

## **RESOLUTION NO. 2011-619**

Adopted by the Sacramento City Council

November 15, 2011

### **AWARD CONSTRUCTION CONTRACT FOR THE CITY HALL GARAGE FIRE ALARM SYSTEM REPLACEMENT PROJECT (V15410000)**

#### **BACKGROUND**

- A. The existing fire alarm system in the City Hall Garage has reached the end of its useful life and is in need of replacement. Parts for the existing system are no longer available. The new fire alarm system is also required as part of a future elevator upgrade for the building. The new system will be in compliance with the current City Fire Code and with the California Elevator Safety Construction Code 2010 (California Code of Regulations, Title 8).
- B. On September 20, 2011, the Department of General Services issued Invitation for Bid (IFB) No. B1213001541002 for a construction contract for the City Hall Garage Fire Alarm System Replacement project. Three bids were received. Alessandro Electric Inc. was selected as the lowest responsive and responsible bidder.

#### **BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:**

- Section 1. The construction plans and specifications for the City Hall Garage Fire Alarm System Replacement Project are approved and the construction contract is awarded to Alessandro Electric Inc., the lowest responsive and responsible bidder, in an amount not to exceed \$122,467.
- Section 2. The City Manager or the City Manager's designee is authorized to execute the construction contract specified above (and attached as Exhibit A).
- Section 3. Exhibit A is a part of this resolution.

Adopted by the City of Sacramento City Council on November 15, 2011 by the following vote:

Ayes: Councilmembers Ashby, Cohn, D Fong, R Fong, McCarty, Pannell, Schenirer, Sheedy, and Mayor Johnson.

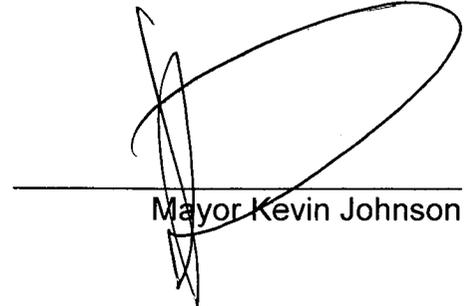
Noes: None.

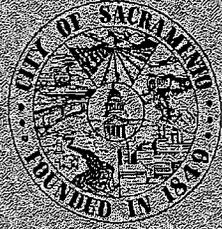
Abstain: None.

Absent: None.

Attest:

  
Shirley Concolino, City Clerk

  
Mayor Kevin Johnson



DEPARTMENT OF GENERAL SERVICES  
FACILITIES & REAL PROPERTY  
MANAGEMENT DIVISION

CITY OF SACRAMENTO

CALIFORNIA

5730 24<sup>TH</sup> STREET  
BUILDING #1  
SACRAMENTO, CA 95822  
PHONE: 916-808-5748  
FAX: 916-808-5747

**CONTRACT SPECIFICATIONS**

**FOR**

**CITY HALL GARAGE FIRE ALARM SYSTEM PROJECT (PN: 1990793)**

For Pre-Bid Information Call:

Brian Reilly

Bids to be received before

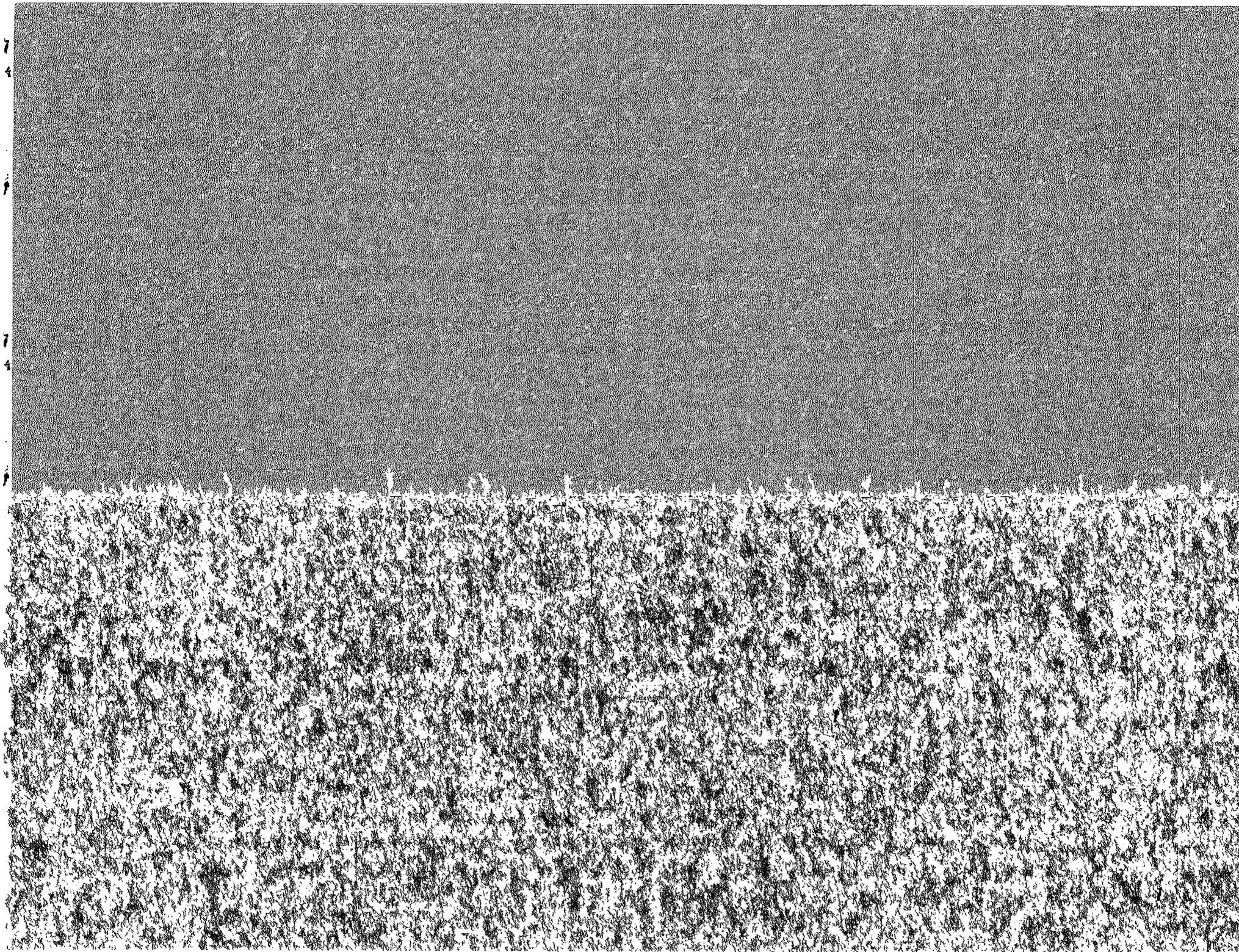
**2 PM October 19, 2011** at

Office of the City Clerk



CITY OF SACRAMENTO  
FACILITIES & REAL PROPERTY  
MANAGEMENT DIVISION  
5730 24<sup>TH</sup> STREET  
BUILDING #1  
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CONTRACT SPECIFICATIONS  
FOR  
CITY HALL GARAGE FIRE ALARM SYSTEM PROJECT



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Performance Bond	1 only
Payment Bond	1 only
Worker's Compensation Certification	1 only
Pay Request Application	1 only
Schedule of Values	1 only
Technical Specifications	

Sealed Proposals will be received by the Office of the City Clerk of the City of Sacramento, located at 915 I Street, Historic Building, Sacramento, CA 95814, up to the hour of 2:00 PM on October 19, 2011 and will be opened as soon thereafter as business allows for:

### **CITY HALL GARAGE FIRE ALARM SYSTEM PROJECT (1990793)**

as set forth in the Contract Documents.

Proposals received and work performed thereunder shall comply with the requirements of Title 3 of the Sacramento City Code. Each Bid Proposal shall be accompanied by bid security of at least 10% of the sum of the Bid Proposal which conforms to the requirements of Section 7.0 of the Instructions to Bidders. The right to reject Proposals or to waive any error or omission in any Bid Proposal received is reserved by the City. Signed proposals shall be submitted on the printed forms contained in the Project Manual and enclosed in an envelope marked: Sealed Bid Proposal for:

### **CITY HALL GARAGE FIRE ALARM SYSTEM PROJECT (1990793)**

Copies of the Contract Documents are available at:

**SIGNATURE REPROGRAPHICS  
620 SUNBEAM AVENUE  
SACRAMENTO, CA 95822  
916-454-0800**

A non-refundable fee of \$50.00 will be charged.

Subcontractors shall comply with the rates of wages currently established by the Director of Industrial Relations under provisions of Sections 1773 of the Labor Code of the State of California, a copy of which is on file in the office of the City Clerk. In accordance with Sacramento City Code Section 3.60.180 and Section 1771.5 of the California Labor Code, the payment of the general prevailing rate of per diem wages or the general prevailing rate of per diem wages for holiday and overtime is not required for any Public Construction project of \$25,000 or less, or Public Maintenance project of \$15,000 or less. For projects \$30,000 or greater, the Contractor agrees to utilize apprentices, as required by the State of California Labor Code. The City of Sacramento has an approved Labor Compliance Program. **The City uses an electronic system for the submission of Labor Compliance Reports, which became effective May 1, 2007.** Each contractor and every lower-tier subcontractor submits certified payrolls and labor compliance documentation electronically at the discretion of and in the manner specified by the City of Sacramento.

Electronic submittal is via a web-based system, accessed on the World Wide Web by a web browser. Each contractor and subcontractor is given a Log On identification and password to access the City of Sacramento's reporting system.

Use of the system may entail additional data entry of weekly payroll information including; employee identification, labor classification, total hours worked and hours worked on this project, wage and benefit rates paid, etc. The contractor's payroll and accounting software might be capable of generating a 'comma delimited file' that will interface with the software.

Disseminate these provisions to every lower-tier subcontractor and vendor required to provide labor compliance documentation.

All questions regarding this Labor Compliance Program should be directed to the department's contracts staff or Contracts Services at (916) 808-5524.

Pursuant to Sacramento City Code Section 3.60.250, any Agreement awarded pursuant to this Invitation to Bid shall contain a provision permitting the substitution of securities for any monies withheld to ensure (REV. JULY 2011)

performance under the Agreement. The terms of such provisions shall be according to the requirements and the form required by the City.

Bid protests must be filled and maintained in accordance with the provisions of Sections 3.60.460 through 3.60.560 of the Sacramento City Code. Bid protests that do not comply with Sections 3.60.460 through 3.60.560 of the Sacramento City Code shall be invalid and shall not be considered. A bid protest fee of \$750.00 is required at the time of filing to be considered valid in accordance with City of Sacramento Resolution No. 2003-231 dated April 29, 2003. As used herein, the term "bid protest" includes any bid protest that (1) claims that one or more bidders on this contract should be disqualified or rejected for any reason, or (2) contests a City staff recommendation to award this contract to a particular bidder, or (3) contests a City staff recommendation to disqualify or reject one or more bidders on this contract. A copy of Sections 3.60.460 through 3.60.560 of the Sacramento City Code may be obtained from the Project Manager, or from the City Clerk, located at 915 I Street, 1<sup>st</sup> Floor, Sacramento, CA 95814.

## **REQUIREMENTS FOR THE NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE**

### **INTRODUCTION**

The Sacramento Non-Discrimination In Employee Benefits By City Contractors Ordinance (the "Ordinance"), codified as Sacramento City Code Chapter 3.54, prohibits City contractors from discriminating in the provision of employee benefits between employees with spouses and employees with domestic partners, and between the spouses and domestic partners of employees.

### **APPLICATION**

The provisions of the Ordinance apply to any contract or agreement (as defined below), between a Contractor and the City of Sacramento, in an amount exceeding \$25,000.00. The Ordinance applies to that portion of a contractor's operations that occur: (i) within the City of Sacramento; (ii) on real property outside the City of Sacramento if the property is owned by the City or if the City has a right to occupy the property; or (iii) at any location where a significant amount of work related to a City contract is being performed. The provisions apply only to those employee(s) actually working on the City contract and only for the actual amount of time the employee(s) spend working on such contract.

The Ordinance does not apply: to subcontractors or subcontracts of any Contractor or contractors; to transactions entered into pursuant to cooperative purchasing agreements approved by the Sacramento City Council; to legal contracts of other governmental jurisdictions or public agencies without separate competitive bidding by the City; where the requirements of the ordinance will violate or are inconsistent with the terms or conditions of a grant, subvention or agreement with a public agency or the instructions of an authorized representative of any such agency with respect to any such grant, subvention or agreement; to permits for excavation or street construction; or to agreements for the use of City right-of-way where a contracting utility has the power of eminent domain.

### **DEFINITIONS**

As set forth in the Ordinance, the following definitions apply:

"Contract" means an agreement for public works or improvements to be performed, or for goods or services to be purchased or grants to be provided, at the expense of the City or to be paid out of moneys deposited in the treasury or out of the trust money under the control or collected by the City. "Contract" also means a written agreement for the exclusive use ("exclusive use" means the right to use or occupy real property to the exclusion of others, other than the right reserved by the fee owner) or occupancy of real property for a term exceeding 29 days in any calendar year, whether by singular or cumulative instrument, (i) for the operation or use by others of real property owned or controlled by the City for the operation of a business, social, or other establishment or organization, including leases, concessions, franchises and easements, or (ii) for the City's use or occupancy of real property owned by others, including leases, concessions, franchises and easements.

"Contract" shall not include: a revocable at-will use or encroachment permit for the use of or encroachment on City property regardless of the ultimate duration of such permit; excavation, street construction or street use permits; agreements for the use of City right-of-way where a contracting utility has the power of eminent domain; or agreements governing the use of City property that constitute a public forum for activities that are primarily for the purpose of espousing or advocating causes or ideas and that are generally protected by the First Amendment to the United States Constitution or that are primarily recreational in nature.

"Contractor" means any person or persons, firm partnership or corporation, company, or combination thereof, that enters into a Contract with the City. "Contractor" does not include a public entity.

"Domestic Partner" means any person who has a currently registered domestic partnership with a governmental entity pursuant to state or local law authorizing the registration.

"Employee Benefits" means bereavement leave; disability, life, and other types of insurance; family medical leave; health benefits; membership or membership discounts; moving expenses; pension and retirement benefits; vacation; travel benefits; and any other benefit given to employees. "Employee benefits" shall not include benefits to the extent that the application of the requirements of this chapter to such benefits may be preempted by federal or state.

### **CONTRACTOR'S OBLIGATION TO PROVIDE THE CITY WITH DOCUMENTATION AND INFORMATION**

Contractor shall provide the City with documentation and information verifying its compliance with the requirements of the Ordinance within ten (10) days of receipt of a request from the City. Contractors shall keep accurate payroll records, showing, for each City Contract, the employee's name, address, Social Security number, work classification, straight time pay rate, overtime pay rate, overtime hours worked, status and exemptions, and benefits for each day and pay period that the employee works on the City Contract. Each request for payroll records shall be accompanied by an affidavit to be completed and returned by the Contractor, as stated, attesting that the information contained in the payroll records is true and correct, and that the Contractor has complied with the requirements of the Ordinance. A violation of the Ordinance or noncompliance with the requirements of the Ordinance shall constitute a breach of contract.

### **EMPLOYER COMPLIANCE CERTIFICATE AND NOTICE REQUIREMENTS**

(a) All contractors seeking a Contract subject to the Ordinance shall submit a completed Declaration of Compliance Form (attachment "A"), signed by an authorized representative, with each proposal, bid or application. The Declaration of Compliance shall be made a part of the executed contract, and will be made available for public inspection and copying during regular business hours.

(b) The Contractor shall give each existing employee working directing on a City contract, and (at the time of hire), each new employee, a copy of the notification provided as attachment "B."

(c) Contractor shall post, in a place visible to all employees, a copy of the notice provided as attachment "C."

**ESBE REQUIREMENTS**  
(City Contracts no Federal Funds Used)

**I. ESBE PARTICIPATION REQUIREMENT**

On February 9, 1999, the Sacramento City Council adopted an Emerging and Small Business Development (ESBD) program to provide enhanced opportunities for the participation of small business enterprises (SBEs) and emerging business enterprises (EBEs) in the City's contracting and procurement activities. The ESBD program establishes an annual emerging and small business enterprise (ESBE) participation goal for the City's contracts, and authorizes City departments to require minimum ESBE participation levels in individual contracts so that the annual ESBE participation goal can be met. Under City Code section 3.60.270, when the bid specifications for a City contract establish a minimum participation level for ESBEs, no bidder on the contract shall be considered responsive unless its bid meets the minimum ESBE participation level required by the bid specifications.

The City has established a **minimum 20% participation level for ESBEs on this contract**. Pursuant to City code Section 3.60.270, no bidder on this contract shall be considered responsive unless its bid meets or exceeds this minimum participation level.

Bidders shall include copies of their Certification as a SBE or EBE and the SBE or EBE Certifications for each subcontractor, trucker, material supplier, or other business entity listed on the forms submitted within two (2) working days of submitting the sealed proposal. Failure to submit the required ESBE information may be grounds for finding the bid non-responsive.

**II. ESBE CERTIFICATION**

- A. A SBE designated in the bid must be certified as such by the State of California, Department of General Services, or by the City, prior to the time bids are received.
- B. An EBE designated in the bid must be certified as such by the City, prior to the time bids are received.

**III. DETERMINATION OF ESBE PARTICIPATION LEVEL**

- A. The percent of ESBE participation shall be determined based on the dollar value of the work to be performed or supplies to be furnished by certified ESBEs designated in the bidder's Subcontractor and ESBE Participation Verification Form, relative to the total dollar amount of the bid. If the bid includes alternate, deductive, or additive items, the percent of ESBE participation shall be determined based upon the base bid.
- B. To receive credit for participation, an ESBE must perform a commercially useful function; i.e., must be responsible for the execution of a distinct element of the work and must carry its responsibility by actually performing, managing, or supervising the work.

- C. ESBE Bidders: The dollar value listed for an ESBE bidder on the bidder's Subcontractor and ESBE Participation Verification Form shall include only the amount of work to be performed by the ESBE bidder, and shall not include any amount to be paid by the ESBE bidder for the cost of materials or supplies.
- D. Suppliers: Credit for an ESBE vendor of materials or supplies is counted as one hundred (100) percent of the amount paid to the vendor for the material or supplies. To receive this credit, ESBE vendors of supplies and materials must be listed on the bidder's Subcontractor and ESBE Participation Verification Form.
- E. Truckers: Credit for an ESBE trucker is counted as one hundred (100) percent of the amount paid to the trucker for trucking services, not including any amount paid to the trucker for the cost of any materials or supplies being transported by the trucker.
- F. Subcontractors (including truckers): To receive credit for an ESBE subcontractor, the subcontractor must be listed on the bidder's Subcontractor and ESBE Participation Verification Form. The dollar value listed for a subcontractor on the bidder's Subcontractor and ESBE Participation Verification Form shall not include any amount to be paid to the subcontractor for the cost of materials or supplies.

#### IV. **ESBE REQUIREMENTS FOR CONTRACTOR**

- A. ESBE Records: The Contractor shall maintain records of all subcontracts with certified ESBE subcontractors and records of materials purchased from certified ESBE vendors/suppliers for one (1) year after receiving final payment from the City. Such records shall show the name and business address of each ESBE subcontractor or vendor/supplier and the total dollar amount actually paid each ESBE subcontractor or vendor/supplier.

Upon completion of the contract, a summary of these records shall be prepared, certified correct by the Contractor's authorized representative and furnished to the City. The Contractor shall provide such other information, records, reports, certifications or other documents as may be required by City, to determine compliance with any provision of the ESBD program or these specifications.

- B. Reporting Requirements and Sanctions: Failure to provide specific information, records, reports, certifications, or any other documents required for compliance with these specifications shall be considered noncompliance with the contract. If the Contractor fails to correct a deficiency within fifteen (15) days after notification, a deduction may be made from the contract amount. The deduction shall be ten (10) percent of the estimated value of the work performed during the month, not to be less than \$1,000 nor exceed \$10,000 and shall be deducted from the next progress payment.
- C. Performance of ESBE Subcontractors and Suppliers: The ESBEs listed by the Contractor shall perform the work and supply the materials for which they are listed unless the Contractor has received prior written authorization from the City to perform the work with other forces or to obtain the material from other sources. Reasons for requesting such authorization would include:

1. The listed ESBE fails to execute a written contract based upon the general terms, conditions, plans, and specifications for the project.
2. The listed ESBE becomes bankrupt or insolvent.
3. The listed ESBE subcontractor fails to meet the bond requirements of the Contractor.
4. The work performed by the listed ESBE subcontractor is unsatisfactory and/or is not in accordance with the plans and specifications, or the subcontractor fails to perform his/her obligations under the subcontractor contract.
5. It would be in the best interest of the City.

The Contractor shall not be entitled to any payment for such work or materials unless it is performed or supplied by the listed SBE or EBE or other forces (including those of the Contractor) authorized by the City in writing.

- D. Subcontractor Substitution: No substitution of an ESBE subcontractor shall be made at any time without compliance with the Subcontracting Listing Law and the written consent of the City. If an ESBE subcontractor is unable to perform successfully and is to be replaced, the Contractor will be required to make good faith efforts to replace the original ESBE subcontractor with another certified ESBE subcontractor. The new ESBE subcontractor must be certified at the time of substitution.

## V. DEFINITIONS

- A. Emerging Business Enterprise (EBE): The City shall certify EBEs utilizing the small business certification criteria and standards of the State of California, General Services Department, Office of Small Business Certification and Resources, that were in effect on December 1, 1998 provided that the size standard, industry by industry, shall be set at 50% of the State small business certification criteria and standards that were in effect on December 1, 1998.
- B. Small Business Enterprise (SBE): The City shall certify SBEs utilizing the small business certification criteria and standards of the State of California, General Services Department, Office of Small Business Certification and Resources. The City will also accept State certified SBEs.
- C. Contractor: The individual, partnership, corporation, joint venture or other legal entity entering into a contract with the City of Sacramento.
- D. Subcontractor: The individual, partnership, corporation, or other legal entity entering into a contract with the prime contractor to perform a portion of the work.

## Construction and Demolition (C&D) Debris Recycling Requirements

As a condition of receiving this Contract, Contractor agrees to fully comply with the requirements specified herein for all demolition projects, as well as projects with a valuation of \$250,000 or more:

1. **Definitions.** For purposes of this section, the following terms, words and phrases shall have the following meanings:

"Certified C&D sorting facility" means a facility that receives C&D debris and/or processes C&D debris into its component material types for reuse, recycling, and disposal of residuals and possesses a valid certificate as a C&D sorting facility from the Sacramento Regional County Solid Waste Authority.

"Construction and demolition debris" or "C&D debris" means used or commonly discarded materials resulting from construction, repair, remodel or demolition operations on any pavement, house, building, or other structure, or from landscaping that are not hazardous as defined in California Health and Safety Code section 25100 et seq. Such materials include, but are not limited to, concrete, asphalt, wood, metal, brick, dirt, sand, rock, gravel, plaster, glass, gypsum wallboard, cardboard and other associated packaging, roofing material, ceramic tile, carpeting, masonry, plastic pipe, trees, and other vegetative matter resulting from land clearing and landscaping.

"Divert" or "diversion" means to use materials for any purpose other than disposal in a landfill or transformation facility. Methods to divert materials include on-site reuse of the materials, delivery of materials from the project site to a certified C&D sorting facility or a recycling facility, or other methods as approved in regulations promulgated by the City Department of Utilities.

"Franchised waste hauler" means a person who possesses a valid commercial solid waste collection franchise issued by the Sacramento Regional County Solid Waste Authority.

"Mixed C&D debris" means loads that include commingled recyclable and non-recyclable C&D debris generated at a project site.

"Recyclable C&D debris" means C&D debris required to be diverted from landfills as specified in the Waste Management Plan and returned to the economic mainstream in the form of raw material for new, reused or reconstituted products that meet the quality standards necessary to be used in the marketplace.

"Recycling facility" means a facility or operation that receives, processes, and transfers source-separated recyclable materials.

"Source-separated C&D debris" means recyclable C&D debris that is separately sorted and containerized at the site of generation by individual material type and segregated from mixed C&D debris prior to collection and transporting.

"Waste log" means a record detailing the management of C&D debris generated by the covered project, including the date and weight/volume of material by type that was salvaged, reused, recycled or disposed.

2. **Waste Management Plan.** A completed WMP (see **Attachment 1**) must be submitted to and approved by the City prior to commencing any work on the project. The WMP must specify the types of C&D debris that will be generated from the project; the manner in which C&D debris will be managed and/or stored on the project site; the manner in which recyclable C&D debris generated from the project will be recycled or reuse; the person who will haul, collect or transport the recyclable C&D debris from the project site; and the certified C&D sorting facility or recycling facility where recyclable C&D debris will be delivered. The WMP must be approved by the City prior to commencing any work on the project.

3. Contractor shall be solely responsible for diverting the recyclable C&D materials specified on the WMP. Mixed C&D debris shall be delivered to a SWA-certified C&D sorting facility only. Only the permit holder, the person who generates the waste, a franchised waste hauler, or the City of Sacramento can transport or haul mixed C&D debris. Source-separated C&D debris may be delivered by any person to any recycling facility that accepts such materials. (See **Attachment 2** for list of C&D Debris Haulers and Facilities).

4. During the course of the project, Contractor shall maintain a waste log (see **Attachment 3**), and keep all weight tickets or weight receipts, for all C&D debris hauled away from the project. At a minimum, the waste log shall specify the C&D debris generated by the project; the manner in which C&D debris was recycled or re-used; and the facility where the C&D debris was delivered.

5. Within 30 days after submitting the project completion report, Contractor shall submit to the City a completed waste log, along with copies of supporting weight tickets. Contractor shall maintain and keep accurate and complete records of all bills, weight receipts or weight tickets that were issued for the collection, transport or disposal of C&D debris for a period of one-year after submittal of the waste log. The records shall be made available for inspection, examination and audit by the City during the one-year retention period to validate the information provided in the WMP and in the waste log. If the City determines noncompliance by the Contractor after an audit has been conducted, Contractor shall reimburse the City for all costs incurred in performing the audit.

6. Failure by Contractor to comply with any provisions specified herein will subject Contractor to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; imposition of a penalty, payable to the City (\$50-\$250 for first offense, \$251-\$500 for second offense, and \$501-\$1500 for subsequent offenses); and/or submission of a performance security deposit fee when submitting a permit application to the City for a project within one year of imposition of the penalty.

For questions or to obtain more information about the Recycling Requirements for C&D debris, contact the City of Sacramento, Solid Waste Services Division, 2812 Meadowview Road, Building 1, Sacramento, CA 95832, or telephone (916) 808-4833, or email [C&D@cityofsacramento.org](mailto:C&D@cityofsacramento.org)

# C&D Debris Waste Management Plan

C&D Debris Waste Management Plan  
City of Sacramento Solid Waste Services  
2812 Meadowview Road, Building 1  
Sacramento, CA 95832  
Phone: (916) 808-4839 / Fax: (916) 808-4999  
C&D@cityofsacramento.org

This Waste Management Plan (WMP) must be submitted and approved before work can begin. Only one WMP is required for each public construction project. The administration fee and, if applicable, a security deposit must be submitted with this form to be approved. Administration fee is 0.04% of project bid amount (min \$40, max \$800); security deposit is 1% of bid amount (max \$10,000). The accompanying Waste Log must be submitted within 30 days of the project completion report, or a penalty may be imposed.

## A. Building Project Information:

Project Bid Amount: \$ \_\_\_\_\_

Job Address: \_\_\_\_\_

Contractor: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

## B. Briefly describe the project:

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**C. Materials Required to be Recycled.** 50% of all debris must be recycled if generated during the course of your project. You can either **source-separate** them, which may be hauled by anyone, or mix them in one container and send the **mixed C&D debris** load to a **Certified Mixed C&D Sorting Facility**. Mixed C&D loads can only be hauled by a franchised hauler or self-hauled. Please see Section F. Definitions, on the next page, for more information.

## D. Material Management.

1. How will C&D debris will be stored on the project site: \_\_\_\_\_ Mixed C&D \_\_\_\_\_ Source-Separated
2. Company to haul away debris: \_\_\_\_\_
3. Facilities to receive debris: \_\_\_\_\_

# C&D Debris Waste Management Plan

C&D Debris Waste Management Plan  
City of Sacramento Solid Waste Services  
2812 Meadowview Road, Building 1  
Sacramento, CA 95832  
Phone: (916) 808-4839 / Fax: (916) 808-4999  
C&D@cityofsacramento.org

## E. Definitions.

Please read and understand these terms. Call Solid Waste at (916) 808-4833 if these terms are not clear to you. More information is also available online at <http://www.cityofsacramento.org/utilities/>.

1. **Self-haul or self-hauling:** This is when the general contractor or a subcontractor *who is doing work on the project* hauls their own waste materials for recycling or disposal. Note that a *jobsite cleanup crew is not doing other work on the project and is not self-hauling*. Jobsite cleanup crews need to be franchised in order to haul mixed C&D debris away.
2. **Franchised hauler:** Check the Department of Utilities (DOU) website for a list of these haulers. Only these companies and the City of Sacramento can collect and haul mixed C&D debris generated within the City for a fee.
3. **Source separation:** This means keeping wood, metal, cardboard, or other recyclables in separate containers, and sending the materials to an authorized recycler. A list of authorized recyclers can be found on the DOU web site. Source-separated materials may be hauled by anyone.
4. **Mixed C&D debris:** This means putting all recyclable debris into one container. Mixed materials must be sent to a certified mixed C&D sorting facility. Mixed materials may be either self-hauled or hauled by a franchised hauler. If your job site is crowded, this option saves the most space.
5. **Certified Mixed C&D Sorting Facility:** See the DOU web site for a list. These facilities have been certified by the Sacramento Regional Solid Waste Authority (SWA) to extract recyclable materials from mixed C&D debris.

## F. Terms and Conditions

- Your approved Waste Management Plan and Waste Log must be kept on the job site for the duration of the project.
- City of Sacramento Solid Waste Services staff may enter the jobsite to inspect waste collection areas.
- ALL Clean Wood Waste (unpainted, untreated lumber, plywood and OSB), Inert Materials (concrete, asphalt paving, brick, block, and dirt), Wooden Pallets, Scrap Metal, and Corrugated Cardboard must be recycled.
- Only SWA-Certified Mixed C&D Sorting Facilities may be used to recycle these materials if mixed with other materials.
- Only the City of Sacramento, SWA-Franchised Haulers, or self-haulers (as defined above) may collect and transport mixed C&D material from the jobsite.
- C&D Debris may not be burned or dumped illegally.
- Your Waste Log must be completed and submitted, with supporting weight tickets, within 30 days of submitting your project completion report. All waste hauling and disposal or recycling activity must be entered on the Waste Log, including information from any subcontractors who self-hauled their own debris off-site.
- You must keep all receipts or weight-tickets from your project for a period of one year from the submittal of your waste log.
- Failure to comply with these terms and conditions may result in a fine and payment of a security deposit on future projects.

# C&D Debris Haulers & Facilities

C&D Debris Waste Management Plan  
City of Sacramento Solid Waste Services  
2812 Meadowview Road, Building 1  
Sacramento, CA 95832  
Phone: (916) 808-4833 / Fax: (916) 808-4999  
C&D@cityofsacramento.org

## Certified Mixed C&D Facilities

Allied Waste / Elder Creek Transfer and Recovery	(916) 387-8425
L&D Landfill	(916) 737-8640
Waste Management / K&M Recycle America	(916) 452-0142

## Franchised Haulers

ACES Waste Services, Inc.	(866) 488-8837	Elk Grove Waste Management, LLC	(916) 689-4052
Allied Waste Services	(916) 631-0600	Mini Drops, Inc.	(916) 686-8785
All Waste Systems, Inc.	(916) 456-1555	Norcal Waste Services of Sacramento	(916) 381-5300
Atlas Disposal Industries, LLC	(916) 455-2800	North West Recyclers	(916) 686-8575
California Waste Recovery Systems	(916) 441-1985	Waste Management of Sacramento	(916) 387-1400
Central Valley Waste Services, Inc.	(209) 369-8274	Waste Removal & Recycling	(916) 453-1400
City of Sacramento Solid Waste	(916) 808-4839	Western Strategic Materials, Inc.	(916) 388-1076

Recyclers*		Recovery Stations & Landfills	
Bell Marine	(916) 442-9089	Elder Creek Recovery & Transfer Station	(916) 387-8425
C & C Paper Recycling	(916) 920-2673	Kiefer Landfill	(916) 875-5555
EBI Aggregates	(916) 372-7580	L & D Landfill	(916) 383-9420
International Paper	(916) 371-4634	North Area Recovery Station	(916) 875-5555
Modern Waste Solutions	(916) 447-6800	Sacramento Recycling & Transfer Station	(916) 379-0500
PRIDE Industries, Inc.	(916) 640-1300	Waste Management Recycle America	(916) 452-0142
Recycling Industries, Inc.	(916) 452-3961		
Sacramento Local Conservation Corps	(916) 386-8394		
Smurfit-Stone Container Corporation	(916) 381-3340		
Southside Art Center	(916) 387-8080		
Spencer Building Maintenance, Inc.	(916) 922-1900		

More updated information can be found online at:  
<http://www.cityofsacramento.org/utilities/>

\* Please note that any facility may receive source-separated recyclable materials as long as it is authorized to do so by the State of California. This is not meant to be a complete list.



## **Green Contracting Survey (Voluntary)**

The City of Sacramento and the Sacramento Metropolitan Air Quality District (SMAQMD) are conducting a joint pilot project to help meet Federal Clean Air Standards for the Sacramento region.

Attached is a Green Contracting Fleet Inventory Form. Please complete the form, remove it from the bid package and return it to SMAQMD in the postage paid envelope provided with the bid package. Please do not return the Green Contracting Fleet Inventory Form to the City of Sacramento with the bid documents or otherwise.

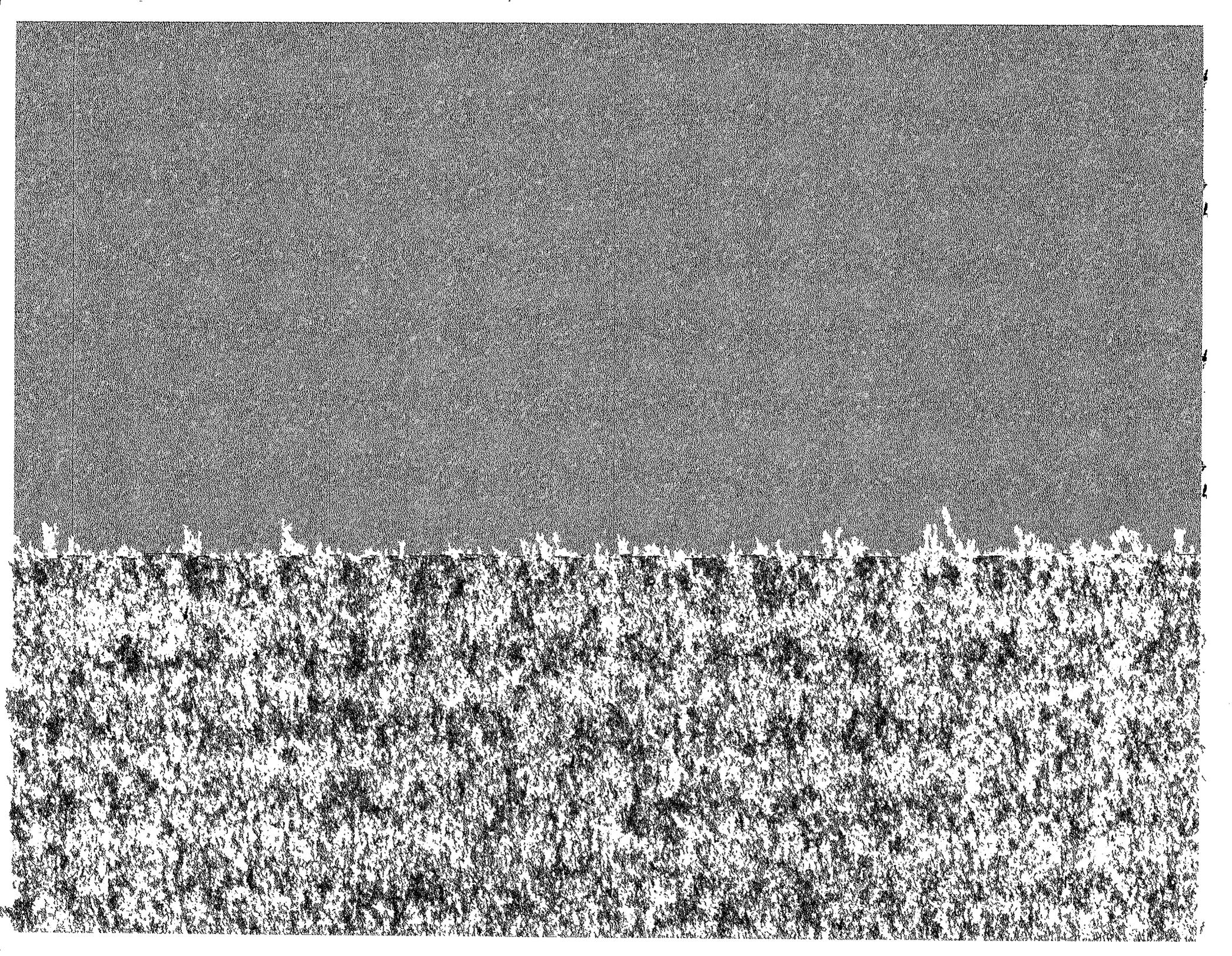
A limited amount of funds and other financial incentives may be available to qualified contractors participating in this joint project to assist qualified contractors with upgrading and/or replacing equipment and/or trucks.

**Completing and returning the Green Contracting Fleet Inventory Form is strictly voluntary.**









TO THE HONORABLE CITY COUNCIL  
SACRAMENTO, CALIFORNIA:

In compliance with the Contract Documents, the undersigned hereby proposes to furnish all required labor, materials, supervision, transportation, equipment, services, taxes and incidentals required for:

**CITY HALL GARAGE FIRE ALARM SYSTEM PROJECT (1990793)**

in the City and County of Sacramento, California.

The Work is to be done in strict conformity with the Contract Documents now on file in the office of the City Clerk, for the following sum:

A. BASE PROPOSAL:

\_\_\_\_\_ DOLLARS

( \$ \_\_\_\_\_ ).

B. ALTERNATES:

The Contractor shall price the following Alternative(s), stating the amount to be added or deducted from the Base Bid Proposal. The City reserves the right to award the Agreement on the basis of the Base Bid Proposal alone, or with a combination of one or more of the Alternative(s). The order of preference will be as follows: Base Bid first, followed by Alternative(s) in numerical order. The Alternative(s) will be based upon funds available. Failure on the part of any Contractor to list the Alternative(s) shall be cause for rejection of the Bid Proposal.

Each Alternate shall conform exactly to the Plans and Specifications. See the drawings and specifications for the description of the Alternates.

1. For all additional work for Alternate No. 1, add/deduct the sum of:

\_\_\_\_\_ DOLLARS ( \$ \_\_\_\_\_ ).

2. For all additional work for Alternate No. 2, add/deduct the sum of:

\_\_\_\_\_ DOLLARS ( \$ \_\_\_\_\_ ).

3. For all additional work for Alternate No. 3, add/deduct the sum of:

\_\_\_\_\_ DOLLARS ( \$ \_\_\_\_\_ ).

If awarded the Agreement, the undersigned agrees to sign said Agreement and furnish the necessary surety bonds and insurance certificates within ten (10) days after receipt of the notice of award of Agreement, and to begin work within fifteen (15) days after receipt of the Notice to Proceed by the City.

It is understood that this Bid Proposal is based upon completion of the Work within a period of **100 CALENDAR DAYS** commencing on the date set forth in the written "Notice to Proceed" issued by the City to the Contractor.

The undersigned has examined the location of the proposed Work, the local conditions at the place where the Work is to be done, is familiar with the Contract Documents and is familiar and expressly agrees to the liquidated damages provision of the Contract Documents.

The undersigned has checked carefully all of the foregoing figures and understands that the City of Sacramento will not be responsible for any errors or omissions on the part of the undersigned in making up this Bid Proposal.

Enclosed is Bid Proposal Guarantee, as required, consisting of a bidder's bond or other acceptable security for not less than ten percent (10%) of the amount Bid Proposal.

The undersigned agrees that all addenda received and acknowledged herein shall become a part of and be included in this Bid Proposal. This Bid Proposal includes the following addenda:

Add. # \_\_\_\_\_ DATE \_\_\_\_\_

NOTE: State whether your concern is a corporation, a co-partnership, private individual, or individuals doing business under a firm name.

---

If the Bidder is a corporation, the Bid Proposal must be executed in the name of the corporation and must be signed by a duly authorized officer of the corporation.

If the Bidder is a partnership, the Bid Proposal must be executed in the name of the partnership and one of the partners must subscribe his signature thereto as the authorized representative of the partnership.

AMOUNT OF BID PROPOSAL GUARANTEE ENCLOSED: **(Bid Proposal Guarantee Required)**

(\$ \_\_\_\_\_) not less than ten percent (10%) of amount Bid Proposal

\_\_\_\_\_ CERTIFIED CHECK  
\_\_\_\_\_ MONEY ORDER  
\_\_\_\_\_ CASHIER'S CHECK  
\_\_\_\_\_ BID BOND  
\_\_\_\_\_ OTHER SECURITY

<p><b><u>FOR CITY USE ONLY</u></b></p> <p><b>BID BOND SECURITY</b></p> <p><input type="checkbox"/> Bid Bond</p> <p><input type="checkbox"/> Cashier/Certified Check</p> <p><input type="checkbox"/> Other _____</p> <p>Initial: _____</p>
---

CONTRACTOR:

By \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print or Type)

Title \_\_\_\_\_

Firm \_\_\_\_\_

Street Address \_\_\_\_\_

Telephone No. \_\_\_\_\_

Fax No. \_\_\_\_\_

Email \_\_\_\_\_

Date \_\_\_\_\_

Contractor's License No. \_\_\_\_\_ Type \_\_\_\_\_

Expiration Date \_\_\_\_\_

Tax I.D. Nos. - Fed. \_\_\_\_\_ State \_\_\_\_\_

City of Sacramento Business Operation Tax Certificate No. \_\_\_\_\_  
(Obtained through the Department of Revenue, (916) 808-8500)

For any person or entity who submits a Bid Proposal, all such information shall be submitted under penalty of perjury.

**KNOW ALL MEN BY THESE PRESENTS,**

That we, \_\_\_\_\_

as Principal, and \_\_\_\_\_

a corporation duly organized under the laws of the State of \_\_\_\_\_ and duly licensed to become sole surety on bonds required or authorized by the State of California, as Surety, are held and firmly bound unto the City of Sacramento, hereinafter called the City, in the penal sum of ten percent (10%) of the (BASE OR LUMP SUM) Proposal of the Principal above named, or other amount as set forth in the Invitation to Bidders, submitted by said Principal to the 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 and successors, jointly and severally, firmly by these presents.

**THE CONDITION OF THIS OBLIGATION IS SUCH**

That whereas the Principal has submitted the above-mentioned Proposal to the City, for which Proposals are to be opened at the Department of General Services, City of Sacramento, located at **915 I Street, Historic Building, 1<sup>st</sup> Floor, Sacramento, CA 95814** up to the hour of 2:00 p.m. on **October 19, 2011** for the Work specifically described as follows:

**CITY HALL GARAGE FIRE ALARM SYSTEM PROJECT (PN: 1990793)**

**NOW, THEREFORE,** if the aforesaid Principal is awarded the Contract and within the time and manner required under the Contract Documents, enters into a written Contract, in the prescribed form, in accordance with the Proposal, and files two (2) bonds with the City, one to guarantee faithful performance and the other to guarantee payment for labor and materials, and files the required insurance policies with the City, all as required by the Contract Documents or by law, then the obligation shall be null and void; otherwise it shall be and remain in full force and effect.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court, which sums shall be additional to the principal amount of this bond.

IN WITNESS THEREOF We have hereunto set our hands and seal this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

\_\_\_\_\_  
(Contractor) (Seal)  
By \_\_\_\_\_  
Title \_\_\_\_\_

\_\_\_\_\_  
(Surety)(Seal)  
By \_\_\_\_\_  
Title \_\_\_\_\_  
Agent Name and Address \_\_\_\_\_

ORIGINAL APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney

\_\_\_\_\_  
Agent Phone # \_\_\_\_\_  
Surety Phone # \_\_\_\_\_  
California License # \_\_\_\_\_  
Surety Email: \_\_\_\_\_

**City of Sacramento Boycott of Arizona-Headquartered Businesses**

On June 15, 2010, the Sacramento City Council adopted Resolution No. 2010-346 opposing two Arizona laws (SB 1070 and HB 2162) that will allow Arizona police to arrest individuals suspected of being unlawfully present in the United States and to charge immigrants with a state crime for not carrying immigration documents.

Sacramento City Council Resolution No. 2010-346 also called for a boycott of the State of Arizona and businesses headquartered in Arizona until Arizona repeals or a court nullifies SB 1070 and HB 1262. Resolution No. 2010-346 provides, in pertinent part, that "where practicable and where there is no significant additional cost to the City, the City of Sacramento shall not enter into any new, amended, extended or supplemental contracts to purchase or procure goods or services from any business or entity that is headquartered in Arizona ..."

Pursuant to the provisions of Resolution No. 2010-346, the City may determine that a bid from a business or entity that is headquartered in Arizona is nonresponsive and the City may reject the bid on that basis.

Bidders that are headquartered in the United States shall certify in the space below the state where the bidder is headquartered:

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State Where Bidder is Headquartered

6/23/10

**DRUG-FREE WORKPLACE POLICY AND AFFIDAVIT**

**BID PROPOSAL MAY BE DECLARED NONRESPONSIVE IF THIS FORM (COMPLETED) IS NOT ATTACHED.  
Pursuant to City Council Resolution CC90-498 dated 6/26/90 the following is required.**

The undersigned contractor certifies that it and all subcontractors performing under this Agreement will provide a drug-free workplace by:

1. Publishing a "Drug-Free Workplace" statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Establishing a Drug-Free Awareness Program to inform employees about:
  - a. The dangers of drug abuse in the workplace.
  - b. The contractor's policy of maintaining a drug-free workplace.
  - c. Any available drug counseling, rehabilitation, and employee assistance program.
  - d. The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.
3. Notify employees that as a condition of employment under this Agreement, employees will be expected to:
  - a. Abide by the terms of the statement.
  - b. Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace.
4. Making it a requirement that each employee to be engaged in the performance of the Agreement be given a copy on the "Drug-Free Workplace" statement.
5. Taking one of the following appropriate actions, within thirty (30) days of receiving notice from an employee or otherwise receiving such notice, that said employee has received a drug conviction for a violation occurring in the workplace:
  - a. Taking appropriate disciplinary action against such an employee, up to and including termination; or
  - b. Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement or other appropriate agency.

\* I certify that no person employed by this company, corporation, or business has been convicted of any criminal drug statute violation on any job site or project where this company, corporation or business was performing was within three years of the date of my signature below.

**EXCEPTION:**

\_\_\_\_\_

Date	Violation Type	Place of Occurrence
------	----------------	---------------------

If additional space is required use back of this form.

\* The above statement will also be incorporated as a part of each subcontract agreement for any and all subcontractors selected for performance on this project.

