NOTICE TO CONTRACTORS

INVITATION FOR BIDS

The REDEVELOPMENT AGENCY OF THE CITY OF SAN JOSE invites sealed written proposals for the **PARKSIDE HALL ROOF IMPROVEMENTS PROJECT** ("Project"), located in the Park Center Project Area, at 145 West San Carlos Street, San Jose, California (the "Site"). The Project includes, but is not limited to: removal of existing roof membrane and rigid insulation; installation of new thermoplastic roof membrane and new rigid insulation; removal and reinstallation of sheet metal flashings; reconfiguration of existing roof mounted fire sprinkler piping; relocation of existing roof drains; and painting of newly installed finishes and components; and replace of skylight glazing gaskets as Bid Alternate 1.

FILING OF BIDS

All bid proposals must be filed on or before 2:00 p.m., Pacific Time, Tuesday, June 19, 2007, at the Redevelopment Agency of the City of San Jose, 200 East Santa Clara Street, 14th Floor Tower, San Jose, California 95113, Attention: Bill Ekern, Director of Project Management, as set forth in the specifications, at which time and place all bids will be opened publicly and read aloud. Bids received after that time will not be accepted. All bid proposals must be enclosed in an envelope clearly marked as "Bid for the Parkside Hall Roof Improvements Project".

Hand-delivered bids must be placed in the Bidder's Box located at the main reception desk at the Redevelopment Agency, 200 East Santa Clara Street, 14th Floor Tower, San Jose, California, no later than the time set forth above. Bids sent by regular or certified mail must be received by the Agency at the above-referenced address no later than the time set forth above. All bids must be enclosed in an envelope which is marked clearly as "Parkside Hall Roof Improvements Project".

Each bid must be accompanied by either a certified check, cashier's check, or a bidder's bond in the sum of not less than 10% of the total aggregate of the bid including all add alternatives. Checks shall be made payable to "The Redevelopment Agency of the City of San Jose". Bonds shall be executed by a surety possessing a valid certificate of authority issued by the California Department of Insurance and shall name the Redevelopment Agency of the City of San Jose as beneficiary.

CONTRACT DOCUMENTS/PLANS AND SPECIFICATIONS

Instructions to Bidders and Contract Documents, including plans and technical specifications, may be purchased on or after June 5, 2007 at the Redevelopment Agency of the City of San Jose, 200 East Santa Clara Street, 14th Floor Tower, San Jose, California 95113, 408-535-8500 for a non-refundable charge of Fifty Dollars ($50.00) per set. Checks must be made payable to "The Redevelopment Agency of the City of San Jose". It can also be downloaded at no charge from The Redevelopment Agency of the City of San Jose's website, www.sjredevelopment.org/opportunities.htm, listed under "Invitation for Bids". Prospective bidders obtaining bidding documents from the website may fax a request to the Redevelopment Agency at (408) 292-6755 to be placed on the "Planholders List". Request should include company name, contact person, telephone and fax numbers and email address. All known planholders will receive any Addenda issued for this Project.

Bidders will have fully inspected the Project Site in all particulars and become thoroughly familiar with the terms and conditions of the Instructions to Bidders, and contract documents including plans, specifications and local conditions affecting the performance and/or costs of the work prior to submitting their bid proposal. Bidder's attention is directed to the document entitled "Parkside Hall Roof Improvements Project Calendar", included in the contract documents which specifies the dates of scheduled events when construction activities are not allowed on the site.

PRE-BID MEETING

One pre-bid meeting will be held on Tuesday, June 12, 2007, at 9:30 a.m. at the Redevelopment Agency of the City of San Jose, 200 East Santa Clara Street, 14th Floor Tower, San Jose, California. Attendance at this pre-bid meeting is not mandatory. A site visit will follow the pre-bid meeting. Requests for interpretations shall be directed to the Agency at the address set forth in the Instructions to Bidders.

NONDISCRIMINATION / NONPREFERENTIAL TREATMENT

The Nondiscrimination / Nonpreferential Treatment requirements of Chapter 4.08 of the City of San Jose Municipal Code apply to this Project.

PREVAILING WAGES

Attention is called to the fact that this is a Public Work subject to Labor Code §1771. Not less than the general prevailing rate of per diem wages and the general prevailing rates for holiday and overtime work must be paid on this Project. Copies of the prevailing rate of per diem wages are on file with the City of San Jose Office of Equality Assurance, 200 East Santa Clara Street, 5th Floor Tower, San Jose, California 95113, (408) 535-8430 and will be made available to any interested party on request.

DEPOSIT OF SECURITIES IN LIEU OF RETENTION

Pursuant to the terms and conditions set forth in Public Contracts Code Section 22300, the Contractor may substitute certain securities in lieu of the ten percent (10%) retention which will be withheld by Agency as retention to ensure Contractor's performance under the contract. Such substitution of securities in lieu of retention shall be at the Contractor's request and at the Contractor's sole expense. (Public Contract Code 22300).

BOND REQUIREMENTS

Bidder's attention is directed to those provisions of the contract documents which require the Contractor to whom the contract for work is awarded, to file with the Agency at the time the contract is executed, a Contractor's Labor and Material Payment Bond and a Contractor's Performance Bond meeting all the requirements of the contract documents and approved by the General Counsel of the Redevelopment Agency of the City of San Jose. Bonds shall be executed by a surety possessing a valid certificate of authority issued by the California Department of Insurance and shall name the Redevelopment Agency as beneficiary. The Contractor's Performance Bond shall be for 100% of the contract price. The Contractor's Labor and Material Payment Bond shall be for 100% of the contract price.

CONTRACTOR'S LICENSE REQUIREMENTS

All prospective bidders are hereby cautioned that the State of California Contractor's Law regulates license requirements for bidding various types of projects. This project can be bid by a contractor possessing, at the time of bid submittal, a valid **Class B** California Contractor's License ("License"). Failure to possess the License shall render the bid non-responsive and shall act as a bar to award the contract to any bidder that does not satisfy these requirements at the time of bid submittal. Each bidder shall furnish satisfactory evidence of competency to perform the work contemplated. The contractor, in its proposal, shall be required to disclose its license classification, number, and expiration date. (Public Contract Code 3300).

STATEMENT OF QUALIFICATIONS

The Agency reserves the right to reject a bid if the bidder has not submitted a Statement of Qualifications as set forth in the contract documents prior to the date of the opening of the bids or with the bid proposal.

The Agency reserves the right to reject any and all bids or to waive any informalities in the bid.

Bids may be held by the Redevelopment Agency of the City of San Jose for a period not to exceed ninety (90) days from the date of the opening of bids for the purpose of reviewing the bids and investigating the qualifications of the bidders prior to awarding the Contract.

THE REDEVELOPMENT AGENCY
OF THE CITY OF SAN JOSE

By:_____
DIRECTOR OF PROJECT MANAGEMENT

Date: _____

SECTION 00100

INSTRUCTIONS TO BIDDERS

Section 1. General Information.

1.1. Project General Description. - The Redevelopment Agency of the City of San Jose (the "Agency") invites bids for the Parkside Hall Roof Improvements Project (the "Project") which includes, but is not limited to: removal of existing roof membrane and rigid insulation; installation of new thermoplastic roof membrane and new rigid insulation; removal and reinstallation of existing sheet metal flashings; reconfiguration of existing roof mounted fire sprinkler piping; relocation of existing roof drains; and painting of newly installed finishes and components; and replacement of skylight glazing gaskets as Bid Alternate 1; and related site work upon certain property located in the Park Center Project Area, at 145 West San Carlos Street, San Jose, California (the "Site").

1.2. Site Coordination. - The "Contractor", as defined in the General Conditions, shall, prior to any use of the Site, coordinate its activities with the Agency.

Section 2. Bidder's Responsibilities and Representations.

2.1. Examination of Plans, Specifications, Special Provisions and Site of Work. - The bidder shall examine carefully the Site of the work contemplated and "Contract Documents", as defined in the General Conditions. The submission of a bid shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality and scope of work to be performed, the quantity of materials to be furnished, and as to the requirements of the Contract Documents.

Bidders should direct their attention to the Agency requirement, noted in Section 00100, Instructions to Bidders, Section 7. – "Special Provisions", that the Contractor shall perform with the Contractor's own organization contract work amounting to not less than fifteen percent [15%] of the original total contract price.

Where investigation of subsurface conditions has been made by the Agency in respect to foundation or other design, bidders may inspect the records of the Agency as to such investigation, including examination of samples, if any. When the Contract Documents include a log of test borings showing a record of the data obtained by the Agency's investigation of subsurface conditions, such log represents only the opinion of the Agency as to the character of material encountered by it in its test borings and is only included for the convenience of bidders.

Investigations of subsurface conditions are made for the purpose of design, and the Agency assumes no responsibility whatsoever with respect to the sufficiency or the

accuracy of borings or of the log of test borings or other preliminary investigations, or of the interpretation thereof, and there is no guaranty, either expressed or implied, that the conditions indicated are representative of those existing throughout the work, or any part of it, or that unlooked-for development may not occur.

Making such information available to bidders is not to be construed in any way as a waiver of the provisions of the first paragraph of this Section and bidders must satisfy themselves through their own investigations as to conditions to be encountered.

No information derived from such inspection of records of preliminary investigations made by the Agency or its employees or from the Contract Documents will in any way relieve the Contractor from any risk or from properly fulfilling all the terms of the Contract Documents.

2.2. Concealed Conditions. - The Contractor shall promptly and before the following conditions are disturbed, notify the Agency in writing of any:

(1) Material that the Contractor believes was not previously identified in the Construction Manual, and may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III, disposal site in accordance with provisions of existing law.

(2) Subsurface or latent physical conditions at the Site differing from those indicated.

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

After receipt of notice from the Contractor, the Agency shall promptly investigate such conditions. If the Agency finds that the conditions do materially so differ as described in the Contractor’s notice, or do involve hazardous waste not previously identified in the Contract Documents, and will result in a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the work, the Agency may, in its sole discretion, elect to have Contractor perform any such work required by such differing conditions, and shall issue a change order under the procedures described in the Contract Documents.

In the event that a dispute arises between the Agency and the Contractor over whether or not the conditions materially differ, or involve hazardous waste, or will result in a decrease or increase in the Contractor's cost of, or time required for performance of any part of the work, or if the Agency does not elect to have Contractor perform any additional work required by such differing conditions, the Contractor shall not be excused from any scheduled completion date provided for by the Contract Documents, but shall proceed with all work to be performed under the Contract Documents. The

Contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the contracting parties.

2.3 Qualification of Bidders. - Bidders shall possess a valid California **Class B (General Building Contractor)** Contractor's License. Failure to possess the **Class B** License shall render the bid non-responsive and shall act as a bar to award of the contract to any bidder that does not satisfy these license, certification and registration requirements at the time of bid submittal. Each bidder shall furnish satisfactory evidence of competency to perform the work contemplated. The Agency reserves the right to reject a bid if the bidder has not submitted a Statement of Qualifications prior to the date of the opening of the bids.

Bidders must submit with their bid a statement of their qualifications and experience in performing similar construction work on or attached to the form entitled "Statement of Qualifications and Experience of Bidder". The Agency reserves the right to make an investigation of Bidder's qualifications to perform the work, including but not limited to, Bidder's financial condition, trustworthiness, fitness, capacity and experience to satisfactorily perform the contract.

It is the intention of the Agency to award a contract only to a bidder who furnishes satisfactory evidence that the bidder has demonstrated the attribute of trustworthiness, as well as quality, fitness, capacity and experience to prosecute the work successfully and promptly, and to complete the work within the time specified in the Contract Documents.

To determine the degree of responsibility to be credited to a bidder, the Agency will weigh any evidence that the bidder or personnel guaranteed to be employed in responsible charge of the work has or has not performed satisfactorily on other contracts of like nature and magnitude or comparable difficulty at similar rates of progress.

Notwithstanding any provisions in the Contract Documents to the contrary, failure of the bidder to submit the "Statement of Qualifications and Experience of Bidder" covering experience on similar work, the Agency may, at its option and sole discretion, reject the bid of such bidder. The Agency shall not be bound to reject such bid on such ground and may award a contract to perform the work to such bidder if the Agency, on the basis of information available to it from any source, concludes that such bidder has the experience and ability, machinery, facilities, plant, equipment, and the financial resources and stability necessary to carry out and complete the work within the time required.

2.4 Determining Prevailing Wage Rates and Classifications. Applicable prevailing wage rates and labor classifications are on file with the City of San Jose's Office of Equality Assurance, 200 East Santa Clara Street, 5th Floor Tower, San Jose, California 95113, (408) 535-8430. The City of San Jose does not allow some labor

classifications – the Bidder is responsible for consulting the list of prohibited classifications and preparing the bid accordingly.

Section 3. Bidding Documents and Procedure.

3.1. Bidding Documents. - Bidding Documents include the Notice to Contractors/Invitation for Bids; Instructions to Bidders; Proposal Form; form of Bidder's Bond; Statement of Qualifications and Experience of Bidder; List of Subcontractors; Contractor's Performance Bond form; Labor and Material Payment Bond form; Owner-Contractor Agreement form; General Conditions and other Contract Documents; Noncollusion and Financial Statement Affidavit; and any Addenda issued prior to receipt of bids. Any bid not containing information required for submission of bid, or a bid containing information which is subsequently proven false, shall be considered nonresponsive and shall be rejected.

3.2. Addenda and Interpretations. - Written addenda by way of clarifications, amendments, changes or additions to the Contract Documents including a change to the proposed opening time, date or place may be issued by the Agency before the opening of bids. Addenda will be mailed by certified mail with return receipt requested or telephone facsimile (FAX) transmitted to all prospective bidders prior to the opening of the bids. Failure of any bidder to receive any addenda shall not relieve the bidder from any obligations imposed by the addenda. All addenda issued shall become a part of the Contract Documents and the price therefore, set forth in the bid. The date and time for closing of submission of bids set forth in the Invitation for Bids shall be extended by no less than 72 hours in the event the Agency issues any material changes, additions, or deletions to the bid package within 72 hours of the time established for bid closing.

No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally. Every request for such interpretation should be in writing, addressed to The Redevelopment Agency of the City of San Jose, Attn: David Mosher at 200 East Santa Clara Street, 14th Floor Tower, San Jose, California 95113, and to be given consideration, must be received at least five (5) calendar days prior to the date fixed for the opening of bids. Any and all such interpretations will be in the form of writing which, if issued, will be sent either by express mail, certified mail with return receipt requested or transmitted by telephone facsimile (FAX) to all prospective bidders prior to the date fixed for the opening of bids. Failure of any bidder to receive any such interpretation shall not relieve such bidder from any obligation under its bid as submitted. All interpretations so issued shall become part of the Contract Documents.

3.3. Proposal Forms. The Agency will furnish to each bidder a Proposal Form, which, when filled out, executed and accompanied by all supplements required in the Proposal Form, shall be submitted as its bid. Bids not presented on forms so furnished or submitted without all supplements may be disregarded.

All proposals shall give the prices proposed both in words and in figures in the respective spaces provided, and shall be signed by the bidder. The bidder shall fill out all blanks in the Proposal Form, including, without limitation, all alternate prices. In the event the price for a particular item is zero, the bidder shall fill out the blank with the number and word “zero”. In the case of any discrepancy between words and figures, the words shall prevail, unless it clearly appears in the proposal in Agency's opinion that the words rather than the figures are in error. Proposals shall be clearly written without erasures or deletions. Where unit prices are solicited, in the event of any discrepancy between the unit price and the extended price, the unit price multiplied by the number of units shall prevail. In the event of any discrepancy between the total contract amount and the sum of the extended prices, the sum of the extended prices shall prevail. The bidder shall not modify the Proposal Form or qualify bids.

A Proposal Form is attached. Additional copies may be obtained at the Redevelopment Agency of the City of San Jose, 200 East Santa Clara Street, 14th Floor Tower, San Jose, California 95113.

3.4. Designation of Subcontractors, etc. Bidder is hereby advised that the City of San Jose has an ordinance in place which precludes certain contractors, subcontractors and suppliers from performing work or providing material or services on Agency projects. Bidder is responsible for contacting Agency prior to submitting its bid to determine which contractors, subcontractors and suppliers have been barred from Agency projects. A bid submitted which contemplates the use of such contractors, subcontractors or suppliers on this Project will be found to be nonresponsive. The use of such contractors, subcontractors or suppliers on this Project by the successful bidder will, at Agency's option, be grounds for termination for cause of the contract.

Each bidder, in making a bid or offer to perform the work, shall in its bid set forth:

(a) the name and the location of the place of business of each subcontractor who will perform work or labor or render service to the bidder in or about the construction of the work or improvement in an amount in excess of one-half of one percent of the bidder's total bid, and

(b) the portion of the work which shall be done by each subcontractor, including the dollar amounts of said work. The bidder shall comply with all the provisions of Section 4104 of the California Subletting and Subcontracting Fair Practices Act, Cal. Pub. Contr. Code §§ 4100-4114.1.

3.5. Bid Security. All bids shall be presented under sealed cover and accompanied by one of the following forms of bidder's security: a cashier's check made payable to the Agency, a certified check made payable to the Agency, or a Bidder's Bond executed as principal by the bidder and as surety, by an admitted surety insurer authorized to engage in such business in California, made payable to the Agency.

The security shall be in an amount equal to at least ten percent (10%) of the total amount bid by a bidder, including alternate prices, if any, upon which such bidder makes its highest bid. A bid shall not be considered unless one of the foregoing forms of bidder's security is enclosed with it.

If the successful bidder fails to execute the contract or fails to provide satisfactory evidence of compliance with Paragraphs 6.1, 6.2 and 6.3 of these Instructions to Bidders, within the time specified in the Invitation For Bids or in the specifications referred to therein, the amount of the security may be declared forfeited to the Agency and all bonds so forfeited may be prosecuted.

It is understood that the bid security shall not be considered as liquidated damages for the failure of the bidder to execute and deliver the Contract Documents, insurance certificates and performance and payment bonds. The bid security shall neither limit nor fix liability to the Agency for damages suffered because of failure to execute and deliver the required Contract Documents, insurance certificates and bonds.

3.6. Withdrawal of Bids. - Any bid may be withdrawn at any time prior to the time fixed in the Notice to Contractors - Invitation for Bids for the opening of bids only by written request for the withdrawal of the bid filed with the Agency. The request shall be executed by the bidder or its duly authorized representative. The withdrawal of a bid does not prejudice the right of the bidder to file a new bid. This section does not authorize the withdrawal of any bid after the time fixed in the Notice to Contractors - Invitation For Bids for the opening of bids.

3.7. Pre-Bid Meeting. - One pre-bid meeting will be held on Tuesday, June 12, 2007 at 9:30 a.m., at the Redevelopment Agency of the City of San Jose, 200 East Santa Clara Street, 14th Floor Tower, San Jose, California.

Section 4. Consideration of Bids.

4.1. Filing of Bids. - All bids must be filed with the Agency office at the Redevelopment Agency of the City of San Jose, 200 East Santa Clara Street, 14th Floor Tower, San Jose, California 95113, on or before the time specified in the Notice to Contractors - Invitation For Bids for opening the proposals.

4.2. Public Opening of Bids. - Bids will be opened and read publicly and the aggregate bid of each bidder declared at the time and place indicated in the Notice to Contractors - Invitation For Bids. Bidders or their authorized agents are invited to be present.

4.3. Award of Contract. - The award of the contract, if awarded, will be to the lowest responsible bidder. The award, if made, is expected to be made within ninety (90) calendar days after the opening of bids or within such later time as is mutually acceptable to Agency and lowest responsible bidder.

4.4. Rejection of Bids. - In its absolute and sole discretion, the Agency may reject any or all bids presented. Individual bids may be rejected if they show any alterations of form, additions not called for, conditional bids, incomplete bids, erasures or irregularities of any kind or if the supplements set forth in the Proposal Form are not submitted with the bid. The Agency may, in its absolute and sole discretion, waive any informalities or minor irregularities in the bids.

When bids are signed by an agent, other than the officer or officers of a corporation authorized to sign contracts on its behalf, or a member of a partnership, a Power of Attorney must be on file with the Agency prior to opening bids or shall be submitted with the bid; otherwise, the bid may be rejected as irregular and unauthorized.

4.5. Disqualification of Bidders. Any one or more of the following causes may be considered as sufficient for the disqualification of bidder and the rejection of the bidder's bid.

(a) Submittal of more than one (1) bid for the same work from an individual firm, partnership, or corporation under the same or different names.

(b) Submittal of unbalanced bids in which the prices for some items are out of proportion to the prices for other items.

(c) Lack of responsibility as shown by past work judged from the standpoint of workmanship and progress.

(d) Uncompleted work which, in the judgment of the Agency, might hinder or prevent the prompt completion of additional work if awarded.

(e) For being in arrears on existing contracts, in litigation with the Agency or the City of San Jose, or having defaulted on a previous contract.

(f) Lack of competency as revealed by experience on other projects.

(g) Submittal of a bid not containing the required information, or a bid containing information which is subsequently proven false.

(h) Evidence of collusion among bidders.

(i) The bidder has been barred from bidding on Agency or City projects under the provisions of the San Jose Municipal Code Section 14.4.600 *et seq*. or has documented violations of prevailing wage law requirements through the City of San Jose's Office of Equality Assurance or the Department of Industrial Relations on City or Agency Projects.

4.6. Penalty for Collusion. - If at any time it shall be found that the person, firm or corporation to whom the Contract has been awarded has, in presenting any bid or bids, colluded with any other party or parties, then the Contract so awarded shall be null and void, and the Contractor and its sureties shall be liable to the Agency for all loss or damage which the Agency may suffer thereby, and the Agency may advertise anew for bids for such work.

4.7. Return of Bid Securities. - All bid securities will be held until the Contract Documents have been formally executed and the successful bidder has filed with the Agency, completed initial labor compliance documentation required for enforcement of prevailing wage requirements of this contract, the Faithful Performance Bond, the Contractor's Payment Bond, and the insurance policies required by the Contract Documents, after which such bid securities will be returned to the respective bidders whose bids they have accompanied.

4.8. Relief of Bidders. - After the time set for the opening of bids, no bidder shall be relieved of a bid, unless the Agency consents, and there shall be no change made in any bid because of a mistake. However, if such relief is not granted and the bid guarantee declared forfeit, the bidder may bring an action against the Agency in a court of competent jurisdiction in Santa Clara County for the recovery of the amount forfeited, without interest or costs.

The complaint shall be filed, and summons served on the Director of Project Management, Redevelopment Agency of the City of San Jose, within 90 days after the opening of the bid; otherwise, the action shall be dismissed.

To be relieved of its bid without forfeiture of its bid security, the bidder shall establish to the satisfaction of the Agency, determined in its sole and absolute discretion, that:

(1) A mistake was made.
(2) The Contractor gave the Agency written notice within five working days after the opening of the bids of the mistake, specifying in detail in the notice how the mistake occurred.
(3) The mistake made the bid materially different than the Contractor intended it to be.
(4) The mistake was made in filling out the bid and not due to an error in judgment or to carelessness by the Contractor in inspecting the site of the work, or in reading the plans or specifications.

Other than the above described notice to the Agency, no claim is required to be filed by the bidder before bringing a legal action against the Agency under this Section to recover a forfeited bid guarantee.

A bidder who claims a mistake and is relieved of its bid or who forfeits its bid guarantee shall be prohibited from participating in further bidding on the contract for the public work on which the mistake was claimed or security forfeited.

4.9 Protest of Bid Award - A participating bidder may protest a proposed award for this Project. The protesting bidder shall deliver the written bid protest to Bill Ekern, Director of Project Management, 200 East Santa Clara Street, 14th Floor, San Jose, CA 95113. The protest shall be filed before 5 p.m. of the fifth working day following the bid opening date, or Agency's issuance of written notice to all bidders that award shall be made to a bidder other than the apparent low bidder ("Intent to Award"), whichever is later. The protest shall provide a full and complete statement specifying in detail the ground of the protest and the facts supporting the protest.

The Agency will not make any award for this Project prior to the expiration of the protest period. If a protest is received, the Agency will not award a contract until either the protest has been withdrawn, or the Agency's Executive Director has made a final, written decision as to the action to be taken relative to the protest.

The procedure and time limits set forth in this section 4.9 are mandatory and the bidders' sole and exclusive remedy in the event of protest. Failure to comply with these procedures shall constitute a waiver of any right to further pursue the protest, including filing a Government Code claim or legal proceedings.

Section 5. Post-Bid Information.

5.1. Material Guaranty. - The successful bidder may be required to furnish a written guaranty covering certain items of work for varying periods of time from the date of acceptance of the contract. The work to be guaranteed, the form and the time limit of the guaranty will be specified in the Contract Documents. Said guaranty shall be signed and delivered to the Agency before acceptance of the Contract. In addition the successful bidder may be required to furnish a complete statement of the origin, composition, and manufacture of any or all materials to be used in the construction of the work together with samples, which samples may be subjected to the tests provided for in the specifications to determine their quality and fitness for the work.

5.2. Execution of Contract. - The Owner-Contractor Agreement shall be signed by the successful bidder and returned, together with the labor compliance documentation, Contract, bonds, insurance, and labor compliance documentation within eight (8) calendar days, not including Sundays and legal holidays, after the bidder has received notice by certified mail with return receipt requested or delivered in person and signed for, that the Contract has been awarded. Any delay caused by the successful bidder in delivery of the Owner-Contractor Agreement executed by the Contractor, labor compliance documentation, bonds and insurance within eight (8) calendar days shall not be cause for extension of the Scheduled Completion Date as defined in the Proposal Form.

5.3. Failure to Execute Contract. - Failure to execute the Owner-Contractor Agreement and file labor compliance documentation, acceptable bonds and insurance as provided herein within eight (8) calendar days, not including Sundays and legal holidays, after the bidder has received notice either by an overnight delivery service or by certified mail with return receipt requested that the Contract has been awarded, shall be just cause for the annulment of the award and the forfeiture of the bid security. If the successful bidder refuses or fails to execute the Owner-Contractor Agreement and provide the required bonds and insurance policies and certificates, the Agency Board may award the Contract to the second lowest responsible bidder. If the second lowest responsible bidder refuses or fails to execute the Contract and provide the required bonds and insurance policies and certificates, such bidder's bid security shall be forfeited to the Agency and the Agency Board may award the Contract to the third lowest responsible bidder. On failure or refusal of the third lowest responsible bidder to whom the Contract is so awarded, to execute the same and provide the required bonds and insurance policies and certificates, such bidder's bid security shall be likewise forfeited to the Agency. The Agency Board may at any time readvertise for bids, or may provide that the work shall be done by the Agency's employees to the extent that such may be authorized by law.

Section 6. Labor Compliance Documentation; Performance Bond; Labor and Material Payment Bond; Insurance.

6.1. Performance Bond. - At the time of executing the Contract Documents, the successful bidder shall execute and file with the Agency the performance bond form provided in the Project Construction Manual or an Agency approved similar bond in the penal sum of at least one hundred percent (100%) of the Contract price, secured by one (1) or more sufficient sureties, acceptable to the Agency, conditioned upon the faithful performance of the Contract within the Contract time. In case of failure on the part of the Contractor to complete the Contract within the time fixed in the Contract Documents, or such extension thereof as may be allowed, the Contract shall be terminated and the Agency shall not thereafter pay or allow Contractor any further compensation for any work done by Contractor under said contract, and the Contractor or its sureties shall be liable to the Agency for all loss or damage which it may suffer by reason of the Contractor’s failure to complete the Contract within such time.

6.2. Contractor's Payment Bond. - The Contractor shall, at the time of executing the Owner-Contractor Agreement, file with the Agency a good and sufficient bond on the bond form provided in the Project Construction Manual or an Agency approved similar bond in an amount not less than the sums specified in Section 3248(a) of the California Civil Code. To be approved, the payment bond must provide that if the Contractor or its subcontractor shall fail to pay any of the persons named in Section 3181 of the California Civil Code, or amounts due under the Employment Insurance Code with respect to the work or labor contracted to be done and performed by any such claimant, then the surety or sureties will pay for the same, in an amount not exceeding the amount of the bond, and also, in case suit is brought upon the bond, reasonable attorney's fees to be fixed by the court. To be approved, the payment bond

shall, by its term, inure to the benefit of any of the persons named in Section 3181 of the California Civil Code, so as to give a right of action to such persons or their assigns in any suit brought upon the bond, including the right of action to recover on the bond, in any suit brought to foreclose the liens provided for in Title 15, Part 4, Division 3 of the California Civil Code or in a separate suit brought on this bond. The payment bond shall otherwise comply with all of the provisions of Title 15, Part 4, Division 3 of the California Civil Code.

Unless a Contractor's Payment Bond is filed and approved as herein provided, no claim in favor of the Contractor arising under the Contract shall be audited, allowed or paid by the Agency. Any persons named in Section 3181 of the California Civil Code shall receive payment of their respective claims in the manner provided by Chapter 4, Part 4, Division 3, Title 15 of the California Civil Code upon having complied with the conditions of Section 3183 of the California Civil Code.

6.3. Insurance Requirements. - The Contractor, at the Contractor's sole cost and expense and for the full term of the Contract or any renewal thereof, shall obtain and maintain at least all of the minimum insurance requirements set forth in Article 11 of the General Conditions for this Project prior to commencing any work or receiving payments therefore under this contract.

6.4. Notification of Surety Companies. - The surety companies and other signers of any of the above mentioned bonds, and all insurance companies, shall familiarize themselves with all of the conditions and provisions of the Contract Documents and Specifications, and they waive the right of special notification of any change or modification of this Contract or of extension of time, or of decreased or increased work, or of the cancellation of the contract, or of any other act or acts by the Agency or its authorized agents, under the terms of the Contract Documents and Specifications; and failure to so notify the aforesaid surety companies or insurance companies of changes shall in no way relieve the surety companies of their obligation under the Contract Documents and Specifications.

6.5 Labor Compliance Documentation. - The Contractor shall, at the time of executing the Owner-Contractor Agreement, file with the Agency a completed set of Labor Compliance Documentation on the form provided in the Project Construction Manual. If Contractor has any questions as to applicable labor rates or labor categories or use of apprentices, Contractor may direct questions to the City of San Jose's Office of Equality Assurance. To be approved, the Labor Compliance Documentation shall be complete as to all labor to be provided on the Project.

Section 7. Special Provisions - Specifications and Plans.

7.1. Subcontracting. - The Contractor shall perform with the Contractor's own organization contract work amounting to not less than fifteen percent [15%] of the original total contract price.

7.2. Application of City of San Jose 1992 Standard Specifications and Details. - The work embraced herein shall be done in accordance with the Technical Provisions of the 1992 City of San Jose Standard Details insofar as the same may apply. In the event of a conflict between the terms and conditions of the Technical Provisions of the City of San Jose 1992 Standard Details and the Agency's Contract Documents and Project Manual, the Agency's Contract Documents and Project Manual shall control.

END OF SECTION 00100

SECTION 00200 IS RESERVED

SECTION 00300

PROPOSAL FORM

PROPOSAL TO THE REDEVELOPMENT AGENCY OF THE CITY OF SAN JOSE

FOR THE

PARKSIDE HALL ROOF IMPROVEMENTS PROJECT

Name of Bidder:_____

The representations herein are made under penalty of perjury.

To: The Redevelopment Agency of the City of San Jose
200 East Santa Clara Street, 14th Floor Tower
San Jose, California 95113

The undersigned, as bidder, declares that the only person or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any other person, firm or corporation; that the bidder has thoroughly read and examined and has full knowledge of and understands all the provisions and contents of this proposal and the documents which must be attached hereto, the Plans and Specifications approved by the Redevelopment Agency of the City of San Jose on May 16, 2007, entitled "Parkside Hall Roof Improvements Project" on file in the office of the Director of Project Management of the Redevelopment Agency of the City of San Jose, 200 East Santa Clara Street, 14th Floor Tower, San Jose, California 95113, that the bidder has thoroughly examined said Plans and Specifications which are on file in the office of the Agency's Director of Project Management, and that the bidder has full knowledge of and understands said Plans and Specifications and the requirements thereof; and that the bidder has further read and understands, and has knowledge of the contents of any and all addenda to said Plans and Specifications on file; and that the bidder proposes and agrees, if this proposal is accepted, that the bidder will contract with the Redevelopment Agency of the City of San Jose, in the form of the copy of the contract on file in the office of the Agency's Director of Project Management, to do all the work and furnish all materials specified or referred to in the contract, in the manner and time therein prescribed, and according to the requirements of the City and Agency as therein set forth, to furnish the contract, bonds and insurance specified in the Specifications and Bid Documents, and to do all other things required of the Contractor by the contract.

If the bidder or other interested persons is a corporation, state legal name of corporation, also names of the President, Secretary, Treasurer, and the Manager thereof; if a partnership, state the name of the partnership, if one exists, also the names

of all the partners comprising the partnership; if any of the partners are individuals, state the first and last name of every individual in full, if any of the partners are corporations, state for each such corporation, the information required above of corporations; if any of the partners are partnerships, state for each such corporation, the information required above of partners; if the bidder or other interested person is a joint-venture, state the name of the joint venture, also names of all joint venturers comprising the joint venture; if any of the joint venturers are individuals, state the first and last name of every individual comprising the joint venture; if any of the joint venturers are corporations, state for each corporation the information required above of corporations; if any of the joint venturers are partnerships, state for each such partnership the information required above of partners; if bidder or other interested persons is an individual, state first and last names in full.

If bidder is an individual, the bidder's signature shall be placed below; if bidder is an individual, doing business under a fictitious name, the name of the individual followed by the words "doing business as (insert fictitious name)" shall be set forth above, together with the signature of the individual; if bidder is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers of the corporation, authorized to sign contracts on behalf of the corporation, the corporate title; that is Vice-President, Secretary, etc., should be placed below the name of the officer and the corporate seal affixed; if bidder is a partnership, the legal name of the partnership, if one exists, shall be set forth above, together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; if any of the partners are corporations, execution for such partners shall be accomplished in accordance with the requirements set forth above for corporations; if any of the partners are partnerships, execution for such partners shall be accomplished in accordance with the requirements set forth above for partnership; if bidder is a joint-venture, the legal name of the joint venture, if one exists, shall be set forth above for partnerships. If signature is by an agent other than an officer of a corporation, or member of a partnership or a joint venture, a Power of Attorney must be on file with the Agency prior to opening bids or submitted with the bid; otherwise, the bid may, at the Agency's option, be disregarded as non-responsive.

BASE BID AMOUNT

A. Base Bid

Lump sum price for the furnishing of all labor, materials, services, equipment, fringe benefits, taxes, insurance, overhead and profit and any other costs or expenses necessary to perform all of the work:

_____DOLLARS
($_____)

1. Unit Price for purchase, delivery, and application of 5,000 square feet of additional roof mounted walkway protection pads for installation under supports for future solar panel array described in Specification Section 01270:

Item	Amount	Unit	Unit Price	Total
Roof Mounted Walkway Protection Pads	5,000	Square feet	$_____/s.f.	$_____

B. The above base bid includes all addenda issued by the Agency.

BID ALTERNATES

The following prices shall determine the cost or credit resulting from inclusion or exclusion in the work and shall include all labor, materials, services, equipment, fringe benefits, taxes, insurance, permit costs, overhead, profit and other costs or expenses necessary to perform the required work. The Agency reserves the right to accept or reject any or all alternates which it determines are in the best interest of the Project.

Alternate No. 1 - Described in Specification Section 01230 and further in Specification Section 08690.

_____DOLLARS
($_____)

AWARD OF CONTRACT

A. Basis for Award: The lowest bid shall be determined on the basis of the Base Bid, without consideration of additive alternate.

1. The award of the contract, if it is to be awarded, will be to the lowest responsive and responsible bidder. The award, if made, is expected to be made on or about June 26, 2007.

2. The Owner-Contractor Agreement shall be signed by the successful bidder and returned, together with the labor compliance documentation, contract bonds and insurance, within eight (8) calendar days, not including Sundays and legal holidays, after the bidder has received notice by certified mail with return receipt requested, or by hand delivery that the contract has been awarded. Any delay caused by the successful bidder in the delivery of the Owner-Contractor Agreement executed by the Contractor, labor compliance documentation, bonds and insurance within

eight (8) calendar days shall not be cause for extension of the Completion Date.

3. Successful bidder shall file at least the minimum insurance requirements as outlined in Article 11 of the General Conditions.

4. If the successful bidder refuses or fails to execute the Owner-Contractor Agreement and provide the required labor compliance documentation, bonds and insurance policies and certificates, the Agency Board may award the contract to the second lowest responsible bidder. If the second lowest responsible bidder refuses or fails to execute the contract and provide the required labor compliance documentation, bonds and insurance policies and certificates, such bidder's bid security shall be forfeited to the Agency and the Agency Board may award the contract to the third lowest responsible bidder. On failure or refusal of the third lowest responsible bidder to whom any such contract is so awarded, to execute the same and provide the required labor compliance documentation, bonds and insurance policies and certificates, such bidder's bid security shall be likewise forfeited to the Agency. The Agency Board may at any time re-advertise for bids, or may provide that the work shall be done by the Agency's employees to the extent that such may be authorized by law.

5. If the successful bidder fails to execute the contract or fails to provide satisfactory evidence of compliance with Article 6 of the Instructions to Bidders within the time specified in the Invitation For Bids or in the specifications referred to therein, the amount of the security may be declared forfeited to the Agency and all bonds so forfeited may be prosecuted.

B. It is understood that the Agency reserves the right to reject this bid but that it shall remain open and not be withdrawn for a period of ninety (90) calendar days from the date prescribed for its opening.

C. If written acceptance is mailed or delivered to the undersigned before bid is withdrawn by written notification to Agency, undersigned will execute and deliver a contract to Agency in accordance with this bid as accepted.

TIME OF COMPLETION

A. The Work under the Contract shall proceed pursuant to and in accordance with a written notice from Owner to Contractor to proceed (“Notice to Proceed”). It is anticipated that the Notice to Proceed will be issued on or about July 6, 2007. Contractor shall diligently commence performance of the Work on the date specified in the Notice to Proceed. Contractor shall complete performance of the entire Work (as defined in Article 8 of the General Conditions) on or before sixty

(60) consecutive calendar days after the date of issuance of the Notice to Proceed ("Scheduled Completion Date").

B. 1. Contractor shall begin Work in accordance with the Notice to Proceed, and shall diligently prosecute the Contract to completion within the time limits specified.

2. Should Contractor begin work in advance of receiving notice that Contract has been approved by the Agency, any work performed by Contractor in advance of date of approval shall be considered as having been done by Contractor at Contractor's own risk.

IDENTIFICATION

A. Notice of acceptance, or request for additional information, may be addressed to the undersigned at the address set forth below.

B. The names of all persons interested in the foregoing bid as principals are:

_____
_____
_____

Important Notice: If a corporation, give legal name of corporation, state where incorporated, and names of president and secretary; if a partnership, give name of firm and names of all individual co-partners composing the firm; if an individual, give first and last names in full.

C. Contractor's License: Contractor is licensed in accordance with an act for registration of contractors with the following Contractor's License number issued by the California Contractor's State License Board:

Class _____ License No. _____
Expiration Date _____.

D. Signature of person(s) with legal authority to sign contracts:

_____
_____
_____

E. Business Address:

_____
_____
_____

SUPPLEMENTS TO PROPOSAL FORM

In addition to all information required in the Instructions to Bidders, accompanying this Proposal Form are the following documents completely filled in by the bidder and hereby made a part hereof:

A. Bidder's Bond or other Bid security (Section 00400).

B. Statement of Qualifications and Experience of Bidder (Section 00410).

C. List of Subcontractors (Section 00420).

D. Affidavit of Financial Statement and Noncollusion (Section 00430).

In addition, Bidder has received the following, to be completed and returned with Contract following award:

Contractor's Performance Bond (Section 00510)

Labor and Payment Material Bond (Section 00511)

Labor Compliance Documentation (Section 00512).

If this bid proposal shall be accepted and the undersigned shall fail to contract, and to give the labor compliance documentation, Contractor's Performance Bond and the Contractor's Labor and Material Payment Bond required by the specifications and contract and by law, and to provide all insurance as required by said contract, within eight (8) days after the bidder has received notice from the Redevelopment Agency of the City of San Jose, the Agency may, at its option, determine that the bidder has abandoned his/her contract, and thereupon this bid and the acceptance thereof shall be null and void, and the forfeiture of such security accompanying this bid shall operate and the same shall be the property of the Redevelopment Agency of the City of San Jose.

In accordance with Public Contract Code Section 10232, the Contractor hereby states under penalty of perjury, that no more than one final unappealable finding on contempt of court by a federal court has been issued against the Contractor within the immediately preceding two year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board. Signing this Proposal on the signature portion thereof shall constitute signature of this Statement.

Accompanying this bid are the following documents completely filled in by the bidder and the same are incorporated herein by reference;

1. A cashier's check or a certified check made payable to the Redevelopment Agency of the City of San Jose, or a bidder's bond executed by an admitted surety insurer naming the Agency as beneficiary, in an amount equal to at least ten percent (10%) of the total amount bid including all alternates.

2. A list of subcontractors for work over one half of one percent, if any, the address of each subcontractor, the description of work to be done by each subcontractor, and the value of the subcontract.

3. A statement of qualifications and experience of bidder.

4. Executed Affidavit of Financial Statement and Noncollusion

The Agency may, at its option, request additional supplemental information after bid opening.

Bidder understands that the Redevelopment Agency of the City of San Jose reserves the right to reject any or all bids and to waive any informality in the bidding.

The undersigned, as bidder, declares that in listing subcontractors in this bid, I have not discriminated or given any preference to any firm based on race, sex, color, age, religion, sexual orientation, disability, ethnicity, or national origin. I understand that any such discrimination or preference is in violation of Chapter 4.08 of the Municipal Code.

The undersigned declares under penalty of perjury that the information contained in this bid and all accompanying documents are true and correct.

Executed on _____

_____
Legal Company Name

_____
Indicate Type of Entity: Sole Proprietorship, Partnership (General/Limited Partners), Corporation, Joint Venture, etc.

By:_____
Title:_____

City Business License No.:_____
Expiration Date:_____
State Contractor Lic. No.:_____
Classification:_____
Expiration Date:_____
Federal I.D. No.:_____
Address:_____
_____
_____
Telephone:_____

ALL PURPOSE CALIFORNIA ACKNOWLEDGEMENT

STATE OF: CALIFORNIA

COUNTY OF: _____

On _____ before me, _____, (here insert name and title of the officer)

_____

personally appeared _____

_____,

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

WITNESS my hand and official seal

Signature_____

(SEAL)

ATTENTION NOTARY: Through the information requested below is **OPTIONAL**, it could prevent fraudulent attachment of this certificate to another document.

THIS CERTIFICATE **MUST** BE ATTACHED TO.
THE DOCUMENT DESCRIBED AT RIGHT

Title of Document Type _____

Number of Pages _____ Date of Document _____

Signer(s) Other Than Named Above _____

_____.

END OF SECTION 00300

SECTION 00400

BIDDER'S BOND

KNOW ALL PERSONS 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 Redevelopment Agency of the City of San Jose (hereinafter called the "Agency"), in the penal sum of TEN PERCENT (10%) OF THE TOTAL AMOUNT OF THE BID of the Principal above named, submitted by the Principal to the Agency, 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. In no case shall the liability of the Surety hereunder exceed the sum of _____ Dollars ($_____).

THE CONDITION OF THIS OBLIGATION IS SUCH,

That whereas the Principal has submitted the above mentioned bid to the Redevelopment Agency of the City of San Jose, for certain construction specifically described as follows, for which bids are to be opened at the Redevelopment Agency of the City of San Jose, located at 200 East Santa Clara Street, 14th Floor Tower, San Jose California, on June 19, 2007 for the following project:

PARKSIDE HALL ROOF IMPROVEMENTS PROJECT

NOW, THEREFORE, if the aforesaid Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to him for signature, enters into a written contract, in the prescribed forms, in accordance with the bid, and files a Contractor's Performance Bond and a Contractor's Labor and Material Payment Bond, and files the required insurance policies with the Agency, all as required by the specifications and the contract or by law, then the obligation shall be null and void; otherwise it shall be and remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that the obligation of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Agency may accept such Bid; and said surety does hereby waive notice of any such extension.

In the event suit is brought upon this bond by the Agency and judgment is recovered, the Surety shall pay all costs incurred by the Agency in such suit, including reasonable attorney's fees to be fixed by the court.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this_____ day of_____, 200_.

PRINCIPAL

_____
Legal Company Name

By: _____
Signature

_____
Print Name

_____
Title

By: _____
Signature

_____
Print Name

_____
Title

SURETY

_____
Legal Company Name

By:_____
Signature

_____
Print Name

_____
Title

Address:_____
_____
_____

(Affix Corporate Seals)

(Attach Acknowledgments of both Principal and Surety signatures.)

END OF SECTION 00400

SECTION 00410

STATEMENT OF QUALIFICATIONS AND EXPERIENCE OF BIDDER

The bidder is required to state below, and on additional pages as necessary, the bidder's experience on similar work performed with a list of references that will enable the Owner to judge bidder's qualifications, experience, skill.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____
(Legal Company Name)

Date:_____

By:_____
(signature)

Printed Name:_____

Title:_____

END OF SECTION 00410

SECTION 00420

LIST OF SUBCONTRACTORS

Designation of Subcontractors shall be as required in Section 2-1.15A of the City of San Jose Standard Specifications, July 1992.

NAME OF SUBCONTRACTOR	LOCATION OF PLACE OF BUSINESS	TYPE OF WORK OR MATERIALS	CONTRACT DOLLAR VALUE

SECTION 00430

NONCOLLUSION AND FINANCIAL STATEMENT AFFIDAVIT

PARKSIDE HALL ROOF IMPROVEMENTS PROJECT

_____, being first duly sworn, deposes and says:
print name

(1) The signatory is the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid; and

(2) In accordance with Title 23, United States Code, Section 112, he/she has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding connection with this contract; and

(3) As of the date of the bid submittal, Bidder has not filed for bankruptcy and has no plans to do so, and Bidder has the financial resources, capacity and stability to completely perform the contract.

/ /
/ /
/ /

The undersigned declares under penalty of perjury that the information contained in this proposal and all accompanying documents are true and correct. Bidders are cautioned that making a false certification may subject certifier to criminal prosecution. The Agency reserves the right to investigate the statements made within this affidavit, including but not limited to, requiring a current financial statement.

Executed on _____

_____
Legal Company Name

_____
Indicate Type of Entity: Sole Proprietorship, Partnership (General/Limited Partners), Corporation, Joint Venture, etc.

By:_____
Title:_____

City Business License No.:_____
Expiration Date:_____
State Contractor Lic. No.:_____
Classification:_____
Expiration Date:_____
Federal I.D. No.:_____
Address:_____
_____
_____
Telephone:_____

ALL PURPOSE CALIFORNIA ACKNOWLEDGEMENT

STATE OF: CALIFORNIA

COUNTY OF: _____

On _____ before me, _____, (here insert name and title of the officer)

_____

personally appeared _____

_____,

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

WITNESS my hand and official seal

Signature_____

(SEAL)

ATTENTION NOTARY: Through the information requested below is **OPTIONAL**, it could prevent fraudulent attachment of this certificate to another document.

THIS CERTIFICATE **MUST** BE ATTACHED TO.
THE DOCUMENT DESCRIBED AT RIGHT

Title of Document Type _____

Number of Pages _____ Date of Document _____

Signer(s) Other Than Named Above _____

_____.

END OF SECTION 00430

SECTION 00500

REDEVELOPMENT AGENCY OF THE CITY OF SAN JOSE
SAN JOSE, CALIFORNIA

OWNER-CONTRACTOR AGREEMENT

FOR THE

PARKSIDE HALL ROOF IMPROVEMENTS PROJECT

THIS OWNER-CONTRACTOR AGREEMENT ("AGREEMENT") is made and entered into this _____ day of _____, 200_, by and between the REDEVELOPMENT AGENCY OF THE CITY OF SAN JOSE, a public body, corporate and politic, 200 East Santa Clara Street, 14th Floor Tower, San Jose, California 95113, ("OWNER") and _____, whose principal place of business is _____ ("CONTRACTOR").

In consideration of the mutual covenants and agreements set forth herein, CONTRACTOR and OWNER hereby agree as follows:

ARTICLE I

CONSTRUCTION

Subject to and in accordance with the terms of this Agreement, the CONTRACTOR shall do all the work and furnish all the labor, services, materials and equipment necessary to construct and complete, in accordance with the CONTRACT DOCUMENTS (as hereinafter defined) in a good, workmanlike and substantial manner and to the satisfaction of OWNER, PARKSIDE HALL ROOF IMPROVEMENTS PROJECT ("PROJECT") upon that real property located in San Jose, California more particularly depicted on Exhibit A (the "Site"). The PROJECT is that described and reasonably inferable from the drawings and specifications and documents enumerated in Exhibit B. Such construction and furnishing of labor, services, materials and equipment and the performance of CONTRACTOR's other services and obligations required by the CONTRACT DOCUMENTS are hereinafter referred to as the "WORK." The term "CONTRACT DOCUMENTS" shall mean this Agreement, all of the items enumerated in Exhibit B and all change orders or addenda issued with respect thereto, all the works and improvements described, mentioned and set forth in the CONTRACT DOCUMENTS. In the event of a conflict between the terms and conditions of the City of San Jose 1992 Standard Details and the Agency's Project Manual, the Agency's Project Manual shall control.

ARTICLE II

CONTRACT SUM

OWNER shall pay and CONTRACTOR shall accept as full compensation for the WORK the sum ("CONTRACT SUM") set forth in Exhibit C.

ARTICLE III

TIME FOR PERFORMANCE

Section 3.1. Definitions.

The following are definitions as used in this Agreement:

The term "Completion Date" shall mean the date that all the WORK is substantially complete.

The term "Direct Costs" shall mean the premium portion of overtime pay, additional crew, shift or equipment cost and such other items of cost requested in advance by CONTRACTOR and approved by OWNER, which approval shall not be unreasonably withheld.

The term "Excusable Delay" shall mean an actual delay in the performance of the WORK by CONTRACTOR caused by any of the following if such events are beyond the reasonable control of CONTRACTOR despite having taken all reasonable attempts to prevent, avoid delay and mitigate the effects thereof:

A. act or omission of OWNER, or by an employee, agent or representative of OWNER (other than by reason of the proper exercise of their respective rights, duties and obligations under the CONTRACT DOCUMENTS) except as provided in Section 7102 of the Public Contract Code; or

B. fire, flood, unusually severe and abnormal weather conditions beyond the anticipated average number of rain days per year over a ten (10) year period based on historic weather data, war, embargo, sabotage, hurricane, earthquake, tornado or by injunction (not the fault of CONTRACTOR); or

C. general strike, regulatory delays, strikes in or losses during transportation, or other similar event which is beyond CONTRACTOR's control.

The CONTRACTOR acknowledges that actual delays in activities that do not affect the completion time ("non-critical delays") do not have any effect upon the Scheduled Completion Date, and therefore, will not constitute an "Excusable Delay" nor be a basis for changing the Scheduled Completion Date. The CONTRACTOR acknowledges that

time extensions will be granted only to the extent that Excusable Delays exceed the available float in the PROJECT Schedule.

The term “Final Completion” shall mean the completion of all the WORK including punch list items.

The term “Notice to Proceed” shall have the meaning described in Section 3.2.

The term “PROJECT” shall have the same meaning as that set forth in the General Conditions.

The term “Scheduled Completion Date” shall mean and refer to the date set forth by Section 3.2 below, as such date may be extended pursuant to Section 3.3 below, or by Change Order.

The terms “Substantial Completion” and “Substantially Complete” shall have the meaning set forth in Article 8 and Article 9 of the General Conditions.

Section 3.2. Notice to Proceed/Scheduled Completion Date.

The WORK under the Contract shall proceed pursuant to and in accordance with a written notice from OWNER to CONTRACTOR to proceed (“Notice to Proceed”). CONTRACTOR shall diligently commence performance of the WORK on the date specified in the Notice to Proceed. CONTRACTOR shall complete performance of the entire WORK (as defined in Article 8 and Article 9 of the General conditions) on or before sixty (60) consecutive calendar days after the date of issuance of the Notice to Proceed (“Scheduled Completion Date”).

Section 3.3 Extension of Scheduled Completion Date.

In the event that CONTRACTOR is actually delayed on the performance of the WORK by any “Excusable Delay” which is an unforeseeable delay beyond the CONTRACTOR’s control and not the fault of either party, then the Scheduled Completion Date shall be extended for a period equal to the length of such Excusable Delay. Such extension of time on account of an Excusable Delay shall not be allowed unless applied for in writing by the CONTRACTOR within ten (10) calendar days of the commencement of any such delay, or the CONTRACTOR’s reasonable notice of such delay, and the written approval of such extension of time is obtained from the Architect or the OWNER. No verbal approval, either express or implied, or any grant of time extension by OWNER or its agents shall be binding upon OWNER unless and until such approval is expressly ratified in writing.

In the event the CONTRACTOR is delayed in the WORK by any such Excusable Delay, the CONTRACTOR’s remedy shall be an extension of time. In no event shall CONTRACTOR be entitled to a monetary payment over and beyond that which is

specified in the OWNER-CONTRACTOR Agreement plus that which is specified by duly executed change orders.

In the event of delay in the Work that is within Section 7102 of the Public Contract Code, the CONTRACTOR shall be entitled to an extension of time and compensation for such delay in strict accordance with the provisions of this section. The extension of time and provision for compensation shall not be allowed unless the CONTRACTOR provides the OWNER with written notice within ten (10) calendar days of the commencement of any such delay, or CONTRACTOR's reasonable notice of such delay. The OWNER must provide written approval of any extension of time, or payment of compensation. No verbal approval, either express or implied, or any grant of time extension by OWNER or its agents shall be binding upon OWNER unless and until such approval is expressly ratified in writing.

CONTRACTOR's remedy for a 7102 Delay, in addition to the extension of time, shall be as follows, upon CONTRACTOR's demonstration that these costs were actually impacted by the 7102 Delay:

a. Field or on-site labor according to actual payroll data for the time of the 7102 Delay. No multipliers will be allowed unless previously approved in writing by OWNER;
b. Idle field equipment will be priced at a daily rate calculated from the manufacturer quoted or invoiced costs;
c. Idle field rental equipment will be priced at a daily rate calculated from the invoiced costs; and
d. Total mark up of items (a) through (c) above for overhead and profit, including all levels of subcontractors and CONTRACTOR combined, shall not exceed 20% cumulative. For the purposes of this section, overhead includes (1) all indirect labor such as management, supervision, engineer and consulting, drafting, estimating, secretarial and accounting; (2) all field office expenses, including office supplies and equipment; (3) insurance and bonds; and (4) all corporate office expenses.

In the event of delay in the WORK which is not due to an Excusable Delay, or is not a 7102 Delay, OWNER may direct that the WORK be accelerated by means of overtime, additional crews or additional shifts or resequencing of the WORK. All such acceleration associated with an inexcusable delay, where the delay is attributable to the CONTRACTOR, shall be at no cost to OWNER. In the event of Excusable Delay or 7102 Delay, OWNER may similarly direct acceleration and CONTRACTOR agrees to perform same on the basis of reimbursement of Direct Cost plus a fee of five percent (5%) of such costs but expressly waives any other compensation therefore. In the event of any acceleration requested pursuant to this paragraph, CONTRACTOR shall provide promptly a plan including recommendations for, in CONTRACTOR's opinion, the most effective and economical acceleration.

Section 3.4 Liquidated Damages.

A. Timely Completion

OWNER and CONTRACTOR recognize that time is of the essence of this Agreement, and that OWNER will suffer financial loss if the work is not complete within the time specified, plus any extensions of time authorized under Section 3.3 of this Agreement. OWNER and CONTRACTOR further recognize the delays, expense and difficulty involved in proving OWNER's actual losses in a legal proceeding. Accordingly, and instead of requiring such proof of loss or damage, OWNER and CONTRACTOR agree that for each calendar day's delay beyond the Scheduled Completion Date, (which delays are not excused pursuant to Section 3.3 of this Agreement), CONTRACTOR shall pay to OWNER the sum of One Thousand and No/100 Dollars ($1,000.00) as liquidated damages.

B. Prevailing Wage Compliance

OWNER and CONTRACTOR recognize that CONTRACTOR's breach of applicable prevailing wage provisions, including those applicable through the California Labor Code and OWNER's additional prevailing wage compliance provisions within this Contract (Article IV of the Owner-Contractor Agreement and Article 17 of the General Conditions), will cause the OWNER damage by undermining OWNER's goals in assuring timely payment of prevailing wages, and will cause the OWNER additional expense in obtaining compliance and conducting audits, and that such damage would not be remedied by CONTRACTOR's payment of restitution to the worker paid less than the prevailing wage. OWNER and CONTRACTOR further recognize the delays, expense and difficulty involved in proving OWNER's actual losses in a legal proceeding. Accordingly, and instead of requiring such proof of loss or damage, OWNER and CONTRACTOR agree that for each instance where Owner has determined that prevailing wage requirements were not met, CONTRACTOR shall pay to OWNER as liquidated damages the sum of three (3) times the difference between the actual amount of wages paid and the prevailing wage which should have been paid.

_____	_____
OWNER	CONTRACTOR

ARTICLE IV

PREVAILING WAGES

This Project is a Public Work, subject to Labor Code §1771. The general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality for each craft, classification, or type of workman needed to execute this Agreement is that ascertained by the Director of the Department of

Industrial Relations of the State of California, copies of which ("Prevailing Rate Schedules") are on file in the City of San Jose Office of Equality Assurance, 200 East Santa Clara Street, 5th Floor Tower, San Jose, California 95113, (408) 535-8430. The Prevailing Rate Schedules shall be made available to any interested party on request. The holidays upon which such rates shall be paid shall be all holidays recognized in the collective bargaining agreement applicable to the particular craft, classification or type of worker employed on the PROJECT. CONTRACTOR shall post the Prevailing Rate Schedule at the Site.

CONTRACTOR shall forfeit, as a penalty as set forth in California Labor Code §1775, fifty dollars ($50.00) for each calendar day or portion thereof, for each worker paid less than the prevailing rates set forth in the Prevailing Rates Schedules for any work done under the CONTRACT DOCUMENTS or any work done by any subcontractor under CONTRACTOR. CONTRACTOR shall comply with the payroll records requirements set forth in Section 17.2 of the General Conditions and the provisions in Section 7.10 of the General Conditions concerning apprentices and shall be responsible for causing all of CONTRACTOR's subcontractors to comply with these requirements and provisions.

In addition to the California Labor Code requirements, OWNER recognizes that CONTRACTOR's payment of prevailing wages promotes the following goals:

1. Protection of job opportunities within the City of San Jose and stimulation of the economy by reducing the incentive to recruit and pay a substandard wage to workers from distant, cheap-labor areas;

2. Benefiting the public through the superior efficiency and ability of well-paid employees, thereby avoiding the negative impact that the payment of inadequate compensation has on the quality of services because of high turnover and instability in the workplace;

3. Payment of a wage that enables workers to live within the community, thereby promoting the health and welfare of all citizens of San Jose by increasing the ability of such workers to attain sustenance, avoid poverty and dependence on taxpayer funded social services; and

4. Increasing competition by promoting a level playing field among contractors with regard to the minimum prevailing wages to be paid to workers.

CONTRACTOR's compliance with prevailing wage requirements is a material consideration of OWNER in entering into this Contract. OWNER will monitor CONTRACTOR's compliance with the Labor Code requirements and additional requirements of this Contract through the City Of San Jose's Office of Equality Assurance, as detailed in the General Conditions Articles 7, 9 and 17.

ARTICLE V

NON-DISCRIMINATION

In the performance of this contract the CONTRACTOR will not refuse or fail to hire or employ any qualified person, or bar or discharge from employment any person, or discriminate against any person, with respect to his compensation, terms, conditions or privileges of employment, because of such person's race, color, religion, creed, national origin, ancestry, ethnicity, disability, age, marital status, sex, sexual orientation, or actual or perceived gender identity. If the CONTRACTOR or any of his subcontractors shall be found in violation of the above nondiscrimination provision, the CONTRACTOR shall be deemed to be in material breach of this Agreement and thereupon the OWNER shall have the power to do all or any of the following: (1) to cancel or suspend this Agreement, in whole or in part, and (2) to deduct and retain from the amount payable to the CONTRACTOR the sum of $250.00 for each person discriminated against in the performance of this Agreement for each calendar day during which such person was discriminated against in the performance of this Agreement, as liquidated damages for such breach of this Agreement, provided that the number of persons discriminated against shall not be deemed, for the purpose of determining the amount of such damages only, to exceed the number of positions in connection with which such discrimination occurs, e.g., if 20 persons are improperly discriminated against in connection with five positions, then the multiple use in assessing damages shall be the number of positions (5) and not the number of persons (20) discriminated against. In the event such finding is made after completion of the contract and after payment of all sums due CONTRACTOR by OWNER, CONTRACTOR shall be obligated to pay said sum to OWNER upon demand by OWNER. Violations of said provisions by subcontractors shall for the purposes of this provision be deemed to be violations by the CONTRACTOR. The CONTRACTOR shall not be deemed to be in breach of the provisions of this paragraph unless the State Fair Employment Practices Commission, or an appropriate Federal commission or agency, or a court of the State of California or of the United States Government finds, in any action or proceeding to which CONTRACTOR is a party, that the CONTRACTOR or a subcontractor discriminated against one or more specifically named employees or applicants for employment because of race, color, religion, creed, national origin, ancestry, ethnicity, disability, age, marital status, actual or perceived gender identity, sex or sexual orientation in the performance of this Agreement; provided that such court has issued a final judgment in such action or proceeding, or that the Fair Employment Practices Commission has issued a final order pursuant to Section 1426 of the Labor Code, or has obtained a final injunction pursuant to Section 1429 of the Labor Code, or that said appropriate Federal commission or agency has issued a final order or obtained a final injunction, and provided further, that for the purpose of this paragraph, no judgment, order, decree or injunction shall be considered final during the period within which (1) appeal may be taken, or (2) the same has been stayed by order of court, or (3) further proceedings for vacation, reversal or modification are in progress before a competent administrative or judicial tribunal.

The CONTRACTOR shall include the provisions of the above paragraph in every subcontract or purchase order so that such provision shall be binding upon each of his subcontractors and vendors.

ARTICLE VI

WORKER'S COMPENSATION INSURANCE

By my signature hereunder, as CONTRACTOR, I certify that 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 Agreement.

ARTICLE VII

CONFLICT

In the event of conflict between the terms of this Agreement and the bid or proposal of said CONTRACTOR, then, this Agreement shall control and nothing herein shall be considered as an acceptance of the terms of the proposal conflicting herewith.

ARTICLE VIII

EXHIBITS

This Agreement includes the following Exhibits which are attached hereto and incorporated herein by reference:

Exhibit A	The Site
Exhibit B	Contract Documents
Exhibit C	Contract Sum

IN WITNESS WHEREOF, the parties to these presents have hereunto set their hands the day and year first hereinabove written.

APPROVED AS TO FORM:

_____
Chief Deputy General Counsel

REDEVELOPMENT AGENCY
OF THE CITY OF SAN JOSE

By_____
Harry S. Mavrogenes
Executive Director

_____
(CONTRACTOR Name)

By _____
Its_____

Employer ID Number _____

Contractor's License No. _____
Expiration Date: _____

City Business License No.:_____
Expiration Date:_____

EXHIBIT A

SITE MAP

[to be provided]

EXHIBIT B

CONTRACT DOCUMENTS

1. Owner-Contractor Agreement
2. General Conditions
3. Contractor's Performance Bond
4. Contractor's Labor and Material Payment Bond
5. Project Plans
6. Project Specifications
7. Addenda, Substitutions, Modifications, Change Orders
8. List of Subcontractors, Suppliers, Truckers and Brokers (Non-Federally Funded Projects)
9. Instructions to Bidders
10. Technical Provisions of the City of San Jose, Standard Specifications for Public Works Construction, 1992 edition and subsequent addenda
11. City of San Jose Standard Plan Details for Public Works Construction, 1992 edition and subsequent addenda
12. Parkside Hall Roof Improvements Calendar

END OF EXHIBIT B

EXHIBIT C

CONTRACT SUM

A. BASE PRICE

Lump sum price for the furnishing of all labor, materials, services, equipment, fringe benefits, taxes, insurance, overhead and profit and any other costs or expenses necessary to perform all of the work:

_____ AND NO/100 DOLLARS
($_____)

1. Unit Price for purchase, delivery, and application of 5,000 square feet of additional roof mounted walkway protection pads for installation under supports for future solar panel array described in Specification Section 01270:

Item	Amount	Unit	Unit Price	Total
Roof Mounted Walkway Protection Pads	5,000	Square feet	$_____/s.f.	$_____

B. ALTERNATES

The following alternate has been accepted and all work described by the alternate is included in the CONTRACT SUM.

Alternate No. 1 - Described in Specification Section 01230 and further in Specification Section 08690.

_____ AND NO/100 DOLLARS
($_____)

C. TOTAL CONTRACT SUM:

_____ AND NO/100 DOLLARS
($_____)

END OF EXHIBIT C

END OF SECTION 00500

SECTION 00510

Bond Number:_____

CONTRACTOR'S PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

That_____
_____
as Principal, and_____
incorporated under the laws of the State of_____
and authorized to execute bonds and undertakings as sole Surety, are held and firmly bound unto the Redevelopment Agency of the City of San Jose, a public agency ("Agency"), in the sum of_____
_____(DOLLARS) ($_____);
for the payment thereof, well and truly to be made, said Principal and Surety bind themselves, their administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of the foregoing obligation is such that:

WHEREAS, the above Principal is about to enter into a certain contract with the Agency for the following work:

PARKSIDE HALL ROOF IMPROVEMENTS PROJECT

the award of which contract was made to Principal by the Board of the Agency, on June 26, 2007, as will more fully appear by reference to the minutes of Agency's Board of this date.

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the Agency, with or without notice to the Surety, and if Principal shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Agency from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Agency all outlay and expense which the Agency may incur in making good any default, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, forbearance or waiver, prepayment or delay in payment, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall

in no way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, forbearance or waiver, prepayment or delay in payment, alteration or addition to the terms of the contract or to the work or to the specifications. The Surety hereby expressly acknowledges and agrees to be bound by the terms and conditions contained in the contract documents and any amendments and/or modifications thereto, and said contract documents, and modifications are hereby incorporated in this performance bond as though fully set forth herein.

IN WITNESS WHEREOF, this instrument is executed this_____ day of_____, 200__.

PRINCIPAL	**SURETY**
_____ Legal Company Name	_____ Legal Company Name
By: _____ Signature _____ Print Name _____ Title	By:_____ Signature _____ Print Name _____ Title
By: _____ Signature _____ Print Name _____ Title	Address:_____ _____ _____

(Affix Corporate Seals)

(Attach Acknowledgments of both Principal and Surety signatures.)

Approved by the General Counsel of The Redevelopment Agency of the City of San Jose on the ____ day of _____, 200_.

By:_____
Chief Deputy General Counsel

END OF SECTION 00510

SECTION 00511

Bond Number:_____

LABOR AND MATERIAL PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, THE REDEVELOPMENT AGENCY OF THE CITY OF SAN JOSE, a public agency, is about to enter into a certain contract with _____ as Principal, namely, Contract for:_____ _____,f or the work hereinafter briefly described as follows: **PARKSIDE HALL ROOF IMPROVEMENTS PROJECT,** and more fully described in and required by the contract, the award of which was made to Principal by the Board of the Redevelopment Agency of the City of San Jose on _____, 200_, as will more fully appear by reference to the minutes of the Agency's Board of that date.

WHEREAS, said Principal is required by Chapter 5 (commencing at Section 3225) and Chapter 7 (commencing at Section 3247), Title 15, Part 4, Division 3 of the California Civil Code to furnish a bond in connection with said contract.

NOW, THEREFORE, we, the Principal and _____ _____ incorporated under the laws of the State of _____, and authorized to execute bonds and undertakings as sole surety in the State of California, as Surety, are held and firmly bound unto the Agency in the penal sum of _____DOLLARS ($_____), lawful money of the United States of America for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if Principal, its subcontractors, heirs, executors, administrators, successors, or assigns, shall fail to pay any of the persons named in Section 3181 of the California Civil Code, or amounts due under the Unemployment Insurance Code with respect to any work or labor performed or materials supplied by any such claimant, which work, labor or materials are covered by the contract and any amendments, changes, change orders, additions, alterations, or modifications thereof, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the contractor and his subcontractors, pursuant to Section 18806 of the Revenue and Taxation Code, with respect to such work and labor, the Surety will pay for the same, in an amount not exceeding the sum hereinabove specified.

This bond shall inure to the benefit of any of the persons named in Section 3181 of the California Civil Code, so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety on this bond shall not be exonerated or released from the obligation of this bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, plans, specifications, or agreement pertaining or relating to any scheme or work of improvement hereinabove described or pertaining or relating to the furnishing of labor, materials, or equipment therefore, nor by any change or modification of any terms of payment or extension of the time for any payment pertaining or relating to any scheme or work of improvement hereinabove described, nor by any rescission or attempted rescission of the contract, agreement or bond, nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such contract or agreement or under the bond, nor by any fraud practiced by any person other than the claimant seeking to recover on the bond and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given, and under no circumstances shall Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between Agency and original contractor or on the part of any obligee named in such bond, but the sole conditions of recovery shall be that claimant is a person described in Section 3110 or 3112 of the California Civil Code, and has not been paid the full amount of his claim and that Surety does hereby waive notice of any such change, extension of time, addition, alteration, modification, rescission or attempted rescission, herein mentioned.

It is further stipulated and agreed that no final settlement between the Agency and the Contractor with reference to the work, shall abridge the right of any beneficiary hereunder whose claims may be unsatisfied.

This bond is executed and delivered to comply with requirements of the City of San Jose, and to comply with the provisions of Title 15, Chapters 5 and 7 of Part 4, Division 3 of the Civil Code of the State of California.

SIGNED AND SEALED this _____ day of _____, 200_.

PRINCIPAL

_____
Legal Company Name

By: _____
Signature

_____
Print Name

_____
Title

By: _____
Signature

_____
Print Name

_____
Title

SURETY

_____
Legal Company Name

By:_____
Signature

_____
Print Name

_____
Title

Address:_____
_____
_____

(Affix Corporate Seals)

(Attach Acknowledgments of both Principal and Surety signatures.)

Approved by the General Counsel of The Redevelopment Agency of the City of San Jose on the ____ day of _____, 200_.

By:_____
Chief Deputy General Counsel

END OF SECTION 00511

SECTION 00512

LABOR COMPLIANCE DOCUMENTATION

(*Unless supply delivery is limited to curbside drop off, suppliers must be listed below.)

PRIME CONTRACTOR:_____

SUBCONTRACTOR (If 2nd or 3rd Tier Sub List)**:**_____

PROJECT NAME:_____

SUBCONTRACTOR/TRUCKER	DESCRIPTION OF WORK	DOLLAR AMOUNT	EXPECTED START DATE
Company: Address: Phone: Project Manager Name: Project Manager Cell Phone:			
Company: Address: Phone: Project Manager Name: Project Manager Cell Phone:			
Company: Address: Phone: Project Manager Name: Project Manager Cell Phone:			

Company: Address: Phone: Project Manager Name: Project Manager Cell Phone:			

LABOR COMPLIANCE WORKFORCE STATEMENT

CONTRACTOR NAME:_____

PROJECT TITLE:_____

In the chart below, list the name, prevailing wage classification(s) to be used, rate of pay and hire date for each employee expected to work on the above project. Include all classifications. See example below.

EMPLOYEE NAME	CRAFT/TRADE	BASIC HOURLY RATE OF PAY (On City of San Jose Contract)	DATE OF HIRE (Indenture Date If Apprentice)
Example: John Smith	***Operating Engineer***	***$27.31***	***4/1/1993***
"	***Laborer***	***$23.34***	***8/15/2000***

Questions regarding classifications allowed on San Jose projects should be directed to the Office of Equality Assurance at 408-535-8430. The receptionist will connect you to the Contract Compliance Specialist assigned to this project.

For Internet access to current prevailing wage rates and benefit information, you may contact the California Department of Industrial Relations web site at **http://www.dir.ca.gov/.** Click on **Statistics & Research**. Scroll down to Current **(Journeyman)**. Scroll down and follow the directions until you locate the trade applicable to your contract. Prevailing wages for City of San Jose contracts will be found under:

- Step One **Statewide**,
- Step Two (A) **Northern California**, or
- Step Four for **Santa Clara County**

Revised 6.2003

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

INSTRUCTIONS FOR FILING A FRINGE BENEFIT STATEMENT

California Labor Code and City wage policies (Resolution Nos. 60932, 61144, 61716 and 68900) require the filing of a Fringe Benefit Statement on each contract. The Code requires contractors to pay not less than the basic hourly rate plus fringe benefits as predetermined by the Department of Industrial Relations. The contractor's obligation to pay fringe benefits may be met either by payment of fringes to various plans, funds or programs or by making these payments to the employees as cash in lieu of fringes.

Properly filled out and submitted with supporting documentation, the Fringe Benefit Statement will notify the City of San Jose that your firm should receive credit for employer paid benefits towards the total hourly rate required in your contract.

FRINGE BENEFIT STATEMENT. In general, benefits such as Vacation/Holiday, Health & Welfare and Pension are considered fringes for payroll reporting purposes. Payroll deductions for items such as Fund Administration and Dues, paid by the employee, are not considered "Fringes" and therefore will not to be figured in any part of the wage schedule. (Please refer to the attached Clarification of Allowable Employer Fringe Benefit Payments and General Prevailing Wage Rate.)

The following instructions have been prepared to assist your firm in completing the City's Fringe Benefit Statement Form. For further clarification, contact the City of San Jose Office of Equality Assurance at:

Office of Equality Assurance
200 East Santa Clara Street
San Jose, California 95113
Phone: 408.535.8430
Fax: 408.292.6270

INSTRUCTIONS

(A) Name of Contractor or Subcontractor: Fill in your firm's name.

(B) Project: Fill in the project title.

(C) Classification: Indicate each prevailing wage classification you expect to use on this contract. You may use additional sheets if necessary or attach a spreadsheet containing the same information to this form.

(D) Calculate and input the hourly dollar amount for each benefit. If benefit amounts vary from employee to employee, it may be beneficial to break down individual employee benefits in a spreadsheet format and attach the spreadsheet to this form.

Contractors operating under bargaining agreements may obtain the hourly dollar benefit breakdown from their benefit plan administrators. If your firm does not operate under a bargaining agreement, you may use the formulas on the next page to compute hourly benefits. Please be advised that examples are provided only to demonstrate how the formulas are used.

Annual Calculation. The annual calculation is based on 2080 hours per year (40 hours x 52 weeks per year).

Use the Annual Benefit Amount	**Formula: Employee's Basic Hourly Rate x Number of Benefit Hours** (8 hours a day x number of days) **÷ 2080 annual hours.**
For Example: At $20 per hour, with 80 vacation hours a year the hourly rate calculates >>>>>>>	$20 x 80 hours = $1,600 divided by 2080 = $.77 **Fringe Benefit Hourly Amount: $ .77**

Monthly Calculation. The monthly calculation factor of 173.33 is based on 2080 hours per year divided by 12 months.

Use the Monthly Benefit Payment	**Formula: Monthly benefit plan contribution ÷ 173.33.**
For Example: If the employer pays $200 per month for a medical benefit, the monthly hourly rate calculates >>>>>>>	A monthly plan contribution of $200 divided by 173.33 = $ 1.15 **Fringe Benefit Hourly Amount: $ 1.15**

(E) Name of the Plan or Fund. To receive credit for employer paid benefit contributions, contributions must be documented. On the Fringe Benefit Statement, indicate the name of the Plan or Fund and attach appropriate plan contribution documentation described below.

- **Health & Welfare Documentation**. For your Health & Welfare Plan, please submit copies of the plan documentation indicating monthly or quarterly billings for the covered benefits (and delineating all benefits per worker), as well as statements and copies of checks transmitted by your firm to the trust fund payments for these benefits.

- **Pension Plan Documentation**. For your Pension Plan, please submit copies of the plan documentation from the Plan Administrator including the plan summary, account balances, monthly or quarterly transmittals into the accounts and copies of checks transmitted by your firm to them as payments into these accounts.

- **Vacation Plan/Paid Holiday Documentation**. Please submit copies of your company's policy for employer paid vacation and holidays. For vacation, please explain how you track the vacation hours for each employee. Additionally, please submit copies of monthly reports or statements from the bank/fund depository showing that the plan and vacation amounts are available for the workers.

- **Use of Apprentices.** To use an apprentice, your firm must be registered with an apprenticeship program approved by the California Division of Apprenticeship Standards (DAS). To pay a worker at the apprenticeship rate, you must provide documentation that each such worker is registered as an apprentice. If the worker is not registered, the journeyman rate must be paid.

  NOTE: Section 1777 of the California Labor Code details contractor obligations to pay training funds into approved apprenticeship programs and the ratio of apprentices to journeymen performing work on a public works contract.

  Prior to commencing work on a public work contract of $30,000 or greater, every contractor is required to submit contract award information to an applicable apprenticeship program. For more information, you may contact the local DAS office at:

  State of California
  Department of Industrial Relations
  Division of Apprenticeship Standards (DAS)
  100 Paseo de San Antonio, Room 125
  San Jose, CA 95113

  The local Division of Apprenticeship Standards may be reached by telephone at 408-277-1273 or by Fax at 408-277-9612. For more information see the following Internet address: http://www.dir.ca.gov/DAS/das.html

(F) Fringes Paid In Cash. Indicate if some or all fringes will be added to the employee's basic hourly rate.

ATTACHMENTS:
Fringe Benefit Statement
Clarification of Allowable Employer Fringe Benefit Payments

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

LABOR COMPLIANCE
FRINGE BENEFIT STATEMENT

CONTRACTOR NAME: (A) _____

PROJECT: (B) _____

I certify under penalty of perjury that fringe benefits are paid to the approved plans, funds, or programs as listed below:

Classification	Fringe Benefit Hourly Amount	Name of the Plan or Fund (Attach Premium Transmittal)
1. (C)	Vacation (D)	(E)
Documentation of Plan ***contribution must be returned with this statement***	$	
Please attach a copy of your most recent transmission into each medical, pension, or profit sharing plan account indicating worker name and amount of contribution.	Health & Welfare $	
	Pension $	
	Apprentice $	
	Other (specify) $	
2.	Vacation $	
	Health & Welfare $	
	Pension $	
	Apprentice $	
	Other (specify) $	
3.	Vacation $	
	Health & Welfare $	
	Pension $	
	Apprentice $	

Other (specify)
$ _____ _____

(F) ☐ All (or some) fringes are paid in cash by adding the amount to the employee's basic hourly rate.

_____ _____
Company Name (Please Print) Name and Title (Please Print)

_____ _____
Date Signature

Revised 8.2003

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

LABOR COMPLIANCE
FRINGE BENEFIT STATEMENT

CONTRACTOR NAME:_____

PROJECT:_____

I certify under penalty of perjury that fringe benefits are paid to the approved plans, funds, or programs as listed below:

Classification	Fringe Benefit Hourly Amount	Name of the Plan or Fund (Attach Premium Transmittal)
1.	Vacation	
Documentation of Plan contribution must be returned with this statement	$	
	Health & Welfare $	
Please attach a copy of your most recent transmission into each	Pension $	
medical, pension, or profit sharing plan account indicating worker	Apprentice $	
name and amount of contribution.	Other (specify) $	
2.	Vacation $	
	Health & Welfare $	
	Pension $	
	Apprentice $	
	Other (specify) $	
3.	Vacation $	
	Health & Welfare $	
	Pension $	
	Apprentice $	
	Other (specify) $	

All (or some) fringes are paid in cash by adding the amount to the employee's basic hourly rate.

Company Name (Please Print)	Name and Title (Please Print)
Date	Signature

Revised 8.2003

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

INSTRUCTIONS FOR
CERTIFIED PAYROLL REPORTING

California Labor Code requires contractors to pay not less than the basic hourly rate plus fringe benefits as predetermined by the Department of Industrial Relations. The contractor's obligation to pay fringe benefits may be met either by payment of fringes to various plans, funds or programs or by making these payments to the employees as cash in lieu of fringes.

The City of San Jose Public Works Payroll Reporting Form is modeled after the Public Works Payroll Reporting Form A-1-131 prepared by the California Department of Industrial Relations. This form has been made available for the convenience of contractors and vendors required by City of San Jose construction, maintenance or service contracts to submit certified payrolls. Properly filled out, this form will satisfy the requirements of California Labor Code Part 7, Section 1776 to file payrolls submitted in connection with contracts for public work and maintenance contracts. (Note: A computer payroll report is acceptable [with Statement of Compliance form attached] only if the same payroll information is included.) All compliance documents are to be accompanied by the Compliance Documentation Transmittal Form provided by the Office of Equality Assurance.

This payroll form provides for the contractor's showing on the face of the payroll all monies paid to the employees, whether as basic rates or as cash in lieu of fringes and provides for the contractor's representation in the statement of compliance attached to the payroll that he/she is paying to others fringes required by the contract and not paid as cash in lieu of fringes.

The following instructions have been prepared to assist your firm in completing certified payroll-reporting forms. For further clarification, contact the City of San Jose Office of Equality Assurance at:

Office of Equality Assurance
200 East Santa Clara Street
San Jose, California 95113
Phone: 408.535.8430
Fax: 408.292.6270

INSTRUCTIONS

(A) Name of Contractor or Subcontractor: Fill in your firm's name.

(B) Contractor's License #: Fill in your firm's license #

(C) Address: Fill in your firm's address.

(D) Payroll No: Fill in your firm's fiscal year payroll number.

(E) Week Ending: Fill in the last calendar day reported on the form. If this is a two-week pay period please indicate.

(F) Self-Insured Certificate # / Workers' Compensation Policy #: Self-explanatory.

(G) Project or Contract No: Project title or Purchase Order Number.

(1) Column 1 – Name, Address, and Social Security Number of Employee: The employee's full name, address & social security number must be shown on each weekly payroll submitted.

NOTE: Owner-operators performing work on-site must be included on the payroll form with full payroll detail including: number of hours worked, hourly rate of compensation/draw, gross amount earned on the City of San Jose contract and total gross amount received for the reported week.

(2) Column 2 – Work Classifications: List classification descriptive of work actually performed by employees. Consult the General Prevailing Wage Determination made by the Director of Industrial Relations for proper classification. If additional classifications are deemed necessary, contact the Office of Equality Assurance. Employees may be shown as having worked in more than one classification provided accurate breakdown of hours worked is maintained and shown on the payroll by use of separate line entries.

(3) Column 3 – Hours Worked: List hours worked each day on City of San Jose Project. List hours worked on non City of San Jose Projects under All Other Work. Enter overtime hours in accordance with California Industrial Welfare Commission Order No. 16-2001.

(4) Column 4 – Total Hours. Indicate total of straight-time hours worked **(s)** and total over-time hours worked **(o)**.

(5) Column 5 – Rate of Pay, Including Fringe Benefits: In the Hourly Rate of Pay box, list actual basic hourly rate paid the employee for straight time worked plus any cash in lieu of fringes paid the employees. When recording the straight time hourly rate include any cash paid in lieu of fringes. You should show separately that benefits are paid in cash on the Statement of Compliance. (See "FRINGE BENEFITS" below.) For overtime, show overtime hourly rate paid, plus any cash in lieu of fringes paid the employees. Payment of not less than time and one half the basic or regular rate paid is required for overtime.

STATEMENT OF COMPLIANCE. See instructions for completing Statement of Compliance on the next page.

(6) Column 6 – Gross Amount Earned:

a. San Jose Project: Enter the gross amount earned on this project. If part of the employee's weekly wage was earned on a project other than the project described on this payroll, enter two separate gross amounts in column 6. In the first sub-column enter the amount earned on the City of San Jose project, and then enter the total gross amount earned for all projects (including the San Jose project) in the sub-column: Total All Projects.

b. Travel & Subsistence: Enter the gross travel and or subsistence payment amount paid to the employee for the week reported.

c. Total All Work: Enter the total gross amount earned for the San Jose Project, Travel & Subsistence, and All Other Work for the week reported.

(7) Column 7 – Deductions: Indicate deductions made in the appropriate box; if more than the indicated deductions are made, show the balance of deductions under "Other"; show actual total under "Total Deductions"; and in an attachment to the payroll describe the deductions contained in the "Other" column. If the employee worked on other jobs in addition to this project, show actual deductions from his weekly gross wage.

(8) Column 8 – Net Wages Paid for Week and Check No.: Required.

Statement of Compliance Required: While this form need not be notarized, the statement is certified under penalty of perjury. Accordingly, the party signing this required statement should have knowledge of the facts represented as true and must be the owner or other person holding interest in the firm.

Check Box A. Contractors who pay all fringe benefits: A contractor who pays fringe benefits into approved plans, funds or programs in amounts not less than were determined in the applicable wage decision shall continue to show on the face of the payroll the basic cash hourly rate and overtime rate paid to his employees just as he has always done. Such contractor shall also check Paragraph A. of the Statement of Compliance that he is paying to approved plans, funds or programs not less than the amount predetermined as fringe benefits for each craft. (Any exceptions shall be noted in check box C.)

Check Box B. Contractors who pay no fringe benefits: A contractor who pays no fringe benefits shall pay to the employee, and insert in the straight time Hourly Rate of Pay column of the payroll, an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the applicable wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringes, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on basic or regular rate, plus the required cash in lieu of fringes at the straight time rate. In addition, the contractor shall check Paragraph B of the Statement of Compliance to indicate that he is paying fringe benefits in cash directly to his employees. (Any exceptions shall be noted in check box C.)

Check Box C. Exceptions: Any contractor who is making payment to approved plans, funds or programs in amounts *less* than the wage determination requires is obliged to pay the difference directly to the employees as cash in lieu of fringes. Any exceptions to Paragraph A or B, whichever the contractor may check, shall be entered in Paragraph C. Explain the reason an employee is not paid the total fringes through contribution to a plan or cash in lieu of fringes and provide the hourly dollar amount. An attachment may be used for this purpose.

This section may also be used to explain other withholding such as child support or uniform deductions. Such withholding amounts are reported as OTHER employee deductions on the payroll-reporting form [see column (8) on the attached sample].

ATTACHMENTS:

City of San Jose Public Works Payroll Reporting Form
Statement of Compliance

CITY OF SAN JOSÉ PUBLIC WORKS PAYROLL REPORTING FORM

PAGE _____OF _____

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

NAME OF CONTRACTOR (A) OR SUBCONTRACTOR | CONTRACTOR'S LICENSE# (B) | ADDRESS (C)

SPECIALTY LICENSE#

PAYROLL NO. (D) | FOR WEEK ENDING (E) | SELF-INSURED CERTIFICATE # | WORKERS' COMPENSATION POLICY# (F) | PROJECT OR CONTRACT NO. (G) *PROJECT AND LOCATION*

(1) NAME, ADDRESS AND SOCIAL SECURITY NUMBER OF EMPLOYEE	(2) WORK CLASSIFICATION		(3) DAY M	T	W	TH	F	S	S	(4) TOTAL HOURS	(5) HOURLY RATE OF PAY	(6) GROSS AMOUNT EARNED			(7) DEDUCTIONS – EMPLOYEE PAID (DOES NOT INCLUDE BENEFIT OR OTHER EMPLOYER PAYMENTS)					(8) NET WAGES PAID FOR WEEK	CHECK NO.
			DATE																		
			HOURS WORKED EACH DAY																		
Employee:	San Jose Project:	S										SAN JOSE PROJECT	TRAVEL & SUBSISTENCE	TOTAL ALL WORK	FED. TAX	FICA (Soc Sec)	STATE TAX	SDI	HEALTH & WEL-FARE		
		O																			
	All Other Work:	S													PENSION	SAVINGS	OTHER*	OTHER*	TOTAL DEDUC-TIONS		
		O																			
Employee:	San Jose Project:	S										SAN JOSE PROJECT	TRAVEL & SUBSISTANCE	TOTAL ALL WORK	FED. TAX	FICA (Soc Sec)	STATE TAX	SDI	HEALTH & WEL-FARE		
		O																			

	All Other Work:	S													PENSION	SAVINGS	OTHER*	OTHER*	TOTAL DEDUC-TIONS		
		O																			
Employee:	**San Jose Project:**	S										SAN JOSE PROJECT	TRAVEL & SUBSISTANCE	TOTAL ALL WORK	FED. TAX	FICA (Soc Sec)	STATE TAX	SDI	HEALTH & WEL-FARE		
		O																			
	All Other Work:	S													PENSION	SAVINGS	OTHER*	OTHER*	TOTAL DEDUC-TIONS		
		O																			

S = Straight time
O = Overtime
SDI = State Disability Insurance

*OTHER. Any other deductions, whether or not included or required by prevailing wage determinations, must be separately listed. Use extra sheet if necessary.

NOTE: <u>CERTIFICATION STATEMENT</u> MUST BE COMPLETED AND THE ORIGINAL SIGNED STATEMENT ATTACHED TO THE PAYROLL

Office of Equality Assurance ·200 East Santa Clara Street, San Jose, CA 95113 ***tel*** (408) 535.8430 ***fax*** (408) 292.6270

CITY OF SAN JOSÉ PUBLIC WORKS PAYROLL REPORTING FORM

PAGE _____OF _____

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

NAME OF CONTRACTOR | CONTRACTOR'S LICENSE# | ADDRESS

OR SUBCONTRACTOR

SPECIALTY LICENSE#

PAYROLL NO.

FOR WEEK ENDING

SELF-INSURED CERTIFICATE #

WORKERS' COMPENSATION POLICY#

PROJECT OR CONTRACT NO.

PROJECT AND LOCATION

(1) NAME, ADDRESS AND SOCIAL SECURITY NUMBER OF EMPLOYEE	(2) WORK CLASSIFICATION		(3) DAY M	T	W	TH	F	S	S	(4) TOTAL HOURS	(5) HOURLY RATE OF PAY	(6) GROSS AMOUNT EARNED			(7) DEDUCTIONS – EMPLOYEE PAID (DOES NOT INCLUDE BENEFIT OR OTHER EMPLOYER PAYMENTS)					(8) NET WAGES PAID FOR WEEK	CHECK NO.
			DATE																		
			HOURS WORKED EACH DAY																		
Employee:	**San Jose Project:**	S										SAN JOSE PROJECT	TRAVEL & SUBSISTENCE	TOTAL ALL WORK	FED. TAX	FICA (Soc Sec)	STATE TAX	SDI	HEALTH & WEL-FARE		
		O																			
	All Other Work:	S													PENSION	SAVINGS	OTHER*	OTHER*	TOTAL DEDUC-TIONS		
		O																			
Employee:	**San Jose Project:**	S										SAN JOSE PROJECT	TRAVEL & SUBSISTANCE	TOTAL ALL WORK	FED. TAX	FICA (Soc Sec)	STATE TAX	SDI	HEALTH & WEL-FARE		
		O																			

	All Other Work:	S													PENSION	SAVINGS	OTHER*	OTHER*	TOTAL DEDUC-TIONS		
		O																			
Employee:	**San Jose Project:**	S										SAN JOSE PROJECT	TRAVEL & SUBSISTANCE	TOTAL ALL WORK	FED. TAX	FICA (Soc Sec)	STATE TAX	SDI	HEALTH & WEL-FARE		
		O																			
	All Other Work:	S													PENSION	SAVINGS	OTHER*	OTHER*	TOTAL DEDUC-TIONS		
		O																			

Revised 4.2003

S = Straight time
O = Overtime
SDI = State Disability Insurance

*OTHER. Any other deductions, whether or not included or required by prevailing wage determinations, must be separately listed. Use extra sheet if necessary.

NOTE: <u>CERTIFICATION STATEMENT</u> MUST BE COMPLETED AND THE ORIGINAL SIGNED STATEMENT ATTACHED TO THE PAYROLL

Office of Equality Assurance · 200 East Santa Clara Street, San Jose, CA 95113 ***tel*** (408) 535-8430 ***fax*** (408) 292-6270

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

STATEMENT OF COMPLIANCE
(Certified Under Penalty of Perjury)

PROJECT:_____

PAYROLL PERIOD: _____ to _____
First Day of Pay Period Last Day of Pay Period

I, _____, the undersigned, am
(Name - print)

_____with the authority* to act
(Position in business)

for and on behalf of _____,
(Name of business and/or contractor)

certify under penalty of perjury that the records or copies thereof submitted and consisting

of _____ are the originals or true, full and
(description / no. of pages)

correct copies of the originals which depict the payroll record(s) of the actual disbursements by way of cash, check, or whatever form to the individual or individuals named.

*Must be signed by the owner or other person holding interest in the firm.

Signature:_____

Title:_____

Date:_____

☐ A. FRINGE BENEFITS ARE PAID INTO APPROVED PLANS, FUNDS OR PROGRAMS.
In addition to the basic hourly wage rates paid to each laborer or mechanic listed on the attached payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted under item C below.

☐ B. FRINGE BENEFITS ARE PAID IN CASH.
Each laborer or mechanic listed on the attached payroll has been paid as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in item C below.

☐ C. EXCEPTIONS Please explain below.

_____

_____

Revised 4.2003

CITY OF SAN JOSE
CAPITAL OF SILICON VALLE

CERTIFICATION OF POSTING AND DISTRIBUTION

Pursuant to California Labor Code 1773.2, a copy of the current General Prevailing Wage Determination Made By The Director of Industrial Relations must be posted at the public works construction job site. If more than one worksite exists on any project, the applicable rates may be posted at a single location that is readily available to all workers.

Prevailing wage determinations with a single asterisk (*) after the expiration date that are in effect on the date of advertisement of bids remain in effect for the life of the project. Prevailing wage determinations with double asterisks (**) after the expiration date indicate that the basic hourly rate, overtime and holiday pay rates and employer payments to be paid for work performed after this date have been predetermined. If work is to extend past this date, the new rate must be paid. The contractor should contact the Prevailing Wage Unit of the Division of Labor Statistics and Research at (415) 703-4774 or the awarding body to obtain predetermined wage changes.

In addition to the California Labor Code requirement to post, the City of San Jose requires that the prime contractor distribute the current wage determination and any subsequent wage determinations applicable to this project to all subcontractors on this job and certify posting and distribution by signature below.

The undersigned contractor certifies that the current General Prevailing Wage Determination applicable to this project has been distributed and posted as required.

Project Name:_____

Prime Contractor:_____

_____
(Signature of Authorized Representative)

_____
(Authorized Representative's Printed Name)

_____
(Authorized Representative Title)

_____
(Date)

Revised 4.2003

Clarification of Allowable Employer Fringe Benefit Payments And General Prevailing Wage Rate

Excerpt from California Code of Regulations, Title 8, Group 3. Payment of Prevailing Wages Upon Public Works.

Employer Payments. Includes:

(1) The rate of contribution irrevocably made by a contractor or subcontractor to a trustee or to a third person pursuant to a fund, plan, or program for the benefit of employees, their families and dependents, or retirees.

(2) The rate of costs to the contractor or subcontractor which may be reasonably anticipated in providing benefits to employees, their families and dependents or to retirees pursuant to an enforceable commitment or agreement to carry out a financially responsible plan or program which was communicated in writing to the workers affected; and

(3) The rate of contribution irrevocably made by the contractor or subcontractor for apprentice or other training programs authorized by Section 3071 and/or 3093 of the Labor Code.

General Prevailing Rate of Per Diem Wages

(a) Includes:

(1) The prevailing basic straight-time hourly rate of pay; and

(2) The prevailing rate for holiday and overtime work; and

(3) The prevailing rate of employer payments for any or all programs or benefits for employees, their families and dependents, and retirees which are of the types enumerated below:

(A) medical and hospital care, prescription drugs, dental care, vision care, diagnostic services, and other health and welfare benefits;

(B) retirement plan benefits;

(C) vacations and holidays with pay, or cash payments in lieu thereof;

(D) compensation for injuries or illnesses resulting from occupational activity;

(E) life, accidental death and dismemberment, and disability or sickness and accident insurance;

(F) supplemental unemployment benefits; thrift, security savings, supplemental trust, and beneficial trust funds otherwise designated, provided all of the money except that used for reasonable administrative expenses is returned to the employees;

(G) occupational health and safety research, safety training, monitoring job hazards, and the like, as specified in the applicable collective bargaining agreement;

(H) See definition of "Employer Payments," (3).

(I) other bona fide benefits for employees, their families and dependents, or retirees as the Director may determine; and

(4) travel time and subsistence pay as provided for in Labor Code Section 1773.8.

(b) The term "general prevailing rate of per diem wages" does not include any employer payments for:

(1) Job related expenses other than travel time and subsistence pay;

(2) Contract administration, operation of hiring halls, grievance processing, or similar purposes except for those amounts specifically earmarked and actually used for administration of those types of employee or retiree benefit plans enumerated above;

(3) Union, organizational, professional or other dues except as they may be included in and withheld from the basic taxable hourly wage rate;

(4) Industry or trade promotion;

(5) Political contributions or activities;

(6) Any benefit for employees, their families and dependents, or retirees including any benefit enumerated above where the contractor or subcontractor is required by Federal State, or local law to provide such benefit; or

(7) Such other payments as the Director may determine to exclude.

Prevailing Wage Fringe Benefit Form Attachment

SECTION 00700

GENERAL CONDITIONS

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SECTION 00700

GENERAL CONDITIONS

ARTICLE 1

CONTRACT DOCUMENTS

1.1 DEFINITIONS

1.1.1 Contract Documents

The Contract Documents consist of the Owner-Contractor Agreement ("Agreement"), including all documents set forth in Exhibit B to the Agreement, the General Conditions of the Contract, Drawings, Specifications, Plans, and all Addenda issued prior to and all Modifications issued after execution of the Agreement. A Modification to the Contract Documents shall be (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a written interpretation issued by the Owner pursuant to subparagraph 2.1.7, or (4) a written order for a minor change in the Work issued by the Architect and/or Engineer pursuant to Paragraph 12.4. The Contract Documents do not include Bidding Documents such as the Advertisement or Notice to Contractor - Invitation to Bid or any other documents unless specifically enumerated in Exhibit B to the Owner-Contractor Agreement.

1.1.2 Contract

The Contract Documents form the Contract for Construction. This Contract represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification as defined in Subparagraph 1.1.1. The Contract Documents shall not be construed to create any contractual relationship of any kind between the Architect and/or Engineer and the Contractor but the Architect and/or Engineer and Owner shall be entitled to performance of the obligations of the Contractor intended for their benefit and to enforcement thereof. Nothing contained in the Contract Documents shall create any contractual relationship between the Owner, the Architect and/or Engineer and any subcontractor or sub-subcontractor.

1.1.3 Work

The Work comprises the completed construction required of the Contractor by the Contract Documents, and includes all labor necessary to produce such construction, and all materials and equipment incorporated or to be incorporated in such construction.

1.1.4 Project

The Project, as defined in the Owner-Contractor Agreement, is the total construction of which the Work performed under the Contract Documents is a part.

1.1.5 Contractor

The Contractor is the person or entity identified as such in the Owner-Contractor Agreement. The term “Contractor” means the Contractor or the Contractor's authorized representative.

1.1.6 Owner

The Owner of the Project (“Owner” or “Agency”) is the Redevelopment Agency of the City of San Jose or authorized representative of Owner or Agency.

1.1.7 Architect and/or Engineer

The Architect and/or Engineer is Steinberg Architects and its designated agents and representatives for all Work under the Contract Documents.

1.1.8 Subcontractors

A subcontractor is a person or entity who has a direct contract with the Contractor to perform any of the Work at the Site. The term subcontractor means a subcontractor or a sub-contractor's authorized representative. The term subcontractor does not include any separate contractor or any separate contractor's subcontractors.

1.1.9 Sub-Subcontractors

A sub-subcontractor is a person or entity who has a direct or indirect contract with a subcontractor to perform any of the Work at the Site. The term sub-subcontractor means a sub-subcontractor or an authorized representative thereof.

1.1.10 Site

The Site is the property depicted on Exhibit A to the Agreement.

1.1.11 City

The City is the City of San Jose, a municipal corporation of the State of California.

1.1.12 Construction Manual

The Construction Manual includes all bidding documents and contract documents.

1.1.13 Notice of Award of Contract

The Notice of Award of Contract is the written notice to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated herein within the time specified the Owner will sign and deliver the Agreement.

1.1.14 Notice to Proceed

The Notice to Proceed is the written notice given by the Owner to the Contractor fixing the date on which the Contract time will commence to run and on which the Contractor shall start to perform the Contractor's obligations under the Contract Documents.

1.1.15 Equal or Approved Equal

The terms “equal” or “approved equal” shall mean Substitutions approved by the Architect and/or Engineer.

1.2 EXECUTION, CORRELATION AND INTENT

1.2.1 The Agreement shall be signed in not less than quadruplicate by the Owner and the Contractor.

1.2.2 Execution of the Contract by the Contractor is a representation that the Contractor has visited the Site, reviewed the Contract Documents, become familiar with the local conditions under which the Work is to be performed, and has correlated personal observations with the requirements of the Contract Documents.

1.2.3 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. All work that is consistent with the Contract Documents and is reasonably inferable therefrom as being necessary to produce the intended results is required. Words and abbreviations which have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings unless the context or express provisions of the Contract Documents indicate another meaning.

1.2.4 The organization of the Specifications into divisions, sections and articles, and the arrangement of Drawings and Plans shall not control the Contractor in dividing the Work among subcontractors or in establishing the extent of Work to be performed by any trade.

1.2.5 The intent of the Contract Documents is to prescribe the details for construction and completion of the Work in accordance with the terms of the Contract. Where Contract Documents describe portions of the Work in general terms, but not in

complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used.

1.2.6 Any discrepancies between Contract Documents and conditions of the Site, or in the layout given by stakes, points or instructions, discovered by the Contractor shall be promptly brought to the attention of the Owner by written notice. Work done after such discovery, until authorized by the Owner, will be done at the Contractor's risk.

1.2.7 In general, Specifications indicate qualities of materials and workmanship and Drawings indicate dimensions, locations, quantities and details of construction. Quantities indicated are estimates only. Figured dimensions take precedence over scaled measurements. Detailed Drawings and Specifications take precedence over general Drawings and Specifications. Supplementary details and instructions, approved revisions of later date, and addenda take precedence over original documents, information, and earlier addenda. In the event of ambiguity in quantity or in quality, the greater quantity and the better quality shall govern. Work not particularly detailed, marked or specified shall be the same as similar parts that are detailed, marked or specified.

1.3 OWNERSHIP AND USE OF DOCUMENTS

All Drawings, Plans, Specifications and copies thereof furnished by the Architect and/or Engineer are and shall remain the property of the Owner. They are to be used only with respect to the Work and are not to be used on any other project. With the exception of one contract set for each party to the Contract, such documents are to be returned or suitably accounted for to the Owner on request at the completion of the Work.

ARTICLE 2

ADMINISTRATION OF THE CONTRACT

2.1 ADMINISTRATION OF THE CONTRACT

2.1.1 The Architect and/or Engineer will assist the Agency with administration of the Contract as hereinafter described.

2.1.2 The Architect and/or Engineer will be the Owner's representative during construction and until final payment to all contractors is approved. The Architect and/or Engineer will advise and consult with the Owner. All communications from the Contractor will be made directly to the Owner. All instructions to the Contractor shall be forwarded through the Owner. The Architect and/or Engineer will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified by written instrument in accordance with Subparagraph 2.1.13.

2.1.3 The Architect and/or Engineer will determine in general that the Work of the Contractor is being performed in accordance with the Contract Documents and will endeavor to guard the Owner against defects and deficiencies in the Work of the Contractor. No act or omission of the Architect and/or Engineer will relieve Contractor of responsibility or liability for defects and deficiencies in the work.

2.1.4 The Architect and/or Engineer will visit the Site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the Work and to determine in general if the Work is proceeding in accordance with the Contract Documents.

2.1.5 Except as provided elsewhere in the Contract Documents, the Architect and/or Engineer will not be responsible for or have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work. Except as provided elsewhere in the Contract Documents, the Architect and/or Engineer will not be responsible for or have control or charge over the acts or omissions of the Contractor, Subcontractors, or any of their agents or employees, or any other persons performing any of the Work. The Contractor, with due diligence shall provide competent quality assurance and inspection of all phases of the Work prior to a formal request by the Contractor to have the Owner review the Work for completion.

2.1.6 The Architect and/or Engineer and Owner shall at all times have access to the Work wherever it is in preparation and progress. The Contractor shall provide facilities and/or equipment for such access so that the Architect and/or Engineer and the Owner may perform their functions under the Contract Documents.

2.1.7 The Architect and/or Engineer will be the initial interpreter of the aesthetic and technical requirements of the Contract Documents. The Contractor may make written request to the Owner for interpretations necessary for the proper execution or progress of the Work. The Owner will refer such written requests to the Architect and/or Engineer, who will render such interpretations within a reasonable time after his receipt of the request. Where the Contractor has requested an interpretation from the Owner, or been notified by the Owner that such interpretation has been requested, any Work done before receipt of such interpretations, if not in accordance with same, shall be removed and replaced or adjusted as directed by the Owner without additional expense to Owner.

2.1.8 All interpretations of the Architect and/or Engineer shall be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in graphic form.

2.1.9 The Architect and/or Engineer will have authority to reject Work which does not conform to the Contract Documents, and to require special inspection or testing, but will take such action only after consultation with the Owner. Whenever, in the Architect and/or Engineer's opinion, it is considered necessary or advisable for the

implementation of the intent of the Contract Documents, the Architect and/or Engineer will have authority to require special inspection or testing of the Work in accordance with Subparagraph 7.8.2 whether or not such Work be then fabricated, installed or completed. However, the Architect and/or Engineer's authority to act under this Subparagraph 2.1.9, and any decision made by it in good faith either to exercise or not to exercise such authority shall not give rise to any duty or responsibility of the Architect and/or Engineer to the Contractor, any Subcontractor, any of their agents or employees, or any other person performing any of the Work.

2.1.10 The Contractor shall submit all Shop Drawings, Product Data and Samples to the Owner for the Architect and/or Engineer's review.

2.1.11 The Architect and/or Engineer will review and take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for conformance with the design concept of the Work and the information given in the Contract Documents.

2.1.12 The Owner, with the assistance of the Architect and/or Engineer, will conduct inspections to determine the dates of Substantial Completion of the Work and Final Completion of the Work, and will receive all written warranties and related documents required by the Contract and assembled by the Contractor. The Owner will issue a final Certificate for Payment upon compliance with the requirements of Paragraph 9.10.

2.1.13 The duties, responsibilities and limitations of authority of the Architect and/or Engineer as the Owner's representative during construction, as set forth in the Contract Documents, will not be modified or extended without written consent of the Owner.

2.1.14 In case of the termination of the employment of the Architect and/or Engineer, the Owner shall appoint a new Architect and/or Engineer whose status under the Contract Documents shall be that of the former Architect and/or Engineer.

2.2 CONFERENCES

At any time during progress of the Work, the Owner shall have authority to require the Contractor and any subcontractors to attend a job-site conference. Any notice of such conference shall be duly observed and complied with by the Contractor and Subcontractors. These conferences may be held on a weekly basis.

ARTICLE 3

OWNER

3.1 INFORMATION AND SERVICES REQUIRED OF THE OWNER

3.1.1 The Owner shall make available to Contractor, as necessary, all surveys and documents, in the Owner's possession, relied upon in the Contract Documents to describe the physical characteristics, legal limitations and utility locations for the Site of the Project.

3.1.2 Contractor will be furnished free of charge two (2) copies of Drawings, Plans, Project Manuals, and Addenda for execution of the Work. In addition, Contractor will be furnished one (1) set of reproducible prints. Modifications to the Contract Documents issued after execution of the Contract will be furnished as follows: written material - one (1) copy; drawings - one (1) reproducible print and two (2) blue-line prints.

3.1.3 The foregoing are in addition to other duties and responsibilities of the Owner enumerated herein including, without limitation, those relating to Work By Owner or By Separate Contractors, Payments and Completion, and Insurance set forth in Articles 6, 9 and 11, respectively.

3.2 OWNER'S RIGHT TO STOP THE WORK

If the Contractor fails to correct defective Work as required by Paragraph 13.2, or fails to carry out the Work in accordance with the Contract Documents, the Owner, by a written order signed personally or by an agent specifically so empowered by the Owner in writing, may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the Owner to stop the Work shall not give rise to any duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity.

3.3 OWNER'S RIGHTS AND DUTIES

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents, and fails within seven (7) days after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, and without prejudice to any other remedy the Owner may have, make good such deficiencies. In such case an appropriate Change Order shall be issued deducting from the payments then or thereafter due the Contractor any and all costs of correcting such deficiencies, including but not limited to, compensation for the Architect and/or Engineer's additional services made necessary by such default, neglect or failure. Such action by the Owner and the amount charged to the Contractor shall be based on the consultation with the Architect and/or Engineer, if necessary. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.

3.4 OWNER'S RIGHT TO USE OR POSSESS

3.4.1 The Owner reserves the right, prior to Substantial Completion, to possess, or use, any completed part or parts of the Work. The exercise of this right shall in no way constitute an acceptance of such parts, or any part of the Work, nor shall it in any way affect the dates and times when progress payments shall become due from the Owner to the Contractor or in any way prejudice the Owner's rights in the Contract, or any bonds guaranteeing the same. The Contract shall be deemed completed only when all the Work contracted has been duly and properly performed and accepted by the Owner.

3.4.2 In exercising the right to possess or use completed parts of the Work prior to the Substantial Completion thereof, the Owner shall not make any use which will materially increase the cost to the Contractor, without increasing the Contract Sum, nor materially delay the completion of the Contract, without extending the time for completion.

ARTICLE 4

CONTRACTOR

4.1 GENERAL

4.1.1 The Contractor's office at the Project Site is hereby designated as the legal address of the Contractor for the receipt of documents, samples, notices, letters and other articles of communication.

4.1.2 At the time the contract is awarded, all contractors and subcontractors shall be properly licensed in accordance with the provisions of Chapter 9 of Division 3 of the Business and Professions Code.

4.2 REVIEW OF CONTRACT DOCUMENTS

The Contractor shall carefully study and compare the Contract Documents and shall at once report in writing to the Owner any error, inconsistency, omission or lack of coordination that may be discovered. The Contractor shall not be liable to the Owner or the Architect and/or Engineer for any damage resulting from any such errors, inconsistencies or omissions or lack of coordination in the Contract Documents, unless the Contractor recognized such error, inconsistency or omission and failed to report it to the Owner. The Contractor shall perform no portion of the Work at any time without executed Contract Documents or, where required, reviewed Shop Drawings, Product Data or Samples for such portion of the Work.

4.3 SUPERVISION AND CONSTRUCTION PROCEDURES

4.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures, and shall coordinate all portions of the Work under the Contract, including the relations of the various trades to the progress of the Work, and other contractors who may be working at the Project site pursuant to other prime contracts, subject to the overall review of the Owner and in accordance with the provisions of the Contract Documents.

4.3.2 The Contractor shall be responsible to the Owner for the acts and omissions of the Contractor's employees, subcontractors and their agents and employees, and any other persons performing any of the Work under a contract with the Contractor.

4.3.3 The Contractor shall not be relieved from the Contractor's obligations to perform the Work in accordance with the Contract Documents either by the activities or duties of the Architect and/or Engineer in its administration of the Contract, or by inspections, tests or approvals required or performed under Paragraph 7.8 by persons other than the Contractor.

4.3.4 Nothing in the Contract Documents shall be interpreted to make the Contractor an agent of the Owner.

4.4 LABOR, MATERIALS & EQUIPMENT

4.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

4.4.2 The Contractor shall at all times enforce strict discipline and good order among the Contractor's employees, including, but not limited to, appropriate public behavior and decorum, and shall not employ on the Work any unfit person or anyone not skilled in the task assigned them.

4.4.3 Each machine or unit of equipment shall be operated by an experienced operator skilled in handling the particular make of machine or unit of equipment in use, at a speed or rate of production not to exceed that recommended by the manufacturer.

4.4.4 Equipment not suitable to produce the quality of work required will not be permitted to operate on the Project. Plants shall be designed and constructed in accordance with general practice for such equipment and shall be of sufficient capacity and of such character as to insure the production of sufficient material to carry the work to completion within the time limit. The Contractor shall provide adequate and suitable

equipment and plants to meet the above requirements and, when ordered by the Owner, shall remove unsuitable equipment from the work and discontinue the operation of unsatisfactory plants.

4.4.5 All vehicles used to haul materials over existing traveled ways shall be equipped with pneumatic tires and legal wheel loads.

4.4.6 The Contractor shall use only such equipment on the work and in such state of repair, that the emission of sound therefrom is within the noise tolerance level of that equipment, as established by accepted standards of the industry.

4.4.7 Should the Owner determine that the muffling device on any equipment used on the work is ineffective or defective so that the noise tolerance of such equipment, as established by accepted standards of the industry is exceeded, such equipment shall not, after such determination by the Owner, be used on the work until its muffling device is repaired or replaced so as to bring the noise tolerance level of such equipment within such standards.

4.4.8 The mention of any specific duty or liability imposed upon the Contractor shall not be construed as a limitation or restriction of any general liability or duty imposed upon the Contractor by this Contract. Such references to specific duties and liabilities are made for the purpose of explanation.

4.5 WARRANTY

The Contractor warrants to the Owner that all materials and equipment furnished under this Contract will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions of Paragraph 13.2.

4.6 TAXES

The Contractor shall pay all sales, consumer, use and other similar taxes for the Work or portions thereof provided by the Contractor which are legally enacted at the time bids are received, whether or not yet effective.

4.7 PERMITS, FEES AND NOTICES

4.7.1 Contractor shall obtain and pay for all permits, governmental fees, and licenses required to perform the Work. The Contractor and subcontractors shall be required to obtain and pay for all municipal permit and inspection fees and for all construction permits and inspection fees. The Contractor shall obtain and pay for permits from the City of San Jose and the California Department of Transportation for

use of portions of streets adjacent to the Site as necessary for Contractor's operations, as well as any other permits, fees and licenses.

4.7.2 The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the Work.

4.7.3 If the Contractor observes that any of the Contract Documents are at variance with applicable laws, statutes, building codes and regulations in any respect, the Contractor shall promptly notify the Owner in writing, and any necessary changes shall be accomplished by appropriate Modification.

4.7.4 If the Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Owner, the Contractor shall assume full responsibility therefore and shall bear all costs attributable thereto.

4.7.5 The Contractor shall send proper notices, make all necessary arrangements, and perform all other services required in the care and maintenance of public utilities which are within his influence and under his direction. The Contractor shall assume all responsibility concerning the same for which the Owner may be liable.

4.7.6 The Contractor shall pay all fees for required work to be performed on site utilities and services. These fees shall be included in the Contract Sum.

4.8 ALLOWANCES

4.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by these allowances shall be supplied for such amounts and by such persons as the Owner may direct, but the Contractor will not be required to employ persons against whom the Contractor makes a reasonable objection.

4.8.2 Unless otherwise provided in the Contract Documents, these allowances shall cover:

.1 the cost to the Contractor, less any applicable trade discount, of the materials and equipment and all other costs and expenses necessary to perform the required work, including taxes;

.2 the cost of bonds, insurance and other costs required by the Contract Documents and the Contractor's overhead and profit for the original allowance shall be included in the Contract Sum and **not** in the original allowance amount. Subcontractors' overhead and profit shall be limited to fifteen percent (15%). (This actual

amount will be determined when documents are prepared and the work of the allowance is bid.)

.3 whenever the cost is greater or less than the amount of the allowance, the Contract Sum shall be adjusted accordingly by Change Order. The Change Order shall be written for the difference between the actual cost of the work and the amount of the original allowance included in the Contract Sum. If the amount of the actual allowance exceeds the amount of the original allowance, the extended amount shall be subject to overhead and profit markup for Contractor, and other costs as noted in 4.8.2.2. above. If the amount of the actual allowance is less than the amount of the original allowance, no credit shall be taken for Contractor's overhead and profit included in the Contract Sum for the original allowance.

4.9 DUST CONTROL

The Contractor shall provide as much water, dust palliative, or other authorized material, and the labor and devices necessary to spread such material, as the Agency deems necessary to control dust. The Contractor shall provide any and all dust control required by the City or any regional, state or federal governmental entity having jurisdiction over the Site or the Project. The payment for dust control shall be considered as included in other items of work and no additional compensation shall be made therefore, unless otherwise provided by the Contract Documents.

Whenever the Contractor is negligent in providing adequate dust control, the Agency shall order the Contractor to provide such adequate dust control, and if the Contractor does not comply forthwith with such order, the Agency shall have the authority to suspend the Work, wholly or in part, for such period as the Agency may deem necessary until the Contractor provides adequate dust control to the satisfaction of the Agency, or the Agency may provide such dust control and charge the cost to provide adequate dust control to the Contractor by deducting such cost from periodic payments to the Contractor as such costs are incurred by the Agency.

4.10 POLLUTION CONTROL

The Contractor shall not, in connection with the Work, discharge any smoke, dust or other contaminants into the atmosphere or discharge any fluids or materials into any lake, river, stream, or channel that will violate any federal, state or local laws or regulations of any legally constituted authority. The Contractor shall control accumulation of waste materials and rubbish and dispose waste materials and rubbish off-site in at least weekly intervals. Burning of materials is not permitted.

4.11 SUPERINTENDENT

4.11.1 The Contractor shall employ a competent Project superintendent and necessary assistants who shall be in attendance at the Site during the progress of the Work. The superintendent shall represent the Contractor and all communications given to the superintendent shall be as binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be so confirmed on written request in each case. Contractor shall supply the name of the Superintendent within five (5) days after the issuance of the Notice to Proceed.

4.11.2 The Owner shall be supplied at all times with the names and telephone numbers of at least two persons in charge of or responsible for the Work, who can be reached for emergency work 24-hours a day, seven days a week. Contractor's Construction schedule shall include specific references for those days when work is not allowed on the site.

4.11.3 Where the Contractor is comprised of two or more persons, co-partnerships or corporations, functioning on a joint venture basis, Contractor shall designate in writing to the Owner the name of its authorized representative who will have supreme authority to direct the Work and to whom communications and directives permitted or required by this Agreement will be given by the Owner.

4.12 CONTRACTOR'S CONSTRUCTION SCHEDULE

The Contractor, within five (5) calendar days of issuance of the Notice to Proceed, shall prepare and submit for the Owner's review a Contractor's Construction Schedule for the Work which shall provide for expeditious and practicable execution of the Work.

4.13 DOCUMENTS AND SAMPLES AT THE SITE

The Contractor shall maintain at the Site, on a current basis, one record copy of all Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to record all changes made during construction, and reviewed Shop Drawings, Product Data and Samples. These shall be available to the Architect and/or Engineer and the Owner. The Contractor shall advise the Owner on a current basis of all changes in the Work made during construction. All record drawings and documents shall be current to include all changes and clarifications on a monthly basis for review by the Owner prior to monthly billing. Billing will include a certification by the Contractor that the drawings and documents record are current as a part of the complete monthly billing.

4.14 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

4.14.1 Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or any subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

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

4.14.3 Samples are physical examples which illustrate materials, equipment or workmanship, and establish standards by which the Work will be judged.

4.14.4 The Contractor shall prepare, review, submit, and revise, as necessary, with reasonable promptness and in such sequence as to cause no delay in the Work or in the work of the Owner or any separate contractor, all Shop Drawings, Product Data and Samples required by the Contract Documents.

4.14.5 By preparing, approving and submitting Shop Drawings, Product Data and Samples, the Contractor represents that the Contractor has determined and verified all materials, field measurements and field construction criteria related thereto, or will do so with reasonable promptness, and has checked and coordinated the information contained within such submittals with the requirements of the Work, the Project and the Contract Documents.

4.14.6 The Contractor shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the Architect and/or Engineer's review of Shop Drawings, Product Data or Samples under Subparagraph 2.1.10, unless the Contractor has specifically informed the Architect and/or Engineer in writing of such deviation prior to submission for review and the Architect and/or Engineer, with Owner approval has given written acceptance to the specific deviation. The Contractor shall not be relieved from responsibility for errors or omissions in the Shop Drawings, Product Data or Samples by the Architect and/or Engineer's review of them. All changes to the Contract Documents shall be clearly noted on the submittal for review by the Architect and/or Engineer.

4.14.7 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data or Samples, to revisions other than those requested by the Architect and/or Engineer on previous submittals.

4.14.8 No portion of the Work requiring submission of a Shop Drawing, Product Data or Sample shall be commenced until the submittal has been reviewed by the Architect and/or Engineer and resubmitted, if necessary, as provided in Subparagraph 2.1.10. All such portions of the Work shall be in accordance with approved submittals.

4.15 USE OF SITE

4.15.1 The Contractor shall confine operations at the Site to areas permitted by law, ordinances, permits and the Contract Documents, and shall not unreasonably encumber the Site with any materials or equipment. The Contractor shall not use any portion of the site, nor perform any work on the site on days identified as “No Work

Allowed On Site" as shown on "Parkside Hall Roof Improvements Calendar". The Contractor shall remove from the site all ground level items associated with the work, including equipment, materials, debris, fencing, and barricades, during those days identified as "No Work Allowed On Site" as shown on "Parkside Hall Roof Improvements Calendar". The Contractor shall provide adequate protection of all Work until final completion and acceptance. The Contractor shall take particular precautions to protect all existing items of work to remain; existing buildings and structures; underground piping and other facilities. All damaged or disturbed items shall be replaced at the expense of Contractor prior to acceptance.

4.15.2 The Contractor shall coordinate all of the Contractor's operations with, and secure approval from, the Owner before using any portion of the Site. This Project may be one of several construction projects or scheduled events in the immediate area, including the Site. Contract work for other construction, or scheduled events within and adjacent to the right-of-way may be in progress during the working period for this Contract. Progress schedules for such other work when available and schedules for scheduled events, as shown in the "Parkside Hall Roof Improvements Calendar", should be inspected by the Contractor. No guarantee can be made by the Owner that such other work will actually be performed as indicated by the schedules. The Owner will not be responsible for delay caused by the disagreement or any lack of cooperation between contractors. No additional compensation will be allowed for delay, inconvenience or interference to the Contractor's operations by reason of such other work or scheduled events.

4.15.3 Contractor shall, at Owner's election, utilize any reserve gates set aside for use of Contractor, its suppliers and employees. Contractor shall perform its obligations under this Contract notwithstanding the presence of pickets at said reserve gate.

4.16 COMMUNICATIONS

The Contractor shall forward all communications directly to the Owner except as otherwise provided in the Construction Documents.

4.17 ROYALTIES AND PATENTS

The Contractor shall pay all royalties and license fees, shall defend all suits or claims for infringement of any copyright, trademark or patent rights and shall save the Owner, the City, the Architect and/or Engineer, and all of their agents, employees, successors and assigns harmless from loss on account thereof, except that the Owner or the Architect and/or Engineer, as the case may be, shall be responsible for all such loss when a particular design, process or the product of a particular manufacturer or manufacturers is selected by such person or such person's agent. If the Contractor, has reason to believe that the design, process or product selected is an infringement of a copyright, trademark or patent, the Contractor shall be responsible for such loss unless such information is promptly given to the Owner and also to the Architect and/or Engineer.

4.18 INDEMNIFICATION

4.18.1 To the fullest extent permitted by law, the Contractor shall fully protect, indemnify, defend and hold harmless the Owner, the City, the Architect and/or Engineer, and all of their respective agents, employees, successors and assigns from and against any and all liability, claim or demand, arising out of or resulting from, either directly or indirectly, the performance of the Work or the conditions of the Site, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom, and (2) is caused in whole or in part by any intentional act, negligence (active or passive), default or omission of the Contractor, or of any subcontractor, any of the Contractor's or subcontractors' suppliers, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. Contractor's obligations to indemnify and hold the City and Agency harmless exclude only such portion of any claim, loss or liability which is due to the active negligence or willful misconduct of the Agency, City or their employees. Such obligation shall not be construed to negate, abridge or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph 4.18. The Contractor at its own expense, and risk, shall defend all legal proceedings that may be brought against the Owner, the City, the Architect and/or Engineer, and their successors, assigns, officers and employees, on any such liability, claim or demand, and satisfy any resulting judgment that may be rendered against any of them. Contractor's obligations under this Section shall survive the expiration or sooner termination of this Contract.

4.18.2 In any and all claims against the Owner, the Architect and/or Engineer or any of their agents, employees, successors or assigns by any employee of the Contractor, any subcontractor, any supplier of the Contractor or subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph 4.18 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor or any supplier of either of them under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

4.18.3 The obligations of the Contractor under this Paragraph 4.18 shall not extend to the liability of the Architect and/or Engineer, its agents or employees, arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications, or (2) the giving of or the failure to give directions or instructions by the Architect and/or Engineer, its agents or employees, provided such giving or failure to give is the primary cause of the injury or damage.

4.19 ADDITIONAL PROVISIONS

Nothing in this Contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the Work or the soil. All such materials shall become the property of the Owner upon being so attached or affixed.

ARTICLE 5

SUBCONTRACTORS

5.1 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

5.1.1 Contractor shall have submitted with Contractor's Bid for Owner's approval a list of all subcontractors whose work represents an amount in excess of one-half of one percent (0.5%) of the Contract Sum, setting forth the name and location of the place of business of each such subcontractor and the portion of work (including the dollar amount) which will be done by each such subcontractor in the manner required by the California Subletting and Subcontracting Fair Practices Act, California Public Contract Code Section 4100 *et seq*. Before starting work under the Contract, a subcontractor must be included in the list of subcontractors submitted by the Contractor with the bid. Contractor shall not substitute any subcontractor in place of the subcontractors designated in such list except as approved by the Owner and as permitted by the Subletting and Subcontracting Fair Practices Act. Contractor shall not subcontract any portion of the work in excess of one half of one percent (0.5%) of the Contract Sum for which no subcontractor was listed in the bid, or permit any subcontract to be assigned, transferred, or performed by anyone other than the designated subcontractor except as approved by Owner and as permitted by the Subletting and Subcontracting Fair Practices Act.

5.1.2 Within ten (10) days after award of the Contract, Contractor shall submit for Owner's approval a list of all subcontractors whose work represents over one-half of one percent (0.5%) of the Contract Sum.

5.2 SUBCONTRACTUAL RELATIONS

5.2.1 By an appropriate agreement, written where legally required for validity, the Contractor shall require each subcontractor, to the extent of the Work to be performed by the subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities which the Contractor, by these Documents, assumes toward the Owner and the Architect and/or Engineer. Said agreement shall preserve and protect the rights of the Owner and the Architect and/or Engineer under the Contract Documents with respect to the Work to be performed by the subcontractor so that the subcontracting

thereof will not prejudice such rights, and shall allow to the subcontractor, unless specifically provided otherwise in the Contractor-Subcontractor Agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by these Documents, has against the Owner. Where appropriate, the Contractor shall require each subcontractor to enter into similar agreements with their sub-subcontractors. The Contractor shall make available to each proposed subcontractor, prior to the execution of the subcontract, copies of the Contract Documents to which the subcontractor will be bound by this Paragraph 5.2, and identify to the subcontractor any terms and conditions of the proposed subcontract which may be at variance with the Contract Documents. Each subcontractor shall similarly make copies of such Documents available to their sub-subcontractors.

5.2.2 The Contractor shall be fully responsible for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by the Contractor.

5.2.3 When a portion of the Work subcontracted by the Contractor is not being performed in a manner satisfactory to the Owner, the Owner shall notify the Contractor and shall inform him of the deficiencies in the sub-contractor's execution of the Work. If the subcontractor fails to correct such deficiencies within ten (10) days after Contractor's receipt of notification from the Owner, the Contractor shall cause the subcontractor to be removed immediately from the Work.

5.2.4 Contractor agrees to bind in writing all subcontractors and materials suppliers to the terms of the General Conditions of the Contract for Construction and to the terms of the entire agreement between Owner and Contractor.

5.2.5 Contractor shall require each subcontractor and materials supplier to agree in writing to utilize any reserve gate set aside, at Owner's election, for use by said subcontractor, its suppliers and employees, or said materials supplier. Contractor shall require each subcontractor and materials supplier to agree in writing to perform its obligations under this Contract notwithstanding the presence of pickets at said reserve gate.

ARTICLE 6

WORK BY OWNER OR BY SEPARATE CONTRACTORS

6.1 OWNER'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

6.1.1 The Owner reserves the right to perform work related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other work on the Site under these or similar Conditions of the

Contract. If the Contractor claims that delay, damage or additional cost is involved because of such action by the Owner, the Contractor shall make such claim as provided elsewhere in the Contract Documents.

6.1.2 When separate contracts are awarded for different portions of the Project or other work on the Site, the term Contractor in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

6.1.3 The Owner will provide for the coordination of the work of the Owner's own forces with the Work of the Contractor, who shall cooperate therewith as provided in Paragraph 6.2.

6.2 MUTUAL RESPONSIBILITY

6.2.1 The Contractor shall afford the Owner and separate contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and shall connect and coordinate the Work with theirs as required by the Contract Documents.

6.2.2 If any part of the Contractor's Work depends for proper execution or results upon the work of the Owner or any separate contractor, the Contractor shall, prior to proceeding with the Work, promptly report to the Owner any apparent discrepancies or defects in such other work that render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acceptance of the Owner's or separate contractor's work as fit and proper to receive the Work.

6.2.3 Any costs caused by defective or ill-timed work shall be borne by the party responsible therefore.

6.2.4 Should the Contractor wrongfully cause damage to the work or property of the Owner, or to other work or property on the Site, the Contractor shall promptly remedy such damage as provided in Subparagraph 10.2.5.

6.2.5 Should the Contractor wrongfully delay or cause damage to the work or property of any separate contractor, the Contractor shall, upon due notice, promptly attempt to settle with such other contractor by agreement, or otherwise to resolve the dispute. If such separate contractor sues the Owner on account of any delay or damage alleged to have been caused by the Contractor, the Owner shall notify the Contractor who shall, at the Owner's election, defend such proceedings at the Contractor's expense. If any judgment or award against the Owner arises from any such litigation proceeding, whether defended by Owner or by Contractor, the Contractor shall pay or satisfy said judgment or award and shall reimburse the Owner for all attorneys' fees and court costs which the Owner has incurred or for which the Owner is liable.

6.3 OWNER'S RIGHT TO CLEAN UP

The Contractor shall keep the Site and surrounding area free from accumulation of waste material or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove from and about the Project waste, rubbish, the Contractor's tools, construction machinery, equipment, surplus materials and other property. If a dispute arises between the Contractor and separate contractors as to their responsibility for cleaning up, the Owner may clean up and charge the cost thereof to the contractors responsible.

ARTICLE 7

MISCELLANEOUS PROVISIONS

7.1 GOVERNING LAW

7.1.1 The Contract shall be governed by the law of the place where the Project is located.

7.1.2 Rules of law shall prevail over any provision contained in any of the Contract Documents which may be in conflict thereto or inconsistent therewith and the remaining provisions of the Contract shall, nevertheless, remain in full force and effect.

7.1.3 The Contractor shall conform to and abide by all local, state and federal building, sanitary, health and safety laws, rules, and regulations, including all City ordinances and regulations. To the best knowledge and belief of the parties, the Contract now contains no provision that is contrary to federal or state law or any ruling or any regulations of a federal or state agency. Should, however, any provisions of the Contract at any time during its term be in conflict with any such law, ruling or regulation, and such provisions of the Contract are thus held inoperative, the remaining provisions of the Contract shall, nevertheless, remain in full force and effect.

7.1.4 All Contractors and subcontractors employed upon the Work shall and will be required to conform to the provisions of the Labor Code of the State of California, including Prevailing Wage Provisions as presented in ARTICLE 17 herein, and shall also comply with all rules, regulations and Labor Laws of the federal government and the various acts amendatory and supplementary thereto, and all other laws, ordinances and legal requirements.

7.1.5 Whenever the provisions of any section of the Specifications may conflict with any agreement or regulation of any kind in force among members of any trade association, union or council which regulates or distinguishes what work shall or shall

not be included in the work of any particular trade, the Contractor must make all necessary arrangements to reconcile any such conflict without recourse to the Architect and/or Engineer or Owner.

7.1.6 The Contractor shall protect, defend, indemnify and hold harmless the Owner and Architect and/or Engineer, their employees, agents, successors or assigns from any and all claims, demands, actions, loss and damage arising by reason of a breach of any of the provisions of this Article.

7.2 SUCCESSORS AND ASSIGNS

The Owner and the Contractor, respectively, bind themselves, their partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of such other party with respect to all covenants, agreements and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other.

7.3 WRITTEN NOTICE

Written notice shall be deemed to have been duly served if delivered in person to the individual or member of the firm or entity or to an officer of the corporation for whom it was intended, or if delivered at or sent by an express mail service, registered or certified mail to the last business address known to the party giving the notice.

7.4 CLAIMS FOR DAMAGES

Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the other party or of any of the other party's employees, agents or others for whose acts such party is legally liable, claim shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

7.5 RESOLUTION OF CLAIMS LESS THAN OR EQUAL TO $375,000

7.5.1 In the event that Contractor submits a claim for an extension of time, payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the Contract the payment of which is not otherwise expressly provided for or an amount the payment of which is disputed by the Agency, such claim shall be in writing and shall include all documents necessary to substantiate the claim. All claims

must be submitted within the time limits set forth in these General Conditions including, but not limited to, paragraph 12.3.

7.5.2 In the event that said claim is in an amount less than Fifty Thousand Dollars ($50,000.00), the Agency shall either respond in writing to the claim within forty-five (45) days of receipt of the claim, or may request, in writing, any additional documentation supporting the claim or relating to defenses or claims the Agency may have against Contractor.

Agency shall respond to Contractor's claim within fifteen (15) days of receipt of the requested additional information, or within a period of time no greater than that taken by Contractor in producing the requested additional information, whichever if greater.

7.5.3 In the event that said claim is for an amount in excess of fifty thousand dollars ($50,000.00) and less than or equal to three hundred seventy-five thousand dollars ($375,000.00), the Agency shall respond in writing to Contractor's claim within 60 days of receipt of the claim, or may request, in writing, any additional documentation supporting any claim the Agency may have against Contractor.

Agency shall respond to Contractor's claim within thirty (30) days of receipt of the requested additional information, or within a period of time no greater than that taken by Contractor in producing the requested additional information, whichever is greater.

7.5.4 In the event that Contractor disputes the Agency's written response to Contractor's claim as set forth in either 7.5.2 or 7.5.3, above, or the Agency fails to respond to the Contractor's claims within the time prescribed in this paragraph, Contractor shall, within 15 days thereof demand, in writing, a conference with Agency to meet and confer for settlement of the issues in dispute. Agency shall then schedule such conference within 30 days of receipt of said document.

7.5.5 In the event that the meet and confer conference fails to resolve the claim or any portion thereof, Contractor may file a claim pursuant to Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.

7.5.6 The following procedures shall apply to all civil actions filed to resolve claims pursuant to paragraph 7.5.5.

(a) Within sixty (60) days, but not earlier than thirty (30) days of the filing of any claim, the matter shall be submitted to nonbinding mediation. Agency and Contractor shall then have fifteen (15) days to agree upon the selection of a disinterested third party as mediator. Mediation shall begin within thirty (30) days of selection of mediator, and shall be concluded within fifteen (15) days thereafter.

(b) If the nonbinding mediation fails to resolve the claim, the parties shall submit the matter to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The arbitrator shall be experienced in construction law.

(c) The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title of Part 4 of the Code of Civil Procedure) shall apply to the proceeding, consistent with the rules pertaining to judicial arbitration.

(d) If either the Agency or Contractor appeals an arbitration award and does not obtain a more favorable judgment on appeal, that party shall pay the costs and fees and attorney fees incurred on appeal by the responding party.

(e) The Agency shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

7.5.7 Notwithstanding the above provisions, the Agency shall pay any portion of any claim that is undisputed unless otherwise provided in these General Conditions. In addition, any and all claims between the Contractor and Agency in an amount greater than $375,000.00 shall not be subject to the provisions set forth in this paragraph 7.5.

7.6 PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

7.6.1 Following Award of the Contract and prior to commencing any of the Work, the Contractor shall provide the Owner with a 100 percent Performance Bond and Labor and Material Payment Bond, using the bond forms provided by the Owner or an Owner approved similar bond. During the Contract Time as defined in Article 8, bond amount(s) shall be increased for increased value of changes in the Work.

7.6.2 At the election of Owner, Contractor shall provide, within ten (10) days of receipt of each progress payment and of the final payment, unconditional waivers and release of lien rights, signed by Contractor and each of its subcontractors and materials suppliers, in the form established therefore by Section 3262 of the Civil Code of the State of California.

7.7 RIGHTS AND REMEDIES

7.7.1 The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

7.7.2 No action or failure to act by the Owner or the Architect and/or Engineer shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

7.8 TESTS

7.8.1 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested or approved, the Contractor shall give the Owner timely notice of its readiness so the Architect and/or Engineer and the Owner may observe such inspection, testing or approval. The Contractor shall bear all costs of such inspections, tests or approvals conducted by public authorities. Unless otherwise provided, the Owner shall bear all costs of other inspections, tests or approvals.

7.8.2 If the Architect and/or Engineer or the Owner determines that any Work requires special inspection, testing or approval which Subparagraph 7.8.1 does not include, the Owner will instruct the Contractor to order such special inspection, testing or approval, and the Contractor shall give notice as provided in Subparagraph 7.8.1. If such special inspection or testing reveals a failure of the Work to comply with the requirements of the Contract Documents, the Contractor shall bear all costs thereof, including compensation for the Architect and/or Engineer's and the Owner's additional services made necessary by such failure; otherwise the Owner shall bear such costs, and an appropriate Change Order shall be issued.

7.8.3 Required certificates of inspection, testing or approval shall be secured by the Contractor and the Contractor shall promptly deliver them to the Agency.

7.8.4 If the Architect and/or Engineer or the Owner wishes to observe the inspections, tests or approvals required by the Contract Documents, they will do so promptly and, where practicable, at the source of supply.

7.9 TRADE NAMES AND ALTERNATIVES

For convenience in designation on the Contract Documents, certain equipment, articles, materials, products, things, or services may be designated under a trade name or the name of a manufacturer and his catalog information, and be followed by the words “or equal”. Except in those instances where the Agency Board has made a finding under Section 3400 of the Public Contract Code that a brand name specification is needed for one of the designated purposes, all equipment, articles, materials, products, things or services, shall also be designated under at least one (1) additional brand or trade name of comparable quality or utility. In cases where only one (1) brand or trade name is known to the Owner, only one (1) brand or trade name is listed. The use of alternative

equipment or an article, material, product, thing or service which is of equal quality and bearing required characteristics for the purpose intended will be permitted, subject to the approval of the Owner. The Contractor shall obtain the Owner's approval in accordance with the following requirements:

Within fifteen (15) days after Notice to Proceed, or as necessary so as not to delay progress of the Work, the Contractor shall submit data substantiating any request for a substitution of "an equal" item.

The burden of proof as to the comparative quality and suitability of alternative equipment or articles, materials, products, things, or services, shall be upon the Contractor. Contractor shall furnish, at his own expense, all information necessary or related thereto as required by the Owner. The Owner shall be the sole judge as to the comparative quality and suitability of alternative equipment, articles, materials, products, things or services, and its decision shall be final.

7.10 EMPLOYMENT OF APPRENTICES

7.10.1 Attention is directed to the provisions of Section 1777.5 and 1777.6 of the California Labor Code concerning the employment of apprentices by the Contractor or any subcontractor. The Contractor and any subcontractor shall comply with the requirements of Section 1777.5 and 1777.6 in the employment of apprentices.

7.10.2 Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex-officio the Administrator of Apprenticeship Standards and its branch offices.

7.10.3 The Contractor shall make such travel and subsistence payments to each workman needed to execute the Work as are established in the applicable collective bargaining agreements filed in accordance with Section 1773.8 of the California Labor Code.

7.10.4 To the greatest extent possible, opportunities for training and employment arising from this Contract shall be given to lower income residents in the Park Center Redevelopment Project Area.

7.11 PENALTY FOR COLLUSION

If, at any time, it is determined by the Agency that the person, firm or corporation to whom the Contract has been awarded has, in presenting any bid or bids, colluded with any other party or parties, then the Contract shall be null and void, and the Contractor and his sureties shall be liable for loss or damage which the Owner may suffer thereby, and the Owner may advertise for new bids for said work.

7.12 AGREEMENT TO ASSIGN ANTITRUST CLAIMS

7.12.1 In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 USC Sec. 15) or under the Cartwright Act (chapter 2 commencing with section 16700 of part 2 of division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

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

7.13 DIVISION OF INDUSTRIAL SAFETY PERMITS

7.13.1 The Contractor shall, before beginning any excavation or trench work, five (5) feet or more in depth, secure, in addition to any permits required from the City, a permit “to perform Excavation or Trench work”, from the State of California, Division of Industrial Safety.

7.13.2 In order to receive a permit “to perform Excavation or Trench work”, the Contractor must submit a detailed plan showing his proposed design for shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of any trench or trenches five (5) feet or more in depth. If such plan varies from the shoring system standards established by the construction safety orders, the plan shall be prepared by a registered civil or structural Architect and/or Engineer in the State of California. The Contractor shall also submit the detailed plan to the Owner for approval.

7.13.3 The Contractor shall file a copy of the permit “to perform excavation or trench work”, with the Owner, at least five (5) days before the beginning of any excavation or trench work.

7.14 INSPECTION BY OTHER JURISDICTIONS

Whenever any part of the Work to be performed is under the jurisdiction or control or is to be paid for, in whole or in part, by another public subdivision entity or jurisdiction, including but not limited to: The City of San Jose, United States Government, State of California, County of Santa Clara, or the San Jose-Santa Clara Water Pollution Control Plant, such Work shall be subject to inspection by the proper officials of such entities or jurisdictions and it must pass inspection, in addition to Agency inspection and such other inspection as may be otherwise provided for in the Contract Documents.

7.15 ARCHEOLOGICAL AND PALEONTOLOGICAL RIGHTS

Notwithstanding anything to the contrary herein, in the event any archeological or paleontological objects within the Project are discovered during the course of the Work, the Agency shall have and retain all right, title and interest to such objects and shall have the further right, during the course of the Contract, to examine or cause to have examined, the Site of the Work for any such objects and to perform or have performed archeological or paleontological excavations and all other related work to explore for, discover, recover and remove such objects from the Site of the Work.

In the event the work of archeological or paleontological examination and related work delays the Contractor's work, Contractor shall be entitled to an extension of time to complete the Work equal to the number of days Contractor is thus delayed, provided that the Contractor makes a claim in the manner set forth in the Owner-Contractor Agreement.

ARTICLE 8

TIME

8.1 DEFINITIONS

8.1.1 Unless otherwise provided, the Contract Time is the period of time allotted in the Contract Documents for Substantial Completion of the Work as defined in Subparagraph 8.1.3, including authorized adjustments thereto.

8.1.2 The date of commencement of the Work is on the date specified on the Notice to Proceed issued by the Owner.

8.1.3 The Date of Substantial Completion of the Work or designated portion thereof is the Date certified by the Architect and/or Engineer when construction is sufficiently complete, in accordance with the Contract Documents, and Article 9.9

herein, so the Owner can occupy or utilize the Work or designated portion thereof for the use for which it was intended.

8.1.4 The term day as used in the Contract Documents shall mean calendar day unless specifically designated otherwise.

8.2 PROGRESS AND COMPLETION

8.2.1 All time limits stated in the Contract Documents are of the essence of the Contract.

8.2.2 The Contractor shall begin the Work on the date of commencement as defined in Subparagraph 8.1.2. The Contractor shall carry the Work forward expeditiously with adequate forces and shall achieve Substantial Completion of the Work within the Contract Time.

8.3 HOURS OF LABOR

8.3.1 The Contractor shall forfeit to the Owner, as a penalty, the sum of Twenty-five Dollars ($25.00) for each worker employed in the execution of the Contract for each calendar day during which such laborer, worker or mechanic is required or permitted to labor more than eight (8) hours in violation of the provisions of Sections 1810 to 1816, inclusive, of the Labor Code of the State of California.

ARTICLE 9

PAYMENTS AND COMPLETION

9.1 CONTRACT SUM

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

9.2 SCHEDULE OF VALUES

Following the issuance of the Notice to Proceed, the Contractor shall submit to the Owner a Schedule of Values. The Contractor's Schedule of Values shall be prepared in such form and supported by such data to substantiate its accuracy as the Owner may require. If the Schedule of Values is not approved by the Owner, a revised Schedule of Values shall be submitted that is mutually acceptable to the Contractor and the Owner.

Progress Payments shall be made to the Contractor based on the approved Schedule of Values.

9.3 APPLICATIONS FOR PAYMENT

9.3.1 The Contractor shall prepare an itemized Application for Payment based upon work completed by the close of the twentieth day of each month and shall submit said Application to the Owner for Owner's review and approval no later than the twenty-fifth day of each month. The Application for Payment shall be supported by certified payroll indicating that prevailing wages have been paid, along with other data substantiating the Contractor's right to payment as the Owner may require, and reflecting retainage, if any, as provided elsewhere in the Contract Documents. Items and values of work included in the Application for Payment shall be as detailed as in the Contractor's Schedule of Values.

9.3.2 Upon approval of the Application for Payment, the Owner will pay ninety percent (90%) of amounts due Contractor on account of progress payments. Retained percentages are for the sole protection and benefit of the Owner, and no other person, firm or corporation shall be entitled to receive any part thereof. Sums withheld as retained percentages may be expended by the Owner to correct or remedy any of the conditions described in subparagraph 9.7.1. Except for amounts applied by Owner to correct or remedy any such conditions, the full contract retainage will be paid to Contractor at the time of final payment. Until the time of final payment, Owner shall remain the legal and beneficial owner of all retained percentages.

9.3.3 Pursuant to the terms and conditions set forth in Public Contracts Code Section 22300, the Contractor may substitute acceptable securities in lieu of ten percent (10%) retention which will be withheld by Agency as retention to ensure Contractor's performance under the Contract. Such substitution of securities in lieu of retention shall be at the Contractor's sole expense. The Contractor shall be the beneficial owner of any security substituted for the ten percent (10%) retention and shall receive any interest thereon. Any such security shall be returned to the Contractor at the time of final payment. Acceptable security shall include those securities listed in California Government Code § 16430, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts or standby letters of credit. Contractor will not be credited with interest for any portion of the Contract Retainage after it is paid by Owner to correct or remedy any of the conditions described in Subparagraph 9.7.1.

9.3.4 At the sole discretion of the Executive Director of the Owner, when the Work is at least 50 percent complete and if progress is satisfactory, remaining Progress Payments may be paid in full, and any retention held in excess of five percent (5%) of the Contract Amount may be released to Contractor. Under no circumstances shall retention be reduced below five percent (5%) of the Contract Amount until Final Completion and Final Payment as set forth in Section 9.10. Contractor shall provide

Consent of Surety prior to reduction of retainage. Contractor shall apply for reduction in retainage to Owner in writing.

9.3.5 The full Contract retainage may be reinstated if the Work and its progress do not remain satisfactory to the Owner, or if Surety withholds its consent, or for other good and sufficient reasons.

9.3.6 Unless otherwise provided in the Contract Documents, payments will be made on account of fabricated materials or equipment not incorporated in the Work but delivered and suitably stored at the Site and, if approved in advance by the Owner, payments may similarly be made for fabricated materials or equipment suitably stored at some other location agreed upon in writing. Payments for fabricated materials or equipment stored on or off the Site shall be conditioned upon submission by the Contractor of bills of sale or such other procedures satisfactory to the Owner to establish the Owner's title to such fabricated materials or equipment or otherwise protect the Owner's interest, including applicable insurance and transportation to the Site for those materials and equipment stored off the Site. Applications for payments shall be based upon that portion of the Contract Sum properly allocable to labor, fabricated materials and equipment either incorporated in the Work or suitably stored at the Site, up to five (5) days prior to the date on which the Application for Payment is submitted. Payments for fabricated materials and equipment stored off-site within fifty (50) miles of the Project will be made, subject to Owner's approval, if Contractor provides invoice, lien release, certificate of insurance covering stored materials, and stores material in an approved, bonded Shelter. Owner and Owner's representatives shall have the right of inspection of materials stored off-site.

9.3.7 The Contractor warrants that title to all Work, materials and equipment covered by an Application for Payment will pass to the Owner either by incorporation in the construction or upon receipt of payment by the Contractor, whichever occurs first, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to in this Article 9 as “liens”; and that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor, or by any other person performing Work at the Site or furnishing materials and equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.

9.4 CERTIFICATES FOR PAYMENT

The Owner will, following the receipt of a properly prepared Application for Payment and certified payroll indicating that prevailing wages have been paid, process it for payment. The Owner shall notify the Contractor in writing of the reasons for withholding the Application or recommending payment for a lesser amount than set forth in the Application as provided in Paragraph 9.7.1.

9.5 PAYMENTS FOR MOBILIZATION

9.5.1 Payments for mobilization shall be made in accordance with this subparagraph. Mobilization shall consist of all permits, insurance and bonds, preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the site; for the establishment of all offices, buildings, utilities and other facilities necessary for the work on the project; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the Site. Under no circumstance, shall the cost of mobilization activities exceed two (2) percent of the Contract price.

9.5.2 Mobilization, where approved, will be paid for at the contract lump sum price. The lump sum price for mobilization shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in mobilization as specified herein. When the Contract does not include a contract pay item for mobilization as above specified, full compensation for any necessary mobilization required shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

9.5.3 Payments for mobilization will be made in accordance with the schedules set forth below.

.1 When the Owner has approved payments, not including the amount earned for mobilization, of ten percent (10%) or more of the Contract Sum, fifty percent (50%) of the contract item price for mobilization may be included in the Application Payment.

.2 When the Owner has approved payments, not including the amount earned from mobilization, of twenty percent (20%) or more of the Contract Sum, seventy-five percent (75%) of the contract item price for mobilization may be included in the application payment.

.3 When the Owner has approved payments not including the amount earned from mobilization of fifty percent (50%) or more of the Contract Sum, ninety percent (90%) of the contract item price from mobilization may be included in the application payment. The retention of fund provisions of subparagraph 9.3.2 shall apply to the contract lump sum item for mobilization.

9.5.4 The adjustment provisions in Article 12 shall not apply to the contract lump sum item for mobilization. If contract items are adjusted as provided in Article 12, any mobilization costs applicable to such items of work will be deemed to have been recovered by the Contractor by the payments made for mobilization, and mobilization costs will be excluded from consideration in determining compensation under Article 12.

9.6 PROGRESS PAYMENTS

9.6.1 The Contractor following receipt of payment by the Owner shall promptly pay each subcontractor upon receipt of payment from the Owner, out of the amount paid to the Contractor on account of such sub-contractor's Work, the amount to which said subcontractor is entitled, reflecting the percentage actually retained, if any, from payments to the Contractor on account of such sub-contractor's Work. The Contractor shall, by an appropriate agreement with each subcontractor, require each subcontractor to make payments to their sub-subcontractors in similar manner.

9.6.2 The Owner may, on request and at the Owner's discretion, furnish to any subcontractor, if practicable, information regarding the percentages of completion or the amounts applied for by the Contractor and the action taken thereon by the Owner on account of Work done by such subcontractor.

9.6.3 Neither the Owner nor the Architect and/or Engineer shall have any obligation to pay or to see to the payment of any monies to any subcontractor.

9.6.4 No certification of a progress payment, any progress payment, or any partial or entire use or occupancy of the Project by the Owner, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

9.7 PAYMENTS WITHHELD

9.7.1 The Owner, following consultation with the Architect and/or Engineer, may decline to approve and may withhold the Application for Payment in whole or in part. If the Owner determines failure by the Contractor to perform its contractual obligations, the Owner will notify the Contractor as provided in Paragraph 9.4. The Owner may also decline to provide payment or, because of subsequently discovered evidence or subsequent observations, the Owner may nullify the whole or any part of any Applications for Payment previously issued to such extent as may be necessary to protect the Owner from loss because of:

.1 defective Work not remedied;

.2 third party claims filed or reasonable evidence indicating probable filing of such claims;

.3 failure of the Contractor to make payments properly to subcontractors, or for labor, materials or equipment;

.4 proof that the Work cannot be completed for the unpaid balance of the Contract Sum;

.5 damage to the Owner or another contractor;

.6 proof that the Work cannot be completed within the Contract Time;

.7 persistent failure to carry out the Work in accordance with the Contract Documents;

.8 failure to submit an original or an updated Project Schedule in accordance with the Contract Documents;

.9 failure to submit proper shop drawings;

.10 failure to submit certification for compliance with Section 4.13;

.11 failure to submit certified payroll indicating that prevailing wages have been paid.

9.7.2 When the grounds described in Subparagraph 9.7.1 above are removed, payment shall be made for amounts withheld because of them.

9.8 TIME OF PAYMENT

9.8.1 The Owner will make Progress Payments within a time agreed upon prior to signing of Contract, or where no prior agreement is made, within thirty (30) days of receipt of an approved Application for Payment.

9.8.2 Owner retains right to make partial payments or reduced payment during the period of any dispute and Contractor shall be obligated to continue all Work.

9.9 SUBSTANTIAL COMPLETION

9.9.1 When the Contractor considers that the Work, or a designated portion thereof which is acceptable to the Owner, is substantially complete as defined in Paragraph 8.1.3 and this paragraph, the Contractor shall prepare and submit to the Owner and Architect and/or Engineer a written notice stating (1) the Work is ready to be accepted as substantially complete, (2) the date of substantial completion and (3) a list of items that remain to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. When the Owner and Architect and/or Engineer determine that the Work or designated portion thereof is substantially complete, the Owner and Architect and/or Engineer will prepare a Certificate of Substantial Completion of the Work that will be provided to Contractor, that will include a punchlist of items to be completed pursuant to the Contract Documents and the Date

of Substantial Completion of the Work. The Certificate of Substantial Completion shall also state the responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall complete the items listed therein required for Final Completion. The Certificate of Substantial Completion of the Work shall be submitted to the Contractor for his written acceptance of the responsibilities assigned to them in such Certificate. The Project shall not be deemed substantially complete until the Owner executes the Certificate of Substantial Completion. In addition, the Contractor must obtain and submit to the Owner, prior to the Date of Substantial Completion, all necessary permits for occupancy or the date of Substantial Completion shall be deemed postponed until the Owner receives these permits. If desired by Owner, portions of the Work, as completed, may be placed in service. The Contractor shall give proper access to the Work for this purpose. Such use and operation shall not constitute an acceptance or substantial completion of the Work or that portion placed in service. Nothing in this section shall be construed as relieving the Contractor from liability for defects due to faulty construction or from its responsibility to correct defective work or materials.

9.9.2 Upon Substantial Completion of the Work or designated portion thereof, and upon application by the Contractor, the Executive Director of Owner at his/her sole discretion shall have the authority to reduce the Contractor's retention balance down to no less than five percent (5%) of the contract sum.

9.9.3 Warranties required by the Contract Documents shall commence on the date of final acceptance by Owner or from the Date of Substantial Completion of the Work or designated portion thereof, whichever is earlier, unless otherwise provided in the Certificate of Substantial Completion of the Work or designated portion thereof. Contractor shall obtain any manufacturer's extended warranties as are necessary to comply with this requirement.

9.10 FINAL COMPLETION AND FINAL PAYMENT

9.10.1 Following the Owner's issuance of the Certificate of Substantial Completion of the Work or designated portion thereof, and the Contractor's completion or correction of the Work in accordance with the requirements of the Certificate of Substantial Completion, the Contractor shall forward to the Owner a written notice that the Work is ready for final inspection and acceptance, and shall also forward to the Owner a final Application for Payment. Upon receipt, the Owner will make the necessary evaluations and will promptly make such inspection. When the Owner finds the Work acceptable under the Contract Documents and the Contract fully performed, the Owner will issue a Certificate for Payment. All prior partial estimates and payments shall be subject to correction on the final estimate and payment. No payment shall be construed to be an approval or acceptance of any defect in work or improper materials.

9.10.2 Neither the final payment nor the remaining retainage shall become due until the Contractor submits to the Owner, (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might in any way be responsible, have been paid or otherwise satisfied, (2) consent of surety, if any, to final payment, and (3) if required by the Owner, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the Owner. If any subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against any such lien. If any such lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

9.10.3 Except for those claims previously made by the Contractor in writing and identified by the Contractor as unsettled at the time of final Application for Payment, acceptance by the Contractor of final payment shall be and shall operate as a release to Owner, its successors, assigns, officers and employees and the Architect and/or Engineer of and from any and all other claims, demands, causes of action, obligations, damages or liabilities, whether or not known or suspected, which Contractor ever had or claims to have had as of or prior to the acceptance of final payment arising directly or indirectly out of, or in any way connected with any of the transactions, series of transactions or matters in connection with the Work and every act and neglect of the Owner, its officers, employees, successors, assigns, and the Architect and/or Engineer relating to or arising out of the Work. No payment, however, final or otherwise, shall operate to release the Contractor or his sureties from any obligations under this contract for the Contractor's bond for faithful performance and Contractor's payment bond.

9.10.4 All provisions of this Agreement, including without limitation those establishing obligations and procedures, shall remain in full force and effect notwithstanding the making or acceptance of final payment prior to the Date of Substantial Completion of the Work.

9.10.5 Final payment shall be made to Contractor no earlier than thirty-five (35) days after acceptance of the Work by the Owner, which acceptance shall be evidenced by the recordation of a Notice of Completion of the Work in the Office of the County Recorder. However, the Owner may accept Completion of the Contract and have the Notice of Completion recorded when the entire work shall have been completed to the satisfaction of the Owner, except for minor corrective items, as distinguished from incomplete items. If the Contractor fails to correct all such items prior to the expiration of the thirty-five day period, immediately following acceptance of completion, the Owner shall withhold from the final payment an amount equal to 150% of the estimated cost of correction of all such items until the last of the items have been corrected. At the end of the thirty-five (35) day period, if there are items remaining to be corrected, the Owner may request the Contractor in writing to make immediate correction of said items; and if the Contractor fails to make such correction within ten (10) days of the date of the

written notice, the Owner may make the correction and deduct the costs from the amount withheld therefor.

9.11 DELAYS

9.11.1 The Date for Substantial Completion of the Work shall not be extended except in accordance with the provisions of the Owner-Contractor Agreement (Extension of Scheduled Completion Date).

9.11.2 In the event that a suspension of the Work is ordered by the Owner due to failure on the part of the Contractor to perform any provisions of the Contract, the days on which the suspension of the Work is in effect shall be considered calendar days and the dates set forth in the Owner-Contractor Agreement shall not be extended and the Contractor shall not be relieved of any claim for liquidated damages, engineering or inspection charges or any other charges which the Owner may have.

ARTICLE 10

PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work.

10.2 SAFETY OF PERSONS AND PROPERTY

10.2.1 The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damages, injury or loss to:

.1 all employees on the Work and all other persons who may be affected thereby;

.2 all the Work and all materials and equipment to be incorporated therein, whether in storage on or off the Site, under the care, custody or control of the Contractor or any of the Contractor's subcontractors or sub-subcontractors;

.3 other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction; and

.4 the work of the Owner or other separate contractors.

Contractor shall take all reasonable precautions to protect the work from vandalism or other abuse.

Contractor, not Owner or Architect and/or Engineer, shall remain fully responsible for the disposition and the exposure to persons of materials, whether or not hazardous. Contractor remains fully responsible for the handling of and the removal of products and systems and shall take necessary measures to protect employees, subcontractors, general public, design consultants and others. If temporary removal is required of any of the items referred in Subparagraph 10.2.1.3 above, or if damage occurs thereto, the Contractor shall restore or replace same at his own expense. Items replaced shall be of the same kind, quality and size.

10.2.2 The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.

10.2.3 The Contractor shall erect and maintain, as required by existing conditions and the progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities.

10.2.4 No explosives shall be stored or used on the Site unless specifically approved by the Owner and all applicable federal, state and local regulatory agencies.

10.2.5 The Contractor shall promptly remedy all damage or loss to any property referred to in Subparagraphs 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, any subcontractor, any sub-subcontractor, anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, and for which the Contractor is responsible under Subparagraphs 10.2.1.2 and 10.2.1.3, except damage or loss attributable to the acts or omissions of the Owner, the Architect and/or Engineer or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Paragraph 4.18.

10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the Site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner.

10.2.7 The Contractor shall not load or permit any part of the Work to be loaded so as to endanger its safety.

10.2.8 The Contractor shall so conduct his operations as to offer the least possible obstruction and inconvenience to the public and he shall have under construction no greater length or amount of Work than he can prosecute properly with due regard to the rights of the public. Unless otherwise provided elsewhere in the Contract Documents, all traffic shall be permitted to pass through the Work with as little inconvenience and delay as possible. Spillage resulting from hauling operations along or across the traveled way shall be removed immediately at the Contractor's expense.

10.2.8.1 Existing traffic signal and right-of-way lighting systems shall be kept in operation for the benefit of the traveling public during progress of the Work, and City forces may continue routine maintenance of existing systems.

10.2.8.2 Convenience of abutting owners along the right-of-way shall be provided for as far as practicable. Convenient access to driveways, houses, and buildings along the line of the Work shall be maintained and temporary approaches to crossings or intersecting right-of-ways shall be provided and kept in good condition. When the abutting property owner's access across the right-of-way line is to be eliminated, or to be replaced under the contract or by other access facilities, the existing access shall not be closed until the replacement facilities have been completed.

10.2.8.3 In order to expedite the passage of public traffic through or around the Work or where ordered by the Owner, the Contractor shall install signs, lights, flares, barricades and other facilities for the sole convenience and direction of public traffic. Also, where directed by the Owner, Contractor shall provide and station competent flagpersons whose sole duties shall consist of directing the movement of public traffic through or around the Work.

10.2.8.4 The Contractor shall be required to pay the cost of replacing or repairing all facilities installed for the convenience of direction or warning of public traffic, that are lost or damaged by reason of Contractor’s operations to such an extent as to require replacement or repair.

10.2.8.5 Except as otherwise provided elsewhere in the Contract Documents, full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of Work and no additional allowance will be made therefor.

10.2.9 It is the Contractor's responsibility to provide for the safety of the public during construction.

10.2.9.1 Whenever the Contractor's operations create a condition hazardous to traffic or to the public, Contractor shall furnish at Contractor’s own expense, and without cost to the Owner, such flagpersons and guards as are necessary to give adequate warning to the public of any dangerous conditions to be encountered and Contractor shall furnish, erect, and maintain such fences, barricades, lights, signs, and other

devices and take such other protective measures as are necessary to prevent accidents or damage or injury to the public.

10.2.9.2 All traffic control signs, barricades, lights and other warning and safety devices shall conform to the current “Manual of Warning Signs, Lights, and Devices for Use in Performance of Work upon Highways” issued by the State of California Business and Transportation Agency, Department of Transportation.

10.2.9.3 Should the Contractor appear to be neglectful or negligent in furnishing warning devices and taking protective measures, as above provided, the Owner may direct attention to the existence of a hazard and the necessary warning devices shall be furnished and installed by the Contractor at his expense. Should the Owner point out the inadequacy of warning devices and protective measures, such action on the part of the Owner shall not relieve the Contractor from responsibility for public safety or abrogate his obligation to furnish and pay for these devices and measures.

10.2.9.4 The installation of general right-of-way illumination shall not relieve the Contractor of his responsibility for furnishing and maintaining any of the protective facilities hereinbefore specified.

10.2.9.5 Should the Contractor be neglectful, or negligent in furnishing and/or maintaining warning and protective facilities as required herein, the Owner may furnish and/or maintain such facilities and charge Contractor therefor by deducting the cost thereof from periodic progress payments due the Contractor as such costs are incurred by the Owner.

10.2.9.6 In the event the Contractor does not provide such flagpersons and guards as are required by this section, the Owner may request the San Jose Police Department to the job and the cost to the Owner for providing flagpersons and guards shall be deducted from any periodic progress payments due the Contractor.

10.2.9.7 No material or equipment shall be stored where it will interfere with the free and safe passage of public traffic, and at the end of each day's work and at other times when construction operations are suspended for any reason, the Contractor shall remove all equipment and other obstructions from that portion of the right-of-way open for use by public traffic.

10.2.9.8 Full compensation for conforming to all of the provisions of this Section shall be considered as included in the prices paid for the various contract items of Work and no additional allowance will be made therefor.

10.2.10 Due care shall be exercised to avoid injury to existing right-of-way improvements or facilities, utility facilities, adjacent property, and roadside trees and shrubbery that are not to be removed.

10.2.10.1 Roadside trees and shrubbery that are not to be removed and pole lines, fences, signs, survey markers and monuments, buildings and structures, conduits, pipe lines under or above ground, sewer and water lines, all right-of-way facilities, and any other improvements or facilities within or adjacent to the Work, shall be protected from injury or damage, and if ordered by the Owner, the Contractor shall provide and install suitable safeguards, approved by the Owner, to protect such objects from injury or damage. If such objects are injured or damaged by reason of the Contractor's operations, they shall be replaced or restored, at the Contractor's expense, to a condition as good as when the Contractor entered upon the Work, or as good as required by the Contract Documents, if any such objects are a part of the Work being performed under the Contract.

10.2.10.2 The Contractor shall examine all bridges, culverts and other structures on or near the Work, over which Contractor will move materials and equipment and before using them, Contractor shall properly strengthen such structures, where necessary. The Contractor will be held responsible for any and all injury or damage to such structures caused by reason of Contractor’s operations.

10.2.10.3 The fact that any underground non-utility facility or any existing service lateral or appurtenances, wherever the presence of such lateral or appurtenances can be inferred from the presence of other visible facilities such as buildings, meter and junction boxes on or adjacent to the construction site, are not shown upon the Plans shall not relieve the Contractor of his responsibility under this Section. It shall be the Contractor's responsibility to ascertain the existence of any underground improvements, except for unmarked existing main and trunkline utility facilities, which may be subject to damage by reason of his operations.

10.2.10.4 Full compensation for furnishing all labor, materials, tools and equipment and doing all the work involved in protecting property as above specified, shall be considered as included in the prices paid for the various contract items of Work and no additional compensation will be made therefor.

10.2.11 As between the Owner and the Contractor, the Owner shall assume responsibility for the timely removal, relocation or protection of existing main or trunkline utility facilities located on the Site, unless such utility facilities are identified in the Plans and Specifications. The Contractor shall be compensated under the provisions of Article 12 for any costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the Plans and Specifications with reasonable accuracy, and for equipment on the Project necessarily idled during such work. The Contractor shall not be assessed liquidated damages for delaying completion of the Project when such delay was caused by the failure of the Owner or the owner of the utility to provide for removal or relocation of such utility facilities. If the Contractor, while performing the Work, discovers utility facilities not identified by the Owner, the Contractor shall immediately notify the Owner and utility in writing. The public utility, where it is the

owner, shall have the sole discretion to perform repairs or relocation work or to permit the Contractor to perform repairs or relocation work at a reasonable price.

10.3 EMERGENCIES

In any emergency affecting the safety of persons or property the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. The Contractor shall immediately notify the Owner in writing of such actions. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided in Article 12 for Changes in the Work.

ARTICLE 11

INSURANCE

11.1 CONTRACTOR'S LIABILITY INSURANCE

11.1.1 The Contractor shall purchase and maintain, in a company or companies licensed to do business in California, insurance for protection from the claims set forth below which may arise out of or result from the Contractor's operations under the Contract, whether such operations be by the Contractor or by any subcontractor, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

.1 claims under workers' or workmen's compensation, disability benefit and other similar employee benefit acts;

.2 claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;

.3 claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;

.4 claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or (2) by any other person;

.5 claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; and

.6 claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

11.1.2 The insurance required by Subparagraph 11.1.1 shall be written for not less than any limits of liability specified in the Contract Documents or required by law, whichever is greater.

11.1.3 The insurance required by Subparagraph 11.1.1 shall include contractual liability insurance applicable to the Contractor's obligations under Paragraph 4.18.

11.1.4 Certificates of Insurance on AIA Document G705 (1978) or other Owner-approved form, shall be submitted to the Owner prior to commencement of the Work. Contractor shall provide one copy of each required Certificate of Insurance for each copy of the Owner-Contractor Agreement. These Certificates shall contain a provision that coverages afforded under the policies will not be cancelled until at least thirty (30) days' prior written notice has been given to the Owner. Contractor agrees to furnish promptly to Owner copies of any endorsements issued after execution of the Contract amending Contractor's coverage or limits. Contractor further agrees that, upon receipt of any notice of cancellation or alteration, Contractor shall procure, within five (5) days, other policies of insurance similar in all respects to the policy or policies about to be cancelled or altered. If Contractor fails to provide acceptable policies of insurance, Owner may obtain such insurance at the cost and expense of Contractor.

11.1.5 Surety companies shall familiarize themselves with all of the conditions and provisions of this Contract, and they waive the right of special notification of any change or modification of this Contract or of decreased or increased work or of the cancellation of the Contract, or of any other acts by the Owner or its authorized agents, under the terms of this Contract. Notwithstanding the provisions of any other contract or agreement, the failure of any surety company or insurance company to receive notification of any of the aforesaid changes shall in no way relieve said surety company of its obligations under this Contract.

11.1.6 Notwithstanding any other provisions of the Contract Documents inconsistent with the provisions of this Subparagraph, the Contractor shall not be responsible for the cost of repairing or restoring damage to the Work caused by an Act or Acts of God occurring after the Contract for the Work is entered into. For the purpose of this Subparagraph, Acts of God shall include only earthquakes and tidal waves, when such occurrences or conditions and effects have been proclaimed a disaster or state of emergency by the Governor of the State of California or by the President of the United States.

11.1.7 Contractor shall assist in every manner possible in the reporting and investigation of any accident and, upon request, to cooperate with all interested insurance carriers in the handling of any claim by securing and giving evidence and

obtaining the attendance of witnesses as required for the resolution of any claim or lawsuit.

11.1.8 Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Contractor, his agents, representatives, employees or subcontractors. The cost of such insurance shall be included in the Contractor's Proposal.

.1 Minimum Scope of Insurance

Coverage shall be at least as broad as:

a. Insurance Services Office Commercial General Liability coverage ("occurrence") Form Number CG 0001, including X, C, and U (Explosion, Collapse and Underground) coverage;

b. Insurance Services Office form number CA 0001 (Ed. 12/93) covering Automobile Liability, code 1 "any auto," or code 2 "owned autos" and endorsement CA 0025. Coverage shall also include Code 8 "hired autos" and Code 9 "nonowned autos".

c. Workers' Compensation insurance as required by the Labor Code of the State of California and Employers Liability insurance.

d. Builder's Risk Insurance form providing coverage for "all risks" of loss.

.2 Minimum Limits of Insurance

Contractor shall maintain limits no less than:

a. Commercial General Liability: $2,000,000 per occurrence for bodily injury, personal injury, and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit; and

b. Automobile Liability: $1,000,000 combined single limit per accident for bodily injury and property damage; and

c. Workers' Compensation and Employers Liability: Workers' Compensation limits as required by the Labor Code of the State of California and Employers Liability limits of $1,000,000 per accident; and

d. Builders' Risk: Completed value of project.

11.1.9 Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the Agency. At the option of the Agency, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Agency, the City, their officials, employees, agents and contractors; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses in an amount specified by the Agency.

11.1.10 Other Insurance Provisions

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

.1 Commercial General Liability and Automobile Liability Coverages

a. The Agency, City of San Jose, their officials, employees, agents and contractors, and the Agency's Architect and/or Engineer are to be covered as insureds as respects: liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, leased or used by the Contractor; or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the Agency, City of San Jose, their officials, employees, agents, and contractors including the Agency's Architect and/or Engineer.

b. The Contractor's insurance coverage shall be primary insurance as respects the Agency and City of San Jose, their officials, employees, agents, contractors and the Agency's Architect and/or Engineer. Any insurance or self-insurance maintained by the Agency, City of San Jose, their officials, employees, agents, contractors, or Agency's Architect and/or Engineer shall be excess of the Contractor's insurance and shall not contribute with it.

c. Any failure to comply with reporting provisions of the policies by Contractor shall not affect coverage provided to the

Agency, City of San Jose, their officials, employees, agents, or contractors.

d. Coverage shall state that the 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.

.2 All coverages

Each insurance policy required by this Project Contract shall be endorsed to state that coverage shall not be suspended, voided, canceled, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the Agency's Project manager and the City of San Jose's Risk Manager.

.3 Builders' Risk policies shall contain the following provisions:

a. The Agency and City of San Jose shall be named as loss payee.

b. The insurer shall waive all rights of subrogation against the Agency and City of San Jose.

11.1.11 Acceptability of Insurers

Insurance is to be placed with insurers acceptable to the City of San Jose's Risk Manager.

11.1.12 Verification of Coverage

Contractor shall furnish the Agency and City of San Jose with certificates of insurance and with original endorsements affecting coverage required by this Project Contract. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. Proof of Insurance shall then be mailed to the following address or any subsequent address as may be directed in writing by the City of San Jose's Risk Manager:

City of San Jose
Risk Manager
200 East Santa Clara Street, 4th Floor Tower
San Jose, CA 95113

11.1.13 Subcontractors

Contractor shall include all subcontractors as insureds under its policies or shall obtain separate certificates and endorsements for each subcontractor.

11.1.14 Bailee Disclaimer

Agency in no way purports to be a bailee, and is therefore not responsible in any way for any damage to the property of others including, but not limited to, the property of Contractor, the Contractor's contractor, or their respective agents, employees and invitees.

11.2 CONTRACTOR'S RESPONSIBILITY FOR WORK

Until completion of the contract and final acceptance of the Work by the Owner, the Contractor shall have the charge and care of and shall bear the risk of injury, loss, or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the Work, or from any other cause. The Contractor shall rebuild, repair, restore, and make good all injuries, losses or damages to any portion of the Work occasioned by any cause before its completion and acceptance and shall bear the expense thereof, except as otherwise expressly provided in subparagraph 11.1.6.

In case of suspension of Work from any cause whatever, the Contractor shall be responsible for the Work as above specified and he shall also be responsible for all materials delivered to the Work or materials which have been furnished by the Owner. If ordered by the Owner, the Contractor shall at Contractor's own expense, properly store materials which have been furnished by the Owner. Such storage by the Contractor shall be on behalf of the Owner, and the Owner shall at all times be entitled to the possession of such materials, and the Contractor shall promptly return the same to the Site when requested. The Contractor shall not dispose of any of the materials so stored except on written authorization from the Owner.

ARTICLE 12

CHANGES IN THE WORK

12.1 CHANGE ORDERS

12.1.1 A Change Order is a signed written order to the Contractor showing the recommendation of the Architect and/or Engineer, the approval of the Architect and/or Engineer and the authorization of the Owner, issued after execution of the Contract, authorizing a change in the Work and/or an adjustment in the Contract Sum and/or the Contract Time. The Contract Sum and the contract time may be changed only by Change Order. Any Change Order signed by the Contractor shall indicate the Contract

Sum and the Contract Time. Adjustments of Contract Time, Work or Sum may be issued without notice to Sureties, and absence of such notice shall not relieve the Sureties of any responsibilities (See Sub-paragraph 11.1.5). No Change Order shall operate to authorize a time extension, unless such Change Order specifies such extension. If no time extension has been granted in such Change Order, Contractor agrees that in no event shall Contractor make any subsequent claim relating to the items covered by such Change Order.

12.1.2 The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and the Contract Time being adjusted accordingly. All such changes in the Work shall be authorized by Change Order, and shall be performed under the applicable conditions of the Contract Documents. A Contract Change Order will not become effective until approved by the Owner.

12.1.3 The cost or credit to the Owner resulting from a change in the Work shall be determined in one or more of the following ways at discretion of the Owner (all changes, unless otherwise directed by Owner, shall be determined by Method .1):

.1 Change Order Work will be estimated using the following criteria:

a. All labor will be calculated based on Nationally Recognized Labor Calculators; MCA for Mechanical NECA for Electrical and Means for all other labor. Only the lowest column rate will be accepted. No multipliers will be allowed unless previously approved in writing by Owner. Contractor shall provide Owner with the latest copy of applicable standard manual noted above.

b. Material prices will be based on “Trade Book” wholesale column or other Architect and/or Engineer/Owner acceptable wholesale price standards. If these are not available for the material noted, they shall be priced at quoted wholesale discounted values. Contractor shall provide Owner with a copy of the “Trade Book”.

c. Equipment will be priced at Manufacturer quoted/ invoiced costs.

d. Rental Equipment will be priced using State Equipment Rental Guides. Contractor shall provide Owner with a copy of the latest Rental Guide.

e. Contractor's Overhead[1] and Profit Mark-Up for subcontractor work and bonds and insurance cost[2] shall not exceed 5% of subcontractors' cost (excluding overhead and profit for subcontractor).

f. Contractor's Overhead[1] and Profit Mark-Up for Contractor's self-performed work and bonds and insurance cost[2] shall not exceed 15% of Contractor's cost.

g. Total Change Order Mark-Up of Overhead[1] and Profit, including all levels of subcontractors and contractor combined, shall not exceed 20% cumulative. Change Orders shall clearly indicate all levels of mark-up.

.2 by unit prices stated in the Contract Documents or subsequently agreed upon;

.3 by the method provided in Sub-paragraph 12.1.4;

Should the Contractor disagree with any terms or conditions set forth in an approved Change Order which Contractor has not executed, Contractor shall submit a written protest to the Architect and/or Engineer, within ten (10) days after receipt of said approved Change Order. The protest shall state the points of disagreement, and if possible, the contracts specification references, quantities, and costs involved. If a written protest is not submitted, payment will be made as set forth and such payment shall constitute full compensation for all work included therein or required thereby. Such unprotested approved Change Orders will be considered as executed Change Orders.

12.1.4.1 If none of the methods set forth in subparagraphs 12.1.3.1, 12.1.3.2 or 12.1.3.3 is agreed upon, the Contractor, provided a written order signed by the Owner is received, shall promptly proceed with the Work involved. The cost of such Work shall then be determined by the Architect and/or Engineer, on the basis of the actual and reasonable expenditures and savings of those performing the Work attributable to the change, including in the case of an increase in the Contract Sum, a reasonable

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[1] The term Overhead as used above shall include the following:

- all indirect labor such as management, supervision, engineer and/or consultanting, drafting, estimating, secretarial and accounting.
- all field office expenses including office supplies
- all corporate office expenses
- small tools (capitalized under $500.00 each) (Except tools unique to the change)
- transportation expenses including company owned vehicles, and reasonable airfare, car rental, hotel/motel and meals.

[2] The cost of bonds and insurance shall be limited to .5% of the cost of the coverage.

allowance for overhead and profit. In such case, the Contractor shall keep and present, in such form as the Owner or the Architect and/or Engineer may prescribe, an itemized accounting together with appropriate supporting data for inclusion in a Change Order. Material charges shall be substantiated by valid copies of vendor's invoices. Contractor shall keep full and complete records of the cost of such work and shall permit the Architect and/or Engineer and Owner to have such access thereto as may be necessary to assist in the determination of the compensation payable for such work. Unless otherwise provided in the Contract Documents, cost shall be limited to the following: actual cost of materials, including sales tax and cost of delivery, except that if Contractor does not furnish satisfactory evidence of the cost of such materials, it shall be deemed to be the lowest current wholesale price at which such materials are available in the quantities concerned delivered to the job site; actual cost of labor, including social security, old age and unemployment insurance, and fringe benefits required by agreement or custom; workers' or workmen's compensation insurance; bond premiums; actual rental value of equipment and machinery, except that in no case shall such rental value exceed the rental rates of established distributors or equipment rental agencies serving the area, plus thirty-three and one-third percent (33-1/3%) for the cost of fuel, oil, lubrication and field repairs and maintenance; and the additional costs of supervision and field office personnel directly attributable to the change.

12.1.4.2 The amount of credit to be allowed by the Contractor to the Owner for any deletion or change which results in a net decrease in the Contract Sum will be the amount of the actual net cost as confirmed by the Architect and/or Engineer. When both additions and credits covering related Work or substitutions are involved in any one change, the allowance for overhead and profit shall be figured on the basis of the net increase, if any, with respect to that change. If the price change is in addition to the Contract Sum, it shall include the Contractor's and subcontractors' overhead and profit. Overhead and profit is limited to that specified in 12.1.3.1e and f. On any change which involves a net credit to the Owner, no allowance for overhead or profit shall be figured.

12.1.5 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if the quantities originally contemplated are so changed in a proposed Change Order that application of the agreed unit prices to the quantities of Work proposed will cause substantial inequity to the Owner or the Contractor, the applicable unit prices shall be equitably adjusted.

12.2 CONCEALED CONDITIONS

The Contractor shall promptly and before the following conditions are disturbed, notify the Owner in writing of any:

.1 Material that was not previously identified in the Construction Manual and that Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and

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

.2 Subsurface or latent physical conditions at the site differing from those indicated on the Contract Documents.

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

The Owner shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the work shall issue a change order under the procedures described in the Contract Documents.

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

12.3 CLAIMS FOR ADDITIONAL COST

12.3.1 If the Contractor wishes to make a claim for an increase in the Contract Sum, the Contractor shall give the Owner written notice thereof within ten (10) days after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property, in which case the Contractor shall proceed in accordance with Paragraph 10.3. No such claim shall be valid unless so made. If the Owner and the Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined by the Owner after consultation with the Architect and/or Engineer. Any change in the Contract Sum resulting from such claim shall be authorized by Change Order. The expense or responsibility for any change or damage incurred or caused by Contractor for additional work performed without an authorized Change Order shall rest entirely with the Contractor.

12.3.2 If the Contractor claims that additional cost is involved because of, but not limited to, (1) any written interpretation pursuant to Subparagraph 2.1.7, (2) any order by the Owner to stop the Work pursuant to Paragraph 3.3 where the Contractor was not at fault, or any such order by the Architect and/or Engineer as the Owner's representative, (3) any written order for a minor change in the Work issued pursuant to

Paragraph 12.4, or (4) delay in payment by the Owner, the Contractor shall make such claim as provided in Subparagraph 12.3.1.

12.3.3 All claims submitted by the Contractor shall include the following personal certification:

> 'I, _____, BEING THE _____ (MUST BE AN OFFICER) OF _____ (GENERAL CONTRACTOR), DECLARE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA, AND DO PERSONALLY CERTIFY AND ATTEST THAT: I HAVE THOROUGHLY REVIEWED THE ATTACHED CLAIM FOR ADDITIONAL COMPENSATION AND/OR EXTENSION OF TIME, AND KNOW ITS CONTENTS, AND SAID CLAIM IS MADE IN GOOD FAITH; THE SUPPORTING DATA IS TRUTHFUL AND ACCURATE; THAT THE AMOUNT REQUESTED ACCURATELY REFLECTS THE CONTRACT ADJUSTMENT FOR WHICH THE CONTRACTOR BELIEVES THE OWNER IS LIABLE; AND, FURTHER, THAT I AM FAMILIAR WITH CALIFORNIA PENAL CODE SECTION 72 AND CALIFORNIA GOVERNMENT CODE 12650, ET SEQ, PERTAINING TO FALSE CLAIMS, AND FURTHER KNOW AND UNDERSTAND THAT SUBMISSION OR CERTIFICATION OF A FALSE CLAIM MAY LEAD TO FINES, IMPRISONMENT, AND/OR OTHER SEVERE LEGAL CONSEQUENCES.'
>
> By_____
> Title"

12.4 MINOR CHANGES IN THE WORK

The Architect and/or Engineer will have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order issued through the Owner, and shall be binding on the Owner and the Contractor. The Contractor shall carry out such written orders promptly.

ARTICLE 13

UNCOVERING AND CORRECTION OF WORK

13.1 UNCOVERING OF WORK

13.1.1 If any portion of the Work should be covered contrary to the request of the Owner, or to requirements specifically expressed in the Contract Documents, it must be

uncovered for Owner's and/or Architect and/or Engineer's observation and replaced, all at the Contractor's expense.

13.1.2 If any other portion of the Work has been covered which the Architect and/or Engineer or the Owner has not specifically requested to observe prior to its being covered, either may request to see such Work and it shall be uncovered by the Contractor. If such Work be found in accordance with the Contract Documents, the cost of uncovering and replacement shall, by appropriate Change Order, be charged to the Owner. If such Work be found not in accordance with the Contract Documents, the Contractor shall pay such costs unless it be found that this condition was caused by the Owner or a separate contractor as provided in Article 6, in which event the Owner shall be responsible for the payment of such costs.

13.2 CORRECTION OF WORK

13.2.1 The Contractor shall promptly correct all Work rejected by the Architect and/or Engineer or the Owner as defective or as failing to conform to the Contract Documents whether observed before or after Substantial Completion of the Project and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected Work, including compensation for the Architect and/or Engineer's additional services made necessary thereby.

13.2.2 If, within one year after the Owner's recordation of the Notice of Completion of the Work, or within one year after acceptance by the Owner of designated equipment, or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents, the Contractor shall correct it promptly after receipt of a written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such defective condition. This obligation shall survive both final payment for the Work or designated portion thereof and termination of the Contract. The Owner shall give such notice promptly after discovery of the condition.

13.2.3 The Contractor shall remove from the Site all portions of the Work which are defective or nonconforming and which have not been corrected under Paragraph 4.5 or Subparagraphs 13.2.1 and 13.2.2, unless removal is waived by the Owner.

13.2.4 If the Contractor fails to correct defective or nonconforming Work as provided in Paragraph 4.5 or Subparagraphs 13.2.1 and 13.2.2, the Owner may correct it in accordance with Paragraph 3.3.

13.2.5 If the Contractor does not proceed with the correction of such defective or nonconforming Work within a reasonable time fixed by written notice issued by the Owner, the Owner may remove it and may store the materials or equipment at the expense of the Contractor. If the Contractor does not pay the cost of such removal and

storage within ten days thereafter, the Owner may, upon ten additional days' written notice, sell such Work at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor, including compensation for the Architect and/or Engineer's additional services made necessary thereby. If such proceeds of sale do not cover all costs which the Contractor should have borne, the difference shall be charged to the Contractor and an appropriate Change Order shall be issued. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.

13.2.6 The Contractor shall bear the cost of making good all work of the Owner or separate contractors destroyed or damaged by such correction or removal.

13.2.7 Nothing contained in this Paragraph 13.2 shall be construed to establish a period of limitation with respect to any other obligation which the Contractor might have under the Contract Documents, including Paragraph 4.5 hereof. The establishment of the time periods noted in Subparagraph 13.2.2, or such longer period of time as may be prescribed by law or by the terms of any warranty required by the Contract Documents, relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the Contractor's obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

13.2.8 Where special warranties are required under various sections of the Specifications, they are to be considered a part of the Contract and shall be subject to the terms of this Article for the time stated in the special warranties.

13.3 ACCEPTANCE OF DEFECTIVE OR NONCONFORMING WORK

If the Owner prefers to accept defective or non-conforming Work, the Owner may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect a reduction in the Contract Sum where appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 14

TERMINATION OF THE CONTRACT

14.1 TERMINATION BY THE CONTRACTOR

If the Work is stopped for a period of thirty (30) days under an order of any court or other public authority having jurisdiction, or as a result of an act of government such as

a declaration of a national emergency making materials unavailable, through no act or fault of the Contractor or a subcontractor or their agents or employees or any other persons performing any of the Work under a contract with the Contractor, then the Contractor may, upon seven (7) additional days' written notice to the Owner, terminate the Contract and recover from the Owner payment for all Work executed and for any proven loss sustained upon any materials, equipment, tools, construction equipment and machinery, including reasonable profit and damages; provided, however, that Owner may, in Owner's sole discretion, within seven (7) days after receipt of such written notice of termination of the Contract, declare its election to maintain the Contract in full force and effect; and provided, further, that if Owner exercises said option Owner shall compensate Contractor, in an amount to be agreed upon by the parties for the fair and reasonable value, including Contractor's reasonable overhead and profit, of maintaining said Contract in full force and effect.

14.2 TERMINATION FOR DEFAULT

14.2.1 If the Contractor is adjudged a bankrupt, or makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of the Contractor's insolvency, or if the Contractor refuses or fails, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or fails to make prompt payment to subcontractors or for materials or labor, or disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or otherwise is guilty of a substantial violation of a provision of the Contract Documents, and fails within seven (7) days after receipt of written notice to commence and continue correction of such default, neglect or violation with diligence and promptness, the Owner may, without prejudice to any other remedy the Owner may have, terminate the employment of the Contractor and take possession of the Site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever methods the Owner may deem expedient.

14.2.2 If the costs of finishing the Work, including compensation for the Architect and/or Engineer's additional services made necessary by the Contractor's default, exceed the unpaid balance of the Contract Sum, the Contractor shall pay the difference to the Owner. The amount to be paid to the Owner shall survive the termination of the Contract.

14.3 TERMINATION FOR CONVENIENCE

14.3.1 The performance of the Work may be terminated by the Owner in accordance with this clause in whole, or from time to time in part, whenever the Owner shall determine that such termination is in the best interests of the Owner. Any such termination shall be effected by delivery to the Contractor of a notice of termination specifying the extent to which performance of the Work is terminated, and the date upon

which termination becomes effective. After receipt of a notice of termination, and except as otherwise directed by the Owner, the Contractor shall:

(a) Stop all work under the contract except that specifically directed to be completed prior to acceptance.

(b) Perform work the Owner deems necessary to secure the project for termination.

(c) Remove equipment and plant from the site of the work.

(d) Take such action as is necessary to protect materials from damage.

(e) Notify all subcontractors and suppliers that the contract is being terminated and that their contracts or orders are not to be further performed unless otherwise authorized in writing by the Owner.

(f) Provide the Owner with an inventory list of all materials previously produced, purchased or ordered from suppliers for use in the work and not yet used in the work, including its storage location, and such other information as the Owner may request.

(g) Dispose of materials not yet used in the work as directed by the Owner. It shall be the Contractor's responsibility to provide the Owner with good title to all materials purchased by the City hereunder, including materials for which partial payment has been made.

(h) Subject to the prior written approval of the Owner, settle all outstanding liabilities and all claims arising out of subcontracts or orders for materials terminated hereunder. To the extent directed by the Owner, the Contractor shall assign to the Owner all the right, title and interest of the Contractor under subcontracts or orders for materials terminated hereunder.

(i) Furnish the Owner with the documentation required to be furnished by the Contractor under the provisions of the contract including, on projects in which Federal and State funds are involved, all documentation required under the Federal and State requirements included in the contract.

(j) Take such other actions as the Owner may direct.

14.3.2 Acceptance of the contract as hereinafter specified shall not relieve the contractor of responsibility for damage to materials. The Contractor shall continue to be

responsible for damage to materials after issuance of the Notice of Termination, except as follows:

The Contractor's responsibility for damage to materials for which partial payment has been made as provided in Section 9.3.6, and for materials furnished by the Owner for use in the work and unused shall terminate when the Owner certifies that such materials have been stored in the manner and at the locations the Owner has directed.

The Contractor's responsibility for damage to materials purchased by the Owner subsequent to the issuance of the notice that the contract is to be terminated shall terminate when title and delivery of such materials has been taken by the Owner.

When the Owner determines that the Contractor has completed the work under the contract directed to be completed prior to termination and such other work as may have been ordered to secure the project for termination, the Contractor will recommend that the Owner formally accept the contract, and immediately upon and after such acceptance by the Owner, the Contractor will not be required to perform any further work thereon and shall be relived of his contractual responsibilities for injury to persons or property which occurs after the formal acceptance of the project by the Owner.

14.3.3 Termination of the contract shall not relieve the surety of its obligation for any just claims arising out of the work performed. The total compensation to be paid to the Contractor shall be determined by the Owner on the basis of the following:

(a) The reasonable cost to the Contractor, without profit, for all work performed under the contract, including mobilization, demobilization and work done to secure the project for termination. In determining the reasonable cost, deductions will be made for the cost of materials to be retained by the Contractor, amounts realized by the sale of materials, and for other appropriate credits against the cost of the work. Deductions will also be made, when the contract is terminated under the authority of Article 14.1 for the cost of materials damaged by the event causing termination.

When, in the opinion of the Owner, the cost of a contract item of work is excessively high due to costs incurred to remedy or replace defective or rejected work, the reasonable cost to be allowed will be the estimated reasonable cost of performing such work in compliance with the requirements of the plans and specifications and the excessive actual cost shall be disallowed.

(b) A reasonable allowance for profit on the cost of the work performed as determined under 14.1, provided the Contractor establishes to the satisfaction of the Owner that it is reasonably probable that the Contractor would have made a profit had the contract been completed and provided further, that the profit allowed shall in no event exceed 4 percent of said cost.

(c) The reasonable cost to the Contractor of handling material returned to the vendor, delivered to the Owner or otherwise disposed of as directed by the Owner.

(d) A reasonable allowance for the Contractor's administrative costs in determining the amount payable due to termination of the contract.

(e) A reasonable credit to the Owner for defective or incomplete work not corrected.

All records of the Contractor and his subcontractors, necessary to determine compensation in accordance with the provisions of this Article 14.3, shall be open to inspection or audit by representatives of the Owner at all times after issuance of the notice that the contract is to be terminated and for a period of 3 years, thereafter, and such records shall be retained for that period.

After acceptance of the work by the Owner, the Owner may make payments on the basis of interim estimates pending issuance of a final estimate, when in Owner's opinion, the amount thus paid, together with all amounts previously paid or allowed, will not result in total compensation in excess of that to which the Contractor will be entitled. All payments, including payment upon the final estimate shall be subject to deduction for prior payments and amounts, if any, to be kept or retained under the provisions of the contract.

The provisions of this Article 14.3 shall be included in all subcontracts.

If this contract is terminated by the Owner for cause, and it is later determined that the proper basis for a termination for cause did not exist, the termination shall be deemed to have been a termination for convenience and governed by the terms of this contract dealing with such termination.

If the contract is terminated by the Owner for cause or convenience, such termination shall neither act as a waiver by the Owner of its right to require the Contractor to correct defects in the work performed under the contract.

In the event of conflict between the termination provisions of this Article 14.3 and any other provision or the contract, this Article 14.3 shall prevail.

ARTICLE 15

NONDISCRIMINATION / LABOR CODE REQUIREMENTS

Contractor shall comply with the provisions of the State of California Labor Code Section 1735 which states the following:

> "No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, or sex of such persons except as provided in Section 12940 of the

Government Code, and every contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter."

ARTICLE 16

NONDISCRIMINATION/NONPREFERENTIAL TREATMENT APPLICABLE TO CONTRACTS FOR PUBLIC WORKS CONSTRUCTION PROJECTS HAVING AN ENGINEERING COST ESTIMATE BASE BID IN EXCESS OF $50,000

16.1 STATEMENT OF PURPOSES

It is the Policy of the City of San Jose and the Redevelopment Agency of the City of San Jose that no discrimination or preferences shall be permitted in the subcontracting of the City of San Jose and Redevelopment Agency construction contracts. Studies have demonstrated that there has been a pattern of discrimination against certain minority groups and women by contractors in the subcontracting of public works contracts. All contractors shall fully comply with Chapter 4.08 of the San Jose Municipal Code and shall not discriminate against or grant preferential treatment to any subcontractor on the basis of race, sex, color, age, religion, sexual orientation, actual or perceived gender identity, disability, ethnicity, or national origin in the performance of the City of San Jose and Redevelopment Agency contracts. Any contractor who so discriminates or gives preferences shall be deemed not to be a responsible bidder in accordance with City of San Jose Charter Section 1217.

16.2 REQUIREMENT

These provisions, entitled, "NONDISCRIMINATION/NONPREFERENTIAL TREATMENT APPLICABLE TO CONTRACTS FOR PUBLIC WORKS CONSTRUCTION PROJECTS HAVING A CITY OF SAN JOSE ENGINEERING COST ESTIMATE FOR THE BASE BID IN EXCESS OF $50,000", are incorporated in and made part of the Special Provisions for such public works projects.

16.3 CONFLICT WITH APPLICABLE FEDERAL OR STATE LAW

In the event that a particular City or Redevelopment Agency public works contract is funded or required to be approved in whole or in part by the State or Federal government and any provision contained herein is inconsistent with any applicable state or federal statutes, rules or regulations, orders or controlling policies pertaining to such funding or approval, to the extent that any such provision is inconsistent, it shall not apply to the contract. To the extent a Federal project requires an MBE/WBE Program, the Program set forth in Resolution No. 4162, rather than this Nondiscrimination/Nonpreferential Treatment Program, shall be applicable.

16.4 VIOLATION

Be aware that any Prime Contractor who discriminates or gives preferences is in violation of Chapter 4.08 of the San Jose Municipal Code. Any such violations, in addition to all other remedies set forth in the Municipal Code, are further subject to the provisions of the San Jose Municipal Code, Chapter 14.04 of Title 14, Part 4, Debarment of Contractors.

ARTICLE 17

PREVAILING WAGE

17.1 PREVAILING WAGE

The Contractor shall forfeit as penalty to the Owner, $50.00 for each calendar day or portion thereof, for each worker paid less than the stipulated prevailing rates for such work or craft in which such worker is employed for any work done under the Contract by him or by any subcontractor under him, in violation of the provisions of the Labor Code of the State of California, and in particular, Section 1770 to 1780 thereof, inclusive. The general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality for each craft, classification or type of worker needed to execute the Contract is set forth in full in the document referred to in the Notice to Contractors of the Specifications.

17.1.1 The holidays upon which such rates shall be paid shall be all holidays recognized in the collective bargaining agreement applicable to the particular craft, classification or type of workman employed on the Project. The difference between such stipulated prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the Contractor pursuant to the requirements of Section 1775 of the Labor Code of the State of California.

17.1.2 The Owner will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth in the Contract. The possibility of wage increases is one of the elements to be considered by the Contractor in determining his bid, and will not under any circumstances be considered as the basis of a claim against the Agency on the Contract.

17.1.3 Notwithstanding any other provision of the Contract to the contrary, the general prevailing rate of wages in this locality for each craft, classification, or type of worker needed to execute the Contract for the Work (which rate includes employer payments for health and welfare, vacation, pension, travel time, and subsistence pay as

provided for in Section 1773.8 of the Labor Code of the State of California, apprenticeship or other training programs authorized by Section 3093 of the Labor Code, and similar purposes) applicable to the work to be done for straight time, overtime, Saturday, Sunday and holiday work is that ascertained by the Director of the Department of Industrial Relations of the State of California and determined by the City Council of the City of San Jose by its Resolution No. 48383, copies of which rates are on file in the Office of the City Clerk and the Department of Public Works, and which shall be made available to any interested party on request, which rates are hereby made a part hereof, incorporated herein by reference as though fully set forth. The holiday wage rate listed shall be applicable to all holidays recognized in the collective bargaining agreement of the particular craft, classification or type of worker employed on the Project.

17.2 PAYROLL RECORDS

The Contractor and each subcontractor shall keep an accurate payroll record showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by the Contractor or subcontractor in connection with the Work. The payroll records shall be kept in accordance with the provisions of Section 1776 of the California Labor Code and Contractor and each subcontractor shall otherwise comply with all requirements of such Section 1776. With every payroll and Application for Payment (Section 9.3) following the issuance of the Notice to Proceed, Contractor shall send a copy of Contractor's certified payroll records for all work performed on the Project to the City of San Jose's Office of Equality Assurance, and a copy to the Owner. In the event Contractor does not submit all or a portion of such payroll records with each Application for Payment, Owner may withhold all or a portion of the funds requested under the Application for Payment, as set forth in Section 9.3 of these General Conditions.

END OF SECTION 00700

PROJECT MANUAL INCLUDING SPECIFICATIONS

FOR

PARKSIDE HALL
ROOF IMPROVEMENTS

SAN JOSE, CALIFORNIA

Steinberg Architects Project #07-026

PERMIT SET

May 16, 2007

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408/295-5446

PROJECT MANUAL INCLUDING SPECIFICATIONS FOR

PARKSIDE HALL
ROOF IMPROVEMENTS

Steinberg Architects Project #07-026

_____
STEINBERG ARCHITECTS
Ernest T. Yamane, AIA

_____
REDEVELOPMENT AGENCY OF SAN JOSE
Bill Ekern
Director of Project Management

PROJECT MANUAL INCLUDING SPECIFICATIONS

FOR

PARKSIDE HALL
ROOF IMPROVEMENTS

SAN JOSE, CALIFORNIA

Steinberg Architects #07-026

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Not Used

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09225 Portland Cement Plaster Systems
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DIVISION 15 MECHANICAL

15160 Storm Drainage Piping
15300 Fire Protection Piping

DIVISION 16 ELECTRICAL

Not Used

SECTION 01110

SUMMARY OF WORK

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Description of construction delivered under this Contract.

B. Work restriction requirements.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Work of Contract consists of modifications to existing roof in preparation for future installation of roof mounted solar panels to Parkside Hall located at 145 West San Carlos Street, San Jose, California for City of San Jose Redevelopment Agency, Owner and includes:

1. Demolition work including removal of existing roofing.

2. Sheathing interior face of parapet wall and provisions of nailers, curbs and roofed-in sleepers.

3. Reroofing.

4. Sheet metal flashing and trim including reinstallation of salvaged existing sheet metal coping.

5. Removing and reinstalling existing skylight glazing with newly manufactured glazing gaskets and glazing accessories as Bid Alternate.

6. Patching existing finishes.

7. Painting newly installed finishes and components.

8. Relocating roof drains and adding roof overflow drains.

9. Reconfiguring existing roof mounted fire sprinkler piping.

B. Construct Work under single lump sum contract.

1.3 WORK COVERED BY SEPARATE CONTRACTS

A. Owner will award separate contract for design and installation of roof mounted solar panels. Installation of work of separate contract will commence after completion of work of this Contract.

B. Items noted "NIC" (Not In Contract) will either be supplied and installed by Owner or provided under separate contract.

C. Coordinate with work of these separate contracts.

1.4 WORK RESTRICTIONS

A. Contractor's Use of Site and Premises:

1. Limit use of site and premises to allow:

a. Owner occupancy of building and adjacent facilities.

b. Work by other contractors.

c. Use of site and premises by public.

2. Coordinate use of premises under direction of Owner.

3. Notify Owner in advance of work outside construction and staging areas. Coordinate such work with Owner.

B. Owner Occupancy:

1. Owner has not leased exhibit hall out for period scheduled for roof modifications however, restroom facilities in vestibule that are shared with adjacent buildings must remain operational and accessibly during this Contract period.

2. Owner will lease out and occupy and use adjacent site and existing adjacent buildings for conducting normal operations during this Contract period. Tenants, public, and staff will be present on adjacent site and in existing adjacent buildings.

3. Cooperate and coordinate with Owner to minimize conflict and to facilitate Owner's operations.

a. Provide written notice to Owner minimum 3 calendar days prior to commencing activities including, but not limited to:

1) Electrical power shut downs.

2) Domestic water and gas shut-offs.

3) Interruption of low voltage systems such as fire alarm, communication, paging, clock, signal, data and energy management.

4) Other activities that result in excessive noise or that may affect conduction of normal operations.

b. Maintain unrestricted vehicular and pedestrian access to adjacent existing

buildings, parking facilities and service yards.

4. Schedule work to accommodate Owner occupancy requirements.

C. Surrounding Site Condition Survey:

1. Prior to commencement of work, Contractor, Owner and Architect shall jointly survey site and existing adjacent buildings, paving, plant life, and other items, noting and photographically recording existing damage such as cracks, sags, unhealthy plant life.

2. This record shall serve as basis for determination of subsequent damage to these items due to settlement or movement due to demolition and construction operations.

3. Such damage, as noted, shall be suitably marked on item, if possible, and official record of existing damage shall be signed by parties making survey.

4. Cracks, sags, or other damage to site and adjacent buildings, paving, plant life, and other items not noted in original survey, but subsequently observed shall be reported immediately to Owner.

5. Duplicate photographs and notes; deliver copy to Owner.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01230

ALTERNATES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Administrative and procedural requirements governing Alternate Bid Items listed in Proposal Form.

1.2 RELATED SECTIONS

A. Section 01270 - Unit Prices.

B. Section 01290 - Payment Procedures

C. Section 01625 - Product Options and Substitutions.

1.3 ALTERNATES

A. Alternates quoted on Proposal Form will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in Agreement.

1. Include every item in Contract Documents in Base Bid of Proposal Form with exception of Alternate Bid Items listed below.

2. Alternates are listed in order of preference and, if accepted, will be accepted sequentially by alternate number. Owner may opt to accept no Alternates.

B. Unless otherwise specifically provided, work described in Alternates shall be completed with no increase in Contract Time.

C. Base Bid Specifications shall govern work of Alternates unless otherwise noted.

D. Coordinate related work and modify surrounding work as required.

1.4 SCHEDULE OF ALTERNATES

A. Add Alternate #1 - Skylight Restoration:

Base Bid Item: Construct project as indicated and specified in Contract Documents without skylight restoration work.

Add Alternate Bid Item: Construct project with skylight restoration work as indicated on Drawings and specified in Section 08690 - Skylight Restoration.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01250

CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Procedures and submittal requirements for making clarifications, proposals for change and changes to Contract.

1.2 RELATED SECTIONS

A. Agreement: Monetary values of established Unit Prices.

B. General Conditions: Governing requirements for changes in work, Contract Sum and Contract Time.

C. Section 01290 - Payment Procedures: Schedule of Values; payment applications.

D. Section 01323 - Construction Progress Schedules: Construction progress schedule.

E. Section 01330 - Submittal Procedures.

F. Section 01625 - Product Options and Substitutions.

G. Section 01775 - Closeout Procedures and Submittals: Project record documents.

1.3 SUBMITTALS

A. Submit name of individual authorized to receive change documents, and be responsible for informing others in Contractor's employ or subcontractors of changes to Work.

B. Change Order Forms: AIA G701, Change Order or equivalent electronic media printout acceptable to Owner.

1.4 DOCUMENTATION OF CHANGE IN CONTRACT SUM AND CONTRACT TIME

A. Maintain detailed records of work done on time and material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs of changes in Work.

B. Document each quotation for change in cost or time with sufficient data to allow evaluation of quotation.

C. Itemize each quotation including those of subcontractors and sub-subcontractors. At minimum, provide following data to support computations:

1. Quantity of labor by number of hours per employee and hourly wage rate of that employee.

2. Quantity of material, equipment and supplies by number of items and unit cost for each type of item.

3. Taxes, insurance and bonds.

4. Overhead and profit.

5. Justification for change in Contract Time.

6. Credit for deletions from Contract, similarly documented.

D. Support each claim for additional costs, and for work done on time and material basis, with additional information:

1. Origin and date of claim.

2. Dates and times work was performed and by whom.

3. Time records and wage rates paid.

4. Invoices and receipts for products, equipment and subcontracts, similarly documented.

1.5 CHANGE PROCEDURES

A. Owner may issue Proposal Request which includes detailed description of proposed change with supplementary or revised Drawings and specifications, change in Contract Time for executing change with stipulation of any overtime work required and period of time during which requested price will be considered valid. Contractor will prepare and submit an estimate within 10 days.

B. Contractor may propose change by submitting request for change to Architect describing proposed change and its full effect on Work, with statement describing reason for change, and effect on Contract Sum and Contract Time with full documentation and statement describing effect on work by separate or other contractors. Document requested substitutions in accordance with Section 01625.

1.6 CONSTRUCTION CHANGE DIRECTIVE

A. Owner may issue signed directive instructing Contractor to proceed with change in Work, for subsequent inclusion in Change Order.

B. Document will describe changes in Work, and will designate method of determining change in Contract Sum or Contract Time.

C. Promptly execute change in Work.

1.7 STIPULATED SUM CHANGE ORDER

A. Based on Proposal Request and Contractor's fixed price quotation, or Contractor's request for Change Order as approved by Owner and Architect.

1.8 UNIT PRICE CHANGE ORDER

A. For predetermined unit prices and quantities, Change Order will be executed on fixed unit price basis.

B. For unit costs or quantities of units of work which are not predetermined, execute work under Construction Change Directive.

C. Changes in Contract Sum or Contract Time will be computed as specified for Time and Material Change Order.

1.9 TIME AND MATERIAL CHANGE ORDER

A. Submit itemized account and supporting data within 15 days after completion of change.

B. Architect will determine change allowable in Contract Sum and Contract Time as provided in Contract Documents.

C. Maintain detailed records of work done on time and material basis.

D. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in Work.

1.10 EXECUTION OF CHANGE ORDERS

A. Execution of Change Orders: Owner will issue Change Orders for signatures of parties as provided in Conditions of the Contract.

1.11 CORRELATION OF CONTRACTOR SUBMITTALS

A. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum.

B. Promptly revise progress schedules to reflect change in Contract Time, revise subschedules to adjust time for other items of work affected by change, and resubmit.

C. Promptly enter changes in Project Record Documents.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01270

UNIT PRICES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Administrative and procedural requirements governing handling and processing of Unit Price bid items listed on Proposal Form.

1.2 RELATED SECTIONS

A. Section 01250 - Contract Modification Procedures.

B. Section 01290 - Payment Procedures.

1.3 UNIT PRICES

A. Unit Prices quoted on Proposal Form establish unit price for work added to or deducted from Contract Amount. Changes will be made only by written change order issued at Owner's option.

B. Unit Price provisions of this Article are in addition to requirements specified elsewhere and applicable to work for which unit prices are required.

C. Unit Prices quoted shall reflect fair and reasonable value of work defined by unit price description in event Owner directs changes in extent of work after awarding Contract.

D. Estimated quantities have been listed to establish Unit Bid Prices (Unit Price x estimated quantity). Unit Bid Prices shall allow for number of units installed for price quoted to increase 10 percent or to decrease 10 percent from estimated quantity listed without modification to unit price.

E. Unit Prices quoted shall be for items completely installed, furnished and operable in accordance with Contract Documents and shall include profit, overhead, taxes, cost of coordinating unit price work with adjacent work, compensation of risk of loss or damage to work regardless of cause, expenses due to delays in performance so that quoted price is complete price to Owner.

F. No other payment shall accrue to Contractor excepting Unit Price. Unit Price shall be same whether additive or deductive.

G. Unit Prices shall remain in effect for full term of Contract.

H. Quantities listed in Contract Documents are approximate; Contract Amount shall be adjusted by Change Order using Unit Prices listed for actual quantities of work performed.

I. Unit Prices shall not apply to work Contractor elects to do for Contractor's own conven-

ience or to correct errors committed by Contractor.

1.4 SCHEDULE OF UNIT PRICES

A. Unit Price #1 - Additional Roof Walkway Pads: Provide unit price for purchase, delivery and application of approximately 5,000 sq ft of additional roof mounted walkway protection pads for installation under supports for future solar panel array. Solar panel array to be installed under separate contract.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01290

PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Procedures for preparation and submittal of Schedule of Values.

B. Procedures for preparation and submittal of Applications for Payment.

1.2 RELATED SECTIONS

A. Agreement: Contract sum, progress payments and retainages, final payment.

B. General Conditions: Governing requirements for payment procedures.

C. Section 01250 - Contract Modification Procedures: Procedures for changes to the work.

D. Section 01312 - Project Meetings: Billing meetings.

E. Section 01330 - Submittal Procedures.

F. Section 01775 - Closeout Procedures and Submittals: Record documents; final payment.

1.3 FORMAT

A. AIA G702 and G703 - Application and Certificate for Payment including Continuation Sheets.

1.4 PREPARATION OF SCHEDULE OF VALUES

A. Submit typed schedule on AIA Form G703 or on equivalent electronic media printout acceptable to Owner.

B. Format: Utilize Table of Contents of this project manual. List installed cost of component parts of Work broken down into sufficient detail to serve as basis for computing values for progress payments during performance of Work.

1. Identify each line item with number and title of major specification section.

2. Identify site mobilization, bonds and insurance.

C. For each major line item, list subcosts of major products or operations.

D. Include, separately from each line item, directly proportional amount of Contractor's overhead and profit.

E. For portions of Work in excess of Ten Thousand Dollars ($10,000) in total cost including overhead and profit, separately identify labor and material cost.

F. Revise schedule to list approved Change Orders with each Application for Payment.

1.5 PREPARATION OF APPLICATIONS

A. Present required information in typewritten form on AIA G702 and G703 or on equivalent electronic media printout acceptable to Owner.

B. Prepare itemized draft of month's proposed billing for review at billing meeting in accordance with Section 01312. Following review of proposed billing, revise as required, and prepare Application for Payment.

C. Execute certification by signature of authorized officer. Notarize prior to submittal.

D. Provide breakdown using data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.

E. List each authorized Change Order as extension on continuation sheet, listing Change Order number and dollar amount as for original item of work.

F. Prepare Application for Final Payment as specified in Section 01775.

1.6 SUBMITTAL PROCEDURES

A. Submit 3 copies of Schedule of Values to Owner within 15 days of date of Notice to Proceed.

B. Submit 3 copies of each Application for Payment to Owner at monthly intervals as stipulated in General Conditions. Owner will forward fully executed copies to Contractor and Architect.

C. Submit under transmittal letter specified in Section 01330.

D. Submit updated construction schedule with each Application for Payment.

E. Submit updated Schedule of Values listings approved Change Orders with each Application for Payment.

F. Submit waivers of lien with each Application for Payment.

1. Submit conditional waiver and release for current payment due with each Application for Payment.

2. Submit unconditional waiver and release for previous progress payment re-

ceived.

G. Submit copies of weekly certified payrolls with each application.

H. Submit certification that record documents are correct.

1.7 SUBSTANTIATING DATA

A. When Owner requires substantiating information, submit data justifying dollar amounts in question.

B. Provide 1 copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01311

COORDINATION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Requirements for coordination of Work.

1.2 RELATED SECTIONS

A. General Conditions: Governing provisions for supervision and coordination of Work.

B. Section 01110 - Summary of Work: Work by Owner.

C. Section 01312 - Project Meetings.

D. Section 01625 - Product Options and Substitutions.

E. Section 01775 - Closeout Procedures and Submittals: Closeout submittals.

1.3 DESCRIPTION

A. Coordinate Work. Do not delegate responsibility for coordination to any subcontractor.

B. Coordinate scheduling, submittals, and work of various sections of specifications to assure efficient and orderly sequence of installation of construction elements.

C. Resolve differences or disputes concerning coordination, interference, or extent of work of various sections of specifications. Contractor's decisions, if consistent with requirements of Contract Documents, shall be final.

1.4 MEETINGS

A. In addition to progress meetings specified in Section 01312, hold coordination meetings and preinstallation conferences with personnel and subcontractors to assure coordination of work.

1.5 COORDINATION OF SUBMITTALS

A. Schedule and coordinate submittals specified in Section 01330.

B. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

C. Coordinate requests for substitutions to assure compatibility of space, of operating elements, and effect on work of other sections.

1.6 COORDINATION OF CONTRACT CLOSEOUT

A. Coordinate completion and cleanup of work of separate sections in preparation for Substantial Completion.

B. After Owner and Owner's buyers' occupancy of premises, coordinate access to site by various sections for correction of defective work and work not in accordance with Contract Documents to minimize disruption of activities of Owner and Owner's buyers.

C. Assemble and coordinate closeout submittals specified in Section 01775.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01312

PROJECT MEETINGS

PART 1 GENERAL

1.1 REQUIREMENTS INCLUDED

A. Requirements for Contractor participation in preconstruction conference.

B. Requirements for Contractor administration of progress meetings, billing meetings and preinstallation conferences.

1.2 RELATED SECTIONS

A. General Conditions: Governing provisions for meetings and conferences.

B. Section 01290 - Payment Procedures.

C. Section 01311 - Coordination.

D. Section 01323 - Construction Progress Schedules: Construction progress schedules.

E. Section 01330 - Submittal Procedures: Shop drawings, product data, and samples.

F. Section 01450 - Quality Control.

G. Section 01775 - Closeout Procedures and Submittals: Project record documents; operation and maintenance data.

1.3 PRECONSTRUCTION CONFERENCE

A. Owner will administer preconstruction conference at project site for clarification of Owner and Contractor responsibilities in use of site, for review of administrative procedures and exchange of preliminary submittals.

B. Attendance: Job superintendent, major subcontractors and suppliers, Owner, Architect, and others as appropriate.

1.4 PROGRESS MEETINGS

A. Schedule and administer project meetings at project site throughout progress of Work at weekly intervals.

B. Make physical arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within 2 days to

Owner, participants, and those affected by decisions made at meetings. Owner, Architect and participants taking exception to content of meeting minutes shall state same in writing to Contractor within 5 working days of receipt of minutes.

C. Attendance: Job superintendent and major subcontractors and suppliers as appropriate to agenda topics for each meeting; Owner and Architect as required by agenda for meeting.

D. Suggested Agenda: Review of work progress, status of progress schedule and adjustments thereto, delivery schedules, submittals, maintenance of quality standards, pending changes and substitutions, and other items affecting progress of Work.

1.5 BILLING MEETINGS

A. Schedule and administer billing meetings at project site on or about twentieth day of each month prior to submittal of Application for Payment. Notify attendees at least 2 working days prior to meeting.

B. Prepare draft Application for Payment with required attachments and endorsements; submit copies to Owner and Architect minimum 2 working days prior to meeting.

C. Attendance: Contractor, Owner and Architect.

D. Suggested Agenda: Review draft Application for Payment and status of Project Record Documents.

E. Following review, revise Application for Payment and submit to Owner in accordance with Section 01290.

1.6 PREINSTALLATION CONFERENCES

A. When required in individual specification sections or when deemed necessary to work by Contractor, convene preinstallation conference prior to commencing work of section.

B. Require attendance of entities directly affecting, or affected by, work of section.

C. Review conditions of installation, preparation and installation procedures, and coordination with related work.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01323

CONSTRUCTION PROGRESS SCHEDULES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Requirements and procedures for preparing, submitting and updating construction progress schedules.

1.2 RELATED SECTIONS

A. General Conditions: Governing requirements for progress schedules.

B. Section 01110 - Summary of Work: Work by Owner.

C. Section 01250 - Contract Modification Procedures: Changes in the work.

D. Section 01290 - Payment Procedures: Application for payment.

E. Section 01330 - Submittal Procedures: Shop drawings, product data and samples.

1.3 REFERENCES

A. "The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry," The Associated General Contractors of America (AGC), Washington, D.C., latest edition.

1.4 QUALIFICATIONS

A. Scheduler: Contractor's personnel specializing in CPM scheduling with 3 years minimum experience in scheduling construction work of complexity comparable to this Project, and having use of computer facilities capable of delivering detailed graphic printout within 48 hours of request.

B. Contractor's Administrative Personnel: 3 years minimum experience in using and monitoring CPM schedules on comparable projects.

1.5 FORMAT

A. Prepare network analysis diagrams and supporting mathematical analyses using Critical Path Method, under concepts and methods outlined in AGC's "The Use of CPM in Construction - A Manual for General Contractors and Construction Industry."

B. Listings: Reading from left to right, in ascending order for each activity. Identify each activity with applicable Specification section number.

C. Diagram Sheet Size: Height and width required.

D. Scale and Spacing: To allow for notations and revisions.

1.6 CONTENTS

A. Diagrams to illustrate order and interdependence of activities and sequence of work; how start of given activity depends on completion of preceding activities, and how completion of activity may restrain start of subsequent activities.

B. Illustrate complete sequence of construction by activity, identifying work of separate phases.

1. Provide dates for submittals, including those for items furnished by Owner or separate Contractor, and return of submittals; dates for procurement and delivery of critical products; and dates for installation and provision for testing.

2. Provide legend for symbols and abbreviations used.

C. Mathematical Analysis: Tabulate each activity of detailed network diagrams, using calendar dates, and identifying for each activity:

1. Preceding and following event numbers.

2. Activity description.

3. Estimated duration of activity.

4. Earliest start date.

5. Earliest finish date.

6. Actual start date.

7. Actual finish date.

8. Latest start date.

9. Latest finish date.

10. Total and free float.

11. Monetary value of activity, keyed to Schedule of Values.

12. Percentage of activity completed.

13. Responsibility.

D. Analysis Program: Capable of compiling monetary value of completed and partially completed activities, of accepting revised completion dates, and recomputation of all

dates and float.

E. Required Sorts: List activities in sorts or groups:

1. By preceding work item or event number from lowest to highest.

2. By amount of float, then in order of early start.

3. By responsibility in order of earliest possible start date.

4. In order of latest allowable start dates.

5. In order of latest allowable finish dates.

6. Contractor's periodic payment request sorted by Schedule of Values listings.

7. Listing of basic input data which generates report.

8. Listing of activities on critical path.

F. Coordinate contents with Schedule of Values in Section 01290.

1.7 SUBMITTALS

A. Within 5 days of issuance of Notice to Proceed, submit proposed network diagram defining planned operations for Work.

B. Participate in review of proposed network diagrams with Owner.

C. Within 2 days after joint review, submit complete network analysis consisting of network diagrams and mathematical analysis.

D. Submit updated network schedules with each Application for Payment. In addition, submit updated network as requested in writing by Owner within 2 weeks of request.

E. Submit 1 reproducible transparency and 4 opaque reproductions.

F. Submit under transmittal letter form specified in Section 01330.

1.8 REVIEW AND EVALUATION

A. Participate in joint review and evaluation of network diagrams and analysis with Owner at each submittal.

B. Evaluate project status to determine work behind schedule and work ahead of schedule.

C. After review, revise as necessary as result of review, and resubmit with 7 days.

1.9 UPDATING SCHEDULES

A. Maintain project construction schedules to record actual start and finish dates of completed activities.

B. Indicate progress of each activity to date of revision, with projected completion date of each activity. Update diagrams to graphically depict current status of work.

C. Identify activities modified since previous submittal, major changes in work, and other identifiable changes.

D. Indicate changes required to maintain Date of Substantial Completion.

E. Submit sorts required to support recommended changes.

F. Provide narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect.

1.10 DISTRIBUTION

A. Following joint review, distribute copies of updated schedules to Contractor's project site file, to subcontractors, suppliers, Owner, Architect and other concerned parties.

B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Requirements and procedures for submittals during construction.

1.2 RELATED SECTIONS

A. General Conditions: Governing provisions for product submittals.

B. Section 01290 - Payment Procedures: Schedule of Values.

C. Section 01323 - Construction Progress Schedule: Construction progress schedules requirements and submittal procedures.

D. Section 01450 - Quality Control: Manufacturer's field services and reports; mock-ups and field samples.

E. Section 01455 - Testing Laboratory Services: Test reports by Owner’s Testing Laboratory

F. Section 01625 - Product Options and Substitutions: Substitution submittal procedures.

G. Section 01775 - Closeout Procedures and Submittals: Contract warranty and closeout submittals.

1.3 SUBMITTAL PROCEDURES

A. Transmit each submittal with Owner-accepted form.

B. Number transmittal forms with document or specification section number requiring submittal. Resubmittals to have original number with alphabetic suffix.

C. Identify project name and address, Contractor's name and address, subcontractor's or supplier's name and address, and name and telephone number of individual to contact for additional information regarding submittal, pertinent drawing sheet and detail number(s), pertinent specification section number(s) and date of submission.

D. Apply Contractor's stamp, signed or initialed certifying review and approval of submittal, verification of products required, field dimensions, adjacent construction work, coordination of information, and compliance with requirements of work and Contract Documents.

E. Fully coordinate material prior to submittal. Determine and verify field dimensions and conditions, catalog numbers, and similar data.

1. Coordinate with public agencies involved and secure necessary approvals; signify that approvals have been secured by stamp or other means.

2. Coordinate with various types of work involved; make submittals in groups containing all associated items.

F. Schedule submittals to expedite project. Deliver to Owner at address on cover of project manual. Coordinate submission of related items. Allow minimum of 15 working days for distribution to, and processing by Architect and Architect's consultants.

G. Submit product submittals required by individual sections of specifications. Submittals not required by specifications, but made at option of Contractor, will be returned without review unless accompanied by written valid justification.

H. Make complete product submittals. Include shop drawings, product data, samples, manufacturer's instructions and manufacturer's certificates as required in individual specification sections.

1. Partial submittals will be rejected as not complying with Contract Documents.

2. Manufacturer's certificates based on tests or inspections at time of manufacture may be submitted separately.

I. Identify variations from Contract Documents and product or system limitations which may be detrimental to successful performance of completed work.

1. State whether submitted product is specified product or accepted substitution.

2. Refer to Section 01625 for submittal requirements for substitutions; shop drawings and product data indicating substitutions which have not been submitted in accordance with Section 01625 will be returned without review.

J. Provide space for review stamps for Contractor, Architect, and Architect's consultants.

K. Architect will review submittals; mark submittals with required revisions; stamp submittals and indicate "No Exceptions Taken," "Make Corrections Noted," "Revise and Resubmit," "Rejected" or "Submit Specified Item" and return submittal.

L. Review returned submittals and take appropriate action as indicated. If submittals are marked "Revise and Resubmit," "Rejected" or "Submit Specified Item," make revisions necessary, identify revisions with 'cloud' and resubmit in same manner and number as for original submittal.

M. Architect will review resubmittal and take action, as appropriate, in same manner as for original submittal.

N. Review returned resubmittal and take appropriate action as indicated. Continue to re-

vise and resubmit until Architect returns resubmittal marked "No Exception Taken" or "Make Corrections Noted." Said marks signify final action.

O. Following final action by Architect, copy and distribute copies of submittals to concerned parties including Job Superintendent and appropriate subcontractors. Instruct parties to promptly report any inability to comply with provisions.

P. Use only those submittals which bear stamps showing final review of Contractor, Architect and appropriate Architect's consultant.

1.4 PROPOSED PRODUCTS LIST

A. Within 15 days after Notice to Proceed, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product. Submit 4 copies of proposed products list.

B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standard.

1.5 SEGREGATED PRICES

A. After commencement of the work, furnish segregated prices as required for convenience of Owner's accounting.

B. Submit segregated prices, in addition to break down required in the Schedule of Values, within 7 days from receipt of request for said prices from Owner.

1.6 SHOP DRAWINGS

A. Submit in form of 1 reproducible transparency and 3 opaque reproductions. Opaque reproductions will be retained by Owner and Architect.

B. State or indicate data necessary to describe product or system. Present in clear and thorough manner.

C. Identify field dimensions; show relation to adjacent or critical features, work or products.

D. Title each drawing with project name and number.

E. After review, reproduce and distribute in accordance with article on procedures above and for Record Documents described in Section 01775 - Closeout Procedures and Submittals.

1.7 PRODUCT DATA

A. Submit number of copies which Contractor requires, plus 3 copies which will be retained by Owner and Architect.

B. Submit most recently published data available. Mark each copy to identify applicable products, models, options and other data. Supplement manufacturers' standard data

to provide information unique to this Project.

C. After review, distribute in accordance with article on procedures above and provide copies for Record Documents described in Section 01775 - Closeout Procedures and Submittals.

1.8 SAMPLES

A. Submit samples to illustrate functional and aesthetic characteristics of product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.

B. Submit samples of finishes from full range of manufacturer's standard or selected custom colors, textures and patterns for Architect's selection.

C. Where samples have natural variations in texture, color and dimension, submit samples showing extreme range plus middle range of variation.

D. Include identification on each sample with full project information.

E. Submit size of samples specified in individual specification sections in number which Contractor requires plus 3 which will be retained by Owner and Architect.

F. Reviewed samples which may be used in Work are indicated in individual specification sections.

1.9 MANUFACTURER'S TEST REPORTS

A. When specified in individual sections, submit manufacturer's mill analyses and test reports.

B. Submit number of copies which Contractor requires plus 3 copies which will be retained by Owner and Architect.

C. Mark reports with name or equipment represented, source, name of producer and brand, location in work, name, address and telephone number of independent testing laboratory performing tests, and date of tests, in addition to identification required under article on procedures above.

D. After review, distribute in accordance with article on procedures above and provide copies for Record Documents as described in Section 01775 - Closeout Procedures and Submittals.

1.10 MANUFACTURER'S INSTRUCTIONS

A. When specified in individual specification sections, submit manufacturer's printed in-

structions for delivery, storage, assembly, installation, start-up, adjusting and finishing, in quantities specified for product data.

B. Identify conflicts between manufacturer's instructions and Contract Documents.

1.11 MANUFACTURER'S CERTIFICATES

A. Submit manufacturer's certifications based on recent or previous test results with other submittals specified. Submit certifications based on tests or inspections at time of manufacture with product delivery.

B. When specified in individual specification sections, submit manufacturers' certificate to Architect for review, in quantities specified for product data.

C. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference date, affidavits, and certifications as appropriate.

D. Certificates may be recent or previous test results on material or product, but must be acceptable to Architect.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01359

ALTERATION PROJECT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Procedural requirements for cutting, patching and extending existing work.

B. Procedural requirements for installing new components in existing construction.

1.2 RELATED SECTIONS

A. Section 01500 - Construction Facilities and Temporary Controls: Temporary enclosures, protection of installed work and existing facilities, and cleaning during construction.

B. Section 01730 - Cutting and Patching: Cutting and patching newly installed work.

1.3 PERFORMANCE REQUIREMENTS

A. Cut, patch and extend existing construction using skilled workers capable of matching existing quality of workmanship. Quality of patched or extended work shall be not less than that specified for new work.

1.4 COORDINATION

A. Coordinate work of trades and schedule elements and alterations and renovation work by procedures and methods to expedite completion of work.

B. In addition to demolition specified in Section 02222 and specifically indicated on Drawings, cut, move or remove items as necessary to provide access or to allow alterations and new work to proceed.

C. Patch, repair and finish existing items to remain to specified condition for each material with smooth and clean transition to adjacent new items of construction.

1.5 ALTERNATIONS, CUTTING AND PROTECTION

A. Assign cutting and patching of existing work to trades qualified to perform work in manner to minimize possibility of damage to each type of work; provide means of returning surfaces to appearance of new work.

B. Perform cutting and removing work with minimal disruption and in manner to avoid damage to adjacent work.

C. Cut finish surfaces such as concrete, masonry, tile, plaster or metals by methods which terminate surfaces in straight line at natural point of division.

D. Perform cutting and patching as specified in Section 01730 - Cutting and Patching.

E. Protect existing finishes, equipment and adjacent construction which is scheduled to remain from damage.

1. Protect existing and new work from weather and extremes of temperature.

2. Maintain existing interior work above 60 degrees F.

3. Provide weather protection, waterproofing, heat and humidity control as needed to prevent damage to remaining work and to new work.

PART 2 PRODUCTS

2.1 PRODUCTS FOR PATCHING, EXTENDING AND MATCHING

A. Provide same products or types of construction as that in existing structure as needed to patch, extend to match existing.

B. Generally Contract Documents will not define products or standards of workmanship in existing construction; determine products by inspection and necessary testing and determine quality of workmanship by using existing as sample for comparison.

C. Presence of product, finish or type of construction requires that patching, extending or matching be performed as necessary to made work complete and consistent with identical standards of quality.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that demolition is complete, and areas are ready for installation of new work.

B. Do not begin restoration work until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Cut, move, or remove items as necessary for access to alterations and renovation work. Replace and restore at completion.

B. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished work.

C. Remove debris and abandoned items from area and from concealed spaces.

D. Prepare surface and remove surface finishes to provide for proper installation of new work and finishes.

E. Close openings in exterior surfaces to protect existing work and salvaged items from weather and extremes of temperature and humidity. Insulate ductwork and piping to prevent condensation in exposed areas.

3.3 INSTALLATION

A. Coordinate work of alternations and renovations to expedite completion sequentially and to accommodate Owner occupancy.

B. Cut, remove and patch work in manner to minimize damage and to provide means of restoring products and finishes to specified condition.

C. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with neat transitions to adjacent finishes.

D. Install products as specified in individual sections.

3.4 TRANSITIONS

A. Where new work abuts or aligns with existing, perform a smooth and even transition. Patched work shall match existing adjacent work in texture and appearance so that patch or transition is invisible at distance of 5 feet.

B. When finished surfaces are cut so that smooth transition with new work is not possible, terminate existing surface in neat manner along straight line at natural line of division.

3.5 ADJUSTMENTS

A. Where partitions are removed, patch floors, wall and ceilings with finish materials to match existing.

1. Where removal of partitions results in adjacent spaces becoming one, rework floors, walls, and ceilings to smooth plane without breaks, steps, or bulkheads.

2. Where a change of plane of 1/4 inch or more occurs, provide for a smooth transition. Where extreme change of plane of 1 inch or more occurs, request instructions from Architect as to method of making transition.

B. Fit work at penetrations of surfaces as specified in Section 01730.

3.6 REPAIR OF DAMAGED SURFACES

A. Patch or replace, with matching material, portions of existing finished surfaces that are damaged, lifted, discolored, or showing other imperfections.
B. Repair substrate prior to patching finish; ensure substrate is properly supported.

3.7 FINISHES

A. Finish surfaces as specified in individual product sections.

B. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

END OF SECTION

SECTION 01450

QUALITY CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Procedures to assure quality of construction.

B. Procedures, other than testing laboratory services, to measure and report quality and performance of construction.

1.2 RELATED SECTIONS

A. General Conditions: Governing requirements for quality control.

B. Section 01330 - Submittals: Submission of manufacturers' instructions and certificates.

C. Section 01455 - Testing Laboratory Services: Inspections and special inspections conducted by testing agencies.

D. Section 01610 - Basic Product Requirements: Requirements for material and product quality.

1.3 QUALITY ASSURANCE/CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship to produce work of specified quality.

B. Comply fully with manufacturers' instructions, including each step in sequence.

C. Should manufacturers' instructions conflict with Contract Documents, request clarification by Architect through Owner before proceeding.

D. Comply with specified standards as minimum quality for Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Perform work by persons qualified to produce workmanship of specified quality.

F. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.4 REFERENCE STANDARDS

A. Unless otherwise specified, conform to reference standard by date of issue current on Contract Documents.

B. Should specified reference standards conflict with Contract Documents, request clarification by Architect through Owner before proceeding.

C. Contractual relationship of parties to contract shall not be altered from Contract Documents by mention or inference otherwise in any reference document.

1.5 FIELD SAMPLES

A. Install field samples at site as required by individual specification sections for review.

B. Acceptable field samples represent quality level for work.

C. Where field sample is specified in individual sections to be removed, clear area after field sample has been accepted by Architect.

1.6 MANUFACTURERS' FIELD SERVICES AND REPORTS

A. Submit qualifications of observer to Owner 30 days in advance of required observations. Observer is subject to acceptance by Owner and Architect.

B. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, and quality of workmanship, as applicable, and to initiate instructions when necessary.

C. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

D. Submit report in duplicate within 15 days of observation to Owner for review.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01455

TESTING LABORATORY SERVICES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Requirements and procedures for Contractor provided testing and inspection services.

1.2 RELATED SECTIONS

A. General Conditions: Governing requirements for testing laboratory services.

B. Section 01330 - Submittal Procedures: Manufacturer’s test reports.

C. Section 01450 - Quality Control.

D. Section 01775 - Closeout Procedures and Submittals: Record documents.

E. Individual Specification Sections: Inspections and tests required, and standards for testing.

1.3 SELECTION AND PAYMENT

A. Contractor will employ and pay for services of independent testing laboratory to perform inspections and tests specified herein for materials as required by public authorities.

B. Retesting: When initial tests indicate non-compliance with Contract Documents, subsequent retesting occasioned by non-compliance shall be performed by same testing agency at no additional cost to Owner.

C. Retesting Covered Work: Reexamination of questioned work may be ordered by Owner. Contractor shall uncover such work if retesting is ordered.

1. If work is found in accordance with Contract Documents, Owner will pay additional costs of uncovering, removing, retesting and replacing.

2. If work is found not in accordance with Contract Documents, Contractor will bear costs of uncovering, removing, retesting and replacing work.

D. Inspecting and testing performed exclusively for Contractor's convenience, such as testing and inspection to establish equivalence of substitutions, equivalence of repairs to damaged materials, and testing and inspecting to expedite operations, shall be sole responsibility of Contractor.

1. Contractor shall employ licensed professional engineer of discipline required to develop testing program which will establish equivalency.

2. Contractor shall submit testing program to Owner for Architect's review.

3. Contractor shall arrange testing in accordance with accepted testing program to be performed by Testing Laboratory; Contractor will bear costs of testing.

4. Contractor may not arrange for testing upon portions of work already completed except with written consent of Architect.

E. Employment of testing laboratory shall in no way relieve Contractor of obligation to perform work in accordance with requirements of Contract Documents.

F. Owner and Architect shall have right to make tests at any time on materials or work done whether those materials are specified or substituted items.

1.4 AGENCY RESPONSIBILITIES

A. Provide qualified personnel at site. Cooperate with Owner, Architect and Contractor in performance of services.

B. Perform specified sampling and testing of materials in accordance with specified standards.

C. Ascertain compliance of materials and mixes with requirements of Contract Documents.

D. Promptly notify Owner, Architect and Contractor of observed irregularities and nonconformance of work and products.

E. Perform additional tests required by Owner, Architect and public authorities.

F. Attend preconstruction meeting. Attend progress meetings as requested.

1.5 AGENCY REPORTS

A. Test/Inspection Reports:

1. Report every test and inspection made regardless of whether such tests and inspections indicate that material and procedures are satisfactory or unsatisfactory.

2. Include records of special sampling operations as required.

3. Indicate that materials were sampled and tested in accordance with requirements of Construction Documents.

4. Indicate specified design strength of materials such as masonry, concrete, and steel.

5. State whether or not materials and procedures comply with requirements of Construction Documents.

6. Submit 2 copies of test procedures and reports to Owner, Architect, Structural Engineer and Contractor within 14 days of tests. Submit copies of reports of non-complying materials and procedures immediately.

1.6 LIMITS ON TESTING LABORATORY AUTHORITY

A. Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.

B. Laboratory may not approve or accept any portion of work.

C. Laboratory may not assume any duties of Contractor.

D. Laboratory has no authority to stop work.

1.7 CONTRACTOR RESPONSIBILITIES

A. Package and deliver to laboratory at designated location adequate samples of materials proposed to be used which require testing.

1. Samples shall be selected by laboratory personnel.

2. Allow proper time for selecting samples, and making tests or considerations.

3. Deliver proposed mix designs with related samples to laboratory.

B. Cooperate with laboratory personnel, and provide access to work and to manufacturer's facilities.

C. Provide incidental labor and facilities to provide access to work to be tested, to obtain and handle samples at site or at source of products to be tested, to facilitate tests and inspections, and for storage and curing of test samples.

D. Notify Owner and laboratory minimum 24 hours prior to expected time for operations requiring inspection and testing services. Do not allow work to be covered prior to inspection and testing.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Requirements for temporary utilities, temporary controls and construction facilities.

B. Removal of temporary utilities, temporary controls and construction facilities.

1.2 RELATED SECTIONS

A. General Conditions: Governing requirements for temporary facilities and controls.

B. Section 01775 - Construction Closeout and Submittals: Final cleaning.

1.3 SUBMITTALS

A. Shop Drawings: Indicate plan layout of construction fencing by phase, spacing and dimensions of components, and schedule of components.

1.4 TEMPORARY UTILITIES

A. Temporary Electricity:

1. Provide and maintain power service required by construction operations for work of this Contract.

2. Verify distribution service point is available at site; coordinate connection with Owner.

3. Make connection at distribution point; provide meters, branch wiring and distribution boxes located to allow service and lighting by means of construction-type power cords.

4. Provide flexible power cords as required.

5. Permanent convenience receptacles may not be used during construction.

6. Owner will be pay utility bills; reimburse Owner for energy used.

B. Temporary Lighting:

1. Provide and maintain lighting for construction operations.

a. Provide minimum 1 watt/sq ft lighting to exterior job site areas, immediate

adjacent walkways and staging and storage areas after dark for security purposes.

b. Provide minimum 0.25 watts/sq ft lighting to interior work areas after dark for security purposes.

c. Provide minimum 2 watts/sq ft lighting to work areas during construction; provide higher lighting levels as required for performance of work.

2. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.

3. Maintain lighting and provide routine repairs.

4. Permanent building lighting may be utilized during construction provided Contractor replaces lamps used during construction with new lamps at time of project completion.

C. Telephone, Facsimile and E-Mail Service:

1. Provide and maintain portable mobile or portable cellular telephone service to field superintendent from time of project mobilization to project completion.

2. Provide telephone service, separate telephone line for FAX machine and high speed DSL line and e-mail access to Contractor's off-site office.

D. Temporary Water Service:

1. Water for construction operations is available at project site from existing site water distribution points; coordinate water service requirements and connection with Owner.

2. Owner will pay cost of water used; exercise measures to conserve water.

3. Make connection at distribution point; provide fittings, branch piping and hoses. Extend branch piping with outlets located so that water is available by hoses with threaded connections.

4. Owner reserves right to make connections to temporary lines by Owner or separate contractors.

E. Sanitary Facilities:

1. Provide and maintain required facilities and enclosures.

2. Clean each toilet at minimum weekly intervals. If there are odor complaints, clean toilets more frequently or relocate.

3. Permanent facilities may not be used.

1.3 TEMPORARY CONTROLS

A. Barriers:

1. Provide as required to prevent public entry to construction areas and to protect Work, existing facilities and adjacent properties from damage from construction operations.

2. Provide barricades as required by governing authorities for public rights of way and for public access.

3. Provide barriers around existing trees and plants within construction areas.

a. Provide temporary chain link fencing around dripline of trees.

b. Protect against vehicular traffic, stored materials, dumping, chemically injurious materials, and puddling or continuous running water.

c. Replace damaged plant life.

4. Relocate barriers as required by progress of Work.

5. Maintain temporary barriers in structurally sound condition with neat orderly appearance.

6. Protect vehicular traffic, stored materials, site and structures from damage.

B. Fencing:

1. Provide and maintain 6-foot high commercial grade chain link fencing around staging areas as required for safe conduct of construction operations.

2. Equip fencing with vehicular and pedestrian gates with locks; coordinate locations of fences with Owner.

3. Equip fencing with reflectors, flashers, warning signs and dangles as required by Owner; maintain in place until fencing is removed.

4. Relocate fencing as required by progress of work.

5. Examine fence on daily basis and repair as necessary.

C. Noise and Vibration Control:

1. Take appropriate measures to minimize noise from construction operations. Comply with applicable regulatory requirements.

2. Limit noise level from construction operations to no more than 86 db at distance of 50 feet.
3. Comply with specified requirements and applicable regulatory requirements for

operation of equipment on or related to job including, but not limited to, trucks, transit mixers and transient equipment.

4. Equipment and impact tools shall have intake and exhaust mufflers.

5. Cooperate with Owner if use of noisy and vibratory equipment such as jackhammers, concrete saws, impact tools, and high frequency electrical equipment becomes objectionable.

6. Do not use loud signals; prohibit use of outside speakers, loud radios and similar devices.

D. Dust and Mud Control:

1. Execute work by methods to minimize raising dust from construction operations.

2. Provide positive means to prevent airborne dust from dispersing into atmosphere 24 hours/day every day during entire course of construction including Saturdays, Sundays and legal holidays.

3. Prevent formation of airborne dust nuisance by watering at least once per day, or by other methods that will confine dust particles to immediate surface of work.

4. Conduct operations so as to prevent windblown dust and dirt from interfering with adjacent property owner's normal operations. Assume liability for claims related to windblown dust and dirt.

5. Provide means of removing mud from vehicle wheels before entering streets.

6. Remove mud originating from construction site from city streets and sidewalks by sweeping and washing on daily basis.

E. Traffic Controls:

1. Furnish, erect and maintain sufficient warning and directional signs, barricades and warning lights and sufficient flaggers to give adequate warning of construction to vehicular traffic at all times.

2. Perform traffic control in public right-of-way in compliance with appropriate government agencies.

a. Coordinate lane closures with appropriate government agencies.

b. Do not detour traffic without approval of appropriate government agencies.

c. Maintain adequate separation between pedestrians, bicyclists, vehicular traffic, truck traffic, and work site traffic during construction.

1.4 CONSTRUCTION FACILITIES

A. Exterior Enclosures:

1. Provide temporary insulated weather-tight closures of openings in exterior surfaces to provide acceptable working conditions and protection of materials, to allow for temporary heating and maintenance of ambient temperatures identified in individual sections, and to prevent entry of unauthorized persons.

2. Provide doors with self-closing hardware and locks.

B. Protection of Installed Work:

1. Protect installed work; refer to individual specification sections for additional requirements.

2. Provide temporary protection for installed products. Control activity in immediate work area to minimize damage.

3. Prohibit traffic and storage on waterproofed and roofed surfaces. If traffic or activity is unavoidable, protect roofed surfaces and waterproofed surfaces in accordance with roofing and waterproofing manufacturers' recommendations.

C. Protection of Existing Work:

1. Protect existing facilities and systems.

a. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

b. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, and movement of heavy objects by protecting with durable sheet materials.

c. Prohibit traffic from landscaped areas.

2. Protect existing street furnishings, paving, landscaping, fencing, and utilities, and appurtenances.

3. Provide temporary protection for existing facilities. Control construction activity in immediate area.

4. Promptly replace or repair existing facilities damaged as result of construction activities.

D. Security:

1. Provide sufficient security program and facilities to protect work from unauthorized entry, vandalism, and theft.
2. Secure, maintain, and protect work, stored materials, equipment, and temporary facilities until time of acceptance, or such earlier time as Owner may choose to assume such responsibility.

3. Contain and secure construction equipment and materials to satisfaction of Owner.

4. Submit security program to Owner for review and coordination.

E. Temporary Fire Protection:

1. Take necessary precautions to guard against and eliminate fire hazards and to prevent damage to construction work, building materials, temporary storage sheds, existing facilities, public and private property.

2. Provide, maintain and enforce following conditions and requirements during entire construction period. Inspect entire project at least once daily to ensure conditions and requirements are being met.

   a. No open fires.

   b. No starting fires with gasoline, kerosene or other flammable materials.

   c. No storage of flammable building materials inside of or on roof of storage facilities in excess of 1 day's supply.

   d. Storage of combustible waste materials including oil-soaked rags, papers and other highly combustible materials in closed metal containers at all times.

   e. No pouring gasoline and other flammable and polluting liquids and materials into sewers, manholes or traps.

   f. No storage of combustible waste material, gasoline and other flammable and polluting liquids and materials within building.

   g. Removal of combustible waste materials at close of each day's work.

   h. Safe disposal of combustible waste materials, flammable building materials, gasoline and other flammable and polluting liquids and materials in accordance with applicable laws, rules and regulations.

3. Provide and maintain fire extinguishers and other equipment necessary for fire protection.

   a. Fire extinguishers shall be 2A10BC type meeting UL approval and fully charged.

   b. Fire extinguishers and equipment shall be readily accessible and conveniently located for proper protection.

   c. Designate use and use such equipment for fire protection only.

4. Provide and maintain access to fire hydrants, free of obstructions.

5. Provide fire watch and minimum 1 fire extinguisher of appropriate size and type for hot work operations.

F. Parking:

1. Parking at site is limited. Coordinate use of available space with Owner.

2. When site space is not adequate, provide additional off site parking. Limit off site parking to commercial streets; do not permit construction personnel to park on residential streets in vicinity of project.

G. Progress Cleaning:

1. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.

2. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed and remote spaces, prior to enclosing space.

3. Broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.

4. Remove waste materials, debris and rubbish from site weekly and dispose off-site.

H. Project Identification:

1. Contractor and Architect may display signs identifying their companies.

a. Signs shall be constructed of plywood or other durable material and shall be maximum 20 sq ft size with exhibit lettering by professional sign painted.

b. Signs shall be reviewed and approved by Owner prior to installation.

2. Erect on site at location acceptable to Owner.

3. Allow no other signs to be displayed except those required by law.

I. Field Offices and Storage Sheds:

1. Field Office: Maintain office off-site equipped with telephone service, separate telephone line for FAX machine, high speed DSL line and e-mail access; do not provide separate field office at site. Keep copies of Drawings, Project Manual; Addenda and contract modification documents at site in safe dry container.

2. Storage Sheds: Locate storage sheds within staging areas; obtain Owner’s approval of locations prior to project mobilization.

a. Construct on proper foundations, structurally sound, weathertight, with floors raised above ground, with sturdy doors with provisions for locking, and with temperature transmission resistance compatible with occupancy and use. Secure portable or mobile buildings. Provide steps and landings at entrance doors.

b. Provide in number and size adequate for storage and handling requirements of various types of work with:

1) Lighting as required to facilitate product handling and inspection.

2) Ventilation complying with specified and regulatory requirements for stored products.

3) Heating adequate to maintain temperatures specified in individual specification sections for products stored.

3. Perform periodic maintenance and cleaning including associated equipment and services.

J. Construction Aids:

1. Furnish, operate, and maintain complete plant for fabricating, handling, conveying, installing, and erecting materials and equipment required under Contract. Include hoists, derricks, and conveyances for transportation of workers and transporting and placing materials and equipment necessary for performance of work.

2. Maintain plant and equipment in safe and efficient operating condition. Repair damage due to defective plant and equipment and use thereof at no increase in Contract Sum.

3. Furnish, erect, and maintain for duration of work, scaffolds, runways, guardrails, platforms, and similar temporary construction necessary for performance of work. Such facilities shall be of type and arrangement required, structurally sound and well secured.

1.5 REMOVAL OF UTILITIES, FACILITIES AND CONTROLS

A. Remove temporary utilities, materials, equipment, and facilities prior to Substantial Completion inspection.

B. Remove storage sheds from site as soon as progress of work permits. Include removal of foundations, steps, landings, utility services.

C. Properly remove from site and dispose of debris resulting from removal and reconditioning operations.

D. Clean and repair damage caused by installation or use of temporary facilities.

E. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01610

BASIC PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Requirements for products used in construction.

B. Requirements for transportation, handling, storage and protection of products used in construction.

1.2 RELATED SECTIONS

A. Section 01450 - Quality Control: Product quality monitoring.

1.3 PRODUCTS

A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the work. Products may also include existing materials or components required for reuse.

B. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.

C. Provide interchangeable components of same manufacturer for similar components.

1.4 TRANSPORTATION AND HANDLING

A. Transport and handle products in accordance with manufacturer's instructions.

B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct and products are undamaged.

C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement or damage.

1.5 STORAGE AND PROTECTION

A. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate controlled enclosures.

B. Provide off-site storage and protection; site does not permit on-site storage or protection.

C. For exterior storage of fabricated products, place on sloped supports, above ground.

D. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.

E. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.

F. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement or damage.

G. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01625

PRODUCT OPTIONS AND SUBSTITUTIONS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Requirements for Contractor's options in selection of products.

B. Requirements and procedures for requests for substitution of products.

1.2 RELATED SECTIONS

A. General Conditions: Governing provisions on trade names and substitutions.

B. Section 01311 - Coordination: Applicability of specified reference standards; coordination of construction.

C. Section 01330 - Submittal Procedures: Proposed products list; product data submittal requirements.

D. Section 01775 - Closeout Procedures and Submittals: Record documents; operation and maintenance data.

1.3 OPTIONS

A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards.

B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications.

C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit request for substitution for any manufacturer not specifically named.

D. Products Specified by Naming Only One Manufacturer: No substitutions allowed.

1.4 LIMITATIONS ON SUBSTITUTIONS

A. Requests for substitutions of products will be considered only within 15 days after Notice to Proceed. 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 or when requested directly by subcontractor or supplier.

C. Substitute products shall not be ordered or installed without written acceptance.

D. Only 1 request for substitution for each product will be considered. When substitution is not accepted, provide specified product.

E. Owner will determine acceptability of substitutions.

1.5 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 Section 01330.

D. List similar projects using product, dates of installation and names of Architect/Engineer and Owner.

E. Give itemized comparison of proposed substitution with specified product, listing variations, and reference to specifications section and article numbers.

F. Give quality and performance comparison between proposed substitution and specified product.

G. Give cost data comparing proposed substitution with specified product and amount of net change to Contract Sum.

H. List availability of maintenance services and replacement materials.

I. State effect of substitution on construction schedule and changes required in other work or products.

J. State if use of proposed substitutions is subject to payment of license fee or royalty.

K. Submit sample of manufacturer's standard form of guarantee or warranty for proposed substitution.

1.6 CONTRACTOR REPRESENTATION

A. Request for substitution constitutes a representation that Contractor:

1. Has investigated proposed product and has determined that it is equal to or superior in every respect to specified product or that the cost reduction offered is ample justification for accepting the offered substitution.

2. Will provide same warranty for substitution as for specified product.

3. Will coordinate installation of accepted substitute, making such changes as may be required for work to be complete in every respect.

4. Will pay additional costs generated by an accepted substitution including cost of the Architect's additional services associated with reviewing and incorporating the substitution.

B. Contractor certifies that:

1. Cost data presented is complete and includes every related cost under this Contract.

2. Substitution is in full compliance with the Contract Documents and applicable regulatory requirements.

C. Contractor waives claims for additional costs related to substitution that may later become apparent.

1.7 SUBMITTAL PROCEDURES

A. Submit 3 copies of request for substitution.

B. Owner will review Contractor's requests for substitutions with reasonable promptness and will notify Contractor, in writing, of decision to accept or reject requested substitution within 10 working days of receipt of request.

C. For accepted products, submit shop drawings, product data and samples under provisions of Section 01330.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01730

CUTTING AND PATCHING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Requirements and limitations for cutting and patching of Work.

1.2 RELATED SECTIONS

A. Section 01110 - Summary of Work: Work by Owner or by separate contractors.

B. Section 01330 - Submittal Procedures.

C. Section 01359 - Alteration Project Procedures: Cutting and patching existing work.

D. Section 01625 - Product Options and Substitutions.

E. Individual Product Specification Sections:

1. Cutting and patching incidental to work of that section.

2. Advance notification to other sections of openings required in work of those sections.

1.3 SUBMITTALS

A. Submit written request in advance of cutting or alteration which affects:

1. Structural integrity of element.

2. Integrity of weather-exposed or moisture-resistant element.

3. Efficiency, maintenance, or safety of operational element.

4. Visual qualities of sight exposed elements.

5. Work by Owner or by separate contractor.

B. Include in request:

1. Identification of project.

2. Location and description of affected work.

3. Necessity for cutting or alteration.

4. Description of proposed work and products to be used.

5. Alternatives to cutting and patching.

6. Effect on work of Owner or separate contractor.

7. Written permission of affected separate contractor.

8. Date and time that work will be executed.

1.4 QUALITY ASSURANCE

A. Patching shall achieve security, strength, whether protection and continuity of fire ratings, as applicable.

B. Patching shall successfully duplicate undisturbed adjacent finishes, colors, textures and profiles. Where there is dispute as to whether duplication is successful or has been achieved to reasonable degree, Architect's judgment shall be final.

PART 2 PRODUCTS

2.1 MATERIALS

A. Primary Products: Those required for original installation.

B. Product Substitution: For proposed change in materials, submit request for substitution under provisions of Section 01625.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching.

B. After uncovering existing work, inspect conditions affecting performance of work.

C. Beginning of cutting or patching means acceptance of existing conditions.

3.2 PREPARATION

A. Provide temporary supports to ensure structural integrity of the work. Provide devices and methods to protect other portions of project from damage.

B. Provide protection from elements for areas which may be exposed by uncovering work.

C. Maintain excavations free of water.

3.3 CUTTING AND PATCHING

A. Execute cutting, fitting and patching including excavation and fill to complete work.

B. Fit products together to integrate with other work.

C. Uncover work to install ill-timed work.

D. Remove and replace defective or non-conforming work.

E. Remove samples of installed work for testing when requested.

F. Provide openings in work for penetration of mechanical and electrical work.

3.4 PERFORMANCE

A. Execute work by methods to avoid damage to other work, and which will provide appropriate surfaces to receive patching and finishing.

B. Employ original installer to perform cutting and patching for weather exposed and moisture resistant elements and for sight-exposed surfaces installed as work of this Contract.

C. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

D. Restore work with new products in accordance with requirements of Contract Documents.

E. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

F. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07840 to full thickness of penetrated element.

G. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For assembly, refinish entire unit. Painted surfaces shall not present spotty, touch-up appearance.

END OF SECTION

SECTION 01775

CLOSEOUT PROCEDURES AND SUBMITTALS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Administrative procedures for project closeout.

B. Procedures for closeout submittals.

1.2 RELATED SECTIONS

A. General Conditions: Governing provisions for completion and payment and for record documents.

B. Section 01290 - Payment Procedures: Applications for payment.

C. Section 01312 - Project Meetings: Billing meetings.

D. Section 01500 - Temporary Facilities and Control: Progress cleaning.

1.3 CLOSEOUT PROCEDURES

A. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's inspection.

B. Provide submittals to Owner required by governing or other authorities.

C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

D. Deliver Project Record Documents, Warranties, Certification of Asbestos-Free Construction, Spare Parts and Maintenance Materials, Service and Maintenance Contracts, and final Operation and Maintenance Data at 1 time with final Application for Payment.

1.4 FINAL CLEANING

A. Execute final cleaning prior to final inspection. Clean new and existing surfaces, equipment and fixtures within project area.

B. Comply with applicable regulatory requirements during cleaning and disposal operations.

C. Use cleaning materials which will not create hazards to health or property or cause

damage to products or work.

D. Use cleaning materials and methods recommended by manufacturers of products to be cleaned.

E. Schedule operations to prevent dust and other contaminants resulting from cleaning operations from adhering to wet or newly finished surfaces.

F. Remove temporary protections.

G. Remove dust, dirt, grease, stains, fingerprints, marks, labels, spilled and spattered materials and other foreign materials from surfaces exposed to view.

H. Clean permanent filters and replace disposable filters of mechanical equipment operated during construction. Clean ducts, blower and coils of units operated without filters during construction.

I. Clean roofs, gutters, downspouts and drainage systems.

J. Clean site of sticks, rubbish and other debris; sweep paved areas; rake clean landscape surfaces.

K. Remove waste and surplus materials, rubbish, and construction facilities and from site.

L. Leave areas which have been entered during course of Work in neat condition and free from debris and material not called for in Construction Documents.

1.5 ADJUSTING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.

1.6 PROJECT RECORD DOCUMENTS

A. Maintain on site, 1 set of following record documents; record actual revisions to Work:

1. Contract Drawings.

2. Specifications.

3. Addenda.

4. Change Orders and other modifications to Contract.

5. Reviewed shop drawings, product data and samples.

6. Construction schedule.

B. Store Record Documents separate from documents used for construction. Label each document "Project Record" in neat, large printed letters. Do not use Project Record

Documents for construction.

C. Maintain Project Record Documents in clean dry, legible condition and in good order.

D. Record information concurrent with construction progress. Do not conceal work until required information is recorded.

E. Record information initially on set of bond drawing plots and in copy of Project Manual provided by Owner. Transfer information from bond drawing plots to electronic file set of computer generated drawings provided by Owner prior to submittal.

F. Make Project Record Documents available to Owner and Architect at all times.

G. Submit certification that Project Record Documents are current as part of payment application; status of Project Record Documents will be considered in evaluating payment request.

H. Specifications: Legibly mark and record at each product section description of actual products installed, including following:

1. Manufacturer's name and product model and number.

2. Product substitutions or alternates utilized.

3. Changes made by addenda and modifications.

I. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:

1. Changes made by addenda and modifications.

2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of Work.

3. Measured locations of items, not necessarily concealed, which have been changed from locations shown on Contract Documents.

4. Deviations from sizes, locations and other features of installations shown in Contract Documents.

5. Details not on original Contract Drawings.

J. Construction Schedule: Submit Record Construction Scheduled based on latest updated Progress Schedule revised to indicate actual dates and durations of various construction activities.

K. Delete Architect and Engineer title block and seal from documents by blocking or blanking out; do not remove by cutting.

L. Submit Project Record Documents to Owner with final Application for Payment.

1. For drawings, include electronic file, bound bond drawing plot from electronic file and initial Owner-supplied drawings bearing field marks.

2. Include written certification that Record Documents are complete and accurate reflection of actual construction conditions.

1.7 OPERATION AND MAINTENANCE DATA

A. Submit 2 sets prior to final inspection, bound in 8-1/2 x 11 inch binders with durable plastic covers.

B. Prepare binder covers with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS," title of project, and subject matter of binder when multiple binders are required.

C. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.

D. Contents: Prepare a table of contents for each volume, with each product or system description identified, type on 30 pound white paper.

E. Part 1: Directory, listing names, addresses and telephone numbers of Architect, Engineer, Contractor, subcontractors and major equipment suppliers.

F. Part 2: Operation and maintenance instructions, arranged by specification section. For each category, identify names, addresses, and telephone numbers of subcontractors and suppliers. Identify following:

1. Significant design criteria.

2. List of equipment.

3. Parts list for each component.

4. Operating instructions.

5. Maintenance instructions for equipment and systems.

6. Maintenance instructions for finishes, including recommend cleaning methods and materials and special precautions identifying detrimental agents.

G. Part 3: Project documents and certificates, including following:

1. Shop drawings and product data.

2. Air and water balance reports.

3. Certificates.

4. Photocopies of warranties.

H. Submit 1 copy of completed volumes in final form 15 days prior to final inspection. This copy will be returned after final inspection with Owner's and Architect's comments. Revise content of documents as required prior to final submittal.

I. Submit final volumes revised, with final Application for Payment.

J. Provide data as specified in individual sections.

1.8 INSTRUCTION OF OWNER'S PERSONNEL

A. Where specified in individual specification sections, furnish qualified personnel for on-the-job instruction of Owner's operation and maintenance personnel.

B. Furnish instruction including special start-ups and running time prior to occupancy of subject areas. Furnish at no additional cost to Owner.

1.9 WARRANTIES

A. Warrant entire Work against defects in materials and workmanship for 12 months from date of Final Completion. In addition, warrant work as required in individual specification sections.

B. Warranties between Contractor and manufacturers and between Contractor and suppliers shall not affect warranties between Contractor and Owner.

C. Submit warranties typed on Contractor's letterhead if for entire Work and on subcontractor's letterhead if for work of specification section. Use following form:

WARRANTY FOR _____

We hereby warrant that the _____ which we have provided in the _____ has been completed in accordance with the requirements of specification Section _____ and the Contract Documents.

We agree to repair or replace any or all of our work, together with any other adjacent work which may be displaced by so doing, that may prove to be defective in its workmanship or material within a period of _____ from the date of acceptance of the above named project by the Owner; and we also agree to repair any and all damages resulting from such defects, all without additional expense to the Owner, ordinary wear and tear and unusual abuse or neglect excepted.

In the event of our failure to comply with the above mentioned conditions within 7 days after being notified in writing by the Owner, we collectively or separately do hereby authorize the Owner to proceed to have such defective work repaired or replaced and made good at our expense, and we will honor and pay the costs and charges therefore

upon demand.

Signed: _____ Date _____

Subcontractor's Name: _____

Address: _____

License Number: _____

Countersigned: _____ Date _____

Contractors Name: _____

Address: _____

License Number: _____

or

Manufacturer's Name: _____

Address: _____

OR

Signed: _____ Date _____

Contractors Name: _____

Address: _____

License Number: _____

D. Provide duplicate, notarized copies. Execute and assemble documents from subcontractors, suppliers, and manufacturers. Verify compliance with Contract Documents.

1. Provide table of contents and assemble in binder with durable plastic cover.

2. Identify on or readable through the front cover with the project name and address, the Contractor's name and address and the title 'WARRANTIES AND BONDS.'

E. Submit material with final Application for Payment except:

1. For equipment put into use with Owner's permission during construction, submit within ten days after first operation.

2. For items of work delayed beyond Date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.

1.10 CERTIFICATION OF ASBESTOS-FREE CONSTRUCTION

A. Certify that no materials containing asbestos were incorporated into the construction of work of the Contract.

B. Submit certification typed on Contractor's letterhead. Identify the project by name and address.

1.11 SPARE PARTS AND MAINTENANCE MATERIALS

A. Provide products, spare parts, maintenance and extra materials in quantities specified in individual specification section.

B. Deliver to project site concurrent with final Application for Payment and place in location as directed by Owner; obtain receipt.

1.12 SERVICE AND MAINTENANCE CONTRACTS

A. Compile, review and submit specified service and maintenance contracts.

B. Provide 2 copies, each assembled in durable 3 ring plastic binders sized for 8-1/2 x 11 inch sheets. Identify on or readable through front cover with project name and address, Contractor's name and address, and title 'SERVICE AND MAINTENANCE CONTRACTS.'

C. Submit with final Application for Payment.

1.13 RESTORATION OF DAMAGED WORK

A. Restore or replace, as specified or directed by Owner or Architect, materials or finishes damaged from movement of equipment or other operations at no additional expense to Owner.

B. Restore to match original work. Finishes shall match appearance of original adjacent work.

1.14 REMEDIAL WORK

A. Perform remedial work necessary due to faulty workmanship or materials at no additional expense to Owner.

B. Coordinate remedial work with Owner. Perform at such time and in such manner to cause minimal interruption and inconvenience to Owner's operation and Owner's tenant’s operations.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 02222

MINOR DEMOLITION FOR REMODELING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Removing existing membrane roofing and appurtenances.

B. Removing designated finish materials.

C. Removing materials from site.

D. Disconnecting, capping and identifying utilities.

E. Storing and protecting salvaged materials.

1.2 PRODUCTS SUPPLIED BUT NOT INSTALLED UNDER THIS SECTION

A. Supply salvaged sheet metal coping to Section 07620 for reinstallation.

1.3 RELATED SECTIONS

A. Section 08690 - Skylight Restoration: Removal and reinstallation of skylight glazing.

B. Section 15300 - Fire Protection Piping: Disconnecting, raising, bracing and reconnecting fire sprinkler piping traversing roof.

1.4 REFERENCES

A. ANSI A10.6 - Safety Requirements for Demolition.

B. CBC - California Building Code, 2001 edition.

C. CCR Title 8 - Industrial Relations.

1.5 SUBMITTALS

A. Shop Drawings:

1. General Demolition Procedures: Indicate demolition and removal sequence; location and construction of barricades, fences and other temporary work. Describe dust, noise and run-off control measures.

2. Heavy Equipment Plan: If equipment weighing more than 500 pounds is to be used, provide plan identifying weight of equipment and proposed route or method of getting equipment to location of work.

1.6 PROJECT RECORD DOCUMENTS

A. Accurately record actual locations of capped utilities and subsurface obstructions.

1.7 QUALITY ASSURANCE

A. Contractor shall be solely responsible for design, adequacy and satisfactory performance of methods and means employed.

B. Perform demolition work in accordance with ANSI A10.6 unless otherwise specified.

1.8 QUALIFICATIONS

A. Demolition Company: Company specializing in demolition with minimum 5 years documented experience.

1.9 REGULATORY REQUIREMENTS

A. Conform to applicable codes for demolition work, safety of structure and dust control.

1. Conform to applicable requirements of CBC Chapter 33.

2. Perform work in accordance with CCR Title 8, Chapter 4, Subchapter 4 Construction Safety Orders.

B. Notify affected utility companies before starting work and comply with their requirements.

C. Do not close or obstruct egress width to exits.

D. Do not disable or disrupt building fire or life safety systems without minimum 3-day prior written notice to Owner.

E. Conform to procedures applicable when discovering hazardous or contaminated materials.

1.10 PRE-DEMOLITION CONFERENCE

A. Convene pre-demolition conference minimum 1 week prior to commencing site clearing and demolition operations.

B. Attendance: Contractor, appropriate subcontractors and Architect.

C. Agenda: Review construction documents, schedule of work, existing conditions, details of work, demolition procedures, and coordination required with related work. Conduct walkover inspection of affected areas.

1.11 PROJECT CONDITIONS

A. Thoroughly examine existing conditions of project and Contract Documents so that demolition work will include removing all items including incidentals, whether called for or not, required to prepare for work called for under each section of specifications.

B. In event site material reasonably believed to be asbestos, polychlorinated biphenyl, or otherwise hazardous which has not been rendered harmless is encountered, immediately stop work in area affected and report condition to Owner in writing.

1. Hazardous materials will be abated or rendered harmless by Owner under separate contract. Do not resume work in affected areas until hazardous materials have been abated or rendered harmless.

2. Should work of this section require activities which would disturb existing hazardous materials, notify Owner in writing so that hazardous materials may be abated and rendered harmless before work begins.

3. Existing roofing has been sampled and tested for asbestos and report has been issued. Copies of that report may be obtained from Owner.

C. Unless specifically indicated otherwise, materials demolished or removed as part of work of this section become property of Contractor.

1. Dispose of demolished or removed materials outside project site; do not dispose of demolished or removed materials to general public by sale, gift or other manner at project site.

2. Removal of debris from site including removal of inventory from site of storage shall be accomplished by Contractor's personnel and no others.

D. Conduct demolition to minimize interference with, and maximize protection of, adjacent structures.

E. Restrict noisy operations to times which do not interfere with building functions. Coordinate with Owner.

1. Perform demolition work only with Owner’s authorization and at mutually agreeable times.

2. Notify Owner and Architect minimum 4 days in advance.

F. Provide, erect and maintain temporary barriers and security devices necessary to protect public, staff, existing improvements to remain and adjoining property.

G. Conduct operations with minimum interference to public or private thoroughfares.

1. Maintain protected egress and access at all times.

2. Do not close or obstruct exit ways.

H. Do not close or obstruct roadways and sidewalks without authorization from authority having jurisdiction.

1.12 COORDINATION

A. Coordinate work of this section with demolition specified under other sections.

B. Ensure existing fire sprinkler piping traversing roof has been disconnected, raised, braced off roof and reconnected prior to roof removal.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine building components to be removed. Where existing conditions conflict with representations of Contract Documents, notify Owner and obtain written clarification from Architect before proceeding.

B. Do not proceed with demolition until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Protect existing landscaping materials, appurtenances, structures and facilities which are not to be demolished. Repair or replace, to satisfaction of Owner and Architect, items damaged as result of demolition operations at no increase in Project Price.

B. Disconnect, remove, and cap designated utility lines with in demolition areas.

C. Mark location of disconnected utilities. Identify utilities and indicate capping locations on Project Record Documents.

D. Erect and maintain weatherproof closures for exterior openings.

E. Protect existing fire alarm sensors and wiring in ceilings and walls from damage.

1. Alert Owner's alarm supervision service prior to work which requires moving or adjusting wiring or sensors.

2. Alert service each day prior to work to avoid response to false alarm and advise service each day at end of work to reinstate response to alarms.

3. At the end of each work period, clean and verify proper operation of the building smoke detectors.

3.3 DEMOLITION

A. Demolish indicated building components in orderly and careful manner which will not jeopardize integrity of structure or damage finishes to remain.

B. Remove materials to be reinstalled or retained in manner to prevent damage and to permit reinstallation in kind.

1. Use utmost care to ensure least possible damage to materials removed and surrounding work to remain.

2. Remove complete with fasteners and anchors.

3. Inventory, catalog and label; note components missing or damaged.

4. Store in manner to ensure against components being separated or lost and to prevent damage to components and component finishes.

C. Perform demolition as much as possible with small tools. Blasting and jackhammering will not be permitted.

D. Remove existing roofing in preparation for reroofing.

1. Provide dumpster or dump truck on site prior to beginning roof removal. Locate adjacent to building in area approved by Owner.

2. Construct enclosed chute from roof for removal of debris from roof area.

3. Protect building surfaces at chute and set up areas with tarpaulins. Secure tarpaulins.

4. Remove existing roof surfacing, roof membrane, roof insulation, base flashing and sheet metal flashing with related nailers, curbs and cant strips to substrate.

5. Dispose of material removed from roof as it accumulates. Clean up spilled or scattered debris immediately.

6. Remove dumpster when full and empty at approved dumping or refuse area. Deliver empty dumpster to site for further use.

7. Upon job completion, remove dumpster, chute and tarpaulins from site.

E. Remove designated roof drains and portions of related rain water leaders in preparation for relocation of roof drains.

1. Remove roof drains with clamping rings and anchors.

2. Remove rain water leaders to extent require to install piping for relocated roof drains at required fall; coordinate with work of Section 15160. Remove rain water leader to nearest appropriate no-hub joint.

F. Remove designated finishes down to framing or structural slabs.

1. Remove cement plaster on inside parapet wall entirely.

2. Remove cement plaster soffits to extent required to install sheet metal roof overflows. Remove in manner that will permit subsequent building paper and lath to be lapped with existing in arrangement and dimensions specified in Section 09225 - Portland Cement Plaster Systems.

G. Remove exposed abandoned conduit, dowels and anchors above roof deck. Cut flush with top of roof deck. Cap abandoned conduit.

H. Keep work sprinkled to minimize dust. Provide hoses and watermain or hydrant connections for this purpose.

3.4 CLEANING

A. Remove temporary work.

B. Remove demolished materials from site and clean as work progresses. Leave site and existing building in clean condition.

1. Except where indicated otherwise, immediately remove demolished material from site.

2. Do not burn or bury materials on site.

3.5 SCHEDULE

A. Schedule lists principal items; refer to Drawings for items not specifically scheduled.

B. Remove following equipment; store for reinstallation:

1. Designated sheet metal coping.

END OF SECTION

SECTION 06100

ROUGH CARPENTRY

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Fire-retardant treated lumber roof curbs, roofed-in sleepers and nailers.

B. Fire-retardant treated plywood sheathing.

C. Rough hardware.

1.2 RELATED SECTIONS

A. Section 07540 - Thermoplastic Membrane Roofing: Roofing and membrane flashing secured to lumber curbs, sleepers and nailers and to plywood sheathing.

B. Section 07620 - Sheet Metal Flashing and Trim: Sheet metal copings and flashing secured to lumber curbs, sleepers and nailers and to plywood sheathing.

1.3 REFERENCES

A. ALSC (American Lumber Standards Committee) - Softwood Lumber Standards.

B. APA - American Plywood Association “Grades and Specifications.”

C. ASTM A307 - Specification for Carbon Steel Externally Threaded Standard Fasteners.

D. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.

E. AWPA (American Wood Preservers Association) - Book of Standards.

F. CBC - California Building Code, 2001 edition.

G. FS FF-W-92 - Washer, Flat (Plain).

H. PS 1 - Construction and Industrial Plywood.

I. WCLIB - West Coast Lumber Inspection Bureau "Standard Grading Rules."

1.4 SUBMITTALS

A. Product Data: Submit manufacturer’s product data for fire-retardant treatment products. Include current Evaluation Report.

B. Test Reports: Submit certified test reports for fire-retardant treatment products illustrating compliance with specified performance characteristics and physical properties.

C. Certifications: Submit certification from treatment plant attesting wood treatment applied complies with treatment specified.

1.5 QUALITY ASSURANCE

A. Source Limitation: Obtain fire-retardant treatment from single manufacturer and treatment plant.

B. Lumber Grading Agency: Certified by ALSC.

C. Plywood: Bearing APA grade stamps.

D. Fire-Retardant Treatment Quality Mark: Label each piece of treated lumber and plywood with end tag or permanent ink stamp. Quality mark to include:

1. Identification and location of treatment plant.

2. Product name.

3. Flame spread rating.

4. Exposure condition for which product was treated.

5. AWPA Standard to which product was treated.

6. Drying designation.

7. Identity of accredited inspection agency.

1.6 QUALIFICATIONS

A. Wood Treatment Plant: Wood treatment plant experienced in performing work of this section which has specialized in treatment of wood similar to that required for this project and licensed by specific wood treatment manufacturer.

1.7 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver products to site, store, handle and protect in accordance with fabricator’s instructions and recommendations.

B. Protect treated wood from precipitation during shipping and storage.

C. Provide proper facilities for handling and storage of materials to prevent damage to edges, ends, and surfaces.

D. Deliver and store packaged products in original containers and bundles with seals unbroken and labels intact until time of use.

E. Keep materials dry. Where necessary, stack materials off ground on level flat forms, fully protected from weather.

F. Protect kiln-dried materials from moisture. Separate from contact with soil or earth.

G. Store at temperature conditions recommended by manufacturer.

1.8 COORDINATION

A. Coordinate with other work supporting, adjoining, or fastening to carpentry work.

B. Coordinate fabrication and installation of treated wood with work of Sections 07620 - Sheet Metal Flashing and Trim and 07540 - Thermoplastic Membrane Roofing. Ensure fasteners used to secure treated wood are hot-dipped galvanized steel or stainless steel in accordance with fire-retardant treatment manufacturer's recommendations.

PART 2 PRODUCTS

2.1 LUMBER MATERIALS

A. Lumber: Bearing grade mark or accompanied by certificate of compliance of appropriate grading agency; air or kiln dried to maximum 19 percent moisture content; surfaced 4 sides; size conforming to rules of governing standard; meeting requirements of following minimum WCLIB grades:

Item	Species	Grade
Curbs	Douglas Fir	No. 1
Blocking and Backing	Douglas Fir	No. 1
Nailers	Douglas Fir	No.2 or better

B. Plywood: PS 1; APA Rated Sheathing; 32/16 Span Rating; Exposure 1; Douglas Fir all-veneer plywood with exterior glue and C-D face veneers; 3/4 inch thick.

2.2 ACCESSORIES

A. Nails: Common wire; hot-dipped galvanized or stainless steel.

B. Bolts: ASTM A307; hot-dipped galvanized or stainless steel.

C. Screws: Hot-dipped galvanized or stainless steel; head, point, diameter and length as recommended by manufacturer for material being fastened and receiving material.

D. Washers: FS FF-W-92; malleable iron; area equal to 16 times the area of bolt and lag screw; thickness not less than 1/2 the bolt and or lag screw diameter and having a bearing surface for the nut and head equal in diameter to not less than the long diameter of the nut and head.

E. Fabricated Sheet Metal Timber Framing Connectors: Hot- dipped galvanized steel; minimum 16 gauge, l/8 inch plate materials where welded; punched for fastening, unless otherwise noted; nails and nailing per manufacturer's instructions with fastener provided for each punched hole; types as noted on Drawings; Simpson Co. or equal product submitted under provisions of Section 01625.

2.3 WOOD TREATMENT MATERIALS

A. Manufacturers:

1. Arch Wood Protection, Inc.: Dricon® FRT.

2. Manufacturer Offering Acceptable Equivalent Product: Hoover Treated Wood Products, Inc.

3. Equal product substitutions: Under provisions of Section 01625.

B. Fire Retardant Wood Treatment: AWPA Standard U1, Category UCFA; fire retardant chemical formulated for pressure treating and capable of providing spread of 25 or less on treated wood when tested in accordance with ASTM E84; formulation free of halogens, sulfates, chlorides and ammonium phosphate; provides protection against termites and fungal decay.

2.4 SHOP TREATMENT - WOOD MATERIALS

A. Pressure treat lumber and plywood used on project with fire retardant in accordance with applicable AWPA Standards and published recommendations of wood treatment manufacturer.

B. Kiln dry to lumber 19 percent maximum moisture content after treatment; kiln dry plywood to 15 percent maximum moisture content after treatment.

C. Label each piece of treated lumber with quality mark.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine areas to receive carpentry work to verify that installation of building components to receive carpentry work is complete and that surfaces are satisfactory to receive work.

B. Do not begin installation until unsatisfactory conditions have been corrected.

3.2 WORKMANSHIP

A. Produce joints true, tight and well secured with members assembled in accordance with Drawings and with pertinent codes and regulations.

B. Coordinate details with other work supporting, adjoining or fastening to carpentry work.

C. Selection of Lumber Pieces:

1. Carefully select members; select individual pieces so that knots and obvious defects will not interfere with placing for proper anchorage of members or for making proper connections to members.

2. Remove and discard members with defects which will render lumber piece unable to serve its intended function; lumber may be rejected by Architect, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus and mold, as well as for improper cutting and fitting.

3.3 INSTALLATION

A. Install fire-retardant treated wood products in accordance with wood treatment manufacturers' product data, product technical bulletins and product installation instructions.

B. Install fire-retardant treated roof curbs, roofed-in sleepers, nailers and sheathing as indicated, specified and required.

C. Handle fire retardant treated lumber in accordance with fire retardant manufacturer's instructions.

1. Minimize ripping and milling of fire retardant treated lumber.

2. End cuts, drilled holes and joining cuts are not limited.

D. Set horizontal and sloped members with crown up.

E. Install inside parapet wall sheathing vertically parallel to wall studs; secure with sheet ends and edges over firm bearing.

1. Space fasteners at panel edges as indicated on drawings, or if not shown, in accordance with CBC requirements.

2. Place fasteners not less than 3/8 inches from panel edges; drive solidly into support.

F. Install continuous wood nailers at perimeter of roof and around roof projections and penetrations as indicated on Drawings.

1. Provide nailers of thickness required to match substrate or insulation height to allow smooth transition.

2. Anchor nailers to meet roofing manufacturer's requirements and that of FM Loss prevention Data Sheet 1-4; ensure anchors resist minimum force of 300 pounds per liner foot in every direction.

   a. Individual nailer lengths shall not be less than 3 feet.

   b. Space nailer fasteners 12 inches oc; space 16 inches oc if necessary to match structural framing.

   c. Stagger nailer fasteners 1/3 nailer width.

   d. Install nailer fasteners within 6 inches of each end; install 2 fasteners at each end of nailer lengths.

3.4 FASTENING

A. Wood to Wood: Provide nail penetration into piece receiving point of not less than 1/2 length of nail or spike provided; however, 16d nails may be used to connect 2 pieces of nominal 2 inch thickness.

B. Wood to Sheet Metal: Provide screw penetration through piece receiving point of not less than 1/2 inch.

C. Wood to Structural Steel: Provide through-bolts. Drill holes 1/16 inch larger in diameter than bolts being used; drill straight and true from 1 side only. Ensure bolt threads do not bear on wood; use washers under nuts.

D. Sheet Metal to Wood: Provide screw penetration into piece receiving point of not less than 1-1/2 inch.

E. Perform fastening splitting wood, preboring as required; replace split members.

END OF SECTION

SECTION 07540

THERMOPLASTIC MEMBRANE ROOFING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Fully adhered thermoplastic single ply membrane roofing.

B. Roof board and rigid insulation.

C. Associated membrane flashings.

D. Walkway pads.

E. Associated fasteners, adhesives and sealants.

F. Clearing and testing roof drains.

1.2 RELATED SECTIONS

A. Section 02222 - Minor Demolition for Remodeling: Removal of existing built-up roofing.

B. Section 06100 - Rough Carpentry: Roof nailers, curbs and roofed-in sleepers.

C. Section 07620 - Sheet Metal Flashings and Trim: Sheet metal flashings and copings.

D. Section 15160 - Storm Drainage Piping: Roof drains and rain water leaders.

E. Section 15300 - Fire Protection Piping: Raising existing fire sprinkler lines.

1.3 UNIT PRICES

A. Unit Price #1 - Additional Roof Walkway Pads: Provide unit price for purchase, delivery and application of approximately 5,000 sq ft additional walkway pads to be installed over roof membrane to protect membrane at support points of future solar panel array.

1.4 REFERENCES

A. ASTM International:

1. ASTM C209 - Methods of Testing Insulating Board (Cellulosic Fiber), Structural and Decorative.

2. ASTM C473 - Methods for Physical Testing of Gypsum Board Products and Gypsum Lath.
3. ASTM C518 - Test Method for Steady-State Heat Flux Measurements and Ther-

mal Transmission Properties by Means of the Heat Flow Meter Apparatus.

4. ASTM C1177 - Specification for Glass Mat Gypsum Substrate for Use as Sheathing.

5. ASTM D570 - Test Method for Water Absorption of Plastics.

6. ASTM D638 - Test Method for Tensile Properties of Plastics.

7. ASTM D1004 - Test Method for Initial Tear Resistance of Plastic Film and Sheeting.

8. ASTM D1204 - Test Method for Linear Dimensional Changes of Non-Rigid Thermoplastic Sheeting or Film at Elevated Temperature.

9. ASTM D1621 - Test Method for Compressive Properties of Rigid Cellular Plastics.

10. ASTM D1622 - Test Method for Apparent Density or Rigid Cellular Plastics.

11. ASTM D2126 - Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging.

12. ASTM D2136 - Methods of Testing Coated Fabrics – Low Temperature Bend Test.

13. ASTM D2565 - Practice for Xenon Arc-Type Exposure of Plastics Intended for Outdoor Applications.

14. ASTM D4434 - Specification for Poly(Vinyl/Chloride) Sheet Roofing.

15. ASTM D5602 - Test Method for Static Puncture Resistance of Roofing Membrane Specimens.

16. ASTM D5635 - Test Method for Dynamic Puncture Resistance of Roofing Membrane Specimens.

17. ASTM E84 - Surface Burning Characteristics of Building Materials.

18. ASTM E96 - Test Methods for Water Vapor Transmission of Materials.

19. ASTM E661 - Test Method for Performance of Wood and wood Based Floor and Roof Sheathing Under Concentrated Static and Impact Loads.

B. CBC - California Building Code, 2001 edition.

C. FM 4470 - Approval Standard for Class 1 Roof Coverings.

D. UL 790 - Tests for Fire Resistance of Roof Covering Materials.

E. WCLIB - West Coast Lumber Inspection Bureau "Standard Grading Rules."

1.5 SYSTEM DESCRIPTION

A. Membrane System: Single ply feltback polyvinyl chloride thermoplastic membrane sheet roofing with heat welded seams fully adhered to gypsum roof board over rigid insulation over existing sloping metal roof deck; roof board and rigid insulation mechanically fastened to metal deck. Product specified under 2.1 (A) (1) is the basis of design of the system; equal products may be substituted under provisions of sections 01625.

1.6 PERFORMANCE REQUIREMENTS

A. Fire Hazard Classification: UL 790, Class A.

B. Roof Assembly Classification: FM 4470, Class 1 Construction; wind uplift as follows in accordance with FM Construction Bulletin I-28.

1. Applied Over Lightweight Cellular Concrete Roof Insulation: Class 1-540.

2. Applied Over Metal Deck: Class 1-75.

3. Applied Over Structural Concrete Deck: Class 1-240.

C. Minimum Average Aged R-Value of Rigid Foam Insulation: 18 as determined by ASTM C518.

D. Maximum Average Weight of Roof Assembly: 3.5 lbs/sq ft.

1.7 SUBMITTALS

A. Shop Drawings: Submit shop drawings to manufacturer for review and approval prior to submitting to Architect.

1. Roofing: Indicate membrane layout with seams; include roof outline, size. locations, dimensions, elevations, penetrations and details.

2. Roof Insulation: Indicate setting plan for tapered insulation, joint and termination detail connections and conditions of interface with other materials.

B. Product Data: Submit manufacturer's literature completely describing each component. Also include:

1. Specifications including physical properties.

2. Samples of manufacturer's and installer's warranties.

C. Samples:

1. Roof Membrane: Submit samples, minimum 6 x 6 inches in size, of membrane il-

lustrating construction and color.

2. Gypsum Roof Board: Submit samples, minimum 6 x 6 inches in size, of gypsum roof board.

3. Rigid Insulation: Submit samples, minimum 6 x 6 inches in size, of rigid insulation board illustrating material and construction.

D. Manufacturer's Application Instructions: Submit latest edition of roof system manufacturer's specifications and application instructions.

E. Manufacturers' Certifications:

1. Submit letters from primary roofing manufacturer certifying:

a. That materials supplied comply with requirements of identified ASTM and industry standards or practices and requirements of this specification including membrane and polymer thicknesses.

b. That membrane is within 2 mils of specified membrane thickness.

c. Number of years manufacturer has directly manufactured proposed primary roofing system under trade name and trademarks proposed.

d. Number of years membrane has been consistently produced with same formulation.

e. That applicator has experience in applying manufacturer's roofing and is approved to install primary roofing products.

f. That proposed application complies with manufacturer's requirements in order to qualify project for specified warranty.

2. Submit letters from insulation manufacturer certifying:

a. That materials supplied comply with requirements of identified ASTM and industry standards or practices and requirements of this specification.

b. Written approval by insulation manufacturer for use and performance of product in proposed system.

F. Applicator's Certifications: Submit letter certifying:

1. That applicator has reviewed these Specifications, Drawings, related addenda and related modifications to date and that these documents are workable and do not conflict with manufacturer's requirements for specified warranty.

2. That Specifications, Drawings, related addenda and related modifications to date are satisfactory to applicator and manufacturer in their entirety.

3. That system specified meets identified code and insurance requirements as required by this specification.

G. Certificate of Completion: Upon completion and prior to final acceptance, provide certificate signed by Contractor and Applicator, stating that sheet membrane roofing systems comply with Contract Documents, and that installation methods comply with manufacturer's printed instructions.

1.8 OPERATION AND MAINTENANCE DATA

A. Maintenance Data: Submit manufacturer's printed recommendations completely describing recommended maintenance procedures for specified roof system including inspection frequencies, penetration addition policies, temporary repairs, and leak call procedures.

1.9 QUALITY ASSURANCE

A. Comply with requirements and recommendations contained in latest edition of NRCA Handbook of Accepted Roofing Knowledge (HARK).

B. Comply with latest written application instructions of manufacturer of primary roofing products.

1. In event these specifications deviate from manufacturer's latest specifications and application instructions, these specifications shall prevail except where they conflict with manufacturer's requirements for specified warranty.

2. In event these specifications conflict with manufacturer's requirements for specified warranty, manufacturer's specifications and application instructions shall prevail.

3. There shall be no deviation made from these specification or final reviewed shop drawings without prior written authorization by Owner, Architect and manufacturer.

C. Provide primary roofing products supplied by single manufacturer. Provide secondary or accessory products which are acceptable to manufacturer of primary roofing products.

D. Membrane to have no formulation changes in last 15 years as certified by manufacturer.

E. Membrane to have minimum 22 mils waterproofing polymers above reinforcement as documented by third party source.

F. Attend job meetings and furnish competent, full-time supervision, experienced roof mechanics, materials, tools and equipment necessary to complete, in acceptable manner, roof installation, in accordance with these specifications.

G. Ensure primary roofing materials manufacturer provides direct trained company personnel to attend job meetings, perform periodic inspections, and conduct final inspection upon completion of work of this section.

H. Provide roofing foreman with copy of these specifications and maintain copy on job site for duration of work.

1.10 QUALIFICATIONS

A. Manufacturer: Company successfully producing specified types of primary roofing products for not less than 15 years.

B. Applicator: Company successfully installing same or similar roofing materials for not less than 5 years, certified in writing by roofing materials manufacturer to install primary products and employing personnel trained and authorized by manufacturer.

1.11 REGULATORY REQUIREMENTS

A. Conform to requirements of CBC Chapter 15.

1. Fire Hazard Classification: Provide roofing system complying with CBC Chapter 15, Section 1503 and Table 15A, Class A.

2. Identification of Roofing Materials: Deliver materials in packages identified in accordance with requirements of CBC Chapter 15, Section 1507.2.

3. Roofing Material Fasteners: Comply with requirements of applicable requirements of CBC Chapter 15, Section 1507.1.1.

B. Comply with requirements of California Energy Code Section 118.

1. Initial Reflectance: Minimum 0.70.

2. Initial Emittance: Minimum 0.75.

1.12 CONFERENCES

A. Preinstallation Conference:

1. Convene preinstallation conference minimum one week prior to commencing work of this section.

2. Attendance: Contractor, roofing applicator, roofing supplier, roofing manufacturer's technical representative and Architect.

3. Agenda: Review Construction Documents, schedule of work, existing conditions, details of work, installation procedures and coordination with related work. Conduct walkover inspection of substrate.

B. Post Installation Conference:

1. Arrange conference at completion of project to be attended by parties that were present at preinstallation conference. Notify roofing manufacturer by means of manufacturer's printed Notification of Completion form to schedule post installation conference and final inspection.

2. Attendance: Contractor, roofing applicator, roofing supplier, roofing manufacturer's technical representative and Architect.

3. Agenda:

   a. Conduct walkover inspection of completed roof. Identify items to be completed and problems which may impede issuance of warranty.

   b. Verify that roof drains and rain water leaders are working properly.

   c. Roofing applicator and roofing manufacturer's technical representative shall prepare punch list of items required to be completed and corrected. Roofing applicator and roofing manufacturer's representative to complete, sign and mail punch list form to manufacturer's headquarters.

1.13 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site, store, handle and protect in accordance with manufacturer's instructions and recommendations.

B. Deliver materials in manufacturer's unopened original containers or wrappings bearing seals and approvals, dry, undamaged.

C. Deliver materials in sufficient quantity to allow continuity of work.

D. Distribute materials placed on roof to preclude overloading deck and building structure.

E. Protect materials against damage from construction traffic and operations.

F. Store materials out of direct exposure to elements in weather protected environment, clear of ground and moisture.

1. Store roofing membrane lying down on pallets and fully protected from weather with clean canvas tarpaulins; unvented polyethylene tarpaulins are not acceptable

2. Store insulation protected from ignition sources, moisture and damage; cover with waterproof tarps.

3. Store flammable materials in cool dry area away from sparks and open flames; follow precautions outlined on containers or supplied by material manufacturer/supplier.

4. Store adhesives at temperatures between 40 and 80 degrees F.

G. Handle materials in manner to preclude damage or contamination with moisture or foreign matter.

1. Place materials on pallets and fully protect from moisture.

2. Handle rolled goods to prevent damage to edges or ends.

3. Handle membrane to avoid over bending, tearing, and other damage during transportation and installation.

H. Select and operate material handling equipment so as not to damage existing construction and applied roofing. Do not operate or situate material handling equipment in locations that will hinder smooth flow of vehicular or pedestrian traffic.

I. Reject compressed rolls and materials exhibition signs of damage, prolonged storage, and moisture absorption.

1. Remove rejected materials from site on daily basis or store off roof separate from other materials.

2. Provide undamaged materials to replace rejected materials at not additional cost to Owner.

1.14 JOB CONDITIONS

A. Membrane materials may be installed under certain adverse weather conditions but only after consultation with manufacturer, as installation time and system integrity may be affected.

B. Install only as much of roofing as can be made weather-tight each day, including flashing and detail work. Clean and heat weld seams before leaving job site that day.

C. Schedule and execute work without exposing interior building areas to effects of inclement weather. Protect existing building and its contents.

D. Ensure surfaces to receive insulation, membrane or flashings are dry. Should surface moisture occur, provide necessary equipment to dry surface prior to application.

E. Secure new and temporary construction, including equipment and accessories, in manner to preclude wind blow-off and subsequent roof or equipment damage.

F. Install uninterrupted waterstops at end of each day’s work; remove completely before proceeding with next day’s work. Waterstops shall not emit dangerous or unsafe fumes and shall not remain in contact with finished roof as installation progresses. Contaminated membrane shall be replaced at no cost to Owner.

G. Certain membranes are incompatible with asphalt, coal tar, heavy oils, roofing cements, creosote and some preservative materials. Ensure such materials do not re-

main in contact with membranes. Consult manufacturer regarding compatibility, precautions and recommendations.

H. Arrange work sequence to avoid use of newly constructed roofing as walking surface or for equipment movement and storage. Where such access is absolutely required, provide necessary protection and barriers to segregate work area and to prevent damage to adjacent areas. Provide substantial protection layer consisting of plywood over felt or plywood over insulation board for new and existing roof areas that receive rooftop traffic during construction.

I. Prior to and during application, remove dirt, debris and dust from surfaces either by vacuuming, sweeping, blowing with compressed air and/or similar methods.

J. At the end of each work period, clean and verify proper operation of building smoke detectors.

K. Immediately remove roofing waste material (i.e., scrap roof membrane, empty cans of adhesive) from site and properly transported to legal dumping area authorized to receive such material.

L. Report rooftop contamination that is anticipated or that is occurring to manufacturer to determine corrective steps to be taken.

M. Verify that roof drain lines are functioning correctly (not clogged or blocked) before starting work. Report blockages in writing (letter copy to manufacturer) to Owner for corrective action prior to installation of roof system.

N. Immediately stop work if unusual or concealed condition is discovered and immediately notify Owner of such condition in writing for correction at Owner’s expense (letter copy to manufacturer).

O. Complete site cleanup, including both interior and exterior building areas that have been affected by construction, to Owner’s satisfaction.

P. Repair landscaped areas damaged by construction activities at no cost to Owner.

Q. Conduct fastener pullout tests in accordance with latest revision of SPRI/ANSI Fastener Pullout Standard to help verify condition of deck/substrate and to confirm expected pullout values.

R. Contractor to monitor and control the HVAC system and opening of the exterior doors and mitigate pressurizing membrane and as required by roof manufacture's guidelines for installation.

S. Do not install adhered membrane under following conditions without consulting manufacturer's technical department for precautionary steps:

1. Roof assembly permits interior air to pressurize membrane underside.

2. Exterior wall has 10 percent or more of surface area comprised of opening doors or windows.
3. Wall/deck intersection permits air entry into wall flashing area.

R. Take precautions when using adhesives at or near rooftop vents and air intakes to prevent adhesive odors from entering building.

1. Coordinate operation of vents and air intakes in manner to avoid intake of adhesive odor while ventilating building.

2. Keep lids on unused cans at all times.

S. Wear protective gear when using solvents and adhesives and as required by job conditions.

1.15 COORDINATION

A. Coordinate work with involved trades to ensure required sequencing of work and to provide weather protection of work.

B. Schedule construction operations to prevent construction traffic on newly installed roofing.

1.16 WARRANTIES

A. Manufacturer's Warranty: Upon successful completion of project and after post installation procedures have been completed, furnish Owner with manufacturer's 20 Year System Warranty.

1. System Warranty shall provide for roof membrane and accessories that comprise roof system, and contractor labor.

2. Warranty shall be Non-Prorated provide for No Dollar Limit (NDL) and shall not exclude ponding water. No time limited shall be assigned for such ponding water during warranty period.

3. Warranty covers only products purchased from manufacturer.

B. Applicator’s Warranty: In addition, provide applicator's guarantee for completed work performed under this section to remain watertight and otherwise free from defects for period of 3 years from date of acceptance by Owner.

1. Repair or cause to be repaired work related to roofing, flashing, or metal found to be defective or otherwise not in accordance with Contract Documents.

2. Repair or cause to be repaired damaged roofing materials and leaks resulting from improper workmanship and faulty materials as reported during terms of guarantee.

3. Repair or cause to be repaired building materials and finishes damaged by leaks

   due to improper workmanship and faulty materials as reported during terms of guarantee

4. Bear costs by Owner, including attorney's fees, to enforce compliance with obligations of guarantee.

5. Applicator's warranty obligation shall run directly to Owner; copy shall be sent to manufacturer.

C. Owner Responsibility: Owner to notify both manufacturer and applicator of leaks as they occur during periods when both warranties are in effect.

PART 2 PRODUCTS

2.1 MEMBRANE MATERIALS

A. Manufacturers:

1. Sika Sarnafil, Inc.: Sarnafil® G410 Feltback.

2. Manufacturer Offering Acceptable Equivalent Product: Carlisle SynTec Systems.

3. Equal products substitutions: Under provisions of Section 01625.

B. Roofing Membrane: ASTM D4434, Type II, Grade I; thermoplastic membrane with fiberglass reinforcement and factory applied 9 ounce geotextile felt backing; integral factory-applied lacquer coating to repel dirt and sustain reflectivity; 80 mil thickness; “white” color with initial reflectivity of 0.83, initial emissivity of 0.92 and Solar Reflective Index greater than 104; Sarnafil® G410-20 Feltback having following typical properties:

Property	Test Method	Result
Tensile Strength	ASTM D638	1600 psi
Elongation at Break	ASTM D638	270% M.D. 250% C.M.D.
Seam Strength	ASTM D638	80% of Tensile Strength
Tensile Strength After Heat Aging per ASTM D3045	ASTM D638	95% of original
Elongation After Heat Aging per ASTM D3045	ASTM D638	90% of original

Tearing Resistance	ASTM D1004	14 lbs/ft
Low Temperature Bend	ASTM D2136	Passes
Accelerated Weathering	ASTM D2565	No cracking, negligible discoloration and no crazing after 10,000 hours
Linear Dimensional Change	ASTM D1204	0.02%
Weight Change After Immersion in Water	ASTM D570	2.5%
Static Puncture Resistance	ASTM D5602	Passes
Dynamic Puncture Resistance	ASTM D5635	Passes

2.2 FLASHING MATERIALS

A. Wall and Curb Flashing: ASTM D4434, Type II, Grade I; thermoplastic membrane with fiberglass reinforcement; lacquer coating; 60 mils thick; “white” color; Sarnafil G-410 Membrane.

B. Miscellaneous Flashing:

1. Expansion Joint Covers: Prefabricated from polyester-reinforced membrane; neoprene foam and galvanized metal; designed for securing to wall or horizontal surfaces to span and accommodate movement of new and existing expansion gaps from 1 inch to 4-1/2 inches across; Sarnafil Sarnaflash.

2. Stack Flashings: Prefabricated vent pipe flashing made from 48 mil G410 membrane; Sarnafil Sarnastack.

3. T-Joint Patches: Circular patch of 48 mil polyester reinforced thermoplastic membrane; color to match roofing membrane; Sarnafil Sarnacircles G.

4. Flashing Corners: Preformed outside and inside flashing corners of 60 mil membrane; color to match roofing membrane; Sarnafil Sarnacorners Universal.

C. Flashing Accessories:

1. Sealant: 1-part moisture-curing polyurethane sealant; Sarnafil Multi-Purpose Sealant.

2. Adhesive: Solvent-based reactivating-type adhesive used to attach membrane to flashing substrate; StaBond Adhesive.

3. Felt: Non-woven polyester or polypropylene mat cushion layer required behind G410 Flashing Membrane when flashing substrates are rough-surfaced or in-

compatible with flashing membrane.

2.3 INSULATION MATERIALS

A. Gypsum Roof Board: ASTM C1177; moisture-resistant treated siliconized gypsum core with glass mat facings embedded front and back; on bottom face; 4'-0" x 8'-0" sheets; 1/4 inch thick; G-P Gypsum Corporation Dens-Deck Prime Roof Board or equal product substituted under provisions of Section 01625.

Property	Test Method	Result
Flexural Strength Parallel	ASTM C473	40 lbs minimum
Flute Spanability	ASTM E661	2-5/8 inches
Compressive Strength		500 psi minimum
Permeance	ASTM E96	50 perms
R-Value	ASTM C518	0.28
Linear Variation with Change in Temperature		8.5×10^{-6} in/in/5RH
Linear Variation with Change in Moisture		6.25×10^{-6} in/in ^{o}F
Water Absorption		10.0% maximum
Surface Water Absorption		<2.5 grams
Flame Spread	ASTM E84	0
Smoke Developed	ASTM E84	0

B. Rigid Foam Insulation: HCFC blown isocyanurate foam core with fiberglass reinforced black felt facers; average 18 Long Term Thermal Resistance installed.

1. Physical Properties:

Property	Test Method	Result
Compressive Strength	ASTM D1621	20 psi nominal
Moisture Vapor Transmission	ASTM E96	1.0 perm

Foam Core Density	ASTM D1622	2.0 pcf nominal
Flame Spread Foam Core	ASTM E84	25
Dimensional Stability	ASTM D2126	2.0% (L X W)
Water Absorption	ASTM C209	1% by volume
Service Temperature		-100°F to 250°F

2. Forms:

   a. Standard Rigid Foam Insulation: Rigid isocyanurate foam core uniform thickness boards; minimum thickness as required to span deck flutes; exact thickness and number of layers as required to meet specified R-value; 4 x 4 or 4 x 8 board; Sarnafil Sarnatherm.

   b. Tapered Rigid Foam Insulation: Rigid isocyanurate foam core tapered panels and uniform thickness filler boards; factory tapered slope; thicknesses as required to provide slopes and configurations indicated; 4 x 4 foot or 4 x 8 boards; Sarnafil Tapered Sarnatherm.

2.4 ATTACHMENT COMPONENTS

A. Membrane Adhesives:

   1. Solvent-Based Type: Solvent-based reactivating-type adhesive used to attach membrane to substrate, either horizontally or vertically; StaBond Adhesive.

   2. Water-Based Type: Water-based adhesive used to attach membrane to horizontal or near-horizontal substrates; Sarnacol 2121 Adhesive.

B. Insulation and Roof Board Adhesive: 2-component (Part A and B) polyurethane low-rise adhesive for bonding insulation to approved compatible substrates; Low Rise Foam Adhesive:

C. Plates: Used with various fasteners to attach insulation boards to steel roof deck; 3 inch square, 26 gauge stamping of SAE 1010 steel with an AZ 55 Galvalume coating; Sanafil Sarnaplate.

D. Fasteners:

   1. For Attaching Insulation Boards to Steel Roof Decks: #12 corrosion-resistant threaded fastener used with conjunction with appropriate plates; modified buttress thread; shank diameter of approximately 0.168 inch; thread diameter of approximately 0.214 inch; driving head has a diameter of approximately 0.435 inch with #3 Phillips recess for positive engagement; Sarnafil Sarnafastener #12.

2. For Attaching Insulation Boards and Membrane to Steel Roof Decks: #15 heavy-duty corrosion-resistant threaded fastener used in conjunction with appropriate plate to attach insulation or in conjunction with stop and bar to attach roof membrane; shank diameter of approximately 0.21 inch; thread diameter is approximately 0.26 inch; driving head with approximate 0.435 inch diameter and #3 Phillips recess for positive engagement; Sarnafil Sarnafastener-XP.

3. For Attaching Membrane to Steel Roof Decks: Specially designed heavy-duty, corrosion-resistant fastener used in conjunction with appropriate stop or bar; shank diameter of approximately 0.21 inch; thread diameter of approximately 0.26 inch; driving head with approximate 0.435 inch diameter and #3 Phillips recess for positive engagement and simplicity of application; Sarnafil Sarnafastener-XPS.

E. Stops: Extruded aluminum low profile bar used in conjunction with appropriate fasteners to attach to roof deck, to walls/curbs at terminations, penetrations and at incline changes of substrate; 1 inch wide x 1/8 inch thick flat aluminum bar with predrilled holes every 6 inches on center; Sarnafil Sarnastop.

F. Bars: FM-approved heavy-duty 14 gauge roll-formed galvanized or stainless steel bar used to attach membrane to roof decks; pre-punched with holes every 1 inch on center to allow various fastener spacing options; Sarnafil Sarnabar.

G. Cords: 5/32 inch diameter flexible thermoplastic extrusion welded to top surface of membrane and against side of bar for holding membrane in position; red color; Sarnafil Sarnacord.

2.5 WALK WAY PROTECTION

A. Walk Tread: Polyester reinforced weldable membrane with surface embossment; 0.096 inch thick; supplied in rolls of 39.3 inches wide and 32.8 feet long; Sarnafil Sarnatread.

2.6 MISCELLANEOUS ACCESSORIES

A. Aluminum Tape: 2 inch wide pressure-sensitive aluminum foil tape; used as separation layer between small areas of asphalt contamination and membrane and as bond-breaker under coverstrip at PVC clad sheet metal component joints.

B. Sealing Tape Strip: Compressible foam with pressure-sensitive adhesive on one side. Used with metal flashings as a preventive measure against air and wind blown moisture entry.

C. Multi-Purpose Tape: High performance sealant tape with used with metal flashings as preventive measure against air and wind blown moisture entry.

D. Hot Air Welding Machines:

1. Membrane Field: 220 volt self-propelled hot-air welding machine used to seal long lengths of the membrane seams; Sarnafil Sarnamatic 641mc.

2. Membrane Perimeter: 120 volt self-propelled hot-air welding machine used to seal long-lengths of membrane seams along perimeter details; Perimat Welder.

E. Solvent: High quality solvent cleaner for general cleaning of membrane surface and daily cleaning of seam areas prior to hot-air welding in tear off or dirty conditions or if membrane is not welded the same day it is unrolled; Sarnafil Sarnasolv.

2.7 MISCELLANEOUS FASTENERS AND ANCHORS

A. Fasteners, anchors, nails, straps, bars and other attachment devices shall be post-galvanized steel, aluminum or stainless steel.

B. Mixing metal types and methods of contact shall be assembled in manner to avoid galvanic corrosion.

C. Fasteners for attachment of metal to masonry shall be expansion type fasteners with stainless steel pins.

D. Concrete fasteners and anchors shall have minimum embedment of 1-1/4 inch and shall be approved for such use by fastener manufacturer.

E. Miscellaneous wood fasteners and anchors used for flashings shall have minimum embedment of 1 inch and shall be approved for such use by fastener manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine condition of substrates to determine acceptability for installation.

B. Verify that substrates are acceptable for product installation in accordance with manufacturer’s instructions and recommendations.

C. Verify that existing roofing specified to be removed in Section 02222 – Minor Demolition for remodeling has been removed.

1. Verify that roof membrane, base flashing and insulation have been removed down to roof deck.

2. Verify that edge metal, flanges and other metal flashings, metal counterflashings, and metal trim have been removed to substrate.

3. Verify that non-functional curbs and penetrations have been removed.

4. Verify that vents and drains have been wedged tight against deck.

D. Verify that roof deck and roof construction are structurally sound and provide proper support to roofing system.

1. Verify that roof deck has been secured to structural framing according to local building code and in manner to resist anticipated wind loads in that location.
2. Verify that deck surfaces are structurally sound and free from corrosion and spalling.

3. Steel Decks: Verify that steel roof deck is minimum 22 gauge grade E and conform and is installed to meet latest revision of FM's Loss Prevention Data Sheet 1-28 and local code's current requirements.

E. Verify that installed work of other trades meets following conditions:

1. Roof drains and overflows have been properly installed.

2. Existing pipe traversing roof has been disconnected, raised, reconnected and braced off roof.

3. Roof openings, curbs, nailers, equipment supports, pipe, sleeves, ducts, vents and other roof penetrations are properly secured and prepared to receive new roofing materials.

F. Examine substrate for defects such as excessive surface roughness, contamination, structural inadequacy, and other conditions that will adversely affect quality of work.

1. Verify that substrate surfaces are smooth, free of depressions, waves, flaws, sharp edges, projections and loose and foreign material.

2. Verify that substrate surfaces are free of water, ice and snow.

3. Verify that substrate surfaces are clean and free of laitance, oil, grease, curing compounds and other materials that could impair adhesive bond.

G. Do not begin installation until unsatisfactory conditions have been corrected.

3.2 PROTECTION

A. Protect other trades and general public from injury and debris from roofing work.

1. Provide fencing, barricades and enclosures to prevent access to areas of roof construction, materials, tools and equipment.

2. Relocate as work progresses.

B. Protect surfaces including vehicles parked adjacent to buildings, air intakes and exhausts on buildings, roof mounted mechanical equipment, roof drains, access hatches,

windows, skylights and other items or personnel downwind from adhesive application from over-spray of adhesive.

1. Shut down air intake systems with air intakes on roof and seal roof mounted static air vents; block other intakes to prevent fumes from being taken into ventilation system.

2. Resume air circulation only after roof has been closed and fumes have dissipated.

3. Ensure building is well aired prior to occupancy.

C. Where work must continue over finished roof membrane, protect membrane.

3.3 PREPARATION

A. Prepare substrates as required to provide dry, clean, smooth substrate for roofing application.

B. Sweep or vacuum substrate surfaces to remove foreign substances prior to commencing roofing.

3.4 INSULATION INSTALLATION

A. Install rigid foam insulation and gypsum roof board in accordance with manufacturers' instructions and recommendations. Install tapered insulation in accordance with shop drawings and manufacturer's instructions and recommendations.

B. Do not install rigid foam insulation and gypsum roof board until other trades have completed work that requires traversing decks on foot and with equipment.

C. Do not install rigid foam insulation and gypsum roof board over wet, damp, dirty, contaminated or uneven substrates

D. Install only as much rigid foam insulation and gypsum roof board as can be covered with roofing membrane and completed before end of days work and before onset of inclement weather.

E. Cut rigid foam insulation and gypsum roof board to neatly fit around penetrations and projections.

F. Install tapered insulation around drains creating drain sump.

G. Use minimum 2 layers of insulation when total insulation thickness exceeds 3 inches. Stagger joints at least 12 inches (0.3 m) between layers.

H. Mechanically fasten rigid foam insulation and gypsum roof board to roof deck with approved fasteners and plates at rates and patterns recommended by manufacturer and meeting FM requirements.

1. Quantity and locations of fasteners and plates shall also cause gypsum roof boards to rest evenly on substrate so that there are no significant and avoidable air spaces between boards and substrate.

2. Install each board tightly against adjacent boards on each side.

3. Install fasteners consistently in accordance with manufacturer's recommendations. Ensure fasteners have minimum penetration into metal studs recommended by fastener and membrane manufacturer.

4. Use fastener tools with depth locator and torque-limiting attachment as recommended or supplied by fastener manufacturer to ensure proper installation.

3.5 MEMBRANE INSTALLATION

A. Install roofing in accordance with specifications in latest edition of roofing manufacturer's application guide and these specifications.

1. Characteristics of finished roof, including adhesive quantities, are to be within tolerances established by roofing materials manufacturer.

2. Work is to be completed in such manner that no water leakage occurs into building or roof system.

3. Overall appearance of completed work is to be esthetically pleasing to satisfaction of Architect and Owner. Make necessary preparations, utilize recommended application techniques, apply specified materials and exercise care in ensuring final application is acceptable.

B. Examine surface of insulation and substrate prior to installation of membrane.

1. Ensure substrate is clean, dry, free from debris and smooth with no surface roughness or contamination.

2. Remove and replace broken, delaminated, wet or damaged insulation and roof boards.

C. Apply roof membrane immediately following application of insulation as continuous operation.

D. Adhere membrane with solvent-based adhesive or with water-based adhesive; apply membrane throughout with same type adhesive.

E. Application with Solvent-Based Adhesive:

1. Apply 2 layers wall adhesive over properly installed and prepared substrate surface at rates recommended by manufacture for specific substrates. Do not apply adhesive to back of membrane.

a. Apply using solvent-resistant 3/4 inch nap paint rollers.

b. Apply in smooth, even coats with no gaps, globs, puddles or similar inconsistencies.

c. Only apply to area which can be completely covered in same day's operations.

d. Allow first layer of adhesive to dry completely prior to installing second layer of adhesive and membrane.

2. Immediately unroll roof membrane into second layer of wet adhesive; do not allow second layer of adhesive to dry.

a. Adjacent to first installed roll of membrane, apply another second layer of wet adhesive and immediately unroll second roll of membrane into it, overlapping first roll by 3 inches. Repeat process throughout roof area.

b. Immediately after application into adhesive, press each roll firmly in place with water-filled foam-covered lawn roller by frequent rolling in 2 directions.

F. Application with Water-Based Adhesive:

1. Apply field adhesive over properly installed and prepared substrate surface at rates recommended by manufacture for specific substrates. Do not apply adhesive to back of membrane.

a. Pour adhesive out of pail and spread using notched 1/4 x 1/4 x 1/4 inch rubber squeegees.

b. Do not allow adhesive to skin-over or surface dry prior to installation of membrane.

c. Do not use water-based adhesive if temperatures below 40º F are expected during application or subsequent drying time.

2. Immediately unroll roof membrane into wet adhesive.

a. Overlap adjacent rolls by 3 inches. Repeat process throughout roof area.

b. Immediately after application into adhesive, press each roll firmly in place with water-filled foam-covered lawn roller by frequent rolling in 2 directions.

G. Weld coverstrips at seams that do not have factory selvage edge.

H. Count number of pails of adhesive used per area per day to verify conformance to specified adhesive rate.

I. Ensure no adhesive is applied in seam areas.

3.6 HOT-AIR WELDING OF SEAM OVERLAPS

A. Hot air weld seams. Except where indicated and detailed otherwise, overlap seams to be machine welded 3 inches and overlap seams to be hand welded 4 inches.

B. Weld using equipment provided by or approved by membrane manufacturer and employing mechanics who have successfully completed training course provided by membrane manufacturer's Technical Representative prior to welding.

C. Ensure membrane to be welded is clean and dry.

D. Hand Welding:

1. Allow hot-air welding equipment to warm up for at least 1 minute prior to welding.

2. Complete hand-welded seams in 2 stages.

a. Weld back edge of seam with narrow but continuous weld to prevent loss of hot air during final welding.

b. Insert nozzle into seam at 45 degree angle to edge of membrane. Once proper welding temperature has been reached and membrane begins to "flow," position hand roller perpendicular to nozzle and press lightly.

1) For straight seams, use 1-1/2 inch wide nozzle.

2) For corners and compound connections, use 3/4 inch wide nozzle.

E. Machine Welding:

1. Machine weld seams using automatic welding equipment in accordance with manufacturer's instructions and following local codes pertaining to electric supply, grounding and over current protection.

a. Provide dedicated circuit house power or dedicated portable generator.

b. Ensure not other equipment is operated of circuit or generator.

2. Use metal tracks over deck membrane and under machine welder to minimize or eliminate wrinkles.

F. Quality Control of Welded Seams:

1. Make daily on-site evaluations of welded seams to locations as directed by Architect or manufacturer’s representative.

a. Check each welded seam for continuity using rounded screwdriver.

b. Visible evidence that welding is proceeding correctly is smoke during welding operation, shiny membrane surfaces, and uninterrupted flow of dark grey material from underside of top membrane.

2. Take 1 inch wide cross-section samples of welded seams at least 3 times per day.
   a. Correctly installed welds display failure from shearing of membrane prior to separation of weld.

   b. Patch each test cut at no extra cost to Owner.

3.7 MEMBRANE FLASHING INSTALLATION

A. Install membrane flashings in accordance with manufacturer's requirements and recommendations and the specifications shall be followed. Verify that material submittals shall have been accepted by manufacturer prior to installation.

B. Install membrane flashings concurrently with roof membrane as job progresses.

1. Temporary flashings will be allowed only with prior written authorization of Architect and manufacturer.

2. Authorization when issued will only be for specific locations on specific dates.

C. If water enters under newly completed roofing, remove roofing assembly in affected area and replaced at no cost to Owner.

D. Adhere membrane flashings to compatible, dry, smooth, and solvent-resistant surfaces. Use caution to ensure adhesive fumes are not drawn into the building.

E. Apply adhesive for membrane flashings over properly installed and prepared substrate in accordance with manufacturer's instructions and recommendations.

1. Apply adhesive in smooth, even coats with no gaps, globs or similar inconsistencies.

2. Do not apply adhesive in seam areas that are to be welded.

F. Apply flashing only to area which can be completely covered in same day's operations.

1. Firmly press bonded sheet in place with hand roller.

2. Apply membrane flashing in same manner throughout overlapping edges of membrane panels as required by welding techniques.

G. Install stops, bars and cords according to detail on Drawings with approved fasteners into structural deck at base of parapets, walls and curbs. Provide stops at the base of tapered edge strips and at transitions, peaks, and valleys according to detail on Draw-

ings.

H. Extend flashings minimum 8 inches above roofing level unless otherwise accepted n writing by Architect and manufacturer's technical department.

I. Consistently adhere flashing membrane to substrate. Cut and hot-air weld interior

corners, exterior corners and miters into place. Ensure membrane does not contact bitumen.

J. Mechanically fasten flashing membrane along counter-flashed top edge with stop at 6 to 8 inches on center.

K. Terminate membrane flashings according to manufacturer's recommended details.

L. Provide additional securement for membrane flashings that exceed 30 inches in height in accordance with recommendations of manufacturer's technical department.

3.8 WALKWAY INSTALLATION

A. Install walk treads to configurations indicated on Drawings and in accordance with manufacturer’s instructions and recommendations.

B. Examine existing deck membrane seams that are to be covered by walk treads with rounded screwdriver; re-weld inconsistencies before walkway installation.

C. Ensure roofing membrane to receive walk treads is clean and dry.

D. Place chalk lines on roofing membrane to indicate location of walk treads. Do not run walk treads over bars.

E. Apply continuous coat of adhesive to roofing membrane sheet and back of walk treads; press walk treads into place with water-filled foam-covered lawn roller.

F. Clean deck membrane in areas to be welded. Hot-air weld entire perimeter of walk treads to roof membrane.

G. Check welds with rounded screwdriver; re-weld inconsistencies.

3.9 TEMPORARY CUT-OFF

A. Install flashings concurrently with roof membrane in order to maintain watertight condition as work progresses.

B. Construct temporary waterstops to provide watertight seals.

1. Make stagger of insulation joints even by installing partial panels of insulation.

2. Carry roof membrane into waterstop.

3. Seal waterstop to deck and substrate so that water will not be allowed to travel under roofing. Seal edge of membrane in continuous heavy application of sealant.

C. When work resumes, cut out contaminated membrane. Remove sealant, contaminated membrane, insulation fillers and other temporary components from work area and properly disposed of off site. None of these materials shall be used in new work.

D. If inclement weather occurs while temporary waterstop is in place, provide labor necessary to monitor situation to maintain watertight condition.

E. If water enters under newly-completed roofing, remove and replace materials in affected area at no cost to Owner.

3.10 CLEANING AND REPAIR

A. Remove debris and adhesives markings from interior and exterior finished surfaces.

B. In areas where finished surfaces are soiled by adhesive and other sources of soiling caused by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their instructions.

C. Repair or replace defaced and disfigured finishes caused by work of this section.

D. Repair or correct installations and details noted as deficient during post installation inspection and as required to meet manufacturer's final endorsement for issuance of specified guarantee.

E. Clean and verify proper operation of the building smoke detectors.

F. Clean roof membrane and flashing surfaces of debris.

1. Remove hand prints, footprints, general traffic grime, industrial pollutants from membrane by scrubbing with non-abrasive soap solution in accordance with roofing manufacturer’s recommendations.

2. Rinse completely with clean water.

F. Clear roof drains and rain water leaders of debris and obstructions. Test by flooding with water.

G. Remove debris from paved and landscape areas.

H. Leave job site free of debris, roofing materials, equipment and related items.

3.11 PROTECTION

A. Where traffic must continue over finished roof installation, protect surfaces.

END OF SECTION

SECTION 07620

SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Copings, parapet and sleeper cap flashings.

B. Receivers and counterflashings.

C. Reinstallation of salvaged sheet metal copings.

D. Associated sealant.

1.2 PRODUCTS INSTALLED BUT NOT SUPPLIED UNDER THIS SECTION

A. Section 02222 - Minor Demolition for Remodeling: Supply of salvaged sheet metal copings for reinstallation under this section.

1.3 RELATED SECTIONS

A. Section 02222 - Minor Demolition for Remodeling: Removal and storage of existing sheet metal coping.

B. Section 06100 - Rough Carpentry: Fire-retardant treated wood curbs, sleepers, nailers and sheathing.

C. Section 07540 - Thermoplastic Membrane Roofing: Membrane clad sheet metal flashings incorporated into roofing.

D. Section 07900 - Joint Sealers: Sealant types.

E. Section 09900 - Paints and Coatings: Prime and finish painting of sheet metal flashing and trim.

1.4 REFERENCES

A. ASTM A653 - Specification for Steel Sheet, Zinc-Coated, (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.

B. ASTM B32 - Specification for Solder Metal.

C. ASTM B749 - Specification for Lead and Lead Alloy Strip, Sheet and Plate.

D. ASTM D2092 - Practices for Preparation of Zinc-Coated Galvanized Steel Surfaces for Paint.

E. NRCA - National Roofing Contractor's Association "Roofing Manual."

F. SMACNA - Sheet Metal and Air Conditioning Contractors National Association "Architectural Sheet Metal Manual."

G. SSPC - Structural Steel Painting Council.

1.5 SYSTEM DESCRIPTION

A. Work of this section is to provide flashing and sheet metal required to prevent penetration of water through exterior shell of building.

1.6 SUBMITTALS

A. Shop Drawings: Clearly indicate materials, configurations and profiles, jointing methods and locations, fastening methods and locations, flashing terminations and installation details. Show joint layout and elevations for joints exposed to view from grade outside of building with dimensions.

B. Setting Drawings or Templates: Submit setting drawings or templates and setting instructions for exact locations of items to be embedded in work of other sections.

C. Product Data: Submit manufacturer's literature completely describing manufactured products.

1.7 QUALITY ASSURANCE

A. Perform work in accordance with:

1. NRCA and SMACNA standard details and requirements.

2. Applicable requirements of Factory Mutual Loss Prevention Data Sheet 1-49.

1.8 QUALIFICATIONS

A. Fabricator and Installer: Company specializing in sheet metal flashing work with minimum 5 years documented experience.

1.9 STORAGE AND HANDLING

A. Deliver products to site, store handle and protect in accordance with fabricator's instructions and recommendations.

B. Deliver, store and handle packaged materials in original containers with seals unbroken and labels intact until time of use.

C. Discharge materials carefully and store on clean concrete or raised platform in secure dry area. Do not dump on ground.

D. Stack preformed and prefinished material to prevent twisting, bending, or abrasion, and

to provide ventilation. Slope metal sheets to ensure drainage.

E. Prevent contact with materials during storage which may cause discoloration, staining or damage.

F. Do not store materials with strippable film in areas exposed to sunlight.

1.10 FIELD MEASUREMENTS

A. Verify field measurements are as indicated on shop drawings.

1.11 COORDINATION

A. Ensure timely delivery of items to be embedded in work of other sections; furnish with setting drawings and templates.

B. Coordinate fabrication and installation of sheet metal flashing and trim with work of Sections 06100 - Rough Carpentry. Ensure fasteners used to secure sheet metal to treated wood are hot-dipped galvanized steel or stainless steel in accordance with fire-retardant treatment manufacturer's recommendations.

C. Coordinate installation of sheet metal flashing work in contact with roofing with installation of roofing.

1. Install sheet metal flashing work under supervision of roofing system applicators.

2. Complete sheet metal flashing work in conjunction with roofing and membrane flashings so that watertight condition exists daily.

1.12 WARRANTY

A. Installer's Warranty: Cover damage to work resulting from failure of work of this section to resist penetration of moisture for period of 2 years from date of Substantial Completion.

PART 2 PRODUCTS

2.1 SHEET MATERIALS

A. Galvanized Steel: ASTM A653; minimum 24 gauge core steel or as indicated on Drawings; minimum 1.25 oz/sq ft galvanized coating.

B. Lead: ASTM B749, Grade B; minimum 4 lbs/sq ft.

2.2 ACCESSORIES

A. Fasteners: Hot-dipped galvanized steel or stainless steel; soft neoprene washers at exposed fasteners.

B. Drawbands: Stainless steel hose clamps; worm drive.

C. Protective Backing Paint: SSPC Paint 12; cold-applied asphalt mastic type; non-corrosive; compounded for 15 mil dry film thickness.

D. Solder: ASTM B32; 50/50 type.

E. Sealants:

1. For Concealed Sealant Beads: Butyl or Polyisobutylene Type Sealant specified in Section 07900.

2. For Exposed Sealant Beads: Polyurethane Type Sealant specified in Section 07900.

F. Flashing Compound: Polyisobutylene type non-skinning non-drying sealant; bulk or tape form as applicable to installation requirements.

2.3 FABRICATION

A. Fabricate sheet metal flashings and related components in accordance with profiles and material thickness recommended by SMACNA except where more stringent requirements are indicated on Drawings or specified herein.

B. Form sheet metal flashings and related components of materials indicated on Drawings unless specified otherwise.

C. As far as practicable, form and fabricate sheet metal in shop. Where on-site fabrication is required, provide work equal to shop quality.

D. Fabricate required connection pieces.

E. Form sections square, true and accurate in size, in maximum possible lengths and free of distortion or defects detrimental to appearance or appearance.

F. Allow for expansion and contraction at joints.

1. Provide loose locking slip joints:

a. At maximum 8 feet from internal and external corners.

b. At maximum 24 foot intervals on straight runs.

c. At centers of runs, less than 20 feet but more than 20 feet.

2. Fill loose locked seams with flashing compound prior to assembly.

G. Reinforce for strength and appearance.

H. Cut, fit and drill sheet metal to accommodate related, adjacent or adjoining work.

I. Hem exposed edges of metal on underside 1/2 inch; miter and seam corners.

J. Provide covered plate seam joints in copings, parapet caps and sleeper caps. Provide lock joints in other components where practical; where impractical, lap, rivet and solder joints.

1. Turn lock joints on exposed surfaces in direction of flow.

2. Provide seams that follow direction of water flow.

K. Solder metal joints. After soldering, remove flux. Wipe and wash solder joints clean.

L. Fabricate corners from one piece with minimum 18 inch long legs; solder for rigidity, seal with sealant.

M. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.

N. Fabricate cleats and starter strips of same material as sheet, continuous and interlockable with sheet.

O. Fabricate counterflashings to overlap membrane flashings minimum 4 inches.

2.4 FINISH

A. Clean, degrease, neutralize and phosphate treat galvanized sheet metal surfaces to receive paint finish in accordance with ASTM D2092, Method A.

B. Back paint concealed metal surfaces and surfaces in contact with dissimilar metals and cementitious materials with protective backing paint to minimum dry thickness of 15 mils.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that openings are solidly set and ready for flashing installation.

B. Verify that sheet metal copings salvaged under Section 02222 for reinstallation under this section are complete and free from damage.

1. Do not reinstall damaged copings unless specifically authorized by Owner.
2. Augment salvage stock with additional coping sections, cover plates and fasteners as required for complete watertight installation.

C. Do not begin installation until unsatisfactory conditions have been corrected.

3.2 PROTECTION

A. Exercise care when working on and about roof surfaces to avoid damaging and puncturing membrane and flashings.

B. Place plywood panels on built-up roof surfaces adjacent to work of this section as temporary protection during course of cutting and fabrication.

C. Do not store sheet metal materials directly on roof surface. Place on pallets, plywood panels or temporary sleepers.

D. Protect interior of building from water intrusion during operations performed under this section.

3.3 PREPARATION

A. Install starter and edge strips, and cleats before starting installation. Fasten maximum 12 inches on center into wood nailer or metal backing.

3.4 INSTALLATION

A. Conform to details indicated on Drawings and included in NRCA and SMACNA manuals.

B. Install shop fabricated sheet metal work in accordance with final reviewed shop drawings. Install manufactured assemblies in accordance with manufacturer's installation instructions.

C. Perform required site fabrication in accordance with Part 2 "Fabrication" Article above.

D. Install work watertight with components in true and accurate alignment with other components and related work, with joints accurately fitted, with corners reinforced and with surfaces free from dents.

E. Install flashings to ensure diversion of moisture to exterior.

F. Coordinate sheet metal installation with work of other trades to ensure proper sequencing.

G. