for the determination of quality and utility shall be made at the expense of Contractor, with acceptance of the test procedure first given by the County.
- F. In reviewing the supporting data submitted for substitutions, the County and/or Architect will use for purposes of comparison all the characteristics of the specified material or equipment as they appear in the manufacturer's published data even though all the characteristics may not have been particularly mentioned in the Contract Documents. If more than two (2) submissions of supporting data are required, the cost of reviewing the additional supporting data shall be borne by Contractor, and the County will deduct the costs from the Contract Price.

END OF DOCUMENT

DOCUMENT 01 65 00

DELIVERY, STORAGE AND HANDLING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- H. General Conditions, including, without limitation, Site Access, Conditions and Requirements;
- I. Special Conditions.

1.02 PRODUCTS

- A. Products are as defined in the General Conditions.
- B. Contractor shall not use and/or reuse materials and/or equipment removed from existing Premises, except as specifically permitted by the Contract Documents.
- C. Contractor shall provide interchangeable components of the same manufacturer, for similar components.

1.03 TRANSPORTATION AND HANDLING

- A. Contractor shall transport and handle Products in accordance with manufacturer's instructions.
- B. Contractor shall promptly inspect shipments to confirm that Products comply with requirements, quantities are correct, and products are undamaged.
- C. Contractor shall provide equipment and personnel to handle Products by methods to prevent soiling, disfigurement, or damage.

1.04 STORAGE AND PROTECTION

- A. Contractor shall store and protect Products in accordance with manufacturer's instructions, with seals and labels intact and legible. Contractor shall store sensitive products in weather-tight, climate controlled enclosures.

- B. For exterior storage of fabricated Products, Contractor shall place on sloped supports, above ground.
- C. Contractor shall provide off-site storage and protection when Site does not permit on-site storage or protection.
- D. Contractor shall cover products subject to deterioration with impervious sheet covering and provide ventilation to avoid condensation.
- E. Contractor shall store loose granular materials on solid flat surfaces in a well-drained area and prevent mixing with foreign matter.
- F. Contractor shall provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.
- G. Contractor shall arrange storage of Products to permit access for inspection and periodically inspect to assure Products are undamaged and are maintained under specified conditions.

END OF DOCUMENT

DOCUMENT 01 71 23

FIELD ENGINEERING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- J. General Conditions, including, without limitation, Site Investigation, and Soils Investigation Report;
- K. Special Conditions;
- L. Site-Visit Certification.

1.02 REQUIREMENTS INCLUDED:

- A. Contractor shall provide and pay for field engineering services by a California-registered engineer, required for the project, including, without limitations:
 - (1) Survey work required in execution of the Project.
 - (2) Civil or other professional engineering services specified, or required to execute Contractor's construction methods.

1.03 QUALIFICATIONS OF SURVEYOR OR ENGINEERS:

- A. Contractor shall only use a qualified licensed engineer or registered land surveyor, to whom County makes no objection.

1.04 SURVEY REFERENCE POINTS:

- A. Existing basic horizontal and vertical control points for the Project are those designated on the Drawings.
- B. Contractor shall locate and protect control points prior to starting Site Work and preserve all permanent reference points during construction. In addition Contractor shall:
 - (1) Make no changes or relocation without prior written notice to County and Architect.

- (2) Report to County and Architect when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
- (3) Require surveyor to replace Project control points based on original survey control that may be lost or destroyed.

1.05 RECORDS:

- A. Contractor shall maintain a complete, accurate log of all control and survey work as it progresses.

1.06 SUBMITTALS:

- A. Contractor shall submit name and address of Surveyor and Professional Engineer to County and Architect prior to its/their work on the Project.
- B. On request of County and Architect, Contractor shall submit documentation to verify accuracy of field engineering work, at no additional cost to the County.
- C. Contractor shall submit a certificate signed by registered engineer or surveyor certifying that elevations and locations of improvements are in conformance or nonconformance with Contract Documents.

PART 2 – PRODUCTS

Not Used.

PART 3 - EXECUTION

- 3.01 Contractor is responsible for meeting all applicable codes, OSHA, safety and shoring requirements.
- 3.02 Contractor is responsible for any re-surveying required by correction of nonconforming work.

END OF DOCUMENT

DOCUMENT 01 73 29

CUTTING AND PATCHING

1. PART 1 – GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions;
- B. Special Conditions;
- C. Hazardous Materials Procedures and Requirements;
- D. Hazardous Materials Certification;
- E. Imported Materials Certification.

1.02 CUTTING AND PATCHING:

- A. Contractor shall be responsible for all cutting, fitting, and patching, including associated excavation and backfill, required to complete the Work or to:
 - (1) Make several parts fit together properly.
 - (2) Uncover portions of Work to provide for installation of ill-timed Work.
 - (3) Remove and replace defective Work.
 - (4) Remove and replace Work not conforming to requirements of Contract Documents.
 - (5) Remove Samples of installed Work as specified for testing.
 - (6) Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.
 - (7) Attach new materials to existing remodeling areas, including painting (or other finishes) to match existing conditions.

- B. In addition to Contract requirements, upon written instructions from the County, Contractor shall uncover Work to provide for observations of covered Work in accordance with the Contract Documents; remove samples of installed materials for testing as directed by County; and remove Work to provide for alteration of existing Work.
- C. Contractor shall not cut or alter Work, or any part of it, in such a way that endangers or compromises the integrity of the Work, the Project, or work of others.

1.03 SUBMITTALS:

- A. Prior to any cutting or alterations that may affect the structural safety of Project, or work of others, and well in advance of executing such cutting or alterations, Contractor shall submit written notice to County pursuant to the applicable notice provisions of the Contract Documents, requesting consent to proceed with the cutting or alteration, including the following:
 - (1) The Work of the County or other trades.
 - (2) Structural value or integrity of any element of Project.
 - (3) Integrity or effectiveness of weather-exposed or weather-resistant elements or systems.
 - (4) Efficiency, operational life, maintenance or safety of operational elements.
 - (5) Visual qualities of sight-exposed elements.
- B. Contractor's Request shall also include:
 - (1) Identification of Project.
 - (2) Description of affected Work.
 - (3) Necessity for cutting, alteration, or excavations.
 - (4) Effects of Work on County, other trades, or structural or weatherproof integrity of Project.
 - (5) Description of proposed Work:
 - (a) Scope of cutting, patching, alteration, or excavation.

- (b) Trades that will execute Work.
- (c) Products proposed to be used.
- (d) Extent of refinishing to be done.
- (6) Alternates to cutting and patching.
- (7) Cost proposal, when applicable.
- (8) The scheduled date the Contractor intends to perform the Work and the duration of time to complete the Work.
- (9) Written permission of other trades whose Work will be affected.

1.04 QUALITY ASSURANCE:

- A. Contractor shall ensure that cutting, fitting, and patching shall achieve security, strength, weather protection, appearance for aesthetic match, efficiency, operational life, maintenance, safety of operational elements, and the continuity of existing fire ratings.
- B. Contractor shall ensure that cutting, fitting, and patching shall successfully duplicate undisturbed adjacent profiles, materials, textures, finishes, colors, and that materials shall match existing construction. Where there is dispute as to whether duplication is successful or has been achieved to a reasonable degree, the County's decision shall be final.

1.05 PAYMENT FOR COSTS:

- A. Cost caused by ill-timed or defective Work or Work not conforming to Contract Documents, including costs for additional services of the County, its consultants, including but not limited to the Construction Manager, the Architect, the Project Inspector(s), Engineers, and Agents, will be paid by Contractor and/or deducted from the Contract by the County.
- B. County shall only pay for cost of Work if it is part of the original Contract Price or if a change has been made to the contract in compliance with the provisions of the General Conditions. Cost of Work performed upon instructions from the County, other than defective or nonconforming Work, will be paid by County on approval of written Change Order. Contractor shall provide written cost proposals prior to proceeding with cutting and patching.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. Contractor shall provide for replacement and restoration of Work removed. Contractor shall comply with the Contract Documents and with the Industry Standard(s), for the type of Work, and the Specification requirements for each specific product involved. If not specified, Contractor shall first recommend a product of a manufacturer or appropriate trade association for approval by the County.
- B. Materials to be cut and patched include those damaged by the performance of the Work.

PART 3 – EXECUTION

3.01 INSPECTION:

- A. Contractor shall inspect existing conditions of the Site and the Work, including elements subject to movement or damage during cutting and patching, excavating and backfilling. After uncovering Work, Contractor shall inspect conditions affecting installation of new products.
- B. Contractor shall report unsatisfactory or questionable conditions in writing to County as indicated in the General Conditions and shall proceed with Work as indicated in the General Conditions by County.

3.02 PREPARATION:

- A. Contractor shall provide shoring, bracing and supports as required to maintain structural integrity for all portions of the Project, including all requirements of the Project.
- B. Contractor shall provide devices and methods to protect other portions of Project from damage.
- C. Contractor shall, provide all necessary protection from weather and extremes of temperature and humidity for the Project, including without limitation, any work that may be exposed by cutting and patching Work. Contractor shall keep excavations free from water.

3.03 ERECTION, INSTALLATION AND APPLICATION:

- A. With respect to performance, Contractor shall:

- (1) Execute fitting and adjustment of products to provide finished installation to comply with and match specified tolerances and finishes.
 - (2) Execute cutting and demolition by methods that will prevent damage to other Work, and provide proper surfaces to receive installation of repairs and new Work.
 - (3) Execute cutting, demolition excavating, and backfilling by methods that will prevent damage to other Work and damage to settlement.
- B. Contractor shall employ original installer or fabricator to perform cutting and patching for:
- (1) Weather-exposed surfaces and moisture-resistant elements such as roofing, sheet metal, sealants, waterproofing, and other trades.
 - (2) Sight-exposed finished surfaces.
- C. Contractor shall execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances, and finishes as shown or specified in the Contract Documents including, without limitation, the Drawings and Specifications.
- D. Contractor shall fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces. Contractor shall conform to all Code requirements for penetrations or the Drawings and Specifications, whichever calls for a higher quality or more thorough requirement. Contractor shall maintain integrity of both rated and non-rated fire walls, ceilings, floors, etc.
- E. Contractor shall restore Work which has been cut or removed. Contractor shall install new products to provide completed Work in accordance with requirements of the Contract Documents and as required to match surrounding areas and surfaces.
- F. Contractor shall refinish all continuous surfaces to nearest intersection as necessary to match the existing finish to any new finish.

END OF DOCUMENT

DOCUMENT 01 74 19
CONSTRUCTION WASTE MANAGEMENT

PART 1 – GENERAL

1.01 SUMMARY

- A. This section specifies the requirements for the diversion of demolition (non-hazardous) and construction debris from landfill and submittal of the Waste Management Plan.
- B. Performance Requirement: Divert a **minimum of 65% of construction and demolition (non-hazardous) debris from landfill.**
- C. Performance Requirement for Excavated Soil and Land Clearing Debris: **100% of trees, stumps, rocks and associated vegetation and soils** resulting primarily from land clearing shall be reused or recycled.
- D. Performance Requirement for projects required to achieve LEED certification: Divert material as required to achieve credit points sought on project:
 - 1. Minimum of 65% with three material streams (1 point)
 - 2. Minimum of 75% with four material streams (2 points)

1.03 DEFINITIONS

- A. "Conversion Rate" means the rate set forth in the standardized Conversion Rate Table approved by the County of Alameda for use in estimating the weight of materials identified in the Waste Management Plan.
- B. "Divert" means to use material for any purpose other than disposal in a landfill or transfer facility.
- C. "Good faith" shall be as defined by law.
- D. "Hauler" means the entity who transports construction and demolition debris to either a landfill or a recycling service.
- E. "LEED" means Leadership in Energy and Environmental Design and is a rating system developed by the U.S. Green Building Council to identify, implement and measure sustainable design factors for buildings.
- F. "Material Stream" means the flow of materials coming from a job site into markets for building materials. A stream can be either: (1) a specific material category that is diverted in a specific way; or (2) a mixture of several material categories that are diverted in a specific way.

- G. "Recycling Service" means an off-site service that provides processing of material and diversion from landfill.
- H. "RE:Source" is an online guide for reuse, repair and recycling. It is maintained by StopWaste.Org and can be accessed at www.StopWaste.Org or <https://resource.stopwaste.org/>.
- I. "Waste Management Plan" means a waste management plan required under this contract that is used to track and report the disposal of all construction debris generated on this project.
- J. "WasteTracking.com powered by Green Halo Systems" is the web based system required for use in developing a waste management plan, uploading recycling data throughout the construction process and submitting the final report demonstrating the project compliance online. More information about WasteTracking.com powered by Green Halo Systems is available by visiting them online at <https://www.greenhalosystems.com/> or calling (888) 525-1301.
- K. "Universal Waste" are hazardous wastes that are widely produced by households and many different types of businesses. Universal wastes include televisions, computers and other electronic devices as well as batteries, fluorescent lamps, mercury thermostats, and other mercury containing equipment, among others. Any unwanted item that falls within one of these waste streams can be handled, transported and recycled following the requirements set forth in the universal waste regulations (UWR) (Cal. Code Regs, tit. 22, div. 4.5, ch. 23).

1.04 QUALITY ASSURANCE

- A. The Contractor shall obtain all special permits and licenses and meet all special requirements for performance and completion of the work of this section.
- B. Regulatory requirements
 - 1. Approval of the Waste Management Plan and Waste Management Table using the WasteTracking.com powered by Green Halo Systems by the County's Representative is required before beginning construction or demolition.
- C. Recycling service company qualifications – Submit certification for recycling services listed in the approved Waste Management Plan that accepted waste will be diverted from landfill. Certification shall be demonstrated in one of the following ways:
 - 1. Recycling service is listed in the Green Halo System as an approved recycler for Alameda County projects; or
 - 2. Recycling service is listed within the Re:Source guide maintained by StopWaste.Org. and found at <https://resource.stopwaste.org/>; or

3. If not listed as described in items 1 and 2 above, submit certification in writing from any recycling services that verifies accepted waste will be diverted from landfill.

1.05 SUBMITTALS

- A. Submit specified Waste Management Plan to indicate how waste will be diverted from landfills. Include procedures and schedule for debris disposal. Submittal shall be made using WasteTracking.com powered by Green Halo Systems using the following URL: [ACGSA.WasteTracking.com](https://www.acgsa.org/WasteTracking.com). Submittal is required **within 7 calendar days after receipt of Notice to Proceed**; and
- B. Submit written documentation from recycling services that are not listed in the WasteTracking.com powered by Green Halo Systems or the Stopwaste.Org RE:Source online guide identifying where the construction and demolition material is taken, what method or process is being used to recycle the material, and identifying applicable state and local permits held by the recycling service provider and recycling facility; and
- C. Submit completed Waste Management Plan to report on the means of disposal of waste generated from project at the following project milestones:
 1. **Fifty percent (50%) progress payment**; and
 2. **One hundred percent (100%) construction complete**. County approval of final Waste Management Plan is required before full release of retention.

1.06 WASTE MANAGEMENT PLAN

- A. Plan Development: Using the website [ACGSA.WasteTracking.com](https://www.acgsa.org/WasteTracking.com) develop a plan for diverting the specified percentage of construction debris from landfill. The plan shall include the following:
 1. Submit **within 7-calendar days after receipt of Notice to Proceed**.
 2. Propose means and methods for collecting and separating each type of debris deemed reusable or recyclable.
 3. Identify the off-site recycling service and hauler of each designated debris item, who has agreed to accept and divert that item from landfill, in the proposed quantities anticipated. Schedule each item and list off-site recycling service and hauler company name, telephone number, address, and person contacted.
 4. Include a "good faith" estimate of each type of construction waste that would be generated if no diversion methods were implemented. Submit with calculations based upon weight or volume of each. The following items are subject to the "good faith" estimate and diversion requirement:
 - a. Asphalt & Concrete
 - b. Brick/Masonry/Tiles

- c. Building Materials (doors, windows, fixtures, etc.)
 - d. Cardboard and other paper products
 - e. Carpet/Carpet Padding/Foam
 - f. Ceiling Tiles (acoustic)
 - g. Drywall
 - h. Electrical Components (light fixtures, cables, etc)
 - i. Film Plastic & Expanded Foam blocks
 - j. Landscape Debris (plant & tree trimmings)
 - k. Mechanical Debris (ducts, controls, plumbing fixtures, etc)
 - l. Scrap Metal
 - m. Unpainted Wood and Pallets
 - n. Other (painted wood & drywall, roofing, etc)
 - o. Mixed C&D (defined as a mixture of three or more materials from construction or demolition sites that will be taken to a “qualified” facility for recycling.)
 - p. Trash/garbage
 - q. Universal Waste (may not be disposed of in landfill or comingled for recycling with other construction debris)
5. Construction waste quantities entered in volume will be converted automatically using the defined Conversion Rate approved by Alameda County that is integrated into WasteTracking.com powered by Green Halo Systems.

B. Plan Implementation

1. Contractor shall do all of the following:
- a. Retain a copy of, and upload into WasteTracking.com powered by Green Halo Systems, all weight tickets, copies of receipts and invoices and any other documentation related to the reuse, recycling, and disposal of generated waste/debris from demolition and construction activities; and
 - b. Maintain a log of each load of each category item diverted from landfill. Log in separately debris sent to a Class III landfill and materials sent to recycling facilities.
 - 1) Include in log: type of load, load weight, name of hauling service, name of recycling service or landfill, and date accepted by recycling service or by landfill.
 - 2) County reserves the right to audit the log at any time. Contractor shall retain and provide to the County all weight tickets, copies of receipts and invoices and any other documentation related to the disposal or recycling of generated waste/debris from demolition and construction activities.
 - c. Units of measure: Use same units as stated in the approved plan "good faith" estimate of construction waste that would be generated if no remedial methods were implemented.

2. Material handling

- a. Separation facilities
 - 1) Designate a specific on site area or areas to facilitate separation of materials for potential reuse, salvage, recycling, and return.
 - 2) Keep waste bins and pile areas neat and clean. Clearly mark bins for each category of waste. Do not co-mingle non-recyclable waste with materials designated for reuse or recycling.
 - b. Environmental controls during handling, storage, or transport: Do not permit designated materials to become contaminated or to contaminate site or surrounding areas.
3. Training and coordination
- a. Provide access and training as needed to subcontractors to the online construction and demolition debris waste management tool Green Halo Systems for the purposes of input of waste management information.
 - b. Furnish copies of the Waste Management Plan to all on-site supervisors, each subcontractor, and the County.
 - c. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all entities at the appropriate stages of the Project.
 - d. Meetings: Include construction waste management on the agenda of meetings. At a minimum, discuss waste management goals and issues at the following meetings:
 - 1) Pre-bid meetings.
 - 2) Pre-construction meeting.
 - 3) Regularly scheduled job-site meetings.

PART 2 - PRODUCTS

2.01 MATERIALS, EQUIPMENT AND FACILITIES

Furnish all materials, tools, equipment, devices, appurtenances, facilities, and services required for performing waste management of debris covered under this Section.

PART 3 - EXECUTION

3.01 EXAMINATION AND PREPARATION

- A. Set up and maintain in good standing a project account with WasteTracking.com powered by Green Halo Systems using the website [ACGSA.WasteTracking.com](https://www.acgsa.org/WasteTracking.com) to be used exclusively for this project to develop a waste management plan, upload all reuse, recycling and waste disposal data throughout the construction process, and submit the final online report demonstrating project compliance.
- B. Perform as required in the approved Waste Management Plan.

3.02 DISPOSAL OF DEBRIS

- A. Dispose of waste, trash and debris in a safe, acceptable manner, in accordance with applicable laws and ordinances and as prescribed by authorities having jurisdiction.
Burying of trash and debris on the site is strictly prohibited.
- B. Remove demolished materials from site as work progresses. Remove debris from the site so that its presence will not delay the progress of the work.
- C. Debris shall be the property of the Contractor and shall be removed and disposed of in a legal manner off the County's property in accordance with the approved Waste Management Plan described herein. Location of recycling facility or landfill site and length of haul shall be the Contractor's responsibility.

END OF DOCUMENT

DOCUMENT 01 76 00

PROTECTING INSTALLED CONSTRUCTION

PART 1 – GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions;
- B. Special Conditions.

PART 2 - PRODUCTS

2.01 PRODUCTS FOR PATCHING AND EXTENDING WORK:

- A. New Materials: As specified in the Contract Documents including, without limitation, in the Specifications, Contractor shall match existing products, conditions, and work for patching and extending work.
- B. Type and Quality of Existing Products: Contractor shall determine by inspection, by testing products where necessary, by referring to existing conditions and to the Work as a standard.

PART 3 - EXECUTION

3.01 EXAMINATION:

- A. Contractor shall verify that demolition is complete and that areas are ready for installation of new Work.
- B. By beginning restoration Work, Contractor acknowledges and accepts the existing conditions.

3.02 PREPARATION:

- A. Contractor shall cut, move, or remove items as necessary for access to alterations and renovation Work. Contractor shall replace and restore these at completion.
- B. Contractor shall remove unsuitable material not as salvage unless otherwise indicated in the Contract Documents. Unsuitable material may include, without

limitation, rotted wood, corroded metals, and deteriorated masonry and concrete. Contractor shall replace materials as specified for finished Work.

- C. Contractor shall remove debris and abandoned items from all areas of the Site and from concealed spaces.
- D. Contractor shall prepare surface and remove surface finishes to provide for proper installation of new Work and finishes.
- E. Contractor shall close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity. Contractor shall insulate ductwork and piping to prevent condensation in exposed areas. Contractor shall insulate building cavities for thermal and/or acoustical protection, as detailed.

3.03 INSTALLATION:

- A. Contractor shall coordinate Work of all alternations and renovations to expedite completion and to accommodate County occupancy.
- B. Designated Areas and Finishes: Contractor shall complete all installations in all respects, including operational, mechanical work and electrical work.
- C. Contractor shall remove, cut, and patch Work in a manner to minimize damage and to provide a means of restoring Products and finishes to original or specified condition.
- D. Contractor shall refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with a neat transition to adjacent finishes.
- E. Contractor shall install products as specified in the Contract Documents, including without limitation, the Specifications.

3.04 TRANSITIONS:

- A. Where new Work abuts or aligns with existing, Contractor shall perform a smooth and even transition. Patched Work must match existing adjacent work in texture and appearance.
- B. When finished surfaces are cut so that a smooth transition with new Work is not possible, Contractor shall terminate existing surface along a straight line at a natural line of division and make a recommendation for resolution to the County and the Architect for review and approval.

3.05 ADJUSTMENTS:

- A. Where removal of partitions or walls results in adjacent spaces becoming one, Contractor shall rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
- B. Where a change of plane of 1/4 inch or more occurs, Contractor shall submit a recommendation for providing a smooth transition to the County and the Architect for review and approval.
- C. Contractor shall trim existing doors as necessary to clear new floor finish and refinish trim as required.
- D. Contractor shall fit Work at penetrations of surfaces.

3.06 REPAIR OF DAMAGED SURFACES:

- A. Contractor shall patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections.
- B. Contractor shall repair substrate prior to patching finish.

3.07 CULTIVATED AREAS AND OTHER SURFACE IMPROVEMENTS:

- A. Cultivated or planted areas and other surface improvements which are damaged by actions of the Contractor shall be restored by Contractor to their original condition or better, where indicated.
- B. Contractor shall protect and replace, if damaged, all existing guard posts, barricades, and fences.
- C. Contractor shall give special attention to avoid damaging or killing trees, bushes and/or shrubs on the Premises and/or identified the Contract Documents, including without limitation, the Drawings.

3.08 FINISHES:

- A. Contractor shall finish surfaces as specified in the Contract Documents, including without limitations, the provisions of all Divisions of the Specifications.
- B. Contractor shall finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, Contractor shall refinish entire surface to nearest intersections.

3.09 CLEANING:

- A. Contractor shall continually clean the Site and the Premises as indicated in the Contract Documents, including without limitation, the provisions in the General Conditions and the Specifications regarding cleaning.

END OF DOCUMENT

DOCUMENT 01 77 00

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Completion of Work;
- B. Special Conditions;
- C. Construction Facilities and Temporary Controls.

1.02 CLOSEOUT PROCEDURES

Contractor shall comply with all closeout provisions as indicated in the General Conditions.

1.03 FINAL CLEANING

- A. Contractor shall execute final cleaning prior to final inspection.
- B. Contractor shall clean interior and exterior glass and surfaces exposed to view; remove temporary labels, tape, stains, and foreign substances, polish transparent and glossy surfaces, wax and polish new vinyl floor surfaces, vacuum carpeted and soft surfaces.
- C. Contractor shall clean equipment and fixtures to a sanitary condition.
- D. Contractor shall replace filters of operating equipment.
- E. Contractor shall clean debris from roofs, gutters, down spouts, and drainage systems.
- F. Contractor shall clean Site, sweep paved areas, and rake clean landscaped surfaces.
- G. Contractor shall remove waste and surplus materials, rubbish, and construction facilities from the Site.

1.04 ADJUSTING

- E. Contractor shall adjust operating products and equipment to ensure smooth and unhindered operation.
- F. Record Documents and Shop Drawings: Contractor shall legibly mark each item to record actual construction, including:
 - (1) Measured depths of foundations in relation to finish floor datum.
 - (2) Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - (3) Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - (4) Field changes of dimension and detail.
 - (5) Details not on original Contract Drawings.
 - (6) Changes made by modification(s).
 - (7) References to related Shop Drawings and modifications.
- G. County will provide one set of reproducible drawings to Contractor.
- H. Contractor shall submit all required documents to County and/or Architect prior to or with its final Application for Payment.

1.06 INSTRUCTION OF COUNTY PERSONNEL:

- A. Before final inspection, at agreed upon times, Contractor shall instruct County's designated personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. For equipment requiring seasonal operation, Contractor shall perform instructions for other seasons within six months.
- C. Contractor shall use operation and maintenance manuals as basis for instruction. Contractor shall review contents of manual with personnel in detail to explain all aspects of operation and maintenance.

- D. Contractor shall prepare and insert additional data in Operation and Maintenance Manual when need for such data becomes apparent during instruction.
- E. Contractor shall use operation and maintenance manuals as basis for instruction. Contractor shall review contents of manual with personnel in detail to explain all aspects of operation and maintenance.

1.07 SPARE PARTS AND MAINTENANCE MATERIALS:

- A. Contractor shall provide products, spare parts, maintenance, and extra materials in quantities specified in the Specifications and in Manufacturer's recommendations.
- B. Contractor shall provide County all required Operation and Maintenance Data.

PART 2 – PRODUCTS Not used.

PART 3 – EXECUTION Not used.

END OF DOCUMENT

DOCUMENT 01 78 23

OPERATION AND MAINTENANCE INSTRUCTIONS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Completion of the Work;
- B. Special Conditions.

1.02 QUALITY ASSURANCE:

- A. Contractor shall prepare instructions and data by personnel experienced in maintenance and operation of described products.

1.03 FORMAT:

- A. Contractor shall prepare data in the form of an instructional manual entitled “OPERATIONS AND MAINTENANCE MANUAL & INSTRUCTIONS” (“Manual”).
- B. Binders: Contractor shall use commercial quality, 8-1/2 by 11 inch, three-side rings, with durable plastic covers; two inch maximum ring size. When multiple binders are used, Contractor shall correlate data into related consistent groupings.
- C. Cover: Contractor shall identify each binder with typed or printed title "OPERATION AND MAINTENANCE MANUAL & INSTRUCTIONS"; and shall list title of Project and identify subject matter of contents.
- D. Contractor shall arrange content by systems process flow under section numbers and sequence of Table of Contents of the Contract Documents.
- E. Contractor shall provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- F. Text: The content shall include Manufacturer's printed data, or typewritten data on 24 pound paper.

- G. Drawings: Contractor shall provide with reinforced punched binder tab and shall bind in with text; folding larger drawings to size of text pages.

1.04 CONTENTS, EACH VOLUME:

- A. Table of Contents: Contractor shall provide title of Project; names, addresses, and telephone numbers of the Architect, any engineers, subconsultants, Subcontractor(s), and Contractor with name of responsible parties; and schedule of products and systems, indexed to content of the volume.
- B. For Each Product or System: Contractor shall list names, addresses, and telephone numbers of Subcontractor(s) and suppliers, including local source of supplies and replacement parts.
- C. Product Data: Contractor shall mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- D. Drawings: Contractor shall supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Contractor shall not use Project Record Documents as maintenance drawings.
- E. Text: The Contractor shall include any and all information as required to supplement product data. Contractor shall provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.
- F. Warranties and Bonds: Contractor shall bind in one copy of each.

1.05 MANUAL FOR MATERIALS AND FINISHES:

- A. Building Products, Applied Materials, and Finishes: Contractor shall include product data, with catalog number, size, composition, and color and texture designations. Contractor shall provide information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Contractor shall include Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- C. Moisture Protection and Weather Exposed Products: Contractor shall include product data listing applicable reference standards, chemical composition, and details of installation. Contractor shall provide recommendations for inspections, maintenance, and repair.

- D. Additional Requirements: Contractor shall include all additional requirements as specified in the Specifications.
- E. Contractor shall provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.06 MANUAL FOR EQUIPMENT AND SYSTEMS:

- A. Each Item of Equipment and Each System: Contractor shall include description of unit or system, and component parts and identify function, normal operating characteristics, and limiting conditions. Contractor shall include performance curves, with engineering data and tests, and complete nomenclature, and commercial number of replaceable parts.
- B. Panelboard Circuit Directories: Contractor shall provide electrical service characteristics, controls, and communications.
- C. Contractor shall include color coded wiring diagrams as installed.
- D. Operating Procedures: Contractor shall include start-up, break-in, and routine normal operating instructions and sequences. Contractor shall include regulation, control, stopping, shut-down, and emergency instructions. Contractor shall include summer, winter, and any special operating instructions.
- E. Maintenance Requirements: Contractor shall include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- F. Contractor shall provide servicing and lubrication schedule, and list of lubricants required.
- G. Contractor shall include manufacturer's printed operation and maintenance instructions.
- H. Contractor shall include sequence of operation by controls manufacturer.
- I. Contractor shall provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- J. Contractor shall provide control diagrams by controls manufacturer as installed.
- K. Contractor shall provide Contractor's coordination drawings, with color coded piping diagrams as installed.

- L. Contractor shall provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- M. Contractor shall provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- N. Additional Requirements: Contractor shall include all additional requirements as specified in Specification(s).
- O. Contractor shall provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.08 SUBMITTAL:

- A. Contractor shall submit to the County for review two (2) copies of preliminary draft or proposed formats and outlines of the contents of the Manual within thirty (30) days of Contractor's start of Work.
- B. For equipment, or component parts of equipment put into service during construction and to be operated by County, Contractor shall submit draft content for that portion of the Manual within ten (10) days after acceptance of that equipment or component.
- C. Contractor shall submit two (2) copies of a complete Manual in final form prior to final Application for Payment. Copy will be returned with Architect/Engineer comments. Contractor must revise the content of the Manual as required by County prior to County's approval of Contractor's final Application for Payment.
- D. Contractor must submit two (2) copies of revised Manual in final form within ten (10) days after final inspection.

END OF DOCUMENT

DOCUMENT 01 78 36

WARRANTIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Warranty/Guarantee Information;
- B. Special Conditions.

1.02 FORMAT

- A. Binders: Contractor shall use commercial quality, 8-1/2 by 11 inch, three-side rings, with durable plastic covers; two inch maximum ring size.
- B. Cover: Contractor shall identify each binder with typed or printed title "WARRANTIES" and shall list title of Project.
- C. Table of Contents: Contractor shall provide title of Project; name, address, and telephone number of Contractor and equipment supplier, and name of responsible principal. Contractor shall identify each item with the number and title of the specific Specification, document, provision, or section in which the name of the product or work item is specified.
- D. Contractor shall separate each warranty with index tab sheets keyed to the Table of Contents listing, providing full information and using separate typed sheets as necessary. Contractor shall list each applicable and/or responsible subcontractor(s), supplier(s), and/or manufacturer(s), with name, address, and telephone number of each responsible principal(s).

1.03 PREPARATION:

- A. Contractor shall obtain warranties, executed in duplicate by each applicable and/or responsible subcontractor(s), supplier(s), and manufacturer(s), within ten (10) days after completion of the applicable item or work. Except for items put into use with County's permission, Contractor shall leave date of beginning of time of warranty until the date of completion is determined.

- B. Contractor shall verify that documents are in proper form, contain full information, and are notarized, when required.
- C. Contractor shall co-execute submittals when required.
- D. Contractor shall retain warranties until time specified for submittal.

1.04 TIME OF SUBMITTALS:

- A. For equipment or component parts of equipment put into service during construction with County's permission, Contractor shall submit a draft warranty for that equipment or component within ten (10) days after acceptance of that equipment or component.
- B. Contractor shall submit for County approval all warranties and related documents within ten (10) days after date of completion. Contractor must revise the warranties as required by the County prior to County's approval of Contractor's final Application for Payment.
- C. For items of work delayed beyond date of completion, provide updated submittal within ten days after acceptance, listing the date of acceptance as start of warranty period.

END OF DOCUMENT

DOCUMENT 01 78 39

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND PROVISIONS:

All Contract Documents should be reviewed for applicable provisions related to the provisions in this document, including without limitation:

- A. General Conditions, including, without limitation, Documents on Work;
- B. Special Conditions.

PART 2 - RECORD DRAWINGS

2.01 GENERAL:

- A. As indicated in the Contract Documents, the County will provide Contractor with one set of reproducible plans of the original Contract Drawings.
- B. Contractor shall maintain at each Project Site one set of marked-up blueline prints and each month, or as otherwise agreed, shall transfer all changes and information to those marked-up blueline prints. Contractor shall submit to the Project County one set of reproducible electronic pdf of the Project Record Drawings ("As-Built") showing all changes incorporated into the Work since the preceding monthly submittal. The Record Drawings shall be available at the Project Site. The Contractor shall submit reproducible electronic pdf at the conclusion of the Project following review of the blueline prints.
- C. Label and date each Record Drawing "RECORD DOCUMENT" in legibly printed letters.
- D. All deviations in construction, including but not limited to pipe and conduit locations and deviations caused by without limitation Change Orders, Construction Claim Directives, RFI's, and Addenda, shall be accurately and legibly recorded by Contractor.
- E. Locations and changes shall be done by Contractor in a neat and legible manner and, where applicable, indicated by drawing a "cloud" around the changed or additional information.

2.02 RECORD DRAWING INFORMATION:

- A. Contractor shall record the following information:
- (1) Locations of Work buried under or outside each building, including, without limitation, all utilities, plumbing and electrical lines, and conduits.
 - (2) Actual numbering of each electrical circuit.
 - (3) Locations of significant Work concealed inside each building whose general locations are changed from those shown on the Contract Drawings.
 - (4) Locations of all items, not necessarily concealed, which vary from the Contract Documents.
 - (5) Installed location of all cathodic protection anodes.
 - (6) Deviations from the sizes, locations, and other features of installations shown in the Contract Documents.
 - (7) Locations of underground work, points of connection with existing utilities, changes in direction, valves, manholes, catch basins, capped stubouts, invert elevations, etc.
 - (8) Sufficient information to locate Work concealed in each building with reasonable ease and accuracy. In some instances, this may be by dimension, in others, it may be in relation to the spaces in the building near which it was installed.
- B. Contractor shall provide additional drawings as necessary for clarification.
- C. Contractor shall provide reproducible record drawings, made from final Shop Drawings marked "No Exceptions Taken" or "Approved as Noted."

PART 3 - RECORD SPECIFICATIONS

3.01 GENERAL:

- A. Contractor shall mark each section legibly to record manufacturer, trade name, catalog number, and supplier of each Product and item of equipment actually installed.

PART 4 - MAINTENANCE OF RECORD DOCUMENTS

4.01 GENERAL

- A. Contractor shall store Record Documents apart from documents used for construction:
 - (1) Provide files and racks for storage of Record Documents.
 - (2) Maintain Record Documents in a clean, dry, legible condition and in good order.
- B. Do not use Record Documents for construction purposes.

END OF DOCUMENT

DOCUMENT 01 91 13

GENERAL COMMISSIONING REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. OPR and BoD documentation prepared by Owner and Architect contains requirements that apply to this Section.

1.02 SUMMARY

- A. This Section includes general requirements that apply to implementation of commissioning without regard to systems, subsystems, and equipment being commissioned.
- B. Related Sections include the following:
 - 1. Division 1 Section "HVAC Commissioning Requirements" for specific requirements for commissioning HVAC systems.

1.2 DEFINITIONS

- A. BoD: Basis of Design.
- B. CxA: Commissioning Authority.
- C. OPR: Owner's Project Requirements.
- D. Systems, Subsystems, and Equipment: Where these terms are used together or separately, they shall mean "as-built" systems, subsystems, and equipment.
- E. TAB: Testing, Adjusting, and Balancing.

1.3 COMMISSIONING TEAM

- A. Members Appointed by Contractor(s): Individuals, each having authority to act on behalf of the entity he or she represents, explicitly organized to implement the commissioning process through coordinated actions. The commissioning team shall consist of, but not be limited to, representatives of **each** Contractor, including Project superintendent and subcontractors, installers, suppliers, and specialists deemed appropriate by the CxA.
- B. Members Appointed by Owner:
 - 1. CxA: The designated person, company, or entity that plans, schedules, and coordinates the commissioning team to implement the commissioning process. Owner will engage the CxA under a separate contract.
 - 2. Representatives of the facility user and operation and maintenance personnel.
 - 3. Architect and engineering design professionals.

1.4 OWNER'S RESPONSIBILITIES

- A. Provide the OPR documentation to the CxA and **each** Contractor for use in developing the commissioning plan; systems manual; operation and maintenance training plan; and testing plans and checklists.
- B. Assign operation and maintenance personnel and schedule them to participate in commissioning team activities including, but not limited to, the following:
 - 1. Coordination meetings.
 - 2. Training in operation and maintenance of systems, subsystems, and equipment.
 - 3. Testing meetings.
 - 4. Demonstration of operation of systems, subsystems, and equipment.
- C. Provide utility services required for the commissioning process.
- D. Provide the BoD documents, prepared by Architect and approved by Owner, to the CxA and **each** Contractor for use in developing the commissioning plan, systems manual, and operation and maintenance training plan.

1.5 CONTRACTOR'S RESPONSIBILITIES

- A. Provide utility services required for the commissioning process.

- B. **Each** Contractor shall assign representatives with expertise and authority to act on behalf of the Contractor and schedule them to participate in and perform commissioning team activities including, but not limited to, the following:
1. Participate in design- and construction-phase coordination meetings.
 2. Participate in maintenance orientation and inspection.
 3. Participate in operation and maintenance training sessions.
 4. Participate in final review at acceptance meeting.
 5. Certify that Work is complete and systems are operational according to the Contract Documents, including calibration of instrumentation and controls.
 6. Evaluate performance deficiencies identified in test reports and, in collaboration with entity responsible for system and equipment installation, recommend corrective action.
 7. Review and approve final commissioning documentation.
- C. Subcontractors shall assign representatives with expertise and authority to act on behalf of subcontractors and schedule them to participate in and perform commissioning team activities including, but not limited to, the following:
1. Participate in design- and construction-phase coordination meetings.
 2. Participate in maintenance orientation and inspection.
 3. Participate in procedures meeting for testing.
 4. Participate in final review at acceptance meeting.
 5. Provide schedule for operation and maintenance data submittals, equipment startup, and testing to CxA for incorporation into the commissioning plan. Update schedule on a weekly basis throughout the construction period.
 6. Provide information to the CxA for developing construction-phase commissioning plan.
 7. Participate in training sessions for Owner's operation and maintenance personnel.
 8. Provide updated Project Record Documents to the CxA on a daily basis.
 9. Gather and submit operation and maintenance data for systems, subsystems, and equipment to the CxA, as specified in Division 1 Section "Operation and Maintenance Data."
 10. Provide technicians who are familiar with the construction and operation of installed systems and who shall develop specific test procedures and participate in testing of installed systems, subsystems, and equipment.

1.6 CxA'S RESPONSIBILITIES

- A. Organize and lead the commissioning team.
- B. Prepare a construction-phase commissioning plan. Collaborate with **each** Contractor and with subcontractors to develop test and inspection procedures. Include design

changes and scheduled commissioning activities coordinated with overall Project schedule. Identify commissioning team member responsibilities, by name, firm, and trade specialty, for performance of each commissioning task.

- C. Review and comment on submittals from **each** Contractor for compliance with the OPR, BoD, Contract Documents, and construction-phase commissioning plan. Review and comment on performance expectations of systems and equipment and interfaces between systems relating to the OPR and BoD.
- D. Convene commissioning team meetings for the purpose of coordination, communication, and conflict resolution; discuss progress of the commissioning processes. Responsibilities include arranging for facilities, preparing agenda and attendance lists, and notifying participants. The CxA shall prepare and distribute minutes to commissioning team members and attendees within **five** workdays of the commissioning meeting.
- E. At the beginning of the construction phase, conduct an initial construction-phase coordination meeting for the purpose of reviewing the commissioning activities and establishing tentative schedules for operation and maintenance submittals; operation and maintenance training sessions; TAB Work; and Project completion.
- F. Observe and inspect construction and report progress and deficiencies. In addition to compliance with the OPR, BoD, and Contract Documents, inspect systems and equipment installation for adequate accessibility for maintenance and component replacement or repair.
- G. Prepare Project-specific test and inspection procedures and checklists.
- H. Schedule, direct, witness, and document tests, inspections, and systems startup.
- I. Compile test data, inspection reports, and certificates and include them in the systems manual and commissioning report.
- J. Certify date of acceptance and startup for each item of equipment for start of warranty periods.
- K. Review Project Record Documents for accuracy. Request revisions from Contractor to achieve accuracy. Project Record Documents requirements are specified in Division 1 Section "Project Record Documents."
- L. Review and comment on operation and maintenance documentation and systems manual outline for compliance with the OPR, BoD, and Contract Documents. Operation and maintenance documentation requirements are specified in Division 1 Section "Operation and Maintenance Data."

- M. Prepare operation and maintenance training program and provide qualified instructors to conduct operation and maintenance training. Operation and maintenance training is specified in Division 1 Section "Demonstration and Training."
- N. Videotape and edit training sessions.
- O. Videotape construction progress including hidden shafts.
- P. Prepare commissioning reports.
- Q. Assemble the final commissioning documentation, including the commissioning report and Project Record Documents.

1.7 COMMISSIONING DOCUMENTATION

- A. Index of Commissioning Documents: CxA shall prepare an index to include storage location of each document.
- B. OPR: A written document, prepared by Owner, which details the functional requirements of Project and expectations of how it will be used and operated. This document includes Project and design goals, measurable performance criteria, budgets, schedules, success criteria, and supporting information.
- C. BoD Document: A document, prepared by Architect, that records concepts, calculations, decisions, and product selections used to meet the OPR and to satisfy applicable regulatory requirements, standards, and guidelines. The document includes both narrative descriptions and lists of individual items that support the design process.
- D. Commissioning Plan: A document, prepared by CxA, that outlines the schedule, allocation of resources, and documentation requirements of the commissioning process, and shall include, but is not limited to the following:
 - 1. Plan for delivery and review of submittals, systems manuals, and other documents and reports. Identification of the relationship of these documents to other functions and a detailed description of submittals that are required to support the commissioning processes. Submittal dates shall include the latest date approved submittals must be received without adversely affecting commissioning plan.
 - 2. Description of the organization, layout, and content of commissioning documentation (including systems manual) and a detailed description of documents to be provided along with identification of responsible parties.
 - 3. Identification of systems and equipment to be commissioned.
 - 4. Description of schedules for testing procedures along with identification of parties involved in performing and verifying tests.

5. Identification of items that must be completed before the next operation can proceed.
 6. Description of responsibilities of commissioning team members.
 7. Description of observations to be made.
 8. Description of requirements for operation and maintenance training, including required training materials.
 9. Description of expected performance for systems, subsystems, equipment, and controls.
 10. Schedule for commissioning activities with specific dates coordinated with overall construction schedule.
 11. Identification of installed systems, subsystems, and equipment, including design changes that occurred during the construction phase.
 12. Process and schedule for documenting changes on a continuous basis to appear in Project Record Documents.
 13. Process and schedule for completing prestart and startup checklists for systems, subsystems, and equipment to be verified and tested.
 14. Step-by-step procedures for testing systems, subsystems, and equipment with descriptions for methods of verifying relevant data, recording the results obtained, and listing parties involved in performing and verifying tests.
- E. Test Checklists: CxA shall develop test checklists for each system, subsystem, or equipment including interfaces and interlocks, and include a separate entry, with space for comments, for each item to be tested. Prepare separate checklists for each mode of operation and provide space to indicate whether the mode under test responded as required. Provide space for testing personnel to sign off on each checklist. Specific checklist content requirements are specified in Division 1 Section "HVAC Commissioning Requirements." Each checklist, regardless of system, subsystem, or equipment being tested, shall include, but not be limited to, the following:
1. Name and identification code of tested item.
 2. Test number.
 3. Time and date of test.
 4. Indication of whether the record is for a first test or retest following correction of a problem or issue.
 5. Dated signatures of the person performing test and of the witness, if applicable.
 6. Individuals present for test.
 7. Deficiencies.
 8. Issue number, if any, generated as the result of test.
- F. Certificate of Readiness: Certificate of Readiness shall be signed by **[each]** Contractor, Subcontractor(s), Installer(s), and CxA certifying that systems, subsystems, equipment, and associated controls are ready for testing. Completed test checklists signed by the responsible parties shall accompany this certificate.

- G. Test and Inspection Reports: CxA shall record test data, observations, and measurements on test checklists. Photographs, forms, and other means appropriate for the application shall be included with data. CxA shall compile test and inspection reports and test and inspection certificates and include them in systems manual and commissioning report.
- H. Corrective Action Documents: CxA shall document corrective action taken for systems and equipment that fail tests. Include required modifications to systems and equipment and revisions to test procedures, if any. Retest systems and equipment requiring corrective action and document retest results.
- I. Issues Log: CxA shall prepare and maintain an issues log that describes design, installation, and performance issues that are at variance with the OPR, BoD, and Contract Documents. Identify and track issues as they are encountered, documenting the status of unresolved and resolved issues.
 - 1. Creating an Issues Log Entry:
 - a. Identify the issue with unique numeric or alphanumeric identifier by which the issue may be tracked.
 - b. Assign a descriptive title of the issue.
 - c. Identify date and time of the issue.
 - d. Identify test number of test being performed at the time of the observation, if applicable, for cross-reference.
 - e. Identify system, subsystem, and equipment to which the issue applies.
 - f. Identify location of system, subsystem, and equipment.
 - g. Include information that may be helpful in diagnosing or evaluating the issue.
 - h. Note recommended corrective action.
 - i. Identify commissioning team member responsible for corrective action.
 - j. Identify expected date of correction.
 - k. Identify person documenting the issue.
 - 2. Documenting Issue Resolution:
 - a. Log date correction is completed or the issue is resolved.
 - b. Describe corrective action or resolution taken. Include description of diagnostic steps taken to determine root cause of the issue, if any.
 - c. Identify changes to the OPR, BoD, or Contract Documents that may require action.
 - d. State that correction was completed and system, subsystem, and equipment is ready for retest, if applicable.
 - e. Identify person(s) who corrected or resolved the issue.
 - f. Identify person(s) documenting the issue resolution.

3. Issues Log Report: On a periodic basis, but not less than for each commissioning team meeting, CxA shall prepare a written narrative for review of outstanding issues and a status update of the issues log. As a minimum, CxA shall include the following information in the issues log and expand it in the narrative:
 - a. Issue number and title.
 - b. Date of the identification of the issue.
 - c. Name of the commissioning team member assigned responsibility for resolution.
 - d. Expected date of correction.
- J. Commissioning Report: CxA shall document results of the commissioning process including unresolved issues and performance of systems, subsystems, and equipment. The commissioning report shall indicate whether systems, subsystems, and equipment have been completed and are performing according to the OPR, BoD, and Contract Documents. The commissioning report shall include, but is not limited to, the following:
 1. Lists and explanations of substitutions; compromises; variances in the OPR, BoD, and Contract Documents; record of conditions; and, if appropriate, recommendations for resolution. This report shall be used to evaluate systems, subsystems, and equipment and shall serve as a future reference document during Owner occupancy and operation. It shall describe components and performance that exceed requirements of the OPR, BoD, and Contract Documents and those that do not meet requirements of the OPR, BoD, and Contract Documents. It may also include a recommendation for accepting or rejecting systems, subsystems, and equipment.
 2. OPR and BoD documentation.
 3. Commissioning plan.
 4. Testing plans and reports.
 5. Corrective modification documentation.
 6. Issues log.
 7. Completed test checklists.
 8. Listing of off-season test(s) not performed and a schedule for their completion.
- K. Systems Manual: CxA shall gather required information and compile systems manual. Systems manual shall include, but is not limited to, the following:
 1. OPR and BoD, including system narratives, schematics, and changes made throughout the Project.
 2. Project Record Documents as specified in Division 1 Section "Project Record Documents."
 3. Final commissioning plan.
 4. Commissioning report.

