CITY OF SAN LEANDRO
STATE OF CALIFORNIA

CONTRACT BOOK

Proposal
Notice to Bidders
Agreement
Special Provisions

FOR

SAN LEANDRO BALL PARK LOCKER / RESTROOM REFURBISHMENT

FOR USE WITH:

THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, THE 2006 EDITION AND 2008 SUPPLEMENT THERETO, AMERICAN PUBLIC WORKS ASSOCIATION, SOUTHERN CALIFORNIA CHAPTER; THE STATE DEPARTMENT OF INDUSTRIAL RELATIONS GENERAL PREVAILING WAGE RATES; AND THE STATE DEPARTMENT OF TRANSPORTATION LABOR SURCHARGE AND EQUIPMENT RENTAL RATES.

PROJECT NO. 2003.0331

BID NO. 14-15.004

Engineering and Transportation Department
835 East 14th Street
San Leandro, CA 94577

Telephone: (510) 577-3428
Fax: (510) 577-3294

PROJECT ENGINEER: **MARK GORALKA, PE**

Kenneth Joseph, P.E., City Engineer
R.C.E. 34870 Expires 9/30/15

REGISTERED PROFESSIONAL ENGINEER
KENNETH C. JOSEPH
No. 34870
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

BID OPENING:
3:00 PM, TUESDAY, SEPTEMBER 2, 2014

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PROPOSAL FORM TO THE CITY OF SAN LEANDRO

Proposal Requirements

1. All bidders shall complete the "Proposal to the City of San Leandro" form contained in this Contract Book. The form consist of the following parts;

   Proposal To The City Of San Leandro

   Contract Price Schedule

   List Of Subcontractors

   Addenda Acknowledgment And Information

   Principal Persons With Interest In Proposal

   Experience And Financial Responsibility

   Eligibility Contract Statement

   Bidder Questionnaire

   National Labor Relations Board Statement

   Non-Collusion Affidavit

   Debarment And Suspension Certification

   Business License Application

   Bid Bond

   Public Contract Code Chapter 2.7 Iran Contracting Act of 2010

   This completed proposal form shall be submitted in its entirety, presented under sealed cover, shall be accompanied by a bidder's bond executed by an admitted surety insurer, naming the City of San Leandro as beneficiary.

2. The form of Bidder's Bond to be used in included with the proposal form. The bidder's bond shall be at least 10% of the bid amount. As an alternative to the Bidder's Bond, cash, cashier's check, or certified check payable to the City and in an amount equal to at least 10% of the bid amount may be used.

3. A statement of Experience and Financial Responsibility shall accompany the proposal. A form for this statement can be found as part of the Proposal to the City of San Leandro, which follows these proposal requirements.

4. If bidder is:

   A. An individual doing business in his or her own name; sign name only.

PROPOSAL FORMS

B. An individual using a firm name; sign name as an individual D.B.A. (doing business as). For example: "John Doe, an individual doing business as XYZ Company".

C. A co-partnership; sign name with title as in this example: "XYZ Co., by John Doe, Copartner." Also, provide the names of all individuals.

D. A corporation; sign name with title as in this example: "XYZ Co., by John Doe, President". Also, state legal name of corporation, names of the president, secretary, treasurer, and manager of the corporation. Affix seal of corporation.

4. The business address of the bidder must be filled in completely on the proposal, giving the address of the firm in the case of a partnership or a corporation, <u>not</u> the address of the partner or official signing this proposal.

5. The spaces provided on the proposal for State of California Contractor's License Number and classification must be filled in completely.

6. To assure recognition, write the words "Proposal, etc." plainly on the envelope.

7. The bidder must provide evidence of a current City of San Leandro Business License or a copy of the application for such as part of this proposal.

PROPOSAL FORMS

PROPOSAL TO THE CITY OF SAN LEANDRO

CITY OF SAN LEANDRO
STATE OF CALIFORNIA

FOR

SAN LEANDRO BALL PARK LOCKER / RESTROOM REFURBISHMENT
PROJECT NO. 2003.0331
BID NO. 14-15.004

NAME OF BIDDER: _____

BUSINESS ADDRESS: _____

CITY, STATE, ZIP: _____

LICENSE NO.: _____ CLASS: _____ EXP. DATE: _____

TELEPHONE NO.: ( ) _____ FAX NO.: ( ) _____

EMAIL: _____

The work for which this proposal is submitted is for construction in accordance with the Contract Documents, including the Special Provisions of the Agreement, the project plans described below, and the Standard Specifications for Public Works Construction, 2006 edition and 2008 supplement thereto, adopted by the American Public Works Association, Southern California Chapter, and the Special Provisions (Technical Specifications) and Standard Plans thereto adopted by the City Engineer. The Contract Book shall be used in conjunction with the above documents, and the State of California Department of Transportation Labor Surcharge and Equipment Rental Rates, and the State Department of Industrial Relations General Prevailing Wage Rates current at the bid opening date.

The project plans for the work to be done are entitled "**SAN LEANDRO BALL PARK LOCKER / RESTROOM REFURBISHMENT**, **Project No. 2003.0331**" consisting of 20 sheets. Plans were approved by the **City Engineer on August 1, 2014.**

The work to be done consists of **accessibility and aesthetic upgrades to the public restroom and locker facilities at the San Leandro Ball Park;** and doing all appurtenant work in place and ready for use, all as shown on the plans and described in the specifications with the title indicated in the above paragraph, and on file in the office of the Engineer**.** Reference to said plans and specifications is hereby made for further particulars.

PROPOSAL FORMS

A bidder's security, in an amount and of a form described under Paragraph 1 of the Proposal Requirements section of these provisions shall accompany this proposal.

The attention of all bidders is directed to Sections 2-1 of the Special Provisions for the basis of award.

The bidder shall set forth for each item of work a unit price and a total price for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for this purpose. In the case of unit basis items, the amount set forth under the "Total Price" column shall be the extension of the item price bid on the basis of the estimated quantity for the item.

In case of conflict between an item price in words and the price in figures, the price in words shall prevail. In case of discrepancy between an item price and the total set forth for a unit basis item, the item price shall prevail. However, if the amount set forth as an item price is ambiguous, illegible, or uncertain for any cause, or is omitted, or is the same amount as the entry in the "Total Price" column, then the amount set forth in the "Total Price" column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the item price. "Total Bid" shall be the total sum of the "Total Price" column as corrected.

The successful bidder must submit a signed agreement, all required bonds, and proof of insurance within 12 working days after the bidder has received notice from the City that the contract has been awarded. If the successful bidder fails to do so, the City may, at its option, determine that the bidder has abandoned the contract, and the bidder's bid security will be forfeit. The City may then award the contract to the next qualified bidder.

The undersigned, as bidder, declares as follows:

1. The only persons or parties interested in this proposal as principals are those named herein;
2. This proposal is made without collusion with any other person, firm or corporation;
3. We have carefully examined the location of the proposed work, the annexed proposed form of contract, and the plans therein referred to; and
4. We propose and agree, if this Proposal is accepted, that we will contract with the City of San Leandro in the form of the copy of the contract annexed hereto;
5. We will provide all necessary machinery, tools, apparatus and other means of construction;
6. We will do all the work and furnish all the materials specified in the contract, in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth; and
7. This bid is sufficient to allow us to comply with all applicable local, state, and federal laws or regulations governing the labor or services to be provided; and
8. We will take in full payment therefore in the amounts shown on the following Contract Price Schedule, as follows:

PROPOSAL FORMS

CONTRACT PRICE SCHEDULE

BASE BID:

Item No.	Description	Estimated Quantity (A)	Unit of Measure	Item UNIT Price (in Words)	Item UNIT Price (in Figures) (B)	TOTAL PRICE (in Figures) (AxB)
1.	All work shown on plans or required by specifications, except that for Additive Bid Item 1 below.	1	**LS**	_____ _____ _____		

TOTAL BID: _____
(In Words)

TOTAL BID: _____
(In Figures)

ADDITIVE BID ITEM 1:

Item No.	Description	Estimated Quantity (A)	Unit of Measure	Item UNIT Price (in Words)	Item UNIT Price (in Figures) (B)	TOTAL PRICE (in Figures) (AxB)
2.	All work for electric hand dryers as identified on Title Sheet G0.1 of the Drawings.	1	**LS**	_____ _____ _____		

TOTAL BID ADDITIVE ALTERNATE 1: _____
(In Words)

TOTAL BID ADDITIVE ALTERNATE 1: _____
(In Figures)

TOTAL BID PLUS ADDITIVE ALTERNATE 1: _____
(In Words)

TOTAL BID PLUS ADDITIVE ALTERNATE 1: _____
(In Figures)

PROPOSAL FORMS

UNITS OF MEASURE:

Abbreviation	Word or Words
LF	Linear Feet
SF	Square Feet
SY	Square Yards
CY	Cubic Yards
TN	Tons (2,000 lbs./907.2 kgs.)
LS	Lump Sum
EA	Each
MO	Months

NOTE: The estimate of construction quantities set forth herein is approximate only, being given as a basis for the comparison of bids. The City does not expressly nor by implication agree that the actual amount of work will correspond therewith, and reserves the right to change the amount of any class or portion of the work or to omit portions of the work as may be deemed necessary or expedient by the Engineer in accordance with section 3-2.1.1 of the Special Provisions. All bids will be compared on the basis of the Engineer's Estimate of the quantities of the work to be done. The undersigned declares, by signing this proposal, that the bidder has carefully checked all of the above figures and understands that the City shall not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

PROPOSAL FORMS

LIST OF SUBCONTRACTORS

Bidder shall complete ALL the required information and, if available, the optional information for each subcontractor, required to be listed by the provisions in Section 2-3 "Subcontracts" of the Special Provisions and the Standard Specifications, to whom the bidder proposes to subcontract portions of the work. If requested by the Engineer, all other information must be provided within 24 hours of bid opening pursuant to PCC Section 4104.

Subcontractor's Name: ***(REQUIRED)***			
Address: ***(REQUIRED)***			
Phone #:			
Fax #:			
E-Mail:			
Name of Project Mgr.:			
License and Classification:			
DOT Certified DBE:	☐ Yes ☐ NO	☐ Yes ☐ NO	☐ Yes ☐ NO
Value of Work Subcontracted:	**$**_____	**$**_____	**$**_____
Description of Portion of Work Subcontracted: ***(REQUIRED)***	_____ _____ _____	_____ _____ _____	_____ _____ _____

***NOTE:** Use additional photocopies as required.

PROPOSAL FORMS

CITY OF SAN LEANDRO LOCAL BUSINESS INCLUSION ORDINANCE

LOCAL BUSINESS PREFERENCE (PRIME CONTRACTOR)

Bidders who are defined as a San Leandro Business will be given special consideration at time of bid as defined in Section 2-1 of these specifications.

Check One

( ) By signing this proposal, bidder as prime contractor, certifies that they qualify as a San Leandro Business as defined in Section 1-6-225 of Article 2 of Chapter 1-6 of the San Leandro Municipal Code meeting all the criteria listed below. If requested by City, bidder will provide satisfactory evidence of meeting all criteria within three (3) business days from the date of the request.

San Leandro Business Criteria

All information must be valid at least six (6) months before bids opening by the City.

(i) A written agreement for City occupancy or proof of ownership of a San Leandro office;

(ii) Proof that business is transacted or revenue generated in an office located in San Leandro;

(iii) A conspicuously displayed business sign at the San Leandro business premises except where the business operates out of a residence;

(iv) Proof that the office is appropriately equipped for the type of business for which certification as a San Leandro business is sought. Where equipment, such as computer and reproduction and communications machines are typically and routinely used in a non-San Leandro location, comparable equipment shall be installed and routinely used at the San Leandro office;

(v) A valid City of San Leandro business license.

- or -

( ) Bidder is not a San Leandro Business as defined in Section 1-6-225 of Article 2 of Chapter 1-6 of the San Leandro Municipal Code.

PROPOSAL FORMS

CITY OF SAN LEANDRO LOCAL BUSINESS INCLUSION ORDINANCE

GOOD FAITH EFFORTS LOCAL BUSINESS PARTICIPATION GOAL OUTREACH CERTIFICATION

Part I

Check the box which applies:

- □ I will have subcontractors and/or suppliers
- □ I will not have subcontractors or suppliers

Part II

If you will have subcontractors or suppliers, you must engage in good faith efforts to hire San Leandro businesses, non-profit organizations or residents to perform the contract so that the goal of at least 25% of the total contract dollar amount is spent on local businesses. Although the 25% local business participation goal is aspirational and non-binding, you must perform, and certify that you performed at least five of the following eight activities prior to submittal of your bid. Submittal of this form, and any accompanying documentation required is a material aspect of this invitation for bids, such that your bid will be considered non-responsive for failing to meet these requirements, and/or failure to execute this certification form.

(1) Attend pre-solicitation or pre-bid meetings scheduled by the City to inform all contractors, subcontractors, suppliers, and San Leandro residents of the project. ;

(2) Convene a meeting in San Leandro for San Leandro businesses, non-profit organizations, and suppliers to identify specific items of work that could be performed on the project;

(3) List all contact information for any San Leandro business that will participate in the project as a subcontractor, sub-consultant, or supplier if a contract is awarded to you;

(4) Advertise in newspapers, websites, trade association publications, or other media soliciting for subcontractors, suppliers or employment opportunities on the project not less than twenty calendar days before the date bids are due;

(5) Document personal contacts with San Leandro businesses or nonprofit organizations informing them of the opportunity to subcontract or supply to the project;

(6) Submit documentation of good faith negotiations with San Leandro businesses and nonprofit organizations for subcontracting or supplying opportunities on the project;

(7) Make the project plans and specifications available for review upon request to interested San Leandro businesses or suppliers;

(8) Document requests for assistance from San Leandro community organizations, contractors or professional groups, local, state or federal business assistance offices or other organizations that provide assistance in the recruitment of San Leandro businesses.

PROPOSAL FORMS

Part III

List below which five of the eight activities you performed. Provide all supporting statements or documentation that show or prove achievement of the activities listed below. Attach additional sheets if necessary:

_____
_____
_____
_____
_____

List below the Subcontractors, businesses, or suppliers who responded to your advertisements.
(Please attach any additional sheets if necessary)

Name	**Phone Number**
	.

Part VI

Certification

I, _____ certify that I am the bidder's Chief Executive Officer or authorized representative and that I have made a diligent effort to ascertain the facts with regard to the representations made herein. In making this certification I am aware of Section 12650 et seq. of the California Government Code providing for the imposition of treble damages for making false claims.

_____ _____
Signature of Bidder Date

End Section

PROPOSAL FORMS

ADDENDA ACKNOWLEDGMENT AND INFORMATION

The undersigned acknowledges receipt of Addendum No. _____ through _____ inclusively. A signed copy of same is attached hereto and made part of this proposal.

PRINCIPAL PERSONS WITH INTEREST IN PROPOSAL

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

IMPORTANT NOTICE: If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a co-partnership, state true name of firm and names of all individual co-partners composing firm; if bidder or other interested person is an individual, state first and last names in full.

_____

_____

_____

_____

EXPERIENCE AND FINANCIAL RESPONSIBILITY

The bidder has been engaged in the contracting business under State License No._____ for a period of _____ years.

The bidder's three most recently completed contracts are:

1. Title of Project _____

   Owner _____

   Address _____

   Telephone No. _____

   Engineer in Charge _____

   Date Accepted _____

PROPOSAL FORMS

2. Title of Project _____

Owner _____

Address _____

Telephone No. _____

Engineer in Charge _____

Date Accepted _____

3. Title of Project _____

Owner _____

Address_____

Telephone No. _____

Engineer in Charge _____

Date Accepted _____

Reference is hereby made to the following bank or banks as to the financial responsibility of the bidder:

Name of Bank:	**Address:**
_____	_____
_____	_____

Reference is hereby made to the following surety companies as to the financial responsibility and general reliability of the bidder:

Company: _____

Address: _____

Company: _____

Address: _____

PROPOSAL FORMS

ELIGIBILITY TO CONTRACT STATEMENT

The bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder has____, has not ____ been convicted by a court of competent jurisdiction within the preceding three (3) years of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract with any public entity, as defined in Public Contract Code Section 1100. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee of the prime contractor or any subcontractor.

NOTE: The bidder must place a check mark after "has" or "has not" in one of the blank spaces provided. The above statement is part of the proposal. Signing this proposal on the signature portion thereof shall also constitute signature of this statement. Bidders are cautioned that making a false certification may subject the certified to criminal prosecution.

BIDDER QUESTIONNAIRE

The bidder shall complete, under penalty of perjury, the following questionnaire:

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or safety regulation?

YES _____ **NO _____**

If the answer is yes, explain the circumstances in the following space:

_____

_____

NATIONAL LABOR RELATIONS BOARD STATEMENT

The Contractor hereby states under penalty of perjury that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

PROPOSAL FORMS

NON-COLLUSION AFFIDAVIT
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

PUBLIC CONTRACT CODE SECTION 7106

STATE OF CALIFORNIA)
) ss.
COUNTY OF _____)

_____, being first duly sworn, deposes and says that he or she is _____ of _____ the party 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 public body awarding the contract 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 its 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.

NOTE: The above Statement, Questionnaire, and Non-collusion Affidavit are part of the proposal. Signing this proposal on the signature portion thereof shall also constitute signature of this Statement, Questionnaire, and Non-Collusion Affidavit. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

PROPOSAL FORMS

DEBARMENT AND SUSPENSION CERTIFICATION

The bidder, under penalty of perjury, certifies that, except as noted below, bidder or any person associated therewith in the capacity of owner, partner, director, officer, manager (please check if applicable):

[ ] Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any local, state, or federal agency;

[ ] Has not been suspended, debarred, voluntarily excluded or determined ineligible by any local, state, or federal agency within the past 3 years;

[ ] Does not have a proposed debarment pending; and

[ ] Has not been indicted, convicted, or had a civil judgment rendered against bidder by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

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

Exceptions will not necessarily 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:

NOTE: Providing false information may result in criminal prosecution. The above certification is part of the proposal. Signing this proposal on the signature portion thereof shall also constitute signature of this certification.

PROPOSAL FORMS

Iran Contracting Act of 2010

Public Contract Code Chapter 2.7

In the event that my bid or proposal is one million dollars ($1,000,000.00) or more, by my signature below I certify that this company, any parent entities, subsidiaries, successors or subunits of this company and I, personally, are not identified on a list created pursuant to subdivision (b) of Section 2203 of the California Public Contract Code as a person engaging in investment activities in Iran as described in subdivision (a) of Section 2202.5, or as a person described in subdivision (b) of Section 2202.5 of the California Public Contract Code, as applicable.

PROPOSAL FORMS

By my signature on this proposal I certify, under penalty of perjury under the laws of the State of California, that the foregoing questionnaire is true and correct. By my signature on this proposal, I further certify, under penalty of the perjury under the laws of the State of California, that the Non-Collusion Affidavit, and the Debarment and Suspension Certification are true and correct.

Date: _____ _____

(Typed or printed name)

_____

_____

Signature of Bidder

Business Address (Street Address, City, State & Zip Code):

_____

_____

Business Phone: ( ) _____ Fax No.: ( ) _____

PROPOSAL FORMS

CITY OF SAN LEANDRO BUSINESS LICENSE

In accordance with Title 2 Chapter 2 of the San Leandro Municipal Code, all contractors, including subcontractors, shall possess a current business license to perform work in San Leandro. As part of the proposal submittal, all bidders shall complete the following:

General Contractor (Bidder)

If the bidder holds a current City of San Leandro business license:

The bidder, under penalty of perjury, certifies that the bidder is in possession of a current City of San Leandro Business License.

Business Name (as shown in Business License): _____

Business License Number: _____

Or

The bidder shall submit a copy of the following attached Business License Application. If the bid is accepted, the bidder agrees to submit the original Business License Application to the Finance Department and pay all appropriate fees for the acquisition of a business license. Any questions regarding the business license application can be directed to the Finance Department at 510-577-3392 or 510-577-3468. Bidder will then submit a copy of the Business License with the executed contract documents. Failure of the successful bidder to acquire a City of San Leandro Business License within 12 working days of receiving a Notice of Award shall constitute a failure to execute the contract and the City may award the contract to a subsequent bidder in accordance with Section 2-1 of these specifications.

Subcontractor Business License

Prior to processing any progress payments, the bidder shall submit a copy of a current City of San Leandro Business License for each listed subcontractor.

PROPOSAL FORMS

CITY OF SAN LEANDRO

Finance Department
835 East 14th Street, San Leandro, California 94577
(510) 577-3468 or 577-3392

BUSINESS LICENSE APPLICATION

For Businesses Located Outside of San Leandro

Business License Fee
See Fee Schedule

PLEASE TYPE OR PRINT WITH PEN

OFFICIAL USE ONLY

Business Name _____

Business License No. _____

APN# _____

Corporate Name (if applicable) _____

Bus. Start Date _____

Business Location _____
(Cannot be P.O. Box per State of California Business & Professions Code-Section 17538.5)

❑ **New Application** ❑ **Change**

State Sales Tax No. _____

Federal ID No. _____

Mailing Address _____

State ID No. _____

State Contractor Lic. No. _____

Phone No. _____ **Alt. No.** _____ **Expire Date** _____

Description of Business _____

Ownership ❑ Corporation ❑ Corp-Ltd Liability ❑ Partnership ❑ Sole Proprietor ❑ Trust

Enter below names of Owners, Partners, or Corporate Officers (attach additional sheet, if necessary)

1st Owner Name _____ **Title** _____ **Soc. Sec. No.** _____

Home Address _____ **Home Phone No.** _____
(Cannot be P.O. Box) _____ **Cell / Pager No.** _____

2nd Owner Name _____ **Title** _____ **Soc. Sec. No.** _____

Home Address _____ **Home Phone No.** _____
(Cannot be P.O. Box) _____ **Cell / Pager No.** _____

- Is this business being conducted in your residence? ☐ Yes ☐ No

- If business is being purchased, please complete the following:

Seller's Business Name: _____ Seller's Bus. Lic. #: _____

NUMBER OF EMPLOYEES: Shall mean and include the total number of full time and part time employees engaged or to be engaged within this City in the applicant's business during the license period, whether as owner, partner, spouse or employee, and any others who may work without compensation.

*** ***PARTIAL YEAR:*** The business license fee for any business commencing after June 30th of any year shall be reduced by one-half (1/2).

CERTIFICATION AND ACKNOWLEDGEMENT

I declare under penalty of perjury that the statements made in this application are true. I further agree that business shall be conducted in accordance with the San Leandro Municipal Code. I understand that the filing of this application and payment of fees does not entitle me to commence or carry on any business in the City of San Leandro until said Business License is approved and issued. Upon issuance of a Business LIcense, it shall be my responsibility to renew the license annually by January 31st.

SIGN HERE

➔ _____
Signature of Owner or Representative

Title _____ Date _____

Base Fee (required for each license) $

Unit #_____**X $**_____ $

TOTAL AMOUNT DUE (Base Fee plus Unit Fee) $

*** 1/2 Year fee for Businesses commening after June 30th.

TOTAL AMOUNT PAID $

RETURN APPLICATION TO ABOVE ADDRESS AND MAKE CHECK PAYABLE TO CITY OF SAN LEANDRO.

Thank you for doing business in the City of San Leandro.

O:\HDLBL3x\Application_BL-Out of City Location.rpt Printed 10/12/2007: 5:04 pm

CITY OF SAN LEANDRO
STATE OF CALIFORNIA

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____
as Principal, and _____
as Surety, are held and firmly bound unto the **CITY OF SAN LEANDRO**, hereinafter called "City", in penal sum of ten percent (10%) OF THE TOTAL AMOUNT OF THE BID OF THE PRINCIPAL submitted to the said City for the work described below for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted the accompanying Proposal dated _____, for **San Leandro Ball Park Locker / Restroom Refurbishment, Project No. 2003.0331**

NOW, THEREFORE, if the Principal shall not withdraw said proposal prior to the date and time for the opening of bids, and if the Principal is awarded the contract and shall within the period specified in the Proposal after receiving notice that the contract has been awarded and the prescribed forms are presented to Principal for signature, enter in a written contract with the City, in accordance with the Proposal as accepted, and give insurance and bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract and for the payment for labor and materials used for the performance of the contract, or in the event of the withdrawal of said Proposal within the period specified or the failure to enter into such contract and give such City bonds, within the time specified, if the Principal shall pay the City the difference between the amount specified in said Proposal and the amount for which the City may procure the required work and/or supplies, if the latter amount be in excess of the former, together with all costs incurred by the City in again calling for bids, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract on the call for bids, or to the work to be performed there under, 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 said contract or the call for bids, or to the work, or to the specifications.

In the event suit is brought up on this bond by the City and judgment is recovered, the Surety shall pay all costs incurred by the City in such suit, including a reasonable attorney's fee to be fixed by the court.

PROPOSAL FORMS

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals this _____ day of _____, the name and corporate seals of each corporate party being hereto affixed and these presents duly signed by its undersigned representatives, pursuant to authority of its governing body.

(Corporate Seal) **Principal** _____

By _____

Title _____

(Attach Notarial Acknowledgment)

(Corporate Seal) **Surety** _____

Address _____

Phone No.: ( )_____ Fax No.: ( ) _____

By _____
Attorneys-in-Fact

Title _____

(Attach Notarial Acknowledgment)

<u>NOTE TO SURETY COMPANY</u>: There must be submitted a certified copy of unrevoked resolution of authority for the attorneys-in-fact.

END OF BID BOND

PROPOSAL FORMS

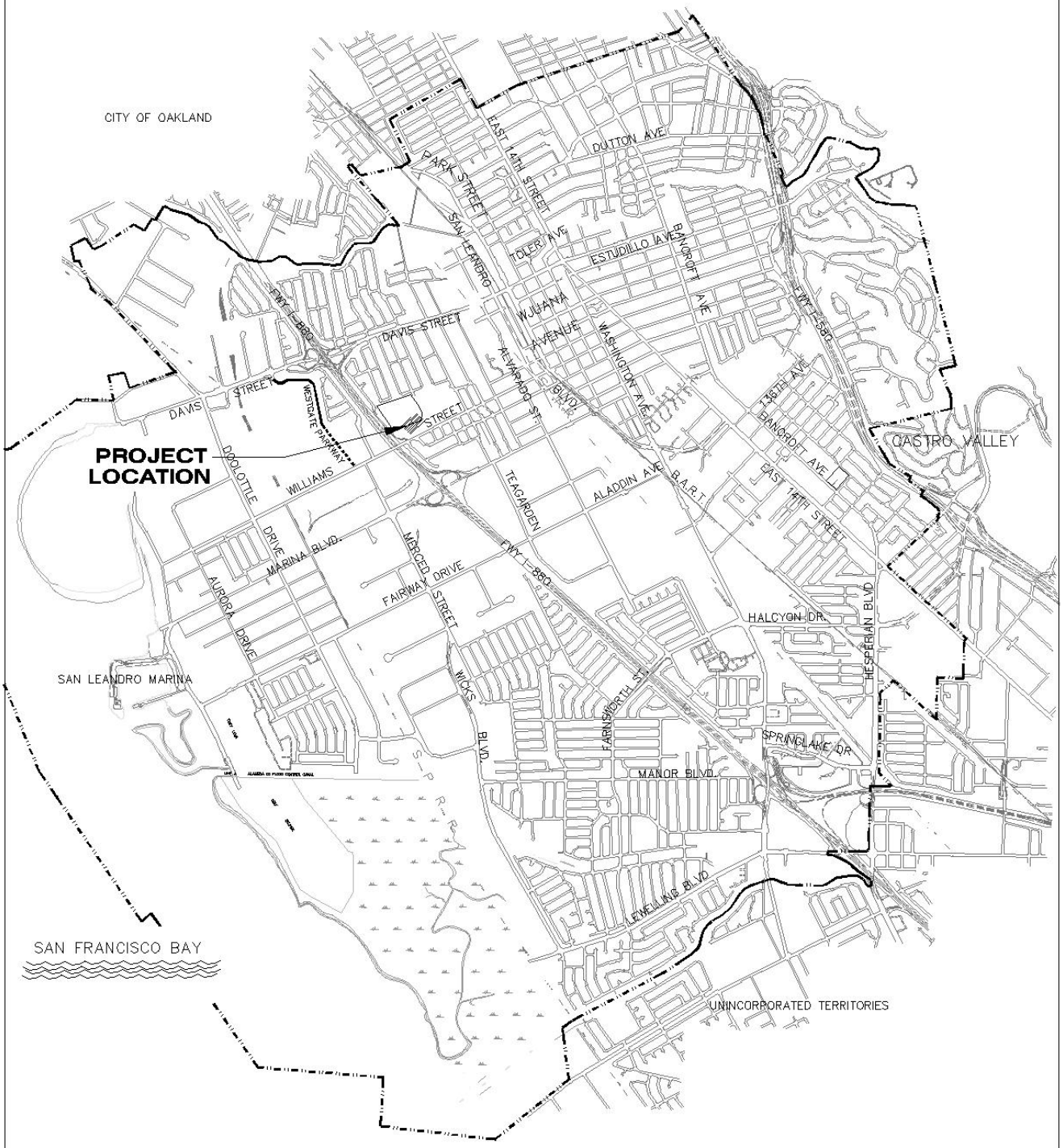
END OF

PROPOSAL TO THE CITY OF SAN LEANDRO

PROPOSAL FORMS

PROJECT LOCATION MAP

SAN LEANDRO BALL PARK
(1193 ALADDIN AVE)



CITY OF SAN LEANDRO
STATE OF CALIFORNIA

ENGINEERING AND TRANSPORTATION DEPARTMENT

NOTICE TO BIDDERS

FOR

SAN LEANDRO BALL PARK LOCKER / RESTROOM REFURBISHMENT
PROJECT NO. 2003.0331
BID NO. 14-15.004

1. BID OPENING: The bidder shall complete the "Proposal to the City of San Leandro" form contained in the Contract Book. The proposal shall be submitted in its entirety. Incomplete proposals will be considered non-responsive. Sealed bids containing the completed Proposal Section subject to the conditions named herein and in the specifications for **SAN LEANDRO BALL PARK LOCKER / RESTROOM REFURBISHMENT** addressed to the **City of San Leandro** will be received at **City Hall, 835 East 14th Street, 2nd Floor San Leandro** at the office of the **City Clerk** up to **3:00 p.m.**, on **September 2, 2014** at which time they will be publicly opened and read.

2. BID RESULTS: A summary of the bids received will be made available, via the Internet, at:
http://www.sanleandro.org/depts/finance/purchasing/bids/default.asp.

3. WORK DESCRIPTION: The work to be done consists of accessibility and aesthetic upgrade to the public restroom and locker facilities at the San Leandro Ball Park, and doing all appurtenant work in place and ready for use, all as shown on the plans and described in the specifications with the title indicated in Paragraph 1 above, and on file in the office of the **Engineer.** Reference to said plans and specifications is hereby made for further particulars.

4. CONTRACTOR'S LICENSE: A Class "B" Contractor's License is required for this work. No bid will be accepted from a contractor who has not been licensed in accordance with Chapter 9 Division 3 of the Business and Professional Code.

5. BID DEPOSIT: A Bid Deposit equal to at least 10% of the total amount of the bid shall be placed in the sealed proposal. The Bid Deposit shall be in one of the following forms: cash, cashier's check or certified check payable to the City, or bidder's bond in favor of the City executed by an authorized surety company.

6. SAN LEANDRO BUSINESS PREFERENCE AND PARTICIPATION GOALS The bid preparation and work performed under this contract is subject to Section 1-6-225 of Article 2 of Chapter 1-6 of the San Leandro Municipal Code regarding Local Business Preference during bidding and Local Business Participation.

7. PAYMENT AND PERFORMANCE BONDS: Payment and performance guarantee bonds as set forth in Section 2-4 of the Special Provisions will be required from the successful bidder.

8. CITY'S RIGHT TO REJECT BIDS: The right is reserved, as the interest of the City may require, to reject any or all bids, or to waive any informality or minor irregularity in the bids.

9. GENERAL PREVAILING WAGE RATES: The City Council has ascertained the general prevailing rate of wages applicable to the work to be done. A tabulation of the various classifications of work persons to be employed and the prevailing rate of wages applicable thereto is on file in the **City Clerk's** office. Bidder's attention is directed to Section 7-2.2.2 of the Special Provisions.

10. **OBTAINING THE PROJECT PLANS AND CONTRACT BOOK**: The Project Plans and Contract Book may be obtained free of charge from the City's website at http://www.sanleandro.org/depts/finance/purchasing/bids. Bidders are highly encouraged to contact the City of San Leandro Engineering and Transportation Department at 510-577-3428 to be placed on the project planholder's list to receive courtesy notifications of addenda and other project information. Project addenda, if any, will be posted on the website. A bidder who fails to address all project addenda with their proposal may be deemed non-responsive.

    Bidders may also purchase Project Plans and Contract Book at the **Kiosk Counter** of the Community Development Department, City Hall, 835 East 14th Street, 1st Floor, San Leandro, **(510) 577-3423,** upon payment of a non-refundable fee of **$25.00 (payable by exact cash or check only)** for each set.

11. OBTAINING THE APWA STANDARD SPECIFICATIONS (GREEN BOOK): The APWA Standard Specifications (Greenbook) may be purchased by contacting BNI Building News, 1612 South Clementine Street, Anaheim, CA 92802, (714) 517-0970 or (888) 264-2665.

12. WITHDRAWAL OF PROPOSALS: Any bid may be withdrawn at any time prior to the time fixed in the public notice for the opening of bids only by written request for the withdrawal of the bid filed with the **City Clerk.** The request shall be executed by the bidder or its duly authorized representative. The withdrawal of a bid does not prejudice the right of the bidder to file a new bid. Whether or not bids are opened exactly at the time fixed in the public notice for opening bids, a bid will not be received after that time nor may any bid be withdrawn after the time fixed in the public notice for opening of bids.

13. RELIEF OF BIDDERS: As stated in Public Contract Code Sections 5100 to 5108, inclusive concerning relief of bidders and in particular to the requirement therein, that if the bidder claims a mistake was made in the bid presented, the bidder shall give the **City Clerk,** written notice within five (5) days after the opening of the bids of the alleged mistake, specifying in the notice in detail how the mistake occurred.

14. DISQUALIFICATION OF BIDDERS: More than one proposal from an individual, firm, partnership, corporation, or combination thereof under the same or different names will not be considered. Reasonable grounds for believing that any individual, firm, partnership, corporation, or combination thereof is interested in more than one proposal for the work contemplated may cause the rejection of all proposals in which such individual, firm, partnership, corporation, or combination thereof is interested. If there is reason for believing that collusion exists among the bidders, any or all proposals may be rejected. Proposals in which the prices obviously are unbalanced may be rejected.

15. PREVIOUS DISQUALIFICATION, REMOVAL, OR OTHER PREVENTION OF BIDDING: A bid may be rejected on the basis of a bidder, any officer of such bidder, or any employee of such bidder who has a proprietary interest in such bidder, having been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local project because of a violation of any law or any safety regulation.

16. RESPONSIBILITY FOR VERIFYING CONTRACT ADDENDA: All bidders shall verify if any addenda for this project have been issued by the City of San Leandro. It is the bidders' responsibility

to ensure that all requirements of contract addenda are included in the bidder's proposal. All bidders shall include a signed copy of all contract addenda with the proposal. Failure to comply with this requirement shall cause the proposal to be considered as non-responsive and shall be grounds for rejection of the bid.

17. SITE INVESTIGATION: The bidder shall examine carefully the site of the work to verify all existing conditions. The submission of a bid shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of work to be performed, as to the quantities of materials to be furnished, and as to the requirements of the proposal, plans, specifications, and the contract. The bidder shall not take advantage of any apparent error or omission in the plans or specifications. In the event the bidder discovers any apparent error, discrepancy, or omission as a result of its site investigation, bidder shall immediately notify the City.

18. PRE-BID CONFERENCE: A pre-bid conference will be held on **Monday, August 18, 2014 at 1:30 P.M. in the Sister Cities Gallery Room, 1st Floor, City Hall, 835 East 14th Street, San Leandro, CA 94577**. A bidder who fails to attend a pre-bid conference will be held responsible for any information that could have been reasonably deduced from said attendance. Attendance is strongly encouraged.

    Questions regarding the plans and specifications may be submitted in writing to the project engineer until 5:00 p.m., five (5) days before, excluding Saturdays, Sundays and Holidays, bids are due. The City will not respond to oral questions outside of the pre-bid conference. The response, if any, will be by written addendum only. Oral responses do not constitute a revision to these plans or specifications.

19. VALUE OF WORK: The Engineer has estimated that the value of work is between $250,000 and $500,000.

20. PUBLIC CONTRACT CODE SECTION 22300: Pursuant to Public Contract Code Section 22300, for monies earned by the Contractor and withheld by the City to ensure the performance of the Contract, the Contractor, may, at its option, choose to substitute securities meeting the requirements of said Public Contract Code Section 22300.

21. CALIFORNIA LABOR CODE SECTION 6707: Pursuant to the provisions of California Labor Code Section 6707, each bid submitted in response to this Notice to Bidders shall contain, as a bid item, adequate sheeting, shoring, and bracing, or equivalent method, for the protection of life and limb in trenches and open excavation, which shall conform to applicable safety orders. By listing this sum, the bidder warrants that its action does not convey tort liability to the City or City employees, engineers, agents, or subconsultants.

22. PUBLIC CONTRACT CODE SECTION 2.7: For proposals in the amount of one million dollars ($1,000,000.00) or more, bidders are required to certify that the bidder's company, any parent entities, subsidiaries, successors or subunits of the bidder's company and the signator of the proposal, personally, are not identified on a list created pursuant to subdivision (b) of Section 2203 of the California Public Contract Code as a person engaging in investment activities in Iran as described in subdivision (a) of Section 2202.5, or as a person described in subdivision (b) of Section 2202.5 of the California Public Contract Code, as applicable.

23. BID PROTEST PROCEDURES: Any protest of the proposed award of bid to the bidder deemed the lowest responsible bidder must be submitted in writing to the City no later than 5:00 p.m. on the third (3rd) business day following the date of the bid opening.

The initial protest must contain a complete statement of the basis for the protest.

The protest must state the facts and refer to the specific portion of the document or the specific statute that forms the basis for the protest. The protest must include the name, address, and telephone number of the person representing the protesting party.

The party filing the protest must concurrently transmit a copy of the initial protest to the bidder deemed the lowest responsible bidder.

The party filing the protest must have actually submitted a bid on the project. A subcontractor of a party filing a bid on this project may not submit a Bid Protest. A party may not rely on the Bid Protest submitted by another bidder, but must timely pursue its own protest.

The procedure and time limits set forth in this Section are mandatory and are the bidder's sole and exclusive remedy in the event of a Bid Protest. The bidder's failure to fully comply with these procedures shall constitute a waiver of any right to further pursue the Bid Protest, including filing of a challenge of the award pursuant to the California Public Contracts Code, filing of a claim pursuant to the California Government Code, or filing of any other legal proceedings.

The City shall review all timely protests prior to formal award of the bid. The City shall not be required to hold an administrative hearing to consider a timely protest, but may do so at the option of the Engineer, or if otherwise legally required. At the time of the City Council's consideration of the award of the bid, the City Council shall also consider the merits of any timely protests and the Engineer's recommendation thereon. The City Council may either accept the protest and award the bid to the next lowest responsible bidder, or reject the protest and award to the lowest responsible bidder. Nothing in this section shall be construed as a waiver of the City Council's right to reject all bids.

The City reserves the right to waive any bid irregularities not affecting the amount of the bid, except where such waiver would give the low bidder an advantage or benefit not allowed other bidders.

Dated: August 1, 2014

Marian Handa
City Clerk

CITY OF SAN LEANDRO
STATE OF CALIFORNIA

AGREEMENT

THIS AGREEMENT is made at San Leandro, California, as of _____ _____, by and between _____, hereinafter called Contractor, and the **CITY OF SAN LEANDRO**, a municipal corporation, hereinafter called City, who agree as follows:

Recitals

The City has awarded a contract to the Contractor for performing the work hereinafter mentioned in accordance with the sealed proposal of said Contractor and of proceedings had and taken by the City Council of the City leading up thereto:

1. WORK TO BE DONE: The work to be done consists of accessibility and aesthetic improvements to the public restroom and locker facilities at the San Leandro Ball Park, and doing all appurtenant work in place and ready for use, all as shown in the plans and described in the specifications entitled **"San Leandro Ball Park Locker / Restroom Refurbishment, Project No. 2003.0331."** now on file in the office of the **Engineer** of said City.

2. TIME OF PERFORMANCE: The work under this contract shall commence and be completed in accordance with the times therefore prescribed in the specifications for said work.

3. PAYMENT: The City will pay the Contractor for the performance of said work the prices as stated in the Contract Price Schedule, and at the times and in the manner prescribed in the specifications.

4. COMPONENT PARTS: This Agreement shall consist of the following documents, each of which is on file in the office of the **Engineer** of said City, and all of which are incorporated herein and made a part hereof by reference thereto:

A. This Agreement and Contract Price Schedule
B. Notice to Bidders
C. Proposal Requirements
D. Resolution Approving Plans and Specifications and Calling for Bids
E. Accepted Proposal
F. Special Provisions
G. Plans
H. Standard Specifications
I. Faithful Performance Bond
J. Payment Bond
K. Maintenance Bond
L. Project Addenda, if any

5. WAGE SCALE: Reference is hereby made to the General Wage Determination made by the Director of Industrial Relations and adopted by Resolution No. 77-236 of the City Council. Reference thereto is further made in the instructions and information to bidders. The provisions of the General Wage Determination made by the Director of Industrial Relations and Resolution No. 77-236 are hereby specified as the rate of prevailing wages to be paid workers on this project. For purposes of Labor Code section 1781, this project is a "public work" to which Labor Code section 1771 applies, and the Contractor and all listed or unlisted subcontractors must perform the work as a "public work." The Contractor has the responsibility for determining what is required to comply with its obligations under Labor Code section 1771. Any decision by the Contractor or any listed or unlisted subcontractor not to comply with Labor Code section 1771 is at the Contractor's or subcontractor's sole risk.

6. LABOR CODE COMPLIANCE: Contractor indemnifies and holds harmless the City, its officers, officials, and employees, from and against claims, liability, and damages arising from any alleged violation of the California Labor Code asserted against the City due to the alleged acts or omissions of the Contractor or any listed or unlisted subcontractor used on the project.

7. CLAIMS: The City has the full authority to compromise or settle any claim relating to this project. The City will timely notify the Contractor if the City receives any third-party claim relating to this project.

IN WITNESS WHEREOF, City has caused these presents to be executed by its officers, thereunto duly authorized and Contractor has subscribed same, all on the day and year first above written.

CITY OF SAN LEANDRO
A Municipal Corporation

By:_____
Chris Zapata, City Manager

Date: _____

Attest:_____
Marian Handa, City Clerk

(NAME OF CONTRACTOR)
Contractor

By:_____

By:_____

Date:_____

APPROVED AS TO FORM:

_____
Richard Pio Roda, City Attorney

_____
David Baum, Finance Director

Account No.(s) 150-62-110-5240

ACKNOWLEDGMENT

State of California
County of Alameda)

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

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

WITNESS my hand and official seal.

Signature_____ (Seal)

CONTRACT PRICE SCHEDULE

BASE BID:

Item No.	Description	Estimated Quantity (A)	Unit of Measure	Item UNIT Price (in Words)	Item UNIT Price (in Figures) (B)	TOTAL PRICE (in Figures) (AxB)
1.	All work shown on plans or required by specifications, except that for Additive Bid Item 1 below.	1	**LS**	_____ _____ _____		

TOTAL BID: _____
(In Words)

TOTAL BID: _____
(In Figures)

ADDITIVE BID ITEM 1:

Item No.	Description	Estimated Quantity (A)	Unit of Measure	Item UNIT Price (in Words)	Item UNIT Price (in Figures) (B)	TOTAL PRICE (in Figures) (AxB)
2.	All work for electric hand dryers as identified on Title Sheet G0.1 of the Drawings.	1	**LS**	_____ _____ _____		

TOTAL BID ADDITIVE ALTERNATE 1: _____
(In Words)

TOTAL BID ADDITIVE ALTERNATE 1: _____
(In Figures)

TOTAL BID PLUS ADDITIVE ALTERNATE 1: _____
(In Words)

TOTAL BID PLUS ADDITIVE ALTERNATE 1: _____
(In Figures)

UNITS OF MEASURE:

Abbreviation	Word or Words
LF	Linear Feet
SF	Square Feet
SY	Square Yards
CY	Cubic Yards
TN	Tons (2,000 lbs./907.2 kgs.)
LS	Lump Sum
EA	Each
MO	hs

NOTE: The estimate of construction quantities set forth herein is approximate only, being given as a basis for the comparison of bids. The City does not expressly nor by implication agree that the actual amount of work will correspond therewith, and reserves the right to change the amount of any class or portion of the work or to omit portions of the work as may be deemed necessary or expedient by the Engineer in accordance with section 3-2.1.1 of the Special Provisions. All bids will be compared on the basis of the Engineer's Estimate of the quantities of the work to be done. The undersigned declares, by signing this proposal, that the bidder has carefully checked all of the above figures and understands that the City shall not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

WORKERS' COMPENSATION INSURANCE CERTIFICATION

Pursuant to Section 7-4 of the Standard Specifications, the Contractor certifies as follows:

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

Signed: _____ Date: _____

_____
(Typed or Printed Name)

Business Address (Street Address, City, State & Zip Code):

_____

_____

_____

Business Phone: ( ) _____

CITY OF SAN LEANDRO
STATE OF CALIFORNIA

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the **City of San Leandro,** State of California, has awarded to **_____**, hereinafter designated as the "Principal," a contract for **San Leandro Ball Park Locker / Restroom Refurbishment, Project No. 2003.0331;** and,

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

NOW, THEREFORE, we the Principal, and **_____** as Surety, are held and firmly bound unto the City of San Leandro in the penal sum of **_____ ($_____)**, 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, or assigns jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bounden Principal, or Principal's 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 said contract and any alteration thereof made as therein provided, on the Principal's part, to be kept and performed at the time and in the manner therein specified and in all respects according to their true intent and meaning; and shall defend, indemnify and save harmless the City of San Leandro, its 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, in accordance with the Plans, Standard Specifications, Special Provisions, and other contract documents, no change, extension of time, alteration, or addition to the terms of the contract, or to the work to be performed hereunder, or to the specifications accompanying the same shall in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration of additions to the terms of the Contract to the work, or to the specifications.

The City reserves the right to refuse use of any Contractor assigned by any surety to complete the work.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their seals this_____day of _____, the name and corporate seals of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal) **Principal** _____

By _____

Title _____

(Attach Notarial Acknowledgment)

(Corporate Seal) **Surety** _____

Address _____

Phone No.: ( )_____ Fax No.: ( ) _____

By _____
Attorneys-in-Fact

Title _____

(Attach Notarial Acknowledgment)

<u>NOTE TO SURETY COMPANY</u>: There must be submitted a certified copy of unrevoked resolution of authority for the attorneys-in-fact.

(Seal) **Witness** _____

Approved as to form:

_____
Risk Manager

END OF PERFORMANCE BOND

CITY OF SAN LEANDRO
STATE OF CALIFORNIA

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the **City of San Leandro**, a municipal corporation, has awarded to **_____**, hereinafter designated as the "Principal", a contract for **San Leandro Ball Park Locker / Restroom Refurbishment, Project No. 2003.0331**; and

WHEREAS, said Principal is required to furnish a bond in connection with said contract, to secure payment of claims of laborers, mechanics, or materialmen employed on work under said contract, as provided by law.

NOW, THEREFORE, we the undersigned Principal and Surety are held and firmly bound unto the City of San Leandro in the sum of **_____ ($_____),** said sum being equal to the estimated amount payable by said City of San Leandro under the terms of the contract, for which payment well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that if said Principal, or Principal's heirs, executors, administrators, successors, or assigns, or subcontractors shall fail to pay for any material, provisions, provender, or other supplies, implements, or machinery 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 Code with respect to such work or labor, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from these wages of employees of the Contractor and Contractor's subcontractors pursuant to the Revenue and Taxation Code, with respect to such work and labor, the Surety or Sureties hereon will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, said Surety will pay a reasonable attorney's fee to be fixed by the court.

This bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under Section 3138 of the Civil Code of the State of California so as to give a right of action to them or their assigns in any suit brought upon this bond.

Said Surety, for value received, hereby stipulates and agrees that, in accordance with the Plans, Standard Specifications, Special Provisions, and other Contract Documents, no change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed there under, or to the specifications accompanying the same, shall in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work, or to the specifications.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their seals this_____day of _____, the name and corporate seals of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal) **Principal** _____

By _____

Title _____

(Attach Notarial Acknowledgment)

(Corporate Seal) **Surety** _____

Address _____

Phone No.: ( )_____ Fax No.: ( ) _____

By _____
Attorneys-in-Fact

Title _____

(Attach Notarial Acknowledgment)

<u>NOTE TO SURETY COMPANY</u>: There must be submitted a certified copy of unrevoked resolution of authority for the attorneys-in-fact.

(Seal) **Witness** _____

Approved as to form:

_____
Risk Manager

END OF PAYMENT BOND

CITY OF SAN LEANDRO
STATE OF CALIFORNIA

ESCROW FOR SECURITY DEPOSIT

IN LIEU OF RETENTION

This Escrow Agreement is made and entered into by and between the **City of San Leandro**, whose address is 835 East 14th Street, San Leandro, CA, 94577, hereinafter called "City",_____, whose address is _____, hereinafter called "Contractor", and _____, whose address is _____, hereinafter called "Escrow Agent."

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

1. Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by City pursuant to the construction contract entered into between the City and Contractor for **San Leandro Ball Park Locker / Restroom Refurbishment, Project No. 2003.0331** in the amount of _____ dated _____ (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the City shall make payments of the retention earnings directly to the Escrow Agent. When Contractor deposits the securities as substitute for Contract earnings, the Escrow Agent shall notify the City within 10 days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract amount between the City and Contractor. Securities shall be held in the name of _____, and shall designate the Contractor as the beneficial owner.

   The Contractor shall select and initial one of the following options:

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

OR

3. [ ] The City shall make payment of retentions earned directly to the Escrow Agent. The Escrow Agent shall hold them for the benefit of the Contractor until such time as the escrow created under this Contract is terminated. The Contractor may direct the investments of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the City pays the Escrow Agent directly.

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

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

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 City to the Escrow Agent that City consents to the withdrawal of the amount sought to be withdrawn by Contractor.

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

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

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

10. Contractor authorizes the Escrow Agent to issue monthly statements of the status of the funds held in the escrow account to the City. Escrow Agent shall issue said statements on a monthly basis and mail to: City of San Leandro, ATTN: Finance Department, 835 East 14th Street, San Leandro, CA 94577.

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

On behalf of City:

_____
Title

_____
Name

On behalf of Contractor:

_____
Title

_____
Name

On behalf of Escrow Agent:

_____
Title

_____
Name

_____
Signature

_____
Address

At the time the escrow account is opened, the City and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this agreement.

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

City:	**Contractor:**
_____	_____
Title	Title
_____	_____
Name	Name
_____	_____
Signature	Signature
_____	_____
Address	Address

END OF ESCROW FOR SECURITY DEPOSIT
IN LIEU OF RETENTION

CITY OF SAN LEANDRO
STATE OF CALIFORNIA

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the **City of San Leandro,** State of California, has awarded to _____, hereinafter designated as the "Principal," a contract for **San Leandro Ball Park Locker / Restroom Refurbishment, Project 2003.0331;** and

Whereas, said Principal is required under the terms of said contract to furnish a bond for the correction of any defects due to defective materials or workmanship in the work performed under said contract.

NOW, THEREFORE, we the Principal, and _____ as Surety, are held and firmly bound unto the City of San Leandro in the penal sum of _____ **($_____),** 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, or assigns jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if, during a maintenance period of one (1) year from the date of recordation of the Notice of Completion by the City, the Contractor upon receiving written notice of a need for repairs which are directly attributable to defective materials or workmanship, shall diligently take the necessary steps to correct said defects within seven (7) days from the date of said notice, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

If any action shall be brought by City upon this bond, a reasonable attorney's fee, to be fixed by the court, shall be and become a part of City's judgment in any such action.

No right of action shall accrue on this bond to, or for the use of, any person or corporation other than the City named herein or the heirs, executors, administrator, or successor of the City.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their seals this_____day of _____, the name and corporate seals of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal) **Principal** _____

By _____

Title _____

(Attach Notarial Acknowledgment)

(Corporate Seal) **Surety** _____

Address _____

Phone No.: ( )_____ Fax No.: ( ) _____

By _____
Attorneys-in-Fact

Title _____

(Attach Notarial Acknowledgment)

<u>NOTE TO SURETY COMPANY</u>: There must be submitted a certified copy of unrevoked resolution of authority for the attorneys-in-fact.

(Seal) **Witness** _____

Approved as to form:

_____
Risk Manager

END OF MAINTENANCE BOND

SPECIAL PROVISIONS

PART 1 - GENERAL PROVISIONS

Part 1 of the Special Provisions shall conform to Part 1 of the Standard Specifications except as modified herein.

SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS, AND SYMBOLS

The Contractor's attention is directed to Section 1, "Terms, Definitions, Abbreviation, And Symbols", of the Standard Specifications.

1-2 Definitions
1-3 Abbreviations

1-2 DEFINITIONS The following paragraphs are added to Section 1-2 of the Standard Specifications:

Whenever the following terms are used in the Standard Specifications, Plans, Special Provisions, or other contract documents, the intent and meaning shall be interpreted as follows:

Agency: The City of San Leandro.

Board: The City Council of the City of San Leandro.

City: The City of San Leandro.

Contractor: Signatory to agreement contained herein.

Engineer: The City Engineer of the City of San Leandro, State of California, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

Laboratory: Laboratories approved and authorized by the Engineer to test materials and work involved in the contract.

Standard Specifications: The Standard Specifications for Public Works Construction, 2006 edition and 2008 supplement thereto, American Public Works Association, Southern California Chapter; and the Special Provisions (Technical Specifications) and Standard Plans thereto adopted by the City Engineer, the State Department of Industrial Relations general prevailing wage rates; and the State Department of Transportation labor surcharge and equipment rental rates.

Special Provisions: Any provisions that supplement or modify the Standard Specifications, including technical specifications covering construction materials and methods. The State Department of Transportation publication entitled "Labor Surcharge And Equipment Rental Rates" and the State Department of Industrial Relations General Prevailing Wage Rates are to be considered as a part of the Special Provisions.

1-3 ABBREVIATIONS The following definitions are added to Section 1-3 of the Standard Specifications:

Abbreviation	Word or Words
MO	Months
TN	Tons (2,000 lbs./907.2 kgs.)

SECTION 2 - SCOPE AND CONTROL OF THE WORK

The scope and control of work shall be governed by the provisions in Section 2, "Scope and Control of the Work", of the Standard Specifications, except as modified herein.

2-1	Award Of Contract
2-3	Subcontracts
2-3.1	General
2-3.2	Additional Responsibility
2-4	Contract Bonds
2-5	Plans And Specifications
2-5.1	General
2-5.3	Submittals
2-5.3.1	General
2-5.3.2	Working Drawings
2-5.3.3	Shop Drawings
2-5.3.4	Supporting Information
2-6	Work To Be Done
2-9	Surveying
2-9.2	Construction Staking Request Form
2-11	Inspection
2-11.1	Quality Control
2-11.2	Re-Inspection

2-1 AWARD OF CONTRACT Section 2-1 of the Standard Specifications is replaced with the following:

BASIS OF AWARD: The award of the contract, if awarded, will be made within 90 days after the opening of bids to the lowest responsible bidder whose proposal complies with all the contract requirements, based on the corrected "Total Bid" sum of the corrected extension(s) of the bid item(s) in "Total Price" column, per the "Proposal to the City of San Leandro". The right is reserved to reject any and all proposals.

Local Business Preference

(1) Solely for the purpose of calculating the lowest bid, a sum equal to ten percent (10%) of the "Total Bid", or of the base bid and each alternate, shall be deducted from the amount of the "Total Bid", or the base bid and each alternate, respectively, up to a maximum of $50,000 of a bid submitted by a San Leandro business as that term is defined in Section 1-6-225 of the San Leandro Municipal Code..

If, after performing the above calculation there is a tie for the lowest bid the bidder whose principal place of business is located within the City of San Leandro shall be deemed the lowest bid subject to the qualifications concerning responsibility, as required by law. If the tie bidders both have as their principal places of business the City of San Leandro, then the City Council shall draw lots to determine to whom to award the contract.

(2) Solely for the purpose of calculating the lowest bid a sum equal to five percent (5%) of the "Total Bid", or of the base bid and each alternate, shall be deducted from the amount of the "Total Bid", or the base bid and each alternate, respectively, up to a maximum of $50,000 of a bid submitted by a joint venture wherein one of the joint venturers is a business that has as its principal place of business, its headquarters, or a significant portion of its operations within the City of San Leandro.

The periods of time specified above within which the award of contract may be made shall be subject to extension for such further period as may be agreed upon in writing between the Engineer and the bidder concerned.

All bids will be compared on the basis of the Engineer's Estimate of the quantities of work to be done. The Engineer's Estimate of construction quantities are approximate only, being given as a basis for the comparison of bids. The City does not expressly nor by implication agree that the actual amount of work will correspond therewith, and reserves the right to change the amount of any class or portion of the work or to omit portions of the work as may be deemed necessary or expedient by the Engineer in accordance with Section 3-2 of the Standard Specifications.

2-3 SUBCONTRACTS

2-3.1 GENERAL The following information is added to Section 2-3.1 of the Standard Specifications:

Contractor shall provide all REQUIRED information, as requested, on the "List of Subcontractors", which is included in the proposal. If requested by the Engineer, all other information must be provided within 24 hours of bid opening, pursuant to Public Contracts Code Section 4104.

2-3.2 ADDITIONAL RESPONSIBILITY The following information is added to Section 2-3.2 of the Standard Specifications:

The City hereby designates the following items as "Specialty Items" for computing the amount of work required by the Contractor pursuant to Section 2-3.2 of the Standard Specifications:

Bid Item No.	Description
None	

2-4 CONTRACT BONDS The following information is added to Section 2-4 of the Standard Specifications:

PAYMENT BOND AND PERFORMANCE BOND: The forms for the Payment Bond and Performance Bond can be found within these contract documents. Only said bond forms provided by the City shall be acceptable.

MAINTENANCE BOND: A Maintenance Bond shall be delivered to the City prior to the City's acceptance of the work. The bond shall be executed by a surety company or companies satisfactory to the City in the amount of ten percent (10%) of the contract price, or $1,000.00, whichever is greater. The bond shall remain in force for the duration of the 1-year guarantee period. The Maintenance Bond must be in substantially the same form as set forth in these contract documents.

2-5 PLANS AND SPECIFICATIONS The following is added to Section 2-5 of the Standard Specifications:

The work embraced herein shall be performed in accordance with the Standard Specifications for Public Works Construction, the 2006 edition and 2008 supplement thereto, American Public Works Association, Southern California Chapter; and the Special Provisions (Technical Specifications) and Standard Plans thereto adopted by the City Engineer, the State Department of Industrial Relations General Prevailing Wage Rates; and the State Department of Transportation Labor Surcharge and Equipment Rental Rates, and these Special Provisions and the Contract Documents.

The Contractor shall not take advantage of any apparent error or omission in the contract documents. In the event Contractor discovers any apparent error, discrepancy or omission, Contractor shall immediately call upon the Engineer to make a determination and decision on the matter.

Should any discrepancy appear, or misunderstandings arise with respect to any issue described in the contract documents, the explanation of the Engineer in relation thereto shall prevail.

In addition to the drawings incorporated with or referred to in these contract documents, the Engineer shall, from time to time during the progress of the work, furnish such additional drawings and reference specifications as may be necessary to clarify or define the intent of the contract documents in greater detail. The Contractor shall make the work conform to all such drawings and reference materials.

The plans for this project shall be as follows:

Sheet No.	**Title**	**Sheet**	**Drawing No.**	**Case No.**
1	Title Page	G0.1	1899	1002
2	Symbols, Abbreviations	G0.2	1900	1002
3	Existing / Demolition Floor Plan	A2.1	1901	1002
4	Floor Plan - Lower	A2.2	1902	1002
5	Floor Plan – Upper	A2.3	1903	1002
6	Interior Elevations	A5.1	1904	1002
7	Interior Elevations	A5.2	1905	1002
8	Exterior Details	A8.1	1906	1002
9	Interior Details	A9.1	1907	1002
10	Mechanical Notes / Details	M0.1	1908	1002
11	Mechanical Floor Plan	M2.1	1909	1002
12	Plumbing Notes and Schedules	P0.1	1910	1002
13	Plumbing Existing / Demo Floor Plan - Lower	P1.1	1911	1002
14	Plumbing Existing / Demo Floor Plan - Upper	P1.2	1912	1002
15	Plumbing Floor Plan – Lower	P2.1	1913	1002
16	Plumbing Floor Plan – Upper	P2.2	1914	1002
17	Electrical Symbols, Notes	E0.1	1915	1002
18	Lighting Title 24 Documents	E0.2	1916	1002
19	Lighting Title 24 Documents	E0.3	1917	1002
20	Electrical Floor Plan	E2.0	1918	1002

2-5.1 GENERAL The following is added to section 2-5.1 of the Standard Specifications:

The Contractor shall submit a request for information (RFI) to the Engineer whenever the intent of the contract documents is ambiguous or unclear. RFI's shall be in writing and shall be numbered sequentially. RFI's shall include references to relevant details, specification sections, and plan sheets so that the question may be easily understood. Responses to RFI's shall be considered amendments to the contract documents, and the work shall be constructed in accordance with the responses. The response to an RFI does not indicate or authorize extra work or authorize additional compensation. The Contractor must follow the procedures of Section 3 if additional compensation is desired.

2-5.3 SUBMITTALS The following is added to Section 2-5.3 of the Standard Specifications:

Submittals shall consist of the appropriate combination of catalog sheets, certificate of compliance, material lists, manufacturer's brochures, technical bulletins, specifications, diagrams, product samples, or other requested information necessary to describe a system, product, or item. Submittals for systems shall

be bound together and include all manufactured items for the system. Six copies of each submittal shall be transmitted to the Engineer. Three copies will be returned to the Contractor. Contractor to allow 10 working days for review of each submittal.

2-5.3.1 GENERAL The following is added to Section 2-5.3.1 of the Standard Specifications:

Five (5) working days prior to the pre-construction conference per section 6-1 of these Special Provisions, the Contractor shall submit six (6) copies of the following documents to the City for review:

1. A tentative construction schedule per section 6-1 of these Special prrovisions
2. The name, daytime phone number, and 24-hour emergency phone number of the Contractor's representatives(s) pursuant to Section 7-6 of the Standard Specifications.
3. Photocopies of current business licenses for Contractor and all listed subcontractors.
   EFFECT ON PROGRESS PAYMENT: Progress payments will not be approved until business licenses from the Contractor and all listed subcontractors have been submitted.
4. Photocopies of applicable licenses, permits, certifications, documents, etc. pursuant to Section 7-5 "Permits".

Work that utilizes processes, equipment, or materials that have not been accepted is performed at the contractors own risk. Work performed utilizing rejected processes, equipment, or materials will be removed, repaired, or redone at the Contractor's expense to the satisfaction of the Engineer.

2-5.3.2 WORKING DRAWINGS The following is added to Section 2-5.3.2 of the Standard Specifications:

RECORD DRAWINGS ("As Builts"): The Contractor shall keep and maintain at the job site one record set of contract drawings. On these, it shall mark all project conditions, locations, configurations, and any another changes or deviations that may vary from the details represented on the original contract drawings, including buried or concealed construction and utility features that are revealed during the course of construction. Record drawings may be in the form of a set of prints with carefully plotted information overlaid in pencil of a clearly legible and reproducible contrasting color to the drawing, except the final record drawings shall be prepared on the reproducible prints supplied by the City.

Special attention shall be given to recording the horizontal and vertical location of all buried utilities that differ from the locations indicated, or that were not indicated on the Contract Drawings. Said record drawings shall be supplemented by any detailed sketches as necessary or as directed to indicate fully the work as actually constructed.

These master record drawings of the Contractor's representation of "as-built" conditions, including all revisions made necessary by addenda, change orders, and the like, shall be maintained up-to-date during the process of the work.

In the case of drawings that depict the detail requirement for equipment to be assembled and wired in the factory, the record drawings shall be updated by indicating those portions that are superseded by change order drawings or final shop drawings, and by including appropriate reference information describing the change orders by number and the shop drawings by manufacturer, drawing, and revision numbers.

Record drawings prepared by the Contractor shall be accessible to the Engineer at all times during the construction period and shall be delivered to the Engineer upon completion of the work.

EFFECT ON PROGRESS PAYMENTS: Requests for partial payments will not be approved if the record drawings are not kept current. All such record drawings will be inspected by the Engineer each month, and the City will not process monthly payment requests unless such drawings are current to the satisfaction of the Engineer.

FINAL RECORD DRAWINGS: Upon substantial completion of the work and prior to final acceptance by the City, the Contractor shall complete and deliver the completed set of record drawings to the Engineer conforming to the construction records of the Contractor. This set of drawings shall consist of corrected plans showing the reported location of the work. The information submitted by the Contractor and incorporated by the Engineer into the record drawings will be assumed to be reliable, and the Engineer will not be responsible for the accuracy of such information, nor for any errors or omissions that may appear on the record drawings as a result. A set of reduced record drawings, laminated in plastic, shall be provided for traffic signal work, street or park lighting work, communications systems work, and irrigation work. Such drawings shall become the property of the City.

EFFECT ON FINAL PAYMENT: An amount to be determined by the Engineer will be withheld from retention until the Contractor-prepared final record drawings have been delivered to the Engineer.

2-5.3.3 SHOP DRAWINGS The following is added to Section 2-5.3.3 of the Standard Specifications:

Shop drawings are required for the following items of work or components:

Hollow Metal Doors
Toilet Partitions

2-5.3.4 SUPPORTING INFORMATION The following is added to Section 2-5.3.4 of the Standard Specifications:

Contractor shall submit the following to the City for review prior to the pre-construction meeting per section 6-1 of these specifications:

- Demolition Work Permit (CCR Title 8, Section 1717; three stories or higher OSHA permit required)
    - Activity Notification Form (CCR Title 8, Section 341.1 (f))
- Asbestos Abatement Contractor Regulations
    - Certified technicians (CCR Title 8, Section 341.16)
    - OSHA notification (CCR Title 8, Section 341.16)
- Lead work (CCR title 8, Section 1532 1 (p); concentration greater than 5,000 parts per million required OSHA notification)
- All other Permits as required by Federal or State Law

The following is added to the last paragraph of Section 2-5.3.4:

See also the project Technical Specifications in Parts 2 and 3 of these Special Provisions for additional submittal requirements regarding products and materials on this project. A partial list of the required submittals is as follows:

- Epoxy exterior deck sealer
- Plumbing fixtures and materials
- Electrical panel (as appropriate)
- Electrical light fixtures and materials
- Concrete mix design and supplier
- Source of supply of all materials, i.e. paint, wood, etc.
- Certificates of compliance and certified test reports as required in Section 203-1.3

2-6 WORK TO BE DONE The following is added to Section 2-6 of the Standard Specifications:

UNAUTHORIZED WORK: Any work done beyond the lines or grades shown on the plans and specifications, or beyond lines and grades established by the Engineer pursuant to the plans, or any work done without written authority of the Engineer, or performed during unauthorized working hours, or performed without benefit of or subject to inspection, shall be consider as unauthorized work and no compensation will be allowed therefore. The Engineer shall have the authority to have such work removed and the area restored and to deduct the cost thereof from money due or to become due to the Contractor.

The Contractor shall be subject to liquidated damages in accordance with Section 6-9 of these Special Provisions for each incident of unauthorized work.

2-9 SURVEYING

2-9.2 SURVEY SERVICE Section 2-9.2 of the Standard Specifications is replaced with the following:

The Engineer will perform surveying services as listed below. The contractor shall preserve construction survey stakes and marks provided by the Engineer for the duration of their usefulness. If any construction survey stakes are lost or disturbed and need to be replaced, such replacement shall be by the Engineer at the expense of the Contractor.

The Engineer shall provide construction survey staking for the following items. One set of construction stakes will be provided unless otherwise noted.

1. **No survey is required or will be provided for this project.**

2-9.5 PAYMENT The following Section is added.

The lump sum price bid for Construction Surveying shall include full compensation for labor, equipment, and materials required to perform work under this section.

When the Contract does not include a pay item for Construction Surveying as specified above, full compensation for any Construction Surveying required shall be included in the price bid for the item of work requiring such services and no additional compensation will be allowed.

2-11 INSPECTION The following is added to Section 2-11 of the Standard Specifications:

2-11.1 QUALITY CONTROL Quality Control is distinctly the sole duty of the Contractor and said duty shall not be avoided by any act or omission on the part of the inspector(s).