**IN THE EVENT THIS COMPANY, CORPORATION, OR BUSINESS IS AWARDED THIS CONSTRUCTION AGREEMENT, AS A RESULT OF THIS BID; THE CONTRACTOR WITH HIS/HER SIGNATURE REPRESENTS TO THE CITY THAT THE INFORMATION DISCLOSED IN THIS DOCUMENT IS COMPLETE AND ACCURATE. IT IS UNDERSTOOD AND AGREED THAT FALSE CERTIFICATION IS SUBJECT TO IMMEDIATE TERMINATION BY THE CITY.**

The Representations Made Herein On This Document Are Made Under Penalty Of Perjury.

CONTRACTOR'S NAME: \_\_\_\_\_

BY: \_\_\_\_\_ Date: \_\_\_\_\_

Signature	Title
-----------	-------

Effects of violations: a. Suspension of payments under the Agreement. b. Suspension or termination of the Agreement. c. Suspension or debarment of the contractor from receiving any Agreement from the City of Sacramento for a period not to exceed five years.

**CITY OF SACRAMENTO**

**CITY OF SACRAMENTO SUBCONTRACTOR and ESBE PARTICIPATION VERIFICATION**

Contractor shall list any business entity used to attain the ESBE goal and all other subcontractors who perform work, labor, or render service in an amount in excess of one-half of 1 percent of the total bid amount shall be listed. In the case of bids for the construction of streets and highways, including bridges, subcontractors whose subcontract value exceeds one-half (0.5) of one percent of the total bid or ten thousand dollars (\$10,000), whichever is greater, shall be listed. The inclusion of false information will render the bid non-responsive. **READ THE ABOVE REQUIREMENT CAREFULLY.**

Name of Prime Contractor:	EBE or SBE:	Bid Amount:	Date:
Business Entity or Subcontractor Name / Address / License Number <b>PLEASE TYPE IN ALL INFORMATION, USE ADDITIONAL SHEETS IF NECESSARY</b>	Indicate EBE or SBE	Items of Work and/or Description of Work or Service Subcontracted or Materials to be provided to complete contract	Estimated Dollar Value of Work / Services Provided
Firm Name: Address: License Number:			\$
Firm Name: Address: License Number:			\$
Firm Name: Address: License Number:			\$
Firm Name: Address: License Number:			\$
Firm Name: Address: License Number:			\$
Firm Name: Address: License Number:			\$

**SMALL BUSINESS CERTIFICATION STATEMENTS AND PROOF OF VALID CONTRACTOR LICENSE  
ARE DUE BY THE CLOSE OF BUSINESS TWO DAYS AFTER BID OPENING**

## MINIMUM QUALIFICATIONS QUESTIONNAIRE

Sacramento City Code section 3.60.020 authorizes the Sacramento City Council to adopt standard minimum qualifications for bidders on competitively bid public works construction projects, and requires, among other provisions, that a bidder meet such minimum qualifications at the time of bid opening to be considered responsible. On June 8, 2004, the City Council adopted Resolution No. 2004-433 establishing these standard minimum qualifications. Pursuant to City Code section 3.60.020, a bidder failing to meet these minimum qualifications at the time of bid opening shall not be considered a responsible bidder.

All bidders must demonstrate compliance with the minimum qualifications established by Resolution No. 2004-433 by completing all of the questions contained in this questionnaire. If a bidder answers "yes" to any single question, fails to submit a fully completed questionnaire, or submits false information, this will result in a determination that the minimum qualifications are not met, and the bidder shall not be considered a responsible bidder for purposes of bidding on this contract. If two or more entities submit a bid on a contract as a Joint Venture, each entity within the Joint Venture must separately meet these minimum qualifications for the Joint Venture to be considered a responsible bidder.

The City of Sacramento ("City") shall make its determination on the basis of the submitted questionnaire, as well as any relevant information that is obtained from others or as a result of investigation by the City. While it is the intent of this questionnaire to assist the City in determining whether bidders possess the minimum qualifications necessary to submit bids on the City's competitively bid public works construction contracts, the fact that a bidder submits a questionnaire demonstrating that it meets these minimum qualifications shall not in any way limit or affect the City's ability to: (1) review other information contained in the bid submitted by the bidder, and additional relevant information, and determine whether the contractor is a responsive and/or responsible bidder; or (2) establish pre-qualification requirements for a specific contract or contracts.

By submitting this questionnaire, the bidder consents to the disclosure of its questionnaire answers: (i) to third parties for purposes of verification and investigation; (ii) in connection with any protest, challenge or appeal of any action taken by the City; and (iii) as required by any law or regulation, including without limitation the California Public Records Act (Calif. Gov't Code sections 6250 et seq.). Each questionnaire must be signed under penalty of perjury in the manner designated at the end of the form, by an individual who has the legal authority to bind the bidder submitting the questionnaire. If any information provided by a bidder becomes inaccurate, the bidder shall immediately notify the City and provide updated accurate information in writing, under penalty of perjury.

## QUESTIONNAIRE

**NOTICE:** All of the following questions regarding "your firm" refer to the firm (corporation, partnership or sole proprietor) submitting this questionnaire, as well as any firm(s) with which any of your firm's owners, officers, or partners are or have been associated as an owner, officer, partner or similar position within the last five years.

The firm submitting this questionnaire shall not be considered a responsible bidder if the answer to any of these questions is "yes", or if the firm submits a questionnaire that is not fully completed or contains false information.

1. Classification & Expiration Date(s) of California Contractor's License Number(s) held by firm:

\_\_\_\_\_

2. Has a contractor's license held by your firm and/or any owner, officer or partner of your firm been revoked at anytime in the last five years?

Yes  No

3. Within the last five years, has a surety firm completed a contract on your firm's behalf, or paid for completion of a contract to which your firm was a party, because your firm was considered to be in default or was terminated for cause by the project owner?

Yes  No

4. At the time of submitting this minimum qualifications questionnaire, is your firm ineligible to bid on or be awarded a public works contract, or perform as a subcontractor on a public works contract, pursuant to either California Labor Code section 1777.1 (prevailing wage violations) or Labor Code section 1777.7 (apprenticeship violations)?

Yes  No

5. At any time during the last five years, has your firm, or any of its owners, officers or partners been convicted of a crime involving the awarding of a contract for a government construction project, or the bidding or performance of a government contract?

Yes  No

6. Answer either subsection A or B, as applicable:

A. Your firm has completed three or more government construction contracts in Sacramento County within the last five years: Within those five years, has your firm been assessed liquidated damages on three or more government construction contracts in Sacramento County for failure to complete contract work on time?

**NOTE:** If there is a pending administrative or court action challenging the assessment of liquidated damages on a government contract within the last five years, you need not include that contract in responding to this question.

Yes  No  Not applicable

**OR**

- B. Your firm has not completed at least three **government** construction contracts **in Sacramento County** within the last five years: Within the last three years, has your firm been assessed liquidated damages on three or more government construction contracts for failure to complete contract work on time?

**NOTE: If there is a pending administrative or court action challenging an assessment of liquidated damages on a government contract within the last three years, you need not include that contract in responding to this question.**

Yes                       No                       Not applicable

7. In the last three years has your firm been debarred from bidding on, or completing, any government agency or public works construction contract for any reason?

**NOTE: If there is a pending administrative or court action challenging a debarment, you need not include that debarment in responding to this question.**

Yes                       No

8. Has CAL OSHA assessed a total of three or more penalties against your firm for any "serious" or "willful" violation **occurring on construction projects performed in Sacramento County** at any time within the last three years?

**NOTE: If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.**

Yes                       No

9. Answer either subsection A or B, as preferred:

- A. In the last three years has your firm had a three year average Workers' Compensation experience modification rate exceeding 1.1?

Yes                       No

**OR**

- B. In the last three years has your firm had a three-year average incident rate for total lost workday cases exceeding 10?

**NOTE: Incident rates represent the number of lost workday cases per 100 full-time workers and is to be calculated as:  $(N/EH) \times 200,000$ , where**

**N**                      = number of lost workday cases (as defined by the U.S. Dept. of Labor, Bureau of Labor Statistics)  
**EH**                      = total hours worked by all employees during the calendar year  
**200,000**                = base for 100 equivalent full-time working (working 40 hours per week, 50 weeks per year)

Yes                       No

10. In the past three years, has the federal EPA, Region IX or a California Air Quality Management District or Regional Water Quality Control Board assessed penalties three or more times, either against your firm, or against an owner for a violation resulting in whole or in part from any action or omission by your firm on a project on which your firm was a contractor?

**NOTE:** If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes  No

11. In the past three years, has the federal EPA, Region IX or a California Air Quality Management District or Regional Water Quality Control Board assessed a single penalty of \$100,000 or more, either against your firm, or against an owner for a violation resulting in whole or in part from any action or omission by your firm on a project on which your firm was the contractor?

**NOTE:** If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes  No

12. In the past three years, have civil penalties been assessed against your firm pursuant to California Labor Code 1777.7 for violation of California public works apprenticeship requirements, three or more times?

**NOTE:** If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes  No

13. In the past three years, has a public agency in California withheld contract payments or assessed penalties against your firm for violation of public works prevailing wage requirements, three or more times?

**NOTE:** If there is a pending administrative or court action appealing a withholding or penalty assessment, you need not include that withholding or penalty assessment in responding to this question.

Yes  No

14. Has your firm been assessed penalties for violation of public works prevailing wage requirements in California, in an aggregate amount for the past three years of \$50,000 or more?

**NOTE:** If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes  No

### VERIFICATION AND SIGNATURE

I, the undersigned, certify and declare that I have read all the foregoing answers to this Minimum Qualifications Questionnaire, and know their contents. The matters stated in these Questionnaire answers are true of my own knowledge and belief, except as to those matters stated on information and belief, and as to those matters I believe them to be true. I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signed at \_\_\_\_\_, on \_\_\_\_\_.  
(Location) (Date)

Signature: \_\_\_\_\_

Print name: \_\_\_\_\_

Title: \_\_\_\_\_

NOTE: If two or more entities submit a bid on a contract as a Joint Venture, each entity within the Joint Venture must submit a separate Minimum Qualifications Questionnaire.

**DECLARATION OF COMPLIANCE  
Equal Benefits Ordinance**

\_\_\_\_\_  
Name of Contractor

\_\_\_\_\_  
Address

The above named contractor ("Contractor") hereby declares and agrees as follows:

1. I have read and understand the Non-Discrimination In Employee Benefits By City Contractors Ordinance ("Ordinance") provided to me by the City of Sacramento ("City") in connection with the City's request for proposals or other solicitations for the performance of services, or for the provision of commodities, under a City contract or agreement ("Contract").
2. As a condition of receiving the City Contract, I agree to fully comply with the requirements of the Ordinance, codified as Chapter 3. 54 of the Sacramento City Code.
3. If the face amount of this City Contract is less than \$25,000, as a condition of receiving this Contract, I agree to notify the City in writing if the aggregate value of the City Contract referenced herein, after changes, modifications, or similar actions, equals or exceeds \$25,000 in total value.
4. I understand, to the extent that such benefits are not preempted or prohibited by federal or state law, employee benefits covered by the Ordinance, are any of the following:
  - a. Bereavement Leave
  - b. Disability, life, and other types of insurance
  - c. Family medical leave
  - d. Health benefits
  - e. Membership or membership discounts
  - f. Moving expenses
  - g. Pension and retirement benefits
  - h. Vacation
  - i. Travel benefits
  - j. Any other benefit offered to employees

I agree that should I offer any of the above listed employee benefits, that I will offer those benefits, without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouses and domestic partners of such employees.

5. I understand that I will not be considered to be discriminating in the provision or application of employee benefits under the following conditions or circumstances:

**DECLARATION OF COMPLIANCE  
Equal Benefits Ordinance**

- a. In the event that the actual cost of providing a benefit to a domestic partner or spouse, exceeds the cost of providing the same benefit to a spouse or domestic partner of an employee, I will not be required to provide the benefit, nor shall it be deemed discriminatory, if I require the employee to pay the monetary difference in order to provide the benefit to the domestic partner or to the spouse.
- b. In the event I am unable to provide a certain benefit, despite taking reasonable measures to do so, if I provide the employee with a cash equivalent, I will not be deemed to be discriminating in the application of that benefit.
- c. If I provide employee benefits neither to employee's spouses nor to employee's domestic partners.
- d. If I provide employee benefits to employees on a basis unrelated to marital or domestic partner status.
- e. If I submit, to the Program Coordinator, written evidence of making reasonable efforts to end discrimination in employee benefits by implementing policies which are to be enacted before the first effective date after the first open enrollment process following the date the Contract is executed with the City.

I understand that any delay in the implementation of such policies may not exceed one (1) year from the date the Contract is executed with the City, and applies only to those employee benefits for which an open enrollment process is applicable.

- ~~f. Until administrative steps can be taken to incorporate, in the infrastructure, nondiscrimination in employee benefits~~

The time allotted for these administrative steps will apply only to those employee benefits for which administrative steps are necessary and may not exceed three (3) months from the date the Contract is executed with the City.

- g. Until the expiration of a current collective bargaining agreement(s) where, in fact, employee benefits are governed by a collective bargaining agreement(s).
- h. I take all reasonable measures to end discrimination in employee benefits by either requesting the union(s) involved agree to reopen the agreement(s) in order for me to take whatever steps are necessary to end discrimination in employee benefits or by my ending discrimination in employee benefits without reopening the collective bargaining agreement(s).

**DECLARATION OF COMPLIANCE**  
**Equal Benefits Ordinance**

- i. In the event I cannot end discrimination in employee benefits despite taking all reasonable measures to do so, I provide a cash equivalent to eligible employees for whom employee benefits (as listed previously), are not available.

Unless otherwise authorized in writing by the City Manager, I understand this cash equivalent must begin at the time the union(s) refuse to allow the collective bargaining agreement(s) to be reopened or no longer than three (3) months from the date the Contract is executed with the City.

6. I understand that failure to comply with the provisions of Section 5. (a) through 4. (i), above, will subject me to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; debarment for future contracts until all penalties and restitution have been paid in full; deemed ineligible for future contracts for up to two (2) years; the imposition of a penalty, payable to the City, in the sum of \$50.00 for each employee, for each calendar day during which the employee was discriminated against in violation of the provisions of the Ordinance.
7. I understand and do hereby agree to provide each current employee and, within ten (10) days of hire, each new employee, of their rights under the Ordinance. I further agree to maintain a copy of each such letter provided, in an appropriate file for possible inspection by an authorized representative of the City. I also agree to prominently display a poster informing each employee of these rights.
8. I understand that I have the right to request an exemption to the benefit provisions of the Ordinance when such a request is submitted to the Procurement Services Division, in writing with sufficient justification for resolution, prior to contract award.

I further understand that the City may request a waiver or exemption to the provisions or requirements of the Ordinance; when only one contractor is available to enter into a contract or agreement to occupy and use City property on terms and conditions established by the City; when sole source conditions exist for goods, services, public project or improvements and related construction services; when there are no responsive bidders to the EBO requirements and the contract is for essential goods or services; when emergency conditions with public health and safety implications exist; or when the contract is for specialized legal services if in the best interest of the City.

9. In consideration of the foregoing, I shall defend, indemnify and hold harmless, the City, its officers and employees, against any claims, actions, damages, costs (including reasonable attorney fees), or other liabilities of any kind arising from any violation of the City's Equal Benefits Requirements or of the Ordinance by me.

**DECLARATION OF COMPLIANCE  
Equal Benefits Ordinance**

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am authorized to bind the Contractor to the provisions of this Declaration.

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title



**YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S  
NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS  
ORDINANCE**

On ..... (date), your employer (the "Employer") entered into a contract with the City of Sacramento (the "City") for ..... (contract details), and as a condition of that contract, agreed to abide by the requirements of the City's Non-Discrimination In Employee Benefits By City Contractors Ordinance (Sacramento City Code Section 3.54).

The Ordinance does not require the Employer to provide employee benefits. The Ordinance does require that if certain employee benefits are provided by the Employer, that those benefits be provided without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouse or domestic partner of employees.

The Ordinance covers any employee working on the specific contract referenced above, but only for the period of time while those employees are actually working on this specific contract.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

(Employee Benefits does not include benefits that may be preempted by federal or state law.)

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, or in the application of these employee benefits, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of the Ordinance, and after having exhausted all remedies with your employer,

**You May . . .**

- **Submit a written complaint to the City of Sacramento, Contract Services Unit, containing the details of the alleged violation. The address is:**

**City of Sacramento  
Contract Services Unit  
915 I St., 2nd Floor  
Sacramento, CA 95814**

- **Bring an action in the appropriate division of the Superior Court of the State of California against the Employer and obtain the following remedies:**
  - **Reinstatement, injunctive relief, compensatory damages and punitive damages**
  - **Reasonable attorney's fees and costs**



**YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S  
NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS  
ORDINANCE**

If your employer provides employee benefits, they must be provided to those employees working on a City of Sacramento contract without discriminating between employees with spouses and employees with domestic partners.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

If you feel you have been discriminated against by your employer . . .

**You May . . .**

- o Submit a written complaint to the City of Sacramento, Contract Services Unit, containing the details of the alleged violation. The address is:  
  
City of Sacramento  
Contract Services Unit  
915 I St., 2nd Floor  
Sacramento, CA 95814
- o Bring an action in the appropriate division of the Superior Court of the State of California against the employer and obtain reinstatement, injunctive relief, compensatory damages, punitive damages and reasonable attorney's fees and costs.

**Discrimination and Retaliation Prohibited.**

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of this Ordinance . . .

**You May Also . . .**

Submit a written complaint to the City of Sacramento, Contract Services Unit, at the same address, containing the details of the alleged violation.



AGREEMENT  
(Construction Contract Over \$25,000)

THIS AGREEMENT, dated for identification September 15, 2011, is made and entered into between the CITY OF SACRAMENTO, a municipal corporation ("City"), and \_\_\_\_\_  
("Contractor").

The City and Contractor hereby mutually agree as follows:

1. CONTRACT DOCUMENTS

The Contract Documents, sometimes also referred to as the "Contract," consist of the following items, which are hereby incorporated by reference as if set forth in full in this Agreement:

- The Notice to Contractors
- The Proposal Form submitted by the Contractor
- The Instructions to Bidders
- The Emerging and Small Business Enterprise (ESBE) Requirements
- The Requirements for the Non-Discrimination in Employee Benefits by City Contractors Ordinance and the Declaration of Compliance
- The City's Reference Guide for Construction Contracts
- The Addenda, if any
- This Agreement
- The Standard Specifications
- The Special Provisions
- The Plans and Technical Specifications
- The drawings and other data and all developments thereof prepared by City pursuant to the Contract
- Any modifications of any of the foregoing made or approved by City, including but not limited to duly authorized change orders.

Unless specifically noted otherwise, references to the "Standard Specifications" shall mean and refer to the Standard Specifications for Public Construction of the City of Sacramento approved by the Sacramento City Council on June 4, 2007 (Resolution No. 2007-350), and any subsequent amendments thereto approved by the Sacramento City Council or the Sacramento City Manager. Work called for in any one Contract Document and not mentioned in another is to be performed and executed as if mentioned in all Contract Documents. The table of contents, titles and headings contained in the Contract Documents are provided solely to facilitate reference to various provisions of the Contract Documents and in no way affect or limit the interpretation of the provisions to which they refer.

2. DEFINITIONS

Unless otherwise specifically provided herein, all words and phrases defined in the Standard Specifications shall have the same meaning and intent in this Agreement.

3. AGREEMENT CONTROLS

In the event of a conflict between any of the terms and conditions set forth in this Agreement and the terms and conditions set forth in other Contract Documents, the terms and conditions set forth in this Agreement shall prevail, except that the provisions of any duly authorized change order shall prevail over any conflicting provisions of this Agreement.

4. SCOPE OF CONTRACT

Contractor agrees to furnish all tools, equipment, apparatus, facilities, labor, material and transportation necessary to perform and complete in a good and workmanlike manner to the satisfaction of City, all the Work called for in the Contract Documents entitled:

**CITY HALL GARAGE FIRE ALARM SYSTEM PROJECT (PN: 1990793)**

including the Work called for in the following alternative bid items described in the Proposal Form:

---

Contractor agrees to perform such Work in the manner designated in and in strict conformity with the Contract Documents.

5. CONTRACT AMOUNT AND PAYMENTS

City agrees to pay and Contractor agrees to accept, as complete payment for the above Work, in accordance with the schedule and procedures set forth in the Contract Documents and subject to deductions, withholdings and additions as specified in the Contract Documents, a total sum that shall not exceed the total bid amount set forth in Contractor's Proposal Form. In addition, subject to deductions, withholdings and additions as specified in the Contract Documents, payment for individual items of the Work shall be computed as follows:

(A) For items of the Work for which a lump sum price is specified in Contractor's Proposal Form, Contractor shall be paid the lump sum price(s) specified in Contractor's Proposal Form; and

(B) For items of the Work for which a unit price is specified in Contractor's Proposal Form, Contractor shall be paid the sum computed at such unit price, or computed at a different price if such different price is determined by City in accordance with the Standard Specifications, based on the actual amount of each such item performed and/or furnished and incorporated in the Work; provided that in no event shall the total sum for a unit price item exceed the total bid amount set forth for such item in the Contractor's Proposal Form, unless authorized by Change Order.

6. PROGRESS PAYMENTS

Subject to the terms and conditions of the Contract, City shall cause payments to be made upon demand of Contractor as follows:

(A) On or about the first of the month, the Engineer shall present to the Contractor a statement showing the amount of labor and materials incorporated in the Work through the twentieth (20) calendar day of the preceding month. After both Contractor and Engineer approve the statement in writing, and the City's labor compliance officer provides written approval, the City shall issue a certificate for ninety (90) percent of the amount it shall find to be due, subject to any deductions or withholdings authorized or required under the Contract or any applicable Laws or Regulations.

(B) No inaccuracy or error in said monthly estimates shall operate to release Contractor from damages arising from such Work or from enforcement of each and every provision of the Contract Documents, and City shall have the right subsequently to correct any error made in any estimate for payment.

(C) Contractor shall not be paid for any defective or improper Work.

(D) The remaining ten (10) percent of the value of the Work performed under the Contract, if unencumbered and subject to any deductions or withholdings authorized or required under the Contract or any applicable Laws or Regulations, shall be due and payable beginning thirty-five (35) days after completion and final acceptance of the Work by City; provided that the City may determine, in its sole discretion, to release up to fifty (50) % of such retention, in whole or in part, at any time. Acceptance by Contractor of the final payment shall constitute a waiver of all claims against the City arising under the Contract Documents, except for disputed claims in stated amounts that the Contractor specifically reserves in writing, but only to the extent that the Contractor has complied with all procedures and requirements applicable to the presentation and processing of such claim(s) under the Contract Documents. Contractor shall be entitled to substitute securities for retention or to direct that payments of retention be made into escrow, as provided in Public Contract Code Section 22300, upon execution of the City's Escrow Agreement for Security Deposits in Lieu of Retention.

(E) The parties agree that, for purposes of the timely progress payment requirements specified in Public Contract Code Section 20104.50, the date that the City receives a statement jointly approved by the Contractor and the Engineer as provided above shall be deemed to constitute the date that City receives an undisputed and properly submitted payment request from the Contractor. Progress payments not made within 30 days after this date may be subject to payment of interest as provided in Section 20104.50.

## 7. RETENTION OF SUMS CHARGED AGAINST CONTRACTOR

When, under the provisions of this Contract or any applicable Laws or Regulations, City is authorized or required to withhold, deduct or charge any sum of money against Contractor, City may deduct and retain the amount of such charge from the amount of the next succeeding progress estimate(s), or from any other moneys due or that may become due Contractor from City. If, on completion or termination of the Contract, sums due Contractor are insufficient to pay City's charges, City shall have the right to recover the balance from Contractor or its Sureties.

8. COMMENCEMENT AND PROSECUTION OF WORK

Contractor shall commence the Work not later than fifteen (15) working days after the date of the written Notice to Proceed from City to Contractor and shall diligently prosecute the Work to final completion. The phrase "commence the Work" means to engage in a continuous program on-site including, but not limited to, site clearance, grading, dredging, land filling and the fabrications, erection, or installation of the Work. The Notice to Proceed shall be issued within fifteen (15) calendar days following execution of the Agreement by the City and the filing by Contractor of the required Bonds and proof of insurance, provided that the Engineer may delay issuance of the Notice to Proceed if the Engineer determines in the Engineer's sole discretion that conditions on the site of the Work are unsuitable for commencement of the Work. After the Notice to Proceed is issued, the continuous prosecution of Work by Contractor shall be subject only to Excusable Delays as defined in this Agreement.

9. TIME OF COMPLETION

The entire Work shall be brought to completion in the manner provided for in the Contract Documents on or before 100 calendar days from the date of the Notice to Proceed (hereinafter called the "Completion Date") unless extensions of time are granted in accordance with the Contract Documents.

Failure to complete the entire Work by the Completion Date and in the manner provided for in the Contract Documents shall subject Contractor to liquidated damages as provided in this Agreement. Time is and shall be of the essence in the performance of the Contract and the Work.

10. PAYMENTS DO NOT IMPLY ACCEPTANCE OF WORK

The payment of any progress payment, or the acceptance thereof by Contractor, shall not constitute acceptance of the Work or any portion thereof and shall in no way reduce the liability of Contractor to replace unsatisfactory work or material, whether or not the unsatisfactory character of such work or material was apparent or detected at the time such payment was made.

11. ACCEPTANCE NOT RELEASE

Contractor shall correct immediately any defective or imperfect work or materials that may be discovered before final acceptance of the entire Work, whether or not such defect or imperfection was previously noticed or identified by the City. The inspection of the Work, or any part thereof, shall not relieve Contractor of any of its obligations to perform satisfactory work as herein specified.

Failure or neglect on the part of City or any of its officers, employees or authorized agents to discover, identify, condemn or reject defective or imperfect work or materials shall not be construed to imply an acceptance of such work or materials, if such defect or imperfection becomes evident at any time prior to final acceptance of the entire Work, nor shall such failure or neglect be construed as barring City from enforcing Contractor's warranty(ies) or otherwise recovering damages or such a sum of money as may be required to repair or rebuild the defective or imperfect work or materials whenever City

may discover the same, subject only to any statutes of limitation that may apply to any such claim.

12. CITY'S RIGHT TO TAKE POSSESSION OF THE WORK IN WHOLE OR IN PART

The City shall have the right at any time to enter upon the Work and perform work not covered by this Contract, or to occupy and use a portion of the Work, prior to the date of the final acceptance of the Work as a whole, without in any way relieving Contractor of any obligations under this Contract.

13. NO WAIVER OF REMEDIES

Neither the inspection by City, its officers, employees or agents, nor any certificate or other approval for the payment of money, nor any payment for, nor acceptance of the whole or any part of the Work by City, nor any extensions of time, nor any position taken by City, its officers, employees or its agents shall operate as a waiver of any provision of the Contract Documents nor of any power herein reserved to City or any right to damages herein provided, nor shall any waiver of any breach of this Agreement be held to be a waiver of any other or subsequent breach. All remedies provided in the Contract Documents shall be taken and construed as cumulative; in addition to each and every other remedy herein provided, the City shall have any and all equitable and legal remedies that it would in any case have.

14. WARRANTY

Except as otherwise expressly provided in the Contract Documents, and excepting only items of routine maintenance, ordinary wear and tear and unusual abuse or neglect by City, Contractor warrants and guarantees all Work executed and all supplies, materials and devices of whatsoever nature incorporated in or attached to the Work, or otherwise provided as a part of the Work pursuant to the Contract, to be absolutely free of all defects of workmanship and materials for a period of one year after final acceptance of the entire Work by the City. Contractor shall repair or replace all work or material, together with any other work or material that may be displaced or damaged in so doing, that may prove defective in workmanship or material within this one year warranty period without expense or charge of any nature whatsoever to City.

In the event that Contractor shall fail to comply with the conditions of the foregoing warranty within ten (10) days after being notified of the defect in writing, City shall have the right, but shall not be obligated, to repair, or obtain the repair of, the defect and Contractor shall pay to City on demand all costs and expense of such repair. Notwithstanding anything herein to the contrary, in the event that any defect in workmanship or material covered by the foregoing warranty results in a condition that constitutes an immediate hazard to public health or safety, or any property interest, or any person, City shall have the right to immediately repair, or cause to be repaired, such defect, and Contractor shall pay to City on demand all costs and expense of such repair. The foregoing statement relating to hazards to health, safety or property shall be deemed to include both temporary and permanent repairs that may be required as determined in the sole discretion and judgment of City.

In addition to the above, the Contractor shall make a written assignment of all manufacturer's and other product warranties to the City, prior to completion and final acceptance of the Work by City.

The Contractor's Performance Bond shall secure the performance of the Contractor's obligations under this Section 14, and the Contractor and its Surety shall be jointly and severally liable for these obligations.

15. LIQUIDATED DAMAGES IF WORK NOT COMPLETED ON TIME

(A) The actual fact of the occurrence of damages and the actual amount of the damages that City would suffer if the entire Work, and/or any specified portion thereof, were not completed within the time(s) specified herein are dependent upon many circumstances and conditions that could prevail in various combinations, and for this reason, it is impracticable and extremely difficult to fix the actual damages. Damages that City would suffer in the event of such delay include: loss of the use of the project; expenses of prolonged assignment to the project of an architectural and/or engineering staff; prolonged costs of administration, inspection, and supervision; increased operational expenses and/or impaired operation of other facilities dependent upon completion of the project; and the loss and inconvenience suffered by the public within the City of Sacramento by reason of the delay in the completion of the project or portion thereof. Accordingly, the parties agree, and by execution of this Agreement, Contractor acknowledges that it understands and agrees, that the amount(s) set forth herein as liquidated damages reflect the parties' best efforts at the time of entering into the Contract to estimate the damages that may be incurred by City and the public due to the Contractor's delay in completion of the Work and/or any specified portion thereof, and shall be presumed to be the amount of damages sustained by the failure of Contractor to complete the entire Work and/or any specified portion thereof within the time(s) specified herein.

(B) Contractor shall pay liquidated damages to City for failure to complete the entire Work by the Completion Date (as extended in accordance with the Contract Documents, if applicable) in the amount of \$696.00 (Six Hundred Ninety Six Dollars) for each calendar day after the Completion Date (as extended in accordance with the Contract Documents, if applicable), continuing to the time at which the entire Work is completed. Such amount is the actual cash value agreed upon by the City and Contractor as the loss to City and the public resulting from Contractor's default.

The parties agree, and by execution of this Agreement, Contractor acknowledges that it understands and agrees, that the foregoing provisions provide for the imposition of liquidated damages from the Completion Date (as extended in accordance with the Contract Documents, if applicable) until the date of completion of the entire Work as determined by the Engineer in accordance with Section 8-4 of the Standard Specifications, whether or not the Work or any portion thereof is claimed or determined to be substantially complete prior to such date of completion.

THE FOLLOWING ADDITIONAL LIQUIDATED DAMAGES PROVISION(S) APPLY IF CHECKED:

- In addition to the liquidated damages specified above, Contractor shall pay additional liquidated damages to City for failure to complete the portion of the

Work specified below by the milestone date specified below (as such milestone date may be extended in accordance with the Contract Documents, if applicable). The amount of such additional liquidated damages shall be either [check one]:

a lump sum amount of \_\_\_\_\_, OR

the daily amount of \_\_\_\_\_ for each calendar day after such milestone date (as extended in accordance with the Contract Documents, if applicable), continuing to the time at which such portion of the Work is completed.

Such amount is the actual cash value agreed upon by the City and Contractor as the additional loss to City and the public resulting from Contractor's default.

Portion of the Work

Milestone Date

\_\_\_\_\_  
\_\_\_\_\_

**CONTRACTOR'S ACKNOWLEDGMENT:** \_\_\_\_\_

In addition to the potential damages described above, failure to complete the entire Work within the time(s) specified herein may expose the City to penalties or fines and/or may negatively affect the availability of project funding. In recognition of these potential damages, in addition to the liquidated damages specified above, Contractor shall pay additional liquidated damages to City in the lump sum amount of \_\_\_\_\_ if the entire Work is not completed by \_\_\_\_\_. Such amount is the actual cash value agreed upon by the City and Contractor as the additional loss to City and the public resulting from Contractor's default.

**CONTRACTOR'S ACKNOWLEDGMENT:** \_\_\_\_\_

(C) In the event Contractor shall become liable for liquidated damages, City, in addition to all other remedies provided by law, shall have the right to withhold any and all payments that otherwise would be or become due Contractor until the liability of Contractor under this section is finally determined. City shall have the right to use and apply such payments, in whole or in part, to reimburse City for all liquidated damages due or to become due to City. Any remaining balance of such payments shall be paid to Contractor only after discharge in full of all liability incurred by Contractor under this section or otherwise under any provision of the Contract Documents or any applicable Law or Regulation. If the sum so retained by City is not sufficient to discharge all such liabilities of Contractor, Contractor shall continue to remain liable to City until all such liabilities are satisfied in full. No failure by City to withhold any payment as specified above shall in any manner be construed to constitute a release of any such liabilities nor a waiver of the City's right to withhold payment for such liabilities.

16. INDEMNITY AND HOLD HARMLESS

(A) Contractor shall defend, hold harmless and indemnify the City, its officers,

employees, and agents, and each and every one of them, from and against any and all actions, damages, costs, liabilities, claims, demands, losses, judgments, penalties, costs and expenses of every type and description, whether arising on or off the site of the Work, including, but not limited to, any fees and/or costs reasonably incurred by City's staff attorneys or outside attorneys and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as "Liabilities"), including but not limited to Liabilities arising from personal injury or death, damage to personal, real or intellectual property or the environment, contractual or other economic damages, or regulatory penalties, arising out of or in any way connected with performance of or failure to perform the Work by the Contractor, any subcontractor or agent, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, whether or not (i) such Liabilities are caused in part by a party indemnified hereunder, or (ii) such Liabilities are litigated, settled or reduced to judgment; provided that the foregoing indemnity does not apply to liability for damages for death or bodily injury to persons, injury to property, or other loss, damage or expense to the extent arising from (i) the sole negligence or willful misconduct of, or defects in design furnished by, City, its agents, servants, or independent contractors who are directly responsible to City, or (ii) the active negligence of City.

(B) The existence or acceptance by City of any of the insurance policies or coverages described in this Agreement shall not affect or limit any of City's rights under this Section 16, nor shall the limits of such insurance limit the liability of Contractor hereunder. The provisions of this Section 16 shall survive any expiration or termination of the Contract.

17. CONTRACTOR SHALL ASSUME RISKS

Until the completion and final acceptance by City of all Work under this Contract, the Work shall be under Contractor's responsible care and charge, and Contractor, at no cost to City, shall rebuild, repair, restore and make good all injuries, damages, re-erections, and repairs occasioned or rendered necessary by accidental causes of any nature, to all or any portions of the Work.

18. GENERAL LIABILITY OF CONTRACTOR

Except as otherwise herein expressly stipulated, Contractor shall perform all the Work and furnish all the labor, materials, tools, equipment, apparatus, facilities, transportation, power and light, and appliances, necessary or proper for performing and completing the Work herein required in the manner and within the time herein specified. The mention of any specific duty or liability of Contractor shall not be construed as a limitation or restriction of any general liability or duty of Contractor, and any reference to any specific duty or liability shall be construed to be solely for the purpose of explanation.

19. INSURANCE

During the entire term of this Contract and until completion and final acceptance of the Work as provided in the Contract Documents, Contractor shall maintain in full force and effect the insurance coverage described in this section.

Full compensation for all premiums that Contractor is required to pay for the insurance coverage described herein shall be included in the compensation specified for performance of the Work under the Contract. No additional compensation will be provided for Contractor's insurance premiums.

It is understood and agreed by the Contractor that its liability to the City shall not in any way be limited to or affected by the amount of insurance coverage required of or carried by the Contractor.

(A) Minimum Scope and Limits of Insurance Coverage

(1) Commercial General Liability Insurance, providing coverage at least as broad as ISO CGL Form 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide contractual liability and products and completed operations coverage for the term of the policy.

(2) Automobile Liability Insurance providing coverage at least as broad as ISO Form CA 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide coverage for owned, non-owned and/or hired autos as appropriate to the operations of the Contractor.

(3) Workers' Compensation Insurance with statutory limits, and Employers' Liability Insurance with limits of not less than one million dollars (\$1,000,000). The Worker's Compensation policy shall include a waiver of subrogation.

(B) Additional Insured Coverage

(1) Commercial General Liability Insurance: The City, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insureds as respects general liability arising out of activities performed by or on behalf of Contractor, products and completed operations of Contractor, and premises owned, leased or used by Contractor. The general liability additional insured endorsement must be signed by an authorized representative of the insurance carrier.

If the policy includes a blanket additional insured endorsement or contractual additional insured coverage, the above signature requirement may be fulfilled by submitting that document with a signed declaration page referencing the blanket endorsement or policy form.

(2) Automobile Liability Insurance: The City, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insureds as respects auto liability.

(C) Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

- (1) Contractor's insurance coverage shall be primary insurance as respects City, its officials, employees and volunteers. Any insurance or self-insurance maintained by City, its officials, employees or volunteers shall be in excess of Contractor's insurance and shall not contribute with it.
- (2) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to City, its officials, employees or volunteers.
- (3) Coverage shall state that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- (4) City will be provided with thirty (30) days written notice of cancellation or material change in the policy language or terms.

(D) Acceptability of Insurance

Insurance shall be placed with insurers with a Bests' rating of not less than A:V. Self-insured retentions, policy terms or other variations that do not comply with the requirements of this Section 19 must be declared to and approved by the City Risk Management Division in writing prior to execution of this Agreement.

(E) Verification of Coverage

- (1) Contractor shall furnish City with certificates and required endorsements evidencing the insurance required. Contractor shall provide initial insurance documents to the Engineer upon request, prior to execution of the final contract. All future insurance renewal documents shall be sent to:

EBIX BPO  
212 Kent Street  
Portland, MI, 48875  
Phone: (517) 647-1700  
Fax: (517) 647-7900  
Email: CertsOnly@periculum.com

- (2) Copies of policies shall be delivered to the City on demand. Certificates of insurance shall be signed by an authorized representative of the insurance carrier.

(F) Subcontractors

Contractor shall require and verify that all subcontractors maintain insurance coverage that meets the minimum scope and limits of insurance coverage specified in subsection A, above.

20. FAILURE TO MAINTAIN BONDS OR INSURANCE

If, at any time during the performance of this Contract, Contractor fails to maintain any item of the bonds and/or insurance required under the Contract in full force and effect, Contractor shall immediately suspend all work under the Contract and notify City in writing of such failure. After such notice is provided, or if City discovers such failure and notifies Contractor, the City thereafter may withhold all Contract payments due or that become due until notice is received by City that such bonds and/or insurance have been restored in full force and effect and that the premiums therefor have been paid for a period satisfactory to the Division of Risk Management. Contractor shall not resume work until notified by City to do so, and the City shall have no responsibility or liability for any costs incurred by Contractor as a result of such suspension of Work.

In addition to the foregoing, any failure to maintain any item of the required bonds and/or insurance at any time during the performance of this Contract will be sufficient cause for termination of the Contract by City.

The Contractor shall be solely responsible for, and shall defend, indemnify and hold harmless the City, its officers, employees and agents against and from, any and all damages, claims, losses, actions, costs or other expenses of any kind incurred by any party as a direct or indirect result of any suspension of Work or termination of the Contract under the provisions of this Section.

21. EXCUSABLE DELAYS

For the purpose of these Contract Documents, the term "Excusable Delay" shall mean, and is limited to, delay caused directly by: acts of God; acts of a public enemy; fires; inclement weather as determined by the Engineer; riots; insurrections; epidemics; quarantine restrictions; strikes; lockouts; sitdowns; acts of a governmental agency; priorities or privileges established for the manufacture, assemble, or allotment of materials necessary in the Work by order, decree or otherwise of the United States or by any department, bureau, commission, committee, agent, or administrator of any legally constituted public authority; changes in the Work ordered by City insofar as they necessarily require additional time in which to complete the Work; the prevention of Contractor from commencing or prosecuting the Work because of the acts of others, excepting Contractor's subcontractors or suppliers; or the prevention of Contractor from commencing or prosecuting the Work because of a Citywide failure of public utility service.

The term "Excusable Delay" shall specifically not include: (i) any delay that could have been avoided by the exercise of care, prudence, foresight and diligence on the part of Contractor; (ii) any delay in the prosecution of any part of the Work that does not constitute a Controlling Operation, whether or not such delay is unavoidable; (iii) any reasonable delay resulting from time required by City for review of any Contractor submittals and for the making of surveys, measurements and inspection; and, (iv) any delay arising from an interruption in the prosecution of the Work on account of reasonable interference by other Contractors employed by City that does not necessarily prevent the completion of the entire Work within the time specified. Excusable Delays, if any, shall operate only to extend the Completion Date (not in excess of the period of such delay as determined by City) and shall not under any

circumstances increase the amount City is required to pay Contractor except as otherwise provided in these Contract Documents.

## 22. CONTRACTOR TO SERVE NOTICE OF DELAYS

Whenever Contractor foresees any delay in the prosecution of the Work, and in any event as soon as possible (not to exceed a period of ten (10) calendar days) after the initial occurrence of any delay that Contractor regards as or may later claim to be an Excusable Delay, the Contractor shall notify the Engineer in writing of such delay and its cause, in order that the Engineer: (i) may take immediate steps to prevent if possible the occurrence or continuance of the delay; or (ii) if this cannot be done, may determine whether the delay is to be considered excusable, how long it continues, and to what extent the prosecution and completion of the Work are delayed thereby. Said written notice shall constitute an application for an extension of time only if the notice requests such an extension and sets forth the Contractor's estimate of the additional time required together with a full description of the cause of the delay relied upon.

After the completion of any part or whole of the Work, the Engineer, in estimating the amount due Contractor, will assume that any and all delays that may have occurred in its prosecution and completion were not Excusable Delays, except for such delays for which the Contractor has provided timely written notice as required herein, and that the Engineer has found to be excusable. Contractor shall not be entitled to claim Excusable Delay for any delay for which the Contractor failed to provide such timely written notice.

## 23. EXTENSION OF TIME

If the Contractor complies with Section 22, above, and the Engineer finds a delay claimed by the Contractor to be an Excusable Delay, the Contractor shall be allowed an extension of time to complete the Work that is proportional to the period of Excusable Delay determined by the Engineer, subject to the approval by City of a change order granting such time extension. During a duly authorized extension for an Excusable Delay, City shall not charge liquidated damages against the Contractor for such delay.

If the City extends the time to complete the Work as provided herein, such extension shall in no way release any warranty or guarantee given by Contractor pursuant to the provisions of the Contract Documents, nor shall such extension of time relieve or release the sureties of the Bonds provided pursuant to the Contract Documents. By executing such Bonds, the Sureties shall be deemed to have expressly agreed to any such extension of time. The granting of any extension of time as provided herein shall in no way operate as a waiver on the part of City of its rights under this Contract, excepting only extension of the Completion Date for such period of Excusable Delay as may be determined by the Engineer and approved by a duly authorized change order.

## 24. NO PAYMENT FOR DELAYS

No damages or compensation of any kind shall be paid to Contractor or any subcontractor because of delays in the progress of the Work whether or not such delays qualify for extension of time under this Agreement; except that this provision shall not preclude the recovery of damages for a delay caused by the City that is unreasonable under the circumstances and that is not within the contemplation of the parties, provided that the Contractor timely submits all such written notice(s) and fully complies with such

other procedures as may be specified in the Contract Documents or any Laws or Regulations for Contractor to claim damages for such delay.

25. CHANGES IN THE WORK

Changes in the Work authorized or directed in accordance with the Contract Documents and extensions of time of completion made necessary by reason thereof shall not in any way release any warranty or guarantee given by Contractor pursuant to the provisions of the Contract Documents, nor shall such changes in the Work relieve or release the Sureties on Bonds provided pursuant to the Contract Documents. By executing such Bonds, the Sureties shall be deemed to have expressly agreed to any such change in Work and to any extension of time made by reason thereof.

26. TERMINATION AFTER COMPLETION DATE

In addition to any other rights City may have, if any services or work required under the Contract (including but not limited to punch list items) are not completed as of the Completion Date (as adjusted by any extensions of time for Excusable Delays granted pursuant to the Contract Documents), City may terminate the Contract at any time after the Completion Date (as adjusted by any extensions of time for Excusable Delays granted pursuant to the Contract Documents), by providing a written notice to Contractor specifying the date of termination. Such notice also may specify conditions or requirements that Contractor must meet to avoid termination of the Contract on such date. If Contractor fails to fulfill all such conditions and requirements by such termination date, or, if no such conditions or requirements are specified, Contractor shall cease rendering services and performing work on such termination date, and shall not be entitled to receive any compensation for services rendered or work performed after such termination date. In the event of such termination, Contractor shall remain liable to City for liquidated damages incurred for any period of time prior to the termination date.

In addition to any other charges, withholdings or deductions authorized under the Contract or any Laws or Regulations, if City terminates the Contract pursuant to this section, City may withhold and deduct from any payment and/or retention funds otherwise due Contractor any sum necessary to pay the City's cost of completing or correcting, or contracting for the completion or correction of, any services or work under the Contract that are not completed to the satisfaction of the City or that otherwise are deficient or require correction as of such termination date, including but not limited to incomplete punch list items. Such costs shall include all of the City's direct and indirect costs incurred to complete or correct such services or work, including the City's administrative and overhead costs. If the amount of payment(s) and/or retention funds otherwise due the Contractor are insufficient to pay such costs, City shall have the right to recover the balance of such costs from the Contractor and/or its Surety(ies).

27. TERMINATION FOR CONVENIENCE

Upon written notice to the Contractor, the City may at any time, without cause and without prejudice to any other right or remedy of the City, elect to terminate the Contract for the convenience of City. In such case, the Contractor shall be paid (without duplication of any items, and after deduction and/or withholding of any amounts authorized to be deducted or withheld by the Contract Documents or any Laws or Regulations):

(A) For Work executed in accordance with the Contract Documents prior to the effective date of termination and determined to be acceptable by the Engineer, including fair and reasonable sums for overhead and profit on such Work;

(B) For reasonable claims, costs, losses, and damages incurred in settlement of terminated contracts with subcontractors, suppliers, and others; and

(C) For reasonable expenses directly attributable to termination.

Contractor shall not be paid for any loss of anticipated profits or revenue for any Work not performed prior to termination, nor for any economic loss arising out of or resulting from such termination, except for the payments listed in this section. Contractor's warranty under Section 14 of this Agreement shall apply, and Contractor shall remain responsible for all obligations related to such warranty, with respect to all portions of the Work performed prior to the effective date of the termination for convenience pursuant to this section. The City shall be entitled to have any or all remaining Work performed by other contractors or by any other means at any time after the effective date of a termination for convenience pursuant to this section.

## 28. TERMINATION FOR BREACH OF CONTRACT

If Contractor abandons the Work under this Contract, or if the Contract or any portion of the Contract is sublet or assigned without the consent of the City, or if the Engineer determines in the Engineer's sole discretion that the conditions of the Contract in respect to the rate of progress of the Work are not being fulfilled or any part thereof is unnecessarily delayed, or if Contractor violates or breaches, or fails to execute in good faith, any of the terms or conditions of the Contract, or if Contractor refuses or fails to supply enough properly skilled labor or materials or refuses or fails to make prompt payment to subcontractors for material or labor, or if Contractor disregards any Laws or Regulations or proper instruction or orders of the Engineer, then, notwithstanding any provision to the contrary herein, the City may give Contractor and its Sureties written notification to immediately correct the situation or the Contract shall be terminated.

In the event that such notice is given, and, in the event such situation is not corrected, or arrangements for correction satisfactory to the City are not made, within ten (10) calendar days from the date of such notice or within such other period of time as may be specified by the City in the notice, the Contract shall upon the expiration of said period cease and terminate. In the event of any such termination, City may take over the Work and prosecute the Work to completion, or otherwise, and the Contractor and its Sureties shall be liable to City for any cost occasioned City thereby, as hereinafter set forth.

In the event City completes the Work, or causes the Work to be completed, no payment of any kind shall be made to Contractor until the Work is complete. The cost of completing the Work, including but not limited to, extra costs of project administration and management incurred by City, both direct or indirect, shall be deducted from any sum then due, or that becomes due, to Contractor from City. If sums due to Contractor from City are less than the cost of completing the Work, Contractor and its Sureties shall pay City a sum equal to this difference on demand. In the event City completes the Work, and there is a sum remaining due to Contractor after City deducts the costs of completing the Work, then City shall pay such sum to Contractor. The Contractor and

Contractor's Sureties shall be jointly and severally liable for all obligations imposed on Contractor hereunder.

No act by City before the Work is finally accepted, including, but not limited to, exercise of other rights under the Contract, actions at law or in equity, extensions of time, payments, assessments of liquidated damages, occupation or acceptance of any part of the Work, waiver of any prior breach of the Contract or failure to take action pursuant to this section upon the happening of any prior default or breach of Contractor, shall be construed to be a waiver or estoppel of the City's right to act pursuant to this Section upon any subsequent event, occurrence or failure by Contractor to fulfill the terms and conditions of the Contract. The rights of City to terminate the Contract pursuant to this Section and pursuant to Sections 26 and 27 are cumulative and are in addition to all other rights of City pursuant to the Contract and at law or in equity.

29. CONTRACTOR BANKRUPT

If Contractor should commence any bankruptcy proceeding, or if Contractor is adjudged a bankrupt, or if Contractor makes any assignment for the benefit of creditors, or if a receiver is appointed on account of Contractor's insolvency, then the City may, without prejudice to any other right or remedy, terminate the Contract and complete the work by giving notice as provided in Section 28 above.

30. SURETIES' OBLIGATIONS UPON TERMINATION

If the City terminates the Contract pursuant to Section 28 or Section 29 above:

(A) The Surety under Contractor's performance bond shall be fully responsible for all of the Contractor's remaining obligations of performance under the Contract as if the Surety were a party to the Contract, including without limitation Contractor's obligations, as provided in the Contract Documents, to complete and provide a one-year warranty of the entire Work, pay liquidated damages and indemnify, defend and hold harmless City, up to the full amount of the performance bond.

(B) The Surety under Contractor's payment bond shall be fully responsible for the performance of all of the Contractor's remaining payment obligations for work, services, equipment or materials performed or provided in connection with the Work or any portion thereof, up to the full amount of the payment bond.

31. ACCOUNTING RECORDS OF CONTRACTOR

During performance of the Contract and for a period of three (3) years after completing the entire Work, Contractor shall maintain all accounting and financial records related to the Contract and performance of the Work in accordance with generally accepted accounting practices, and shall keep and make such records available for inspection and audit by representatives of the City upon reasonable written notice.

32. USE TAX REQUIREMENTS

- (A) Use Tax Direct Payment Permit For all leases and purchases of materials, equipment, supplies, or other tangible personal property used to perform the Contract and shipped from outside California, the Contractor and any subcontractors leasing or purchasing such materials, equipment, supplies or other tangible personal property shall obtain a Use Tax Direct Payment Permit from the California State Board of Equalization ("SBE") in accordance with the applicable SBE criteria and requirements.
- (B) Sellers Permit For any construction contract and any construction subcontract in the amount of \$5,000,000 or more, Contractor and the subcontractor(s) shall obtain sellers permits from the SBE and shall register the jobsite as the place of business for the purpose of allocating local sales and use tax to the City. Contractor and its subcontractors shall remit the self-accrued use tax to the SBE, and shall provide a copy of each remittance to the City.
- (C) The above provisions shall apply in all instances unless prohibited by the funding source for the Contract.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement on the date set for opposite their names.

**CONTRACTOR**

Under penalty of perjury, I certify that the taxpayer identification number and all other information provided here are correct.

DATE \_\_\_\_\_

BY \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

BY \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Federal ID# \_\_\_\_\_

State ID# \_\_\_\_\_

City of Sacramento Business Operation Tax Certificate No. (City will not award contract until Certificate Number is obtained)

Type of Business Entity (*check one*):

- \_\_\_\_\_ Individual/Sole Proprietor
- \_\_\_\_\_ Partnership
- \_\_\_\_\_ Corporation
- \_\_\_\_\_ Limited Liability Company
- \_\_\_\_\_ Other (*please specify:* \_\_\_\_\_)

**CITY OF SACRAMENTO**  
a municipal corporation

DATE \_\_\_\_\_

BY \_\_\_\_\_

For: \_\_\_\_\_  
City Manager

Original Approved As To Form:

Attest:

\_\_\_\_\_  
City Attorney

\_\_\_\_\_  
City Clerk

**CITY OF SACRAMENTO  
PERFORMANCE BOND**  
Department of General Services

**Bond No.:** \_\_\_\_\_

**Premium:** \_\_\_\_\_

**WHEREAS**, the City of Sacramento, State of California, hereinafter called City, has conditionally awarded to:

as principal, hereinafter called Contractor, a contract for construction of:

**CITY HALL GARAGE FIRE ALARM SYSTEM PROJECT  
(PN: 1990793)**

which contract is by reference incorporated herein and made a part hereof as if the Surety named below were a party to the contract, and is hereinafter referred to as the Contract; and

**WHEREAS**, under the terms of the Contract, Contractor is required to furnish a bond for the faithful performance of the Contract.

**NOW, THEREFORE**, we the Contractor and (*here insert full name and address of Surety*):

\_\_\_\_\_ ,  
a corporation duly authorized and admitted to transact business and issue surety bonds in the State of California, hereinafter called Surety, are held and firmly bound unto the City, as obligee, in the sum of:

\_\_\_\_\_ for the payment of which sum well and truly to be made, we the Contractor and Surety bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally. The condition of this obligation is such that, if the Contractor, Contractor's heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and fully perform all covenants, conditions and agreements required to be kept and performed by Contractor in the Contract and any changes, additions or alterations made thereto, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meanings, and shall indemnify and save harmless the City, its officers, employees and agents, as therein provided, then the Surety's obligations under the Contract and this bond shall be null and void; otherwise they shall be and remain in full force and effect. This obligation shall remain in full force and effect through the end of the Contract warranty period, which will expire one year after the completion of work date specified in the Notice of Completion filed for the above-named project.

As part of the obligations secured hereby and in addition to the sum specified above, there shall be included all costs, expenses and fees, including attorney's fees, reasonably incurred by City in successfully enforcing such obligations, all to be taxed as costs and included in any judgment rendered.

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

**IN WITNESS WHEREOF**, this instrument has been duly executed by authorized representatives of the Contractor and Surety. SIGNED AND SEALED on \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
(Contractor) (Seal)  
By \_\_\_\_\_  
Title \_\_\_\_\_

ORIGINAL APPROVED AS TO FORM:  
  
\_\_\_\_\_  
City Attorney

\_\_\_\_\_  
(Surety) (Seal)  
By \_\_\_\_\_  
Title \_\_\_\_\_  
Agent Name and Address \_\_\_\_\_  
\_\_\_\_\_  
Agent Phone # \_\_\_\_\_  
Surety Phone # \_\_\_\_\_  
California License # \_\_\_\_\_  
Surety Email: \_\_\_\_\_

**CITY OF SACRAMENTO**  
**PAYMENT BOND**  
Department of General Services

**Bond No.:** \_\_\_\_\_  
**Premium:** \_\_\_\_\_

**WHEREAS**, the City of Sacramento, in the State of California, hereinafter called City, has conditionally awarded to:

hereinafter called Contractor, a contract for construction of:

**CITY HALL GARAGE FIRE ALARM SYSTEM PROJECT**  
**(PN: 1990793)**

which contract is by reference incorporated herein and made a part hereof, and is hereinafter referred to as the Contract; and

**WHEREAS**, under the terms of the Contract, Contractor is required to furnish a good and sufficient payment bond to secure the claims to which reference is made in Title 15(commencing with Section 3082) of Part 4 of Division 3 of the California Civil Code.

**NOW, THEREFORE**, we the Contractor and (*here insert full name and address of Surety*):

\_\_\_\_\_ a corporation duly authorized and admitted to transact business and issue surety bonds in the State of California, hereinafter called Surety, are held and firmly bound unto the City, and unto all subcontractors, laborers, material men and other persons employed in the performance of the Contract and referred to in the aforesaid Civil Code in the sum of \_\_\_\_\_

on the condition that if Contractor shall fail to pay for any materials or equipment furnished or used in performance of the Contract, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the Contractor and all subcontractors with respect to such work or labor, then the Surety shall pay the same in an amount not exceeding the sum specified above. If suit is brought upon this bond, Surety shall pay, in addition to the above sum, all costs, expenses and fees, including attorney's fees, reasonably incurred by any party in successfully enforcing the obligation secured hereby, all to be taxed as costs and included in any judgment rendered. Should the condition of this bond be fully performed, then this obligation shall become null and void, otherwise it shall be and remain in full force and effect, and shall bind Contractor, Surety, their heirs, executors, administrators, successors and assigns, jointly and severally.

It is hereby stipulated and agreed that this bond shall inure to the benefit of all persons, companies, corporations, political subdivisions and State agencies entitled to file claim under Title 15 (commencing with Section 3082) of Part 4 of Division 3 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond. The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or to the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration or addition.

**IN WITNESS WHEREOF**, this instrument has been duly executed by authorized representatives of the Contractor and Surety. SIGNED AND SEALED on \_\_\_\_\_, 20 \_\_\_\_\_.

\_\_\_\_\_  
(Contractor) (Seal)  
By \_\_\_\_\_  
Title \_\_\_\_\_

ORIGINAL APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney

\_\_\_\_\_  
(Surety) (Seal)  
By \_\_\_\_\_  
Title \_\_\_\_\_  
Agent Name and Address \_\_\_\_\_  
Agent Phone # \_\_\_\_\_  
Surety Phone # \_\_\_\_\_  
California License # \_\_\_\_\_  
Surety Email: \_\_\_\_\_

**WORKER'S COMPENSATION CERTIFICATION**

**CITY HALL GARAGE FIRE ALARM SYSTEM PROJECT (PN: 1990793)**

In accordance with Article 5 (commencing at Section 1860), Chapter 1, Part 7, Division 2 of the Labor Code, the below certificate must be signed and filed with the awarding body prior to performing any work under this contract. Labor Code Section 3700, inter alia, states the following:

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

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

To be signed by authorized corporate officer or partner or individual submitting the Proposal. If Bidder is: (example)

- 1. An individual using a firm name, sign: "John Doe, an individual doing business as Blank Company."
- 2. An individual doing business under his own name, Sign: your name only.
- 3. A co-partnership, sign: "John Doe and Richard Doe, co-partners doing business as Blank Company, by, John Doe, co-partner.
- 4. A corporation, sign: "Blank Company, by John Doe, Secretary." (or other title)

*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.*

DATE: \_\_\_\_\_ Contractor \_\_\_\_\_

By \_\_\_\_\_  
Signature

**PAY REQUEST APPLICATION**

PROJECT: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

PURCHASE ORDER NO.: \_\_\_\_\_ COST CENTER: \_\_\_\_\_

PAY REQUEST NUMBER: \_\_\_\_\_ PERIOD ENDING DATE: \_\_\_\_\_

ORIG. CONTRACT AMT. \$ \_\_\_\_\_

CHANGE ORDER NO. 1 \$ \_\_\_\_\_

CHANGE ORDER NO. 2 \$ \_\_\_\_\_

CHANGE ORDER NO. 3 \$ \_\_\_\_\_

CHANGE ORDER NO. 4 \$ \_\_\_\_\_

NET CHANGE BY CHANGE ORDERS: \$ \_\_\_\_\_

TOT ADJUSTED CONTRACT AMT TO DATE: \$ \_\_\_\_\_

BALANCE OF CONTRACT TO FINISH: \$ \_\_\_\_\_

TOTAL COMPLETE AND STORED TO DATE: \$ \_\_\_\_\_

LESS 10% \$ \_\_\_\_\_

LESS PREVIOUS PAYMENTS: \$ \_\_\_\_\_

AMOUNT DUE THIS INVOICE: \$ \_\_\_\_\_

**\*\*\*Labor Compliance (payrolls etc.) is current and submitted for this Pay Request\*\*\***

Submitted By \_\_\_\_\_ Date: \_\_\_\_\_

(Contractor's Original Signature Required)

Submit To: City of Sacramento - Department of General Services  
Attn: Rochelle Freyman  
5730 24<sup>th</sup> Street, Bldg. #1  
Sacramento, CA 95822

Approved  
By (CM/Inspector) \_\_\_\_\_ Date: \_\_\_\_\_

Approved  
By (Project Manager) \_\_\_\_\_ Date: \_\_\_\_\_

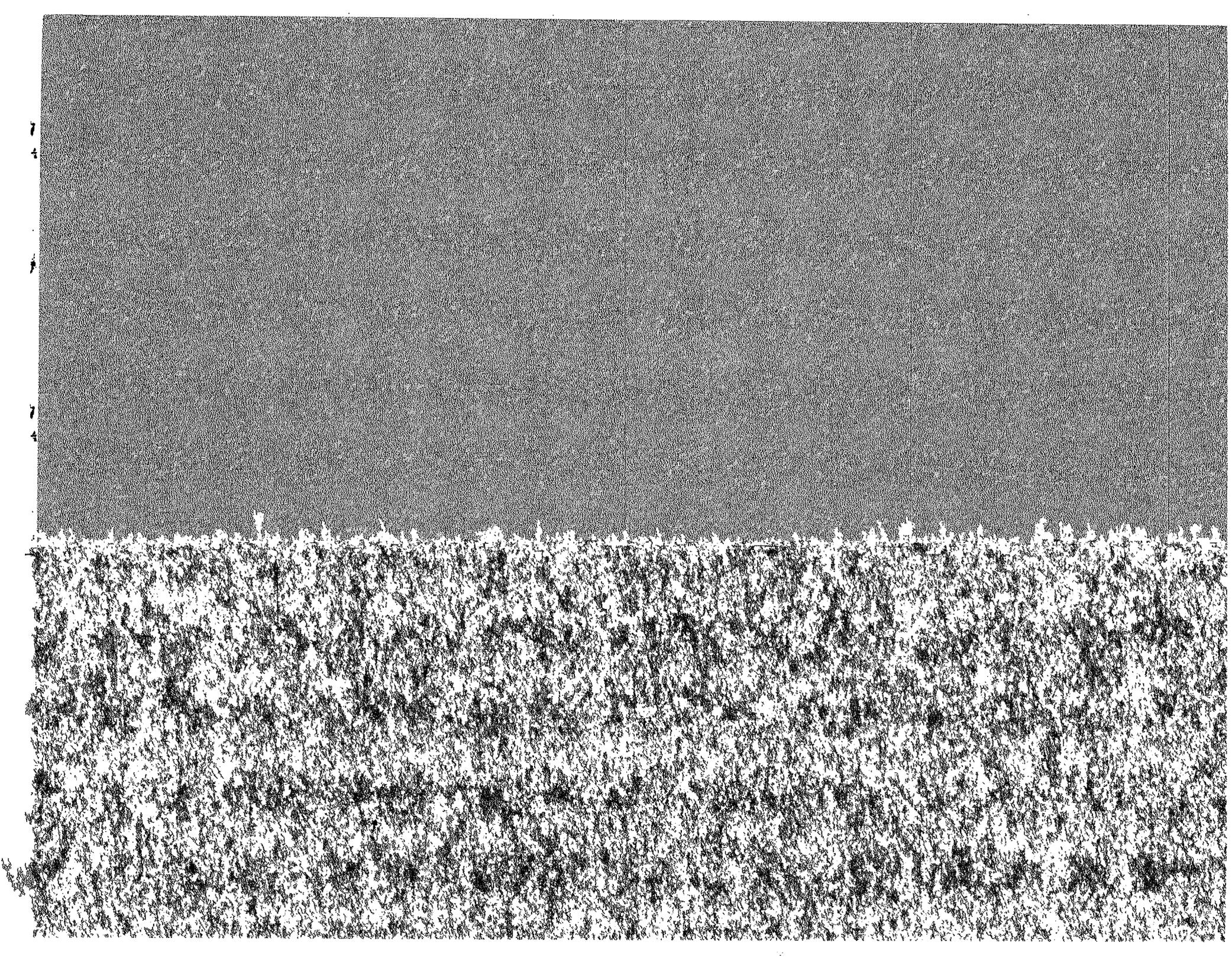
Approved  
By (Labor Compliance) \_\_\_\_\_ Date: \_\_\_\_\_

In accordance with Public Contract Code §20104.50 the City shall pay Contractor interest on any progress payment which is made by City more than 30 days after City receives an undisputed and properly submitted written payment request. Said interest shall be equal to the rate set forth in CCP§685.010(a), and shall begin to accrue upon the expiration of said 30 day period. Any written request for a progress payment which City determines to be disputed, improper or not suitable for payment for any reason shall be returned to Contractor within 7 days after receipt by City, along with a written statement of the reason or reasons why such request is disputed, improper or not suitable for payment.



# TECHNICAL SPECIFICATIONS

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# **TECHNICAL SPECIFICATIONS**

**DIVISIONS 1 - 16**

**PART 1: GENERAL**

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General conditions and other Division-1 specifications sections, apply to work of this section.

1.02 SUMMARY OF THE WORK:

- A. Under a single contract, construct the "City Hall Garage Fire Alarm System Upgrade Project" for the City of Sacramento, located at 1000 I Street, Sacramento, CA 95814, in conformity with the construction documents contained herein including all materials, labor, tools, programming, training, warranties, transportation and services necessary to provide a complete and operational fire detection and alarm system. Refer to the Description of Work below and the contract documents for a complete description of the work.

- B. Description of the Work:

Install a new fire detection and alarm system for the City Hall Garage including the replacement of the existing fire alarm panel and addition of smoke detectors, heat detectors, duct detectors, notification devices (strobes, horn/strobes), manual pull stations, fire suppression system monitoring, pre-action fire alarm system for computer data room, kitchen hood suppression system interlock, power supplies, batteries, interlocks, control modules and all additional materials and devices needed to meet contract documents, current codes and the requirements of the authority having jurisdiction. The work shall include demolition, modification and construction of a new addressable fire detection and alarm system with specified and required devices. The existing system shall be fully functional during construction as required by the City of Sacramento Fire Department.

- C. Contractor's License Requirement: Contractor shall be currently licensed as C-10 Electrical Contractor in the State of California experienced in the installation of fire detection and alarm systems.
- D. Contract Documents: Requirements of the work are contained in the contract documents, and include cross-references herein to published information, which is not necessarily bound therewith.

**NOTE:** There are NO available Fire Alarm System drawings for the existing system. Bid documents include selected Architectural and Structural drawings for familiarity with the building. Upon award of contract, Architectural and Structural drawings will be made available to the Contractor upon request. There are no mechanical, electrical, plumbing, fire protection or other drawings available. The City of Sacramento makes NO claim to the as-built quality, accuracy or condition of the available plans. Contractor shall visit the Project Site and field verify all information required to provide a complete operational fire alarm system for the Project.

- E. Note requirement for record drawings and CADD record drawings in Project Closeout Section 01700.
- F. Contractor is responsible to provide O&M training to City maintenance staff. Also refer to Section 01700 AGREEMENT CLOSEOUT.

1.03 SPECIAL CONDITIONS RELATING TO WORK IN A CITY OF SACRAMENTO MULTI-PURPOSE FACILITY (COMPUTER DATA ROOM / PARKING GARAGE / CITY OFFICES / RETAIL TENANTS):

- A. Construction will be performed at an existing operational City Facility. Extreme care and caution shall be exercised and Contractor shall ensure that construction does not cause any interruption or interference with the daily operation of the Facility. Special care shall be exercised with work related to the Computer Data Room to ensure continuous operation and fire protection at all times during construction.
- B. All work requiring fire alarm system shutdowns, electrical shutdowns or loss of commercial power shall require the Contractor to provide a detailed, step by step, and signed Method of Procedure (MOP), prior to beginning work.
- C. The contractor shall provide at least seven (7) days written notice prior to any fire alarm shutdown or electrical shutdown. The shut down must be coordinated with the City construction manager and the Data Center representative. In addition, a signed Method of Procedure (MOP) is required for the shutdown.

D. Fire Watch:

In accordance with Section 901 of the 2010 California Fire Code, the Contractor, representing the Owner during the duration of the project, shall maintain the fire alarm system in an operable condition at all times. Contractor shall immediately notify the Authority Having Jurisdiction (City of Sacramento Fire Marshal) of any malfunction of any fire protection equipment and at any time when repair or maintenance of such system or equipment are to be performed. All work shall be promptly completed without interruption and protection restored as promptly as possible.

Fire Watch shall be provided at all times required by the Authority Having Jurisdiction for the protection of personnel and property (24 hours/7 days per week). Contractor shall assume all costs for Fire Watch services required by the Authority Having Jurisdiction.

Fire Watch staff shall meet the qualifications set forth in 2010 California Fire Code Chapter 14 *Fire Safety during Construction and Demolition*.

E. False Alarms:

In accordance with City of Sacramento Fire Department Amendments to the 2010 California Fire Code, Contractor shall be responsible for the costs incurred by the Fire Department to respond to false alarms. In addition, after the first false alarm, the Contractor will be responsible for the costs incurred by the City General Services fire alarm technician staff to respond to the alarm.

F. Contractor's connection of the Fire Alarm System to the Elevator controls shall be performed after 6:00 p.m. on days coordinated with the City's Construction Manager.

G. **In accordance with CA Labor Code Section 7311.2 and the requirements of the State Elevator Inspector, all work performed in elevator equipment rooms shall be performed by a certified competent conveyance mechanic or be supervised by such person in the elevator room. It is the responsibility of the Contractor to coordinate with, and bear all costs for, a certified competent conveyance mechanic to accomplish compliance with this requirement.**

1.04 LOCATION OF EXISTING FACILITIES:

- A. Drawings provided by Owner showing location of building floor plan are informative only. Contractor shall verify all locations and dimensions.

1.05 FACILITY ACCESS:

- A. The contractor shall be responsible to coordinate entry and exiting of the facility on a daily basis. The contractor will be responsible to maintain security control of the access and use of the facility. The building must remain secure at all times; no access shall remain open and unattended. Construction shall start at the project site at 7:00 a.m. Requests to start earlier will be considered at the Contractor's expense upon request, but will not be considered overtime work or an additional project cost to the City.
- B. Contractor shall coordinate all access to tenant occupied rooms and spaces with the City's Construction Manager. This will require that the Contractor work around specific schedules and events at the City Hall Garage in order to accomplish the work.
- C. Contractor may use the building restroom facilities located in the Service Corridor.

1.06 STAGING AREAS:

- A. The contractor and sub-contractors may stage materials in areas as designated by City's Construction Manager. Staging of materials shall not block access to electrical panels or equipment requiring access or maintenance. No materials shall be stored elsewhere inside the building during operating hours other than in the immediate work area. Work shall be confined to the areas of construction specified in the Contract Documents. No other areas, including parking stalls, interior or exterior shall be used for the construction activities of this contract without the consent and prior scheduling of the Parking Facilities Manager. Caution tape, markings, barricades or stanchions will be supplied and used by the Contractor. No materials may be staged or stored outside the building during non-working hours without the permission of the Construction Manager. Contractor will use points of entry designated by City's Construction Manager. Upon completion of the work of this Contract, the areas used for construction purposes shall be restored to a condition equivalent to the original condition and must be acceptable to the City's Construction Manager.
- B. Owner-furnished equipment will be stored at the City's warehouse at 5730 24<sup>th</sup> St. Bldg. #17, Sacramento, CA 95822. Contractor is responsible to make arrangements with the City to pick up the equipment as needed for the project at the Contractor's expense. Other storage arrangements (bonded warehouse) are subject to the approval of the City's Construction Manager.
- C. Security fencing will not be allowed outside the building. The contractor will take all steps necessary to protect adjacent surfaces from damage during the construction activities, including but not limited to, drip pan(s) under parked vehicles. The contractor will be responsible for cleaning all surrounding surfaces at the completion of construction activities. Final cleaning shall provide a uniform appearance to the facility.

1.07 PARKING AREAS:

- A. The contractor will be responsible for securing parking for all workers under this agreement. Parking in and around the project is limited and subject to temporary elimination. **The City Hall Garage is not available for Contractor parking during construction except as designated by the City's Construction Manager. Any use of parking areas without advance consent of the Parking Facilities Manager will be charged to the Contractor at 10 times the market rate for each space used.** Contractor vehicles must be identifiable and clearly marked with logo. The Fire Lane is not acceptable parking. Contractor may use areas close to the building to unload materials, but can only park in designated parking areas.

1.08 RELIEF FROM MAINTENANCE AND RESPONSIBILITY:

- A. Upon written request of Contractor and upon written approval by Construction Manager, Contractor may be relieved of duty of maintaining and protecting certain portions of work, which have been completed in all respects in accordance with requirements of contract and to satisfaction of Construction Manager, and thereafter, except with his consent, Contractor will not be required to do further work thereon. In addition, such action by Construction Manager will not relieve Contractor of responsibility for injury or damage to said completed portions of work resulting from Contractor's own operations or from his negligence. Nothing herein providing for relief from maintenance and full responsibility for making good defective work or materials found at any time before either formal acceptance of entire Contract by City, or during applicable guarantee period.

1.09 CONSTRUCTION SIGNAGE:

- A. The contractor shall not post marketing, advertising or display signs on the project.

**PART 2: EXECUTION**

2.01 MAINTENANCE OF EXISTING BUILDING:

- A. Contractor may work weekends only as an exception and must be agreed upon with City's Construction Manager and with on-site operations staff. For work in the Computer Data Room, the Contractor must be accompanied by a City employee at all times. Coordinate escort with the City's Construction Manager.
- B. At no time shall the contractor impact utility services or lighting systems in the City Hall Garage without coordinating with the Construction Manager and providing at least 48 hours notice to the Construction Manager.
1. If by accident, such systems might be disrupted, immediately notify the person in charge of the structure, and then the Construction Manager.
  2. If disruption of service is necessary, notify the City's Construction Manager.
- C. At no time shall Contractor's equipment, materials, workman or their equipment interfere with the access to, or sections of, the City Hall Garage not under construction.
- D. Full cooperation between Contractor and personnel at the structure is expected as

required and needed.

1. Protection of existing building and equipment is essential at all times. Provide dust protection to ensure that there is no impact or damage to the existing equipment or furnishings. Floors shall be protected from all damage due to lifts, ladders and other equipment required during demolition and installation of new system.  
Proper barricades are to be used when area is not under construction.
2. Maintenance of a clean work area at all times is essential. Contractor shall clean up all dust and debris during and at the end of each working day.

2.02 SECURITY:

- A. At all times the security of the premises shall be maintained.

2.03 PERMITS:

- A. Obtain all permits and service required for the installation of scope of work. Arrange for required inspections and secure approvals from authorities having jurisdiction. Contractor is responsible to manage, coordinate, and submit the application to the City of Sacramento for permit, schedule and coordinate Fire Department testing inspections and ensure the permit is secured in a timely manner to meet the project schedule. Charges and fees for City of Sacramento building/fire permit will be paid for by the Owner. Charges and fees for other required permits including Business Operations Tax will be paid for by the contractor. Also refer to Section 01700 AGREEMENT CLOSEOUT.

2.04 OTHER CONTRACTORS:

- A. Contractor is advised that during construction the City may authorize other contractors to complete work on-site. The contractor shall coordinate with these contractors as necessary to eliminate conflicts and site access requirements.

2.05 CONTRACTOR LIMITED USE OF PREMISES:

A. Use of the Site:

1. Confine operations to the site.
  - a. Keep existing driveways and entrances serving the premises clear and available at all times. Do not use for parking or storage of materials. Do not block fire truck access.
  - b. Do not encumber the site with materials or equipment.
  - c. There is limited space available for the storage of material. Contractor will be required to bring in material as it is used. Stockpiling of material at the site will not be permitted, except as permitted in Specification Section 01010 1.06 STAGING AREAS.

- d. The contractor may stage material, after having obtained approval at least 24 hours in advance. Staging will be limited to temporary loading or unloading of materials and equipment.
  - e. The contractor will take all steps necessary to protect adjacent surfaces from damage during construction activities, including but not limited to drip pans under vehicles.
  - f. Lock automotive type vehicles and other mechanized or motorized construction equipment, when parked and unattended. Do not leave vehicles or equipment unattended with the motor running or ignition key in place.
- B. Contractor Use of the Building: Maintain the building in a safe and weather-tight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period.
- 1. Keep all public areas and hallways, lobbies and toilet rooms free from accumulation of waste material, rubbish or construction debris.
- C. Noise Control: Contractor shall minimize noise in and around the building. Construction operations causing loud noises shall be pre-scheduled with the City's Construction Manager.
- D. Contractor shall be responsible for all damage caused by his operations to the building interior and exterior, building equipment, curbs, vehicles, sidewalks and driveways. During the construction period, when complaints are received by the Parking Division of construction debris causing dirt or spotting of vehicles, Contractor shall arrange and pay for the washing of the customers' vehicles.

END OF SECTION 01010

**PART 1 – GENERAL**

**1.01 SCHEDULE OF VALUES**

**A. Form and Content:**

1. Type Schedule on form contained in the Contract Documents. Contractor's standard forms and automated printout will be considered for approval upon request. Identify schedule by: Project name and location, Contractor's name and address, Subcontractor's names, address, and types of Work, and Submission date.
2. List the installed value of the component parts of the Work broken down into sufficient detail to serve as a basis for computing values for progress payments during the performance of the Work. For example, in the case of drywall Work, identify components such as wallboard, accessories, taping and finishing.
3. Follow the Specifications table of contents as the format for listing component items; identify each line item with the number and title of the respective Specification Section.
4. For each major line item list sub-values of major products or operations.
5. For the various portions of the Work:
  - a. Include a separate line item for the amount of overhead and profit drawn on an even monthly basis.
  - b. For portions of Work in excess of ten thousand dollars (\$10,000) in cost, identify labor and material costs.
  - c. For items on which progress payments will be requested for approved stored materials, break down the value into:
    - 1) The cost of the materials, delivered and unloaded, with applicable taxes paid.
    - 2) The total installed value.
6. The sum of values listed in the schedule shall equal the total Contract Sum.

**1.02 APPLICATIONS FOR PAYMENT**

- A. **General:** Submit Applications for Payment to the Project Manager in accordance with the schedule established by the Contract Documents.
- B. **Format and Data Required:** Submit itemized applications typed on form contained in Contract Documents.
  1. Line items and dollar values shall be from the schedule of values accepted by the Project Manager.
  2. Include names, trades, and amounts for Subcontractors.
  3. Overhead and profit shall be a line item each month for Contractor and Subcontractors.

C. Preparation of Application for Each Progress Payment:

1. Application Form:

- a. Fill in required information, including that for Change Orders executed prior to the date of submittal of application.
- b. Fill in summary of dollar values to agree with the respective totals indicated on the Continuation Sheets.
- c. Execute certification with the signature of an authorized agent of the Contractor's firm.

2. Continuation Sheets:

- a. Fill in total list of scheduled component items of Work with item number and the scheduled dollar value for each item.
- b. Fill in the dollar value in each column for each scheduled line item when Work has been performed or products stored as approved. Round off values to nearest dollar, unless otherwise specified for the schedule of values.
- c. List each Change Order executed prior to the date of submission at the end of the Continuation Sheets. List by Change Order Number, description, and breakdown of costs as for an original component item of Work.

D. Substantiating Data for Progress Payments:

1. When substantiating data are required, submit suitable information as specified in SECTION 01300 - SUBMITTALS with a cover letter identifying:
  - a. Project.
  - b. Application number and date.
  - c. Detailed list of enclosures.
  - d. For approved stored materials:
    - 1) Item number and identification as shown on application.
    - 2) Address of warehouse facility and copy of specific insurance documents for said facility.
    - 3) Description of specific material.
2. Submit one copy of data and cover letter for each copy of application.

E. Preparation of Application for Final Payment:

1. Fill in application form as specified for progress payments.
2. Use Continuation Sheets for presenting the final statement of accounting.

F. Submittal Procedure:

1. Submit Applications for Payment to the Project Manager at the times stipulated in the Contract Documents.
2. Number: Three copies of each application.

**PART 2 – PRODUCTS – NOT APPLICABLE**

**PART 3 – EXECUTION – NOT APPLICABLE**

End of Section 01025

CITY OF SACRAMENTO  
 DEPARTMENT OF GENERAL SERVICES  
 SCHEDULE OF VALUES

PROJECT NAME: \_\_\_\_\_  
 PROJECT NO: \_\_\_\_\_  
 CONTRACTOR: \_\_\_\_\_  
 PURCHASE ORDER #: \_\_\_\_\_  
 COMPLETION DATE: \_\_\_\_\_

INVOICE NO.: \_\_\_\_\_  
 INVOICE DATE: \_\_\_\_\_  
 PERIOD FROM: \_\_\_\_\_  
 PERIOD TO: \_\_\_\_\_

A	B	C	D	E	F	G	H	I	J
ITEM NO.	DESCRIPTION OF WORK	CONTRACT \$ AMOUNT	WORK COMPLETED		STORED \$ AMOUNT (NOT IN D OR E)	TOTAL COMPLETE & STORED		BALANCE TO FINISH (C-G)	RETENTION 10%
			\$ PREVIOUS (D+E)	\$ CURRENT		\$ VALUE (D+E+F)	% (G/C)		
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
TOTAL									

**PART 1: GENERAL**

**1.01 RELATED DOCUMENTS**

General provisions of Contract, including General Conditions and other Division-1 Specification Sections, apply to this Section.

**1.02 SUMMARY OF WORK**

A. This Section specifies administrative and procedural requirements for Alternates.

1. Definition: An Alternate is an amount proposed by Bidders and stated on the Bid Form for certain construction activities defined in the Bidding Requirements that may be added to or deducted from Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems or installation methods described in Contract Documents.
2. Coordination: Coordinate related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Alternate is complete and fully integrated into the project.
3. Notification: Immediately following the award of the Contract, prepare and distribute to each party involved, notification of the status of each Alternate. Indicate whether Alternates have been accepted, rejected or deferred for consideration at a later date. Include a complete description of negotiated modifications to Alternates.
4. Schedule: A "Schedule of Alternates" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials and methods necessary to achieve the Work described under each Alternate.
  - a. Include as part of each Alternate, miscellaneous devices, accessory objects and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.

**PART 2: PRODUCTS – NOT APPLICABLE**

**PART 3: EXECUTION**

**3.01 SCHEDULE OF ALTERNATES**

A. NONE SCHEDULED

END OF SECTION 01030

## **PART 1 - GENERAL**

### **1.01 REQUIREMENTS INCLUDED**

- A. Promptly implement change order procedures.
  - 1. Provide full written data required to evaluate changes.
  - 2. Maintain detailed records of work done on a time-and-material/force account basis, submitted to the City on a daily basis.
  - 3. Provide full documentation to City on request.
- B. Designate in writing the member of Contractor's organization:
  - 1. Who is authorized to accept changes in the Work.
  - 2. Who is responsible for informing others in the Contractor's employ of the authorization of changes in the Work.
- C. City Project Manager is the person who is authorized to execute Change Orders.

### **1.02 RELATED REQUIREMENTS**

- A. Agreement: The amounts of established unit prices.
- B. Section 01025: Payments & Measurements.
- C. Section 01310: Progress Schedule.
- D. Section 01605: Substitution Request Form.

### **1.03 DEFINITIONS**

- A. Construction Change Authorization: A written order to the Contractor, signed by City, which amends the Contract Documents as described, and authorizes Contractor to proceed with a change which affects the Agreement Sum and/or the Agreement Time, for inclusion in a subsequent Change Order.
- B. Supplemental Instructions: A written order, instructions, or interpretations, signed by City making minor changes in the Work not involving a change in Agreement Sum or Agreement Time.

### **1.04 PRELIMINARY PROCEDURES**

- A. City may initiate changes by submitting a Proposed Change Order (PCO) to Contractor which may include:
  - 1. Detailed description of the Change, Products, and location of the change in the Project.
  - 2. Supplementary or revised Drawings and Specifications.
  - 3. A specific statement as to whether overtime work is, or is not, authorized.
  - 4. A specific period of time during which the requested price will be considered valid.
  - 5. Such request(s) are for information only, and **are not an instruction to execute the changes, nor to stop Work in progress.**

- B. Contractor may initiate changes by submitting a written notice to City, containing:
1. Description of the Request For Change (RFC).
  2. Statement of the reason for making the changes.
  3. Statement of the effect on the Agreement Sum and/or the Agreement Time.
  4. Statement of the effect on the work of separate contractors.
  5. Documentation supporting any change in Agreement Sum or Agreement Time, as appropriate.
  6. Copy of the Change Order Proposal Summary form.

#### 1.05 CONSTRUCTION CHANGE AUTHORIZATION

- A. In lieu of a PCO, City may issue a construction change authorization for Contractor to proceed with a change for subsequent inclusion in a Change Order.
- B. Authorization will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change, and will designate the method of determining any change in the Agreement Sum and any change in Agreement Time.
- C. City will sign and date the Construction Change Authorization as authorization for the Contractor to proceed with the changes.
- D. Contractor will sign and date the Construction Change Authorization to indicate agreement with the terms therein.

#### 1.06 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump-sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow City to evaluate the quotation.
- B. On request provide additional data to support time and cost computations:
  1. Labor required.
  2. Equipment required.
  3. Products required.
    - a. Recommended source of purchase and unit cost.
    - b. Quantities required.
  4. Taxes, insurance and bonds.
  5. Credit for work deleted from Agreement, similarly documented.
  6. Justification for any change in Agreement Time.

- C. Support each claim for additional costs, and for work done on a time-and-material/force account basis, with documentation as required for a lump-sum proposal, plus additional information:
  - 1. Name of the City's authorized agent who ordered the work, and date of the order.
  - 2. Dates and times work was performed, and by whom.
  - 3. Time record, summary of hours worked, and hourly rates paid.
  - 4. Receipts and invoices for:
    - a. Equipment used, listing dates and times of use.
    - b. Products used, listing of quantities.
    - c. Subcontracts.
- D. Document requests for substitutions for Products as specified in Section 01600.
- E. Include a copy of the Change Order Proposal Summary – EZ-PCO” for each separate proposal.

1.07 PREPARATION OF CHANGE ORDERS

- A. City will prepare each Change Order.
- B. Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.
- C. Change Order will provide an accounting of the adjustment in the Agreement Sum and in the Agreement Time.

1.08 LUMP-SUM/FIXED PRICE CHANGE ORDER

- A. Content of Change Orders will be based on, either:
  - 1. PCO and Contractor's responsive Proposal as mutually agreed between City and Contractor.
  - 2. RFC as accepted by City.
  - 3. Construction Change Authorization with supporting documentation.
- B. Contractor will sign and date the Change Order to indicate agreement with the terms therein.
- C. City will sign and date the Change Order as authorization for the Contractor to proceed with the changes.

1.09 UNIT PRICE CHANGE ORDER

- A. The amounts of the unit prices to be:
  - 1. Those stated in the Agreement.

2. Those mutually agreed upon between City and Contractor.
- B. When quantities of each of the items affected by the Change Order can be determined prior to start of the work:
1. City will sign and date the Construction Change Authorization as authorization for Contractor to proceed with the changes.
  2. Contractor will sign and date the Construction Change Authorization to indicate agreement with the terms therein.
- C. When quantities of the items cannot be determined prior to start of the work:
1. City will issue a Construction Change Authorization directing Contractor to proceed with the change on the basis of unit prices and will cite the applicable unit prices.
  2. At completion of the change, City will determine the cost of such work based on the unit prices and quantities used.
    - a. Contractor shall submit documentation to establish the number of units of each item and any claims for a change in Agreement Time.
  3. City and Contractor will sign and date the Change Order to indicate their agreement with the terms therein.
  4. City will sign and date the Change Order to establish the change in Agreement Sum and in Agreement Time.

1.10 TIME AND MATERIAL/FORCE ACCOUNT CHANGE ORDER/CONSTRUCTION CHANGE AUTHORIZATION

- A. City will issue a Construction Change Authorization directing Contractor to proceed with the changes.
- B. At completion of the change, Contractor shall submit itemized accounting and supporting data as provided in the "Documentation of Proposals and Claims" of this Section.
- C. City will determine the allowable cost of such work, as provided in General Conditions and Supplementary Conditions.
- D. City and Contractor will sign and date the Change Order to indicate their agreement therewith.
- E. City will sign and date the Change Order to establish the change in Agreement Sum and in Agreement Time.

1.11 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Revise Schedule of Values and Request for Payment forms to record each change as a separate item of Work, and to record the adjusted Agreement Sum.
- B. Revise the Construction Schedule to reflect each change in Agreement Time.
  1. Revise schedules to show changes for other items of work affected by the changes.

C. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

1.12 CHANGE ORDER PROPOSAL SUMMARY - EZ-PCO

A. Whenever a change, modification or alteration is being evaluated by the City, requiring a change in cost, the contractor shall prepare a copy of the "Change Order Proposal Summary - EZ-PCO" for each unique change, modification or alteration.

B. Compensation for markups shall be limited to the application of percentages outlined in the "Instructions - Change Order Proposal Summary - EZ-PCO".

**PART 2 - PRODUCTS - NOT APPLICABLE**

**PART 3 - EXECUTION - NOT APPLICABLE**



DEPARTMENT OF  
GENERAL SERVICES  
FACILITY DEVELOPMENT

CITY OF SACRAMENTO  
CALIFORNIA

5730 - 24<sup>TH</sup> STREET  
BUILDING ONE  
SACRAMENTO, CA  
95822-3699  
PH: 916-808-1888

CHANGE ORDER REQUEST PROPOSAL

TO: \_\_\_\_\_

ATTENTION:

SUBJECT:

CHANGE ORDER  
REQUESTED BY:

- Owner
- Architect
- Engineer
- Contractor
- Inspector
- 

The following items transmitted herewith, are subject to all provisions of the plans, specifications and addenda:

- Submit cost and time change date for approval prior to proceeding with the work.
- Your proposal is approved. A change order will be issued for the agreed to sum.
- Your proposal is rejected. Please proceed with the work on a Time and Material basis, and a change order will be issued upon verification of completed work.
- Your proposal is rejected.

DESCRIPTION:

COPIES	DATE	NO.	DESCRIPTION
--------	------	-----	-------------

cc:  Consultant  
 Inspector  
 File

Initiated By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**Change Order Proposal Summary - EZ-PCO**

1. Labor \_\_\_\_\_

2. Materials \_\_\_\_\_

3. Equipment \_\_\_\_\_

4. Subtotal \_\_\_\_\_

5. Subcontract Cost

a \_\_\_\_\_

b \_\_\_\_\_

c \_\_\_\_\_

d \_\_\_\_\_

e \_\_\_\_\_

6. Subtotal Subcontractors \_\_\_\_\_

7. Markup on Proposer's Costs \_\_\_\_\_  
If Line 4 is >0, enter (0.25 x Line 4)  
If Line 4 is <0, enter (0.15 x Line 4) as a credit

8. Markup on Sub Cost (Prime Only) \_\_\_\_\_  
If Line 6 is >0, enter (0.05 x Line 6)  
If Line 6 is <0, enter \$0  
If subcontractor summary, enter \$0

9. Total Proposal \$ \_\_\_\_\_  
Line 4 + line 6 + line 7 + line 8.

10. Proposed Time Extension (Prime Only) \_\_\_\_\_ days  
(If schedule analysis and justification is not attached, enter zero.)

Project Number \_\_\_\_\_ Date \_\_\_\_\_

Company \_\_\_\_\_ PCO# \_\_\_\_\_

Summary For: Contractor \_\_\_\_\_

Subcontractor \_\_\_\_\_

CI Attach supporting documents with detailed cost breakdowns. Attach this form to each subcontractor proposal.

Sample

## Instructions - Change Order Proposal Summary - EZ-PCO

Contractor shall complete and attach this form as a cover sheet for each price proposal for the prime contractor and for subcontractor proposals at any tier forming a part of the prime proposal.

Lines 1, 2, and 3. Authorized allowable labor, materials, and equipment by the firm performing the work and proposing the costs, whether prime or subcontractor. Include only costs directly and solely attributable to work described in the PCO. Do not include the types of cost listed as "indirect/overhead" below. See GC Section 7.6 through 7.8.

Line 5. Authorized allowable costs proposed by subcontractors at the next lower tier. See GC Section 7.9.

Line 7. For added work, see GC Section 7.10.1 A credit of 15% for markup is applied to net credit costs at the contractor or subcontractor tier at which the costs occur, see GC Section 7.10.3.

Line 8. The aggregate of markups made at subcontract tiers shall not exceed 25%. See GC Section 7.9. No markup for intermediate subcontractors. See GC Section 7.10.2.

**Do Not Include** indirect and overhead costs in lines 1 through 4. The following list is not inclusive and serves only to present examples of the types of costs, which are included in allowable markups:

### **Salaries and Benefits**

Principal Officer, Project Manager, Superintendent, General Foreman, Quality Control Representative, Estimator, Negotiator, Office Manager, Clerical, Receptionist.

### **Facilities**

Office rental/depreciation: Storage trailer, Warehouse, Shops, Toilets, Washrooms, Yard, Temporary electric panel and circuits, Temporary lighting, Temporary plumbing & drainage, Transportation, connection, setup, installation, and removal charges, Cost of Facilities Capital.

### **Utility Expense**

Electricity, gas, water, telephone, Janitorial, Trash removal and dump fees, Sanitary pump out.

### **Office Equipment & Vehicles**

Personnel transport vehicle (car, pickup), General delivery vehicle, Company car, Yard equipment and machinery: Depreciation, Fuel, oil, filters, tires, maintenance, repairs; Storage Bins, Dumpsters Computer, Fax machine, Refrigerator, Coffee machine, Audio and video recorders, Cameras, Shoring.

### **Office Furnishings**

Desks, tables, chairs, lamps, file cabinets, credenzas, bookcases, carpeting, draperies, dividers.

### **Small Tools**

Shovels, pry bars, hammers, nail gun, screw gun, Hilti, skillsaw, cutoff saw, hacksaw, pliers, snips, torches, hand drills, come-alongs, wrenches, calk guns, tape measures, levels, chalk lines, conduit bender, fish tape, water hose, etc.

### **Consumables**

Paper, pens, pencils, office supplies, reusable lumber and form materials, tarpaulins, drinking cups, and toilet paper.

### **Safety Equipment**

Ear protection, goggles, respirators, safety belts, first aid supplies, fire extinguishers.

### **Material Delivery, Offloading, and Handling Expense**

#### **General Office Expense**

Bid preparation, Payment and performance bonds, Estimating, Planning, Marketing, Public relations, Entertainment, Safety and Security, Professional, Business, Contractor's license fees, Employee recruitment, termination, transportation, and relocation, Professional service fees, legal fees, court costs, litigation, arbitration. Idle facilities and capacity, Losses on contracts, Security, Transportation costs, Contributions and donations, General coverage, liability insurance, Project general coverage insurance, Corporate Income Taxes, Stock and Bond dividends, Debt principal and interest payments; Jobsite cleanup, Mobilization and demobilization.

#### **Change Order Administrative Expense**

Takeoff & estimate, Proposal preparation & transmittal, Negotiation, Distribution, General supervision, Billing, Quality Control, Schedule update, As-Built update, Bond and Insurance Adjustment.

**PART 1: GENERAL**

**1.01 RELATED DOCUMENTS:**

- A. General provisions of Contract, including General Conditions and other Division-1 Specifications sections, apply to work of this section.

**1.02 ADMINISTRATION, SUPERVISION AND COORDINATION:**

- A. Coordination: Coordinate various elements of the work and entities engaged to perform work; and coordinate the work with existing facilities/conditions, and with work by separate contractors and by Owner. Do not delegate the responsibility for coordination to any subcontractor.
- B. Coordinate scheduling, submittals and work of the various specifications sections to assure efficient and orderly sequence of the installation.
- C. Coordinate completion and clean up of work of the various trades in preparation for substantial completion.
- D. Coordinate space requirements and installation of all work which is indicated on the approved construction drawings. Follow routing shown for pipes and conduit as close as practical. Place runs parallel with building lines. Utilize space efficiently to maximize accessibility for other installations, for maintenance and for future work.

**1.03 SURVEY/RECORDING:**

- A. General: Working from established lines and levels at or near project site, establish and maintain dependable markers for lines and levels of the work as required. Calculate dimensions and measures for layout of work; do not scale the drawings. Maintain surveyor's log of layout work. Record deviations (if any) from drawing information on existing conditions, and review with Architect/Engineer at time of discovery.
- B. Installer Inspections: Require Installer of each major unit of work to inspect substrate and conditions for installation, and to report (in writing) unsatisfactory conditions. Correct unsatisfactory conditions before proceeding. Inspect each product immediately before installation. Do not install damaged or defective products, materials or equipment.

**1.04 COORDINATION DRAWINGS**

- A. Prepare coordination drawings and submit prints of the drawings before beginning work or fabrication of the material. The prints will not be reviewed by the City, but will serve as indication the contractor has coordinated all the various trades. Use large scale 1/4" or 1/2" drawings.
- B. Keep copies of the coordination drawings at the job site.
- C. Refer to individual specifications sections, mechanical and electrical for additional coordination drawing requirements.

**PART 2: PRODUCTS -NOT APPLICABLE**

**PART 3: EXECUTION**

**3.01 INSTALLATION, GENERAL:**

- A. Comply with manufacturer's instructions and recommendations to extent printed information is more detailed or stringent than requirements contained directly in contract documents.
- B. Timing: Install work during time and under conditions which will ensure best possible results, coordinated with required inspection and testing.
- C. Anchor work securely in place, properly located by measured line and level, organized for best possible uniformity, visual effect, operational efficiency, durability, and similar benefit to Owner's use. Isolate non-compatible materials from contact, sufficiently to prevent deterioration.
- D. Mount individual units of work at industry-recognized mounting heights, if not otherwise indicated; refer uncertainties to Architect/Engineer before proceeding.

**3.02 CLEANING AND PROTECTION:**

- A. General: Clean each element of work at time of installation. Provide sufficient maintenance and protection during construction to ensure freedom from damage and deterioration at time of substantial completion.

END OF SECTION 01040

**PART 1: GENERAL**

**1.01 RELATED DOCUMENTS:**

- A. General provisions of Contract, including General Conditions and other Division-1 Specification sections, apply to work of this section.

**1.02 REQUIREMENTS**

- A. Definition: "Cutting and patching" includes cutting into existing construction to provide for the installation or performance of other work and subsequent fitting and patching required to restore surfaces to their original condition.
- B. Refer to other sections of these specifications for specific cutting and patching requirements and limitations applicable to individual units of work.
- C. Structural Work: Do not cut-and-patch structural work in a manner resulting in a reduction of load-carrying capacity or load/deflection ratio. Submit proposal and request and obtain Architect's/Engineer's approval before proceeding with cut-and- patch of structural work.
- D. Operational/Safety Limitations: Do not cut-and-patch operational elements and safety components in a manner resulting in decreased performance, shortened useful life, or increased maintenance. Submit proposals and requests and obtain Architect's/Engineer's approvals before proceeding with cut-and-patches.
- E. Visual/Quality Limitations: Do not cut-and-patch work exposed to view (exterior and interior) in a manner resulting in noticeable reduction of aesthetic qualities and similar qualities, as judged by Architect/Engineer.
- F. Limitation on Approvals: Architect's/Engineer's approval to proceed with cutting and patching does not waive right to later require removal/replacement of work found to be cut-and-patched in an unsatisfactory manner, as judged by Architect/Engineer.

**PART 2: PRODUCTS**

**2.01 MATERIALS:**

- A. General: Materials shall be as specified in the applicable, individual Specification Section's, or if none are specified use materials for cutting and patching that are identical to existing materials. If identical materials are not available, or cannot be used, use materials that match existing adjacent surfaces to the fullest extent possible with regard to visual effect. Use materials for cutting and patching that will result in equal-or-better performance characteristics.

**PART 3: INSTALLATION**

**3.01 EXECUTION:**

- A. Inspection: Before cutting, examine surfaces to be cut and patched and conditions under which the work is to be performed. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding with the work.
- B. Temporary Support: To prevent failure provide temporary support of work to be cut.

- C. Protection: Protect other work during cutting and patching to prevent damage. Provide protection from adverse weather conditions for that part of the project that may be exposed during cutting and patching operations.
  - 1. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
  - 2. Take precautions not to cut existing pipe, conduit or duct serving the building but scheduled to be relocated until provisions have been made to bypass them.
  
- D. Cutting: Cut the work using methods that are least likely to damage work to be retained or adjoining work. Where possible review proposed procedures with the original installer; comply with original installer's recommendations.
  - 1. Where cutting is required use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut through concrete and masonry using a cutting machine such as a carborundum saw or core drill. Cut holes and slots neatly to size required with minimum disturbance of adjacent work. To avoid marring existing finished surfaces, cut and drill from the exposed or finished side into concealed surfaces. Temporarily cover openings when not in use.
  
- E. Patching: Patch with seams which are durable and as invisible as possible. Comply with specified tolerances for the work.
  - 1. Restore exposed finishes of patched areas and where necessary extend finish restoration into retained adjoining work in a manner which will eliminate evidence of patching and refinishing.

END OF SECTION 01045

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. This Section covers general requirements for codes and standards pertaining to the work and is supplementary to the codes and standards mentioned or referenced elsewhere in the Contract Documents.

**1.02 CODES AND STANDARDS:**

- A. Requirements of Regulatory Agencies; Pertaining ordinances, laws, rules, codes, regulations, standards, and orders of public agencies having jurisdiction of the work are intended wherever reference is made in either the singular or plural to Code or Building Code except as otherwise specified, including, but not limited to, those in the following listing. Contractor shall make available at the site such copies of the listed documents applicable to the work as City may request.

1. Title 8, California Code of Regulations (CCR), Industrial Relations, Chapter 4, Division of Industrial Safety, Safety Orders (CAL/OSHA).
2. Title 19, CCR, Public Safety
3. Title 21, CCR, Public Works
4. Title 24, CCR, Part 2, Building Standards
5. California Building Code (CBC)
6. California Mechanical Code (CMC)
7. California Plumbing Code (CPC)
8. California Fire Code (CFC)
9. National Electrical Code (NEC)
10. National Fire Protection Association (NFPA)
11. State and Local Public Health Codes
12. Other laws, regulations, rules, orders, codes and ordinances specified in other Sections of these Specifications or bearing on the work
13. City of Sacramento Code

- B. Standard and Reference Type specifications:

1. Specifying by reference to standard and reference type specification documents or to another portion of the Contract Documents shall be the same as if the referenced document or portion referred to were exactly repeated at the place where reference is made.
2. The standard or reference type specification documents shall be those adopted by the authority having jurisdiction, or if not specifically adopted, of the current issue unless otherwise specified.

**1.03 CONFLICTS**

- A. In case of conflict between the requirements of regulatory agencies and the referenced standard or reference type specification documents, the Contractor shall immediately notify the City and conform to the most restrictive requirement if such conformance is legal and approved by the City.

**PART 2 – PRODUCTS – NOT APPLICABLE**

CITY HALL GARAGE FIRE ALARM SYSTEM PROJECT  
1000 I ST., SACRAMENTO, CA 95814

REGULATORY REQUIREMENTS  
Section 01060 Page 2 of 2

**PART 3 – EXECUTION – NOT APPLICABLE**

END OF SECTION 01060

**PART 1: GENERAL**

**1.01 RELATED DOCUMENTS:**

- A. General provisions of Contract, including General Conditions and other Division-1 Specification sections, apply to work of this section.

**1.02 DESCRIPTION OF REQUIREMENTS:**

- A. General: This section specifies procedural and administrative requirements for compliance with governing regulations and codes and standards imposed upon the Work. These requirements include obtaining permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with regulations, codes and standards.

- 1. The term "Regulations" is defined to include laws, statutes, ordinances and lawful orders issued by governing authorities, as well as those rules, conventions and agreements within the construction industry which effectively control the performance of the Work regardless of whether they are lawfully imposed by governing authority or not.

- B. Governing Regulations: Refer to General and Supplementary Conditions for requirements related to compliance with governing regulations.

**1.03 DEFINITIONS:**

- A. General Explanation: Certain terms used in contract documents are defined in this article. Definitions and explanations contained in this section are not necessarily complete but are general for the Work to the extent that they are not stated more explicitly in another element of the contract documents.
- B. General Requirements: Provisions and requirements of other Division-1 sections apply to the entire work of the Contract and, where so indicated, to other elements which are included in the project.
- C. Indicated: The term "indicated" is a cross-reference to graphic representations, notes or schedules on the drawings, to other paragraphs or schedules in the specifications, and to similar means of recording requirements in contract documents. Where terms such as "shown", "noted", "scheduled", and "specified" are used in lieu of "indicated", it is for the purpose of helping the reader locate the cross-reference, and no limitation of location is intended except as specifically noted.
- D. Directed, Requested, etc.: Terms such as "directed", "requested", "authorized", "selected", "approved", "required", "accepted", and "permitted" mean "directed by the Architect/Engineer", "requested by the Architect/Engineer", and similar phrases. However, no such implied meaning will be interpreted to extend the Architect's/Engineer's responsibility into the Contractor's area of construction supervision.
- E. Approve: Where used in conjunction with City's response to submittals, requests, applications, inquiries, reports and claims by Contractor, the meaning of term "approved" will be held to limitations of City's responsibilities and duties as specified in General and Supplementary Conditions. In no case will "approval" by City be interpreted as a release of Contractor from responsibilities to fulfill requirements of Contract Documents.

- F. **Project Site:** The term "project site" means the space available to the Contractor for performance of the Work, either exclusively or in conjunction with others performing other construction as part of the project. The extent of the project site is shown on the drawings, and may or may not be identical with the description of the land upon which the project is to be built.
- G. **Furnish:** Except as otherwise defined in greater detail, term "furnish" is used to mean supply and deliver to project site, ready for unloading, unpacking, assembly, installation, as applicable in each instance.
- H. **Install:** The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations."
- I. **Provide:** The term "provide" means "to furnish and install, complete and ready for the intended use."
- J. **Installer:** The "installer" is "the entity" (person or firm) engaged by the Contractor, its subcontractor or sub-subcontractor for performance of a particular element of construction at the project site, including installation, erection, application and similar required operations. It is a requirement that installers are experienced in the operations they are engaged to perform.
- K. **Testing Laboratories:** A "testing laboratory" is an independent entity engaged to perform specific inspections or tests of the Work, either at the project site or elsewhere, and to report, and (if required) interpret results of those inspections or tests.

1.04 **DRAWING SYMBOLS:**

- A. **General:** Except as otherwise indicated, graphic symbols used on the drawings are those symbols recognized in the construction industry for purposes indicated. Where not otherwise noted, symbols are defined by "Architectural Graphic Standards", published by John Wiley & Sons, Inc., seventh edition.

1.05 **INDUSTRY STANDARDS:**

- A. **Applicability of Standards:** Except where more explicit or stringent requirements are written into the contract documents, applicable construction industry standards have the same force and effect as if bound into or copied directly into the contract documents. Such industry standards are made a part of the contract documents by reference. Individual specification sections indicate which codes and standards the Contractor must keep available at the project site for reference.

1. Referenced standards (standards referenced directly in the contract documents) take precedence over standards that are not referenced but generally recognized in the industry for applicability to the Work.
2. Unreferenced standards are not directly applicable to the Work, except as a general requirement of whether the Work complies with recognized construction industry standards.
3. **Publication Dates:** Except as otherwise indicated, where compliance with an industry standard is required, comply with standard in effect as of date of contract documents.

- B. **Conflicting Requirements:** Where compliance with two or more standards is specified, and where these standards establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement will be enforced, unless the contract documents specifically indicate otherwise. Refer requirements that are different, but apparently equal, and uncertainties as to which quality level is more stringent to the Architect/Engineer for a decision before proceeding.
1. **Minimum Quantities or Quality Levels:** In every instance the quantity or quality level shown or specified is intended to be the minimum to be provided or performed. Unless otherwise indicated, the actual Work may either comply exactly, within specified tolerances, with the minimum quantity or quality specified, or may exceed that minimum within reasonable limits. In complying with these requirements, the indicated numeric values are minimum or maximum values, as noted, or as appropriate for the context of the requirements. Refer instances of uncertainty to the Architect/Engineer for decision before proceeding.
- C. **Copies of Standards:** The contract documents require that each entity performing work be experienced in that part of the Work being performed. Each entity is also required to be familiar with industry standards applicable to that part of the Work. Copies of applicable standards are not bound with the contract documents.
1. Where copies of standards are needed for proper performance of the Work, the Contractor is required to obtain such copies directly from the publication source.
  2. Although copies of standards needed for enforcement of requirements may be required submittals, the Architect/Engineer reserves the right to require the Contractor to submit additional copies as necessary for enforcement of requirements.

1.06 GOVERNING REGULATIONS/AUTHORITIES:

- A. **General:** The procedure followed by the Architect/Engineer has been to contact governing authorities where necessary to obtain information needed for the purpose of preparing contract documents; recognizing that such information may or may not be of significance in relation to the Contractor's responsibilities for performing the Work. Contact governing authorities directly for necessary information and decisions having a bearing on performance of the Work.

1.07 SUBMITTALS:

- A. **Permits, Licenses, and Certificates:** For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

1.08 QUALITY ASSURANCE

- A. For products specified by association, trade or Federal Standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. The date of the standard is that which is in effect as of the Proposal date, or date of City-Contractor Agreement when there are no bids, except when a specific date is specified.

- C. When required by individual Specifications section, obtain copy of standard. Maintain copy at job site during submittals, planning and progress of the specific work, until substantial completion.

#### 1.09 SCHEDULE OF REFERENCES

Abbreviations and Names: The following acronyms or abbreviations as referenced in Contract Documents are defined to mean the associated names. Both names and addresses are subject to change, and are believed to be, but are not assured to be, accurate and up-to-date as of date of Contract Documents:

- AA Aluminum Association  
818 Connecticut Ave. NW; Washington DC 20006; 202/862-5100
- AAMA Architectural Aluminum Manufacturers Association  
Suite 18, 2700 River Road, Des Plaines, IL 60018; 312/699-7310
- ACI American Concrete Institute  
Box 19150 Redford Stat.; Detroit, MI 48219; 313/532-2600
- ADC Air Diffusion Council  
435 N. Michigan Ave.; Chicago, IL 60611; 312/527-5494
- AGA American Gas Association  
1515 Wilson Blvd.; Arlington, VA 22209; 703/841-8400
- AI Asphalt Institute  
Asphalt Inst. Bldg.; College Park, MD 20740; 301/277-4258
- AISC American Institute of Steel Construction  
400 N. Michigan Ave. Chicago, IL 60611; 312/670-2400
- AISI American Iron and Steel Institute  
1000 16th St., NW; Washington, DC 20036; 202/452-7100
- AITC American Institute of Timber Construction  
333 W. Hampden Ave.; Englewood, CO 80110; 303/761-3212
- AMCA Air Movement and Control Association  
30 W. University Dr.; Arlington Heights, IL 60004; 312/294-0150
- ANSI American National Standards Institute  
1430 Broadway; New York, NY 10018; 212/354-3300
- APA American Plywood Association  
P.O. Box 11700; Tacoma, WA 98411; 206/565-6600
- ARI Air Conditioning and Refrigeration Institute  
1815 N. Fort Myer Dr.; Arlington, VA 22209; 703/524-8800
- ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers; 1791  
Tullie Circle NE; Atlanta, GA 30329; 404/636-8400
- ASME American Society of Mechanical Engineers

345 East 47th St.; New York, NY 10017; 212/644-7722

- ASPE American Society of Plumbing Engineers  
15233 Ventura Blvd.; Sherman Oaks, CA 91403; 213/783-4845
- ASTM American Society for Testing and Materials  
1916 Race St.; Philadelphia, CA 19103; 215/299-5400
- AWPA American Wood-Preservers' Association  
7735 Old Georgetown Rd.; Bethesda, MD 20014; 301/652-2109
- AWPB American Wood Preservers Bureau  
2772 S. Randolph St.; Arlington, VA 22206; 703/931-8180
- AWS American Welding Society  
550 LeJune Rd.; Miami, FL 33135; 304/642-7090
- BHMA Builders' Hardware Manufacturers Association  
(c/o TGAM) 60 East 42nd St. Rm. 1807; New York, NY 10017; 212/682-8142
- CISPI Cast Iron Soil Pipe Institute  
1499 Chain Bridge Rd.; McLean, VA 22101; 703/827-9177
- CRSI Concrete Reinforcing Steel Institute  
180 North LaSalle St.; Chicago, IL 60601; 312/372-5059
- CS Commercial Standard of NBS (U.S. Dept. of Commerce)  
Government Printing Office; Washington, DC 20402
- FGMA Flat Glass Marketing Association  
3310 Harrison; Topeka, KS 66611; 913/266-7013
- FM Factory Mutual Engineering Corp.  
1151 Boston-Providence Turnpike; Norwood, MA 02062; 617/762-4300
- FS Federal Specification (General Services Admin.)  
Bldg. 197, Washington Navy Yard, SE; Washington DC 20407
- GA Gypsum Association  
1603 Orrington Ave.; Evanston, IL 60201; 312/491-1744
- HPMA Hardwood Plywood Manufacturers Association  
P.O. Box 2789; Reston, VA 22090; 703/435-2900
- IES Illuminating Engineering Society of North American  
345 E. 47th St.; New York, NY 10017; 212/644-7926
- MCAA Mechanical Contractors Association of America  
5530 Wisconsin Ave.; Washington, DC 20015; 202/654-7960
- MIL Military Standardization Documents (U.S. Dept. of Defense) Naval Publications and Forms  
Center 5801 Tabor Ave.; Philadelphia, PA 19120
- MLSFA Metal Lath/Steel Framing Association

- 221 N. LaSalle St.; Chicago, IL 60601; 312/346-1600
- NAAMM The National Association of Architectural Metal  
Mfrs.; 221 N. LaSalle St.; Chicago, IL 60601; 312/346-1600
- NBS National Bureau of Standards (U.S. Dept. of Commerce)  
Gaithersburg, MD 20234
- NCMA National concrete Masonry Association  
P.O. Box 781; Herndon, VA 22070; 703/435-4900
- NEC National Electrical Code (by NFPA)
- NECA National Electrical Contractors Association  
7315 Wisconsin Ave.; Washington, DC 20014; 202/657-2110
- NEMA National Electrical Manufacturers Association  
2101 L St. NW; Washington, DC 20037; 202/457-8400
- NFPA National Fire Protection Association  
Batterymarch Park; Quincy, MA 02269; 617/328-9230
- NRCA National Roofing Contractors Association  
8600 Bryn Mawr Ave.; Chicago, IL 60631; 312/693-0700
- NSF National Sanitation Foundation  
3475 Plymouth Rd; Ann Arbor, MI 48106; 313/769-8010
- NWMA National Woodwork Manufacturers Association  
205 West Touhy Ave.; Park Ridge, IL 60068; 312/823-6747
- OSHA Occupational Safety Health Administration (U.S. Dept. of Labor); Government Printing  
Office; Washington, DC 20402
- PDI Plumbing and Drainage Institute  
5342 Blvd. Pl.; Indianapolis, IN 46208; 317/251-5298
- PS Product Standard of NBS (U.S. Dept. of Commerce)  
Government Printing Office; Washington, DC 20402
- SCPI Southern California Plastering Institute  
3127 Los Feliz Blvd.; Los Angeles, CA. 90039; 213/663-2213
- SDI Steel Door Institute  
712 Lakewood Cnt. N.; Cleveland, OH 44107; 216/226-7700
- SMACNA Sheet Metal & Air Conditioning Contractors  
National Association; 8224 Old Courthouse Rd.; Vienna, VA 22180; 703/790-9890
- SSPC Steel Structures Painting Council  
4400 5th Ave.; Pittsburgh, PA 15213; 412/578-3317
- SSPW Standard Specifications for Public Works Construction Building News, Inc., 3055  
Overland Ave., Los Angeles, CA 90034; 213/202-7775

- TCA Tile Council of America  
P.O. Box 326; Princeton, NJ 08540; 609/921-7050
- UL Underwriters Laboratories  
333 Pfingsten Rd.; Northbrook, IL 60062; 312/272-8800
- WCLIB West Coast Lumber Inspection Bureau  
(Grading Rules); P.O. Box 2315; Portland, OR 97223; 503/639-0651
- WIC Woodwork Institute of California  
1833 Broadway; Fresno, CA 93773; 209/233-9035
- WRI Wire Reinforcement Institute  
7900 Westpark Drive; McLean, VA 22102; 703/790-9790

**PART 2: PRODUCTS - NOT APPLICABLE**

**PART 3: EXECUTION - NOT APPLICABLE**

**END OF SECTION 01090**

**PART 1 GENERAL**

1.01 Summary

- A. Perform demolition, alteration and remodeling Work indicated or required to produce finished results shown.
- B. Coordinate alteration Work and be responsible for division of Work among the various Subcontractors, if any.
- C. Laws and Regulations: Intent of Contract Documents is to construct buildings in accordance with applicable requirements of codes and standards referenced in Section 01060.
  - 1. Should conditions develop not covered by Contract Documents wherein finished work will not comply with said Codes, immediately notify City and secure needed directions. If appropriate, a Change Order detailing and specifying required work should be issued prior to proceeding with the work.

1.02 Submittals

- A. Prior to cutting which affects structural safety, submit written request with substantiating data to City for permission to proceed with cutting. Refer to section 01045 for additional requirements.

1.03 Job Conditions

- A. Do not interfere with use of adjacent buildings. Maintain free and safe passage to and from.
- B. Prevent movement or settlement of structures. Provide and place bracing or shoring and be responsible for safety and support of structure. Assume liability for such movement, settlement, damage or injury.
  - 1. Cease operations and notify the City immediately, if safety of structure appears to be endangered. Take precautions to properly support structure. Do not resume operations until safety is restored and City's permission is obtained.
- C. Provide, erect and maintain barricades and guard rails as required by applicable regulatory agency to protect occupants of building and workers.
- D. Where demolition, removal or rework occurs, take necessary precautions to protect finished work from damage. Finished work damaged by operations under this contract shall be repaired or replaced to the acceptance of City at no extra cost.

- E. Asbestos, Lead Paint or Hazardous Waste: Building testing for asbestos is indicated in Appendix I, Asbestos Bulk Sample Analysis Report. No asbestos was found in the materials sampled. The complete impact of the project on areas containing lead paint and/or asbestos is not known at this time.

Contractor's responsibilities with respect to hazardous materials on the project are as follows:

1. If asbestos or any hazardous waste material is encountered, notify City immediately. Do not disturb, handle or attempt to remove.
2. Contractor shall provide system design in accordance with project schedule. Design shall accurately identify location of all materials, devices and equipment required for the project.
3. Contractor shall identify and mark all areas where project work will impact any hazardous materials identified. Contractor shall schedule all work so that abatement of areas identified does not impact project critical path schedule.
4. Contractor shall fully cooperate with City and it's consultants/contractors in the abatement of hazardous materials that impact project work. This may include training of Contractor's employees in the proper procedures for handling asbestos and lead and the implementation of those procedures by the Contractor in the process of demolition and/or installation of new devices and materials.

City's responsibilities with respect to hazardous materials on the project are as follows:

1. Provide Contractor with available information on hazardous materials in the building. (See Appendix I, Asbestos Bulk Sample Analysis Report)
  2. Consult with City Safety Officer and consultants as required to meet regulatory standards related to hazards encountered on the project.
  3. Provide abatement as required or provide training for Contractor to perform minor abatement as may be required in the delivery of the fire alarm system upgrade project.
- F. Utility Services: Maintain existing utilities indicated to remain, keep in service and protect against damage during demolition operations.
1. Do not interrupt existing utilities serving occupied or used facilities, except when authorized in writing by authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to governing authorities.
- G. Environmental Controls: Use water sprinkling, temporary enclosures and other suitable methods to limit dust and dirt rising and scattering in air to lowest practical level. Comply with governing regulations pertaining to environmental protection.
1. Do not use water when it may create hazardous or objectionable conditions such as flooding and pollution.

- H. Traffic: Conduct demolition operations and debris removal in a manner to ensure minimum interference with roads, streets, walks and other adjacent occupied or used facilities.
  - 1. Do not close, block or otherwise obstruct streets, walks or other occupied or used facilities without compliance with authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

## **PART 2 PRODUCTS**

### **2.01 Products for Patching, Extending and Matching**

- A. General Requirements that Work be Complete:
  - 1. Provide same products or types of construction as that in existing structure, as needed to patch, extend or match existing work.
    - a. If the Contract Documents do not define products or standards of work quality present in existing construction; Contractor shall determine products by inspection and any necessary testing and fabrication and installation by use of the existing as a sample of comparison.
  - 2. Presence of a product, finish or type of construction, requires that patching, extending or matching shall be performed as necessary to make Work complete and consistent to identical standards of quality.

## **PART 3 EXECUTION**

### **3.01 Examination**

- A. Examine existing conditions, including elements subject to movement or damage during alteration Work.
- B. After uncovering the work, inspect conditions affecting installation of new Work.
- C. Discrepancies:
  - 1. If uncovered conditions are not as anticipated, immediately notify City and secure needed directions.
  - 2. Do not proceed in areas of discrepancy until such discrepancies have been fully resolved.
- D. Any time extension or any increase or decrease of cost resulting from such changes will be adjusted in the manner provided in the Contract Documents.

### **3.02 Preparation**

- A. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement or collapse of structures to be demolished and adjacent facilities to remain.

1. Cease operations and notify City immediately if safety of structure appears to be endangered. Take precautions to support structure until determination is made for continuing operations.
- B. Cover and protect equipment and fixtures to remain from soiling or damage when demolition work is performed in areas from which such items have not been removed.
- C. Utilities indicated to remain.
  1. Provide by-pass connections as necessary to maintain continuity of service to areas adjacent to new Work. Provide minimum of 7 days advance notice to City if shutdown of service is necessary during changeover.

### 3.03 Alterations

- A. Cut, drill, alter, remove or temporarily remove and replace existing construction as necessary for performance of Work under the contract. Work that is replaced shall match similar existing Work.
- B. Unless otherwise noted in specifications, do not cut or alter structural members without written authorization of City.
- C. Repair demolition performed in excess of that required, at no cost to the City.
- D. Work remaining in place which is damaged or defaced during this contract shall be restored to the condition at time of award of contract.
- E. If removal of existing Work exposes discolored or unfinished surfaces, or Work out of alignment, refinish such surfaces or replace the material as necessary to make contiguous Work uniform.
- F. New unfinished surfaces created by removal of existing materials, and surfaces damaged or disturbed by alteration Work, shall be patched with new materials and finished to match existing Work. Extend new finishes onto existing Work as much as is required to provide a uniform, even appearance.
- G. Cut finish surfaces such as concrete, masonry, tile, plaster or metals, by methods to terminate surfaces in a straight line at a natural point of division.
- H. Where new Work joins existing construction, ensure that joints are weather tight, sound and even in appearance.
- I. Utility lines encountered in the Work shall be capped, extended or reworked as necessary for completion of alterations.

### 3.04 Disposition of Materials

- A. Promptly remove from the site materials resulting from demolition and alteration that are not to be reused.
- B. Burning of materials on site is not permitted.
- C. Store items to be reused in a protected location until reinstallation.

### 3.05 Clean-up and Repair

- A. Perform periodic and final cleaning.
- B. Upon completion of alteration Work, remove tools, equipment and demolished materials from site. Remove protective coverings and leave interior areas broom clean.
- C. Repair demolition performed in excess of that required, at no extra cost to City. Return structures and surfaces to remain to condition existing prior to commencement of alteration work. Repair adjacent construction or surfaces soiled or damaged by alteration work.

END OF SECTION 01120

**PART 1 - GENERAL**

**1.01 PRECONSTRUCTION CONFERENCE**

- A. Called by City prior to commencement of Work, a preconstruction conference will be held to discuss procedures to be followed during the progress of the Work.
- B. Location: A site as convenient as possible for all parties, designated by the City.
- C. Attending shall be City's Project Manager, City's Consultants, City's Construction Manager, Contractor, Contractor's Superintendent, Major Subcontractors and others as appropriate.

**1.02 SUBCONTRACTOR PRE-CONSTRUCTION MEETINGS**

- A. Called by Contractor prior to execution of work by each Subcontractor to review product selection, procedures for executing work and coordination required with other trades.
- B. Location: Contractor's field office.
- C. Attending shall be City's Project Manager, City's Consultants, City's Construction Manager, Contractor, Contractor's Superintendent, Subcontractor and others as appropriate.

**1.03 PROGRESS MEETINGS**

- A. Contractor shall prepare Agenda, schedule and hold weekly meetings or as required by the progress of the Work.

1. Agenda:

- a. Review minutes of previous meetings. (Field Reports)
  - b. Review of Work progress.
  - c. Field observations, problems and decisions.
  - d. Identification of problems which impede planned progress.
  - e. Review of submittals schedule and status of submittals.
  - f. Review of off-site fabrication and delivery schedules.
  - g. Maintenance of progress schedule.
  - h. Corrective measures to regain projected schedules.
  - i. Planned progress during succeeding work period.
  - j. Coordination of projected progress.
  - k. Maintenance of quality and work standards.
  - l. Effect of proposed changes on progress schedule and coordination.
  - m. Regulatory correction notice resolution
  - n. Other business relating to Work.
- B. Location: Contractor's field office.
  - C. Attending shall be City's Construction Manager, Consultants (if required), Contractor, Contractor's Superintendent, Major Subcontractors and others as appropriate.
  - D. Contractor shall take and distribute meeting notes to the attendees. Attendees taking exception to anything in the meeting notes shall state same in writing, within 5 working

days following receipt of meeting notes. Copies of said exception shall be delivered to the Contractor and the City.

**1.04 BILLING MEETINGS**

- A. Contractor shall schedule and hold a billing meeting at least five days prior to the end of each pay period for the purpose of agreeing on the percentage of the Work completed up to that date and establishing the amount to be requested in the Application for Payment.
- B. Location: Contractor's field office.
- C. Attending shall be City's Project Manager, City's Construction Manager, Contractor and Contractor's Superintendent.
- D. Following the billing meeting, prepare draft of the pay period's proposed billing on City designated forms and submit to the City.
- E. Following City's review of the proposed billing, revise as may be required, prepare formal Application for Payment on City designated forms, and submit to City for certification and approval.

**1.05 GUARANTIES/WARRANTIES, BONDS AND SERVICE AND MAINTENANCE CONTRACTS REVIEW MEETING**

- A. Eleven months following date of final acceptance, the City shall hold a meeting for the purpose of review of guaranties/warranties, bonds and service and maintenance contracts for materials and equipment. Contractor shall take action as appropriate to implement repair or replacement of defective items, and to extend service and maintenance contracts, as desired.
- B. Attending shall be City's Project Manager, City's Consultants (if required), City's Construction Manager, Contractor, Contractor's Superintendent, Major Subcontractors, Suppliers and others as appropriate.

**PART 2 – PRODUCTS – NOT APPLICABLE**

**PART 3 – EXECUTION – NOT APPLICABLE**

END OF SECTION 01200

**PART 1 GENERAL**

**1.01 Initial Submittal**

- A. Timing: In order to expedite completion of the project the contractor shall coordinate with the City's Project Manager and conduct a submittal review within 72 hours of receiving the Notice to Proceed. The submittal review will be a coordination session where the contractor will outline all materials that need to be ordered to complete the project on time. The meeting will include representatives from the City, consultants, facility operations personnel, sub-contractors and related personnel. The contractor shall come prepared with samples, cut sheets, and specifications for all items and any requested substitutions. If a substitution is proposed the contractor will have at least two alternatives that meet the requirements set forth in these documents.

**1.02 Summary**

- A. Timing: Make submittals within the time specified herein. Make submittals far enough in advance of scheduled dates of installation to allow the time required for reviews, for securing necessary approvals, for possible revision and resubmittal and for placing orders and securing delivery in time to complete project on schedule. Selected contractor may deliver submittals to City's Project Manager for review prior to receiving Notice to Proceed, but only on items that would delay completion of project if contractor waited until issuance of Notice to Proceed.
- B. Identification: Identify each submittal and resubmittal with the following information:
1. Project name and address as they appear on the Contract Documents.
  2. Contractor's name.
  3. Contractor's address.
  4. Contractor's stamp with initials or signature, certifying to review and approval of submittal, compliance with Contract Documents and verification of field measurements.
  5. Subcontractor's or supplier's name and address.
  6. Name and telephone number of the individual to contact for additional information regarding the submittal.
  7. Drawing and Specification Section numbers to which the submittal applies.
  8. Whether it is an original or a resubmittal.
  9. Date of submission.
- C. Coordination of Submittals: Prior to submittal for City review, fully coordinate material as follows:
1. Determine and verify field dimensions and conditions, materials, catalog numbers and similar data.

2. Coordinate as required with the various types of Work and public agencies involved.
  3. Secure necessary approvals from public agencies and others and signify by stamp or other means that approvals have been secured.
  4. Unless otherwise specifically permitted by the City, make submittals in groups containing associated items.
- D. **Completeness:** Submittals shall be complete; the City will reject partial submittals for not complying with the Contract Documents.

1.03 Schedules

- A. Submit complete project schedule within five (5) calendar days of receiving the Notice to Proceed.
- B. **Progress Schedule:**
1. Submit prior to issuance of Notice to Proceed, for City's approval.
  2. Form: Refer to Section 01310 Project Schedule
  3. Coordinate with submittal schedule.
  4. **Content:**
    - a. Complete sequence of construction by activity, with number of activities adequate to explain the various stages of Work.
    - b. Dated for beginning and completion of each major Work element.
    - c. Projected percentage of completion for each Work element, as of the first calendar day of the month.
  5. Distribute one copy each to: City Project Manager, City Construction Manager, Inspector, Jobsite file, Subcontractors and other concerned parties.
  6. Update Progress Schedule: Submit periodically, as appropriate to the progress of the Work, but no less often than with each Application for Payment.
  7. In addition to the requirements of Section 5.2.2 of the General Conditions, should there occur differing site conditions, change in specifications, additional work, etc., any of which would necessitate a time extension of thirty (30) days or more, a revised schedule will be submitted.
  8. The revised schedule will reflect work completed up to the date of the revision, percentages will be adjusted accordingly and performance time will extend to the new completion date established by modification to the Contract as a result of the change.
  9. The initial and revised schedules will include time for a final inspection and correction of any punch list items, which might be discovered during the final inspection.

C. Schedule of Values:

1. Submit in accordance with requirements of Section 01025.

1.04 Shop Drawings, Product Data, and Samples

A. General:

1. Submit as required by the various Specification Sections.
2. Submit in accordance with the approved submittal schedule.
3. Submit in the manner and quantities specified hereinafter.
4. Allow a minimum of seven (7) working days from the date of receipt by the City for processing by City and consultants.

B. Shop Drawings:

1. Submit four (4) reproducible prints, plus one additional reproducible print of each Shop Drawing requiring a consultant's review.
2. The City or its consultants, as applicable, will review the Shop Drawings; mark the prints with required revisions; stamp the prints and indicate the appropriate status.
3. Review the returned print and take appropriate action as indicated. If re-submittal is required, make revisions and indicate them with a "cloud", stamp and date, and resubmit in the same manner and number as for the original submittal.
4. Only those Shop Drawings which bear stamps showing final review of the Contractor, City and City's consultants, if applicable, shall be used.

C. Product Data:

1. Submit in the quantity required to be returned, together with one copy each of brochures, catalog cuts and similar material, plus two additional copies of each requiring a consultant's review.
2. Review, processing and distribution of Product Data shall be the same as that for Shop Drawings.

D. Samples:

1. Submit in the size specified in the individual Specification Sections, and in the quantity required to be returned, together with one additional Sample, which will be retained by the City or its consultants, as applicable.
2. Where Samples have natural variations in texture, color or dimension, submit Samples showing the extreme range plus the middle range of colors.
3. Ship samples to City offices, carriage prepaid. Samples to be returned to the Contractor will be returned, carriage collect.

E. Field Samples and Mockups:

1. Elect at project site a location acceptable to Construction Manager, unless otherwise approved.
2. Construct each sample or mockup complete, including work of all trades required in finish work.

1.05 Patterns and Colors

- A. Unless the exact pattern and color of a product are indicated in the Contract Documents, whenever a choice of pattern or color is available for a product, submit accurate color charts and pattern charts to the City for review and selection.

1.06 Certificates of Compliance

- A. Submit certificates of compliance with the associated Shop Drawings, Product Data and Samples required for the product.
- B. Submit on 8-1/2 inch-x-11 inch white paper.
- C. Submit two copies.
- D. The City will retain the certificates of compliance; no approval reply is intended.

**PART 2 PRODUCTS – NOT APPLICABLE**

**PART 3 EXECUTION – NOT APPLICABLE**

END OF SECTION 01300

**PART 1 GENERAL**

1.01 General

- A. Prepare a progress chart in the form of a network analysis system as described below. In preparing this system the scheduling of construction is the responsibility of the Contractor. Prepare the system to demonstrate adequate planning and execution of the work and to enable the City to appraise the reasonableness of the proposed schedule and to evaluate the progress of work.
- B. The original completion date established in this Agreement also establishes the contract duration, and the contract amount is agreed to include all time-related indirect costs required for the contractor's supervision and administration of work occurring throughout this duration, including such costs associated with any change order. The City's acceptance of any schedule showing completion occurring prior to the original completion date established by the Agreement shall not bind the City for any increase in cost associated with the contractor's supervision or administration of the work, whether or not changed, during the period from Notice to Proceed through the original contract completion date.
- C. The City's Issuance of Notice to Proceed on the Contract will be made after the receipt of an acceptable schedule in compliance with the requirements of this Section and of the General Conditions.

1.02 Schedule

- A. Prepare the schedule under the supervision of the Contractor's project manager and superintendent showing activities on arrows with id nodes numbered. Precedence network scheduling may be used, provided that the contractor shall obtain any proprietary software, license the software to the City, and install and maintain current software on City data processing equipment as directed. Software shall be compatible with Windows operating system. Microsoft Office Project is preferred.
- B. The system shall comprise network diagrams, summary bar charts, and accompanying mathematical analyses. The diagrams shall show elements of the project in detail and the entire project summary.
  - 1. Diagrams shall show the order and interdependence of activities and the sequence in which the work is to be accomplished as planned by the Contractor. The basic concept of a network analysis diagram will be followed to show how the start of a given activity is dependent on the completion of preceding activities and how its completion restricts the start of following activities. Show similar activities, which occur in separate areas or at different times as separate activities. The number of activities and the level of breakdown of the project into separate activities shall be acceptable to the City.
  - 2. Network activities shall include the following:
    - a. All construction activities.
    - b. Submittals and approvals of materials and shop drawings.
    - c. The procurement, fabrication, and installation of critical materials and equipment.
    - d. All activities of the City or others that affect progress.
    - e. Actions, which must be complete prior to start of construction, for example, progress schedule approval, quality control program approval, and so forth.

- f. Activities for separate buildings and/or features shall be identified and grouped on the network and the interdependence of these groups shall be shown.
  - g. Individual system startup and operation testing.
  - h. Substantial Completion activity shall be shown comprising requirements specified in Division I to occur prior to the completion date.
  - i. Contract required dates for completion of all or parts of the work
  - j. Final completion and acceptance activity late finish shall not exceed thirty days after substantial completion.
3. Show the following information on the diagrams for each activity: Preceding and following event numbers, description of the activity, and activity duration in calendar days. In calculating activity durations, Saturdays, Sundays, holidays, and normal inclement weather shall be considered. The network diagram shall conform to the standards demonstrated in the sample attached at the end of this Section.
  4. The mathematical analysis of the network diagram shall include a tabulation of each activity. The following information will be furnished as a minimum for each activity.
    - a. Preceding and following event numbers;
    - b. Activity description;
    - c. Estimated duration of activities;
    - d. Earliest start date (by calendar days);
    - e. Earliest finish date (by calendar days);
    - f. Actual start date (by calendar days);
    - g. Actual finish date (by calendar days);
    - h. Latest start date (by calendar days);
    - i. Latest finish date (by calendar days);
    - j. Slack or float (in calendar days);
    - k. Percentage of activity completed; and
    - l. Contractor's earnings based on portion of activity completed.
  5. The mathematical computation shall compile the total value of completed and partially completed activities; and subtotals from separate buildings or features. The system shall also be capable of accepting revised completion dates as modified by approved time adjustments, shall recompute all dates and float accordingly.
  6. The analysis shall list the activities in sorts or groups as follows:
    - a. By the preceding event number from lowest to highest and then by the order of the following event number;
    - b. By the amount of slack, then in order of preceding event number;
    - c. In order of latest allowable start dates, then in order of preceding event numbers, and then in order of succeeding event number; and
    - d. In order of latest allowable finish dates, then in order of preceding event numbers.
  7. Obtain information from subcontractors and others necessary to establish logic relationships, and durations.
- C. Submit the system as follows:
1. Submit the complete network system consisting of the detailed network mathematical analysis, schedule of anticipated earnings as of the last day of each

- month, and network diagrams within fourteen (14) calendar days after receipt of notice to proceed and prior to any progress payment.
2. A preliminary schedule defining the Contractor's planned operations during the first sixty (60) calendar days will be submitted within five (5) days after notice to proceed. The Contractor's general approach for the balance of the project shall be indicated. Cost of activities expected to be completed or partially completed before submission and approval of the whole schedule should be included.
- D. The Contractor shall participate in a review and evaluation of the proposed network diagrams and analysis by the City. Resubmit any revisions necessary as a result of this review for approval by the City within five (5) calendar days after the conference. The approved schedule shall then be used by the contractor for planning, organizing and directing the work, for reporting progress, for requesting payment for work accomplished, and as the basis for any discussion or negotiation of time extensions. If changes in the method of operating or in scheduling are made, notify the City in writing stating the reasons for the change. The City may require revision and resubmittal for approval, without additional cost to the City, of all of the affected portion of the detailed diagrams and mathematical analysis showing the effect of any such change on the entire project. A change requiring resubmittal is one for which variation in estimated or actual activity duration, or variation in the logic sequence of activities creates a reasonable doubt, in the City's opinion, as to the contractor's ability to meet the contract completion date or dates; or which reflects a change in the logic relationships of activities on the critical path.
- E. Submit at monthly intervals, prior to discussion of progress payments, a report of the actual construction progress on marked-up copies of the previous month's mathematical analyses. Subsequent entering of updating information into the mathematical analysis shall be based on agreements reached between the City and the contractor at the progress payment meeting. The revised updated schedule shall be submitted within seven days of this meeting.
- F. The report shall show the activities or portions of activities completed during the reporting period and their total value as based on the Contractor's Schedule of Values. The report will include discs of magnetic media containing all data used in the report. Payment will be based on the total value of such activities completed or partially completed after verification by the City, less retainage and any additional withholding. The report will state the percentage of the work actually completed and scheduled as of the report date and the progress along the critical path in terms of days ahead or behind the allowable dates. The Contractor shall also submit a narrative report with the updated analysis, which shall include:
1. A brief description of the previous month's activities and a work plan for the subsequent month.
  2. A description of any problem areas, current and anticipated, delaying factors and their impact.
  3. An explanation of corrective actions taken or proposed.
- G. Sheet size of diagrams shall be 24 x 36 inches. Each updated copy shall show a date of the latest revisions.
- H. Initial submittal, revisions, magnetic media, and reports shall be submitted in three (3) copies (one reproducible and two prints).

1.03 Short Interval Schedule

- A. Short Interval Scheduling (SIS) may be used throughout the on-site construction activity.
- B. The interval shall be a three (3) week projection and shall include the week submitted and two (2) weeks thereafter.
- C. It shall contain sufficient detail to evaluate daily milestones and manpower/equipment loading, and shall identify/tie into the monthly updated contract schedule.
- D. Short interval schedule shall be approved by the Construction Manager.
- E. Short interval schedule shall be submitted weekly.
- F. During the weekly construction meeting, the Construction Manager and the Contractor will review and discuss short interval schedules.

1.04 Recovery Schedule

- A. For schedules showing completion occurring after the Completion Date as amended by executed change order, submit Recovery Schedule as specified in addition to the monthly report.
- B. Whenever actual progress lags previously scheduled progress by more than 5%, submit recovery schedule as specified in addition to the monthly report. For the purposes of this paragraph, scheduled and actual progress are defined to mean the duration of the entire project as originally scheduled together with executed time extensions, as compared to the actual duration as currently scheduled. For the purpose of illustration, if a project has an original duration of ninety days and ten days time extension by executed change order, and the current schedule show the project completing in one hundred and six days, the project is 6% behind schedule and a recovery schedule is thus required.
- C. At the City's direction, and whenever conditions described in A. or B. above occur, the Contractor shall additionally submit a recovery schedule in the format specified for the regular monthly schedule report, but which includes only current and future construction activities along paths with negative slack, as well as a partial network diagram of these paths and activities, and which describes the Contractor's proposed actions necessary to achieve the Completion Date.

1.05 Time Extension Requests – The Owner shall have no obligation to consider any time extension request unless the requirements of the contract documents are completed with; the Owner shall not be responsible or liable to the Contractor for any construction acceleration due to failure of the Owner to grant time extensions under the contract documents should the Contractor fail to substantially comply with the submission requirements and the justification requirements of this contract for time extension requests. The Contractor's failure to perform in accordance with the contract schedule shall not be excused because the Contractor has submitted time extension requests; until, and unless, such requests are approved by the Owner.

1.06 Payment Withheld – Progress payments may be withheld in whole or in part should the Contractor fail to comply with the requirements of this section.

**PART 2 PRODUCTS – NOT APPLICABLE**

**PART 3 EXECUTION – NOT APPLICABLE**

**END OF SECTION 01310**

**PART 1 GENERAL**

- 1.01 General – In addition to the General Conditions, this section covers the quality control inspection, sampling, and testing of all supplies, services, and workmanship required under the agreement. The Contractor shall:
- A. Perform all quality control inspection and/or testing required by this agreement unless specified to be performed by the City.
  - B. Review and certify as correct, complete, and in compliance with agreement requirements all shop drawings, and material and equipment submittals.
  - C. Provide access for City testing, and provide incidental labor and facilities to assist the City in performing tests and obtaining and storing samples at the site.
- 1.02 Work Not Included – The sampling and testing of the following items are hereby specified to be performed by the City. These tests are for the benefit of the City to determine acceptability of the tested item, and performance of any test by the City does not relieve the requirement for the Contractor to monitor and control the quality of construction:
- A. Jobsite testing of soils, concrete, masonry, structural steel materials, high-strength bolts, weldments, and sprayed fireproofing, except that Contractor shall test structural steel at the mill.
- 1.03 Quality Control (QC) System – The QC system shall perform the following minimum requirements:
- A. Inspection Procedures: The Contractor's inspection procedure shall be reported on the Contractor's Daily Quality Control Report and shall conform to the following:
    - 1. Preparatory Inspection: Shall be performed by the Contractor prior to beginning any definable feature of work or job feature and shall include a preparatory phase conference with the City. Contractor shall submit a tentative schedule of upcoming preparatory conferences for approval with the quality control plan, and provide an outline of how the QC will implement the particular phase of work two (2) days prior to each scheduled preparatory conference, following the format indicated in the Preparatory Inspection Report Form provided by the City. The City will review this outline prior to the conference. The conference shall include:
      - a. A review of agreement requirements;
      - b. A check to assure that all materials and/or equipment have been tested, submitted, and approved;
      - c. A check to assure that provisions have been made to provide required testing;
      - d. Examination of the work area for completion of all preliminary work.
      - e. A physical examination of required materials and equipment for conformance to approved shop drawings or submittal data.
    - 2. Initial Inspection: Shall be performed by Contractor as soon as a representative portion of the particular feature of work is complete and shall include examination of the quality of workmanship as well as a review of control testing for compliance with agreement requirements.
    - 3. Follow-Up Inspection: Shall be performed by Contractor daily to assure continuing compliance with agreement requirements until completion of the particular feature of work.

- B. In addition to the three-phase inspection procedure, the Contractor's Quality Control representatives shall perform the following:
1. Perform detailed review, prior to submittal, of all shop drawings, certificates of compliance, and material and equipment submittals called for under these specifications. Certify with each submittal that all items therein are correct and in strict accordance with the agreement drawings and specifications except as may be otherwise expressly stated. Furnish submittals only after review and certification.
  2. Establish and maintain an effective quality control and inspection system, which will assure and document that all supplies and services conform to agreement requirements whether constructed or processed by the Contractor, or procured from subcontractors or vendors. Document the system as specified herein. Make all documents available for review by the City prior to the start of construction and throughout the life of the agreement, and notify the City in writing of any proposed change to his inspection system.
  3. Implement the system by the establishment of a quality control organization headed on a full-time basis by the Contractor's quality control representative (CQC), who shall be physically on the project site for the duration of the project, and whose responsibility is to insure compliance with the agreement. The CQC shall be assisted by other personnel, industry-recognized testing laboratories, or manufacturer's representatives, who are qualified to perform the various inspections, tests, and equipment adjustments required.
  4. Perform the number and type of tests required by the agreement specifications and by other publications referenced.
  5. Provide current records and documents as specified.
  6. Maintain an approved system for identifying the inspection status of supplies.
  7. Establish and maintain an effective system for controlling non-conforming material and removing materials and equipment which are not approved.
  8. Maintain full-size marked-up drawings with survey notes, sketches; nameplate data, pricing information, description, and serial numbers of all installed equipment; and other information depicting as-built conditions. Maintain this information in a current condition at all times until acceptance of the work and make it available for review by City personnel at all times. All variations from the agreement plans, for whatever reason, shall be indicated in the same general detail utilized in the agreement plans. This information shall be furnished to the City a minimum of two weeks prior to Contractor's Certification of Substantial Completion.
- C. After the agreement is awarded and before construction operations are started, the Contractor shall meet with the City, and discuss the QC system requirements. The meeting shall develop mutual understandings relative to system details, including the forms to be used for recording the inspections, administration of the system, and the interrelationship of Contractor and City inspection. Within fourteen (14) days after receipt of the Notice to Proceed, the Contractor shall furnish to the City a QC system plan, which shall include the procedures, instructions, and reports to be used. Construction shall not start until the Quality Control plan is approved. This document shall include as a minimum:
1. The inspection organization.

2. Number and qualifications of inspection personnel to be used.
  3. Authority and responsibilities of inspection personnel.
  4. Methods of inspection, including subcontractor's work.
  5. Schedule for use of inspection personnel by types and phase of work.
  6. Test methods including, as specified, name of qualified testing laboratory to be used, if applicable.
  7. Schedule for use of non-Contractor personnel and facilities, such as manufacturer's representatives and approved testing laboratories.
  8. Method of documenting inspection and testing.
  9. A copy of a letter of direction to the Contractor's quality control representative, outlining CQC duties and signed by a principal officer of the firm.
- D. Provide and maintain all measuring and testing devices, laboratory equipment, instruments, transportation, and supplies necessary to accomplish the required testing and inspection to be performed by the Contractor. Calibrate all measuring and testing devices at established intervals against certified standards, which have known valid relationships to national standards. Make the Contractor's equipment available for use by the City for verification of their accuracy and condition as well as for any inspection or test desired.
- E. Assure that the latest approved drawings, including shop drawings, specifications, and instructions required by the agreement, as well as authorized changes thereto, are used for fabrication, inspection, and testing.

1.04 Contractor's Quality Control

- A. Contractor's Quality Control: Contractor shall ensure that products, services, work quality, and site conditions comply with requirements of the Drawings and Specifications by coordinating, supervising, testing, and inspecting the Work and by utilizing only suitably qualified personnel.
- B. Quality Requirements: Work shall be accomplished in accordance with quality requirements of the Drawings and Specifications, including, by reference, all Codes, laws, rules, regulations, and standards. When no quality basis is prescribed, the quality shall be in accordance with the best-accepted practices of the construction industry for the locale of the Project, for projects of this type.
- C. Quality Control Personnel: Contractor shall employ and assign knowledgeable and skilled personnel as necessary to perform quality control functions to ensure that the Work is provided as required.
- D. Quality of Products: Unless otherwise indicated or specified, all products shall be new, free of defects, and fit for the intended use.
- E. Quality of Installation: All Work shall be produced plumb, level, square and true, or true to indicated angle, and with proper alignment and relationship between the various elements.

- F. Protection of Existing and Completed Work: Take all measures necessary to preserve and protect existing and completed Work free from damage, deterioration, soiling and staining, until Acceptance by the Owner.
- G. Standards and Code Compliance and Manufacturer's Instruction and Recommendations: Unless more stringent requirements are indicated or specified, comply with manufacturer's instruction and recommendations, reference standards and building code research report requirements in preparing, fabrications, erecting, installing, applying, connecting and finishing Work.
- H. Deviations from Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Document and explain all deviations from reference standards and building code research report requirements and manufacturer's product installation instructions and recommendations, including acknowledgement by the manufacturer that such deviations are acceptable and appropriate for the Project.
- I. Verification of Quality: Work shall be subject to verification of quality by Owner or Architect in accordance with provisions of the General Conditions of the Contract.
  - 1. Contractor shall cooperate by making Work available for inspection by Owner, Architect, or their designated representatives.
  - 2. Such verification may include mill, plant, shop, or field inspection as required.
  - 3. Provide access to all parts of the Work, including plants where materials or equipment are manufactured or fabricated.
  - 4. Provide all information and assistance as required, including that by and from subcontractors, fabricators, materials suppliers and manufacturers, for verification of quality by Owner or Architect.
  - 5. Contract modifications, if any, resulting from such verification activities shall be governed by applicable provisions in the General Conditions.
- J. Observations by Architect and Architect's Consultants: Periodic and occasional observations of Work in progress will be made by Architect and Architect's consultants as deemed necessary to review progress of Work and general conformance with design intent.
- K. Limitations on Inspection, Test, and Observations: Neither employment of an independent testing and inspection agency nor observation by Architect and Architect's consultants shall in no way relieve Contractor of obligation to perform Work in full conformance to all requirements of Contract Documents and applicable Building Code and other regulatory requirements.
- L. Architect's Acceptance and Rejection of Work: Architect reserves the right to reject all Work not in conformance to the requirements of the Drawings and Specifications.
- M. Correction of Non-conforming Work: Non-conforming Work shall be modified, replaced, repaired, or redone by the Contractor at no change in Contract Price or Contract Time.
- N. Acceptance of Non-conforming Work: Acceptance of non-conforming Work, without specific written acknowledgement and approval of the Owner, shall not relieve the Contractor of the obligation to correct such Work.
- O. Contract Adjustment for Non-conforming Work: Should Architect or Owner determine that it is not feasible or in Owner's interest to require non-conforming Work to be repaired

or replaced, an equitable reduction in Contract Price shall be made by agreement between Owner and Contractor. If equitable amount cannot be agreed upon, a Construction Change Directive will be issued and the amount in dispute resolved in accordance with applicable provisions of the General Conditions.

- P. Non-responsibility for Non-conforming Work: City and City's consultants disclaim any and all responsibility for Work produced not in conformance with the Specifications.

1.05 Quality Assurance by City

- A. The Contractor's Quality Control inspection system is subject to evaluation and verification inspection by the City to determine its effectiveness in supporting the quality requirements established in the agreement. The City may require joint City-Contractor inspections at any time and on a periodic basis to evaluate the effectiveness of the Contractor's Quality Control system.
- B. The City reserves the right to inspect supplies, services, materials, and equipment required by this agreement. City inspection will not constitute acceptance; nor will it in any way replace Contractor inspection or otherwise relieve the Contractor of his responsibility to monitor and control the quality of construction.
- C. The City may notify the Contractor of non-compliance with agreement provisions and the action to be taken. The Contractor shall immediately take corrective action. If the Contractor fails to comply promptly, the City may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

- 1.06 In accordance with the General Conditions, the Contractor shall not build upon or conceal any feature of the work containing uncorrected defects. Payment on deficient items will be withheld until defects are satisfactorily corrected. The cost of additional City testing resulting from failure to comply with agreement requirements shall be deducted from the agreement amount.

IF RECURRING DEFICIENCIES INDICATE THAT THE QUALITY CONTROL SYSTEM IS NOT ADEQUATE, CORRECTIVE ACTION SHALL BE TAKEN AS DIRECTED AND PROGRESS PAYMENTS WILL BE WITHHELD UNTIL SUCH CORRECTIVE ACTION HAS BEEN COMPLETED.

1.07 Daily Record

- A. The Contractor's Quality Control Inspectors shall maintain a daily record of all inspections and tests performed for each shift of Contractor or Subcontractor operations in the format directed. These records shall:
1. Identify the project
  2. Include data on weather conditions
  3. Indicate the Contractor and/or Subcontractors working and their respective areas of responsibility
  4. List construction equipment, other than hand tools, at the job site and whether or not used on the report day.
  5. Provide factual evidence that continuous quality control inspection and tests have been performed, including but not limited to the following:
    - a. Maintenance of Shop Drawing and Submittal Register;

- b. Monitoring of equipment and materials upon arrival at the job site for compliance with approved shop drawings;
  - c. Proper storage of equipment including documentation of this responsibility on the daily report;
  - d. Type and number of inspections or tests involved; results of inspections or tests; nature of defects; causes for rejections; proposed remedial action; and corrective actions taken.
6. Include a current record of all inspections.
7. Include a signed statement that all supplies and materials incorporated in the work are in full compliance with the terms of the agreement.
- B. Furnish the City, on a daily basis, a legible copy of all inspection records for permanent retention. The daily record of inspections shall cover all work placement subsequent to the previous report and shall be verified by the Contractor's designated Quality Control representative. A sample of an acceptable Contractor Quality Control Report form shall be provided by the City. All specified tests or portions thereof, whether performed by the City or the Contractor, shall be recorded and attached to the daily report of the date upon which the test occurs. CQC shall record these tests on forms similar to the "Test Report" form provided by the City. The "Test Report" form shall be augmented as directed to include all of the test data required to provide a complete report.

1.08 Test Laboratories

- A. Submit evidence of qualifications of Contractor's test laboratories to perform specified tests, and obtain City's approval prior to test performance.

**PART 2 PRODUCTS – NOT APPLICABLE**

**PART 3 EXECUTION – NOT APPLICABLE**

END OF SECTION 01400

**PART 1 GENERAL**

**1.01 Definitions**

- A. **Testing Laboratory:** An independent commercial testing organization, retained and paid by the City to perform tests and report on Work as specified in the Contract Documents and as required.
- B. **Testing Agency:**
  - 1. An organization other than the Testing Laboratory, retained and paid by the Contractor to perform tests and report on whether or not designated items of Work comply with the requirements of the Contract Documents.
  - 2. The Testing Agency may be an independent commercial testing organization or, with the prior approval of the City, the Testing Agency may be the testing laboratory of a trade association, the certified laboratory of a supplier, the Contractor's own forces or other organization.

**1.02 References**

- A. ANSI/ASTM D3740 – Practice for Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
- B. ANSI/ASTM E329 – Recommended Practice for Inspection and Testing Agencies for Concrete, Steel and Bituminous Materials as Used in Construction.
- C. Uniform Building Code, UBC Standards and California Code of Regulations as applicable.

**1.03 Testing Laboratory**

- A. **General:** Services of a Testing Laboratory are required for Work specified in various individual Specification Sections.
- B. **Contractor's Responsibilities:**
  - 1. Cooperate with Testing Laboratory personnel.
  - 2. Secure and deliver to the Testing Laboratory adequate quantities of representative samples of materials proposed for use for which testing is required.
  - 3. Furnish copies of product test reports as specified.
  - 4. Furnish incidental labor and facilities:
    - a. To provide access to Work to be tested.
    - b. To obtain and handle samples at the Project site or at the source of the product to be tested.
    - c. To facilitate inspections and tests.
    - d. For storage and curing of test samples.
  - 5. Notify the City 48 hours in advance of operations to allow for Testing Laboratory assignment of personnel and scheduling of tests.

- a. If tests or inspections cannot be performed after such notice, reimburse the City for the Testing Laboratory personnel and travel expenses incurred.

**1.04 TESTING AGENCY**

- A. Contractor shall retain and pay for the services of a Testing Agency to perform inspections, sampling and testing for the Contractor's purposes.

**1.05 TEST REPORTS**

- A. The Testing Laboratory will distribute reports as follows:

- 1. City: Two (2) copies.
- 2. Architect: One (1) copy
- 3. Applicable consultant: One (1) copy.
- 4. Contractor: One (1) copy.

- B. The Testing Agency shall distribute reports in the same manner and number as specified for the Testing Laboratory.

**1.06 RETESTING**

- A. If the City has reasonable doubt that materials comply with Specification requirements, Contractor shall make additional tests as directed.

- 1. If additional tests establish that materials comply with Specification requirements, cost for such tests will be paid by the City.
- 2. If additional tests establish that materials do not comply with Specification requirements, costs for such tests shall be paid by the Contractor.

**PART 2 PRODUCTS – NOT APPLICABLE**

**PART 3 EXECUTION- NOT APPLICABLE**

END OF SECTION 01405

**PART 1: GENERAL**

**1.01 RELATED DOCUMENTS**

- A. General provisions of Contract, including General Conditions and other Division-1 Specifications, apply to work of this section.

**1.02 SUMMARY OF REQUIREMENTS**

- A. Furnish and install construction facilities and temporary controls as hereunder specified, plus other unspecified temporary facilities, including labor, materials, services, utilities, and equipment, as may be required for proper performance of Contract, except as otherwise provided. Construction facilities and temporary controls required for this work include, but are not necessarily limited to:

1. Fire Alarm System.
2. Fire Sprinkler System
3. Electrical facilities.
4. Sanitary Facilities.
5. Construction Aids and Equipment.
6. Barriers.
7. Cleaning During Construction.
8. Project Identification.
9. Site Controls and Parking.
10. Elevators
11. HVAC Systems
12. Computer Room Air Conditioning Units

**1.03 RELATED REQUIREMENTS**

- A. Division 1 Section "Summary of Work".
- B. Division 1 Section "Project Closeout".
- C. Permanent Utilities: Pertinent Specification Sections.

**1.04 SPECIAL CONDITIONS RELATING TO WORK ON SITE:**

- A. Provide 24 hour security of facilities left in unsecured condition during construction, including fire alarm system. Reference Specification 01010 Summary of Work, Section 103 also.

- B. No use of Owner services such as phone, Main Office toilets, or power, without specific approval from the City's Construction Manager.
- C. Clean up jobsite at end of each day.
- D. Stockpile on site only materials to be used that day.

1.05 REQUIREMENTS OF REGULATORY AGENCIES

- A. General: Construction facilities and temporary controls shall be approved by authorities and regulatory agencies having jurisdiction, including insurance companies with regard to safety precautions, operations and fire hazard.
- B. Refer to General Conditions.

1.06 PRODUCT HANDLING

- A. Protection: Use all means necessary to protect and maintain temporary facilities and controls in proper and safe condition throughout progress of Work.
- B. Replacements: In event of loss or damage, immediately make necessary repairs and replacements as approved by, and at no additional cost to Owner.

**PART 2: PRODUCTS**

2.01 TEMPORARY FACILITIES

- A. General: Provide specified utility services required during construction and extend temporary service lines to construction areas to allow use by all trades and subcontractors.
- B. Temporary Electrical Facilities:
  - 1. Electrical Service: Provide such temporary electrical power and facilities as necessary to supply lighting for work operations and power for portable driven tools and for testing.
  - 2. Construction Requirements: Construct and maintain all temporary electrical facilities in accordance with Division of Industrial Safety "Electrical Safety Orders" (ESO), Public Utilities Commission "Rules for Overhead Line Construction" (G.O. 95), and requirements of the utility company providing service. Materials, devices, and equipment used for these facilities shall be in good and safe condition, but need not be new.

2.02 SANITARY FACILITIES

- A. Toilet Facilities: Provide sufficient suitably enclosed chemical toilets with urinal for use of all crafts engaged on project.
- B. Washing Facilities: Provide properly mounted and adequate wash sinks connected to water supply; in location as approved by Owner.
- C. Drinking Water Facilities: Provide clean, sanitary and adequate drinking water.

2.03 CONSTRUCTION AIDS AND EQUIPMENT

- A. General: Erect, equip, operate and maintain all construction equipment in strict accordance with applicable statutes, laws, ordinances, rules, and regulations of authorities having jurisdiction; including insurance companies, with regard to safety, operation and fire hazard.
- B. Provide and maintain scaffolding, temporary lighting during construction, staging, runways, and similar equipment, as needed. Comply with all applicable safety requirements of OSHA and other governing authorities. Coordinate use and furnishing with subcontractors.
- C. Provide and operate drainage and pumping equipment; maintain excavations and site free of standing water.

2.04 BARRIERS

- A. General: Provide and maintain barricades, fencing, shoring, pedestrian walkways including attached lights, other lights, and other safety precautions to properly guard against personal injury and property damage as prescribed by authority having jurisdiction; including insurance companies.
- B. Attention is directed to Safety Orders issued by State of California, Division of Industrial Safety. Contractor shall obtain copies of such Safety Orders are applicable to type of work to be performed, shall be governed by requirements thereof in all construction operations, and shall fully inform subcontractors and material suppliers as to requirements of applicable Safety Orders.
- C. Provide barriers as required to prevent public entry to construction areas, to provide for owner use of site, and to protect adjacent properties from damage from construction operations.
- D. Provide barriers around trees and plants designated to remain. Protect against vehicular traffic, stored materials, dumping, chemically injurious materials, and puddling or continuous running water.

2.05 CLEANING DURING CONSTRUCTION

- A. Debris Control: Keep work and storage areas clean and free of debris. Dispose of debris off premises, as it accumulates. Pay all fees required for use of public dumps. Burning on premises is prohibited.
- B. Clean interior areas prior to start of finish work; maintain areas free of dust and other contaminants during finishing operations.

2.06 PROJECT IDENTIFICATION

- A. Advertising signs shall not be allowed for General Contractor or Subcontractors.

2.08 SITE CONTROLS AND PARKING

- A. Site Storage and Work Areas: Owner will allocate available on-site storage and work areas to Contractor, subject to change as may be necessary by job progress, such site development or other intervening work.
- B. Regulations: Observe and comply with rules and regulations in effect at occupied facilities, including, but not restricted to, parking and traffic regulations, security restrictions, hours of access, and the like.
- C. Use of Public Sidewalks and Streets: Make arrangements with local authorities including Traffic Engineer, for temporary use of streets and sidewalks for offices, shops, storage, etc; abide by City rules, regulations, and ordinances, obtain permits, and pay fees therefor.
- D. Dust Controls:
  - 1. Indoor Operations: Control dust resulting from indoor construction operations by localizing it to greatest practicable extent using temporary partitions, curtains, or other means which will prevent spread of dust beyond immediate work area. Duct openings and other openings communicating with other parts of building shall have effective temporary closures.
  - 2. Outdoor Operations: Provide dust control as required to abate any dust nuisance on or adjacent to project site. Apply water by means of approved sprinkling equipment, water wagons, or spray from hoses, to extent and amount required at any time that dust control is necessary, as determined by Owner. Use of chemicals, oil or other such materials will not be permitted.

**PART 3: EXECUTION**

**3.01 MAINTENANCE AND REMOVAL**

- A. Maintain all construction facilities and temporary controls as long as needed for safe and proper completion of Work; remove all such facilities and temporary controls as rapidly as progress of work will permit or as directed by Owner.

END OF SECTION 01500

**PART 1 GENERAL**

**1.01 Summary**

- A. Material and equipment incorporated in the Work shall be new, unless otherwise specified; in a condition acceptable to the City and suitable for the use intended.
- B. No material or equipment shall be used for any purpose other than that for which it is designed or specified.

**1.02 Transportation and Handling**

- A. Manufactured products shall be delivered in the manufacturer's original, unbroken containers or packaging, with identifying labels intact and legible.
- B. Immediately on delivery, inspect shipments to assure compliance with the requirements of the Contract Documents and approved submittals and to verify that products are properly protected and undamaged.
- C. Handle products in a manner to avoid soiling and damaging the products and their packaging.
- D. Promptly remove damaged and defective products from the site and replace at no increase in Agreement Sum.

**1.03 Storage**

- A. Store manufactured products in accordance with the manufacturer's instruction, with seals and labels intact and legible.
  - 1. Store products subject to damage by the elements in weathertight enclosures.
  - 2. Maintain temperature and humidity within the ranges specified by the manufacturers.
- B. Exterior Storage:
  - 1. Store fabricated products above the ground, on blocking or skids, to prevent soiling and staining.
  - 2. Cover products, which are subject to deterioration with impervious sheet coverings; provide adequate ventilation to avoid condensation.
  - 3. Store loose granular material in a well-drained area on solid surfaces to prevent mixing with foreign matter.
- C. Arrange storage to facilitate inspection.
- D. Periodically inspect stored products to assure that products are maintained under specified conditions and free from damage and deterioration.
- E. Protection After Installation:

1. Provide substantial coverings as necessary to protect installed products from damage from traffic and construction operations. Remove coverings when no longer needed.
2. Maintain temperature and humidity conditions for interior equipment and finish products in accordance with the manufacturer's instructions.

**PART 2 PRODUCTS – NOT APPLICABLE**

**PART 3 EXECUTION – NOT APPLICABLE**

END OF SECTION 01600

**SUBSTITUTION REQUEST FORM**

TO: CITY OF SACRAMENTO, FACILITY MANAGEMENT

PROJECT:

SPECIFIED ITEM:

SECTION: \_\_\_\_\_ PAGE: \_\_\_\_\_ PARAGRAPH: \_\_\_\_\_ DESCRIPTION: \_\_\_\_\_

The undersigned requests consideration of the following:

**PROPOSED SUBSTITUTION:**

Attached data includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of the requests; applicable portions of the data are clearly identified. Attached data also includes description of changes to Contract Documents which proposed substitution will require for its proper installation.

The undersigned states that the following paragraphs, unless modified on attachments, are correct:

1. The proposed substitution does not affect dimensions shown on Drawings.
2. The undersigned will pay for changes to the building design, including engineering, design, detailing and construction costs caused by the requested substitution.
3. The proposed substitution will have no adverse affect on other trades, the construction schedule or specified warranty requirements.
4. Maintenance and service parts will be locally available for the proposed substitution.

The undersigned further states that the function, appearance and quality of the proposed substitution are equivalent or superior to the specified item.

Submitted by: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Firm: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Attachments:

\*\*\*\*\*

For City Use: Accepted \_\_\_\_\_ Rejected \_\_\_\_\_ Received too late \_\_\_\_\_

By: \_\_\_\_\_ Date: \_\_\_\_\_

Remarks:

END OF SECTION 01605

**PART 1: GENERAL**

**1.01 RELATED DOCUMENTS**

- A. General provisions of Contract, including General Conditions and other Division-1 Specifications, apply to work of this section.

**1.02 SUMMARY OF REQUIREMENTS**

- A. Contractor's options in selection of products.
- B. Product list.
- C. Requests for substitution of products.

**1.03 RELATED REQUIREMENTS**

- A. General Conditions of the Contract.
- B. Division 1 Section "Submittals".
- C. Division 1 Section "Project Closeout".

**1.04 CONTRACTOR OPTIONS**

- A. Products Specified by Reference Standards or by Descriptions Only: Any Product meeting those standards.
- B. Products Specified by Naming One or More Manufacturers: Submit request for substitution for any manufacturer not specifically named.
- C. Products Specified by Naming One Manufacturer and/or Approved Equal: Submit documentation of proposed equal product for any manufacturer not specifically named.

**1.05 PRODUCT LIST**

- A. After notice of award of the contract, the Contractor shall transmit 6 copies of list of products which are proposed as options or substitutions, including name of manufacturer.
- B. Tabulate products by technical Specifications Section number, title, and Article number.
- C. For product specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.
- D. Architect will reply in writing within 10 days stating whether there is reasonable objection to listed items. Failure to object to listed item shall not constitute waiver of requirements of Contract Documents.

**1.06 LIMITATIONS ON SUBSTITUTIONS**

- A. Requests for substitutions of products will be considered only within thirty (30) days after Notice of Award of Contract. Subsequent requests will be considered only in case of product unavailability or other conditions beyond control of Contractor.

- B. Substitutions will not be considered when indicated on shop drawings or product data submittals without separate formal request, when requested directly by subcontractor or supplier, or when acceptance will require substantial revision of Contract Documents.
- C. Substitute products shall not be ordered or installed without written acceptance.
- D. Only one request for substitution for each product will be considered. When substitution is not accepted, provide specified product.
- E. Architect will determine acceptability of substitutions.

#### 1.07 REQUESTS FOR SUBSTITUTIONS

- A. Submit separate request for each substitution. Document each request with complete data substantiating compliance of proposed substitution with requirements of Contract Documents.
- B. Identify product by Specifications Section and Article numbers. Provide manufacturer's name and address, trade name of product, and model or catalog number. List fabricators and suppliers as appropriate.
- C. Attach product data as specified in Division 1 Section "Submittals".
- D. Give itemized comparison of proposed substitution with specified product, listing variations, and reference to Specifications Section and Article numbers.
- E. Give quality and performance comparison between proposed substitution and the specified product.
- F. Give cost data comparing proposed substitution with specified product, and amount of net change to Contract Sum.
- G. List availability of maintenance services and replacement materials.
- H. State effect of substitution on construction schedule, and changes required in other work or products.

#### 1.08 CONTRACTOR REPRESENTATION

- A. Request for substitution constitutes representation that Contractor has investigated proposed product and has determined that it is equal to or superior in all respects to specified product or that cost reduction offered is ample justification for accepting offered substitution.
- B. Contractor will provide same warranty for substitution as for specified product.
- C. Contractor will coordinate installation of accepted substitute, making such changes as may be required for Work to be complete in all respects.
- D. Contractor certifies that cost data presented is complete and includes all related costs under this Contract.
- E. Contractor waives claims for additional costs related to substitution which may later become apparent.

1.09 SUBMITTAL PROCEDURES

- A. Refer to Division 1 Section "Submittals".
- B. Architect will review Contractor's requests for substitutions with reasonable promptness.
- C. For accepted products, submit shop drawings, product data, and samples in accordance with Division 1 Section "Submittals".

**PART 2: PRODUCTS – NOT APPLICABLE**

**PART 3: EXECUTION – NOT APPLICABLE**

END OF SECTION 01630

**PART 1 GENERAL**

**1.01 GENERAL**

- A. Contractor shall start, operate, and demonstrate all equipment and systems prior to the date of substantial completion, and shall provide all labor, equipment, materials, consumable items, and any other item necessary to provide a complete operating system at the time of acceptance.

**1.02 SECTION INCLUDES**

- A. Starting systems.
- B. Operating Tests.
- C. Demonstration and Instructions.

**1.03 RELATED SECTIONS**

- A. Section 01400 - Quality Control
- B. Section 01700 - Contract Closeout
- C. Section 16000 - General Electrical Provisions
- D. Section 16050 - Basic Materials and Methods
- E. Section 16720 - Fire Alarm Systems

**1.04 QUALITY CONTROL**

- A. Prior to startup of systems, Contractor Quality Control shall obtain approval of the following submittals:
  - 1. Certification that the system is installed in conformance with the contract.
  - 2. Manufacturer's written startup and operating test procedures.
  - 3. Manufacturer's written startup checklist and operating test forms.
  - 4. Name of manufacturer's representative responsible for conducting startup, operating test, and City instruction.
  - 5. Operation and Maintenance manuals.
  - 6. Schedule of Startups, Operating Tests, and City Instruction. Unless permitted by the City in writing, no Startup, Operating test, or City instruction shall occur during the same time as any other Startup, Operating Test, or City Instruction.

**1.05 STARTING SYSTEMS**

- A. Coordinate schedule for Start-up of various equipment and systems.
- B. Notify the City a minimum of 7 days prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, control sequence and other operating conditions.

- D. Verify that tests, meter readings and specific electrical characteristics agree with those required by the manufacturer.
- E. Verify wiring and appurtenant components are complete and tested.
- F. Perform start-up in accordance with manufacturer's instructions, and, when specified, or when required by the manufacturer, under the supervision of the manufacturer's representative on site.
- G. Submit a written report for each system detailing the steps performed, the results observed, and certifying that the equipment and system demonstrates proper installation and functioning under full-load conditions.
- H. Provide, sufficient fuel, fluids, filters and any other items required for operation for testing and startup.

#### 1.06 OPERATING TEST

- A. Contractor shall notify the City in writing 7 days in advance of any Operating Test. Operating Test shall occur after Contractor Quality Control has assured that Startup procedures result in system readiness to conduct the test. Operating test shall be separate from any other system startup, operating test, or City instruction, and shall occur during normal business hours.
- B. Operating Test shall be conducted in the presence of the City representatives, its designated witnesses, Contractor's Quality Control Representative, others as designated and the manufacturer's representative. Test data will be recorded during the test on the approved test report form. Upon failure of any component, procedure, or performance, the test report form will be annotated as to the time and suspected cause of failure. Test report forms for failed and successful tests shall be submitted within 7 days of test performance.
- C. System components and subsystems shall be tested and adjusted prior to full system testing. Upon component or subsystem failure during full system testing, Contractor Quality Control will halt testing, determine the cause of failure, rectify the condition, and reschedule the test. The Contractor is responsible for all City costs caused by test failure and rescheduling.
- D. The City may designate witnesses for Operating Tests. Upon notification from the City that the system operation, performance, or test procedure conflicts with contract requirements, Contractor Quality control will halt the test, correct the deficiency, and reschedule the test. The Contractor is responsible for all City costs caused by deficient operation or test procedure.
- E. Operating tests shall demonstrate each component, subsystem, and total system performance under all operating modes. See also electrical specification sections.

#### 1.07 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of equipment and systems to City personnel prior to the date of substantial completion. Provide a minimum of 8 hours of demonstration and instruction. The 8 hours of instruction shall be covered in two days of training, as dictated by the City. Example, two (2) four-hour days.

CITY HALL GARAGE FIRE ALARM SYSTEM PROJECT  
1000 I ST., SACRAMENTO, CA 95814

SYSTEM STARTING AND  
OPERATING TEST  
Section 01650 Page 3 of 3

- B. Demonstration to be presented by persons authorized in writing by the manufacturer, with experience in the starting, operating, trouble-shooting, and maintaining of the equipment.
- C. Demonstration shall include requirements caused by seasonal climate variations.
- D. Demonstrate using Operation and Maintenance Manuals.
- E. Demonstrate starting, operation, controls, adjustments, trouble-shooting, normal service and shutdown.
- F. Provide amendments to O&M Manuals for changes required as a result of the demonstration.
- G. Schedule instruction period with the City's designated representative.

**PART 2 PRODUCTS – NOT APPLICABLE**

**PART 3 EXECUTION – NOT APPLICABLE**

END OF SECTION 01650

**PART 1 GENERAL**

1.01 Summary

- A. This Section describes the requirements for Contract closeout, including provisions for remedial Work and extra materials, damage and restoration, project Record Drawings, operating and maintenance data, instruction of City personnel, guaranties, warranties and bonds, substantial completion, service and maintenance contracts, preparation for final inspection, final cleaning, and warranty performance.

1.02 Remedial Work

- A. Repair or replace defects resulting from faulty fabrication, installation or materials; at no additional cost to the City.
- B. Coordinate work with the City and minimize interruption and inconvenience to the City's operations.

1.03 Damage and Restoration

- A. Restore or replace materials and finishes damaged from movement of equipment or other operations at no additional expense to the City; as directed.
- B. Restore damaged work to be equal to the original. Match the appearance of existing adjacent Work.

1.04 Extra Materials

- A. Furnish extra materials in the quantities and manners specified in the various sections of the specification. Deliver extra materials, clearly marked with the project number and name, to the City's receiving area specified by the City's Construction Manager.
- B. Deliver and certify extra materials prior to Substantial Completion.

1.05 Project Record Documents

- A. Maintenance of Documents and Samples:
  - 1. Store project Record Documents and samples in the field office apart from documents used for construction.
  - 2. Maintain project Record Documents in a clean, dry, legible condition and in good order.
  - 3. Do not use Project Record Documents for construction.
- B. Recording:
  - 1. Record information carefully and neatly, with red ink ballpoint pens.
  - 2. Label each drawing 'Record Drawing' in large, neat, printed letters. Label the record copy of other documents "Record".

C. Record Drawings:

1. Record the following information on the record drawings. Obtain verification of changes by Inspector's initialing of each change.
  - a. Changes made by Change Orders and other modifications described in the Contract Documents.
  - b. Locations of Work buried under and outside the building, such as plumbing and electrical lines and conduits. Establish locations of underground Work by dimensions to column lines or walls, locating turns, and by centerline or invert elevations and rates of fall.
  - c. Locations of significant Work concealed inside the building whose general locations have been changed, as approved, from those shown on the Contract Documents. Give sufficient information to easily locate work concealed in the building.
  - d. Locations of items, not necessarily concealed, which have been changed, as approved, from the locations shown on the Contract Documents.
  - e. Nameplate data, description, and serial numbers of all equipment listed on equipment schedules.
  - f. In addition to the previously specified requirements for Record Drawings:
    - (1) Keep up to date during the entire progress of the Work and make available to the City at any time.
    - (2) Furnish additional drawings as necessary for clarification.
    - (3) Record deviations from the sizes, locations and other features of installations shown in the Contract Documents.
    - (4) Drawing to scale:
      - (a) Locate main runs of piping, conduit, ductwork and similar items by dimensions.
      - (b) Locate other items either by dimensions or in relation to spaces within the building.
2. Furnish reproducible Record Drawings, made from final Shop Drawings, which have been updated to show actual conditions, as specified in the individual specification sections.

D. Transmittal to the City. At time of acceptance of the Work and prior to final payment, using the record drawings for reference, prepare 'Record Drawing' drawings on permanent, transparent, reproducible prints furnished by the City.

E. Specifications and Addenda:

1. Mark each Specification Section to record:
  - a. Manufacturer, trade name, catalog number and supplier of each product and item actually incorporated in the Work.
  - b. Changes made by Change Order and other modifications described In the Contract Documents.

F. Large-scale layout drawings:

1. The preparation of large-scale, detailed layout drawings may be required for the work of Division 16 of these Specifications. These layout drawings are not Shop Drawings as defined by the Contract Documents, but, together with Shop

Drawings or layout drawings of other affected Work, are used to check, coordinate and integrate the various types of work.

2. If furnished, include the layout drawings as part of the Project Record Drawings.
- G. As-Built Construction Schedule: Using as a basis the latest update of the Progress Schedule required by other Sections, submit an 'As built' Construction Schedule to indicate the actual dates and duration's of the various construction activities.
- H. Sign and date the completed Project Record Documents and submit them to the City for review and acceptance prior to any request for verification of Substantial Completion.

1.06 Operating and Maintenance Data

- A. General: Where maintenance manuals, record data and operating instructions are required in the individual Specifications Sections, prepare such in three-ring, durable, plastic binders sized for 8-1/2 x 11-inch sheets and including at least the following:
1. Identification on, or readable through, the front cover with the Project name and address and the general subject matter contained in the manual.
  2. Neatly typewritten index near the front of the manual furnishing immediate information as to locations in the manual of emergency data regarding the equipment included in the manual.
  3. Complete instructions regarding operation and maintenance of the equipment included in the manual.
  4. Complete nomenclature of replaceable parts, their part numbers, current cost and name and address of nearest source of parts.
  5. Copy of each guaranty/warranty and service agreement issued for the equipment included in the manual.
  6. Prepare and include additional data as required for the Instruction of the City's operating and maintenance personnel.
- B. Extraneous Data: Where contents of manuals include manufacturers' catalog pages, clearly indicate the items included in this installation and delete or otherwise clearly indicate, data which is not applicable to this installation.
- C. Shop Drawings: With each copy of the manual, furnish one set of applicable approved Shop Drawings showing changes made during construction.
- D. Number of Copies Required. Unless otherwise specified, submit four copies of Mechanical and Electrical manuals and two copies of other manuals.

1.07 Instruction of City Personnel

- A. Where specified in the individual Specifications Sections, furnish qualified personnel for on-the-job instruction of the City's operating and maintenance personnel.

- B. Furnish instruction, including special start-ups and running time, prior to Substantial Completion, at no additional expense to the City.

1.08 Guaranties / Warranties and Bonds

A. General:

1. Manufacturers' warranties notwithstanding, warrant the entire Work against defects in materials, fabrication, installation and operation for 12 months from the date of acceptance by the City. Provide guarantee, warranty or bond as required in the individual Specification Sections in addition to the general warranty of construction.
2. Warranties between Contractor and manufacturers, and the Contractor and suppliers, shall not affect guarantees/warranties between the Contractor and the City.
3. The Contractor shall not be held responsible for damage due to misuse, negligence, willful damage, improper maintenance or accident caused by others. Nor shall it be responsible for defective or failed parts whose replacement is necessitated by failure of the City's maintenance forces to properly clean and service them, provided the Contractor has furnished complete maintenance instructions to the City.
4. Compile the specified warranties and bonds, co-execute as required, review to verify compliances with Contract Documents, and submit to the City for review and acceptance prior to any request for verification of Substantial Completion.

- B. Form of Guaranty/Warranty. Submit the guarantees, in the form found in the Contract Documents, typed on the Contractor's letterhead for the entire Work or on the Subcontractor's letterhead for the Work of a Specific Specification Section. Submit duplicate signed originals.

1.08 Substantial Completion

- A. Preliminary Procedures: Before requesting inspection for Certification of Substantial Completion, complete the following. List exceptions in the request.

1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
  - a. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
  - b. Include a list of deficiencies in completed work.
2. Advise City of pending insurance changeover requirements.
3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.

4. Obtain and submit releases enabling the City unrestricted use of the Work and access to services and utilities; include occupancy permits, operating certificates and similar releases.
5. Submit record drawings, Operation & Maintenance manuals and similar final record information and obtain approval by City.
6. Deliver tools, spare parts, extra stock, and similar items.
7. Make final changeover of permanent locks and transmit keys to the City. Advise the City's personnel of changeover in security provisions.
8. Complete start-up, operation, and acceptance testing of systems, and instruction of the City's operating and maintenance personnel. Discontinue or change over and remove temporary facilities from the site, along with construction tools, mock-ups and similar elements and obtain approval of test reports.
9. Complete final cleanup requirements, including touch-up painting. Touch-up and otherwise repair and restore marred exposed finishes.

B. Inspection Procedures:

1. The City shall promptly inspect the work after receipt of the Certificate of Substantial Completion; the list of incomplete work, and the list of defects in the work; as specified above.
2. On receipt of the Certificate, the City will make a preliminary determination as to Substantial Completion based on this list and on the City's knowledge of the state of completion. If the City is satisfied that the list contains no item, which prevents complete occupancy and use of the project, the City will accompany the contractor on a preliminary inspection to verify the accuracy of the list.
3. The City will make a preliminary Inspection of the entire project or until the discovery of incomplete or defective work which, in the City's opinion, prevents complete occupancy and use, at which time the Contractor will be notified that the Inspection is terminated. The City is not obligated to discover each and every incomplete or defective item during this inspection. If no impediment to occupancy is found as a result of the Inspection, the City will prepare the Certificate of Substantial Completion following the inspection. If the inspection is terminated, the Contractor will reschedule the preliminary inspection after correcting incomplete and defective items preventing complete occupancy and use.
4. If necessary, the City will repeat the inspection when requested and assured that the Work has been substantially completed. The cost of repeat inspections will be deducted from the Contract Amount.
5. Results of the completed inspection will form the basis of requirements for final acceptance and will be issued to the contractor in writing in the form of a list of deficiencies.

- C. Time Limit For Correction of Deficiencies: The Contract allows a period of thirty days (30) maximum from the date of Substantial Completion, or until the Contract Completion date, whichever occurs later, to complete all incomplete or defective items. If incomplete or defective work remains after this time limit, the City reserves the right to complete all

remaining incomplete or defective work and to deduct the costs to complete the work from the balance remaining in this Contract.

- D. Remove temporary tapes, wrapping, coatings, paper labels and similar items. Dust mop, wash or wipe exposed and semi-exposed surfaces as necessary to leave the Work in a new, clean condition.

1.09 Final Cleaning

- A. Remove temporary tapes, wrapping, coatings, paper labels and similar items. Dust mop, wash or wipe exposed and semi-exposed surfaces as necessary to leave the Work in a new, clean condition.
- B. Use cleaning materials, which will not create hazards to health or property or cause damage to products or Work.
- C. Use cleaning materials and methods recommended by the manufacturers of the products to be cleaned.
- D. Schedule operations to prevent dust and other contaminants resulting from cleaning operations from adhering to wet or newly finished surfaces.
- E. Remove dust, dirt, grease, stains, fingerprints, labels, spilled and spattered and other foreign materials from interior and exterior surfaces exposed to view.
- F. Wash and shine glazing and mirrors.
- G. Polish glossy surfaces to a clear shine.
- H. Ventilating Systems:
  - 1. Clean permanent filters and replace temporary filters of units operated during construction.
  - 2. Clean ducts, blowers and coils.
- I. Vacuum and wipe insides of electrical panels and cabinetwork.
- J. Broom-clean interior spaces. Vacuum carpets.
- K. Remove sticks, rubbish and other debris from site and roof areas.
- L. Broom-clean exterior paving.
- M. Rake clean ground surfaces clean.

1.10 Service and Maintenance Contracts

- A. Compile, review and submit specified service and maintenance contracts as specified for guarantees/warranties and bonds.

1.11 Final Inspection and Acceptance

- A. Upon completion of the preliminary inspection list of deficiencies, the Contractor will notify the City and schedule a final acceptance inspection. The City will verify that all items have been corrected. The City may deduct from the Contract Amount the cost for return inspections to further verify completion of any incomplete item remaining after the first final inspection.
- B. When the City is satisfied that all work has been done in accordance with the contract drawings and these Specifications, the City will recommend acceptance of the contract as complete. The completion date, for purposes of computing "Time for Completion" and liquidated damages, if any, will be considered to be the date of Contractor's Certificate of Substantial completion, provided that, in the City's judgment, the work was substantially complete and operational at that time, otherwise, the completion date will be the date of final acceptance.
- C. City will file the Notice of Completion with the County upon Final Acceptance. 35 calendar days after the Notice of Completion is filed, City shall then release the retention money to the contractor.

1.13 Warranty Performance Review

- A. Review Meeting: Eleven (11) months following date of acceptance, hold a meeting for the purpose of review of and action upon, guarantees/ warranties, bonds and service and maintenance contracts.

1.14 Spare Parts and Maintenance Materials Extra Stock

- A. Provide products, spare parts, and maintenance materials in guaranties specified in each section, in addition to that used for construction of work. Coordinate with the Construction Manager and deliver to project site. Provide with a detailed transmittal and obtain receipt prior to final payment.

**PART 2 PRODUCTS – NOT APPLICABLE**

**PART 3 EXECUTION – NOT APPLICABLE**

END OF SECTION 01700

**PART 1 - GENERAL**

1.01 DESCRIPTION

- A. Contractor shall fully comply with City of Sacramento Waste Management Ordinance **Chapter 8.124 CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING (Appendix II)**. Contractor is responsible for submitting Waste Management Plan (WMP) required by ordinance, paying of required fees and managing construction and demolition debris in accordance with the ordinance.
- B. Maintain premises and public properties free from accumulations of waste and rubbish that are caused by the construction operations.
- C. Conduct cleaning and waste removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- D. During the construction process and at completion of the Work, remove waste materials, rubbish, tools, equipment, machinery, and surplus materials, and clean all sight-exposed surfaces. Leave Project clean and ready for occupancy.
- E. If the Contractor fails to clean up at the completion of the Work, the Owner may do so and the cost thereof shall be charged to the Contractor.
- F. Employ experienced workers or professional cleaners. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with the cleaning products manufacturer's instructions.
- G. Hazards Control:
  - 1. Store volatile and hazardous wastes in covered metal containers, and remove from premises daily.
  - 2. Prevent accumulation of wastes of any kind. This shall include, but not be limited to, normal daily waste products plus wastes that could create hazardous conditions.
  - 3. Provide adequate ventilation during use of volatile or noxious substances.
  - 4. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
  - 5. Do not burn or bury rubbish and waste materials on Project site.
  - 6. Do not dispose of volatile wastes such as mineral spirits, oil or paint thinner in storm or sanitary drains.
  - 7. Do not dispose of wastes into streams or waterways.
- H. Prior to commencement of construction activity, submit to the City's Construction Manager a complete and comprehensive description of:
  - 1. Schedule and frequency of cleaning.
  - 2. Cleaning duties and activities to be performed at each cleaning event.
  - 3. Name and qualification of those persons performing the cleaning.

**PART 2 - PRODUCTS**

**2.01 MATERIALS**

- A. Use only cleaning materials recommended by manufacturer of surfaces to be cleaned.
- B. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

**PART 3 - EXECUTION**

**3.01 DURING CONSTRUCTION**

- A. Execute cleaning procedures to ensure that building, grounds, and public properties are maintained free from accumulations of waste materials and rubbish.
- B. Wet down exterior or site dry debris and rubbish to prevent blowing dust.
- C. Each day during progress of Work, police the entire construction area for litter and debris. Clean the site, the building area and public properties. Dispose of waste materials, debris and rubbish.
- D. Dispose of waste materials, debris and rubbish at designated dumping areas.
- E. Provide on-site containers for collection of waste materials, debris and rubbish.
  - 1. Provide trash receptacles within 50 feet of the work zone.
  - 2. Provide a minimum of one trash receptacle.
  - 3. All trash receptacles shall be easily accessible to all workers and shall be of adequate size.
  - 4. Empty all trash receptacles into the on-site trash container on a daily basis.
- F. Smoking:
  - 1. Smoking is not allowed within the building interior. Smoking is not allowed within 100 ft. of any occupied City structure.
  - 2. Outdoor smoking will be in designated areas only and away from volatile materials, ventilation intakes and buildings openings.
  - 3. Provide a receptacle for cigarette butts in all designated smoking areas. These receptacles shall be emptied daily and contained in such a manner so as not to cause a fire hazard.
  - 4. Cigarette butts found scattered on the ground or within the building will not be tolerated.
- G. Eating at the site:
  - 1. Provide a designated area for eating.
  - 2. Empty the trash receptacles and rid the area each day of food substances that could possibly attract vermin.

H. Stored materials:

1. Stored materials, products and equipment shall be maintained in a dry condition and at a temperature as recommended by the manufacturer.
2. Smoking or eating in these areas is prohibited.
3. Take all precaution to assure that stored materials are secure and dry. Periodically examine stored materials to assure that they are not damaged or have accumulated mold or mildew. Immediately remove damaged materials from the site. Replace with new materials.
4. Review the materials manufacturer's recommendations for storage and take all steps necessary to assure materials are being maintained in such a manner.

I. Use of existing toilet facilities:

1. The contractor shall not use existing restroom facilities located in the Day Care Wing provided on-site for City staff and patrons. Restroom facilities adjacent to the Main T Street lobby may be used by contractors. These facilities shall be maintained in a clean and sanitary condition by the Contractor at all times during Contractor use.
2. Portable facilities are not permitted on-site.

J. Cleanliness prior to painting or installing other final finishes:

1. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.
2. Review the materials manufacturer's recommendations for site conditions prior to installing each product. Commencement of installation shall imply that those site conditions have been met and maintained.

3.02 FINAL CLEANING

- A. Provide final cleaning of the Work, consisting of cleaning each surface or unit of work to normal "clean" condition expected for a first-class building cleaning and maintenance program. Comply with manufacturer's instructions for cleaning operations. The following are examples, but not by way of limitation, of cleaning levels required:
1. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
  2. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
  3. Rake grounds that are neither planted nor paved to a smooth, even-textured surface within the area disturbed by construction activities.
  4. Remove tools, construction equipment, machinery, and surplus material from Project site.
  5. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weather in exterior

surfaces. Restore reflective surfaces to their original condition. Remove grease, dust, dirt, labels, fingerprints, and other foreign materials. Polish surfaces so designated to shine finish. Repair, patch and touch up marred surfaces to specified finish, to match adjacent surfaces.

6. Remove debris and surface dust from limited and no access spaces including roofs, plenums, shafts, interstitial spaces (eg: wall cavities, etc.) trenches, equipment vaults, manholes, attics and similar spaces.
7. Sweep asphalt floors broom clean.
8. Remove labels that are not permanent.
9. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
10. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
11. Wipe surfaces of mechanical and electrical equipment clean, including elevator equipment and similar equipment; remove excess lubrication, paint and mortar droppings, and other substances.
12. Clean light fixtures and lamps so as to function with full efficiency. Replace burned-out bulbs, and those noticeable dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
13. Leave the Project clean and ready for occupancy.

End of Section 01740

**PART 1 – GENERAL**

**1.01 SUMMARY**

- A. **DESCRIPTION:** Provide Demolition, as specified per Contract Documents.
- B. **RETAINED ITEMS:** Carefully remove items to remain property of City and be reinstalled in the work.

**1.02 PRODUCT HANDLING**

- A. **GENERAL:** Refer to Section 01040 – PROJECT COORDINATION.

**1.03 SITE CONDITIONS**

**A. PROTECTION:**

- 1. **General:** Refer to Division 1 - GENERAL REQUIREMENTS.
- 2. **Existing Work:** Protect existing installations from damage; take measures to prevent damage to existing items, including but not limited to: turf, irrigation systems, driveways, paving, trees, shrubs, streets, curbs, walks, sewers, water lines, gas lines, storm drain lines, conduits, walls and buildings during demolition and construction. In areas where existing irrigation systems are damaged by work, existing landscaping shall be watered and maintained.

**B. SCHEDULING:**

- 1. **General:** Coordinate and schedule demolition work as required by the City and as necessary to facilitate construction progress.
- 2. **Existing Utilities:**
  - a. **General:** Coordinate disconnection and capping of existing gas, water, sewer and electrical utilities; verify work is complete before starting demolition work affecting these utilities.
  - b. **Electrical:** Refer to Division 16 - ELECTRICAL; disconnecting, removing, and capping existing electrical utilities.

**PART 2 – PRODUCTS – NOT APPLICABLE**

**PART 3 – EXECUTION**

**3.01 PREPARATION**

- A. **GENERAL:** Refer to Section 01040 – PROJECT COORDINATION.
- B. **SAFETY PRECAUTIONS:** Prevent damage to existing facilities to remain or to be salvaged, and prevent injury to the public and workmen engaged on site. Demolish roofs, walls and other building elements in such manner that demolished materials fall inside established limits of demolition within the building. Do not allow demolition debris to accumulate on site. Pull down hazardous work at end of each day; do not leave standing or hanging overnight, or over weekends.

3.02 DEMOLITION

A. **CODES AND REGULATIONS:** Comply with local ordinances, Safety Codes of State of California, and rules and regulations of Industrial Accident Commission of State of California, for demolition work.

B. **CUTTING AND REMOVAL:**

1. **General:** Remove existing work as shown; cut in neat straight lines, parallel to adjacent elements or plumb to vertical surfaces. Neatly remove existing finish materials back to clean straight line on nearest support to facilitate installation of new materials, patches or repairs. Use methods that prevent damage to other work, and provide proper surfaces for installation of repairs and new work.
2. **Interior and exterior Floor Slabs:** Saw cut or core concrete, as shown; grind smooth saw cut edges of concrete.

3.03 DISPOSAL

- A. **GENERAL:** Demolished materials become property of the Contractor and shall be removed from premises, except those items specifically listed to be retained by the City.
- B. **HAUL ROUTES:** Establish haul routes in advance; post flagmen for the safety of the public and workmen. Assume responsibility for damage resulting from hauling operations; hold the City free of liability in connection therewith.

3.04 ITEMS SALVAGED FOR CITY

- A. **ITEMS REMOVED AND RETAINED BY CITY:** None.
- B. **ITEMS REMOVED BY CONTRACTOR AND RETAINED BY CITY:** Consult City Project Manager for fire alarm components (panels, devices, etc.) which City elects to retain.

END OF SECTION 02050

## **PART 1 – GENERAL**

### **1.01 SUMMARY**

- A. DESCRIPTION: Provide Concrete, as specified per Contract Documents.

### **1.02 QUALITY ASSURANCE**

A. REFERENCES:

1. American Concrete Institute (ACI):
  - a. ACI 301: Specifications for Structural Concrete For Buildings.
  - b. ACI 302.1R: Guide for Floor and Slab Construction.
  - c. ACI 304R: Guide for Measuring, Mixing, Transporting and Placing Concrete.
  - d. ACI 305R: Hot Weather Concreting.
  - e. ACI 306R: Cold Weather Concreting.
  - f. ACI 308: Standard Practice for Curing Concrete.
  - g. ACI 318: Building Code Requirements for Reinforced Concrete.
  - h. ACI 347R: Recommended Practice for Concrete Formwork.
  - i. ACI SP-66: Detailing Manual.
2. American Welding Society (AWS) : AWS D1.4 – Structural Welding Code – Reinforcing Steel.
3. Concrete Reinforcing Steel Institute (CRSI): Manual of Standard Practice.
4. National Ready Mixed Concrete Association (NRMCA): Check List for Certification of Ready Mix Concrete Production Facilities.

- B. TESTING: Tests by Testing Laboratory appointed by City and under directions of City; expense of testing borne by City; make tests in accord with Section 2628 of CBC.

### **1.03 SUBMITTALS**

- A. GENERAL: Refer to Section 01300 – SUBMITTALS.

B. SHOP DRAWINGS:

1. General: Submit concrete mix designs for review.
2. Reinforcing: Submit manufacture and installation details, including fastenings, for review.

- C. SAMPLES: Submit concrete finish samples, if requested.

- D. PRODUCT DATA: Submit manufacturer's specifications, data, and installation instructions for review.

- E. PLACEMENT RECORDS: Keep on job site until completion, and open to inspection, record showing time and date of placing concrete in each portion of structure.

1.04 PRODUCT HANDLING

- A. GENERAL: Refer to Section 01040 – PROJECT COORDINATION.
- B. STORAGE: Store cement in weathertight building, permitting easy inspection and identification. Protect from dampness; lumpy or stale cement will be rejected.

1.05 SITE CONDITIONS

- A. GENERAL: Notify City and Structural Engineer at least 48 hours prior to placing of concrete.
- B. PROTECTION: Protect finish surfaces adjacent to locations scheduled for placement of concrete. Inspect forming placed against existing work and establish a tight, leak-proof seal before concrete is poured. Replace finish work defaced by concrete placement operations.

**PART 2 – PRODUCTS**

2.01 MATERIALS

A. FORMWORK:

1. Forms:

- a. Lumber: Construction grade Douglas Fir.
- b. Plywood: PS 1, C Grade Douglas Fir, 5/8 inch minimum; sound undamaged sheets with clean true edges.
- c. Fasteners: As required; of sufficient strength and character to maintain formwork in place while placing concrete.

- 2. Form Release Agent: Colorless mineral oil which will not stain the concrete or impair natural bonding characteristics of coating intended for use on concrete.

B. REINFORCEMENT:

- 1. Reinforcement Bars: ASTM A615, deformed; Grade 60.
- 2. Welded Wire Fabric: ASTM A185, Plain Type; 6x6-W1.4xW1.4, unless otherwise noted.
- 3. Reinforcing Supports: Metal chairs, bolsters, bar supports, or spacers, sized and shaped for strength and support during concrete placement.
- 4. Tie Wire: 16 gage annealed type.

C. CONCRETE:

- 1. Cement: ASTM C150-85a, Type I or II.
- 2. Aggregates:

- a. General: ASTM C33
- b. Lightweight: ASTM C330.
3. Water: Clean and free from deleterious amounts of acids, alkalis, scale, or organic materials.
4. Admixtures:
  - a. Water Reducing Admixture: Use admixture per ASTM C494 to improve placing, reduce water cement ratio, and ultimate shrinkage. Such admixture must receive prior approval of City and included in original design mix.
  - b. Air Entrainment:
    1. General: ASTM C260; Manufactured by Euclid Chemical Co.
    2. Alternate Manufacturers: Comparable Products manufactured by W.R. Meadows, Inc., or accepted equal.
5. Bonding Agent for Patching:
  - a. General: "Concresive No. 1" manufactured by Adhesive Engineering.
  - b. Alternate Manufacturers: Comparable Products manufactured by W.R. Meadows, Inc., or accepted equal.
6. Non-shrink Grout:
  - a. General: "Embeco" manufactured by Master Builders, Inc.
  - b. Alternate Manufacturers: Comparable Products manufactured by W.R. Meadows, Inc., or accepted equal.

## 2.02 MIXES

### A. CONCRETE DESIGN:

1. Designed Strength and Classes of Concrete: Class "B" concrete of 1 inch max. size aggregate, minimum 5 sack of cement, shall have 2500 psi 28 day strength and shall be used for all concrete, including walks and fence posts. Entrained air 6 percent.
2. Limiting Quantities and Minimum Strength: Design concrete for strength per Chapter 26 of UBC.
3. Flatwork: Design mix for all flatwork must include Collated Fibrillated Polypropylene Fiber in amounts not less than 1.5, or more than 1.6 lbs. of fiber per cubic yard.

### B. MIXING OF CONCRETE:

1. General: All concrete shall be mixed until there is uniform distribution of material and mass is uniform and homogeneous; mixer must be discharged completely before the mixer is recharged. Conform to requirements of UBC Chapter 26.

2. Ready-Mix Concrete: Mix and deliver in accordance with the requirements set forth in UBC Standard 26-13.
3. Admixtures: Verify compatibility of concrete admixtures when multiple admixtures are called for in a specific mix.
4. Job Mixed Concrete:
  - a. General: Use batch mixer of approved type, with capacity to handle one or more full sack batches, no split sack batches permitted. Operate as recommended by manufacturer, mixing at least one and one half (1-1/2) minutes after all materials are in drum.
  - b. Handling and Mixing of Concrete: City may order removal of any equipment which in his opinion is insufficient or in any way unsuitable.
- C. GROUT: Provide mortar containing same proportions of cement and sand as used for concrete, with ultimate compressive strength of 2500 psi.

### **PART 3 – EXECUTION**

#### **3.01 PREPARATION**

- A. GENERAL: Refer to Section 01040 – PROJECT COORDINATION.
- B. EXAMINATION: Examine conditions of work in place before beginning work; report defects.
- C. MEASUREMENTS: take field measurements; report variance between plan and field dimensions.

#### **3.02 INSTALLATION**

- A. GENERAL: Install in conformance with referenced standards, manufacturer's written directions, as shown, and as specified.
- B. CONCRETE FORMWORK:
  1. Workmanship: Provide formwork required to produce smooth concrete; straight, plumb and true to plan. Concrete out of line, level or plumb will be rejected.
  2. Erection:
    - a. General: Provide straight, true, sound and form material, able to withstand deformation due to loading and the effects of moist curing. Do not reuse warped or delaminated materials that require more than minor patching of contact surfaces.
    - b. Construction: Construct forms to shapes, lines, grades and dimensions indicated; tight to prevent leakage, properly braced and tied together to maintain position and shape. Form bevels, grooves and recesses to neat, straight lines; chamfer corners where indicated. Provide for easy removal without hammering, wedging or prying against concrete.
  3. Embedded Components:

- a. General: Install straight, level and plumb prior to concrete placement; brace, anchor and support items to prevent displacement or distortion.
  - b. Inserts: Coordinate work of other Sections in setting bolts, anchors, and other components, as required.
4. Form Coating: Before placement of reinforcing steel, coat exposed face of forms to prevent moisture absorption from concrete and facilitate removal of forms; seal all cut edges.

C. STEEL REINFORCEMENT:

1. Fabrication: Do not bend or straighten reinforcement in manner that will injure material. Bars with kinks or bends not shown, and heating of bars for bending is not permitted.
2. Placement: Provide minimum center to center distance between parallel bars 2-1/2 times diameter, 1-1/2 inches or 2-1/2 times maximum size coarse aggregate. Wire bar lap together; splice reinforcing steel with lap of 40 diameters, unless otherwise shown.

D. CAST-IN-PLACE CONCRETE:

1. General: Placement of forms, inserts and reinforcements are subject to approval of City. Notify City and Structural Engineer at least 48 hours prior to placement of concrete.
2. Cleaning:
  - a. General: Remove dirt, wood chips, sawdust and other debris before concrete pour; use compressed air at inaccessible areas.
  - b. Reinforcing: Clean reinforcement and other embedded items of substances that might impair bonding, prior to placement of concrete.
  - c. Previously Placed Concrete: Roughen to 1/4 inch amplitude; clean with steel brush prior to applying bonding agent.
3. Placing of Concrete:
  - a. General: Place concrete in dry conditions; keep excavations free of water, ice, loose soil or debris.
  - b. Weather Requirements: Per ACI 305R (Hot) and ACI 306R (Cold). Additionally, hot weather is defined as any period in which temperature exceeds 85 degrees F.
  - c. Transportation: Handle concrete from mixer to place of deposit as rapidly as possible; using methods to prevent separation or loss of ingredients. Deposit in final position; avoid rehandling or flowing. Do not place partially hardened concrete in work. Do not wheel placement containers directly on top of reinforcing steel.
  - d. Placement:
    1. General: Place concrete continuously between predetermined expansion, control and construction joints. Do not break or interrupt placement of concrete in manner that cause cold joints to occur.
    2. Concrete Slabs:
      - a) General: Lay slabs to required lines and grades, in pattern shown. Water subgrade at exterior concrete the night before placement; dampen again immediately before placement; standing water not allowed.

b) Flatness: Per ASTM E1155 – Determining Flatness and Levelness Using the F-Number System.

e. Compacting:

1. General: Thoroughly work concrete around reinforcement, embedded components and into corners of forms. Consolidate concrete by internal vibration, only. Do not puddle, tamp or vibrate concrete which has already taken initial set or continue long enough to cause segregation of material.
2. Slabs: Consolidate concrete on grade by spading and puddling.

f. Grout: Use at construction joints, and where shown.

4. Concrete Finishes:

a. Slab Finish:

1. General: Uniformly spread, screed and float concrete. Tolerance for flatness shall be 1/8 inch in 10'-0".
2. Trowel: Apply two (2) steel troweling operations at surfaces to receive carpet, resilient materials, thinset tile and where left exposed, finished to achieve burnished surface. Follow second troweling with light brooming perpendicular to direction of traffic to form non-slip surface.
3. Broom: Apply at exterior walks, perpendicular to direction of traffic flow.

b. Joints: Mark off exposed joints, where indicated, with 1/4 inch radius edging tool. Markings to be clean cut, straight and square with respect to border. Tool edges of exposed expansion and contraction joints, border edges, and wherever concrete adjoins other material or vertical surfaces.

5. Curing:

- a. General: Protect concrete from premature drying for three (3) days following pour.
- b. Exterior Slabs: Cover and cure with membrane curing or moist sand; upon completion wash clean.
- c. Concrete in Forms: Keep wet until forms are stripped.

6. Removal of Forms:

a. General: Sequence and time in manner to insure safety of

b. Stripping:

1. General: Maintain forms in place for not less than the following number of days when air temperature in contact with concrete is 60 degrees F or above. Add an additional day for each day that temperature falls below 60 degrees F, unless otherwise directed.
2. Slab Edge Screeds: Five (5) days.

7. Defective Concrete:

- a. General: Remove or cut out defective concrete and repair before concrete is completely cured, as directed by City.

b. Defective Concrete is:

1. General: Concrete not meeting specified 28-day strength.
2. Durability and Appearance: Concrete containing rock pockets, voids, spalls, cracks, exposed reinforcing, or other defects.
3. Alignment: Incorrectly formed concrete, out of plumb or level.
4. Deleterious Materials: Concrete containing embedded wood or other debris.
5. Unauthorized Patching: Concrete with patched voids that were not filed under City's direction.
6. Embedded Items: Concrete not containing required embedded items.

3.03 FIELD QUALITY CONTROL

- A. GENERAL: Per UBC; agency selected and paid for by City.
- B. FIELD TESTING: Take two (2) cylinders and test, for each 50 cubic yards of concrete mix being placed each day. Test first cylinder at the age of 7 days and the other at 28 days; cylinder for 28-day test will not be broken if cylinder for 7-day test meets 28 day strength.
- C. RETESTING: Cost of retests or coring because of understrength, questionable or defective concrete will be paid for by Contractor.

3.04 CLEANING

- A. GENERAL: Keep premises free from accumulation of waste and rubbish. At the completion of work remove surplus materials, rubbish, and debris.

END OF SECTION 03310

**PART 1 – GENERAL**

**1.01 SCOPE OF WORK**

A. DESCRIPTION: Provide Miscellaneous Metal Fabrications, as specified per Contract Documents.

**1.02 QUALITY ASSURANCE**

**A. REFERENCES:**

1. American Institute for Steel Construction (AISC):
  - a. AISC-02: Manual of Steel Construction Allowable Street Design
  - b. AISC S303: Code of Standard Practice for Steel Buildings and Bridges.
  - c. AISC 5329: Allowable Stress Design Specification for Structural Joints Using ASTM A325 or ASTM A490 Bolts.
  - d. AISC S335: Specification for Structural Steel Buildings - Allowable Stress Design and Plastic Design.
2. American Welding Society (AWS): D1.1 Structural Welding Code.
3. National Association of Architectural Metal Manufacturers (NAAMM): Standards.
4. Steel Structures Painting Council (SSPC): Painting Manual.

**B. QUALIFICATION:**

1. General: Fabricator and installer specializing in the work of this Section with minimum three (3) years documented experience.
2. Welding: Performed by certified welders per AWS.

**1.03 SUBMITTALS**

- A. GENERAL: Refer to Section 01300 - SUBMITTALS
- B. SHOP DRAWINGS: Submit manufacture and installation details, including fastenings.
- C. SAMPLES: If specifically requested.
- D. PRODUCT DATA: None required for specified products; required for alternate products.

**1.04 PRODUCT HANDLING:**

- A. GENERAL: Refer to Section 01040 – PROJECT COORDINATION.
- B. ITEMS REQUIRING ANCHORAGE IN CONCRETE: Deliver with complete setting diagrams, measurements, and instructions.

**1.05 GUARANTEE**

- A. GENERAL: Refer to Section 01700 - AGREEMENT CLOSEOUT.

B. PERIOD: Provide in required form for a period on one (1) year from the date of final acceptance by the City.

## **PART 2 - PRODUCTS**

### **2.01 MATERIALS**

A. STEEL SHAPES: ASTM A36.

B. FASTENINGS:

1. General: Bolts, nuts, screws, washers, and other various fastenings necessary for proper erection of work. Galvanized steel fastenings or other non-rusting types for exterior steel work.
2. Exposed in Finished Surfaces: Tamperproof countersunk Phillips flat head screws, unless otherwise shown; finish to match adjacent surfaces.
3. Drilled-in Concrete Anchors:
  - a. General: Kwik Bolt II manufactured by Hilti Corp.; stainless steel for all exterior work.
  - b. Alternate Manufactures: Comparable products manufactured by Ramset or equal.

C. GALVANIZING:

1. General: Hot-dip process per ASTM A123, A153, or A386, as applicable. Minimum coating: 2 oz. per square foot.
2. Repair Treatment:
  - a. Rod: Per ASTM A780
  - b. Coating: Per MIL-P-46105.

D. PLASTIC CEMENT: FS SS-C153, Type 1.

E. NON-SHRINK GROUT:

1. General: "Embco" manufactured by Master Builders, Inc.
2. Alternate Manufacturers: Comparable products manufactured by W.R. Meadows, Inc., or accepted equal.

F. PRIMER: For Galvanized Metal, Ameritone Paint Corp. No. W2015 or comparable product by Fuller-O'Brien Paints, or accepted equivalent. For Metal, Ameritone Paint Corp. No. 54 or comparable product by Fuller-O'Brien Paints, or accepted equal.

### **2.02 FABRICATION**

A. WORKMANSHIP:

1. General: Shop assemble work in largest practical sections; minimize field connections. Grind smooth parts exposed to view; remove weld marks and leave free of fabrication marks. Miter corners and edges unless otherwise shown. Make members true to length

so assembling may be done without fillers. Bends, twists, open joints in finished members, or projecting edges or corners at connections will not be permitted. Mitre, cope, and block carefully to produce tight hairline joints. Provide lugs, clips, connections, bolts, and fastenings necessary to complete fabrication.

2. Galvanizing: Treat all area burned off or damaged during fabrication with specified repair compound.
  3. Reinforcement: Provide proper reinforcement for hardware, and other fabricated metal work, as required.
  4. Welding: Use sequence welding to minimize distortion and heat stresses. Weld by shielded electric arc process per AWS. Use continuous welding along entire area of contact, except where spot welding is permitted. Grind all welds smooth on exposed surfaces. Spot welding not permitted on exposed surfaces.
  5. Shop Painting: Per SSPC standards.
- B. FABRICATIONS: Fabricate items complete as shown.

### **PART 3 - EXECUTION**

#### **3.01 PREPARATION**

- A. GENERAL: Refer to Section 01040 – PROJECT COORDINATION.
- B. CONDITIONS OF WORK IN PLACE: Carefully examine before beginning work; report defects.
- C. JOB MEASUREMENTS: Take field measurements; report discrepancies between plan and field dimensions.

#### **3.02 INSTALLATION**

- A. PERFORMANCE:
  1. General: Install with workmen skilled in the particular type of work required.
  2. Coordination: Deliver miscellaneous metal items to be installed in concrete or masonry, complete with all clips, anchors or bolts necessary to secure them in place.
  3. Workmanship: Set work plumb and true; properly assemble and erect in a rigid and workmanlike manner. Do cutting, punching, drilling and tapping for attachment of other work coming into contact with fabricated metal work where indicated or as directed. Do necessary cutting, drilling, and fitting for installation of fabricated metal work. Execute drilling, cutting, and fitting carefully; when required, fit work at job before finishing. No burning in field permitted. Replace, or repair parts damaged or injured during erection in an acceptable manner. Drill holes for fasteners to exact diameter as recommended by fastener manufacturer. Oversized holes or holes not properly located that produce misalignment of fastener will be rejected.
  4. Galvanizing: Treat areas burned off or damaged during fabrication or erection with specified repair compound.

5. Field Touch-up: Touch-up damaged surfaces and field welds of steel, scheduled to be painted, per SSPC standards.
  6. Protection: After erection, provide proper protection for fabricated metal items from other construction operations.
- B. INSTALLATION: Install items complete as shown.

END OF SECTION 05500

**PART 1 – GENERAL**

1.01 SUMMARY

- A. DESCRIPTION: Provide Carpentry, as specified per Contract Documents.

1.02 QUALITY ASSURANCE

A. REFERENCES:

1. Woodwork Institute of California (WIC): Manual of Millwork.
2. National Bureau of Standards (NBS): PS-20.
3. American Plywood Association (APA): Grading standards
4. American Wood Preservers Association (AWPA): C2 – Wood Preservative Treatment by Pressure Process and C20 – Fire Retardant Treatment by Pressure Process.

- B. QUALIFICATIONS: Company specialized in the products specified in this Section with a minimum of three- (3) years-documented experience.

1.03 SUBMITTALS

- A. GENERAL: Refer to Section 01300 – SUBMITTALS.
- B. SHOP DRAWINGS: Submit manufacture and installation details, including fastenings, for review.
- C. SAMPLES: If specifically requested.
- D. PRODUCT DATA: None required for specified products; required for alternate products.

1.04 PRODUCT HANDLING

- A. GENERAL: Refer to Section 01040 – PROJECT COORDINATION.

1.05 MAINTENANCE

- A. GENERAL: Refer to Section 01700 – AGREEMENT CLOSEOUT.
- B. GUARANTEE: Provide in required form for a period of one (1) year from date of final acceptance by City.

**PART 2 - PRODUCTS**

2.01 MATERIALS

- A. LUMBER:

1. General:
    - a. Grading: NBS PS-20 and applicable association rules under which each lumber species is produced.
    - b. Moisture Content: Per WIC standards; not greater than 19 percent maximum for lumber and 15 percent for plywood; air-dry or kiln-dry.
  2. Exposed Softwood: Douglas fir, WIC Custom Grade,
- B. PLYWOOD: Douglas fir, APA, A-C Group 1 Exterior.
- C. WOOD PRESERVATIVE TREATMENT: Per AWPB standards
- D. ADHESIVE: CS 35-61, Type II, water-resistant.
- E. GATE HARDWARE:
1. General: Manufactured by the Stanley Hardware Division of the Stanley Works, or accepted equal.
  2. Hinges: Model No. SP908-6"
  3. Pull: Model No. 482, No. 3
  4. Latch: Model No. SP1261
- F. FASTENERS:
1. General: Of size and type to suit application; hot dipped galvanized at concealed locations; bright finish in exposed locations.
  2. Concealed Joint Fasteners: Threaded steel.
- G. CAULKING COMPOUND: Per Section 07920. – CAULKING AND SEALANTS.

### **PART 3 – EXECUTION**

#### **3.01 PREPARATION**

- A. GENERAL: Refer to Section 01040 – PROJECT COORDINATION.
- B. EXAMINATION: Examine conditions of work in place before beginning work; report defects.
- C. MEASUREMENTS: Take field measurements; report variance between plan and field dimensions.

#### **3.02 INSTALLATION**

- A. GENERAL: Install in conformance with referenced standards, manufacturer's written directions, as shown, and as specified.
- B. MILLWORK:

1. **General:** Do not install millwork until wet operations are complete, with concrete, masonry and plaster work thoroughly dry, and millwork has been primed or sealed. Reseal cut edges, surfaces and ends as required.
  2. **Exterior:**
    - a. **General:** Exposed surfaces shall be free from tool marks, torn grain, cross sanding, or workmanship defects that cannot be concealed by specified painter's finish.
    - b. **Plywood:** Install with grain texture vertical; edges and ends occurring only over bearings.
  3. **Interior:**
    - a. **General:** Install plumb, square and true, securely wedged and anchored to structure. Countersink face nails.
    - b. **Softwood Plywood:** Install with joints bearing on studs or solid backing. Slightly bevel adjoining panel edges by sanding before installation. Finish nail around perimeter and at studs; set mails.
  4. **Trim Members:**
    - a. **General:** Install level, plumb and true, with members neatly and accurately scribed in place. Install standing trim in single lengths, running trim in as long lengths as practical for species specified. Butt joints beveled together, exterior angles mitered, interior angles coped.
    - b. **Exterior:** Redwood, unless otherwise shown.
    - c. **Interior:** Douglas fir, unless otherwise shown.
  5. **Nailing:**
    - a. **Exterior:**
      1. **Trim:** 10d nails or less, use finish nails set 1/16 inch without putty; 10d nails or over, use common nails driven flush without hammer marks or putty.
      2. **Plywood:** Nails long enough to penetrate structure per UBC requirements. Use galvanized nails, driven flush without hammer marks.
    - b. **Interior:**
      1. **Trim:** Set nails 1/16 inch, minimum; no putty where clear finish is scheduled.
      2. **Plywood:** As shown, set nails 1/16 inch, minimum.
  5. **Site Applied Wood Treatment:** Apply preservative treatment in accordance with manufacturer's instructions. Brush apply two (2) coats of preservative treatment on wood in contact with cementitious materials and roofing and related metal flashings. Treat site-sawn cuts. Allow preservative to dry prior to erecting members.
- C. **GATE:** Provide complete with hardware, as shown.

3.03 CLEANING

- A. GENERAL: Keep premises free from accumulation of waste and rubbish. At the completion of work remove surplus materials, rubbish, and debris and thoroughly clean exposed surfaces.

END OF SECTION 06200

## **PART 1 – GENERAL**

### **1.01 SUMMARY**

- A. **DESCRIPTION:** Provide Firestopping where required by codes and as specified per Contract Documents.

### **1.02 QUALITY ASSURANCE**

#### **A. REFERENCE STANDARDS:**

- 1. American Society for Testing Materials (ASTM):
  - a. ASTM E84: Test Method for Surface Burning Characteristics of Building Materials.
  - b. ASTM E119: Method for Fire Tests of Building Construction and Materials.
  - c. ASTM 814: Test Method of Fire Tests of Through-Penetration Firestops.

- B. **QUALIFICATIONS:** Applicator specializing in performing the work of this Section with minimum five (5) years documented experience, approved by manufacturer.

### **1.03 SUBMITTALS**

- A. **GENERAL:** Refer to Section 01300 – SUBMITTALS
- B. **PRODUCT DATA:** submit manufacturer's specifications, data, and installation instructions for review.
- C. **CERTIFICATES:** Manufacturer certifies that products meet or exceed specified requirements for fire rating for assembly penetrated.

### **1.04 PRODUCT HANDLING**

- A. **GENERAL:** Refer to Section 01040 – PROJECT COORDINATION.

### **1.05 SITE CONDITIONS**

- A. **ENVIRONMENTAL REQUIREMENTS:** Do not apply materials when temperature is below 60 degrees F; maintain minimum temperature before, during, and for three (3) days after installation.
- B. **SCHEDULING:** Sequence Work to permit firestopping materials to be installed after adjacent and surrounding work is complete.

## **PART 2 – PRODUCTS**

### **2.01 MATERIALS**

#### **A. FIRESTOPPING:**

- 1. **General:** Manufactured by the Dow Corning Corp.

2. Alternate Manufacturers: Comparable products manufactured by Thermafiber Division of USG Interiors, Inc., or accepted equal.
- B. DAM MATERIAL:
1. General: Permanent or removable as recommended by sealant manufacturers.
  2. Safing Insulation: Mineral fiber; unfaced; thickness as shown.
  3. Mineral Fiberboard: Mineral fiber fireproofing, unfaced; thickness as shown.
  4. Intumescent Coated Mineral Wood Strips: As recommended by sealant manufacturer.
- C. PRIMER: Model No. 1200 RTV.
- D. SEALANT: Firestop Sealant.
- E. FOAM: Firestop Foam.
- F. MORTAR:
1. General: CMO manufactured by Hevi-Duty/Nelson.
  2. Alternate Manufacturers: Comparable product manufactured by 3M Fire Protection Products, or accepted equal.
- G. PUTTY:
1. General: FSP as manufactured by Hevi-Duty/Nelson.
  2. Alternate Manufacturers: Comparable product manufactured by 3M Fire Protection Products, or accepted equal.
- H. FASTENERS:
1. Retainers: Manufacturers standard clips to support mineral fiber matting.
  2. Masking Tape: Pressure sensitive adhesive tape recommended by manufacturer.

### **PART 3 - EXECUTION**

#### **3.01 PREPARATION**

- A. GENERAL: Refer to Section 01040 – PROJECT COORDINATION.
- B. EXAMINATION: Examine conditions of work in place before beginning work; report defects.
- C. SURFACE PREPARATION: Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other matter which may affect bond of firestopping material.

3.02 INSTALLATION

- A. GENERAL: Install in conformance with referenced standards, manufacturer's written directions, as shown, and as specified.
- B. DAM MATERIALS: Install as backing to arrest liquid material leakage; remove after firestopping material has cured.
- C. PRIMER: Where required; per manufacturer's instructions.
- D. FIRESTOPPING: Install material at walls or partition openings which contain penetrating sleeves, piping, ductwork, conduit and other items requiring firestopping to thickness required for fire rating.
- E. FIRE RATING: As shown.

3.03 CLEANING

- A. GENERAL: Keep premises free from accumulation of waste and rubbish. At the completion of work remove surplus materials, rubbish, and debris and thoroughly clean exposed surfaces per manufacturer's instructions.

END OF SECTION 07270

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. DESCRIPTION: Provide Caulking and Sealants, as specified per Contract Documents.

**1.02 QUALITY ASSURANCE**

A. REFERENCES:

1. Sealant, Waterproofing and Restoration Institute (SWRI): Sealant and Caulking Guide Specification.

B. QUALIFICATIONS:

1. General: The manufacturer of the sealant used shall have been in the business of manufacturing the specified types of such sealants for not less than 10 years.
2. Applicator: Installer specializing in the work of this Section with minimum five (5) years documented experience.
3. Volatile Organic Compounds (VOC): Use only products in compliance with VOC content limits required by Federal and State EPA regulations.

- C. COMPATIBILITY WITH SUBSTRATE: Verify that caulking and sealants used are compatible with joint materials.

- D. JOINT TOLERANCES: Comply with manufacturer's joint width/depth ratio limitations.

**1.03 SUBMITTALS**

- A. GENERAL: Refer to Section 01300 – SUBMITTALS.

- B. SAMPLES: Submit manufacturer's standard colors.

- C. PRODUCT DATA: Submit manufacturer's specifications, data, and installation instructions for review.

- D. CERTIFICATES: Submit certification that sealants proposed for uses comply with the Contract Documents.

**1.04 PRODUCT HANDLING**

- A. GENERAL: Refer to Section 01040 – PROJECT COORDINATION.

- B. STORAGE: Per manufacturer's recommendations for proper precautions for shelf life, temperature, humidity and similar storage factors to ensure the fitness of the material when installed.

**1.05 SITE CONDITIONS**

- A. ENVIRONMENTAL REQUIREMENTS: Do not apply materials when temperature is below 40 degrees F, nor under extreme temperature conditions when joint openings are at a maximum or minimum width.

1.06 MAINTENANCE

- A. GENERAL: Refer to Section 01700 – AGREEMENT CLOSEOUT.
- B. GUARANTEE: Provide in required form for a period of five (5) years from date of final acceptance by City.

**PART 2 - PRODUCTS**

2.01 MATERIALS

- A. CAULKING AND SEALANTS:
  - 1. General: Manufactured by Tremco, Inc., unless otherwise noted.
  - 2. Alternate Manufacturers: Comparable products manufactured by the Pecora Chemical Corp., or accepted equal.
  - 3. Color:
    - a. Concealed Joints: Manufacturer's standard color having best overall performance characteristics for indicated application.
    - b. Exposed Joints: Custom color to be selected by City.
- B. EXTERIOR JOINTS:
  - 1. Vertical Surfaces: Non-sag polyurethane; Dymeric.
  - 2. Precompressed Expanding Sealant Tape:
    - a. General: PC-SA manufactured by Emseal Joint Systems, Ltd.
    - b. Alternate Manufacturers: Comparable products manufactured by Pecora Chemical Corp., or accepted equal.
- C. INTERIOR JOINTS: Acrylic Latex.
- D. JOINT CLEANER: Provide cleaner recommended by sealant manufacturer for specific joint surfaces and condition.
- E. JOINT PRIMER AND SEALER: As recommended by sealant manufacturer for each condition.
- F. BOND BREAKER TAPE: Pressure sensitive polyethylene tape.
- G. OTHER MATERIALS: Manufacturer's standard for items required or type best suited for intended use.

**PART 3 – EXECUTION**

3.01 PREPARATION

- A. GENERAL: Refer to Section 01040 – PROJECT COORDINATION.

B. CONDITIONS OF WORK IN PLACE:

1. General: Carefully examines before beginning work; report defects.
2. Substrate: Inspect surfaces to insure that no bond-breaker materials contaminate the surface to which the sealant is to adhere and to ensure that unsound substrates are repaired.

C. PREPARATION OF SURFACES:

1. Surfaces: Prepare joints in accordance with manufacturer's recommended instruction to ensure maximum adhesion. Prime as required, protecting adjacent exposed surfaces.
2. Sealants: Prepare sealant as required, including proper mixing of multicomponent sealants.

3.02 APPLICATION

A. GENERAL: Install in conformance with referenced standards, manufacturer's written directions, as shown, and as specified.

B. PROTECTION: Protect surfaces adjacent to joints to receive sealant. Cover joints in walking surfaces with heavy duty, non-staining tape, until material has dried.

C. INSTALLATION:

1. General: Install sealant materials per manufacturer's instructions. Prevent three-sided adhesion. Provide sealant depth of one half (1/2) joint width; minimum depth of 1/4 inch; maximum of 1/2 inch, unless otherwise required by the manufacturer.
2. Backer Rod: Install using blunt or rounded tools to insure uniform (+ or - 1/8 inch) depth without puncturing material. Use oversize backer rod; minimum of 33% for closed cell type; minimum of 50 percent for open cell type, unless otherwise required by the manufacturer.

3.03 CLEANING

A. GENERAL: Upon completion, thoroughly clean exposed surfaces per manufacturer's instructions. Perform cleaning in a manner that will not affect the appearance of the sealant or the adjacent finish material.

END OF SECTION 07920

**SECTION 16000  
GENERAL ELECTRICAL PROVISIONS**

**PART 1.00 - GENERAL**

**1.01 DESCRIPTION OF WORK**

- A. The requirements of this Section apply to all the work of Division 16 - Electrical.
- B. Provide all labor, materials and services for a complete fire alarm system as described herein.
- C. Any apparatus, appliance, material or work identified in the specifications, or devices and accessories necessary to make the work complete in all respects and ready for operation, even if not particularly specified, shall be furnished and installed by the Contractor without additional expense to the City.
- D. The Contractor shall verify at the job site all required materials and methods necessary to complete the work. Contractor shall provide the required accessories and routing to complete the work at no additional cost to the City. The City reserves the right to make any reasonable changes in equipment location, prior to rough-in without any additional cost to the City. "Reasonable Change" shall be interpreted as including any change up to ten feet from the locations indicated on the Contractor's drawings. Changes shall be approved by the City's Representative prior to execution of work.
- E. Changes of magnitude involving extra cost are not permitted without written approval of the City's Representative.
- F. Wherever a question exists as to the exact intended location of devices or equipment, obtain instructions from the City's Representative before proceeding with the work.
- G. Those items included under this Section of specifications shall include, but not necessarily be limited to the following:
  - 1 Branch circuit wiring for all new and existing devices.
  - 2 Raceway systems for all new wiring to new and existing devices.
  - 3 Connections for all new and existing devices.
  - 4 Programming and connections to the fire alarm control panels.
  - 5 A complete operational Fire Alarm System.

**1.02 RELATED SECTIONS**

- A. Section 16050 - Basic Materials and Methods
- B. Section 16720 - Fire Alarm System

**1.03 QUALITY ASSURANCE**

- A. All work and materials shall conform to the latest editions adopted by the City of Sacramento of the National Fire Protection Association Fire Codes and Standards,

regulations of the California State Fire Marshal, and with applicable Federal, California, and City of Sacramento codes, ordinances and code amendments.

- B. Nothing in these specifications is to be construed to permit work not conforming to the above codes.
- C. The Contractor shall notify the City's Representative of any part of the work believed to be in conflict with these codes and regulations.
- D. If any of the applicable code requirements are in conflict with one another, or with the requirements of these specifications, the most stringent requirement shall govern.
- E. Provide materials listed and labeled by Underwriter's Laboratories, or a nationally recognized testing laboratory acceptable to the City, where listing service is provided for a product.
- F. All materials installed shall be new and shall be shipped to the jobsite in the original manufacturer's containers or bundles.

#### **1.04 WORKMANSHIP**

- A. Good workmanship is paramount and shall be evidenced in the installation of all materials and equipment.
- B. The intent of the project is to conceal all conduit, raceway and devices not required to be exposed, unless not possible or practical to conceal, as determined by the City's Representative. Equipment shall be level, plumb and true with the structure and other equipment. Conduit and raceways shall be run parallel or perpendicular to building lines to assure an aesthetically pleasant building. All materials shall be firmly secured in place and adequately supported.
- C. The requirements of the codes are minimum standards.
- D. The recommendations of the National Electrical Contractors Association "Standard of Installation" shall be followed except where otherwise specifically directed in the contract documents or by required code compliance.

#### **1.05 EXISTING CONDITIONS**

- A. It shall be the responsibility of the Contractor to familiarize themselves with existing conditions during the job pre-bid walk. No allowances shall be made on the Contractor's behalf for any extra expense that is required due to failure or neglect to discover conditions affecting the work.
- B. Information in City specifications relative to existing conditions is approximate. During the progress of construction, deviations found necessary to conform to actual conditions shall be reported to the City's Representative.
- C. Contractor is responsible for any damage the Contractor may cause to existing facilities

and utilities.

**1.06 COORDINATION**

- A. The Contractor shall perform all necessary work to join with or receive work of other trades.
- B. Work shall be coordinated with all trades to provide adequate clearance and eliminate conflicts.

**1.07 ELECTRICAL WORK FOR EQUIPMENT PROVIDED BY OTHERS**

- A. Contractor shall provide all control wiring terminations between new fire alarm devices and existing mechanical and/or electrical equipment, as required. Obtain specific requirements and termination points from the City's Representative to perform the electrical work. Contractor shall assist in testing equipment but responsibility is limited to correctly installing electrical wiring and terminations.

**1.08 ACCESS AND OUTAGES**

- A. Coordinate all outages and cut-overs with the City's Representative.
- B. See Specification 01010 Section 1.03 for outage notification requirements.

**1.09 HOUSEKEEPING AND PROTECTION**

- A. Protect and cover all equipment during construction. Clean and touch up where necessary to remove scars and scratches on all factory painted equipment.
- B. Equipment nameplates bearing descriptive data shall be left clean and unpainted.
- C. Protect all existing building surfaces and utilities during the course of construction.

**1.10 REQUIRED SUBMITTALS**

- A. Submit five copies of manufacturer's descriptive literature and product data sheets of standard electrical products used including wire, cables, raceway, switches, terminals, relays and enclosures.
- B. Submit a drawing detailing the types of surface penetrations to be used for securing conduit, raceway, or boxes, etc, and any special backing to be installed.
- C. Submit a drawing detailing the types of firestopping to be used for penetrations of fire rated walls and floors. Provide the UL or other listing number of the firestopping assembly.
- D. See Section 16720 - Fire Alarm System for specific submittal requirements for the Fire Alarm System.

**1.11 TESTS**

- A. The Contractor shall test all wiring and connections for continuity and grounds Before connecting any fixtures, equipment or devices.

- B. The Contractor shall test the entire system in the presence of the City's Representative when the work is completed to insure that all portions are free from shorts or grounds. All equipment necessary to conduct these tests shall be furnished at the Contractor's expense.

**1.12 INSPECTIONS AND APPROVALS**

- A. The Contractor shall obtain all required certificates of inspection for their work and deliver same to the City before request for acceptance and final payment for the work.
- B. No work shall be concealed until after inspection and approval by the City's Representative. If work is concealed without inspection and approval, the Contractor shall be responsible for all work required to open and restore the concealed areas in addition to all required modifications.
- C. On completion of the entire installation, the approval of the City's Representative and the Sacramento City Fire Marshal shall be secured.

**1.13 AS-BUILT RECORD DRAWINGS**

- A. See Section 16720 - Fire Alarm System for specific As-built Record Drawings requirements for the Fire Alarm System.

**1.14 OPERATION AND MAINTENANCE INSTRUCTIONS**

- A. See Section 16720 - Fire Alarm System for specific Operation and Maintenance Instruction Manual requirements for the Fire Alarm System.

END OF SECTION 16000

**SECTION 16050  
BASIC MATERIALS AND METHODS**

**PART 1.00 - GENERAL**

**1.01 WORK INCLUDED**

- A. Work included in this section: Materials, equipment fabrication, installation and tests in conformity with governing codes and authorities having jurisdiction for the following:

- 1 Raceways
- 2 Wire
- 3 Cable
- 4 Low voltage distribution equipment
- 5 Fire alarm device back boxes
- 6 Inserts and supports

**1.02 RELATED SECTIONS**

- A. Section 16000 - General Electrical Provisions
- B. Section 16720 - Fire Alarm System

**1.03 REFERENCE STANDARDS**

- A. The reference standards are included in Section 16720 - Fire Alarm System.

**1.04 QUALITY ASSURANCE**

- A. Provide materials listed and labeled by Underwriter's Laboratories, or a nationally recognized testing laboratory acceptable to the City, where listing service is provided for a product.
- B. Furnish all equipment and accessories new, free from defects.
- C. Furnish all equipment and accessories in compliance with the applicable standards listed in Section 16720 - Fire Alarm System and with all applicable codes.
- D. All equipment and accessories shall be the product of a manufacturer regularly engaged in its manufacture.
- E. All equipment and accessories of a given type shall be the products of the same manufacturer.

## 1.05 PRODUCT DELIVERY STORAGE AND HANDLING

- A. Equipment shall be shipped in its original packages, to prevent damaging or entrance of foreign matter. All handling and shipping shall be performed in accordance with manufacturer's recommendation. Provide protective coverings during construction.
- B. Replace at no expense to the City, equipment or material damaged during storage, handling or installation, as directed by the City Representative.
- C. All items shall be tagged with a weatherproof tag identifying equipment by name and purchase order number. Packing and shipping lists shall be included.

## PART 2.00 – PRODUCTS

### 2.01 RACEWAYS

- A. Raceways, complete with boxes, fittings, covers, and accessories, concealed in walls, attics and other concealed spaces shall be utilized for all wiring, except where specifically permitted by the City's Representative.
- B. Raceways:
  - 1. All conduits shall be minimum ¾" trade size, except for laterals or drops to no more than two devices. Increase size, as per 2010 California Electrical Code, where required for wiring.
  - 2. Electrical Metallic Tubing (EMT): thinwall pipe, galvanized, threadless conforming to Fed Spec. WW-C-563.
  - 3. Rigid Steel Conduit: steel pipe, galvanized, threaded conforming to Fed. Spec. WW-C-581.
  - 4. Surface metal raceways: thinwall metal; galvanized or ivory powder coated, Wiremold brand V2100 minimum, or equal.
  - 5. Flexible steel conduit: continuous single strip, galvanized. Provide separate copper bonding wire at the exterior of flex to bypass the flexible conduit and attach to EMT portions with cast grounding clamps.
  - 6. Liquidtight Flexible Metallic Conduit: Anaconda Type U.A., Coleman Type Uxtl or equal.
- C. Fittings and Accessories
  - 1. Raceway fittings:
    - a. Insulated throats shall be used for all conduit connections. Insulated bushings shall be used for all conduit ends.
    - b. EMT: galvanized steel compression only; galvanized steel raintight compression fittings for wet or damp locations. As an alternative, compression screw-type with self-locking screws that activate a steel compression ring may be used.
    - c. Rigid Steel Conduit: galvanized steel threaded conforming to Fed. Spec. W-F-408.
    - d. Liquidtight Flexible Metallic Conduit: connector body and gland nut shall be of cadmium plated cast malleable iron, with insulated throat, T & B 5331 series, O.Z./Gedney 4Q-38-IT series, or equal.

- e. Bushings: metallic insulated type. Weatherproof or dust tight installations: liquid-tight with sealing ring and insulated throat.
  - f. Expansion and deflection fittings for  $\frac{3}{4}$ " or less movement: O.Z./Gedney Type "DX", Thomas & Betts, or equal. Use a combination of expansion and deflection fittings if movement in all directions exceeds  $\frac{3}{4}$ "; O.Z./Gedney Type "AX8" and "DX", Thomas & Betts, or equal.
  - g. Surface metal raceway: provide protective bushing at open ends of raceway, Wiremold 202, 502, or 702, no known equal.
2. Seals: Raceways in sleeves, oakum packing and lead or O.Z./Gedney Type WSK, Thomas and Betts, or equal.
3. Acceptable manufacturer for fitting and accessories: Thomas & Betts, Midland-Ross Corp, O.Z./Gedney, or equal.

**D. Boxes**

- 1. Outlet boxes, except as otherwise required by site conditions, devices or wiring:
  - a. Galvanized stamped steel, 4 inches minimum, square.
  - b. Through the wall type not permitted.
  - c. Offset back-to-back outlets with minimum six-inch separation.
  - d. Boxes without device: provide with a galvanized blank cover.
- 2. Junction and pull boxes:
  - a. Galvanized stamped steel, 4 inches minimum, square.
  - b. Covers: screw on.
  - c. Locate where required in accessible area.
  - d. Outdoors and damp locations: galvanized cast iron or stainless steel with threaded hubs and gaskets.

**2.02 WIRE AND CABLE**

A. 300 volt wire and cable, complete with accessories, minimum size #18 AWG.

**B. Conductors**

- 1 Copper wiring, minimum #18 AWG. Aluminum wiring is not allowed.
- 2 Single conductor insulation: Type "THHN" in interior areas or "THWN" in exterior or damp areas.
- 3 Single conductors larger than #12 AWG shall be stranded.
- 5 Multi-conductor cables: Shielded with individual shielded twisted pairs. UL and California State Fire Marshal listed. Belden #5320FL or equal.

**C. Wire Colors**

- 1 Power conductor wiring shall have color coded insulation in accordance with this section.

120 / 208 V:

Phase A Black  
Phase B Red  
Phase C Blue  
Neutral White  
Ground Green

2. 277 / 480 V:  
Phase A Brown  
Phase B Orange  
Phase C Yellow  
Neutral White or gray  
Ground Green

D. Accessories

- 1 Wire markers: Brady, Thomas & Betts, or equal.
2. Terminations:
  - a. Stranded conductors: insulated stake-on connectors or compression type terminal set screws.
  - b. Stranded conductors shall be tinned.
  - c. Wire nuts are not permitted.

- E. Manufacturer: General Cable, Anaconda, Cyprus, or equal.

**2.03 INSERTS AND SUPPORTS**

- A. Maximum loading: 75% of rating.
- B. Inserts:
- 1 Expansion cases and concrete fasteners: Grinnell fig #117 and series R, Thomas and Betts, or equal.
  - 2 Drill concrete to receive expansion cases. Powder-actuated fasteners are not permitted.
- C. Supports from Building Construction: Beam clamps, cantilever brackets, or equal.
- D. Grouped Lines and Services: Support by trapeze hangers of bolted angle or channels.
- E. Where building framing is inadequate, provide additional acceptable framing and backing after review.

**2.04 CIRCUIT BREAKERS**

- A. Circuit breakers shall be UL listed for use in the distribution panel installed.
- B. Circuit breaker for fire alarm panels and devices shall be red in color and shall be equipped with a locking attachment that permits the breaker to be locked in the "on" position.

**2.05 LABELS**

- A. Control panels, power supplies and terminal cabinets shall be identified by an engraved plastic nameplate attached to the outside of the panel with screws.
- B. Electrical distribution panel legends shall be typed with exact locations of the panel fed.
- C. Control panels and power supplies shall have the distribution panel and breaker number identified on the inside of the enclosure door with a typed label.

## **PART 3.00 – EXECUTION**

### **3.01 INSTALLATION GENERAL**

- A. Contractor shall perform all site investigation as required to provide a complete, functioning and code compliant fire alarm system in accordance with the specifications herein. Maintain headroom and space condition at all points.
- B. All minor appurtenance items not specifically mentioned herein that are necessary to make a complete working installation shall be included in the work with any necessary field engineering or detail drawings necessary.
- C. Set and layout work on premises. Base all measurements from approved benchmarks and correct setting or work to agree with actual measurements.
- D. Install equipment, rigid and secure, plumb and level, and in true alignment with related and adjoining work. No welding of electrical materials for attachment or support is permitted.
- E. Provide supporting members as required to set and rigidly connect the work.
- F. Do not obstruct spaces required by code in front of electrical equipment, in hallways or stairwells. Do not block equipment access doors.
- G. Provide suitable fittings to accommodate expansion and deflection where conduit crosses seismic and expansion joints.
- H. Penetrations of existing concrete floors or walls shall be x-rayed or scanned by the Contractor prior to coring to identify all existing reinforcing steel, embedded conduits, piping or other utilities. Notify the City Representative 72 hrs. in advance of any coring to be performed. All coring shall be performed before 9 a.m. on weekdays, unless approved in writing in advance by the City Representative.
- I. Correct noise and vibration exceeding manufacturer's specified limits or due to faulty equipment at no expense to the City.
- J. All fire alarm junction box covers shall be painted red and labeled "fire alarm" or "FA" in contrasting colored letters for distinct identification, and all fire alarm conduit couplings installed in unfinished areas and above suspended ceilings shall be painted red.
- K. All penetrations of fire-rated walls and floors shall be firestopped with a listed assembly equal to the fire-rating of the wall or floor.
- L. Interruption of Services
  - 1 Before making any high voltage connections, notify City Representative in writing at least two weeks in advance. Such work shall be performed at such times as designated by the City.
  - 2 Before making any low voltage connections that require power interruption to existing facilities, notify City Representative in writing at least seven (7) days in advance.

### 3.02 INSTALLATION OF RACEWAYS

- A. Raceways shall be run concealed, except as noted. Install raceways as follows:
- 1 Branch circuit conduits to be concealed in walls or ceiling shall be run using EMT. Run raceways in walls vertically.
  - 2 Branch circuits exposed indoors in finished areas shall be field routed using metallic Surface raceway, as directed by the City Representative. Paint to match adjoining wall surfaces. Route surface metal raceways in corner of ceilings and/or walls to minimize visual impact, unless specifically approved prior to installation by the City Representative.
  - 3 Branch circuits exposed indoors in unfinished areas shall be field routed using EMT in areas more than five feet above floor, and using rigid steel conduit in areas less than five feet above floor, as directed by the City Representative. Paint to match adjoining wall surfaces. Route exposed raceways in corner of ceilings and/or walls to minimize visual impact, unless specifically approved prior to installation by the City Representative.
  - 4 Branch circuits exposed above grade outdoors shall be field routed using galvanized rigid steel weathertight conduit, as directed by the City Representative. Paint to match adjoining wall surfaces.
  - 5 Liquidtight Metallic Conduit: In damp and wet locations for connections to all waterflow switches, valve supervisory switches, and motor controllers, all connections shall be made using liquidtight metallic conduit.
- B. Raceway supports shall be as follows:
- 1 Raceway bracing: Comply with Section 16000 - General Electrical Provisions.
  - 2 Ceiling trapeze, strap hangers, or wall brackets.
  - 3 U-bolt or pipe straps at each floor level for risers.
  - 4 Raceways shall be secured to support with approved pipe straps, clamps or u-bolts.
  - 5 Spacing shall be a maximum of ten-foot centers for vertical runs of metallic conduit and five-foot centers for horizontal runs.
  - 6 Additional supports shall be provided within thirty-six inches on both sides of boxes and fittings.
  - 7 Surface raceway shall be secured at 2'-0" intervals with wood screws into wooden framing, or molly bolts into gypsum wallboard, or plastic inserts with pre-assembled drive screw for concrete (ITT-HOLUB "HI-DRIVE" Nail Anchors, no known equal).
  8. Supports shall be mounted to the structure with:
    - a. expansion shields or inserts in concrete
    - b. machine screws on metal
    - c. wood screws on wooden construction
    - d. nails, raw plugs or wood plugs shall not be permitted
  9. Perform pull out test on expansion shields or inserts in concrete:
    - a. test minimum of 50% of total quantity installed
    - b. test to 50 pounds force
    - c. if more than 15% of tested samples fail, test 100% installed
  10. Powder driver anchors are not acceptable.
  11. All penetrations and methods of fastening raceways shall be submitted to and approved by the City Representative.
- C. Raceways shall not be supported by any of the following means, but shall be separately supported by the building structure.
- 1 Conduits shall not be supported by cady clips on suspended ceiling grid support wires, or directly on lay-in ceiling tiles or grids.

- 2 Conduits shall not be supported from lay-in light fixtures or HVAC air diffusers seismic bracing wires.
  - 3 Conduits shall not be supported from other raceways.
  - 4 Conduits shall not be supported from HVAC ductwork.
  - 5 Conduits shall not be supported from any seismic bracing wires.
- D. Raceways shall not be attached to machinery or equipment (i.e. conveyors, air ducts) except at point of service to devices.
- E. All ends of raceways shall be cut square and reamed.
- F. All raceways shall be run parallel with or at right angles to walls and building members.
- G. All conduits penetrating roofs shall be provided with flashing collars sealed to conduits and counter-flashed with roofing material.
- H. Raceway penetrations of air plenums shall be completely sealed.
- I. Raceways shall not penetrate or pass through air ducts.
- J. Clearance from water, steam or other piping with surface temperatures exceeding 104 degrees F: Minimum 3" separation from hot water pipes, except 4" from pipe cover at crossing of lines. Increase separation to 12" for uninsulated steam or hot water pipes and 6" at crossings. Run conduits below such lines.
- K. Keep raceways clear of motor foundations and underside of boilers.
- L. Maintain grounding continuity of interrupted metallic raceways with ground conductor.
- M. Conduit shall be bent with approved standard bending equipment.
- N. Flexible conduit length: Minimum of four feet, maximum of six feet.
- O. Set outlet and pull boxes square and true with building finish and secure to building structure by adjustable strap irons.
- P. Support outlet and pull boxes separate from conduit. Provide separate support/backing for manual pull station back boxes and electromagnetic door holder boxes installed on gypsum wallboard or plaster walls. Backing shall consist of 5/8" or 3/4" finished grade plywood, a minimum of 8" clear around all sides of device back box, with plastic edge guard around edges, and painted to match the adjacent wall surface.

### 3.03 INSTALLATION OF WIRE AND CABLE

- A. All conductors shall be installed in raceways.
- B. Not more than three circuits in one conduit unless otherwise indicated.
- C. Pull no thermoplastic wires at temperatures lower than 32 degrees F.
- D. Maximum conduit fill shall be 30%.

- E. Provide wire markers on all conductors.
- F. Conductors shall be continuous from device terminal to device terminal with no splices.
- G. All splices shall be made using terminal strips in terminal cabinets.
- H. Shielded cable shields shall be spliced together with an insulated drain wire at each device to provide a continuous shield from the control panel to the last device.

**3.04 FIELD TESTS**

- A. The Contractor shall perform field tests in the presence of the City Representative, except as otherwise specified. Provide required labor, materials, equipment, and connections to perform tests, document results and submit them to the City Representative for approval. Repair or replace all defective work.

**3.05 CLEANING**

- A. The Contractor shall brush and clean work prior to concealing, painting, and acceptance. Perform in stages if directed.
- B. The Contractor shall clean and repair soiled or damaged exposed work and match adjacent surfaces before acceptance.
- C. The Contractor shall remove debris from inside of material, equipment and structures.

END OF SECTION

## PART 1 – GENERAL

### 1.1. SUMMARY

- A. This Section covers fire alarm systems, including initiating devices, notification appliances, controls, and supervisory devices. The Fire Alarm Control Panel and supporting hardware described in this specification are those supplied by SimplexGrinnell and are Owner-furnished.
- B. Contractor shall provide all labor and materials for installation of the fire alarm system as indicated on the drawings and specifications.
- C. The Fire Alarm System consists of all necessary hardware equipment and software programming as furnished by SimplexGrinnell to perform the following functions:
  - 1. Fire alarm system detection and notification operations.
  - 2. Control and monitoring of elevators, fire suppression systems, computer room pre-action system, emergency power systems and other equipment as indicated in plans and specifications.

### 1.2. SCOPE OF WORK

- A. Provide all labor and materials to install, commission and test a complete and operational Fire Alarm System for the City Hall Garage as described in the plans and specifications. Provide system training as required in project specifications. Contractor shall contact Simplex Grinnell (Mike Hopkins) (916) 752-5473 for manufacturer's support for installation, commissioning, testing and training. Fire alarm system equipment as identified on drawings and specifications will be furnished by SimplexGrinnell. All labor and materials required to install the specified equipment shall be provided by the installing contractor.

### 1.3. RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this section.
- B. The work covered by this section is to be coordinated with related work as specified elsewhere in the specifications. Requirements of the following sections apply:
  - 1. Division 16 Section 16000: "General Electrical Provisions"
  - 2. Division 16 Section 16050: " Basic Materials and Methods."
  - 3. Division 1
  - 4. Divisions 2 through 14
  - 5. Contract Appendices I and II
- C. The system and all associated operations shall be in accordance with the following:
  - 1. Requirements of the following California Building Code: CBC, 2010 Edition
  - 2. Requirements of the following California Fire Code: CFC, 2010 Edition
  - 3. Requirements of the following California Mechanical Code: CMC, 2010 Edition
  - 4. NFPA 72, National Fire Alarm Code, 2010 Edition
  - 5. NFPA 70, National Electrical Code, 2011 Edition

6. NFPA 101, Life Safety Code, 2009 Edition
7. NFPA 90A, Standard for the Installation of Air Conditioning and Ventilating Systems, 2009 Edition
8. Local Jurisdictional Adopted Codes and Standards, including City of Sacramento Fire Code Amendments
9. ADA Accessibility Guidelines

#### 1.4. SUBMITTALS

- A. General: Submit the following according to Conditions of Contract and Division 1 Specification Sections.
  1. Product certification signed by the manufacturer of the fire alarm system components certifying that their products comply with indicated requirements.
  2. Record of field tests of system.

#### 1.5. QUALITY ASSURANCE

- A. Installer Qualifications: A factory authorized installer is to perform the work of this section.
- B. Each and every item of the Fire Alarm System shall be listed under the appropriate category by Underwriters Laboratories, Inc. (UL), and shall bear the "UL" label.

#### 1.6. MAINTENANCE SERVICE

- A. Maintenance Service Contract: Provide maintenance of fire alarm systems and equipment for a period of 12 months, using factory-authorized service representatives.
- B. Basic Services: Systematic, routine maintenance visits on a quarterly basis at times scheduled with the Owner. In addition, respond to service calls within 24 hours of notification of system trouble. Adjust and replace defective parts and components with original manufacturer's replacement parts, components, and supplies.
- C. Additional Services: Perform services within the above 12-month period not classified as routine maintenance or as warranty work when authorized in writing. Compensation for additional services must be agreed upon in writing prior to performing services.
- D. Renewal of Maintenance Service Contract: No later than 60 days prior to the expiration of the maintenance services contract, deliver to the Owner a proposal to provide contract maintenance and repair services for an additional one-year term. Owner will be under no obligation to accept maintenance service contract renewal proposal.

#### 1.7. EXTRA MATERIALS

- A. General: Furnish extra materials, packaged with protective covering for storage, and identified with labels clearly describing contents as follows:
  1. Notification Appliances: Furnish quantity equal to 10 percent of each type and number of units installed, but not less than one of each type.
  2. Smoke Detectors or Sensors: Furnish quantity equal to 10 percent of each type and number of units installed but not less than one of each type.
  3. Detector or Sensor Bases: Furnish quantity equal to 2 percent of each type and number of units installed but not less than one of each type.

PART 2 – PRODUCTS

2.1. FIRE ALARM CONTROL PANEL (FACP)

- A. Equipment listed in Sections 2.1 through 2.10 will be Owner-provided and furnished to the Contractor by SimplexGrinnell. All other materials required for a complete and operational fire alarm system shall be provided by the Contractor.**
- B. General: Comply with UL 864, "Control Units and Accessories for Fire Alarm Systems".**
- C. The following FACP hardware shall be provided:**
1. 2,000 point capacity where (1) point equals (1) monitor (input) or (1) control (output).
  2. 2,000 points of Network Annunciation at FACP Display when applied as a Network Node.
  3. 2000 points of annunciation where one (1) point of annunciation equals:
    - a) 1 LED driver output on a graphic driver or 1 switch input on a graphic switch input module.
    - b) 1 LED on panel or 1 switch on panel.
  4. From all battery charging circuits in the system provide battery voltage and ammeter readouts on the FACP LCD Display.
  5. Municipal City Circuit Connection with Disconnect switch, 24VDC Remote Station (reverse polarity), local energy, shunt master box, or a form "C" contact output.
  6. One Auxiliary electronically resettable fused 2A @24VDC Output, with programmable disconnect operation for 4-wire detector reset.
  7. One Auxiliary Relay, SPDT 2A @32VDC, programmable as a trouble relay, either as normally energized or de-energized, or as an auxiliary control.
  8. Three (3) Class B or A (Style Y/Z) Notification Appliance Circuits (NAC; rated 3A@24VDC, resistive).
  9. Where required provide Intelligent Remote Battery Charger for charging up to 110Ah batteries.
  10. Power Supplies with integral intelligent Notification Appliance Circuit Class B for system expansion.
  11. Four (4) form "C" Auxiliary Relay Circuits (Form C contacts rated 2A @ 24VDC, resistive), operation is programmable for trouble, alarm, supervisory of other fire response functions. Relays shall be capable of switching up to ½ A @ 120VAC, inductive.
  12. The FACP shall support up to (5) RS-232-C ports and one service port. All (5) RS-232 Ports shall be capable of two-way communications.
  13. Remote Unit Interface: supervised serial communication channel for control and monitoring of remotely located annunciators and I/O panels.
  14. Programmable DACT for either Common Event Reporting or per Point Reporting.
  15. Service Port Modem for dial in passcode access to all fire control panel information.

- D. Cabinet: Lockable steel enclosure. Arrange unit so all operations required for testing or for normal care and maintenance of the system are performed from the front of the enclosure. If more than a single unit is required to form a complete control unit, provide exactly matching modular unit enclosures.
- E. Alphanumeric Display and System Controls: Panel shall include an 80 character LCD display to indicate alarm, supervisory, and component status messages and shall include a keypad for use in entering and executing control commands.
  - 1. The system shall have the capability to provide expanded content, multi-line, operator interface displays as indicated on the drawings and specifications. The expanded content multi-line displays shall be Quarter-VGA (QVGA) or larger and be capable of supporting a minimum of 854 standard ASCII characters to minimize or eliminate the levels of navigation required for access to information when responding to critical emergencies and abnormal system conditions. The QVGA operator interface shall provide operator prompts and six context sensitive soft-keys for intuitive operation.
    - a) Expanded content, multi-line operator interfaces shall be capable of providing the following functions:
      - (a) Dual language operation with Instant-Switch language selection during runtime.
      - (b) Activity display choices for:
        - (i) First 8 Events.
        - (ii) First 5 Events and Most Recent Event (with first and most recent event time and date stamps).
        - (iii) First Event and Most Recent Event (with first and most recent event time and date stamps).
        - (iv) Scrollable List Display displays a scrollable list of active points for the event category (alarm, priority 2, supervisory, or trouble) selected. The position in this list will be the last acknowledged point (not flashing) at the top followed by the next 7 unacknowledged points (flashing).
        - (v) General Event Status (alarm, priority 2, supervisory, or trouble in system)
        - (vi) Site Plan
      - (c) Equal or hierarchal priority assignment. In systems with two or more operator interfaces, each operator interface shall be programmable to allow multiple operator interfaces to have equal operation priority or to allow hierarchal priority control to be assigned to individual operator interfaces (locations).
      - (d) Up to 50 custom point detail messages for providing additional point specific information in detailed point status

screens.

- b) Expanded content, multi-line displays shall have the capability to provide Dual-Language operation as indicated on the drawings and specifications.

(a) Language selection shall be via a switch on the operator interface panel. Operator interface panels shall support instant-language-switchover during runtime to allow the operator to toggle between languages each time the language selection switch is operated, without requiring complicated multi-step processes.

(b) Both one-byte and two-byte characters shall be supported.

## 2.2. REMOTE CRTS, PC ANNUNCIATOR AND PRINTERS

- A. Fire Alarm Control Unit shall be capable of operating remote CRT's and/or printers; output shall be ASCII from an RS-232-C connection with an adjustable baud rate.
- B. Fire Alarm Control Unit shall be capable of operating an Agency Listed PC Annunciator Client/Server which provides status annunciation and limited system control using a convenient and familiar Microsoft Vista Business operating system based interface. Other compatible Operating Systems shall include Microsoft XP Professional and Windows® 2000 Professional. The PC Annunciator Client/Server shall provide the following functions:
1. Login/logout password protection with time duration selectable automatic logout.
  2. Display Alarm, Supervisory, Priority 2, and Trouble conditions with numerical tallies for each.
  3. Display first and last alarms.
  4. Different event types have separate visible indicators with a common audible indicator.
  5. Event logs can be searched and printed.
  6. View and/or print TrueAlarm status reports and service reports (printing requires an available local or network printer).
  7. Alarm Silence; System Reset; and Priority 2 Reset.
  8. Global and individual point acknowledge.
  9. Set system time and date and clear event log.
  10. Individual point access for control or parameter revisions.
  11. WALKTEST system test is supported for service convenience.
  12. Up to (8) Simultaneous Client connections shall be supported by the PC Annunciator Server. Remote Clients shall be capable of connecting to the PC Annunciator Server via Ethernet LAN/WAN connections.
- C. Each RS-232-C port shall be capable of supporting and supervising a remote Printer; the FACP shall support as many as two (2) remote displays. The Fire Alarm Control Panel shall support five (5) RS-232-C ports.

## 2.3. REMOTE LCD ANNUNCIATOR

- A. Provide a remote LCD Annunciator, where required, with the same "look and feel"

as the FACP operator interface. The Remote LCD Annunciator shall use the same Primary Acknowledge, Silence, and Reset Keys; Status LEDs and LCD Display as the FACP.

- B. Annunciator shall have super-twist LCD display with two lines of 40 characters each. Annunciator shall be provided with four (4) programmable control switches and associated LEDs.
- C. Under normal conditions the LCD shall display a "SYSTEM IS NORMAL" message and the current time and date.
- D. Should an abnormal condition be detected the appropriate LED (Alarm, Supervisory or Trouble) shall flash. The unit audible signal shall pulse for alarm conditions and sound steady for trouble and supervisory conditions.
- E. The LCD shall display the following information relative to the abnormal condition of a point in the system:
  - 1. 40 character custom location label.
  - 2. Type of device (e.g., smoke, pull station, waterflow).
  - 3. Point status (e.g., alarm, trouble).
- F. Operator keys shall be key switch enabled to prevent unauthorized use. The key shall only be removable in the disabled position. Acknowledge, Silence and Reset operation shall be the same as the FACP.

#### 2.4. EMERGENCY POWER SUPPLY

- A. General: Components include battery, charger, and an automatic transfer switch.
- B. Battery: Sealed lead-acid or nickel cadmium type. Provide sufficient capacity to operate the complete alarm system in normal or supervisory (non-alarm) mode for a period of 24 hours. Following this period of operation on battery power, the battery shall have sufficient capacity to operate all components of the system, including all alarm notification devices in alarm mode for a period of 5 minutes.

#### 2.5. ADDRESSABLE MANUAL PULL STATIONS

- A. Description: Addressable single- or double-action type, red LEXAN, with molded, raised-letter operating instructions of contrasting color. Station will mechanically latch upon operation and remain so until manually reset by opening with a key common with the control units.
- B. Protective Shield: Where required, as indicated on the drawings, provide a tamperproof, clear LEXAN shield and red frame that easily fits over manual pull stations. When shield is lifted to gain access to the station, a battery powered piercing warning horn shall be activated. The horn shall be silenced by lowering and realigning the shield. The horn shall provide 85dB at 10 feet and shall be powered by a 9 VDC battery.

#### 2.6. SMOKE SENSORS

- A. General: Comply with UL 268, "Smoke Detectors for Fire Protective Signaling Systems." Include the following features:
  - 1. Factory Nameplate: Serial number and type identification.
  - 2. Operating Voltage: 24 VDC, nominal.
  - 3. Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore normal operation.
  - 4. Plug-In Arrangement: Sensor and associated electronic components are

- mounted in a module that connects to a fixed base with a twist-locking plug connection. Base shall provide break-off plastic tab that can be removed to engage the head/base locking mechanism. No special tools shall be required to remove head once it has been locked. Removal of the detector head shall interrupt the supervisory circuit of the fire alarm detection loop and cause a trouble signal at the control unit.
5. Each sensor base shall contain an LED that will flash each time it is scanned by the Control Unit (once every 4 seconds). In alarm condition, the sensor base LED shall be on steady.
  6. Each sensor base shall contain a magnetically actuated test switch to provide for easy alarm testing at the sensor location.
  7. Each sensor shall be scanned by the Control Unit for its type identification to prevent inadvertent substitution of another sensor type. Upon detection of a "wrong device", the control unit shall operate with the installed device at the default alarm settings for that sensor; 2.5% obscuration for photoelectric sensor, 135-deg F and 15-deg F rate-of-rise for the heat sensor, but shall indicate a "Wrong Device" trouble condition.
  8. The sensor's electronics shall be immune from nuisance alarms caused by EMI and RFI.
  9. Sensors include a communication transmitter and receiver in the mounting base having a unique identification and capability for status reporting to the FACP. Sensor address shall be located in base to eliminate false addressing when replacing sensors.
  10. Removal of the sensor head for cleaning shall not require the setting of addresses.
- B. Type: Smoke sensors shall be of the photoelectric or combination photoelectric / heat type.
- C. Bases: Relay output, sounder and isolator bases shall be supported alternatives to the standard base.
- D. Duct Smoke Sensor: Photoelectric type, with sampling tube of design and dimensions as recommended by the manufacturer for the specific duct size and installation conditions where applied. Sensor includes relay as required for fan shutdown.
1. Environmental compensation, programmable sensitivity settings, status testing, and monitoring of sensor dirt accumulation for the duct smoke sensor shall be provided by the FACP.
  2. The Duct Housing shall provide a supervised relay driver circuit for driving up to 15 relays with a single "Form C" contact rated at 7A@ 28VDC or 10A@ 120VAC. This auxiliary relay output shall be fully programmable. Relay shall be mounted within 3 feet of HVAC control circuit.
  3. Duct Housing shall provide a relay control trouble indicator Yellow LED.
  4. Duct Housing shall have a transparent cover to monitor for the presence of smoke. Cover shall secure to housing by means of four (4) captive fastening screws.
  5. Duct Housing shall provide two (2) Test Ports for measuring airflow and for testing. These ports will allow aerosol injection in order to test the activation of the duct smoke sensor.
  6. Duct Housing shall provide a magnetic test area and Red sensor status LED.

7. For maintenance purposes, it shall be possible to clean the duct housing sampling tubes by accessing them through the duct housing front cover.
8. Each duct smoke sensor shall have a Remote Test Station with an alarm LED and test switch.
9. Where indicated provide a NEMA 4X weatherproof duct housing enclosure that shall provide for the circulation of conditioned air around the internally mounted addressable duct sensor housing to maintain the sensor housing at its rated temperature range. The housing shall be UL Listed to Standard 268A.

## 2.7. HEAT SENSORS

- A. Thermal Sensor: Combination fixed-temperature and rate-of-rise unit with plug-in base and alarm indication lamp; 135-deg F fixed-temperature setting except as indicated.
- B. Thermal sensor shall be of the epoxy encapsulated electronic design. It shall be thermistor-based, rate-compensated, self-restoring and shall not be affected by thermal lag.
- C. Sensor fixed temperature sensing shall be independent of rate-of-rise sensing and programmable to operate at 135-deg F or 155-deg F. Sensor rate-of-rise temperature detection shall be selectable at the FACP for either 15-deg F or 20-deg F per minute.
- D. Sensor shall have the capability to be programmed as a utility monitoring device to monitor for temperature extremes in the range from 32-deg F to 155-deg F.

## 2.8. ADDRESSABLE CIRCUIT INTERFACE MODULES

- A. Addressable Circuit Interface Modules: Arrange to monitor or control one or more system components that are not otherwise equipped for addressable communication. Modules shall be used for monitoring of waterflow, valve tamper, non-addressable devices, and for control of AHU systems.
- B. Addressable Circuit Interface Modules will be capable of mounting in a standard electric outlet box. Modules will include cover plates to allow surface or flush mounting. Modules will receive their operating power from the signaling line circuit or a separate two wire pair running from an appropriate power supply, as required.
- C. There shall be the following types of modules:
  1. Type 1: Monitor Circuit Interface Module:
    - a) For conventional 2-wire smoke detector and/or contact device monitoring with Class B or Class A wiring supervision. The supervision of the zone wiring will be Class B. This module will communicate status (normal, alarm, trouble) to the FACP.
    - b) For conventional 4-wire smoke detector with Class B wiring supervision. The module will provide detector reset capability and over-current power protection for the 4-wire detector. This module will communicate status (normal, alarm, trouble) to the FACP.
  2. Type 2: Line Powered Monitor Circuit Interface Module
    - a) This type of module is an individually addressable module that has both its power and its communications supplied by the two wire signaling line circuit. It provides location specific addressability to an initiating device by monitoring normally open dry contacts. This module shall have the capability of communicating four zone status conditions (normal, alarm, current limited, trouble) to the FACP.

- b) This module shall provide location specific addressability for up to five initiating devices by monitoring normally closed or normally open dry contact security devices. The module shall communicate four zone status conditions (open, normal, abnormal, and short). The two-wire signaling line circuit shall supply power and communications to the module.

3. Type 3: Single Address Multi-Point Interface Modules

- a) This multipoint module shall provide location specific addressability for four initiating circuits and control two output relays from a single address. Inputs shall provide supervised monitoring of normally open, dry contacts and be capable of communicating four zone status conditions (normal, open, current limited, and short). The input circuits and output relay operation shall be controlled independently and disabled separately.
- b) This dual point module shall provide a supervised multi-state input and a relay output, using a single address. The input shall provide supervised monitoring of two normally open, dry contacts with a single point and be capable of communicating four zone status conditions (normal, open, current limited, and short). The two-wire signaling line circuit shall supply power and communications to the module.
- c) This dual point module shall monitor an unsupervised normally open, dry contact with one point and control an output relay with the other point, using a single address. The two-wire signaling line circuit shall supply power and communications to the module.

4. Type 4: Line Powered Control Circuit Interface Module

- a) This module shall provide control and status tracking of a Form "C" contact. The two-wire signaling line circuit shall supply power and communications to the module.

5. Type 5: 4-20 mA Analog Monitor Circuit Interface Module

- a) This module shall communicate the status of a compatible 4-20 mA sensor to the FACP. The FACP shall annunciate up to three threshold levels, each with custom action message; display and archive actual sensor analog levels; and permit sensor calibration date recording.

- D. All Circuit Interface Modules shall be supervised and uniquely identified by the control unit. Module identification shall be transmitted to the control unit for processing according to the program instructions. Modules shall have an on-board LED to provide an indication that the module is powered and communicating with the FACP. The LEDs shall provide a troubleshooting aid since the LED blinks on poll whenever the peripheral is powered and communicating.

2.9. STANDARD ALARM NOTIFICATION APPLIANCES

- A. Horn: Piezoelectric type horn shall be listed to UL 464. The horn shall have a minimum sound pressure level of 85 dBA @ 24VDC. The horn shall mount directly to a standard single gang, double gang or 4" square electrical box, without the use of special adapter or trim rings.
- B. Visible/Only: Strobe shall be listed to UL 1971. The V/O shall consist of a xenon flash tube and associated lens/reflector system. The V/O enclosure shall mount directly to standard single gang, double gang or 4" square electrical box, without

the use of special adapters or trim rings. V/O appliances shall be provided with different minimum flash intensities of 15cd, 75cd and 110cd. Provide a label inside the strobe lens to indicate the listed candela rating of the specific Visible/Only appliance.

- C. Audible/Visible: Combination Audible/Visible (A/V) Notification Appliances shall be listed to UL 1971 and UL 464. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. Provide a label inside the strobe lens to indicate the listed candela rating of the specific strobe. The horn shall have a minimum sound pressure level of 85 dBA @ 24VDC. The audible/visible enclosure shall mount directly to standard single gang, double gang or 4" square electrical box, without the use of special adapters or trim rings.
- D. Speaker/Visible: Combination Speaker/Visible (S/V) units combine the speaker and visible functions into a common housing. The S/V shall be listed to UL 1971 and UL 1480.
  - 1. Twisted/shielded wire is required for speaker connections on a standard 25VRMS or 70.7VRMS NAC.
  - 2. The following taps are available: 0.25W, 0.50W, 1.0W and 2.0W. At the 1.0W tap, the speaker has minimum UL rated sound pressure level of 84dBA at 10 feet.
  - 3. The S/V shall have a frequency response of 400 to 4000 Hz for Fire Alarm and 125 to 12kHz for General Signaling.
  - 4. The S/V installs directly to a 4" square, 1 1/2" deep electrical box with 1 1/2" extension.
- E. Speaker: Speaker notification appliances shall be listed to UL 1480.
  - 1. The speaker shall operate on a standard 25VRMS or 70.7VRMS NAC using twisted / shielded wire.
  - 2. The following taps are available: 0.25W, 0.50W, 1.0W and 2.0W. At the 1.0W tap, the speaker has minimum UL rated sound pressure level of 84dBA at 10 feet.
  - 3. The S/V shall have a frequency response of 400 to 4000 Hz for Fire Alarm and 125 to 12kHz for general signaling.
  - 4. The S/V installs directly to a 4" square, 1 1/2" deep electrical box with 1 1/2" extension.
- F. Notification Appliance Circuit provides synchronization of strobes at a rate of 1Hz and operates horns with a Temporal Code Pattern operation. The circuit shall provide the capability to silence the audible signals, while the strobes continue to flash, over a single pair of wires. The capability to synchronize multiple notification appliance circuits shall be provided.
- G. Accessories: The contractor shall furnish any necessary accessories.

#### 2.10. NAC Power Extender

- A. The IDNet NAC Power Extender panel shall be a stand-alone panel capable of powering a minimum of 4 notification appliance circuits. Notification appliance circuits shall be Class B, Style Y rated at 2 amps each. Panel shall provide capability to be expanded to 8 notification appliance circuits.
- B. The internal power supply & battery charger shall be capable of charging up 12.7 Ah batteries internally mounted or 18Ah batteries mounted in an external cabinet.
- C. The NAC extender panel may be mounted close to the host control panel or can be

remotely located. The IDNET Addressable NAC Extender Panel when connected to an addressable panel shall connect to the host panel via an IDNet communications channel. Via the IDNET channel each output NAC can be individually controlled for general alarm or selective area notification.

- D. For IDNet connected NAC extender panels up to five panels can be connected on a single IDNet channel.
- E. When connected to a conventional (non-addressable panel) one or two standard notification appliance circuits from the main control panel may be used to activate all the circuits on the NAC power extender panel.
- F. Alarms from the host fire alarm control panel shall signal the NAC power extender panel to activate. The panel shall monitor itself and each of its NACs for trouble conditions and shall report trouble conditions to the host panel.

### PART 3 – EXECUTION

#### 3.1. INSTALLATION, GENERAL

- A. Install system components and all associated devices in accordance with applicable NFPA Standards and manufacturer's recommendations.
- B. Installation personnel shall be supervised by persons who are qualified and experienced in the installation, inspection, and testing of fire alarm systems. Examples of qualified personnel shall include, but not be limited to, the following:
  - 1. Factory trained and certified personnel.
  - 2. National Institute of Certification in Engineering Technologies (NICET) fire alarm level II certified personnel.
  - 3. Personnel licensed or certified by state or local authority.

#### 3.2. EQUIPMENT INSTALLATION

- A. Install a complete Fire Alarm System as described herein and as shown on the plans. Include sufficient control unit(s), annunciator(s), manual stations, automatic fire detectors, smoke detectors, audible and visible notification appliances, wiring, terminations, electrical boxes, and all other necessary material for a complete operating system as per plans and specifications.
- B. Existing Fire Alarm Equipment shall be maintained fully operational until the new equipment has been tested and accepted.
- C. Equipment Removal: After acceptance of the new fire alarm system, disconnect and remove the existing fire alarm equipment and restore damaged surfaces. Package fire alarm and detection equipment that has been removed and deliver to the Owner as directed. At the Owner's discretion, remove from the site and legally dispose of the existing material in accordance with Appendix II, City of Sacramento Construction & Demolition Debris Recycling Ordinance.
- D. Water-Flow and Valve Supervisory Switches: Connect for each sprinkler valve required to be supervised.
- E. Device Location-Indicating Lights: Locate in the public space immediately adjacent to the device they monitor.
- F. Install manual station with operating handle 48 inches (1.22 m) above floor. Install wall mounted audible and visual notification appliances not less than 80 inches (2.03 m) above floor to bottom of lens and not greater than 96 inches (2.44 m) above floor to bottom of lens.
- G. Mount outlet box for electric door holder to withstand 80 pounds pulling force.

H. Make conduit and wiring connections to door release devices, sprinkler flow switches, sprinkler valve tamper switches, duct smoke detectors.

I. Automatic Detector Installation: Conform to NFPA 72.

### 3.3. PREPARATION

A. Coordinate work of this Section with other affected work .

### 3.4. WIRING INSTALLATION

A. System Wiring: Wire and cable shall be a type listed for its intended use by an approval agency acceptable to the Authority Having Jurisdiction and shall be installed in accordance with the appropriate articles from the current approved edition of NFPA 70: National Electric Code (NEC).

B. Contractor shall obtain from the Fire Alarm System Manufacturer written instruction regarding the appropriate wire/cable to be used for this installation. No deviation from the written instruction shall be made by the Contractor without the prior written approval of the Fire Alarm System Manufacturer.

C. Color Coding: Color-code fire alarm conductors differently from the normal building power wiring. Use one color code for alarm initiating device circuits wiring and a different color code for supervisory circuits. Color-code notification appliance circuits differently from alarm-initiating circuits. Paint fire alarm system junction boxes and covers red.

D. Fire Alarm Control Panel

### 3.5. FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Provide services of a factory-authorized service representative to supervise the field assembly and connection of components and the pretesting, testing, and adjustment of the system.

B. Service personnel shall be qualified and experienced in the inspection, testing, and maintenance of fire alarm systems. Examples of qualified personnel shall be permitted to include, but shall not be limited to, individuals with the following qualifications:

1. Factory trained and certified.
2. National Institute for Certification in Engineering Technologies (NICET) fire alarm certified.
3. International Municipal Signal Association (IMSA) fire alarm certified.
4. Certified by a state or local authority.
5. Trained and qualified personnel employed by an organization listed by a national testing laboratory for the servicing of fire alarm systems.

C. Pretesting: Determine, through pretesting, the conformance of the system to the requirements of the Drawings and Specifications. Correct deficiencies observed in pretesting. Replace malfunctioning devices and equipment.

D. Inspection:

1. Inspect equipment installation, interconnection with system devices, mounting locations, and mounting methods.
2. Verify that units and controls are properly installed, connected, and labeled and that interconnecting wires and terminals are identified.

- E. Acceptance Operational Tests:
  - 1. Perform operational system tests to verify conformance with specifications:
    - a) Each alarm initiating device installed shall be operationally tested. Each device shall be tested for alarm and trouble conditions. Contractor shall submit a written certification that the Fire Alarm System installation is complete including all punch-list items. Test battery operated emergency power supply. Test emergency power supply to minimum durations specified. Test Supervising Station Signal Transmitter. Coordinate testing with Supervising Station monitoring firm/entity.
    - b) Test each Notification Appliance installed for proper operation. Submit written report indicating sound pressure levels at specified distances.
    - c) Test Fire Alarm Control Panel and Remote Annunciator.
  - 2. Provide minimum 10 days notice of acceptance test performance schedule to Owner, and local Authority Having Jurisdiction.
- F. Retesting: Correct deficiencies indicated by tests and completely retest work affected by such deficiencies. Verify by the system test that the total system meets the Specifications and complies with applicable standards.
- G. Report of Tests and Inspections: Provide a written record of inspections, tests, and detailed test results in the form of a test log. Use NFPA 72 Forms for documentation.
- H. Final Test, Record of Completion, and Certificate of Occupancy:
  - 1. Test the system as required by the Authority Having Jurisdiction in order to obtain a certificate of occupancy. Provide completed NFPA 72 Record of Completion form to Owner and AHJ.

### 3.6. CLEANING AND ADJUSTING

- A. Cleaning: Remove paint splatters and other spots, dirt, and debris. Clean unit internally using methods and materials recommended by manufacturer.
- B. Occupancy Adjustments: When requested within one year of date of Substantial Completion, provide on-site assistance in adjusting sound pressure levels and adjusting controls and sensitivities to suit actual occupied conditions. Provide up to three visits to the site for this purpose.

### 3.7. TRAINING

- A. Provide the services of a factory-authorized service representative to demonstrate the system and train Owner's maintenance personnel as specified below.
  - 1. Train Owner's maintenance personnel in the procedures and schedules involved in operating, troubleshooting, servicing, and preventive maintaining of the system. Provide a minimum of 10 hours' training in increments of no more than 4 hours.
  - 2. Schedule training with the Owner at least seven days in advance.

**END OF SECTION Fire Alarm System**

# **APPENDIX I**

## **2010 CA Fire Code Local Amendments**

**15.36.070 LOCAL AMENDMENTS TO THE 2010 CALIFORNIA FIRE CODE (TITLE 24, PART 9 CALIFORNIA CODE OF REGULATIONS) AND THE 2009 EDITION OF THE INTERNATIONAL FIRE CODE.**

A. CHAPTER 1

SECTION 103 – DEPARTMENT OF FIRE PREVENTION is amended by adding the following:

**103.5 Administrative Costs.** When a test or inspection is scheduled and the contractor fails to perform to the satisfaction of the authority having jurisdiction, the authority having jurisdiction may bill the contractor for actual time spent at the test/inspection site as well as administrative costs.

SECTION 104 – GENERAL AUTHORITY AND RESPONSIBILITIES is amended by adding the following:

**104.7.2.1 Contract Inspector.** The Chief or his/her designated representatives may require the owner or the person in possession or control of the building or premises to provide, without charge to the fire department, a special inspector ("Contract Inspector"), when the department has no technical expertise available to conduct the required inspections.

The Contract Inspector shall be a qualified person who shall demonstrate his/her competence to the satisfaction of the Chief, for inspection of a particular type of construction, operations, fire extinguishing or detection system, or process. Duties and responsibilities of the Contract Inspector shall include but not be limited to the following:

- (a) The Contract Inspector shall observe the work assigned for conformance with the approved design drawings and specifications.
- (b) The Contract Inspector shall furnish inspection reports to the Chief, building official, and other designated persons as required by the Chief. All discrepancies shall be brought to the immediate attention of the contractor for correction, then if uncorrected, to the proper design authority, Chief, and to the building official.
- (c) The Contract Inspector shall submit a final signed report stating whether the work requiring inspection was, to the best of his/her knowledge, in conformance with the approved plans and specifications and the applicable workmanship provision of this code.

**104.2.1 Inspection Record Card.** Work requiring Fire Department inspection and approval shall have available on site an inspection record card and approved set of fire plans to allow the Chief to conveniently make the required entries thereon regarding inspection of work.

**104.3.2 Citations and Administrative Penalties.** The Chief may issue citations for infractions or misdemeanor violations of this Chapter and may impose administrative penalties pursuant to City Code Section 1.28.010C or any successor provision.

SECTION 105 – PERMITS is amended as follows:

**105.4.1.1 Plans.** Complete plans, specifications, and information for new construction, remodeling, fill-in projects, or additions to buildings shall be submitted for review prior to construction to the Chief or his/her designated representatives having jurisdiction. Plan

approval shall be required prior to issuance of a fire district Inspection Record Card for those instances where such card may be required.

**105.6.3. Aviation Facilities.** An operational permit is required to use a Group H or Group S occupancy for aircraft servicing or repair, aircraft fuel-servicing vehicles, airports, heliports, and helistops. Additional permits required by other sections of this code include, but are not limited to, hot work, hazardous materials and flammable or combustible finishes.

**106.2.2 Inspection Record Card.** Work requiring Fire Department approval may commence, but the person doing the work shall have posted or otherwise made available an inspection record card such as to allow the Chief to conveniently make the required entries thereon regarding inspection of the work. Work shall not be covered until the required inspections are completed. This card shall remain posted or remain otherwise available by the permit holder until the Chief has granted final approval.

**109.2.3.1 Citations.** The Chief, or his/her duly authorized representative, may issue citations for infractions or misdemeanor violations of this chapter pursuant to Section 13871 of the Health and Safety Code of the State of California and Chapter 5c (commencing with Section 853.6) of Title 3 of Part 2 of the Penal Code of the State of California.

B. CHAPTER 2

SECTION 202 - E is amended by adding the following:

**ELECTRONIC MONITORING SYSTEM** shall mean an approved method to electronically detect and transmit to an approved alarm service provider's Type A (listed) Central Station, information indicating that the automatic fire sprinkler system or electronic fire detection system has been activated and shall have the ability to relay the alarm to the (a) Sacramento Regional Fire/EMS Communications Center; or (b) to the Sacramento International Airport Communication Center in an approved manner.

SECTION 202 - F FALSE ALARM is amended as follows:

**FALSE ALARM** shall mean the giving, signaling or transmission to any public fire station or company or to any officer or employee thereof, whether by telephone, spoken word or otherwise, information to the effect that there is a fire, medical emergency, rescue request, or other need for emergency service at or near the place indicated by the person giving, signaling, or transmitting such information, and there is found to be no need for emergency services.

SECTION 202 - Q is amended by adding the following:

**QUALIFIED ATTENDANT** shall mean an individual that has been trained in the proper methods of the handling, storage and dispensing of any material, product or substance regulated by the code. These shall include, but not be limited to ammonia, chlorine, cryogenic fluids, flammable and combustible liquids and gases.

Said attendant must be able to demonstrate to the satisfaction of the Chief that he or she possesses adequate knowledge in the subject area.

C. CHAPTER 4

Section 401 – GENERAL. Is amended as follows:

**401.3.1.1. Cost Recovery.** All costs incurred by the Fire Department related to any response to a false alarm may be charged to that person causing the transmission of the false alarm, or to that person's firm or corporation.

D. CHAPTER 5

SECTION 505 - PREMISE IDENTIFICATION is amended as follows:

Section 505 "Premises identification" is amended as follows:

**505.1 Premises identification.**

**505.1 General.** Approved numbers or addresses shall be placed prior to occupying on all new and existing buildings in such a position as to be plainly visible and legible from the street or road fronting the property. Said numbers shall contrast with their background. In setting requirements for addressing, the Chief may be guided by the standard published by the County of Sacramento Building Inspection Division, "Posting of Building Addresses".

**505.1.1 Multiple tenant buildings.** Multiple tenant spaces serviced by vehicular access to the rear through any driveway, alleyway, or parking lot shall have numbers or addresses placed prior to occupancy on all new and existing buildings as to be plainly visible and legible from the rear access way when deemed necessary by the Chief. Multiple tenant spaces serviced by rear access through a corridor, exit court, or exit yard shall have approved numbers or addresses displayed on the rear of the tenant space, when deemed necessary by the Chief.

Multiple tenant spaces that front on interior walkways or pedestrian malls shall have approved numbers or addresses placed over the entrance door in all new and existing buildings. An illuminated annunciator or directory board shall be required at every entrance where deemed necessary by the Chief.

**505.1.2 Illumination.** Addressing shall be illuminated at night in all new buildings. Signs shall be internally or externally illuminated. When the luminance or the face of a sign is from an external source, it shall have an intensity of not less than 5.0 foot-candles. Internally illuminated signs shall provide equivalent luminance.

SECTION 503 - FIRE DEPARTMENT ACCESS ROADS is amended as follows:

**503.1.1 Required Access.** Fire apparatus access roads shall be provided in accordance with Sections 501 and 503 for every facility, building or portion of a building including residential subdivisions in excess of 40 dwelling units hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet (45 720mm) from fire apparatus access as measured by an approved route around the exterior of the building or facility. See also Section 504 for personnel access to buildings.

**EXCEPTIONS:**

1. When buildings are completely protected with an approved automatic fire sprinkler system, the provisions of Sections 503.1.1 and 503.2 may be modified by the chief.

2. When access roads cannot be installed due to location on property, topography, waterways, nonnegotiable grades or other similar conditions, the chief is authorized to require additional fire protection.
3. When there are not more than two Group R, Division 3, or Group U Occupancies, the requirements of Sections 503.1.1 and 503.2 may be modified by the chief.

More than one fire apparatus road shall be provided in residential subdivisions in excess of 40 dwelling units and/or when it is determined by the chief that access by a single road might be impaired by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

For high-piled combustible storage, see Section 2306.6

For required access during construction, alteration or demolition of a building, see Section 1410.1

SECTION 508 – FIRE PROTECTION WATER SUPPLIES is amended as follows:

**508.1 Required Water Supply.** An approved water supply capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction. When any portion of the facility or building protected is in excess of 150 feet (45 720 mm) from a water supply on a public street, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the Chief. See Section 508.5.

**EXCEPTIONS:**

1. Group R, Division 3 Occupancies provided with an automatic fire sprinkler system approved by the adopted NFPA Standard in areas not provided with a public water supply.
2. Group U Occupancies.
3. Water Supplies for Suburban and Rural Fire Fighting. Where the standards of this code cannot be met for development in rural areas, a fire sprinkler system or pressurized water system acceptable to the AHJ shall be acceptable to meet the water supplies required. Such proposals shall also be subject to the following:
  - a. The structure is beyond 3,000 (914 M) feet of any existing adequate sized water system. Structures within 3000 (914 M) feet of an existing adequate sized water system, but beyond a water purveyor service area, will be reviewed on an individual basis.
  - b. When public or private water becomes available, connection to such a system shall be required.

E. CHAPTER 9

Section 901 – GENERAL. Is amended by adding the following:

**901.4.3.1 Fire Appliances.** The Chief shall designate the type and number of fire appliances to be installed and maintained in and upon all buildings and premises within his/her jurisdiction. This shall be done according to the relative severity of probable fire, including the rapidity with which it may spread. Such appliances shall be of a type suitable for the probable class of fire associated with such buildings or premises and shall have the prior approval of the Chief. Extinguishers shall be installed on the hangers or in the brackets supplied, or mounted in approved fire extinguisher cabinets unless the extinguishers are of the wheeled type.

SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS is amended as follows:

Section 903.3.7 "General" added as follows:

**903.3.7 General.** Fire-extinguishing systems shall be installed in accordance with the Building Code and Section 903 and 904.

Fire hose threads used in connection with fire-extinguishing systems shall be National Standard hose thread or as approved.

The location of fire department hose connections shall be approved.

In buildings used for high-piled combustible storage, fire protection shall be in accordance with Chapter 23.

When required by the Chief, approved signs shall identify the building(s) or portions of buildings served by a fire department connection.

When required by the Fire Chief fire pumps shall be automatic.

Section 903.1.1 "All Occupancies except Group R, Division 3 and Group U Occupancies" is amended as follows:

**903.1.1 All Occupancies except Group R, Division 3 and Group U Occupancies.** For all other occupancies, an automatic sprinkler system shall be installed and equipped with an electronic monitoring system as follows:

**EXCEPTION:** Non-combustible, detached canopies open on four sides not exceeding the basic allowable square footage in UBC Table 5B used exclusively for the parking or storage of private or pleasure vehicles and non-combustible storage (includes fuel islands).

1: In every story or basement of all buildings when the floor area exceeds 1,500 square feet (139.4 m<sup>2</sup>) and there is not provided at least 20 square feet (1.86 m<sup>2</sup>) of opening entirely above the adjoining ground level in each 50 lineal feet (15,240 mm) or fraction thereof of exterior wall in the story or basement on at least one side of the building. Openings shall have a minimum dimension of not less than 30 inches (762 mm). Such openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner that firefighting or rescue cannot be accomplished from the exterior.

When openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet (22,860 mm) from such openings, the story shall be provided with an approved automatic sprinkler system, or openings as specified above shall be provided on at least two sides of an exterior wall of the story.

If any portion of a basement is located more than 75 feet (22 860 mm) from openings required in Section 903.1.1, the basement shall be provided with an approved automatic sprinkler system.

2. At the top of rubbish and linen chutes and in their terminal rooms. Chutes extending through three or more floors shall have additional sprinkler heads installed within such chutes at alternate floors. Sprinkler heads shall be accessible for servicing.

3. In rooms where nitrate film is stored or handled. See also Section 306.2.

4. In protected combustible fiber storage vaults as defined in Chapter 2. See also Chapter 29.
5. In every new building where the total floor area exceeds 3,599 square feet (334.48 m<sup>2</sup>) or greater. See item #9 below. Nothing in this subsection shall preclude the use of fire resistive substitutions otherwise permitted under IBC.
6. An automatic fire sprinkler system shall be installed in any portion of a building where there is a change of occupancy that creates a greater fire or life safety hazard, and the floor area of that portion of the building, which is changed, exceeds 3,599 square feet (334.48 m<sup>2</sup>).
7. An automatic fire sprinkler system shall be installed in every building when there is an addition to the floor area in existence on the effective date of this ordinance of 20 percent or more within a 12-month period and the aggregate floor area of the building exceeds 3,599 square feet (334.48 m<sup>2</sup>).
8. For the provisions of this section, two or more buildings existing entirely within the property lines of one parcel shall be considered a single building when exterior wall protection is not provided and the aggregate floor area exceeds 3,599 square feet (334.48 m<sup>2</sup>).
9. An automatic fire sprinkler system shall be installed in every new building of S-3 occupancy where the total floor area exceeds 2,999 sq ft. (278.72 M<sup>2</sup>) or greater.
10. For the provisions of this section, area separation walls shall not apply to eliminate the installation of a sprinkler system.

Section 903.2.7.1 "Group U Occupancies" is added as follows:

**903.2.7.1 Group U Occupancies.** Group U occupancies located within 6 feet (1828.8 mm) of sprinklered Group R Occupancy shall have fire sprinklers installed.

Section 903.2.13.1 - AUTOMATIC SPRINKLER SYSTEMS is amended by adding the following:

**903.2.13.1 Automatic sprinkler system.** A fire sprinkler system shall be provided for all covered floats, marinas, piers, and any/all other covered floating structures that are commercially operated and exceeds 3,599 sq. ft (334.48 m<sup>2</sup>).

Section 903.6.1.2 "Valves" is added as follows:

**903.6.1.2 Valves.** When required by the Chief, valves controlling sprinkler systems shall be maintained in an open position by locking the valve open in an approved manner.

SECTION 903.6.1.3 is hereby amended by adding the following thereto:

**903.6.1.3 Fire control room.** An approved fire control room shall be provided for all buildings protected by an automatic fire extinguishing system. Said room shall contain all system control valves, fire alarm control panels and other fire equipment required by the Chief. Fire control rooms shall be located within the building at a location approved by the Chief, and shall be provided with a means to access the room directly from the

exterior. Durable signage shall be provided on the exterior side of the access door to identify the fire control room.

EXCEPTION: Group R, Division 3 Occupancies.

Section 907.2.3 Group E" is amended as follows:

**907.2.3 Group E.** Group E Occupancies shall be provided with fire alarm systems in accordance with Section 907.2.3. Group E, Occupancies having an occupant load of 50 or more shall be provided with an approved automatic fire alarm system. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. When more than one fire alarm control unit is used, they shall be interconnected and shall operate all indicating devices. Group E Occupancies with an occupant load of 50 persons or less shall have an early-warning device as approved by the fire authority having jurisdiction. Every public, private or parochial school building having an occupant load of 50 or more students or more than one classroom shall have a fire alarm system using the California Uniform Fire Code Signal outlined in the California Education Code, Section 32000 to 32004.

Section 907.15.1 "Branch electrical circuits" is added as follows:

When providing a fire alarm circuit in a multiple occupancy type building (multiple metering), the circuit shall be energized from the house meter panel board.

When a separate source of power (i.e. emergency generator) is provided the fire alarm circuit shall be energized from the emergency panel board.

907.15 "Monitoring" is amended as follows:

**907.15 Monitoring.** Required alarm systems shall be monitored by an approved alarm service provider's Type A (listed) Central Station as established by Sacramento Regional Fire/EMS Communication Center.

The Central Station monitoring company or approved Alarm Company shall notify the authority having jurisdiction in writing, within 72 hours, of systems that are found not to be in compliance with applicable codes.

Receipt of supervisory signals by the monitoring company require the dispatch of a runner or maintenance person (arrival time not to exceed 1 hour), unless the condition can be restored to normal through the subscriber's efforts.

**907.15.2 Multi-building or zone monitoring.** When a Central Station is monitoring more than one zone or building with a single retransmitter, the Central Station shall identify the particular zone or building or both that is in alarm, where required by the Chief.

Fire Alarm Panels installed at the protected premise shall be capable of differentiating between signals, including water flow, manual, and automatic activating components and transmitting distinctive fire alarm, supervisory and trouble signals.

**907.15.3 Alarm transmission.** The activation of a fire sprinkler system, hood extinguishing system, special extinguishing system or a fire alarm/detection system shall cause the system to initiate a signal to the Central Station within 90 seconds.

Retransmission from the Central Station to the Fire Dispatch Center shall not exceed 60 seconds.

**EXCEPTION:** Existing building without an alarm system which install hood extinguishing systems or special extinguishing systems need not be monitored.

**907.16.1 Automatic telephone dialing devices.** Two separate telephone lines (numbers) shall be provided from the protected premises to the Central Station, which use Digital Alarm Communicator Transmitter (DACT). All costs regarding the installation, maintenance, and continuous operation of those lines shall be the responsibility of the building owner.

F. CHAPTER 11

Section 1101 – GENERAL. Is amended as follows:

**1101.3. Permits.** For permits to operate an airport, heliport, helistop, aircraft refueling vehicle, application of flammable or combustible finishes, and hot work, see Section 105.6.

**1101.3.1. Helicopter Use Permits.** A permit is required for any person, firm or business landing a helicopter at a site other than an approved airport or heliport as described by Federal Aviation Administration F.A.R. Part 77, for the purpose of advertising, promotions, lifting, or rides whether for public or private use. Sufficient information shall be provided to the Chief to allow determination of operational safety.

**1107.9. Fueling at Rooftop Heliports.** Refueling at rooftop heliports, helistops or emergency landing areas shall not be permitted.

G. CHAPTER 22

SECTION 2211 - REPAIR GARAGES is amended as follows:

Section 2211.7.2.3.4 "Gas Detection Systems" is added as follows:

**2211.7.2.3.4 Gas Detection Systems.** Repair garages used for the repair of LPG fueled vehicles shall be provided with an approved gas detection system.

SECTION 3308 - FIREWORKS DISPLAY is amended as follows:

Section 3308.1 "Scope General" is amended as follows:

**3308.1 General.** Fireworks and temporary storage, use and handling of pyrotechnic special effects material used in motion pictures, television, and theatrical and group entertainment productions shall be in accordance with this article and local and state regulations.

Section 3308.2 "Permit Application" is amended as follows:

**3308.2 Permit Application.** Permits are required to conduct a fireworks display as required by local and state regulations. Permit application shall be made not less than 14 days prior to the scheduled date of the display. The permit application shall include a diagram of the grounds on which the display is to be held showing the point at which the

fireworks are to be discharged; the location of buildings, highways and other lines of communication; the lines behind which the audiences will be restrained; and the location of nearby trees, telegraph or telephone lines and other overhead obstructions. At the time of permit application, the Chief shall be consulted regarding requirements for standby personnel and fire apparatus.

Section 3308.11 "Sales" is added as follows:

**3308.11 Sales.** Permits are required for the sale and display of "Safe and Sane" approved fireworks as permitted and regulated by Chapter 8.48 of the Sacramento City Code as presently constituted, and as hereinafter amended.

Section 3308.11.1 "Storage" is added as follows:

**3308.11.1 Storage.** Storage of fireworks is prohibited except by special permits as required by local and state regulations.

Section 3308.11.2 "Pyrotechnic special effects material" is added as follows:

**3308.11.2 Pyrotechnic special effects material.** A permit is required to manufacture, compound, store or use pyrotechnic special effects material as required by local and state regulations. A permit for use shall be granted only to a licensed pyrotechnic operator.

SECTION 3301 - GENERAL is amended as follows:

Section 3301.1.1 "General" is added as follows:

**3301.1.1.1 General.** Storage, use and handling of fireworks shall be in accordance with local and state regulations.

Section 3301.7 "Seizure" is amended as follows:

**3301.7 Seizure of Fireworks.** The Chief is authorized to seize, take, remove or cause to be removed at the expense of the owner all stocks of fireworks offered or exposed for sale, stored or held in violation of local, state, or federal regulations.

Section 3308.1.1 "General" is added as follows:

**3308.1.1 General.** Fireworks displays shall be in accordance with local and state regulations.

SECTION 3308 - PYROTECHNIC SPECIAL EFFECTS MATERIALS is amended as follows:

Section 3308.3.1 "General" is amended as follows:

**3308.3.1 General.** Temporary storage, use and handling of pyrotechnic special effects material used in motion picture, television, theatrical and group entertainment productions shall be in accordance with local and state regulations. Permanent storage of pyrotechnical special effects materials shall be in accordance with Section 3308.

SECTION 3404 - STORAGE is amended as follows:

Section 3404.2.14.1 Removal and Disposal of Tanks is amended by adding subsection 7 as follows:

7. Unless permitted by the Chief, tank(s) shall not be disassembled by any removal method at the site.

Section 3404.2.9.1.1 "Required Foam Fire Protection Systems" is amended as follows:

**3404.2.9.1.1 Required Foam Fire Protection systems.** Foam fire protection shall be provided for above ground tanks, other than pressure tanks operating at or above 1 psig (6.89 kPa), when such tank, or group of tanks spaced less than 50 feet (15,240mm) apart measured shell to shell, has a liquid surface area in excess of 1,500 square feet (139.4 m<sup>2</sup>), and is:

1. Used for the storage of Class I or II Liquids,
2. Used for storage of crude oil,
3. Used for in-process products and is located within 100 feet (30,480 mm) of a fired still, heater, related fractioning or processing apparatus or similar device at a processing plant or petroleum refinery as herein defined, or
4. Considered by the Chief as presenting an unusual exposure hazard because of topographical conditions; nature of occupancy, proximity on the same or adjoining property, and height and character of liquids to be stored; and degree of private fire protection to be provided and facilities of the fire department to cope with flammable liquid fires.

SECTION 2703 - GENERAL is amended as follows:

Section 2703.10.3.7 "Parking and garaging" is added as follows:

**2703.10.3.7 Parking and garaging.** Vehicles containing hazardous materials in amounts that require placarding under state or federal law and possessing the physical hazards listed in Section 2701.2.2 shall not be left unattended on any residential street, nor in or within 500 feet of any residential area, apartment or hotel complex, educational, hospital or care facility at any time; or at any place that would, in the opinion of the Chief, present a life or safety hazard.

SECTION 3806 - DISPENSING AND OVERFILLING is amended as follows:

Section 3806.4 "Tank Vehicle, Tank Car, and Pipelines" is added as follows:

**3806.4 Tank Vehicle, Tank Car, and Pipelines.** A qualified attendant shall be present at all times while a tank vehicle or tank car is discharging cargo. Whenever practicable, the tank vehicle or tank car shall be positioned so that the operating controls and the discharging end of the hose or hoses are both in view of the attendant.

Appendix B, SECTION B105- FIRE-FLOW REQUIREMENTS FOR BUILDINGS is amended as follows:

**B105.2 Buildings other than One- and Two-Family Dwellings.** The minimum fire flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table B105.1.

**EXCEPTION:**

1. A reduction in required fire flow of up to 50 percent, as approved by the Chief, is allowed when the building is provided with an automatic sprinkler system approved pursuant to the adopted NFPA Standards. The resulting fire flow shall not be less than 1500 gallons per minute (5677.5 L/min.). Reduction of fire flow does not apply to number of fire hydrants required or duration of fire flow required.
2. A reduction in required fire flow of up to 75 percent, as approved by the Chief, for warehouse buildings of Type I, Type II, and Type III-N construction and provided with early suppression fast response fire sprinkler systems. Reduction of fire flow does not apply to number of fire hydrants required or duration of fire flow required.

Appendix C, SECTION C104 - CONSIDERATION OF EXISTING FIRE HYDRANTS is amended as follows:

**SECTION 4 C104 - CONSIDERATION OF EXISTING FIRE HYDRANTS**

C104.1 Existing fire hydrants on public streets are allowed to be considered as available. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstructions of such roads.

C104.2 Existing single outlet 2 1/2 inch hydrants shall be changed to an approved steamer style hydrant, when a tentative subdivision or parcel map, merge of lots, change of use or change in intensity of use of an existing building, expansion of an existing structure, or construction increases the required fire flow.

C104.3 Where water main improvements are required to meet GPM flow and the existing water main has a single 2 1/2 inch outlet fire hydrant, an upgrade of hydrants will be required.

C104.4 Existing hydrants affected by right of way improvements shall be moved to an approved location at no cost to the fire authority.

Appendix C, TABLE NO. C105.1, NUMBER AND DISTRIBUTION OF FIRE HYDRANTS is amended as follows:

**TABLE NO. C105.1**

**NUMBER AND DISTRIBUTION OF FIRE HYDRANTS**

FIRE FLOW REQUIREMENT (gpm)	MINIMUM NO. OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS <sup>1,3,4</sup> (Ft.)	MAXIMUM DISTANCE FROM HYDRANT TO ANY POINT ON STREET OR ROADWAY FRONTAGE <sup>3</sup> (Ft.)
1750 or less	1	300	150
2000-2250	2	300	150
2500	3	300	150
3000	3	300	150

3500-4000	4	300	150
4500-5000	5	300	150
5500	6	300	150
6000	6	250	150
6500-7000	7	250	150
7500 or more	8 or more <sup>2</sup>	200	120

<sup>1</sup>Reduce by 150 feet for dead-end streets or roadways.

<sup>2</sup>One Hydrant for each 1000 gpm or fraction thereof.

<sup>3</sup>Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants should be provided at not less than 1000 foot (305 m) spacing to provide for transportation hazards. In addition, there shall be at least one hydrant at each intersection.

<sup>4</sup>Average spacing between hydrants may be extended to 500 feet on streets serving one and two family dwellings.

Appendix C, SECTION C106, HYDRANT TYPE is added as follows:

**SECTION C106 - HYDRANT TYPE**

The Chief shall approve the type of fire hydrants to be installed in public right of way or on private property prior to any such installation.

Appendix C, SECTION C107, HYDRANTS - BOTH SIDES OF A STREET is added as follows:

**SECTION C107 - HYDRANTS - BOTH SIDES OF A STREET**

Hydrants shall be required on both sides of the street whenever one or more of the following conditions exist:

1. Streets have median center dividers that make access to hydrants difficult, cause time delay, or create undue hazard or both.
2. When there are four or more lanes of traffic.
3. Width of street in excess of 88 feet.
4. The existing street being widened or having a raised median center divider in the future pursuant to the General Plan Roadway Improvement Plans for the County of Sacramento.

**APPENDIX H EMERGENCY ACCESS GATES AND BARRIERS**

(See IFC Section 503.6)

**SECTION 1 - SCOPE**

Where a new gate or barrier is installed on a fire access roadway, it shall be authorized by the Chief and meet the minimum requirements of Appendix H. Private driveways on

lightly traveled streets as determined by the City of Sacramento, Department of Transportation or the appropriate public works agency having jurisdiction, serving one single-family residence may be exempt from the scope of this document. Approval of automatic gates or barriers is subject to the owner accepting responsibility for any future programming requirements by the authority having jurisdiction.

## SECTION 2 - DEFINITIONS

For the purposes of APPENDIX H, certain terms are defined as follows:

**100% CONCURRENCE OF PROPERTY OWNERS** will consist of a signed, notarized copy of Appendix H - Form A 1, Emergency Access Gates and Barriers, by each property owner served by the gate;

**AUTHORITY HAVING JURISDICTION** is any agency having statutory authority to enforce federal, state, county, city, or district laws, ordinances or standards;

**GATES AND BARRIERS** – shall mean a gate, crossbar, door or other obstructive device which is utilized for the purpose of restricting, controlling or obstructing entry or exit by motor vehicles or pedestrians to or from a private roadway and which is not manned on a twenty-four hour, seven day per week basis by a person capable of providing immediate access to a police or fire safety vehicle or person;

**PRIVATE STREET OR ROADWAY** – shall mean any roadway (not dedicated as public right-of-way) that is owned and maintained by abutting property owners, or association of property owners that is utilized for the purpose of providing vehicular or pedestrian access to a subdivision, apartment complex, condominiums or other residential development or wild land, excluding off-street parking areas, driveways, and driveways to off-street parking areas.

**PRIVATE DRIVEWAY** -- A private way for vehicular travel that provides access from an off-street parking area to a public or private drive.

**ULTIMATE EDGE OF RIGHT-OF-WAY** is the line furthest from the centerline of the street that has been approved by the County and recorded on the parcel map for existing or future street improvements.

## SECTION 3 - PERMIT

A permit issued by the fire authority having jurisdiction to design and install any secured access gate system shall be obtained and approved in writing prior to installation.

## SECTION 4 - REQUIRED SUBMITTAL LOCATIONS

a. Applications to install gates or barriers shall be submitted to the City of Sacramento, Fire Prevention Office, 300 Richards Blvd., Sacramento, CA 95811; (916) 433-1300

## SECTION 5 - SUBMITTALS

**5.1 Approved verification of 100% Concurrence of Property Owners.** The applicant shall provide, with the gate application, verification that all existing property owners served by gate installation agree to its installation and operation. Each property owner shall provide a signed copy of the agreement noted as Appendix VII H, Form A 1 – Emergency Access Gates and Barriers (at the end of this document). In addition, the

applicant shall provide a copy of the amended "Road Maintenance Agreement" identifying the addition of the gates and operating systems. Where there is only one property owner, Appendix H, Form A 1 – Emergency Access Gates and the property owner and the gate contractor must sign Barriers.

## SECTION 6 - MINIMUM REQUIREMENTS

### 6.1 Vehicle Gates

#### 6.1.1 Access

- a. All gates shall be UL 325 compliant.
- b. Gates shall not be installed within a required turning radius of a fire access roadway.
- c. Access for single direction traffic shall be unobstructed 16 feet wide and 13', 6" high.
- d. Access for bi-directional traffic shall be unobstructed 20' wide and 13', 6" inches high.
- e. Swinging gates for single direction traffic shall swing in the direction of vehicle travel.
- f. Swinging gates for bi-directional traffic shall swing into the property being entered.
- h. All gates shall be accessible from the driving lane nearest the edge of the street by turning radii of at least 35' inside and 55' outside.
- i. After passing through a gate, the nearest curb of any cross street shall be no less than 40 feet.

#### 6.1.2 Operation of Gates

a. All gates shall be electrically operated for entry and exit by the following fire department methods:

1. Key override switch (Knox®), and
2. Radio operated controller (Click2Enter® or other approved equipment), or

**Exception:** Radio controlled exit may be waived by installation of a "free exit" loop.

b. Gates requiring radio-controlled access shall be provided with an approved 2 inch by 2 inch, blue, reflective marker visible to approaching traffic. It shall be located in the center of the exit gate.

c. Wiring for electrical gates shall be provided by AC current, underground installation. An electrical permit is required by the Sacramento Building Department.

d. Electrically operated gates shall fail to the open position when the power is off. They shall remain open until power is restored.

e. Knox® Company authorization forms are required for orders of key switches, boxes and padlocks. The forms may be obtained by calling the Sacramento Fire Department.

**6.1.2.1 Manual gates or barriers** may be approved on a case-by-case basis for nighttime security of business property or access to wild lands.

a. They shall be constructed in a manner that reflects good construction practices acceptable to the fire authority having jurisdiction.

b. They shall be accessible by means of an approved fire department padlock (Knox®) or by the installation of an approved key box (Knox®).

c. Approved manual gates or barriers across emergency access roadways shall be provided with an 18-gauge metal sign in the center of and on both sides of the gate that shall read, "FIRE LANE- NO PARKING". Letters shall be red on a white background and be a minimum of 3" high with a ½" stroke.

**6.1.3 4 Prohibitions**

- a. No gate shall be installed where access requires the use of a proximity reader or card.
- b. Direction-limiting devices, such as fixed tire spikes, are prohibited.
- c. The total number of vehicle access control devices or systems, through which emergency vehicles must pass to reach any address shall **not** exceed one.
- d. No commercial property owner shall install fences and gates where more than one gate must be opened in order to reach within 150 feet of the rear portion of any building.

**6.2 Pedestrian Gates**

All vehicle gates obstructing pedestrian access to a public way (street) shall have an approved pedestrian gate installed within 10 feet of the vehicle gate.

- a. Gates shall be handicap accessible and comply with exit door requirements of the Uniform Building Code.
- b. An approved key box (Knox®) shall be installed at least 48" above grade on the outside of the gate. It shall be provided with a key to open the pedestrian gate.
- c. No pedestrian gate shall be located in the median between two vehicle gates.

Exception: Private driveways serving one single-family residence are exempt from this requirement.

**SECTION 7 - INSTALLATION APPROVAL**

The fire authority having jurisdiction shall inspect all gates for proper installation and operation prior to activation or use.

**SECTION 8 - ADDITIONAL REQUIREMENTS**

Because of the delays caused by vehicle access control devices or systems, additional fire protection requirements may be applied based on other access limitations, such as narrow or winding streets, or dead-end streets without an approved turnaround available for fire apparatus.

Other than the obstruction and the reduced width controlled within this standard, no other requirement of the fire authority having jurisdiction shall be adversely affected by the placement of any vehicle access control device or system in any required fire apparatus access road.

Fire department approval does not waive any requirement by other authorities having jurisdiction.

Appendix I, **NATIONALLY RECOGNIZED STANDARDS OF GOOD PRACTICE** is added as follows:

**NATIONAL FIRE PROTECTION ASSOCIATION**  
Batterymarch Park, Quincy, MA 02269

All NFPA Standards shall be adopted except:

11C	13E	13R	297	473	550	902	1001	1002	1003	1021
	1031	1033	1035	1041	1201	1221	1402	1404	1405	1410
	1500	1561	1581	1901	1911	1914	1931	1932	1971	1975
	1981	1982	1983	1999	1710	1720				

**15.36.080 PUBLIC SAFETY RADIO COMMUNICATIONS.** The following requirements may be imposed at the time of application for a Building Permit. All Building Permit applications filed after the adoption of this ordinance shall be subject to compliance with its terms and conditions.

(A) **General.** Except as otherwise provided, no person shall erect, construct, change the use of or provide an addition of more than 20% to, any building or structure or any part thereof, or cause the same to be done, that fails to support adequate radio coverage for the Sacramento Regional Radio Communications System (SRRCS), including but not limited to firefighters and police officers. For purposes of this section, adequate radio coverage shall include all of the following: (1) a minimum signal strength of -95 dBm available in 90% of the area of each floor of the building when transmitted from the closest Sacramento Regional Radio Communications System site; (2) a minimum signal strength of -95 dBm received at the closest Sacramento Regional Radio Communications System site when transmitted from 90% of the area of each floor of the building; (3) the frequency range that must be supported shall be the current band of frequencies used by either the City or County sub-systems; and (4) a 100% reliability factor. When measuring the performance of a bi-directional amplifier, signal strength measurements are based on one input signal adequate to obtain a maximum continuous operating output level.

(B) **Amplification Systems Allowed.** Buildings and structures that cannot support the required level of radio coverage shall be equipped with either a radiating cable system or an internal multiple antenna system with FCC type accepted bi-directional amplifiers as needed. If any part of the installed system or systems contains an electrically powered component, the system shall be capable of operating on an independent battery and/or generator system for a period of at least 12 hours without external power input. The battery system shall automatically charge in the presence of an external power input. If used, bi-directional amplifiers shall include filters to reduce adjacent frequency interference. These filters shall be tuned to so that they will be 35 db below the SRRCS frequencies.

(C) **Testing Procedures.**

1. **Acceptance Test Procedure.** When an in-building radio system is required, and upon completion of installation, it will be the building owner's responsibility to have the radio system tested to ensure that two-way coverage on each floor of the building is a minimum of 90%. Each floor of the building shall be divided into a grid of approximately 20 equal areas. A maximum of two non-adjacent areas will be allowed to fail the test. In the event that three of the areas fail the test, in order to be more statistically accurate, the floor may be divided into 40 equal areas. In that event, a maximum of four non-adjacent areas will be allowed to fail the test. After the 40 area test, if the system continues to fail, the building owner shall have the system altered to meet 90% coverage requirement. The test shall be conducted using a Motorola MTS2000, XTS2500, XTS5000 or equivalent portable radio, talking through the Sacramento Regional Radio Communications System as specified by the authority having jurisdiction. A spot located approximately in the center of a grid area will be selected for the test, then the radio will be keyed to verify two-way communications to and from the outside of the building through the SRRCS. Once the spot has been selected, prospecting for a better spot within the grid area will not be permitted. The gain values of all amplifiers shall be measured and the test measurement results shall be kept on file with the building owner so that the measurements can be verified each year during the annual tests. In the event that the measurement results become lost, the building owner will be required to rerun the acceptance test to re-establish the gain values.

As part of the installation, a spectrum analyzer or other suitable test equipment shall be utilized to insure that spurious oscillations are not being generated by the subject bi-directional amplifier (BDA) due to coupling (lack of sufficient isolation) between the input and output systems. This test will be conducted at time of installation and subsequent annual inspections.

2. Annual Tests. When an in-building radio system is required, the building owner shall test all active components of the system, including but not limited to amplifiers, power supplies and backup batteries, a minimum of once every 12 months. Amplifiers shall be tested to ensure that the gain is the same as it was upon initial installation and acceptance. Backup batteries and power supplies shall be tested under load for a period of one hour to verify that they will properly operate during an actual power outage. If within the one hour test period, in the opinion of the testing technician, the battery exhibits symptoms of failure; the test shall be extended for additional one hour periods until the testing technician confirms the integrity of the battery. All other active components shall be checked to determine that they are operating within the manufacture's specifications for the intended purpose.

3. Five-Year Tests. In addition to the annual test, the building owner shall perform a radio coverage test a minimum of once every five years to ensure that radio system continues to meet the requirements of the original acceptance test. The procedure set forth above shall apply to these tests.

4. Qualifications of Testing Personnel. All tests shall be conducted, documented and signed by a person in possession of a current FCC license, or a current technician certification (minimum Associate level) issued by the Electronics Technicians Association. All original test records shall be retained on the inspected premises by the building owner and copies of the records shall be submitted to the Sacramento Fire Department via the "Self Help Inspection Process".

5. Field Testing: Police and Fire personnel, after providing reasonable notice to the owner or his representative, shall have the right to enter onto the property to conduct field-testing to be certain that the required level of radio coverage is present.

(D) Permits: A permit fee of \$100.00 shall be submitted to the Sacramento Fire Department along with copies of all test records.

(E) Implementation: Although not a condition of occupancy, the building shall be in compliance of this ordinance within 90 days of occupancy.

(F) Penalties: Pursuant to 8.040.080 of the SCC, a violation of this ordinance is a misdemeanor criminal offense and a civil penalty up to \$25,000.00 per day (for each and every day that the violation exists) can be imposed.

(G) Exemptions: This section shall not apply to buildings less than 5,000 square feet or buildings zoned for Residential 1& 2 Family Units.

(H) Required Path Availability of SRRCS Microwave System & Mitigation Issues:

The SRRCS Microwave System is designed for a minimum of 99.999% availability which takes into consideration existing structures along the microwave system transmission path, obstruction from natural terrain, and environmental factors.

If the City determines that mitigation efforts are required, prior to the issuance of final permits or occupancy of the building, the building owner shall mitigate the new building or structure's blockage or obstruction of the SRRCS Microwave System paths so as to restore a minimum of 99.999% system availability by either (1) providing a new microwave relay site/equipment at another site; (2) relocating existing microwave relay/site equipment or (3) pay an impact fee to be

determined by the City to cover any work required to restore the SRRCS Microwave System's availability. Prior to commencing any mitigation work, the building owner shall submit a detailed mitigation plan to the City for approval.

## **APPENDIX II**

# **Construction and Demolition Debris Recycling**

**Sacramento City Code**

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**Chapter 8.124 CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING**

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**8.124.010 Findings and purpose.**

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A. The city council of the city of Sacramento finds and declares as follows:

1. The California Integrated Waste Management Act of 1989 (AB 939) requires each local jurisdiction in the state to divert a minimum of fifty (50) percent of discarded materials away from disposal in landfills.
2. Construction and demolition (C&D) debris account for approximately twenty (20) percent of the waste stream generated in the city. These materials have significant potential for waste reduction and recycling.
3. The reuse and recycling of C&D debris will reduce the amount of waste transported for disposal in landfills and return these materials into the economic mainstream, thereby conserving natural resources and stimulating markets for recycled and salvage materials.

B. The purpose of this chapter is to establish recycling requirements for construction and demolition debris to further the city's efforts to reduce waste deposited in landfills and to meet or exceed the mandatory diversion requirements imposed by AB 939. (Ord. 2009-001 § 1)

**8.124.020 Definitions.**

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For the purposes of this chapter, the following terms, words and phrases shall have the meanings given them in this section.

"Certified C&D sorting facility" means a facility that receives C&D debris and/or processes C&D debris into its component material types for reuse, recycling, and disposal of residuals and possesses a valid certificate as a C&D sorting facility from the Sacramento Regional County Solid Waste Authority.

"Construction and demolition debris" or "C&D debris" means used or commonly discarded materials resulting from construction, repair, remodel or demolition operations on any pavement, house, building, or other structure, or from landscaping that are not hazardous as defined in California Health and Safety Code Section 25100 et seq. Such materials include, but are not limited to, concrete, asphalt, wood, metal, brick, dirt, sand, rock, gravel, plaster, glass, gypsum wallboard, cardboard and other associated packaging, roofing material, ceramic tile, carpeting, masonry, plastic pipe, trees, and other vegetative matter resulting from land clearing and landscaping.

"Covered project" means the project described in Section 8.124.030.

"Director" means the director of the department of utilities or his or her designee.

"Divert" or "diversion" means to use materials for any purpose other than disposal in a landfill or transformation facility. Methods to divert materials include on-site reuse of the materials, delivery of materials from the project site to a certified C&D sorting facility or a recycling facility, or other methods as approved in regulations promulgated by the director.

"Franchised waste hauler" means a person who possesses a valid commercial solid waste collection franchise issued by the Sacramento Regional County Solid Waste Authority.

"Mixed C&D debris" means loads that include commingled recyclable and nonrecyclable C&D debris generated at a project site.

"Permit holder" means any person who receives from the city the applicable permit to erect, construct,

enlarge, alter, repair, move, remove, convert or demolish a building or structure within the city.

"Person" means any natural person, firm, association, organization, corporation, company, partnership, agency or other private entity.

"Recyclable C&D debris" means C&D debris designated by the director to be diverted from landfills and returned to the economic mainstream in the form of raw material for new, reused or reconstituted products that meet the quality standards necessary to be used in the marketplace.

"Recycling facility" means a facility or operation that receives, processes and transfers source-separated recyclable materials.

"Source-separated C&D debris" means recyclable C&D debris that is separately sorted and containerized at the site of generation by individual material type and segregated from mixed C&D debris prior to collection and transporting.

"Transformation facility" means a facility where transformation, as defined in California Public Resources Code Section 40201, of solid waste materials occurs.

"Waste log" means a record prepared by the permit holder that details the management of C&D debris generated by the covered project, including the date and weight/volume of material by type that was salvaged, reused, recycled or disposed.

"Waste management plan" or "WMP" means a completed plan describing how the C&D debris will be managed to be submitted with an application for a building or demolition permit for a covered project. (Ord. 2009-001 § 1)

#### **8.124.030 Covered projects.**

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A "covered project" is any construction, addition, repair, alteration, remodel, or renovation work within the city that meets or exceeds the threshold, as established by resolution of the city council, and all demolition work requiring a permit. A covered project shall be subject to the provisions of this chapter. (Ord. 2009-001 § 1)

#### **8.124.040 Waste management plan.**

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A. Any person applying for a building or demolition permit for a covered project shall submit a completed waste management plan (WMP), on a form provided by the city, for approval by the director. The WMP shall indicate the following:

1. The types of C&D debris that will be generated from the covered project;
2. The manner in which C&D debris will be managed and/or stored on the project site;
3. The manner in which recyclable C&D debris generated from the project will be diverted;
4. The person who will haul, collect or transport the recyclable C&D debris from the project site; and
5. The certified C&D sorting facility or recycling facility where recyclable C&D debris will be delivered.

B. No permit shall be issued for any covered project prior to the approval of the WMP by the director. The director shall make a determination within five business days after receipt of the WMP and shall approve a completed WMP that provides all the information required under this section. Approval of the WMP shall not be required where an emergency demolition is necessary to protect the public health, safety and welfare pursuant to Chapter 8.96 of this code.

C. A permit holder shall submit an addendum to the approved WMP for approval by the director if there are any changes to the information provided in the approved WMP during the course of the project. (Ord. 2009-001 § 1)

**8.124.050 Fee established.**

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All waste management plans submitted shall be accompanied by a processing fee, as established by resolution of the city council, to cover the costs of implementing, administering and enforcing the provisions of this chapter. (Ord. 2009-001 § 1)

**8.124.060 Recycling requirements.**

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A. The permit holder for a covered project shall divert all recyclable C&D debris generated from a covered project by any of the following methods:

1. Re-use of recyclable C&D debris;
2. Collection, transport and delivery of source-separated C&D debris to a recycling facility;
3. Collection, transport and delivery of mixed C&D debris to a certified C&D sorting facility. For purposes of this chapter, no person other than the person who generates the mixed C&D debris, the city, a franchised waste hauler, or a permit holder may collect or transport mixed C&D debris generated from a covered project.

B. All containers, bins or roll-off bins used for the deposit and collection of C&D debris on the project site shall be clearly identified with the name of the person providing said containers, bins or roll-off bins.

C. During the course of the project, the permit holder shall maintain a waste log indicating all C&D debris generated by the project; the manner in which C&D debris was diverted; and the certified C&D sorting facility or recycling facility where C&D debris was delivered, including the dates, types, and weight/volume of C&D debris that was recycled. (Ord. 2009-001 § 1)

**8.124.070 Inspection and examination of records.**

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A. The approved WMP, waste log, and other related C&D debris management documents shall be made available for inspection by the city at the project site for the duration of the project.

B. Within thirty days after final inspection or expiration of the permit for a covered project, the permit holder shall submit to the director a completed copy of the waste log.

C. The permit holder shall maintain and keep accurate and complete records of all bills, weight receipts or weight tickets that were issued for the collection, transport or disposal of C&D debris for a period of one year after submittal of the waste log. The records shall be made available for inspection, examination and audit by the city during the one-year retention period to validate the information provided in the WMP and in the waste log. Where the director determines noncompliance by the permit holder after an audit has been conducted, the permit holder shall reimburse the city for all costs incurred in performing the audit. (Ord. 2009-001 § 1)

**8.124.080 Enforcement.**

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A. If the director determines that a permit holder has failed to comply with any of the requirements of this chapter, the director shall issue a written notice of noncompliance and impose civil penalties in the amount established by resolution of the city council. The city attorney may bring a civil or criminal action to enforce any provision of this chapter.

B. Any permit holder assessed with a civil penalty pursuant to this section shall be required to pay a performance security deposit fee when submitting an application for a permit for a covered project within one year of the assessment of the civil penalty. The performance security deposit fee shall be in the amount established by resolution of the city council. The security deposit shall be paid at the same time the WMP is

submitted.

C. The performance security deposit shall be released in full upon a showing that the permit holder has fully complied with the requirements of this chapter for the duration of the covered project. Any failure to comply with the requirements of this chapter, in whole or in part, is subject to imposition of civil penalties as provided in this section.

D. Civil penalties collected and security deposits forfeited pursuant to this chapter shall be used for the costs of administration of this chapter and programs to divert waste away from landfills.

E. **Administrative Penalties.** In addition to civil penalties as provided in this chapter, administrative penalties may be imposed pursuant to Chapter 1.28 of this code for a violation of any provision of this chapter. Imposition, enforcement, collection and administrative review of administrative penalties imposed shall be conducted pursuant to Chapter 1.28 of this code. (Ord. 2009-001 § 1)

#### **8.124.090 Appeals.**

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Any permit holder aggrieved by the decision of the director made pursuant to the provisions of this chapter may appeal the decision to the city council in accordance with Chapter 1.24 of this code. The appeal shall be made by filing a written notice of appeal with the city clerk no later than ten (10) calendar days after notice of the decision of the director is personally served or mailed to the applicant. The city council or the hearing examiner shall hold a hearing on the appeal and the decision shall be final. The hearing of said appeal, and judicial review of any decision regarding said appeal, shall be subject to the provisions of Chapter 1.24 of this code. Failure to properly and timely file a written appeal of the decision of the director will constitute a waiver of all right to an appeal hearing before the city council and the director's decision will be final. Failure to properly and timely appeal the director's decision shall also constitute a failure to exhaust administrative remedies and a bar to any judicial action pertaining to the director's decision. (Ord. 2009-001 § 1)

#### **8.124.100 Remedies.**

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The remedies provided for in this chapter shall be cumulative and not exclusive of any other remedies available under any other federal, state or local laws. (Ord. 2009-001 § 1)

#### **8.124.110 Regulations.**

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The director shall have the authority to establish regulations regarding the diversion of C&D debris, including designation of recyclable C&D debris, consistent with the requirements of this chapter. (Ord. 2009-001 § 1)



# CERTIFICATE OF LIABILITY INSURANCE

ALESS-1

OP ID: AT

DATE (MM/DD/YYYY)

11/02/11

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Sacco & Sacco Insurance Brokers LLC 101 Parkshore Drive, Suite 260 Folsom, CA 95630 David Sacco		916-932-2320 916-932-2321	<b>CONTACT NAME:</b> Clint Alessandro <b>PHONE (A/C, No, Ext):</b> <b>E-MAIL ADDRESS:</b> <b>FAX (A/C, No):</b>																					
<b>INSURED</b> Alessandro Electric, Inc. 7833 Wooddale Way Citrus Heights, CA 95610		<table border="1"> <thead> <tr> <th colspan="2">INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A:</td> <td>Praetorian Insurance Company</td> <td>37257</td> </tr> <tr> <td>INSURER B:</td> <td>Century-National Insurance Co.</td> <td>26905</td> </tr> <tr> <td>INSURER C:</td> <td>Natl Union Fire Ins Co Pitt PA</td> <td>19445</td> </tr> <tr> <td>INSURER D:</td> <td>Security National Insurance Co</td> <td>19879</td> </tr> <tr> <td>INSURER E:</td> <td></td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> <td></td> </tr> </tbody> </table>		INSURER(S) AFFORDING COVERAGE		NAIC #	INSURER A:	Praetorian Insurance Company	37257	INSURER B:	Century-National Insurance Co.	26905	INSURER C:	Natl Union Fire Ins Co Pitt PA	19445	INSURER D:	Security National Insurance Co	19879	INSURER E:			INSURER F:		
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**COVERAGES****CERTIFICATE NUMBER:****REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY	X		H010000952	03/06/11	03/06/12	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person) \$ 5,000
							PERSONAL & ADV INJURY \$ 1,000,000
							GENERAL AGGREGATE \$ 2,000,000
							PRODUCTS - COMP/OP AGG \$ 2,000,000
							Emp Ben. \$ 1,000,000
B	AUTOMOBILE LIABILITY	X		BAP0172543	03/06/11	03/06/12	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS						BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS						PROPERTY DAMAGE (Per accident) \$
	<input checked="" type="checkbox"/> SCHEDULED AUTOS						\$
<input checked="" type="checkbox"/> NON-OWNED AUTOS	\$						
C	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR			EBU061232865	03/06/11	03/06/12	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> EXCESS LIAB						AGGREGATE \$ 1,000,000
	<input type="checkbox"/> CLAIMS-MADE						\$
	DED <input checked="" type="checkbox"/> RETENTION \$ 0						
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY		N/A	X SWC1003806	06/08/11	06/08/12	<input checked="" type="checkbox"/> WC STATUTORY LIMITS
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)						E.L. EACH ACCIDENT \$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$ 1,000,000
							E.L. DISEASE - POLICY LIMIT \$ 1,000,000
A	Equipment			H010000952	08/04/11	03/06/12	Rent/Lsd 50,000
A	Installation			H010000952	08/04/11	03/06/12	Install 100,000

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

City of Sacramento is included as Additional Insured with respect to General Liability per the attached CG 2010 0704 endorsement & with respect to Auto Liability, endorsement to follow separately from carrier. Work Comp Waiver of Subrogation endorsement requested from carrier, to follow upon receipt. Re: City Hall Fire Alarm System Project (PN: 1990793)

**CERTIFICATE HOLDER****CANCELLATION**

SACRAME

City of Sacramento  
 Dept. of General Services  
 Business Operations Division  
 5730 - 24th St. Bldg One  
 Sacramento, CA 95822-3699

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

**SCHEDULE**

Name Of Additional Insured Person(s) Or Organization(s):	Location(s) Of Covered Operations
<p>Blanket as required by written contract and effective during the policy period as stated on the policy declarations.</p>	<p>Blanket as required by written contract.                      Primary Insurance applies: It is agreed that such insurance as is afforded by this policy for the benefit of the additional insured shown shall be primary insurance, and any other insurance maintained by the additional insured(s) shall be excess and noncontributory as respects any claim, loss or liability allegedly arising out of the operations of the named insured, provided however that this insurance will not apply to any claim loss or liability which is determined to be solely the result of the additional insured's negligence or solely the additional insured's responsibility.</p>

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

**A. Section II – Who Is An Insured** is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

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

This insurance does not apply to "bodily injury" or "property damage" occurring after:

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