5. Operation and maintenance data as specified in Division 1 Section "Operation and Maintenance Data."

1.8 SUBMITTALS

- A. Commissioning Plan Prefinal Submittal: CxA shall submit **two** hard copies of prefinal commissioning plan. Deliver one copy to **each** Contractor, one to Owner, and one to Architect. Present submittal in sufficient detail to evaluate data collection and arrangement process. One copy, with review comments, will be returned to the CxA for preparation of the final construction-phase commissioning plan.
- B. Commissioning Plan Final Submittal: CxA shall submit **two** hard copies and two sets of electronically formatted information of final commissioning plan. Deliver one hard copy and one set of discs to Owner, and one copy to Architect. The final submittal must address previous review comments. The final submittal shall include a copy of the prefinal submittal review comments along with a response to each item.
- C. Test Checklists and Report Forms: CxA shall submit sample checklists and forms to **each** Contractor quality-control manager and subcontractors for review and comment. Submit **two** copies of each checklist and report form.
- D. Certificates of Readiness: CxA shall submit Certificates of Readiness.
- E. Test and Inspection Reports: CxA shall submit test and inspection reports.
- F. Corrective Action Documents: CxA shall submit corrective action documents.
- G. Prefinal Commissioning Report Submittal: CxA shall submit **two** hard copies of the prefinal commissioning report. Include a copy of the preliminary submittal review comments along with CxA's response to each item. CxA shall deliver one copy to Owner and one copy to Architect. One copy, with review comments, will be returned to the CxA for preparation of final submittal.
- H. Final Commissioning Report Submittal: CxA shall submit **two** hard copies and **two** sets of electronically formatted information of the final commissioning report. CxA shall deliver one hard copy and one set of discs to Owner, and one copy to Architect. The final submittal must address previous review comments and shall include a copy of the prefinal submittal review comments along with a response to each item.

1.9 QUALITY ASSURANCE

- A. Instructor Qualifications: Factory-authorized service representatives, experienced in training, operation, and maintenance procedures for installed systems, subsystems, and equipment.
- B. Test Equipment Calibration: Comply with test equipment manufacturer's calibration procedures and intervals. Recalibrate test instruments immediately whenever instruments have been repaired following damage or dropping. Affix calibration tags to test instruments. Instruments shall have been calibrated within six months prior to use.

1.10 COORDINATION

- A. Coordinating Meetings: CxA shall conduct **weekly** coordination meetings of the commissioning team to review progress on the commissioning plan, to discuss scheduling conflicts, and to discuss upcoming commissioning process activities.
- B. Pretesting Meetings: CxA shall conduct pretest meetings of the commissioning team to review startup reports, pretest inspection results, testing procedures, testing personnel and instrumentation requirements, and manufacturers' authorized service representative services for each system, subsystem, equipment, and component to be tested.
- C. Testing Coordination: CxA shall coordinate sequence of testing activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
 - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- D. Manufacturers' Field Services: CxA shall coordinate services of manufacturers' field services.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 OPERATION AND MAINTENANCE TRAINING REQUIREMENTS

- A. Training Preparation Conference: Before operation and maintenance training, CxA shall convene a training preparation conference to include Owner's operation and maintenance personnel, **each** Contractor, and subcontractors. In addition to

requirements specified in Division 1 Section "Demonstration and Training," perform the following:

1. Review the OPR and BoD.
 2. Review installed systems, subsystems, and equipment.
 3. Review instructor qualifications.
 4. Review instructional methods and procedures.
 5. Review training module outlines and contents.
 6. Review course materials (including operation and maintenance manuals).
 7. Inspect and discuss locations and other facilities required for instruction.
 8. Review and finalize training schedule and verify availability of educational materials, instructors, audiovisual equipment, and facilities needed to avoid delays.
 9. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.
- B. Training Modules: Develop an instruction program that includes individual training modules for each system, subsystem, and equipment as specified in Division 1 Section "Demonstration and Training."

END OF DOCUMENT

EXHIBIT A

ELEVATOR SPECIFICATIONS

The following attached items are included as part of this Exhibit:

1. Specifications for Elevator Modernization (Section 14250)



Specifications for Elevator Modernization

ALAMEDA SELF-SUFFICIENCY CENTER
8477 ENTERPRISE WAY
OAKLAND CALIFORNIA, 94621

Prepared by:
JEREMIAH POTTER,
DIRECTOR OF CONSULTING, WESTERN REGION
Phone: 213.364.2685
Email: JPOTTER@ATIS.COM

PROJECT SCHEDULE

Contractor shall provide a comprehensive schedule for the execution of modernization work, clearly indicating the milestones listed below. See schedule requirements listed in Alameda County's front end section. Elevator modernization shall be completed within six (6) weeks after the start of on-site construction. As this is the only elevator in the facility, the modernization shall be expedited.

This modernization will be conducted in an active operation where patrons and building team members are dependent on the elevator to get to the ground level. For this reason, there can be no deviation from the mutually agreed upon start date and completion date once the schedule has been approved by Alameda County.

The start of on-site modernization must initiate on the date provided by the Elevator Contractor with completion finished in accordance with the schedule submitted by the Elevator Contractor and approved by the Owner for the elevator modernization. All open time periods are to be calculated after a date of award for this contract. The schedule below, when completed, will constitute the final schedule for this project.

All time periods are to be calculated after the date of award for this contract with the actual start date as listed below. Once the elevator is turned over to the Elevator Contractor for modernization, the Elevator Contractor shall provide all material and labor to ensure that the approved schedule is achieved to complete all modernization work on the elevator.

REQUIRES CONTRACTOR INPUT

<u>Time (Days / Weeks)</u>	<u>Calendar Dates</u>	<u>Action</u>
		Product submittals date
		Submittal review period
		Equipment Manufacturing
		On-site work starts for 1 st elevator
		1 st elevator modernization work
		completes
		All elevator modernization work
		completed

END OF SPECIAL PROVISIONS

Section 14250
SPECIFICATION FOR MODERNIZATION OF ONE (1) ELEVATOR

Alameda Self-Sufficiency Center
8477 Enterprise Way, Oakland, CA 94621

HYDRAULIC PASSENGER ELEVATOR

1 GENERAL

1.1 SUMMARY

- A) This section specifies required work to complete the modernization of One (1) In-Ground Hydraulic Elevator.
- B) Elevator work includes:
 - 1) Commercial, standard hydraulic elevators.
 - 2) Elevator car and hoistway signal equipment.
 - 3) Operation and control systems.
 - 4) Patching, painting etc. as indicated.
 - 5) Accessibility provisions for physically disabled persons.
 - 6) Related Work or Work by Others
- C) Engineering, equipment, labor, machines, control systems, devices and accessories as required for safely operating the specified elevators at rated speed with rated capacities.
- D) Delivery, staging, and hoisting of new equipment. Hoisting, dismantling, removal and disposal of existing equipment. Repair, cleaning, and painting of reusable equipment.
- E) Materials and accessories as required for completing the elevator modernization.
- F) Hoistway, pit and machine room barricades for safety as required.
- G) Required hoisting, hoisting permits and traffic coordination and/or permits with local jurisdictions and the State of California as required.
- H) Required permits and coordination and/or permits with local jurisdictions, Bureau of Elevator Safety and the State of California as required.

1.2 DEFINITIONS

- A) The following definitions shall be used throughout all general conditions, specifications and contract documents except where superseded in those documents.
 - 1) "Owner": Alameda County.
 - 2) "Consultant": ATIS.
 - 3) "Contractor": The Elevator Contractor unless stated differently.

- 4) “Contract”: The Contract for the elevator modernization and other related work shall be deemed to be the Elevator Specifications provided to Contractor prior to execution.
- 5) “Contract Documents”: The Contract for the elevator modernization and other related work to the elevator of the building, the Elevator Specifications (the "Specifications") and any Addendum shall comprise the Contract Documents. Additional Contract Documents may be created and incorporated upon written agreement by Owner and Contractor. Notwithstanding, any documents not furnished hereunder shall not be binding upon Contractor until such time Contractor is furnished with same and specifically accepts in writing.
- 6) “Contract Sum”: The amount set forth in the Contract as priced by the “Contractor” for Bid Items, for Contractor's performance of the Work.
- 7) “Direct Labor Costs”: Wages or salaries, which can be properly identified with and charged to one specific product or service. Direct labor cost shall include all direct labor employee benefit costs and burdens. Employee benefits shall include the employer's cost contributions for health and welfare, injury compensation, Federal and State Unemployment and Social Security taxes. It shall also include a burden factor to recover the cost of paid absence due to Federal Holidays, vacation, and election days required by the Department of Labor Wage Determinations. Other benefit costs including retirement contributions and paid sick leave may be included where identifiable and payable by the Contractor.
- 8) “Direct Labor Hours”: Those hours actually expended in the accomplishment of direct labor costed work.
- 9) “Direct Materials Cost: The actual vendor invoice charges for materials used for performance of work under this contract. Direct material costs shall include transportation charges when such charges are included on the invoice by the vendor, as well as any discounts allowed for prompt payment and discounts or rebates for core value of salvage value that accrue to the Contractor. When questions arise concerning the cost of materials, material costs will be based on the lowest of quotes provided by the Contractor from at least three different commercial vendors “Fire Alarm Contractor”: Contractor approved to work on Fire Alarm System installed in in the Alameda Self-Sufficiency Center at 8477 Enterprise Way in Oakland, CA.
- 10) “Code”: All applicable laws and codes, including but not limited to the electrical, fire, building, and Safety Codes for Elevators and Escalators codes designated by any authority having jurisdiction as detailed in the codes and standards reference section of this specification.
- 11) “Jurisdictional Authority”: The authority having jurisdiction, the organization, office, or individual responsible for enforcement of the associated Elevator Code(s). Where compliance with these Codes has been mandated by legislation or regulation, the “Jurisdictional Authority” is the regulatory authority.
- 12) “Component” or “Component Part”: Any part of any item or system that is detachable or removable from the main body or main assembly of the item or system.

- 13) Where "as shown", "as indicated", "as detailed", or words of similar import are used, it shall be understood that reference is made to this specification and the drawings accompanying this specification unless stated otherwise.
- 14) Where "as directed", "as required", "as permitted", "approval", "acceptance", or other words of similar import are used, it shall be understood that direction, requirement, permission, approval, or acceptance of the Owner is intended unless stated otherwise.
- 15) "Work": The services to be completed by Contractor are as specified in the Contract Documents. This Work includes all Services necessary; material and labor required to provide and install and/or repair equipment as specified under this specification. Schedules and completion dates shall be agreed to in writing by both parties before becoming effective.
- 16) "Provide": Provide all materials and labor required to furnish and install and or repair.
- 17) "Services": Services shall include, but shall not necessarily be limited to, all labor, transportation, supplies, materials, parts, tools, scaffolding, machinery, hoists, employee safety equipment, equipment, lubricants; supervision, applicable taxes, and all other work and materials expressly required under this Contract or reasonably inferred whether or not expressly stated herein necessary to maintain all equipment covered under this specification.
- 18) "Fire Alarm Contractor": Contractor approved to work on Fire Alarm System installed in the Alameda Self-Sufficiency Center at 8477 Enterprise Way in Oakland, CA.
- 19) "Subcontractor": A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work and Services at the site. All Subcontractors must be licensed and insured and must provide proof of adequate insurance in the amounts specified herein prior to the commencement of any portion of the Work.

1.3 CODE AND STANDARD REFERENCES

- A) All codes and standards referenced in this specification will be to the edition of the references as detailed in this section. All materials and Work and Services to be performed under these specifications shall be in compliance with the Codes listed in this section or as determined by the authority having jurisdiction.
- B) Comply with applicable State of California Regulatory Requirements, Building Codes and Elevator Codes at the project site, including but not limited to the following:
 - 1) California Building Code (CBC) 2022
 - 2) California Code of Regulations Title 8 and Title 24
 - 3) ASME A17.1-2004 Safety Code for Elevators and Escalators
 - 4) ASME A17.3-2015 Safety Code for Existing Elevators and Escalators
 - 5) ASME A17.2-2020 Guide for Inspection of Elevators and Escalators

- 6) ADA, Americans with Disabilities Act Accessibility
- 7) ASCE 24 Flood Resistant Design and Construction
- 8) NFPA 13-2019 Standard for the Installation of Sprinkler Systems
- 9) NFPA 70-2020 National Electrical Code
- 10) NFPA 80, Fire Doors and Windows
- 11) ANSI/UL 10B, Fire Tests of Door Assemblies
- 12) NFPA 72-2019 National Fire Alarm Code
- 13) NFPA 101 Life Safety Code
- 14) O.S.H.A. Requirements for construction and repairs of existing buildings
- 15) Elevator Industry Field Employees' Safety Handbook 2020
- 16) Any and all onsite workmen and receiving of products to site are required to follow security and safety procedures as per policies due to facility regulations.

1.4 RELATED BUILDING WORK

- A) This project will be a "turn-key" project with all work requirements included under the Related Building Work section to be provided by the Elevator Contractor unless specifically stated. All work necessary for a complete and useable elevator system, shall be the responsibility of the Elevator Contractor. Specifically, to include non-traditional Contractor work detailed in Part 1.4 in addition to traditional Contractor work as detailed in all other sections of this specification. All materials and work to be performed under these specifications shall be in compliance with the codes listed in Part 1.3 CODE AND STANDARD REFERENCES or as determined by the authority having jurisdiction. As work progresses, Contractor shall consult with their Subcontractors, examine the Work installed by Subcontractors, and resolve all conflicts without expense to Owner and/or Consultant.
- B) **Machine Room HVAC:** Machine room HVAC is required, to maintain temperature and humidity to between 55 deg F and 90 deg F with relative humidity of not more than 85% non-condensing. The Elevator Contractor shall provide actual calculations for total anticipated heat loads generated by all elevator machine room equipment.
 - 1) Machine room HVAC must be positioned as approved by the Elevator Contractor, Client and consultant. There shall be no drain lines or condensation allowing water in the machine room.
 - 2) Install new dedicated split HVAC system for machine room. This unit is required to have an electrical disconnect lockable in the off position with proper labels identifying source of power and purpose.

- 3) HVAC Contractor shall provide HVAC receptacle or disconnect switch as required for the installation of HVAC system by HVAC Contractor.
 - 4) HVAC Contractor is responsible for providing electrical power and code compliant disconnect switch for installation of HVAC equipment.
 - 5) Remote systems shall have a proper thermostat inside the machine room.
 - 6) Any existing vents in the machine room will be properly covered and protected.
 - 7) The Contractor is responsible for determining the appropriate method to maintain the required temperature and humidity in the machine room. This method will be reviewed and approved by the County and the consultant.
 - 8) The Contractor shall not modify or tie into existing HVAC ducts or lines. The Contractor's HVAC equipment shall be a standalone, independent system.
 - 9) If a split system is to be installed, it shall be commercial-rated, BACnet-compatible, and integrated into the building's existing Building Management System (BMS).
- C) **Fire Alarm:** Fire alarm including smoke sensing devices as per NFPA 70 National Electrical Code and NFPA 72 National Fire Alarm.
- 1) Verify that proper connections exist for fire recall devices to the elevator controllers. If required, provide connection from new or existing fire recall devices to the elevator controllers in machine room. For each elevator within the building, a minimum of three separate elevator control circuits shall be terminated at the designated elevator controller within each elevator machine room in accordance with NFPA 72, section 21.3. Operation of the elevator shall be in accordance with Section 2.27 of ASME A17.1 Safety Code for Elevators and Escalators. The smoke detectors or other automatic fire detection as permitted by NFPA 72, shall actuate the elevator control circuits as detailed in NFPA 72.
 - 2) Fire alarm contractor shall demonstrate at time of elevator inspection, compliance and testing of all alarm initiating devices as required by ASME A17.1 Safety Code for Elevators and Escalators, ASME A17.2 and NFPA 72 National Fire Alarm Code.
 - 3) Installation and modification of alarm system and devices shall conform to ASME A17.1 Safety Code for Elevators and Escalators, and NFPA 72 including NFPA 70 NEC.
 - 4) All conduit and wiring requirements for Fire Alarm System work is the responsibility of the Fire Alarm Contractor.
- D) **Emergency Generator:** This elevator is not provided with emergency generator power. New unit to include back up battery lowering.
- E) **Sprinklers:** Currently there are no sprinklers located in the machine room or pit. Field verify conditions.
- 1) When sprinklers are installed not more than 600 mm (24 in.) above the pit floor, the following shall apply to elevator electrical equipment and wiring in the hoistway located less than 1 200 mm (48 in.) above the pit floor, except earthquake protective devices conforming as required to ASME A17.1 Part 8.4); and on the exterior of the car at the point where the car platform sill and the lowest landing hoistway door sill are in vertical alignment.
 - a) Elevator electrical equipment shall be weatherproof (Type 4 as specified in NEMA 250).

- b) Elevator wiring, except traveling cables, shall be identified for use in wet locations in accordance with the requirements in NFPA 70
- F) **Building General Construction:** Building general construction conditions will include, work detailed in this section, including cleaning and painting of miscellaneous surfaces. The Elevator Contractor shall be responsible for all work as detailed in this section. All construction, cleaning and painting other than equipment directly supplied by the Elevator Contractor shall be performed by Work by Others.
 - 1) Replace machine room door with code compliant fire rated door and no less than 1 ½ hour “B-Label” door to machine room to include self-closing and self-locking requirements.
 - 2) Install Class ABC Fire Extinguisher in machine room permanently mounted and conveniently located to the access door as required by ASME A17.1 Safety Code for Elevators and Escalators.
 - 3) Verify that all non-elevator related pipes, wiring, conduit have been removed and openings in machine rooms and hoistways to include a 2-hour fire rating. All foreign pipes, wiring or conduit not in use or directly related to the elevator system shall be removed from machine rooms and hoistways. Fire caulk existing piping to ensure fire rating is compliant.
 - 4) All sills must be substantially level to all adjacent finished flooring surfaces.
 - 5) Install machine room warning sign “Danger Authorized Personnel Only” on the machine room door as required by NFPA 70 NEC.
- G) Each contractor will be required to provide any cutting, patching including painting to match existing finishes of building. Refer to Alameda County’s general conditions for VOC’s.
- H) All above work and materials to be performed to meet compliance with applicable Building Code, ASME A17.1 Safety Code for Elevators and Escalators, NFPA 70 National Electrical Code, NFPA 13 National Sprinkler Code and NFPA 72 Fire Alarm Code or as determined by the authority having jurisdiction.
- I) Failure by above associated contractors to perform required testing at time of scheduled elevator acceptance testing and inspection will require full advance payment by contractor at fault for all expenses relating to re-inspection, permit and scheduling fees to building management.
- J) **Telephone Lines:** A dedicated telephone line is required for the elevator.
 - 1) Telephone lines and wiring to elevator controller for telephone system including all wiring in machine room to be installed inside conduit as per NFPA 70 NEC.
 - 2) All emergency telephone devices shall include a minimum of 4 hours emergency backup power including power from emergency generator if supplied.
- K) **Electrical Requirements:** Electrical work required for elevator modernization shall be the responsibility of the Elevator Contractor. Electrical requirements shall include the following:
 - 1) All Electrical work must be coordinated and scheduled with, at least 7 days’ notice, with the building owner. Elevators shall be removed from service while electrical trades are working.
 - 2) Electrical requirements for hoistway and machine room HVAC, GFCI receptacles and disconnects, as required by NFPA 70, NEC and ASME A17.1 Safety Code for Elevators and Escalators. Additionally, Electrical Contractor shall provide and install conduits and wiring required for communication devices as detailed in this section.

- 3) **Main Line Disconnect:** Main line disconnect is to be verified by Elevator Contractor or their subcontractor, for appropriate size and type for power requirements of new elevator equipment prior to installation. Main line disconnect for elevator shall not be used for other conductors to pass thru disconnect switch boxes. Verify existing disconnect has proper fusing and grounding.
- a) If existing disconnect is not satisfactory, Electrical Contractor shall provide new disconnect for elevator main line power in accordance with NFPA 70, NEC. The disconnecting means shall be an enclosed externally operable fused motor circuit switch capable of being locked in the open position. The provision for locking or adding a lock to the disconnecting means shall be installed on or at the switch used as the disconnecting means and shall remain in place with or without the lock installed. Portable means for adding a lock to the switch or circuit breaker shall not be permitted as the means required to be installed at and remain with the equipment.
 - b) **Auxiliary Power Lowering:** Auxiliary Power Lowering will be provided in elevator controller. Elevator systems with auxiliary power lowering operation shall be provided with an auxiliary contact that is positively opened mechanically, and the opening shall not be solely dependent on springs. This contact shall cause the additional power source to be disconnected from its load when the disconnecting means is in the open position.
- 4) **Cab Lighting Disconnect:** New Cab Lighting disconnect is to be installed by Electrical Contractor with appropriate size and type for power requirements. Cab Lighting disconnect for elevator shall not be used for other conductors to pass thru disconnect switch boxes. Electrical Contractor shall provide new disconnect(s) for elevator cab lighting in accordance with NFPA 70, NEC.
- a) The disconnecting means shall be an enclosed externally operable fused motor circuit switch capable of being locked in the open position. The provision for locking or adding a lock to the disconnecting means shall be installed on or at the switch used as the disconnecting means and shall remain in place with or without the lock installed. Portable means for adding a lock to the switch or circuit breaker shall not be permitted as the means required to be installed at and remain with the equipment.
 - b) Car Light Source: A separate branch circuit shall supply the car lights, receptacle, accessory equipment (alarm devices, alarm bells, monitoring devices not part of the control system), auxiliary lighting power source, and ventilation on elevator. The overcurrent device protecting the branch circuit shall be located in the elevator machine room or control room/machinery space or control space. Required lighting shall not be connected to the load side of a ground-fault circuit interrupter.
- 5) **Machine Room Lighting and Receptacles:**
- a) A separate branch circuit shall supply the machine room or control room/machinery space or control space lighting and receptacles.
 - b) Minimum lighting in machine room shall be 19 ft-c and properly guarded. Install minimum one (1) new 4' LED guarded light fixture in machine room. Add additional lighting as needed to meet 19 ft-c requirement.
 - c) Required lighting shall not be connected to the load side of a ground-fault circuit interrupter.

6) Pit Lighting and Receptacles:

- a) Install minimum two (2) new 4' LED strip light fixtures in the pit to provide a minimum 10 ft-c. at all locations in the pit. Fixtures shall be properly guarded and rated for pit conditions. Add additional lighting as needed to ensure code required minimum of 10 ft-c. is present in all areas of the pit.
 - b) Verify that a separate branch circuit is installed to supply the hoistway pit lighting and receptacles.
 - c) Required lighting shall not be connected to the load side of a ground-fault circuit interrupter.
 - d) The lighting switch shall be so located as to be readily accessible from the pit access door.
 - e) Duplex Receptacle. Install one (1) 125-volt, single phase, 15- or 20-ampere duplex receptacle shall be provided in the hoistway pit.
- 7) **Pit Receptacles:** Pit receptacles, with GFCI protection shall be installed in NEMA 4 devices where placed within 4'-0" of pit floor. Care must be taken not to place equipment in line with elevator equipment. Update existing outlet configuration in pit. Add one (1) new GFCI outlet in pit for service use. Add one (1) new Non-GFCI outlet in pit for future sump pump use.
- 8) Each 125-volt, single-phase, 15 and 20 ampere receptacles installed in pit, in hoistway and on elevator car top shall be of the ground fault circuit-interrupter type for protection of personnel.
- 9) All disconnects shall be labeled according to NFPA 70 National Electrical Code including source of power, Jurisdictional Identification (Serial Number) and all required warning signs.
- 10) All disconnects shall be installed with proper clearances in accordance with the applicable provisions of NFPA 70 National Electrical Code.
- 11) All conduit and wiring in the hoistway must be checked for proper installation and properly mounted in accordance with applicable provisions of NFPA 70 National Electrical Code.
- 12) Equipment grounding and bonding shall be provided in accordance with the requirements of NFPA 70 National Electrical Code. The equipment grounding conductor will be run with the circuit conductors and shall be a copper conductor. Ground all conductors, supports, controller enclosure, and other non-current conducting metal enclosures for electrical equipment in accordance with NFPA 70 National Electrical Code. The ground wires shall be solid or stranded; insulated, covered, or bare copper, sized as required by NEC, and shall be colored green if #6 AWG or smaller, and have green tape or adhesive marking if #4 AWG or larger.
- 13) Provide new electric wiring from disconnect switches to the terminals of the new elevator controllers in their new locations, inclusive of a normal 120 VAC, 15 AMP supply at each controller.
- 14) Provide new pit lighting and machine room lighting as per NFPA 70 National Electrical Code with enclosed and protected lamps.
- 15) All existing and new lighting fixtures in machine room, elevator car and on top of car are to

be suitably guarded in accordance with ASME A17.1 Safety Code for Elevators and Escalators clearance requirements and NFPA 70 National Electrical Code requirements for guarding.

16) Pit lighting switches and emergency stop switches shall be installed approximately 18" above first floor landing adjacent to opening and operable from side of pit access where pit ladder is installed.

17) Telephone line and wiring to elevator controller for telephone system including all wiring in machine room to be installed inside conduit as per NFPA 70 NEC. Conduit to be installed under Electrical Requirements.

18) **Pit Ladder:** Contractor to install new code compliant pit ladder. If required, collapsible ladder acceptable to ensure proper clearances are met. Pit ladder shall be provided with a handrail at least 48 inches above the landing, the rungs are to have at least 4 ½ inches of toe clearance; and be not less than 16 inches in width (with 9 inches permitted).

L) **Patching:** Patching of all masonry openings and drywall surfaces as required by elevator installation work as detailed below will be the responsibility of the Elevator Contractor and shall be completed with fire rating of hoistway or machine room equal or greater than 2 hours in accordance with California Building Code.

1) All openings left from the removal of any surface mounted devices will be patched appropriately and surface restoration performed by the Elevator Contractor. Included in this will be the removal of old position indicators and directional indicators.

2) Patching of all surfaces at elevator landings will be the responsibility of the Elevator Contractor. Masonry, drywall, patching, and finishes including painting for repair of all openings as required by elevator installation work and shall be completed with fire rating of hoistway or machine room equal or greater than 2 hours in accordance with applicable Building Code.

3) Patching of all masonry openings and drywall surfaces as required by elevator installation work inside the hoistway and machine room will be the responsibility of the Elevator Contractor.

M) **Coordination of Work:**

1) Elevator Contractor shall coordinate as required with other contractors to ensure that schedules are met, and all work being performed in association with the elevator modernization project is acceptable.

2) Before proceeding with any Work, the Contractor shall carefully check and verify all pertinent dimensions and sizes and assume full responsibility for fitting the equipment and materials to the structure. Where the apparatus and equipment have been indicated on the drawings, the dimensions have been taken from typical equipment of the type specified in these specifications. The Contractor shall carefully check the drawings to verify that the equipment that will be actually provided will fit into the spaces available. Should the equipment not fit the specific structure shown on the drawings, all additional sub-framing members required to accommodate the equipment installation shall be provided and paid for by Contractor as part of the Work of this section. The Contractor shall submit all structural shop drawings and engineering calculations for the Consultant's review and written approval.

- 3) Contractor shall familiarize himself with the specifications, drawings, installation procedures and construction schedules for those phases of Work performed by his subcontractors. The Contractor shall also familiarize himself with the Owner's security and safety requirements and shall abide by and conform to such established regulations at all times. If the Contractor's Work or the Work of any of his subcontractors depends upon the execution of the Work of another subcontractor or upon his own Work, he shall so coordinate all phases of Work so as to avoid conflicts in installation procedures and construction schedules.
- 4) As work progresses, Contractor shall consult with his subcontractors, examine the Work installed by them, and resolve all conflicts without expense to Owner and/or Consultant.
- 5) Progress meetings shall be held at the job site, as and when requested by Owner or Consultant. The Contractor shall be represented at these meetings by persons familiar with the details of the scope of Work and authorized to conclude matters relative to Work progress, as may be necessary to expedite completion of Work.
- 6) All above work and materials to be performed to meet compliance with applicable Building Code, ASME A17.1 Safety Code for Elevators and Escalators, NFPA 70 National Electrical Code, NFPA 13 National Sprinkler Code and NFPA 72 Fire Alarm Code or as determined by the authority having jurisdiction.
- 7) Failure by above associated contractors to perform required testing at time of scheduled elevator acceptance testing and inspection will require full advance payment by contractor at fault for all expenses relating to re-inspection, permit, and scheduling fees to building management.

1.5 PAINTING

- A) **Cleaning and Painting of Miscellaneous Surfaces:** The Contractor shall be responsible for all miscellaneous painting as detailed in this specification. The procedures proposed for the accomplishment of the work shall provide for safe conduct of the work, careful removal and disposition of materials specified to be salvaged, protection of property, which is to remain undisturbed, and coordination with other work in progress. The work plan shall include a Safety and Health Plan describing procedures for handling monitoring, and disposition of Volatile Organic Compounds "VOCs" and other hazardous and toxic materials. The procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operations. Contractor to refer to Alameda County's terms and conditions for VOC's.
- B) **Painting Provisions:** For all painting performed, the following provisions shall apply:
 - 1) Provide all ferrous metals installed in the hoistway shop primed with a rust inhibitive primer.
 - 2) All cleaning or painting work that produces any vapors or fumes shall not be performed during normal business work hours. All cleaning or painting work that produces any vapors or fumes shall be performed with sufficient ventilation to prevent the vapors or fumes from permeating into the building. Work of this nature must be scheduled and coordinated with the Owner three (3) days prior to execution of work.
 - a) The procedures proposed for the accomplishment of the Work shall provide for safe conduct of the Work, careful removal and disposition of materials specified to be salvaged, protection of property, which is to remain undisturbed, and coordination with

- other work in progress. The Work Plan shall include a Safety and Health plan describing procedures for handling monitoring, and disposition of Volatile Organic Compounds "VOCs" and other hazardous and toxic materials. The procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operations.
- 3) All paint products and application methods must be pre-approved by the Owner or Owner's agent prior to application. Paint products and application methods are to be equal to or better than the existing product, with a matching color as approved by the Owner.
 - a) All paint, thinners, or cleaning agents must be pre-approved prior to use for VOC levels or any additional health concerns. The Contractor shall use No VOC or Low VOC products only (typically less than 100 g/L). Contractors shall comply with all applicable requirements and regulations regarding VOCs (CARB, OTC, SCAQMD, LADCO).
 - 4) Interior work zones having a volume of 1,000 cubic feet or less shall be ventilated at a minimum of two (2) air exchanges per hour. Ventilation in larger work zones shall be maintained by means of mechanical exhaust. Solvent vapors shall be exhausted outdoors, away from air intakes, building occupants, and workers. Building air conditioning return air inlets in the work zone shall be temporarily sealed before start of work until the prepared surfaces have dried and are free of odor. Operators and personnel in the vicinity of paint removal processes involving chemicals or mechanical action (sanding or blasting) shall wear respirators.
 - 5) Machine Room and Pit Painting: Final paint machine room walls and floor following the installation of all equipment and post adjustment of the elevator. Walls shall be painted bright white color in wipeable/cleanable finish. The machine room floor and pit floor and pit walls shall be painted in "Deck Gray" color with epoxy level durability paint.
 - 6) Material Safety Data Sheets/Environmental Data Sheets: The Contractor shall provide to the County all relevant MSDS/EDS for each product used, identifying specific VOC content (calculated per 40 CFR 59.406).
 - 7) Upon completion of the project, the Contractor shall furnish a coating maintenance manual. The manual shall include:
 - a) An Area Summary with a finish schedule.
 - b) An Area Detail indicating where each product/color/finish was used.
 - c) Product data pages.
 - d) Material Safety Data Sheets (MSDS) for all products used.
 - e) Care and cleaning instructions.
 - f) Touch-up procedures.
 - g) Color samples of each color and finish used.
 - 8) Protect all finished coatings from damage until project completion. After substantial completion, the Contractor shall touch up any damaged coatings in accordance with the manufacturer's recommendations for repair and/or touch-up.

1.6 ELEVATOR SYSTEM DESCRIPTION

A) Elevator Arrangement: Quantity – One (1) with Elevator numbered as follows:

1) Elevator 1, State ID: 59960

2) Specific requirements for the specific elevator or component shall be designated as such. It shall be the bidding Contractor's responsibility to review and verify as required for proper installation. Specifications for elevators include minimum requirements of elevators and it shall be the responsibility of the bidder to complete all work to code compliance.

B) Type:

1) Elevator 1, State ID: 59960 – Passenger – In-Ground Hydraulic

C) Number of Stops & Openings:

1) Elevator 1, State ID: 59960: Three (3) front (Stops 1-3) / No Rear Openings

D) Rise: 30' +/- Field Verify existing conditions

E) Rated Capacity/Speed: Maintain existing conditions.

1) Elevator 1, State ID: 59960

a) Rated Capacity: 2,500 lbs.

b) Rated Speed: 125 fpm

F) Minimum Car Inside: 6'-7" wide x 4'-1" deep. Field Verify. Maintain existing dimensions.

G) Inside Cab Height: 7'-5" ceiling height. Field Verify. Maintain existing clear headroom dimensions inside car.

H) Entrance Width & Type:

1) Elevator 1, State ID: 59960

a) Front Openings: Single Speed Center Opening 42" X 84"

b) Rear Openings: N/A

I) Main Power Supply:

1) Elevator 1, State ID: 59960 - Existing 480 VAC + or - 5% of normal, 3 Phase, 60 Cycle. Field Verify.

J) Lighting Power Supply: 120 Volts, 1 Phase, 15 Amp, 60 Hz. Field Verify.

K) Stopping Accuracy: $\pm 1/4"$ under any loading condition or direction of travel.

L) Door Operating Equipment: Door operating equipment shall be labeled with maximum door speed and Kinetic Energy shall not exceed 7.37 ft-lbf. as required by ASME A17.1 Safety Code for Elevators and Escalators.

M) Car Operation:

1) Simplex Selective Collective for elevator microprocessor-based controller, the operation shall be automatic by means of the car and hall buttons.

2) Provide microprocessor-based Simplex Selective Collective automatic operation control system, which utilizes on-board diagnostics for servicing, troubleshooting, and adjusting without requiring the use of an outside service tool.

1.7 SUBMITTALS

A) **Product data:** Submit product data for the following:

- 1) Elevator car and hoistway fixtures.
- 2) Operation, control, and signal systems.
- 3) Motor & hydraulic pump, control valve and all major components of system.
- 4) Elevator cab interior materials and finishes.
- 5) Door operator and equipment.

B) **Shop drawings:** Provide the following if equipment existing layout is changed.

- 1) Show equipment arrangement in the machine room, pit and hoistway plans, elevations, sections and details of assembly, erection, anchorage, and equipment location as required.
- 2) Indicate elevator system capacities, sizes, performances, safety features, finishes and other pertinent information.
- 3) Show floors served, existing travel distances, maximum loads imposed on the building structure at points of support and all similar considerations of the elevator work.
- 4) Indicate electrical power requirements and branch circuit protection device recommendations and locations.

C) **Certificates:** Inspection and acceptance certificates of elevator system installation.

D) **Submittals at Project Close-Out:**

1) **Operation and Maintenance Data:** Include the following:

- a) Product User Manuals and maintenance guides.
- b) Parts list, with recommended parts inventory.
- a) Furnish two (2) copies of bound Product User Manuals and maintenance guides for the elevator. Furnish three (3) electronic copies of all project close-out submittals to Owner.

2) **Wiring Diagrams:** Provide complete as built wiring diagrams with all electrical connections of elevator systems.

- a) Provide one (1) set of as built wiring diagrams in the elevator machine room.
- b) Provide one (1) additional hard copy and one (1) electronic copy on separate USB Flash Drive, in PDF format to Elevator Consultant for review and delivery to Owner.
- c) Provide legible schematic wiring diagrams of installed electrical equipment, including control equipment, and any changes and/or in field modifications.
- d) Provide legible copy of field pull sheets and wiring notes. Pull sheets to include wire numbers and colors. List symbols corresponding to identity or markings on machine room and hoistway apparatus.
- e) Coded diagrams are not acceptable unless fully identified.

1.8 QUALITY ASSURANCE

A) **Contractor Qualifications:** Elevator Contractor shall provide pre-engineered elevator system components by manufacturers regularly engaged in the manufacture of elevator systems and

that complies with ASME A17.1 Safety Code for Elevators and Escalators in its entirety, Jurisdictional Statutes, Rules & requirements, all applicable sections of the Building Code as referenced above in its entirety, and additional requirements specified herein.

- B) **Quality Assurance Program:** The Contractor shall have a documented, on-going quality assurance program.
- C) **Installer Qualifications:** The Elevator Contractor must have not less than ten (10) years of satisfactory experience installing elevators equal in character and performance to the project elevator. All mechanics employed to work onsite must be certified and/or licensed by appropriate federal and/or state regulatory agencies to meet federal and/or local certification requirements in maintenance, repair, alteration, and construction of elevators. There shall not be allowed onsite more than one helper or assistant unlicensed per onsite licensed mechanic.
- D) **Permits and Inspections:** The Contractor shall be responsible to obtain all permits, licenses and other fees that are necessary for proper completion and execution of the Work, which are specifically included in the Contract Sum, but not limited to required Jurisdictional Authority permits as required by Jurisdictional Statutes, Rules & requirements for Alteration Permits, and local jurisdiction permits. Elevator Contractor is responsible for proper posting of all required licenses, permits and safety documentation.
- E) **Inspection and testing:** Elevator Installer shall obtain and pay for all required tests, permits and fees for elevator installation as required by the State of California.
- 1) Owner has designated ATIS as their consultant on this project. ATIS, in accordance with ASME A17.1 Safety Code for Elevators and Escalators, Inspection and Test Requirements, may be present for and review all acceptance inspections for this elevator. Elevator Installer in accordance with ASME A17.1 Safety Code for Elevators and Escalators, Inspection and Test Requirements will schedule and coordinate all acceptance tests and arrange for inspection for this elevator. Elevator Contractor must notify building owner and elevator consultant five (5) days prior to inspection advising of the date and time of all inspections and tests. Elevator consultant must qualify and approve any inspector prior to inspection other than inspectors employed by the Authority Having Jurisdiction (AHJ).
 - 2) Elevator Contractor shall be solely responsible for the application, securing, maintaining, completion and posting of existing elevator permits as per Jurisdictional Statutes, Rules & requirements, and delivery to the Owner upon completion and acceptance of elevator work, the certificate of operation.
 - 3) Failures by Contractor to successfully perform required testing and pass alteration acceptance inspection, at time of scheduled elevator acceptance testing, will require a re-inspection. All costs for re-inspection required due to Contractor fault will be paid by Contractor.
- F) **Signage:** All signage as required by applicable Building Code, ASME A17.1 Safety Code for Elevators and Escalators, NFPA 70 National Electrical Code and NFPA 72 Fire Alarm Code to be posted in elevator lobbies, fire alarm panels, disconnects, machine rooms and machine room doors.
- G) **Non-Proprietary Controls:** Letter of guarantee that any and all equipment installed shall be completely non-proprietary and shall not require the need for specialized testing or programming tools currently or in the future. Future information for trouble shooting or adjusting shall be available to any licensed elevator maintenance contractor by the supplier of

the control system at a reasonable cost comparable to cost of competitive parts within marketplace. Contractor shall provide complete schematics and wiring diagrams for control systems including information for change of program, on board diagnostics or mnemonics, or other on-board switches or settings.

- 1) Any equipment that is provided for installation which would require any specialized tool, laptop computer, devices, manuals, source codes, access codes, objects, passwords and/or software to input parameters, make adjustments, troubleshoot, perform diagnostics, perform testing functions or required for any other type of maintenance or repair function shall be included with the modernization cost of this contract and will become the property of the Owner. At the time of bid submission, this shall be identified as such on the bid.
- 2) Any controller by a manufacturer other than specified must be pre-approved prior to bid. Letter stating agreement to the above compliance shall be signed by an officer of Contractor and shall be notarized.

H) **Contractor's Safety and Health Plan:** The contractor shall have in place a safety and health plan that, at a minimum, addresses OSHA requirements. The safety and health plan shall comply with the requirements of the Elevator Industry Field Employees' Safety Handbook. The program shall include job site cleanliness, hard hats, safety glasses, safety shoes, hearing protection, fall protection, proper use of ladders, barriers around hazards and proper scaffolding.

I) **Protection of Spaces:** Contractor is responsible for all protection both inside and outside of hoistway to all personnel inside or outside of hoistway areas. This includes providing and maintaining of protective barricades at hall entrances, screening of each hoistway during work and protection from trip hazards due to storage or use of materials or drop cords.

- 1) Contractor is to provide due care to protect building flooring, walls and other surfaces from excessive debris, dirt or damage due to workmen onsite.

1.9 DELIVERY, STORAGE AND HANDLING

- A) Deliver elevator materials, components, and equipment in manufacturer's protective packaging.
- B) Elevator equipment disassembled for replacement shall be neatly stored prior to removal from site and disposal, which is responsibility of Elevator Contractor.
- C) Store materials in a dry protected area as designated by owner. Protect and handle materials in accordance with manufacturer's recommendations to prevent damage, soiling, or deterioration.
- D) Elevator Contractor shall be responsible for the material handling of all elevator equipment to site storage area. Elevator Contractor will be responsible for keeping all stored materials inside storage area with lock and key.
- E) Elevator Contractor's sole responsibility and liability shall be limited to the extent Elevator Contractor is at fault; and shall not be responsible for material once material arrives at jobsite.
- F) Elevator Contractor shall be responsible for the removal of the existing equipment from the machine room and placement of the new equipment in the machine room.
- G) Owner shall afford the Contractor and separate contractors' reasonable opportunity for storage of materials and performance of their activities on the property and shall cooperate in coordinating operations with such other activities.

- H) Locked and protected storage for Elevator Contractor's tools or materials at site is contractor's responsibility. Key will be provided for elevator machine room, which is located on ground level of building, and can be utilized for storage or securing of tools and equipment. Onsite storage of any elevator materials, equipment, or tools will need to be discussed with the owner prior to bidding and mobilization.
- I) Elevator Contractor will be provided a single location for either a storage trailer or POD. The cost of the storage container/trailer is the responsibility of the Elevator Contractor.
- J) Authorized elevator personnel only are responsible for temporary installed barrier panels as may be required during construction to protect the openings at elevator at each floor. Panels may be removed only while the authorized elevator personnel are to perform work in the immediate area of the unprotected opening. Authorized elevator personnel shall re-install all barriers as required to maintain the original solid and safe protection to the opening prior to leaving immediate work area of the opening.

1.10 PROJECT CONDITIONS

- A) **Prohibited Use:** Elevator that is turned over to the Contractor for modernization work shall not be used for any purpose during the construction period before Substantial Completion. The elevator will only be turned over to the Owner upon completion of all modernization work, including successful completion of all required inspections and tests including acceptance by Consultant.

B) Painting:

- 1) Only paint metal work provided by Contractor or impacted by Work performed under this specification by Contractor unless specifically required in other sections of this specification.
- 2) For all painting performed the requirements of Part 1.6 Painting shall be complied with as required.

1.11 WARRANTY

- A) **Warranty:** The Contractor's acceptance is conditional on the understanding that their warranty covers defective material and workmanship.
- 1) The guarantee period shall extend to one (1) year from the date of completion or acceptance thereof by beneficial use; whichever is earlier.
 - 2) The guarantee excludes ordinary wear and tear or improper use, vandalism, abuse, misuse, or neglect or any other causes beyond the control of the Contractor and this express warranty is in lieu of all other warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose.
 - 3) Any defective condition or workmanship not mutually agreeable as satisfactory to building Owner and Contractor shall be determined by the independent elevator Consultant as final for the replacement, repair or continued use or product or part in question.
 - 4) In addition to Contractor's above-mentioned warranties, Contractor shall, for the benefit of the Owner, obtain and assign to Owner if necessary, warranties from the manufacturers, producers and suppliers whose products are incorporated into or used in the work performed hereunder. All work and materials provided pursuant to the warranties hereunder shall be performed at no charge to the Owner.

- B) **Warranty Response Time:** Contractor shall respond to non-emergency warranty calls within one (1) hour and be on site within four (4) hours. Emergency entrapment calls shall be responded to within thirty (30) minutes and contractor shall be onsite within one (1) hour.

2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURER

- A) Only products and components produced or provided by manufacturers regularly engaged in the manufacture of elevator products, and that complies with ASME A17.1 Safety Code for Elevators and Escalators in its entirety, ASME A17.2, Jurisdictional Statutes, Rules & requirements, all sections of the applicable Building Code in its entirety, and additional requirements specified herein are acceptable. Only Bidders deemed qualified shall be notified by Request for Bid.

2.2 MATERIALS, GENERAL

- A) **Colors, Patterns, and Finishes:** As selected by the Owner or Owner's Representative from manufacturer's full range of standard colors, patterns, and finishes.

1) Steel:

- a) Shapes and bars: ASTM A 36.
- b) Sheet: ASTM A 366, cold-rolled steel sheet, commercial quality, Class 1, matte finish, stretcher leveled.
- c) Finish: Factory-applied baked or powder coated enamel.

2) Stainless Steel:

- a) Shapes and bars: ASTM A 276, Type 300 (18-8).
- b) Tubing: ASTM A 269, Type 300 (18-8).

2.3 EQUIPMENT: MACHINE ROOM/SPACE COMPONENTS

- A) **Hydraulic Lifting Equipment:**

1) **Shutoff Valves:**

- a) Provide and install new manually operated shutoff valves in the machine room with new manually operated ball type shutoff valves. Valves shall be in compliance with the currently adopted edition of ASME A17.1 Safety Code for Elevators and Escalators.
- b) Provide and install manually operated shutoff valves in the pit with new manually operated ball type shutoff valves. Valves shall be in compliance with the currently adopted edition of ASME A17.1 Safety Code for Elevators and Escalators.
- c) **Valve Certification:** Hydraulic Elevator shut off valves must be labeled and tested to comply with ASME A17.1/CSA B44 at a 5:1 Safety Factor.

- (1) Valves, fittings, and mufflers shall be pressure rated, and shall bear the manufacturer's name or trademark by which the organization that manufactured the product can be identified, and identification symbols to indicate the materials and service designations for which the manufacturer's rating applies.

- (2) Shut off ball valve shall be specifically designed for use in hydraulic elevators.

- (3) Shut off valve to be Maxton hard chrome plated carbon steel ball valve with blow out proof stem or pre-approved equal.
- 2) **Overspeed Valve:** Install new overspeed / rupture valve in pit by Maxton or approved equal meeting the requirements of ASME A17.1/CSA B44.
- 3) **Pump Assembly Noise Levels:**
- a) The replacement pump assembly shall have noise measurements taken prior to the modernization. These noise readings shall be witnessed by a building representative and recorded and submitted to the Consultant and Owner.
 - b) The replacement hydraulic pump assembly shall be at or below the recorded noise readings for this machine room due to the close proximity of working spaces to the machine room.
- 4) **Replace Hydraulic Pump Unit:** Elevator Contractor shall verify that current power at mainline disconnect is acceptable for operation of submersible pump unit at rated speed with rated load in the elevator car, as detailed below. **If the current power at the mainline disconnect is not capable of operating the car at rated speed with rated load with a submersible pump unit, then contractor shall be responsible for providing a dry type pumping unit as detailed below.**
- 5) **Submersible Type Hydraulic Pump Unit:**
- a) The hydraulic system shall be of compact design suitable for operation under the required pressure.
 - b) The motor shall be rated at 80 SPH (Starts Per Hour) minimum.
 - c) The power component shall be mounted in the hydraulic-fluid storage tank. The control valve by Maxton, EECO or pre-approved equal, shall control flow for up and down directions hydraulically and shall include an integral check valve. A control section including control solenoids shall direct the main valve and control: up and down starting, acceleration, transition from full speed to leveling speed, up and down stops, pressure relief and manual lowering. All of these functions shall be fully adjustable for maximum smoothness and to meet contract conditions.
 - d) System to be provided with a low-pressure switch and a shut-off valve.
 - e) Complete assembly shall have isolation pads installed under the supporting framework of the assembly.
 - f) The tank assembly will be provided with a soundproofing option that will reduce ambient noise levels. **Soundproofing must be installed in conformance with manufacturer's instructions for noise reduction of tank assembly.**
 - (1) SEES Quiet Tank manufactured by SEES (Southern Elevator & Electric Supply), Pompano Beach, FL, (800) 526-0026 / (954) 971-1115. Pre-approved.
 - (2) MEI Submersible Power Unit manufactured by MEI – Total Elevator Solutions, Mankato, MN 56001, (507) 245-3060, www.meielevatorsolutions.com.
 - (3) or pre-approved equal.
- 6) **MUFFLER:** Existing mufflers will be replaced with new. Muffler shall have an internal air chamber with three diffuser chambers, compressed coil spring, charging valve and

bladder. Muffler to be Vertical Express Part Number 9817529 or equal.