The work shall be conducted under the general observation of the Engineer acting directly and/or through various inspectors at the site and shall be subject to intermittent inspection (Quality Assurance) by said representatives of the City to assure strict compliance with the requirements of the contract documents. The presence of the inspector shall not be required nor relieve the Contractor of the responsibility for the proper execution of the work in accordance with all requirements of the contract documents.

Whenever the Contractor is ready to backfill, bury, cast in concrete, hide, or otherwise cover or make inaccessible any work under the contract, the Contractor shall notify the Engineer not less than before noon of the working day prior to the beginning of any such work to be inspected or tested, so that the required inspections can be scheduled and performed. Failure of the Contractor to notify the Engineer at least before noon of the working day before any such inspections shall be reasonable cause for the Engineer to require sufficient delay in the Contractor's schedule to allow time for such inspections, and any remedial or corrective work required, and all costs of such delays, including its impact or effect upon other portions of the work, shall be borne by the Contractor.

The Contractor shall not call for any inspections until the Contractor is absolutely certain that all obligations for quality control have been fulfilled, and the work is in strict compliance with the requirements of the plans and specifications.

The Contractor shall be solely responsible for arranging inspections required by the Building Regulations Division or other jurisdictions where permits are required pursuant to Section 7-5 of these Special Provisions. The Engineer shall be kept informed of the status of such permits and related inspections.

2-11.2 RE-INSPECTION A re-inspection fee may be assessed for each inspection or re-inspection when:

1. Such portion of work for which inspection is called is not complete, or when corrections called for are not made.
2. When the permits are not properly posted at the work site.
3. The approved plans are not readily available to the inspector.
4. When the Contractor fails to provide access to the work on the date for which inspection is requested.
5. For obvious non-compliance and/or for deviating from plans and specifications without the required approval of the Engineer.
6. Any unauthorized work.
7. Work not subject to initial inspection.
8. Continuous failure of material testing.

To obtain a re-inspection, the applicant shall request re-inspection in writing before noon of the working day before re-inspection is required, including agreement for payment of the inspector's current hourly rate, plus laboratory costs for repeated materials testing.

In instances where re-inspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been deducted from money due or to become due to the Contractor.

SECTION 3 - CHANGES IN WORK

Changes in work shall be governed by provisions in Section 3, "Changes In Work", of the Standard Specifications, except as modified herein.

3-2.1.1	Changes Initiated By The City
3-3	Extra Work
3-3.1	General
3-3.2	Payment
3-3.2.1	General
3-3.2.2	Basis For Establishing Costs
3-3.2.3	Mark Up
3-3.3	Daily Reports By Contractor
3-4	Changed Conditions
3-5	Disputed Work
3-6	False Claims Act Certification

3-2.1.1 CHANGES INITIATED BY THE CITY Changes greater than 25 percent (25%) of the total cost of the following contract items may be made by the City without adjustment in the contract unit prices:

Bid Item No.	Description
	None

3-3 EXTRA WORK The following is added to Section 3-3 of the Standard Specifications:

Extra work shall require a signed contract change order, or a written order from the City, authorizing Contractor to proceed with extra work for an agreed upon price. The expressed terms of the signed change order shall govern over any conflicting documents, including but not limited to, any proposals for change orders.

Work performed in response to an emergency shall be performed on an extra work basis (time and material basis) and shall be governed by this section.

3-3.1 GENERAL The following paragraph is added to Section 3-3.1 of the Standard Specifications:

When forces or labor used for extra work are not those of the Contractor or subcontractors, such forces or labor shall be treated as subcontractors and the Contractor shall be responsible for their work.

3-3.2 PAYMENT

3-3.2.1 GENERAL The following is added to Section 3-3.2.1 of the Standard Specifications:

When changes in work are to be paid for as Extra Work, in accordance with Section 3-3.2, "Payment", of the Standard Specifications, the labor, materials, and equipment used in the performance of such work shall be subject to the approval of the City.

3-3.2.2 BASIS FOR ESTABLISHING COSTS Section 3-3.2.2 of the Standard Specifications is revised as follows:

(a) **Labor:** The cost of labor for the workers used in the actual and direct performance of the work, whether the employer is the Contractor, subcontractor, or other force, will be the sum of the following:

The actual wages paid at a rate not to exceed the State of California Department of Industrial Relations General Prevailing Wage Rates. The wages shall include any employer payments to or on behalf of the workers for health and welfare, pension, vacation, apprenticeship funds, and similar purposes (fringe benefits).
The use of a labor classification that would increase the extra work cost will not be permitted unless the Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental. The labor cost for foremen shall be proportioned to all of their assigned work and only that applicable to extra work will be paid.

Non-direct labor costs, including superintendence, shall be considered part of the markup of 3-3.2.3 (a).

To the actual wages, as defined above, will be added a labor surcharge set forth in the California Department of Transportation publication entitled "Labor Surcharge and Equipment Rental Rates", which is in effect on the date upon which the work is accomplished. The labor surcharge shall constitute full compensation for all payments imposed by State and Federal laws and for all other payments made to, or on behalf of, the workers, other than actual wages as defined above. The six items included are Workers Compensation, Social Security, Medicare, Federal Unemployment, State Unemployment, and State Training Taxes.

Fringe benefit statements from applicable collective bargaining units shall be provided for verification.

(b) **Materials**: No additions, deletions, or revisions.

(c) **Tool and Equipment Rental**: Revise the second paragraph of 3-3.2.2 (c) to read:

The rates to be used in determining equipment rental costs of Contractor owned and maintained equipment shall be the lesser of listed rates prevailing locally at equipment rental agencies or distributors, or of listed rates in the California Department of Transportation publication entitled "Labor Surcharge and Equipment Rental Rates", at the time the work is performed. The rates to be used in determining equipment rental costs of equipment obtained at local equipment rental agencies or distributors shall be paid per invoice. The Contractor's owned equipment shall be used to the greatest extent possible.

Revise the fourth paragraph of 3-3.2.2 (c) to include:

Rental rates for Contractor owned/maintained equipment not in actual use that remains at the work site exclusively to perform the extra work shall be adjusted by the Delay Factor Rate up to eight (8) hours, and equipment used in excess of eight (8) hours per day or on weekends and holidays shall be adjusted by the Overtime Factor per the "Labor Surcharge and Equipment Rental Rates".

(d) **Other Items**: No additions, deletions, or revisions.

(e) **Invoices**: No additions, deletions, or revisions.

3-3.2.3 MARK UP Section 3-3.2.3 is replaced as follows:

(a) **Work by Contractor**: The following percentages shall be added to the Contractor's costs and shall constitute the markup for all overhead and profits:

1) Labor	33%
2) Materials	15%
3) Equipment Rental	15%
4) Other Items and Expenditures	15%

(b) **Work by Subcontractor**: When all or any part of the extra work is performed by a Subcontractor, the markup established in 3-3.2.3 (a) shall be applied to the Subcontractor's actual cost of such work. A markup of ten percent (10%) on the first $5,000 of the subcontracted portion of the extra work and a markup of five percent (5%) on work added in excess of $5,000 of the subcontracted portion of the extra work may be added by the Contractor.

The above markups shall constitute full compensation for all non-direct overhead costs not specifically designated as costs in Section 3-3.2.2 of these Special Provisions, including but not limited to fixed field cost (field overhead), home office overhead, liability insurance, and increased insurance and bond premiums. The total payment made as provided above shall be deemed to be the actual cost of the work and shall constitute full compensation therefore.

3-3.3 DAILY REPORTS BY CONTRACTOR The following is added to Section 3-3.3 of the Standard Specifications:

Contractor (and Subcontractors) shall submit DEW (Daily Extra Work) Reports on the attached form.

3-4 CHANGED CONDITIONS The following is added to Section 3-4 of the Standard Specifications

Any notice of Changed Conditions shall include any potential delay claims, and any potential claims for additional compensation in accordance with Section 6-6 of the Standard Specifications and these Special Provisions.

City of San Leandro – Engineering and Transportation Department

DAILY EXTRA WORK REPORT

(Determination of Time and Materials)

DATE OF REPORT: _____

PROJECT NAME: _____

_____

PROJECT NO.: _____

DATE WORK PERFORMED: _____

WORK PERFORMED BY: _____
(Contractor/Sub-Contractor/Specialty)

CONTRACTOR JOB NO. : _____

DESCRIPTION OF WORK: _____

_____

_____

_____

EQUIP. NO.	EQUIPMENT	HOURS	HOURLY RATE		EXTENDED AMOUNTS		P.R. NO.	LABOR	HOURS	HOURLY RATE		EXTENDED AMOUNTS	
									O.T.				
									REG.				
									O.T.				
									REG.				
									O.T.				
									REG.				
									O.T.				
									REG.				
									O.T.				
									REG.				

MATERIAL and/or WORK - DONE BY SPECIALISTS								
DESCRIPTION	NO. UNIT	UNIT COST		EXTENDED		SUB-TOTAL		
						SUBSISTENCE _____ NO._____ @ $_____		
						TRAVEL EXPENSE _____ NO._____ @ $_____		
						LABOR SURCHARGE (if not included in hourly rate) _____%		
						TOTAL COST of LABOR	A	
TOTAL COST of EQUIPMENT, MATERIALS, and WORK							B	
						+ 33% MARKUP on LABOR COST	(A)	
						+ 15% MARKUP on EQUIPMENT, MATERIAL, and WORK COST	(B)	
						WORK BY SUBCONTRACTOR: + 10% on FIRST $5,000 and 5% on WORK IN EXCESS of $5,000		
						TOTAL THIS REPORT		

VERIFICATION of LABOR, EQUIPMENT, and MATERIAL PROVIDED:

_____ _____
Contractor's Representative Date

_____ _____
Project Inspector Date

_____ _____
REVIEWED: Sr. Engineering Inspector Date

ACCEPTED FOR PROGRESS PAYMENT: _____ **DATE:** _____ **CCO NO.:** _____
Project Manager

3-5 DISPUTED WORK The following is added to Section 3-5, "Disputed Work", of the Standard Specifications:

For claims of less than three hundred and seventy five thousand dollars ($375,000), the procedure for claims resolution shall be as stipulated in Article 1.5 of the California Public Contracts Code.

3-6 FALSE CLAIMS ACT CERTIFICATION Section 3-6 is added to Section 3 of the Standard Specifications as follows:

All change orders submitted by the Contractor, and any claim for additional compensation must be accompanied by the following declaration:

"I, _____, being the _____ of _____ (Contractor), declare under penalty of perjury under the laws of the State of California, and do personally certify and attest that: I have thoroughly reviewed the attached request for change order and know its contents, and said request for change order is made in good faith; that it is supported by truthful and accurate data; that the amount requested and the additional time requested accurately reflects the allowable expenses that would be incurred, and the time necessary, to perform the change order; and further, that I am familiar with California Penal Code Section 72 and California Government Code Section 12650, et seq., pertaining to false claims, and further know and understand that submission or certification of a false claim may lead to fines, imprisonment, or other severe legal consequences."

SECTION 4 - CONTROL OF MATERIALS

Contractor's attention is directed to Section 4, "Control of Materials", of the Standard Specifications.

4-1	Materials And Workmanship
4-1.5	Certification

4-1 MATERIALS AND WORKMANSHIP Section 4-1 of the Standard Specifications is amended as follows:

4-1.5 CERTIFICATION The following is added to Section 4-1.5, "Certification," of the Standard Specifications:

A Certificate of Compliance shall be furnished prior to the use of any materials for which these Special Provisions require that such a certificate be furnished. In addition when so authorized in these Special Provisions, the Engineer may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The certificate shall be signed by the manufacturer of the material or the manufacturer of assembled materials and shall state that the materials comply in all respects to the requirements of the specifications. A Certificate of Compliance shall be furnished with each lot of materials delivered to the work and the lot so certified shall be clearly identified in the certificate.

All materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that a material is used on the basis of a certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the work which conforms to the requirements of the plans and specifications and any material not conforming to such requirements will be subject to rejection whether in place or not.

The City reserves the right to refuse to permit the use of material on the basis of Certificate of Compliance

The form of the Certificate of Compliance and its disposition shall be as directed by the Engineer.

4-1.9 CITY FURNISHED MATERIALS The following is added to Section 4-1 as follows:

The Contractor shall submit a written request to the Engineer for delivery of City furnished material at least fifteen (15) days in advance of the date of its intended use. The request shall state the quantity and the type of each material.

The material will be available to the Contractor at the City's Public Works Center located at 14200 Chapman Road, San Leandro, California. Materials shall be hauled to the site of the work by the Contractor at his expense, including any necessary loading and unloading that may be involved. All costs of handling and placing City furnished material shall be considered as included in the price paid for the contract item involving such City furnished material.

The Contractor shall be responsible for all materials furnished to him, and shall pay all demurrage and storage charges. City furnished materials lost of damaged from any cause whatsoever shall be replaced by the Contractor at his expense. The Contractor shall be liable to the City for the cost of replacing City furnished materials and such cost may be deducted from monies due or to become due the Contractor.

All City furnished material that is not used on the work shall remain the property of the City and shall be delivered to the Public Works Service Center.

The following materials will be furnished to the Contractor:

1. **None.**

SECTION 5 - UTILITIES

Contractor's attention is directed to Section 5, "Utilities", of the Standard Specifications, except as modified herein.

5-1 Location
5-2 Protection

5-1 LOCATION The third and fourth paragraphs of Section 5 of the Standard Specifications are revised as follows:

As provided in Section 4216 of the California Government Code, Contractor shall contact the Underground Service Alert (USA) of Northern California at 1-800-227-2600 and provide them the limits of work a minimum of two working days prior to starting excavation operations at a given location. In addition, Contractor shall submit each USA ticket number and OSHA Activity Notification Form, (including the submitted work limits, date, and time issued), to the Engineer prior to starting excavation operations at that location. Contractor shall also keep the applicable USA ticket open until completion of excavation operations at a given location.

The California Department of Transportation (Caltrans) is not required by Section 4216 to become a member of the regional notification center. If work is within a Caltrans Right-Of-Way (ROW), Contractor shall contact Caltrans for location of Caltrans' underground utilities. It should be noted that Caltrans marks the approximate locations of its utilities only as a "courtesy" and makes no assurances as to the accuracy of the markings. Contractor shall take additional measures to verify Caltrans utility markings.

Caltrans Electrical Maintenance: (510) 638-1201; (510) 268-4409

5-2 PROTECTION The following provisions are added to the end of the fourth paragraph of Section 5-2:

In addition to the requirements of Section 5-2 of the Standard Specifications, In the event of disturbance or damage to a sewer line to the extent that an emergency sewer point repair is required, the Contractor shall contact the Engineer immediately for additional instructions prior to beginning repairs.

Contractor shall protect the existing sanitary sewer system from blockages, surcharges, and overflows. Contractor shall not plug, reroute, or bypass flows that will cause undue stress on the system or cause overflows at the Water Pollution Control Plant (WPCP) or within the community. No great rush of flows shall be allowed in any part of the system. The Contractor shall be responsible for any damage caused by the uncontrolled discharge of high flows. The Contractor shall be held responsible for overburdening the sewer collection system and WPCP causing the discharge of sewage into the environment. Additionally, the Contractor shall reimburse the City for any fines levied by regulatory agencies due to spills, backups, or overflows resulting from the Contractor's failure to comply with the requirements herein.

WPCP Phone Numbers:

Monday – Friday	7:00 a.m. to 4:00 p.m.	(510) 577-3434
	After Hours	(510) 577-3459

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF THE WORK

The prosecution of work, progress, and acceptance of work shall be done in accordance with Section 6, "Prosecution, Progress, and Acceptance of the Work", of the Standard Specifications, except as modified herein.

6-1	Construction, Schedule, And Commencement Of Work
6-2	Prosecution Of Work
6-5	Termination
6-4	Written Notice And Report
6-7.2	Working Days
6-8	Completion, Acceptance And Warranty
6-9	Liquidated Damages
6-10	Use Of Improvement During Construction

6-1 CONSTRUCTION, SCHEDULE AND COMMENCEMENT OF WORK In addition to the requirements of Section 6-1 of the Standard Specifications, the following shall also apply:

The Contractor shall not begin work until the Notice to Proceed is issued by the City. Contractor shall diligently prosecute the work to completion before the expiration of

80 working days.

The City shall begin charging working days on the fifth working day following the date of issuance of the Notice to Proceed.

Failure to complete the work within allotted working days shall subject the Contractor to liquidated damages in accordance with Section 6-9 of these Special Provisions.

Prior to the issuance of the Notice to Proceed, a pre-construction conference will be held at the office of the Engineer between the City and the Contractor. The purpose of this meeting shall be to discuss the scope of work, the plans and specifications, existing conditions, materials to be ordered, equipment to be used, and all essential matters pertaining to the prosecution of and satisfactory completion of the project as required. The Contractor's representatives at this conference shall include the project manager, superintendent, foremen, and major subcontractors. This pre-construction conference will be scheduled immediately after the contract agreement has been approved by the City. See Section 2-5.3 of these Special Provisions for a description of submittals required for this meeting.

The project schedule prepared by the contractor shall comply with the following requirements:

A preliminary construction schedule pursuant in a form acceptable to the Engineer shall be presented at the preconstruction meeting. At a minimum, the schedule will detail the proposed starting and proposed completion dates of the various activities, submittal schedule, procurement of materials, and scheduling of manpower and equipment, and a critical path of controlling operations. Subcontractors' schedules shall be incorporated into the general contractor's schedule.

Within the first seven working days of this project, the Contractor shall submit a final construction schedule to the Engineer.

For each day beyond the submission deadline that the City does not receive the schedule, the Contractor shall be subject to liquidated damages in accordance with Section 6-9, deducted from money due or to become due to the Contractor.

All schedule changes shall be submitted to the Engineer prior to the revised tasks being performed. All changes are subject to any limitations placed on the order of work made by these specifications.

The Contractor shall be subject to liquidated damages in accordance with Section 6-9, deducted from money due or to become due to the Contractor, for any work task performed outside of the project schedule.

A. City Review of Schedule. The City may review the Contractor's submitted schedule and may note any exceptions. The Contractor shall correct any exceptions noted by the City within five (5) working days of being notified of the exceptions. The City's acceptance of a schedule does not relieve the Contractor from sole responsibility for scheduling, sequencing, and pursuing the work to comply with the requirements of the contract documents. The City shall not accept any schedule that provides for a completion date earlier than the Time of Completion. The City shall not accept any project schedule or schedule of values shows that the Contractor has engaged in front-end loading. "Front-end loading" is defined as the overestimation of the cost of work to be performed at the beginning of the project and underestimating the cost of work to be performed at the end.

B. Update of Schedule. After submission of a schedule to which the City has taken no exceptions, the Contractor shall submit an updated schedule monthly, or with each progress payment request, whichever is more frequent, or upon the request of the Engineer until completion of the work. The updated schedule shall include as-built information on the actual progress of work as of the date specified in the updated schedule and anticipated changes to planned activities.

   In addition to monthly schedule updates, a two week "look ahead schedule" shall be provided at weekly progress meetings.

C. Float. The schedule shall show early and late completion dates for each task. The number of days between these dates shall be designated as "float". Float shall be designated to the project and shall be available to both the City and the Contractor as needed.

D. Failure to Submit Schedule. If the Contractor fails to submit the schedule within the time period specified in this Section, or the updated schedule as specified in this Section, or submit a schedule to which the City has taken uncorrected exceptions, the City shall be entitled to withhold payment for the next application for payment submitted after the schedule or updated schedule becomes late until such time as an acceptable schedule or updated schedule is submitted to the City.

E. Responsibility for Schedule. The Contractor shall have sole and exclusive responsibility for creating the schedule and properly updating it. The City has no authority to approve the schedule. The City may note exceptions to any schedule submitted by the Contractor. However, it shall be the Contractor's sole responsibility to determine the proper method to address exceptions and the City's review of the schedule shall not serve to place any such obligation on the City. Whenever a schedule update shows a completion date beyond the Time of Completion, the Contractor shall submit a proposed recovery schedule to the City.

F. Submission of Schedules. Schedules and updated schedules shall be submitted in hard copy or in an electronic format. Contractor may use Microsoft Project, or other scheduling software, subject to the approval of the Engineer. The submission of a schedule in compliance with this section shall not relieve the Contractor of any other reporting requirements set forth in the contract documents.

G. Specification of "activity". As used in this Section, an "activity" is specified as follows:

1) Each activity shall be a unit of work that requires an amount of time for its performance not exceeding fifteen (15) days;

2) Each activity shall be a logically separate part of the work, defined by an observable start and an observable finish;

3) The scope of the activity shall be formed from the largest grouping of related operations that permit a continuous and measurable flow of work and that can proceed without affecting or being abetted by other activities;

4) The scope of the activity shall be small enough to permit a reasonable appraisal of its status.

No work will be permitted until the Contractor has satisfactorily complied with all elements of this Section. Notwithstanding the foregoing, a Notice to Proceed may be issued to the Contractor on the day of the scheduled pre-construction meeting. The City shall start charging working days on the fifth working day following the issuance of Notice to Proceed. Contractor shall not be due additional compensation or working days due to non-compliance with this Section.

The Contractor shall be subject to liquidated damages per Section 6-9 of these Special Provisions for failure to follow stated directives of this Section.

6-2 PROSECUTION OF WORK The following paragraph(s) are added to Section 6-2 of the Standard Specifications:

Prior to commencing construction the Contractor shall complete, to the satisfaction of the Engineer, the following:

1. Advisory Signs
2. Stationary Mounted Construction Area Signs
3. USA Notification
4. Public Notice Distribution
5. No Parking Signs placed
6. Utility Coordination/Installations

6-5 TERMINATION Section 6-5 of the Standard Specifications is deleted and replaced with the following:

1. In addition to all other available remedies that the City may have under the agreement, and at law or equity, the City may terminate the Contractor's control of the work:

   A. If the Contractor or any of its subcontractors engaged in the performance of the work fails to timely perform the work or any of the Contractor's material obligations under the contract documents (including but not limited to, submission of an acceptable schedule) except due to reasons beyond the control of the Contractor pursuant to the contract documents.

   B. If the Contractor is adjudged bankrupt, or if it should make a general assignment for the benefit of creditors, or if a receiver should be appointed on account of its creditors.

   C. If the Contractor or any of the subcontractors engaged in the performance of the work persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials for the timely completion of the work.

D. If the Contractor fails to make prompt payment to subcontractors engaged in the performance of the work or for material or labor used in the performance of the work in accordance with the contract documents and applicable law.

E. If the Contractor or any subcontractors engaged in the performance of the work persistently disregard laws or ordinances applicable to the performance of the work, or the instructions of the City, the construction manager, the architect, or other authorized representatives of the City.

F. For any reason or for no reason, at the City's sole discretion.

2. If the City intends to terminate the Contractor's control of the work for any of the reasons specified in this section, the City will immediately serve written notice to the Contractor and its sureties. Notice of the City's intent to terminate the Contractor's control of the work will be given by certified mail and will specify the grounds for termination, the required cure, if any, and the time by which the cure must be performed. Upon receipt of notice of the City's intent to terminate the Contractor's control of the work, the Contractor will have ten (10) days from receipt of the notice, or a longer time specified in the notice, to cure its default. If the Contractor does not perform the required cure by the time specified in the notice, the City will issue a written notice of termination to the Contractor and its sureties by certified mail. The notice of termination will specify:

   A. That upon receipt of the notice the Contractor's right to perform or complete the work, including on behalf of the Contractor's sureties, is terminated;

   B. That the Contractor's sureties will have the right to take over and complete the work and perform all of the Contractor's remaining obligations that have accrued under the agreement;

   C. That if the Contractor's sureties do not both give the City written notice of their intention to take over and perform the agreement and commence completion of the work and performance of all of the Contractor's remaining obligations that have accrued under the agreement within ten (10) days after receipt of notice of termination, the City may declare the Contractor's sureties in default and take over the completion of the work, or have the work completed for the account and at the expense of the Contractor and its sureties, and the Contractor and its sureties will be liable to the City for any resulting excess cost.

3. The City may, in addition to all other available remedies that the City may have under the contract documents and at law or equity, deduct any such excess cost of completing the work from amounts that are due or that may become due the Contactor.

4. Upon termination of the Contractor's control of the work, the Contractor will, if so directed by the City, immediately remove from the work site any and all materials and personal property belonging to the Contractor that have not been incorporated in the work and the Contractor and its sureties will be liable upon their bond for all damages caused the City by reason of the Contractor's failure to complete the work.

5. The City reserves the right to refuse use of any Contractor assigned by any surety to complete the work.

6. If the City completes or has completed any portion of, or the whole of the work, following termination of the Contractor's control of the work, the City will neither be liable for nor account to the Contractor or the Contractor's sureties in any way for the time within which, or the manner in which such work is performed, or for any changes made in such work or for the money expended in satisfying claims, suits, or other obligations in connection with completing the work.

7. If, following termination of the Contractor's control, the unpaid balance of the contract price exceeds all costs of completing the work, the difference will be paid to the Contractor.

8. If the agreement or Contractor's control of the work is terminated for any reason, no allowances or compensation will be granted for the loss of any anticipated profit by the Contractor.

6-6.4 WRITTEN NOTICE AND REPORT Section 6-6.4 of the Standard Specifications is revised to read as follows:

If the Contractor desires payment for a delay as specified in Section 6-6.3 or an extension of time, the Contractor shall, within 15 days after the beginning of the delay, file with the City a written request and report as to the cause and extent of the delay. Said request shall be clearly titled, "Notice of Potential Claim." Failure by the Contractor to file these items within the time specified will be considered grounds for refusal by the City to consider such requests.

Upon receipt of a written request for extension of time or payment, the Engineer shall ascertain the facts and the extent of the delay, and his findings thereon shall be final and conclusive.

6-7.2 WORKING DAYS The following is added to Section 6-7.2 of the Standard Specifications

Unless otherwise directed or authorized, the Contractor's normal working day activities shall be limited to the hours between 7:00 a.m. and 6:00 p.m., Monday through Friday, excluding designated City holidays and other non-working days. This does not apply to lane closures, **see Section 7-10.3 for lane closure restrictions**.

All work shall be completed within the specified working hours on each working day or the Contractor shall be responsible for payment of inspection overtime at the current inspector's hourly overtime rate, including travel time where applicable, with a minimum charge of one (1) hour.

Working hours for work performed on non-working days (Saturday and Sunday), if permitted by the Engineer, shall be 8:00 a.m. to 6:00 p.m. unless otherwise approved in writing.

No work on holidays or other non-working days will be permitted unless approved in writing by the Engineer.

Deviation from normal working hours will not be allowed without prior written consent of the Engineer. In the event work is allowed by the Engineer outside of the normal working hours, at the written request of and for the benefit of the Contractor, inspection service fees shall be levied against the Contractor at the inspector's current hourly overtime rate, with a minimum charge of four (4) hours. The Contractor shall submit said written request no later than forty-eight (48) hours prior to the proposed work outside of the normal working hours.

The above charge may also be levied if inspection services are deemed necessary by the Engineer as a matter of public safety.

The following are the designated City holidays:

1. January 1 (New Year's Day).
2. The third Monday in January (Martin Luther King Jr.'s Birthday).
3. February 12 (Lincoln's Birthday).
4. The third Monday in February (Washington's Birthday).
5. The last Monday in May (Memorial Day).

6. July 4 (Independence Day).
7. The first Monday in September (Labor Day).
8. November 11 (Veterans' Day).
9. The fourth Thursday in November (Thanksgiving Day).
10. The day after Thanksgiving Day.
11. December 24 (Christmas Eve) through December 31 (New Year's Eve)

When a designated holiday falls on a Saturday, the preceding Friday shall be a designated holiday. When a designated holiday falls on a Sunday, the following Monday shall be a designated holiday.

Contractor's attention is hereby directed to Section 7-8, "Project Site Maintenance", and Section 7-10, "Public Convenience and Safety", of the Standard Specifications, regarding continuous project site maintenance and mud and dust control being provided 24 hours/day, 7 days/week.

The Contractor shall not be charged for a working day for days on which the Contractor is prevented by inclement weather or conditions resulting immediately therefrom adverse to the current controlling operation or operations, as determined by the Engineer, from proceeding with at least seventy-five percent (75%) of the normal labor and equipment force engaged on such operation or operations for at least sixty percent (60%) of the total daily time being currently spent on the controlling operation or operations.

Should the Contractor prepare to begin work at the regular starting time of any day on which inclement weather, or the conditions resulting from the weather, or conditions of the work, prevents the work from beginning at the usual starting time and the crew is dismissed as a result thereof, the Contractor will not be charged for a working day whether or not conditions should change thereafter during said day and the major portion of the day could be considered to be suitable for such construction operations.

The current controlling operation or operations is to be construed to include any feature of the work (e.g., an operation or activity, or a settlement or curing period) considered at the time by the Engineer and the Contractor, which, if delayed or prolonged, will delay the time of completion of the contract.

Determination that a day is a non-working day by reason of inclement weather or conditions resulting immediately therefrom shall be made by the Engineer. The Contractor will be allowed 15 days from the issuance of the Weekly Statement of Working Days in which to file a written protest setting forth in what respect Contractor differs from the Engineer, otherwise the decision of the Engineer shall be deemed to have been accepted by the Contractor as correct. The Engineer will furnish the Contractor a weekly statement showing the number of working days charged the preceding week, the number of working days remaining to complete the contract, and the date for completion thereof.

The Contractor will not be allowed any additional working days for any delay that does not affect the critical path as specified in the Contractor's schedule.

6-8 COMPLETION, ACCEPTANCE, AND WARRANTY The following is added to paragraph two (2) of Section 6-8 of the Standard Specifications:

Upon acceptance of the work and upon receipt and approval of the required documents (Record Drawing, Final Agreement of Quantities, Maintenance Bonds, Manufacturer Warranties, etc.) The Engineer will have a Notice of Completion recorded with the Alameda County Recorder's Office. All guarantee periods shall commence on date of said recordation.

The following paragraphs replace paragraph three (3) of Section 6-8 of the Standard Specifications:

GUARANTEE. The Contractor guarantees all of the work for one year from the date the City accepts the work. Upon receiving written notice of a need for repairs that are directly attributable to defective materials or workmanship, the Contractor must make good any defects arising or discovered in any part of the work by diligently commencing the necessary repairs within seven (7) days from the date of notice from the City. The guarantee and conditions shall be secured by a Maintenance Bond, as described in Section 2-4.

If the Contractor fails to make good any defects in the work in accordance with this provision, in addition to any other available remedy under the contract or at law or equity, the City may make good or have made good such defects in the work and deduct the cost from amounts that may be due or become due the Contractor, and/or call on the Contractor's Maintenance Bond for the cost of making good such defects and for the City's reasonable legal costs, if any, of recovering against the bond.

Notwithstanding the preceding, the Contractor shall remain responsible for repairing any work found to be defective at its sole cost regardless of when such defect is discovered by the City.

In addition to the Contractor's one-year guarantee, and the Contractor's ongoing obligation to repair any defective work, upon completion of the project and as a condition of acceptance of the project, the Contractor must deliver to the Engineer all written manufacturer warranties from manufacturers and/or subcontractors that guarantee and warrant specific products and installations against defects in materials and workmanship for periods following acceptance of the project. Such manufacturer warranties, if required, shall be so indicated in sections under Part 2 "Construction Materials" of the Special Provisions.

6-9 LIQUIDATED DAMAGES Section 6-9 of the Standard Specifications is replaced with the following:

Time is of the essence in the Agreement. By execution of the Agreement, the City and the Contractor (and Subcontractors) agree that it will be difficult or impossible to determine the actual damage that the City will sustain in the event of the Contractor's failure to fully perform the work or to fully perform all of the Contractor's obligations that have accrued pursuant to the agreement by the time for completion. Accordingly, the City and the Contractor agree in accordance with California Government Code Section 53069.85 that the Contractor will forfeit and pay to the City liquidated damages in the sum of **$500.00 per day** for each and every calendar day completion of the work or performance of all of the Contractor's obligations that have accrued pursuant to the agreement is delayed beyond the time for completion. The City and the Contractor further agree in accordance with California Government Code Section 53069.85 that the liquidated damages sum specified in this provision is not manifestly unreasonable under the circumstances existing at the time the agreement was made, and that the City may deduct liquidated damages sums in accordance with this provision from any payments due or that may become due the Contractor under the agreement.

In addition, the Contractor shall pay the following sums for the associated liquidated damages:

Failure to provide and/or non-compliance to or violation of accepted construction scheduling and/or phasing, per Section 6-1 and 6-2	**$250.00**	**per each calendar day**
Failure to provide and/or non-compliance with accepted Traffic Control Plans per Sections 6-1 and 7-10.3	**$250.00**	**per each calendar day**
Performance of unauthorized work, per Section 2-6	**$100.00**	**per each incident**
Failure to provide adequate Project Site Maintenance 24/7, per Section 7-8	**$100.00**	**per each calendar day**

Storage of equipment and/or materials in public streets, per Section 7-10.2	**$100.00**	**per each calendar day/incident**

Each location, incident, non-compliance situation, and/or violation shall be considered separate occurrences and the resulting payments for damages are cumulative (even if occurred on same day).

6-10 USE OF IMPROVEMENT DURING CONSTRUCTION The following paragraphs are added to the provisions of Section 6-10 of the Standard Specifications:

Contractor will not be allowed any compensation due to any delay, hindrance, or inconvenience to Contractor's operations caused by City's decision to take over all or part of any completed facility or appurtenance.

Full compensation for conforming to the requirements in this Section of the Special Provisions shall be considered to be included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

Contractor's attention is directed to Section 7, "Responsibilities of the Contractor", of the Standard Specifications, except as modified herein.

7-2.2	Laws
7-2.2.1	Hours Of Labor
7-2.2.2	Prevailing Wage
7-2.2.5	Labor And Non-Discrimination
7-3	Liability Insurance
7-5	Permits
7-6	The Contractor's Representative
7-8	Project Site Maintenance
7-8.1	Cleanup And Dust Control
7-8.1.1	Recycling Of Construction Material
7-8.2	Air Pollution Control
7-8.3	Vermin Control
7-8.4	Sanitation
7-8.5	Temporary Light, Power And Water
7-8.6	Water Pollution Control
7-8.6.1	General
7-8.6.2	Material Storage
7-8.6.3	Dewatering Operations
7-8.6.4	Pavement Saw-Cutting Operations
7-8.6.5	Pavement Operations
7-8.6.6	Concrete Operations
7-8.6.7	Grading And Excavation Operations
7-8.6.8	Spill Prevention And Control
7-8.6.9	Vehicle/Equipment Cleaning
7-8.6.10	Contractor Training And Awareness
7-8.6.11	Good Housekeeping Practices
7-8.6.12	Enforcement
7-8.6.13	Payment
7-8.7	Drainage Control
7-8.8	Sound Control Requirements
7-10	Public Convenience And Safety
7-10.1	Traffic And Access
7-10.1.1	Pedestrian Access
7-10.1.2	Public Notification
7-10.2	Storage Of Equipment And Materials In Public Streets
7-10.2.1	Construction Staging/Stockpile Locations
7-10.3	Street Closures, Detours, And Barricades
7-10.3.1	Restricted Parking
7-10.3.2	Street Closures and Access
7-10.3.3	Traffic Control Plan Requirements
7-10.3.4	Implement Traffic Control
7-10.4	Public Safety
7-10.4.1	Safety Orders
7-10.4.5	Illness and Injury Prevention Program

7-2.2 LAWS The following sections are added to the provisions of Section 7-2.2 of the Standard Specifications:

7-2.2.1 HOURS OF LABOR Eight hours of labor constitutes a legal day's work. The Contractor shall forfeit, as a penalty to the City, $25.00 for each worker employed in the execution of the contract by the Contractor or 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 provision of the Labor Code, and in particular, Section 1810 to Section 1815, thereof, inclusive, except that work performed by employees of Contractor in excess of eight (8) hours per day, and forty (40) hours during any one week, shall be permitted upon compensation for all hours worked in excess of eight (8) hours per day not less than one and one-half times the basic rate of pay, as provided in said Section 1815.

7-2.2.2 PREVAILING WAGE The City Council by Resolution No. 77-236 has adopted the general prevailing wage rates determined by the Director of Industrial Relations, State of California, to be part of this contract. The general prevailing wage rates applicable to the County of Alameda are listed in the publication entitled "General Prevailing Wage Rates". This document is hereby made part of this contract by reference. Copies of the current versions of this document are on file in the office of the City Clerk, City Hall, 835 East 14th Street, San Leandro, California.

The City will not recognize any claim for additional compensation because of payment by the Contractor of any wage in excess of the prevailing wage rates set forth in the General Prevailing Wage Rates which is part of this contract. The possibility of wage increases is one element to be considered by the Contractor in determining a bid, and will not under any circumstances be considered as a basis of claim against the City on the contract.

The Contractor shall comply with Labor Code Sections 1774 and 1775. The Contractor shall forfeit, as a penalty, $50.00 per each calendar day or portion thereof for each worker paid less than the stipulated prevailing rates in violation of the provisions of the Labor Code, and in particular Labor Code Sections 1770 to 1780 inclusive. In addition to said penalty, the difference between such stipulated prevailing wage rates and the amounts paid for each worker paid less than the stipulated prevailing wage rates shall be paid to each of said workers by the Contractor.

7-2.2.4 PAYROLL RECORDS The Contractor must comply with Labor Code Section 1776. The Contractor shall also be responsible or compliance by all Subcontractors.

The penalties specified in Subdivision (g) of the Labor Code Section 1776 for noncompliance with the provisions of said Section 1776 may be deducted from any monies due or which may become due to the Contractor.

A copy of all payroll shall be submitted with each progress payment application to the Engineer. Payrolls shall contain the full name, address, and social security number of each employee, their correct classification, rate of pay, daily and weekly number of hours worked, itemized deductions made, and actual wages paid. They shall also indicate apprentices and ratio of apprentices to journeymen. The employee's address and social security number need only appear on the first payroll on which their name appears. The payroll shall be accompanied by a "Statement of Compliance" signed by the employer or its agent indicating that the payrolls are correct and complete and that the wage rates contained therein are not less than those required by the contract. The "Statement of Compliance" shall be on forms furnished by the City or on any form with identical wording. The Contractor shall be responsible for submission of copies of payrolls of all subcontractors.

EFFECT ON PROGRESS PAYMENTS: If by the 15th of the month, the Contractor has not submitted satisfactory payrolls for all work performed during the monthly period ending on or before the 1st of that month, the City will retain an amount equal to ten percent (10%) of the estimated value of the work

performed (exclusive of mobilization) during the month from the next monthly estimate, except that such retention shall not exceed $10,000 nor be less than $1,000. Retentions for failure to submit satisfactory payrolls shall be additional to all other retentions provided for in the contract. The retention for a failure to submit payrolls for any monthly period will be released for payment on the monthly estimate for partial payments following the date that all the satisfactory payrolls for which the retentions were made are submitted.

The Contractor and each subcontractor shall preserve their payroll records for a period of 3 years from the date of the acceptance of the project.

7-2.2.5 LABOR NON-DISCRIMINATION Contractor shall comply with the Affirmative Action/Non-Discrimination and Equal Employment requirements of the City.

1. During the performance of this contract, Contractor agrees as follows:

   A. Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, handicap, age, or national origin. Contractor will take affirmative action to ensure that applicants for employment are employed, and that employees are treated equally during employment, without regard to their race, color, religion, handicap, sex, sexual orientation, age, or national origin. Such action shall include but not be limited to the following: employment; upgrading; demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

   B. Contractor will incorporate the above Affirmative Action/Non-Discrimination provisions in all subcontracts for services covered by this contract.

   C. Minority and Female-Owned Business Enterprise. In connection with the performance of this contract, Contractor shall comply with the City's current policies as required by State or Federal Law and/or use its best efforts to obtain the maximum utilization of minority and female-owned business enterprises based in San Leandro and ensure that minority and female-owned enterprises based in San Leandro shall have maximum practicable opportunity for subcontractor work under this contract.

   D. General Employment Provisions Relating to Handicap/Disability Discrimination. No qualified individual with a handicap or disability shall, solely on the basis of such handicap or disability, be subjected to discrimination in employment by Contractor.

   E. Reports. Contractor shall provide such reports and/or documents to City as reasonably requested demonstrating compliance with the terms hereof.

   F. Attention is directed to Section 1735 of the Labor Code, which reads as follows:

      "No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons, except as provided in Section 12940 of the Government Code, and every contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter."

If the project is funded by fiscal assistance from another governmental entity, Contractor shall comply with all applicable rules and regulations of such fiscal assistance program incorporated into the Special Provisions.

7-3 LIABILITY INSURANCE Section 7-3, "Liability Insurance", of the Standard Specifications is revised to read as follows:

1. INSURANCE REQUIREMENTS Before beginning any work under this Agreement, Contractor, at its own expense, unless otherwise specified below, shall procure the types and amounts of insurance listed below against claims for injuries to persons or damages to property that may arise from or in connection with the performance of the work hereunder by the Contractor and its agents, representatives, employees, and subcontractors. Consistent with the following provisions, Contractor shall provide proof satisfactory to City of such insurance that meets the requirements of this section and under forms of insurance satisfactory in all respects, and that such insurance is in effect prior to beginning work for the City. Contractor shall maintain the insurance policies required by this section throughout the term of this Agreement. The cost of such insurance shall be included in the Contractor's bid. Contractor shall not allow any subcontractor to commence work on any subcontract until Contractor has obtained all insurance required herein for the subcontractor(s) and provided evidence that such insurance is in effect to City. Verification of the required insurance shall be submitted and made part of this Agreement prior to execution. Contractor shall maintain all required insurance listed herein for the duration of this Agreement.

A. Workers' Compensation. Contractor shall, at its sole cost and expense, maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Contractor. The Statutory Workers' Compensation Insurance and Employer's Liability Insurance shall be provided with limits of not less than $1,000,000 per accident. In the alternative, Contractor may rely on a self-insurance program to meet those requirements, but only if the program of self-insurance complies fully with the provisions of the California Labor Code. Determination of whether a self-insurance program meets the standards of the Labor Code shall be solely in the discretion of the Contract Administrator. The insurer, if insurance is provided, or the Contractor, if a program of self-insurance is provided, shall waive all rights of subrogation against the City and its officers, officials, employees, and volunteers for loss arising from work performed under this Agreement.

B. Commercial General and Automobile Liability Insurance.

1) General Requirements: Contractor, at its own cost and expense, shall maintain commercial general liability insurance for the term of this Agreement in an amount not less than $1,000,000 per occurrence and automobile liability insurance for the term of this Agreement in an amount not less than $2,000,000 per occurrence. If a Commercial General Liability Insurance or an Automobile Liability form or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the work to be performed under this Agreement or the general aggregate limit shall be at least twice the required occurrence limit. Such coverage shall include but shall not be limited to, protection against claims arising from bodily and personal injury, including death resulting therefrom, and damage to property resulting from activities contemplated under this Agreement, including the use of owned and non-owned automobiles.

2) Minimum Scope of Coverage: Commercial general coverage shall be at least as broad as Insurance Services Office Commercial General Liability occurrence form CG 0001 (most recent edition) covering comprehensive General Liability on an "occurrence" basis. Automobile coverage shall be at least as broad as Insurance Services Office Automobile Liability form CA 0001 (most recent edition), Code 1 (any auto). No endorsement shall be attached limiting the coverage.

3) Additional Requirements: Each of the following shall be included in the insurance coverage or added as a certified endorsement to the policy:

a. The Insurance shall cover an occurrence or on an occurrence basis, and not on a claims-made basis.

b. City, its officers, officials, employees, and volunteers are to be covered as insureds as respects: liability arising out of work or operations performed by or on behalf of the Contractor; or automobiles owned, leased, hired, or borrowed by the Contractor.

c. For any claims related to this Agreement or the work hereunder, the Contractor's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

d. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after 30 days' prior written notice has been provided to the City.

e. Contractor hereby agrees to waive subrogation which any insurer or contractor may require from vendor by virtue of the payment of any loss. Contractor agrees to obtain any endorsements that may be necessary to affect this waiver of subrogation.

C. <u>All Policies and Requirements.</u>

1) Acceptability of Insurers: All Insurance required by this section is to be placed with insurers with a Bests' rating of no less than A:VII.

2) Verification of Coverage: Prior to beginning any work under this Agreement, Contractor shall furnish City with complete and legible copies of certificates of insurance evidencing all policies delivered to Contractor by the insurer, including complete copies of all endorsements attached to those policies. All copies of certificates of insurance and endorsements shall show the signature of a person authorized by that insurer to bind coverage on its behalf. If the City does not receive the required insurance certificates and endorsements prior to the Contactor beginning work, it shall not waive the Contractor's obligation to provide them. The City reserves the right to require complete copies of all required insurance policies and endorsements at any time.

3) Deductibles and Self-Insured Retentions: Contractor shall disclose to and obtain the written approval of City for the self-insured retentions and deductibles before beginning any of the services or work called for by any term of this Agreement. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, employees, and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses.

4) Wasting Policies: No policy required by Section 7.3 shall include a "wasting" policy limit (i.e. limit that is eroded by the cost of defense).

5) Waiver of Subrogation: Contractor hereby agrees to waive subrogation which any insurer or contractor may require from vendor by virtue of the payment of any loss. Contractor agrees to obtain any endorsements that may be necessary to affect this waiver of subrogation. Also, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the entity for all work performed by the Contractor, its employees, agents, and subcontractors.

6) Subcontractors: Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

F. <u>Remedies.</u> In addition to any other remedies City may have if Contractor fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, City may, at its sole option exercise any of the following remedies, which are alternatives to other remedies City may have and are not the exclusive remedy for Contractor's breach:

- Obtain such insurance and deduct and retain the amount of the premiums for such insurance from any sums due under the Agreement;
- Order Contractor to stop work under this Agreement or withhold any payment that becomes due to Contractor hereunder, or both stop work and withhold any payment, until Contactor demonstrates compliance with the requirements hereof; and/or
- Terminate this Agreement.

2. **INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES:** Contractor shall take all responsibility for the work, shall bear all losses and damages directly or indirectly resulting to Contractor, to any subcontractor, to the City, to City officers and employees, or to parties designated by the City on account of the performance or character of the work, unforeseen difficulties, accidents, occurrences, or other causes predicated on active or passive negligence, or the willful misconduct, of the Contractor or of any subcontractor. Contractor shall indemnify, defend, and hold harmless the City, its officers, officials, directors, employees, and agents from and against any or all loss, liability, expense, claim, costs (including costs of defense), suits, and damages of every kind, nature and description directly or indirectly arising from the performance of the work. This paragraph shall not be construed to exempt the City, its employees, and officers from its own fraud, willful injury or sole active negligence. By execution of this agreement, Contractor acknowledges and agrees that Contractor has read and understands the provisions hereof and that this paragraph is a material element of consideration.

   Approval of the insurance contracts does not relieve the Contractor or subcontractors from liability under this paragraph.

   A. Responsibility for Damage. The Contractor is solely responsible to protect the work, including site security, until project acceptance. The Contractor shall have the charge and care of the work, including materials, whether incorporated into the work or not, and shall bear the risk of injury, loss or damage to any part thereof by the action of the elements, vandalism, theft or any other cause, whether arising from the execution or from the non-execution of the work. The City of San Leandro and all officers and employees thereof connected with the work, including but not limited to the Engineer, shall not be answerable or accountable in any manner for any loss or damage that may happen to the Work or any part thereof; for any loss or damage to any of the materials or other things used or employed in performing the Work; for injury to or death of any person, either worker or public; or for damage to the Work or any property from any cause that might have been prevented by the Contractor, Contractor's workers, or anyone employed by the Contractor.

   B. Contractor Response to Potential Claims. In the event damage or injury to persons or property are suffered by a third party (i.e. not City employees, contractors, consultants, subcontractors, volunteers or Contractor's employees, consultants, subcontractors, or invitees) and such third party contacts the City for recovery or restitution for damages, City shall forward such party and all information received from them to Contractor for response. Contractor shall receive such information, and respond to the injured party within seven (7) calendar days, with a copy of the response to City, which could include but is not limited to including, any settlement, compromise or response plan formulated. If the matter remains unresolved, such that City representatives are contacted by the same aggrieved party, or if Contractor shall have rejected the damage claims, then City shall take all reasonable steps to respond to the claim, which may include tendering the damage claim to Contractor pursuant to the Contractor's indemnity clause. Failure of Contractor to be responsive to third party damage claims under this provision may be grounds for breach of contract, wherein remedies of such breach may include but are not limited to withholding of progress payments.

C. Failure to Maintain Insurance. During the term of this agreement and until final completion and acceptance of the work by the City, the Contractor shall maintain in full force and effect insurance coverage in the forms and amounts specified in the Contract and any Special Provisions. If at any time during the performance of this contract, Contractor fails to maintain any item of required insurance in full force and effect, Contractor shall immediately discontinue all work under the contract and the City will withhold all contract payments due or that become due until notice is received by City that such insurance has been restored in full force and effect and that the premiums therefore have been paid for a period satisfactory to the City. Any delay to the work or the project shall be borne by and attributable to the Contractor and its failure to maintain or adhere to these insurance requirements.

D. PERS Benefits. In the event that Contractor or any employee, agent, or subcontractor of Contractor providing services under this Agreement is determined by a court of competent jurisdiction or the California Public Employees Retirement System (PERS) to be eligible for enrollment in PERS as an employee of City, Contractor shall indemnify, defend, and hold harmless City for the payment of any employee and/or employer contributions for PERS benefits on behalf of Contractor or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of the City.

7-5 PERMITS Contractor's attention is directed to Section 7-5 of the Standard Specifications.

In addition to the requirements of Section 7-5, "Permits", of the Standard Specifications, the following requirements shall also apply:

CITY PERMITS: Prior to commencement of work, the Contractor shall obtain all applicable permits from the Building and Safety Services Division of the Community Development Department. Contractor will not be required to pay City permit fees. The following City permits are required:

City Building Permit

OTHER PERMITS: Contractor shall obtain and pay for State and County permits, and permits from other jurisdictions that may be required for the project. Contractor shall pay fees associated with such permits. The following State, County, or other agency permits are required for this project:

None

The Contractor shall be compensated for the actual costs of permits (without mark-up) under this section, as a change order, upon submittal of receipts.

The Contractor shall comply with all conditions set forth in permits and agreements, and shall bear the full costs of all expenses incurred in such compliance.

The Contractor's attention is directed to Section 2-11 of these Special Provisions regarding the responsibility for required permit inspections.

The Contractor represents and warrants to City that Contractor, and all Subcontractors have all licenses, permits, certified qualifications, and approvals of whatsoever nature that are legally required for Contractor to practice Contractor's profession. Contractor represents and warrants to City that Contractor and all Subcontractors shall, at its sole cost and expense, keep in effect at all times during the term of this agreement any licenses, permits, certified qualifications and approvals that are legally required for Contractor to practice its profession.

Failure to submit said documents and/or certifications shall result in delayed acceptance of any associated City project until these documents are submitted. Only certified persons submitted on job site or project shall be shut down.

CITY BUSINESS LICENSE: The Contractor and all listed Subcontractors shall submit evidence of a current City of San Leandro Business License in accordance with Section 6-1 of these Special Provisions.

7-6 THE CONTRACTOR'S REPRESENTATIVE The following paragraphs are added to Section 7-6 of the Standard Specifications:

INDEPENDENT CONTRACTOR: At all times during the term of this agreement, Contractor shall be an independent contractor and shall not be an employee of City. City shall have the right to control Contractor only insofar as the results of Contractor's services rendered pursuant to this agreement.

CONTRACTOR NO AGENT: Except as City may specify in writing, Contractor shall have no authority, expressed or implied, to act on behalf of City in any capacity whatsoever as an agent. Contractor shall have no authority, expressed or implied, pursuant to this agreement to bind City to any obligation whatsoever.

ASSIGNMENT PROHIBITED: No party to this agreement may assign any right or obligation pursuant to this agreement. Any attempted or purported assignment of any right or obligation pursuant to this agreement shall be void and of no effect.

REPRESENTATIVE AT WORK SITE: The Contractor's Representative shall be present and immediately available to the Engineer at the work site whenever work (INCLUDING THAT OF SUBCONTRACTORS) is in progress or whenever actions of the elements necessitate Contractor's presence to take measures necessary to protect the work, persons, or property, or provide for the public's convenience. The Contractor's representative shall have full authority to act on Contractor's behalf and shall be a competent full-time non-working superintendent or non-working foreman, satisfactory to the Engineer, to supervise and be responsible for all Contractor and/or subcontractor crews and shall not be directly involved in the performance of the work or tasks at hand. Individual crew superintendent/foreman and/or working superintendent/foreman will not be acceptable.

At the City's option, work may be suspended until the Contractor has complied with this paragraph. Contractor shall not be due additional compensation or working days due to non-compliance with this paragraph.

7-8 WORK SITE MAINTENANCE The following paragraphs are added to Section 7-8 of the Standard Specifications:

MAINTENANCE REQUIREMENTS: All maintenance requirements, including protection from the elements, site security/protection from vandalism, theft or other cause, shall apply continuously (24 hrs./day, 7 days/week) and shall not be limited to normal working days. Adequate personnel and equipment shall be provided daily. Adjacent properties shall be similarly maintained/protected from the Contractor's operations.

Full compensation for compliance with this Section shall be considered to be included in the contract prices paid for the various items of work and no separate compensation will be made therefore.

The Contractor shall be subject to liquidated damages per Section 6-9, "Liquidated Damages", of these Special Provisions, for failure to follow the stated directives of this section.

7-8.1 GENERAL The following paragraphs are added to Section 7-8.1 of the Standard Specifications:

The Contractor shall install Stabilized Construction Entrance, In accordance with Standard Plan 606, as required to prevent material deposit on roadways.

All excess material shall become the property of the Contractor to be legally disposed of off City property in accordance with Section 7-8.1.1 below.

7-8.1.1 RECYCLING OF CONSTRUCTION MATERIAL The following requirements are added to Section 7-8.1 of the Standard Specifications:

All excess material shall become the property of the Contractor. Such material shall be legally handled, transported, and recycled or disposed of off City property in accordance with Chapter 3-7 of the San Leandro Municipal Code "Construction and Demolition Debris Waste Reduction and Recycling Requirements"

Contractor shall recycle all asphalt and concrete waste, as well as recycle 50% of the remaining construction debris. Contractor shall use one of the following methods to recycle debris:

Separate materials on-site and:

a. Self-haul the materials to a recycling facility -or-
b. Use debris boxes obtained from the City's franchised waste hauler

Do not separate materials:

a. Self-haul mixed loads to a mixed C&D recycling facility -or-
b. Use a debris box obtained from the City's franchised waste hauler (Contractor must inform the hauler of the intent to comply with the City of San Leandro's C&D Ordinance prior to obtaining the box)

Use a State licensed construction clean-up contractor (classification D63) to separate the materials on site and deliver to local recycling facilities.

The following companies are accepted as Mixed C&D recycling facilities for the purpose of this section:

1. Davis Street Transfer Station 2615 Davis St, San Leandro (510) 638-2303	5. Newby Island Landfill 1601 Dixon Landing Rd, Milpitas, (408) 262-1401
2. Fremont Recycling & Transfer Station 41149 Boyce Rd, Fremont, (510) 252-0500	6. Recology of San Francisco 501 Tunnel Ave, San Francisco, (415) 330-1400
3. Vasco Road Landfill & Recycling 4001 N. Vasco Rd, Livermore, (925) 447-0491	7. Zanker Material Processing Facility 675 Los Esteros Rd, San Jose, (408) 263-2384
4. Marin Resource Recovery Center 565 Jacoby St, San Rafael, (415) 485-5646	8. Guadalupe Materials Recovery Facility 15999 Guadalupe Mines Rd, San Jose, (408) 268-1670

The following company is a franchised waste hauler authorized to provide debris boxes within the portion of the City of San Leandro containing this project.

Alameda County Industries (ACI)
510-357-7282
www.alamedacountyindustries.com

Per sections 3-6-320 and 3-6-340 of the San Leandro Municipal Code, contractors cannot obtain construction & demolition (C&D) debris box service from anyone other than the City's franchised waste hauler regardless of whether the material is intended for disposal, recycling, composting or otherwise.

Contractor shall demonstrate compliance with this section by completing and submitting a Waste Management Plan online with Green Halo Systems (www.greenhalosystems.com or at 1-888-525-1301). Contractor shall create an account with Green Halo and enter project information within 30 days of the notice to proceed. Contractor shall upload recycling and disposal receipts at least once every 30 days thereafter. Contractor shall complete and submit the waste management report before asserting project completion.

7-8.1.2 VERMIN CONTROL The following Section is added to Section 7-8.1 of the Standard Specifications:

At the time of acceptance, structures entirely constructed under the Contract shall be free of rodents, insects, vermin, and pests. Necessary extermination work shall be arranged and paid for by the Contractor as part of the work within the contract time, and shall be performed by a licensed exterminator in accordance with requirements of governing authorities. The Contractor shall be liable for injury to persons or property and responsible for the elimination of offensive odors resulting from extermination operations.

7-8.1.3 TEMPORARY LIGHT, POWER AND WATER The following Section is added to Section 7-8.1 of the Standard Specifications:

The Contractor shall furnish, install, maintain, and remove all temporary light, power, and water at its own expense. These include piping, wiring, lamps, and other equipment necessary for the work. The Contractor shall not draw water from any fire hydrant (except to extinguish a fire), without obtaining permission from the water agency concerned.

7-8.2 AIR POLLUTION CONTROL Contractor's attention is directed to Section 7-8.2 of the Standard Specifications:

7-8.3 NOISE CONTROL The following Section is added to Section 7-8 of the Standard Specifications:

The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m. shall not exceed 89 dBA at a distance of 50 feet. This requirement in no way relieves the Contractor from responsibility for complying with Section 4-1-1115(b) of the San Leandro Municipal Code concerning construction-related noise near residences.

Said noise level requirement shall apply to all equipment on the job or related to the job, including, but not limited to, trucks, transit mixers, or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings, except those required by safety laws for the protection of personnel.

7-8.4 STORAGE OF EQUIPMENT AND MATERIALS Storage and exposure of raw material, by-products, finished products, and containers shall be controlled as described below:

All construction materials shall be stored at least ten feet away from inlets, catch basins, and curb returns. The Contractor shall not allow any material to enter the storm drain system. At the end of each working day, the Contractor shall collect and dispose of all scrap, debris, and waste material.

During wet weather or when rain is in forecast, the Contractor shall store materials that can contaminate rainwater or be transported by storm water or other runoff to the storm drain system inside a building or

cover them with a tarp or other waterproof material secured with weighted tires or sandbags to prevent contact with rain.

The Contractor's attention is directed to Section 7-10.2 of these Special Provisions regarding storage of materials in public streets.

The Contractor is reminded that storage and disposal of all hazardous materials such as paints, thinners, solvents, and fuel; and all hazardous wastes such as waste oil must meet all federal, state, and local standards and requirements.

7-8.5 SANITARY SEWERS The following is added to Section 7-8.5 of the Standard Specifications:

Contractor is also required to comply with Section 5-2 of these Special Provisions regarding any interruption of sanitary sewer services.

7-8.6 WATER POLLUTION CONTROL The following paragraphs are added to Section 7-8.6 of the Standard Specifications:

7-8.6.1 GENERAL The intent of these requirements is to enforce federal, state, and other local agency regulations that prohibit storm water pollution at construction sites. Storm drains discharge directly to creeks and the San Francisco Bay without treatment, and therefore, discharge of pollutants (i.e., any substance, material, or waste other than uncontaminated storm water) into the storm drain system is strictly prohibited.

The Contractor's attention is directed to Section 7-8.6.4.9 of these Special Provisions.

In this section, the term "storm drain system" shall include storm water conduits, storm drain inlets and other storm drain structures, street gutters, channels, watercourses, creeks, lakes, and the San Francisco Bay.

For the purpose of eliminating storm water pollution, the Contractor shall implement effective control measures at construction sites. There are several publications that provide guidance on selecting and implementing effective control measures known as Best Management Practices (BMPs). BMPs include schedules of activities, prohibition of practices, general good housekeeping practices, operational practices, pollution prevention practices, maintenance procedures, and other management procedures to prevent the discharge of pollutants directly or indirectly to the storm drain system. BMPs also include the construction of some facilities that may be required to prevent, control, and abate storm water pollution.

7-8.6.4 DEWATERING OPERATIONS Prior to discharging into the storm drain system, all rainwater and groundwater removed from the Work site shall be de-silted through filtering materials and methods meeting the Association of Bay Area Governments (ABAG) Standards for Erosion and Sediment Control Measures and/or through methods and procedures described in the California Storm Water Best Management Practice Handbook—Construction Activity (latest edition).

The Contractor shall reuse the water for other needs, such as dust control and irrigation, to the maximum extent practicable.

7-8.6.4.1 PAVEMENT SAW-CUTTING OPERATIONS The Contractor shall prevent any saw-cutting debris from entering the storm drain system. The Contractor, preferably, shall use dry cutting techniques and sweep up residue. If wet methods are used, the Contractor shall vacuum slurry as cutting proceeds or collect all wastewater by constructing a sandbag sediment barrier. The bermed area shall be of adequate size to collect all wastewater and solids. The Contractor shall allow collected water to evaporate if the wastewater volume is minimal and if maintaining the ponding area does not interfere with public use of the street area or create a safety hazard. If approved by the Engineer, the Contractor may

direct or pump saw-cutting wastewater to a dirt area and allow to infiltrate. The dirt area shall be adequate to contain all the wastewater. After wastewater has infiltrated, all remaining saw-cutting residue must be removed and disposed of properly. With the approval of the Engineer, de-silted water may be pumped to the sanitary sewer to assist in the evaporation or infiltration process. Remaining silt and debris from the ponding or bermed area shall be removed or vacuumed and disposed of properly. If a suitable dirt area is not available or discharge to the sanitary sewer is not feasible, with the approval of the Engineer, the Contractor shall filter the saw-cutting wastewater through filtering materials and methods meeting ABAG Standards for Erosion and Sediment Control Measures (latest edition) before discharging to the storm drain.

7-8.6.4.2 PAVEMENT OPERATIONS The Contractor shall prevent the discharge of pollutants from paving operations by using measures to prevent run-on and runoff pollution, properly disposing of wastes, and by implementing and following Best Management Practices:

No paving or street sealing during wet weather.

Store materials as required under Sections 7-8.4 and 7-10.2 of these Special Provisions

Cover inlets and manholes when applying asphalt, seal coat, tack coat, slurry seal, fog seal, etc.

Place drip pans or absorbent materials under paving equipment when not in use. During wet weather, store contaminated paving equipment indoors or cover with tarp or other waterproof covering.

Sweep site daily to prevent sand, gravel, or excess asphalt from entering or being transported by rain into the storm drain system.

Keep ample supplies of drip pans or absorbent materials on-site.

If paving involves Portland cement concrete, refer to Section 7-8.6.4.3 of these Special Provisions.

7-8.6.4.3 CONCRETE OPERATIONS The Contractor shall prevent the discharge of pollutants from concrete operations by using measures to prevent run-on and runoff pollution, properly disposing of wastes, and by implementing and following Best Management Practices:

Store all materials in waterproof containers or under cover away from drain inlets or drainage areas.

Avoid mixing excess amounts of Portland cement materials.

Do not wash out concrete trucks into storm drains, open ditches, streets, streams, etc. Whenever possible, perform washout of concrete trucks offsite where discharge is controlled and not permitted to discharge to the storm drain system. For onsite washout:

Locate washout area at least 50 feet from storm drains, open ditches, or other water bodies, preferably in a dirt area. Prevent runoff from this area by constructing a temporary pit or bermed area large enough for the liquid and solid waste.

Wash out concrete wastes into the temporary pit where the concrete can set, be broken up, and then be disposed of properly. If the volume of water is greater than what will allow concrete to set, allow the wash water to infiltrate and/or evaporate, if possible. Otherwise, allow water to settle, filter it, and then pump it to the sanitary sewer with approval from the Engineer. Remove or vacuum the remaining silt and debris from the ponding or bermed area and dispose of it properly.

Dispose of wastewater from washing of exposed aggregate to dirt area. The dirt area shall be adequate to contain all the wastewater, and once the wastewater has infiltrated, any remaining residue must be

removed. If a suitable dirt area is not available, then the Contractor shall filter the wash water through straw bales or other filtering materials meeting ABAG Standards for Erosion and Sediment Control Measures before discharging to the sanitary sewer with approval from the Engineer.

Collect and return sweepings from exposed aggregate concrete to a stockpile or dispose of the waste in a trash container.

7-8.6.4.4 GRADING AND EXCAVATION OPERATIONS The Contractor shall take all reasonable and adequate measures to protect the Work and shall exercise sound engineering and construction practices in the conduct of the Work and shall implement sedimentation and erosion control measures to prevent sediments or excavated material from entering the storm drain system. The Work site shall be maintained to facilitate continual drainage avoiding impoundment, ponding or puddling of storm runoff, preventing any damage to excavations, subgrade, or materials incorporated into the Work. Any impounded water shall be immediately pumped from the site in accordance with the following. The Contractor is solely responsible for repairs or replacement for any damage caused by his failure for compliance to this section, including negative impacts to adjacent property.

The erosion and sedimentation control materials and methods shall be in accordance with ABAG Standards for Erosion and Sediment Control Measures and/or the procedures and methods described in the California Storm Water Best Management Practice Handbook—Construction Activity (latest edition).

At a minimum, the Contractor shall install filter materials (such as sandbags, filter fabric, etc.) at the storm drain inlet(s) located in and downstream of the project site between October 15 and April 15, and when rain is forecast within 24 hours. The Contractor shall install filter materials or seal all surface inlet openings during the dry season if there is potential for sediment or excavated material to be discharged to the storm drain system during the construction operation (e.g., sediments and debris tracked by construction vehicles, windblown, or transported by other runoff). The storm drain inlets shall be sealed in such a manner that they can be opened in an emergency and unblocked at the end of each working day so that no property is damaged as a result of accidents or other overflows.

Sedimentation and erosion control/filter materials shall be placed in a manner that will prevent any debris or sediment from flowing into the storm drain system. Said materials or control devices shall also be maintained and/or replaced as necessary to ensure effective sediment control and prevent flooding.

7-8.6.4.5 SPILL PREVENTION AND CONTROL The Contractor shall take any and all precautions to prevent accidental spills during the work under this contract. However, in the event of a spill:

The Contractor shall immediately contain and prevent leaks and spills from entering the storm drain system, and properly clean up and dispose of the waste and clean up materials. If waste is hazardous, the Contractor shall comply with all federal, state, and local hazardous waste requirements.

The Contractor shall not wash any spilled material into the streets, gutters, storm drains, or creeks.

The Contractor shall report any hazardous materials spills immediately to the San Leandro Fire Department, the Alameda County Hazardous Materials Division, and other state and local agencies as required by state and local regulations.

7-8.6.4.6 VEHICLE/EQUIPMENT CLEANING The Contractor shall not perform vehicle or equipment cleaning on-site or in the street using soaps, solvents, de-greasers, steam cleaning equipment, or equivalent methods. The Contractor shall perform vehicle or equipment cleaning with water only in a designated, bermed area that will not allow rinse water to run offsite or into the storm drain system. The rinse water shall be permitted to infiltrate into a dirt area or shall be discharged to the sanitary sewer with the approval of the Engineer.

The Contractor shall dispose of wash water from the cleaning of water based paint equipment and tools in the sanitary sewer.

If using oil based paint, to the maximum extent practicable, the Contractor shall filter the paint thinner and solvents for reuse, and dispose of the waste thinner, solvent, and sludge from cleaning of equipment and tools as hazardous waste.

7-8.6.4.7 CONTRACTOR TRAINING AND AWARENESS The Contractor shall train all employees on the water pollution prevention requirements contained in these specifications. The Contractor shall inform all subcontractors of the water pollution prevention contract requirements and include appropriate subcontract provisions to ensure that these requirements are met.

7-8.6.4.8 GOOD HOUSEKEEPING PRACTICES The Contractor shall implement the following applicable good housekeeping practices:

Store materials that have the potential to be transported to the storm drain system, by storm runoff or by a spill, under cover in a contained area or in sealed waterproof containers.

Use tarps on the ground to collect fallen debris or splatters that could contribute to storm water pollution.

Secure opened bags of cement and of other light or powdered materials that can be transported by wind.

Pick up litter, construction debris, and other wastes daily from outside areas including the sidewalk area, gutter, street pavement, and storm drains impacted by the project. All wastes shall be stored in covered containers or disposed of or recycled immediately.

Dispose of wash water to the sanitary sewer with the approval of the Engineer or recycle wash water. Refer to Section 7-8.6.4.6 of these Special Provisions.

Inspect vehicles and equipment arriving on-site for leaking fluids, and promptly repair leaking vehicles and equipment. Use drip pans to catch leaks until repairs are made.

Avoid spills by handling materials carefully. Keep a stockpile of spill materials, such as rags or absorbents, readily accessible onsite. Clean up all spills immediately to prevent any material from being discharged to the storm drain system. Refer to Section 7-8.6.4.5 of these Special Provisions.

Train employees regularly on good housekeeping practices and BMPs. Assign responsibility to specific employees on BMPs, good housekeeping practices, and what to do in the event of a spill. Refer to 7-8.6.4.7 of these Special Provisions.

Maintain and replace all sediment and water pollution control devices as necessary to ensure that said controls are working effectively (e.g., inspect all sediment ponds or sandbag sedimentation/filtering systems after each rain, and remove accumulated sediment and debris, and replace or repair damaged sandbags immediately).

7-8.6.4.9 DRAINAGE CONTROL The Contractor shall maintain drainage within and through the Work areas. Earth dams will not be permitted in paved areas. Temporary dams of sandbags, asphaltic concrete, or other acceptable material will be permitted when necessary. Such dams shall be removed from the site as soon as their use is no longer necessary. Any impounded water shall be immediately pumped from the site. The Contractor is solely responsible for repairs or replacement for any damage caused by his failure for compliance to this Section.

The Contractor's attention is directed to Section 7-8.6.4.4 of these Special Provisions.

7-8.6.5.1 ENFORCEMENT The City has the authority, through various sections of the San Leandro Municipal Code, to enforce any portion of this Section. City enforcement may include, but is not limited to: citations, orders to abate, bills for City cleanup costs and administration, civil suits, and criminal charges. Enforcement action by the City does not void or suspend any enforcement actions by other agencies.

7-8.6.5 PAYMENT Unless a separate pay item is provided in the bid schedule, full compensation for compliance with this Section shall be considered to be included in the contract prices paid for various items of work and no separate compensation will be made therefore.

The Contractor shall be subject to liquidated damages per Section 6-9, "Liquidated Damages", of these Special Provisions for failure to follow the stated directives of this Section.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS

The following is added to section 7-9 of the Standard Specifications.

Contractor shall not remove any parking meters with his forces. If the work requires removal of any parking meters, Contractor shall give the Engineer a written request indicating which meters are to be removed. City will remove the meters within 72 hours of receiving the notice. City shall only remove the head. Contractor shall remove the pole, base, and foundation (if any).

7-10 PUBLIC CONVENIENCE AND SAFETY

7-10.1 TRAFFIC AND ACCESS The Contractor's attention is directed to Standard Plan 610 showing truck routes in the City of San Leandro.

The following paragraph is added to Section 7-10.1 of the Standard Specifications:

Contractor shall not obstruct public pedestrian pathways with construction material or equipment.

7-10.1.1 PEDESTRIAN ACCESS Pedestrian travel shall be maintained at all times along both sides of the street (or streets) under construction. All temporary pedestrian walkways shall be at least 4 feet wide and fully accessible to handicapped pedestrians in accordance with the Americans with Disabilities Act and California Title 24. In all cases, pedestrian walkways shall be separated from vehicular travel by a clear area of at least 6 feet, or in locations where 6 feet of horizontal separation for pedestrian traffic is not feasible, by raised curb, a raised wooden walkway with standard railings, or by K rails. This condition may be modified or waived by the Engineer upon written request by the Contractor. Provisions to activate pedestrian signal indications will be made in all instances where pedestrian access to the existing pedestrian push-button cannot be maintained. Existing lighting levels in the area prior to construction shall be maintained during construction.

Full compensation for compliance with this section shall be considered to be included in the contract price for traffic control and no separate payment will be made therefore. When the contract does not include a contract pay item for traffic control, full compensation for compliance with this section shall be considered to be included in the prices for the various contract items of work involved and no additional compensation will be allowed therefore.

7-10.1.2 PUBLIC NOTIFICATION The Contractor shall provide door hangers or flyers to inform adjacent homeowners, tenants, and businesses of any work, no parking zones, street closures, detours, or barricades that are to occur on their street. Door hangers or flyers are to be submitted at the pre-construction meeting in accordance with Section 6-1 for review. The Contractor shall only distribute flyers approved by the Engineer. Door hangers shall be a minimum of 3 inches by 11 inches and flyers are to be a minimum of 8-1/2 inches by 11 inches. Contractor shall re-notify public immediately upon any cancellation or revision in schedule, including changes caused by inclement weather.

Full compensation for conforming to the requirements of this section shall be considered to be included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

7-10.2 STORAGE OF EQUIPMENT AND MATERIALS IN PUBLIC STREETS Construction materials shall not be stored in streets, roads, highways, or on public property. All materials or equipment used in construction shall be stored elsewhere by the Contractor at its expense. All materials shall be stored in accordance with Section 7-8.4 of these Special Provisions.

Construction equipment shall not be stored at the work site except during its actual use on the work. Excavated material shall not be stored in public streets unless otherwise permitted. All excess material shall be removed immediately from the site.

Full compensation for conforming to the requirements of this section shall be considered to be included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

7-10.2.1 CONSTRUCTION STAGING/STOCKPILE LOCATION: A staging area has been provided for the contractor as shown on the plans for equipment storage, stockpiling materials, and other construction related activities.

Access by City maintenance and emergency vehicles to the project site shall be maintained at all times. Contractor is solely responsible for the security of all construction materials and equipment placed on City property. Contractor shall maintain such staging areas in a clean, safe, and secure manner as required by other sections of these special provisions. Failure to comply with such standards may result in the City revoking the right of the contractor to use such property.

7-10.3 STREET CLOSURES, DETOURS, AND BARRICADES The following paragraphs are added to Section 7-10.3 of the Standard Specifications:

7-10.3.1 RESTRICTED PARKING The Contractor may establish "No Parking" zones contiguous to the work area by posting signs supplied by the City as follows:

- Only City signs, marked with broad tip marker pen.
- Signs shall be placed at less than 100-foot spacings.
- Signs shall be placed a minimum of 72 hours, and a maximum of 96 hours, in advance of the required restriction period.
- Signs shall be accurately dated ONLY for the actual duration of the specific task(s) at hand.
- Signs shall be placed ONLY along frontages directly affected by the work or as required for public safety.
- Signs shall be re-posted/re-dated immediately due to revisions of schedule, including changes caused by inclement weather.
- Signs and barricades shall be removed immediately upon expiration of the dated duration of the work.

The City will enforce parking restrictions ONLY when the Contractor has properly posted the signs and has notified the Engineer a minimum of 72 hours in advance of the requested restriction period.

7-10.3.2 STREET CLOSURES AND ACCESS Access for local residents and businesses and all private property shall be maintained at all times.

No public street closures are necessary or allowed on this project.

7-10.3.3 TRAFFIC CONTROL PLAN REQUIREMENTS The Contractor shall submit Traffic Control Plan(s) conforming to the 2012 California Manual on Uniform Traffic Control Devices for Streets and Highways (2012 CA MUTCD), and the requirements of these Special Provisions for acceptance by the Engineer. The submittal of Traffic Control Plans shall conform to the requirements of Section 2.5.3, "Submittals".

A detailed traffic control plan is required for work being performed on a roadway listed in the City's Standard Plans No. 608A, B and C, or if required in a lane closure chart. If a roadway is not listed, a formal plan submittal is not required; however, all temporary traffic controls must conform to all other requirements of this section.

Unless otherwise provided for in the specifications, the Contractor shall provide:

- A minimum of one paved traffic lane, which shall not be less than ten (10) feet in width for use by public traffic unless otherwise approved by the Engineer.
- All work shall be phased to allow adequate parking within 1,000 feet of each residential unit, each industrial unit, and each commercial unit.
- All work on arterial and collector streets and streets with industrial and commercial uses shall be phased longitudinally (1/2 street closed at a time).
- No two adjacent streets shall be closed or parking restricted at the same time.

Except as otherwise provided in the lane closure chart(s):

- No work that interferes with public traffic on collector and arterial roadways shall be performed between the hours of 6:00 a.m. to 9:00 a.m., nor between 3:00 p.m. and 6:00 p.m., unless approved by the Engineer.
- The full width of the traveled way shall be open for use by public traffic on Saturdays, Sundays, and designated legal holidays; after 3:00 p.m. on Fridays, and the day proceeding designated legal holidays; and when construction operations are not actively in progress, unless approved by the Engineer.

7-10.3.4 IMPLEMENT TRAFFIC CONTROL The Contractor shall notify the San Leandro Police Department (510) 577-3208, Alameda County Fire Department (510) 670-5858, Paramedics Plus (510) 746-5700, and, if applicable, A. C. Transit (510) 891-4901, daily of closures, detours, etc.

The Contractors attention is directed to City Standard Plan 610 for the City of San Leandro Truck Route Map.

The Contractor shall furnish and maintain all signs, lights, barricades, and flaggers necessary as determined by the Engineer. Flaggers shall be trained in the proper fundamentals of flagging traffic before being assigned as flaggers and shall perform their duties in accordance with the 2012 CA MUTCD and shall be so certified in accordance with California Code of Regulations (CCR), Title 8, Section 1599.

Traffic control devices shall conform to the 2012 CA MUTCD. Any signs or other protective devices furnished and erected by the Contractor, as above provided, shall not obscure the visibility of, nor conflict in intent, meaning, and function of either existing signs, lights, and traffic control devices for which furnishing of or payment for, is provided elsewhere in the specifications. Signs furnished and erected by the Contractor at Contractor's expense shall be approved by the Engineer as to size, wording, and location. All signs and traffic control devices shall be removed immediately upon completion, and any improvements restored to their original conditions.

Construction equipment shall enter and leave the construction area in the direction of public traffic. All movements of workers and construction equipment on or across lanes open to public traffic shall be performed in a manner that will not endanger the public.

When traffic cones or delineators are used to delineate a temporary edge of traffic lane, the line of cones or delineators shall be considered to be the edge of traffic lane, however, the Contractor shall not reduce the width of an existing lane to less than ten (10) feet without written approval from the Engineer. The lane closure provisions of this section shall not apply if the work area is protected by permanent or temporary railing or barrier.

When work is not in progress on a trench or other excavation that requires a lane closure, the traffic cones or portable delineators used for the lane closure shall be placed off of and adjacent to the edge of the traveled way. The spacing of the cones or delineators shall be not less than the spacing used for the lane closures.

All barricades shall have operating warning lights. Barricades shall be placed twenty (20) feet center-to-center maximum.

If a hazardous condition is observed and the City notifies the Contractor either directly or by telephone, the Contractor shall correct the condition immediately. If the Contractor fails to correct the hazardous condition immediately, the City reserves the right to install or have installed the necessary traffic control devices. The cost involved shall be deducted from any money due or to become due to the Contractor.

Full compensation for compliance with this section shall be considered as included in the contract price paid for traffic control and/or construction area signs and no separate payment will be made therefore. When the contract does not include a contract pay item for traffic control, and/or construction area signs, full compensation for any necessary traffic control and/or construction area signs shall be considered as included in the prices for the various contract items of work involved and no additional compensation will be allowed therefore.

Failure to provide a Traffic Control Plan prior to commencing work or failure to adhere to the accepted Traffic Control Plan shall subject Contractor to liquidated damages in accordance with Section 6-9, "Liquidated Damages", of these Special Provisions.

7-10.4 PUBLIC SAFETY In addition to the requirements of Section 7-10.4 of the Standard Specifications, the following shall also be required of the Contractor:

It is the Contractor's responsibility to provide for the safety of traffic and the public.

Whenever the Contractor's operations create a condition hazardous to traffic or to the public, Contractor shall, at its sole expense, furnish, erect, and maintain such fences, temporary railing, barricades, lights, signs, and other devices, and take such other protective measures as are necessary to prevent accidents, damage, or injury to the public. Such fences, temporary railing, barricades, lights, signs, and other devices furnished, erected, and maintained by the Contractor, at Contractor's expense, are in addition to any construction area traffic control devices for which payment is provided for elsewhere in the Specifications.

In addition to any other measure taken by the Contractor pursuant to the provisions of this section, the Contractor shall install temporary railing (Type K) between any lanes carrying public traffic and any excavation, obstacle, or storage area when the following conditions exist:

1. Excavations. Any excavation the near edge of which is six feet (6') or less from the edge of the lane, except:

   A. Excavations covered with sheet steel or concrete covers of adequate thickness to prevent accidental entry to traffic or the public;

   B. Excavations less than six inches (6") in depth;

   C. Trenches less than one foot (1') wide for irrigation pipe or electrical conduit or other pipelines less than one foot (1') in diameter;

   D. Excavations parallel to the lane for the purpose of pavement widening or reconstruction open for less than seven (7) calendar days;

   E. Excavations in side slopes, where the slope is 4:1 (Horizontal:Vertical) or flatter;

   F. Excavations protected by existing barrier or railing.

2. Temporarily Unprotected Permanent Obstacles. Whenever the work includes the installation of a fixed obstacle together with a protective system, such as a sign structure together with protective railing, and the Contractor elects to install the obstacle prior to installing the protective system; or whenever the Contractor, for Contractor's convenience and with permission of the Engineer, removes a portion of an existing protective railing at an obstacle and does not replace such railing complete in place during the same day.

3. Storage Areas. Whenever material or equipment is stored within 12 feet (12') of the lane and such storage is not otherwise prohibited by the specifications.

7-10.4.1 SAFETY ORDERS The following paragraph is added to Section 7-10.4.1 of the Standard Specifications:

Notwithstanding any provisions of the Standard Specifications and the Special Provisions, the Contractor shall be solely responsible for conditions at the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and will not be limited to normal working hours. Safety and sanitary provisions shall conform to applicable Federal, State, County, and local laws, regulations, ordinances, standards, and codes. Where any of these are in conflict, the more stringent requirement shall be followed.

7-10.4.5 INJURY AND ILLNESS PREVENTION PROGRAM The following section is added to the Standard Specifications:

To the fullest extent legally required and applicable, Contactor shall have an Injury and Illness Prevention Program (IIPP) that conforms to all applicable federal, state and local laws, and shall provide a copy of its current version to the City upon request.

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

Contractor's attention is directed to Section 8, "Facilities for Agency Personnel", of the Standard Specifications.

8-1 General

8-1 GENERAL The following paragraph is added to Section 8-1 of the Standard Specifications:

The Engineer must be given full access to any Contractor-provided facilities located on the project site at all times. The Contractor has no expectation of privacy with respect to these facilities.

SECTION 9 - MEASUREMENT AND PAYMENT

Contractor's attention is directed to Section 9, "Measurement and Payment", of the Standard Specifications.

9-3 Payments
9-3.1 General
9-3.2 Partial And Final Payment
9-3.3 Delivered Materials
9-3.4 Mobilization
9-3.5 Audit And Examination Of Records
9-4 False Claims Act Certification

9-3 PAYMENTS

9-3.1 GENERAL

PARAGRAPH 8 OF SECTION 9-3.1 IS REVISED AS FOLLOWS:

All guarantee periods shall commence on the date the Notice of Completion is recorded with the Alameda County Recorder's Office.

Paragraph 10 of Section 9-3.1 is revised as follows:

At the expiration of 35 days from the date of recordation of the Notice of Completion by City, or within the time period specified in Public Contracts Code Section 7107, the amount deducted from the final estimate and retained by the City will be paid to the Contractor, except such amounts as are required by law to be withheld by properly executed and filed notices to stop payment, or as may be authorized by the contract to be further retained.

9-3.1.1 Final Pay Items Section 9-3.1.1 is added to the Standard Specifications thus:

Items of work designated on the unit price schedule as (F) or "Final Quantity" are designated as Final Pay items.

Payment equal to the total price in the Contract Price Schedule for Final Pay items will be the total payment made for the work described in the plans and specifications, regardless of whether or not the quantity of the actual work equals the estimated quantity in the contract price schedule.

The Engineer reserves the right to make changes to the plans and specifications in accordance with Section 3-2.1.1 CHANGES INITIATED BY THE CITY. If a change in the Contract Documents results in a change in dimensions of work that includes a Final Pay item, then the total payment for that item will be adjusted either upward or downward by the product of the unit price bid and the change in quantity of the item due to the change in dimensions.

9-3.2 PARTIAL AND FINAL PAYMENT The following paragraphs are added to Section 9-3.2 of the Standard Specifications:

PARTIAL PAYMENT: No payments shall be required to be made when, in the judgment of the Engineer, the:

- Work is not proceeding in accordance with the provisions of the contract, updated construction schedules, and traffic control plans;
- Updated record drawings are not provided with the application for payment;
- Contractor or subcontractors have not provided proof of valid City of San Leandro Business Licenses;
- Certified Payrolls are not provided per Section 7-2.2.4;
- Total value for the work done since the last payment amounts to less than $1,000;
- Contractor has not submitted a request for payment.

Reduction of monies retained from 10 percent (10%) to 5 percent (5%) of work completed will only be made upon satisfactory completion of 50 percent (50%) of the project work (based on total project cost) and upon the written request of the Contractor, and shall be approved in writing by the surety on the Performance Bond and by the surety on the Payment Bond. The approval of the surety shall be submitted to the Engineer; the signature of the person executing the approval for the surety shall be properly acknowledged; and the power of attorney authorizing them to give such consent must either accompany the document or be on file with the City.

FINAL PAYMENT: After acceptance by the Engineer, pursuant to Section 6-8 of the Standard Specifications, the City shall prepare a proposed Final Agreement of Quantities for the total amount payable to the Contractor, including therein an itemization of said amount, segregated as to contract item quantities, extra work, and any other basis for payment. All prior payments shall be subject to correction in the proposed Final Agreement of Quantities. Within thirty (30) days after said proposed Final Agreement of Quantities has been submitted to Contractor, the Contractor shall submit to the Engineer the written approval of said proposed Final Agreement of Quantities or a written statement of all claims Contractor has arising under or by virtue of the contract. No claim will be considered that was not included in said written statement of claims, nor will any claim be allowed for which a notice or protest is required under the provisions of the contract, unless the Contractor has complied with the notice or protest requirements in said contractThirty-five (35) days after the recordation of the Notice of Completion, the City will pay the entire sum found due based on the proposed Final Agreement of Quantities submitted to the Contractor. Such Final Agreement of Quantities and payment thereon shall be conclusive and binding against both parties to the contract on all questions relating to the amount of work done and the compensation payable therefore.

If the Contractor within said period of thirty (30) days files claims, the Engineer will issue a semifinal estimate in accordance with the proposed Final Agreement of Quantities submitted to the Contractor and pay the sum so found to be due. Such semifinal estimate and payment thereon shall be conclusive and binding against both parties to the contract on all questions relating to the amount of work done and the compensation payable therefore, except insofar as affected by the claims filed within the time and in the manner required.

The claims filed by the Contractor shall be in sufficient detail to enable the Engineer to ascertain the basis and amount of said claims. The Engineer will consider and determine the Contractor's claims and it will be the responsibility of the Contractor to furnish within a reasonable time such further information and details as may be required by the Engineer to determine the facts or contentions involved in the claims. Failure to submit such information and details will be sufficient cause for denying the claims.

The Engineer will make the final determination of any claims that remain in dispute after completion of claim review and make a written recommendation thereon. The Contractor may meet with the Engineer to make a presentation in support of such claims. If any claims remain in dispute, they shall be handled in accordance with Section 3-5, "Disputed Work".

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9-3.3 DELIVERED MATERIALS Section 9-3.3 of the Standard Specification is replaced as follows:

The cost of materials and equipment purchased and not incorporated into the work shall NOT be reimbursed.

9-3.4 MOBILIZATION The following paragraphs are added to Section 9-3.4 of the Standard Specifications.

Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; for the establishment of all offices, buildings, and other facilities necessary for work on the project; and for all other work and operations that must be performed or costs incurred prior to beginning work on the various contract items on the project site.

When the contract has a lump sum price paid for mobilization, it shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in mobilization as specified above. Partial payments for mobilization shall be made as follows:

1. When the monthly partial payment estimate of the amount earned, not including the amount earned for mobilization, is 5 percent (5%) or more of the original contract amount, 50 percent (50%) of the contract item price for mobilization or 5 percent (5%) of the original contract amount, whichever is the lesser, will be included in said estimate for payment.

2. When the monthly partial payment estimate of the amount earned, not including the amount earned for mobilization, is 10 percent (10%) or more of the original contract amount, the total amount earned for mobilization shall be 75 percent (75%) of the contract item price for mobilization, or 7.5 percent (7.5%) of the original contract amount, whichever is lesser, and said amount will be included in said estimate for payment.

3. When the monthly partial payment estimate of the amount earned, not including the amount earned for mobilization, is 20 percent (20%) or more of the original contract amount, the total amount earned for mobilization shall be 95 percent (95%) of the contract item price for mobilization, or 9.5 percent (9.5%) of the original contract amount, whichever is the lesser, and said amount will be included in said estimate for payment.

4. When the monthly partial payment estimate of the amount earned, not including the amount earned for mobilization, is 50 percent (50%) or more of the original contract amount, the total amount earned for mobilization shall be 100 percent (100%) of the contract item price for mobilization, or 10 percent (10%) of the original contract amount, whichever is lesser, and said amount will be included in said estimate for payment

5. After acceptance of the contract pursuant to Section 6-8 of the Standard Specifications, the amount, if any, of the contract item price for mobilization in excess of 10 percent (10%) of the original contract amount will be included for payment in accordance with said Section 9-3.2 of the Special Provisions.

6. When the contract does not include a contract pay item for mobilization, full compensation for any necessary mobilization required shall be considered to be included in the prices for the various contract items of work involved and no additional compensation will be allowed therefore.

9-3.5 AUDIT AND EXAMINATION OF RECORDS The City may examine and audit at no additional cost to the City all books, estimates, records, contracts, documents, bid documents, bid cost data, subcontract job cost reports, and other project-related data of the Contractor, subcontractors engaged in performance of the work, and suppliers providing supplies, equipment, and other materials required for the work, including computations and projections related to bidding, negotiating, pricing, or performing the work or contract modifications and other materials concerning the work, including, but not limited to, Contractor daily logs, in order to evaluate the accuracy, completeness, and currency of cost, pricing, scheduling, and any other project related data. The Contractor will make available all such project-related data during regular business hours for examination, audit, or reproduction at the Contractor's business office at or near the work site, and at any other location where such project-related data may be kept until three (3) years after final payment under the agreement. Pursuant to California Government Code Section 8546.7, if the amount of public funds to be expended is in excess of $10,000, this agreement shall be subject to the examination and audit of the State Auditor, at the request of the City, or as part of any audit of the City, for a period of three (3) years after final payment under the agreement.

9-4 FALSE CLAIMS ACT CERTIFICATION All requests for payment submitted by the Contractor, and any claim for additional compensation must be accompanied by the following declaration:

"I, _____, being the _____ of _____ (Contractor), declare under penalty of perjury under the laws of the State of California, and do personally certify and attest that: I have thoroughly reviewed the attached request for payment and know its contents, and said request for payment is made in good faith; that it is supported by truthful and accurate data; that the amount requested and accurately reflects the allowable expenses that were incurred; and further, that I am familiar with California Penal Code Section 72 and California Government Code Section 12650, et seq., pertaining to false claims, and further know and understand that submission or certification of a false claim may lead to fines, imprisonment, or other severe legal consequences."

PARTS 2 AND 3 – TECHNICAL SPECIFICATIONS

Materials and methods for all work performed under this contract shall conform with the following project technical specifications.

SECTION	DESCRIPTION
DIVISION 06	**WOOD, PLASTICS, AND COMPOSITES**
06 1053	Miscellaneous Rough Carpentry
06 2013	Exterior Finish Carpentry
06 2023	Interior Finish Carpentry
DIVISION 07	**THERMAL and MOISTURE PROTECTION**
07 1800	Traffic Coatings and Sealants
DIVISION 08	**OPENINGS**
08 1113	Hollow Metal Doors and Frames
08 7100	Door Hardware
DIVISION 09	**FINISHES**
09 2900	Gypsum Board
09 9113	Exterior Painting
09 9123	Interior Painting
DIVISION 10	**SPECIALTIES**
10 2113	Toilet Compartments
10 2800	Toilet and Bath Accessories
DIVISION 22	**PLUMBING**
22 0000	Plumbing
DIVISION 23	**HEATING, VENTILATION AND AIR CONDITIONING (HVAC)**
23 0000	HVAC
DIVISION 26	**ELECTRICAL**
26 0000	Basic Electrical Requirements

Project Title: San Leandro Ball Park Locker / Restroom Refurbishment

COSL Project No. 2003.0331

The Drawings and Specifications for the above project have been prepared by or under the direction of the following registered professionals:

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MECHANICAL
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06 1053 - MISCELLANEOUS ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Framing with dimension lumber.
   2. Wood blocking and nailers.
   3. Wood furring and grounds.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
   1. Factory mark each piece of lumber with grade stamp of grading agency.
   2. Provide dressed lumber, S4S, unless otherwise indicated.

B. Maximum Moisture Content of Lumber: 15 percent for 2-inch nominal thickness or less, 19 percent for more than 2-inch nominal thickness unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with the ground, Use Category UC3b for exterior construction not in contact with the ground, and Use Category UC4a for items in contact with the ground.
   1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

B. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

C. Application: Treat items indicated on Drawings, and the following:
   1. Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.
   2. Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.
   3. Wood floor plates that are installed over concrete slabs-on-grade.

2.3 DIMENSION LUMBER FRAMING

A. Non-Load-Bearing Interior Partitions: Construction or No. 2 grade of any species.

B. Other Framing: Construction or No. 2 grade and the following species:
   1. Hem-fir (north); NLGA.

2. Douglas fir-larch; WCLIB or WWPA.
3. Spruce-pine-fir; NLGA.
4. Hem-fir; WCLIB or WWPA.
5. Douglas fir-larch (north); NLGA.

2.4 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
1. Blocking.
2. Nailers.
3. Furring.
4. Grounds.

B. For items of dimension lumber size, provide Construction or No. 2 grade lumber of any species.

C. For concealed boards, provide lumber with 15 percent maximum moisture content and any of the following species and grades:
1. Mixed southern pine, No. 2 grade; SPIB.
2. Eastern softwoods, No. 2 Common grade; NELMA.
3. Northern species, No. 2 Common grade; NLGA.
4. Western woods, Construction or No. 2 Common grade; WCLIB or WWPA.

2.5 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
1. Where carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M or Type 304 stainless steel.

B. Power-Driven Fasteners: NES NER-272.

C. Screws for Fastening to Metal Framing: ASTM C 1002 and ASTM C 954, length as recommended by screw manufacturer for material being fastened.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit.

B. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.

C. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.

D. Do not splice structural members between supports unless otherwise indicated.

E. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

F. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
   1. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.

3.2 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION

06 2013 - EXTERIOR FINISH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Exterior wood trim.
   2. Plywood siding.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product.

PART 2 - PRODUCTS

2.1 EXTERIOR TRIM

A. Lumber Trim:
   1. Species and Grade: Redwood, Clear All Heart or Heart B.
   2. Species and Grade: Western red cedar, Clear Heart VG (Vertical Grain) or Clear Heart or Grade A; NLGA, WCLIB, or WWPA.
   3. Maximum Moisture Content: Seasoned or kiln-dried.
   4. Face Surface: Surfaced (smooth) or saw textured to match existing conditions.

B. Moldings: WMMPA WM 4, P-grade wood moldings, without finger jointing. Made from kiln-dried stock to patterns included in WMMPA WM 12.
   1. Species: Redwood western or red cedar.

2.2 PLYWOOD SIDING

A. Plywood Type: APA-rated siding in panel sizes indicated.
   1. Face Grade: 303-OC (clear) or NR (natural rustic) as required to match existing conditions.

B. Thickness: 5/8 inch. *Match existing; verify in field.*

C. Face Species: Western red cedar or redwood.

D. Pattern: Channel groove; grooves 4 inches o.c. or Texture 1-11; grooves 4 inches o.c. *Match existing pattern.*

E. Surface: Smooth or Rough sawn; *match existing surface.*

2.3 MISCELLANEOUS MATERIALS

A. Fasteners for Exterior Finish Carpentry: Provide nails or screws, in sufficient length to penetrate not less than 1-1/2 inches into wood substrate.
   1. For prefinished items, provide matching prefinished aluminum fasteners where face fastening is required.
   2. For applications not otherwise indicated, provide stainless-steel or hot-dip galvanized-steel fasteners.

B. Sealants: Latex, complying with ASTM C 834 Type OP, Grade NF and with applicable requirements in Division 07 Section "Joint Sealants," recommended by sealant manufacturer and manufacturer of substrates for intended application.

PART 3 - EXECUTION

3.1 PREPARATION

A. Prime lumber and moldings to be painted, including both faces and edges, unless factory primed. Cut to required lengths and prime ends. Comply with requirements in Division 09 Section "Exterior Painting."

3.2 INSTALLATION, GENERAL

A. Install exterior finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.
   1. Scribe and cut exterior finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.

3.3 STANDING AND RUNNING TRIM INSTALLATION

A. Install flat-grain lumber with bark side exposed to weather.

B. Install trim with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches long except where necessary.
   1. Use scarf joints for end-to-end joints.
   2. Stagger end joints in adjacent and related members.

C. Fit exterior joints to exclude water. Cope at returns and miter at corners.

3.4 SIDING INSTALLATION

A. Install siding to comply with manufacturer's written instructions.

B. Plywood Siding: Install panels with edges over framing or blocking. Nail at 6 inches o.c. at panel perimeter and 12 inches o.c. at intermediate supports unless manufacturer recommends closer spacing. Leave 1/16-inch gap between adjacent panels and 1/8-inch gap at perimeter, openings, and horizontal joints unless otherwise recommended by panel manufacturer.
   1. Seal butt joints at inside and outside corners and at trim locations.

END OF SECTION

06 2023 - INTERIOR FINISH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Interior trim.
   2. Interior plywood paneling.

B. Related Requirements:

1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product.

B. Samples: For each type of paneling.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Lumber: DOC PS 20.
   1. Factory mark each piece of lumber with grade stamp of inspection agency indicating grade, species, moisture content at time of surfacing, and mill.
      a. For exposed lumber, mark grade stamp on end or back of each piece, or omit grade stamp and provide certificates of grade compliance issued by inspection agency.

B. Softwood Plywood: DOC PS 1.

C. MDO: ANSI A208.2, Grade 130, made with binder containing no urea-formaldehyde resin.

2.2 INTERIOR TRIM

A. Softwood Lumber Trim:
   1. Species and Grade: Douglas fir-larch or Douglas fir south, Superior or C & Btr finish; NLGA, WCLIB, or WWPA.
   2. Maximum Moisture Content: 15 percent.

B. Moldings for Opaque Finish (Painted Finish): Made to patterns included in WMMPA WM 12.
   1. Softwood Moldings: WMMPA WM 4, P grade.
      a. Species: Eastern white, Idaho white, lodgepole, ponderosa, radiata, or sugar pine.
      b. Maximum Moisture Content: 15 percent.
   2. Optional Material: Primed MDF.

C. Molding Patterns: Match existing conditions.

2.3 PANELING

A. Plywood Paneling: Manufacturer's stock hardwood plywood panels complying with HPVA HP-1, made without urea-formaldehyde adhesive.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated or comparable product: Panel Grade: A-C Exposure Durability: Exterior.

2. Thickness: 3/4 inch.
3. Face Pattern: Manufacturer's standard smooth 'A' face, no pattern.
4. Finish: Prime and paint finish per Division 09 specifications.

B. MDO Plywood: Shall be of exterior type with one face of Medium Density Overlay as described in Voluntary Product Standard PS-1. Each panel shall be identified with the trademark of APA.
1. Grade: Concrete form grade.
2. Thickness: 3/4 inch.
3. Face Pattern: Smooth with tooth for paint application.
4. Finish: Prime and paint finish per Division 09 specifications.

2.4 MISCELLANEOUS MATERIALS

A. Glue: Aliphatic-resin, polyurethane, or resorcinol wood glue recommended by manufacturer for general carpentry use.

B. Screws: Phillips head, non-corrosive, flat head wood screws.

PART 3 - EXECUTION

3.1 PREPARATION

A. Before installing interior finish carpentry, condition materials to average prevailing humidity in installation areas for a minimum of 24 hours.

3.2 INSTALLATION, GENERAL

A. Install interior finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.
1. Scribe and cut interior finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.
2. Countersink fasteners, flush with finish wall surface.
3. Install to tolerance of 1/8 inch in 96 inches for level and plumb. Install adjoining interior finish carpentry with 1/32-inch maximum offset for flush installation and 1/16-inch maximum offset for reveal installation.

3.3 STANDING AND RUNNING TRIM INSTALLATION

A. Install with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Miter at returns, miter at outside corners, and cope at inside corners to produce tight-fitting joints with full-surface contact throughout length of joint. Use scarf joints for end-to-end joints.

3.4 PANELING INSTALLATION

A. Plywood Paneling: Leave 1/4-inch gap at top, bottom, and openings. Install with uniform horizontal and vertical joints between panels as detailed.
1. Attach panels to supports with flat head wood screws, pre-drilled and countersunk flush, at 8" on center to studs at 16" on center. Install fasteners in a uniform pattern as a part of the exposed finish wall system.
2. Fasteners to be set flush with wood panels to the greatest practical extent for a prime and paint finish.

END OF SECTION

07 1800 - TRAFFIC COATINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes a complete polyurethane waterproofing coating system including all applicable sealants and elastomeric flashings needed to ensure a complete waterproof and weathertight system for the elevated pedestrian traffic and seating areas.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site four weeks prior to commencing work of this section. Verify all conditions and review installation procedures and schedule.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product, including substrate requirements and installation instructions.

B. Shop Drawings: For traffic coatings. Include details for treating substrate joints and cracks, flashings, deck penetrations, and other termination conditions.

C. Written documentation of applicator's qualifications, including reference projects of similar scope and complexity, with current phone contacts of architects and owners for verification.

D. Samples: For each exposed product and for each color and texture specified.

E. Sample warranty.

F. Maintenance data.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.

1.5 WARRANTY

A. Manufacturer's Warranty: Manufacturer agrees to repair or replace traffic coating that fails in materials or workmanship within specified warranty period.
   1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Material Compatibility: Provide primers; base-, intermediate-, and topcoat; and accessory materials that are compatible with one another and with substrate under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

2.2 TRAFFIC COATING

A. Traffic Coating: Manufacturer's standard, traffic-bearing, seamless, high-solids-content, cold liquid-applied, elastomeric, waterproofing membrane system with integral wearing surface for pedestrian traffic and seating areas; according to ASTM C 957.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide TREMCO Vulkem 350NF / 951NF low odor / fast cure Vulkem Pedestrian and Waterproofing System or comparable product by one of the following:
      a. LymTal International Inc.
      b. Neogard; Division of Jones-Blair.
      c. Pacific Polymers International, Inc.
      d. Pecora Corporation.
      e. Tremco Incorporated; an RPM company.
      f. Urethane Polymers International, Inc.

B. Primer: Liquid primer recommended for existing substrate and conditions by traffic-coating manufacturer.

C. Preparatory and Base Coats: Single-component, low-odor, low-VOC urethane membrane.

D. Topcoat: Aliphatic, two-component, polyurethane used in conjunction tieh the recommended aggregate.
   1. Aggregate Content: As recommended in writing by traffic-coating manufacturer for substrate and service conditions indicated.
   2. Color: As selected by Architect from manufacturer's full range.

E. Aggregate: Manufacturer's standard aggregate for each use indicated of particle sizes, shape, and minimum hardness recommended in writing by traffic-coating manufacturer. 40-50 mesh silica sand or local aggregate approved by the coating manuyfacturer.

F. Fire-Test-Response Characteristics: Provide traffic-coating materials with the fire-test-response characteristics as determined by testing identical products per test method below for deck type and slopes indicated by an independent testing and inspecting agency that is acceptable to authorities having jurisdiction.
   1. Class A per ASTM E 108 or UL 790.

G. Physical Properties

			350NF	951NF
1.	Solids (by weight)	ASTM D1353	90-98%	80-85%
2.	Drying time @ 75f	ASTM D1640	25 mil; 8-12 hr	12-15 mil; 24 hr
3.	Flash point	Set-A-Flash	>160f	>200f
4.	Hardness (Shore A)	ASTM D2240	45-60	50 Shore D
5.	Tensile strength	ASTM D412	220-460 psi	4500 psi
6.	Elongation	ASTM D412	600-700%	145%
7.	Adhesion	ASTM D903	20-30 pli	100% cohesive failure
8.	Abrasion resistance	ASTM D4060	N/A	33mgms
9.	Permeance	ASTM E96(B)	5-10 perms	2 perms
10.	Weathering	ASTM D822	N/A	no effect
11.	Salt spray	ASTM B117	N/A	no effect
12.	Accelerated aging	ASTM D573	No loss of strength	No loss of strength
13.	Adhesion (pull off)	ASTM D4541	200-400 psi	N/A

2.3 ACCESSORY MATERIALS

A. Primer: 191 Primer by TREMCO or equal approved by the Architect.

B. Joint backing: Closed-cell, polyethylene rod as recommended by coating manufacturer.

C. Joint Sealants:
   1. TREMCO Vulkem 45 SSL one-part, semi-self-leveling polyurethane sealant for horizontal applications in high-traffic areas.
   2. TREMCO Dymonic 100 high performance, medium-modulus, low-VOC, UV stable, non-sag polyurethane sealant for expansion and control joints, precast concrete panel joints and perimeter joints.

D. Sheet Flashing: Nonstaining sheet material recommended in writing by traffic-coating manufacturer.

E. Adhesive: Contact adhesive recommended in writing by traffic-coating manufacturer.

F. Reinforcing Strip: Fiberglass mesh recommended in writing by traffic-coating manufacturer.

2.4 PAVEMENT MARKINGS

A. Pavement-Marking Paint for contrasting color nosings: As recommended by the traffic-coating manufacturer. Latex, waterborne emulsion, lead and chromate free, ready mixed, complying with FS TT-P-1952, Type II, with drying time of less than 45 minutes.
   1. Color: White.

PART 3 - EXECUTION

3.1 PREPARATION

A. General: Clean and prepare substrates according to ASTM C 1127 and manufacturer's written instructions to produce clean, dust-free, dry substrate for traffic-coating application.
   1. Application of coating indicates acceptance of surfaces and conditions.

B. Mask adjoining surfaces not receiving traffic coatings to prevent overspray, spillage, leaking, and migration of coatings. Prevent traffic-coating materials from entering deck substrate penetrations and clogging weep holes and drains.

C. Concrete Substrates: Concrete has an existing traffic-coating in place. Mechanically abrade surface to a uniform profile acceptable to manufacturer as necessary, according to ASTM D 4259. Do not acid etch.
   1. Remove grease, oil, paints, and other penetrating contaminants from concrete.
   2. Remove concrete fins, ridges, and other projections.
   3. Remove laitance, glaze, efflorescence, curing compounds, concrete hardeners, form-release agents, and other incompatible materials that might affect coating adhesion.
   4. Remove remaining loose material to provide a sound surface, and clean surfaces according to ASTM D 4258.

3.2 TERMINATIONS AND PENETRATIONS

A. Prepare vertical and horizontal surfaces at terminations and penetrations through traffic coatings and at expansion joints, drains, and sleeves according to ASTM C 1127 and manufacturer's written instructions.

B. Provide sealant cants at penetrations and at reinforced and nonreinforced, deck-to-wall butt joints.

C. Terminate edges of deck-to-deck expansion joints with preparatory base-coat strip.

3.3 JOINT AND CRACK TREATMENT

A. Prepare, treat, rout, and fill joints and cracks in substrates according to ASTM C 1127 and manufacturer's written recommendations. Before coating surfaces, remove dust and dirt from joints and cracks according to ASTM D 4258.
   1. Comply with recommendations in ASTM C 1193 for joint-sealant installation.

B. Apply reinforcing strip in traffic-coating system where recommended in writing by traffic-coating manufacturer.

3.4 TRAFFIC-COATING APPLICATION

A. Apply traffic coating according to ASTM C 1127 and manufacturer's written instructions.

B. Apply number of coats of specified compositions for each type of traffic coating at locations as indicated on Drawings.

C. Apply traffic coatings to prepared wall terminations and vertical surfaces to height indicated; omit aggregate on vertical surfaces.

D. Cure traffic coatings.

3.5 PAVEMENT MARKINGS

A. Do not apply pavement-marking paint for striping and other markings until layout, colors, and placement have been verified with Architect and traffic coating has cured.

B. Sweep and clean surface to eliminate loose material and dust.

C. Apply pavement-marking paint with mechanical equipment to produce markings of dimensions indicated with uniform straight edges. Apply at manufacturer's recommended rates for a 15-mil-minimum, wet film thickness.

3.6 PROTECTING AND CLEANING

A. Protect traffic coatings from damage and wear during remainder of construction period.

B. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION

08 1113 - HOLLOW METAL DOORS and FRAMES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Standard hollow metal doors and frames.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: Include elevations, door edge details, frame profiles, metal thicknesses, preparations for hardware, and other details.

C. Schedule: Prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Amweld Building Products, LLC.
   2. Ceco Door Products; an Assa Abloy Group company.
   3. Steelcraft; an Ingersoll-Rand company.
   4. Stiles Custom Metal

2.2 MATERIALS

A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, CS, Type B; suitable for exposed applications.

B. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B; with minimum G60 metallic coating.

C. Frame Anchors: ASTM A 591/A 591M, Commercial Steel (CS), 40Z coating designation; mill phosphatized.
   1. For anchors built into exterior walls, steel sheet complying with ASTM A 1008/A 1008M or ASTM A 1011/A 1011M, hot-dip galvanized according to ASTM A 153/A 153M, Class B.

D. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153/A 153M.

E. Grout: ASTM C 476, except with a maximum slump of 4 inches, as measured according to ASTM C 143/C 143M.

F. Mineral-Fiber Insulation: ASTM C 665, Type I.

G. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil dry film thickness per coat.

2.3 STANDARD HOLLOW METAL DOORS

A. General: Comply with ANSI/SDI A250.8.
   1. Design: Flush panel.
   2. Core Construction: Manufacturer's standard polystyrene, polyurethane, polyisocyanurate, or mineral-board core.
   3. Vertical Edges for Single-Acting Doors: Manufacturer's standard.
   4. Top and Bottom Edges: Closed with flush or inverted 0.042-inch- thick, end closures or channels of same material as face sheets.
   5. Tolerances: SDI 117, "Manufacturing Tolerances for Standard Steel Doors and Frames."

B. Exterior Doors: Face sheets fabricated from metallic-coated steel sheet. Comply with ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level:
   1. Level 3 and Physical Performance Level A (Extra Heavy Duty), Model 1 (Full Flush).

C. Interior Doors: Face sheets fabricated from cold-rolled steel sheet unless metallic-coated sheet is indicated. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250.4 for physical performance level:
   1. Level 2 and Physical Performance Level B (Heavy Duty), Model 1 (Full Flush).

D. Hardware Reinforcement: ANSI/SDI A250.6.

2.4 STANDARD HOLLOW METAL FRAMES

A. General: Comply with ANSI/SDI A250.8.

B. Exterior Frames: Fabricated from metallic-coated steel sheet.
   1. Fabricate frames as full profile welded unless otherwise indicated.
   2. Frames for Level 3 Steel Doors: 0.053-inch- thick steel sheet.

C. Interior Frames: Fabricated from cold-rolled steel sheet unless metallic-coated sheet is indicated.
   1. Fabricate frames as full profile welded unless otherwise indicated.
   2. Frames for Level 2 Steel Doors: 0.053-inch- thick steel sheet.

D. Hardware Reinforcement: ANSI/SDI A250.6.

2.5 FRAME ANCHORS

A. Jamb Anchors:
   1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, not less than 0.042 inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0.177 inch thick.
   2. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch thick.
   3. Postinstalled Expansion Type for In-Place Concrete or Masonry: Minimum 3/8-inch-diameter bolts with expansion shields or inserts. Provide pipe spacer from frame to wall, with throat reinforcement plate, welded to frame at each anchor location.

B. Floor Anchors: Formed from same material as frames, not less than 0.042 inch thick, and as follows:
   1. Monolithic Concrete Slabs: Clip-type anchors, with two holes to receive fasteners.

2.6 STOPS AND MOLDINGS

A. Fixed Frame Moldings: Formed integral with hollow metal frames, a minimum of 5/8 inch high unless otherwise indicated.

2.7 LOUVERS

A. Provide sightproof louvers for doors, where indicated, that comply with SDI 111C, with blades or baffles formed of 0.020-inch- thick, cold-rolled steel sheet set into 0.032-inch- thick steel frame.

2.8 ACCESSORIES

A. Grout Guards: Formed from same material as frames, not less than 0.016 inch thick.

2.9 FABRICATION

A. Tolerances: Fabricate hollow metal work to tolerances indicated in SDI 117.

B. Hollow Metal Doors:
   1. Exterior Doors: Provide weep-hole openings in bottom of exterior doors. Seal joints in top edges of doors against water penetration.

C. Hollow Metal Frames: Where frames are fabricated in sections, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
   1. Welded Frames: Weld flush face joints continuously; grind, fill, dress, and make smooth, flush, and invisible.
   2. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
   3. Grout Guards: Weld guards to frame at back of hardware mortises in frames to be grouted.
   4. Floor Anchors: Weld anchors to bottom of jambs and mullions with at least four spot welds per anchor.
   5. Jamb Anchors: Provide number and spacing of anchors as follows:
      a. Masonry Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:
         1) Three anchors per jamb from 60 to 90 inches high.
      b. Stud-Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:
         1) Four anchors per jamb from 60 to 90 inches high.
         2) Two anchors per head for frames more than 42 inches wide and mounted in metal-stud partitions.
      c. Compression Type: Not less than two anchors in each jamb.
      d. Postinstalled Expansion Type: Locate anchors not more than 6 inches from top and bottom of frame. Space anchors not more than 26 inches o.c.
   6. Door Silencers: Except on weather-stripped doors, drill stops to receive door silencers.
      a. Single-Door Frames: Three door silencers.
      b. Double-Door Frames: Two door silencers.

D. Hardware Preparation: Factory prepare hollow metal work to receive templated mortised hardware according to the Door Hardware Schedule and templates furnished as specified in Division 08 Section "Door Hardware."
   1. Locate hardware as indicated, or if not indicated, according to ANSI/SDI A250.8.

E. Stops and Moldings: Provide stops and moldings where indicated. Form corners of stops and moldings with butted or mitered hairline joints.

1. Provide fixed stops and moldings welded on secure side of hollow metal work.
2. Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.
3. Provide loose stops and moldings on inside of hollow metal work.

2.10 STEEL FINISHES

A. Prime Finish: Apply manufacturer's standard primer immediately after cleaning and pretreating.
1. Shop Primer: ANSI/SDI A250.10.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Hollow Metal Frames: Comply with ANSI/SDI A250.11.
1. Set frames accurately in position, plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.
a. Install door silencers in frames before grouting.
b. Remove temporary braces necessary for installation only after frames have been properly set and secured.
c. Check plumbness, squareness, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with postinstalled expansion anchors.
3. In-Place Concrete or Masonry Construction: Secure frames in place with postinstalled expansion anchors. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.
4. Installation Tolerances: Adjust hollow metal door frames for squareness, alignment, twist, and plumb to the following tolerances:
a. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
b. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
c. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
d. Plumbness: Plus or minus 1/16 inch, measured at jambs at floor.

B. Hollow Metal Doors: Fit hollow metal doors accurately in frames, within clearances specified below. Shim as necessary.
1. Non-Fire-Rated Standard Steel Doors:
a. Jambs and Head: 1/8 inch plus or minus 1/16 inch.
b. Between Edges of Pairs of Doors: 1/8 inch plus or minus 1/16 inch.
c. Between Bottom of Door and Top of Threshold: Maximum 3/8 inch.
d. Between Bottom of Door and Top of Finish Floor (No Threshold): Maximum 3/4 inch.

3.2 ADJUSTING AND CLEANING

A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow metal work that is warped, bowed, or otherwise unacceptable.

B. Metallic-Coated Surfaces: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.

END OF SECTION

08 7100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:
   1. Mechanical door hardware for the following:
      a. Swinging doors.
   2. Cylinders for door hardware.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Samples: For each exposed product and for each color and texture specified.

C. Other Action Submittals:
   1. Door Hardware Schedule: Prepared by or under the supervision of Installer, detailing fabrication and assembly of door hardware, as well as installation procedures and diagrams. Coordinate final door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
      a. Format: Use same scheduling sequence and format and use same door numbers as in the Contract Documents.
      b. Content: Include the following information:
         1) Identification number, location, hand, fire rating, size, and material of each door and frame.
         2) Locations of each door hardware set, cross-referenced to Drawings on floor plans and to door and frame schedule.
         3) Complete designations, including name and manufacturer, type, style, function, size, quantity, function, and finish of each door hardware product.
   2. Keying Schedule: Prepared by or under the supervision of Installer, detailing Owner's final keying instructions for locks.

1.3 QUALITY ASSURANCE

A. Installer Qualifications: Supplier of products and an employer of workers trained and approved by product manufacturers and an Architectural Hardware Consultant who is available during the course of the Work to consult with Contractor, Architect, and Owner about door hardware and keying.

B. Architectural Hardware Consultant Qualifications: A person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and who is currently certified by DHI as follows:
   1. For door hardware, an Architectural Hardware Consultant (AHC).

C. Accessibility Requirements: For door hardware on doors in an accessible route, comply with the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines.
   1. Provide operating devices that do not require tight grasping, pinching, or twisting of the wrist and that operate with a force of not more than 5 lbf.
   2. Comply with the following maximum opening-force requirements:
      a. Interior, Non-Fire-Rated Hinged Doors: 5 lbf applied perpendicular to door.

1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on schedule or comparable product by one of the following:
   a. Best Access Systems; Div. of Stanley Security Solutions, Inc.
   b. Corbin Russwin Architectural Hardware; an ASSA ABLOY Group Company.
   c. SARGENT Manufacturing Company; an ASSA ABLOY Group company.
   d. Schlage Commercial Lock Division; an Ingersoll-Rand company.
   e. Equal approved by the Architect.
2. Lever style: Schlage '~~Sparta~~' or equal approved by the Architect 'Rhodes'

2.4 MANUAL FLUSH BOLTS

A. Manual Flush Bolts: BHMA A156.16; minimum 3/4-inch throw; designed for mortising into door edge.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on schedule or comparable product by one of the following:
      a. Adams Rite Manufacturing Co.; an ASSA ABLOY Group company.
      b. Door Controls International, Inc.
      c. IVES Hardware; an Ingersoll-Rand company.
      d. Trimco.

2.5 LOCK CYLINDERS

A. Lock Cylinders: Tumbler type, constructed from brass or bronze, stainless steel, or nickel silver.
   1. Manufacturer: Same manufacturer as for locking devices.
   2. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on schedule or comparable product by one of the following:
      a. Best Access Systems; Div. of Stanley Security Solutions, Inc.
      b. Corbin Russwin Architectural Hardware; an ASSA ABLOY Group company.
      c. SARGENT Manufacturing Company; an ASSA ABLOY Group company.
      d. Schlage Commercial Lock Division; an Ingersoll-Rand company..

B. Construction Cores: Provide construction cores that are replaceable by permanent cores. Provide 10 construction master keys.

2.6 KEYING

A. Keying System: Factory registered, complying with guidelines in BHMA A156.28, Appendix A. Incorporate decisions made in keying conference.
   1. Existing System:
      a. Master key or grand master key locks to Owner's existing system.
      b. Re-key Owner's existing master key system into new keying system.
      c. Existing City system is 6 pin 'E' type.
   2. Keyed Alike: Key all cylinders to same change key.

B. Keys: Brass.
   1. Stamping: Permanently inscribe each key with a visual key control number and include the following notation:
      a. Notation: "DO NOT DUPLICATE." Information to be confirmed by Owner.
   2. Quantity: In addition to one extra key blank for each lock, provide the following:
      a. Cylinder Change Keys: Three.
      b. Master Keys: Five.
      c. Grand Master Keys: Five.
      d. Great-Grand Master Keys: Five.

2.7 OPERATING TRIM

A. Operating Trim: BHMA A156.6; stainless steel, unless otherwise indicated.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on schedule or comparable product by one of the following:
      a. Hager Companies.
      b. IVES Hardware; an Ingersoll-Rand company.
      c. Trimco.

2.8 SURFACE CLOSERS

A. Surface Closers: BHMA A156.4; rack-and-pinion hydraulic type with adjustable sweep and latch speeds controlled by key-operated valves and forged-steel main arm. Comply with manufacturer's written recommendations for size of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Provide factory-sized closers, adjustable to meet field conditions and requirements for opening force.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on schedule or comparable product by one of the following:
      a. Corbin Russwin Architectural Hardware; an ASSA ABLOY Group company.
      b. LCN Closers; an Ingersoll-Rand company.
      c. Norton Door Controls; an ASSA ABLOY Group company.
      d. SARGENT Manufacturing Company; an ASSA ABLOY Group company.

2.9 MECHANICAL STOPS AND HOLDERS

A. Wall- and Floor-Mounted Stops: BHMA A156.16; Stainless steel.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on schedule or comparable product by one of the following:
      a. Architectural Builders Hardware Mfg., Inc.
      b. Baldwin Hardware Corporation.
      c. Hager Companies.
      d. IVES Hardware; an Ingersoll-Rand company.
      e. Stanley Commercial Hardware; Div. of The Stanley Works.
      f. Trimco.

2.10 DOOR GASKETING

A. Door Gasketing: BHMA A156.22; air leakage not to exceed 0.50 cfm per foot of crack length for gasketing other than for smoke control, as tested according to ASTM E 283; with resilient or flexible seal strips that are easily replaceable and readily available from stocks maintained by manufacturer.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on schedule or comparable product by one of the following:
      a. Hager Companies.
      b. Pemko Manufacturing Co.; an ASSA ABLOY Group company.
      c. Reese Enterprises, Inc.
      d. Sealeze; a unit of Jason Incorporated.
      e. Zero International.

2.11 THRESHOLDS

A. Thresholds: BHMA A156.21; fabricated to full width of opening indicated.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on schedule or comparable product by one of the following:
      a. Hager Companies.

b. Pemko Manufacturing Co.; an ASSA ABLOY Group company.
c. Reese Enterprises, Inc.
d. Sealeze; a unit of Jason Incorporated.
e. Zero International.

2.12 METAL PROTECTIVE TRIM UNITS

A. Metal Protective Trim Units: BHMA A156.6; fabricated from 0.050-inch- thick stainless steel; with manufacturer's standard machine or self-tapping screw fasteners.
1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on schedule or comparable product by one of the following:
a. Baldwin Hardware Corporation.
b. IVES Hardware; an Ingersoll-Rand company.
c. Trimco.
d. Equal approved by the Architect.

2.13 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates prepared for machine, wood, and sheet metal screws. Provide screws that comply with commercially recognized industry standards for application intended, except aluminum fasteners are not permitted. Provide Phillips flat-head screws with finished heads to match surface of door hardware, unless otherwise indicated.
1. Concealed Fasteners: For door hardware units that are exposed when door is closed, except for units already specified with concealed fasteners. Do not use through bolts for installation where bolt head or nut on opposite face is exposed unless it is the only means of securely attaching the door hardware. Where through bolts are used on hollow door and frame construction, provide sleeves for each through bolt.
2. Spacers or Sex Bolts: For through bolting of hollow-metal doors.
3. Gasketing Fasteners: Provide noncorrosive fasteners for exterior applications and elsewhere as indicated.

2.14 FINISHES

A. Provide finishes complying with BHMA A156.18 as indicated in door hardware schedule.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.

B. Mounting Heights: Mount door hardware units at heights to comply with the following unless otherwise indicated or required to comply with governing regulations.
1. Standard Steel Doors and Frames: ANSI/SDI A250.8.

C. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 09 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

3. Bevel raised thresholds with a slope of not more than 1:2. Provide thresholds not more than 1/2 inch high.
4. Adjust door closer sweep periods so that, from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the leading edge of the door.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

B. Deliver keys to Owner by registered mail or overnight package service.

1.5 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
1. Warranty Period: Three years from date of Substantial Completion, unless otherwise indicated.
a. Manual Closers: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. Provide door hardware for each door as scheduled in Part 3 "Door Hardware Schedule" Article to comply with requirements in this Section.
1. Door Hardware Sets: Provide quantity, item, size, finish or color indicated, and products equivalent in function and comparable in quality to named products.

B. Designations: Requirements for design, grade, function, finish, size, and other distinctive qualities of each type of door hardware are indicated in Part 3 "Door Hardware Schedule" Article. Products are identified by using door hardware designations, as follows:
1. References to BHMA Designations: Provide products complying with these designations and requirements for description, quality, and function.

2.2 HINGES

A. Hinges: BHMA A156.1. Provide template-produced hinges for hinges installed on hollow-metal doors and hollow-metal frames.
1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on schedule or comparable product by one of the following:
a. Hager Companies.
b. IVES Hardware; an Ingersoll-Rand company.
c. McKinney Products Company; an ASSA ABLOY Group company.
d. Stanley Commercial Hardware; Div. of The Stanley Works.
e. Equal approved by the Architect.

2.3 MECHANICAL LOCKS AND LATCHES

A. Strikes: Provide manufacturer's standard strike for each lock bolt or latchbolt complying with requirements indicated for applicable lock or latch and with strike box and curved lip extended to protect frame; finished to match lock or latch.

B. Bored Locks: BHMA A156.2; Grade 1; Series 4000.

1. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
2. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

D. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than the number recommended by manufacturer for application indicated or one hinge for every 30 inches of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.

E. Lock Cylinders: Install construction cores to secure building and areas during construction period.
1. Replace construction cores with permanent cores as directed by Owner.

F. Thresholds: Set thresholds for exterior doors and other doors indicated in full bed of sealant.

G. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they will impede traffic.

H. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.

I. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.

J. Door Bottoms: Apply to bottom of door, forming seal with threshold when door is closed.

K. Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.2 DOOR HARDWARE SCHEDULE

Door Hardware Set No. 1
Locations: Exterior doors @ Toilet and Locker Rooms; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
3	Hinge	McKinney	TA2714	US26D
1	Deadbolt Lock	Schlage	B663P	626
1	Surface Closer	Norton	8000 Series	689
1	Push Plate	Trimco	1001-3 4x16	SS
1	Pull Plate	Trimco	1010-3 4x16	SS
1	Kick Plate	Trimco	K0050 10x34	SS
1	Floor Stop	Trimco	1211 Series	626
1	Weatherstrip set	Pemko	301 V Seal	Mill finish
1	Threshold	Pemko	271 Saddle	Mill finish
1	Door Bottom	Pemko	216 A V	Mill finish

Door Hardware Set No. 2
Locations: Exterior double doors @ Storage Rooms; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
6	Hinge	McKinney	TA2714 NRP	US26D
1	Storeroom Lock	Schlage	ND80PD	626
1	Flush Bolt	Trimco	3900 Series	PI

1 set	Dustproof Strike	Trimco	3900 Series	SS
1	Floor Stop	Trimco	1211 Series	626
1	Weatherstrip set	Pemko	301 V Seal	Mill finish
1	Threshold	Pemko	271 Saddle	Mill finish
1	Door Bottom	Pemko	216 A V	Mill finish

Door Hardware Set No. 3 (Include Occupancy Indicator)
Locations: Interior doors @ Unisex Rooms; each to have the following:

Qty.	Item	Manufacturer	Product	Finish
3	Hinge	McKinney	TA2714	US26D
1	Privacy Lock	Schlage	~~ND40S~~ L9496	626
1	Floor Stop	Trimco	1211 Series	626

END OF SECTION

09 2900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Interior gypsum board.
   2. Texture finishes.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples:
   1. Textured Finishes: Manufacturer's standard size for each textured finish indicated and on same backing indicated for Work.

PART 2 - PRODUCTS

2.1 GYPSUM BOARD, GENERAL

2.2 INTERIOR GYPSUM BOARD

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. American Gypsum.
   2. Georgia-Pacific Gypsum LLC.
   3. National Gypsum Company.
   4. PABCO Gypsum.
   5. USG Corporation.

B. Abuse-Resistant Gypsum Board: ASTM C 1629/C 1629M, Level 2.
   1. Core: 5/8 inch, Type X.
   2. Long Edges: Tapered.
   3. Mold Resistance: ASTM D 3273, score of 10.

2.3 TRIM ACCESSORIES

A. Interior Trim: ASTM C 1047.
   1. Material: Galvanized or aluminum-coated steel sheet or rolled zinc or paper-faced galvanized steel sheet.

2.4 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475/C 475M.

B. Joint Tape:
   1. Interior Gypsum Board: Paper.

C. Joint Compound for Interior Gypsum Board: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.

2.5 AUXILIARY MATERIALS

A. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.

B. Sound Attenuation Blankets: ASTM C 665, Type I (blankets without membrane facing).

C. Acoustical Joint Sealant: ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings as demonstrated by testing according to ASTM E 90.
   1. Products: Subject to compliance with requirements, provide one of the following:
      a. Grabber Construction Products; Acoustical Sealant GSC.
      b. Pecora Corporation; AC-20 FTR or AIS-919.
      c. Specified Technologies, Inc.; Smoke N Sound Acoustical Sealant.
      d. USG Corporation; SHEETROCK Acoustical Sealant.

2.6 TEXTURE FINISHES

A. Primer: As recommended by textured finish manufacturer.

B. Non-Aggregate Finish: Pre-mixed, vinyl texture finish for spray application.
   1. Products: Subject to compliance with requirements, provide one of the following:
      a. CertainTeed Corp.; ProRoc Easi-Tex Spray Texture.
      b. National Gypsum Company; Perfect Spray EM Texture.
      c. USG Corporation; BEADEX FasTex Wall and Ceiling Spray Texture.
   2. Texture: Light spatter, no knockdown.

PART 3 - EXECUTION

3.1 APPLYING AND FINISHING PANELS

A. Comply with ASTM C 840.

B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.

C. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. Provide 1/4- to 1/2-inch wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.

D. Install trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.

E. Prefill open joints and damaged surface areas.

F. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.

G. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:
   1. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.

H. Texture Finish Application: Prepare and apply primer to gypsum panels and other surfaces receiving texture finishes. Mix and apply finish using powered spray equipment, to produce a

uniform texture free of starved spots or other evidence of thin application or of application patterns.

I. Protect adjacent surfaces from drywall compound and texture finishes and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.

J. Remove and replace panels that are wet, moisture damaged, and mold damaged.

END OF SECTION

09 9113 - EXTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY:

A. Section Includes: Painting and finishing of all altered or new exterior items and surfaces, unless otherwise indicated or listed under exclusions below:
   1. Paint all exposed painted surfaces, except as otherwise indicated, whether or not colors are designated.
   2. Include field painting of exposed exterior plumbing, mechanical and electrical work, except as indicated below.

1.2 SUBMITTALS:

A. Product Data: Submit complete manufacturer's descriptive literature and specifications in accordance with the Special Provisions.
   1. Materials List: Submit complete lists of materials proposed for use, giving the manufacturer's name, catalog number, and catalog cut for each item when applicable. When required, provide a list of paint and coating materials proposed for use, which equates such materials with the design-basis products specified.

B. Samples: In accordance with provisions of the Special Provisions, submit, on 8-1/2 inch by 11 inch hardboard, samples of each color, gloss, texture and material selected by the Architect from standard colors available for the coatings required.

1.3 QUALITY ASSURANCE:

A. Regulatory Requirements: Comply with applicable codes and regulations of governmental agencies having jurisdiction including those having jurisdiction over airborne emissions and industrial waste disposal. Where those requirements conflict with this Specification, comply with the more stringent provisions.

B. Regulatory changes may affect the formulation, availability, or use of specified coatings. Confirm availability of coatings to be used prior to job going out to bid and before start of painting project.
   1. Comply with the current applicable regulations of the California Air Resources Board (CARB) and the Environmental Protection Agency (EPA).

1.4 DELIVERY, STORAGE, AND HANDLING:

A. Storage and Protection: Use all means necessary to protect the materials of this Section before, during, and after installation.

B. Deliver materials to job site in new, original, and unopened containers bearing manufacturer's name and trade name. Store where directed in accordance with manufacturer's instructions.

1.5 PROJECT CONDITIONS:

A. Do not apply exterior materials during fog, rain or mist, or when inclement weather is expected within the dry time specified by the manufacturer. No exterior or interior painting shall be done until the surfaces are thoroughly dry and cured. Do not apply paint when temperature is below 50° F. Avoid painting surfaces when exposed to direct sunlight.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

A. Basis of Design: Manufacturer's catalog names and number of paint types in this Section herein are based on products of Dunn-Edwards Corporation and is the standard of quality against which the Architect will judge equivalency. The quantity of titanium dioxide, the use of clays, aluminum silicate, talc and the purity of acrylic materials are a few of the criteria which will be used by the Architect in determining equivalency of materials.

2.2 MATERIALS:

A. Paints: Provide Ready-Mixed, except field catalyzed coatings. Pigments shall be fully ground maintaining soft paste consistency, capable of being readily and uniformly dispersed to complete homogeneous mixture. Paints shall have good flowing and brushing properties and be capable of drying or curing free of streaks and sags.

B. Accessory Materials: Linseed oil, shellac, solvents, and other materials not specified but required to achieve required finishes shall be of high quality and approved by manufacturer.

C. Colors shall be selected from color chip samples provided by manufacturer of paint system approved for use. Match approved samples for color, texture and coverage.

2.3 MIXES:

A. Mix, prepare, and store painting and finishing materials in accordance with manufacturer's directions.

PART 3 - EXECUTION

3.1 EXAMINATION:

A. Examine surfaces to be painted before beginning painting work. Work of other trades that has been left or installed in a condition not suitable to receive paint, stain, other specified finish shall be repaired or corrected by the applicable trade before painting. Painting of defective or unsuitable surface implies acceptance of the surfaces.

B. Beware of a condition known as "critical lighting". This condition causes shadows that accentuate even the slightest surface variations. A pigmented sealer will provide tooth for succeeding decorative coating, but "does not" equalize smoothness or surface texture. Any corrective action to gypsum board/drywall must be done by the drywall contractor prior to decorating.

3.2 PROTECTION:

A. Protect previously installed work and materials, which may be affected by Work of this Section.
   1. Protect prefinished surfaces, lawns, shrubbery and adjacent surfaces against paint and damage.
   2. Furnish sufficient drop cloths, shields, and protective equipment to prevent spray or splatter from fouling surfaces not being painted.
   3. Protect surfaces, equipment, and fixtures from damage resulting from use of fixed, movable and hanging scaffolding, planking, and staging.

B. Provide WET PAINT signs, barricades, and other devices required to protect newly finished surfaces. Remove temporary protective wrappings provided by others for protection of their work after completion of painting operations.

3.3 PREPARATION:

A. Perform preparation and cleaning procedures in strict accordance with coating manufacturer's instructions for each substrate condition.

B. Concrete and masonry surfaces shall be dry, clean, and free of dirt, efflorescence, encrustation, and other foreign matter. Glazed surfaces on concrete shall be roughened or etched to uniform texture.

C. Ferrous metal shall be cleaned of oil, grease, and foreign matter with solvent. Prime within 3 hours after preparation.

D. Sand and scrape metal to remove loose primer and rust.

E. Galvanized metal shall be chemically or solvent cleaned and then retreated with an etching-type solution if recommended by the finish manufacturer. Cleaned and retreated galvanized metal shall be primed the same day that cleaning has been performed.

F. Remove dust, grit and foreign matter from wood surfaces. Sand surfaces and dust clean. Spot coat knots, pitch streaks, and sappy section with pigmented stain sealer when surfaces are to be painted. Fill nail holes, cracks and other defects after priming and spot prime repairs when fully cured.

G. Remove hardware and accessories, machined surfaces, plates, lighting fixtures and similar items in place and not-to-be-finish painted, or provide surface-applied protection. Reinstall removed items upon completion of work in each area.

H. Existing surfaces to be recoated shall be thoroughly cleaned and deglossed by sanding or other means prior to painting. Patched and bare areas shall be spot primed with same primer as specified for new work.

I. Thoroughly backpaint all surfaces of exterior and interior finish lumber and millwork, including doors and window frames, trim, cabinetwork, etc., which will be concealed after installation. Backpaint items to be painted or enameled with the priming coat. Use a clear sealer for backpriming where transparent finish is required.

J. Pipes, ducts, hangers, exposed steel and ironwork, and primed metal surfaces of equipment installed under mechanical and electrical work shall be cleaned prior to priming.

K. Preparation of other surfaces shall be performed following specific recommendations of the coatings manufacturer.

L. Bond breakers and curing agents must be removed and the surface cleaned before primers, sealers or finish paints can be applied.

3.4 APPLICATION:

A. Apply painting and finishing materials in accordance with the manufacturer's submittals, as approved. Use applicators and techniques best suited for the material and surfaces to which applied.

1. The number of coats specified is the minimum that shall be applied. Apply additional coats when undercoats, stains or other conditions show through final paint coat, until paint film is of uniform finish, color and appearance.
2. All undercoats shall be tinted slightly to approximate the color of the finish coat.

B. Apply each material at not less than the manufacturer's recommended spreading rate:
1. Provide a total dry film thickness of not less than 1.2 mils for each required coat.

C. Apply prime coat to surface, which is required to be painted or finished.

D. Sand lightly and dust clean between succeeding coats.

3.5 CLEANING, TOUCH-UP AND REFINISHING:

A. Carefully remove all spattering, spots and blemishes caused by work under this section from surfaces throughout the project.

B. Upon completion of painting work remove all rubbish, paint cans, and accumulated materials resulting from work in each space or room. All areas shall be left in a clean, orderly condition.

C. Runs, sags, misses, holidays, stains and other defects in the painted surfaces, including inadequate coverage and mil thickness shall be satisfactorily touched up, or refinished, or repainted as necessary.

3.6 FINISH SCHEDULE

A. Apply the following finishes to the surfaces specified and/or as on the finish schedule on the Drawings. Apply all materials in accordance with manufacturer's instructions on properly prepared surfaces and foundation coats. All intermediate undercoats must be tinted to approximate the final color.
1. Architect will issue a color schedule prior to start of painting to designate the various colors and locations required for the work.

B. Plaster, Concrete
1. Flat, Acrylic Copolymer
   a. First Coat EFF-STOP Select, Interior/Exterior Masonry Primer (ESSL00)
   b. Second Coat SPARTAWALL, Interior Flat Paint (SWLL10)
   c. Third Coat SPARTAWALL, Interior Flat Paint (SWLL10)
2. Eggshell, Acrylic
   a. First Coat EFF-STOP Select, Interior/Exterior Masonry Primer (ESSL00)
   b. Second Coat SPARTAWALL, Interior Eggshell Paint (SWLL30)
   c. Third Coat SPARTAWALL, Interior Eggshell Paint (SWLL30)
3. Low Sheen, Acrylic
   a. First Coat EFF-STOP Select, Interior/Exterior Masonry Primer (ESSL00)
   b. Second Coat SPARTAWALL, Interior Low Sheen Paint (SWLL40)
   c. Third Coat SPARTAWALL, Interior Low Sheen Paint (SWLL40)
4. Semi-Gloss, Acrylic
   a. First Coat EFF-STOP Select, Interior/Exterior Masonry Primer (ESSL00)
   b. Second Coat SPARTAWALL, Interior Semi-Gloss Paint (SWLL50)
   c. Third Coat SPARTAWALL, Interior Semi-Gloss Paint (SWLL50)
5. Gloss, Acrylic
   a. First Coat EFF-STOP Select, Interior/Exterior Masonry Primer (ESSL00)
   b. Second Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)
   c. Third Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)

C. Ferrous Metal
   1. Flat – Alkyd/Acrylic
      a. First Coat ` SYN-LUSTRO, Water-based Rust-Preventative Acrylic Primer (W 8)
      b. OR
      c. Bloc-Rust Premium, Rust Preventative Metal Primer (BRPR00)
      d. Second Coat SPARTASHIELD, Exterior 100% Acrylic Flat Paint (SSHL10)
      e. Third Coat SPARTASHIELD, Exterior 100% Acrylic Flat Paint (SSHL10)
   2. Semi-Gloss – Alkyd/Acrylic
      a. First Coat SYN-LUSTRO, Water-based Rust-Preventative Acrylic Primer (W 8)
      b. OR Bloc-Rust Premium, Rust Preventative Metal Primer (BRPR00)
      c. Second Coat SPARTASHIELD, Exterior 100% Acrylic Semi-Gloss Paint (SSHL50)
      d. Third Coat SPARTASHIELD, Exterior 100% Acrylic Semi-Gloss Paint (SSHL50)
   3. Gloss – Alkyd/Acrylic
      a. First Coat SYN-LUSTRO, Water-based Rust-Preventative Acrylic Primer (W 8)
      b. OR Bloc-Rust Premium, Rust Preventative Metal Primer (BRPR00)
      c. Second Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)
      d. Third Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)
   4. Gloss – Rust Preventative Alkyd
      a. First Coat SYN-LUSTRO, Water-based Rust-Preventative Acrylic Primer (W 8)
      b. OR Bloc-Rust Premium, Rust Preventative Metal Primer (BRPR00)
      c. Second Coat SYN-LUSTRO, Rust Preventative Alkyd Gloss Enamel (10 Series)**
      d. Third Coat SYN-LUSTRO, Rust Preventative Alkyd Gloss Enamel (10 Series)**
      e. OR SYN-LUSTRO, Water-Based Rust Preventative Gloss Paint (W10)

D. Galvanized Metal
   1. Flat – Alkyd/Acrylic
      a. Pretreatment Supreme Chemical Metal Clean and Etch (ME01)
      b. First Coat GALV-ALUM, Premium Non-Ferrous Metal Primer (GAPR00)
      c. Second Coat SPARTASHIELD, Exterior 100% Acrylic Flat Paint (SSHL10)
      d. Third Coat SPARTASHIELD, Exterior 100% Acrylic Flat Paint (SSHL10)
   2. Semi-Gloss – Alkyd/Acrylic
      a. Pretreatment Supreme Chemical Metal Clean and Etch (ME01)
      b. First Coat GALV-ALUM, Premium Non-Ferrous Metal Primer (GAPR00)
      c. Second Coat SPARTASHIELD, Exterior 100% Acrylic Semi-Gloss Paint (SSHL50)
      d. Third Coat SPARTASHIELD, Exterior 100% Acrylic Semi-Gloss Paint (SSHL50)
   3. Gloss – Alkyd/Acrylic
      a. Pretreatment Supreme Chemical Metal Clean and Etch (ME01)
      b. First Coat GALV-ALUM, Premium Non-Ferrous Metal Primer (GAPR00)
      c. Second Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)
      d. Third Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)
   4. Gloss – Rust Preventative Alkyd
      a. Pretreatment Supreme Chemical Metal Clean and Etch (ME01)
      b. First Coat GALV-ALUM, Premium Non-Ferrous Metal Primer (GAPR00)
      c. Second Coat SYN-LUSTRO, Rust Preventative Alkyd Gloss Enamel (10 Series)**
      d. Third Coat SYN-LUSTRO, Rust Preventative Alkyd Gloss Enamel (10 Series)**
      e. OR SYN-LUSTRO, Water-Based Rust Preventative Gloss Paint (W10)

E. Wood Substrates: Including wood trim architectural woodwork windows wood siding.

   1. Latex System:

      a. Prime Coat: Primer, latex for exterior wood, MPI #6.
      b. Intermediate Coat: Latex, exterior, matching topcoat.
      c. Topcoat: Latex, exterior flat (Gloss Level 1), MPI #10.
      d. Topcoat: Latex, exterior, low sheen (Gloss Level 3-4), MPI #15.

e. Topcoat: Latex, exterior semi-gloss (Gloss Level 5), MPI #11.
f. Topcoat: Latex, exterior gloss (Gloss Level 6), MPI #119.

2. Latex over Alkyd Primer System:

a. Prime Coat: Primer, alkyd for exterior wood, MPI #5.
b. Prime Coat: Primer, oil for exterior wood, MPI #7.
c. Intermediate Coat: Latex, exterior, matching topcoat.
d. Topcoat: Latex, exterior flat (Gloss Level 1), MPI #10.
e. Topcoat: Latex, exterior, low sheen (Gloss Level 3-4), MPI #15.
f. Topcoat: Latex, exterior semi-gloss (Gloss Level 5), MPI #11.
g. Topcoat: Latex, exterior gloss (Gloss Level 6), MPI #119.

3. Alkyd System:

a. Prime Coat: Primer, alkyd for exterior wood, MPI #5.
b. Prime Coat: Primer, oil for exterior wood, MPI #7.
c. Intermediate Coat: Exterior alkyd enamel matching topcoat.
d. Topcoat: Alkyd, exterior, flat (Gloss Level 5), MPI #8.
e. Topcoat: Alkyd, exterior, semi-gloss (Gloss Level 5), MPI #94.
f. Topcoat: Alkyd, exterior, gloss (Gloss Level 5), MPI #9.

END OF SECTION

09 9123 – INTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY:

A. Section Includes: Painting and finishing of all altered or new interior items and surfaces, unless otherwise indicated or listed under exclusions below:
   1. Paint all exposed surfaces, except as otherwise indicated, whether or not colors are designated.
   2. Include field painting of exposed interior plumbing, mechanical and electrical work, except as indicated below.

1.2 SUBMITTALS

A. Product Data: Submit complete manufacturer's descriptive literature and specifications in accordance with the Special Provisions.
   1. Materials List: Submit complete lists of materials proposed for use, giving the manufacturer's name, catalog number, and catalog cut for each item when applicable. When required, provide a list of paint and coating materials proposed for use, which equates such materials with the design-basis products specified.

B. Samples: In accordance with provisions of the Special Provisions, submit, on 8-1/2 inch by 11 inch hardboard, samples of each color, gloss, texture, and material selected by the Architect from standard colors available for the coatings required.

1.3 QUALITY ASSURANCE:

A. Regulatory Requirements: Comply with applicable codes and regulations of governmental agencies having jurisdiction, including those having jurisdiction over airborne emissions and industrial waste disposal. Where those requirements conflict with this Specification, comply with the more stringent provisions. Regulatory changes may affect the formulation, availability, or use of specified coatings. Confirm availability of coatings to be used prior to job going out to bid and before start of painting project.
   1. Comply with the current applicable regulations of the California Air Resources Board (CARB), the local AQMD, and the Environmental Protection Agency (EPA).

1.4 DELIVERY, STORAGE, AND HANDLING:

A. Storage and Protection: Use all means necessary to protect the materials of this Section before, during, and after installation.

B. Deliver materials to job site in new, original, and unopened containers bearing manufacturer's name and trade name. Store where directed in accordance with manufacturer's instructions.

1.5 PROJECT CONDITIONS:

A. Do not apply exterior materials during fog, rain or mist, or when inclement weather is expected within the dry time specified by the manufacturer. No exterior or interior painting shall be done until the surfaces are thoroughly dry and cured. Do not apply paint when temperature is below 50° F. Avoid painting surfaces when exposed to direct sunlight.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

A. Basis of Design: Manufacturer's catalog names and number of paint types in this Section herein are based on products of Dunn-Edwards Corporation and are the standard of quality against which the Architect will judge equivalency. The quantity of titanium dioxide, the use of clays, aluminum silicate, talc and the purity of acrylic materials are a few of the criteria which will be used by the Architect in determining equivalency of materials.

2.2 MATERIALS:

A. Paints: Provide ready-mixed, except field-catalyzed coatings. Pigments must be fully ground, maintaining soft paste consistency, capable of being readily and uniformly dispersed into a complete homogeneous mixture. Paints must have good flowing and brushing properties and be capable of drying or curing free of streaks and sags.

B. Accessory Materials: Linseed oil, shellac, solvents, and other materials not specified but required to achieve required finishes must be of high quality and approved by manufacturer.

C. Colors will be selected from color chip samples provided by manufacturer of paint system approved for use. Match approved samples for color, texture and coverage.

D. Low-Emitting Materials: VOC emissions from paints and coatings must not exceed the VOC and chemical component limits of Green Seal's GS-11 Standard.

2.3 MIXES:

A. Mix, prepare, and store painting and finishing materials in accordance with manufacturer's directions.

PART 3 - EXECUTION

3.1 EXAMINATION:

A. Examine surfaces to be painted before beginning painting work. Work of other trades that has been left or installed in a condition not suitable to receive paint, stain, and other specified finish must be repaired or corrected by the applicable trade before painting. Painting of defective or unsuitable surface implies acceptance of the surfaces.

B. Beware of a condition known as critical lighting. This condition causes shadows that accentuate even the slightest surface variations. A pigmented sealer will provide tooth for succeeding decorative coating, but does not equalize smoothness or surface texture. Any corrective action to drywall must be done by the drywall contractor prior to decorating.

3.2 PROTECTION:

A. Protect previously installed Work and materials, which may be affected by Work of this Section.
   1. Protect prefinished surfaces, lawns, shrubbery and adjacent surfaces against paint and damage.
   2. Furnish sufficient drop cloths, shields, and protective equipment to prevent spray or splatter from fouling surfaces not being painted.
   3. Protect surfaces, equipment, and fixtures from damage resulting from use of fixed, movable and hanging scaffolding, planking, and staging.

B. Provide WET PAINT signs, barricades, and other devices required to protect newly finished surfaces. Remove temporary protective wrappings provided by others for protection of their work after completion of painting operations.

3.3 PREPARATION:

A. Perform preparation and cleaning procedures in strict accordance with coating manufacturer's instructions for each substrate condition.

B. Concrete and masonry surfaces must be dry, clean, and free of dirt, efflorescence, encrustation, and other foreign matter. Glazed surfaces on concrete must be roughened or etched to uniform texture.

C. Ferrous metal shall be cleaned of oil, grease, and foreign matter with solvent. Prime within 3 hours after preparation.

D. Sand and scrape metal to remove loose primer and rust.

E. Solvent clean galvanized metal and then treat with an etching-type solution if recommended by the finish manufacturer. Prime cleaned and treated galvanized metal the same day that cleaning has been performed.

F. Remove dust, grit and foreign matter from wood surfaces. Sand surfaces and dust clean. Spot coat knots, pitch streaks, and sappy section with pigmented stain sealer when surfaces are to be painted. Fill nail holes, cracks, and other defects after priming and spot prime repairs when fully cured.

G. Remove hardware and accessories, machined surfaces, plates, lighting fixtures, and similar items in place and not-to-be-finish painted, or provide surface-applied protection. Reinstall removed items upon completion of Work in each area.

H. Existing surfaces to be recoated must be thoroughly cleaned and deglossed by sanding or other means prior to painting. Spot prime patched and bare areas with same primer as specified for new work.

I. Thoroughly back paint all surfaces of exterior and interior finish lumber and millwork, including doors and window frames, trim, and cabinetwork that will be concealed after installation. Back paint items to be painted or enameled with the priming coat. Use a clear sealer for back priming where transparent finish is required.

J. Bare and covered pipes, ducts, hangers, exposed steel and ironwork, and primed metal surfaces of equipment installed under mechanical and electrical work must be cleaned prior to priming.

K. Preparation of other surfaces shall be performed following specific recommendations of the coatings manufacturer.

L. Bond breakers and curing agents must be removed and the surface cleaned before primers, sealers or finish paints can be applied.

M. All drywall surfaces must be completely dry and dust free before painting. Skim coated drywall must be sealed with an alkyd based sealer or a waterborne sealer recommended by the paint manufacturer for this surface. Use the appropriate light or medium tack masking tape.

3.4 APPLICATION:

A. Apply painting and finishing materials in accordance with the manufacturer's submittals, as approved. Use applicators and techniques best suited for the material and surfaces to which applied.
   1. Specified are the minimum number of coats that are to be applied. Apply additional coats when undercoats, stains or other conditions show through final paint coat, until paint film is of uniform finish, color and appearance.
   2. Tint slightly all undercoats to approximate the color of the finish coat.

B. Apply each material at not less than the manufacturer's recommended spreading rate:
   1. Provide a total dry film thickness of not less than 1.2 mils for each required coat.

C. Apply prime coat to material, which is required to be painted or finished.

D. Sand lightly and dust clean between succeeding coats.

3.5 CLEANING, TOUCH-UP AND REFINISHING:

A. Carefully remove all spattering, spots, and blemishes caused by work under this Section from surfaces throughout the project.

B. Upon completion of painting work, remove all rubbish, paint cans, and accumulated materials resulting from work in each space or room. All areas must be left in a clean, orderly condition.

C. Runs, sags, misses, holidays, stains, and other defects in the painted surfaces, including inadequate coverage and mil thickness, must be satisfactorily touched up, or refinished, or repainted as necessary.

3.6 INTERIOR FINISH SCHEDULE

A. Apply the following finishes to the surfaces specified and/or as on the finish schedule on the drawings. Apply all materials in accordance with manufacturer's instructions on properly prepared surfaces and foundation coats. All intermediate undercoats must be tinted to approximate the final color.
   1. Architect will issue a color schedule prior to start of painting to designate the various colors and locations required for the work.

B. Gypsum Board
   1. Flat, Acrylic Copolymer
      First Coat VINYLASTIC Select, Interior Wall Sealer (VNSL00)
      Second Coat SPARTAWALL, Interior Flat Paint (SWLL10)
      Third Coat SPARTAWALL, Interior Flat Paint (SWLL10)
   2. Eggshell, Acrylic
      First Coat VINYLASTIC Select, Interior Wall Sealer (VNSL00)
      Second Coat SPARTAWALL, Interior Eggshell Paint (SWLL30)
      Third Coat SPARTAWALL, Interior Eggshell Paint (SWLL30)
   3. Low Sheen, Acrylic
      First Coat VINYLASTIC Select, Interior Wall Sealer (VNSL00)
      Second Coat SPARTAWALL, Interior Low Sheen Paint (SWLL40)
      Third Coat SPARTAWALL, Interior Low Sheen Paint (SWLL40)
   4. Semi-Gloss, Acrylic
      First Coat VINYLASTIC Select, Interior Wall Sealer (VNSL00)
      Second Coat SPARTAWALL, Interior Semi-Gloss Paint (SWLL50)
      Third Coat SPARTAWALL, Interior Semi-Gloss Paint (SWLL50)

5. Gloss, Acrylic
First Coat VINYLASTIC Select, Interior Wall Sealer (VNSL00)
Second Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)
Third Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)

C. Plaster, Concrete
1. Flat, Acrylic Copolymer
First Coat EFF-STOP Select, Interior/Exterior Masonry Primer (ESSL00)
Second Coat SPARTAWALL, Interior Flat Paint (SWLL10)
Third Coat SPARTAWALL, Interior Flat Paint (SWLL10)
2. Eggshell, Acrylic
First Coat EFF-STOP Select, Interior/Exterior Masonry Primer (ESSL00)
Second Coat SPARTAWALL, Interior Eggshell Paint (SWLL30)
Third Coat SPARTAWALL, Interior Eggshell Paint (SWLL30)
3. Low Sheen, Acrylic
First Coat EFF-STOP Select, Interior/Exterior Masonry Primer (ESSL00)
Second Coat SPARTAWALL, Interior Low Sheen Paint (SWLL40)
Third Coat SPARTAWALL, Interior Low Sheen Paint (SWLL40)
4. Semi-Gloss, Acrylic
First Coat EFF-STOP Select, Interior/Exterior Masonry Primer (ESSL00)
Second Coat SPARTAWALL, Interior Semi-Gloss Paint (SWLL50)
Third Coat SPARTAWALL, Interior Semi-Gloss Paint (SWLL50)
5. Gloss, Acrylic
First Coat EFF-STOP Select, Interior/Exterior Masonry Primer (ESSL00)
Second Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)
Third Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)

D. Wood
1. Flat, Acrylic Copolymer
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)
Second Coat SPARTAWALL, Interior Flat Paint (SWLL10)
Third Coat SPARTAWALL, Interior Flat Paint (SWLL10)
2. Eggshell, Acrylic
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)
Second Coat SPARTAWALL, Interior Eggshell Paint (SWLL30)
Third Coat SPARTAWALL, Interior Eggshell Paint (SWLL30)
3. Low Sheen, Acrylic
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)
Second Coat SPARTAWALL, Interior Low Sheen Paint (SWLL40)
Third Coat SPARTAWALL, Interior Low Sheen Paint (SWLL40)
4. Semi-Gloss, Acrylic
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)
Second Coat SPARTAWALL, Interior Semi-Gloss Paint (SWLL50)
Third Coat SPARTAWALL, Interior Semi-Gloss Paint (SWLL50)
5. Gloss, Acrylic
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)
Second Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)
Third Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)

E. Ferrous Metals
1. Flat, Acrylic Copolymer
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)
Second Coat SPARTAWALL, Interior Flat Paint (SWLL10)
Third Coat SPARTAWALL, Interior Flat Paint (SWLL10)
2. Eggshell, Acrylic
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)

Second Coat SPARTAWALL, Interior Eggshell Paint (SWLL30)
Third Coat SPARTAWALL, Interior Eggshell Paint (SWLL30)

3. Low Sheen, Acrylic
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)
Second Coat SPARTAWALL, Interior Low Sheen Paint (SWLL40)
Third Coat SPARTAWALL, Interior Low Sheen Paint (SWLL40)

4. Semi-Gloss, Acrylic
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)
Second Coat SPARTAWALL, Interior Semi-Gloss Paint (SWLL50)
Third Coat SPARTAWALL, Interior Semi-Gloss Paint (SWLL50)

5. Gloss, Acrylic
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)
Second Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)
Third Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)

F. Non-Ferrous Metals

1. Eggshell, Acrylic
Pretreatment Supreme Chemical Metal Clean and Etch (ME01)
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)
Second Coat SPARTAWALL, Interior Eggshell Paint (SWLL30)
Third Coat SPARTAWALL, Interior Eggshell Paint (SWLL30)
Satin, Acrylic High Performance Coatings
Pretreatment Supreme Chemical Metal Clean and Etch (ME01)
First Coat RUST-OLEUM® Sierra Performance™ Metalmax™ DTM, Acrylic Urethane (S37)
Second Coat RUST-OLEUM® Sierra Performance™ Beyond™, Acrylic Urethane Satin (S38)
Third Coat RUST-OLEUM® Sierra Performance™ Beyond™, Acrylic Urethane Satin (S38)

2. Low Sheen, Acrylic
Pretreatment Supreme Chemical Metal Clean and Etch (ME01)
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)
Second Coat SPARTAWALL, Interior Low Sheen Paint (SWLL40)
Third Coat SPARTAWALL, Interior Low Sheen Paint (SWLL40)
Semi-Gloss, Acrylic
Pretreatment Supreme Chemical Metal Clean and Etch (ME01)
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)
Second Coat SPARTAWALL, Interior Semi-Gloss Paint (SWLL50)
Third Coat SPARTAWALL, Interior Semi-Gloss Paint (SWLL50)
Semi-Gloss, Acrylic High Performance Coatings
Pretreatment Supreme Chemical Metal Clean and Etch (ME01)
First Coat RUST-OLEUM® Sierra Performance™ Metalmax™ DTM, Acrylic Urethane (S37)
Second Coat RUST-OLEUM® Sierra Performance™ Metalmax™ DTM, Acrylic Urethane (S37)

3. Gloss, Acrylic
Pretreatment Supreme Chemical Metal Clean and Etch (ME01)
First Coat ULTRA-GRIP Premium, Multi Purpose Primer (UGPR00)
Second Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)
Third Coat SPARTASHIELD, Exterior 100% Acrylic Gloss Paint (SSHL60)
Gloss, Acrylic High Performance Coatings
Pretreatment Supreme Chemical Metal Clean and Etch (ME01)
First Coat RUST-OLEUM® Sierra Performance™ Metalmax™ DTM, Acrylic Urethane (S37)
Second Coat RUST-OLEUM® Sierra Performance™ Beyond™, Acrylic Urethane Gloss (S39)

Third Coat RUST-OLEUM® Sierra Performance™ Beyond™, Acrylic Urethane Gloss (S39)

END OF SECTION

TOILET COMPARTMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Fiber reinforced polyester (FRP) floor supported, overhead braced toilet compartments configured as toilet enclosures and urinal screens.

1.2 PERFORMANCE REQUIREMENTS

A. Surface Burning Characteristics, FRP Panels, ASTM E 84:
   1. Flame Spread: Maximum of 200, Class C.
   2. Smoke Developed: Maximum of 450, Class C.

B. Surface Burning Characteristics, Class A Option FRP Panels, ASTM E 84:
   1. Flame Spread: Maximum of 25.
   2. Smoke Developed: Maximum of 450

C. Water Absorption, FRP Doors and Panels, Nominal Value, ASTM D 570: 0.16 percent after 24 hours.

D. Abrasion Resistance, Face Sheet, Taber Abrasion Test, 25 Cycles at 1,000 Gram Weight with CS-17 Wheel: Maximum of 0.01 average weight loss percentage.

E. Stain Resistance, ASTM D 2299: Face sheet unaffected after exposure to red cabbage, tea, mustard, and tomato acid. Stain removed easily with mild abrasive or FRP cleaner when exposed to crayon and crankcase oil.

F. Chemical Resistance, ASTM D 543. Excellent rating.
   1. Acetic acid, Concentrated.
   2. Ammonium Hydroxide, Concentrated.
   3. Citric Acid, 10%.
   4. Formaldehyde.
   5. Hydrochloric Acid, 10%
   6. Sodium hydroxide, 4 to 6 percent solution.

G. Compressive Strength, Foam Core, Nominal Value, ASTM D 1621: 79.9 psi.

H. Compressive Modulus, Foam Core, Nominal Value, ASTM D 1621: 370 psi.

I. Tensile Adhesion, Foam Core, Nominal Value, ASTM D 1623: 45.3 psi.

J. Thermal and Humid Aging, Foam Core, Nominal Value, 158 Degrees F and 100 Percent Humidity for 14 Days, ASTM D 2126: Minus 5.14 percent volume change.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: For toilet compartments. Include plans, elevations, sections, details, and attachments to other work.

C. Samples for each exposed product and for each color and texture specified.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance data.

1.5 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities" for toilet compartments designated as accessible.

1.6 WARRANTY

A. Warrant panels and factory hardware against failure in materials and workmanship, including excessive deflection, faulty operation, defects in hardware installation, and deterioration of finish or construction in excess of normal wear and tear.

B. Warranty Period: Ten years starting on date of shipment. .

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Basis-of-design is Special-Lite, Inc., PO Box 6, Decatur, Michigan 49045. Web Site www.special-lite.com.

2.2 MOUNTING CONFIGURATIONS

A. Toilet Partitions shall be floor mounted, overhead-braced.

2.3 MATERIALS

A. Aluminum Members:
   1. Aluminum extrusions made from prime-equivalent billet that is produced from 100% reprocessed 6063-T6 alloy recovered from industrial processes: ASTM B 221.
   2. Alloy and Temper: As required by manufacturer for strength, corrosion resistance, application of required finish, and control of color.

B. FRP: .090" standard with pebbled finish.

C. Fasteners:
   1. Material: Aluminum, 18-8 stainless steel, or other noncorrosive metal.
   2. Compatibility: Compatible with items to be fastened.
   3. Exposed Fasteners: Screws with finish matching items to be fastened. Heads to be security type torx and pin.

D. Latch: Sliding latch to be thru bolted to doors.

E. Hinges: Select Continuous Hinge installed with thru bolts on door and pilaster.
   1. SL-60 standard
   2. SL-62 Self Closing Optional

F. Mounting Brackets: Full height aluminum brackets. Panels shall be thru bolted to brackets.

1. Standard: Full height aluminum "U" bracket.
2. Optional: Full height aluminum "T" bracket.

G. Pilaster Shoes: 4" anodized aluminum.

H. Headrail: Extruded anodized aluminum with anti-grip profile.

I. Coat hook / doorstop: Installed on all in swing doors. Out swing doors to have door pull installed.

2.4 FABRICATION

A. Panels, Pilasters, Doors: Aluminum perimeter channel with FRP face sheets. Core to be poured in place urethane foam. All panels and pilasters to be 1 ¼" thick.

B. Panel Size: 58" tall by 59" wide standard. Panels can be produced up to 72" wide.

C. Door Size: 24" and 36" door opening sizes are standard.

D. Pilaster Size: 80" tall is standard. Width starts at 4" and goes up in 1" increments up to 12". Above 12" widths in 2" increments up to 24".

E. Overhead-Braced Units: Provide manufacturer's standard corrosion-resistant supports, leveling mechanism, and anchors at pilasters to suit floor conditions. Provide shoes at pilasters to conceal supports and leveling mechanism.e

2.5 ALUMINUM FINISHES

A. Anodized Finish: Class I finish, 0.7 mils thick. Clear 215 R1, AA-M10C12C22A41.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Comply with manufacturer's written installation instructions. Examine areas to receive partitions for correct dimensions, plumbness of walls and soundness of surfaces that would affect installation of mounting brackets. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended anchoring devices.

B. Clearances: Maximum 1/2 inch between pilasters and panels; 1 inch between panels and walls.

C. Stirrup Brackets: Secure panels to walls and to pilasters with no fewer than three brackets attached at midpoint and near top and bottom of panel. Locate wall brackets so holes for wall anchors occur in masonry or tile joints. Align brackets at pilasters with brackets at walls.

D. Cleaning: Clean partitions promptly after installation in accordance with manufacturer's instructions.

3.2 ADJUSTING

A. Hardware Adjustment: Adjust and lubricate hardware according to hardware manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold doors open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors to return doors to fully closed position.

END OF SECTION

10 2800 – TOILET and BATH ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Public-use washroom accessories.
   2. Warm-air dryers.
   3. Underlavatory guards.

B. Owner-Furnished Material: Reuse existing (or Owner furnished) Toilet Paper Dispensers, Paper Towel Dispensers and Soap Dispensers.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required. Identify products using designations indicated.

C. Warranty: Sample of special warranty.

D. Maintenance data.

1.3 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

1.4 WARRANTY

A. Special Mirror Warranty: Manufacturer's standard form in which manufacturer agrees to replace mirrors that develop visible silver spoilage defects and that fail in materials or workmanship within specified warranty period.
   1. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PUBLIC-USE WASHROOM ACCESSORIES

A. Basis-of-Design Product: Subject to compliance with requirements, provide products by Bobrick Washroom Equipment, Inc or comparable product by one of the following:
   1. American Specialties, Inc.
   2. Bradley Corporation.
   3. Equal approved by the Architect.

B. Paper Towel (Folded) Dispenser (TA-1):
   1. Basis-of-Design Product: Reuse existing surface-mounted accessory or unit provided by Owner. Installation is by Contractor.

C. Mirror Unit (TA-2):
   1. Basis-of-Design Product: Bobrick B-165.
   2. Frame: Stainless-steel channel.

a. Corners: Mitered and mechanically interlocked.

3. Hangers: Produce rigid, tamper- and theft-resistant installation, using method indicated below.
   a. One-piece, galvanized-steel, wall-hanger device with spring-action locking mechanism to hold mirror unit in position with no exposed screws or bolts.
   b. Wall bracket of galvanized steel, equipped with concealed locking devices requiring a special tool to remove.
4. Size: As indicated on Drawings.

D. Grab Bars (TA-3):
1. Basis-of-Design Product: Bobrick B-6806.
2. Mounting: Flanges with concealed fasteners.
3. Material: Stainless steel, 18 gauge tubing.
   a. Finish: Smooth, No. 4 finish (satin).
4. Outside Diameter: 1-1/2 inches.
5. Configuration and Length: Straight, 36 inches long and straight, 48 inches long.

E. Toilet Tissue (Jumbo-Roll) Dispenser (TA-4):
1. Basis-of-Design Product: Reuse existing surface-mounted accessory or unit provided by Owner. Installation is by Contractor.

F. Seat-Cover Dispenser (TA-5):
1. Basis-of-Design Product: Bobrick B-221.
2. Mounting: Surface mounted.
3. Minimum Capacity: 250 seat covers.
4. Exposed Material and Finish: Stainless steel, No. 4 finish (satin).

G. Liquid-Soap Dispenser (TA-7):
1. Basis-of-Design Product: Reuse existing surface-mounted accessory or unit provided by Owner. Installation is by Contractor.

2.2 WARM-AIR DRYERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. American Specialties, Inc: Royal Collection Surface Mounted Hand Dryer Model 20200
2. Bobrick Washroom Equipment, Inc: TrimLine Surface Mounted ADA Dryer Model B-7120
3. Bradley Corporation: Standard Model 2921-W00000 High Impact ABS - White.
4. World Dryer Corporation: SLIMdri Surface Mounted ADA Hand Dryer - Aluminum

B. Warm-Air Dryer:
1. Mounting: Surface mounted.
2. Operation: Touch-button or electronic-sensor activated with timed power cut-off switch.
   a. Operation Time: 30 to 40 seconds.
3. Cover Material and Finish: Steel, with white enamel finish or chrome-plated steel or molded plastic, white.
4. Electrical Requirements: Coordinate with manufacturer's options and Electrical Drawings.

2.3 CHILDCARE ACCESSORIES

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. American Specialties, Inc.

2. Diaper Deck & Company, Inc.
3. GAMCO Specialty Accessories; a division of Bobrick Washroom Equipment, Inc.
4. Koala Kare Products; a division of Bobrick Washroom Equipment, Inc.
5. Tubular Specialties Manufacturing, Inc.

B. Diaper-Changing Station: Not in Contract; future by Owner.

2.4 UNDERLAVATORY GUARDS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Plumberex Specialty Products, Inc.
2. Truebro by IPS Corporation.
3. Equal approved by the Architect.

B. Underlavatory Guard:
1. Description: Insulating pipe covering for supply and drain piping assemblies that prevent direct contact with and burns from piping; allow service access without removing coverings.
2. Material and Finish: Antimicrobial, molded plastic, white.

2.5 FABRICATION

A. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.

B. Grab Bars: Install to withstand a downward load of at least 250 lbf, when tested according to ASTM F 446.

END OF SECTION

DIVISION 22 00 00
PLUMBING

1. GENERAL

1.1 SCOPE

A. The work in this section includes, but is not limited to, providing all plumbing work as shown and noted on the plumbing drawings and specifications, including the following items:

1. Plumbing fixtures, equipment and piping.
2. Sanitary waste and vent system to five feet from the building.
3. Domestic hot and cold water distribution to five feet from the building.
4. Service water heating and distribution.
5. Cleaning, sterilization and testing for work in this section.
6. Piping and equipment identification.
7. Pipe hangers and supports.
8. Pipe insulation.
9. Piping markers and equipment nameplates.

1.2 CODES AND STANDARDS

A. All work and materials shall be in full accordance with the latest adopted edition of the following documents:

1. 2013 California Building Code (CBC).
2. 2013 California Plumbing Code (CPC).
3. 2013 California Mechanical Code (CMC).
4. 2013 California Electrical Code (CEC).
5. 2013 California Fire Code (CFC).
6. 2013 California Energy Code (Title 24).
7. 2013 California Green Building Code (CalGreen)
8. 2011 National Electric Code (NEC).
9. 2010 Americans with Disabilities Act (ADA).
10. Local codes and ordinances.

B. Accessible (ADA) plumbing fixtures shall comply with all of the accessibility requirements of CBC Chapters 11A and 11B and Federal ADA requirements.

C. Where, in any specific case, different sections of the codes specify different materials, methods of construction or other requirements, the most restrictive shall govern.

D. All pipes, pipe fittings, fixtures and all other end-use devices intended to convey or dispense water for human consumption through drinking or cooking shall be "lead free" and labeled as such in compliance with California AB1953. Prior to construction, submit to the Engineer a statement indicating all products supplied are in compliance with the law.

1.3 PERMITS AND FEES

A. The Contractor shall obtain all permits, licenses and fees that are required to perform the work. Provide the Architect with the original certificates, permits, licenses, and receipts for fees.

1.4 SUBMITTALS

A. Submit for approval in digital format (PDF) complete submittals prior to commencing work and prior to ordering any piece of equipment. Clearly mark all pages with the appropriate equipment mark number and indicate all accessories and optional features and accessories. Items, other than those specified, will not be allowed unless they are approved in writing via the submittal process. Include cut sheets and drawings for the following items in the submittal:

1. All plumbing components that are a part of the plumbing contract documents.
2. Drawings for installation details that differ from the details in the contract documents.

B. All details shown on the drawings are schematic in nature; the Contractor is responsible for determining actual installation requirements. Contractor shall include in his bid all materials and appurtenances for a complete and operable installation. Provide shop drawings for the proposed installation when coordination with other trades is required.

C. Upon completion of work, provide one set of reproducible as-built drawings and two operation and maintenance manuals. The operation and maintenance manuals shall be in a binder and contain manufacturers' data, manufacturers' warranties and maintenance instructions for the equipment, fixtures and appurtenances installed.

1.5 SUBSTITUTIONS OF MATERIALS AND EQUIPMENT

A. The named materials and equipment are considered the basis for design; however equal materials and equipment may be submitted to the Architect and Engineer for review. The decision of the Owner and Engineer shall be final and shall govern as to what materials and equipment may be substituted, but the burden of proof as to the quality, performance and space requirements of any proposed substitution shall rest with the Contractor.

1.6 WARRANTY

A. The Contractor shall provide a one-year warranty for the work of this Section. During this period the Contractor shall provide all labor and materials necessary to repair or replace defective systems. The warranty period shall begin at the date of final acceptance, per section 3 below.

B. Additional Warranty conditions: Where applicable, provide additional warranty time period and/or conditions in accordance with the General Conditions Section of the project specifications manual.

1.7 GENERAL

A. All systems within these specifications shall only be installed by personnel trained and certified in accordance with the manufacturer's installation instructions.

B. The locations, sizes, capacities and types of all piping, equipment and appurtenances shown on the plans as existing are approximate and may not have been independently verified. The Contractor shall determine the exact locations, sizes, capacities and types of existing piping, equipment and appurtenances. If necessary use electronic pipe locating devices to locate existing piping below grade. The Contractor shall include in his bid allowances for minor modifications to pipe routing necessitated by actual field conditions.

C. The Contractor shall verify all building dimensions with architectural plans and all site dimensions with civil plans prior to submitting a bid.

D. The submission of a bid or proposal will be construed as evidence that the Contractor has familiarized himself with the plan and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized unless these difficulties could not have been foreseen, even though proper examination had been made.

2. PRODUCTS

2.1 PIPE

A. Sanitary drain, waste and vent (DWV) pipe and fittings: All pipe and fittings shall be No-Hub Cast Iron (NHCI) to ASTM A74, by Charlotte Pipe and Foundry, Anaco or approved equal.

1. Below grade: coupling to be Husky SD4000 (4 or 6 clamps, depending on size) or approved equal. All piping in trenches shall have 6" bed of salt free river sand or salt free, washed pea gravel. Backfill to 6" above pipe with salt free river sand or salt free, washed pea gravel.
2. Above grade, inside structure: couplings to be Mission Series C or approved equal no-hub couplings.
3. For waste and vent piping in areas of tight construction, hard drawn copper DWV tube may be used.

B. Domestic water piping.

1. Pipe: Hard draw Type "L", ASTM B88 with color markings per CBC.
2. Fittings: Wrot solder joint fittings by NIBCO or approved equal. Cast copper alloy, lead free and in accordance with ASME B16.18. Soldered with CANFIELD "100% watersafe" lead free solder.

2.2 PIPING SPECIALTIES

A. Water hammer arrestors: Zurn "Shoktrol" or Watts Series SS, sizes as shown on drawings.

B. Pipe hangers: Tolco, Uni-Strut, Super-Strut or B-Line with zinc electroplated finish. Provide with cushioned clamps inserts. Piping supports shall be J-type hangers. Use beam clamps at hangers from steel beams. All miscellaneous steel, bolts, rods, nuts and washers shall be cadmium electroplated finish. Provide hangers, supports and seismic bracing at intervals per CPC table 313.1.

C. Roof flashings: 4 pound lead construction with minimum 12" base and 12" height.

D. Pipe Seals: Pipes passing through walls and floors underground provide Link-Seal modular seal assemble WS series, color Black or approved equal by MetraSeal. At fire rated assemblies, provide MetraSeal 120 or approved equal.

E. Firestopping Sealant: 3M Fire Barrier CP25WB + Caulk. At PEX tubing, Wirsbo Aquapex Firestop sealant listed and tested to ASTM E-814.

2.3 VALVES

A. Use full line size ported valves, types and models as follows:

1. BALL VALVES: 4 inch and smaller, UL 258 listed, AGA/CGA/UL/FM approved, brass body with standard ported hard chrome plated brass ball, lever handle, lead free Apollo 70LF-100 or 70LF-200 series for domestic systems, unless otherwise noted. Provide extended handle shaft where pipes are insulated.

2. Y-pattern swing check valve: 2-inch and smaller, bronze: Jomar T-511.

B. Strainers: Watts Series S777S. Install ball valve with plug at cleanout connection.

2.4 INSULATION

A. Pipe insulation thickness shall be per California Building Standards - Title 24 energy standards.

B. Above grade, inside building: Cover all piping, fittings, valves and appurtenances with Owens Corning type SSL II - ASJ 4.5 lb density, preformed, fiberglass with all service vapor jacket. Cover all piping and fittings with Proto or Speedline 20 mil thick PVC fitting covers, color white, attached with adhesive recommended by the manufacturer. Cover all pumps with 1" thick neoprene with glued joints. Protect insulation at ends of sleeved pipe with waterproof material. Insulation in buildings shall have a flame spread rating not to exceed 25 and a smoke density not to exceed 450 when tested in accordance with CBC Standard 8-1. PVC covers shall be installed watertight; all jackets penetrations and ends, seams and joints shall be sealed water tight with approved adhesive.

C. Pipe insulations shields: At all hanger or support locations of insulated piping provide Pipe Shields Inc, Concrete Products Inc, or approved equal.

D. Lavatory and sink traps: Manufactured insulators with smooth, white, PVC outer covering, complying with ADA and state accessibility requirements, Plumberex Pro-2000 Series or Truebro Lav Guard. Also insulate the hot water supply valve and pipe. There shall be no sharp or abrasive surfaces under sinks or lavatories.

2.6 ADHESIVES, SEALANTS, CAULKS, PAINTS AND COATING

A. All products shall comply with the VOC limits requirements in CalGreen Code section 5.504. If a non conforming product is found in these bid documents, notify the Architect immediately for an alternate product.

2.7 ACCESS PLATES AND DOORS

A. Wall cleanouts: ZURN no. ZANB-1460-2 nickel bronze or Z-1460-8 stainless steel with (bronze at cast iron, plastic at PVC or ABS) clean out plug.

B. Access doors at tile or wood surfaces: Elmdor #DW-SS, 16 gauge, type 304 brushed stainless steel construction, or approved equal. Minimum size 10"x10".

C. Access doors at dry wall surfaces: Elmdor #DWB 16 gauge galvannealed steel construction with prime finish, or approved equal. Minimum size 10"x10".

2.8 FIXTURES AND EQUIPMENT

A. Provide fixtures and equipment of the manufacturer and model numbers shown on the Drawings, complete with all required carriers, stops, supplies, trim, and other items necessary.

B. Fixture tailpieces and traps for lavatories and sinks shall be brass tubing or semi-cast. All brass tubing shall be 17 gage, chrome plated.

C. Sink, lavatory, and tank toilet supply stop valves and supply kits: Brasscraft KTS 1/4 turn ball valves, chrome plated brass finish, lock shield with loose key, stainless steel or chrome plated copper supply tubing.

D. All equipment, fixtures and fittings shall conform to California Energy Commission Certification per Section 2-5314(A), where applicable, for energy usage and water usage compliance. See equipment schedules for specific ratings.

2.9 PIPE MARKERS AND EQUIPMENT NAMEPLATES

A. PIPING MARKERS: Provide SETON Opti-Code or approved equal by MSI, self adhesive pipe markers for all piping. Pipe markers shall include direction of fluid flow arrows, color coded field and lettering height in accordance with OSHA and ASME (ANSI) Standard A13.1-2007. As a minimum, pipes shall be marked with service and direction at both sides of wall penetration, within 20 ft of change in direction, and at maximum intervals of 50 ft.

B. EQUIPMENT NAMEPLATES: Provide SETON custom engraved acrylic (plastic), Black with white border and lettering, 3" wide by 1" high with minimum 1/4" lettering, attached with two small screws. Provide a label at each piece of major equipment for equipment identification.

3. EXECUTION

3.1 GENERAL

A. Verify that the work of this Section may be completed in accordance with all pertinent codes and regulations, the Construction Documents, approved Submittals, and the manufacturers' recommendations. In the event of discrepancy, immediately notify the Engineer. Do not proceed in areas of discrepancy until all discrepancies have been resolved.

B. Install all equipment per manufacturer's instructions and recommendations.

C. Install all equipment level.

D. Do not cut into or reduce the size of any load-carrying member without the prior approval of the Architect.

E. Anchor piping subject to expansion or contraction in a manner permitting strains to be evenly distributed. Provide offsets and expansion compensation devices as required to prevent undue stress on the piping and building components. Allow for pipe expansion of 1 inch per 100 feet.

F. Piping shall be securely held in place by hangers, supports & trapezes in accordance with CA Plumbing Code Section 313. All hangers shall be designed to support the pipe, including fluid and insulation. Provide Pipe Shields Inc. insulated pipe supports or approved equal where 1" diameter and larger pipe is supported. Provide Specialty Products Company "Acousto-Plumb" system vibration absorption supports.

G. Provide seismic bracing per SMACNA / PPIC "Seismic Restraints Manual: Guidelines for Mechanical Systems and Plumbing Piping Systems".

H. Provide Link-Seals for protection against water penetration where underground pipes pass through finished floors, ceilings or walls. Provide chrome plated brass split escutcheons where pipes pass through finished floors, ceilings or walls.

I. Where piping passes through foundations, footings or bearing walls, provide PVC pipe sleeves two sizes larger than the pipe passing through the structure. Caulk the annular space between the pipes or provide Link-Seals at foundation walls. Provide chrome plated brass split escutcheons where pipes pass through finished floors, ceilings, or walls.

J. Foam pipe wrap all unsleeved piping passing through or in concrete: Benjamin Mfg. Co. in-sul wrap #6200. Apply in spiral wrap with one third overlap.

K. Provide accessible shut-off valves at all fixtures, equipment, and appliances. Provide access doors where valves are installed behind or above non-removable construction. Install all below-grade valves in concrete valve boxes. Install boxes flush with the finished grade. Install water hammer arrestors, valves, air vents and other appurtenances in accessible locations, or provide access doors.

L. Provide 1/2" minimum separation between piping and building construction.

M. Make allowances for building and support structure movement.

N. All steel piping and appurtenances exposed to weather shall be galvanized or zinc plated.

O. Isolate all dissimilar metals with dielectric unions, except that brass or bronze valves do not need to be isolated from steel pipe.

P. Where threaded piping connects between plastic and metal materials, provide metal female connection. Do not provide a metal male connection at these types of transitions.

Q. Provide unions at 2-1/2" and smaller equipment connections. Provide flanges at larger equipment connections.

R. Provide straight pipe with a minimum length of six times the pipe diameter upstream of pumps.

S. Insulate hot water recirculation main and hot water return piping with the specified insulation per California Title 24 energy code.

T. Provide UL listed fire stopping, installed per manufacturer's recommendations, where pipes pass through fire rated construction.

U. Provide 6" deep drip legs in the gas pipes at each gas appliance per the National Fuel Gas Code.

V. All horizontal waste piping is to be at a 2% slope unless otherwise noted on the plans.

W. At accessible flush valve type water closets, to avoid conflict with the grab bars, adjust cold water rough-in elevation to verify that the top of the flush valve clears the bottom of the grab bar while maintaining the 6" minimum critical level mark on the vacuum breaker, verify with manufacturer.

3.2 REQUIREMENTS FOR ACCEPTANCE

A. Make arrangements with the Engineer and the Building Inspector to observe the Work prior to covering or enclosing the work.

B. Clean and flush all piping systems and equipment to remove all contaminants.

C. Sterilize all domestic hot and cold water piping with chlorine solution for a minimum of 24 hours. The residual chlorine concentration shall not be less than 50 PPM. Thoroughly flush the piping systems after the sterilization is completed. Coordinate times of sterilization with the Owner. Provide warning signs during sterilization to prevent system use during sterilization. Provide documentation that indicates when the sterilization was completed.

D. Test the plumbing systems as outlined below. Isolate all equipment, instruments, and gauges that are not rated for test pressure. If the piping fails the test, repair faulty sections and retest. Provide documentation that all piping systems passed pressure test, indicate day of test and ambient temperature.

1. DWV systems: Test with a 10 foot water head for a minimum of one hour.
2. Water lines: Test with water at 100 PSIG for 24 hours.

I. An "AS-BUILT" red lined drawing set shall be kept on site and updated daily. Any relocated piping including any changes to: the invert elevations, below floor and below grade sanitary sewer piping, grease waste piping, process waste piping and storm drain piping.

F. Prior to job completion, submit to the Engineer redlined As-Built drawings in PDF format (color, 200 to 300 DPI resolution).

G. Provide operation and maintenance manuals on all equipment include equipment warranties certificates.

J. Instruct the Owner on how to operate and maintain all systems and equipment that are a part of this Section.

END OF SECTION

DIVISION 23 00 00
HVAC

1. GENERAL

1.1 DESCRIPTION

A. The work in this section includes, but is not limited to, providing all HVAC work as shown and noted on the mechanical/HVAC drawings and specifications, including the following items:
1. HVAC units and appurtenances
2. Ducts and appurtenances
3. Vibration Isolation
4. Insulation for ducts and piping
5. Controls & control wiring
6. Flues and appurtenances
7. Refrigerant, heating hot water, chilled water and appurtenances
8. Piping markers and equipment nameplates

1.2 CODES AND STANDARDS

A. All work and materials shall be in full accordance with the latest adopted edition of the following documents:
1. 2013 California Building Code (CBC)
2. 2013 California Plumbing Code (CPC)
3. 2013 California Mechanical Code (CMC)
4. 2013 California Electrical Code (CEC)
5. 2013 California Fire Code (CFC)
6. 2013 California Energy Code (Title 24)
7. 2013 California Green Building Code (CalGreen)
8. 2011 National Electric Code (NEC)
9. 2010 Americans with Disabilities Act (ADA)
10. Sheetmetal Contractors and Air Conditioning Contractors' National Association (SMACNA)
11. Local codes and ordinances

B. Where, in any specific case, different sections of the codes specify different materials, methods of construction or other requirements, the most restrictive shall govern.

1.3 PERMITS

A. The Contractor shall obtain all permits, licenses and fees that are required to perform the work. Provide the Architect with the original certificates, permits, licenses and receipts for fees.

1.4 SUBMITTALS

A. Submit for approval in digital format (PDF) complete submittals prior to commencing work and prior to ordering any piece of equipment. Clearly mark all pages with the appropriate equipment mark number and indicate all accessories and optional features and accessories. Items, other than those specified, will not be allowed unless they are approved in writing via the submittal process. Include cut sheets and drawings for the following items in the submittal:

1. All HVAC components that are a part of the mechanical contract documents.
2. Drawings for installation details that differ from the details in the contract documents.
3. Control drawings for all control work that is specified in the mechanical contract documents.

B. All details shown on the drawings are schematic in nature; the Contractor is responsible for determining actual installation requirements. Contractor shall include in his bid all materials and appurtenances for a complete and operable installation. Provide shop drawings for the proposed installation when coordination with other trades is required.

C. Upon completion of work, provide, for approval, one set of reproducible as-built drawings, two operation and maintenance manuals and four test and balance reports. The operation and maintenance manuals shall be furnished in a binder and contain manufacturers' data, manufacturers' warranties and maintenance instructions for the equipment, fixtures and appurtenances installed.

1.5 SUBSTITUTIONS OF MATERIALS AND EQUIPMENT

A. The named materials and equipment are considered the basis for design; however equal materials and equipment may be submitted to the Architect and Engineer for review. The decision of the Owner and Engineer shall be final and shall govern as to what materials and equipment may be substituted, but the burden of proof as to the quality, performance and space requirements of any proposed substitution shall rest with the Contractor.

1.6 WARRANTY

A. The Contractor shall provide a one-year warrantee for the work of this Section. During this period the Contractor shall provide all labor and materials necessary to repair or replace defective systems. The warrantee period shall begin at the date of final acceptance, per section 3 below.

B. Additional Warranty conditions: Where applicable, provide additional warranty time period and/or conditions in accordance with the General Conditions Section of the project specifications manual.

1.7 GENERAL

A. All systems within these specifications shall only be installed by personal trained and certified in accordance with the manufacturer's installation instructions.

B. The locations, sizes, capacities and types of all piping, equipment and appurtenances shown on the plans as existing are approximate and may not have been independently verified. The Contractor shall determine the exact locations, sizes, capacities and types of existing piping, equipment and appurtenances. If necessary use electronic pipe locating devices to locate existing piping below grade. The Contractor shall include in his bid allowances for minor modifications to pipe routing necessitated by actual field conditions.

C. The Contractor shall verify all building dimensions with architectural plans and all site dimensions with civil plans prior to submitting a bid.

D. The submission of a bid or proposal will be construed as evidence that the Contractor has familiarized himself with the plan and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized unless these difficulties could not have been foreseen, even though proper examination had been made.

2. PRODUCTS

2.1 DUCTWORK

A. Fabricated rectangular ducts: Galvanized Sheet Metal Duct: Per CMC requirements and SMACNA HVAC Duct Construction Standards. Indoor duct gauges to be minimum 2" wg (negative) pressure classification and minimum 24 gauge. Diagonally cross break all ducts.

2.2 ADHESIVES, SEALANTS, CAULKS, PAINTS, AND COATING

A. All products shall comply with the VOC limits requirements in CalGreen Code section 5.504. If a non conforming product is found in these bid documents, notify the Architect immediately for an alternate product.

2.4 PIPE MARKERS AND EQUIPMENT NAMEPLATES

A. EQUIPMENT NAMEPLATES: Provide SETON custom engraved acrylic (plastic), Black with white border and lettering, 3" wide by 1" high with minimum 1/4" lettering, attached with two small screws. Provide a label at each piece of major equipment for equipment identification.

2.5 OTHER MATERIALS

A. Other materials not specified, but required for a complete installation, shall be as selected by the Contractor subject to acceptance by the Engineer.

3. EXECUTION

3.1 GENERAL

A. Verify that the work of this Section may be completed in accordance with all pertinent codes and regulations, the Construction Documents, approved Submittals, and the manufacturers' recommendations. In the event of discrepancy, immediately notify the Engineer. Do not proceed in areas of discrepancy until all discrepancies have been resolved.

B. Install all equipment, valves, controls and appurtenances in accordance with manufacturers' instructions. Install all ductwork Per CMC requirements and SMACNA standards.

C. Provide access to all components requiring adjustment. Provide access panels where these components are concealed behind non-accessible construction. Label access panels with description of service.

D. Cover all duct openings and protect mechanical equipment during construction in accordance with the CalGreen section 5.504.3.

E. Do not cut into or reduce the size of any load-carrying member without the prior approval of the Architect.

F. Provide weather-proof flashing for all piping extending through roofs and walls.

3.2 REQUIREMENTS FOR ACCEPTANCE

A. Make arrangements with the Engineer and the Building Inspector to observe the Work prior to covering or enclosing the work.

B. Installation instructions for all equipment shall be made available to the building inspector at the time of inspection.

C. Clean all mechanical systems to remove all contaminants. At the completion of work, provide new, clean air filters in all filter banks.

D. Test and balance all air moving systems and hydronic piping systems in accordance with AABC National Standards for Field Measurements and Instrumentation. Provide test reports for approval.

E. "AS-BUILT" red lined drawings shall be kept on site and updated daily. These updates shall include, but not limited to, any changes to pipe or duct routing.

F. Prior to job completion, submit to the Engineer redlined As-Built drawings in PDF format (color, 200 to 300 DPI resolution).

G. Provide operation and maintenance manuals on all equipment include equipment warranties certificates.

H. Instruct the Owner on how to operate and maintain all systems that are a part of this Section.

END OF SECTION

SECTION 26 00 00

BASIC ELECTRICAL REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The General Conditions, Supplementary Conditions and Division 1 apply to the electrical work.

1.2 WORK INCLUDED

A. Work included in this section: All materials, labor, equipment, services, and incidentals necessary to install the Electrical Work as shown on the drawings and as specified hereinafter, including, but not limited to the following:

1. Modifications to the existing distribution system, including new panelboard and feeder.

2. Branch circuit wiring, wiring devices and connections to all equipment requiring electrical service.

3. Lighting fixtures with hangers, anchors and supports.

4. Electrical equipment grounding system.

5. Mechanical equipment power connections as stated in the mechanical and electrical specifications and as shown on the mechanical and electrical drawings.

6. Sleeves, inserts and blocking in cast concrete as required for work in this section.

7. All required incidental work, such as excavating and backfilling, roof flashing, and testing.

8. Any other electrical work as might reasonably be implied as required, even though not specifically mentioned herein or shown on the drawings.

1.3 RELATED WORK

A. Division 1 - General Requirements

B. Division 23 - Mechanical

1.4 INCORPORATED DOCUMENTS

A. Requirements of the General Conditions, Supplementary Conditions, and Division 1. Sections apply to all work in this Section, unless modified herein.

B. Published specifications, standard tests or recommended methods of trade, industry or government organizations apply to work of this Section where cited by abbreviations noted below, unless modified herein.

1. National Electrical Code, latest edition, (NEC).

2. NEMA standards

3. Underwriters' Laboratories, Inc. (UL).

4. Local Utility Company regulations.

5. National Fire Protection Association (NFPA)

6. California Administrative Code (CAC)

C. All State and Municipal Codes and Ordinances.

1.5 CONDITIONS AT SITE:

A. Visit to site is required of all bidders prior to submission of bid. All will be held to have familiarized themselves with all discernible conditions and no extra payment will be allowed for work required because of these conditions, whether specifically mentioned or not.

B. Lines of other services that are damaged as a result of this work shall promptly be repaired at no expense to the Owner to the complete satisfaction of the Owner.

1.6 QUALITY ASSURANCE

A. Conformance:

1. All work shall conform to the applicable requirements of Article 1.3 above.

2. The Contractor shall notify the Architect, prior to submission of bid, about any part of the design, which fails to comply with abovementioned requirements.

3. If after contract is awarded, minor changes and additions are required by aforementioned authorities, even though such work is not shown on drawings or covered in specifications, they shall be included at Contractor's expense.

B. Coordination:

1. The Contractor shall become familiar with the conditions at the job site, and with the drawings and specifications and plan the installation of the electrical work to conform with the existing conditions and that shown and specified so as to provide the best possible assembly of the combined work of all trades.

2. The Contractor shall work out in advance all "tight" conditions, involving all trades and if found necessary, supplementary drawings shall be prepared by this Contractor, for the Architect's approval, before work proceeds in these areas. No additional costs will be considered for work, which must be relocated due to conflicts with the work of other trades.

3. The Contractor shall coordinate and verify all backbox, device, lighting fixture, or equipment mounting requirements with the devices or equipment to be installed, prior to rough in.

1.7 SUBMITTALS

A. Product Data:

1. Comply with the provisions of Section 01340- Submittals.

2. Within 15 days after award of the Contract, submit:

   a. Complete material list of all items proposed to be furnished and installed under this Section, including but not limited to the following items: Circuit breakers, lighting fixtures, conduit, devices, enclosures, etc.

   b. Manufacturers' specifications and other data required demonstrating compliance with the specified requirements.

   c. Manufacturers' recommended installation procedures which, when approved by the Architect, shall become the basis for inspecting and accepting or rejecting actual installation procedures used on the work.

3. Shop Drawings: Furnish shop drawings and/or equipment cuts for the following:

   a. Light Fixtures

   b. Panelboards

   c. Motor Starters, Control Equipment, and Control Relays

   d. Disconnect Switches

   e. Lamps

   f. Ballasts

4. Test Reports:

   a. Factory Tests: As specified for specific equipment.

   b. Field Tests: Performance tests as specified for specific equipment.

   c. When series rated circuit breakers are used, provide a letter from the manufacturer of the equipment confirming that U.L. series rating exists for all protective devices. State the available fault current from the Utility Company and indicate that the overcurrent devices exceed the available fault current at the respective point of protection.

5. Maintenance and Operating Manuals:

   a. Systems Description: Description of operating procedures.

   b. Controls: Diagrams and description of operation of each system.

   c. Equipment: Manufacturer's brochures, ratings, certified shop drawings, maintenance data, and parts lists with part numbers. Mark each sheet with equipment identification number and actual installed condition.

   d. Materials and Accessories: Manufacturer's brochures, parts lists with part numbers, and maintenance data where applicable. Mark each sheet with identification number of system and location of installation.

e. The Maintenance and Operation Manual shall be presented in a three ring binder that has tabbed Specification sections.

1.8 MATERIALS

A. Materials of the same type or classification, used for the same purpose, shall be the product of the same manufacturer.

1.9 ACCEPTABLE MANUFACTURERS

A. Materials shall be of make mentioned elsewhere in this specification. All materials shall be the best of their several kinds, perfectly new and approved by the Underwriters' Laboratories.

B. Where material, equipment, apparatus or other products are specified by manufacturer, brand name, type or catalog number, such designation is to establish standards of desired quality, style and utility and shall be the basis of the bid. Materials so specified shall be furnished under the contract unless changed by written approval of the Architect. Where two or more designations are listed, choice shall be optional with this Contractor, but this Contractor must submit his choice for final approval.

1.10 DELIVERY, STORAGE AND HANDLING

A. Protection: Use all means necessary to protect the materials of this Section before, during, and after installation and to protect the work and materials of all trades.

B. Delivery and Storage: Deliver all materials to the job site in their original containers with all labels intact and legible at time of use. Store in strict accordance with approved manufacturers' recommendations.

C. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

D. This Contractor shall personally, or through an authorized representative, check all materials upon receipt at jobsite for conformance with approved shop drawings and/or plans and specifications.

1.11 SCHEDULING/SEQUENCING

A. Place orders for all equipment in time to prevent any delay in construction schedule or completion of project. If any materials or equipment are not ordered in time, additional charges made by equipment manufacturers to complete their equipment in time to meet the construction schedule, together with any special handling charges, shall be borne by this Contractor.

1.12 REQUIREMENTS

A. The contract drawings indicate the extent and general arrangements of the conduit wiring systems, etc. If any departures from the contract drawings are deemed necessary by the Contractor, details of such departures and the reasons therefore shall be submitted as soon as practicable, and within 10 days after award of the electrical contract.

B. UNLESS MATERIAL LIST AND DATA IS RECEIVED AS A COMPLETE AND ALL INCLUSIVE SUBMITTAL WITHIN THE STIPULATED TIME ALL ITEMS SHALL BE PROVIDED AS SPECIFIED- WITH NO DEVIATIONS PERMITTED.

C. Any and all additional costs incurred by the substitution of electrical material or equipment, or installation thereof, whether architectural, structural, plumbing, mechanical or electrical, shall be borne by the Contractor under this section.

1.13 IDENTIFICATION

A. Feeder circuit breakers in switchboards, panels, disconnect switches, motor starters and motor disconnect switches, cabinets, and other apparatus used for the operation of, or control of circuits, appliances or equipment, shall be properly identified by means of engraved laminated plastic descriptive nameplates mounted on apparatus using stainless steel screws. Nameplates shall have white letters with black background and be submitted to the Architect for approval. Cardholders in any form are not acceptable.

B. Each branch circuit of panelboards to have a permanently fixed number with one word directory, mounted under celluloid on inside of cabinet door, showing circuit numbers and typewritten description of equipment supplied by breakers.

PART 2 - PRODUCTS:

2.1 GENERAL

A. Materials shall be new, packed in original containers, installed and turned over to the Owner free of defects.

B. Materials shall bear Underwriters' Laboratory label.

C. Furnish equipment and materials for any one system by same manufacturer.

2.2 MATERIALS

A. Conduit:

1. Conduit shall be National Electric Products Corporation, Republic, or Triangle, and shall be delivered to the site of construction in the original bundles. Each length shall bear the label of the National Board of Fire Underwriters. All conduit subjected to rough usage while on the job, before installation, shall be removed from the premises upon notice.

a. Rigid Steel: Hot-dipped galvanized, used exposed and in concrete slab, with completely watertight fittings.

b. In lieu of rigid steel conduit for power service raceways and branch circuit conduits in soil or in concrete slab, "Schedule 40" PVC with code size minimum bare No. 12 ground wire may be used with "Schedule 80" elbows and stub-ups.

c. All rigid steel conduit, couplings and elbows in soil or under membrane to be 1/2 lap wrapped with Scotch #50 tape and threaded ends coated with red lead prior to installation of couplings.

d. Intermediate metal conduit shall be used in all exposed interior locations, except that electrical metallic tubing may be used in some locations as noted below. Utilize steel compression type fittings for all exposed conduit runs, unless otherwise noted. Cast fittings are unacceptable.

e. Electrical metallic tubing may be used exposed in interior electrical and mechanical rooms, in interior unfinished spaces, and in interior concealed and furred spaces, made up with steel watertight or steel set screw type fittings and couplings. EMT shall not be used in under-building crawl spaces or other areas subject to moisture. Setscrews shall have hardened points. Cast fittings are unacceptable.

f. Use flexible conduit for all motor connections; "Seal- tite" type used outdoors and in all wet locations, provide with code size (minimum No. 12) bare ground wire in all flexible conduit.

g. Conduit Bends - Long Radius.

h. Minimum cover of conduits in ground - 24" unless otherwise noted.

i. Provide conduit seals at all concrete slab penetrations - O. Z. series FSK.

2. Conduit Fittings:

a. Fittings for rigid steel and flexible type conduit shall be of a type as required, malleable iron or steel, galvanized or sherardized, Thomas & Betts, Steel City, National, General Electric, or Appleton.

B. Outlet Boxes and Junction Boxes:

1. National Electric products Company's galvanized one piece steel knockout type, unless otherwise noted, sizes as required for conditions at each outlet or as noted, not smaller than 2 inches wide by 4 inches high, ganged where multiple switch locations are indicated.

2. Outlet boxes located on exterior to be flush type with cast aluminum gasketed covers; spring lid type for receptacles.

3. Surface mounted outlet boxes for wet locations, cast aluminum FS or FD type with gasketed spring lid cover.

4. All connectors from conduit to junction or outlet boxes shall have integral insulated throats.

5. Outlet boxes for telephone and data outlets shall be 4" square minimum with single gang plaster rings.

6. Conduit Bodies: Malleable iron type, with lubricated spring steel clips over edge of conduit body, O-Z/Gedney type EW, or equal.

7. Pull boxes (600 volts and less): All site pull boxes shall be flush in-ground concrete, with engraved covers identifying service use (i.e. electrical, communications, etc.). Boxes shall be Nema 250, Type 6, outside flanged, with recessed cover for flush mounting, by Christy or equal, with required depth to provide box and conduit depths shown or required.
   a. Provide concrete covers for all boxes in planted or paved areas (up to available concrete cover size).
   b. Provide galvanized steel covers for all larger boxes (when concrete is not available), or in traffic areas. No cast iron covers.
   c. Provide bolted covers and slab bottoms (with grouted perimeter) or vault type

boxes for all electrical distribution and signal system pull boxes used for site distribution, to prevent rodent entry. No colar type boxes with dirt or gravel bottoms.

d. Provide drain hole at bottom of all vault type boxes, with loose aggregate base below, for proper drainage.

e. All covers to be completely flush with finished adjacent surfaces.

f. Provide galvanized steel H20 rated covers and installation of box rated for H20 in all traffic areas.

g. Provide pullboxes per utility company specifications for all electrical primary and secondary services and for telephone service runs. Verify exact size and type prior to order with each utility company.

C. Wire and Cable: Phelps-Dodge, Triangle, Anaconda or Okonite Company.

1. Copper 90% conductivity. Solid copper for conductors smaller than No. 8 AWG. Stranded copper for conductors No. 8 AWG and larger. No conductors smaller than No. 12 AWG, except as noted. White outer coverings on neutral conductor.

2. Insulation type: #12 to #1 AWG: THWN for wet locations and THHN for dry locations. #1/0 through #4/0 AWG: XHHW (55 Mils). 250MCM and larger: XHHW (65 Mils).

3. Conductors No. 8 and larger and as otherwise noted on drawings shall be stranded.

4. Connections to devices from "through-feed" branch circuit conductors to be made with pigtails, with no interruption of the branch circuit conductors.

5. Neutral conductor identified by white outer braid, with different tracers of "EZ" numbering tags used where more than one neutral conductor is contained in a single unit.

6. Neatly arrange and "marlin" wired in panels and other equipment with "T and B Ty-rap" or approved equal plastic type strapping.

7. Label each wire of each electrical system in each pull box, junction box, outlet box, terminal cabinet, and panelboard in which it appears with "EZ" numbering tags.

8. Install feeder cables in one continuous section unless splices are approved by Architect. Exercise care in pulling to avoid damage or disarrangement of conductors, using approved grips. No cable shall be bent to smaller radius than the spool on which it was delivered from the manufacturer. Color code feeder cables at terminals. Provide identifying linen tags in each pullbox

9. All wire and cable shall bear the Underwriters' Label, brought to the job in unbroken packages; wire color-coded as follows:

Voltage	Phasing	A	B	C	N
120/208	3PH4W	Black	Red	Blue	White
208	3PH3W	Black	Red	Blue	--
277/480	3PH4W	Brown	Orange	Yellow	White
480	3PH3W	Brown	Orange	Yellow	--

D. Switches: Leviton, or equal, rated 20 amp, 277 volt, quiet type, white color, and specification grade; unless otherwise noted.

1. Single Pole - No. 5521-W

2. Three Way - No. 5523-W

E. Receptacles: Leviton, 20amp, 125 volts, specification grade, conventional style, white color, except as noted:

1. 20A 3PG 125 volt duplex - No. 5896-W

2. 20A 3PG 125 volt ground fault interrupter receptacle; GFI receptacles shall conform to the 2006 UL requirements to a) interrupt power to the unit in the event of internal failure, or b) provide an audible or visual indication of internal failure of the GFI; No. 7899 or equal. Through wiring to down stream GFI designated receptacles is not acceptable.

3. Special appliances receptacles: Match NEMA configuration of equipment plug.

F. Plates: Leviton, or equal, except as noted:

1. For flush outlet boxes, for switches and receptacles: standard stainless steel, .030" Type 430.

2. Plates for surface-mounted outlets: galvanized steel unless otherwise noted.

3. Weatherproof "in-use" cover, vertical or horizontal mount, for exterior with GFCI receptacles. Die-cast metal alloy, Taymack MX series or equal with openings to match installed devices.

4. Weatherproof duplex receptacle plates for exterior locations and for all type FS or FD boxes - Hubbell #522I, Sierra No. WPH-GL.

G. Equipment Disconnects: All disconnects shall be Nema Type HD, lockable in the off position. Provide defeater mechanism to bypass this mechanism. Disconnects shall be located to allow proper code required clearance in each area. Locations shown on drawings are diagrammatic only. The contractor shall coordinate exact locations in the field (with other trades) prior to rough in to insure proper clearances.

1. Motor Disconnect Switches and Safety Switches: HP rated, General Electric Company Heavy Duty Type "THD", cover interlocked with operating handle so that cover cannot be opened with switch in closed position and switch cannot be closed with cover in open position. 240V or 480V rating, single or multi-pole as required or as noted on drawings, in Nema 1 enclosure indoors or Nema 3R enclosure outdoors unless otherwise noted. Provide dual element motor circuit fuses sized as recommended by equipment manufacturer (for final equipment actually installed).

2. Code required disconnects: Provide a local disconnect in addition to the branch circuit protection device for all equipment as required by Code (whether shown or not). Disconnects shall consist of a motor rated switch (or disconnect) for all motor loads less than 3/4HP or other suitable disconnect sized to match branch circuit conductors and load current of equipment, with number of poles as required

H. Lugs and Connectors: Thomas and Betts "lock-tite", for No. 4 and larger wire; 3M "Scotchlock" fixed spring screw-on type wire connectors, with insulator, for No. 6 and smaller wire.

1. All splices shall be made up with screw-on type connectors - no plug-in or push-in style connectors acceptable. Wires shall be solidly twisted together with electricians pliers before screw-on connector is installed to ensure a proper connection in the event of wire nut failure. No exceptions.

2. Connectors listed or labeled for "no wire twisting required" are <u>not</u> an acceptable substitute for actual wire twisting.

I. Splice Insulation: "Scotch" electrical tape with vinyl plastic backing or rubber tape with protective friction tape for interior work.

1. Splices in electrical cables of 600 volt insulation class in underground system duct shall be made only in accessible locations such as pullboxes, light pole handholes, etc., using a compression connector on the conductor and by insulating and waterproofing (for exterior and underground locations) by one of the following methods:

a. Cast-Type splice insulation shall be provided by means of a molded casting process employing a thermosetting epoxy resin insulating material which shall be applied by a gravity poured method or by a pressure injected method. The component materials of the resin insulation shall be in a packaged form ready for convenient mixing after removing from the package. Do not allow the cables to be removed until after the splicing material has completely set.

b. Gravity Poured Method shall employ materials and equipment contained in an approved commercial splicing kit which includes a mold suitable for the cables to be applied. When the mold is in place around the joined conductors, the resin mix shall be prepared and poured into the mold. Do not allow cables to be moved until after the splicing materials have completely set.

J. Grounding:

1. Provide and install grounding system as noted on the Drawings.

2. Install ground wires in rigid conduit.

3. All grounding electrode conductor connections "thermite" or "cad-weld" welded.

4. Use approved pressure type solderless connector or use fusion welding for all connections to and bonding of grounding electrode system. All connections shall be visible, readily accessible for testing purposes. Grounding electrode conductor between the grounding electrode and service equipment: Minimum #4/0.

5. Furnish and install two "Copperweld" 3/4" x 10'-0" ground rods a minimum of 20'-0" apart. Install ground rods in accessible boxes with covers. Furnish and install 2-#4/0 bare copper cables between ground rods and main switchboard ground bus.

6. Terminate grounding conduits at equipment with ground bushing, with ground wire connected through bushing.

7. Provide No. 12 stranded (green) THHN conductor from outlet box to ground screw of

every receptacle.

8. Ground all isolated sections of metallic raceways.

9. Provide #12 minimum stranded (green) THHN conductor sized per NEC, or as noted, connected continuously throughout branch circuit for all circuits, bonded to panel ground bus, and to all electrical devices and equipment enclosures.

K. Panelboards:

1. Surface or flush mounted, with branch circuits as shown on drawings.

2. Enclosures: code gauge galvanized sheet steel with welded full flange end pieces; stretcher- leveled steel trim, backpan and door.

3. Bussing of copper with silver-plated contact surfaces.

4. Trims on surface-mounted cabinets secured with nickel-plated screws with cup washers, bottom of all trims to have lugs for resting on cabinet flange.

5. Panels shall be 20 inches minimum in width, provided with approved gutter space, barriers and adjustable supports. Doors mounted with concealed hinges provided with combination spring latch and lock. Doors and trims and surface mounted cabinets primed and finished with one coat baked on gray enamel.

6. Breakers on same phase to be aligned horizontally. Each panel provided with 5-handle locks.

7. Each branch circuit of panelboards to have a permanently fixed number with one word directory, mounted under celluloid on inside of cabinet door, showing circuit numbers and typewritten description of outlets controlled by breakers. Color code mains and each breaker terminal, same as conductor insulation.

8. Each panel shall be equipped with a copper ground bus.

L. Circuit Breakers:

1. General: Circuit breakers shall be molded case rated for 480 or 240 volts, multiple or single pole and amperage rating as shown on the drawings, bolt on, manually operated with "de-ion" arc chutes.

2. Distribution circuit breakers shall be rated for the amps interrupting capacity noted on the drawings.

3. Branch circuit breakers shall be rated for the amps interrupting capacity.

4. Where mechanical equipment is U.L. listed for overcurrent protection with fuses or HACR type circuit breakers, provide fuses where a fused switch is shown. Where the overcurrent protection is a circuit breaker provide HACR, (HACR means Heating, Air-Conditioning and Refrigeration) type.

5. Provide type "SWD" circuit breakers were the circuit breaker is going to be used as a switching device in a panelboard.

M. Motor Connections:

1. Install motor circuits complete for all motors by other trades as shown on drawings.

2. Furnish and install all disconnect switches, outlet boxes, starters, timeswitches etc., where noted.

3. All motor and temperature control low voltage wiring shall be installed and connected by Division 15 Section of specifications, unless otherwise indicated on electrical and mechanical drawings.

N. Lighting Fixtures:

1. As listed in fixture schedule, and on drawings as indicated by type letter, completely lamped with new lamps, properly operating at time of acceptance of electrical work.

2. Submit under provisions of Division 1.

   a. Manufacturer's literature for every fixture listed on the Fixture Schedule.

   b. For Any Fixtures Substituted For Those Specified: Independent Testing Laboratories, Inc., or equal, photometric test report for each Luminaire type and lamp combination listed on the Fixture Schedule. Test reports shall be based on Illuminating Engineering Society published test procedures and shall contain polar coordinate candlepower distribution curves in five lateral planes for fixtures with asymmetric distributions and fixture luminance data for vertical angles above 45 degrees from nadir. Test results shall indicate fixture efficiency for the lamp and aperture assembly specified. Fixtures with efficiencies more than 2% below the values of specified fixtures are not acceptable and will be rejected.

3. Lamps:

   a. Unless otherwise noted, lamps described on the Drawings and in these Specifications, are ANSI nomenclature; lamps shall be manufactured by General Electric, Osram/Sylvania, North American Philips, or approved equal.

   b. All incandescent lamps and tungsten-halogen lamps shall be 125-130 volt rated extended life or 2,000 hour life whenever such designs are available.

   c. T8 fluorescent lamps shall be 3450-3500K color temperature, energy saving type suitable.

   d. Compact fluorescent lamps shall be 2700K-color temperature, twin-tube and double twin tube (as required for each fixture), as manufactured by North American Philips, approved equal.

4. Ballasts:

   a. Fluorescent Lamp Ballasts:

      (1). Type: Solid State or magnetic, (as stated on the drawings), full light output Class P, ETL certified to CBM standards, high power factor one, two, three, or four lamp types; minimum starting temperature 50 degrees F. unless otherwise noted. Ballasts containing "PCB" are not permitted. The allowable total harmonic distortion shall be equal to or less than 10%.

Maximum crest factor 1.4. Power factor .97 or greater. Advance, Magnetek, or Motorola no other known equals.

(2). Sound Ratings: "A", or the lowest rating available, for the number and types of lamps ballasted. Replace noisy ballasts at no cost to the Owner.

b. Other Ballasts:

(1). All ballasts shall be high power factor energy efficient type.

(2). Ballasts in refrigerated spaces or outdoors shall be zero (0) degree F. temperature rated.

c. All ballasts shall be operated without excessive or unusual noise. Noisy or otherwise defective ballasts shall be replaced.

5. Plastic:

a. Translucent Plastic Components: Translucent plastic shall be made of smooth, white, 100 percent virgin acrylic material.

b. Plastic Lenses: Lenses shall be uncolored 100 percent virgin acrylic plastic.

6. Finish on Metal Parts:

a. Steel Reflectors: Unless otherwise specified, the reflector surface finish shall be of synthetic white enamel or polyester powder coating.

b. Aluminum Reflectors: Reflecting surfaces shall be provided with either a specular or diffuse finish as indicated.

c. Non-Reflecting Surfaces: Unless otherwise specified, the finish on all non-reflecting exterior surfaces shall be aluminum oxide or aluminum; white, gray or aluminum paint on steel; nickel or chromium plating on copper alloy. Fastening devices shall be nickel, chromium, cadmium or zinc plated.

PART 3 - EXECUTION

3.1 INSPECTION

A. Examine the areas and conditions under which the work of this Section will be installed. Correct conditions detrimental to the proper and timely completion of the Work. Do not proceed until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Drawings

1. The general arrangement and location of wiring and equipment is shown on the electrical drawings and shall be installed in accordance therewith, except for minor changes required by conflict with the work of other trades.

2. Drawings indicate the circuit and panel, which supplies each device or fixture. Provide and install conduit and conductors to make all connections from panel to nearest

device and from first device to additional devices on same circuit. Conduit size and fill shall satisfy NEC requirements. Do not exceed 4 #12 or 3 #10 conductors in a 1/2" conduit, 7 #12 or 5 #10 in a 3/4" conduit, or 11 #12 or 9 #10 in a 1" conduit, unless otherwise noted. If more than three current carrying conductors are installed in one conduit, conductor size shall be increased as required per Note 8 to Table 310-16 of the NEC.

3. Drawings indicate the location of all light switches. Where fixtures in a room are controlled by more than one switch, the same lower case letter is drawn adjacent a switch and each fixture controlled by that switch. Where no lower case letter is adjacent to a switch, all fixtures in the room are controlled by that switch. Provide and install conduit and wire from fixture to switch and between fixtures as required to accomplish switching shown. Do not route branch circuit wiring for light fixtures through switch boxes.

4. Control wiring is generally not shown on the plans. Contractor shall refer to control diagrams and provide and install all wiring and raceways required to make all interconnections.

5. All branch circuit wiring No. 12 or No. 10 as noted, all control wiring No. 14, except as noted next to "slash marks" on drawings, or as noted under "Wire," as specified herein.

6. All dimensions, together with locations of doors, partitions, etc. are to be taken from the Architectural Drawings, verified at site by this Contractor.

7. Maintain "as-built" records at all times, showing the exact location of concealed conduits and feeders installed under this contract, and actual numbering of each circuit. Upon completion of work and before acceptance can be considered, this Contractor must forward to Architect vellums (obtained from the Architect at cost) corrected to show the electrical work as installed.

8. Measurements: Before ordering any material or closing in any work, verify all measurements on the job. Any differences found between dimensions on the drawings and actual measurements shall be brought to the Architect's attention for consideration before proceeding.

3.3 FIELD QUALITY CONTROL

A. All workmanship shall be first class and carried out in a manner satisfactory to and approved by the Architect.

B. This Contractor shall personally, or through an authorized and competent representative, constantly supervise the work and so far as possible keep the same foreman and workmen on the job throughout.

3.4 INSTALLATION/APPLICATION/ERECTION

A. Cutting, repairing and structural reinforcing for the installation of this work shall be done by the General Contractor in conformance with the Architect's requirements.

B. Provide and place in form work all conduit, inserts and sleeves in time to prevent any delay in the concrete work.

3.5 ADJUSTING AND CLEANING

A. Main switchboard, panelboards and all other electrical equipment not "finish painted" under other sections shall be touched up where finished surface is marred or damaged.

B. All equipment, lighting fixtures, etc., shall be left in clean condition, with all shipping and otherwise unnecessary labels removed there from.

C. Excavate and trench as necessary for the electrical installation, and when the work has been installed, inspected and approved, backfill all excavations with imported sandy soil in maximum 8" (eight inch) layers, moisten and machine tamp to 95% compaction, and restore the ground and/or paving or floor surfaces to their original condition. Comply with requirements of Division 2.

3.6 SCHEDULES

A. Coordination: Coordinate installation of electrical items with the schedule for other work to prevent unnecessary delays in the total Work.

3.7 TESTING

A. Grounding System:

1. All ground connections shall be checked and the entire system shall be checked for continuity.

2. Ground tests shall meet the requirements of the National Electric Code.

B. Lighting Systems:

1. The interior and exterior lighting systems shall be checked for proper local controls and operation of entire installation, including the operation of the low voltage lighting control system.

C. Power Distribution System:

1. Tests: Test panelboards for grounds and shorts with mains disconnected from feeders, branch circuits connected and circuit breakers closed, all fixtures in place and permanently connected and grounding jumper to neutral lifted and with all wall switches closed.
2. Test each individual circuit at each panelboard with equipment connected for proper operation. Inspect the interior of each panel.

3. Check verification of color coding, tagging, numbering, and splice make-up.

4. Verify that all conductors associated with each circuit are in same conduit.

5. Demonstrate that all lights, jacks, switches, outlets, and equipment operate satisfactorily and as called for.

END OF SECTION

ATTACHMENT A

ABATEMENT REQUIREMENTS

The abatement removal work described in the following specifications shall be included in the lump sum project cost per the contract price schedule.

Attachment A1:
"Asbestos Abatement Project Specification – San Leandro Ball Park" Dated July 25, 2014 by ProTech Consulting and Engineering.

Attachment A2:
Although no abatement is required for lead containing materials on this project, there are areas with lead containing paint. Proper work procedures around such material shall followed as described in the following specification:

"Lead–Base and Lead-Containing Materials Instruction to all Contractors/ Bidders" Dated July 25, 2014 by ProTech Consulting and Engineering.

The original site investigation report "Pre-Demolition / Renovation Asbestos & Lead Survey and Evaluation, San Leandro Ballpark" by ProTech Consulting and Engineering, is available for review at San Leandro City Hall, Engineering and Transportation Department, 835 East 14th Street, San Leandro, CA. Contact: Mark Goralka, Associate Engineer, 510-577-3329, mgoralka@sanleandro.org

ATTACHMENT A1

ProTech
Consulting & Engineering
1208 MAIN STREET, REDWOOD CITY, CA 94063
P: (650) 569-4020 • F: (650) 569-4023 • E: info@protech-cal.com

ASBESTOS ABATEMENT PROJECT SPECIFICATION

ASBESTOS ABATEMENT PROJECT

San Leandro Baseball Park
(Stand & Press-Box facility)
Teagarden Avenue & Aladdin Avenue
San Leandro, California

PREPARED FOR

City of San Leandro
835 E. 14th Street
San Leandro, California

PREPARED BY:

PROTECH CONSULTING AND ENGINEERING

July 25, 2014

ProTech
Consulting & Engineering

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ASBESTOS ABATEMENT

PART 1 - GENERAL AND ADMINISTRATIVE REQUIREMENTS

1.00 DESCRIPTION

A. The asbestos abatement contractor shall furnish all labor, material, facilities, equipment, services, employee training and testing, permits and agreements necessary to perform the work required for asbestos removal, encapsulation, decontamination, disposal, and all other work in accordance with these specifications, the latest regulations from the US. Environmental Protections Agency (EPA), Cal-EPA, the Occupational Safety and Health Administration (OSHA), the State of California Department of Industrial Relations (Cal/OSHA), the recommendations of the National Institute of Occupations Safety and Health (NIOSH), and any other applicable federal state and local government regulations. Whenever there is a conflict or overlap of the above references, the most stringent provision shall apply.

B. Contractor must visit the work site to obtain first-hand knowledge of all existing conditions including ACM quantities. Contractor is responsible for all unusual conditions or deviations from the specifications that exist at the time of their site examination, and such conditions must be reflected in the bid proposal. Contractor will not be given extra payments above the accepted bid prices for conditions that can be determined by examining the site, all Contract Documents, and drawings prior to the submission of proposals.

C. No signs may be displayed on or about the Owner's property (except those required by law) without the Owner's specific approval; the size, content, and location to be as specified by the Owner. Advertising signs displaying the word "asbestos" or implying asbestos abatement are prohibited at the work site or around the facility.

1.01 DESCRIPTION OF WORK

A. The work specified herein includes the abatement, encapsulation, and disposal of ACM/ACCM by qualified persons who are knowledgeable, trained, and certified to perform such work in compliance with all applicable federal, state, and local codes and regulations.

1. Pre-Abatement Tasks

   a. Submit required pre-job submittals prior to mobilization
   b. Construct needed temporary facilities
   c. Individually tested and certify HEPA equipped air filtration devices with 0.3 µm dioctylphthalate (DOP) particles
   d. Individually fit test each worker with appropriate respiratory protection.
   e. Seal and/or lock-out HVAC supply duct servicing abatement work areas
   f. Install GFI power sources

2. Work Area Preparation

   a. Perform non-asbestos pre-cleaning
   b. Pre-clean work area surfaces affected by asbestos dust, debris, fall-out or contamination.
   c. Prepare work area containment systems as specified
   d. Initiate negative air, HEPA filtration machinery
   e. Construct decontamination facilities as specified
   f. Install magnehelic gage with continuous disc chart recorder
   g. Where necessary, remove and dispose of non-ACM building components, finishes, fixtures, etc. that are scheduled for demolition to access all ACM/ACCM.

3. Asbestos Abatement Activities

   a. Maintain negative pressure inside of the asbestos abatement work areas for eight hours prior to any ACM removal.
   b. Wet removal all ACM as specified. Where necessary, remove and dispose of non-ACM building components, finishes, fixtures, etc. that are scheduled for demolition to access all ACM/ACCM.
   c. Detail clean all barriers and work area surfaces.
   d. Following final inspection of the work area, perform encapsulation of all work areas surfaces.
   e. Following visual and final clearance, remove all barriers and check for any residual ACM debris.
   f. Demobilize from site.
   g. Submit all project close-out submittal documents.

4. Asbestos Abatement Scope of Work

   a. The work specified herein includes the removal of **various ACM's/ACCM's** at the subject site.
   b. The Contractor shall wet remove and dispose of all asbestos-containing building materials as follows:

Baseball Facility			
	Material Description	Material Location(s)	Approx Quantity
1.	Drywall	Random wall/ceilings in center mechanical room and adjacent storerooms	2500 sq ft.
2.	Grey roofing mastic	Penetrations patches and flashing of Press-box roof	50 sq ft.

Note - Drywall:
Sheetrock, joint tape and joint compound samples yielded a result of less than 1% asbestos (as a composite) by standard PLM analysis. To prove and treat this material as less than 1%, confirmation analysis by PLM point-count was performed.

Contractor may at Contractors sole expense, elect to have drywall, joint tape, and joint compound (sheetrock) tested for waste characterization purposes. Sampling must be performed by a Cal OSHA certified asbestos consultant/technician. If Contractor can demonstrate that asbestos levels in the sheetrock fall below EPA/AQMD's regulated levels, a DOSH registered demolition contractor may be permitted to demolish the structured with the sheetrock in place.

If this option is exercised, Contractor shall perform all demolition work in compliance with applicable DOSH regulatory asbestos standards.

1.02 DEFINITIONS

Abatement - Procedures to control fiber release from asbestos-containing building materials. Includes removal, enclosure or encapsulation.

Aggressive method - means removal or disturbance of building material by sanding, abrading, grinding or other method that breaks, crumbles, or disintegrates intact ACM.

Air Monitoring - The process of measuring the asbestos fiber content of a specific volume of air in a stated period of time using methods approved or recommended by OSHA, EPA, NIOSH or other method approved by Owner or Consultant.

Amended water - means water to which surfactant (wetting agent) has been added to increase the ability of the liquid to penetrate ACM.

Asbestos - includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that has been chemically treated and/or altered. For purposes of this standard, "asbestos" includes PACM, as defined below.

Asbestos-Containing Building Material (ACBM): Means any construction material which contains greater than 1% asbestos.

Asbestos-Containing Construction Material (ACCM): Means any construction material that contains $^{1}/_{10}$ of 1% to 1% asbestos by weight.

Asbestos-containing material (ACM) - means any material containing more than one percent asbestos.

Assistant Secretary - means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Authorized person - means any person authorized by the employer and required by work duties to be present in regulated areas.

Building/facility owner - is the legal entity, including a lessee, which exercises control over management and record keeping functions relating to a building and/or facility in which activities covered by this standard take place.

Certified Industrial Hygienist (CIH) - means one certified in the practice of industrial hygiene by the American Board of Industrial Hygiene.

Class I asbestos work - means activities involving the removal of TSI and surfacing ACM and PACM.

Class II asbestos work - means activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.

Class III asbestos work - means repair and maintenance operations, where "ACM", including TSI and surfacing, is likely to ACM and PACM, may be disturbed.

Class IV asbestos work - means maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste and debris resulting from Class I, II, and III activities.

Clean room - means an uncontaminated room having facilities for the storage of employees' street clothing and uncontaminated materials and equipment.

Closely resemble- means that the major workplace conditions which have contributed to the levels of historic asbestos exposure, are no more protective than conditions of the current workplace.

Competent person - means, in addition to the definition in 29 CFR 1926.32 (f), 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 who is specially trained in a training course which meet 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, 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)].

Consultant - For the purpose of the work described herein, ProTech Consulting and Engineering shall be the Consultant.

Critical barrier - means one or more layers of plastic sealed over all openings 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.

Decontamination area - means an enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area, and clean room, which is used for the decontamination of workers, materials, and equipment that are contaminated with asbestos.

Demolition - means the wrecking or taking out of any load-supporting structural member and any related razing, removing, or stripping of asbestos products.

Director - means the Director, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

Disturbance - means activities that disrupt the matrix of ACM or PACM, crumble or pulverize ACM or PACM, or generate visible debris from ACM or PACM. This term includes activities that disrupt the matrix of ACM or PACM, render ACM or PACM friable, or generate visible debris. Disturbance includes cutting away small amounts of ACM 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 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.

Employee exposure - means that exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment.

Equipment room (change room) - means a contaminated room located within the decontamination area that is supplied with impermeable bags or containers for the disposal of contaminated protective clothing and equipment.

Fiber - means a particulate form of asbestos, 5 micrometers or longer, with a length-to-diameter ratio of at least 3 to 1.

Glovebag - means 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.

High-efficiency particulate air (HEPA) - filter means a filter capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles of 0.3 micrometers in diameter.

Homogeneous area - means an area of surfacing material or thermal system insulation that is uniform in color and texture.

Industrial hygienist - means a professional qualified by education, training, and experience to anticipate, recognize, evaluate and develop controls for occupational health hazards.

Intact - means that the ACM has not crumbled, been pulverized, or otherwise deteriorated so that the asbestos it is no longer likely to be bound with its matrix.

Modification - means a changed or altered procedure, material or component of a control system, which replaces a procedure, material or component of a required system. Omitting a procedure or component, or reducing or diminishing the stringency or strength of a material or component of the control system is not a "modification" for purposes of paragraph (g)(6)-of this section.

Negative Initial Exposure Assessment - means a demonstration by the employer, which complies with the criteria in paragraph (f)(2)(iii) of this section, that employee exposure during an operation is expected to be consistently below the PEL.

PACM - means "presumed asbestos containing material".

Permissible Exposure Level (PEL) - A level of airborne fibers specified by OSHA as an occupational exposure standard for asbestos. It is 0.1 fibers per cubic centimeter of air, 8-hour time weighted average, as measured by phase contrast microscopy.
Presumed Asbestos Containing Material - means 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 paragraph (k)(5) of this section.

Project Designer - means a person who has successfully completed the training requirements for an abatement project designer established by 40 U.S.C. Sec. 763.90(g).

Regulated area - means: an area established by the employer to demarcate areas where Class I, II, and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos, exceed or there is a reasonable possibility they may exceed the permissible exposure limit.

Requirements for regulated areas are set out in paragraph (e) of this section.

Removal - means all operations where ACM, ACCM, ACBM, and/or PACM is taken out or stripped from structures or substrates, and includes demolition operations.

Renovation - means the modifying of any existing structure, or portion thereof.

Repair - means overhauling, rebuilding, reconstructing, or reconditioning of structures or substrates, including encapsulation or other repair of ACM or PACM attached to structures or substrates.

Surfacing material - means material that is sprayed, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes).

Surfacing ACM - means surfacing material which contains more than 1% asbestos.

Thermal system insulation (TSI) - means ACM applied to pipes, fittings, boilers, breaching, tanks, ducts or other structural components to prevent heat loss or gain.

Thermal system insulation ACM - is thermal system insulation which contains more than 1% asbestos.

1.03 ASBESTOS HAZARD

A Asbestos-containing material when damaged or disturbed is subject to fiber releases. Wet methods are a primary means of controlling fiber release. Strict compliance with each of the provisions outlined in these specifications for the encapsulation, repair and handling of asbestos-containing material is of great importance, because:

1. The inhalation of airborne asbestos fibers can cause very serious often fatal diseases.

2. Workers may not be aware they are inhaling asbestos fibers.

3. Symptoms of the diseases do no appear for many years.

4. Only the contractor and his employees can prevent the inhalation of asbestos fibers which can lead to the development of asbestos-related disease.

5. No insurance is available to provide for asbestos related disease.

B. Proposition 65 Notice: Under California Health and Safety Code Sections 25249.5 through 25249.13, asbestos has been listed as a chemical known to the State of California to cause cancer. As a Contractor, you and your employees will be working in areas in which asbestos-containing materials are present. This notice constitutes the warning of the presence of a known carcinogen required by Proposition 65. It is your duty to follow all requirements of Proposition 65.

1.04 CONTRACTOR QUALIFICATIONS

A. Licensing, Certification:
The Contractor shall possess all required licenses, registrations, and credentials to perform the work of this specification. All credentials shall be valid, current and in good standing prior to, and throughout all work performed by Contractor. Credentials shall include but no necessarily be limited to: asbestos license issued by the California State Contractors Licensing Board and Department of Occupational Safety and Health Administration (DOSH asbestos registration).

B. Personnel training:
The work specified herein shall be performed by under the direct management and supervision of a competent person and technicians/workers who are trained, knowledgeable and qualified in the state-of-the-art techniques of asbestos abatement, handling and subsequent cleaning of contaminated areas.

C. Project oversight and supervision:
The Contractor must provide a full-time General Superintendent who is experienced in administration and supervision of asbestos abatement projects including work practices, protective measures for building and personnel, disposal procedures, etc. This person shall be the Contractor's Competent Person as required by 40 CFR Part 763 and OSHA in CCR Title 8, § 1529. The Competent person shall be the Contractor's representative responsible for compliance with all applicable federal, state and local regulations, particularly those relating to asbestos-containing material. This person must have completed a course at an EPA Training Center or equivalent certificate course in asbestos abatement procedures, have had a minimum of two (2) years on-the-job training and meet any additional requirements set forth in CCR Title 8, § 1529 for a Competent Person.

1.05 NOTICES AND RECORD KEEPING

A. Contractor shall maintain for at least thirty (30) years, a record for each asbestos project in which the Contractor engages. Each record shall include the following information: The name, address, and social security number of all personnel involved with the project, the name address and social security number of the OSHA "Competent Person" who will supervise the work, the amount of asbestos material that was removed, repaired, encapsulated or disturbed, the commencement and completion date of the work, copies of

Hazardous Waste Manifest(s), personal air monitoring results and any other appropriate information.

B. Special Reports:
Except as otherwise indicated, submit special reports directly to Owner within one day of occurrence requiring special report, with copy to Owner's Representative and others affected by occurrence.

C. Reporting Unusual Events:
When an event of unusual and significant nature occurs at the site (examples: failure of negative pressure system, rupture of temporary enclosures), prepare and submit a special report listing chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. When such events are known or predictable in advance, advise Owner in advance at earliest possible date.

D. Reporting Accidents:
Prepare and submit reports of significant accidents, at site and anywhere else work is in progress. Record and document data and actions; comply with industry standards. For this purpose, a significant accident is defined to include events where personal injury is sustained, or property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury.

E. Daily Logs and Journals:
During the work, Contractor shall maintain a daily log which will be kept at the job site. Items to be included in the daily log shall include but are not limited to the following:

1. Meetings; purpose, attendees, discussions, items of resolution (brief)

2. Visitations; authorized and unauthorized

3. Sign-in sheets of all personnel entering and leaving the work area

5. Personal air monitoring results

1.06 PROJECT SUBMITTALS AND ON SITE DOCUMENTS

A. Pre-Job Submittals:
Before the start of work, submit the following to the Owner's Representative for review. No work shall begin until these submittals have been approved by the Owner or Owner's representative.

1. Work Plan which contains specific information related to site preparation and containment construction, asbestos abatement/removal procedures and hazardous waste handling, load-out and disposal procedures. The Work Plan must also include an Emergency Contingency Plan which, at a minimum, addresses procedures which shall be followed in the event of an accident, breach of containment, power failure, water leakage and fire.

2. Written Respiratory Protection Program that complies with OSHA requirements CCR Title 8, § 1529, CCR subchapter 7 § 5144, CFR 1926.1101 and ANSI Z88.2 -1980 "Practices for Respiratory Protection".

3. Detailed schedule of work to be performed; schedule shall include abatement activities and dates.

4. Waste Transportation and Active Asbestos Waste:

Submit copies of proof of all EPA, DOT, and DHS, licenses, registrations, and certifications for all hazardous waste haulers and active asbestos waste sites intended for use on this project. Provide the name, address, telephone number, contact for each vendor entity.

5. Personnel Training:
   Provide documentation that certifies the training qualifications of the qualified competent Person and all workers who will be assigned to this project. Personnel training for this project shall comply with the training requirements of 40 CFR Part 763 and CCR Title 8, § 1529.

6. Employee Medical Examinations:
   Provide proof of medical examination conducted within the last 12 months in compliance with OSHA regulations, CCR Title 8, § 1529 for each worker who will be assigned to this project.

7. Notifications:
   Provide documentation that the Contractor has obtained all applicable permits and made required notifications from/to all appropriate regulating agencies, including, but not limited to the CAL/OSHA temporary work-site notification and the BAAQMD NESHAPs notification, and any applicable local agencies.

8. Licenses:
   Submit copies of: valid California State contractors license, California State asbestos certification, DOSH registration and all State and Local licenses and permits necessary to carry out the work of this specification.

9. Material Safety Data Sheets:
   Submit the Material Safety Data Sheet, or equivalent, in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) for materials, chemicals, and supplies proposed for use during the work of this specification.

B. Post-Job Submittals:
   Upon completion of the project, the Contractor shall provide 2 copies of all project documentation to the Owner. Post-job submittals shall be provided for final acceptance of the work by the Owner prior to final payment to the Contractor and normal termination of the Contract. This project documentation should include, but is not limited to:

   1. A complete record, certified by the testing laboratory, of all personal air monitoring results with 8-hour TWA data.

   2. All hazardous waste manifests and/or waste shipment records documenting the acceptance of all asbestos waste generated during the project from the designated land fill. The contractor must provide documentation that the designated land fill has been made aware that the materials disposed at it's site contains asbestos.

   3. All field documentation including daily logs, journals, visitors log, DOP test results, special report, etc.

   4. Supporting documentation for completion as indicated in these contract documents.

   5. Submit a statement showing an accounting of any changes to the Contract Sum.

   6. Any and all documents delivered with the pre-job submittal package that that were updated, altered or amended in any way during the project.

7. Employee training, fit test, and medical certificates for any and all personnel who performed work on the project whose certificates were not provided in the pre-job submittal package.

C. On-Site Records
The following records shall be maintained on-site and available for review throughout the entire course of the Work:

1. All pre-job submittal list above.

2. Personal air monitoring results, including 30 minute excursion sampling results and calculated 8 hour TWA exposures for Contractor employees

3. Work Area entry/exit log for each day and each shift of the Work

6. Contractor's IIPP and Hazard Communication Programs

7. Respiratory Protection Program

8. Confined Space Entry Program (if applicable).

9. The contractor will post in a visible place inside or directly outside (as is most convenient) of the clean room a copy of:

- Emergency phone numbers.
- Written work plan and Emergency Contingency Plan.
- Required DOSH postings
- Fire extinguisher locations and inspection data.

1.07 REFERENCE DOCUMENTS

A. All work specified in this document shall conform to the following applicable codes, ordinances, rules, regulations, orders and standards. Where conflicting or overlapping requirements or specifications exist, the more stringent requirements shall apply.

B. The Contractor shall assume full responsibility and liability for the compliance with all applicable Federal, State, and local regulations, standards and guidance documents pertaining to work practices, hauling, disposal, and protection or workers, visitors to the site, and person occupying areas adjacent to the site.

C. Laws and Regulations: Compliance is required with applicable federal, state, municipal, and local regulations, including but not limited to:

1. Federal laws and regulations: Occupational Safety and Health Act, 29 USC 651 et seq., and all applicable Occupational Safety and Health Administration (OSHA) regulations thereunder; Clean Air Act, 42 USC 7401 et seq., and all applicable U.S. Environmental Protection Agency (EPA) regulations thereunder; Hazardous Materials Transportation Act, 49 USC 1801 et seq., and all applicable Department of Transportation (DOT) regulations thereunder.

2. State of California laws and regulations: Hazardous Substances Information and Training Act, Labor Code 6360 et seq.; Labor Code 6401.7, 6408, 6501.5 through 6501.9, 6503.5, 6505.5, 9021.5, 9030; all applicable regulations of the Department of Industrial Relations (DIR) including 8 CCR 340 through 342, 1531, 1509, 3202, 5144, 5156 through 5158, 5194, 5208 and 1529; Hazardous Waste Control Law, Health and Safety Code 25100 et seq., and all applicable Department of Toxic Substances Control (DTSC) regulations

thereunder, including 22 CCR Div. 4.5 et seq.; Safe Drinking Water and Toxic Enforcement Act of 1986, Health & Safety Code 25249.5 et seq., and all applicable regulations thereunder, including 22 CCR 12100 et seq.; Bus. & Prof. Code 7058.5 and corresponding regulations, including 16 CCR Ch. 8.

3. Local laws and regulations: Bay Area Air Quality Management District (BAAQMD), Regulation 11, Rule 2.

D. Codes, Standards and Guidance Documents

1. National and State Fire Code, Electrical Code, Plumbing Code, Building Code, and other related codes where applicable.

2. ASTM - American Society for Testing and Materials

3. ANSI - American National Standards Institute

4. ULI - Underwriters Laboratories, Inc.

1.08 CONSULTANT / OWNERS REPRESENTATIVE

At the Owner's option, ProTech Consulting and Engineering may act as The Consultant and will be the Owner's Representative to Perform the following:

A. Have free access to all asbestos work areas.

B. To assist in interpretation of procedures.

C. To advise on all provisions of the contract documents pertaining to the control of asbestos.

D. Advise client on work stoppage if a situation presenting a health hazard to workers or Owner's employees or occupants of the building is observed. The Consultant shall not have authority to stop work without the clients approval.

E. To act as Owner's liaison in technical matters involving the asbestos-related work.

F. To perform air sampling inside the asbestos work area during the project. The Contractor shall cooperate fully with Consultant, consultant's agents and employees, and ensure cooperation of his/her workers during collection of air samples and work area inspections.

G. Consultant's role in advising the Owner on environmental health matters does not relieve the Contractor's obligation to comply with all applicable Federal, State, and local regulations, standards and guidance documents. Air monitoring results generated by Consultant shall not be used by the Contractor to represent compliance with regulatory agency requirements for monitoring of worker's exposure to airborne asbestos, nor shall any other activity on the part of Consultant represent the Contractor's compliance with applicable health and safety regulations.

PART 2 - MATERIALS AND EQUIPMENT

2.00 MATERIALS

A. The Contractor shall provide all materials and equipment necessary to complete the Work in accordance with applicable regulations and this Specification. Equipment shall be free of asbestos-contamination resulting from use at previous job sites.

B. Deliver all materials in original packages, containers, or bundles bearing the name of the manufacturer and the brand name.

C. Store all materials subject to damage off the ground, away from wet or damp surfaces, and under cover sufficient to prevent damage of contamination. Damaged or deteriorating materials shall not be used and shall be removed from the premises. Materials that become contaminated shall be disposed of in accordance with this specification and applicable regulations.

D. All enclosures shall be constructed of non-combustible materials. Rigid barriers, if applicable, shall have a minimum fire rating of 1 hour.

E. The use of chemicals to remove asbestos-containing mastics or adhesives may not be a terpene based solvent.

F. Ground Fault Circuit Interrupters shall be used on all equipment and temporary circuits.

G. Electrical extension cords shall be of appropriate rigidity and gauge for intended use and shall have an operative ground prong.

H. Electrical outlets and extension cords shall be provided by the Contractor for the purpose of air monitoring by the Owner or Owner's Representative. The Owner or Owner's Representative shall specify where the electrical outlets are needed, both inside and outside of the Regulated Area. Two electrical outlets shall be provided per designated area.

I. Contractor shall have on-site at all times a minimum of one 2A, 10 B:C (or larger) fire extinguisher. For large work areas, Contractor shall provide one fire extinguisher per 10,000 sq. ft, and locate fire extinguishers no further than 75 feet apart, starting from decontamination area entry way. The fire extinguishers shall have been inspected and certified as operative within the past 12 months.

J. The Contractor shall supply a fully stocked First Aid Kit in a visible place inside or directly outside (as is most convenient) of the clean room. The First Aid Kit shall remain on the job site at all times.

K. Adhesive tape shall be capable of sealing joints of adjacent sheet of polyethylene and for use in attachment of polyethylene sheet to finished or unfinished surfaces of similar materials and shall be capable of adhering under dry and wet conditions, including use of amended water.

L. Protective devices such as, but not limited to, disposable clothing, respirators, gloves, hard hats, etc. shall be used.

M. Encapsulant materials shall be the bridging and penetrating type and conform with the following characteristics:

    1. Encapsulants shall not be solvent-based or utilize a hydrocarbon in the liquid in which the solid parts of the encapsulant are suspended.

    2. Encapsulant shall not be flammable.

N. Spray Cement: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.

O. Polyethylene waste bags/containers shall be at least 6 mil's thick. All waste containers shall be leak-tight and bare appropriate labeling as required by this specification and/or applicable regulatory requirements.

2.01 TOOLS AND EQUIPMENT

A. Provide suitable tools for removal of asbestos-containing materials and encapsulations of substrate as required.

B. Provide sufficient number of HEPA-filtered vacuum cleaners equipped with pick-up adapters, steel floor wands, crevice tools, and carpet tools.

C. Airless sprayers capable of spraying amended water shall be provided in sufficient number to allow continuous uninterrupted work.

D. Asbestos filtration devices shall utilize high efficiency particulate air (HEPA) filtration systems.

E. Transportation equipment, as required, shall be suitable for loading, temporary storage, and unloading of contaminated waste without exposure to persons or property, and shall be quiet in motion if used within the building.

PART 3 - EXECUTION

3.00 PROHIBITED ACTIVITIES

A. The following work practices and engineering controls are prohibited and shall not be used under any circumstances:

1. High-speed abrasive disc saws that are not equipped at point of cut with HEPA filtered exhaust devices.

2. Compressed air used to removed asbestos, unless the compressed air is used in conjunction with an enclosed HEPA filtered ventilation system designed to capture the dust cloud created by the compressed air.

3. Dry sweeping, shoveling or other dry clean-up of dust and debris containing asbestos.

4. Employee rotation as a means of reducing employee exposure to asbestos.

B. Smoking, eating, drinking, applying cosmetics and chewing tobacco in regulated areas is prohibited. Hot work is prohibited unless authorized by Owner.

3.01 PERSONAL PROTECTION

A. Because there is no known safe level of exposure to asbestos, it is prudent to reduce worker's exposure to as low a level as possible. Proper respiratory protection is critical in minimizing exposure. No worker shall be exposed to levels greater than 0.01 f/cc over an 8 hour time weighted average as determined by the protection factor of the respirator worn and the work area fiber concentration. In any event, respirator selection shall comply with the minimum requirements required by DOSH per CCR Title 8, § 1529. The following table has been included to aid in determining the proper level of respiratory protection.

Airborne concentration of fibrous dust	Required respirator
Not in excess of 1 f/cc (10 X PEL), or otherwise as required independent of exposure pursuant to (h)(2)(iv)	Half-mask air purifying respirator other than a disposable respirator, equipped with high efficiency filters.
Not in excess of 5 f/cc (50 X PEL)	Full facepiece air-purifying respirator equipped with high efficiency filters.
Not in excess of 10 f/cc (100 X PEL)	Any powered air-purifying respirator equipped with high efficiency filters or any supplied air respirator operated in continuous flow mode.
Not in excess of 100 f/cc (1,000 X PEL)	Full facepiece supplied air respirator operated in pressure demand mode.
Greater than 100 f/cc (1,000 X PEL) or unknown concentration	Full facepiece supplied air respirator operated in pressure demand mode, equipped with an auxiliary positive pressure self-contained breathing apparatus.

B. The Contractor shall provide each employee with personally issued respirators equipped with high efficiency particulate filters. Respirators shall be approved by NIOSH to be worn in the designated work area and/or whenever a potential exposure to asbestos exists. A sufficient supply of filters shall be provided for replacement as required by the workers or applicable regulations. Disposable respirators shall not be used.

C. The Contractor shall provide medical examinations for all employees who may encounter an airborne fiber level of 0.1 f/cc or greater for an eight-hour time-weighted average. In the absence of specific airborne fiber data, provide medical examinations for all workers who will enter the work area and who will be required to ware respiratory protection for reason. Examinations shall meet OSHA requirements as set forth in CCR Title 8, § 1529.

D. The Contractor shall require that a respirator be worn by any person in any regulated work area. Respirators shall be worn at all times, regardless of activity until the area has been cleared for re-occupancy.

E. During encapsulation operations or usage of other organic base aerosols (e.g., spray glue, expanding foam), workers shall be provided with combination cartridges consisting of organic vapor and HEPA section.

F. The use of single-use, disposable, or quarter-face respirators for any purpose shall be prohibited.

G. Fit Testing: Provide initial fitting of respiratory protection during a respiratory protection course of training as per CCR Title 8, § 1529. Fit the type(s) of respirator(s) to be actually worn by each individual. Allow an individual to use only those respirators for which he/she has been trained and fitted.

H. Additional Protective Equipment:

1. Coveralls: Provide disposable full-body coveralls and disposable head covers, and require that they be worn by all workers in the work area. Provide a sufficient number for all required changes, for all workers in the work area.

2. Boots: Provide work boots with non-skid soles, for all workers. Provide boots at no cost to workers. Do not allow boots to be removed from the work area for any reason, after being contaminated with asbestos-containing material. Dispose of boots as asbestos contaminated waste at the end of the work.

3. Goggles: Provide eye protective (goggles) as required by OSHA for all workers involved in scraping, spraying, or any other activity which may potentially cause eye injury.

4. Gloves: Provide work gloves to all workers whose work may require protection of the hands and require that they be worn in the work area. Do not remove gloves from work area and dispose of as asbestos contaminated waste at the end of the work.

5. Respirators, disposable coveralls, head covers, and footwear covers shall be provided by the contractor for the Owner, Owner's Representative, Project Administrator, and other authorized representatives who may inspect the job site. Provide two (2) respirators and six (6) complete coveralls and, where applicable, six (6) respirator filter changes per day.

3.02 AIR MONITORING

A. Compliance Air Monitoring:
1. Personal air monitoring "Exposure Monitoring". should be performed by the contractor as required to meet OSHA requirements as required by CCR Title 8, § 1529. Maintain an average airborne fiber counts within the regulated work area as follows:

Type of Work	Fiber Counts Standard
Work performed within a full negative pressure enclosure system.	0.5 fibers per cubic centimeter (f/cc) over an 8 hour Time Weighted Average (TWA)
Work performed in a regulated area but not in a full negative pressure enclosure system.	0.1 fibers per cubic centimeter (f/cc) over an 8 hour Time Weighted Average (TWA)
Work performed in open areas – glovebag removal, roof abatement, exterior siding removal, etc.	0.01 fibers per cubic centimeter (f/cc) over an 8 hour Time Weighted Average (TWA)

2.. The contractor shall maintain an average airborne fiber count inside of the abatement work area that does not exceed the standard specified above. If fiber counts rise above the standard for any sample taken, revise work procedures to lower fiber counts. If the time-weighted average (TWA) fiber count for any work shift or eight-hour period exceeds the standard, stop all work, **leave negative air system in operation** and notify Owner's Representative. Do not recommence work until authorization in given in writing by the Owner's Representative.

B. Environmental Air Monitoring:

1. At the Owner's option, the Owner's representative will conduct environmental monitoring as the Owner's Representative and as the Owner's Air Sampling Specialist throughout the course of the project. The purpose of environmental (area) air monitoring by the Owner's Representative will be to detect faults in the work area isolation.

2. If environmental air samples exceed 0.01 fibers/CC or are statistically higher than pre-abatement air samples, the Contractor shall:

   * Immediately and automatically stop all work
   • Evacuate affected areas
   • Regulate and isolate affected areas
   • Decontaminate affected areas in accordance with this specification.
   • Leave critical barriers in place until final visual and air clearance is given.
   • Perform all such required cleaning or decontamination at no additional cost to the Owner.

C. Clearance Air Monitoring:

1. Following visual clearance of work areas by the Owner's Representative, air sample will be taken to determine compliance with work area clearance standards. Work areas will be considered cleared when the following criterion are met:

	Air Sample Analysis - Type	Clearance Standard
a.	Transmission Electron Microscopy (TEM) **collected under aggressive conditions.**	less than 70 s/mm^2
b.	Phase Contrast Microscopy (PCM) **collected under aggressive conditions.**	less tan 0.01 f/cc
c.	No air samples required for open air work	N/A

2. The contractor may conduct his own air monitoring and laboratory testing if he elects to do so. The cost of such air monitoring and laboratory testing shall be at the contractors expense.

3.03 SAFETY PROCEDURES FOR POWER AND LIGHTING

A. The use of wet methods for removal, repair, encapsulation or cleaning procedures increases the potential for electrical shock when working around electrical panels, conduit, light fixtures, alarm systems, junction boxes, transformers, etc. In coordination with the Owner, de-energize as much electrical equipment as possible to prevent electrical shock to employees performing the work. The Contractor shall use the following precautions:

1. Use non-conductive tools and vacuum attachments.

2. Utilize "hot line" covers over energized cables and power lines when possible.

3. Ensure all electrical equipment in use is properly grounded before the job starts. Check outlets, wiring, extension cords and power pickups.

4. Avoid stringing wiring across floors. Elevate wiring if possible.

5. Ensure electrical outlets are tightly sealed and taped to avoid water spray.

6. Determine operating voltages of equipment and lines before working on or near energized parts.

7. Energized parts must be insulated or guarded from employee contact and other conductive objects. Extension cords must be three-wire type and connected to a Ground Fault Interrupter (GFI) circuit.

8. Lock or secure de-energized circuits at panel and post warning signs.

3.04 TEMPORARY FACILITIES

A. Use qualified tradesmen for installation of temporary services and facilities. Locate temporary services and facilities where they will serve the entire project adequately and result in minimum interference with the performance of the work and operations of the building.

B. Relocate, modify and extend services and facilities as required during the course of work so as to accommodate the entire work of the project. Provide new or used materials and equipment that are undamaged, clean and in serviceable condition. Provide only materials and equipment that are recognized as being suitable for the intended use, by compliance with appropriate standards.

1. Electrical
   Temporary electrical services (if required) shall comply with applicable NEMA, NECA and UL standards and governing regulations for materials and layout of temporary electric service. Provide receptacle outlets equipped with ground fault circuit interrupters, reset button and pilot light, for plug-in connection of power tools and equipment. Use only grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Use single lengths or use waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas of work.

2. Fire Protection
   Contractor shall have on-site at all times a minimum of one 2A, 10 B:C (or larger) fire extinguisher. For large work areas, Contractor shall provide one fire extinguisher per 10,000 sq. ft, and locate fire extinguishers no further than 75 feet apart, starting from decontamination area entry way. The fire extinguishers shall have been inspected and certified as operative within the past 12 months.

3. General
   At the completion of abatement work, clean all construction aids within the work area and/or wrap in one layer of 6 mil polyethylene sheet and seal before removal from the work area.

3.05 CONTROL WORK AREA ACCESS

A. The area where asbestos abatement work takes place in considered an asbestos contaminated area. The contaminated work area must be isolated from the balance of the building and decontaminated at the completion of the asbestos control work. Critical barriers shall be constructed by applying a double layer of 6 mil plastic sheeting, in an airtight fashion, over all penetrations into and out of the asbestos work area. Penetrations shall include, but are not limited to all doors, openings, holes, penetrations, windows, vents, and drains.

B. Permit Access to the work area only through the Decontamination Unit. All other means of access shall be closed off and sealed and warning signs displayed on the clean side of the sealed access.

C. Warning signs that demarcate the regulated area shall be posted in accordance with Title 8, CCR, Section 1529 (k) (6). Signs shall be posted at all work area entrance and on the public side of all work area barriers that may be accessible to otherwise unknowing persons. Warning signs shall be posted in locations that would allow any person to read the signs from any approach to the work area. The warning signs shall bear the following language:

DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTION CLOTHING ARE REQUIRED IN THIS AREA

3.06 WORK AREA PREPARATION

A. Work Area

1. The abatement contractor must completely isolate the work area from other parts of the building so as to prevent asbestos-containing dust or debris from passing beyond the isolated/regulated area.

2. All movable items of furnishings, equipment, etc., shall be secured in a clean uncontaminated room and covered with plastic sheeting. All non-movable items to be left in place shall be covered with 6 mil. polyethylene sheeting and sealed with duct tape.

B. HVAC System

1. Where possible, disable Ventilating Systems or any other system bringing air into or out of the work area. Disable system by disconnecting wires, removing circuit breakers, by lockable switch or other positive means that will prevent accidental premature restarting of equipment.

2. Isolate the Heating Ventilating and Air Conditioning (HVAC) systems to prevent airflow into or out of the work area. Seal all openings to ducts, fans, louvers, plenums, etc. with two layers of 6 mil. polyethylene sheeting and duct tape. Shut-down and isolation of the HVAC system prior to the start of any asbestos disturbance work. Contractor shall repair

any damage to duct work, grilles, dampers, louvers or other HVAC equipment at the completion of the work.

3. HVAC equipment openings which can not be properly sealed (due to forced air pressure) with polyethylene sheeting and duct tape. Will be hard sealed using 1/4 inch plywood or equivalent and mechanically sealed over air flow openings. Covered all hard sealed HVAC openings with two layers of 6 mil. polyethylene sheeting and duct tape

B. Clean Barriers

Impermeable dropcloths shall be placed on surfaces beneath all removal activity. All objects and surfaces within the regulated area shall be covered with impermeable dropcloths or plastic sheeting which is secured by duct tape or an equivalent.

C. Pre-Cleaning

Perform a general pre-cleaning of the entire work area prior to and following work areas set-up and containment so that it is generally free of non-asbestos trash, plastic, cardboard, debris, and gross amounts dust, etc. The work area shall be as clean as possible to give abatement workers an unencumbered working environment and limit the amount of asbestos waste to be disposed of.

D. Class II Materials

1. Drywall walls and ceilings
   Sheetrock, joint tape and joint compound samples yielded a results of less than 1% asbestos (as a composite) by standard PLM analysis. To prove and treat this material as less than 1%, confirmation analysis by PLM point-count would be required. The Contractor may find it advantages to make this determination.

   Contractor may at Contractors sole expense, elect to have sheetrock, joint tape, and joint compound (sheetrock) tested for waste characterization purposes. Sampling must be performed by a Cal OSHA certified asbestos consultant/technician. If Contractor can demonstrate that asbestos levels in the sheetrock fall below EPA/AQMD's regulated levels, a DOSH registered demolition contractor may be permitted to demolish the structured with the sheetrock in place.

   If this option is exercised, Contractor shall perform all demolition work in compliance with applicable DOSH regulatory asbestos standards.

   a. Critical barriers shall be constructed by applying a double layer of 6 mil plastic sheeting, in an airtight fashion, over all penetrations into the Work Area. Penetrations shall include, but are not limited to all entryways, windows, vents and drains. In addition to plastic sheeting, rigid cover plates may be required on HVAC supply and return vents or other HVAC air duct openings located within the Regulated Area.

   b. A double layer of 6 mil plastic sheeting shall be installed on all Work Area floor (and other non-work) surfaces. All plastic seams/edges shall be sealed in an airtight fashion with duct tape or equivalent materials.

   c. A three stage decontamination area shall be connected to the NPE for personnel entry/exit of the Work Area and include an Equipment Room, Shower Area and Clean Room.

   d. A sufficient number of HEPA filtered air machines shall be installed within the Work Area to maintain a pressure differential of **minus 0.02** column inches of water across

the critical barriers at all times and a minimum of 4 air changes per hour. Air machines shall be placed in a configuration which allows thorough ventilation of the Work Area and movement of contaminated air away from the breathing zone of abatement workers. Air machine exhaust shall be directed outside of buildings, where applicable, and away from occupied areas. Exact location(s) of air machine exhaust shall be arranged between Owner or Owner's Representative and Contractor prior to start of work.

e. A manometer equipped shall be installed to continuously monitor pressure differential inside the Work Area. Air machines shall remain in operation 24 hours a day until final clearance of the Work Area has been achieved.

f. Electric circuits located within the Work Area shall be sealed with plastic, deactivated or equipped with ground-fault circuit interrupters.

g. Where it is not feasible to establish a containment as described above, or when all work is performed outside of buildings, a substitute containment which meets the purpose and intent of a full containment may be constructed if the substitute containment is in compliance with all applicable regulatory requirements and approved by Owner.

2. Roofing Mastic

a. Critical barriers shall be constructed by applying a double layer of 6 mil plastic sheeting, in an airtight fashion, over all openings within, and proximate to, the Work Area including but not limited to: HVAC air intakes, vents, and penetrations.

b. Windows located on the floor below the roof shall be closed and remain closed during abatement activities. Contractor shall coordinate with Owner as to scheduling window closure.

c. If applicable, perimeter railing, barriers or other protective measures shall be installed to protect Contractor employees and visitors and to prevent roofing debris from falling over the edge of the roof.

d. Wet methods shall be used to remove roofing materials that are not intact, or that will be rendered not intact during removal, unless such wet methods are not feasible or will create safety hazards. Adequately wet asbestos- containing materials to be removed prior to stripping and/or tooling to reduce fiber dispersal into the air. Accomplish wetting by a fine spray (mist) of amended water or removal encapsulant. Saturate material sufficiently to wet to the substrate without causing excess dripping. Allow time for water or removal encapsulant to penetrate material thoroughly. If amended water is used, spray material repeatedly during the work process to maintain a continuously wet condition.

e. All ACM debris generated during removal shall be promptly cleaned-up and packaged in leak-tight containers.

f. Asbestos-containing material that has been removed from a roof shall NOT be dropped or thrown to the ground. Unless the material is carried or passed to the ground by hand, it shall be lowered to the ground via crane; hoist; or covered, dust-tight chute utilizing negative air and HEPA equipment:

3.07 PRESSURE DIFFERENTIAL SYSTEM – DRYWALL REMOVAL

A. The contractor shall supply sufficient number of HEPA air filtration devises (AFD) units to continually maintain a pressure differential across all barriers of **minus 0.02** column inches of water. The contractor shall demonstrate that the negative air pressure standard can be maintained throughout project duration. No gross removal of asbestos materials may be initiated until negative air pressure is maintained for a period of eight hours.

B. A manometer equipped with a 24 hour disc recorder shall be installed to continuously monitor pressure differential inside of the asbestos work area. Air filtration machines shall remain in operation 24-hours a day until final clearance of the work area has been achieved.

C. No work involving the removal or disturbance of asbestos shall commence until the specified negative pressure level is met and maintained for a period of **one (1)** hour.

D. AFD(s) shall be operated and maintained in accordance with the manufacturers specifications and guidelines. Proper operation shall include appropriate use and maintenance of the two stage pre-filter and primary HEPA filtration system.

E. Negative Air exhaust: Locate exhaust unit(s) so that makeup air enters work area primarily through decontamination facilities and traverses work area as much as possible.

F. To the extent feasible, vent all AFD exhaust to the outside of building. The Contractor shall ensure that AFD exhaust does not spill directly into occupied areas.

G. Star operation of HEPA filtered AFD fan units before beginning work (before any asbestos containing material is disturbed). After abatement work has begun, run units continuously to maintain a constant negative pressure until decontamination of the work area is complete. Do not turn off units at the end of the work shift or when abatement operations temporarily stop. Do not shut down pressured differential air system during encapsulating procedures, unless authorized by the Consultant in writing.

H. Post Abatement: Prior to final air testing, remove pre-filter and wipe out inside lip of HEPA filtered fan unit.

I. When a final inspection and the results of final air tests indicate that the area has been decontaminated, exhaust units may be removed from the work area. Before removal from the work area, remove and properly dispose of pre-filter, and seal intake to the machine with 6 mil polyethylene to prevent environmental contamination from the filters.

J. Each filter shall be individually tested on site and certified to have an efficiency of not less than 99.97% when challenged with 0.3 µm dioctylphthalate (DOP) particles (or equivalent media). Testing shall be conducted in accordance with Military Standard Number 282 and Army Instructional Manual 136-300-175 A (or equivalent method). Each filter shall bear a UL586 label to indicate ability to perform under specified conditions. A copy of this section shall supplied to the test conductor.

3.08 ASBESTOS ABATEMENT

A. The Contractor shall:

1. Clearly mark and label all emergency exits located within the Regulated Area. Emergency exits shall be kept free of obstructions at all times. A razor knife or other cutting tool shall be posted in the vicinity of each emergency exit located within the Regulated Area and used to facilitate quick exit of the Work Area in an emergency situation.

2. Receive authorization from the Owner or Owner's Representative prior to initiating any asbestos removal activity. Owner or Owner's Representative shall conduct a pre-abatement inspection to ensure compliance with the Specification prior to authorizing start of any asbestos removal activities.

3. Inspect the integrity of all Regulated Area barriers and smoke test for leaks at the beginning of each shift. Any detected leaks shall be sealed prior to start of work.

4. Maintain a log of all personnel entering the Regulated Area. The Contractor shall not allow any person to enter the Regulated Area without prior approval of Owner or Owner's Representative. This includes Contractor employees newly assigned to the job site.

5. Provide authorized visitors with protective clothing, whenever they are required to enter the Regulated Area.

6. Ensure that each worker and authorized visitor shall follow the approved procedures established by the Contractor and the Owner.

7. Perform all work regardless of exposure using:

   a. HEPA vacuum cleaners
   b. wet methods
   c. Prompt clean-up and disposal of asbestos in leak-tight containers

8. Remove all existing asbestos-containing building materials as identified in the project scope of work as follows:

   a. Adequately wet asbestos- containing materials to be removed prior to stripping and/or tooling to reduce fiber dispersal into the air. Accomplish wetting by a fine spray (mist) of amended water or removal encapsulant.

   b. Saturate material sufficiently to wet to the substrate without causing excess dripping. Allow time for water or removal encapsulant to penetrate material thoroughly.

   c. Spray material repeatedly during the work process to maintain a continuously wet condition.

   d. Mist work area continuously with amended water whenever necessary to reduce airborne fiber levels.

   e. Waste shall be packaged prior to each break and at the end of each shift. If applicable, Contractor shall make arrangements with Owner to store ACM waste in a secured area until waste can be removed from the job site.

9. Ensure that the level of respiratory protection worn by Contractor's employees is adequate to protect the employees from exposure to airborne asbestos fibers above the Permissible Exposure Limits.

10. Ensure airborne asbestos fiber levels inside the Work Area do not exceed a ceiling limit of 1 fiber per cubic centimeter (f/cc), as determined by personal or area air sampling, regardless of the level of respiratory protection worn by Contractors employees. If this level is exceeded, Contractor shall take immediate action to reduce airborne fiber concentrations. If this level is exceeded for 2 consecutive shifts, the Contractor shall cease asbestos removal operations and perform necessary clean-up to reduce the airborne asbestos fiber level to below 0.2 f/cc as indicated by subsequent air samplings.

11. Conduct personal exposure monitoring and provide monitoring results within 24 hours after samples are collected to Owner or Owner's Representative.

12. Notify Owner or Owner's representative immediately in the event of a breach of the containment barrier or spill of ACM outside of the Regulated Area. Take protective measures to ensure occupants adjacent to the spill or breach are not exposed to asbestos.

13. In the event of a breach of the containment barrier or spill of ACM outside of the Regulated Area, immediately stop work, repair the breach and clean-up the spilled material using wet methods and HEPA vacuuming.

14. In the event that a non-work area becomes contaminated with asbestos, the Contractor shall immediately and automatically stop all work. If the contaminated area is inside the building and outside of critical barriers, the Contractor shall erect new critical barriers to isolate the affected area from the balance of the building. Erect Critical Barriers at the next existing structural isolation of the involved space (e.g. wall, ceiling, floor, etc.). Decontaminate the affected area in accordance with this specification. Leave critical barriers in place until final visual and air clearance is given.

15. That Contractor shall perform all required cleaning and/or decontamination at no additional cost to the Owner.

16. Shall not encapsulate abated surfaces until the work area has passed final inspection as determined by the Owner or Owner's Representative.

3.09 ENTERING THE WORK AREA

A. Worker decontamination enclosures shall be provided at all location(s) where workers enter or exit the work area. These enclosures will be placed at the most strategic location(s) to allow easy access and usage while maintaining the ability to secure the building during non working hours. The decontamination enclosure unit shall be constructed of ridged materials capable of withstanding crew usage without deterioration for the entire duration of the project.

B. For drywall removal, the decontamination unit will consist of at least a **clean room, a shower room, and an equipment room.** Each room shall be constructed of materials that are leak-tight and air-tight. Each room shall be connected in succession separated by 6 mil polyethylene air locks. Access between any two rooms in the decontamination unit will be through air locks with at least 3 feet separating each curtained door way. The decontamination unit system must fit into an entrance and be sealed in air-tight into the critical barrier system.

1. Clean Room: The clean room will be sized to accommodate the size of the work crew. If lockers are not available storage of the workers personal equipment and street clothing, the contractor may use plastic bags. The contractor must keep the change area clean and dry. Do not allow shower overflow water in the change room. Damp wipe all surfaces twice after each shift with a disinfectant.

2. Shower Room: The shower room shall be constructed with a minimum of a single shower or what ever is adequate for the size of the work crew. Each shower head shall be supplied with hot and cold water. The shower shall be constructed to prevent leakage.

   a. Install a totally submersible waterproof sump pump with a integral float switch inside the collection water pan. Provide sump pump size to pump twice the flow capacity of all showers or hoses supplying the water to the sump. Install a sump capable of pumping debris, sand, plaster or other materials which may wash off during decontamination procedures.

   b. The contractor must install a filtering system for removing contaminants from the drained water. The system must have as a two stage cascading filtering system capable of filtering down to **5 µm or smaller.** Filtered water may then be disposed of into the sanitary sewer.

   c. The contractor shall maintain a supply of filters for the filtering system. The filters will be changed as often as needed to prevent the system from clogging.

3. Equipment/Dirty Room: The equipment room will be used for storage of tools and equipment. Workers will remove dirty protective clothing in this space.

3. Require all workers to adhere to the following personal decontamination procedures whenever they leave the work area. Waste and equipment leaving the abatement area must also be decontaminated in the same manner. Upon entering the asbestos abatement project, **remove street cloths** in the clean change room and put on a respirator and clean protective clothing before entering the equipment room or work area. Before exiting the work area, the following procedures are required;

   a. Remove gross contamination from clothing.

   b. Proceed to the equipment room and remove all clothing except the respirator.

   c. Deposit contaminated clothing in labeled disposal container.

   d. Still wearing the respirator, proceed naked to the shower and clean the outside of the respirator with soap and water while showering.

   e. Remove respirator.

   f. Thoroughly wash and shampoo hair and body.

   g. Remove filters from respirator, if breathing has becomes restricted or as often as the user feels is needful. Dispose of the filter elements in the container supplied for this purpose.

   h. Wash and rinse the inside of the respirator.

   i. Following showering and drying off, proceed directly to the clean change room and put on street cloths

   j. Contaminated footwear shall be stored in the equipment room or disposed of as contaminated waste or cleaned thoroughly inside and out using soap and water before removing from the shower area.

C. For roof mastic removal, worker decontamination area(s) shall be contiguous to the work area and shall be located where workers enter or exit the work area. The decontamination area(s) will be placed at the most strategic location(s) to allow easy access and usage for personnel and shall capable of withstanding crew usage without deterioration for the entire duration of the project; PPE; tools and equipment.

1. Decontamination area(s) shall be equipped with a clean water source for each crew member (a bucket of water for shared uses shall not be permitted); clean, dry towels, HEPA equipped vacuum cleaner; storage area for workers street clothing.

2. Contractor shall keep the change area clean and dry. Damp wipe and HEPA vacuum all surfaces throughout the shift and as needed and at the end each shift.

3. Require all workers to adhere to the following personal decontamination procedures whenever they leave the work area. Upon entering the asbestos abatement project, **remove street cloths** in the clean change room and put on a respirator and clean protective clothing. Before exiting the work area, the following procedures are required;

   a. Remove gross contamination from clothing via HEPA vacuum.

   b. Deposit contaminated clothing in labeled disposal container.

   c. Still wearing the respirator clean the outside of the respirator and body with clean water.

   d. Remove respirator and wash face with clean water.

   e. Remove filters from respirator, if breathing has becomes restricted or as often as the user feels is needful. Dispose of the filter elements in the container supplied for this purpose.

   f. Wash and rinse the inside of the respirator.

   g. Drying off and put on street cloths.

3.10 PACKAGING, LABELING, AND DISPOSAL OF ASBESTOS WASTE

A. It is the responsibility of the Contractor to comply with current Federal, State and local regulations concerning the waste handling, transportation, and disposal of ACM/ACCM.

B. Asbestos Waste Packaging

1. All ACM/ACCM and ACM/ACCM-contaminated materials, supplies, clothing, debris, etc. shall adequately wetted and be placed into leak-proof disposal containers.

2. Personal protective equipment (PPE) i.e. suites/coveralls, respirator cartridges, etc. shall be packaged, labeled, and disposed of with the asbestos removed during use of the PPE.

3. All asbestos waste shall be thoroughly wetted with amended water and placed in a clear, 6 mil pre-labeled asbestos waste bag, goosenecked and sealed with duct tape. The bag shall then be placed into another 6 mil pre-labeled asbestos waste bag, also goosenecked and taped. Labeling shall conform to Title 8, CCR, Section 1529.

C. Labeling

1. Asbestos disposal containers to be labeled as follows:

   a. All ACM containing waste shall be labeled:

DANGER

CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

   b. In addition, all Hazardous ACM waste shall include the following labels:

HAZARDOUS WASTE

STATE AND FEDERAL LAW
PROHIBITS IMPROPER DISPOSAL
IF FOUND, CONTACT THE NEAREST
POLICE OR PUBLIC SAFETY
AUTHORITY OR THE CALIFORNIA
DEPARTMENT OF
TOXIC SUBSTANCE CONTROL

Generator's Name
Address
Manifest No.

RQ, Asbestos, 9, NA2212, III

Cal/EPA & DOT Diamond Label

D. Disposal

1. Obtain any required permits and provide any required notices to the appropriate federal, state and local EPA agencies.

2. Waste manifest forms and/or waste shipment records shall be provided by the Contractor and include all information required by law.

3. Carefully load containerized waste on sealed trucks or other appropriate vehicles for transport. Exercise care before and during transport, to insure that no unauthorized persons have access to the material. Take bags from the work area directly to a sealed truck or dumpster

4. Asbestos-containing hazardous waste materials shall be transported in a completely enclosed shipping container, open truck beds with tarpoline covers are not allowed unless first loaded in sealed drums. Double bagged material may be transported on open trucks if they are loaded in sealed drums. Label drums with same warning labels as bags. Uncontaminated drums may be reused. Treat drums that have been contaminated as asbestos-containing waste and dispose of in accordance with this specification. If the waste shipment consists of non-friable, non-hazardous waste only, the materials may be transported to other than Class II waste sites.

5. Advise the sanitary landfill operator at least twenty-four hours in advance of transport of the quantity of friable and non-friable asbestos material to be delivered.

6. Waste water from wet stripping, shower room, and worker and equipment decontamination systems shall be filtered through a filtration treatment system capable of removing all particles 5 microns or greater in size before it is discharged into the sanitary sewer system.

7. At the burial site sealed plastic bags may be carefully dumped from the truck. If bags are broken or damaged leave bags of ACM waste in the truck and clean entire truck and contents using procedures set forth earlier in these documents.

8. Submit copies of all manifests, waste shipment records, and landfill receipts to Owner.

3.11 PROJECT DECONTAMINATION

A. Work of This Section includes the decontamination of all surfaces of the work area, all equipment in the Work Area and the air in the Work Area which may have been contaminated during abatement activities or which may previously have had elevated fiber counts due to friable asbestos-containing materials in the space.

   1. Carry out a final cleaning of all surfaces within the abatement work area including items of tools, scaffolding and/or staging equipment. Use of damp cleaning methods and mopping, and/or a High Efficiency Particulate Air (HEPA) Filtered vacuum shall be used.

   2. Do not perform dry dusting or dry sweeping.

   3. Use each surface of a cleaning cloth one time only and then dispose of as contaminated waste.

   4. Remove unneeded tools and equipment from the abatement work area via the decontamination unit. Ensure that all equipment leaving the work area has been decontaminated and wrapped in 4 mil plastic sheeting.

B. Following a visual inspection by the Owner's representative perform encapsulation of the abatement area. Abated substrate is to be encapsulated with a white pigmented bridging encapsulant. Apply encapsulant using an airless sprayer in accordance with the manufacturers recommendations. Apply encapsulant liberally over the abated surfaces sufficient to completely cover all areas affected by the work.

C. Maintain negative air pressure for 24 hours to allow negative air machines to clean air of airborne asbestos fibers. Before final air monitoring remove pre-filters and wipe out inside lip of HEPA filtered fan unit.

3.12 FINAL CLEARANCE

A. The Owners Representative shall conduct a final inspection of the work area upon completion of all abatement and clean-up tasks. The contractor shall notify the Owner or Owner's Representative at least 24 hours in advance of the project completion.

B. The Contractor shall not encapsulate abated surfaces until the work area has passed final inspection as determined by the Owner's representative. The Owner's Representative shall inspect work area surfaces for asbestos residue and debris. If any such debris, residue, dust or other matter is found repeat final cleaning and continue decontamination procedure at no additional cost to the owner.

C. Following successful completion of final inspection, the Contractor shall apply an encapsulating agent to all abated surfaces. The Owner's Representative will not conduct final air clearance sampling until the encapsulating agent is completely dry.

D. The Owner's Representative shall conduct aggressive final air clearance as specified and notify the Contractor of results in a timely fashion. In the event that air clearance in not achieved, the Contractor shall re-clean and re-encapsulate the work areas prior to final clearance retake. All costs and fees associated with re-cleaning and re-testing of the work area will be paid by the Contractor.

E. Upon successful completion of final air clearance, as determined by the Owner's Representative, the Contractor shall remove all remaining equipment and plastic sheeting from the work area and restore the abatement work areas and all affected areas to pre-abatement conditions. Any small quantities of residual material found upon removal of the plastic sheeting shall be removed with a HEPA filtered vacuum cleaner and local area protection. If significant quantities, as determined by the Owner's Representative, are found then the entire area affected shall be decontaminated as specified herein.

3.13 GENERAL WORK AREA CLEAN UP

A. Provide final cleaning of the Work at the time authorized by Owner's Representative. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of work to the condition expected from a normal, commercial building cleaning and maintenance program. Comply with the manufacturer's instructions for operations. Clean transparent material, affected by the work including mirrors and window/door glass, to a polished condition, removing substances which are noticeably vision-obscuring material. Replace broken glass and damaged transparent material.

B. Clean project site of litter and foreign substances left during the course of the work. Sweep paved areas which have been affected by the work to a broom clean condition; remove stains, petrochemical spills and other foreign deposits left by the work.

C. Comply with safety standards and governing regulations for cleaning operations. Do not burn waste material at the site. Do not bury debris or excess material on the Owner's property. Do not discharge volatile or other harmful or dangerous material into drainage systems. Remove waste material from the site and dispose of in a lawful manner.

END OF SECTION

ATTACHMENT A2

ProTech
Consulting & Engineering

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Lead-Base & Lead-Containing Materials

Instructions to All Contractors/Bidders

For:

San Leandro Ballpark
(Stand & Press-Box facility)
Teagarden Avenue & Aladdin Avenue
San Leandro, California

PART 1 - INTRODUCTION

1.0 GENERAL

A. This section deals with general requirements and procedures in conjunction with lead-containing materials as identified by **ProTech Consulting & Engineering in our report titled Pre-Demolition/Renovation Asbestos & Lead Survey & Evaluation, Revision 1 (rpt no. 470-MA12).**

B. This specification delineates the basic safety and work requirements for the project. The provisions set forth in this specification will apply as minimum rules to be followed by the contractor, its employees, and any sub-contractors. The sub-contractors may elect to modify these provisions, but only to upgrade or increase the safety requirements, and only with concurrence of the Owner and/or Owner's representative.

C. Contractor must visit the work site to obtain first-hand knowledge of all existing conditions. Contractor is responsible for all unusual conditions or deviations from the specifications that exist at the time of their site examination, and such conditions must be reflected in the bid proposal. Contractor will not be given extra payments above the accepted bid prices for conditions that can be determined by examining the site and all Contract Documents prior to the submission of proposals.

1.1 SCOPE OF WORK

B. A. The work of this specification includes the removal, handling, packaging, and disposal of materials containing lead (Pb) as identified by **ProTech Consulting & Engineering in our report titled Pre-Demolition/Renovation Asbestos & Lead Survey & Evaluation, Revision 1 (rpt no. 470-MA12).**

B. Each contractor who performs work at this site and impacts painted/coated surfaces shall:

1. Review lead-paint inspection data to assess if their particular work will impact lead-based paint (LBP) and/or lead-paint containing paint (LCP).
2. Contractor who will LBP and/or LCP shall ensure that all work is performed in accordance with applicable regulatory standards, this specification and other applicable contract documents.

C. Two types of lead-related construction materials have been found to be present at this project as follows:

Types of Lead Materials			
	Lead Level	Analysis Type	Standard
1.	**Low Lead:** Lead containing material (LCM)	By XRF: By Paint Chip:	<1 mg/cm^2 <0.5 wt % of 5,000 mg/kg
2.	**No lead**: no lead detected by paint chip analysis	By XRF: By Paint Chip:	Requires paint chip confirmation No lead Detected or <0.006 wt %
Note: No High lead materials (lead-based paint/materials) were identified on this project			

C. For purposes of this project, any coated surfaces/components for which no data are available shall be assumed to contain detectable lead for Cal OSHA compliance purposes. The Contractor may, at Contractors sole expense perform addition paint testing and analysis by Atomic absorption (AA) spectroscopy to exclude building components form the special lead handling requirements of this specification. Deviations from this specification as a result of such testing must be submitted by the Contractor in writing. Deviations shall be subject to the review and approval of the Owner's Representative.

D. The Contractor shall obtain any necessary building or waste permits and notify local authorities if jurisdiction requires it.

1.2 CONTRACTOR QUALIFICATIONS

A. The work specified herein shall be performed by competent persons trained, knowledgeable and qualified in the state-of-the-art techniques of lead-related construction work, handling and subsequent cleaning of lead contaminated areas.

C. Project Supervisor – Competent Person:
The Contractor must provide a full-time General supervisor who is experienced in administration and supervision of lead-related construction projects. The supervisor shall possess current credentials as follows:

- Training required by Cal OSHA per Title 8 CCR 1532.1.
- Certification issued by the California Department oh Public Health
- Training and certification compliant with US EPA per 40 CFR 745.80, Subpart E

The Contractors' competent person shall be capable of preventing, elimination and identifying existing lead hazards associated with the project. The supervisor shall have a work knowledge of, and the ability to read, understand and correctly interpret all the project documents and applicable regulatory standards. The Supervisor shall be trained, as required by Cal OSHA, and be CDPH certified. In addition, the Supervisor shall demonstrate that he/she has a minimum of two (2) years on-the-job experience.

C. Training – Lead Worker:
All workers assigned to tasks involving lead-related work shall possess current credentials as follows:

- Training required by Cal OSHA per Title 8 CCR 1532.1.
- Certification issued by the California Department oh Public Health

D. Licensing, Certification:
- The Contractor must hold a current, valid license issued by the California State Contractors Licensing Board.

- Firms performing lead-based paint work in target housing or child occupied facilities must be certified by the US EPA (per 40 CFR 745.80, Subpart E).

D. Reporting Unusual Events:
When an event of unusual and significant nature occurs at the site (examples: failure of the containment system, injury, environmental exposure, etc.), prepare and submit a special report listing chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. When such events are known or predictable in advance, advise Owner in advance at earliest possible date. Except as otherwise indicated, submit special reports directly to Owner within one day of occurrence requiring special report, with copy to Owner's Representative and others affected by occurrence.

E. Reporting Accidents:
Prepare and submit reports of significant accidents, at site and anywhere else work is in progress. Record and document data and actions; comply with industry standards. For this purpose, a significant accident is defined to include events where personal injury is sustained, or property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury.

F. Daily Logs and Journals:
During the work, Contractor shall maintain a daily log which will be kept at the job site. Items to be included in the daily log shall include but are not limited to the following:

1. Meetings; purpose, attendees, discussions, items of resolution (brief)

2. Visitations; authorized and unauthorized

3. Sign-in sheets of all personnel entering and leaving the work area

5. Personal air monitoring results – submit within 24 hours of sample collection

1.3 PRE-JOB SUBMITTALS

Before the start of work, submit the following to the Owner's Representative for review. No work shall begin until these submittals have been approved by the Owner or Owner's representative.

A. Experience:
Provide the name and location of at least three lead projects of comparable size and complexity with this work. Provide the name and telephone number of contact person at previous projects. Provide the final air monitoring decontamination fiber levels achieved.

B. Written Compliance program.
Prior to commencement of the job the Contractor shall establish and implement a written compliance program to achieve compliance with Cal OSHA requirements and HUD guidelines. The written programs shall be available at the worksite for examination and copying. The written plan shall include at least the following:

1. A description of each activity in which lead is emitted; e.g. equipment used, material involved, controls in place, crew size, employee job responsibilities, operating procedures and maintenance practices;

2. A description of the specific means that will be employed to achieve compliance and, where engineering controls are required engineering plans and studies used to determine methods selected for controlling exposure to lead;

3. A report of the technology considered in meeting the PEL;

4. Air monitoring data which documents the source of lead emissions;

5. A detailed schedule;

6. A work practice program which includes items required by Cal OSHA and prescribed by HUD.

7. An administrative control schedule as required by Cal OSHA

8. A description of arrangements made among contractors on multi-contractor sites with respect to informing affected employees of potential exposure to lead and of regulated areas.

9. Other relevant information.

10. Schedule of frequent and regular inspections of job sites, regulated areas, materials, and equipment to be made by a supervisor.

11. Include in the plan specific procedures for decontamination and work area isolation and set-up. Provide diagrams showing negative air placement (if applicable), decontamination locations, staging areas and waste bag-out areas. Note that nothing in-this specification should impede safe exiting or providing of adequate medical attention in the event of an emergency.

C. Waste Transport/Active Asbestos Waste Site
Submit copies of proof of all EPA, DOT, and DHS, licenses, registrations, and certifications for all hazardous waste haulers and active lead waste sites intended for use on this project.

D. Worker Documentation:
Provide current documentation for each qualified competent Person and workers who will be assigned to the project. Submit documentation as follows:

1. Cal OSHA and CDPH Training Certification.
2. Biological - blood lead test for all Workers prior to project commencement.
3. Physician medical release for each Worker – written approval to don respiratory protection without restriction.
3. Respiratory fit test documentation.

E. Notifications:
Submit copies of any required notifications sent to federal, state and/or local agencies as required by applicable local, state and federal regulations.

F. Permits:
Submit copies of any required permits required by state and/or local regulations.

G. Licenses:
Submit copies of: valid California State Contractors License, and Local licenses and permits necessary to carry out the work of this contract.

H. Material Safety Data Sheets:
Submit the Material Safety Data Sheet, or equivalent, in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) for applicable material proposed for use on the work including but not limited to encapsulant, surfactant, spray adhesive etc. Include a separate attachment for each sheet indicating the specific worker protective equipment proposed for use with the material indicated.

1.4 PUBLIC SAFETY AND PUBLIC CONVENIENCE

A. The Contractor(s) shall take all necessary measures to ensure the safety of the general public and adjacent residents throughout the course of this project. The Contractor shall take adequate measures to make the building or work areas inaccessible to the public (such as temporary fencing if necessary).

B. The Contractor shall ensure that lead (in any form) does not contaminate the project site or adjacent property during this demolition process.

1.5 REGULATIONS

A. Contractors are required to follow all Federal, State, and local standards that regulate lead-related construction work and lead disposal including but not limited to: the California Department of Public Health, U.S. Environmental Protection Agency (EPA), the California Department of Occupational Safety and Health (Cal-OSHA), and any other applicable federal, state and local government regulations pertaining to lead containing materials, lead-based paints (LBP) and other lead-containing wastes.

B. The Contractor and all subcontractors shall ensure that each employee who will or may handle, impact, or otherwise disturb lead or encounter lead contaminated areas:
   1 Receive proper and sufficient Cal OSHA and CDPH compliant training.
   2 Receive proper and sufficient personal protection equipment

C. Lead-based paint and lead-containing paint materials and waste shall be handled in accordance with applicable laws and regulation. In the event of conflict, the more stringent requirement will apply. The Contractor(s) is alerted to, and shall become familiar with all laws and regulations regarding the generation, management, handling, characterization and disposal of lead (Hazards materials) including:

   1 Environmental Protection Agency National Ambient Air Quality
   2 Standards, as applicable (40 CFR 61)

3 Occupational Safety and Health Administration (inclusive of OSHA 29 CFR 1919.134 and 1926.62)
4 California Department of Occupational Safety and Health (inclusive of Cal/OSHA 8 CCR 1532.1, 3203, 5155, 5194, 5216)
5 California Environmental Protection Agency (Cal-EPA), (22 CCR Section 66000, et seq.)
6 California Department of Public Health (17 CCR Sections 3500061000)
7 Resources Conservation and Recovery Act (42 U.S.C. Section 6901 et seq., and regulations 40CFR part 260 et seq.)
8 California Health and Safety Code (Division 20 and regulations, and 22 CCR section 66000 et seq.).
9 Resource Conservation and Recovery Act
10 Federal Occupational Safety and Health Administration (Fed/OSHA) (29CFR 1910.134 and 1926.62)
11 Federal Environmental Protection Agency (Fed/EPA) (40 CFR50 et seq.) Federal Department of Transportation (49 CFR)
12 Other applicable federal, state, and local governmental regulations pertaining to lead hazards and lead waste.

PART 2 - WORKER PROTECTION

2.0 DESCRIPTION

A. This program is essential in minimizing risk of lead exposure to workers. The Contractor will minimize exposure to hazards through the use of engineering controls and good work practices. Respirators will not to be used as the primary or sole means of protection. Work practices and engineering controls will be implemented to reduce employee exposure to the greatest extent possible. Wetting the materials thoroughly will be the major engineering control. A negative air machine is running to help eliminate some of the air-borne lead materials. All debris will be cleaned up promptly.

B. Worker Protection will include respirator protection. protective clothing, gloves, and equipment, housekeeping, hygiene practices and medical surveillance.

C. Inhalation of lead dust and fumes, and ingestion resulting from contact with lead-contaminated food, cigarettes, clothing, or other objects, are the major routes of worker exposure to lead. Once absorbed, lead accumulates in the blood, soft tissues, and bones, with the highest accumulation initially in the liver and kidneys. Lead is stored in the bones for decades, and may cause toxic effects in adults as it is slowly released overtime. Chronic overexposure to lead results in damage to the kidneys, the central nervous system, the reproductive system, and the blood-forming organs. Adverse health effects in adults include: abdominal discomfort, anemia, colic, constipation, excessive tiredness, fine tremors, headache, high blood pressure , irritability, loss of appetite, muscle joint pain, sexual impotence, pigmentation on the gums, and others.

D. There are two primary routes of lead poisoning in occupation settings, they are;

1. Ingestion:
   Ingestion generally occurs by normal hand-to-mouth activity (such as eating) after hands have been in contact with lead dust or contaminated items.

2. Inhalation:

Inhalation, or breathing of airborne lead generally occurs when lead coated surfaces or lead contaminated dust is disturbed and lead dust is released into the working environment.

E. Employers of employees who perform lead-related work are responsible for the development and implementation of a worker protection program in accordance with Title 8 CCR 1532.1. This program is essential in minimizing the worker risk of lead exposure.

F. The most effective way to protect workers is to minimize exposure through the use of engineering controls and good work practices. It is OSHA policy that respirators are not to be used as the sole means of protection when engineering controls are feasible to reduce employee exposure.

G. At a minimum, the following elements should be included in the employer's worker protection program for employees exposed to lead.

- Hazard Determination
- Worker Protection including: respirator protection, protective clothing and equipment, housekeeping, hygiene practices and medical surveillance.
- Worker Training and record keeping

2.1 WORKER EXPOSURE

A. The Contractor will limit airborne exposure to lead dusts in the workplace to the greatest extent possible with engineering controls and/or respiratory protection.

B. Initial monitoring will be performed that is representative of each affected employees 8-hour time weighted average (TWA) exposure to lead. The contractor shall collect full-shift personal air samples for affected employees that is representative of daily exposure to lead. Personal exposure monitoring shall include one sample for each job classification in each work area. Employee lead exposures shall be monitored by the Contractor in accordance with Cal OSHA standard Title 8 CCR 1532.1.

C. If the initial monitoring shows exposure levels to be below the Action Level of 30 $\mu g/m^3$, no further exposure assessment is required unless there is a change of equipment, process, control methods, personnel, or a new task is initiated.

D. If the action level (AL) of 30 micrograms per cubic meter of air (µg/m3) is exceeded, without regard to respiratory protection, compliance activities with Title 8 CCR 1532.1 will be implemented. Exposures above the permissible exposure limit (PEL) of 50 µg/m3 will not be permitted. Proper respiratory protection will be enforced to maintain exposure limits below the PEL (see respiratory protection).

2.2 MONITORING

A. Personal monitoring
   1. Personal air monitoring shall be the responsibility of the Contractor. The contractor shall collect full-shift personal air samples representative of each affected employee and each

lead-related work task. Initial monitoring will be performed that is representative of each affected employees 8-hour time weighted average (TWA) exposure to lead. Daily personal monitoring will be performed on a minimum of 20% of the employees for each lead-related work activity. The Contractor shall post personal air monitoring results on the job site within 48 hours from collection. Employees will be given the opportunity to observe monitoring results.

2. If the initial monitoring shows exposure levels to be below the Action Level of 30 $\mu g/m^3$ for a particular activity, the Contractor shall implement a periodic monitoring schedule (for that particular activity).

3. Additional monitoring is required if there is a change of equipment, process, control methods, personnel, or a new task is initiated.

B. Environmental Monitoring

1. Air sampling may be conducted in areas adjacent to lead related work activities to document and monitor the effectiveness of engineering control procedures. Air samples shall be collected at the perimeter (outside) of active lead-related construction work. Perimeter monitoring will be performed to detect contamination outside of the regulated work area as a result of inadequate engineering controls and/or work practices. Samples may be collected as needed immediately adjacent to the lead abatement work in locations most vulnerable to contamination migration. Environmental air sampling, when conducted will be performed by the Owner's Representative.

2. If the environmental monitoring yields results in excess of 30 micrograms per cubic meter of air (ug/m3) or background levels (which ever is greater) as established by pre-construction monitoring, the Contractor shall extend the regulated area to include all affected areas. The Contractor shall contaminate all areas until HUD clearance criterion can be established.

2.3 RESPIRATORY PROTECTION

A. Until an exposure assessment is made by the Contractor, all employee performing lead-related trigger activities shall be treated as if exposed above the personal exposure limit (PEL, 50 mg/m^3) based on the following table:

Trigger Activity	Anticipated Exposure ($\mu m/m^3$)
• Manual demolition • Manual scraping and sanding • Heat gun use • Use of power tools with dust collection systems • Spray painting with lead paint • Any other activity that the employer has any reason to believe that an employee may be exposed in excess of the PEL.	Greater than 50
• Using lead containing mortar • Lead burning • Rivet busting • Power tool cleaning without dust collection system • Clean-up of dry abrasive blast residue.	Greater than 500

• Abrasive blasting • Welding • Cutting • Torch burning.	Greater than 2500

B. The following respiratory protection is required for exposure to lead aerosols:

Anticipated Exposure	Required Respirator
Greater than 50 μm/m^3	Half-mask, air purifying
Greater than 500 μm/m^3	Full-face, air purifying, or Tight fitting PAPR, or Supplied air, contiguous flow
Greater than 2500 μm/m^3	Supplied air, pressure demand

C. All respirators are required to be equipped with high efficient particulate air (HEPA) filters.

D. When chemicals and/or other restorable hazards are introduced into the project appropriate respiratory protection and other personal protective equipment will be utilized in accordance with manufacture and MSDS recommendations.

E. Respirators (NIOSH-approved) will be provided by Contractor when such equipment is deemed necessary to protect the health of the employee. Contractor shall provide respiratory protection devices which are applicable and suitable for the purpose intended. Contractor shall be responsible for the establishment and maintenance of the respiratory program.

F. Employees are required to wear a respirator when employee exposure to lead exceeds the PEL. The employer will provide a respirator to the employee at no cost. The employer will provide respirator training to all employees who wear a respirator. Medical exams per Title 8 CCR 1532.1 and CCR Subchapter 7. General Industry Safety Orders § 5144 will be provided at no cost to all employees who wear a respirator. The employee will be fit tested at initial assignment and at every 6 months, or after weight gain/loss of 15 pounds or more, growing/shaving mustache, facial deformation-dental work. The employer shall institute a written respiratory protection program.

G. For the safe use of any respirator, it is essential that the user be properly instructed in its operation and maintenance. Both supervisors and employees of Contractor, and its sub-contractors, shall be so instructed. Employees of Contractor, and its sub-contractors, shall be instructed and trained in the proper selection and use of respirators and their limitations. The Contractor employee, and those of sub-contractors, shall use the provided respirator in accordance with instructions and training received. All training shall be documented with records retained in the employee's training files.

H. A written Respiratory Protection Program which complies with 29 CFR, part 1910, section 134, and California Code of Regulations (CCR) Title 8 CCR, sections 1532.1 will be maintained and kept on site throughout the project.

2.4 PERSONAL PROTECTIVE EQUIPMENT

A. Until an exposure assessment is performed by the Contractor, the Contractor shall implement employee protective measures as described in Title 8 CCR 1532.1:

1. Appropriate respiratory protection
2. Appropriate personal protective clothing and equipment
3. Appropriate change areas
4. Appropriate hand wash facilities
5. Biological monitoring (blood testing)
6. Appropriate training

B. The Contractor will provide protective clothing to all employees potentially exposed to lead dusts during the work shift. Clean protective clothing will be provided to the employee on a daily basis at no cost to the employee. Lead contaminated work clothing will be removed in change rooms before lunch and at the end of the work shift. Soiled work clothes will be stored in closed, labeled containers. Waste work clothes will be sampled for lead content prior to disposal.

C. Protective goggles, gloves, hard-hats , disposable clothing, etc. will be provided to all employees potentially exposed to lead dusts or debris during the work shift.

2.5 MEDICAL MONITORING

A. Blood Testing:

1. Contractor(s) shall implement a biological monitoring program for this project. The program will consisting of biological monitoring (blood testing) and analysis for lead and zinc protoporphyrin levels.

2. Employee's will be tested immediately be the start of the project, no employees shall be assigned to this project whose blood lead is at or above 40 µg/dl.

B. Physical Examination:

1. Contractor(s) whose employees who are required to don respiratory protection shall implement a Medical Surveillance Program. Employees must be cleared by the examining physician to wear a respirator and protective clothing while performing their project duties.

2. All personnel on-site shall have successfully completed a pre-placement or periodic medical examination in accordance with established Contractor policies and procedures, and consistent with the provisions of the OSHA respiratory standard 29 CFR 1910.134 nd Cal OSHA lead standard Title 8, 1532.1.

2.6 EMPLOYEE INFORMATION AND TRAINING

The Contractor will provide an information and training program, at least annually, to all employees potentially exposed to lead. This program will inform employees of the health hazards associated with lead exposure, the contents of Tile 8 Section 1532.1, the proper selection, fitting

and use of respirators, the medical surveillance program, the employees access to records, engineering controls and work practices associated with the employees job assignment

2.7 RECORD KEEPING

The Contractor will keep records of all exposure monitoring for airborne lead. The records shall include the following information for each sample: date collected, sample number, duration, result, analytical method, activity represented, employees names and SS#'s represented, type of respiratory protection used.

PART 3 - EXECUTION

3.1 REGULATED AREAS

A. The Contractor will establish a regulated area where lead may be impacted and/or disturbed. Only authorized personnel may enter the regulated area. All persons entering the regulated area will be supplied with and required to wear appropriate personal protective equipment and respiratory protection.

B. Warning signs will be posted at the entrance to each regulated area. The sign will read as follows:

WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING
AUTHORIZED PERSONNEL ONLY

3.2 CAL OSHA COMPLAINCE

A. All Contractors/employers whose employees may impact or perform trigger activity associated with lead-based paint or lead containing materials shall comply with the requirements, standards and work practices codified by Cal OSHA lead construction standard per CCR Title 8 § 1532.1. Each Contractor/employer shall:

1. Make an assessment as to the applicability of the Cal OSHA lead construction standard relative their specific work. Cal OSHA standards are designed to regulate and enforce on-the-job worker safety. Employers are required by law to ensure that employees are not exposed to airborne lead levels which exceed the permissible exposure limit (PEL). The standard requires worker exposure monitoring, medical surveillance, training, special work practices, etc.

2. Contractors/employers whose employees will be working on this project are required to assess lead exposure risk to their employees (as per Cal OSHA lead standard CCR Title 8 § 1532.1). In making this evaluation, contractors should:

   a. Review all lead related documents and reports.

   b. Become familiar and comply with Cal OSHA and other applicable lead regulations.

c. Make an assessment to determine potential worker exposure relative to the various lead-related construction work to be performed.

d. Collect supplemental data/samples if necessary.

e. Assess and monitor worker lead exposure levels during the performance of lead trigger tasks or other activities that may potentially expose workers to levels above the Cal OSHA permissible exposure level.

f. Determine compliance requirement relative to DOSH notification rules.

3. Cal OSHA requires compliance with their lead construction regulation when:

a. The permissible exposure limit (PEL) will or may be exceeded. The PEL is an exposure to airborne lead dust of 50 micrograms of lead per cubic meter of air (50 $\mu g/m^3$) over an 8 hour time weighted average (TWA).

b. Employees perform "trigger activities" that impact a material containing lead in any detectable amount. Cal OSHA mandates that an employer assume the PEL will be exceeded when his/her employees conduct "trigger activities" involving lead.

	Trigger Activity
Level 1	• Manual demolition • Manual scraping and sanding • Heat gun use • Use of power tools with dust collection systems • Spray painting with lead paint • Any other activity that the employer has any reason to believe that an employee may be exposed in excess of the PEL.
Level 2	• Using lead containing mortar • Lead burning • Rivet busting • Power tool cleaning without dust collection system • Clean-up of dry abrasive blast residue.
Level 3	• Abrasive blasting • Welding • Cutting • Torch burning.

4. If Cal OSHA lead compliance is required, contractor(s) shall adhere with the following requirements:

a. Construct Project Hygiene Facilities and implement decontamination policies in accordance with the Cal OSHA lead construction standard. Worker decontamination station shall be provided at all locations where worker enter or exit the work area. The decon station shall be placed at the most strategic location to allow easy worker access. The Contractor must install a filtering system for removing contaminants from the drained water. The system must have as a two stage cascading filtering system capable of filtering down to 5 µm or smaller. Filtered water may then be disposed of into the sanitary sewer. The Contractor shall maintain a supply of filters for the filtering system. The filters will be changed as often as needed to prevent the system from clogging.

b. Determine if any employee may be exposed to lead at or above the action level (30 mg/m^3). This assessment is made by taking at least one full shift personal air sample for each job classification.

c. Until an exposure assessment is made, any employee performing a trigger activity, shall be treated as if exposed above the personal exposure limit (PEL, 50 mg/m^3).

d. Until an exposure assessment is performed, the employer must implement employee protective measures per Cal OSHA - CCR Title 8 § 1532.1 including:

- Appropriate respiratory protection
- Appropriate personal protective clothing and equipment
- Appropriate change areas
- Appropriate hand wash facilities
- Biological monitoring (blood testing)
- Appropriate training

e. Implement engineering controls and work practice controls, including administrative controls, to reduce and maintain employee exposure to lead at or below the PEL or to the lowest feasible level. If engineering controls can not reduce exposures below the PEL, supplement controls with appropriate respiratory protection.

f. Prior to the job, establish and implement a written compliance program to ensure that no employee is exposed to lead above the PEL. The program must address the specific issues outlined in Cal OSHA - CCR Title 8 § 1532.1.

g. Respirator use is required when:

- Employee exposure exceeds the PEL
- Employee requests it
- During the initial exposure assessment

h. If required, implement a respiratory protection program addressing the specific elements outlined in the OSHA respiratory protection standard (CCR Subchapter 7. General Industry Safety Orders § 5144).

i. If required, implement a medical surveillance program for employees exposed on any day to lead at or above the action level. The medical surveillance program must address the specific elements in the standard including (but not limited to):

- Initial medical surveillance consisting of biological monitoring (blood testing) and analysis for lead and zinc protoporphyrin levels.
- Employee notification of blood test results.
- Medical examinations and consultation under certain circumstances.

j. Post appropriate warning signs (as prescribed in the standard) in each regulated area or work area where an employee's exposure to lead is above the PEL.

k. The employer must establish and maintain an accurate record of:

- Exposure assessment data

- Medical surveillance data
- Observation procedures

I. Contractors/Employers whose employees disturbs more that 100 sq ft of lead-based paint (LBP) are required to submit written notification to Cal OHSA (per Health and Safety Code, Title 17 CCR Section 36000 (c)). The Cal OSHA LBP notification rule under requires 24-hour advance notice prior to LBP disturbance.

3.3 SITE PROTECTIVE CONTROLS

A. Where containment is required to prevent migration of lead paint contaminants to another property, containment barriers shall be at least as effective at protecting human health and the environment as those contained in HUD's Guideline for the Evaluation and Control of Lead-Based Paint Hazards in Housing and Lead Paint Removal Guide published by the Steel Structure Painting Council.

C. General Dust Controls: Implement engineering controls as necessary to reduce airborne exposures to lead to the greatest extent possible. Engineering controls shall include but not necessarily be limited to:

1. Misting of the work area as necessary to eliminate visible emissions beyond the regulated area during active demolition.

2. Collect all lead debris and lead contaminated waste for proper waste profiling, packaging, labeling, and disposal.

3. Power tools used for lead-paint removal (if performed) shall be equipped with attached HEPA vacuums to collect lead dust emissions generated by the power tool(s).

4. Install worker decontamination facilities immediately adjacent to the work area entry/exit.

5. If any of the containment systems are damaged in any way, repairs will be made immediately.

3.4 METHODS OF COMPLIANCE

A. The following work practices shall be used to reduce employee and environmental exposure during any/all work were exposure to lead could potentially exceed Cal OSHA's action level:

1) Wet removal of lead-containing materials.

2) Routine clean-up of loose lead containing debris.

3) Use of vacuum cleaners and Local exhaust ventilation machines equipped with high efficiency particulate air (HEPA) filters.

4) A containment system to control disbursement of leaded dust and debris.

3.5 CONTAMINATION

Should lead be detected outside of the regulated work area at or above 30 mg/m^3 or in excess of baseline air sample or dust wipe levels, the area will be considered contaminated. The areas outside the work area will be HEPA vacuumed and wet wiped with a trisodium phosphate solution until clearance or baseline levels are achieved.

3.6 PERSONELL AND EQUIPMENT DECONTAMINATION PROCEDURES

A. When exiting the lead regulated the work area, workers will remove gross contamination with a HEPA vacuum and dispose of work garments in a provided waste container dedicated for the disposal of lead-contaminated items. Workers will then proceed to a decontamination station equipped, at a minimum with running water, soap and disposable towels will be provided. All personnel exposed or potentially exposed to lead will be required to use the wash station at the beginning of each break, before lunch, and at the end of each shift to clean hands and face.

B. All tools, equipment, and non-disposable items used inside the work area shall be completely decontaminated before removal from the regulated area. Decontamination shall be accomplished by HEPA vacuum (when possible) and wet wiping with a mild detergent and water solution.

C. 3-Stage Decontamination Facility shall be provided IF workers are shown to be exposed at levels exceeding the permissible exposure limit.

1. A 3-stage decontamination facility equipped with a shower unit (equipped with hot and cold running water) shall be constructed for any/all work where lead exposures are expected to exceed the PEL.

2. The decontamination facility and decontamination procedures may be down-graded to a hand wash facility once (if) personal air monitoring data show all work activities generate lead exposures below the PEL.

3. Worker decontamination station shall be provided at all locations where worker enter or exit the work area. The decon station shall be placed at the most strategic location to allow easy worker access

   a. The 3-satge decontamination facility shall consist of the following

      - Clean Room: The clean room will be sized to accommodate the size of the work crew. If lockers are not available storage of the workers personal equipment and street clothing, the contractor may use plastic bags. The contractor must keep the change area clean and dry. Do not allow shower overflow water in the change room. Damp wipe all surfaces twice after each shift with a disinfectant.

      - Shower Room: The shower room shall be constructed with a minimum of a single shower or what ever is adequate for the size of the work crew. Each shower head shall be supplied with hot and cold water. The shower shall be constructed to prevent leakage.

        - Install a totally submersible waterproof sump pump with a integral float switch inside the collection water pan. Provide sump pump size to pump twice the flow capacity of all showers or hoses supplying the water to the sump. Install

a sump capable of pumping debris, sand, plaster or other materials which may wash off during decontamination procedures.

- The contractor must install a filtering system for removing contaminants from the drained water. The system must have as a two stage cascading filtering system capable of filtering down to **5 µm or smaller.** Filtered water may then be disposed of into the sanitary sewer.

- The contractor shall maintain a supply of filters for the filtering system. The filters will be changed as often as needed to prevent the system from clogging.

- Equipment/Dirty Room: The equipment room will be used for storage of tools and equipment. Workers will remove dirty protective clothing in this space.

4. Each room of the decontamination unit will shall be constructed of materials that are leak-tight and air-tight. Each room shall be connected in succession separated by 6 mil polyethylene air locks. Access between any two rooms in the decontamination unit will be through air locks with at least 3 feet separating each curtained door way.

5. Require all workers to adhere to the following personal decontamination procedures whenever they leave the work area. Upon entering the asbestos abatement project, **remove street cloths** in the clean change room and put on a respirator and clean protective clothing before entering the equipment room or work area. Before exiting the work area, the following procedures are required;

   a. Remove gross contamination from clothing with a HEPA vacuum.

   b. Proceed to the equipment room and remove all clothing except the respirator.

   c. Deposit contaminated clothing in labeled disposal container.

   d. Still wearing the respirator, proceed to the shower and clean the outside of the respirator with soap and water while showering.

   e. Remove respirator.

   f. Thoroughly wash and shampoo hair and body.

   g. Remove filters from respirator, if breathing has becomes restricted or as often as the user feels is needful. Dispose of the filter elements in the container supplied for this purpose.

   h. Wash and rinse the inside of the respirator.

   i. Following showering and drying off, proceed directly to the clean change room and put on street cloths

   j. Contaminated footwear shall be stored in the equipment room or disposed of as contaminated waste or cleaned thoroughly inside and out using soap and water before removing from the shower area.

3.7 DAILY AND FINAL CELANING OF LEAD WORK AREAS

A. Contractor shall ensure that lead work areas undergo daily and final cleaning.

B. Contractor shall conduct work area cleaning as follows:

1. Work area cleaning shall begin with a thorough HEPA vacuuming of all surfaces, starting at the ceilings, proceeding down the walls and including window, doors and door trim and floor. The floor shall be vacuumed last, beginning at the farthest corners from the entrance to the work area.

2. Contractor shall next wash or mop the same surfaces with a tri- sodium phosphate (TSP) detergent solution (five percent) or other equally effective cleaning agent and allow surfaces to dry.

3. After TSP wash and dry cycle, HEPA vacuuming shall again be performed as noted above

3.8 PROJECT CLEARANCE

A. The project shall not be deemed complete until the Contractor performs a final cleaning of the work area(s). Completion of the project will be determined by the Owner's representative during a visual inspection of the work area(s).

B. Completion of the project may also be determined by the results of post clean dust and/or soil samples. At the Owners option, final wet wipe and/or soil samples may be collected and analyzed for lead content to establish conformity to clearance criteria. To be deemed acceptable, wipe samples must pass the clearance standards established by the U.S. EPA and CDPH.

C. Should Contractor fail a visual inspection or fail to pass the testing criteria, Contractor shall reclean areas as directed by the Owner's representative. Contractor shall perform all recleaning at Contractors own expense.

3.9 WASTE CHARACTERIZATION, DISPOSAL AND MANIFESTING PROCEOURES

A. All lead and lead-contaminated debris shall be collected and kept separate from all/any non-lead waste. Laboratory costs associated with analyses required for disposal, will be at the Contractor's expense. Lead-waste streams shall be tested to characterize hazard levels as follows:

Test 1 - California : SW846, Total Threshold Limit Concentration (TTLC)

If: TTLC is less than 50 mg/kg STOP testing - classify as non-hazardous waste.

If: TTLC is greater than 50 mg/kg but less than 1000 mg/kg perform test 2 to determine Cal-Haz status.

Test 2 - California : Waste Extraction Test (WET), Soluble Threshold Limit Concentration (STLC)

If: STLC is less than 5 mg/l - classify as a Non Hazardous Waste.

If: STLC is greater than 5 mg/l AND TTLC is greater than 100 – perform test 3 to determine RCRA requirements - classify as a California Hazardous Waste or RCRA Waste (pending TCLP)

Test 3 - Federal : Soluble Threshold Limit Concentration (TCLP)

If: TCLP is less than 5 mg/l - classify as non-RCRA waste.

If: TCLP is greater than 5 mg/l - classify as RCRA waste, stabilize waste.

B. The contractor shall be responsible for the proper storage, packaging, labeling, manifesting, transportation, and disposal of lead containing and lead hazardous materials.

C. Packing, labeling, transporting, and disposing of hazardous waste shall comply with Cal-EPA regulations under 22 CCR, including completion of the Uniform Hazardous Waste Manifest Form (OTSC 8022A and EPA 8700-22).

D. Segregate, containerize, and characterize construction debris including rags, protective coveralls, polyethylene sheeting, and other consumable items. Waste will be packaged in accordance with the applicable U.S. Department of Transportation regulations included in 49 CFR Parts 173, 178, and 179.

E. A "Waste Manifest" will be completed for disposal of hazardous waste. The Hazardous waste transporter will possess a valid EPA Transporter ID number. The Contractor's Supervisor will notify the Owner's Inspector at least 48 hours before the time that the Manifest is required to be signed by the Owner.

F. Warning labels will be affixed to all waste containers that contain lead wastes in concentrations considered hazardous. The labels will conform to RCRA, DOT, and DTSC guidelines.

G. Any lead contaminated water generated during the work for decontamination purposes will be filtered to 5 µm and drummed. If TTLC/STLC testing can prove that the water is non-hazardous, it will be discharged into the sanitary sewer system (pending approval from the local PUC). If the water is shown as hazardous per TTLC/STLC testing, it will be disposed as such.

PART 3 - DEFINITIONS

A. Aerosol: A system consisting or particles, solid or liquid, suspended in air.

B. Air Monitoring: The process of measuring the lead content of a specific volume air.

C AL: Action level - employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air (30 mg/m3) calculated as an 8-hour time-weighted average (TWA).

D. Authorized Visitor: The Owner, Owner's Representative, testing lab personnel, emergency personnel or a representative of any federal, state, and local regulatory or other agency having authority over the project.

E. Barrier: Impermeable membrane (e.g. Plastic) that captures, hold, or otherwise contains and inhibit the movement of dust.

F. Blood Lead Monitoring: Each worker potentially exposed to hazardous levels of lead must routinely give a blood sample which is to be tested for lead.

G. Breathing Zone: A hemisphere forward of the shoulders with a radius of approximately 6 to 9 inches.

H. CDPH: California Department of Public Health previously known as California Department of Health Services (DHS).

I. Ceiling Concentration: The concentration of an airborne substance that shall not be exceeded.

J. Certified Industrial Hygienist (C.I.H.): An industrial hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene.

K. Daily and Final Clean up: Process includes thorough HEPA vacuuming of all surfaces next wash or mop the same surfaces with a tri- sodium phosphate (TSP) detergent solution (five percent) or other equally effective cleaning agent and allow surfaces to dry. Then a second HEPA Vacuuming.

L. Demolition: The wrecking or taking out of any building component, system, finish or assembly of a facility together with any related handling operations.

M. Disposal Bag: A properly labeled leak-tight, 6-mil thick leak-tight plastic bag used for transporting lead waste from work area to disposal site.

N. DHS: California Department of Health Services – now known as California Department of Public Health (CDPH).

O. EBL: Elevated Blood-lead Level. For adult workers, OSHA set 40 micrograms of lead per deciliter of blood, and NIOSH set 25 micrograms per deciliter.

P. Final Clean up: A minimum of a HEPA-vacuuming, wet wiping and a second HEPA-vacuuming is required. This procedure is repeated until area passes final inspection.

Q. Final Inspection: After the final clean up is complete, the final inspection takes place which consists of the post-construction visual inspection.

R. HEPA Filter: A High Efficiency Particulate Air (HEPA) filter capable of trapping and retaining 99.97% of airborne material greater than 0.3 microns in diameter.

S. HEPA Filter Vacuum Collection Equipment (or Vacuum cleaner): High efficiency particulate air filtered vacuum collection equipment with a filter system capable of collecting and retaining lead dust. Filters should be 99.97% efficient for retaining particles greater that 0.3 microns in diameter.

T. High-efficiency particulate air filter: (HEPA) refers to a filtering system capable of trapping and retaining 99.9% of all monodispersed particles 0.3 microns in diameter or larger.

U. HUD: U. S. Department of Housing and Urban Development. Responsible for the Lead-Based Paint Guidelines for the Public and Indian Housing Authorities.

V. LBP: Lead-Based Paint. Coating containing lead in concentrations at or above 1 milligrams of lead per square centimeter (mg/cm^2), 5000 ppm, or ,5% weight percent.

W. LCP: Lead-Containing Paint. Coating containing detectable amounts of lead on concentrations below 1 milligrams of lead per square centimeter (mg/cm^2), 5000 ppm, or ,5% weight percent.

X. Lead: metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds.

Y. Medical Removal: An employee must be removed from any job with lead exposure. When the employees blood level levels reach certain regulator levels prescribed by Cal OSHA.

Z. Micrograms: Is one millionth of a gram. This is used for reporting lead concentrations in wipe samples (micrograms per square foot) and blood level (micrograms per deciliter).

AA. Negative Pressure Respirator: A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.

BB. Negative Pressure Ventilation System: A differential and ventilation system used to reduce atmospheric pressure within the work area relative to areas outside the work area.

CC. NIOSH: National Institute of Occupational Safety and Health (NIOSH), U.S. Department of Health and Human Services or designee.

DD. Owner's Representative: The Owner's Representative will represent the Owner during construction. The Owner's Representative will advise and consult with the Owner. The owner's instructors to the Contractor will be forwarded through the Owner's Representative.

EE. PEL: Permissible exposure limit - employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air (50 mg/m3) calculated as an 8-hour time-weighted average (TWA).

FF. Personal Monitoring: Sampling of the lead concentrations within the breathing zone of an employee.

GG. Post-construction Visual Inspection: Inspector insures that lead-related construction work has been completed.

HH. Protection Factor: The ratio of the ambient concentration of an airborne substance tot he concentration of the substance inside the respirator at the breathing zone of the wearer. The protection factor is a measure of the degree of protection provided by a respirator to the wearer.

II. Respirator: A device designed to protect the wearer form the inhalation of harmful atmospheres.

JJ. Supervisor: one who is capable of identifying existing and predictable lead hazards in the surroundings or working conditions and who has authorization to take prompt corrective measures to eliminate them. Supervisors shall be trained, as required by Cal OSHA, and, when required, be CDPH certified.

KK. Time Weighted Average (TWA): The average concentration of a contaminant air during a specific time period.

LL. TSP: Trisodium Phosphate. Contractor may elect to use an equivalent Detergent.

MM. Visible Emissions: Any emissions containing particulate material that are visually detectable with the aid of instruments. This does not include condensed uncombined water vapor.

NN. Wet Cleaning: The process of reducing lead dust contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with water in a minimum of 5% TSP solution (or equivalent detergent). Wash water should be changed frequently. Dry sweeping is prohibited. Dispose of all cleaning materials in an appropriate manner.

OO. Wipe Sample: A commercial wipe pre-moistened with a non-alcohol wetting agent is used to clean a set surface area, usually one square foot, to test for lead. These are taken mostly during the Pilot Project and during the Final Inspection.

PP. Work Area: The area where lead-related activities are performed which is defined and/or isolated to prevent the spread of lead dust or debris, and entry by unauthorized personnel.

CITY OF SAN LEANDRO
San Leandro Ball Park
Locker / Restroom Refurbishment

Project No. 2003.0331
Bid No. 14 -15.004

VICINITY MAP

SAN LEANDRO NOTES

A. These Drawings represent the general design intent to be implemented on the site. Contractor shall be responsible for contacting the Engineer for any additional clarification or detail necessary to accomodate site conditions or detail.

B. Contractor shall coordinate and otherwise integrate his work with that of others in an efficient, craftsmanlike and timely manner so as to provide the City with a well-constructed, easily maintained project.

C. At all times, Contractor shall be solely and completely responsible for site conditions during the course of the construction of this project, including safety of all persons and property. This requirement shall apply continuously and not be limited to normal working hours; and this Contractor shall defend, indemnify and hold the City and it's employees harmless from any and all liability, real or alleged, in connection with the performance of work on this project.

D. The Contractor is hereby notified that, prior to commencing construction, he is responsible for contacting the Utility Companies involved and requesting a visual verification of locations of their underground facilities. The Utility Companies are members of the Underground Service Alert (USA) on call program. The Contractor shall notify members of USA at least two (2) working days in advance of performing excavation work by calling 811 or (800) 227-2600.

DRAWING INDEX

Sheet Number	Sheet Title		City Drawing Number	City Case Number
		GENERAL		
1	G0.1	TITLE SHEET	1899	1002
2	G0.2	SYMBOLS, ABBREVIATIONS	1900	1002
		ARCHITECTURAL		
3	A2.1	EXISTING / DEMO FLOOR PLAN	1901	1002
4	A2.2	FLOOR PLAN - LOWER	1902	1002
5	A2.3	FLOOR PLAN - UPPER	1903	1002
6	A5.1	INTERIOR ELEVATIONS	1904	1002
7	A5.2	INTERIOR ELEVATIONS	1905	1002
8	A8.1	EXTERIOR DETAILS	1906	1002
9	A9.1	INTERIOR DETAILS	1907	1002
		MECHANICAL		
10	M0.1	MECHANICAL NOTES and SCHEDULES	1908	1002
11	M2.1	MECHANICAL FLOOR PLAN	1909	1002
		PLUMBING		
12	P0.1	PLUMBING NOTES and SCHEDULES	1910	1002
13	P1.1	PLUMBING EXISTING / DEMO FLOOR PLAN - LOWER	1911	1002
14	P1.2	PLUMBING EXISTING / DEMO FLOOR PLAN - UPPER	1912	1002
15	P2.1	PLUMBING FLOOR PLAN - LOWER	1913	1002
16	P2.2	PLUMBING FLOOR PLAN - UPPER	1914	1002
		ELECTRICAL		
17	E0.1	SYMBOLS, NOTES, LIST OF DRAWINGS	1915	1002
18	E0.2	LIGHTING TITLE 24 DOCUMENTS	1916	1002
19	E0.3	LIGHTING TITLE 24 DOCUMENTS	1917	1002
20	E2.0	ELECTRICAL FLOOR PLAN	1918	1002

ALTERNATES

Alternate No. 1

Base Bid: Includes no electrical work for the new electric hand dryers in (4) Toilet Rooms as indicated on sheet E0.1 and E2.0. Includes Paper Towel Dispensers per sheet A2.2 and Specs 10 2800.

Alternate No. 1: Includes electrical work for new electric hand dryers in (4) Toilet Rooms per sheet E0.1 and E2.0. Includes no Paper Towel Dispensers per sheet A2.2 and Spec. 10 2800. Includes new electric hand dryers per Specs 10 2800.

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Paul Carey, Principal
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(415) 479-4662 (fax)

CODES

CALIFORNIA BUILDING CODE	2013 EDITION
CALIFORNIA ELECTRICAL CODE	2013 EDITION
CALIFORNIA MECHANICAL CODE	2013 EDITION
CALIFORNIA PLUMBING CODE	2013 EDITION
CALIFORNIA ENERGY CODE	2010 EDITION
CALIFORNIA FIRE CODE	2013 EDITION
CALIFORNIA GREEN BUILDING STDS. CODE	2013 EDITION

ALL LOCAL AMENDMENTS TO THE ABOVE CODES

BUILDING DATA

LOCATION:
Teagarden and Aladdin Avenue
San Leandro, CA

ZONING AND GENERAL PLAN DESIGNATION :
edit

BUILDING AREA:

North:	780 SF
Center:	838 SF
East:	780 SF
Total:	2448 SF

NUMBER OF STORIES:
Two, including the Announcer Booth

TYPE CONSTRUCTION:
V NON-RATED

OCCUPANCY :
Toilet Rooms for A3 Occupancy

LICENSED ARCHITECT
ERIC H. GLASS
No. 11,268
Date 10/15
STATE OF CALIFORNIA

GLASS ARCHITECTS

200 E STREET
Suite 100
Santa Rosa Ca 95404
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REGISTERED PROFESSIONAL ENGINEER
KENNETH C. JOURDAN
No. 34870
Exp. 9/30/15
CIVIL
STATE OF CALIFORNIA

CITY OF SAN LEANDRO
INCORPORATED 1872

BEFORE YOU DIG, CALL UNDERGROUND SERVICE ALERT 1(800)227-2600 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES. THOSE SHOWN REPRESENT THE BEST INFORMATION AVAILABLE TO THE CITY OF SAN LEANDRO AT THE TIME OF PREPARATION OF THESE PLANS. NO GUARANTEE IS MADE AS TO THE ACCURACY OF THIS INFORMATION.

NO.	DATE	REVISION

DESIGNED BY	GLASS	DATE	7/30/14
DRAWN BY	GLASS	DATE	7/30/14
PROJECT MGR.	MAG	DATE	7/31/14
TRANS ADMIN.		DATE	
SENIOR ENGR.		DATE	8/1/14
APPROVED BY:		DATE	8/1/14
CITY ENGINEER, R.C.E. NO. 34870			

CITY OF SAN LEANDRO

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Title Sheet

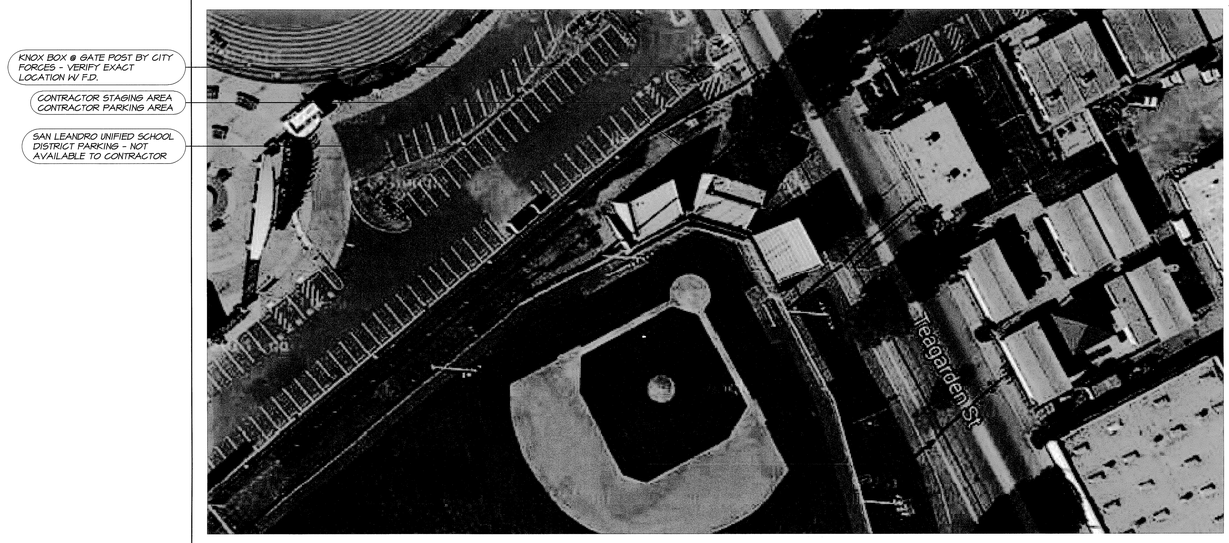
SHEET 1 OF 20
JOB NO. 2003.0331
SCALE As Noted
DWG. 1899 CASE 1002

Line is 1 inch @ full-size drawing

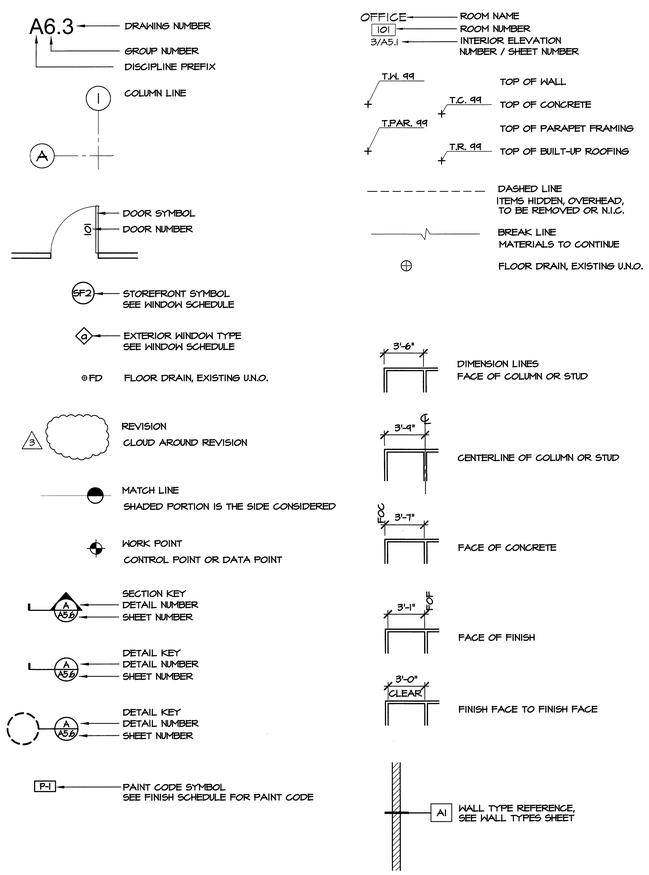
G0.1

Revised 03-11 PROJECTS\San Leandro\1899\G0.0.DWG

SITE IMAGE



ARCHITECTURAL GRAPHIC SYMBOLS



GRAPHIC SYMBOLS NOTES

1. Graphic Symbols represent objects, elements, equipment, instructions, location, conventions, etc. They do not represent the shape, size or dimension of the actual object.
2. Each drawing group (e.g. Mechanical, Electrical) has its own symbols, abbreviations, legend and notes. The information and symbols on this drawing are general and apply to architectural drawings.

ABBREVIATIONS

A.B.	Anchor Bolt
AC	Asphaltic Concrete
ACC	Accessible
ACOUS	Acoustical
AD	Area Drain
ADJ	Adjacent or Adjustable
ADA	Americans with Disabilities Act
AFF	Above Finished Floor
AGG	Aggregate
ALUM	Aluminum
APPROX	Approximate(ly)
ARCH.	Architect
ASSY	Assembly
@	At
BD	Board or Bead
BETWN	Between
BLDG	Building
BLKG	Blocking
BOT	Bottom
BUR	Built up Roof
CAB(S)	Cabinet(s)
CB	Catch Basin
CBB	Cementitious Backer Board
CEM	Cement
CI	Curb Inlet or Cast Iron
CJ	Construction Joint
CL or ℄	Centerline
CLG	Ceiling
CLOS	Closet
CLR	Clear
CMU	Concrete Masonry Unit(s)
COL	Column
CONC	Concrete
CONST	Construction
CONT	Continuous
CORR	Corridor
CSK	Countersunk
DA	Disabled Access
DBL	Double
DF	Douglas Fir or Drinking Fountain
DI	Drop Inlet
DIA or Φ	Diameter
DIAG	Diagonal(s)(ly)
DIM.	Dimension
DISP	Garbage Disposal
DN	Down
DR	Door
DS	Downspout
DW	Dishwasher
DWG	Drawing
(E)	Existing
EA	Each
EIFS	Exterior Insulation & Finish System
EJ	Expansion Joint
ELEC	Electrical
ELEV	Elevation
ENGR	Engineer or Engineered
EQ	Equal
EQUIP	Equipment
ES	Each Side
EWC	Electric Water Cooler
EXT	Exterior
FD	Floor Drain
FAU	Forced Air Unit
FDN	Foundation
FEC	Fire Extinguisher Cabinet
FG	Fiberglass, Finish Grade or Fixed Glass
	Flat Head Wood Screw
	Finish(ed)
	Floor
	Face of Curb or Concrete
FOM	Face of Masonry
FOS	Face of Studs
FTG	Footing
FURR	Furr(ing)
FWC	Fabric Wall Covering
GA	Gauge
GALV	Galvanized
GLB	Glue Laminated Beam
GSM	Galvanized Sheet Metal
GI	Galvanized Iron
GR	Grade
GYPBD	Gypsum Board
HB	Hose Bibb
HC	Hollow Core or Handicapped
HDR	Header
HGR	Hanger
HT	Height
HM	Hollow Metal
HORIZ	Horizontal
HR	Hour
HSS	Hollow Structural Section
HVAC	Heating, Ventilating & Air Conditioning
HWD	Hardwood
INSUL	Insulation
INT	Interior
J or JAN	Janitor
JT	Joint
KIT	Kitchen
LAV	Lavatory
LGM(F)	Light Gauge Metal (Framing)
LOC	Location
LTWT	Lightweight
MAX	Maximum
MB	Machine Bolt
MDO	Medium Density Overlay
MECH	Mechanical
MED	Medium
MEZZ	Mezzanine
MFR	Manufacturer(s)
MI	Malleable Iron
MIN	Minimum
MR	Moisture Resistant
MTL	Metal
(N)	New
NIC	Not In Contract
NO.	Number
NTS	Not to Scale
OC	On Center
OL	Occupant Load
OPNG	Opening
OPP	Opposite
PL	Property Line
PIV	Post-Indicator Valve
PL	Plate
PLAM	Plastic Laminate
PLYWD	Plywood
PR	Pair
PTD	Painted
PT	Pressure Treated
R. or RAD	Radius
RA	Return Air
RD	Roof Drain
REF	Refrigerator or Reference
REINF	Reinforcing
REQD	Required
REV	Revised or Reversed
RO	Rough Opening
RS	Rough-Sawn
RWD	Redwood
RWL	Rain Water Leader
S&P	Shelf & Pole
SA	Supply Air
S.A.D.	See Architectural Drawings
SB	Solid Blocking
SC	Solid Core
SCD	See Civil Drawings
SD	Storm Drain
SED	See Electrical Drawings
SF or #	Square Foot/Feet
SHT	Sheet
SHTG	Sheathing
SHWR	Shower
SIM	Similar
SMD	See Mechanical Drawings
SMS	Sheet Metal Screw
SP	Space(s)
SPD	See Plumbing Drawings
SQ	Square
S.S.	Stainless Steel
SSD	See Structural Drawings
STC	Sound Transmission Coefficient
STD	Standard
STL	Steel
STOR	Storage
SUSP	Suspend(ed)
SYM	Symmetrical
T-24	California Code of Regulations, Title 24
T&B	Top and Bottom
TOC	Top of Concrete or Curb
TEL	Telephone
TOG	Top of Grade
T.O.P.	Top of Paving
TOS	Top of Steel
TOIL	Toilet
TS	Tube Steel
TYP	Typical
UNO	Unless Noted Otherwise
VAR	Varies
VERT	Vertical
VIF	Verify in Field
VWC	Vinyl Wall Covering
w/	With
WC	Water Closet
WD	Wood
WDW	Window
WH	Water Heater
w/o	Without
WT	Weight
WP	Waterproof(ing)

NOTE: Abbreviations appearing within these Documents which include additional punctuation, shall have the same meaning as those listed above.

GENERAL NOTES:

1. The Project generally consists of refurbishment of existing Toilet Rooms and Locker Rooms to remove barriers and improve access to the disabled.
2. Original Building Drawings:
   By: Skidmore, Owings & Merrill
   Dated: December 1966
   As Builts: October 1967
3. All new construction shall be governed by applicable codes and ordinances of the City of San Leandro, including all applicable State and Federal regulations, and it shall be the responsibility of each subcontractor to be in full compliance regardless of any discrepancies that may exist within the drawings or specifications. In the event that any of the provisions or requirements of any of the Contract Documents are not clear to the reader, the reader shall immediately contact the office of the Architect for clarification. Any assumption of meaning shall be the responsibility of the reader.
4. These drawings shall not be scaled. All work shall be governed by the dimensions indicated on the drawings. Any discrepancies shall be brought to the attention of the General Contractor and the Architect prior to proceeding with the work.
5. All references to "Contractor" shall include and apply to all subcontractors to the extent applicable for work they are performing under their subcontract.
6. All dimensions are to centerline of structural steel and face of framing, concrete or CMU unless otherwise noted. "Clear" dimensions are to face of finish.
7. Any necessary material, item, piece of equipment or operation not called for but reasonably implied as necessary for proper completion of the Work, shall be furnished and installed consistent with adjacent or related materials, items or pieces of equipment in accordance with good practice with no extra cost. The City Engineer shall determine if 'reasonably implied'.
8. Seal all penetrations of piping, conduits and cables through fire-rated wall, floor and ceiling assemblies with U. L. Listed fire-caulking.
9. Coordinate all equipment and fixture requirements with the Owner.
10. All restrooms must conform to the California Building Code and the Americans with Disabilities Act of 1990 (and updates of 2010). Verify or install restroom door symbols per the California Building Code and the 2010 Americans with Disabilities Act (ADA).
11. Exit doors shall be openable from the inside without the use of a key or any special knowledge or effort.
12. Automatic Fire-Sprinkler System does not exist in this building.
13. Where larger studs or furring is required to cover piping and conduits, the larger stud size or furring shall extend the full surface of the wall width and length where the furring occurs.

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REG. 10.15.2016
STATE OF CALIFORNIA

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CITY OF SAN LEANDRO INCORPORATED 1872

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TRANS ADMIN.		DATE	
SENIOR ENGR.		DATE	8/1/14
APPROVED BY:		DATE	8/1/14

CITY ENGINEER, R.C.E. No. 34870

CITY OF SAN LEANDRO

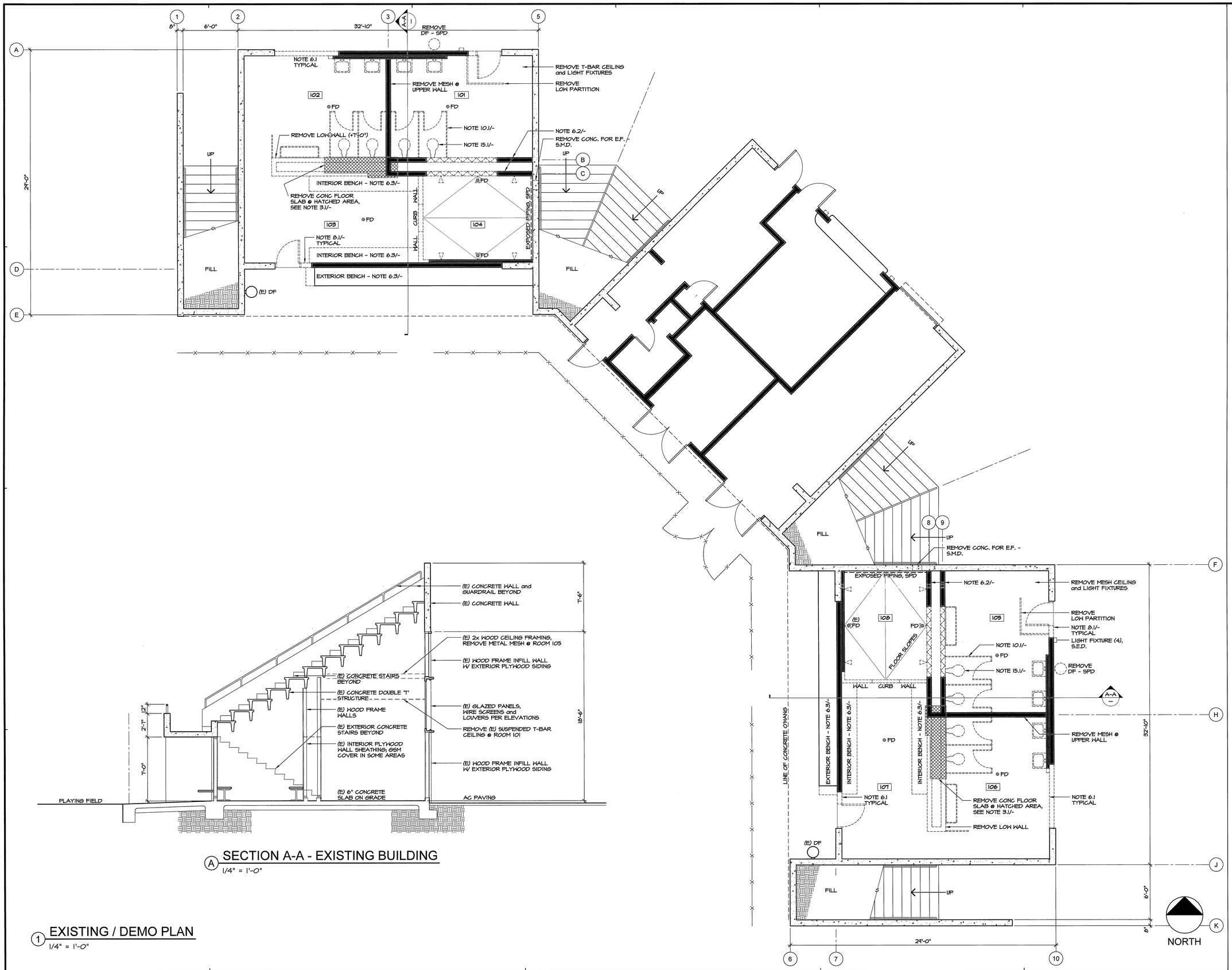
SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Symbols, Notes, Abbreviations

SHEET 2 OF 20
JOB NO. 2003.0331
SCALE As Noted
DWG. 1899 CASE 1002

Line is 1 inch @ full-size drawing

G0.2

Revised:10/1 P:\PROJECTS\Sub Leases\1899\G0.dwg



1 EXISTING / DEMO PLAN
1/4" = 1'-0"

A SECTION A-A - EXISTING BUILDING
1/4" = 1'-0"

WALL LEGEND

- (E) 8" THICK CONCRETE WALLS TO REMAIN
- (E) WOOD STUD WALLS TO REMAIN
- (E) WOOD STUD WALLS, INCLUDING CONC. CURBS TO BE REMOVED - SEE NOTE 6.1/-
- (E) WOOD STUD WALLS TO BE REMOVED AS NECESSARY FOR PLUMBING WORK, CONCRETE CURB TO REMAIN - SEE NOTE 6.2/-
- (N) WOOD STUD WALLS - 2x4 @ 16" OC TO +14" AFF U.N.O. 2x4 @ 16" OC TO +20' AFF U.N.O.
- (E) CHAIN LINK FENCE TO REMAIN

SHEET NOTES and GENERAL NOTES

2.1 Construction Waste Management: (CalGreen Mandatory level) Recycle and/or salvage for reuse a minimum of 50% of the non-hazardous construction waste. Utilize a waste management company that provides verifiable documentation of the percentage of construction waste diverted from the landfill. Submit documentation to the Building Department.

2.2 Materials removed during the demolition phase are Contractor's property for disposal per Special Provisions T-8.1.1. unless noted otherwise.

3.1 Remove concrete slab on grade as necessary to reconfigure plumbing fixtures and underground piping. Approximate area is shown on plan.

6.1 Remove wood and metal stud framing - Remove exterior walls with supplemental support as necessary - provide new header and jamb framing for new or enlarged openings. Remove concrete curb @ base of removed walls flush with adjacent interior concrete floors.

6.2 Existing plumbing walls - Removal, relocation and addition of plumbing fixtures may require the replacement of this wall framing. Bid to assume the quantity shown on plan; Contractor to verify in field.

6.3 Existing wood benches - Exterior benches: Remove 12" section of bench @ end; relocate end cantilevered wall support as necessary. Interior benches: Remove benches and supports for relocation by Contractor. Interior benches have metal floor supports.

8.1 Remove doors, frames and hardware - Remove wall framing and interior and exterior finishes to the extent necessary for the installation of the new door assemblies

9.1 Remove wall and ceiling finish materials for new finishes shown - Removed wall finishes include plywood and GSM overlays but not base sheets of wall sheathing

10.1 Remove toilet partitions

10.2 Remove toilet room accessories - Stockpile all accessories for reuse / reinstallation

10.3 Remove non-complying Toilet Room singage

15.1 Remove plumbing fixtures - see Plumbing drawings

16.1 Remove light fixtures - see Electrical drawings

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C-15,088
REG. 10/15
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INCORPORATED 1872

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NO.	DATE	REVISION

CITY OF SAN LEANDRO

DESIGNED BY	GLASS	DATE 7/30/14
DRAWN BY	GLASS	DATE 7/30/14
PROJECT MGR.	MGG	DATE 7/30/14
TRANS ADMIN.		DATE
SENIOR ENGR.		DATE 8/1/14
APPROVED BY		DATE 8/1/14

CITY ENGINEER, R.C.E. No. 34870

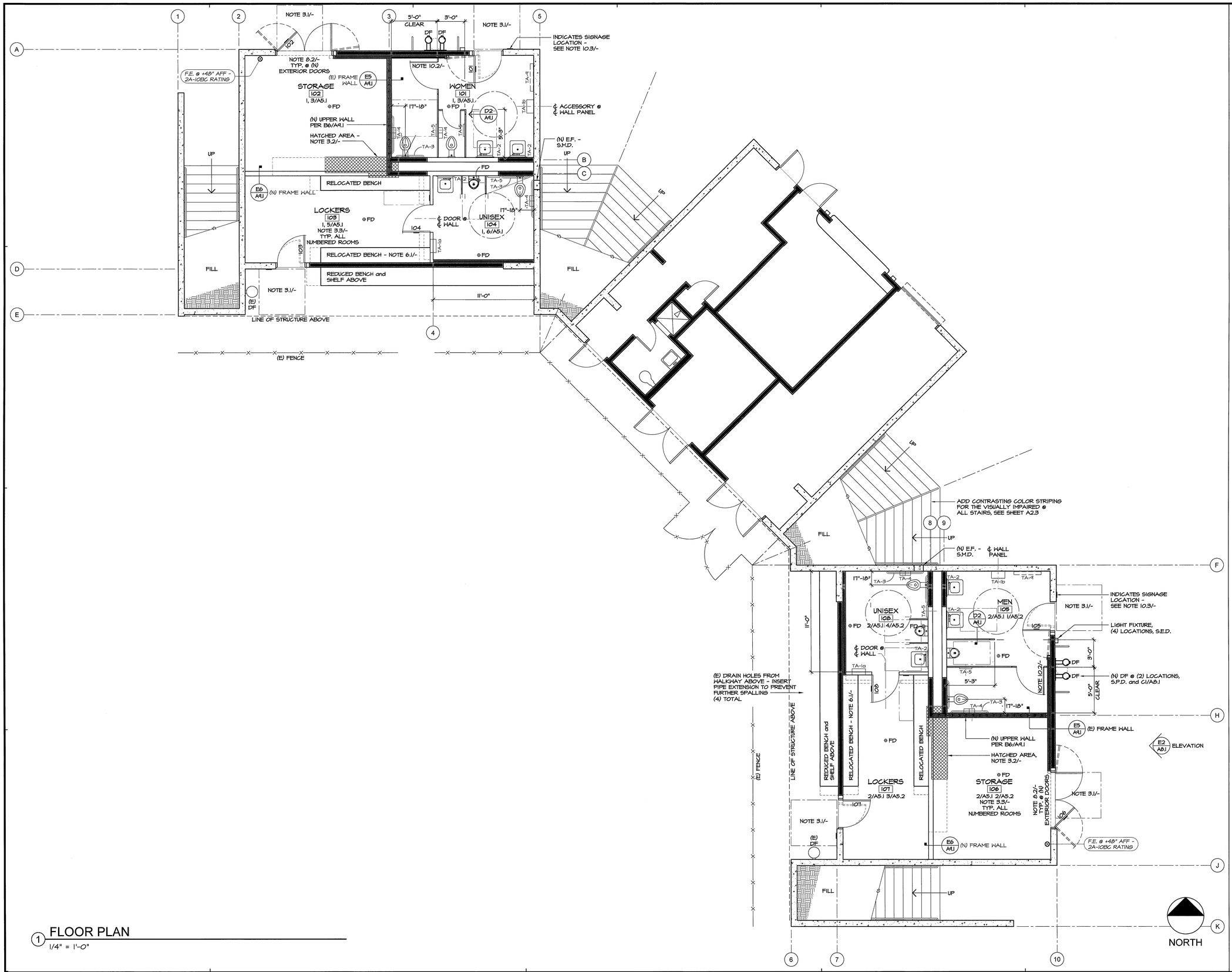
SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Existing / Demo Plan

SHEET 3 OF 20
JOB NO. 2003.0331
SCALE As Noted
DWG. 1901 CASE 1002

Line is 1 inch @ full-size drawing

2.1

Revit:C:\Revit2013\Glass Learning\Model\2003.0331



1 FLOOR PLAN
1/4" = 1'-0"

WALL LEGEND

- (E) 8" THICK CONCRETE WALLS TO REMAIN
- (E) WOOD STUD WALLS TO REMAIN
- (E) WOOD STUD WALLS TO BE REMOVED, SEE DEMO PLAN
- (N) WOOD STUD WALLS - 2x4 @ 16" OC TO +14" AFF U.N.O. 2x4 @ 16" OC TO +20" AFF U.N.O.
- (E) WOOD STUD WALLS TO +14'-2", ADD (N) UPPER WALL TO UNDERSIDE OF (E) SEATING
- (N) TOILET PARTITION, NOTE 10.2/-
- (E) CHAIN LINK FENCE TO REMAIN

SHEET NOTES and GENERAL NOTES

1.2 Fire-rated assemblies per wall legend and door / window schedules.

3.1 Verify or provide 'level' area @ exterior doors extending out 60" min. typ. 'Level' areas to slope away from building 1% min., 2% max. Grind and apply asphaltic concrete fill as necessary.

3.2 Replace 6" concrete floor slab at reconfigured plumbing fixtures and underground piping. Color and finish of new slabs to match existing slabs. See E2/A9.1

3.3 Interior concrete floors: At both existing and new concrete floor and curbs, clean, prepare and provide concrete hardener / sealer - Sealer basis-of-design is L&M Construction Chemicals Inc. 'LION HARD' Lithium Silicate concrete densifier / hardner / Sealer. Apply per manufacturer's recommendations.

6.1 Reinstall removed interior benches to meet the following accessibility requirements:
- 42" minimum length
- 20" seat depth from wall
- Seat at +17. - 19" above finish floor

8.1 See Sheet A8.1 for Door Schedule and Door Types.

8.2 New doors: Enlarge openings in wood frame walls; provide new header and jamb per E5/A8.1; install new doors and frames per schedule.

9.1 See Sheet A8.1 for Room Finish Schedule. Interior wall and ceiling finish required: Class 'C' minimum

9.2 At removed items, patch, prepare and restore wall and floor materials and finishes to pre-construction conditions. This includes patch and repair of concrete floor, concrete walls, plywood siding and plaster walls.

9.3 Gypsum Board: 5/8" type 'MR' panels taped and textured; level 4 finish. Finish to be light spatter, no knockdown.

9.4 Prepare and paint all interior wood walls and ceilings U.N.O. See sheet A8.1 for Finish Schedule. Primary color and accent colors to be selected by Architect and Owner.

9.5 Prepare and paint exterior plywood wall panels @ removed signs and altered surfaces; match existing paint color / type / sheen.

10.1 New Toilet Room Accessories: Abuse-resistant type; see sheet A5.1 for elevations and schedule below
- TA-1a PT Dispenser / Waste Receptacle - recessed New per specifications (See ALTERNATE 01)
- TA-1b PT Dispenser / Waste Receptacle - surface New per specifications (See ALTERNATE 01)
- TA-2 Mirror New per Specifications
- TA-3 Grab Bars - reuse existing units
- TA-4 TP Dispenser - surface mount Reuse existing units
- TA-5 Seat Cover Dispenser - surface mount New per Specifications
- TA-6 Electric Hand Dryer - N.I.C. Possible future installation (See ALTERNATE 01)
- TA-7 Soap Dispenser - surface mount Reuse existing units
- TA-8 Thermal Pipe Wrap New, see plumbing drawings
- TA-9 Baby-changing Station, N.I.C. location is shown for future unit

10.2 (N) Toilet Partitions: Provide abuse-resistant partitions - See Specs 10 2113 for basis-of-design. Color to be selected by Architect. Door requirements: Provide an automatic closing device; provide a minimum 34" clear opening provide a loop or u-shaped handle below the latch. Latch shall be flip-over style or sliding not requiring the user to grasp or twist.

10.3 Signage: See detail E3/A9.1 Provide code-compliant signage @ entrance to (4) Toilet Rooms and (4) permanent rooms.

15.1 Plumbing fixtures: See Plumbing Drawings Conform to disabled access requirements, sheet A5.1 Conform to CALGreen water use requirements, S.P.D.

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SENIOR ENGR.		DATE 8/1/14
APPROVED BY:		DATE 8/1/14

CITY ENGINEER, R.C.E. No. 34870

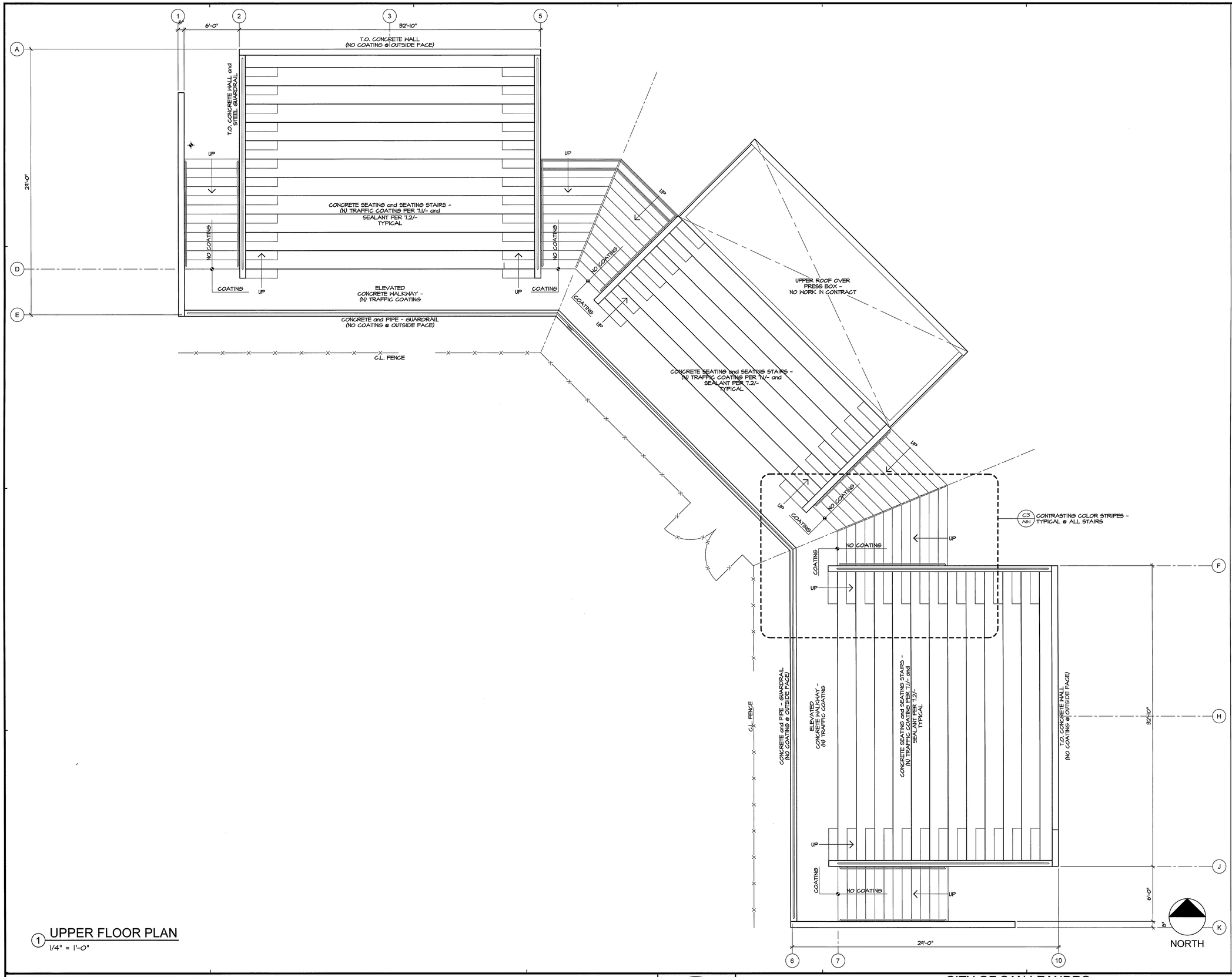
SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Lower Floor Plan

SHEET 4 OF 20
JOB NO. 2003.0331
SCALE As Noted
DWG. 1902 CASE 1002

Line is 1 Inch @ full-size drawing

A2.2

Plotted On 8.1.2014@12:27:29AM by GLASS-PC\GLASS



1 UPPER FLOOR PLAN
1/4" = 1'-0"

WALL LEGEND

- (E) 8" THICK CONCRETE WALLS TO REMAIN
- (E) WOOD STUD WALLS TO REMAIN
- (E) WOOD STUD WALLS TO BE REMOVED
- (N) WOOD STUD WALLS - 2x4 @ 16" OC TO +14" AFF U.N.O. 2x4 @ 16" OC TO +20' AFF U.N.O.
- (N) TOILET PARTITION, NOTE 10.2/-
- (E) CHAIN LINK FENCE TO REMAIN

SHEET NOTES

7.1 Traffic Coating: Pedestrian Traffic and Waterproofing System:
See Specifications 07 1800 for Basis-of-Design.
Base Coat: Liquid polyurethane
Top Coat: Aliphatic, two-part polyurethane
Color to be selected by the Architect from manufacturer's full range of available colors.

Confirm with Manufacturer's Representative or Manufacturer's Technical Services for complete surface preparation and applicable details for previously-coated surfaces.

7.2 Sealants @ concrete seating areas:
Replace existing sealants and accessories for a water-tight seating area building enclosure.
See Specifications 07 1800 for Basis-of-Design products.

Confirm with Manufacturer's Representative or Manufacturer's Technical Services for complete joint preparation and applicable details for previously-sealed joints.

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APPROVED BY:		DATE	8/1/14

CITY ENGINEER, R.C.E. NO. 34870

CITY OF SAN LEANDRO

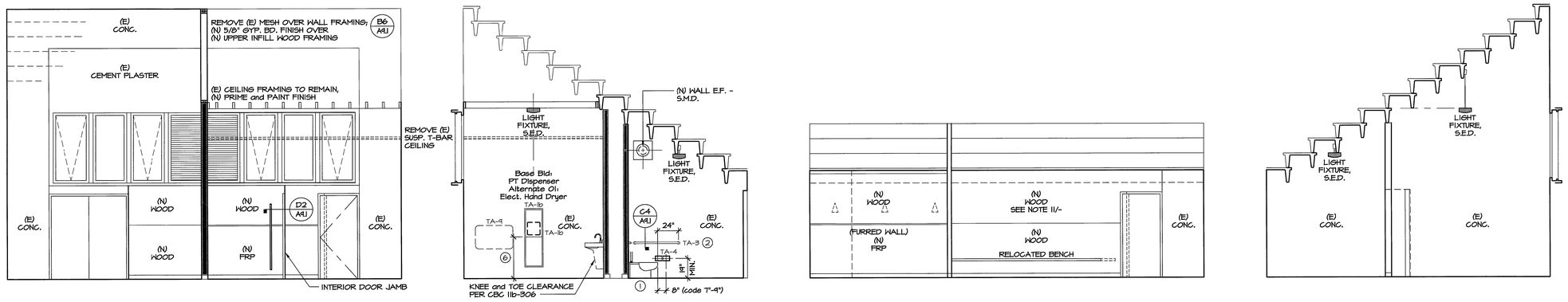
SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Upper Floor Plan

SHEET 5 OF 20
JOB NO. 2003.0331
SCALE As Noted
DWG. 1903 CASE 1002

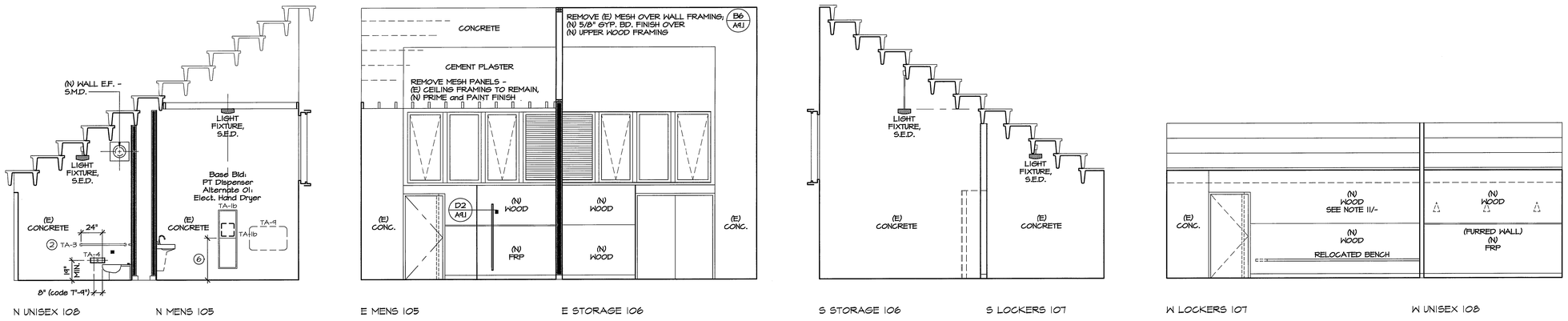
Line is 1 inch @ full-size drawing

A2.3

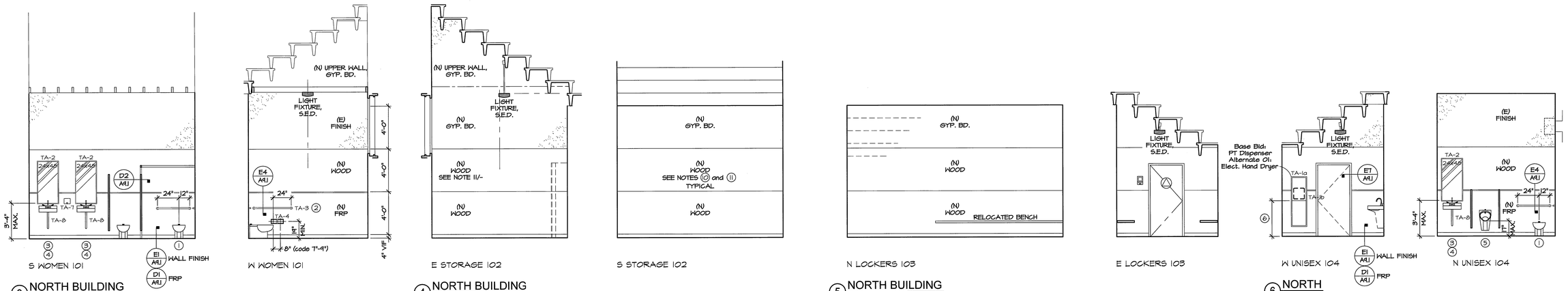
Revised 03-19-2002 TEDM-Lorrie 1-MPC-A2.DGN



1 NORTH BUILDING
1/4" = 1'-0"



2 EAST BUILDING
1/4" = 1'-0"



3 NORTH BUILDING
1/4" = 1'-0"

4 NORTH BUILDING
1/4" = 1'-0"

5 NORTH BUILDING
1/4" = 1'-0"

6 NORTH
1/4" = 1'-0"

SHEET NOTES

1. Accessible water closet:
   Seat height 17" - 19" AFF,
   flush activator on wide side of toilet stall @ 44" max. AFF and 5# max. activation force
2. Grab bars: 1-1/2" diam. stainless steel, 42" long @ side, 36" long @ rear, mount top @ +33" AFF, +36" max. if required by tank type toilet.
   Accessories behind grab bars must be fully recessed to provide required clearance. *(reuse (E) grab bars)*
3. Accessible wall hung lav. w/ lever faucet controls, +34" max. rim height, +24" min. bottom of apron, 5# maximum activation force,
4. Provide thermal insulation @ exposed lavatory, hot water and waste piping.
5. Accessible wall hung urinal:
   Rim height +17" max. AFF, depth 13 1/2" min.
   Manual flush controls @ +44" max. AFF,
   5# maximum activation force
6. All dispensers, disposals and receptacles- +40" to highest operable part
   Shelves @ +40" min. - +48" max. AFF
   Coat hooks @ +48" max. AFF
7. TOILET ACCESSORY DESIGNATIONS (TA-X FORMAT).

TA-1a	PT Dispenser / Waste Receptacle - recessed
TA-1b	PT Dispenser / Waste Receptacle - surface
TA-2	Mirror
TA-3	Grab Bars
TA-4	TP Dispenser - surface mount
TA-5	Seat Cover Dispenser - surface mount
TA-6	Electric Hand Dryer - (Alternate 01)
TA-7	Soap Dispenser - surface mount
TA-8	Thermal Pipe Wrap
TA-9	Baby-changing Station, NIC

8. Toilet partitions:
   Self-closing door, pulls @ both sides
   4" max. hinge jamb-to-wall dimension
   Toe clearance of 9" min. aff except @ supports
9. See detail E4/A9.1 for restroom signage requirements
10. Plywood interior wall finish joints:
    At all horizontal joints: 1/8" joint and chamfer 1/8" per E1/A9.1
    At all vertical joints: 1/8" joint and fill flush w/ sealant
11. Plywood interior wall finish @ existing frame walls:
    In areas of new plywood wall finish - +4" to +8'-4" AFF -
    Remove (E) wall finish down to the framing
    Class 'B' or 'C' wall finish

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SENIOR ENGR.		DATE	8/1/14
APPROVED BY:		DATE	8/1/14

CITY ENGINEER, R.C.E. No. 34870

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Interior Elevations

SHEET 6 OF 20
JOB NO. 2003.0331
SCALE As Noted
DWG. 1904 CASE 1002

Line is 1 inch @ full-size drawing

A5.1

SHEET NOTES

1. Accessible water closet:
   Seat height 17" - 19" AFF,
   Flush activator on wide side of toilet stall @
   44" max. AFF and 5# max. activation force

2. Grab bars: 1-1/2" diam. stainless steel, 42" long
   @ side, 36" long @ rear, mount top @ +33" AFF,
   +36" max. if required by tank type toilet.
   Accessories behind grab bars must be fully
   recessed to provide required clearance.

3. Accessible wall hung lav. w/ lever faucet controls,
   +34" max. rim height, +29" min. bottom of apron,
   5# maximum activation force,

4. Provide thermal insulation @ exposed lavatory,
   hot water and waste piping.

5. Accessible wall hung urinal:
   Rim height +17" max. AFF, depth 13 1/2" min.
   Manual flush controls @ +44" max. AFF,
   5# maximum activation force

6. All dispensers, disposals and receptacles-
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   Shelves @ +40" min. - +48" max. AFF
   Coat hooks @ +48" max. AFF

7. TOILET ACCESSORY DESIGNATIONS (TA-X FORMAT).

TA-1a	PT Dispenser / Waste Receptacle - recessed
TA-1b	PT Dispenser / Waste Receptacle - surface
TA-2	Mirror
TA-3	Grab Bars
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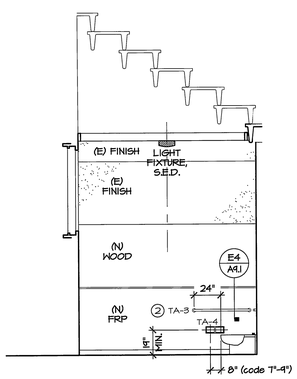
TA-6	Electric Hand Dryer - (Alternate 01)
TA-7	Soap Dispenser - surface mount
TA-8	Thermal Pipe Wrap
TA-9	Baby-changing Station, NIC

8. Toilet partitions:
   Self-closing door, pulls @ both sides
   4" max. hinge jamb-to-wall dimension
   Toe clearance of 9" min. aff except @ supports

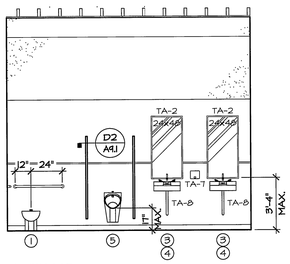
9. See detail E4/A9.1 for restroom signage requirements

10. Plywood interior wall finish joints:
    At all horizontal joints: 1/8" joint and chamfer 1/8" per E1/A9.1
    At all vertical joints: 1/8" joint and fill flush w/ sealant

11. Plywood interior wall finish @ existing frame walls:
    In areas of new plywood wall finish - +4" to +8'-4" AFF -
    Remove (E) wall finish down to the framing
    Class 'B' or 'C' wall finish



S MEN 105



W MEN 105

1 NORTH BUILDING
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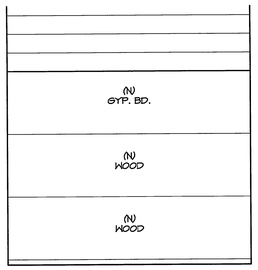
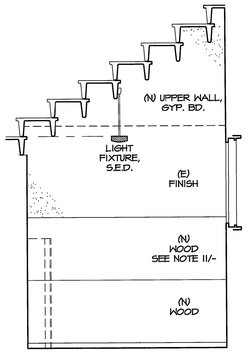


W STORAGE 106



N STORAGE 106

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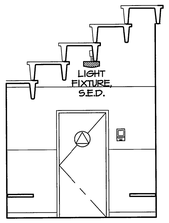
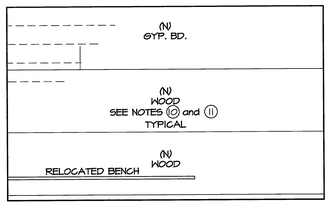
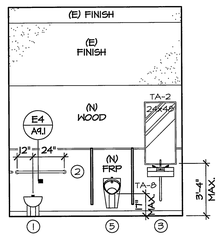


N LOCKERS 107

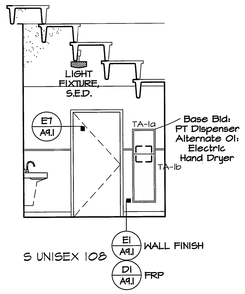


E LOCKERS 107

3 EAST BUILDING
1/4" = 1'-0"



E UNISEX 108



S UNISEX 108

4 EAST BUILDING
1/4" = 1'-0"

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EXP. 10/15
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APPROVED BY:		DATE	8/1/14
CITY ENGINEER, R.C.E. No. 34870			

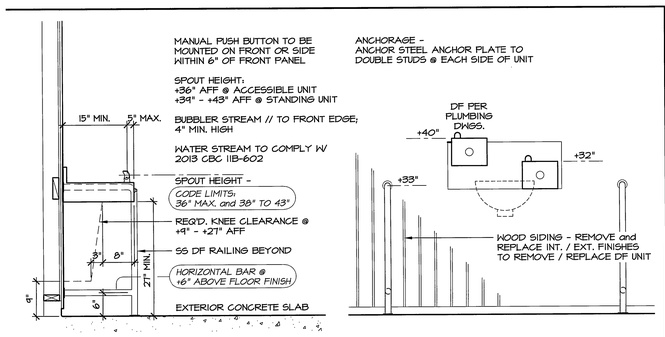
SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Interior Elevations

SHEET	7 OF 20
JOB NO.	2003.0331
SCALE	As Noted
DWG.	1905 CASE 1002

Line is 1 inch @ full-size drawing

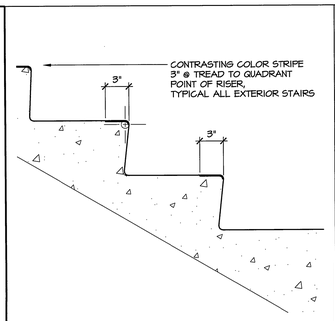
A5.2

Revised 03/11 PROJECTS\Brsh Lsandro\MAP\CADDCK



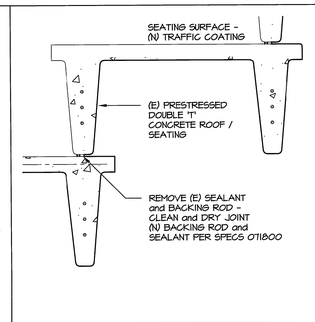
SECTION

ELEVATION



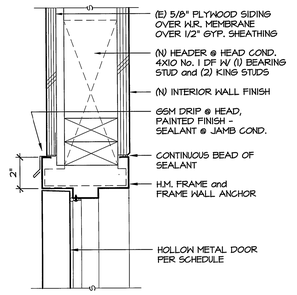
B3 CONTRASTING STRIPE

SCALE: 1 1/2" = 1'-0"

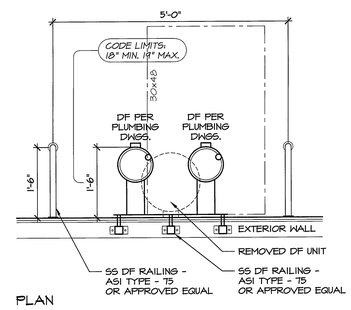


B4 SEALANT DETAIL

SCALE: 1 1/2" = 1'-0"



JAMB, HEAD SIMILAR @ OUTSWING DOORS



PLAN

USE CARRIER MOST SUITED FOR RETROFIT APPLICATIONS

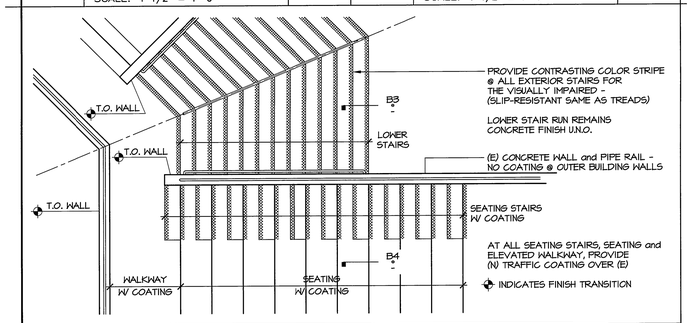
INSTALL WOOD BACKING AS RECOMMENDED BY D.F. MANUFACTURER

MDF DRINKING FOUNTAIN SHOWN AS REQUESTED BY OWNER

ADJUST FRAMING AS NECESSARY TO SUPPORT SUPPORTS, CARRIER and FEET

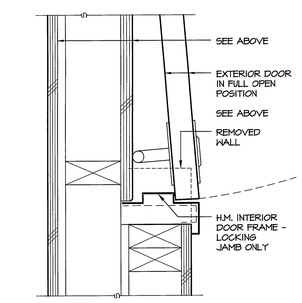
C1 DRINKING FOUNTAINS

SCALE: 3/4" = 1'-0"

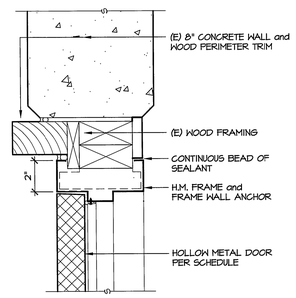


C3 TYPICAL STAIR STRIPING

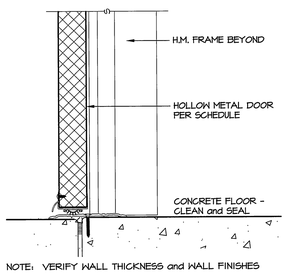
SCALE: 1/4" = 1'-0"



JAMB, INTERIOR @ INSWING DOORS 101 and 105



JAMB @ OUTSWING DOORS

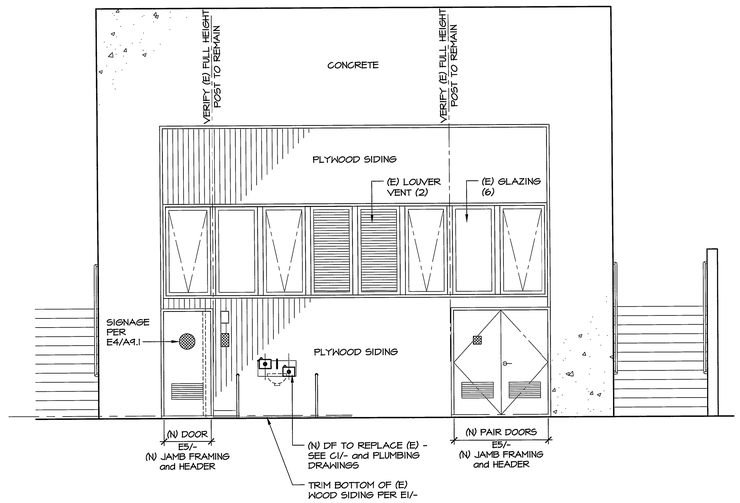


NOTE: VERIFY WALL THICKNESS and WALL FINISHES

THRESHOLD @ OUTSWING DOORS

E5 EXTERIOR DOOR

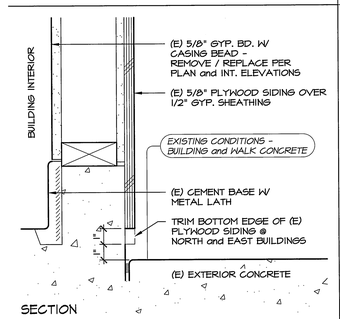
SCALE: 3" = 1'-0"



PROPOSED ELEVATION OF NORTH BUILDING - EAST BUILDING SIMILAR

E2 EXTERIOR ELEVATION

SCALE: 1/4" = 1'-0"



SECTION

E1 BOTTOM @ EXTERIOR WALL

SCALE: 3"=1'-0"

ROOM FINISH SCHEDULE

RM.	NAME	FLOOR	BASE	WALLS NORTH		WALLS EAST		WALLS SOUTH		WALLS WEST		CEILING			REMARKS
		MTL.		MTL.	FIN	MTL.	FIN	MTL.	FIN	MTL.	FIN	HT.	MTL.	FIN	
101	WOMEN	CS	C	C/W	P-1	C	P-1	W	P-1	W	P-1	VAR	(E)	-	w/ FRP wainscot over wood
102	STORAGE	CS	C	C/W	P-3	W	P-3	W	P-3	C	P-3	VAR	(E)	-	
103	LOCKERS	CS	C	W	P-2	W	P-2	C/W	P-2	C	P-2	VAR	(E)	-	
104	UNISEX	CS	C	W	P-1	C	P-1	C/W	P-1	W	P-1	VAR	(E)	-	w/ FRP wainscot over wood
105	MEN	CS	C	C	P-1	C/W	P-1	W	P-1	W	P-1	VAR	(E)	-	w/ FRP wainscot over wood
106	STORAGE	CS	C	W	P-3	C/W	P-3	C	P-3	W	P-3	VAR	(E)	-	
107	LOCKERS	CS	C	W	P-2	W	P-2	C	P-2	C/W	P-2	VAR	(E)	-	
108	UNISEX	CS	C	C	P-1	W	P-1	W	P-1	C/W	P-1	VAR	(E)	-	w/ FRP wainscot over wood

FINISH SCHEDULE LEGEND

AC	SUSPENDED ACOUSTICAL T-BAR CEILING
Alum	ALUMINUM
Anod	ANODIZED
CBB	CEMENTITITIOUS BACKER BOARD
C	CONCRETE
CC	CONCRETE, INTEGRAL COLOR
CP	CEMENT PLASTER
Cpt	CARPET
CT	CERAMIC TILE
CS	CONCRETE SEALED
FF	FACTORY FINISH
FRP	FIBER-REINFORCED PLASTIC PANELS
GB	GYPSUM BOARD
HM	HOLLOW METAL
Lam	LAMINATED SECURITY PANELS
Lino	LINOLEUM
P	PAINT
PE	PAINT, EPOXY
PL	PLASTIC LAMINATE
QT	QUARRY TILE
R	RUBBER
RB	RUBBER BASE
SCW	SOLID CORE WOOD
ST	STONE TILE
SV	SHEET VINYL
SWP	SANITARY WALL PANEL
Temp	TEMPERED
V.	VARIES
VCT	VINYL COMPOSITION TILE
VWC	VINYL WALL COVERING
W	WOOD PANEL WALL FINISH

PAINT COLORS

(DUNN EDWARDS)

P-1	TBD	TBD	toilet rooms u.o.n.
P-2	TBD	TBD	locker rooms
P-3	TBD	TBD	storage rooms
P-4	TBD	TBD	hm doors
P-5	TBD	TBD	hm frames
P-6	TBD	TBD	wood ceiling framing

GENERAL NOTES

1. See interior elevations, sheets A5.1 and A5.2, for extent of each wall finish.
2. Required minimum interior wall finish: Class 'C'.

DOOR SCHEDULE

KEY	SIZE (W x H x T)	ROOM	RATING (min.)	TYPE	HDW. GRP.	CONST. TYPE	GLASS TYPE	DOOR FIN.	FRAME TYPE	FRAME FIN.	DETAIL HEAD	DETAIL JAMB	DETAIL SILL	REMARKS
101	3'-0" x 6'-8" x 1 3/4"	101	-	A1	1	HM	-	P-X	HM	P-X		E5/-		note 'A'
102	PAIR 3'-0" x 6'-8" x 1 3/4"	102	-	A1	2	HM	-	P-X	HM	P-X		E5/-		
103	3'-0" x 6'-8" x 1 3/4"	103	-	A1	3	HM	-	P-X	HM	P-X		E5/-		
104	3'-0" x 6'-8" x 1 3/4"	104	-	A1	4	HM	-	P-X	HM	P-X		E1/A9.1		
105	3'-0" x 6'-8" x 1 3/4"	105	-	A1	1	HM	-	P-X	HM	P-X		E5/-		note 'A'
106	PAIR 3'-0" x 6'-8" x 1 3/4"	106	-	A1	2	HM	-	P-X	HM	P-X		E5/-		
107	3'-0" x 6'-8" x 1 3/4"	107	-	A1	3	HM	-	P-X	HM	P-X		E5/-		
108	3'-0" x 6'-8" x 1 3/4"	108	-	A1	4	HM	-	P-X	HM	P-X		E1/A9.1		

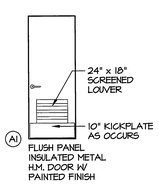
DOOR SCHEDULE NOTES

A. Door frame, subframe and hardware to allow the door to be locked in both the closed and open positions. See plan and details.

GENERAL NOTES

1. Exit doors shall be operable from the inside without use of a key or any special knowledge or effort. Latching and locking doors that are hand operated are operable with a single effort (lever, panic, push / pull).
2. Maximum effort to operate doors:
   5# @ interior doors
   5# @ exterior doors
   15# @ fire-rated door assemblies
3. Operating hardware shall be centered between 30" and 44" above finish floor.
4. Door closers, if present, shall be set so that it takes 5 seconds min. to close from an open position of 90 degrees to 12 degrees from the latch. (CBC Section 11B-404.2.8)
5. See Plan and detail E4/A9.1 for signage requirements.
6. Manually operated flush bolts or surface bolts shall not be used.

DOOR TYPES



LICENSED ARCHITECT
ZOE G. GLASS
REG. NO. C-28
DATE 10/15
STATE OF CALIFORNIA

GLASS ARCHITECTS

200 E STREET
Suite 100
Santa Rosa Ca 95404
Tel: (707) 544-3920
Fax: (707) 544-2514

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TRANS ADMIN.		DATE	
SENIOR ENGR.	T.J.	DATE	8/1/14
APPROVED BY:		DATE	8/1/14

CITY ENGINEER/ R.C.E. No. 34870

CITY OF SAN LEANDRO

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Exterior Details

SHEET 8 OF 20

JOB NO. 2003.0331

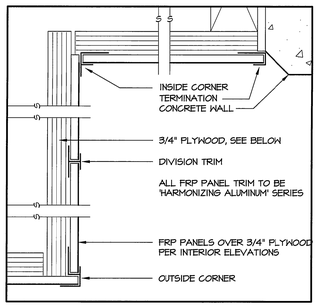
SCALE As Noted

DWG. 1906 CASE 1002

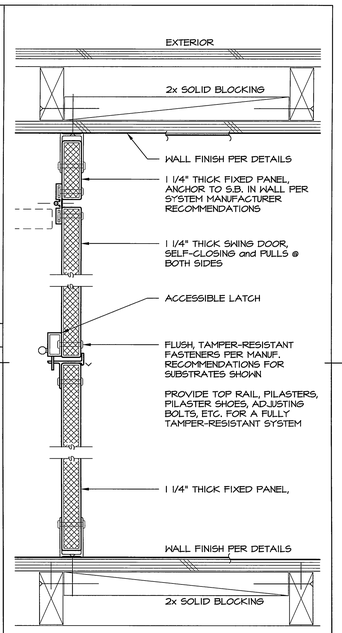
Line is 1 inch @ full-size drawing

A8.1

Plotted:10/21 PROJECTS:SAN LEANDRO VERTICAL/CODE



C1 FRP WALL PANELS
SCALE: 6" = 1'-0"

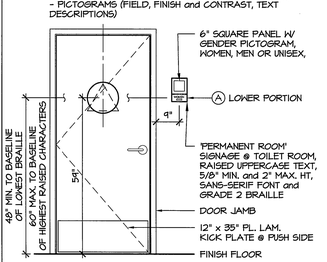


PLAN SECTION

D2 TOILET PARTITION
SCALE: 3" = 1'-0"

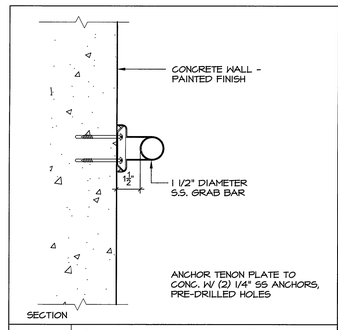
SYMBOLS
(NO SCALE)

Ⓐ SUPPLEMENTAL PERMANENT ROOM SIGNAGE - COMPLY W/ 2013 CBC and ADA REQUIREMENTS RE:
- RAISED CHARACTERS (DEPTH, CASE, STYLE, PROPORTIONS, HEIGHT, STROKE and SPACING)
- BRAILLE (TYPE, DIMENSION, CAPITALIZATION, POSITION)
- VISUAL CHARACTERS (FINISH and CONTRAST, CASE, STYLE, PROPORTIONS, HEIGHT, THICKNESS, SPACING, FORMAT)
- PICTOGRAMS (FIELD, FINISH and CONTRAST, TEXT DESCRIPTIONS)



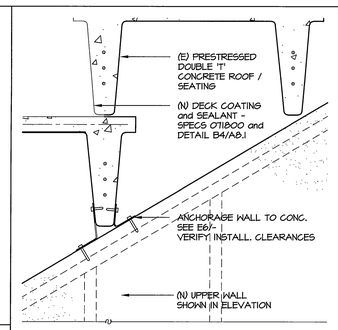
ELEVATION

E3 RESTROOM SIGNAGE
SCALE: 1/2"=1'-0"
DW-98A

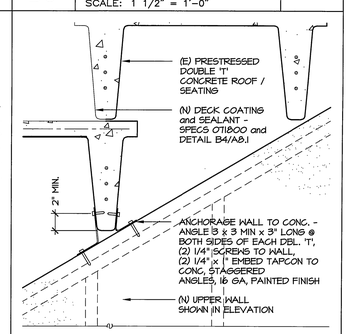


SECTION

C4 GRAB BAR @ CONC. WALL
SCALE: 3"=1'-0"
WD-902

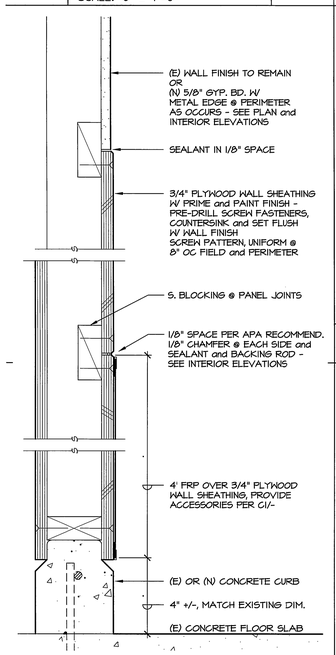


TOP OF WALL - // TO ROOF STRUCTURE



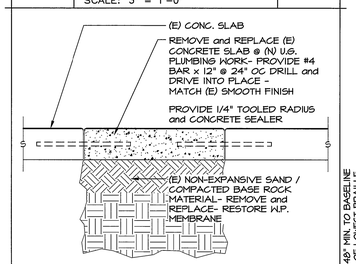
TOP OF WALL - // TO ROOF STRUCTURE

B6 UPPER WALL INFILL PANEL
SCALE: 1 1/2" = 1'-0"



SECTION

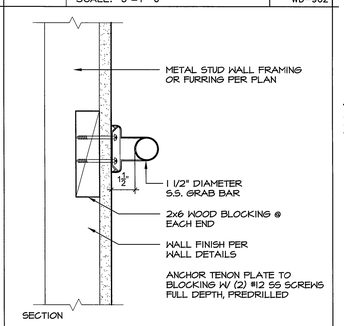
E1 INTERIOR WALL FINISHES
SCALE: 3" = 1'-0"



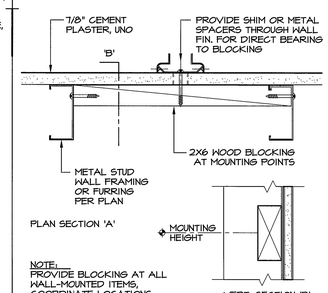
CONFORM TO ACI 117 and 301 PUBLICATIONS FOR COND. SHOWN

CONCRETE REQUIREMENTS-	
COARSE AGG. and FINE AGG.	1" x #4
MIN. 28 DAY STRENGTH	2,500
MIN. CEMENT SACKS / YD.	5.0

E2 INTERIOR CONCRETE
SCALE: 1 1/2" = 1'-0"



SECTION



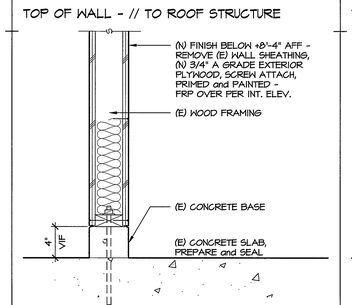
PLAN SECTION 'A'

VERT. SECTION 'B'

NOTE:
PROVIDE BLOCKING AT ALL WALL-MOUNTED ITEMS, COORDINATE LOCATIONS WITH ALL CONTRACTORS

E4 GRAB BAR @ FRAME WALL
SCALE: 3" = 1'-0"

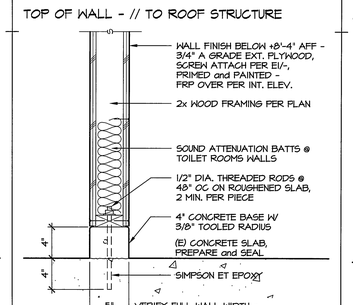
TOP OF WALL - // TO ROOF STRUCTURE



SECTION

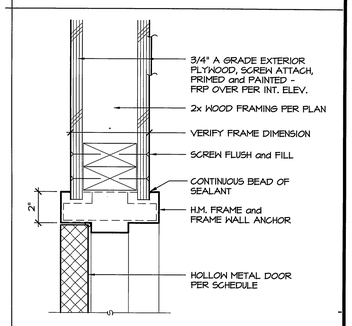
E5 EXISTING INTERIOR WALL
SCALE: 1-1/2"=1'-0"

TOP OF WALL - // TO ROOF STRUCTURE

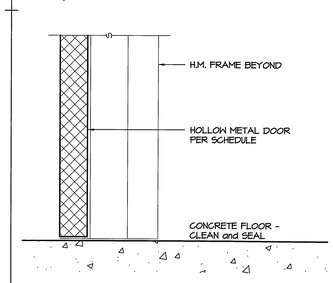


SECTION

E6 NEW INTERIOR WALL
SCALE: 1-1/2"=1'-0"



JAMB, HEAD SIMILAR



NOTE: VERIFY WALL THICKNESS and WALL FINISHES

THRESHOLD

E7 INTERIOR DOOR
SCALE: 3" = 1'-0"

LICENSED ARCHITECT
REG. 12, GLASS
11.10.2015
EXPIR. 10/15
STATE OF CALIFORNIA

GLASS ARCHITECTS

200 E STREET
Suite 100
Santa Rosa Ca 95404
Tel: (707) 544-3920
Fax: (707) 544-2514

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APPROVED BY:		DATE	8/1/14

CITY ENGINEER, R.C.E. No. 34870

CITY OF SAN LEANDRO

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Interior Details

SHEET 9 OF 20
JOB NO. 2003.0331
SCALE As Noted
DWG. 1907 CASE 1002

Line is 1 inch @ full-size drawing

A9.1

Revit V2011 PROJECTFiles/ Locker WARP-DOOR

MECHANICAL SYMBOLS

SYMBOL	ABBREVIATION	DESCRIPTION
	CD	SUPPLY DIFFUSER
	RAG, EAG	RETURN/EXHAUST AIR GRILLE
	VD	VOLUME DAMPER
14x12		DUCT SIZE, FIRST NUMBER IS IN PLANE OF PAGE
14x12	L	LINED DUCTWORK
		DEMOLITION
		TURNING VANES
	FC	FLEXIBLE CONNECTION
	FD	FIRE OR FIRE SMOKE DAMPER
		SUPPLY DUCT UP
		RETURN/EXHAUST DUCT UP
T	T	THERMOSTAT
	POC	POINT OF CONNECTION
SD	SD	DUCT SMOKE DETECTOR
M		MOTOR-ACTUATOR
	AFF	ABOVE FINISHED FLOOR
	BDD	BACK DRAFT DAMPER
	CTE	CONNECT TO EXISTING
	DG	DOOR GRILLE
	DN	DOWN
	DWG	DRAWING
	(E)	EXISTING
	FLA	FULL LOAD AMPS
	IJS	IN JOIST SPACE
	MBH	THOUSAND BTU PER HOUR
	MCA	MINIMUM CIRCUIT AMPS
	MOCP	MAXIMUM OVER CURRENT PROTECTION
	NTS	NOT TO SCALE
	OA	OUTSIDE AIR
	RL	REFRIGERANT LIQUID
	RS	REFRIGERANT SUCTION
	SAD	SEE ARCHITECTURAL DRAWINGS
	SED	SEE ELECTRICAL DRAWINGS
	SFD	SEE FOOD SERVICE DRAWINGS
	SHD	SEE HYDRONIC DRAWINGS
	SMD	SEE MECHANICAL DRAWINGS
	SPD	SEE PLUMBING DRAWINGS
	SRD	SEE REFRIGERATION DRAWINGS
	SSD	SEE STRUCTURAL DRAWINGS
	TYP	TYPICAL
	UC	UNDERCUT DOOR 5/8"
	VIF	VERIFY IN FIELD
	VTR	VENT THROUGH ROOF

VENTILATION CALCULATIONS

MEN'S RESTROOM: (180-SF) (TYP OF WOMEN'S RR)
NATURAL VENTILATION REQUIREMENTS PER CBC: OPENINGS = 4% OF FLOOR AREA.
180-SF x 4% = 7.2-SF REQUIRED.
3-FT x 6-FT LOUVER x 45% FREE AREA = 8.1-SF PROVIDED.

STORAGE ROOM: (200-SF) (TYP-2)
NATURAL VENTILATION REQUIREMENTS PER CBC: OPENINGS = 4% OF FLOOR AREA.
200-SF x 4% = 8.0-SF REQUIRED.
3-FT x 6-FT LOUVER x 45% FREE AREA = 8.1-SF PROVIDED.

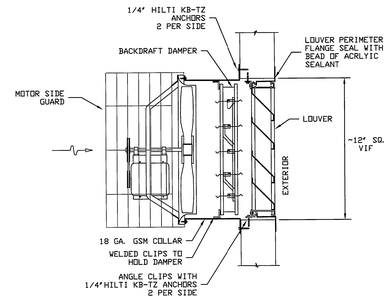
UNISEX RESTROOM: (180-SF) (TYP-2)
MECHANICAL VENTILATION PER CMC: 70-CFM PER TOILET
PROVIDED BY EF-1/2
MAKE-UP AIR TRANSFERRED THROUGH LOCKER ROOM.

LOCKER ROOM: (200-SF) (TYP-2)
MECHANICAL VENTILATION PER CMC: 1-CFM PER SQUARE FOOT = 200-CFM
PROVIDED BY EF-1/2

MECHANICAL EQUIPMENT SCHEDULE

EF-1, 2 — EXHAUST FAN
MODEL: GREENHECK SE1-10-428-P
AIRFLOW: 200 CFM @ 0.3"WC; 5.2 SONES
ELECTRICAL: 120 VOLTS, 78-WATTS, FAN TO INTERLOCK WITH LIGHT SWITCH WITH 5-MIN DELAY TIMER.
NOTES: WITH WALL HOUSING, MOTOR GUARD, DISCONNECT.

L-1 — LOUVER, STATIONARY
MODEL: RUSKIN ELF375X
FEATURES: ALUMINUM CONSTRUCTION, 4"DEEP, 37°BLADES, 54% FREE AREA
OPTIONS: INTERIOR BIRD SCREEN, KYNAR COATING (VERIFY COLOR WITH ARCHITECT)



EXHAUST FAN MOUNTING DETAIL (1)

NTS

REGISTERED PROFESSIONAL ENGINEER — RONALD MARMINO — No.M30815 — EXP.12-31-14 — MECHANICAL — STATE OF CALIFORNIA

TEP ENGINEERING
880 Second Street
Santa Rosa, CA 95404-4510
707.538.0400 office
707.538.0406 fax

GLASS ARCHITECTS
200 E STREET
Suite 100
Santa Rosa Ca 95404
Tel: (707) 544-3920
Fax: (707) 544-2514

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APPROVED BY		DATE 8/1/14

CITY ENGINEER, R.C.E. No. 34870

CITY OF SAN LEANDRO

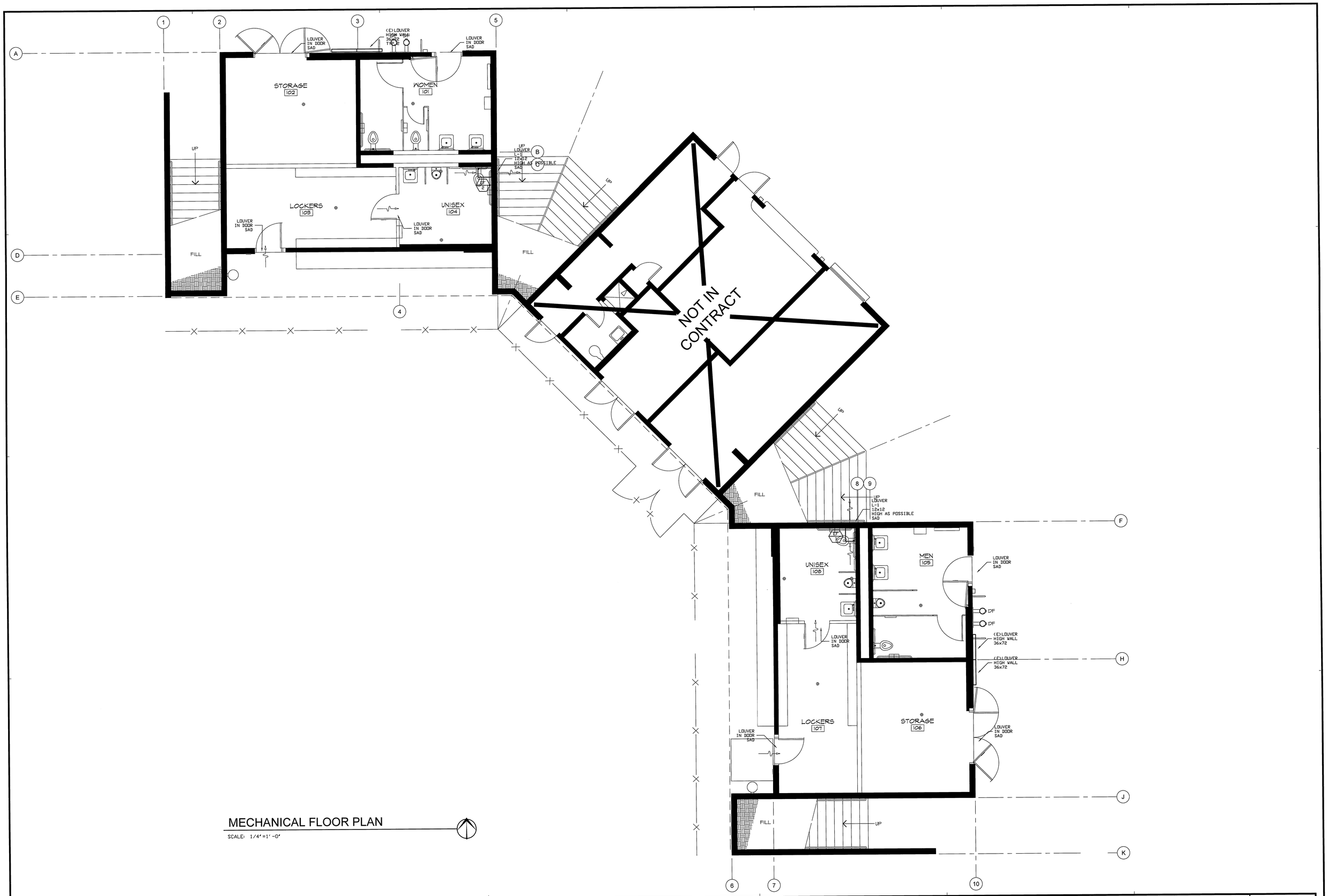
SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Mechanical Notes & Schedules

SHEET 10 OF 20
JOB NO. 2003.0331
SCALE AS NOTED
DWG. 1908 CASE 1002

Line is 1 inch @ full-size drawing

M0.1

TEP #2128



MECHANICAL FLOOR PLAN

SCALE: 1/4"=1'-0"

REGISTERED PROFESSIONAL ENGINEER — RICHARD MANNING — No.M30815 — EXP.12-31-14 — MECHANICAL — STATE OF CALIFORNIA

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DESIGNED BY	GLASS	DATE 7/30/14
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PROJECT MGR.	MTG	DATE 7/31/14
TRANS ADMIN.		DATE
SENIOR ENGR.	A.S.	DATE 8/1/14
APPROVED BY:		DATE 8/1/14

CITY ENGINEER, R.C.E. No. 34870

CITY OF SAN LEANDRO

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Mechanical Floor Planr

SHEET 11 OF 20
JOB NO. 2003.0331
SCALE AS NOTED
DWG. 1909 CASE 1002

Line is 1 inch @ full-size drawing

M2.1

TEP #2128

PLUMBING SYMBOLS

SYMBOL	ABBREVIATION	DESCRIPTION
	W	WASTE PIPE ABOVE GRADE
	W, SS	WASTE PIPE BELOW GRADE
	V	VENT PIPE
	CW	COLD WATER PIPE
	HW	HOT WATER PIPE
HWR	HWR	HOT WATER RETURN PIPE
G	G	GAS PIPE
TW	TW	TEMPERED HOT WATER
		PIPE DEMOLITION
F		FILTERED WATER PIPE
		GATE VALVE
		GLOBE VALVE
		BALL VALVE
		CHECK VALVE
		BALANCING VALVE
		PRESSURE REDUCING DEVICE
	TV	TEMPERING VALVE
		UNION
		PRESSURE GAUGE AND NEEDLE VALVE
		PUMP
		THERMOMETER
	CO	CLEANOUT
	FCO	FLOOR CLEANOUT
	COTG	CLEANOUT TO GRADE
	HB	HOSE BIBB
		PIPE UP
		PIPE DOWN
		PIPE CONNECTION
	FD	FLOOR DRAIN
		AQUASTAT
		TIME SWITCH
		PRESSURE AND TEMPERATURE RELIEF VALVE
	POC	POINT OF CONNECTION
	AFF	ABOVE FINISHED FLOOR
	AFG	ABOVE FINISHED GRADE
	BFF	BELOW FINISHED FLOOR
	CD	CONDENSATE DRAIN
	CTE	CONNECT TO EXISTING
	DFU	DRAIN FIXTURE UNITS
	DWV	DRAIN, WASTE, AND VENT
	DN	DOWN
	DWG	DRAWING
	(E)	EXISTING
	IE	INVERT ELEVATION
	IJS	IN JOIST SPACE
	NTS	NOT TO SCALE
	OD	OVERFLOW DRAIN
	(RE)	RELOCATE EXISTING
	SD	STORM DRAIN
	SS	SANITARY SEWER
	TP	TRAP PRIMER
	TYP	TYPICAL
	VIF	VERIFY IN FIELD
	VTR	VENT THROUGH ROOF
	WCO	WALL CLEANOUT
	SAD	SEE ARCHITECTURAL DRAWINGS
	SCD	SEE CIVIL DRAWINGS
	SED	SEE ELECTRICAL DRAWINGS
	SFD	SEE FOOD SERVICE DRAWINGS
	SHD	SEE RADIANT HEATING DRAWINGS
	SMD	SEE MECHANICAL DRAWINGS
	SPD	SEE PLUMBING DRAWINGS
	SRD	SEE REFRIGERATION DRAWINGS
	SSD	SEE STRUCTURAL DRAWINGS
	WSFU	WATER SUPPLY FIXTURE UNITS

PLUMBING NOTES

1. ALL PIPES, FITTINGS, FIXTURES AND ALL OTHER END-USE DEVICES INTENDED TO CONVEY OR DISPENSE WATER FOR HUMAN CONSUMPTION THROUGH DRINKING OR COOKING SHALL BE "LEAD FREE" AND LABELED AS SUCH IN COMPLIANCE WITH CALIFORNIA AB1953. PRIOR TO CONSTRUCTION, SUBMIT TO THE ENGINEER A STATEMENT INDICATING ALL PRODUCTS SUPPLIED ARE IN COMPLIANCE WITH THE LAW.
2. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF PLUMBING FIXTURES, FIXTURE MOUNTING HEIGHTS AND FLOOR DRAIN LOCATIONS.
3. PLUMBING FIXTURES AND INSTALLATIONS THAT SERVE PUBLIC BUILDINGS SHALL COMPLY WITH CBC SECTION 1115B "ACCESSIBILITY TO PUBLIC BUILDINGS, BATHING AND TOILET FACILITIES" SEE ARCHITECTURAL DRAWINGS FOR INSTALLATION DETAILS.
4. ALL PLUMBING FIXTURES SHALL COMPLY WITH WATER CONSERVATION REQUIREMENTS OF CALIFORNIA ENERGY CODE (TITLE 24), AND THE CALIFORNIA GREEN CODE MANDATORY MEASURES. PERFORMANCE CALCULATIONS MAY BE PROVIDED IN LIEU OF PRESCRIPTIVE REQUIREMENTS SHOWN BELOW. IF VOLUNTARY TIER-1 OR TIER-2 MEASURES ARE REQUIRED A SEPARATE PERFORMANCE CALCULATION MUST BE PROVIDED TO SHOW COMPLIANCE.
5. ALL PIPING SHALL BE CONCEALED UNLESS SPECIFICALLY INDICATED OTHERWISE.
6. PHYSICALLY VERIFY ELEVATION OF SEWER CONNECTION AND EXACT LOCATION BEFORE STARTING ANY WORK.
7. WHERE PIPES PASS THROUGH FIRE RATED CONSTRUCTION PROVIDE FIRE STOPPING PER CBC SECTION 708 AND 713. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF FIRE RATED ASSEMBLIES..
8. INSULATION, COVERINGS OR INSULATION FACING, SHALL BE OF MATERIAL SUITABLE FOR OPERATING TEMPERATURE OF SYSTEM AND SHALL HAVE A FLAME-SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 W=EN TESTED IN ACCORDANCE WITH BUILDING CODE STANDARDS. (CMC 1201.2.1.8)
9. INSTALLATION INSTRUCTIONS FOR ALL EQUIPMENT SHALL BE MADE AVAILABLE TO THE BUILDING INSPECTOR AT THE TIME OF INSPECTION.

FIXTURE CONNECTION SCHEDULE

SYMBOL	DESCRIPTION	W	PIPE SIZE IN INCHES V	HW	CW	TW
DF-1	DRINKING FOUNTAIN	2	1-1/2	-	1/2	
FD-1	FLOOR DRAIN	2	1-1/2	-	-	
HB-1	HOSE BIBB	-	-	-	3/4	
L-1	LAVATORY	1-1/2	1-1/2	-	1/2	
U-1	URINAL	2	1-1/2	-	3/4	
WC-1	WATER CLOSET (FV)	3	2	-	1-1/4	

PLUMBING EQUIPMENT SCHEDULE

DF-1 DRINKING FOUNTAIN (DOUBLE) - ADA ACCESSIBLE
MODEL: MDF #4BSEZWMSS
DESCRIPTION: 18 GAUGE STAINLESS STEEL DUAL HEIGHT ONE PIECE FOUNTAIN WITH PUSH BUTTON VALVES, STAINLESS STEEL ANTI-SQUIRT HEAD, ABA OR ADA STANDING PERSON COMPLIANT, MOUNTING PLATE.

FD-1 FLOOR DRAIN
MODEL: EXISTING

HB-1 HOSE BIBB
MODEL: EXISTING

L-1 LAVATORY - WALL MOUNTED - ADA ACCESSIBLE
MODEL: ACORN "DURA-WARE" 1953LC SERIES (SINGLE HOLE)
FAUCET: CHICAGO FAUCETS #33-E2805-665PSHAB. 0.5 GPM (15 SECONDS).
DESCRIPTION: 20" WIDE, 16 GAUGE STAINLESS STEEL ADA COMPLIANT WALL MOUNT LAVATORY, WITHOUT VALVES, SINGLE HOLE CENTERED DECK, GRID STRAINER WITH TAILPIECE, LAVATORY OVERFLOW, TRAP ENCLOSURE, VALVE COVER. WALL MOUNTING TO INCLUDE CONCEALED ARM CARRIER.

U-1 URINAL - WALL MOUNTED, FLUSH VALVE - ADA ACCESSIBLE
MODEL: ACORN "DURA-WARE" 2158 SERIES
DESCRIPTION: 18 GAUGE STAINLESS STEEL WITH 16 GAUGE STAINLESS STEEL BOWL. TOP EXPOSED FLUSH VALVE WITH ADA COMPLIANT LEVER HANDLE, 0.5 GPF. WALL MOUNTING TO INCLUDE CONCEALED ARM CARRIER.

WA-1 WATER HAMMER ARRESTOR
MODEL: SIOUX CHIEF "HYDRA RESTER" SERIES 650 OR WATTS GG SERIES
NOTES: SIZE AS NOTED ON PLANS, PROVIDE WITH BALL SHUT OFF VALVE

WC-1 WATER CLOSET - WALL MOUNTED, FLUSH VALVE - ADA ACCESSIBLE
MODEL: ACORN "DURA-WARE" 2100 SERIES
DESCRIPTION: 16 GAUGE STAINLESS STEEL WITH INTEGRAL CONTOURED TOILET SEAT, TOP EXPOSED FLUSH VALVE WITH ADA COMPLIANT LEVER HANDLE. LOCATED ON RIGHT OR LEFT SIDE TO MEET ACCESSIBLE REQUIREMENTS, 1.28 GPF. JAY R. SMITH #0310 CARRIER SYSTEM.

WCO WALL CLEANOUT
MODEL: ZURN #Z-1446

CALIFORNIA GREEN BUILDING STANDARD NOTES

1. PLUMBING FIXTURES INSTALLED SHALL MEET THE MAXIMUM WATER CONSUMPTION FLOW RATE VALUES SHOWN IN TABLE 5.303.2.3 AND SECTION 5.303.3 OF THE CALIFORNIA GREEN BUILDING STANDARDS.
2. PLUMBING FIXTURES INSTALLED SHALL REDUCE THE WASTEWATER PRODUCTION BY 20% WITH THE INSTALLATION OF WATER CONSERVING FIXTURES MEETING THE CRITERIA ESTABLISHED IN SECTION 5.303.2 OR 5.303.3 OF THE CALIFORNIA GREEN BUILDING STANDARDS.
3. ALL PLUMBING FIXTURES AND FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE AND SHALL MEET THE APPLICABLE STANDARDS OF CHAPTER 6 OF THE CALIFORNIA GREEN BUILDING STANDARDS.
4. ALL PLUMBING FIXTURE AND FITTING FINISH MATERIAL SHALL COMPLY WITH SECTIONS 5.504.4.1 THROUGH 5.504.4.4 OF THE CALIFORNIA GREEN BUILDING STANDARDS.(CGBS 5.404.4)
4. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL REQUIREMENTS.

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TRANS ADMIN. DATE
SENIOR ENGR. DATE 8/1/14
APPROVED BY DATE 8/1/14
CITY ENGINEER, R.C.E. No. 34870

CITY OF SAN LEANDRO

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Plumbing Notes & Schedules

SHEET 12 OF 20
JOB NO. 2003.0331
SCALE AS NOTED
DWG. 1910 CASE 1002

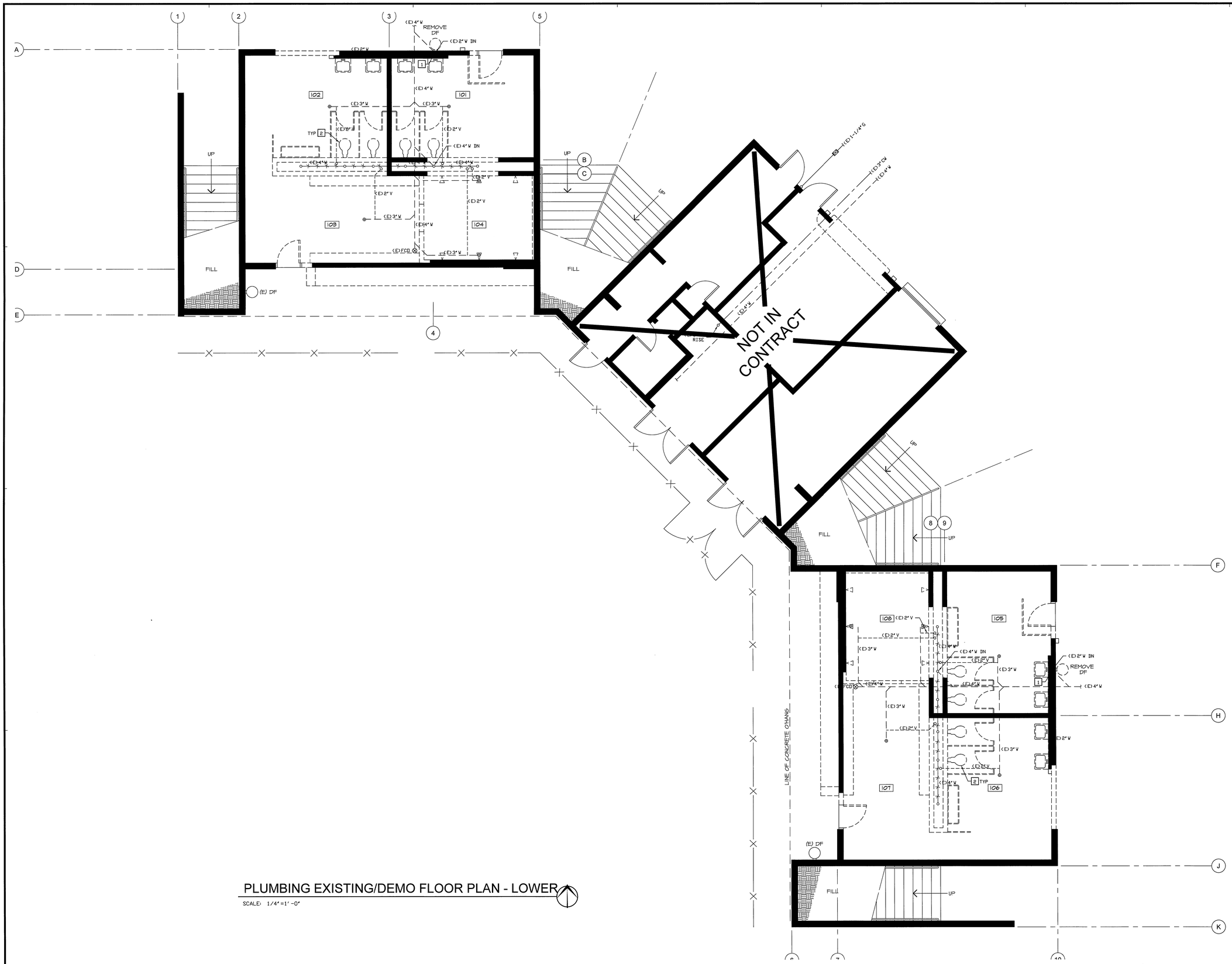
Line is 1 inch @ full-size drawing

P0.1

TEP #2128

SHEET NOTES

1. CAP (E) PIPING IN WALL.
2. REMOVE (E) FIXTURES AND WALL CARRIERS AND DISPOSE.



PLUMBING EXISTING/DEMO FLOOR PLAN - LOWER

SCALE: 1/4" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER — MECHANICAL — No.M30813 — EXP.12-31-14 — STATE OF CALIFORNIA

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TRANS. ADMIN. DATE
SENIOR ENGR. DATE 8/1/14
APPROVED BY DATE 8/1/14
CITY ENGINEER, R.C.E. No. 34870

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Plumbing Exist/Demo Floor Plan - Lower

SHEET 13 OF 20
JOB NO. 2003.0331
SCALE AS NOTED
DWG. 1911 CASE 1002

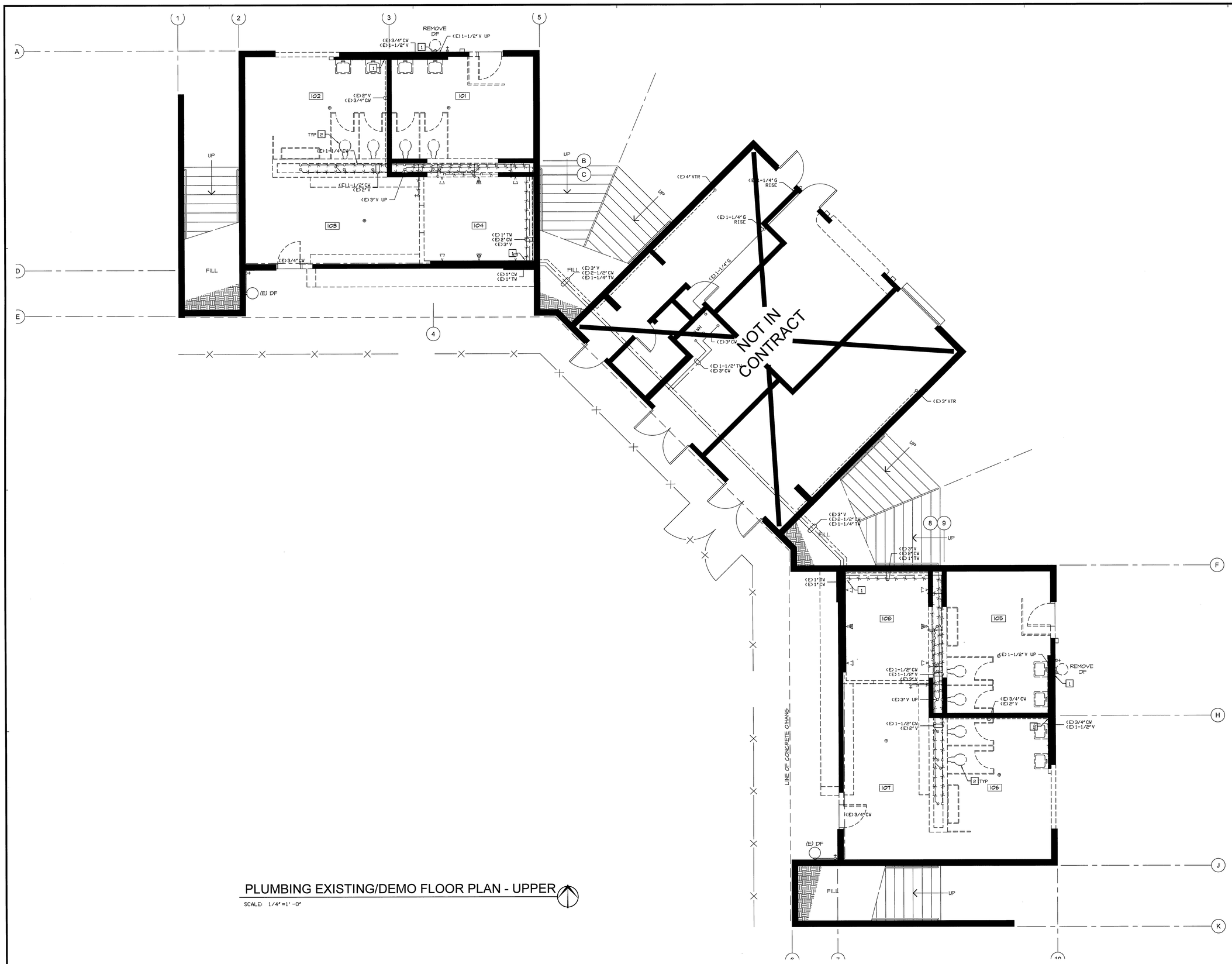
Line is 1 inch @ full-size drawing

P1.1

TEP 8/1/13

SHEET NOTES

1. CAP (E) PIPING IN WALL.
2. REMOVE (E) FIXTURES AND WALL CARRIERS AND DISPOSE.



PLUMBING EXISTING/DEMO FLOOR PLAN - UPPER

SCALE: 1/4" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER
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TRANS. ADMIN.		DATE
SENIOR ENGR.	N.J.	DATE 8/1/14
APPROVED BY		DATE 8/1/14

CITY ENGINEER, R.C.E. No. 34870

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Plumbing Exist/Demo Floor Plan - Upper

SHEET 14 OF 20
JOB NO. 2003.0331
SCALE AS NOTED
DWG. 1912 CASE 1002

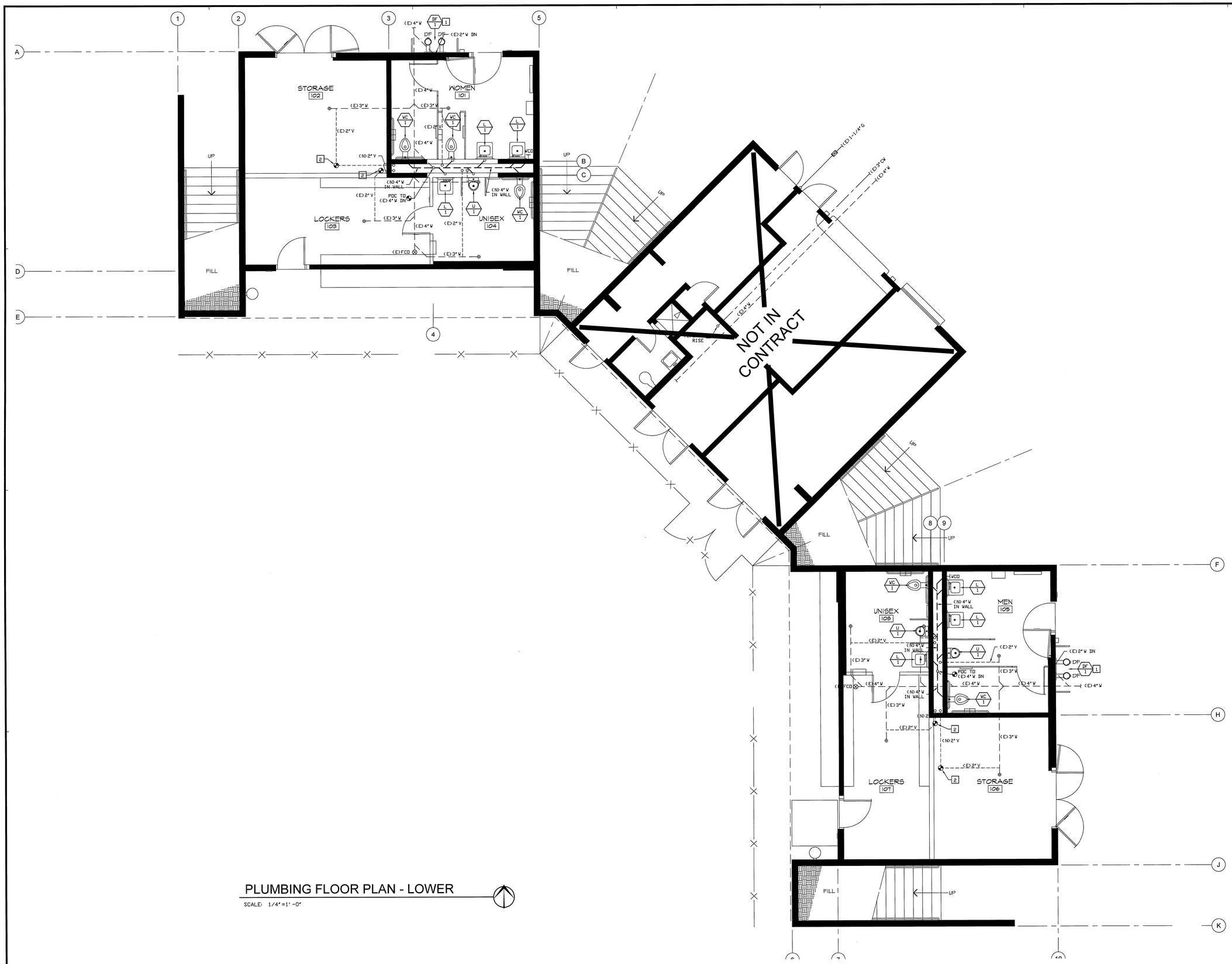
Line is 1 inch @ full-size drawing

P1.2

TEP#1912

SHEET NOTES

1. REWORK (E) WASTE PIPING IN WALL TO CONNECT TO (N) DF-1.
2. PDC TO (E) VENT UNDER FLOOR AND EXTEND TO WALL.



PLUMBING FLOOR PLAN - LOWER

SCALE: 1/4"=1'-0"

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APPROVED BY:		DATE 8/1/14

CITY ENGINEER, R.C.E. No. 34870

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Plumbing Floor Plan - Lower

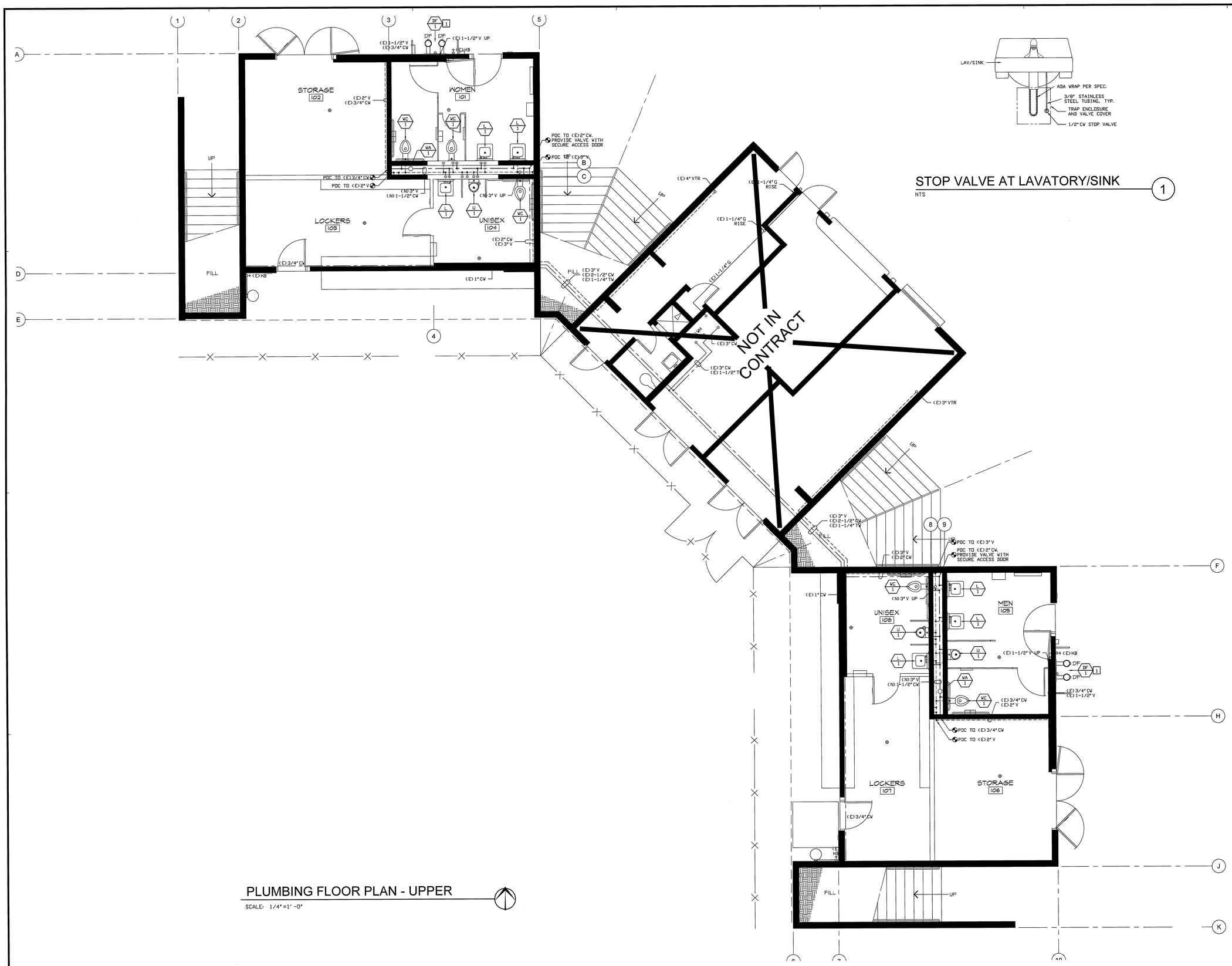
SHEET 15 OF 20
JOB NO. 2003.0331
SCALE AS NOTED
DWG. 1913 CASE 1002

Line is 1 inch @ full-size drawing

P2.1

SHEET NOTES

1. REWORK (E) WASTE PIPING IN WALL TO CONNECT TO (N) DF-1.



STOP VALVE AT LAVATORY/SINK (1)

NTS

PLUMBING FLOOR PLAN - UPPER

SCALE: 1/4"=1'-0"

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APPROVED BY		DATE	8/11/14

CITY ENGINEER, R.C.E. No. 34870

CITY OF SAN LEANDRO

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
Plumbing Floor Plan - Upper

SHEET 16 OF 20
JOB NO. 2003.0331
SCALE AS NOTED
DWG. 1914 CASE 1002

Line is 1 inch @ full-size drawing

P2.2

TEP #2129

SAN LEANDRO BALL PARK-213135

NEW PANEL C

VOLTS:	120 / 240 V	MAIN BRKR:	50A/2P MCB
PHASE:	1 PH	FEEDER:	SEE SINGLE LINE
WIRE:	3 W	CONDUIT:	SEE SINGLE LINE
BUSSING:	100A	MOUNTED:	SURFACE
POLES:	12P	AIC RATING:	65k

ADD ALTERNATE

LOAD DESCRIPTION	TYPE	A	B	BRKR.	CKT.	CKT.	BRKR.	A	B	TYPE	LOAD DESCRIPTION
HAND DRYER	M	1.50		20/1	1	2					SPACE
HAND DRYER	M		1.50	20/1	3	4					SPACE
HAND DRYER	M	1.50		20/1	5	6					SPACE
HAND DRYER	M		1.50	20/1	7	8					SPACE
SPARE				20/1	9	10					SPACE
SPARE				20/1	11	12					SPACE
		3.00	3.00					0.00	0.00		

DEMAND LOAD SUMMARY	CONN. KVA	DEMAND FACTOR	DEMAND KVA
TYPE "M": NON-CONTINUOUS / MISC. LOADS	6.00	100%	6.00
TYPE "L": LIGHTING / CONTINUOUS LOADS	0.00	125%	0.00
TYPE "R": RECEPTACLES (FIRST 10KVA)	0.00	100%	0.00
TYPE "R": RECEPTACLES (OVER 10KVA)	0.00	50%	0.00
TYPE "H": HVAC / MECHANICAL LOADS	0.00	100%	0.00
TOTALS:	6.00		6.00

PHASE A: 3.00 KVA
PHASE B: 3.00 KVA

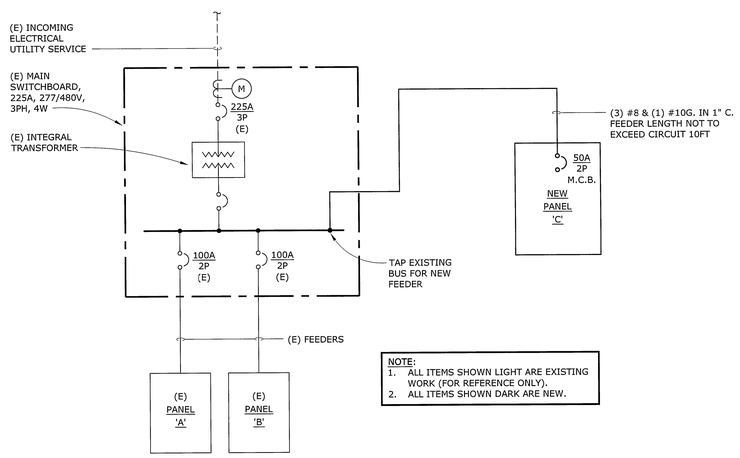
25.00 MAX AMPS / PHASE

ADD ALTERNATE
SEE E2.0

LOAD CALCULATION

LOAD		CONNECTED KVA
EXISTING ELECTRICAL LOAD (CONNECTED LOAD FROM 10-5-67 AS-BUILT PLANS) PER NEC 220.87: 27.7 KVA X 1.25%	27.7KVA	34.63
NEW PANEL C		6.00
TOTAL CONNECTED KVA		40.63
TOTAL LOAD AMPS @ 120/208V:		112.55
EXISTING MAIN SWITCHBOARD 'MSB' TOTAL CONNECTED KVA		40.63
TOTAL LOAD AMPS @ 277/480V (@ MAIN SWBD MSB)		48.76
MAIN SWITCHBOARD 'MSB' TOTAL AMPS @ 480V X 1.25%:		60.95

EXISTING MAIN SWITCHBOARD 'MSB' IS 225AMPS, @ 277/480V, 3PH, 4W.



NOTE:
1. ALL ITEMS SHOWN LIGHT ARE EXISTING WORK (FOR REFERENCE ONLY).
2. ALL ITEMS SHOWN DARK ARE NEW.

SINGLE LINE DIAGRAM - POWER

SCALE: NONE

1 / E5.1

SYMBOLS LIST

- SURFACE MOUNTED PANELBOARD, 6'-6" TO TOP
- SURFACE OR PENDANT STRIP FLUORESCENT FIXTURE
- WALL MOUNTED FIXTURE
- $a — LINE VOLTAGE SINGLE POLE TOGGLE SWITCH, LETTER ADJACENT INDICATES RESPECTIVE ZONE CONTROLLED, UP 48" U.O.N.
- CEILING MOUNTED LINE VOLTAGE DUAL TECHNOLOGY OCCUPANCY SENSOR, WATTSTOPPER #DT-355 OR EQUAL
- aOSb — WALL MOUNTED SWITCH TYPE INFRARED OCCUPANCY SENSOR; UP 48" U.O.N.; WATTSTOPPER OR EQUAL #PW-100 (SINGLE) AND #PW-200 (DUAL) AS NOTED BY LETTERS ADJACENT. SET TO FIXED 30 MINUTE TIME DELAY AND MAX SENSITIVITY
- MOTOR WITH FLEXIBLE CONDUIT CONNECTION AND DISCONNECT
- T — TRANSFORMER
- CONCRETE PULLBOX, SIZE AS REQUIRED OR SHOWN - CHRISTY OR EQUAL WITH LABELED LID PER USE
- COPPER GROUND ROD
- J — FLUSH CEILING MOUNTED JUNCTION BOX, U.O.N.
- J — FLUSH WALL MOUNTED JUNCTION BOX, UP 18" U.O.N.
- 20A 3PG 125V DUPLEX RECEPTACLE, UP 18" U.O.N.
- GFI — 20A 3PG 125V DUPLEX RECEPTACLE, GROUND FAULT CIRCUIT INTERRUPTER TYPE, UP 42" U.O.N. (WEATHERPROOF)
- 20A 3PG 125V DOUBLE DUPLEX RECEPTACLE, UP 18" U.O.N.
- WEATHERPROOF ENCLOSURE
- CONDUIT AND WIRE CONCEALED IN CEILING OR WALL
- CONDUIT AND WIRE CONCEALED IN OR UNDER SLAB OR UNDERGROUND
- CONDUIT AND WIRE RUN EXPOSED
- CROSSMARKS INDICATE QUANTITY OF #12 CONDUCTORS PLUS PARITY SIZED GROUND CONDUCTOR (INCLUDED BUT NOT INDICATED), NO HASHMARKS INDICATES (2)#12 CONDUCTORS PLUS PARITY SIZED GROUND CONDUCTOR, U.O.N.
  - GROUND WIRE
- (#10) — WIRE SIZE 10 AWG FOR ALL CONDUCTORS, INCLUDING GROUND WIRE, THROUGHOUT THE COMPLETE CIRCUIT
- FLEXIBLE METALLIC CONDUIT
- HOMERUN TO PANELBOARD OR TERMINAL BOARD, AS NOTED ON PLANS
- COMPLETE CONNECTION OF EQUIPMENT
- CONDUIT STUBBED OUT, CAPPED AND MARKED
- CONDUIT TURNED UP
- CONDUIT TURNED DOWN
- G — COPPER GROUNDING ELECTRODE CONDUCTOR, SIZE AS NOTED
- AC-1 — MECHANICAL EQUIPMENT DESIGNATION - SEE MECHANICAL PLANS
- 3 / E-6 — DETAIL DESIGNATION, SEE DETAIL 3, SHEET E6
- 1 — NUMBERED SHEET NOTE

A.F.F.	ABOVE FINISHED FLOOR
C	CONDUIT
C.O.	CONDUIT ONLY
CU	COPPER
E.C.	ELECTRICAL CONTRACTOR
(E)	EXISTING
(ER)	EXISTING EQUIPMENT TO BE RELOCATED
(EX)	EXISTING EQUIPMENT TO BE DISCONNECTED AND REMOVED
GFI	GROUND FAULT CIRCUIT INTERRUPTING TYPE RECEPTACLE
LV	LOW VOLTAGE
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
MTD	MOUNTED
(N)	NEW
N.E.C.	NATIONAL ELECTRICAL CODE
NEU.	NEUTRAL
N.I.E.C.	NOT IN ELECTRICAL CONTRACT
PNL	PANEL
S.A.D.	SEE ARCHITECTURAL DRAWINGS
U.O.N.	UNLESS OTHERWISE NOTED
T	TIMECLOCK CONTROLLED

GENERAL NOTES

1. PRIOR TO BID THE CONTRACTOR SHALL VISIT THE SITE TO ADEQUATELY DETERMINE ALL PRE-EXISTING CONDITIONS. BY THE ACT OF SUBMITTING A BID, THE CONTRACTOR WILL BE DEEMED TO HAVE COMPLIED WITH THE FOREGOING, TO HAVE ACCEPTED SUCH CONDITIONS, AND TO HAVE MADE ALLOWANCES THEREFORE IN PREPARING THE BID.
2. PROVIDE PARITY SIZED GREEN GROUND WIRE IN ALL POWER CONDUITS, BRANCH CIRCUITS (LIGHTING & POWER) AND HOMERUNS. PROVIDE ADDITIONAL ISOLATED GROUND, GREEN WITH YELLOW STRIPE, TO ALL ISOLATED GROUND RECEPTACLES.
3. PROVIDE PULLROPE IN ALL EMPTY CONDUITS THROUGHOUT THE PROJECT.
4. VERIFY EXACT CONNECTION REQUIREMENTS, OUTLET TYPE, HEIGHT, AND LOCATION OF ALL OWNER SUPPLIED EQUIPMENT OR EQUIPMENT PROVIDED UNDER OTHER SECTIONS OF THE SPECIFICATIONS PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL DRAWINGS FOR EQUIPMENT LOCATIONS.
5. NOT USED.
6. ALL CONDUIT PENETRATIONS THROUGH FIRE-RATED WALLS AND FLOORS SHALL BE SEALED AND EQUIPPED WITH U.L. LISTED FIRE PENETRATION ASSEMBLIES TO MAINTAIN FIRE SEPARATION RATING.
7. DO NOT INSTALL ANY OUTLETS BACK TO BACK IN STUD WALLS OR DE-MOUNTABLE PARTITIONS.
8. CIRCUITRY AND CONDUIT ROUTING SHOWN ON THE PLANS IS DIAGRAMMATIC ONLY. THIS CONTRACTOR IS RESPONSIBLE FOR BECOMING COMPLETELY FAMILIAR WITH THE ARCHITECTURAL AND STRUCTURAL CONDITIONS AND LIMITATIONS IN THE BUILDING AND TO PROVIDE ALL LABOR, TOOLS AND MATERIALS REQUIRED TO PRODUCE A COMPLETELY CONCEALED INSTALLATION WHEREVER INDICATED ON THE PLANS.
9. NOT USED.
10. DRAWINGS INDICATE THE LOCATION OF DEVICES, FIXTURES AND EQUIPMENT AND THE CIRCUIT NUMBER AND PANEL DESIGNATION WHICH SUPPLIES THEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETELY CONNECTING ALL ELECTRICAL DEVICES TO CIRCUITS INDICATED ON THE DRAWINGS.
11. UNLESS OTHERWISE NOTED, ALL WORK SHOWN ON DRAWINGS IS NEW AND TO BE PROVIDED AND INSTALLED UNDER THIS CONTRACT.
12. ALL EQUIPMENT GROUNDING SHALL CONFORM TO ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, LATEST EDITION.
13. ALL EXTERIOR CONDUIT ABOVE GRADE INCLUDING ALL ROOF MOUNTED CONDUIT, SHALL BE RIGID GALVANIZED STEEL. COAT ALL EXPOSED THREADS WITH GALVANIZING PAINT.
14. ALL ELECTRICAL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE LATEST EDITION OF THE N.E.C., AS WELL AS STATE, AND LOCAL CODES AND REQUIREMENTS.
15. ALL CONDUIT SHALL BE CONCEALED, UNLESS OTHERWISE NOTED.
16. ALL CONDUIT CONNECTORS TO OUTLET OR JUNCTION BOXES SHALL HAVE INSULATED THROATS (MANUFACTURED AS AN INTEGRAL PART OF THE CONNECTOR). AFTER-MARKET INSERTABLE THROATS ARE NOT ACCEPTABLE.
17. ALL CIRCUITS IN ALL JUNCTION BOXES AND DEVICES SHALL BE CLEARLY IDENTIFIED BY MEANS OF "EZ" NUMBERING TAGS OR EQUIVALENT TO IDENTIFY THE CIRCUIT NUMBER OR RELAY SUPPLYING THE CONDUCTOR. ALL JUNCTION BOXES SHALL BE LABELED PER SPECIFICATIONS SECTION 16050.
18. FOR OUTDOOR 20 AMPERE, 125 AND 250-VOLT RECEPTACLES: RECEPTACLES LOCATED IN "WET" LOCATIONS SHALL HAVE "IN-USE" TYPE WEATHERPROOF COVER PLATES PROVIDED AND INSTALLED; RECEPTACLES LOCATED IN "DAMP" LOCATIONS SHALL HAVE "IN-USE" TYPE WEATHERPROOF COVER PLATES IN LOCATIONS DEEMED TO BE "IN-USE" WITH CORD AND PLUG ATTACHED.

LIST OF DRAWINGS

E0.1 SYMBOLS LIST, GENERAL NOTES & LIST OF DRAWING
E0.2 LIGHTING TITLE 24 DOCUMENTS
E0.3 LIGHTING TITLE 24 DOCUMENTS
E2.0 FLOOR PLAN - ELECTRICAL

OMAHONY & MYER
ELECTRICAL ENGINEERS and LIGHTING DESIGN
440 REDWOOD HWY, SUITE 245
SAN RAFAEL, CALIFORNIA 94903
(415) 492-0420/FAX (415) 479-9682
www.omahoneandmyer.com

REGISTERED PROFESSIONAL ENGINEER
RICHARD J. COLENSO
No. 18173
ELECTRICAL
STATE OF CALIFORNIA

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200 E STREET
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Tel: (707) 544-3920
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CITY OF SAN LEANDRO INCORPORATED 1872

BEFORE YOU DIG, CALL UNDERGROUND SERVICE ALERT 1(800)227-2600
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES. THOSE SHOWN REPRESENT THE BEST INFORMATION AVAILABLE TO THE CITY OF SAN LEANDRO AT THE TIME OF PREPARATION OF THESE PLANS. NO GUARANTEE IS MADE AS TO THE ACCURACY OF THIS INFORMATION.

NO.	DATE	REVISION

CITY OF SAN LEANDRO

DESIGNED BY	GLASS	DATE 7/30/14
DRAWN BY	GLASS	DATE 7/30/14
PROJECT MGR.	MTG	DATE 7/31/14
TRANS ADMIN.		DATE
SENIOR ENGR.		DATE 8/1/14
APPROVED BY		DATE 8/1/14

CITY ENGINEER, R.C.E. No. 34870

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
SYMBOL LIST, GENERAL NOTES & LIST OF DRAWINGS

SHEET 17 OF 20
JOB NO. No. 2003.0331
SCALE AS NOTED
DWG. 1915 CASE 1002

Line is 1 inch @ full-size drawing

E0.1

Server1001\PROJECTS\San Leandro\1915\CADDS\

SAN LEANDRO BALL PARK-213135

INDOOR LIGHTING POWER ALLOWANCE — LTG-3C

Project Name: *San Leandro Ball Park* | Date: *6/12/2014*

ALLOWED LIGHTING POWER (Chose One Method)

A Separate LTG-3C must be filled out for Conditioned and Unconditioned Spaces. Indoor Lighting Power Allowances listed on this page are only for:
☐ CONDITIONED SPACES ☑ UNCONDITIONED SPACES

COMPLETE BUILDING METHOD

BUILDING CATEGORY (From §146 Table 146-E)	WATTS PER (ft²)	X	COMPLETE BLDG. AREA	=	ALLOWED WATTS
TOTALS			AREA		WATTS

AREA CATEGORY METHOD

BUILDING CATEGORY (From §146 Table 146-F)	WATTS PER (ft²)	X	Area ft²	=	ALLOWED WATTS
Locker/Dressing Room	*0.80*		*430*		*344*
Corridor\Restroom\Support	*0.60*		*1,086*		*652*
TOTALS			*1,516* AREA		*996* WATTS

TAILORED METHOD

Total Allowed Watts using the Tailored Method taken from LTG-4C (Page 1 of 4) Row 3: *0*

The indoor lighting power allowance using the Tailored Method of compliance shall be determined using the LTG-4C set of forms. A separate set of LTG-4C forms shall be filled out for CONDITIONED and UNCONDITIONED spaces

CERTIFICATE OF COMPLIANCE (Part 3 of 4) — LTG-1C

Project Name: *San Leandro Ball Park* | Date: *6/12/2014*

INDOOR LIGHTING SCHEDULE and FIELD INSPECTION ENERGY CHECKLIST

Fill in controls for all spaces: a) area controls, b) multi-level controls, c) manual daylighting controls for daylit areas > 250 ft², automatic daylighting controls for daylit areas > 2,500 ft², d) shut-off controls, e) display lighting controls, f) tailored lighting controls – general lighting controlled separately from display, ornamental and display case lighting and g) demand responsive automatic controls for retail stores > 50,000 ft², in accordance with Section 131.

MANDATORY LIGHTING CONTROLS – FIELD INSPECTION ENERGY CHECKLIST

Type/ Description	Number of Units	Location in Building	Special Features	Field Inspector Pass	Field Inspector Fail
DUAL TECH OCC SENSOR/CEILING MOUNT	2	LOCKERS	☐	☐	☐
DUAL TECH OCC SENSOR/CEILING MOUNT	2	MEN'S & WOMEN'S RESTROOMS	☐	☐	☐
DUAL TECH OCC SENSOR/CEILING MOUNT	2	STORAGE ROOMS	☐	☐	☐
INFRARED OCC SENSOR/WALL MOUNT	2	UNISEX BATHROOMS	☐	☐	☐

SPECIAL FEATURES INSPECTION CHECKLIST (See Page 2 of 4 of LTG-1C)

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification. The local enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

Field Inspector's Notes or Discrepancies:

CERTIFICATE OF COMPLIANCE (Part 1 of 4) — LTG-1C

Project Name: *San Leandro Ball Park* | Date: *6/12/2014*

Project Address: *Burrell Field, Teagarden and Aladdin Avenue* | Climate Zone: *3* | Total Cond. Floor Area: *0* | Unconditioned Floor Area: *1,516*

GENERAL INFORMATION

Building Type: ☐ Nonresidential ☐ High-Rise Residential ☐ Hotel/Motel Guest Room ☐ School ☐ Relocatable Public School ☐ Conditioned Spaces ☑ Unconditioned Spaces
Phase of Construction: ☐ New Construction ☐ Addition ☑ Alteration
Method of Compliance: ☐ Complete Building ☐ Area Category ☐ Tailored

Documentation Author's Declaration Statement

I certify that this Certificate of Compliance documentation is accurate and complete.

Name: *Pieter Colenbrander*	Signature:
Company: *O'Mahony & Myer*	Date: *6/12/2014*
Address: *4340 Redwood Hwy, #245*	CEA # / CEPE #:
City/State/Zip: *San Rafael, CA 94954*	Phone: *415-492-0420*

The Principal Lighting Designer's Declaration Statement

- I am eligible under Division 3 of the California Business and Professional Code to accept responsibility for the lighting design.
- This Certificate of Compliance identifies the lighting features and performance specifications required for compliance with Title 24, Pages 1 and 6 of the California Code of Regulations.
- The design features represented on this Certificate of Compliance are consistent with the information provided to document this design on the other applicable compliance forms, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Name: *Pieter Colenbrander*	Signature:
Company: *O'Mahony & Myer*	Phone: *415-492-0420*
Address: *4340 Redwood Hwy, Suite 245*	License #: *E14738*
City/State/Zip: *San Rafael, CA 94903*	Date: *6/12/2014*

Lighting Mandatory Measures
Indicate location on building plans of Mandatory Measures Note Block: *E0.2*

LIGHTING COMPLIANCE FORMS & WORKSHEETS (check box if worksheets is included)

For detailed instructions on the use of this and all Energy Efficiency Standards compliance forms; please refer to the Nonresidential Manual published by the California Energy Commission.

☑	LTG-1C Pages 1 through 4	Certificate of Compliance. All Pages required on plans for all submittals.
☐	LTG-2C	Lighting Controls Credit Worksheet
☑	LTG-3C	Indoor Lighting Power Allowance
☐	LTG-4C Pages 1 through 4	Tailored Method Worksheet
☐	LTG-5C Pages 1 and 2	Line Voltage Track Lighting Worksheet

LIGHTING MANDATORY MEASURES: NONRESIDENTIAL — LTG-MM

Project Name: *San Leandro Ball Park* | Date: *6/12/2014*

Indoor Lighting Measures:

§131(d):	**Shut-off Controls**
1.	For every floor, all interior lighting systems shall be equipped with a separate automatic control to shut off the lighting. This automatic control shall meet the requirements of Section 119 and may be an occupancy sensor, automatic time switch, or other device capable of automatically shutting off the lighting.
2.	Override for Building Lighting Shut-off: The automatic building shut-off system is provided with a manual, accessible override switch in sight of the lights. The area of override is not to exceed 5,000 square feet.
§119(h):	Automatic Control Devices Certified: All automatic control devices specified are certified, all alternate equipment shall be certified and installed as directed by the manufacturer.
§111:	Fluorescent Ballast and Luminaires Certified: All fluorescent fixtures specified for the project are certified and listed in the Directory. All installed fixtures shall be certified.
§131(a):	Individual Room/Area Controls: Each room and area in this building is equipped with a separate switch or occupancy sensor device for each area with floor-to-ceiling walls.
§131(b):	Uniform Reduction for Individual Rooms: All rooms and areas greater than 100 square feet and more than 0.8 watts per square foot of lighting load shall be controlled with bi-level switching for uniform reduction of lighting within the room.
§131(c):	Daylight Area Control: All rooms with windows and skylights that are greater than 250 square feet and that allow for the effective use of daylight in the area shall have 50% of the lamps in each daylit area controlled by a separate switch; or the effective use of daylight cannot be accomplished because the windows are continuously shaded by a building on the adjacent lot. Diagram of shading during different times of the year is included on plans.
§131(c):	Display Lighting. Display lighting shall be separately switched on circuits that are 20 amps or less.6.

Outdoor Lighting Measures:

§130(c)1:	Mandatory lighting power determination for medium base sockets without permanently installed ballasts
§132(a):	All permanently installed luminaires with lamps rated over 100 Watts either have a lamp efficacy of at least 60 lumens per Watt or are controlled by a motion sensor.
§132(b):	All Luminaires with lamps rated greater than 175 Watts in hardscape area, including parking lots, building entrances, canopies, and all outdoor sales areas meet the Cutoff Requirements.
§132(c)1:	All permanently installed outdoor lighting meets the control requirements listed.
§132(c):	Building facades, parking lots, garages, canopies, and outdoor sales areas meet the Multi-Level Lighting Requirements listed.

CERTIFICATE OF COMPLIANCE (Part 4 of 4) — LTG-1C

Project Name: *San Leandro Ball Park* | Date: *6/12/2014*

CONDITIONED AND UNCONDITIONED SPACE LIGHTING MUST NOT BE COMBINED FOR COMPLIANCE

Indoor Lighting Power for Conditioned Spaces		Watts	Indoor Lighting Power for Unconditioned Spaces		Watts
Installed Lighting (from Conditioned LTG-1C, Page 2)		*0*	**Installed** Lighting (from Unconditioned LTG-1C, Page 2)		*826*
Lighting Control Credit Conditioned Spaces (from LTG-2C)	-	*0*	Lighting Control Credit Unconditioned Spaces (from LTG-2C)	-	*0*
Adjusted **Installed** Lighting Power	=	*0*	Adjusted **Installed** Lighting Power	=	*826*
Complies if **Installed ≤ Allowed**			Complies if **Installed ≤ Allowed**		
Allowed Lighting Power Conditioned Spaces (from LTG-3C or PERF-1)		*0*	**Allowed** Lighting Power Unconditioned Spaces (from LTG-3C)		*996*

Required Acceptance Tests

Designer:
This form is to be used by the designer and attached to the plans. Listed below is the acceptance test for the Lighting system. **LTG-2A and LTG-3A.** The designer is required to check the acceptance tests and list all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance. If all the lighting system or control of a certain type requires a test, list the different lighting and the number of systems. The NA7 Section in the Appendix of the Nonresidential Reference Appendices Manual describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately. **Forms can be grouped by type of Luminaire controlled.**

Enforcement Agency:
Systems Acceptance. Before Occupancy Permit is granted for a newly constructed building or space or when ever new lighting system with controls is installed in the building or space shall be certified as meeting the Acceptance Requirements.
The **LTG-2A and LTG-3A** forms are not considered complete forms and are not to be accepted by the enforcement agency unless the boxes are checked and/or filled and signed. In addition, a Certificate of Acceptance forms shall be submitted to the enforcement agency that certifies plans, specifications, installation certificates, and operating and maintenance information meet the requirements of §10-103(b) of Title 24 Part 6. The field inspector must receive the properly filled out and signed forms before the building can receive final occupancy. A copy of the **LTG-2A and LTG-3A** for each different lighting luminaire control(s) must be provided to the owner of the building for their records.

Luminaires Controlled

Equipment Requiring Testing	Description	Number of Luminaires controlled	Location	LTG-2A and LTG-3A Controls and Sensors and Automatic Daylighting Controls Acceptance
FIXT TYPE FA1E	FLUORESCENT WRAP	2	LOCKERS	☐
FIXT TYPE FA1E	FLUORESCENT WRAP	2	MEN'S & WOMEN'S RESTROOMS	☐
FIXT TYPE FA1	FLUORESCENT WRAP	2	STORAGE ROOMS	☐
FIXT TYPE FA2E	FLUORESCENT WRAP	2	UNISEX BATHROOMS	☐

CERTIFICATE OF COMPLIANCE (Part 2 of 4) — LTG-1C

Project Name: *San Leandro Ball Park* | Date: *6/12/2014*

INDOOR LIGHTING SCHEDULE and FIELD INSPECTION ENERGY CHECKLIST

Installation Certificate, LTG-1- INST (Retain a copy and verify form is completed and signed.) — **Field Inspector** ☐

Certificate of Acceptance, LTG-2A and LTG-3A (Retain a copy and verify form is completed and signed.) — **Field Inspector** ☐

A separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces Installed Lighting Power listed on this Lighting Schedule is only for:
☐ **CONDITIONED SPACE** ☑ **UNCONDITIONED SPACE**

☑ The actual indoor lighting power listed below includes all installed permanent and portable lighting systems in accordance with §146(a).

☑ Only for offices: Up to the first 0.2 watts per square foot of portable lighting shall not be required to be included in the calculation of actual indoor lighting power density in accordance with the Exception to §146(a). All portable lighting in excess of 0.2 watts per square foot is totaled below.

A	B	C	D	E	F	G	H
	Luminaire (Type, Lamps, Ballasts)			Installed Watts			
None or Item Tag	Complete Luminaire Description[1] (i.e., 3 lamp fluorescent troffer, F32T8, one dimmable electronic ballasts)		Watts per Luminaire[2]	How wattage Was determined: CEC Default From NA8	How wattage Was determined: Accepted Mfg. Data (d or e)	Number of Luminaires	Installed Watts (D X F)	Field Inspector[2] Pass	Field Inspector[2] Fail
FA1	*FA1 - (4) F32T8 Rapid St Elec*		*118.0*	☐	☑	*2*	*236*	☐	☐
FA1E	*FA1E - (4) F32T8 Rapid St Elec*		*118.0*	☐	☑	*4*	*472*	☐	☐
FA2E	*FA2E- (2) F32T8 Rapid St Elec*		*59.0*	☐	☑	*2*	*118*	☐	☐
				☐	☐			☐	☐
				☐	☐			☐	☐
				☐	☐			☐	☐
				☐	☐			☐	☐
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				☐	☐			☐	☐
				☐	☐			☐	☐
				☐	☐			☐	☐
						Installed Watts Page Total:	*826*		
Building total number of pages:						Installed Watts Building Total (Sum of all pages)	*826*		
						Enter into LTG-1C Page 4 of 4			

1. Wattage shall be determined according to Section 130 (d and e). Wattage shall be rating of light fixture, not rating of bulb.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

O'MAHONY & MYER
ELECTRICAL ENGINEERING and LIGHTING DESIGN
4340 REDWOOD HWY., SUITE 245
SAN RAFAEL, CALIFORNIA 94903
(415) 492-0420/FAX (415) 492-0422
www.omyermeasling.com

REGISTERED PROFESSIONAL ENGINEER — PIETER J. COLENBRANDER — No. E-13 — ELECTRICAL — STATE OF CALIFORNIA

GLASS ARCHITECTS
200 E STREET
Suite 100
Santa Rosa Ca 95404
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NO.	DATE	REVISION

DESIGNED BY GLASS DATE 7/30/14
DRAWN BY GLASS DATE 7/30/14
PROJECT MGR. MGG DATE 7/31/14
TRANS ADMIN. DATE
SENIOR ENGR. J.S. DATE 8/1/14
APPROVED BY DATE 8/1/14
CITY ENGINEER, R.C.E. No. 34870

CITY OF SAN LEANDRO

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
LIGHTING TITLE 24 DOCUMENTS

SHEET 18 OF 20
JOB NO. No. 2003.0331
SCALE AS NOTED
DWG. 1916 CASE 1002

Line is 1 inch @ full-size drawing

E0.2

Plotted:10/31 PROJECTS\San Leandro WORK\ADDON

SAN LEANDRO BALL PARK-213135

OUTDOOR LIGHTING WORKSHEET (Part 2 of 3) OLTG-2C

Project Name: San Leandro Ball Park | Date: 6/12/2014

D. SPECIFIC APPLICATION LIGHTING WATTAGE ALLOWANCE PER APPLICATION

DETERMINE WATTAGE ALLOWANCE				DESIGN WATTS					ALLOWANCE
A	B	C	D	E	F	G	H	I	J
Specific Lighting Application	Number of Applications	Specific Application Allowance (watts)	Wattage Allowance (B X C)	Luminaire Symbol	Luminaire Type	Lumin QTY	Watts Per Luminaire	Design Watts (G X H)	Allowed Watts Minimum of D or I
Other Entry/Exit	3	100	300	LA1	LA1 - (1) 50W LED Array	3	52.0	156	156
Enter total into OLTG-1C; Page 4 of 4; Row D; Specific Application Wattage Allowance Per Application									156

E. SPECIFIC APPLICATION LIGHTING WATTAGE ALLOWANCE PER AREA

DETERMINE WATTAGE ALLOWANCE				LUMINAIRE TYPE		DESIGN WATTS			
A	B	C	D	E	F	G	H	I	J
Specific Lighting Application	Illuminated Area of Application	Specific Application Allowance (watts per ft²)	Wattage Allowance (B X C)	Code for Luminaire Type	Luminaire Type	Lumin QTY	Watts Per Luminaire	Design Watts (G X H)	Allowed Watts Minimum of D or I
Enter total into OLTG-1C; Page 4 of 4; Row E; Specific Application Lighting Wattage Allowance Per Area									0

CERTIFICATE OF COMPLIANCE (Part 3 of 4) OLTG-1C

Project Name: San Leandro Ball Park | Date: 6/12/2014

A. OUTDOOR LIGHTING ZONE

OUTDOOR LIGHTING ZONE: ☐ OLZ 1 ☐ OLZ 2 ☑ OLZ 3 ☐ OLZ 4

Is the Outdoor Lighting Zone: ☑ Default in accordance with §10-114, or ☐ Amended by JHA

Complete the information below if the default Outdoor Lighting Zone has been amended by the local jurisdiction having authority (JHA):

☐ The site is a government designated park, recreational area, wildlife preserve, or portion thereof, and has been designated as LZ2 or LZ3, in accordance with Table 10-114-A, because the site is contained within such a zone.

☐ The local jurisdiction having authority has officially adopted a change to the State Default Lighting Zone and has notified the Energy Commission by providing the materials required in §10-114(d) to the Executive Director.

☐ The adopted change is posted on the Energy Commission website.

B. ADDITIONAL LIGHTING POWER ALLOWANCE FOR ORDINANCE REQUIREMENTS

Are additional lighting power allowances for ordinance in Table 147-C used? ☐ Yes ☑ No

Complete the information below if additional lighting power allowances for ordinance requirements are used:

☐ The local jurisdiction having authority has officially adopted specific outdoor light levels, which are expressed as average or minimum footcandle levels, by following a public process that allowed for formal public notification, review, and comment about the proposed change.

☐ The local jurisdiction having authority which adopted specific outdoor light levels and has notified the Commission by providing the following materials required §10-114(f) to the Executive Director.

C. ACCEPTANCE FORMS

Required Acceptance Tests

Designer:

This form is to be used by the designer and attached to the plans. Listed below is the acceptance test for the Lighting system, **OLTG-2A**. The designer is required to check the acceptance tests and list all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance. If all the lighting system or control of a certain type requires a test, list the different lighting and the number of systems. The NAT Section in the Appendix of the Nonresidential Reference Appendices Manual describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately. **Forms can be grouped by type of Luminaire controlled.**

Enforcement Agency:

Systems Acceptance. Before Occupancy Permit is granted for a newly constructed building or space or when ever new lighting system with controls is installed in the building or space shall be certified as meeting the Acceptance Requirements.

The **OLTG-2A** form is not considered a complete form and is not to be accepted by the enforcement agency unless the boxes are checked and/or filled and signed. In addition, a Certificate of Acceptance forms shall be submitted to the enforcement agency that certifies plans, specifications, installation certificates, and operating and maintenance information meet the requirements of §10-103(b) of Title 24 Part 6. The field inspector must receive the properly filled out and signed forms before the building can receive final occupancy. A copy of the **OLTG-2A** for each different lighting luminaire control(s) must be provided to the owner of the building for their records.

Certificate of Acceptance

Luminaires Controlled				OLTG-2A[1]
Equipment Requiring Testing	Description	Qty. of Like Controls	Location	Outdoor Lighting Acceptance Tests
FIXT TYPE LA1	LED AREA W/CUTOFF OPTICS	3	EXTERIOR BLDG MOUNTED	STS

1. Insert: **OMS** for Outdoor Motion Sensor; **OLSC** for Outdoor Lighting Shutoff Controls; **OP** for Outdoor Photocontrol; **ATS** for Astronomical Time Switch; and, **STS** for Standard (non-astronomical) Time Switch acceptance.

CERTIFICATE OF COMPLIANCE (Part 1 of 4) OLTG-1C

Project Name: San Leandro Ball Park | Date: 6/12/2014

Project Address: Burrell Field, Teagarden and Aladdin Avenue San Leandro, CA 94577 | Total Illuminated Area: 0

GENERAL INFORMATION

Phase of Construction: ☐ New Construction ☐ Addition ☑ Alteration

Documentation Author's Declaration Statement

I certify that this Certificate of Compliance documentation is accurate and complete.

Name: Pieter Colenbrander	Signature:
Company: O'Mahony & Myer	Date: 6/12/2014
Address: 4340 Redwood Hwy, #245	CEA # / CEPE #
City/State/Zip: San Rafael, CA 94954	Phone: 415-492-0420

Principal Lighting Designer's Declaration Statement

- I am eligible under Division 3 of the California Business and Professional Code to accept responsibility for the lighting design.
- This Certificate of Compliance identifies the lighting features and performance specifications required for compliance with Title 24, Pages 1 and 6 of the California Code of Regulations.
- The design features represented on this Certificate of Compliance are consistent with the information provided to document this design on the other applicable compliance forms, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Name: Pieter Colenbrander	Signature:
Company: O'Mahony & Myer	Phone: 415-492-0420
Address: 4340 Redwood Hwy, Suite 245	License #: E14738
City/State/Zip: San Rafael, CA 94903	Date: 6/12/2014

Principal Lighting Designer's Declaration

☑ I certify that this Certificate of Compliance documentation is accurate and complete, and accounts for all outdoor lighting power, including building mounted, pole mounted, as well as all other lighting designed for the site, and that Additional Lighting Power Allowances for Specific Applications or Additional Lighting Power Allowances for Ordinance Requirements have not been counted more than one time for the same area, in accordance with Section 147 of the Standards.

Outdoor Lighting Mandatory Measures Indicate location on building plans of Mandatory Measures Note Block: E0.2

LIGHTING COMPLIANCE FORMS & WORKSHEETS (check box if worksheets is included)

Per detailed instructions on the use of this and all Energy Efficiency Standards compliance forms; please refer to the Nonresidential Manual published by the California Energy Commission.

☑	OLTG-1C	Certificate of Compliance. All 4 pages required on plans for all submittals.
☐	OLTG-2C	(Pages 1 of 3) Lighting Wattage Allowances for General Hardscape, Sales Frontage, or Ornamental Lighting. Optional on plans.
☑	OLTG-2C	(Pages 2 of 3) Lighting Wattage Allowance for Per Application or Per Area. Optional on plans.
☐	OLTG-2C	(Pages 3 of 3) Additional Lighting Power Allowance for Ordinance Requirements. Optional on plans.

CERTIFICATE OF COMPLIANCE (Part 4 of 4) OLTG-1C

Project Name: San Leandro Ball Park | Date: 6/12/2014

ALLOWED AND INSTALLED OUTDOOR LIGHTING POWER

		Lighting Wattage Power Allowance
A	Lighting power allowance for general hardscape (from OLTG-2C Page 1 of 3)	0
B	Specific application lighting wattage allowance per unit length (from OLTG-2C Page 1 of 3)	0
C	Specific application lighting wattage allowance for ornamental lighting (from OLTG-2C Page 1 of 3)	0
D	Specific application lighting wattage allowance per application (from OLTG-2C Page 2 of 3)	156
E	Specific application lighting wattage allowance per area (from OLTG-2C Page 2 of 3)	0
F	Specific application lighting wattage allowance for ordinance requirements (from OLTG-2C Page 3 of 3)	0
G	Total Allowed Wattage = Sum of rows A through F:	156
H	Total installed watts (from Compliance Fixture Schedule, (from OLTG-2C Page 1 of 3)	156
Complies if wattage in row H is less than or equal to the wattages in row G		☑ Yes ☐ No

CERTIFICATE OF COMPLIANCE (Part 2 of 4) OLTG-1C

Project Name: San Leandro Ball Park | Date: 6/12/2014

COMPLIANCE FIXTURE / LIGHTING CONTROL SCHEDULE and FIELD INSPECTION CHECKLIST

INSTALLATION CERTIFICATE, OLTG-1INST (Retain a copy and verify form is completed and signed.) **Field Inspection D**

CERTIFICATE OF ACCEPTANCE, OLTG-2A (Retain a copy and verify form is completed and signed.) **Field Inspection D**

Luminaire Schedule				Installed Watts						
A	B	C	D	E	F		G	H	I	
					How wattage was determined				Field Inspector[2]	
Name or Item Tag	Luminaire Description[1] See footnote below (i.e.: 1 lamp pole-top shoe-box 400 watt metal halide)	Cutoff Designation	Watts per Luminaire	Special Features	Default from NA-8	According to §130 (D or E)	Number of Luminaires	Installed Watts (D X G)	Pass	Fail
LA1	LA1 - (1) 50W LED Array		52.0	☐	☐	☐	3	156	☐	☐
				☐	☐	☐			☐	☐
				☐	☐	☐			☐	☐
				☐	☐	☐			☐	☐
				☐	☐	☐			☐	☐
				☐	☐	☐			☐	☐
				☐	☐	☐			☐	☐
				☐	☐	☐			☐	☐
				☐	☐	☐			☐	☐
Enter total into OLTG-1C; Page 4 of 4: Row H; Total Installed Watts:								156		

1. Type of luminaire (i.e.: post top, wall pack, surface, shoe box); for non-incandescent luminaires, indicate nominal lamp wattage and lamp type (i.e.: fluorescent, incandescent, HID); ballast type (i.e.: electronic or magnetic); number of lamps and number of ballasts per luminaire. For incandescent luminaires, the luminaire wattage listed in column D shall be the maximum relamping rated wattage on a permanent factory-installed label on the luminaire, NOT the wattage of the lamp (bulb) used, in accordance with Section 130(d or e).
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

EXEMPT LUMINAIRES **Field Inspection ☐**

Name or Symbol	Description of exempt luminaires in accordance with §147

MANDATORY CONTROLS **Field Inspection ☐**

#	Description	Location	#	Description	Location
1	EXISTING TIMECLOCK A	ELEC RM			
1	EXISTING TIMECLOCK B	ELEC RM			

SPECIAL FEATURES INSPECTION CHECKLIST (See Page 2 of 4 of OLTG-1C)

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification. The local enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

Filed Inspector Notes or Discrepancies:

O'MAHONY & MYER
ELECTRICAL ENGINEERS – IT EXPERTS (IES)
4340 REDWOOD HWY., SUITE 245
SAN RAFAEL, CALIFORNIA 94903
(415) 492-0420/FAX (415) 499-9602
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CITY OF SAN LEANDRO INCORPORATED 1872

BEFORE YOU DIG, CALL UNDERGROUND SERVICE ALERT 1(800)227-2600
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES. THOSE SHOWN REPRESENT THE BEST INFORMATION AVAILABLE TO THE CITY OF SAN LEANDRO AT THE TIME OF PREPARATION OF THESE PLANS. NO GUARANTEE IS MADE AS TO THE ACCURACY OF THIS INFORMATION.

NO.	DATE	REVISION

CITY OF SAN LEANDRO

DESIGNED BY	GLASS	DATE 7/30/14
DRAWN BY	GLASS	DATE 7/30/14
PROJECT MGR.	MJR	DATE 7/31/14
TRANS ADMIN.		DATE
SENIOR ENGR.		DATE 8/1/14
APPROVED BY		DATE 8/1/14

CITY ENGINEER, R.C.E. No. 34870

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
LIGHTING TITLE 24 DOCUMENTS

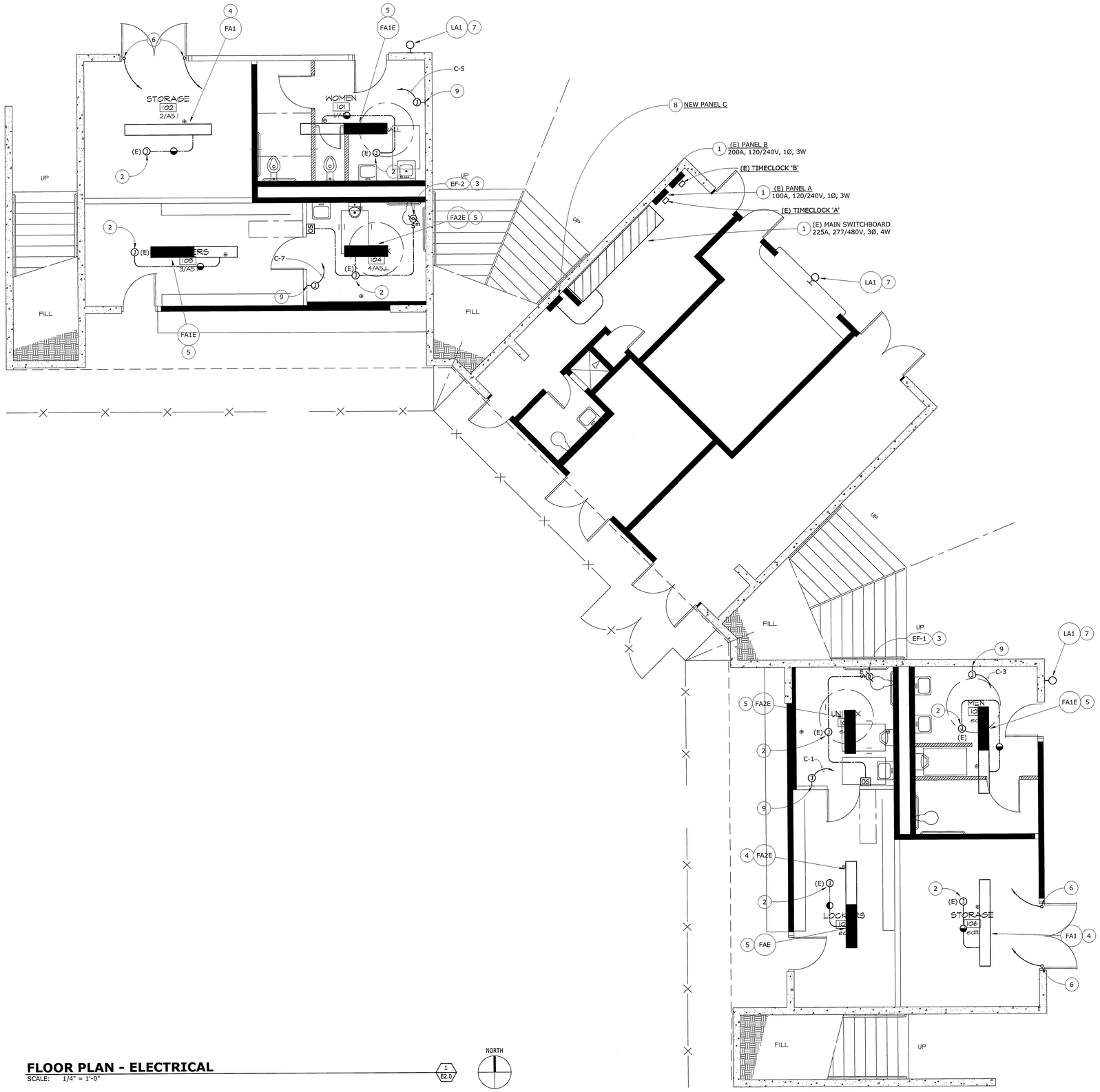
SHEET 19 OF 20
JOB NO. No. 2003.0331
SCALE AS NOTED
DWG. 1917 CASE 1002

Line is 1 inch @ full-size drawing

E0.3

Revised:03/17 RPO:CACT:Sites Legends WARCACOO

SAN LEANDRO BALL PARK-213135



FLOOR PLAN - ELECTRICAL

SCALE: 1/4" = 1'-0"

1 / E2.0

NORTH

NUMBERED SHEET NOTES

1. EXISTING ELECTRICAL EQUIPMENT TO REMAIN AND BE REUSED.
2. EXISTING ELECTRICAL LIGHTING JUNCTION BOXES AND BRANCH CIRCUITING TO REMAIN AND BE REUSED. PROVIDE AND INSTALL NEW CONDUIT AND WIRE TO EXTEND EXISTING BRANCH CIRCUIT TO NEW LIGHTING FIXTURES. CONNECT COMPLETE. LOCATIONS OF EXISTING LIGHTING JUNCTION BOXES TO BE VERIFIED IN FIELD.
3. PROVIDE AND INSTALL NEW MOTOR RATED SWITCH AND 120V BRANCH CIRCUIT CONNECTION FOR EXHAUST FAN (78W, 120V). CONNECT COMPLETE TO EXISTING BRANCH CIRCUIT. VERIFY EXACT FAN LOCATIONS WITH MECHANICAL PRIOR TO ROUGH-IN.
4. PROVIDE AND INSTALL NEW ROOM LIGHTING FIXTURES. CONNECT COMPLETE TO EXISTING ELECTRICAL LIGHTING BRANCH CIRCUITING. VERIFY EXACT FIXTURE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN. SEE ARCHITECTURAL PLANS FOR DETAILS.
5. PROVIDE AND INSTALL NEW ROOM LIGHTING FIXTURES FURNISHED WITH EMERGENCY BATTERY PACK. CONNECT COMPLETE TO EXISTING UNSWITCHED LIGHTING BRANCH CIRCUIT PER MANUFACTURER'S INSTRUCTIONS. VERIFY EXACT FIXTURE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN.
6. FOR FUTURE SECURITY DEVICES AT STORAGE ROOM DOORS, PROVIDE & INSTALL 3/4" CONDUIT (WITH PULLWIRE) FROM TOP OF DOOR TO CHASE AREA BETWEEN BUILDINGS. VERIFY TERMINATION LOCATIONS WITH ARCHITECT.
7. PROVIDE & INSTALL NEW LIGHT FIXTURE TO REPLACE EXISTING FIXTURE. CONNECT COMPLETE TO EXISTING BRANCH CIRCUIT.

ADD ALTERNATE NUMBERED NOTES

8. PROVIDE & INSTALL NEW 'PANEL C' & FEEDER FROM (E) MAIN SWITCHBOARD 'MSB'. CONNECT COMPLETE. SEE SINGLE LINE DIAGRAM SHEET E0.1.
9. FOR HAND DRYER (12.5A, 120V). PROVIDE & INSTALL JUNCTION BOX WITH HOMERUN (2#12, 1#12G, 3/4"C.) TO 'PANEL C' AS NOTED. VERIFY LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.

LUMINAIRE SCHEDULE

FA1	DESCRIPTION:	SURFACE OR PENDANT HUNG FLUORESCENT LUMINAIRE; 20 GA. COLD ROLLED STEEL HOUSING, 5.5" WIDE, NOMINAL 8FT LENGTH, POLYCARBONATE LINEAR PRISMATIC LENS, WET LOCATION, PAINTED HIGH REFLECTANCE WHITE FINISH. FOR PENDANT, PROVIDE ALL SUSPENSION HARDWARE.
	MANUFACTURER:	KENALL #ES5-96-2-F32T8-RS-1-DV-2H-CP-PM, OR EQUAL
	BALLAST:	INTEGRAL ELELCTRONIC
	LAMPS:	(4) F32T8
	WATTAGE:	118
	VOLTAGE:	120
FA1E	DESCRIPTION:	SIMILAR TO TYPE FA1 EXCEPT WITH EMERGENCY BATTERY BACKUP BALLAST.
	MANUFACTURER:	KENALL #ES5-96-2-F32T8-RS-1-DV-2H-CP-PM-EL, OR EQUAL
	BALLAST:	INTEGRAL ELECTRONIC
	LAMPS:	(4) F32T8
	WATTAGE:	118
	VOLTAGE:	120
FA2E	DESCRIPTION:	SIMILAR TO TYPE FA1 EXCEPT NOMINAL 4FT LENGTH, EMERGENCY BATTERY BACKUP BALLAST.
	MANUFACTURER:	KENALL #ES5-48-2-F32T8-RS-1-DV-2H-CP-PM-EL, OR EQUAL
	BALLAST:	INTEGRAL ELELCTRONIC
	LAMPS:	(2) F32T8
	WATTAGE:	59
	VOLTAGE:	120
LA1	DESCRIPTION:	SURFACE MOUNTED LED AREA LUMINAIRE; DIE CAST ALUMINUM HOUSING, INTEGRAL BACKBOX FOR SUFRACE CONDUIT ENTRY, SILICONE GASKET SEALS DOOR AND BACKBOX, FULL CUTOFF OPTICS, 3500°K NEUTRAL WHITE COLOR TEMP., STANDARD CARBON BRONZE PAINTED FINISH.
	MANUFACTURER:	LUMARK #XTOR5A-N
	BALLAST:	INTEGRAL ELECTRONIC DRIVER
	LAMPS:	(1) LED ARRAY
	WATTAGE:	52
	VOLTAGE:	120

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CITY OF SAN LEANDRO

SAN LEANDRO BALL PARK
Locker / Restroom Refurbishment
UPPER FLOOR PLAN

SHEET 20 OF 20
JOB NO. No. 2003.0331
SCALE AS NOTED
DWG. 1918 CASE 1002

Line is 1 inch @ full-size drawing

E2.0

Bluebeam PDF Revision 2015 Session 20150520