- 7) **Silencer:** An air-bladder silencer (muffler) manufactured by MEI, or pre-approved equal, shall be provided at the control valve discharge for noise suppression. Muffler shall be designed to minimize transmission of fluid pulsations in the pipelines between pumping units and cylinder heads.
 - 8) **Vibration Pads:** Provide and mount vibration pads under the power unit assembly to isolate the unit from building structure.
 - a) Such isolators should achieve static deflections between 3mm to 7mm (0.1 to 0.25 inches).
 - 9) **Hydraulic Fluid:** Replace existing hydraulic fluid throughout the system including removing all debris and waste oil from old system and proper disposal from property of all waste products.
- B) **Motor Starter:** Replace existing starter with new IEC type compact solid-state starter sized as appropriate for pump motor.
- C) **Elevator Controller:** New Motion Control Engineering Inc., Controller Model Motion 2000, GAL Galaxy, Smartrise Evolved Hydro: Evolved Hydraulic Controller, Elevator Controls Pixel or pre-approved equal. The elevator controller shall use a microprocessor-based logic system and shall comply with all applicable elevator and electrical safety codes to include the following:
- 1) Provide "automatic operation" as defined in the currently adopted edition of ASME A17.1 Safety Code for Elevators and Escalators.
 - 2) Motor starter to be solid-state, soft starter, seamlessly integrated into the controller. Starter shall be solid state with fault contactor to mechanically disconnect the line voltage from the motor if the starter detects a problem. Starter to have built in reverse phase sensor with diagnostic monitoring, current limit starting and be capable of bypassing SCR's once the motor is up to speed. Solid-state starter to provide soft starting control, motor overload protection, phase reversal and phase loss detection, open load detection, phase imbalance detection, shorted SCR detection and controller over-temperature detection. Motor starter to be supplied and installed by and as a part of the single controller cabinet assembly.
 - 3) Programmable Logic:
 - a) All available programming options or parameters shall be field programmable, without need for any external device or knowledge of any programming languages. Programmable options and parameters shall be stored in nonvolatile memory. At a minimum, there shall be a 32-character alphanumeric display used for programming and diagnostics. Programmable parameters and options shall include, but are not limited to, the following:
 - (1) Number of Stops/Openings Served
 - (2) Simplex
 - (3) Single Automatic Pushbutton Selective Collective
 - (4) Programmable Fire Code Options/Fire Floors (Main, Alternates)
 - (5) Serial Car Operating Panel Selection

- (6) Floor Encoding (Absolute PI)
 - (7) Digital Position Indicators/Single Wire Position Indicators
 - (8) Programmable CE Microcom floor labels
 - (9) Programmable Door Times
 - (10) Programmable Motor Limit Timer
 - (11) Programmable Car Fan and Light Timer
 - (12) Programmable timer for Wye to Delta transitions
 - (13) Door Nudging, Automatic and Fire Operation
 - (14) External Car Shutdown Input (e.g., battery lowering device)
 - (15) External Low Oil Sensor Input
 - (16) External Viscosity Control Input
 - (17) Emergency Power
 - (18) Parking Floors
 - (19) Lobby Floor
 - (20) Door Pre-opening
 - (21) Hall or Car Gong Selection
 - (22) Standard Security
 - (23) High Speed Inspection Enable
 - (24) Door behavior selections
 - (25) Door type selection
 - (26) Fault Bypass – Inspection Operation
 - (27) Fault Bypass – Automatic Operation
- 4) ADA Requirements:
- a) The elevator shall comply with ICC/ANSI A117.1, the American National Standard for Accessible and Usable Buildings and Facilities and the applicable Building Code, Chapter 11.
 - b) Leveling Accuracy: The controller shall have a self-leveling feature that shall automatically bring the car to floor landings within a tolerance of 0.25" (6.35 mm) or better under all loading conditions up to the rated load.
 - c) In-Car Lanterns: The controller shall have outputs to drive the visible and audible signals that are required at each hoistway entrance to indicate which elevator car is answering a call. Audible signals shall sound once for up, twice for down.
 - d) Car Position Indicators: The controller shall have a position indicator output to drive the required position indicator which shall indicate the corresponding floor numbers as the car passes or stops at a floor. An audible signal shall sound as the position indicator changes floors.

5) Environmental Considerations:

- a) The elevator control shall be capable of operating within the following environmental conditions:

- (1) Ambient temperature: 32°F to 104°F (0°C degrees to 40°C degrees).
- (2) Humidity: Non-condensing up to 95%
- (3) Altitude: Up to 7500 feet (2286 m)

6) Building and System Configuration

- a) The elevator controller shall be microprocessor based and designed specifically for elevator applications. Elevator and drive logic shall be implemented independently of safety functions.
- b) Elevator logic shall be implemented to facilitate tight coordination between subsystems and enhance reliability. The implementation shall utilize a real-time, multi-tasking operating system to allow the processors to simultaneously execute elevator control logic, drive control logic, operator interface logic, and communication support.
- c) The elevator controller shall have an independent safety system in order to implement safety features required by ASME A17.1 code. The safety system shall incorporate check redundant, multi-processor, multi-path, solid-state, ASME compliant implementation that meets CSA and CE standards.
- d) The elevator controller shall be configured and packaged in such a way that external “jumpers” cannot be used (intentionally or unintentionally) while the elevator is running in any passenger mode of operation. Non-passenger modes of operation shall be provided, along with means to bypass safety functionality, to allow inspection testing and other setup and/or troubleshooting operations.
- e) The elevator control logic configuration shall be fully field programmable. Changes in number of floors, I/O configuration, starter setup, eligibility etc. shall not require the replacement/reprogramming of EEPROMs or other storage devices. Further, changes in the controller configuration shall be user adjustable in the field.

7) Diagnostics

- a) The control system shall provide comprehensive means of accessing the computer memory for elevator diagnostic purposes. It shall have permanent indicators for important elevator status conditions as an integral part of the controller.
- b) The microprocessor boards shall be equipped with on-board diagnostics for ease of troubleshooting and field programmability of specific control variables. Field changes shall be stored permanently, using nonvolatile memory. The microprocessor board shall provide the features listed below:
 - (1) On-board diagnostic switches and an alphanumeric display to provide user friendly interaction between the mechanic and the controller.
 - (2) An on-board event log shall store and display time-stamped events for diagnostic purposes. (Viewable only with monitoring software.)
 - (3) An on-board real time clock shall display the time and date and be adjustable by means of on-board switches.

- (4) Field programmability of specific timer values (i.e., door times, etc.) may be viewed and/or altered through on-board switches and pushbuttons.
 - (5) The elevator controller shall have extensive diagnostic capability. A built-in LCD display or equivalent shall allow access to major user functions and diagnostic features. The display shall be a multi-character, multi-line type with associated keypad to allow users to enter information. The display shall show data and menus in readily understood character format. No numeric, hexadecimal, or binary codes are acceptable.
 - (6) Dedicated indicators shall be provided in a conspicuous location on the elevator controller to indicate important system statuses, such as when the safety string is made, when the door locks are made, when the elevator is on Inspection/Access, etc. In addition, other special or error conditions detected by the main processor or safety subsystem shall be displayed.
- 8) CAN Bus Connectivity:
- a) Circuit boards within the controller shall communicate through CAN Bus connections for reliable performance and simplified board replacement. Power for individual circuit boards shall also be distributed through the CAN Bus connection. Communication and power connection shall radiate from a central, multi-connection point such that single-point board failure shall not affect operation of other boards.
- 9) Universal I/O:
- a) Field I/O boards shall be universal in that 24V to 120V AC or DC connections shall be accepted without requirement for unique circuit boards for each. I/O boards shall provide built-in current limiting protection.
- 10) Intended Operation of Critical Components:
- a) Failure of any single magnetically operated switch, contactor, or relay to release in the intended manner; the failure of any static control device, speed measuring circuit, or speed pattern generating circuit to operate as intended; the occurrence of a single accidental ground or short circuit shall not permit the car to start or run if any hoistway door or gate interlock is unlocked or if any hoistway door or car door or gate contact is not in the made position. Furthermore, while on car top inspection or hoistway access operation, failure of any single magnetically operated switch, contactor, or relay to release in the intended manner, failure of any static control device to operate as intended or the occurrence of a single accidental ground, shall not permit the car to move even with the hoistway door locks and car door contacts in the closed or made position.
- 11) Status Indicators:
- a) Dedicated permanent status indicators shall be provided on the controller to indicate when the safety string is made, when the door locks are made, when the elevator is operating at high speed, when the elevator is on independent service, when the elevator is on Inspection or Access, when the elevator is on fire service, when the elevator out of service timer has elapsed, and when the elevator has failed to successfully complete its intended movement. A means shall be provided to display other special, or error conditions detected by the microprocessor.
 - b) Every field connection input or output shall have a dedicated LED such that no

voltmeter or other test equipment is required to see when and input or output is active.

12) Parking Floor Function:

- a) Parking floor: The car shall be capable of individually parking on a designated floor after a predetermined time period. Any landing may be the parking floor. The car will go to the parking floor when it is free of call demand. A Parking Delay Timer will cause a free car to wait for a short time before parking. The timer shall be adjustable, with a value between 0.0 minutes (no delay) and 6.0 minutes. The first free car will go to the first parking floor and the second car will stay at the last call answered.

13) Out of Service Timer:

- a) An out of service timer (T. O. S.) shall be provided to take the car out of service if the car is delayed in leaving the landing while calls exist in the system.

14) Motor Limit Timer:

- a) Motor limit timer function shall be provided which, in case of the pump motor being energized longer than a predetermined time, shall cause the car to descend to the lowest landing and park, open the doors automatically, and then close them. Calls shall be appropriately canceled, and the car taken out of service automatically. Operation may be restored by cycling the main line disconnect, putting the car on inspection operation, or pressing the Fault Reset button. Door reopening devices shall remain operative.

15) Valve Limit Timer:

- a) A valve limit timer shall be provided which shall automatically cut off current to the down valve solenoids if they have been energized longer than a predetermined time. Calls shall be appropriately canceled, and the car taken out of service automatically. Operation may be restored by cycling the main line disconnect, putting the car on inspection operation, or pressing the Fault Reset button. Door reopening devices shall remain operative.

16) Programmable Car Fan and Light Timer:

- a) Controls shall be provided that will de-energize ventilation fans and lighting systems when the elevator is stopped, unoccupied and with its doors closed for over 15 minutes.

17) High or Low Speed Inspection:

- a) A selection shall be provided on the controller to select high or low speed during access or inspection operation as long as contract speed does not exceed 150 feet per minute.

18) Door Operation:

- a) Door protection timers shall be provided for both opening and closing directions to protect the door motor and help prevent the car from getting stuck at a landing. The door open protection timer shall cease attempting to open the door after a predetermined time if the doors are prevented from reaching the open position. In the event that the door closing attempt fails to make up the door locks after a predetermined time, the door close protection timer shall reopen the doors for a short time. If, after a predetermined number of attempts, the doors cannot successfully be closed, the doors shall be opened, and the car removed from service.

- b) A minimum of four different door standing open times shall be provided. A car call

time value shall predominate when only a car call is canceled. A hall call time value shall predominate whenever a hall call is canceled. In the event of a door reopen caused by the safety edge, photo eye, etc., a separate short door time value shall predominate. A separate door standing open time shall be available for lobby return.

- c) If the doors are prevented from closing for longer than a predetermined time, door nudging operation shall cause the doors to move at slow speed in the closed direction. A buzzer shall sound during nudging operation.

19) Door Pre-opening:

- a) When selected, this option shall start to open the doors when the car is in final leveling, 3" (76.2 mm) from the floor. If pre-opening is not selected, the doors shall remain closed until the car is at the floor, at which time the doors shall commence opening.

20) Car and Hall Call Registration:

- a) Car and hall call registration and lamp acknowledgment shall be by means of a single wire per call, in addition to the ground and the power bus. Systems that register the call with one wire and light the call acknowledgment lamp with a separate wire can be accommodated.
- b) The user shall be able to register car calls via the on-board LCD display and keypad.

21) Fire Service Operation:

- a) Fire Phase I emergency recall operation, alternate level Phase I emergency recall operation and Phase II emergency in-car operation shall be provided according to latest applicable edition of ASME A17.1 and current Jurisdictional Statutes, Rules & requirements.

22) Independent Service:

- a) Independent service operation shall be provided in such a way that actuation of a key switch in the car operating panel will cancel any existing car calls, and hold the doors open at the landing. The car will then respond only to car calls. Car and hoistway doors will only close with constant pressure on a car call pushbutton or door close button. While on independent service, hall arrival lanterns or jamb mounted arrival lanterns shall be inoperative. Key switch shall be located on the face of the car operating panel.

23) Leveling:

- a) The car shall be equipped with two-way leveling to automatically bring the car level at any landing, within the required range of leveling accuracy, with any load up to full load.

24) Test Switch:

- a) A controller test switch shall be provided. In the test position, this switch shall allow independent operation of the elevator with the door open function deactivated for purposes of adjusting or testing the elevator. The elevator shall not respond to hall calls and shall not interfere with any other car in a duplex or group installation.

25) Inspection:

- a) To enhance safety, an inspection switch, enable switch, and an up/down toggle switch shall be provided in the controller and on the car top to place the elevator on inspection

operation and allow the user to move the car. Activation of the car top inspection switch shall render the controller inspection switch inoperative.

26) Uncanceled Call Bypass:

- a) A timer shall be provided to limit the amount of time a car is held at a floor due to a defective hall call or car call, including stuck pushbuttons. Call demand at another floor shall cause the car, after a predetermined time, to ignore the defective call and continue to provide service in the building.

27) Anti-nuisance (Photo Eye):

- a) The controller shall cancel all remaining car calls, if a user-determined number of car calls are answered without the computer detecting a change in the photo eye input (indicating that no one is passing through the car door).

28) Absolute Floor Encoding:

- a) The controller shall include absolute floor encoding, which upon power up, shall move the car to the closest floor to identify the position of the elevator.

29) Landing System: SmartPositioning Landing System, LS-QUTE, or pre-approved equal:

a) SmartPositioning Landing System

- (1) The landing system shall provide contact-less dual infrared sensor system.
- (2) The system shall consist of QR Code Tape and SmartClip consolidated mounting system.

b) LS-QUTE, Steel Tape and Magnetic Strips.

- (1) The landing system shall provide high speed stepping signals, one floor run stepping signals, leveling and door zone signals and optional floor encoding signals. Each output signal shall be electrically isolated and shall be capable of reliably operating at 120 VAC.
- (2) The system shall consist of a stainless-steel tape with mounting hardware to accommodate the complete travel of the elevator, a car top assembly with tape guides and sensors and magnetic strips for stepping, leveling and floor encoding.

30) Service Enhancements

- a) The manufacturer shall make software updates for controller and/or group control available via Internet download, email attachment, or physical EEPROM shipment. Internet downloads and email attachment deliveries require an optional, hand-held user interface to facilitate software transfer from the user's PC to the elevator or group.

31) Viscosity Control Capability:

- a) Viscosity control capability (valve design must allow the use of this option) shall cause the car to accomplish the following operation. If a temperature sensor determines the oil is too cold, and if there are no calls registered, the car shall go to the bottom landing and, as long as the doors are closed, the pump motor shall run without the valve coils

energized to circulate and heat the oil to the desired temperature. In the event that the temperature sensor fails, a timer shall prevent continuous running of the pump motor.

32) Auxiliary (Battery) Power Lowering Device:

- a) Provide the Hydraulic Controller with an Auxiliary (battery) power lowering device pre-wired, pre-tested and integrated into the standard enclosure.

33) Service Enhancements:

- a) The manufacturer shall make software updates for controller and/or group control available via Internet download, email attachment, or physical EEPROM shipment. Internet downloads and email attachment deliveries require an optional, hand-held user interface to facilitate software transfer from the user's PC to the elevator or group.

2.4 **EQUIPMENT: HOISTWAY**

- A) **Platform:** Existing frame shall be retained. Underside of the platform shall be verified and maintained structurally sound and fireproof by the Contractor.
 - 1) Existing platform guard shall be verified to be not less than 21 inches. If less than 21 inches, the platform guard shall be replaced with a new platform guard no less than 525 mm (21 in.) with the lower portion of the guard bent back at an angle of not less than 60 degrees nor more than 75 degrees from the horizontal.
 - 2) Existing guard is required to be properly braced in accordance with ASME A17.1 which requires the guards to be securely braced and fastened in place to withstand a constant force of not less than 650 N (145 lbf) applied at right angles to and at any position on its face without deflecting more than 6 mm (0.25 in.), and without permanent deformation.
- B) **Sling:** Retain existing steel stiles affixed to a steel crosshead and bolstered with bracing members to remove strain from the car enclosure shall be retained.
- C) **Roller Type Guides:** Existing guides on top and bottom of cars shall be replaced with new spring-loaded roller guide complete assemblies which shall have a minimum of three tires each, shall be mounted on top and bottom of the car and counterweight frame and be held in contact with the guide rail by adjustable devices. Car roller guides shall be ELSCO Model B, or equal. Properly adjusted for smooth operation.
- D) **Buffers:** Replace existing buffers with new cylinder installation. Install new data plates for compliance with ASME A17.1 Safety Code for Elevators and Escalators. All buffers shall painted.
- E) **Automatic Terminal Limits:** Replace Automatic slow down and final limit switches. Place electric limit switches in the hoistway near the terminal landings. Limit switches shall be designed to cut off the electric current, slow down and stop the car if it runs beyond either terminal landing.
- F) **Automatic Self-Leveling:** Provide elevator with a self-leveling feature to automatically bring the car to the floor landings and correct for over-travel or under-travel. Self-leveling shall, within its zone, be automatic and independent of the operating device. The car shall be maintained level to less than 1/4 inch with the landing irrespective of its load.

- G) **Traveling Cable:** Existing traveling cable shall be removed and replaced with new traveling cable.
- 1) Traveling cable shall terminate at numbered terminal blocks in car and machine room.
 - 2) Traveling cable shall be provided with a separate shielded circuit for communication system and hang to obtain proper size of loop. Traveling cable outer covering will be of fire resistant and meet UL standard testing.
 - 3) Traveling cable will be hung free of all contact from hoistway or car equipment and shall be provided with 10 percent spare conductors. Contractor to confirm any unique requirements for traveling cable wiring with Consultant and Client prior to ordering.
- H) **Hoistway & Machine Room Wiring:** Provide all new wiring throughout the elevator machine room and hoistway, adequately sized and constructed for the proper operation of the equipment.
- 1) Multi-conductor type wiring for light and signal circuits shall be used in the elevator hoistway. All conductors will be copper and the minimum size of conductors, excluding those which form an integral part of control devices, shall be No. 14 for lighting circuits and No. 18 for operating, control, and signal circuits. All wiring will be installed in accordance with applicable NEC and latest applicable edition of ASME A17.1 codes. Hoistway door interlock wiring will be replaced with new SF-2 high heat resistance wiring and shall include a grounding conductor. All other new wiring will have flame retarding and moisture resistant outer covering.
 - 2) Equipment grounding shall be provided. The equipment grounding conductor shall be run with the circuit conductors and shall be a copper conductor. Ground all conductors, supports, controller enclosure, and other non-current conducting metal enclosures for electrical equipment in accordance with NEC. The ground wires shall be solid or stranded; insulated, covered, or bare copper, sized as required by NEC, and shall be colored green if #6 AWG or smaller, and have green tape or adhesive marking if #4 AWG or larger.
 - 3) Retain and reutilize to the maximum extent possible all ducts and conduit in machine room and hoistway. Install new ducts and conduit as required.
 - 4) Hoistway travel cable and associated wiring shall be coordinated with controller manufacture for wiring configuration requirements to match all controller wiring color coded and numbered diagrams for installation.
- I) **Pit Stop Switch:** Provide new pit stop switch as required by latest applicable edition of ASME A17.1 code.
- 1) Stop switch shall be of the manually opened and closed type, have red operating buttons of the push-to-stop configuration, be conspicuously and permanently marked "STOP," and shall indicate the "STOP" and "RUN" positions.
- J) **Pit Light:** Pit lighting to be verified by Electrical Contractor as meeting minimum 10 ft-c requirement or additional pit lighting will be installed by electrical contractor as detailed in the Electrical Requirements section of this specification. Install minimum of two (2) new 4' LED strip fixtures in pit.
- K) **Pit & Hoistway Cleanup:** The hoistway surfaces and pit area shall be thoroughly cleaned to remove all excessive dust and debris from hoistway surfaces and pit area with proper disposal

from property of all waste products from work under this specification. Paint pit flooring and walls deck gray.

- L) **Pit Ladder:** Provide a new pit ladder that is compliant with current edition of ASME A17.1 Safety Code for Elevators and Escalators.

- 1) Pit ladder shall be positioned so that means to unlock the access door from inside the pit shall be located not more than 1 825 mm (72 in.) vertically above a rung, cleat, or step. The minimum distance from the top rung, cleat, or step to the top of the pit ladder or handhold shall not be less than 1 200 mm (48 in.). With the door in the closed position, in a plane not more than 1 000 mm (39 in.) horizontally from a rung, cleat, or step of the pit ladder.

M) **Hoistway Door Equipment:**

- 1) **Hoistway Entrances:** Existing hoistway entrance assembly consisting of the elevator entrance frame, head jamb & strike jamb and door sills shall be retained and reutilized. Verify and adjust as required to maintain all door gaps less than 3/8 inch in accordance with latest applicable edition of ASME A17.1 code.
- 2) **Clad Hoistway Entrance Jambs:** The existing hoistway strike jamb, transom and hoistway return jambs shall be re-clad:
 - a) Re-clad with stainless steel, ASTM A 167, Type 300 stainless steel panels, No. 4 satin finish, extend one piece to cover all existing hoistway entrance strike jamb and return jamb assembly. Existing surface to be cleaned and prepared to accommodate new metal cladding.
- 3) **Hoistway Doors:** Replace existing Hoistway Doors with new Hoistway Doors as detailed below:
 - a) Provide and install new hall doors on new sheave type hangers with polyurethane tires that roll on a new polished steel track and are guided at the bottom by new non-metallic shoes sliding in existing threshold groove. Provide new hoistway door and tracks and hanger roller assembly.
 - b) Door to be manufactured of "Commercial Level Grade" galvanized carbon steel of 16-gauge minimum thickness and fabricated to enclose sound absorbing material of 1.25" minimum thickness. Top and bottom of door panels shall have continuous stiffener channels welded in place. Doors are to be rated for 1-1/2 hour fire resistance and UL labeled accordingly and clad with Type 316 stainless steel #4 finish. Fasten sight guard of 14-gauge stainless steel, extending full height of panel, to leading edge of each panel of as required.
 - c) Doors shall be manufactured by Columbia Elevator Products Co, Inc, Gunderlin LTD or pre-approved equal by consultant.
 - d) Bottom Door Slide Guides including primary and secondary retainers shall be installed on all hall doors. New slide guides shall be installed with fire tabs installed as per the manufacturer's design. Bottom slide guides as manufactured by original manufacture, Nylube or equal.
 - e) Verify and adjust as required to maintain all door gaps less than 3/8 inch in accordance with latest applicable edition of ASME A17.1 code.
 - f) Provide hoistway door pick-up assemblies to properly align with new car door clutch.

- 4) **Door Header Assembly:** Review door header assemblies and retain existing door header assemblies and refurbish as needed.
- 5) **Hoistway Door Sill and Sill Support:** Existing hoistway sills and sill support as designated above shall be retained and reused:
 - a) Retain and refurbish existing hoistway entrance sill and sill support angle assembly. Clean and polish sills. Sill must be substantially level to all adjacent finished flooring surfaces.
- 6) **Interlocks:** All existing interlocks shall be replaced with new interlocks.
 - b) Equip each hoistway entrance with an approved type interlock (GAL or pre-approved equal) tested as required by code including SF-2 wiring and grounding. Interlock to be GAL Interlock, or pre-approved equal.
 - c) Interlock shall be designed to prevent operation of the car away from the landing until the doors are locked in the closed position as defined by code and shall prevent opening the doors at any landing from the corridor side unless the car is at rest at that landing or is in the leveling zone and stopping at that landing.
- 7) **Hoistway Door Components:** Existing Door Hangers, Sheaves, and Tracks shall be replaced with all new components. Provide sheave type two-point galvanized suspension hangers and galvanized tracks for each hoistway sliding door, product GAL, or preapproved equal as detailed below:
 - a) Sheaves: Polyurethane tires with ball bearings properly sealed to retain grease.
 - b) Hangers: Provide an adjustable slide to accommodate the up thrust of the doors.
 - c) Tracks: Drawn steel shapes, smooth surface and shaped to conform to the hanger sheaves.
 - d) Door hangers, sheaves, interlocks, and tracks shall be manufactured by GAL, OEM replacement or preapproved equal.
 - e) All hoistway door closers shall be replaced with new closers.
 - f) Replace all door gibs including all required primary and secondary door retainers on all replacement doors.
- 8) **Entrance Markings:** Replace all hoistway entrance markings and door jamb plates at each floor.
 - a) Jamb Braille: All elevator hoistway entrances shall have raised and Braille floor designations provided on both jambs. The centerline of the characters shall be 60 in (1525 mm) above finish floor. Entrance jambs shall be marked with new 4" x 4" plates having raised floor markings with Braille adjacent. Such characters shall be 2 in (50 mm) high and shall comply with CBC and ICC/ANSI A117.1.
 - b) Main Entry Level: A raised star shall be provided on both jambs at the main entry level.
 - c) **Car Identification:** The elevator identification alphanumeric designation shall be a minimum of 75 mm (3 in.) in height, painted on, engraved, or securely attached to the to or on every elevator entrance at the designated level.
- N) **Hoistway Floor Numbers:** After painting has been completed, the hoistways shall have floor

numbers, not less than 100 mm (4 in.) in height, painted on the hoistway side of the enclosure or hoistway doors.

- O) **Floor Designations:** Floor designations shall be as listed in Elevator System Description, Number of Stops and Openings section of this specification. Field verify.
- P) **Sight Guards:** Install new sight guards finished to match door panels.
- Q) **Door Bumpers:** Provide and install new rubber door bumpers on all hoistway door jambs and on car door jamb. Bumpers shall be installed at top and bottom of door jambs.
- R) **Painting Inside Hoistway:** All painting on this project must be performed in conformance with Part 1.6 of this specification.
 - 1) After removal of all old hardware and components for the hoistway as detailed above all existing components shall have all rust thoroughly removed and treated as detailed below.
 - 2) Remove rust, clean, degrease and paint any existing parts or components for a like new condition, including but not limited to the door panel surfaces, door track assemblies and door frame surfaces inside the hoistway.
 - 3) After painting has been completed, the hoistways shall have floor numbers, not less than 100 mm (4 inch) in height, painted on the hoistway side of the enclosure or hoistway doors.
- S) **Hydraulic Jack Assembly:** Provide new hydraulic cylinder with seamless steel pipe, casing and PVC sealed liner. Provide means to collect oil at cylinder head and return automatically to oil reservoir. Provide head assembly access ladders and platforms. Provide cylinder stabilizer bracketing between guide rails as required. Cylinder drawing shall be submitted to consultant for review and approval prior to ordering.
 - 1) Plungers: Polished seamless steel tubing or pipe. If plunger length exceeds 24 feet, provide two or more sections not exceeding 16 feet in length, or coordinate installation of longer unit at the jobsite. Join sections by internal threaded couplings. Multiple section jack units shall be factory polished while assembled and marked for proper future reassembly. Isolate plunger from car frame.

2.5 DOOR OPERATION

- A) **New Door Operator:** Provide elevator with new complete door operator assembly. Door operator to be a closed loop motor driven heavy-duty operator GAL MOVFR II or pre-approved equal.
 - 1) Door operator shall be a closed loop, microprocessor-based system. The door operator will facilitate smooth operation under varying environmental influences such as, temperature, wind, friction, and component variation. The processor will monitor the door's actual position and velocity compared to its desired position and velocity. If variations are

- detected in the profile the command will be automatically corrected. The Closed Loop Door Operator control system shall not require machine room door control equipment.
- 2) Door operation to comply with ASME A17.1 requirements for Restricted Opening of Hoistway or Car doors of passenger elevator.
 - 3) Door Operator shall be provided with adjustable parameters, at a minimum, for the following:
 - a) Adjustable Parameters in the closing cycle for high speed, final speed, nudging speed, acceleration, deceleration, and slow speed torque.
 - b) Adjustable parameter for stall reversal – automatic reversal if the door meets an obstruction.
 - c) Adjustable parameter for door reversal – to accomplish a quick but smooth reversal.
 - 4) Door noise not to exceed 58 dBA.
 - 5) Door control to open doors automatically when car arrives at a landing in response to a normal hall or car call.
 - 6) Install door operator data plate as per ASME A17.1 Safety Code for Elevators and Escalators and provide all door closing speed times to ensure code conformance to Kinetic Energy limitations of latest applicable edition of ASME A17.1 code.
 - 7) Door operator must be mounted so completely isolated from the car top. Mounting to car stiles by brackets as configured by GAL will be accepted for isolation.
- B) **Door Zone Lock:** Install new door zone lock system with door operation to comply with the latest applicable edition of ASME A17.1 requirements for restricted opening of car doors of passenger elevator.
- 1) Door zone lock system shall be GAL LWZ-2 clutch and combination zone locking system, OEM or pre-approved equal.
 - 2) When the car is outside the unlocking zone, the car doors shall be so arranged that when in the closed position they shall be restricted from opening more than 100 mm (4 inch) from inside the car.
 - 3) Car doors shall be openable from outside the car without the use of a special tools.
 - 4) Car doors shall be openable from within the car when the car is within the unlocking zone.
- C) **New Door Protection Device:** Provide new door protection device that is compatible with the new controller system. The elevator door protection system shall consist of a Light Curtain, an Approaching Object Detection Means and a Controller. The system shall be designed to detect persons and objects that are in the path of the elevator cab doors or approaching the elevator cab door entrance in accordance with ASME A17.1. The system shall also be designed to ignore stationary persons or objects that are not entering the elevator. The beams shall project across the car opening detecting the presence of a passenger or object. If door movement is obstructed or objects are detected in the approach zone, the doors shall immediately reopen.
- 1) If an object has been detected in accordance with ASME A17.1 Detection of Approaching Objects or Detection of Objects in the Door Path when the doors are fully open, the hoistway

door and car door shall not close or, when the doors are closing, the car door and hoistway door at the landing shall initiate a reversal without intentional delay beyond system response time, and shall fully reopen or reopen a minimum of 915 mm (36 in.). If the doors fail to fully close within 10 seconds in addition to the door close data plate value, the doors shall fully reopen.

- 2) The reopening device shall be permitted to be rendered inoperative when the closing kinetic energy is reduced in conformance with ASME A17.1 requirements for detection of approaching objects within 450 mm (18 in.) of the point at which the leading edge of the leading door panel contacts the door jamb or opposing door panel. Additionally, when 20 seconds have transpired after the detection means of approaching objects first detects an object when an object is detected in the path of the doors, the 20 seconds duration shall reset. When objects are detected within 20 mm (0.75 in.) of the point at which the leading edge of the leading door panel contacts the door jamb or opposing door panel the reopening device(s) are permitted to be rendered inoperative.
 - 3) When the reopening device has been rendered inoperative as detailed above, a continuously sounding audible signal shall be provided with a sound level of 10 dBA minimum above ambient and shall not exceed 80 dBA. The sound level shall be measured 1 m (40 in.) above the landing floor, 500 mm (20 in.) from the door face, along the centerline of the entrance opening, with the doors open. The signal shall sound during door closing until the doors are fully closed. In no case shall the sound level exceed 85 dBA inside the cab and within 300 mm (12 in.) from the centerline of the entrance and 1 m (40 in.) above the floor.
 - 4) Detection of Approaching Objects: The reopening device shall be designed to detect a cylindrical targets approaching the entrance opening of the landing-side doors as required ASME A17.1. The approaching object detection means shall be effective until the leading edge of the doors is within 450 mm (18 in.) of the fully closed position and shall be permitted to be effective up to the fully closed position.
 - 5) Detection of Objects in the Door Path. The reopening device shall be designed to detect rectangular prisms positioned as required by ASME A17.1. The device shall be designed to detect prisms positioned anywhere within the opening width of the entrance on the floor and oriented with the 80 mm (3.15 in.) dimension parallel to the floor, the 150 mm (6 in.) dimension perpendicular to the door, and the 50 mm (2 in.) dimension perpendicular to the floor either wholly located between the vertical planes established by the landing-side face of the hoistway door and the car-side face of the car door or centered between the two planes if the distance between the two planes is less than 150 mm (6 in.).
 - 6) Self-Monitoring of Detection Means. The system shall be designed to be self-monitoring. After the door has reached its fully opened position and before door closing is initiated, the detection means shall be self-checked to verify the detection means is operational. If the self-check outcome is unsuccessful, power closing of the doors shall be at reduced kinetic energy conforming to ASME A17.1.
- D) **Nudging Operation:** The doors shall remain open as long as the electronic detector senses the presence of a passenger or object in the door opening. If door movement is obstructed for a field programmable time, a buzzer will sound, and the doors will close at reduced speed. If the infra-

red door protection system detects a person or object while closing, the doors will stop and resume closing after the obstruction has been removed.

2.6 CAR COMPONENTS

- A) **Cab Interior:** Existing elevator cab shell shall be replaced with new steel shell.
- B) **Car Front Cladding:** Car front shall be re-clad as detailed below:
- 1) Install new Car Return Panel: Install stainless steel: ASTM A 167, Type 300 stainless steel panels, No. 4 satin finish.
 - 2) Car Door Header & Transom Assembly: Install new stainless steel: ASTM A 167, Type 300 stainless steel panels, No. 4 satin finish.
 - 3) Car Strike Jamb: Install stainless steel: ASTM A 167, Type 300 stainless steel panels, No. 4 satin finish
- C) **Cab Walls:** Install new cab walls with finishes from Forms and Surfaces. LEVELr-205D. See Appendix A for Forms and Surfaces Cab Finishes (Rendering)
- D) **Cab Enclosure Vents:**
- 1) Base of each wall will be provided with a 6" cove base of #4 satin finish stainless steel with punched ventilation to align with the existing cab shell vents.
 - 2) Openings shall be appropriately sized and be guarded to prevent straight through passage in accordance with the applicable requirements of the current ASME A17.1 safety code.
- E) **Floor Finish:** Provide and install new cab flooring.
- 1) Vinyl Type Flooring: Furnish and install Karndean Vinyl Type Flooring with final color and style selected by Building Representative from standard Karndean Vinyl Type Flooring colors.
 - 2) The flooring is to have a minimum wear layer of 20 mils, with a total thickness of 100 mils.
 - 3) Work to include removal of existing flooring.
 - 4) Included is to have installation of new 1/8" sheet aluminum on top of car subflooring or other appropriate material for the installation of the new flooring. The cost of remedying any other conditions for the installation of the new flooring shall be included in the work and no change order will be approved. It will be the Elevator Contractor's responsibility to resolve all issues for a complete and finished floor. All material to be treated to meet Flame Spread and Smoke Density code requirements.
 - 5) Flooring is to be installed in accordance with manufacturers' recommended adhesive and bonded to the underlayment.
- F) **LED Car Lighting & Ceiling:** Install new car ceiling and new LED lighting. Stainless steel material. Sandstone finish. 6 LED downlights. See Appendix A for Forms and Surfaces Cab Finishes (Rendering)
- G) **Handrails:** Install new handrails on three walls.
- 1) Forms and Surfaces: Series: Round, Option: 1.5" dia. with Radius Bend End, Rail Material: Stainless Steel, Rail Finish: Satin. Location: Three Handrails / Back Wall + Side Walls

- 2) Support rails must be continuous and a minimum length of 42 inches (1067 mm) overall.
- 3) The inside surface of support rails must be 1½ inches (38 mm) clear of the car wall.
- 4) The distance from the top of the support rail to the finished car floor must be at least 31 inches (787 mm) and not more than 33 inches (838 mm).

H) Cab Interior Pads: Furnish set of pads and hooks for interior of elevator.

- 1) One (1) set of pads and hooks shall be provided for the interior of elevator and the hooks installed in the elevator cab.
 - 2) Type must be pre-approved by elevator consultant as manufactured by W.E. Palmer, or equal. Color to be selected from standard color selection provided to Owner by Elevator Contractor.
 - 3) Elevator pads shall be turned over to the Building Owner and stored in the machine room of the elevator.
- I) Elevator modernization contractor is responsible to provide schedule that allows for coordination of the cab interior refurbishment. This schedule will have all cab interior work performed prior to elevator modernization contractor making final acceptance inspection and testing of this elevator.
- 1) Elevator modernization contractor is responsible for all required door adjustments required for cab modernization contractor to complete all cab modernization work; no additional charges will be allowed for any door adjustments.

J) Car Entrances:

- 1) **Cab Doors:** Replace & hang new cab door panels.
 - a) Provide new fire rated cab door panels mounted on existing car door hangers with new rubber door astragals.
 - b) New car door close contact switch shall be installed.
 - c) Finish for car door shall be ASTM A 167, Type 300 Stainless Steel Number 4 finish. Door shall be manufactured to include all mounting hardware requirements of the GAL door operating equipment. Door shall be manufactured by Gunderlin LTD or pre-approved equal by consultant.
 - d) Refurbish associated components as detailed below and replace all parts necessary to deliver doors in as new condition. Verify and adjust as required to maintain all door gaps in accordance with latest applicable edition of ASME A17.1 code.
- 2) **Car Door Hangers, Sheaves, and Tracks:** Existing door hangers, sheaves, tracks, door gibs including all required retainers shall be replaced with new components as detailed below:
 - a) Provide sheave type two-point galvanized suspension hangers and galvanized track for car sliding door, product GAL, or preapproved equal.
 - b) New components for all components shall be GAL or preapproved equal.
 - c) Sheaves: Polyurethane tires with ball bearings properly sealed to retain grease.
 - d) Hangers: Provide an adjustable slide to accommodate the up thrust of the doors.

- e) Tracks: Drawn steel shapes, smooth surface and shaped to conform to the hanger sheaves.
- f) Car Door Guides: New car door slide guides shall be installed with tabs installed per manufacture's design. Bottom slide guides as manufactured by GAL replacement or preapproved equal. Car door guides shall be matched to existing car door sill.
- K) **Cab Top Enclosure:** The existing car top enclosure shall be replaced with new steel.
- L) **Car Steady Plates:** Existing car steady plates shall be rebuilt and adjusted to like new condition. All rubber spacers that are deteriorated will be replaced with new rubber components to hold the car steady and plumb.
- M) **Car Top Exit Switch:** Car top escape panels shall have switch assemblies including all wiring to install proper safety circuit as required by ASME A17.1. The top emergency exit cover shall open outward and shall be hinged or securely attached with a chain when in both the open and closed positions. If a chain is used, it shall be not more than 300 mm (12 inch) in length. The exit cover shall only open from the top of the car, where it shall open without the use of special tools.
- N) **Car Top Lighting:** The elevator shall be provided with lighting and a duplex receptacle fixture on the car top. The lighting shall consist of two (2) separate light sources. The lighting sources shall be permanently connected, fixed, or portable, or a combination thereof, to provide an illumination level of not less than 100 lx (10 fc) measured at the point of any elevator part or equipment, where maintenance or inspection is to be performed from the car top. All lighting shall be equipped with guards. The light switch shall be accessible from the landing when accessing the car top.
- O) **Car Top Inspection Station:** Provide a new car top inspection station with an "emergency stop" switch and constant pressure "up-down" direction buttons to make the normal operating devices inoperative and give the inspector complete control of the elevator. Car top Inspection unit manufactured by Vator Accessories, Inc., (630) 876-8370, Nylube Products Company, LLC. (248) 852-6500, Monitor Controls, or equal. Mount the car top inspection station as required by ASME A17.1 Safety Code for Elevators and Escalators.
 - 1) When the elevator is on inspection operation or when the hoistway access switch has been enabled, a continuous audible signal, audible at the location where the operation is activated shall sound when the "FIRE RECALL" switch is in the "ON" position or when the fire alarm initiating device is activated to alert the operator of an emergency.
 - 2) Car Top Inspection Station must be approved by Consultant prior to Contractor ordering fixtures.
- P) **Cab Fan:**
 - 1) Provide and install new two (2) speed quiet run fan manufactured by Nylube securely mounted in ceiling. Fan shall be protected from access through cab ceiling.
 - 2) Ventilation fans in elevators that do not have their own air-conditioning system shall not consume more than 0.33 watts/cfm at the maximum speed of the fan.
 - 3) Controls shall be provided that will de-energize ventilation fans and lighting systems when the elevator is stopped, unoccupied and with its doors closed for over 15 minutes.
 - 4) Fan noise shall not exceed 60 dbs in car on highest speed.

Q) **Car Operating Panel:** Provide new car operating stations as follows:

- 1) **Car Operating Station:** The car control station shall contain the devices required for specific operation mounted directly to an aluminum backing plate with a Stainless Steel # 4 brush finish applied faceplate. The panel shall consist of a series of modules, key switches or approved buttons for optimum viewing and accessibility. All engraving shall be on flush mounted hairline faceplates securely mounted to the aluminum backing plate.
 - a) The lowest section shall contain the "DOOR OPEN," "DOOR CLOSE," and car emergency signaling devices.
 - b) Intermediate section shall contain floor buttons, which illuminate when a call is registered and remain illuminated until the call is answered. Raised floor indications and handicap symbols shall be located immediately adjacent to the floor buttons.
 - c) Layout of floor buttons will have the floor buttons centered with floor buttons stacked vertically.
 - d) Provide a lockable service compartment with recessed flush door. Door material and finish to match car station face plate or car return panel. Inside surface of door shall contain an integral flush window for displaying the elevator operating permit. Service cabinet shall contain all required and accessory key switches including fan switch, key stop switch, hoistway access and an emergency light test button in service cabinet.
 - e) The top section shall contain fire service features inside a locked cabinet in accordance with currently adopted edition of ASME A17.1, including operating instructions.
 - f) Swing of panel shall match car door configuration. Car operating panel shall swing open with the hinged side closest to the sidewall. Panel shall swing to open only to the open car side.
 - g) All car and hall fixtures by Innovation Industries, or equal. All pushbuttons to be tamper resistant, Innovation Industries PB 39, Flush Button with Illuminated Halo and Center Jewel or pre-approved equal. Halo to be Blue LED light source. Car and hall pushbuttons shall be CBC compliant.
 - h) Car operating panel by Innovation Industries "Prestige Series" Stainless Steel # 4 brushed finish, or pre-approved equal. No adhesive type applied plates will be accepted at either car or hall stations. All fixtures shall have a White LED lighting source.
 - i) Car station shall be pre-wired by the car station manufacture with terminal strip connection to control wiring.
 - j) All hall and car push button lamps shall include long life LED type lamps and meet requirements of CBC.
- 2) **Position Indicators:** Car operating panel to include a 2-inch electronic segmented digital position indicator mounted in the control panel for optimum viewing. As the car travels, its position in the hoistway shall be indicated by the illumination of the alpha/numeric character

corresponding to the landing which the elevator is stopped or passing. On one side of digital numeric indicator in the car panel will also be a matching indicator with direction of travel. Position Indicator shall have a White LED lighting source.

- 3) **Emergency Light:** Emergency lighting shall be incorporated into the car operating panel. Emergency light shall illuminate automatically upon loss of the building's normal power supply as required by latest edition of ASME A17.1.
- 4) **Emergency In-Car Signaling Devices:** Provide Two-Way In Car Emergency Communication Device mounted in the car station panel. Emergency communications device shall comply with Americans with Disabilities Act (ADA) and with the currently adopted edition of ASME A17.1 Safety Code for Elevators and Escalators requirements. Emergency In-Car Signaling Devices for two-way communications shall, at a minimum, conform to the following:
 - a) A push button to actuate the communications means shall be provided in or adjacent to a car operating panel. The push button shall be visible and permanently identified with the phone symbol in conformance with ASME A17.1. The identification shall be on or adjacent to the phone push button. The communications means shall be initiated when the push button is actuated.
 - b) On the same panel as the phone push button, a message shall be displayed that is activated by authorized personnel to acknowledge that communications are established. The message shall be permitted to be extinguished where necessary to display a new message or when the communications are terminated.
 - c) On the same panel as the phone push button, messages shall be displayed that permit authorized personnel to communicate with and obtain responses from a trapped passenger, including a passenger who cannot verbally communicate or hear.
 - d) On the same panel as the phone push button, a message shall be displayed that is activated by the authorized personnel to indicate when help is on the way. The message shall continue to be displayed until a new message is displayed or the communications are terminated.
 - e) The communications means shall provide on demand to authorized personnel information that identifies the building location and elevator number.
 - f) The communications, once established, shall be disconnected only when authorized personnel terminate the call or a timed termination occurs. A timed termination by the communications means in the elevator, with the ability to extend the call by authorized personnel, is permitted if voice notification is sent by the communications means to authorized personnel a minimum of 3 min after communication has been established. Upon notification, authorized personnel shall have the ability to extend the call; automatic disconnection shall be permitted if the means to extend are not enacted within 20 s of the voice notification.
 - g) The communications means shall not use a handset in the car.
 - h) The communications shall not be transmitted to an automated answering system. The call shall be answered by authorized personnel.
 - i) Operating instructions shall be incorporated with or adjacent to the phone push button.

- j) A means to display video to observe passengers at any location on the car floor, to authorized personnel for entrapment assessment, shall be provided.
- 5) **Special Accessories in Car Station Panel:**
- a) Located in Service Compartment Subpanel w/ Clear Certificate Window, sized 6" x 9":
 - (1) Light key switch.
 - (2) Fan 2 speed key switch.
 - (3) Access Key Switch.
 - (4) Emergency Light Test Button.
 - (5) Keyed stop switch.
 - b) No applied plates.
 - c) Independent Service key switch installed on face of Car Operating Panel.
 - d) Braille and engraving to include:
 - (1) Engraved Capacity and Identification Number of elevator.
 - (2) No Smoking sign shall be engraved on flush mounted hairline faceplate.
 - e) All push buttons and key switches as required for fire service operation.
- 6) **Fire Service Features:** Fire Fighters Service Key switch as required by the CBC including operations required by the currently adopted edition of ASME A17.1 Safety Code for Elevators and Escalators shall be engraved on a flush mounted hairline faceplate.
- a) The "FIRE OPERATION" switch, the "CALL CANCEL" button, the "STOP" switch, the door open button(s), the door close button(s), the additional visual signal, and the operating instructions shall be grouped together at the top of the main car operating panel behind a locked cover.
 - b) The firefighters' operation panel cover shall be openable by the same key that operates the "FIRE OPERATION" switch. The cover shall be permitted to open automatically when the car is on Phase I Emergency Recall Operation and at the recall level. When the key is in the "FIRE OPERATION" switch, the cover shall not be capable of being closed. When closed, the cover shall be self-locking.
 - c) All buttons and switches shall be readily accessible, located not more than (72 inch) above the floor.
 - d) The front of the cover shall contain the words "FIREFIGHTERS' OPERATION" in red letters at least 0.4 in. high.
 - e) Firemens' Service Key: The fire key shall be of a tubular, 7 pin, style 137 construction and shall have a biting code of 6143521 starting at the tab sequenced clockwise as viewed from the barrel end of the key. The key shall be coded "FEO-K1".
- 7) All required Braille for buttons and other switches as required by the CBC & ASME A17.1 shall be securely fastened to the aluminum backing plate or directly engraved.
- 8) Integral Emergency In-Car Signaling Device (telephone), including engraving directly into the car-operating panel all ADA required telephone instructions.

- 9) There shall be NO ADHESIVE APPLIED PLATES, SIGNS or PANELS affixed to the car-operating panel or other locations inside or outside the elevator cab.
- 10) Phone Response Location shall be designated by Owner.
- R) **Car Riding Lantern:** New tamper resistant, arrow shaped, clear epoxy filled, car-riding lanterns shall be installed in the elevator cab and located in the entrance jambs to replace the existing car riding lanterns.
 - 1) The lantern bars, when illuminated, will indicate the intended direction of travel. The lanterns will illuminate, and a signal will sound when the car arrives at a floor where it will stop. The lanterns shall remain illuminated until the door begin to close.
- S) **Car Operating Station & Fixture Approval:** Car Operating Station & fixtures must be approved by consultant prior to contractor ordering fixtures.

2.7 HALL FIXTURES

- A) **Hall Stations – General:** New Hall Stations shall be flush mounted. Buttons shall illuminate to indicate call has been registered at that floor for the indicated direction. Faceplates shall be # 4 Brushed Stainless-Steel finish. Provide one set of risers.
 - 1) All switches, fixtures and pushbuttons shall be by Monitor Controls, Innovation Industries or pre-approved equal.
 - 2) All push buttons to be tamper resistant Innovation Industries Pinnacle VR Series PB-70 or 71, or pre-approved equal.
 - 3) Hall stations shall be of one-piece construction, flush mounted.
 - 4) Designated level hall station (Floor designation “1”) shall be of two (2) piece construction and flush mounted.
 - a) Lower section to have hall station push buttons, in case of fire use stair signs and Phase 1 Firefighter’s Service key switch, with instructions.
 - b) Upper section to have devices for emergency power operation and emergency communications monitoring.
 - 5) All other hall stations shall be of one (1) piece construction and contain all required switches and signage as required by this specification.
 - 6) All switches, fixtures and pushbuttons shall be by Monitor Controls, Innovation Industries or pre-approved equal.
 - 7) All push buttons to be tamper resistant Innovation Industries Pinnacle VR Series PB-71 or pre-approved equal.
 - 8) All Hall Stations shall be # 4 Brushed Stainless Steel.
 - 9) In case of fire use stair signs shall be engraved into the hall station panel with exact signage as per ASME A17.1 Code. No adhesive type applied signage plates will be accepted at this hall station.
 - 10) All hall and car push button assemblies shall include long life LED type lamps.
 - 11) Each terminal station shall contain one illuminating push button and other applicable accessories, including hoistway access switches as required by this specification.

- 12) Each intermediate station shall consist of two illuminating push buttons, one for the up direction and one for the down position.
- 13) Phase 1 Firefighter's Service key switch, with instructions, shall be incorporated into the hall station at the designated level. Fire Service instructions as per ASME A17.1 Safety Code for Elevators and Escalators shall be engraved in the main floor hall station panel.
- 14) Local Telephone Line Status Monitoring: The telephone system for the elevator shall be compliant with the requirements of the ASME A17.1, Requirement 2.27 and will include a verification means as required by the ASME A17.1 code. If the verification means determines that the telephone line or equivalent means is not functional, an audible and illuminated visual signal shall be activated. A minimum of one visual and one audible signal shall be provided for the elevator controlled by a "FIRE RECALL" switch.
 - a) A minimum of one visual and one audible signal shall be provided for the elevator controlled by a "FIRE RECALL" switch.
 - b) Verification of the telephone line operability shall be automatically performed at least on a daily basis and shall not require activation of the two-way communications links.
 - c) The visual signal shall be located at the designated landing in the vicinity of the "FIRE RECALL" switch, be visible to elevator user(s), be labeled "ELEVATOR COMMUNICATIONS FAILURE" in red letters a minimum of 5 mm (0.25 inch) high, illuminate intermittently and continue to illuminate intermittently until the telephone line or equivalent means is functional.
 - d) The audible signal shall be 10 dBA minimum above ambient but shall not exceed 80 dBA measured at the designated landing "FIRE RECALL" switch, sound at least once every 30 s with a minimum duration of half a second and continue to sound until silenced by authorized personnel or the telephone line or equivalent means is functional.
 - e) The means to silence the audible signal shall be accessible only to authorized personnel. The signal when silenced shall remain silent unless activated by the next verification.
- 15) **Hoistway Access Switches:** New Hoistway Access Switches shall be provided and installed adjacent to the hoistway landing with which it is associated on top and bottom floors in entrance frame.
 - a) The switch shall be installed a minimum of 1 200 mm (48 in.) and a maximum of 1 825 mm (72 in.) above the floor measured to the centerline of the switch, adjacent to or part of the hoistway entrance at the landing with which it is identified and shall be located on the wall outside of the hoistway within 300mm (12 in.) of the entrance frame or on the hoistway entrance frame or jamb.
 - b) The switch shall be labeled "ACCESS" and shall be a three-position switch, labeled "UP," "OFF," and "DOWN" (in that order), with the "OFF" position as the center position. The switch shall be rotated clockwise to go from the "UP" to "OFF" to "DOWN" positions.
 - c) The switch shall be of the continuous pressure spring-return type and shall be operated by a cylinder-type lock having not less than a five-pin or five disk combination, with the key removable only when the switch is in the "OFF" position.
 - d) The key shall be Group 1 Security.

T) **Hall Lanterns:** Install new Hall lanterns on each floor indicating the direction of travel of the elevator. Hall lanterns shall be installed on each landing above each entrance in the transom to replace the existing hall lanterns.

- 1) The lantern bars, when illuminated, will indicate the intended direction of travel. The lanterns will illuminate, and a signal will sound when the car arrives at a floor where it will stop. The lanterns shall remain illuminated until the doors begin to close.

B) **Fixtures Approval:** Hall fixtures listed above must be approved prior to ordering fixtures by Contractor.

3 EXECUTION

3.1 CONTRACTOR RESPONSIBILITY

A) **Contractor Responsibility:** The Contractor shall be responsible to the Owner for the acts, omissions and negligence of the Contractor's employees, Subcontractors and their agents or employees, and other persons or entities performing portions of the Work for or on behalf of the Contractor or any of its Subcontractors. In no event shall Contractor be liable for consequential damages

B) **Examinations:**

- 1) Before starting elevator modernization, inspect hoistway, hoistway openings, pit and machine room, as constructed, verify all critical dimensions, and examine supporting structures and all other conditions under which elevator work is to be installed. Do not proceed with elevator modernization until unsatisfactory conditions have been corrected in a manner acceptable to the installer.
- 2) Modernization constitutes acceptance of existing conditions and responsibility for satisfactory performance.

C) **Scheduling:** Contractor shall submit project schedule with the proposal including key milestone dates.

D) **Signage:**

- 1) The Enterprise Building Representatives and the Consultant in accordance with the General Materials section of this specification, will approve all signage in order to maintain consistent appearance for entire elevator installation.
- 2) All signage as required by current edition of the applicable Building Code, ASME A17.1 Safety Code for Elevators and Escalators, NFPA 70 National Electrical Code and NFPA 72 Fire Alarm Code to be posted in elevator lobbies, fire alarm panels, disconnects, machine room and machine room door.
- 3) All existing signage will be replaced in conformance to the Current edition of the applicable Building Code, ASME A17.1 Safety Code for Elevators and Escalators, NFPA 70 National Electrical Code and NFPA 72 Fire Alarm Code requirements as a part of this specification.

E) Installation:

- 1) Install elevator system components and coordinate repairs of hoistway wall construction.
- 2) Competent licensed elevator installation personnel in accordance with Jurisdictional Statutes, Rules & requirements and ASME A17.1 Safety Code for Elevators and Escalators, manufacturer's installation instructions and approved shop drawings shall perform work.
- 3) Comply with the NFPA 70 National Electrical Code for electrical work required during installation.
- 4) Perform work with competent, skilled workmen under the direct control and supervision of the Elevator Contractor's experienced foreman.
- 5) Supply in ample time for installation by other trades, inserts, anchors, bearing plates, brackets, supports, and bracing including all setting templates and diagrams for placement.
- 6) Welded construction: Provide welded connections for installation of elevator work where bolted connections are not required for subsequent removal or for normal operation, adjustment, inspection, maintenance, and replacement of worn Parts. Comply with AWS B2.1 Standard Welding Procedure and Performance Qualification.
- 7) Coordination: Coordinate elevator work with the work of other trades, for proper time and sequence to avoid construction delays. Use benchmarks, lines, and levels designated by the Contractor, to ensure dimensional coordination of the work.
- 8) Install machinery, guides, controls, car and all equipment and accessories to provide a quiet, smoothly operating installation, free from side sway, oscillation, or vibration.
- 9) Sound isolation: Mount rotating and vibrating elevator equipment and components on vibration-absorption mounts, designed to effectively prevent the transmission of vibrations to the structure, and eliminate sources of structure-borne noise from the elevator system.
- 10) Lubricate operating parts of system, including ropes, as recommended by the manufacturer.

F) Data Plates, Tags & Signs: Elevator Contractor shall be required to install all data plates as required by ASME A17.1 Safety Code for Elevators and Escalators on complete elevator system including alteration and original equipment.

- 1) All existing alteration code data plates must have the associated information retained with new alteration data plates being provided including the applicable information about the alteration code reference requirements and alteration code edition.
- 2) Data plates shall be manufactured and printed with proper data for elevator by CodeDataPlate.com or approved equal.
- 3) No ink-based markers shall be used for any data plates, tags, or signs. All data plates, tags & miscellaneous signage shall be of such material and construction that the letters and figures stamped, etched, cast, or otherwise applied to the face shall remain permanently and readily legible.

G) Field Quality Control: The Elevator Contractor shall perform pre-testing of all required acceptance tests of the elevator system prior to the scheduled Alteration Acceptance Testing and Inspection. The Elevator Contractor shall ensure the installation conforms to all applicable safety codes and contract requirements.

H) Acceptance Testing & Inspection:

- 1) **Acceptance Testing:** Upon completion of the elevator modernization perform and satisfactorily complete all acceptance tests as required by the State of California, AHJ (Authority Having Jurisdiction) and required by all applicable codes and governing regulations. Perform other tests, if any, as required by governing regulations or agencies.
- 2) Advise Owner, Elevator Consultant, and governing authorities in advance as required of dates and times tests are to be performed on the elevator.
- 3) **Acceptance Inspection:** Alameda County has designated ATIS, as their consultant on this project.
 - a) The Elevator Contractor shall be responsible, in accordance with ASME A17.1 Safety Code for Elevators and Escalators for all acceptance inspections for this elevator.
 - b) Elevator Installer in accordance with ASME A17.1 Safety Code for Elevators and Escalators, Inspection and Test Requirements will perform all acceptance tests for this elevator.
 - c) Elevator Contractor must notify building owner and elevator consultant five (5) days prior to inspection advising of the date and time of all inspections and tests.
 - d) Elevator inspector other than Jurisdictional Authority inspectors must be approved prior to inspection date by consultant.

- I) **Keys for Elevator Key Switches:** Provide a minimum of two (2) keys per cylinder used on all key switches for the elevator. Each numbered set of keys shall be identified with their function on a labeled plastic tag with a split ring for each numbered set.

J) Adjusting:

- 1) Make necessary adjustments of operating devices and equipment to ensure elevator operates smoothly and accurately.
- 2) The Elevator Contractor shall be required to perform and pass all required testing of all equipment as per ASME A17.1 Safety Code for Elevators and Escalators and ASME A17.2.

K) Cleaning:

- 1) Contractor shall keep the premises and surrounding areas free from accumulation of waste materials or rubbish caused by its operations. Upon completion of the Work, the Contractor shall remove all waste materials and Contractor's equipment and surplus materials. Contractor shall police the work area daily and any common area used by the Contractor each day and shall remove trash and debris from the work area and common area. Any trash that is stored on the common area shall be protected from wind so as to prevent trash being blown around the common area.
- 2) Contractor shall ensure that no hazardous conditions exist as a result of any Work, including the removal of nails in the parking area and walkway.
- 3) Contractor shall store all materials, supplies and equipment in a neat and orderly manner and dispersed to minimize fire hazards. The unloading of materials, supplies, or equipment in the roadways or landscaped areas by vehicles, cranes or forklifts shall be coordinated at least 24 hours in advance with the Owner.
- 4) Before final acceptance, remove protection from finished surfaces and clean and polish

surfaces in accordance with manufacturer's recommendations for type of material and finish provided.

- 5) For duration and/or completion of elevator work, remove tools, equipment, and surplus materials from site daily.
- 6) Clean equipment rooms and hoistway.
- 7) Remove trash and debris daily from premises.

L) Protection:

- 1) During all elevator work, or portion thereof, provide suitable protective coverings, barriers, devices, signs, or other such methods or procedures to protect elevator work from damage or deterioration. Protect all areas of work from public access or dangers including tripping or fall hazards. Maintain protective measures throughout remainder of construction period.

M) Demonstration:

- 1) The Elevator Contractor shall make a final check of the elevator operation with the Owner or Owner's representative present prior to turning each elevator over for use. The Elevator Contractor shall demonstrate that control systems and operating devices are functioning properly.
- 2) Instruct Owner's personnel in proper use, operations, and daily care or operation of elevator. Review emergency provisions, including emergency access and procedures to be followed at time of failure in operation and other building emergencies.
- 3) Train Owner's personnel in normal procedures to be followed in checking for sources of operational failures or malfunctions.
- 4) Make a final check of each elevator operation, with Owner's personnel present, immediately before date of substantial completion.
- 5) Demonstrate that control systems and operating devices are functioning properly.
- 6) Final Electrical Schematics and Drawings
- 7) Maintenance Requirements.

N) Elevator Consultant's Punch-Out List Items:

- 1) Complete all of the consultant's punch-out list items as may be required. The elevator consultant shall provide a review and written punch list of deficiencies. The elevator consultant shall verify one time that the items from the punch list are completed after notice by the Elevator Contractor. If the work is not complete and the consultant is required to make return visits, the Elevator Contractor shall be charged for consultant at a rate of \$325.00 per hour including travel time for any additional return visits, reviews or work of any type.

3) TERMS OF PAYMENT**A) Payment Schedule:**

- 1) Refer to County General Conditions Document 00 72 13 Section 19 for Payment Requirements, and Section 19.2.3 for prerequisites to Progress Payments.

- 2) Prior to issuance of any payments, the Work shall be inspected by Owner or the Owner's Representative. In addition, as Contractor is fully responsible for meeting the requirements of the manufacturers' warranties, Contractor shall be responsible for obtaining inspections by the manufacturers' representatives, if required, and delivering, along with his application for payment and supporting documentation, signed statements from the manufacturers verifying that the manufacturers will issue written warranties for the Work performed for which payment is being made. If fully satisfied with the documentation submitted, the Owner's Representative shall issue a certificate of authorization of payment to the Owner within fifteen (15) business days of receipt of the application for payment and supporting documentation. Upon receipt of the certificate of authorization of payment, the Owner shall issue payment to Contractor within fifteen (15) business days.
- 3) The Owner's Representative shall have sole reasonable discretion as to approval of work and progress payments. The Owner's Representative shall timely review each application for payment and submit its Certificate of Payment to the Owner authorizing payment for all work performed and accepted by the Owner's Representative and materials on site as of the date of the application, reduced solely by the Representative's estimate of the cost to cure defective work (regarding which the Contractor has received Notice) performed by the Contractor. The Owner's Representative shall have the right to disapprove payment if in his reasonable judgment Work does not conform to the Contract Documents, the quality and progress of the work is not satisfactory, or as further provided in the Conditions Precedent to Payment paragraph hereof.

B) Conditions Precedent to Payment:

- 1) Refer to County General Conditions Document 00 72 13 Section 19 for Payment Conditions.

C) Owner's Representative of This Contract:

- 1) The Owner's Representatives shall be designated by Owner. The Owner's Representatives will provide general administration during performance of the work and until final payment is due.
 - a) The Owner's Representatives shall at all times have access to the work wherever it is in preparation and progress.
 - b) The Owner's Representatives shall have the authority to reject work which does not conform to the contract documents and work specifications.
 - c) Based upon the Owner's Representatives' observations of the work and Contractor's applications for payment, the Owner's Representatives will determine the amounts owing to Contractor as described in Terms of Payment section of this contract.

D) Final Payment

- 1) Refer to County General Conditions Document 00 72 13 Section 21 for terms of final payment and retention.

APPENDIX A
CAB INTERIOR DESIGN RENDERING

ELEVATOR DESIGN STUDIO

A FORMS+SURFACES DESIGN TOOL

Enterprise Elevator Modernization - LEVELr-205D

The following pages provide a complete overview of the elevator interior you designed using the Elevator Design Studio. It includes material and finish information as well as the project-related details you supplied.

Configuration

LEVELr-205D

Opening Option

Front

Dimensions

D1:

W1:

H1:

H2:

Additional Details

Job Type:

Elevator Type:

Cab Shell Material:

Quantity: 1

Comments:



ELEVATOR DESIGN STUDIO

A FORMS+SURFACES DESIGN TOOL

Enterprise Elevator Modernization - LEVELr-205D

The following pages provide a complete overview of the elevator interior you designed using the Elevator Design Studio. It includes material and finish information as well as the project-related details you supplied.

Configuration

LEVELr-205D

Opening Option

Front

Dimensions

D1:

W1:

H1:

H2:

Additional Details

Job Type:

Elevator Type:

Cab Shell Material:

Quantity: 1

Comments:



ELEVATOR DESIGN STUDIO

A FORMS+SURFACES DESIGN TOOL

Enterprise Elevator Modernization - LEVELr-205D

The following pages provide a complete overview of the elevator interior you designed using the Elevator Design Studio. It includes material and finish information as well as the project-related details you supplied.

Configuration

LEVELr-205D

Opening Option

Front

Dimensions

D1:

W1:

H1:

H2:

Additional Details

Job Type:

Elevator Type:

Cab Shell Material:

Quantity: 1

Comments:



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design # 67362680d2f6ab0008f29c53

Page 3 of 9 | Rev. 11.14.2024 08:40:14 AM

ELEVATOR DESIGN STUDIO

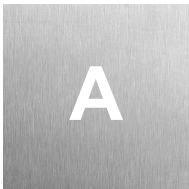
A FORMS+SURFACES DESIGN TOOL

CONFIGURATION OVERVIEW

Enterprise Elevator Modernization - LEVELr-205D

PANELS

A : All



Stainless Steel
Satin
No Pattern
Ceramiloc+

B : All



Stainless Steel
Seastone
Kalahari Impression

C : All



Fused Nickel Silver
Satin
No Pattern
Ceramiloc+

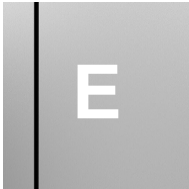
D : All



Fused Nickel Silver
Satin
No Pattern
Ceramiloc+
Flush

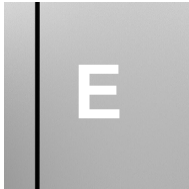
OTHER ELEMENTS

E : Reveals Back Wall
Vertical



Recessed Reveal in Black

E : Reveals Back Wall
Horizontal



Recessed Reveal in Black

E : Reveals Side Walls



LEVELr-201C Reveal
Color: Black Recessed

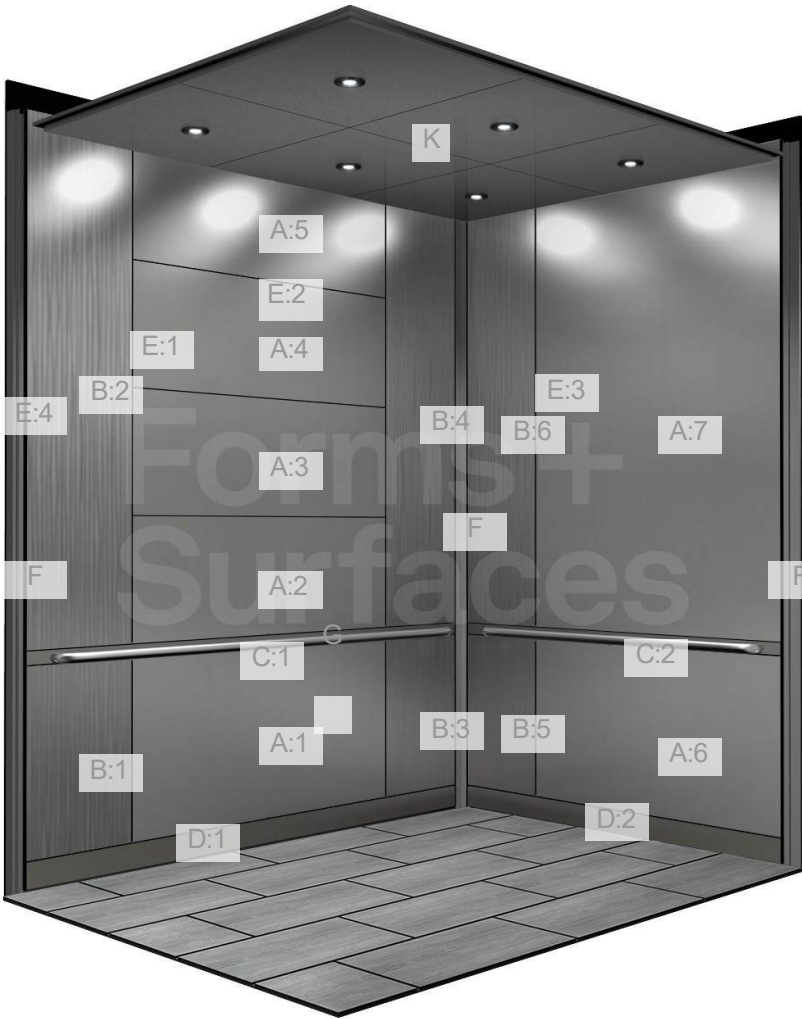
E : Perimeter Fins



F : Corner Reveals



G : Handrails



71-890-451-0410 | F 412.955-4715 | www.forms-surfaces.com Reveals Color: Aluminum, Clear Anodized

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Round
Satin Stainless Steel

ELEVATOR DESIGN STUDIO

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CONFIGURATION OVERVIEW

Enterprise Elevator Modernization - LEVELr-205D

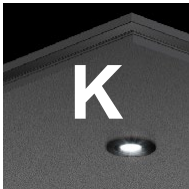
ELEVATOR DESIGN STUDIO

A FORMS+SURFACES DESIGN TOOL

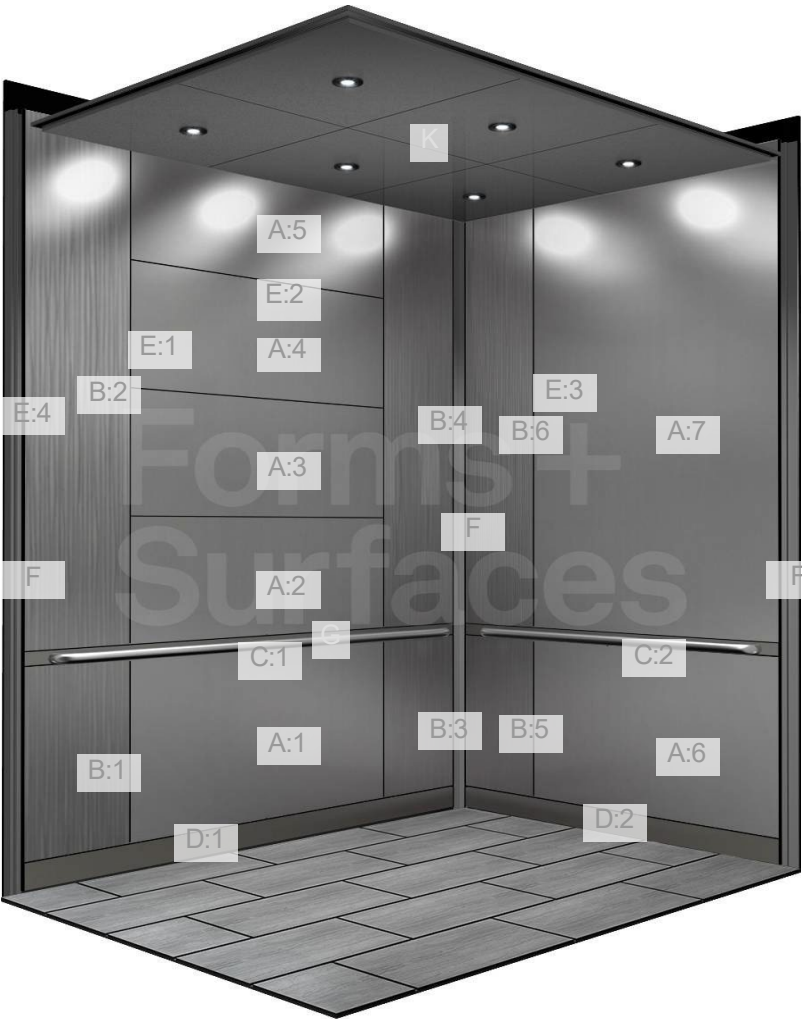
CONFIGURATION OVERVIEW

Enterprise Elevator Modernization - LEVELr-205D

K : Ceiling



Stainless Steel
Sandstone
6 LED downlights
shown at 5,000K



ELEVATOR DESIGN STUDIO

A FORMS+SURFACES DESIGN TOOL

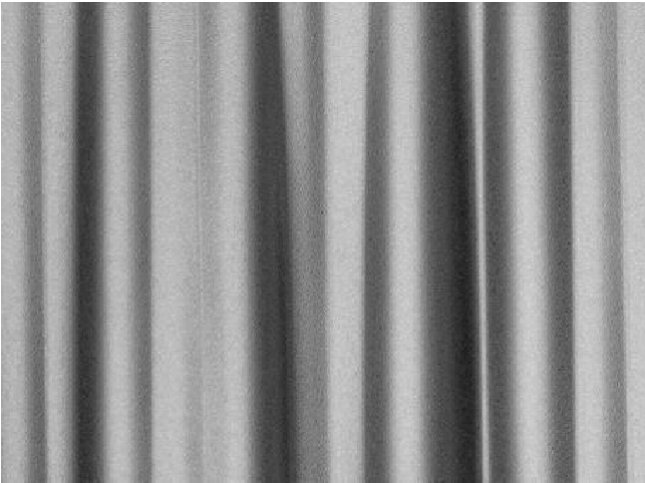
CONFIGURATION OVERVIEW

Enterprise Elevator Modernization - LEVELr-205D

A : All
Material: Stainless Steel
Finish: Satin
No Pattern
Protective Treatment: Ceramiloc+



B : All
Material: Stainless Steel
Finish: Seastone
Kalahari Impression



C : All
Material: Fused Nickel Silver
Finish: Satin
Pattern: No Pattern
Protective Treatment: Ceramiloc+



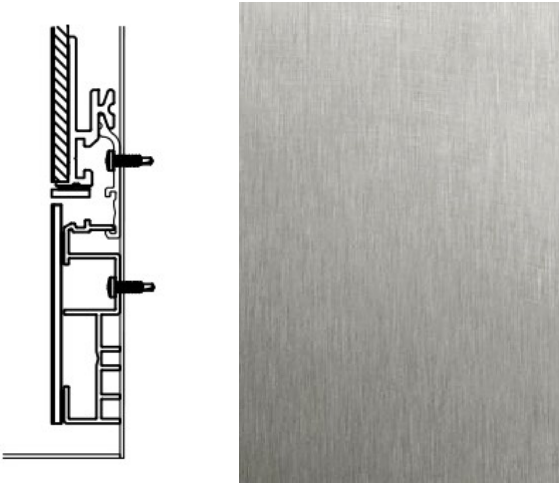
ELEVATOR DESIGN STUDIO

A FORMS+SURFACES DESIGN TOOL

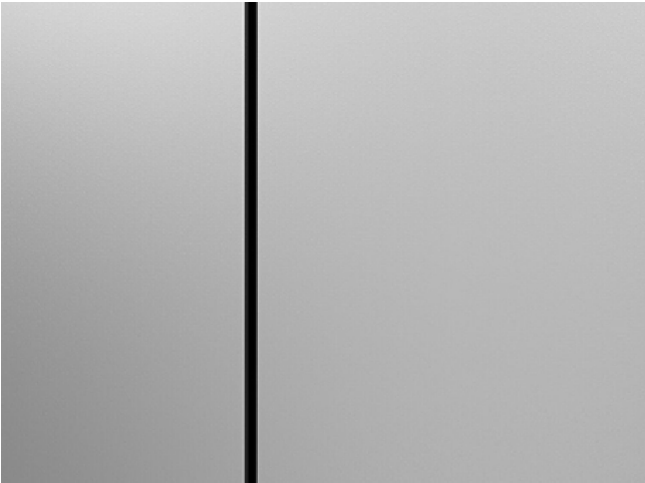
CONFIGURATION OVERVIEW

Enterprise Elevator Modernization - LEVELr-205D

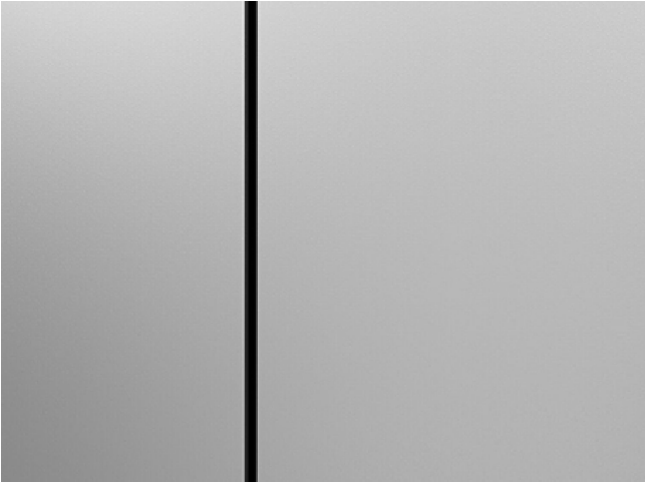
D : All
Material: Fused Nickel Silver
Finish: Satin
Pattern: No Pattern
Protective Treatment: Ceramiloc+
Base Option: Flush



E : Reveals Back Wall Vertical
Recessed Reveal in Black



E : Reveals Back Wall Horizontal
Recessed Reveal in Black



ELEVATOR DESIGN STUDIO

A FORMS+SURFACES DESIGN TOOL

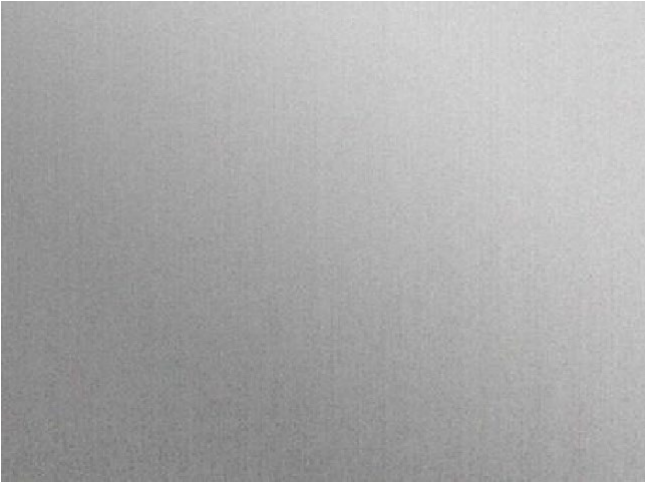
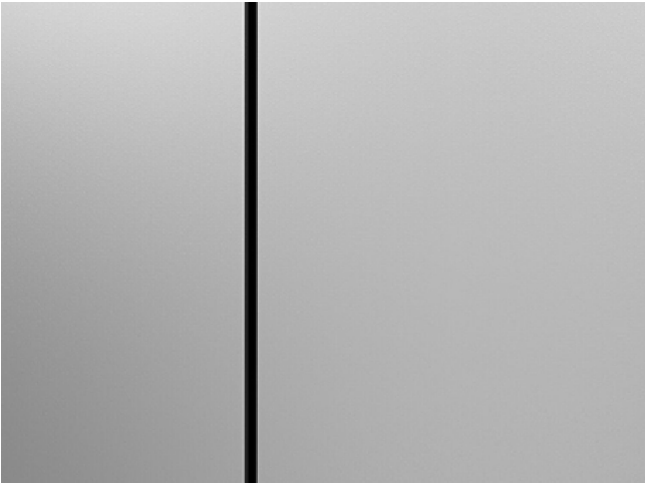
CONFIGURATION OVERVIEW

E : Reveals Side Walls
LEVELr-201C Reveal Color: Black Recessed

E : Perimeter Fins
Perimeter Fins in Matte Black

F : Corner Reveals
Corner Reveals Color: Aluminum, Clear Anodized

Enterprise Elevator Modernization - LEVELr-205D



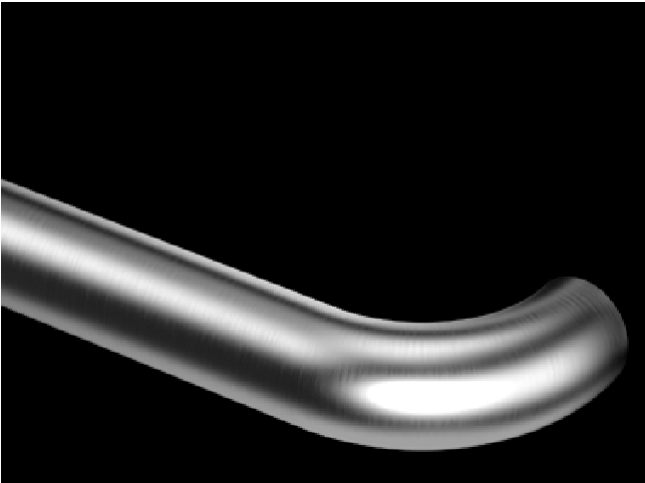
ELEVATOR DESIGN STUDIO

A FORMS+SURFACES DESIGN TOOL

CONFIGURATION OVERVIEW

Enterprise Elevator Modernization - LEVELr-205D

G : Handrails
Series: Round
Option: 1.5" dia. with Radius Bend End
Rail Material: Stainless Steel
Rail Finish: Satin
Location: Three Handrails / Back Wall + Side Walls



K : Ceiling
Material: Stainless Steel
Finish: Sandstone
Lighting: 6 LED downlights
shown at 5,000K

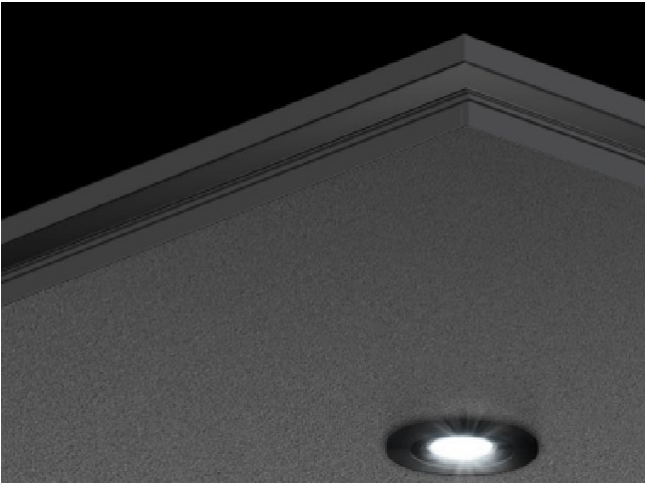


EXHIBIT B

ELEVATOR MAINTENANCE REQUIREMENTS

1. Summary:

- a. This document describes the elevator maintenance requirements of this Project.

2. Maintenance:

a. Existing Elevator Maintenance Agreement:

- i. The existing maintenance agreement for the elevator will stop on the date the project Notice to Proceed is issued.
- ii. The elevator modernization contractor will assume maintenance on the elevator that is the subject of this modernization specification once the project Notice to Proceed is issued to the Contractor.
- iii. Elevator taken out of service for modernization will not be billed for maintenance during any time the elevator is under modernization.

b. Interim Maintenance:

- i. The Contractor shall assume maintenance on the elevator once the project Notice to Proceed is issued.
- ii. Interim Maintenance shall be provided for the duration of the project.
- iii. Elevator taken out of service for modernization will not be billed for maintenance during any time the elevator is under modernization. Time not under maintenance charges is from the time of the elevator being removed from service until the time of certificate for public use.

c. Warranty Maintenance:

- i. The Contractor shall provide twelve (12) month warranty maintenance upon final acceptance of elevator modernization by the County.
- ii. Once the elevator is turned over for substantial use of the County after modernization, no additional maintenance charges will be due for the elevator until after the 12-month Warranty Maintenance period has ended.

d. Post-Warranty Preventive Maintenance:

- i. After warranty maintenance concludes, the preventative maintenance contract will be taken over by Alameda County's current elevator maintenance contract.

3. Contractors Minimum Qualifications

- a. Contractor's personnel shall be certified by the State of California as an elevator Certified Competent Conveyance Mechanic (CCCM) and must use only licensed journeymen elevator mechanics who are in compliance with all governing laws and regulations regarding elevator maintenance.
- b. Contractor must possess an active C11-Elevator contractor licensed by the State of California and shall forward a copy of their renewed license to the Contract Administrator each year they hold the contract.

4. Responsibility of Contractor

- a. Contractor's work to be performed shall consist of furnishing all materials, labor, tools, and equipment required to provide 100% maintenance services for the elevators. Any work not specifically mentioned, but which is needed to make the work complete within the intent of the specifications, shall be performed without additional cost.
- b. Contractor shall take responsibility for the work and shall bear all losses resulting from negligence on account of the Contractor. Contractor shall be responsible for all work of its subcontractor(s).
- c. Contractor shall not allow the performance of work by the subcontractor(s) unless the subcontractor has been approved by the County in writing, and in no case shall the Contractor use subcontractor(s) that in any way alter the position of the Contractor with relation to the contract with the County. If a subcontractor is used, the responsibility for every portion of the work shall remain with the Contractor.
- d. Contractor shall obtain prior approval of the County's authorized elevator representative in writing for any area or space required for the Contractor's storage during operations. Materials, equipment, etc., shall not be filed or stored in any location which shall interfere with the conduct of the normal functions of the building and/or facilities nor to constitute a hazard to persons or property. All required safety precautions such as barricades, signs, danger signals, etc., shall be furnished and installed by the Contractor during operations.
- e. Upon demand of the County's authorized representative, the Contractor shall correct any dangerous or hazardous situations. Contractor shall completely protect against damage, from

either materials or equipment, all surfaces, equipment, and facilities adjoining his work, including, but not limited to, woodwork, walls, and floors. All repair or replacement costs resulting from this damage shall be borne by the Contractor. At the conclusion of each day's work, the Contractor shall remove refuse, debris, or waste materials and leave the premises in an orderly condition as required by the County.

- f. Contractor shall perform periodic tests and maintenance inspections as required by the current applicable safety codes and in compliance with all applicable statutory requirements for all the elevators described herein. Written reports of all tests shall be made available for review upon request by the County.
- g. Contractor will perform a five-year load test per elevator (if required during the life of the contract), all required monthly and yearly fire recall testing per elevator, and all work required for permitting, as prescribed by the State of California's Preliminary Orders.
- h. Contractor is completely responsible for the maintenance and operations of all contracted elevator systems in each building. Contractor shall perform complete maintenance services on all contracted equipment to be maintained.
- i. Maintenance services shall consist of the following work:
 - i. Make the necessary number of inspections required to maintain all elevators in first-class operating condition at all times. Minimum frequency of regular monthly service inspections is required.
 - ii. Inspections shall include regular and systematic examination, adjustment, cleaning, and lubrication.
 - iii. All features of operation control and dispatching included in the original installation shall be maintained functional. Where provided, the emergency fire service shall be tested monthly and recorded per code.
 - iv. Battery-operated emergency lowering, lights, and earthquake systems shall be tested quarterly and any defects corrected in a timely manner.
 - v. Elevators provided with derailment devices, seismic switches or other special circuitry shall be tested each year to ensure these devices are operating as designed. County's authorized elevator representative and Contractor shall arrange for mutually acceptable dates to perform the tests. The emergency power operation will be tested by the County staff and, if the elevator system fails, Contractor shall make corrections and retest.

- vi. Supply, repair, clean and replace all parts as required by wear and tear. Only parts correctly designed to the Original Equipment Manufacturer (OEM) Requirements and suitable in all respects shall be used as replacements.
- vii. Contractor shall be responsible for procuring substitute replacement parts required for replacing obsolete parts at Contractor's expense. The County's authorized elevator representative shall approve the use of the substitute parts.
- viii. If in the opinion of the County's authorized representative, if an unreasonable amount of time is consumed by the Contractor in restoring normal service because of parts procurement, payment for the month which service is requested will be withheld.
- ix. Contractor shall provide a locally available supply of spare parts adequate for said services within a reasonable time. If the lack of available parts causes extended elevator down time (24 hours or more) and parts are available from other local sources, Contractor will purchase the necessary parts locally at no additional cost to the County. If parts are not available locally, then Contractor shall obtain outside of the County, and have the parts shipped, overnight if necessary, to restore the down elevator.
- x. Test all safety devices, governors, etc. Per American National Standards Institute (ANSI) A17.1, national elevator safety code requirements, as applicable at the time the elevator was installed or date of alteration of the component. Contractor shall promptly correct any defects and subsequent testing damage that may be found in testing and examining the safety devices and shall send a notice to the County's representative advising of the tests and corrections.
- xi. Maintain guaranteed performance levels.
- xii. All wiring and construction prints or diagrams of elevators covered under this contract are the property of the County and upon the termination of this contract shall be delivered to the County Representative. Absolutely no changes are to be made to the circuitry or mechanical systems without prior approval of the County Representative. Any change without prior approval may be considered a breach of contract. All changes in circuitry made by the Contractor shall be properly recorded on the diagrams, including the date of change and the name of the person making the same. It is the responsibility of the Contractor to maintain clean, legible, readable, and accurate schematics and wiring diagrams at all times. Prints and diagrams are to remain on the job site.
- xiii. Telephone instruments shall be checked quarterly and any problems reported to the county. The responsibility to replace/restore defective telephone devices belongs to the Contractor.

- xiv. Contractor shall include the following phone inspection and monitoring service as part of their elevator maintenance agreement:
 - 1. 24-hour monitoring of all elevator telephones. Program dialer.
 - 2. Verbal acknowledgment within 10 seconds of elevator phone activation.
 - 3. Regularly testing that the phones in the elevator work by making an outgoing call to the appropriate party and confirming a response during routine monthly maintenance.
 - 4. Document the phone tests results and notify the County's Representative on what elevators have non-working phones.
 - 5. Doing an initial survey of all elevators to document the phone numbers on elevator phones, how each elevator phone dials out and where the calls go to when someone needs help. (Answering service, automatic dialer, etc.) Forwarding said document in MS Excel format to the County's Representative within the first 30 days of the newly executed contract.
- j. In the event that existing materials are identified as containing asbestos, which may be disturbed in the course of performing work under the contract, Contractor shall cease all work in the area immediately, and notify the County's representative. After the site conditions are assessed by the County, a licensed subcontractor, certified and registered with the State of California Department of Industrial Relations Division of Occupational Safety and Health Administrative Regulations (CAL-OSHA) for asbestos work shall be brought in to perform asbestos abatement, affected work activities under the contract shall not resume work until the abatement is completed.
- k. Equipment Performance
 - i. Operational "full service" level performance standards for elevators maintained under the contract shall be brought up to the Contractor's standards within the first six (6) months of the contract and so maintained at all times during the contract.
 - ii. Bi-annually, all elevators are to be checked and adjusted by an elevator adjuster, with a written report submitted to the County representative, with a final report submitted during the final 30 days of the contract. If the County's elevator representative directs that it is necessary to adjust an elevator on a more frequent time period, Contractor shall abide by the request.
 - iii. Periodic checks of the condition and performance of equipment by the County's representative or the County's elevator consultant will be made throughout the length

of the contract. Any material, labor, or readjustments needed to restore equipment to specified standards shall be provided by the Contractor under the terms of this contract without additional cost to the County and at times as instructed by the County Representative.

- iv. The Contractor will maintain the required minimum performance standards described in this contract and conformance with the latest and all applicable code requirements, whether Federal, state, or local. In accomplishing these standards, the Contractor shall maintain a comfortable elevator ride with smooth acceleration, retardation, and a soft stop. Door operation shall be quiet and positive with smooth checking at the extremes of travel.
- v. All materials and workmanship provided in the contract shall conform to the latest applicable code requirement of the:
 - 1. ANSI/American Society of Mechanical Engineers (ASME), A17, the American National Standard Safety Code for Elevators and Escalators.
 - 2. California Code of Regulations, Title 8, Elevator Safety Orders.
 - 3. California Administrative Code, Title 24. including fire service, pressure relief tests, record keeping, wiring diagrams, signs, and all other CAL- OSHA requirements; and other regulations of local or State agencies having legal jurisdiction.

1. Emergency Work: Trouble and Entrapment Calls

- i. When the on elevator is reported stuck and passengers are entrapped, between normal business hours of 7:00 a.m. to 7:00 p.m. Monday through Friday, except if the day lands on a County Holiday, the Contractor shall dispatch the closest technician (including construction, repair, and modernization personnel) to respond to the entrapment and secure the elevator within 30 minutes of the initial notification. For all other times, Contractor must be able to respond to emergencies by having the technician on duty arrive on-site within 60 minutes of reported entrapment.
- ii. In the event an elevator is reported shut down without trapped passengers, Contractor's service person shall arrive at the site within two hours of notification.
- iii. Failure to furnish emergency call-back service within the allotted time of notification of need will result in forfeiture of the monthly payment for the given elevator. Cost for emergency service described herein shall be included in the monthly rate of the contract.

- iv. Contractor shall at all times, 24 hours per day, 7 days per week have a backup mechanic on standby to respond to emergency callbacks or necessary after-hours repairs, in the minimum time frames as specified.
- m. Required Response and Restoration Times
 - i. Except for emergency call-back service and minor corrections and/or adjustments hereinafter provided for, all preventive maintenance work shall be performed during working hours and days of the trade. Regular working hours are from 7:00 a.m. until 5:00 p.m., Monday through Friday. No equipment requiring restoration shall be allowed to remain out of services due to the lack of diligent effort by the Contractor. Any parts or equipment locally available will be purchased locally if necessary to expedite the job. Restorations shall begin and be carried to completion, as soon as possible, unless other arrangements are approved by the County's Representative. Equipment shutdowns for regular maintenance or extra examinations must be scheduled in advance with the designated County representative as not to interfere with building operations during normal usage times.
 - ii. Contractor shall respond to non-emergency warranty calls within one (1) hour and be on site within four (4) hours.
- n. Contractor shall furnish an exclusive service technician for regular call-backs hours and as follows:
 - i. At minimum one hour per month.
- o. Contractor shall routinely review call-back reports and perform equipment audits to ensure compliance with County standards, Code compliance, and safety.
- p. Materials and Parts
 - i. Contractor shall maintain a sufficient amount of replacement parts by the original manufacturer, or approval equals, to maintain the equipment in a safe operating condition.
- q. Field Inspection, Testing, and Safety Test
 - i. Field inspections will be made by County staff on an ongoing basis. Notices of imperfections of work shall be given to the Contractor account representative. Inspections shall not relieve the Contractor of his obligations to furnish materials and workmanship in accordance with the contract and imperfections of materials and workmanship overlooked by inspectors and/or the County shall not be exempt from rejection if they shall later be discovered.

- ii. Contractor shall assist with Firefighter's Service Testing and standby power as requested by the County.
 - iii. A County's representative may elect to have specific elevators evaluated and tested in accordance with "special tests" and witnessed by a neutral party. The Contractor shall provide the necessary manpower, tools, instruments, tests weights, etc.
 - iv. County's representative may retain the services of an independent elevator consultant to evaluate the elevator performance covered under this agreement. The elevator consultant will issue results to the County's representative.
 - v. If non-compliance items are included in the report, County's representative will issue a punch-list to the Contractor who shall correct those items within 30 days. If punch-list items are not corrected within 30 days, County's representative may solicit a corrective bid to abate the non-compliance items. The cost of this corrective action will be deducted from money owed to the maintenance Contractor and/or recovered from the Contractor's surety.
 - vi. Contractor shall supply labor and equipment to conduct tests and inspections required by the State of California at no additional charge to the County.
 - vii. Contractor shall keep a record of tests required, including, but not limited to the five-year safety test A17.1 part 10. Copies of all test results shall be kept in a binder in each elevator's machine room.
 - viii. Contractor shall make periodic tests and maintenance inspections of all elevator equipment as required by current applicable safety codes for elevators.
 - ix. Contractor shall submit to County authorized elevator representative written reports of the tests. Contractor shall notify the County prior to performing the safety test. The County reserved the right to witness all tests.
- r. State of California Preliminary Orders
- i. All correction/modification orders issued by the State of California elevator inspector shall be completed by the Show Case Date issued by CAL-OSHA.
 - ii. In the event, the Contractor does not complete the required work within 10 working days, the County shall have the option to hire others to complete the work at the Contractor's expense.

- iii. If the County is fined by the State for preliminary work not completed by the Contractor, the Contractor shall reimburse the County for the full amount of the fine.

s. Performance Guarantee

- i. If an elevator is out of service due to a non-scheduled correction or restoration for longer than three consecutive workdays during a given month, the monthly maintenance payment to the Contractor for that elevator shall be forfeited. All other corrections shall be prescheduled in writing to the County's representative.
- ii. All parts required for elevators that are out of service shall be shipped for next arrival at Contractor's expenses.
- iii. If motor rewinding or machine work is needed to restore elevators that are out of service and require overtime work, that overtime is at Contractor's expense.
- iv. If during a given month, a given elevator experiences four (4) call-backs on the same elevator, the monthly maintenance cost for that elevator will be forfeited.

t. Schedules and Records Required

- i. The Contractor must notify the County Representative on the elevator site/building 24-hours before coming on-site to perform any routine or non-emergency work, regardless of the facility.
- ii. The Contractor must keep all work schedules on display in the respective elevator equipment rooms. Technicians must complete the schedule when working on equipment and list all tasks completed for that visit.
- iii. All inspections, lubrication, adjustments, tests, cleaning, correcting, restoring, and other maintenance activities shall be performed in accordance with schedules submitted by the Contractor with his proposal. These work schedules shall be designed for each type of equipment to be serviced and shall conform to the manufacturer's recommended practice for the particular equipment concerned.
- iv. After approval of schedules by the County Representative and commencement of work, Contractor shall keep these work schedules on display in each equipment room and perform regular maintenance service in accordance therewith. Schedules posted shall be of the chart type which shall be initialed by the serviceman when each scheduled inspection is performed. Contractor and Contractor's employees will, when requested by the County Representative, check-in upon arrival and check-out when leaving the building.

- v. Contractor shall also maintain an accurate and complete on-site log of all work performed in addition to routine inspection at each location. On-site logs will contain the day, date, time, printed name, and wet signature of the service person for all units and all site visits. These logs shall include an emergency call back service describing the nature of all complaints and the corresponding resolution. The logs shall be kept in the equipment rooms at each location.
- vi. Contractor shall submit with his monthly billing to the County's representative, as a basis for payment of a claim for services rendered, a monthly worksheet for each installation clearly indicating all work performed, scheduled or unscheduled, and the hours worked.
- vii. All forms required for the above schedules, monthly worksheets, call-back records, and performance reports must be approved by the County's authorized representative before work of the contract commences. All completed logs, schedules, and records become the property of the County.
- viii. Any condition found affecting the immediate safety of the passengers or elevator equipment must be reported immediately. Within 12 hours, a written report clearly listing the defects found and the action recommended must be emailed to the assigned General Services Agency (GSA) – Building Maintenance Department (BMD) Shop Supervisor. Contractor shall notify the County when a recall is imposed on any equipment/component services. Notifications shall include the reasons for the recall and procedures for replacement and the disposition of the recalled equipment.
- ix. Contractor shall immediately call the assigned GSA–BMD representative to notify of the status of an elevator after any work required to restore normal operation.
- u. Contractor Personnel
 - i. Contractor shall provide competent, licensed, and qualified service people on- site, in a timely manner, fully equipped with all tools and parts necessary to maintain the specified unit(s).
 - ii. All work shall be performed by skilled elevator adjusters, mechanics, and apprentices/helpers directly employed and supervised by the Contractor. Only qualified elevator mechanics with a minimum of four years of journeyman experience shall be allowed to perform service or maintenance work. Apprentices and helpers must work under the direct supervision of a journeyman mechanic.
 - iii. Contractor's service personnel shall at all times when on County property, wear uniforms which bear Contractor's name or other appropriate symbols which identify them as employees of the Contractor. Uniform shall be clean and in good condition.

Where required by the County, Contractor's staff shall exhibit personal photo identification (ID).

- iv. Contractor's personnel who perform any work of the County's detention facilities must successfully pass the Alameda County Sheriff's Office (ACSO) Site Security Clearance. This is an individual clearance. Once obtained, this clearance must be renewed on an annual basis by attending a mandatory 8-hour training class for all site-cleared personnel. The ID Badge, issued by ACSO, must also be worn above the waist at all times while within any ACSO detention facility.
- v. Contractor shall provide an updated listing of names, and emergency telephone numbers of all technician(s) and his/her supervisors and/or manager every quarter to the County representative.

5. Description of Services

- a. Contractor shall assign two technicians responsible for all County buildings awarded to the Contractor. Back-up technicians shall always be available to support the one technician assigned to County under this contract.
- b. A repair crew shall be designated to perform all routine maintenance repair works on County elevators.
- c. The initial service visit shall be conducted by a Service Adjuster to program elevator telephones to call the Contractor's 24-Hour Dispatch Line and test for proper operation. Any maintenance issues found during the initial visit shall be resolved within 90 days of the contract execution date. Contractor shall work with County staff to prioritize which buildings and/or elevators should have priority and determine which repair parts need to be added to County's on-site storage and/or the Contractor's local inventory.
- d. Contractor shall stock replacement parts in their Dublin and San Francisco facilities. Elevator technicians shall carry "truck stock" in their service vehicles to allow for immediate repairs. In the event that parts are not available locally, Contractor shall order parts and have them shipped overnight.
- e. Contractor shall utilize check charts and a Maintenance Control Plan that is elevator specific, which allows technicians to perform maintenance items in an organized and consistent manner. The maintenance plans shall be reviewed monthly and adjusted based on equipment condition, ride quality, and call-back history.
- f. Contractor shall assign an Account Manager who will be responsible for generating all required reports. The County shall meet with the Contractor's representative monthly to review the Contractor's performance, discuss changes in building use or occupancy, review

proposals, and potential elevator improvements, and provide feedback to Contractor's technicians and staff.

6. Deliverables/Reports

- a. Contractor shall inspect and report to the County where the equipment is susceptible to mechanical or physical damage.
- b. Contractor shall provide electronic notifications via Email to the County Representative(s) including when service calls or preventative maintenance services are dispatched and when they are completed for all elevators. These reports must include Date, Time, Location, Address, Serial Numbers, Units, Ticket Numbers, Description of Issues, Technicians, and Resolutions when applicable.
- c. Contractor shall check for wear and tear and report quarterly to the County.
- d. Contractor shall provide copies of all relevant certifications held for both the company and any individuals expected to perform the services requested herein upon request.
- e. Contractor shall create a form for each test and deliver a signed copy to GSA-BMD representative after a successful test has been concluded. The form will describe any malfunctions together with any corrective action taken.
- f. Contractor shall maintain records of all equipment serviced including a list of equipment make and model, the location of the elevator, and reason(s) for service. Records shall be maintained for the duration of the contract.
- g. Contractor shall include elevator ID number, address of the elevator, work completed, and/or recommendations on all reports and payments (invoice) requests submitted to the County.
- h. Contractor shall provide a quarterly report of all maintenance performed per unit.
- i. The Contractor shall submit a comprehensive annual report to the County's elevator representative showing actual measurements of operational performances of all elevators. Report shall be on an approved form and shall include brake to brake times, cycle dwell times, door open and door close times, door waiting times, ride quality, and other pertinent information.
- j. **Payments and Service Reports**
 - i. As a basis for payment of a claim for services rendered, the Contractor's monthly bill must be accompanied by service reports indicating dates, hours worked, and work accomplished on each elevator during the month. Reports shall be verified by the signature of the appropriate, authorized County representative. Failure to comply will

result in withholding monthly payments. Contractor shall adhere to schedule service frequencies to receive full payment. Trouble callbacks will not be considered maintenance service.

- k. Contractor shall render electronic invoices, on the last day of each month.
- l. Contractor shall submit, at minimum, the following electronic reports to the County, on the last day of each month:
 - i. Inspection Log Reports
 - ii. Service Call Reports
 - iii. Callback Reports
- m. Contractor shall meet with the County virtually on a monthly basis.

END OF DOCUMENT

EXHIBIT C

COUNTY OF ALAMEDA MINIMUM INSURANCE REQUIREMENTS

Without limiting any other obligation or liability under this Agreement, the Contractor, at its sole cost and expense, shall secure and keep in force during the entire term of the Agreement or longer, as may be specified below, the following minimum insurance coverage, limits and endorsements:

TYPE OF INSURANCE COVERAGES		MINIMUM LIMITS
A	Commercial General Liability Premises Liability; Products and Completed Operations; Contractual Liability; Personal Injury and Advertising Liability	\$1,000,000 per occurrence (CSL) Bodily Injury and Property Damage
B	Commercial or Business Automobile Liability All owned vehicles, hired or leased vehicles, non-owned, borrowed and permissive uses.	\$1,000,000 per occurrence (CSL) Any Auto Bodily Injury and Property Damage
C	Workers' Compensation (WC) and Employers Liability (EL) Required for all contractors with employees	WC: Statutory Limits EL: \$1,000,000 per accident for bodily injury or disease
D	Course of Construction /Builder's Risk or Installation Floater when applicable	\$ Value of Completed project or materials
E	<u>Endorsements and Conditions:</u> ADDITIONAL INSURED: All insurance required above with the exception of Commercial or Business Automobile Liability, Workers' Compensation and Employers Liability, shall be endorsed to name as additional insured: County of Alameda, its Board of Supervisors, the individual members thereof, and all County officers, agents, employees, volunteers, and representatives. The Additional Insured endorsement shall be at least as broad as ISO Form Number CG 20 38 04 13. Builder's Risk/Installation floater shall name Alameda County as loss payee. DURATION OF COVERAGE: All required insurance shall be maintained during the entire term of the Agreement. In addition, Insurance policies and coverage(s) written on a claims-made basis shall be maintained during the entire term of the Agreement and until 3 years following the later of termination of the Agreement and acceptance of all work provided under the Agreement, with the retroactive date of said insurance (as may be applicable) concurrent with the commencement of activities pursuant to this Agreement. REDUCTION OR LIMIT OF OBLIGATION: All insurance policies, including excess and umbrella insurance policies, shall include an endorsement and be primary and non-contributory and will not seek contribution from any other insurance (or self-insurance) available to the County. The primary and non-contributory endorsement shall be at least as broad as ISO Form 20 01 04 13. Pursuant to the provisions of this Agreement insurance effected or procured by the Contractor shall not reduce or limit Contractor's contractual obligation to indemnify and defend the Indemnified Parties. INSURER FINANCIAL RATING: Insurance shall be maintained through an insurer with a A.M. Best Rating of no less than A:VII or equivalent, shall be admitted to the State of California unless otherwise waived by Risk Management, and with deductible amounts acceptable to the County. Acceptance of Contractor's insurance by County shall not relieve or decrease the liability of Contractor hereunder. Any deductible or self-insured retention amount or other similar obligation under the policies shall be the sole responsibility of the Contractor. SUBCONTRACTORS: Contractor shall include all subcontractors as an insured (covered party) under its policies or shall verify that the subcontractor, under its own policies and endorsements, has complied with the insurance requirements in this Agreement, including this Exhibit. The additional Insured endorsement shall be at least as broad as ISO Form Number CG 20 38 04 13. JOINT VENTURES: If Contractor is an association, partnership or other joint business venture, required insurance shall be provided by one of the following methods: - Separate insurance policies issued for each individual entity, with each entity included as a "Named Insured" (covered party), or at minimum named as an "Additional Insured" on the other's policies. Coverage shall be at least as broad as in the ISO Forms named above. - Joint insurance program with the association, partnership or other joint business venture included as a "Named Insured". CANCELLATION OF INSURANCE: All insurance shall be required to provide thirty (30) days advance written notice to the County of cancellation. CERTIFICATE OF INSURANCE: Before commencing operations under this Agreement, Contractor shall provide Certificate(s) of Insurance and applicable insurance endorsements, in form and satisfactory to County, evidencing that all required insurance coverage is in effect. The County reserves the rights to require the Contractor to provide complete, certified copies of all required insurance policies. The required certificate(s) and endorsements must be sent as set forth in the Notices provision.	

EXHIBIT D

EXISTING CONDITIONS REQUIREMENTS

The following items are included as part of this Exhibit D:

1. Section 13 10 10 – Asbestos Specification
2. Section 13 10 20 – Lead Hazard Control Specification

SECTION 13 10 10

ASBESTOS SPECIFICATION

PART 1 - GENERAL

1.1 SUMMARY

- 1.1.1 Scope of Work: The “Work” specified herein includes removal and disposal of all assumed asbestos-containing construction materials (ACCMs) to facilitate the modernization of the elevators at the building located at 8477 Enterprise Way in Oakland, California. The Asbestos Abatement Contractor (Contractor) will supply all labor, supervision, materials, equipment, tools, services, insurance and each and every item of expense necessary to perform and complete the Work. Work must be performed as specified herein and in compliance with applicable federal, state and local regulations.

A pre-renovation hazardous materials survey was performed by Terracon of Concord, California. The laboratory sample results, chain of custody forms and sample location diagrams are presented in Appendix A. Based on Terracon’s sampling results and observations, the Contractor’s work may include the removal and disposal of the assumed ACCMs summarized as follows:

- Assumed fire insulation within elevator doors

Use of Terracon’s survey data and the information presented above is subject to the limitations set forth in Document 00 31 19 - Existing Conditions Information. Quantities noted above are approximations only. It is the responsibility of the Contractor to field verify asbestos locations and quantities during the bid walk and/or during a subsequent site visit opportunity to be provided by the County prior to bid submission.

- 1.1.2 Project IH Consultant: The County’s Industrial Hygiene Consultant (hereinafter referred to as the “Project IH Consultant”) will provide independent, third-party industrial hygiene consulting services on behalf of the County. Such services may or may not include conducting on-site work observations, materials or environmental testing, and/or consulting with the County. It is not the responsibility of the Project IH Consultant to supervise the Contractor; nor to direct the Contractor’s work effort; nor to assume the management of, or responsibility for, the Contractor’s health and/or safety practices, nor its waste management, nor its regulatory compliance. At all times, the Contractor shall be solely responsible for the quality and execution of all phases and aspects of the Work.

1.2 SUBMITTALS

1.2.1 General:

- 1.2.1.1 In addition to any other contractual submittals required of the Contractor, the Contractor will provide to the County the submittals described in this Specification section. Submittals will be reviewed by both the County and the Project IH Consultant for acceptability. The Project IH Consultant will

either recommend submittals to the County for acceptance, or will return them to the County as deficient, with notations for correction and re-submission. The Project IH Consultant does not have authority to “approve” submittals.

- 1.2.1.2 Documents submitted by the Contractor in an effort to comply with the requirements of this Specification section are to be separate and distinct from any other submittals provided to comply with other Specification sections. In attempting to satisfy the requirements of this Specification section, the Contractor must submit only those documents specifically requested to fulfill the specified requirements. Extraneous documentation will be rejected, but not returned.

1.2.2 Schedule and Format:

- 1.2.2.1 Delivery: Submittals listed in this section must be delivered to the County.
- 1.2.2.2 Quantity: Two (2) identical, legible copies of each submittal listed in this section shall be delivered in an organized fashion suitable to the County for review. One (1) copy will be conveyed by the County to the Project IH Consultant for review.
- 1.2.2.3 Work Commencement: No portion of the Work shall be commenced by the Contractor until the submittals are reviewed and accepted by the County.
- 1.2.2.4 Delays: Delays to the Work resulting from the submittal of deficient or illegible documentation, or from the untimely submittal of potentially acceptable documentation, shall be the sole responsibility of the Contractor. Except as otherwise granted by the County, no extensions will be made to the awarded contract schedule or budget to accommodate such delays.
- 1.2.2.5 Format: Submittals will be provided in 8-1/2" x 11" format with sections separated by numbered tabs indexed to a printed Table of Contents. Illegible submittals will be considered deficient and returned for correction.
- 1.2.2.6 Schedule: Submittals delivered to the County will observe and conform with the following timetable:
 - 1.2.2.6.1 Pre-work Submittals – Not less than ten (10) business days prior to the Contractor’s mobilization onto the work site, the Contractor shall deliver legible copies of the specified documents. The Project IH Consultant will review submittals and return deficient submittals to the County within five (5) business days following their receipt by the Project IH Consultant. Deficient submittals will be corrected and resubmitted by the Contractor within five (5) business days of their return. Once accepted, the reviewed copy shall be returned to the Contractor, who shall maintain a copy of the accepted submittal at the work site.

1.2.2.6.2 Product Submittals – Not less than ten (10) business days prior to the date of intended use of the product on the work site.

1.2.2.6.3 Post-work Submittals – Except as otherwise specified herein, the Contractor shall, within twenty (20) business days following demobilization from the project site, submit 2 copies of the Post-work Submittals listed in this section. If the Project IH Consultant or the County determines that the Post-work Submittals are unacceptable, the Contractor will be required to correct the deficiencies and re-submit them for review.

1.2.3 Pre-Work Submittals:

1.2.3.1 Progress Schedule: Provide a proposed work schedule indicating the listed items.

1.2.3.1.1 Show the complete sequence of the abatement plan by activity and the sequencing of work within each building, on each floor, and for each regulated work area.

1.2.3.1.2 Show the dates for the beginning and completion of each major element (work area set-ups, gross removal, detail cleaning, preliminary visual inspections, final visual inspections, tear-down, etc.) of the abatement work, including substantial completion dates for each building, on each floor, and for each regulated work area. Update as necessary.

1.2.3.1.3 Provide anticipated manpower distribution per scheduled activity and regulated work area. Distinguish between trained full-time personnel and unskilled or temporary labor. Indicate whether or not any subcontracted labor will be utilized.

1.2.3.1.4 Provide anticipated number of shifts per day and days per week, as well as specific hours for each shift. Indicate any anticipated overtime, weekend work shifts, night shifts or holiday work shifts planned. Unless otherwise directed, plan to conduct all abatement activities during routine business hours (M-F, 7:00 a.m. to 5 p.m.).

1.2.3.1.5 At a minimum, the Contractor's Progress Schedule is to be formulated on a three-week, "look ahead" basis and updated weekly.

1.2.3.1.6 All requests for deviations from, or changes to, the initially established daily work shift hours and/or the weekly workdays shall be submitted in writing to the County and the Project IH Consultant for approval not less than 3 business days prior to the anticipated implementation of said changes. This requirement will also apply to remobilizations following periods of inactivity

by the Contractor. The Contractor shall not implement any work schedule changes without the prior expressed approval of the County. The Contractor shall be responsible for its Subcontractors' compliance with these requirements.

1.2.3.2 Notifications/Permits/Licenses:

- 1.2.3.2.1 Written Notice of Proposed Abatement activity (10-day prior notification) to the applicable air pollution control agency such as the Bay Area Air Quality Management District (BAAQMD). This project involves the removal of Regulated Asbestos-Containing Materials (RACM) in quantities that exceed notifiable thresholds. For floor tile and/or mastic removal operations involving the use of mechanized work methods, including motorized floor buffers, the 10-day prior notification will include appropriate notification of these planned activities, per BAAQMD advisory of June 2003.
- 1.2.3.2.2 Written Notice of Proposed Abatement activity to the Cal-OSHA Regional Office or any other agency having jurisdiction (24-Hour Temporary Worksite Notification).
- 1.2.3.2.3 Written proof that all required permits, licenses, and registrations have been applied for and received, or are pending approval. This shall include, but not necessarily be limited to, Contractor State Licensing Board (CSLB) Licenses, California Division of Occupational Safety and Health (DOSH) registrations, and/or as otherwise required by any federal, state, or local governments or regulatory agencies.

1.2.3.3 Worker Documentation:

- 1.2.3.3.1 Provide name and photo identification of each employee to be engaged in asbestos abatement work.
- 1.2.3.3.2 Current valid documentation from a Cal/OSHA-approved training provider indicating the most recent asbestos abatement training course and training date that each person listed in Paragraph 1.2.3.3.1. (above) has attended. Legible photocopies of recent (within the preceding 12 months) training certification cards (Laborer's Trust Cards) will suffice, as long as both sides of the card are provided.
- 1.2.3.3.3 Name and social security number of the Asbestos Project Superintendent. Provide current valid documentation from a Cal/OSHA-approved training provider indicating the most recent asbestos abatement contractor/supervisor training course and training date that he/she has attended. Provide evidence

indicating that he/she has a minimum of one-year on-the-job experience as an Asbestos Project Superintendent.

- 1.2.3.3.4 Current valid documentation indicating each worker's most recent respiratory protection training and respirator fit testing. Respirator fit testing documentation must contain all information required in 8 CCR §5144 (m)(2).
- 1.2.3.3.5 Current valid medical documentation indicating each worker's most recent asbestos medical examination. Each such medical document must be signed by a licensed physician to be acceptable. Illegible or incomplete photocopies, or preliminary examination reports, will be rejected as deficient.
- 1.2.3.3.6 Current valid medical documentation indicating each worker's medical fitness to wear a tight-fitting respirator and noting any medical limitations to such respirator usage. Each such medical determination must be signed by a licensed physician to be acceptable. Illegible or incomplete photocopies, or preliminary examination reports, will be rejected as deficient.
- 1.2.3.3.7 Submit a completed Certificate of Asbestos Worker's Acknowledgment form (Attachment A to this Specification section) for each worker engaged in asbestos-related work. Contractor's employees will not be allowed to engage in asbestos-related work prior to submitting a completed Certificate of Asbestos Worker's Acknowledgment form.
- 1.2.3.3.8 Submit a completed Certificate of Competent Person Acknowledgment form (Attachment B to this Specification section) for each employee engaged in asbestos-related supervisory work. Abatement Contractor's Competent Person will not be allowed to engage in asbestos-related supervisory work prior to submitting a completed Certificate of Certificate of Competent Person Acknowledgment form.
- 1.2.3.4 Subcontractors: Submit qualifications and 24-hour contact information for each subcontractor to be used. This shall include two (2) legible copies of federal, state, and/or local business or operating permits, as well as State and/or EPA identification numbers for the waste transporters and disposal facilities to be used.
- 1.2.3.5 Abatement Work Plan: Submit a detailed work plan indicating the practices and procedures proposed for use in complying with the requirements of this specification. Include in the plan schematic drawings with depictions of the locations and general configurations of all regulated work areas. Mark-ups of current project plans will suffice to satisfy this requirement. For each regulated work area, indicate the planned locations of personal

decontamination units, equipment decontamination and waste load-out chambers, exhaust air filtration units, air exhaust locations, temporary utilities locations, work area view ports and any other elements or conditions of significance to the controlled completion of the Work (e.g., location of sanitary or storm drains that will require protection). The text of the Work Plan should address the sequencing of the asbestos work; the interface of any skilled trades involved in the performance of the Work; the methods to be used to assure the safety of site workers and visitors to the site; a disposal plan including the on-site location(s) of secured waste storage areas; and a detailed description of the methods to be employed to prevent environmental impairment of the work site and its surrounding area. Expand upon the use of methods of removal to prohibit visible emissions from within the work areas, and for the packaging and transport of removed asbestos waste or debris. The plan must be reviewed and accepted by the Project IH Consultant prior to the commencement of work.

- 1.2.3.6 Contingency Plan: Submit a contingency plan for emergencies including, but not necessarily limited to: fire, accidents, medical emergencies, power failures, differential air pressure (“negative air”) system failures, or any other event that may require modification of decontamination methods or work area isolation procedures. Include in the plan specific procedures for work area isolation and/or decontamination. **Note:** Nothing in this specification should be interpreted as instructions to impede the rapid and safe exiting from the work area(s), nor to impede the provision of adequate medical attention in the event of an emergency.

Post: In a room immediately adjacent to the Personnel Decontamination Unit(s), prominently display telephone numbers, locations of and driving instructions to, emergency services including, but not necessarily limited to: fire, ambulance, physician, hospital, police, power company, telephone company, and Contractor’s job-site Superintendent.

- 1.2.3.7 Field Logs: Submit a sample of Daily Field Logs, Work Area Entry/Exit Logs, etc. to be used during the asbestos abatement work.
- 1.2.3.8 Rental Equipment: If rental equipment is to be used in conjunction with this asbestos abatement work, a written notification is to be provided to the rental company informing the company that the rented equipment will be used on an asbestos abatement project. A copy of that written notification will be submitted to the Project IH Consultant. The notification must state how the rented equipment is to be used, how it will be decontaminated following its use, and include a space for the acknowledgement of the rental company that it has been advised of the rented equipment’s intended use. The Contractor will obtain written acknowledgment from an authorized representative of the rental company and will return an original signed copy of the

acknowledgment to the Project IH Consultant as documentation of compliance with this requirement. In the absence of such rentals, the Contractor will submit a signed declaration on the Contractor's letterhead and signed by an authorized representative of the Contractor stating that no rented equipment will be used by the Contractor on this project.

- 1.2.3.9 Safety Data Sheets: Submit current Material Safety Data Sheets for each potentially hazardous material to be used on the job-site. Refer to above Section 1.2.2.6.2 – Product Submittals.
- 1.2.3.10 California D.O.S.H. Registration: Submit evidence of the Contractor's registration with the Division of Occupational Safety and Health (Cal-OSHA) to conduct asbestos-related construction work, in accordance with 8 CCR §341.6.
- 1.2.3.11 Waste Hauling Qualifications: Submit proof of hazardous waste transporter's registration and the vehicle operator training. Submittals shall include, but not necessarily be limited to: business name, address (mailing address and physical location), and business telephone number of the company; primary contact name and emergency contact (24-hour) telephone number; documentation of current State and/or EPA authorization to operate; and insurance coverage.
- 1.2.3.12 Waste Disposal Facility Qualifications: Submit documentation of the California State and/or EPA-approved waste disposal facility chosen to receive shipments of asbestos-containing waste generated during this Project. Such information will include, but not necessarily be limited to: business name, address (mailing address and physical location), and business telephone number of the facility; primary contact name and emergency contact (24-hour) telephone number; documentation of current State and/or EPA authorization to operate; operator's facility I. D. number; classification and/or types of waste(s) accepted; name, business address and telephone number of insurance provider; documentation of insurance type(s), coverage amounts, and any limitations on liability; and any regulatory agency information pertaining to known citations issued, notices of violations issued, corrective actions ordered, Records of Decisions rendered, or on-going environmental investigations or known liabilities.

1.2.4 POST-WORK SUBMITTALS:

- 1.2.4.1 General: In accordance with the requirements of the above Section 1.2.2.6.3 - Post-Work Submittals, submit the following documentation:
 - 1.2.4.1.1 Copies of employee and visitor Work Area Entry/Exit Logs and Daily Field Logs/Reports.
 - 1.2.4.1.2 Waste manifests, certified weight tickets, and landfill receipts.

- 1.2.4.1.3 Results of all Contractor's personal exposure air monitoring.
- 1.2.4.1.4 Manometer print-outs attached to 8 1/2" x 11" paper. Each page should indicate the dates, times, and work area containment to which the Manometer print-out applies. Print-out pages should be arranged in ascending chronological order.
- 1.2.4.1.5 Incident reports describing any events such as injuries, accidents, emergencies, or loss of differential air pressure and the actions taken in response.

1.3 QUALITY REQUIREMENTS

1.3.1 Reference Standards:

- 1.3.1.1 Regulations: Applicable regulations pertaining to this asbestos abatement work include, but are not necessarily limited to, the following:
 - 1.3.1.1.1 Bay Area Air Quality Management District (BAAQMD) - Regulation 11 Hazardous Pollutants Rule 2, dated October 7, 1998 or more recent.
 - 1.3.1.1.2 California Division of Occupational Safety and Health (Cal-OSHA) – Construction Safety Orders - Asbestos, Title 8, California Code of Regulations section 1529, et. seq. (8 CCR §1529).
 - 1.3.1.1.3 California Health and Safety Code Section 25163, et. seq. (Transportation of Hazardous Waste).
 - 1.3.1.1.4 Title 22, California Code of Regulations, Section 66261.24 et. seq. (Characteristics of Hazardous Waste – Toxicity).
 - 1.3.1.1.5 Title 22, California Code of Regulations, Section 66268.7(a)(11).
 - 1.3.1.1.6 Title 22, California Code of Regulations, Section 66268.114 et. seq. (Treatment Standard for Asbestos-Containing Waste).
 - 1.3.1.1.7 California Labor Code sections 6501.5 (Employer Registration); and 6501.9 (Determining the Presence of Asbestos Prior to Contracting for Work).
 - 1.3.1.1.8 California Safe Drinking Water and Toxic Enforcement Act of 1986 (Prop. 65).
 - 1.3.1.1.9 Title 29, Code of Federal Regulations, Parts 1910 and 1926.1101.

- 1.3.1.1.10 Title 40, Code of Federal Regulations, Part 61, Subpart M, National Emission Standards for Hazardous Air Pollutants (NESHAP). U.S. Environmental Protection Agency (U.S. EPA).
- 1.3.1.1.11 Title 49, Code of Federal Regulations, Part 172, U.S. Department of Transportation.
- 1.3.1.1.12 All other applicable Federal, State, and/or Local regulations, codes, and ordinances.
- 1.3.1.2 Standards: Applicable industry standards pertaining to asbestos abatement work include, but are not limited to, the following:
 - 1.3.1.2.1 American National Standard Institute (ANSI) Publications:
 - Z9.2 Fundamentals Governing The Design and Operation of Local Exhaust Systems; and
 - Z88.2 Practices for Respiratory Protection.
 - 1.3.1.2.2 U. S. Environmental Protection Agency (EPA): Publication No. 560/5-85-024 Guidance for Controlling Asbestos-Containing Materials in Buildings, June, 1985
 - 1.3.1.2.3 American Society for Testing Materials (ASTM) Publications:
 - E1368-14 Standard Practice for Visual Inspection of Asbestos Abatement Projects; and
 - E1542-20b (2020) Standard Terminology Relating to Occupational Health and Safety; and
 - E84-20 (2020) Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 1.3.1.2.4 National Institute of Occupational Safety and Health (NIOSH) Publications:
 - Manual of Analytical Methods:
 - Method 7400 Asbestos and Other Fibers by PCM; and
 - Method 7402 Asbestos Fibers by TEM.
 - 1.3.1.2.5 Underwriters Laboratories, Inc. (UL) Publication:
 - UL 586, Edition 9 High Efficiency, Particulate, Air Filter Units

- 1.3.1.3 **Applicability.** The most current version of each document will apply. Where conflicts among these regulations or standards exist, the more stringent requirement or interpretation will apply.
- 1.3.2 **Definitions:** In addition to definitions provided elsewhere in these specifications, the following definitions shall apply:
- 1.3.2.1 **Abatement:** The procedure to control fiber release from asbestos-containing building materials. Activities include removal, encapsulation, and enclosure.
- 1.3.2.2 **Adequately Wet:** A term defined in 40 CFR 61, Subpart M and EPA 340/1-90-019 that means to sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed to be coming from ACM or ACCM, then that material has not been adequately wetted. The absence of visible emissions, however, is not sufficient evidence of being adequately wetted.
- 1.3.2.3 **Aggressive Clearance:** Final clearance air monitoring of a regulated asbestos work area which utilizes leaf blowers, fans, and similar tools to “aggressively” disturb and entrain any settled residual asbestos fibers for the purpose of capturing them during sampling.
- 1.3.2.4 **Air Lock:** A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area.
- 1.3.2.5 **Air Monitoring:** The process of measuring the fiber content of a specific volume of air in a stated period of time.
- 1.3.2.6 **Amended Water:** Water to which a surfactant has been added.
- 1.3.2.7 **Asbestos:** The general name given to a group of fibrous mineral forms including chrysotile, crocidolite, amosite, tremolite anthophyllite, and actinolite and any of these minerals that have been chemically treated or altered.
- 1.3.2.8 **Asbestos-Containing Hazardous Waste:** Any material that contains more than one percent asbestos and is in a friable, finely divided, or powered state. Alternatively, any mixture of material(s) which contains (i.e. is contaminated with) equal to, or greater than, one percent friable asbestos is also asbestos-containing hazardous waste.
- 1.3.2.9 **Asbestos-Containing Material:** any material containing more than one percent (1%) asbestos.
- 1.3.2.10 **Asbestos-Containing Construction Material:** any manufactured construction material which contains more than one tenth of 1 percent (0.1%) asbestos by weight.

- 1.3.2.11 **Asbestos Abatement Contractor:** The contractor or subcontractor designated in the contract documents as being responsible to the County for the control or abatement of asbestos-containing or asbestos-contaminated materials.
- 1.3.2.12 **Asbestos Permissible Exposure Limit (PEL):** The Contractor will assure that no employee is exposed to an airborne concentration of asbestos of greater than 0.1 fibers per cubic centimeter (f/cc) as based on an 8-hour time-weighted average (TWA).
- 1.3.2.13 **Authorized Visitor:** The County or designated representative, the Project IH Consultant, the Project IH Consultant's inspector or representative, or any representative of a federal, state, county, city, or local agency having legal or regulatory jurisdiction over the project while acting in an official capacity. Any person whose name appears upon an approved authorized visitor's list.
- 1.3.2.14 **Background Monitoring:** See "Prevalent Level Monitoring."
- 1.3.2.15 **Class I Asbestos Work:** Activities involving the removal of thermal system insulation (TSI) and surfacing ACM and PACM. For the purposes of this specification, asbestos-containing resilient sheet flooring ("linoleum") will also be removed as "Class I Asbestos Work."
- 1.3.2.16 **Class II Asbestos Work:** Activities involving the removal of ACM which is not TSI or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard or joint compound, floor tile, roofing materials, sidings and construction mastics.
- 1.3.2.17 **Clean Room:** An uncontaminated area or room which is part of the worker decontamination enclosure with provisions for storage of worker's street clothes and protective equipment.
- 1.3.2.18 **Competent Person:** In addition to the definition in Title 8 CCR 1529 (b), one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them, as specified in 29 CFR §1926.32 (f): in addition, for Class I and Class II work, one who is specially trained in a training course which meets the criteria of EPA's Model Accreditation Plan (40 CFR §763) for supervisor, or its equivalent and, for Class II and Class IV work, one who is trained in a manner consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR §763.92 (a)(2).
- 1.3.2.19 **County:** The County of Alameda and its designated representative(s).
- 1.3.2.20 **Critical Barrier:** One or more layers of plastic sealed over an opening into a work area or any other similarly placed physical barrier sufficient to prevent airborne asbestos in a work area from migrating to an adjacent area.

- 1.3.2.21 **Curtained Doorway:** A device to allow ingress and egress from one room to another while permitting minimal air movement between the rooms, typically constructed by placing two overlapping sheets of plastic over an existing or temporarily framed doorway, securing the vertical edge of one sheet along one vertical side of the doorway, and securing the vertical edge of the other sheet along the opposite vertical side of the doorway.
- 1.3.2.22 **Decontamination Enclosure System:** A series of connected rooms, with curtained doorways between any two adjacent rooms, for the decontamination of workers and of materials and equipment. A decontamination enclosure system always contains at least one airlock.
- 1.3.2.23 **Differential Air Pressure Equipment:** A portable local exhaust fan or “unit” equipped with HEPA filtration and capable of maintaining a constant, negative air pressure differential within the regulated work area by providing a low velocity air flow into contaminated areas from adjacent uncontaminated areas and exhausting filtered air outside the work area (preferably to the outdoor air).
- 1.3.2.24 **Disturbance:** Activities that disrupt the matrix of ACM/ACCM or PACM, crumble or pulverize ACM/ACCM or PACM, or generate visible debris from ACM/ACCM or PACM. This term includes activities that disrupt the matrix of ACM/ACCM or PACM, render ACM/ACCM or PACM friable, or generate visible debris. Disturbance includes cutting away small amounts of ACM/ACCM and PACM, no greater than the amount which can be contained in one standard sized glove bag or waste bag in order to access a building component. In no event shall the amount of ACM/ACCM or PACM so disturbed exceed that which can be contained in one glove bag or waste bag which shall not exceed 60 inches in length and width.
- 1.3.2.25 **DOP Testing:** The challenge testing of HEPA-filtered equipment, using appropriate aerosols. A 0.3 μm dioctylphthalate aerosol was formerly used in challenging the efficiency of HEPA-filtered equipment. Although dioctylphthalate compounds are now suspected human carcinogens, the phrase “DOP testing” is still current vernacular for the process of challenge testing the efficiency of HEPA-filtered equipment.
- 1.3.2.26 **Encapsulant:** A liquid material which can be applied to asbestos-containing materials and which prevents the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant). A sealant.
- 1.3.2.27 **Encapsulation:** All herein specified procedures necessary to apply an encapsulant to asbestos-containing building materials to control the possible release of asbestos fibers into the air.

- 1.3.2.28 **Enclosure:** All herein specified procedures necessary to completely enclose asbestos-containing material behind airtight, impermeable, permanent barriers.
- 1.3.2.29 **Equipment Decontamination Enclosure:** That portion of a decontamination enclosure system designed for controlled transfer of materials and equipment, typically consisting of a washroom and a holding area.
- 1.3.2.30 **Equipment Room:** A contaminated area or room which is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.
- 1.3.2.31 **Excursion Limit:** The Contractor will assure that no employee is exposed to an airborne concentration of asbestos of greater than 1.0 fiber per cubic centimeters (f/cc) as an average over a sampling period of thirty minutes.
- 1.3.2.32 **Fixed Object:** A unit of equipment or furniture in the work area which cannot be removed from the work area.
- 1.3.2.33 **Friable:** Material(s) that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Material that has been rendered to a finely divided or powdered state will also be considered to be "friable."
- 1.3.2.34 **Glovebag:** Not more than a 60 x 60 inch impervious plastic bag-like enclosure affixed around an asbestos-containing material, with glove-like appendages through which material and tools may be handled.
- 1.3.2.35 **Glovebag Technique:** A method with limited applications for removing small amounts of friable asbestos-containing material from HVAC ducts, short pipe runs, valves, joints, elbows, and other non-planar surfaces in an otherwise non-enclosed work area. The glovebag assembly is a manufactured or pre-fabricated device consisting of a glovebag (typically constructed of 6-mil transparent regulate plastic), two inward projecting long sleeve rubber gloves, one inward projecting sleeve, an internal tool pouch, and an attached, labeled receptacle for asbestos waste. The glovebag is constructed and should be installed in such a manner that it will surround the ACCM or ACM to be removed and will contain all asbestos fibers released during the removal process. All workers who are permitted to use the glovebag technique must be trained, experienced, and skilled in this method. Limitations on, and requirements pertaining to glovebag work, as set forth in 8 CCR §1529 et. seq., will be observed and complied with during this Work. The number of contiguous glove-bags that may be used within a regulated work area will be at the discretion of the Project IH Consultant.
- 1.3.2.36 **Holding Area:** A chamber in the equipment decontamination enclosure located between the washroom and an uncontaminated area. The holding area comprises an airlock.

- 1.3.2.37 **HEPA Filter:** A High-Efficiency Particulate Air (HEPA) filter capable of trapping and retaining 99.97 percent of particles (asbestos fibers) greater than 0.3 micrometers in mass median aerodynamic equivalent diameter.
- 1.3.2.38 **HEPA Vacuum Equipment:** Vacuuming equipment manufactured with a HEPA filter system.
- 1.3.2.39 **Leak Tight:** Solids, liquids or dusts cannot escape or spill out.
- 1.3.2.40 **Log Book:** A notebook or other book containing essential project data and daily project information and a daily project diary. This book shall be kept up to date and on the project site at all times.
- 1.3.2.41 **Movable Object:** A unit of equipment or furniture in the work area which can be removed from the work area.
- 1.3.2.42 **SDS:** Safety Data Sheet.
- 1.3.2.43 **Negative Initial Exposure Assessment:** A demonstration by the employer, which complies with the criteria in paragraph (f)(2)(C) of 8 CCR §1529, that employee exposure during an operation is expected to be consistently below the PEL and Excursion Limit.
- 1.3.2.44 **NIOSH:** National Institute of Occupational Safety and Health.
- 1.3.2.45 **Phase Contrast Microscopy (PCM):** NIOSH Method 7400 using “A” counting rules.
- 1.3.2.46 **Plasticize:** To cover floors, walls, ceilings or other surfaces with plastic sheeting as specified herein.
- 1.3.2.47 **Presumed Asbestos Containing Material (PACM):** Thermal system insulation and surfacing material found in buildings constructed no later than 1980. The designation of a material as “PACM” may be rebutted pursuant to 8 CCR §1529 (k)(5).
- 1.3.2.48 **Prevalent Level Monitoring:** Air sampling conducted for the purposes of evaluating existing ambient airborne fiber concentrations prior to starting abatement activities.
- 1.3.2.49 **Regulated Area:** An area established by the employer to demarcate areas where Class I, II and/or III asbestos work is conducted, and/or any adjoining area where debris and waste from such asbestos work may accumulate; a work area within which airborne concentrations of asbestos exceed, or where there is a reasonable expectation they may exceed, the permissible exposure limit. Requirements for regulated areas are set out in paragraph (e) of 8 CCR §1529.

- 1.3.2.50 **Removal:** All herein specified procedures necessary to remove asbestos-containing materials from the designated areas in an appropriate manner and to dispose of these materials at an acceptable site.
- 1.3.2.51 **Shower Room:** A room between the clean room and the equipment room in the worker decontamination enclosure with hot and cold or warm running water and suitably arranged for complete showering during decontamination.
- 1.3.2.52 **Small-Scale, Short Duration Work:** For the purposes of this Specification, asbestos abatement work that meets the Cal-OSHA definition of Class III asbestos work and that can be completed in no more than 4 hours by no more than 2 workers.
- 1.3.2.53 **Surfacing Material:** Material that is sprayed, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings or walls and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes).
- 1.3.2.54 **Surfactant:** A chemical wetting agent added to water to improve penetration.
- 1.3.2.55 **Thermal System Insulation (TSI):** ACM or ACCM applied to pipes, fittings, boilers, breaching, tanks, ducts or other structural components to prevent heat loss or gain.
- 1.3.2.56 **Time Weighted Average (TWA):** The TWA is an 8-hour time weighted average of the airborne concentration of fibers (longer than 5 micrometers) per cubic centimeter of air (f/cc) which represents the employee's 8-hour workday exposure as determined by the formula:
- $$\text{8-hour TWA} = \frac{(C_1T_1 + C_2T_2 + C_nT_n)}{480 \text{ minutes}}$$
- where "C" is the contaminant concentration measured in units of f/cc and "T" the measurement time period in units of minutes.
- 1.3.2.57 **Transmission Electron Microscopy (TEM):** A method of analyzing air samples for asbestos fibers using a transmission electron microscope and associated instrumentation.
- 1.3.2.58 **Visible Emissions:** Any emissions containing particulate asbestos material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.
- 1.3.2.59 **Washroom:** A room between the work area and the holding area in the equipment decontamination enclosure system. The washroom comprises an airlock.
- 1.3.2.60 **Wet Cleaning:** The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools

which have been dampened with amended water, and disposing of these cleaning tools as asbestos-contaminated waste.

1.3.2.61 **Work Area:** Designated rooms, spaces, or areas of the project in which asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A contained work area is a work area which has been sealed, plasticized, and equipped with a decontamination enclosure system. A non-contained work area is an isolated or controlled-access work area which has not been plasticized nor equipped with a decontamination enclosure system.

1.3.2.62 **Worker Decontamination Enclosure System:** That portion of a decontamination enclosure system designed for controlled passage of workers, and other personnel and authorized visitors, typically consisting of a clean room, a shower room, and an equipment room separated by air locks.

PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1 Product Prohibitions: The following products or product constituents are prohibited from use during asbestos abatement activities:

2.1.1.1 Any product for which a Safety Data Sheet is available from the manufacturer and has yet to be submitted.

2.1.1.2 Any product for which a less hazardous substitute product is readily available, provided that the substitute product possesses similar performance characteristics.

2.1.1.3 Any product containing any concentration of diethylene glycol dimethyl ether; ethylene glycol monoethyl ether; or ethylene glycol mono methyl ether (skin TLV 5 ppm; CAS 109-86-4). These constituents cause reproductive damage and blood cell damage.

2.1.1.4 Any product containing any concentration of ethylene glycol (1,2 Ethanediol glycol; TLV = 50 ppm). This chemical causes kidney damage if ingested.

2.1.1.5 Any product containing any concentration of formaldehyde, a suspect carcinogen.

2.1.1.6 Any product containing any concentration of methylene chloride, a suspect carcinogen.

2.1.1.7 Any product containing any concentration of n-hexane. This chemical causes peripheral nerve damage (potential ingredient in spray adhesive).

- 2.1.1.8 Any product containing any concentration of isocyanates. An allergic sensitizer, this group of chemicals typically has no warning properties (potential ingredient in spray foams and some epoxies).
- 2.1.1.9 Non-fire rated visquene and/or non-fire rated lumber are prohibited from use.
- 2.1.1.10 Solvents with a flash point <140° F are prohibited from use.
- 2.1.2 Equipment Prohibitions: The following equipment is prohibited from use during asbestos abatement activities:
 - 2.1.2.1 Fasteners: High velocity powder-actuated fasteners are prohibited from use without the expressed written permission of the County.
 - 2.1.2.2 Torches: Open flame torches are prohibited from use for asbestos abatement purposes.
 - 2.1.2.3 Compressed Air: Air compressors, leaf blowers or similar forced-air equipment is prohibited from use for asbestos abatement purposes.
 - 2.1.2.4 Lamps: Sodium or mercury vapor (metal halide) lamps are prohibited from use.
 - 2.1.2.5 Ladders: Wooden or metal ladders are prohibited from use.
 - 2.1.2.6 Engines: Internal combustion engines shall not be permitted for operation indoors without the expressed written permission of the County in consultation with the Project IH Consultant.
 - 2.1.2.7 Grounded Electrical Equipment: Electrical equipment manufactured with internal grounding or grounded wiring shall not be used if the grounding has been removed, tampered with, or otherwise altered.
 - 2.1.2.8 HEPA-Filtered Vacuum Cleaners Without Certification of Efficiency Challenge Testing: Vacuums without certification of on-site testing for efficiency ("DOP testing") shall not be allowed for use outside of a negative differential pressure enclosure ("containment").
- 2.1.3 Material Requirements:
 - 2.1.3.1 Sealants: Sealants used will have a flame spread, smoke and fuel contribution of zero, and will be ASTM and UL rated for 3 hours for standard method fire test for fire stop systems.
 - 2.1.3.2 Lock-down Encapsulants: Lock-down encapsulants used will be compatible with substrate to which they will be applied, as well as with adhesives or other finish materials which may be applied over such encapsulants.

- 2.1.3.3 Polyethylene Sheeting: Polyethylene sheeting used will be in compliance with NFPA Standard 701 fire testing, with flame spread ≤ 5 and smoke development rating of ≤ 70 when tested by ASTM E-84. Minimal thickness will be 6 mil.
- 2.1.3.4 Spray Poly: Spray poly as a liquid must be non-flammable (no flash point), vapor free, and not noxious; when dry, poly must be Class A rated, with flame spread ≤ 20 , have a fuel contribution of zero, and smoke development of ≤ 110 by ASTM method E-84.
- 2.1.3.5 Waste Containers: Waste containers (bags, drums, bins, etc.) must be suitable for loading, temporary storage, transit, and unloading of asbestos waste without rupture, or otherwise causing asbestos exposure to persons nor releases to the atmosphere. Use of rigid primary containers (bins, boxes, drums, etc.) is preferred and recommended. Where rigid primary containers are used, they shall be lined with a secondary leak tight barrier of poly sheeting or poly bags of minimal thickness of 6 mil. All containers used for disposal of asbestos-containing waste shall be labeled in general accordance with applicable regulations, and in specific with the requirements of 8 CCR §1529(k)(8) and BAAQMD Regulation 11, Rule 2. See section 3.2.3.2 of this Specification section for additional details.
- 2.1.3.6 Adhesives: Adhesives, whether tape or aerosol liquid, shall be capable of securely bonding plastic to plastic, or plastic to substrate. The bonding strength and resulting seal of the material used must not be compromised by mist or water, encapsulating agent or any other product or process used in the regulated work area.
- 2.1.3.7 Warning Signs and Labels: Warning signs and labels will be used in compliance with applicable federal, state, and local regulations. Signs must be lettered in the language(s) necessary to communicate the specific hazard warning(s) to workers or visitors reasonably expected to be at the job site.
- 2.1.4 Equipment Requirements:
- 2.1.4.1 General: It is the responsibility of the Contractor to utilize tools and equipment that have been thoroughly and adequately decontaminated prior to their delivery to this project site. All equipment brought onto this project work site will be subject to inspection by the County and/or the Project IH Consultant. Visible evidence of suspected equipment contamination will be sufficient to cause the equipment to be rejected from mobilization onto the project work site. All costs resulting from the need to decontaminate any part of the worksite contaminated by the Contractor's use of inadequately decontaminated equipment will be borne by the Contractor.
- 2.1.4.2 Differential Air Pressure Equipment: Differential air pressure equipment (also known as "exhaust fan units" or "negative air machines") shall be equipped with HEPA filtration. All differential air pressure equipment will be in well-

maintained condition and will comply with ANSI/AIHA Standard Z9.2 for performance. Differential air pressure equipment will arrive on-site with the intake and exhaust openings sealed. Each unit must be efficiency-challenged (“DOP tested”) on-site, in the presence of the Project IH Consultant and prior to use, so as to ensure a minimum 99.97% filtering efficiency of aerosol particulates of 0.3 microns in size. DOP testing shall be performed by a professional third-party testing firm not otherwise financially affiliated with the Contractor. Each unit used on this project must have a certification label affixed to it attesting to its most recent successful testing. Upon arriving on-site, each unit must be visibly clean and free of apparent or suspected asbestos contamination, as judged by the Project IH Consultant. If, in the opinion of the Project IH Consultant, the differential air pressure units are judged to be in need of cleaning, maintenance, or in any other way fail to meet typical industry standards, the unit(s) may not be placed into operation on this project. If secured, negative air machines may be stacked, but no more than two high without the prior approval of the Project IH Consultant, and in no event will negative air machines be allowed to be inverted for the purpose of stacking.

- 2.1.4.3 HEPA-filtered Vacuum Cleaners: HEPA-filtered vacuum cleaners will be in well-maintained condition and must be visibly clean and free of apparent or suspected contamination, as judged by the Project IH Consultant. **Each unit must arrive on-site sealed and empty of any debris.** Each unit must be DOP tested on-site, within containment, before it can be used outside of a regulated work area. DOP testing will be performed by a professional third-party firm not otherwise financially affiliated with the Contractor. Each unit used on this project must have a certification label affixed to it attesting to its most recent successful testing. If, in the opinion of the Project IH Consultant, the HEPA-filtered vacuum cleaners are judged to be in need of cleaning, maintenance, or in any other way fail to meet typical industry standards, the vacuum cleaners may not be placed into operation on this project. Care will be exercised by the Contractor to prevent commingling of asbestos and lead waste. Separate vacuums will be used for each type of waste clean-up.
- 2.1.4.4 Lights and Electrical Cords: Electrical lights and equipment utilizing electrical power cords will be in well-maintained condition and will be visibly clean and free of apparent contamination, as judged by the Project IH Consultant. All lighting and electrical equipment must be water resistant. Work lighting must have protective covers over the light source. Grounded electrical equipment will be used with grounded electrical supply and outlets. Where such equipment will be used in the near vicinity of water, ground fault circuit interruption (GFCI) protection shall be used in the wiring circuit at the first feasible point closest to the source of power.
- 2.1.4.5 Personnel Decontamination Facilities: At a minimum, a 3-chamber personnel decontamination (decon) unit with functioning shower will be constructed and used whenever Class I work is being conducted. A decon unit with

shower will be constructed contiguous with each Class I regulated work area.

Use of a remote shower for Class I work may be allowed where a contiguous shower is infeasible, as judged by the Project IH Consultant. A curtained doorway (see Section 1.3 C above) will be constructed to separate individual chambers within a personnel decon unit, as well as at ingress and egress points. The decon units shall be constructed in a manner so as to be free of physical hazards (e.g., jagged metal or exposed wood surfaces). **To the extent feasible, a personnel decon unit must not be used for waste load-out.**

- 2.1.4.6 Personnel Decontamination Facilities (Class II): At a minimum, a 2-chamber personnel decontamination (decon) with separate clean room and equipment room will be constructed in series and used whenever Class II work is being conducted indoors. For exterior Class II work where containment is not required, a single stage designated decontamination area will be established. A decon unit/area will be constructed contiguous with each Class II regulated work area. A curtained doorway (see Section 1.3.2 above) will be constructed to separate individual chambers within a personnel decon unit, as well as at ingress and egress points. The decon units shall be constructed in a manner so as to be free of physical hazards (e.g., jagged metal or exposed wood surfaces). Personnel decontamination facilities used for Class I work may be used for Class II work. **To the extent feasible, a personnel decon unit must not be used for waste load-out.**
- 2.1.4.7 Water Filtration Equipment: Water will be collected from decontamination unit showers and from general asbestos abatement activities and must be filtered prior to discharge. Water will be filtered through a system capable of trapping particles 1 micron and larger in size, intended to remove asbestos fibers. Filtered water may be discharged into a sanitary sewer system, if the Contractor can satisfactorily demonstrate that it is acceptable to the local wastewater treatment facility to do so. The Contractor will bear the responsibility to investigate discharge requirements and to obtain any necessary discharge permits prior to the start of work. To the extent feasible, water should be reclaimed and used on-site for application in wet method work practices prior to its discharge.
- 2.1.4.8 Fire Extinguishers: Fire extinguishers, rated not less than 2-A:10-B:C or as specified by more stringent regulations, will be required in the regulated work area(s). The minimum allowable number of fire extinguishers in any individual work area will be one in the regulated work area and one in the clean area.
- 2.1.4.9 Smoke Detectors: The Contractor will exercise due caution to not engage in activities that will inhibit the proper functioning of operable smoke detectors during the Work. The Contractor will take steps to preserve and protect any operable smoke detectors from damage during the Work. The Contractor must coordinate in advance with the local fire authority and the County prior to proceeding with any work activities that may require the disabling of an

installed fire suppression system or a smoke detector. The Contractor will designate a person or persons to the responsibility of "Fire Watch" for the duration of time that an installed fire suppression system or a smoke detector(s) is required to be disabled.

- 2.1.4.10 Manometers: Use of data-logging manometers to record differential air pressure measurements within all regulated work areas is required on this project, irrespective of the Cal/OSHA Class of asbestos work being undertaken. A separate manometer shall be used to document diminished air pressure differential within each regulated work area. Exceptions will not be allowed due to concerns for equipment security. It is the Contractor's responsibility to provide and secure all equipment for the duration of this project. Manometers used to monitor air pressure within a regulated work area shall have been calibrated to the manufacturer's specifications within the previous 12 months. Manometers shall have real-time digital read-out; an audible alarm; a hardcopy record (tape or circular disk) and be capable of continuous data logging and printing out a data record. The data collected will begin at the time of the initial establishment of a diminished air pressure differential within a regulated work area and continue until acceptable analytical results of final air clearance testing results for that work area are received and conveyed to the Contractor.

PART 3 - EXECUTION

3.1 PREPARATION

- 3.1.1 Examination of Conditions: The Contractor must carefully examine the work site before beginning work and report any previously undisclosed or special conditions to the County. Except as may be otherwise stipulated elsewhere in the Contract Documents, starting the Work shall be interpreted as implied acceptance of site conditions as they exist.
- 3.1.2 Responsibility for Work: By commencing the Work, the Contractor acknowledges and agrees that he has sole and primary responsibility and obligation to the County to make inspections of his own work at all stages of the Work. This includes acknowledging and agreeing that he has sole responsibility to supervise or superintend the performance of the Work, and that said work will be in strict adherence to, and in compliance with, all applicable methods, materials, regulations, and required standards whether or not specified herein. The Contractor is responsible for site security upon starting the project. This responsibility extends 24 hours per day until project completion and final demobilization.
- 3.1.3 Coordination Of Work: The Contractor is responsible to coordinate all scheduling, phasing, and completion of asbestos abatement work with the County and all other employers working on the job site during the abatement activities. This includes the responsibility to make notifications or communications of hazards to other trades or employers, as required by regulation.

- 3.1.4 Measurements and Quantities: The Contractor is responsible for the field verification of all measurements, dimensions and/or quantities before the start of work. Discrepancies between plan and field dimensions or quantities shall be reported to the County as soon as discovered.
- 3.1.5 Job Site Postings: Prior to commencing any preparation of the work area(s) for asbestos removal operations, the Contractor will post all required documents, warning signs, and erect any physical barriers in order that the work area(s) may be secured. Prior to the commencement of any work, the Contractor will post bilingual or multi-lingual (as appropriate) warning signage in and around the work site in compliance with applicable regulations.
- 3.1.6 Pre-Work Conference: Prior to the start of any work, the Contractor will meet at the project site with the Project IH Consultant, the County, and other entities involved in, or associated with, the asbestos abatement work. This will be an organizational meeting to review responsibilities and personnel assignments; to identify any special needs or conditions pertaining to the Work or its completion; to identify the work area containment(s) and decontamination areas; and to coordinate temporary facilities including power, light, water, waste storage, etc.
- 3.1.7 Work Area Preparation:
- 3.1.7.1 Work Area Designation: Each regulated work area will be designated by the Contractor and discussed with the Project IH Consultant prior to its preparation. At a minimum, discussion topics will include ingress and egress points, work area configurations, containment methods, location of viewing ports, and installation of decontamination system enclosures. This communication may be accomplished at the Pre-Work Conference.
- 3.1.7.2 Electrical Lock-out: The Contractor, in coordination with the County, is responsible for the shutdown and disconnection of all electrical power within the work area. For the purposes of this Specification section, the work area is defined as including all wall, floor and/or ceiling cavities which will be opened as a result of the removal of wall, floor or ceiling materials. The Contractor will arrange for temporary power and lighting and will ensure safe installation of temporary power sources and equipment per applicable electrical code requirements. The Contractor should notify the County in writing before disconnecting any power or communication lines that may service the subject buildings or adjacent buildings.
- 3.1.7.3 HVAC Isolation: The Contractor is required to shut down and isolate mechanical (heating, cooling, and ventilating) air systems to prevent contamination or fiber dispersal to other areas of the building. During the Work, HVAC vents and any other airway openings into and out of the Work Area will be sealed with barriers consisting of a minimum 2 layers of 6-mil poly sheeting and duct tape ("critical barriers"). In the event of any containment breaches, filters in the HVAC system(s) will be removed and disposed of as asbestos-contaminated waste.

- 3.1.7.4 Work Area Containment: Each regulated work area will be regulated and isolated (“contained”) from all building areas that are not a part of the Work. All critical openings including, but not limited to, doorways, windows, tunnels, ducts, grills, diffusers, or openings through which ducting, piping or conduit passes are to be sealed securely with duct tape, spray adhesives, plastic sheeting or by other means, as necessary, to prohibit the passage of air out of the regulated work area. Any fixed objects to remain within the proposed work area will be cleaned using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and completely enclosed with plastic sheeting. The plastic sheeting shall be, at a minimum, 6-mil fire-rated poly. Once fully constructed, the Contractor will inspect the containment for gaps, breaches, tears, leaks, holes or other deficiencies. The Contractor will conduct a similar inspection not less than once at the start of each work shift, however, the Contractor will be responsible to ensure the integrity of the containment(s) at all times. Containment deficiencies shall be corrected immediately and with utmost priority upon discovery.
- 3.1.7.5 Decontamination Facilities: At a minimum, a 3-chamber personnel decontamination (decon) unit with functioning shower will be constructed and used whenever Class I work is being conducted. Cover the floor under the decontamination units, hoses, and equipment with at least one layer of 6-mil poly. Securely affix the poly sheeting to the floor. A personnel decon unit with shower will be constructed contiguous with each Class I regulated work area. Use of a remote shower for Class I work may be allowed where a contiguous shower is infeasible, as judged by the Project IH Consultant. A curtained doorway (see Section 1.3.2 above) will be constructed to separate individual chambers within a personal decon unit, as well as at ingress and egress points. The decon units shall be constructed in a manner so as to be free of physical hazards (e.g., jagged metal or exposed wood surfaces). Other alternate decontamination facilities may be used for compliance with Class II asbestos work or asbestos roofing removal work. **To the extent feasible, a personnel decon unit must not be used for waste load-out.**
- 3.1.7.6 Movable and Loose Items: Movable and loose items located within the work area(s) and not removed by the County are to be cleaned using HEPA-filtered vacuum equipment and/or wet cleaning methods, as appropriate, and will be removed from the work area to a temporary location designated by the County. The items will be received by and protected from future damage or loss by the County.
- 3.1.7.7 Pre-Cleaning: The Contractor will clean each work area prior to commencing the construction of a regulated work area containment. Such “pre-cleaning” will be by means of HEPA-filtered vacuum equipment and/or wet cleaning methods, as appropriate. The Contractor will use cleaning methods that minimize dust generation. Prohibited methods include shoveling, dry sweeping, use of forced or compressed air, or vacuuming with equipment not equipped with HEPA filtration. Workers engaged in “precleaning” activities

are required to use appropriate personal protective equipment, including respiratory protection.

- 3.1.7.8 OSHA Class I Work Area Isolation: For Work Areas within which OSHA Class I asbestos work is to be conducted (removal of thermal system insulation [TSI] or surfacing material), the Contractor will erect a full, diminished air pressure enclosure. In addition to sealing critical openings, a minimum of one layer (additional layers may be required based on the localized conditions) of fire-rated 6-mil plastic sheeting will be installed on the walls, floors, and ceilings (as appropriate for the location and/or type of material[s] being removed). Exceptions to this may apply to the removal of TSI by means of glovebag techniques. In the case of TSI removal using glovebags, full-room (“secondary containment”) or partial-room (“mini-enclosure”) containment structures may, at the Project IH Consultant’s discretion, be additionally required. Floor layers shall be applied making sure that plastic is turned-up at the wall at least 16 inches and sealed to wall layers. Wall layers shall be sealed by overlapping the turned-up floor plastic a minimum of 12 inches. All joints and seams for each layer shall be glued and taped securely in a manner so as to prohibit water or air movement through the attached sheetings.
- 3.1.7.9 “Wrap and Cut” Removal of TSI: For Work Areas within which OSHA Class I asbestos work consisting primarily of TSI (piping insulation) removal is to be conducted by means of “Wrap and Cut” method, the Contractor will prepare the Work Area in full compliance with the requirements of BAAQMD Regulation 11, Rule 2, and the requirements of Cal-OSHA 8 CCR §1529 (g) for conducting Class I asbestos work. Removal of asbestos-containing TSI for the purposes of accessing the piping to facilitate cutting the pipe will be done by first removing a portion of the TSI by glovebag method and sealing the remaining cut ends of asbestos-containing materials. Once the uninsulated pipe is exposed, the remaining insulated section to be removed will be wrapped in a minimum of two layers of 6-mil poly before being removed from the work area. For the purposes of this Work, “Wrap and Cut” removal of TSI will meet the regulatory definitions of “removal” and “removing” set forth in Cal-OSHA 8 CCR §1529 et. seq. and BAAQMD Regulation 11, Rule 2, respectively. The Contractor will seek and obtain the approval of the County prior to implementing “Wrap and Cut” activities.
- 3.1.7.10 OSHA Class II Work Area Isolation: For Work Areas within which OSHA Class II asbestos work is to be conducted, the Contractor will prepare the Work Area in accordance with the regulatory requirements of Cal-OSHA 8 CCR §1529 et. seq. and BAAQMD Regulation 11, Rule 2. In addition, a diminished air pressure enclosure, as documented by manometric measurements (see Section 2.1 D. 9. above) is required for all OSHA Class II Work. OSHA Class I Work Area isolation controls may be used for Class II work.

- 3.1.7.11 Localized Limited Work Area Isolation: For Work Areas where small-scale, short duration ACCM or ACM removal work will occur, the Contractor may, with the approval of the Project IH Consultant, use Localized Limited Work Area Isolation (“mini-containment”) methods. For the purposes of this Specification, the phrase “small-scale, short duration ACCM or ACM removal work” shall generally apply to that ACCM or ACM removal work which can be completed by no more than two (2) workers in no more than four (4) hours; and which generates no more ACCM or ACM waste than can be contained in one (1) standard-sized (60”) waste bag. At a minimum, such a Work Area shall be fully enclosed with one layer of 6-mil plastic; critical barriers shall be sealed; the mini-containment shall have a diminished interior pressure differential, and a curtained doorway for ingress/egress use. Additional enclosure measures may be required at the discretion of the Project IH Consultant. Localized Limited Work Area containments must be constructed so as to comply with all regulatory requirements including, but not necessarily limited to, BAAQMD and Cal-OSHA.
- 3.1.7.12 Substrate Removal: In certain locations, asbestos-containing materials to be removed may have been identified as being present on wooden or other substrates that will also be subject to building demolition (e.g., adhesive on wallboard). At the Contractor’s discretion, and with the concurrence of the County, such materials may be removed by means of removing the substrate material to which the ACM or ACCM is adhered. As a priority, consideration must be given to the use of methods that will minimize the weight or volume of waste generated by the use of this removal method. This method of removal should not be employed in locations where doing so will result in the creation of an imminent safety hazard.
- 3.1.7.13 Work Area Obscurity: The Contractor will endeavor to block or obscure the view of the public into the asbestos abatement work areas, but retain appropriate view portals in compliance with BAAQMD.
- 3.1.7.14 Adjacent Areas: Building areas immediately adjacent to regulated asbestos removal areas, such as corridors or hallways which are not themselves subject to asbestos material removal, but are necessary routes to and from regulated work areas, must be protected by the Contractor to prevent damage and/or contamination. Openings from these areas into areas where asbestos material removal activities will be conducted will have curtained doorways to further minimize air passage into non-regulated areas. The Contractor will also be responsible to make all required notifications to trades or other building occupants in areas adjacent to regulated abatement work areas.
- 3.1.7.15 Emergency Exits: The Contractor shall establish emergency and fire exits from the Work Areas, or establish alternative exits satisfactory to the County and to local emergency authorities or other applicable agencies. If feasible, emergency exits should be selected in such a way as to prevent incidental contamination of adjacent areas, provided that this can be accomplished without impeding the safety of abatement, County or other personnel.

All exits leading out of regulated work areas shall be marked in bold lettering "EXIT" or "Emergency Exit." Exit markings shall be in the primary language(s) appropriate to communicate with the workers present in the work area.

- 3.1.7.16 Work Area Communications: The Contractor will be responsible for establishing and maintaining clear communications between the personnel in the work area(s) and those stationed outside, such that those communications can be maintained without need for workers to perform an exit from the work area that would require decontamination.
- 3.1.7.17 Work Area Viewing Windows: The Contractor will provide and construct observation windows into all regulated work area containments. The viewing windows will be of a visually transparent material of approximately 18”(H) x 24”(W) in size and/or will be constructed and maintained so as to allow unobstructed observation of the entire work area from outside the containment.
- 3.1.7.18 Differential Air Pressure: Prior to the start of asbestos removal work, the Contractor will install HEPA-filtered differential air pressure equipment (also known as “exhaust fan units” or “negative air machines”), as specified herein, to maintain a diminished air pressure differential within the Work Area. These exhaust fan units will remain in place within a regulated Work Area throughout the abatement and decontamination phases of the Work until the required visual and/or clearance air testing has been satisfactorily achieved. A minimum pressure differential of -0.03 inches of water column (-0.03” w.c.), with respect to the air pressure of the area outside a Work Area, will be established and must be maintained at all times within all regulated Work Areas. The Contractor shall have sufficient auxiliary units on-site and/or in place to maintain this requirement throughout the Work. Air exhausted from this equipment shall be exhausted to the outdoors and, to the extent feasible, away from occupied areas around the building. Documentation of satisfactory differential air pressure shall require the use of a manometer, as specified herein. If, in the opinion of the Project IH Consultant, the differential air pressure units are judged to be in need of maintenance or in any other way fail to meet typical industry standards, the units shall not be placed into operation on this project.
- 3.1.7.19 Pre-Abatement Work Area Inspections: Prior to the start of asbestos removal work, the Contractor, accompanied by the Project IH Consultant, will conduct a detailed inspection of all equipment and Work Area isolation preparations to assure that appropriate engineering controls are in place and are functioning sufficiently to contain asbestos fibers to within the Work Area. The concurrence of the Project IH Consultant will be required to determine that a Work Area has undergone adequate preparation to proceed with asbestos removal work. A Pre-Abatement Work Area inspection will be conducted for each regulated Work Area and each individual inspection must be documented in writing. Such documentation will be signed by the

individual(s) conducting the inspection. A copy of each such documentation will be obtained by the Project IH Consultant for conveyance to the County.

3.2 ASBESTOS REMOVAL

3.2.1 All assumed or materials with detectable concentrations of asbestos associated with the elevator cars or mechanical systems are to be abated prior to the elevator renovation project. The types of materials known to be present are summarized in Section 1.1.1 of this document.

3.2.2 Work Practices:

3.2.2.1 At all times, the Contractor will employ work practices intended to maintain an orderly and safe workplace. This will include, but not be limited to: pre-cleaning the work area; adequately wetting ACCM or ACM prior to its disturbance and during its removal; prompt clean-up of ACCM or ACM waste; use of HEPA-filtered vacuums and exhaust fan units; and employing all feasible engineering controls necessary to prevent elevated airborne asbestos concentrations within and outside of the Work Area(s).

The Project IH Consultant may collect air samples during the project to document airborne fiber levels inside the Work Area(s) and in locations outside the Work Area(s). The Contractor will be required to take immediate corrective action if perimeter samples exceed 0.01 fibers/cubic centimeter (f/cc) by PCM analysis, are overloaded, or exceed 70 structures/square millimeter (s/mm²) by Transmission Electron Microscopy (TEM).

3.2.2.2 OSHA Class I Asbestos Work: Materials designated for removal as OSHA Class I Asbestos Work will be removed in full compliance with the Class I work practices (i.e., Methods of Compliance) prescribed in Cal-OSHA's Construction Safety Orders for Asbestos (8 CCR §1529, et. seq.). All ACM or ACCM designated for removal as Class I Asbestos Work will likewise be removed in full compliance with the BAAQMD's Regulation 11, Rule 2. Class I Asbestos Work may not commence until the work area(s) is/are prepared in accordance with section 3.1.7.8. (or, in the case of TSI removal by "Wrap and Cut" method, 3.1.7.9.) of this Specification section.

3.2.2.3 OSHA Class II Asbestos Work: Floor tiles, mastics, and other materials designated for removal as OSHA Class II Asbestos Work will, at a minimum, be removed in full compliance with the Class II work practices (i.e., Methods of Compliance) prescribed in Cal-OSHA's Construction Safety Orders for Asbestos (8 CCR §1529, et. seq.). All ACM or ACCM designated for removal as Class II Asbestos Work will likewise be removed in full compliance with the BAAQMD's Regulation 11, Rule 2. Class II materials should, to the extent feasible, be removed with hand tools, so that they might remain substantially intact. Class II Asbestos Work may not commence until the work area(s) is/are prepared in accordance with section 3.1.7.10. At the discretion of the Project IH Consultant, use of mechanical or

motorized removal methods may be permitted, provided the proposed method(s) is/are not prohibited under Cal-OSHA or BAAQMD work practices. Class I work practices may be utilized to perform Class II work. **Floor tile and/or floor tile mastic removal operations involving the use of mechanized work methods, including motorized floor buffers, must be conducted utilizing OSHA Class I Work Area Isolation methods and engineering controls as described in section 3.1.7.8 of this Specification section. This includes preparing the Work Area(s) in accordance with BAAQMD requirements for the removal of RACM.** ACM shall be wetted prior to and during its removal, handling, and waste disposal. Low-odor, solvent-based mastic removers may be used to remove ACM mastics, provided the product(s) meets the requirements of Section 2.1 – MATERIALS of this Specification, and provided the waste generated by their use is managed in accordance with applicable state and federal regulations.

- 3.2.2.4 Work Area Regulation: All asbestos removal Work Areas shall be regulated to prevent unauthorized entry. Isolation methods shall include, but not necessarily be limited to: the use of barrier tape (yellow “Caution” and/or OSHA’s “Danger Asbestos”) and OSHA’s “Danger Asbestos” sign(s). The Contractor shall maintain a daily Work Area entry/exit log and require all persons entering the Work Area to sign in and out. The Contractor will bear sole responsibility for controlling entry into the Work Area(s).

3.2.3 Work Area Decontamination

- 3.2.3.1 Initial Cleaning: Clean-up and containerization of ACCM or ACM waste will be an on-going activity throughout the Work. ACCM or ACM gross debris must not be allowed to accumulate within the Work Area for subsequent clean-up. ACM must be wetted and kept wet throughout the removal and clean-up work. All uncontained ACM waste must, at a minimum, be bagged and sealed in leak tight containers by the end of each day’s work shift. Containerized waste may be stored within the Work Area during the work, but must be removed from the Work Area for storage in a secured location on a periodic basis. All containerized waste must be removed from the regulated Work Area prior to conducting visual inspections. In no event may the accumulation of containerized waste within the Work Area be allowed to impede the work progress or compromise work site safety.
- 3.2.3.2 Containerization of Waste: Unless otherwise authorized, ACCM or ACM waste will be containerized in rigid primary waste containers (boxes, drums, bins, etc.) suitable for loading, temporary storage, transit, and unloading of asbestos waste without rupture, or otherwise causing exposure to persons or releases to the atmosphere. Rigid primary containers must be lined with a leak tight barrier of poly sheeting or poly bags of minimum thickness of 6 mil. Waste containerized in bags will be double-bagged, evacuated of air, “goose-necked” and sealed with duct tape. All containers used for disposal of asbestos-containing waste must be labeled in general accordance with

applicable regulations, including the requirements of 8 CCR 1529 (k) (8) and BAAQMD Regulation 11, Rule 2.

- 3.2.3.3 Detail Cleaning: Following gross removal of ACM or ACCM, any remaining substrate surface is to be detail cleaned using a combination of hand tools (scrapers, wire brushes, etc.), wet-wiping, and HEPA vacuuming. The substrate and containment will be considered to be adequately cleaned when no visible and no three-dimensional remnant of the ACM or ACCM can be seen or felt. This determination will be made by the Project IH Consultant on a case-by-case basis. In no event may encapsulation of residual ACM or ACCM be used in lieu of detail cleaning. Complete removal of an asbestos-impregnated porous substrate, upon authorization of the County, is an acceptable method of removal, so long as doing so does not introduce additional hazards into the Work Area, and with the additional requirement that the entire removed material be treated for disposal purposes as ACM or ACCM. See section 3.1.7.12. of this Specification section for additional requirements.
- 3.2.3.4 Waste Load Out: Prior to the removal of containerized waste from the Work Area, each container is to be wet-wiped to remove any residual asbestos contamination. Double-bagging of waste must be completed within the regulated Work Area and the exterior of each bag or container must be individually wet-wiped prior to removal from the Work Area. Waste will be loaded out of the Work Area through the equipment decontamination (“waste load out”) chamber and not through the personal decon. Once outside of the Work Area, the waste will be transported in rigid movable bins, wheelbarrows or comparable directly to a secured waste storage location.
- 3.2.3.5 Post-Abatement Work Area Inspections: Subsequent to the completion of the cleaning phases and waste load-out, the Contractor’s Supervisor, accompanied by the Project IH Consultant, will conduct a detailed visual inspection of the Work Area to assure that the identified asbestos has been removed and that the Work Area has been adequately cleaned. The concurrence of the Project IH Consultant will be required to determine that a Work Area has undergone adequate cleaning. This Post-Abatement Work Area inspection will be conducted for each regulated Work Area and each individual inspection must be documented in writing. Such documentation will be signed by the individuals conducting the inspection(s). A copy of each such documentation will be obtained by the Project IH Consultant for conveyance to the County. Prior to conducting a Post-Abatement Work Area inspection, the Contractor will remove and replace the primary filter (“pre-filter”) on each differential air pressure unit (“negative air machine”). All non-essential equipment is to be decontaminated, as described herein, and removed from the Work Area prior to commencing the Post-Abatement Work Area Inspection.
- 3.2.3.6 Equipment Decontamination: Prior to removal from a Work Area, the Contractor will decontaminate all tools and equipment. Decontamination

will include, but not be limited to: wet-wiping, HEPA-vacuuming, and containerizing tools into subsequently decontaminated containers. Prior to removal from the Work Area, HEPA-filtered vacuum cleaners will be emptied of debris, wet-wiped and wrapped, bagged or otherwise containerized for transport from the Work Area. Likewise, differential air pressure equipment is to be sealed with poly sheeting and tape, and externally decontaminated before removal from the Work Area. All equipment will be subject to inspection by the Project IH Consultant prior to its demobilization from a regulated work area.

3.2.3.7 Encapsulation: Upon successful compliance with the requirements for Post-Abatement Work Area Inspection, and unless otherwise specified, the Contractor shall apply a “lock-down” encapsulant to all surfaces within the contained Work Area. The encapsulant must be compatible with the existing surfaces. Following application of the encapsulant, a sufficient amount of time must pass to allow for the encapsulant to dry. The Contractor should plan, at a minimum, to allow for an extended (preferably overnight) drying period. In all instances, the decision as to whether an adequate drying period has elapsed will be at the discretion of the Project IH Consultant.

3.2.3.8 Poly Removal: Once satisfactory Post-Abatement Work Area Inspections have been documented and after any applied encapsulant has been allowed to dry, the Contractor will remove the top layer of plastic on the walls, floors, and/or ceilings (as appropriate). The inner plastic layer (if present) and primary isolation barriers (i.e. “critical barriers”) on vents, grilles, diffusers, etc., are to remain in place for the clearance air sampling. Care should be taken to avoid pulling down any remaining layer(s) of plastic sheeting. In Work Areas where a single layer of plastic has been used on the walls, floors, and ceilings (where applicable), that plastic layer shall be removed and critical barriers are to remain in place until air clearance sampling is completed and satisfactory air clearance criteria have been met. No alternative approaches are to be implemented without the prior agreement of the Project IH Consultant. The Contractor will containerize removed plastic and any remaining debris, decontaminate the containers, and dispose of as ACM-contaminated waste. All other isolation engineering controls including decontamination facilities are to remain in place until the specified air clearance testing criteria have been met. **Removal of plastic layers and isolation engineering controls (“teardown”) may not occur without the knowledge and consent of the Project IH Consultant.**

3.2.4 Personal Protection

3.2.4.1 General: The Contractor is solely responsible for the safety, efficiency, and adequacy of his work, workers, equipment and methods, and for any damages which may result from their inappropriate actions, practices, construction, maintenance, or operations. The Contractor will erect and maintain at all times, as required by the condition and progress of the Work,

proper safeguards for the protection of the workers and the public, including the posting of appropriate and applicable warning signage on the site.

- 3.2.4.2 Competent Person: The Contractor will designate a responsible member of its organization to be present on the work site, whose duty shall be the detection, recognition, and prevention of accidents and potential accidents. The designated individual will assume and fulfill the duties of the Competent Person, as defined in 8 CCR §1529 et. seq. In the absence of notice to the contrary, provided in writing to the Project IH Consultant, this person will be the on-site Supervisor or Foreman of the Asbestos Abatement Contractor.
- 3.2.4.3 Toxic Exposure Responsibility: To the extent allowable by law, the Contractor assumes all responsibility for any toxic exposures or effects experienced by workers as a result of the air quality supplied to respirators. The Contractor will assume all responsibility for any toxic exposures or effects to all personnel or property caused by airborne particulates, mists, vapors, or any wetting agent(s), or hazardous substances, and for the legal disposal of said substances and/or any residual toxic residues. Commencement of the Work by the Contractor will constitute implied acceptance of these responsibilities.
- 3.2.4.4 Worker Discipline: The Contractor will at all times establish and maintain discipline and good order over its employees. The Contractor will not employ on the work crew any person not skilled in the Work assigned, nor anyone who has not received notice and instructions in the dangers of asbestos exposure, and in the methods of reduction of the dangers associated with its disturbance. Workers must also receive training in the proper use of respirators, safety procedures, equipment, protective clothing, and appropriate work procedures. The Contractor will remove any employee from the job site failing to adhere to any standard or requirement set forth herein.
- 3.2.4.5 Work Crew Size: The Contractor is responsible for setting the size of its work crew(s), subject to the conditions stated in this paragraph. During asbestos removal operations, a minimum of two (2) workers must be in a work area at any time. No worker shall be allowed to work alone in a regulated work area. Under no circumstances may workers within a regulated work area be allowed to work without the supervision of an on-site foreman. The crew size on any given day shall be adequate to progress and/or complete the Work in accordance with the established Project Schedule.
- 3.2.4.6 Respiratory Protection: Prior to commencement of work, all workers must be instructed and must be knowledgeable in the use of respiratory protective equipment. All respiratory protection is to be provided to workers in conjunction with a respiratory protection program which shall meet the requirements of Cal-OSHA 8 CCR §5144 et. seq. and 8 CCR §1529 et. seq.

This includes, but is not limited to, qualitative or quantitative fit testing. The following additional requirements shall apply:

- 3.2.4.6.1 The Contractor will provide its workers with respiratory equipment approved by the National Institute for Occupational Safety and Health (NIOSH) for use in atmospheres containing asbestos fibers. Respiratory protection will be issued to each worker for their sole and individual use. Respiratory protection will be worn by all on-site personnel entering into a regulated Work Area or who may otherwise be potentially exposed to asbestos. Respiratory protection is to be worn at all times when inside a regulated Work Area, as well as during personal decontamination.
- 3.2.4.6.2 Where respirators with disposable filters are employed, the Contractor will provide sufficient filter cartridges for replacement as necessary by the worker, or as required by the applicable regulation.
- 3.2.4.6.3 The Contractor will supply all its employees with adequate respiratory protection, to meet the minimum standards of the applicable Cal-OSHA requirements. In accordance with 8 CCR §1529 et. seq., the Contractor will have a Competent Person conduct exposure assessments and periodic monitoring to establish the minimum appropriate respiratory protection to be used and the effectiveness of the chosen respiratory protection. In the absence of data acceptable to the Project IH Consultant as satisfying the requirements for a Negative Exposure Assessment [8 CCR §1529(b)], the Contractor must conduct Initial Exposure Assessments, as defined in 8 CCR §1529(f)(2). In addition, the Contractor will require and enforce the use of the following activity-related requirements:
 - (a) Work involving the use of solvents or volatile organic compounds shall be conducted with the use of air purifying respirators equipped with HEPA and Organic Vapor cartridges.
 - (b) Any question as to respiratory protection requirements for any activity unnamed or not otherwise described herein shall, by default, require the maximum protection.
 - (c) Appropriate respiratory equipment will be used throughout the project, including during the removal of final layers of plastic after final air clearance is attained.

- (d) The minimum respiratory protection to be used during Class I asbestos removal will be powered air-purifying respirators (PAPRs).
- 3.2.4.6.4 The Contractor shall post in the Equipment Room and the Clean Room, all decontamination and safety procedures to be followed for ingress and egress from a regulated work area.
- 3.2.4.7 Protective Clothing: The Contractor is to provide workers with sufficient sets of hooded, disposable, full-body coveralls recommended for use in asbestos operations equivalent to DuPont "TYVEK-Type 14". Such full body protective clothing will include, but not be limited to:
 - 3.2.4.7.1 Foot coverings including safety shoes or boots, and/or disposable foot coverings.
 - 3.2.4.7.2 Protective head coverings (hard-hats).
 - 3.2.4.7.3 Protective clothing should be hooded, full-body coverall type.
 - 3.2.4.7.4 Durable water-proof gloves (plastic, latex, rubber, nitrile, etc.) selected for chemical compatibility of the glove material and the liquid materials to be handled. Cloth or leather gloves may also be worn for comfort, but are not to be worn alone when handling hazardous liquids.
- 3.2.4.8 Additional Clothing Requirements: The Contractor will observe the following additional work clothing requirements:
 - 3.2.4.8.1 Street clothes may not be worn under protective clothing into a regulated work area.
 - 3.2.4.8.2 Any non-decontaminated protective clothing must remain within the contaminated areas, and will be disposed of as asbestos-contaminated waste upon completion of its use.
 - 3.2.4.8.3 Provide authorized visitors with disposable sets of protective full-body clothing including footwear, as needed.
 - 3.2.4.8.4 Provide eye protection and hard hats as required for job conditions or by applicable safety regulations. Where negative pressure respirators are worn, they are to be full-faced, unless the Contractor also provides protective eye wear.
 - 3.2.4.8.5 All clothing must be sealable by design and/or by securing with tape at the workers' ankles and wrists. Short pants or short sleeve shirts will not be allowed for primary clothing in the work area.

- 3.2.4.9 Personal Exposure Monitoring: It is the Contractor's responsibility to conduct required personal exposure monitoring. Such exposure monitoring must be in full compliance with the requirements of 8 CCR §1529, et. seq. and 8 CCR §5144, et. seq. The Contractor will monitor the airborne asbestos exposures of not less than 10% of the work crew, or a minimum of two (2) workers, whichever is greater. Workers will be monitored in "worst case scenario" tasks, as well as those conducting less hazardous work. Personal exposure monitoring is not the responsibility of the County, nor of the Project IH Consultant, however, the Project IH Consultant may elect to conduct such monitoring as a supplemental or quality assurance measure. Personal exposure monitoring conducted by the Project IH Consultant is not to be construed as a substitute for, nor in any way to obviate, the Contractor's duty to conduct such monitoring. Personal exposure monitoring for asbestos will be conducted and analyzed in accordance with NIOSH Method 7400. Analytical results of Contractor's personal exposure monitoring must be posted daily at the work site, and copies of the analyses are to be submitted to the County along with the Post-Job Submittals.

3.2.5 Waste Management And Disposal

- 3.2.5.1 General: The Contractor is responsible for the safe handling, packaging, labeling, storage and transportation of all asbestos-containing waste (hazardous and non-hazardous) generated by the Work. By commencing this work, the Contractor implicitly agrees to bear all costs arising from any claims, damages, losses, and/or clean-up expenses incurred which as a result of the Contractor's negligence result from an asbestos release(s) on the job-site or while asbestos waste is in transport to a waste disposal facility. The Contractor and/or its designated subcontract waste hauler will deliver all asbestos-containing waste materials to an appropriately designated waste disposal facility that has been accepted by the County and which is permitted in accordance with applicable regulations.
- 3.2.5.2 Storage Facilities: The Contractor will assure that all asbestos-containing wastes (hazardous and non-hazardous) generated by the Work are stored in a secured manner until received at the waste disposal facility. Debris bins, storage enclosures, etc. must be locked overnight, and whenever the Contractor is off-site or unable to directly monitor their contents and management. The Contractor will ensure that the appropriate and required warning signs are posted on waste storage locations. The Contractor will be responsible to maintain the waste storage facilities in an orderly and well-kept condition at all times. The Contractor will conduct routine waste storage area inspections to assure that appropriate storage conditions are maintained. Waste is not to be co-mingled with stored non-waste material or equipment.
- 3.2.5.3 Off-site Shipment of Wastes: The Contractor will notify the County and the Project IH Consultant in advance, whenever asbestos-containing waste materials are to be removed from the Project site. A copy of the Uniform

Hazardous Waste Manifest or any other documents required by State or Local agencies shall be completed by the Contractor and submitted to the Project IH Consultant for review and signature prior to transporting asbestos-containing waste materials to a disposal facility. The Contractor shall provide sufficient advance notice of the need to obtain manifest signatures, so as to not delay waste shipment or otherwise impede the Project Schedule. The Project IH Consultant shall have authority to sign or approve waste shipping documents on behalf of the County. It shall be the Contractor's responsibility to obtain the necessary authorized signature(s) to ship wastes off-site. Delays or expenses resulting from the untimely coordination of waste shipment documentation shall be borne by the Contractor.

- 3.2.5.4 Waste Shipment Documentation: EPA Uniform Hazardous Waste Manifest forms will be used for all waste transported off-site for hazardous waste disposal. An asbestos non-hazardous waste tracking manifest will be used for all asbestos-containing waste transported off-site for disposal as non-hazardous waste. The Contractor will submit original "Generator" copies of all hazardous and non-hazardous waste manifests to the Project IH Consultant at the time the waste is transported off-site for disposal. All waste tracking documentation must meet the requirements of BAAQMD Regulation 11, Rule 2 (sections 11-2-304.6 and 11-2-502). All waste loads removed from the Project Site shall be weighed by a Certified Weigh master prior to delivery to the disposal facility. Certified weight tickets shall be submitted by the Contractor as a part of the Contractor's Post-Job Submittals. At the conclusion of the Work, the Contractor shall provide documentation that the asbestos-containing waste materials were disposed of at an appropriate EPA-approved waste disposal facility. The documentation shall be submitted as part of the Contractor's Post-Job Submittals.
- 3.2.5.5 Shipment Containers: All waste shipping containers shall be individually labeled with appropriate signage and warnings, as required by applicable regulations, codes and ordinances. All waste hauling vehicles and/or waste debris bins shall, at all times, be enclosed and sealed while in route to the disposal facility.
- 3.2.5.6 Non-friable Debris Disposal: Resilient floor tiles, roofing materials and other non-friable asbestos-containing materials will not be required to be disposed of as hazardous waste, unless they are made friable during the removal process (see Definitions for description of friability.) Friability will be determined by the Project IH Consultant or by a representative of a regulatory agency.

3.2.6 Work Area Clearance Criteria

- 3.2.6.1 General: The Contractor is not to de-mobilize from any Work Area until both the visual clearance criteria and the air monitoring clearance criteria have been met and documented, as described herein.

- 3.2.6.2 Post-Abatement Work Area Inspections: Subsequent to the completion of the cleaning phases and waste load-out, the Contractor's Supervisor, accompanied by the Project IH Consultant, will conduct a detailed Post-Abatement Work Area Inspection (visual inspection) to assure that the identified asbestos has been removed and that the Work Area has been adequately cleaned. The concurrence of the Project IH Consultant is required to conclude that a Work Area has undergone adequate cleaning to proceed with clearance air testing. This Post-Abatement Work Area inspection will be conducted for each regulated Work Area and each individual inspection is to be documented in writing. Such documentation will be signed by the individuals conducting the inspections. A copy of each such documentation will be provided to the Project IH Consultant for conveyance to the County.
- 3.2.6.3 Visual Clearance Criteria: A Work Area will be considered to be adequately cleaned when no visible and no three-dimensional remnant of the ACCM or ACM can be seen or felt. This determination will be made by the Project IH Consultant on a case-by-case basis.
- 3.2.6.4 Air Clearance Testing: Once a Work Area has successfully achieved the Visual Clearance Criteria; has been encapsulated; and the encapsulant has been allowed to adequately dry, the Project IH Consultant will conduct Air Clearance Testing to evaluate the Work Area's cleanliness and suitability for unprotected human re-occupancy. Clearance air sampling will be conducted in general accordance with AHERA protocols (40 CFR 763 Subpart E) for analysis by Transmission Electron Microscopy (TEM), although other TEM analytical methods (e.g. Yamate II) may be employed at the discretion of the Project IH Consultant. Unless otherwise specified, air sample collection will be conducted by aggressively disturbing the air prior to and during the clearance air sample collection period. At the discretion of the Project IH Consultant, some Work Areas may be evaluated by Air Clearance Testing using PCM in accordance with the NIOSH 7400 Method. Clearance air samples will not be collected outside the work area for comparison purposes. Satisfaction of the Air Clearance Criteria will be based solely the analytical results obtained from clearance air testing conducted within a regulated Work Area.
- 3.2.6.5 Air Clearance Criteria: A Work Area will be judged to be adequately cleaned and suitable for unprotected human re-occupancy when the average asbestos structure concentration of each of the air samples collected within the Work Area, as analyzed by TEM, is reported to be less than or equal to 70 structures per millimeter squared (s/mm²) of sample filter media. In Work Areas where Air Clearance Testing is conducted for analysis by PCM, a Work Area will be judged to be adequately cleaned and suitable for unprotected human re-occupancy when each sample collected within the Work Area is reported to be less than or equal to 0.010 fibers per cubic centimeter of air sampled (f/cc).

- 3.2.6.6 Failure to Achieve Clearance Criteria: Should the Contractor fail to achieve either the Visual Clearance Criteria or the Air Clearance Criteria within a Work Area, the Contractor will repeat a thorough re-cleaning of the entire Work Area. Following completion of the re-cleaning, the visual Post-Abatement Work Area Inspection will be repeated and documented again. Once the re-cleaned Work Area has successfully achieved the Visual Clearance Criteria, the Project IH Consultant will repeat the Air Clearance Testing. This pattern will be repeated until both Visual Clearance Criteria and Air Clearance Criteria have been achieved in the Work Area. All costs associated to the initial re-cleaning, and any subsequent re-cleaning, re-inspection, and/or re-sampling and analyses, will be borne by the Contractor as re-work.

END OF SECTION

ATTACHMENT – A

CERTIFICATE OF ASBESTOS WORKER'S ACKNOWLEDGEMENT

Project Name: _____

Date: _____

Project Address: _____

Contractor's Name: _____

WORKING WITH ASBESTOS CAN BE DANGEROUS. INHALING ASBESTOS FIBERS HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner of the above project requires that: You must be supplied with the proper respirator and be trained with its use. You must be trained in safe work practices and in the use of the equipment found on the job. You must receive a medical examination. These things are to have been done at no cost to you.

RESPIRATORY PROTECTION: You must have been trained in the proper use of respirators, and informed of the type of respirator to be used on the above referenced project. You must be given a copy of the written respiratory protection manual issued by your employer. You must be equipped at no cost with the respirator to be used on the above project.

TRAINING COURSE: You must have been trained in the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal area protective measures. The topics covered in the course must have included the following:

- Physical characteristics of asbestos
- Health hazards associated with asbestos
- Respiratory protection
- Use of protective equipment
- Pressure Differential Systems
- Work practices including hands on or on-job training
- Personal decontamination procedures
- Air monitoring, personal and area

MEDICAL EXAMINATION: You must have had a medical examination within the past 12 months at no cost to you. This examination must have included: health history, pulmonary function tests, and may have included an evaluation of a chest x-ray.

By signing this document you are acknowledging that you have been advised of your rights, as pertain to training and protection, and of the worker protection requirements applicable to your employer, the Contractor.

Signature: _____

Social Security No.: _____

Printed: _____

Name: _____

Witness: _____

CERTIFICADO DE RECONOCIMIENTO POR PARTE DEL TRABAJADOR

NOMBRE DEL PROYECTO: _____

FECHA: _____

DIRECCION DEL PROYECTO: _____

NOMBRE DEL CONTRATISTA: _____

TRABAJAR CON ASBESTO PUEDE SER PELIGROSO. EL ASPIRAR DE FIBRAS DE ASBESTO HA SIDO LIGADO CON VARIOS TIPOS DE CANCER. SI UD. FUMA Y ASPIRA FIBRAS DE ASBESTO, LAS POSIBILIDADES QUE UD. SUFRIRA DE CANCER SON MAYORES QUE PARA LA PERSONA QUE NO FUMA.

El contrato entre su patron y el dueno para el proyecto antes citado requiere que le proveen a Ud. un repirador adecuado, y que a Ud. lo entrenen en su uso; que le entrenen a Ud. en praticas de seguridad en la obra y en el uso del equipo que se encuentre en la obra; que Ud. reciba un examen medico, y que todo esto se haga sin costo para Ud.

PROTECCION RESPIRATORIA: Ud. tiene que haber sido entrenado en el uso correcto de respiradores, y informado acerca del tipo de respirador que se usara en la obra citada. Deberan entregarle a Ud. una copia escrita del manual de proteccion respiratoria, expedida por su patron. Ud. tiene que ser equipado, sin costo alguno, con el respirador que se usara en la obra citada.

CURSO DE ENTRENAMIENTO: Ud. tiene que haber sido entrenado en los peligros inherentes en el manejo de asbesto y en el aspirar polvo de asbesto, asi como en los procedimientos correctos en el trabajo y las medidas de proteccion para el individuo y para la zona. Las materias tratadas en el curso deberan haber incluido las sigientes:

- Caracteristicas fisicas del asbesto
- Peligros a la salud asociados con el asbesto
- Proteccion repiratoria
- El uso de equipo de proteccion
- Sistemas de Presion Diferencial
- Praticas del trabajo, incluyendo experiencias en actividades reales del trabajo
- Procedimientos para la decontaminacion personal
- Revision del aire ambiental en una area y para el individuo

EXAMEN MEDICO: Usted debe haber tenido un examen médico en el plazo de los últimos 12 meses sin coste a usted. Esta examinación debe haber incluido: la historia de la salud, pruebas de función pulmonares, y pudo haber incluido una evaluación de una radiografía del pecho.

Firmando este documento usted está reconociendo que le han aconsejado de las sus derechas, como pertenece al entrenamiento y a la protección, y de los requisitos de la protección del trabajador aplicables a su patrón, el contratista.

Firma: _____

Numero de Su Seguro social: _____

Su nombre, en letras de molde: _____

Testigo: _____

ATTACHMENT - B

CERTIFICATE OF COMPETENT PERSON ACKNOWLEDGMENT

The Cal/OSHA Construction Safety Orders for asbestos-related work (8 CCR, §1529, et. seq.) outlines specific duties and qualifications of the “Competent Person.” An overview of these qualifications and responsibilities are summarized below.

The competent person must be authorized by his or her employer to take prompt corrective measures to eliminate hazards on the job and protect workers’ safety.

The competent person must be capable of:

- Identifying existing and predictable hazards in the surroundings and working conditions which are unsanitary, hazardous, or dangerous to employees.
- Identifying existing asbestos hazards in the work place and selecting the appropriate control strategy for asbestos exposure.

The duties of the competent person include, but are not limited to:

- Frequent and regular inspections of the job site, materials, and equipment.
- Supervise or perform the set-up of the regulated area and/or containment.
- Ensure the integrity of the regulated area and/or containment.
- Set up procedures to control entry to and exit from the regulated area and/or containment.
- Supervise all employee exposure monitoring and assure it is conducted according to regulatory requirements.
- Ensure the employees working within the regulated area(s) wear respirators and protective clothing as required by regulation.
- Ensure that employees working set up, use, and remove engineering controls, and use work practices and personal protective equipment in compliance with the regulations.
- Ensure that employees use hygiene facilities and observe the decontamination procedures specified in the regulation.
- Ensure through continuing onsite surveillance that engineering controls are functioning properly and employees are using proper work practices.
- Ensure that notification requirements of the regulation are met.

Additionally, the EPA requires the competent person to be trained in the Federal NESHAP regulations, possess the means to comply with them, and be on site during all removal operations.

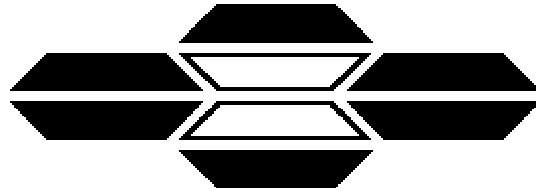
I hereby certify that I have the authority to take prompt corrective measures to eliminate hazards on the job and protect workers safety. Furthermore, I certify that I have read and understand my duties as outlined above and under the applicable regulations, and that I will exercise them to the best of my ability.

Employer: _____

Signature of Competent Person

Date

Printed Name of Competent Person



ASBESTOS TEM LABORATORIES, INC.

EPA Interim Method Polarized Light Microscopy Analytical Report

Laboratory Job # 396157

Version 1

3431 Ettie St.
Oakland, CA 94608
(510) 704-8930

FAX (510) 704-8429
www.asbestostemplabs.com

With Branch Offices Located At:
1320 FREEPORT BLVD. #104, SPARKS, NV 89431



ASBESTOS TEM LABORATORIES, INC

CA ELAP
Lab No. 1866

NVLAP[®]
TESTING
Lab Code: 101891-0

Oct-29-24

Steff Steiner
Terracon
1220 Concord Avenue, Suite 450
Concord, CA 94520

RE: LABORATORY JOB # 396157

Polarized light microscopy analytical results for 6 bulk sample(s) with 6 sample split(s)
Job Site: 8477 Enterprise - Elevator
Job No.: R1247860

Enclosed please find the bulk material analytical results for one or more samples submitted for asbestos analysis. The analyses were performed in accordance with EPA Method 600/R-93/116 or 600/M4-82-020 for the determination of asbestos in bulk building materials by polarized light microscopy (PLM). Please note that while PLM analysis is commonly performed on non-friable and fine grained materials such as floor tiles and dust, the EPA method recognizes that PLM is subject to limitations. In these situations, accurate results may only be obtainable through the use of more sophisticated and accurate techniques such as transmission electron microscopy (TEM) or X-ray diffraction (XRD).

Prior to analysis, samples are logged-in and all data pertinent to the sample recorded. The samples are checked for damage or disruption of any chain-of-custody seals. A unique laboratory ID number is assigned to each sample. A hard copy log-in sheet containing all pertinent information concerning the sample is generated. This and all other relevant paper work are kept with the sample throughout the analytical procedures to assure proper analysis.

Each sample is opened in a class 100 HEPA negative air hood. A representative sampling of the material is selected and placed onto a glass microscope slide containing a drop of refractive index oil. The glass slide is placed under a polarizing light microscope where standard mineralogical techniques are used to analyze and quantify the various materials present, including asbestos. The data is then compiled into a standard report format and reviewed by the authorized signatory before being released to the client.

Asbestos concentrations stated in the report are given in terms of ranges e.g. <1%, 1-5%, 5-10%, etc. When using these ranges to determine whether a material is considered a regulated asbestos containing material (ACM), it is important to consider which regulation is being applied. Under the EPA AHERA, OSHA and CalOSHA regulations, the term ACM means "any material containing more than one percent asbestos." However, the California DTSC (Dept of Toxic Substances Control), which regulates asbestos in schools in California, states "DTSC classifies asbestos-containing material as hazardous waste if it is friable and contains one percent (1.0%) or more asbestos as hazardous waste." As the test method is not sensitive enough to allow an analyst to say a material contains exactly 1% asbestos, a reported concentration of <1% shall be read to mean ≤1% and 1-5% shall be read to mean >1%-5% when applying the EPA AHERA, OSHA and CalOSHA regulations. However, when applying the DTSC regulations the concentrations are to be read as stated.

Sincerely Yours,

Lab Manager
ASBESTOS TEM LABORATORIES, INC.

Disclaimer - These results relate only to the samples tested as received and must not be reproduced, except in full, with the approval of the laboratory. Incorrect or illegible information supplied by the customer may adversely affect the validity of test results. This report must not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Note: Test samples will be stored for three months after data of receipt, after which they will be properly disposed unless client makes other arrangements with the laboratory.

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Page: 1 of 2

Contact: Steff Steiner		Samples Indicated: 7	Report No. <u>396157</u>
Address: Terracon		Reg. Samples Analyzed: 6	Version No. <u>1</u>
1220 Concord Avenue, Suite 450		Split Layers Analyzed: 6	Date Submitted: Oct-25-24
Concord, CA 94520		Job Site / No. 8477 Enterprise - Elevator	Date Reported: Oct-29-24
		R1247860	
SAMPLE ID	ASBESTOS % TYPE	OTHER DATA	DESCRIPTION
		1) Non-Asbestos Fibers 2) Matrix Materials 3) Date/Time Collected 4) Date Analyzed	FIELD LAB
1A	None Detected	1) None Detected 2) 99-100% Calc, Opq, Bndr	Gray Floor Laminate With Glue / Elevator Cabin Floor
Lab ID # 1434-05037-001A	Homogeneity*:	3) Oct-25-24 4) Oct-29-24	Flooring-Grey
1A	None Detected	1) None Detected 2) 99-100% Glue, Opq	Gray Floor Laminate With Glue / Elevator Cabin Floor
Lab ID # 1434-05037-001B	Homogeneity*:	3) Oct-25-24 4) Oct-29-24	Mastic-Yellow
1B	None Detected	1) None Detected 2) 99-100% Calc, Opq, Bndr	Gray Floor Laminate With Glue / Elevator Cabin Floor
Lab ID # 1434-05037-002A	Homogeneity*:	3) Oct-25-24 4) Oct-29-24	Flooring-Grey
1B	None Detected	1) None Detected 2) 99-100% Glue, Opq	
Lab ID # 1434-05037-002B	Homogeneity*:	3) Oct-25-24 4) Oct-29-24	Mastic-Yellow
2A	None Detected	1) None Detected 2) 99-100% Opq, Calc, Bndr	4" Gray Cove Base With Beige Glue / Elevator Cabin Wall Base
Lab ID # 1434-05037-003A	Homogeneity*:	3) Oct-25-24 4) Oct-29-24	Baseboard-Grey
2A	None Detected	1) None Detected 2) 99-100% Glue	4" Gray Cove Base With Beige Glue / Elevator Cabin Wall Base
Lab ID # 1434-05037-003B	Homogeneity*:	3) Oct-25-24 4) Oct-29-24	Mastic-Beige
3A	None Detected	1) None Detected 2) 99-100% Gyp, Opq	Drywall With Joint Compound / 1st Floor - Elevator Equipment Room
Lab ID # 1434-05037-004A	Homogeneity*:	3) Oct-25-24 4) Oct-29-24	Drywall-White
3A	None Detected	1) <1% 2) 100-100% Calc, Opq	Drywall With Joint Compound / 1st Floor - Elevator Equipment Room
Lab ID # 1434-05037-004B	Homogeneity*:	3) Oct-25-24 4) Oct-29-24	JC/Texture-White
3B	None Detected	1) None Detected 2) 99-100% Gyp, Opq	Drywall With Joint Compound / 1st Floor - Elevator Equipment Room
Lab ID # 1434-05037-005A	Homogeneity*:	3) Oct-25-24 4) Oct-29-24	Drywall-White
3B	None Detected	1) <1% 2) 100-100% Calc, Opq	
Lab ID # 1434-05037-005B	Homogeneity*:	3) Oct-25-24 4) Oct-29-24	JC/Texture-White

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique.

* - Samples with a Lab ID# ending in a letter are inhomogeneous exhibiting multiple layers, with each layer analyzed separately and labeled (e.g. A,B,C..).

Analyst Jo Ann Huetter

ASBESTOS TEM LABORATORIES, INC. 3431 Ettie St., Oakland, CA 94608
www.asbestostemplabs.com

With offices in Reno, NV - (775) 359-3377

(510) 704-8930

POLARIZED LIGHT MICROSCOPY ANALYTICAL REPORT

EPA Method 600/R-93/116 or 600/M4-82-020

Page: 2 of 2

Contact: Steff Steiner	Samples Indicated: 7	Report No. <u>396157</u>
Address: Terracon	Reg. Samples Analyzed: 6	Version No. <u>1</u>
1220 Concord Avenue, Suite 450	Split Layers Analyzed: 6	Date Submitted: Oct-25-24
Concord, CA 94520	Job Site / No. 8477 Enterprise - Elevator	Date Reported: Oct-29-24
	R1247860	

SAMPLE ID	ASBESTOS % TYPE	OTHER DATA		DESCRIPTION FIELD LAB
		1) Non-Asbestos Fibers	2) Matrix Materials	
		3) Date/Time Collected	4) Date Analyzed	
3C	None Detected	1) None Detected		Drywall With Joint Compound / 1st Floor - Elevator Equipment Room
Lab ID # 1434-05037-006A	Homogeneity*:	2) 99-100% Gyp, Opq		
		3) Oct-25-24	4) Oct-29-24	Drywall-White
3C	None Detected	1) <1%		
Lab ID # 1434-05037-006B	Homogeneity*:	2) 100-100% Calc, Opq		
		3)	4) Oct-29-24	JC/Texture-White
Lab ID #	Homogeneity*:	1)		
		2)		
		3)	4)	
Lab ID #	Homogeneity*:	1)		
		2)		
		3)	4)	
Lab ID #	Homogeneity*:	1)		
		2)		
		3)	4)	
Lab ID #	Homogeneity*:	1)		
		2)		
		3)	4)	
Lab ID #	Homogeneity*:	1)		
		2)		
		3)	4)	
Lab ID #	Homogeneity*:	1)		
		2)		
		3)	4)	
Lab ID #	Homogeneity*:	1)		
		2)		
		3)	4)	
Lab ID #	Homogeneity*:	1)		
		2)		
		3)	4)	
Lab ID #	Homogeneity*:	1)		
		2)		
		3)	4)	

Detection Limit of Method is Estimated to be 1% Asbestos Using a Visual Area Estimation Technique.

* - Samples with a Lab ID# ending in a letter are inhomogeneous exhibiting multiple layers, with each layer analyzed separately and labeled (e.g. A,B,C..).

Analyst Jo Ann Hector

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(510) 704-8930

396157



E-MAIL REPORT TO: SEE BELOW PROJECT MANAGER (PM)

☒ PM - Steff Steiner
steff.steiner@terracon.com

☐ PM - Karin Schroeter
karin.schroeter@terracon.com

☐ PM - Ken Pilgrim
ken.pilgrim@terracon.com

☐ PM - Tedd Kattchee
tedd.kattchee@terracon.com

☐ PM- David Block
david.block@terracon.com

☐ denise.wallen@terracon.com
Engineering Assistant

☐ heidi.santos@terracon.com
Engineering Assistant

ACM BULK SAMPLE DATA SHEET

- ☒ PLM Analysis (Analyze all samples)
☐ Stop Analysis at First Positive
☐ Point Count Analysis (400-point)

Project Name/ Address/ Building No. B477 ENTERPRISE - ELEVATOR

Project# R1247860 Sampled By: M. REED Sampling Date: 10-25-2024

Sample(s) sent to: ☐ MAL ☐ ASB TEM ☐ EMLAB ☐ Other

TAT ☐ Rush ☐ 24HRS ☒ 48HR ☐ 3-5 days

HM#	01	Material Description	GRAY FLOOR LAMINATE WITH GLUE	40 SQFT
Sample ID		Sample Location & Material Location	Quantity:	
	1A	ELEVATOR CABIN FLOOR		
	1B	"		
HM#	02	Material Description:	4" GRAY CONCRETE BASE WITH BLUE GLUE	
Sample ID		Sample Location & Material Location	Quantity: 10 SQFT	
	2A	ELEVATOR CABIN WALL BASE		
	2B	"		
HM#	03	Material Description:	DRYWALL WITH JOINT COMPOUND	100 SQFT
Sample ID		Sample Location & Material Location	Quantity:	
	3A	1ST FLOOR - ELEVATOR EQUIPMENT ROOM -		
	3B			
	3C			
HM#		Material Description:		
Sample ID		Sample Location & Material Location	Quantity:	
HM#		Material Description:		
Sample ID		Sample Location & Material Location	Quantity:	

Relinquished By: M. REED

Signature: M. REED

Date/Time: 10-25-2024

Received By: MTZ

Signature: MTZ

Date/Time: 10/25/24 1630

Relinquished By:

Signature:

Date/Time:

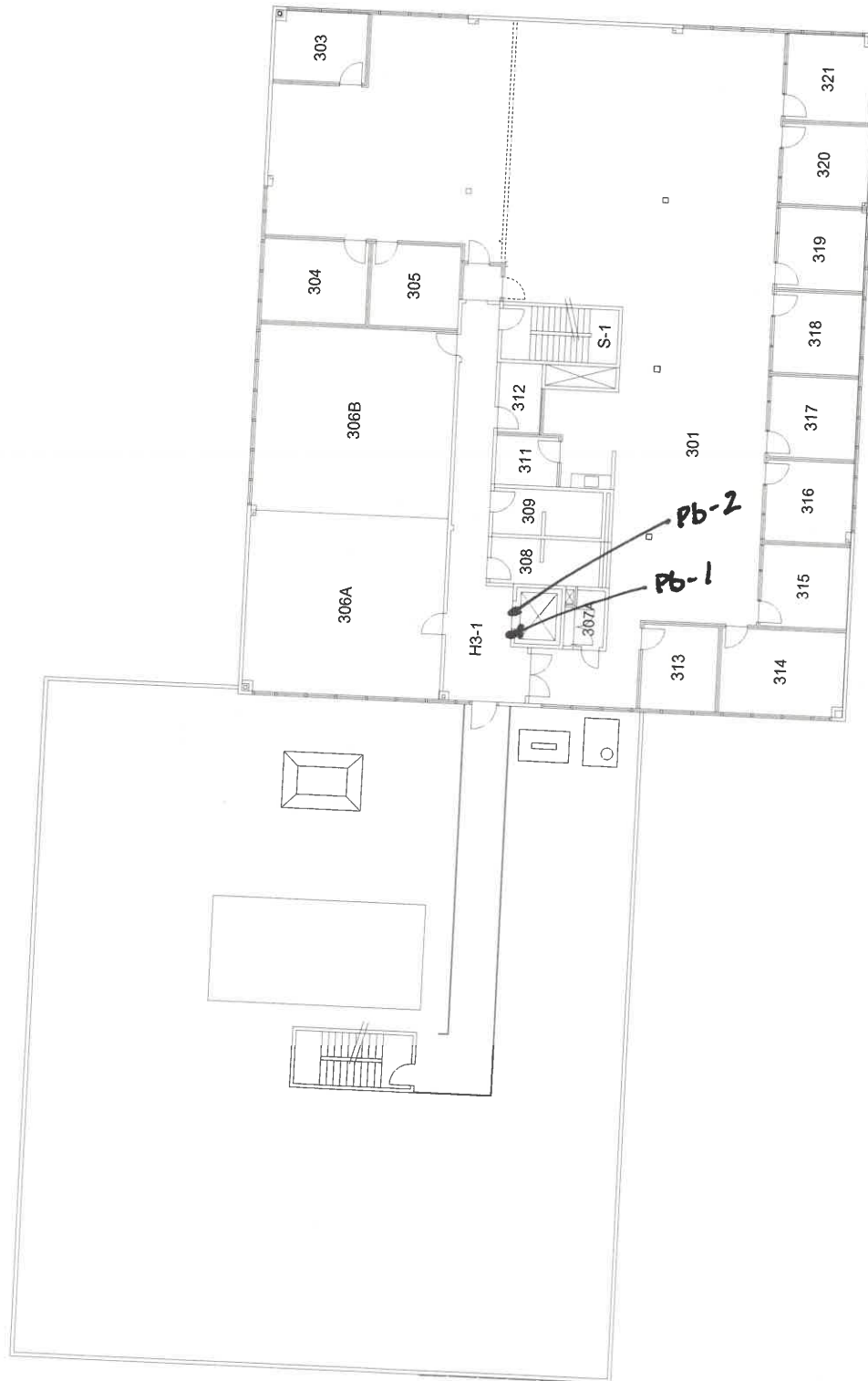
Received By:

Signature:

Date/Time:

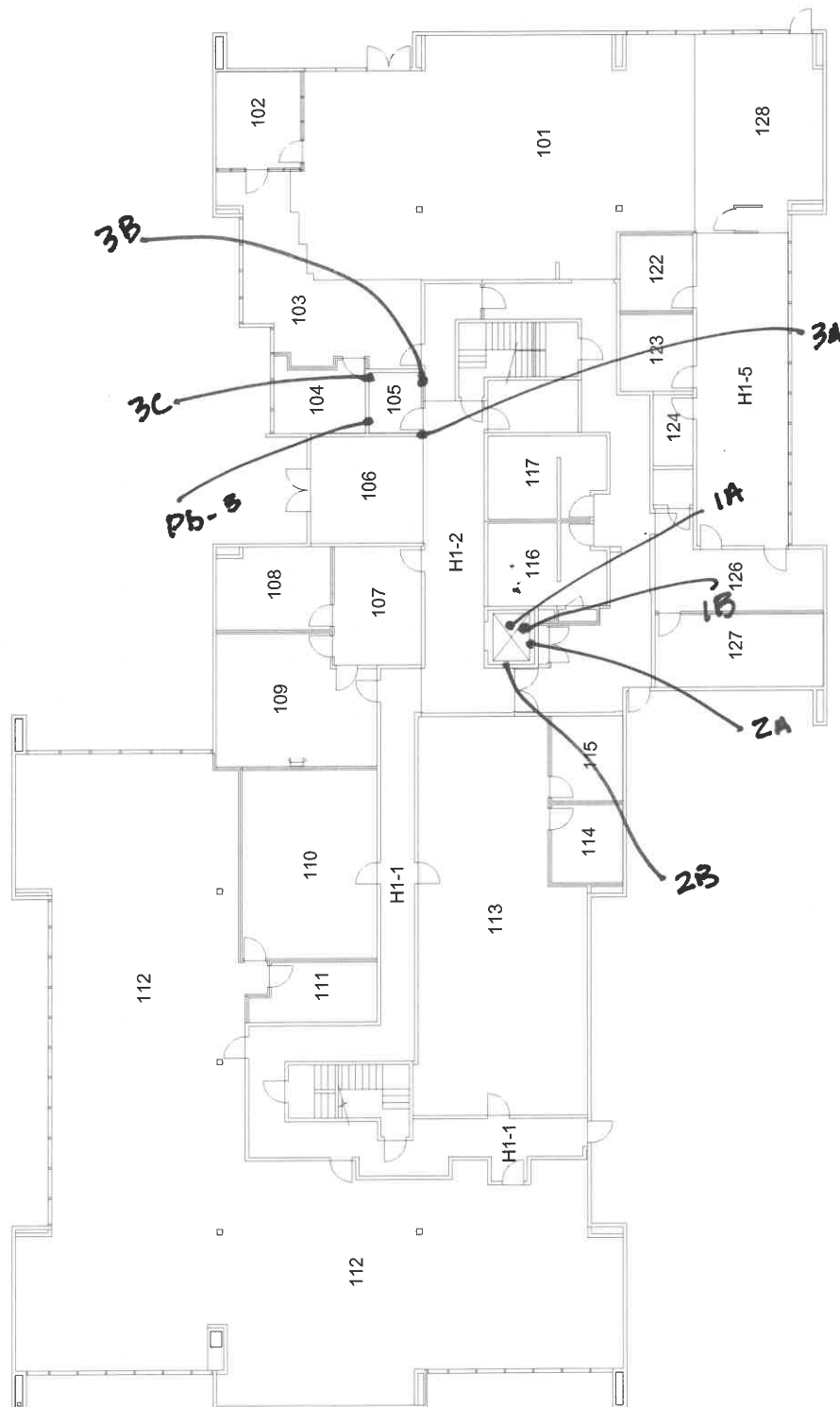


Bldg #-Drawing Name-Floor:	04560-Welfare Bldg-3rd Flr.		USF:	7,314
Building Name:	Welfare Building		Print Date:	7/24/2007
Street Address:	8477 Enterprise Drive		City:	Oakland





Bldg #-Drawing Name-Floor:	04560-Welfare Bldg-1st Flr.	USF:	10,798
Building Name:	Welfare Building	Print Date:	7/24/2007
Street Address:	8477 Enterprise Drive	City:	Oakland



SECTION 13 10 20

LEAD HAZARD CONTROL SPECIFICATION

PART 1 - GENERAL

1.1 SUMMARY

- 1.1.1 Scope of Work: Except as otherwise expressly provided herein, the Lead Hazard Control Contractor will supply all labor, supervision, materials, equipment, tools, services, insurance and each and every item of expense necessary for the control of lead hazards resulting from the disturbance of lead-containing materials. Work impacting lead-containing materials shall comply with all applicable federal, state and local requirements and the requirements of this specification.

A pre-renovation hazardous materials survey was performed by Terracon of Concord, California. Representative painted and coated materials were sampled and tested for lead. Three painted surfaces tested positive for lead. The survey laboratory results, chain of custody forms and sample location diagrams are presented in Appendix A. Use of Terracon's survey report and the information presented therein is subject to the limitations set forth in Document 00 31 19 - Existing Conditions Information.

The intent of Lead Hazard Control work described herein is not to abate an existing lead hazard, but rather to control lead hazards that might be generated during the removal or disturbance of materials and equipment that incidentally have lead-containing coatings. The intent of this specification section is to stipulate engineering control options, work practices, and performance criteria that, if properly implemented, should minimize the likelihood of exposing personnel or the environment (air, soil or groundwater) to lead hazards.

- 1.1.2 Applicability: Except as may otherwise be provided for, the requirements of the Lead Hazard Control Contractor will apply to the General Contractor and, by extension, to all their subcontractors engaged in "lead-related construction work", as defined herein, or other work involving the disturbance of lead-containing coatings or materials. Consequently, all those who engage in lead-related construction, whether individually or working in cooperation with others, may be designated as a Lead Hazard Control Contractor. This broad applicability is in accordance with existing regulations promulgated by the California Division of Occupational Safety and Health ("Cal-OSHA") and by the California Department of Public Health (CDPH). To the extent allowable by law, the County of Alameda (herein after referred to as the "County") will be the sole and final arbiter of which contractor(s) or subcontractor(s) qualify on this Project Site as a Lead Hazard Control Contractor (hereinafter referred to as the "Contractor").
- 1.1.3 Lead-Containing Materials: In accordance with all applicable federal, state and local laws and regulations, and the requirements of this Specification, the Contractor will manage all lead-containing materials identified herein and as may be subsequently revealed during the Work.

- 1.1.4 Project IH Consultant: The County's Industrial Hygiene Consultant (hereinafter referred to as the "Project IH Consultant") will provide independent, third-party industrial hygiene consulting services on behalf of the County. Such services may or may not include conducting on-site work observations, materials or environmental testing, and/or consulting with the County. It is not the responsibility of the Project IH Consultant to supervise the Contractor; nor to direct the Contractor's work effort; nor to assume the management of, or responsibility for, the Contractor's health and/or safety practices, nor its waste management, nor its regulatory compliance. At all times, the Contractor shall be solely responsible for the quality and execution of all phases and aspects of the Work.

1.2 SUBMITTALS

1.2.1 General:

- 1.2.1.1 In addition to any other contractual submittals required of the Contractor, the Contractor will provide the submittals described in this Specification section. Submittals will be reviewed by both the County and the Project IH Consultant for acceptability. The Project IH Consultant will either recommend submittals to the County for acceptance, or will return them to the County as deficient, with notations for correction and re-submission. The Project IH Consultant does not have authority to "approve" submittals.
- 1.2.1.2 Documents submitted by the Contractor in an effort to comply with the requirements of this Specification section are to be separate and distinct from any other submittals provided to comply with other Specification sections. In attempting to satisfy the requirements of this Specification section, the Contractor must submit only those documents specifically requested to fulfill the specified requirements. Extraneous documentation will be rejected, but not returned.
- 1.2.1.3 Except as otherwise noted herein, the submittals required in this Specification section are required only of the Contractor(s) determined by the County to have primary responsibility for disturbing or removing the lead-containing materials identified herein. At the discretion of the County, other contractors or subcontractors may subsequently be required to provide all or part of the submittals required in this section.

1.2.2 Schedule And Format:

- 1.2.2.1 Delivery: Submittals listed in this section must be delivered to the County.
- 1.2.2.2 Quantity: Two (2) identical, legible copies of each submittal listed in this section shall be delivered in an organized fashion suitable to the County for review. One (1) copy will be conveyed by the County to the Project IH Consultant for review.
- 1.2.2.3 Work Commencement: No portion of the Work shall be commenced by the Contractor until the submittals are reviewed and accepted by the County.
- 1.2.2.4 Delays: Delays to the Work resulting from the submittal of deficient or illegible documentation, or from the untimely submittal of potentially

acceptable documentation, shall be the sole responsibility of the Contractor. Except as otherwise granted by the County, no extensions will be made to the awarded contract schedule or budget to accommodate such delays.

1.2.2.5 Format: Submittals will be provided in 8-1/2" x 11" format with sections separated by numbered tabs indexed to a printed Table of Contents. Illegible submittals will be considered deficient and returned for correction.

1.2.2.6 Schedule: Submittals delivered to the County will observe and conform with the following timetable:

1.2.2.6.1 Pre-work Submittals - Not less than ten (10) business days prior to the Contractor's mobilization onto the work site, the Contractor will deliver legible copies of the specified documents. The Project IH Consultant will review submittals and return deficient submittals to the County within five (5) business days following their receipt by the Project IH Consultant. Deficient submittals shall be corrected and resubmitted by the Contractor within five (5) business days of their return. Once accepted, the reviewed copy shall be returned to the Contractor, who shall maintain a copy of the accepted submittal at the work site.

1.2.2.6.2 Product Submittals - Not less than ten (10) business days prior to the date of intended use of the product on the work site.

1.2.2.6.3 Post-work Submittals - Except as otherwise specified herein, the Contractor shall, within twenty (20) business days following demobilization from the project site, submit 2 copies of the Post-work Submittals listed in this section. If the Project IH Consultant or the County determines that the Post-work Submittals are unacceptable, the Contractor will be required to correct the deficiencies and re-submit them for review.

1.2.3 Pre-Work Submittals:

1.2.3.1 Progress Schedule: Provide a proposed work schedule indicating the following items:

1.2.3.1.1 Indicate the sequence of the lead-related work by activity and the sequencing of lead-related work within each building, on each floor, and for each regulated area.

1.2.3.1.2 Show the dates for beginning and completion of each major element (work area set-ups, paint removal/stabilization, detail cleaning, preliminary visual inspections, final visual inspections, tear-down, etc.) of the lead-related work, including substantial completion dates for each building, on each floor, and for each regulated work area. Update as necessary.

1.2.3.1.3 Provide anticipated manpower distribution per scheduled activity and regulated work area. Distinguish between trained full-time

personnel and unskilled or temporary labor. Indicate whether or not any subcontracted labor will be utilized.

- 1.2.3.1.4 Provide anticipated number of shifts per day and days per week, as well as specific hours for each shift. Indicate any anticipated overtime, weekend work shifts, night shifts or holiday work shifts planned. Unless otherwise directed, work is to be conducted during routine business hours (M-F, 7:00 a.m. to 5 p.m.).
- 1.2.3.1.5 At a minimum, the Contractor's Progress Schedule is to be formulated on a three-week, "look ahead" basis and updated weekly.
- 1.2.3.1.6 All requests for deviations from, or changes to, the initially established daily work shift hours and/or the weekly work days shall be submitted in writing to the County and the Project IH Consultant for approval not less than 3 business days prior to the anticipated implementation of said changes. This requirement will also apply to remobilizations following periods of inactivity by the Contractor. The Contractor shall not implement any work schedule changes without the prior expressed approval of the County. The Contractor shall be responsible for its Subcontractors' compliance with these requirements.
- 1.2.3.2 Materials and equipment: Provide manufacturers' catalog data for all materials and equipment to be used in the work. Data should be provided for, but not necessarily be limited to, the following equipment/materials:
 - 1.2.3.2.1 High Efficiency Particulate Air (HEPA) filtered vacuum equipment
 - 1.2.3.2.2 Air monitoring equipment
 - 1.2.3.2.3 Respirators
 - 1.2.3.2.4 Personal protective clothing and equipment
 - 1.2.3.2.5 Duct tape and sheet plastic
 - 1.2.3.2.6 Disposal containers
 - 1.2.3.2.7 SDS sheets for all chemicals proposed for use on the job site
 - 1.2.3.2.8 Rotameter and calibration curve
- 1.2.3.3 The Contractor will submit a project-specific lead compliance program to address the strategies for protecting workers from exposure to lead. The program will include all items required by 8 CCR §1532.1(e)(2) including the following:
 - 1.2.3.3.1 Methods for demarcation and regulation of lead Work Areas
 - 1.2.3.3.2 Plans for establishing support & decontamination areas

- 1.2.3.3.3 Air sampling plan
- 1.2.3.3.4 Medical surveillance plan
- 1.2.3.3.5 Engineering controls to be used
- 1.2.3.3.6 Personal protective equipment to be used
- 1.2.3.3.7 Decontamination procedures to be used
- 1.2.3.3.8 Methods of lead dust control to be used
- 1.2.3.3.9 Employee training requirements
- 1.2.3.3.10 Monitoring/exposure records
- 1.2.3.4 Notifications/Permits/Licenses:
 - 1.2.3.4.1 Lead Pre-Job Notification: As applicable by the requirements of 8 CCR §1532.1(p), the Contractor will provide documentation of compliance by providing proof of written notification made to the nearest Cal/OSHA District Office.
 - 1.2.3.4.2 Written proof that all required permits, licenses, and registrations have been applied for and/or received. This shall include but not necessarily be limited to, Contractor State Licensing Board (CLSB) Licenses, Contractor's certification to conduct lead-based paint renovation, repair and paint activities pursuant to 40 CFR 745.90 (i.e. EPA RRP), wastewater discharge permits, all Contractor and Project Superintendent Licenses and Certifications required under the federal, state, and local regulations.
 - 1.2.3.4.3 The Work to be performed, as specified herein, is not intended to be "abatement," as defined in 17 CCR §35001.
- 1.2.3.5 Worker Documentation:
 - 1.2.3.5.1 Provide the name and photo identification of each employee to be engaged in lead-related construction work.
 - 1.2.3.5.2 All workers must be trained in accordance with the requirements of Cal-OSHA's Construction Safety Orders for Lead [8 CCR §1532.1(l)]. This may include the need for CDPH-certified Lead Workers and/or Lead Supervisors. CDPH-certified Lead Worker and/or Lead Supervisor training must be conducted by a CDPH-approved Lead Worker/Lead Supervisor training provider. Provide current valid documentation from a CDPH-approved training provider indicating the most recent training course and training date that each person listed has attended. Photocopies of recent (within the 12 months preceding the anticipated Notice-to-Proceed date) training certification cards will suffice, as long as both sides of the card are provided and legible. The minimum acceptable training course duration is 40 hours for the Contractor's

Supervisor/Competent Person and 24 hours for abatement workers. The Contractor's Supervisor(s) and worker(s) shall be certified through the CDPH lead accreditation program for lead-related construction. Copies of each employee's certification shall be provided (*Note: Course completion forms do NOT constitute current certification per CDPH and are NOT accepted as proof of current certification. Only actual CDPH certificates with current dates are valid to meet CDPH certification requirements*).

- 1.2.3.5.3 Provide the name and photo identification of the Lead Supervisor responsible for this Project. Provide current valid documentation from a CDPH-approved indicating the most recent training course and training date that he/she has attended. Provide evidence indicating that he/she has a minimum of one year on-the-job experience as a Lead-Related Construction Supervisor.
- 1.2.3.5.4 Provide current valid documentation indicating the date and type of each worker's most recent respiratory training and respirator fit testing. Respirator fit testing documentation must contain all information required in 8 CCR §5144 (m)(2). Documentation must be provided certifying that all employees engaged in lead-related work have passed respirator fit testing within the 12 months preceding the anticipated Notice-to-Proceed date.
- 1.2.3.5.5 The Contractor will submit documentation demonstrating that employees engaged in lead-related construction work have had the appropriate medical examinations within the prescribed time periods immediately preceding project start-up. Each such medical document must be signed by a licensed physician to be acceptable. Documentation must include, but not necessarily be limited to, baseline blood lead level testing performed in accordance with the Cal-OSHA Construction Safety Orders for Lead (8 CCR §1532.1, et. seq.), and the respiratory medical examination requirements in accordance with 8 CCR §1532.1. Baseline blood lead testing will have been completed not more than 30 days prior to the start of this Work. Illegible or incomplete photocopies, or preliminary results reports will be rejected as deficient.
- 1.2.3.5.6 The Contractor will submit a statement from an examining physician, dated within the 12 months preceding the start of this work, for each employee engaged in lead-related construction work stating that the worker is medically fit to wear a respirator, in accordance with 8 CCR §5144. Each such medical determination must be signed by a licensed physician to be acceptable. Illegible or incomplete photocopies, or preliminary examination reports will be rejected as deficient.

- 1.2.3.5.7 Completed Certificates of Lead Worker's Acknowledgment forms (Attachment A to this Specification section). The Contractor's employees will not be allowed to engage in lead-related construction work on this Project prior to submitting a completed Certificate of Lead Worker's Acknowledgment form.
- 1.2.3.6 Subcontractors: Submit qualifications and 24-hour contact information for each subcontractor to be used. This shall include two (2) legible copies of federal, state, and/or local business or operating permits, as well as State and/or EPA identification numbers for the waste transporters and disposal facilities to be used.
- 1.2.3.7 Work Plan: Submit a detailed work plan of the practices and procedures proposed for use in complying with the requirements of this Specification section. Include in the plan schematic drawings with depictions of the locations and general configurations of all regulated work areas. Mark-ups of current project plans will suffice to satisfy this requirement. The text of the Work Plan should address the sequencing of the Work; the interface of trades involved in the performance of work; work schedule including work shift time, number of employees, date of start and completion including dates of preparation work, lead disturbance work, and anticipated completion/final inspection dates; methods to be used to assure the safety of building occupants and/or visitors to the site; disposal plan including name and location of accepted disposal facility(ies); and a detailed description of the methods to be employed to control worksite contamination. Expand upon the use of proposed engineering controls, methods of containment to control the potential creation of the lead hazards within the Work Area(s), and segregation and packaging of lead waste/debris. This Work Plan is not the same as the Lead Compliance Plan described in paragraph 1.2.3.3 above, although the two plans may be compiled in a single document, if all individually specified elements of the two plans are addressed. The plan must be reviewed and accepted by the County or Project IH Consultant prior to the commencement of work.
- 1.2.3.8 Contingency Plan: Submit a contingency plan for emergencies including medical, fire, accidents, injuries, power failure, or any event that may require modification of decontamination or Work Area isolation procedures. Include in plan specific procedures for decontamination and/or Work Area isolation. **Note:** Nothing in this specification should be interpreted as instructions to impede the rapid and safe exiting from the work area(s), nor to impede the provision of adequate medical attention in the event of an emergency.

Post: In a room immediately adjacent to Personnel Decontamination Unit, prominently display telephone numbers and locations of, and driving instructions to, emergency services including, but not limited to: fire, ambulance, physician, hospital, police, power company, telephone company, and the Contractor's job-site Superintendent.

- 1.2.3.9 Field Logs: Submit a sample of Daily Field Logs, Work Area Entry/Exit Logs, etc. to be used during the work.
- 1.2.3.10 Rental Equipment: If rental equipment is to be used in conjunction with this lead-related construction project, a written notification is to be provided to the rental company informing the company that the rented equipment will be used on a lead-related construction project. A copy of that written notification will be submitted to the Project IH Consultant. The notification must state how the rented equipment is to be used, how it will be decontaminated following its use, and include a space for the acknowledgement of the rental company that it has been advised of the rented equipment's intended use. The Contractor will obtain written acknowledgment from an authorized representative of the rental company and will return an original signed copy of the acknowledgment to the Project IH Consultant as documentation of compliance with this requirement. In the absence of such rentals, the Contractor will submit a signed declaration on the Contractor's letterhead and signed by an authorized representative of the Contractor stating that no rented equipment will be used by the Contractor on this project.
- 1.2.3.11 Safety Data Sheets: Submit current Safety Data Sheets (SDSs) for each potentially hazardous material to be used during the lead-related work.
- 1.2.3.12 Waste Hauling Qualifications: Submit proof of hazardous waste transporter's registration and the vehicle operator training. Submittals shall include, but not necessarily be limited to: business name, address (mailing address and physical location), and business telephone number of the company; primary contact name and emergency contact (24-hour) telephone number; documentation of current State and/or EPA authorization to operate; and insurance coverage.
- 1.2.3.13 Waste Disposal Facility Qualifications: Submit documentation of the California State and/or EPA-approved waste disposal facility chosen to receive shipments of lead-containing waste generated during this Project. Such information will include, but not necessarily be limited to: business name, address (mailing address and physical location), and business telephone number of the facility; primary contact name and emergency contact (24-hour) telephone number; documentation of current State and/or EPA authorization to operate; operator's facility I. D. number; classification and/or types of waste(s) accepted; name, business address and telephone number of insurance provider; documentation of insurance type(s), coverage amounts, and any limitations on liability; and any regulatory agency information pertaining to known citations issued, notices of violations issued, corrective actions ordered, Records of Decisions rendered, or on-going environmental investigations or known liabilities.
- 1.2.4 Post-Work Submittals:
 - 1.2.4.1 General: In accordance with the requirements of the above Section 1.2.2.6.3 – Post-Work Submittals, submit the following documentation:

- 1.2.4.1.1 Copies of employee and visitor Work Area Entry/Exit Logs and Daily Field Logs/Reports.
- 1.2.4.1.2 Waste manifests, certified weight tickets, and landfill receipts.
- 1.2.4.1.3 Results of Contractor's personal exposure air monitoring.
- 1.2.4.1.4 Copies of analytical results from waste characterization.
- 1.2.4.1.5 Incident reports describing any events such as injuries, accidents, emergencies, or loss of differential air pressure and the actions taken in response.

1.3 QUALITY REQUIREMENTS

1.3.1 Reference Standards:

- 1.3.1.1 Regulations: The Contractor will comply with the requirements of all applicable federal, state and local government regulations and guidelines governing lead-related construction work and/or the disposal of lead-containing wastes, as well as all other applicable regulations. The following regulations and/or guidelines listed herein are applicable to this Work and are incorporated into this Specification section by reference. This listing is not intended to be comprehensive, nor does it necessarily limit compliance to the following:

CODE OF FEDERAL REGULATIONS (CFR)

29 CFR 1926	Construction Standards
29 CFR 1926.62	Lead in Construction Standard
40 CFR Parts 50.12	Ambient Air Quality Standard for Lead
40 CFR Parts 261, 265, and 268	Hazardous Waste Management
40 CFR Parts 172, 173, 178 ,179	Hazardous Material Transportation
40 CFR Part 745	Lead; Renovation, Repair, and Painting Program
40 CFR 745.227	Work practice standards for conducting lead-based paint activities: target housing and child-occupied facilities

CALIFORNIA CODE OF REGULATIONS (CCR)

8 CCR §1532.1	Construction Safety Orders for Lead
8 CCR §1536	Construction Safety Orders – Ventilation Requirements for Welding, Brazing and Cutting
8 CCR §1537	Construction Safety Orders – Welding, Cutting, and Heating of Coated Metals
8 CCR §5144	Respiratory Protection
17 CCR Div. 1, Chapter 8	Accreditation, Certification, and Work Practices for Lead-Based Paint and Lead Hazards (revised 4/30/08)
22 CCR Division 4.5	Hazardous Waste

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Regulation 11, Rule 1

Hazardous Pollutants - Lead

- 1.3.1.2 Guidelines: Applicable industry guidelines pertaining to lead-related construction work include, but are not limited to, the following:

Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, U.S. Department of Housing and Urban Development (HUD), 2012 Edition (replaces the 1995 edition).

Guide for Containing Surface Preparation Debris Generated During Paint Removal Operations, The Society for Protective Coatings (SSPC), Technology Guide No. 6, May 4, 2015.

- 1.3.1.3 Applicability. The most current version of each document will apply. Where conflicts among these regulations or standards exist, the more stringent requirement or interpretation will apply.

- 1.3.2 Definitions: In addition to definitions provided elsewhere in these Specifications, the following definitions will apply:

- 1.3.2.1 **Action Level:** Action level means an employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air ($30 \mu\text{g}/\text{m}^3$) calculated as an 8-hour time-weighted average (TWA).

- 1.3.2.2 **Air Monitoring:** The process of measuring the contaminant concentration of a specific volume of air in a stated period of time.

- 1.3.2.3 **Authorized Visitor:** The County or its designated representative, the Project IH Consultant, the Project IH Consultant's inspector or representative, or any representative of a federal, state, county, city, or local agency having legal or regulatory jurisdiction over the project while acting in an official capacity. Any person whose name appears upon an approved authorized visitor's list.

- 1.3.2.4 **Clean Room:** An uncontaminated area or room which is part of the worker decontamination enclosure with provisions for storage of worker's street clothes and protective equipment.

- 1.3.2.5 **Containment:** A system, process, or barrier used to contain lead hazards inside a Work Area such as described in *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*, U.S. Department of Housing and Urban Development, June 1995, Chapter 8, "Containment and Barrier Systems," Table 8.1, Table 8.2, and Table 8.3, or "Guide for Containing Surface Preparation Debris Generated During Paint Removal Operations," Society for Protective Coatings, Technology Guide 6, October 1, 2004.

- 1.3.2.6 **Competent Person:** One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them, as specified in 8 CCR §1504.
- 1.3.2.7 **County:** The County of Alameda and its designated representative(s).
- 1.3.2.8 **Critical Barrier:** One or more layers of plastic or other impermeable barrier sealed over an opening into a Work Area or any other similarly placed physical barrier sufficient to prevent airborne lead dust in a Work Area from migrating to an adjacent area.
- 1.3.2.9 **Curtained Doorway:** A device to allow ingress and egress from one room to another while permitting minimal air movement between the rooms, typically constructed by placing two overlapping sheets of plastic over an existing or temporarily framed doorway, securing the vertical edge of one sheet along one vertical side of the doorway, and securing the vertical edge of the other sheet along the opposite vertical side of the doorway.
- 1.3.2.10 **Decontamination Enclosure System:** A series of connected rooms, with curtained doorways between any two adjacent rooms, for the decontamination of workers and of materials and equipment. A decontamination enclosure system always contains at least one airlock.
- 1.3.2.11 **Differential Air Pressure Equipment:** A portable local exhaust fan or “unit” equipped with HEPA filtration and capable of maintaining a constant, negative air pressure differential within the regulated Work Area by providing a low velocity air flow into contaminated areas from adjacent uncontaminated areas and exhausting filtered air outside the Work Area (preferably to the outdoor air).
- 1.3.2.12 **DOP Testing:** The challenge testing of HEPA-filtered equipment, using appropriate aerosols. A 0.3 µm dioctylphthalate aerosol was formerly used in challenging the efficiency of HEPA-filtered equipment. Although dioctylphthalate compounds are now suspected human carcinogens, the phrase “DOP testing” is still current vernacular for the process of challenge testing the efficiency of HEPA-filtered equipment.
- 1.3.2.13 **Enclosure:** See “Containment”
- 1.3.2.14 **Equipment Decontamination Enclosure:** That portion of a decontamination enclosure system designed for controlled transfer of materials and equipment, typically consisting of a washroom and a holding area.
- 1.3.2.15 **Equipment Room:** A contaminated area or room which is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.

- 1.3.2.16 **Fixed Object:** A unit of equipment or furniture in the Work Area which cannot be removed from the Work Area.
- 1.3.2.17 **HEPA Filter:** A High-Efficiency Particulate Air (HEPA) filter capable of trapping and retaining 99.97 percent of particles greater than 0.3 micrometers in mass median aerodynamic equivalent diameter.
- 1.3.2.18 **HEPA Vacuum Equipment:** Vacuuming equipment with a HEPA filter system.
- 1.3.2.19 **Lead:** Lead means metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds.
- 1.3.2.20 **Lead-Based Paint (LBP):** The concentration of lead in paint or other surface coatings that contain an amount of lead equal to, or in excess of 0.5% lead by weight when analyzed by AAS or ICP-AES or 1.0 milligrams of lead per square centimeter (mg/cm^2) as determined by XRF testing or as identified by specification. Also referred to as lead paint.
- 1.3.2.21 **Lead-Containing Waste:** Removed architectural debris, paint chips, vacuum dust, and debris, glazed ceramic tiles and debris, used cleaning articles, HEPA vacuum bags, respirator cartridges, gloves, and disposable coveralls, waste water, plastic sheets and other disposable items which were used during the lead-related construction work and as a result are considered lead contaminated waste or assumed hazardous waste pending further characterization.
- 1.3.2.22 **Lead-Containing Material:** The concentration of lead in paint or other surface coating that contains an amount of lead less than 0.5% lead by weight when analyzed by AAS or ICP-AES or $1.0 \text{ mg}/\text{cm}^2$ as determined by XRF testing or as identified by specification.
- 1.3.2.23 **Lead-Contaminated Dust:** The amount of lead equal to, or in excess of 10 micrograms per square foot ($\mu\text{g}/\text{ft}^2$) for interior floor surfaces, $100 \mu\text{g}/\text{ft}^2$ for interior horizontal surfaces and interior window sills, and $400 \mu\text{g}/\text{ft}^2$ for window troughs, exterior floor surfaces and exterior horizontal surfaces.
- 1.3.2.24 **Lead-Contaminated Soil:** Bare soil that contains an amount of lead equal to, or in excess of 400 parts per million (ppm) in children's play areas and 1,000 ppm in all other areas.
- 1.3.2.25 **Lead-Dust Clearance Levels:** The amount of lead is less than 10 micrograms per square foot ($\mu\text{g}/\text{ft}^2$) for interior floor surfaces, $100 \mu\text{g}/\text{ft}^2$ for interior horizontal surfaces and interior window sills, and $400 \mu\text{g}/\text{ft}^2$ for window troughs, exterior floor surfaces and exterior horizontal surfaces.
- 1.3.2.26 **Lead Hazard:** Deteriorated lead-based paint or lead-containing material, lead contaminated dust, lead contaminated soil, disturbing lead-based paint or lead-containing materials or presumed lead-containing materials without containment, or any other nuisance which may result in persistent and quantifiable lead exposure and environmental lead contamination.

- 1.3.2.27 **Lead Hazard Control Contractor:** Lead Hazard Control Contractor is defined as the General Contractor, all of their subcontractors, individual workers or more than one worker working in cooperation with others engaged in “lead-related construction work” or other work involving the disturbance of lead-containing coatings or materials.
- 1.3.2.28 **Lead-Related Construction Work:** Any construction, alteration, painting, demolition, salvage, renovation, repair, or maintenance of a public building, including preparation or clean-up, that, by using or disturbing lead-containing material or soil, may result in significant exposure of adults or children to lead.
- 1.3.2.29 **Log Book:** A notebook or other book containing essential project data and daily project information and a daily project diary. This book will be kept up-to-date and on the project site at all times.
- 1.3.2.30 **Movable Object:** A unit of equipment or furniture in the Work Area which can be removed from the Work Area.
- 1.3.2.31 **Negative Initial Determination:** A demonstration by the employer, which complies with the criteria in paragraph (d)(5)(A) and (B) of 8 CCR §1532.1, that no employee is exposed to airborne concentrations of lead at or above the action level. The employer will make a written record of such a determination. The record will include at least the information specified in subsection (d)(3)(A) and will also include the date of determination, location within the worksite, and the name and social security number of each employee monitored.
- 1.3.2.32 **NIOSH:** National Institute of Occupational Safety and Health.
- 1.3.2.33 **Permissible Exposure Limit (PEL):** The Contractor will assure that no employee is exposed to lead at concentrations greater than fifty micrograms per cubic meter of air ($50 \mu\text{g}/\text{m}^3$) averaged over an 8-hour period. For work shifts longer than 8 hours, the maximum allowable employee lead exposure in units of micrograms per cubic meter of air will be calculated by the formula: 400 divided by the hours worked in that shift.
- 1.3.2.34 **Plasticize:** To cover floors, walls or ceilings with plastic sheeting as herein specified.
- 1.3.2.35 **Presumed Lead-Based Paint:** Any paint, material or surface coating affixed to a component in or on a structure, excluding paint or surface coating affixed to a component in or on a residential dwelling unit or child-occupied facility, constructed on or after January 1, 1978.
- 1.3.2.36 **Regulated Area:** An area established by an employer to demarcate areas within which lead-related construction work is conducted, and any adjoining area where debris or waste from such work may be accumulated; and a Work Area within which airborne concentrations of lead may exceed, or in which

there is a reasonable expectation they may exceed, the permissible exposure limit. Requirements for regulated areas are set forth in 8 CCR §1532.1(i) (6).

1.3.2.37 **SDS:** Safety Data Sheet.

1.3.2.38 **Time Weighted Average (TWA):** The TWA is an 8-hour time weighted average of the micrograms (µg) of lead per cubic meter (m³) of air which represents the employee's 8-hour workday exposure. An 8-hour TWA is calculated in accordance with the formula:

$$\text{8-hour TWA} = \frac{(C_1T_1 + C_2T_2 + C_nT_n)}{480 \text{ minutes}}$$

where "C" is the contaminant concentration measured and "T" the measurement time period in units of minutes. If an employee is exposed to lead for more than 8 hours in any work day the employees' allowable exposure, as a time weighted average (TWA) for that day, will be reduced according to the following formula: Allowable employee exposure (in µg/m³)=400 divided by hours worked in the day. When respirators are used to limit employee exposure as required under subsection (c) of 8 CCR §1532.1 and all the requirements of subsections (e)(1) and (f) have been met, employee exposure may be considered to be at the level provided by the protection factor of the respirator for those periods the respirator is worn. Those periods may be averaged with exposure levels during periods when respirators are not worn to determine the employee's daily TWA exposure.

1.3.2.39 **Washroom:** A room between the Work Area and the holding area in the equipment decontamination enclosure system. The washroom comprises an airlock.

1.3.2.40 **Work Area:** Designated rooms, spaces, or areas of the project in which lead-related construction will be conducted or which may become contaminated as a result of such lead-related construction. A contained Work Area is a Work Area which has been sealed, plasticized, and equipped with a decontamination enclosure system. A non-contained Work Area is an isolated or controlled-access Work Area which has not been plasticized nor equipped with a decontamination enclosure system.

1.3.2.41 **Worker Decontamination Enclosure System:** That portion of a decontamination enclosure system designed for controlled passage of workers, and other personnel and authorized visitors, typically consisting of a clean room, a shower room, and an equipment room separated by air locks.

PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1 **Product Prohibitions:** The following products or product constituents are prohibited from use during these lead-related work activities:

- 2.1.1.1 Any product for which a Safety Data Sheet is available from the manufacturer and has yet to be submitted.
- 2.1.1.2 Any product for which a less hazardous substitute product is readily available, provided that the substitute product possesses similar performance characteristics.
- 2.1.1.3 Any product containing any concentration of diethylene glycol dimethyl ether; ethylene glycol monoethyl ether; or ethylene glycol mono methyl ether (skin TLV 5 ppm; CAS 109-86-4). These constituents cause reproductive damage and blood cell damage.
- 2.1.1.4 Any product containing any concentration of ethylene glycol (1,2 Ethanediol glycol; TLV = 50 ppm). This chemical causes kidney damage if ingested.
- 2.1.1.5 Any product containing any concentration of formaldehyde, a suspect carcinogen.
- 2.1.1.6 Any product containing any concentration of methylene chloride, a suspect carcinogen.
- 2.1.1.7 Any product containing any concentration of n-hexane. This chemical causes peripheral nerve damage (potential ingredient in spray adhesive).
- 2.1.1.8 Any product containing any concentration of isocyanates. An allergic sensitizer, this group of chemicals typically has no warning properties (potential ingredient in spray foams and some epoxies).
- 2.1.1.9 Non-fire rated visquene and/or non-fire rated lumber are prohibited from use.
- 2.1.1.10 Solvents with a flash point <140° F are prohibited from use.
- 2.1.2 EQUIPMENT PROHIBITIONS: The following equipment are prohibited from use during these lead-related construction activities:
 - 2.1.2.1 Fasteners: High velocity powder-actuated fasteners are prohibited from use.
 - 2.1.2.2 Torches: Open flame torches are prohibited from use without prior approval of the County. Open flame torches are prohibited from use as a means of removing lead-containing materials, paints or surface coatings on this Project.
 - 2.1.2.3 Compressed Air: Air compressors, leaf blowers or similar forced-air equipment is prohibited from use for cleaning or decontamination purposes during these lead-related work activities.
 - 2.1.2.4 Lamps: Sodium or mercury vapor (metal halide) lamps are prohibited from use.
 - 2.1.2.5 Ladders: Wooden or metal ladders are prohibited from use.

- 2.1.2.6 Engines: Internal combustion engines shall not be permitted for operation indoors without the expressed written permission of the County in consultation with the Project IH Consultant.
- 2.1.2.7 Grounded Electrical Equipment: Electrical equipment manufactured with internal grounding or grounded wiring shall not be used if the grounding has been removed, tampered with, or otherwise altered.
- 2.1.2.8 HEPA-Filtered Vacuum Cleaners Without Certification of Efficiency Challenge Testing: Vacuums without certification of on-site testing for efficiency (“DOP testing”) shall not be allowed for use outside of a negative differential pressure enclosure (“containment”).
- 2.1.2.9 Power tools, including but not limited to sanders, grinders or needle guns, that are not equipped with HEPA-filtered dust capture systems, are prohibited from use as a means of removing lead-containing materials, paints or surface coatings on this project.
- 2.1.2.10 Hydro blasting or high pressure washing (“power–washing”) and/or abrasive media blasting without containment and barrier systems is prohibited on this Project.
- 2.1.3 Material Requirements:
 - 2.1.3.1 Sealants: Sealants used will have a flame spread, smoke and fuel contribution of zero, and will be ASTM and UL rated for 3 hours for standard method fire test for fire stop systems
 - 2.1.3.2 Visquene Sheeting: Visquene sheeting used will be in compliance with NFPA Standard 701 fire testing, with flame spread ≤ 5 and smoke development rating of ≤ 70 when tested by ASTM E-84. Minimal thickness will be 6 mil.
 - 2.1.3.3 Waste Containers: Waste containers (bags, drums, bins, etc.) must be suitable for loading, temporary storage, transit, and unloading of lead waste without rupture, or otherwise causing exposure to persons or releases to the atmosphere. Use of rigid primary containers (bins, boxes, drums, etc.) is preferred and recommended. Where rigid primary containers are used, they must be lined with a secondary water-proof barrier of poly sheeting or poly bags of minimal thickness of 6 mil. All containers used for disposal of lead-containing waste must be labeled in general accordance with applicable regulations, and in specific with the requirements of 8 CCR §1532.1.
 - 2.1.3.4 Adhesives: Adhesives, whether tape or aerosol liquid, shall be capable of securely bonding plastic to plastic, or plastic to substrate. The bonding strength and resulting seal of the material used must not be compromised by mist or water, encapsulating agent or any other product or process used in the regulated work area.
 - 2.1.3.5 Warning Signs and Labels: Warning signs and labels will be used in compliance with applicable federal, state, and local regulations. Signs must

be lettered in the language(s) necessary to communicate the specific hazard warning(s) to workers or visitors reasonably expected to be at the job site.

2.1.4 Equipment Requirements:

- 2.1.4.1 General: It is the responsibility of the Contractor to utilize tools and equipment that have been thoroughly and adequately decontaminated prior to their delivery to this project site. All equipment brought onto this project work site will be subject to inspection by the County and/or the Project IH Consultant. Visible evidence of suspected equipment contamination will be sufficient to cause the equipment to be rejected from mobilization onto the project work site. All costs resulting from the need to decontaminate any part of the worksite contaminated by the Contractor's use of inadequately decontaminated equipment will be borne by the Contractor.
- 2.1.4.2 Differential Air Pressure Equipment: Differential air pressure equipment (also known as "exhaust fan units" or "negative air machines") shall be equipped with HEPA filtration. All differential air pressure equipment will be in well-maintained condition and will comply with ANSI/AIHA Standard Z9.2 for performance. Differential air pressure equipment will arrive on-site with the intake and exhaust openings sealed. Each unit must be efficiency-challenged ("DOP tested") on-site, in the presence of the Project IH Consultant and prior to use, so as to ensure a minimum 99.97% filtering efficiency of aerosol particulates of 0.3 microns or greater in size. DOP testing shall be performed by a professional third-party testing firm not otherwise financially affiliated with the Contractor. Each unit used on this project must have a certification label affixed to it attesting to its most recent successful testing. Upon arriving on-site, each unit must be visibly clean and free of apparent or suspected contamination, as judged by the Project IH Consultant. If, in the opinion of the Project IH Consultant, the differential air pressure units are judged to be in need of cleaning, maintenance, or in any other way fail to meet typical industry standards, the unit(s) may not be placed into operation on this project. If secured, negative air machines may be stacked, but no more than two high without the prior approval of the Project IH Consultant, and in no event will negative air machines be allowed to be inverted for the purpose of stacking.
- 2.1.4.3 HEPA-filtered Vacuum Cleaners: HEPA-filtered vacuum cleaners will be in well-maintained condition and must be visibly clean and free of apparent or suspected contamination, as judged by the Project IH Consultant. **Each unit must arrive on-site sealed and empty of any debris.** Each unit must be DOP tested on-site, within a negative pressure enclosure, before it can be used outside of a regulated work area. DOP testing will be performed by a professional third-party firm not otherwise financially affiliated with the Contractor. Each unit used on this project must have a certification label affixed to it attesting to its most recent successful testing. If, in the opinion of the Project IH Consultant, the HEPA-filtered vacuum cleaners are judged to be in need of cleaning, maintenance, or in any other way fail to meet typical industry standards, the vacuum cleaners may not be placed into operation on this project. Care will be exercised by the Contractor to prevent

commingling of asbestos and lead waste. Separate vacuums will be used for each type of waste clean-up.

- 2.1.4.4 **Lights and Electrical Cords:** Electrical lights and equipment utilizing electrical power cords will be in well-maintained condition and will be visibly clean and free of apparent contamination, as judged by the Project IH Consultant. All lighting and electrical equipment must be water resistant. Work lighting must have protective covers over the light source. Grounded electrical equipment will be used with grounded electrical supply and outlets. Where such equipment will be used in the near vicinity of water, ground fault circuit interruption (GFCI) protection shall be used in the wiring circuit at the first feasible point closest to the source of power.
- 2.1.4.5 **Decontamination Facilities:** At a minimum, hand washing facilities will be provided by the Contractor for all workers who may be occupationally exposed to lead-containing paint or by demolition of lead-containing materials, irrespective of measured airborne lead concentrations. More extensive decontamination facilities may be required by regulation.
- 2.1.4.6 **Water Filtration Equipment:** Water will be collected from work processes and decontamination facilities and will be filtered prior to discharge. All lead-contaminated water will be collected and contained for waste characterization. Water will be filtered through a system capable of trapping particles 1 micron and larger in size. Filtered water may be discharged into a sanitary sewer system, only if the Contractor can satisfactorily demonstrate that it is acceptable to the local wastewater treatment facility to do so. The Contractor shall bear the responsibility to investigate discharge requirements and to obtain any necessary discharge permits prior to the start of work. To the extent feasible, water should be reclaimed and used on-site for application in wet method work practices prior to its discharge. Under no circumstances will water be permitted to be discharged prior to its characterization as a potential hazardous waste.
- 2.1.4.7 **Fire Extinguishers:** Fire extinguishers, rated not less than 2A or as specified by more stringent regulations, will be required in the regulated work area(s). The minimum allowable number of fire extinguishers in any individual work area will be one in the regulated work area and one in the clean area.

PART 3 - EXECUTION

3.1 PREPARATION

- 3.1.1 **Examination of Conditions:** The Contractor must carefully examine the work site before beginning work and report any previously undisclosed or special conditions to the County. Except as may be otherwise stipulated elsewhere in the Contract Documents, starting the Work shall be interpreted as implied acceptance of conditions as they exist.
- 3.1.2 **Establishment of Existing Site Conditions:** The County may elect to collect pre-abatement lead dust wipe samples and / or pre-abatement composite surface soil samples for lead to document existing conditions prior to the start of construction.

- 3.1.3 Responsibility for Work: By commencing the Work, the Contractor acknowledges and agrees that he has sole and primary responsibility and obligation to the County to make inspections of his own work at all stages of the Work. This includes acknowledging and agreeing that he has sole responsibility to supervise or superintend the performance of the Work, and that said work will be in strict adherence and compliance with all applicable methods, materials, regulations, and required standards whether or not specified herein. The Contractor is responsible for site security upon starting the project. This responsibility extends 24 hours per day until project completion and final demobilization.
- 3.1.4 Coordination of Work: The Contractor is responsible to coordinate all scheduling, phasing, and completion of lead-related construction work with the County and all other employers working on the job site during the abatement activities. This includes the responsibility to make notifications or communications of hazards to other trades or employers, as required by regulation.
- 3.1.5 Measurements and Quantities: The Contractor is responsible to field verify all measurements, dimensions and/or quantities before the start of work. Discrepancies between plan and field dimensions or quantities shall be reported to the County as soon as discovered.
- 3.1.6 Job Site Postings: Prior to commencing any preparation of the Work Area(s) for lead-related construction activities, the Contractor will post all required documents, warning signs, and erect any physical barriers in order that the work area(s) may be secured. Prior to the commencement of any work, the Contractor will post bilingual or multi-lingual (as appropriate) warning signage in and around the work site in compliance with applicable regulations.
- 3.1.7 Pre-Work Conference: Prior to the start of any work, the Contractor shall meet at the project site with the Project IH Consultant, the County, and other entities concerned with the lead-related work. This will be an organizational meeting to review responsibilities and personnel assignments; to identify any special needs or conditions pertaining to the work or its completion; to identify the work area containment and decontamination areas; and to coordinate temporary facilities including power, light, water, waste storage, etc.
- 3.1.8 Work Area Preparation:
- 3.1.8.1 Containment of Work Areas: Work Areas wherein lead-related construction work will occur must, at a minimum, be prepared in general accordance with containment methods set forth in Chapter 8 of the HUD Guidelines, or alternatively, in accordance with The Society for Protective Coatings (SSPC), Technology Guide No. 6, May 4, 2015.
- 3.1.8.2 Work Area Designation: Each regulated work area will be designated by the Contractor and discussed with the Project IH Consultant prior to its preparation. At a minimum, topics will include ingress and egress points, work area configurations, containment methods, and installation of decontamination facilities. This may be accomplished at the Pre-Work Conference.

- 3.1.8.3 Electrical Lock-out: The Contractor, in coordination with the County, is responsible for the shutdown and disconnection of all electrical power within the work area. The Contractor will arrange for temporary power and lighting and will ensure safe installation of temporary power sources and equipment per applicable electrical code requirements. The Contractor should notify the County in writing before disconnecting any power or communication lines that may service the subject buildings or adjacent buildings.
- 3.1.8.4 Work Area Preparation: Polyethylene (poly) sheeting will be used to capture and contain lead debris contamination during routine removal from a substrate. Poly sheeting can be used in combination with water misting (dust suppression) to protect the adjacent surfaces (including any exposed exterior soils surrounding building exteriors that may be impacted by the Work) during disturbance of exterior surfaces. Adequate protection of non-impacted building areas, and/or exterior soils or pavements, may require the use of multiple layers of poly sheeting, or alternatively effective means. Where poly sheeting is used, the sheeting layers will be firmly affixed to, and extend outward a minimum of six feet from, the building walls or exterior foundations. If, during the disturbance of paint or building components, it is evident that lead-containing paint/debris are falling or will likely fall beyond the poly sheeting, the distance will be increased and/or modified as necessary to capture all debris. Doors, windows and other lead-painted or lead-containing materials subject to disturbance will be similarly prepared with poly sheeting and adhesive tape, or alternatively effective means, so as to contain lead-containing dust or debris to within the regulated Work Area. Damage to, or holes created in, poly sheeting barriers during the Work will be immediately repaired.
- 3.1.8.5 Effect of Wind on Exterior Work: The Contractor will take all necessary steps to protect exterior soils, adjacent buildings and properties, and storm drains from impact by lead debris. Work Area preparation will include wind breaks or baffles, as necessary, to prevent lead dust or debris from being wind blown out of a regulated Work Area. The Contractor will halt the Work if Work Area preparations are demonstrably inadequate to contain debris within the regulated area(s). In no case will exterior lead paint disturbance be conducted during inclement weather, nor when wind speeds reach a sustained velocity of, or repeated peak gusts of, 20 miles per hour.
- 3.1.8.6 Decontamination Facilities: Prior to the start of work, at a minimum, a hand washing facility must be provided by the Contractor for all workers who may be occupationally exposed to lead-containing paint or by demolition of lead-containing materials, irrespective of measured airborne lead concentrations. A fully functioning shower facility will be provided if work activities result in, or should reasonably be expected to result in, personal exposures to lead in excess of the PEL.
- 3.1.8.7 Movable and Loose Items: Movable and loose items located within the work area(s) and not removed by the County are to be cleaned using HEPA-filtered vacuum equipment and/or wet cleaning methods, as appropriate, and will be removed from the work area to a temporary location designated by

the County. The items will be received by and protected from future damage or loss by the County.

- 3.1.8.8 Regulation of Work Areas: Prior to lead-related construction work, the Contractor will regulate the Work Area(s) by methods including, but not necessarily limited to: posting lead-warning signs at all entrances to the Work Area(s). These signs will be in compliance with the Cal-OSHA Construction Safety Orders for Lead (8 CCR §1532.1 et. seq.). Only authorized workers and visitors will be allowed into a regulated Work Area.
- 3.1.8.9 Adjacent Areas: Work areas immediately adjacent to the Work, such as corridors or hallways which will not be subject to the Work, but are necessary routes to and from Work Areas, must be protected by the Contractor to prevent damage and/or lead contamination. Openings from these areas into areas where lead-containing material is being disturbed will have curtained doorways to further minimize airborne lead release into non-regulated areas. The Contractor will be responsible to make all required notifications to trades or other building occupants working in areas adjacent to regulated Work Areas.
- 3.1.8.10 Emergency Exits: The Contractor will establish and maintain emergency and fire exits from the Work Areas, or establish alternative exits, as may be required by local fire officials or applicable fire codes.
- 3.1.8.11 Pre-Work Inspections: Prior to the start of lead-related work, the Contractor's Supervisor (Competent Person), accompanied by the Project IH Consultant, will conduct an inspection of the equipment and Work Area isolation preparations to assure that appropriate engineering controls are in place and are functioning sufficiently to contain lead hazards to within the Work Area. The concurrence of the Project IH Consultant will be required to determine that a Work Area has undergone adequate preparation to proceed with lead-related work. This Pre-Work Inspection will be conducted for each regulated Work Area and each individual inspection will be documented in writing. Such documentation will be signed by the individuals conducting the inspection. A copy of each such documentation shall be obtained by the Project IH Consultant for conveyance to the County.

3.2 METHOD OF CONTROL

3.2.1 Work Practices:

- 3.2.1.1 General: At all times, the Contractor will employ Lead Safe Work Practices to minimize or eliminate the potential for creating personal exposure to lead or creating lead hazards. This will include, but not necessarily be limited to, pre-cleaning the Work Area; misting the air within the Work Area, as necessary to reduce airborne lead dust concentrations; use of wet work methods (e.g., wet sanding and/or wet scraping) to reduce dust generation; prompt clean-up of lead-containing waste or debris; use of power tools equipped with HEPA-filtered dust collection systems; use of HEPA-filtered vacuums, when vacuums are used; use of HEPA-filtered exhaust fans, where

deemed necessary to create a negative air pressure differential within the Work Area (see Chapter 8 of the HUD Guidelines); removal of lead-containing coatings from metal substrates prior to torch cutting; and employing the engineering controls necessary to reduce airborne lead dust concentrations within a Work Area.

- 3.2.1.2 Work Crew Size: The Contractor is responsible for setting the size of its work crew(s), subject to the conditions stated in this paragraph. During lead-related construction work, a minimum of two (2) workers must be in the Work Area at any time. No worker shall be allowed to work alone in a regulated Work Area. Under no circumstances may workers be allowed to work without the supervision of an on-site foreman while within the Work Area. The crew size on any given day will be adequate to progress and/or complete the Work in accordance with the established Project Schedule.
- 3.2.1.3 Worker Discipline: The Contractor will at all times establish and maintain discipline and good order over its employees. The Contractor will not employ on the work crew any person not skilled in the Work to which he/she is assigned, nor anyone who has not received notice and instructions in the dangers of lead exposure, and in the methods of reduction of the dangers associated with its disturbance. Workers must also receive training in the proper use of respirators, safety procedures, equipment, protective clothing, and appropriate work procedures. The Contractor will remove from the job site any employee repeatedly failing to adhere to any standard or requirement set forth herein.
- 3.2.1.4 Visible Emissions: The Contractor is solely responsible for conducting ongoing visual observations of the Work Area(s). If, at any time, visible emissions appear to be emanating from the Work Area, the Contractor will immediately cease work and establish more stringent engineering controls, or otherwise revise its work practices, to eliminate the visible emissions.
- 3.2.1.5 Demolition of Components: All work which disturbs deteriorated ("loose, flaking or peeling") lead-containing paint or lead-containing materials will be done utilizing hand tools. Loose, flaking or peeling paint will be removed with hand tools prior to demolition of building components. Power tools may be used for such work only if the power tools are equipped with HEPA-filtered dust collection systems. Surface preparation prior to demolition will likewise be done by hand with wet methods. Water may be used in sanding or scraping ("wet work methods") only in quantities sufficient to minimize airborne dust but may not be used in such a volume as to cause run-off. All lead-contaminated water will be collected and contained for filtration and/or waste characterization. For this reason, power-washing should be avoided.
- 3.2.1.6 Removal of Toxic Coatings: In accordance with 8 CCR §1537, et. seq., all surfaces covered with toxic preservatives, including coatings which generate toxic substances upon heating, will be stripped for a minimum distance of four inches from the area of heat application, or the employee(s) engaged in such work will be required to use supplied-air respirators in accordance with 8 CCR §5144, et. seq., or the provisions of 8 CCR §1536(b), (c) will apply.

- 3.2.1.7 Indoor Torch Cutting: Where indoor torch cutting will be conducted which involves building components coated with hazardous materials including, but not necessarily limited to lead, the work will be conducted in accordance with 8 CCR §1536, et. seq. Materials or surfaces from which lead-containing paints or coatings have been removed are not to be considered “lead-free,” and are still subject to this requirement until and unless a Negative Exposure Assessment has been established in accordance with 8 CCR §1532.1(d)(5).
- 3.2.1.8 Material Handling: Where lead-painted or other lead-containing building components are to be removed, the Contractor will, to the extent possible, remove them substantially intact and, where elevated, lower them to the ground for containerization. At no time may materials be allowed to drop to, nor accumulate upon, unprotected soil surfaces. Any loose or peeling paint will be removed before a painted building component is removed from the building and before the building is demolished. All lead-containing particulate debris must be collected and placed in leak-proof containers and stored for waste characterization.
- 3.2.1.9 Work Area Cleaning: Clean-up and containerization of lead-containing waste will be an on-going activity throughout the Work. Lead-containing debris must not be allowed to accumulate within the Work Area for subsequent clean-up. Containerized waste may be stored within the Work Area during the Work but should be removed from the Work Area for storage in a secured location at least daily before the end of the shift. In no event will the accumulation of containerized waste within the Work Area be allowed to impede the work progress, nor compromise work-site safety.
- 3.2.1.10 Containerization of Waste: Unless otherwise specified, lead-containing debris and waste will be containerized in rigid primary waste containers (boxes, drums, bins, etc.) suitable for loading, temporary storage, transit, and unloading of lead waste without rupture, or otherwise causing exposure to persons or releases to the atmosphere. Rigid primary containers will be lined with a leak-proof barrier of poly sheeting or poly bags of minimum thickness of 6 mil. Waste containerized in bags will be double-bagged, evacuated of air, and sealed with duct tape. All containers used for disposal of lead-containing waste will be labeled in general accordance with applicable regulations.
- 3.2.1.11 Waste Load Out: Prior to the removal of containerized waste from the Work Area, each container will be decontaminated by wet-wiping to remove any residual lead contamination. Double-bagging of waste will be completed within the regulated Work Area and the exterior of each container will be individually wet-wiped prior to removal from the Work Area. Waste shall be loaded out of the Work Area through the equipment decontamination (waste load out) chamber and not through the personal decon. Once outside of the Work Area, the waste will be transported in rigid movable bins, wheelbarrows or comparable directly to a secured waste storage location.
- 3.2.1.12 Equipment Decontamination: Prior to removal from a Work Area, the Contractor will decontaminate all tools and equipment. Decontamination

will include, but not be limited to: wet-wiping, HEPA-vacuuming, and containerizing tools into subsequently decontaminated containers. Prior to removal from the Work Area, HEPA-filtered vacuum cleaners will be emptied of debris, wet-wiped and wrapped, bagged or otherwise containerized for transport from the Work Area. Likewise, differential air pressure equipment is to be sealed with poly sheeting and tape, and externally decontaminated before removal from the Work Area. All equipment will be subject to inspection by the Project IH Consultant prior to its demobilization from a regulated work area.

- 3.2.1.13 Detail Cleaning: Following completion of the Work, the Work Area will be cleaned using a combination of hand tools (mops, rags, etc.), wet-wiping, and HEPA vacuuming. Dry sweeping or shoveling of lead-containing waste or debris is prohibited. Any poly sheeting protecting the Work Area will be considered to be adequately cleaned when no visible and no three-dimensional remnant of debris or lead-containing waste can be seen or felt. Porous substrates such as wooden or concrete will similarly be considered to be adequately cleaned when no three-dimensional remnant of debris or lead-containing waste can be seen or felt. In no event will bridging encapsulants be allowed in lieu of detail cleaning.
- 3.2.1.14 Post-Work Inspections: Subsequent to the completion of the cleaning phases and waste load-out, the Contractor's Supervisor (Competent Person), accompanied by the Project IH Consultant, will conduct a detailed inspection of the Work Area to assure that the Work Area has been adequately cleaned. The concurrence of the Project IH Consultant will be required to conclude that a Work Area has undergone adequate cleaning following lead-related construction work. If a Work Area is not visibly free of all debris, the Contractor will re-clean the Work Area using wet-wiping and HEPA vacuums until a satisfactory condition is established. This Post-Work Inspection will be conducted for each regulated Work Area and each individual inspection will be documented in writing. Such documentation will be signed by the individuals conducting the inspection. A copy of each such documentation will be obtained by the Project IH Consultant for conveyance to the County. All non-essential equipment is to be decontaminated, as described herein, and removed from the Work Area prior to commencing a Post-Work Inspection.
- 3.2.1.15 Poly Removal: At the end of the work within a regulated Work Area, the poly sheeting will be cleaned, the Post-Work Inspection will be conducted, and the poly sheeting will be removed. The poly sheeting must be thoroughly cleaned and decontaminated to allow it to be disposed of as "non-hazardous" waste. Cleaning will include wet wiping and vacuuming with a HEPA-filtered vacuum, as necessary. Following the successful completion of the Post-Work Inspection in each Work Area, the Contractor may remove the final layer(s) of plastic from the walls, floors, and/or ceilings (as applicable). All other isolation engineering controls including decontamination facilities will likewise remain in place until the successful completion of the Post-Work Inspection is achieved. No alternative approaches may be implemented without the concurrence of the Project IH

Consultant. The Contractor will containerize removed plastic and any remaining debris, decontaminate the container, and dispose of the container and its contents as lead-contaminated waste. All other isolation engineering controls including decontamination facilities may similarly be removed once all specified clearance criteria have been met. **Removal of plastic layers and isolation engineering controls (“teardown”) may not occur without the knowledge and consent of the Project IH Consultant.** The Contractor will conduct a post-teardown visual inspection of the work area to identify and remove any debris that may have resulted from containment breaches or from containment removal.

3.2.2 Worker Protection And Personal Decontamination

- 3.2.2.1 General: The Contractor will be solely responsible for the safety, efficiency, and adequacy of its work, workers, equipment and methods, and for any damages which may result from their negligent actions, practices, construction, maintenance, or operations. The Contractor will erect and maintain at all times, as required by the condition and progress of the Work, proper safeguards for the protection of the workers and the public, including the posting of appropriate and applicable warning signage on the site.
- 3.2.2.2 Competent Person: The Contractor will designate a responsible member of its organization to be present on the work site, whose duty shall be the detection, recognition, and prevention of accidents and potential accidents. The designated individual will assume and fulfill the duties of the Competent Person, as defined in 8 CCR §1504. In the absence of notice to the contrary, provided in writing to the Project IH Consultant, this person will be the on-site Lead-Related Construction Supervisor of the Contractor.
- 3.2.2.3 Toxic Exposure Responsibility: To the extent allowable by law, the Contractor assumes all responsibility for any toxic exposures or effects experienced by workers as a result of the air quality supplied to respirators. The Contractor will assume all responsibility for any toxic exposures or effects to all personnel or property caused by airborne particulates, mists, vapors, or any wetting agent(s), or hazardous substances, and for the legal disposal of said substances and/or any residual toxic residues. Commencement of the Work by the Contractor will constitute implied acceptance of these responsibilities.
- 3.2.2.4 Separation of Facilities: Workers engaged in lead-related construction or lead-disturbing activities will not be permitted to eat, drink, smoke, chew gum, apply cosmetics, or use tobacco products within a regulated Work Area. Lavatory facilities, eating facilities and clothing change areas are to be established and maintained separate from the regulated Work Areas.
- 3.2.2.5 Environmental Quality: At the discretion of the County, on-site environmental sampling for airborne or surface wipe concentrations of lead may be conducted at any time, in any location, with or without prior notice. The purpose of this environmental sampling will be to evaluate whether existing containment or engineering controls are adequate and sufficient to

prevent the release of lead outside of regulated Work Areas. Such sampling, if conducted, would not be intended to meet the definition of a “lead hazard evaluation”, as defined in 17 CCR §35038(a).

3.2.2.6 Respiratory Protection: Prior to commencement of work, all workers engaged in lead-related construction or lead-disturbing activities will be instructed in, and will be knowledgeable of, the use of respiratory protective equipment. Respiratory protection will be utilized only after all other feasible lead exposure hazard reduction methods have been implemented and demonstrated to be insufficient to reduce worker exposures to below the Action Level. All respiratory protection measures will be provided to workers in conjunction with a respiratory protection program which will meet the requirements of Cal-OSHA regulations set forth in 8 CCR §5144 and 8 CCR §1532.1(f). This includes qualitative or quantitative fit testing. The following additional requirements will apply:

3.2.2.6.1 The Contractor will provide its workers with respiratory equipment approved by the National Institute for Occupational Safety and Health (NIOSH) for use in atmospheres containing lead dusts. Respiratory protection will be issued to workers for their sole and individual use. Respiratory protection will be worn by all on-site personnel entering the regulated Work Area(s). Respiratory protection will be worn at all times when inside the regulated Work Area, as well as during personal decontamination.

3.2.2.6.2 Where respirators with disposable filters are employed, the Contractor will provide sufficient filters for replacement as necessary by the worker, or as required by the applicable regulation.

3.2.2.6.3 In the absence of exposure monitoring data conforming to all Cal-OSHA requirements, the Contractor will assume lead exposures within work areas exceed the PEL and will, at a minimum, utilize the respiratory protection required for Low Exposure Trigger Tasks (i.e. manual demolition). In such instances, half-face mask, negative pressure, air-purifying respirators fitted with P-100 filter cartridges may be utilized during the disturbance of lead-containing materials. If half-face mask, negative pressure, air-purifying respirators are utilized, the workers will also be required to wear approved safety glasses or goggles. Workers engaged in Medium Exposure Trigger Tasks or High Exposure Trigger Tasks will, at a minimum, utilize the respiratory protection prescribed for those exposures and Trigger Tasks.

3.2.2.6.4 The Contractor will supply its workers with adequate respiratory protection, to meet the minimum standards of the applicable Cal-OSHA requirements. In accordance with 8 CCR §1532.1, the Contractor will have a Competent Person conduct exposure assessments and periodic monitoring to establish the minimum appropriate respiratory protection to be used and the

effectiveness of the chosen respiratory protection. Until the Contractor performs exposure assessments in compliance with 8 CCR §1532.1(d) which determine actual employee exposures, the Contractor is to assume that workers conducting Low Exposure Trigger Tasks (i.e. manual demolition) are being exposed to airborne lead in excess of the PEL, but not in excess of 10 times the PEL, and will protect employees accordingly. In addition, the Contractor will require and enforce the use of the following activity-related requirements:

- (a) Work involving the use of solvents or volatile organic compounds will be conducted with the use of air purifying respirators equipped with HEPA and Organic Vapor cartridges.
- (b) Any question as to respiratory protection requirements for any activity unnamed or not otherwise described herein, by default, will require the maximum respiratory protection required by regulation.
- (c) Appropriate respiratory equipment will be required of all persons entering into regulated Work Areas.

3.2.2.6.5 The Contractor will post in the Equipment Room and the Clean Room, all decontamination and safety procedures to be followed for ingress and egress from Work Areas.

3.2.2.7 Protective Clothing: The Contractor will provide workers with sufficient sets of hooded, disposable, full-body coveralls recommended for use in lead-related work operations equivalent to DuPont "TYVEK-Type 14". Such full body protective clothing will include, but not be limited to:

3.2.2.7.1 Foot coverings including safety shoes or boots.

3.2.2.7.2 Protective head coverings (hard-hats).

3.2.2.7.3 Protective clothing should be hooded, full-body coverall type.

3.2.2.7.4 Durable water-proof gloves (plastic, latex, rubber, nitrile, etc.) selected for chemical compatibility of the glove material and the liquid materials to be handled. Cloth or leather gloves may also be worn for comfort but shall not be worn alone when handling hazardous liquids.

3.2.2.8 Additional Clothing Requirements: The Contractor will observe the following additional work clothing requirements:

3.2.2.8.1 Any non-decontaminated protective clothing will remain within the contaminated areas and will be disposed of as lead-contaminated waste upon completion.

- 3.2.2.8.2 Provide authorized visitors with disposable sets of protective full-body clothing, as needed to enter into regulated Work Areas.
- 3.2.2.8.3 Provide eye protection and hard hats as required for job conditions or by applicable safety regulations. Where negative pressure respirators are worn, they will be full-faced, unless the Contractor also provides protective eye wear.
- 3.2.2.8.4 All clothing will be sealable by design or by securing with tape at the workers' ankles and wrists.
- 3.2.2.9 Personal Exposure Monitoring: It will be the Contractor's responsibility to conduct required personal exposure monitoring. Such exposure monitoring will be in full compliance with the requirements of 8 CCR §1532.1 and 8 CCR §5144. The Contractor will monitor the airborne lead exposures of not less than 10% of the work crew, or a minimum of two (2) workers, whichever is greater. Workers will be monitored in "worst case scenario" tasks, as well as those conducting less hazardous work. Personal exposure monitoring is not the responsibility of the County, nor of the Project IH Consultant, however, the Project IH Consultant may elect to conduct such monitoring as a supplemental or quality assurance measure. Personal exposure monitoring conducted by the Project IH Consultant is not to be construed as a substitute for, nor in any way to obviate, the Contractor's duty to conduct such monitoring. Analytical results of Contractor's personal exposure monitoring will be posted daily at the work site, and copies of the analyses are to be submitted to the County along with the Post-Job Submittals.

3.2.3 Lead Contamination of Building or Environment

- 3.2.3.1 In the event that removed lead-containing materials, dust or debris is not properly contained within the Work Area and thereby escapes, bypasses or penetrates established barriers, the Contractor shall stop work immediately, notify the County and the Project IH immediately, and commence clean-up and decontamination procedures as described herein or directed by the County and the Project IH.
- 3.2.3.2 For soil contamination, the Contractor shall remove all visible signs of lead-containing materials, dust and debris and, at minimum, the upper one-half inch of soil in the area contaminated and at least five feet beyond in each direction. Successful completion of soil decontamination shall be subject to evaluation by sampling at the discretion of the County and the Project IH. Soil sample(s) with lead concentrations below pre-abatement composite surface soil sample results or 400 ppm if background samples were not collected, shall be the criteria for completion of soil clean-up and decontamination. The Contractor shall be responsible for all costs associated with disposal of any debris and contaminated soil, including waste characterization testing.

3.2.4 Waste Management And Disposal

- 3.2.4.1 General: The Contractor will be responsible for the safe handling, packaging, labeling, storage and transportation of all lead-containing waste (hazardous and non-hazardous) generated by the Work. By commencing this work, the

Contractor implicitly agrees to bear all costs arising from any claims, damages, losses, and/or clean-up expenses incurred which, as a result of the Contractor's negligence, result from a lead release(s) on the job-site or while lead waste is in transport to a waste disposal facility. The Contractor or its designated subcontract waste hauler will deliver all lead-containing waste materials to an appropriately designated waste disposal facility that has been accepted by the County and which is permitted in accordance with applicable regulations.

3.2.4.2 Waste Segregation: All removed architectural debris with lead-containing paint, paint chips, vacuum dust, and debris, glazed ceramic tiles and debris, used cleaning articles, HEPA vacuum bags, respirator cartridges, gloves, and disposable coveralls, wastewater, plastic sheets and other disposable items which were used during the lead-related construction work and any other lead-containing wastes generated during lead-related construction work will be considered potential hazardous waste until characterization has been performed in accordance with 22 CCR §66261.24. Waste will be segregated into distinct waste streams according to the waste categories suggested in the HUD Guidelines, which include:

3.2.4.2.1 Category I: Low Lead Waste – typically consists of non-hazardous construction materials, filtered wash water, cleaned plastic sheeting, and other items that test as non-hazardous;

3.2.4.2.2 Category II: Architectural components such as painted finished items like doors, windows, trim, etc. which demonstrate intact, undeteriorated and/or stabilized surface coatings;

3.2.4.2.3 Category III: Concentrated Lead Waste - typically hazardous materials such as paint sludge, paint chips vacuum debris, vacuum filters, and any waste testing hazardous; and

3.2.4.2.4 Category IV: Other waste requiring characterization testing.

3.2.4.2.5 Any asbestos-containing or asbestos-contaminated waste generated during the work will be segregated from suspected lead waste. Care will be exercised by the Contractor to prevent, where feasible, commingling of asbestos and lead waste. In general, separate vacuums will be used for each type of waste clean-up.

3.2.4.3 Storage Facilities: The Contractor will assure that all lead-containing waste (hazardous and non-hazardous) generated by the Work is stored in a secured manner until received at the waste disposal facility. Debris bins, storage enclosures, etc. will be locked overnight and whenever the Contractor is off-site or unable to directly monitor their contents and management. The Contractor will ensure that the appropriate and required warning signs are posted on waste storage locations. The Contractor will be responsible to maintain the waste storage facilities in an orderly and well-kept condition at all times. The Contractor will conduct routine waste storage area inspections to assure that appropriate storage conditions are maintained. Waste is not to be co-mingled with stored non-waste material or equipment. All waste will remain stored in secured waste storage areas until results of waste

characterization are available. Due to analytical methods required for waste characterization, this may require storage for up to ten (10) working days or more.

- 3.2.4.4 Waste Characterization for lead hazard content will be performed as stipulated in Title 22 of the California Code of Regulations, including using one or more of the following testing procedures, as required:
 - 3.2.4.4.1 Total Threshold Limit Concentration (TTLC);
 - 3.2.4.4.2 Waste Extraction Test (WET); and/or
 - 3.2.4.4.3 Toxicity Characteristic Leaching Procedure (TCLP).
- 3.2.4.5 Hazardous Waste Determination: Based on the testing protocols, any waste containing greater than or equal to 1,000 ppm using the TTLC test or any waste containing greater than or equal to 5 ppm lead using WET or TCLP tests will be considered hazardous waste. Wastes reported by the laboratory to contain more than 50 ppm and less than 1000 ppm using the TTLC test may still be hazardous waste and will require analysis using WET and/or TCLP tests.
- 3.2.4.6 Off-site Shipment of Wastes: The Contractor will notify the County in advance, whenever lead-containing waste materials are to be removed from the work-site. A copy of the Uniform Hazardous Waste Manifest or any other documents required by Federal, State or Local agencies shall be completed by the Contractor and submitted to the County for review and signature prior to transporting lead-containing waste materials to a disposal facility. The Contractor will provide the County with sufficient advance notice of the need to obtain manifest signatures, so as to not delay waste shipment, nor to otherwise impede the Project Schedule. The Project IH Consultant will have authority to sign or approve waste shipping documents on the County's behalf. It is the Contractor's responsibility to obtain the necessary authorized signature(s) to ship wastes off-site. Delays or expenses resulting from the untimely coordination of waste shipment documentation will be borne by the Contractor.
- 3.2.4.7 Waste Shipment Documentation: EPA Uniform Hazardous Waste Manifest forms will be used for all waste transported off-site for hazardous waste disposal. The Contractor will submit original "Generator" copies of all hazardous and non-hazardous waste manifests to the Project IH Consultant at the time the waste is transported off-site for disposal. All waste loads removed from the Project Site will be weighed by a Certified Weighmaster prior to delivery to a waste disposal facility. Certified weight tickets will be submitted by the Contractor as a part of the Post-Job Submittals. At the conclusion of the Work, the Contractor will provide documentation that the lead-containing waste materials were disposed of at an appropriate EPA-approved waste disposal facility. The documentation will be submitted as part of the Post-Job Submittals.
- 3.2.4.8 Waste Shipment Containers: All waste shipping containers will be individually labeled with appropriate signage and warnings, as required by applicable regulations, codes and ordinances. All waste hauling vehicles

and/or waste debris bins will, at all times, be enclosed and sealed while in transport to a waste disposal facility.

3.2.5 Work Area Evaluation Criteria

- 3.2.5.1 General: The Contractor will not be authorized to de-mobilize from a Work Area until the Post-Work Inspection criteria have been met and documented, as described herein.
- 3.2.5.2 Post-Work Inspection Criteria: A visual evaluation of each regulated Work Area (including poly sheeting) will be performed following completion of the Work in order to evaluate the substantial completion of the stated scope of work and the thoroughness of the Contractor's Work Area cleaning. Each regulated Work Area must be free of all visible debris and dust to satisfy this assessment. If a regulated Work Area is not visibly free of all three-dimensional debris and dust, the Contractor will re-clean the Work Area using wet-wiping and/or a HEPA-filtered vacuuming until a satisfactory condition is achieved. The Contractor will be released only after each regulated Work Area has met the above criteria.
- 3.2.5.3 Optional Dust Wipe Sampling: At the discretion of the County, dust wipe sampling of a regulated Work Area may be conducted. The purpose of the dust wipe sampling will be to evaluate the effectiveness of the Contractor's containment measures. The Contractor shall be released from each Work Area when all dust wipe samples from the area are below the following levels of lead: 10 micrograms per square foot ($\mu\text{g}/\text{ft}^2$) for interior floor surfaces, 100 $\mu\text{g}/\text{ft}^2$ for interior horizontal surfaces and interior window sills, and 400 $\mu\text{g}/\text{ft}^2$ for window troughs, exterior floor surfaces and exterior horizontal surfaces. If any of the dust wipe samples exceed the clearance criteria, the entire Work Area must be recleaned using wet wiping and HEPA vacuums and retested until the clearance criteria are achieved.

END OF SECTION

ATTACHMENT - A

CERTIFICATE OF LEAD WORKER'S ACKNOWLEDGMENT

Project Name: _____

Today's Date: _____

Project Address: _____

Contractor's Name: _____

WORKING WITH LEAD CAN BE DANGEROUS TO YOUR HEALTH. INHALING LEAD DUST HAS BEEN LINKED WITH VARIOUS HEALTH PROBLEMS.

Your employer's contract for the above-named project requires that you: 1) be supplied with appropriate personal protective equipment, including respiratory protection, and be trained in its use; 2) that you be trained in lead-related construction work practices and in the use of the equipment used on this job; and 3) that you receive a medical examination. These things are to be provided at no cost to you.

RESPIRATORY PROTECTION: Your employer must provide you with training in the proper use of respirators and inform you of the appropriate type of respirator to be used on the above-named project. You must be provided access to the personal exposure sampling data used to determine the appropriate type of respirators selected for this work. You must also be provided access to the written respiratory protection manual issued by your employer. You must be equipped at no cost to you with the appropriate respirator for use on the above-named project.

TRAINING COURSE: Applicable regulations require that you be trained in the dangers inherent in working with lead and lead-contaminated dust and in proper work procedures and personal protective measures. The topics covered in the training must, at a minimum, include the following:

- The content of the Cal/OSHA Construction Safety Orders for Lead (8 CCR §1532.1, et. seq.) and its appendices;
- The specific nature of operations on this project that could result in exposure to lead above the action level;
- The purpose, proper selection, fitting, use, and limitations of respirators;
- The purpose, and a description, of the medical surveillance program, and the medical removal protection program including information concerning the adverse health effects associated with excessive exposure to lead;
- The engineering controls and work practices associated with the employee's job assignment including training of employees to follow relevant good work practices as described in Appendix B of 8 CCR §1532.1;
- The contents of any compliance plan and the location of regulated areas in effect;
- Information informing employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician; and
- The employee's right of access to records under 8 CCR §3204.

In addition, the Contractor must ensure that all employees and supervisors who are engaged in lead-related construction work as defined in Title 17, California Code of Regulations, Section 35022, and have been shown to be exposed at or above the permissible exposure limit, meet the training requirements of this section, are trained by an accredited training provider and are certified by the California Department of Health Services.

(Continued on Back)

MEDICAL EXAMINATION: Applicable regulations require that you have a medical examination within the past 12 months and that it be provided at no cost to you. This examination must, at a minimum, include:

- Health history;
- Pulmonary function tests;
- Physical examination that pays particular attention to teeth, gums, and hematological, gastrointestinal, renal, cardiovascular and neurological systems;
- Blood pressure measurement;
- Blood sample - blood lead levels, hemoglobin and hematocrit, red cell indices, peripheral smear, morphology, blood urea nitrogen and serum creatine;
- Routine urinalysis with microscopic examination; and
- May include an evaluation of a chest X-ray

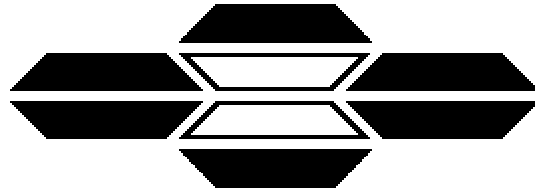
By signing this document you are acknowledging that you have been advised of your rights, as pertain to training and personal protection, and of the worker protection requirements applicable to your employer, the Contractor.

Signature: _____

Social Security No.: _____

Name: _____

Witness: _____



ASBESTOS TEM LABORATORIES, INC.

ATEM SOP-AA-01
(EPA 3050B/EPA 7420)

Lead Paint Analysis Report

Laboratory Job # 396140

3431 Ettie St.
Oakland, CA 94608
(510) 704-8930
FAX (510) 704-8429



ASBESTOS TEM LABORATORIES, INC

California DPH
ELAP ID #1866



Oct/29/2024

Steff Steiner
Terracon
1220 Concord Avenue, Suite 450
Concord, CA 94520

RE: LABORATORY JOB # 396140
Atomic Absorption Spectroscopy analytical results for 3 paint sample(s).
Job Site: 8477 Enterprise - Elevator
Job No.: R1247860

Enclosed please find results for the atomic absorption spectroscopy (AA) metals analysis of one or more paint samples. Sample preparation and analysis procedures were performed according to ATEM SOP-AA-01 (EPA 3050B / EPA 7420).

Prior to analysis, samples are checked for damage and disruption of the chain-of-custody seal. Samples are then logged-in, each given a unique laboratory number, and a hard copy containing all pertinent information is generated. This, and all other relevant paper work are kept with each sample throughout the analytical procedures to assure proper analysis.

A portion of each sample is weighed out such that an aliquot of ~0.2 grams is obtained. The weighed sample material is then placed into a digestion vessel, transferred to a fume hood, heated at ~95 Deg. C, refluxed with nitric acid to solubilize the contained metals, and treated with hydrogen peroxide to oxidize any organic binder present in the sample material. High purity water is added to make a 50 ml volume for each sample.

AA analysis is performed on a microprocessor controlled Perkin Elmer AAnalyst 300 atomic absorption spectrophotometer, operating in the flame mode. Samples are diluted as needed to allow reading of concentrations in the calibration range. QC analyses are prepared and performed along with each sample batch to ensure accurate analytical determinations. Data is compiled into a standard report format and subjected to a thorough quality assurance check before the information is released to the client.

Sincerely Yours,

Laboratory Manager
ASBESTOS TEM LABORATORIES, INC.

Note: Results for routine quality control samples run in parallel to the samples reported here were within acceptable limits.

Additional Note: Wherever possible, Asbestos TEM Laboratories highly recommends the submission of field blanks with each sample set. It is recommended to analyze field blanks collected in parallel to all samples collected in the field as a check against media contamination from the manufacturer or in the field. Sample results are not corrected for contamination based on the field blank(s) or other analytical blank(s).

Disclaimer - These results relate only to the samples tested as received and must not be reproduced, except in full, with the approval of the laboratory. Incorrect or illegible information supplied by the customer may adversely affect the validity of test results. This report must not be used to claim product endorsement by AIHA or any other agency of the U.S. Government.

**ATOMIC ABSORPTION SPECTROSCOPY
LEAD PAINT ANALYSIS REPORT
ATEM SOP-AA-01 (EPA 3050B / EPA 7000B)**

Page: 3 of 3

Contact: Steff Steiner Address: Terracon 1220 Concord Avenue, Suite 450 Concord, CA 94520		Samples Submitted: 3 Samples Analyzed: 3 Job Site / No. 8477 Enterprise - Elevator R1247860		Report No.: 396140 Date Submitted: Oct-25-24 Date Reported: Oct-29-24	

SAMPLE ID	METAL	SAMPLE RESULT	REPORTING LIMIT	LOCATION / DESCRIPTION
Pb-1 Lab ID # 1434-05033-001	Pb	1500 mg/kg 0.150 %	40 mg/kg 0.004 %	Black Metal Elevator Door Frame 3rd Floor- Elevator Landing <u>Sampling Date</u> Oct-25-25 <u>Analysis Date</u> Oct-29-24 <u>Analyzed Weight (g)</u> 0.2516
Pb-2 Lab ID # 1434-05033-002	Pb	1200 mg/kg 0.120 %	41 mg/kg 0.004 %	Gray Metal Elevator Door 3rd Floor - Elevator Door <u>Sampling Date</u> Oct-25-24 <u>Analysis Date</u> Oct-29-24 <u>Analyzed Weight (g)</u> 0.2438
Pb-3 Lab ID # 1434-05033-003	Pb	57 mg/kg 0.006 %	44 mg/kg 0.004 %	White Drywall Wall 1st Floor-Equipment Room <u>Sampling Date</u> Oct-25-24 <u>Analysis Date</u> Oct-29-24 <u>Analyzed Weight (g)</u> 0.2291
				<u>Sampling Date</u> <u>Analysis Date</u> <u>Analyzed Weight (g)</u>
				<u>Sampling Date</u> <u>Analysis Date</u> <u>Analyzed Weight (g)</u>
				<u>Sampling Date</u> <u>Analysis Date</u> <u>Analyzed Weight (g)</u>
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				<u>Sampling Date</u> <u>Analysis Date</u> <u>Analyzed Weight (g)</u>
				<u>Sampling Date</u> <u>Analysis Date</u> <u>Analyzed Weight (g)</u>

Analytical results posted above relate only to the material(s) tested.
 The sample has not been blank corrected.

µg - micrograms 1% = 10,000 ppm 1ppm = 1 mg/Kg

Lab QC Reviewer Jo Ann Huerto
 Jo Ann Huerto

Analyst Jie Zhang
 Jie Zhang

546140



E-MAIL REPORT TO: PROJECT MANAGER (PM)

LEAD PAINT SAMPLE DATA SHEET

☐ denise.wallen@terracon.com
Engineering Assistant

☐ heidi.santos@terracon.com
Engineering Assistant

* Lead Analysis

☐ Flame AA (EPA 7420) ☐ TTLC

PAGE ____ OF ____

☒ PM - Steff Steiner
steff.steiner@terracon.com

☐ PM - Karin Schroeter
karin.schroeter@terracon.com

☐ PM - Ken Pilgrim
ken.pilgrim@terracon.com

☐ PM - Tedd Kattchee
tedd.kattchee@terracon.com

☐ PM - David Block
david.block@terracon.com
Project Name/ Address/ Building No. B477 ENTERPRISE - ELEVATORProject# R1247860 Sampled By: M. REED Sampling Date: 10-25-2025Sample(s) sent to: ☐ MAL ☐ EMSL ☐ Eurofins

Other _____

TAT ☐ Rush ☐ 24HRS ☒ 48HRS ☐ 3-5 Day

Sample ID	Paint Description and Sample Location	Condition (I/F/P)
Pb-1	Paint Color: <u>BLACK</u> Substrate: <u>METAL</u> Component: <u>ELEVATOR DOOR FRAME</u> Sample Location: Bldg # _____ Unit # _____ Room _____ <u>3RD FLOOR - ELEVATOR LANDING</u>	I
Pb-2	Paint Color: <u>GRAY</u> Substrate: <u>METAL</u> Component: <u>ELEVATOR DOOR</u> Sample Location: Bldg # _____ Unit # _____ Room _____ <u>3RD FLOOR - ELEVATOR DOOR</u>	I
Pb-3	Paint Color: <u>WHITE</u> Substrate: <u>DRYWALL</u> Component: <u>WALL</u> Sample Location: Bldg # _____ Unit # _____ Room _____ <u>1ST FLOOR - EQUIPMENT ROOM</u>	I
	Paint Color: _____ Substrate: _____ Component: _____ Sample Location: Bldg # _____ Unit # _____ Room _____	
	Paint Color: _____ Substrate: _____ Component: _____ Sample Location: Bldg # _____ Unit # _____ Room _____	

Relinquished By: M. REEDSignature: M. REEDDate/Time: 10-25-2024Received By: [Signature]Signature: [Signature]Date/Time: 10/25/24 1608

Relinquished By: _____

Signature: _____

Date/Time: _____

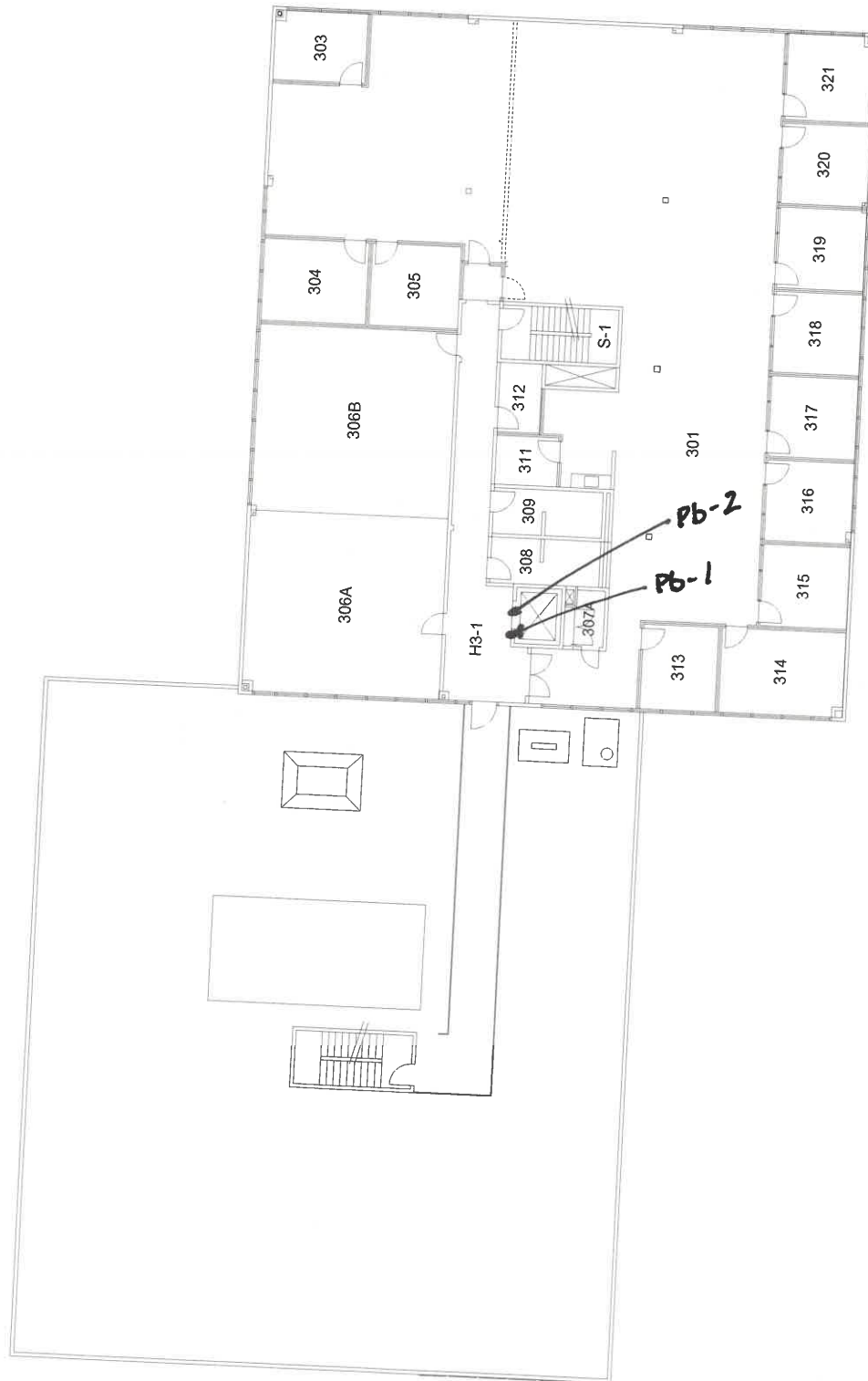
Received By: _____

Signature: _____

Date/Time: _____



Bldg #-Drawing Name-Floor:	04560-Welfare Bldg-3rd Flr.		USF:	7,314
Building Name:	Welfare Building		Print Date:	7/24/2007
Street Address:	8477 Enterprise Drive		City:	Oakland





Bldg #-Drawing Name-Floor:	04560-Welfare Bldg-1st Flr.	USF:	10,798
Building Name:	Welfare Building	Print Date:	7/24/2007
Street Address:	8477 Enterprise Drive	City:	Oakland

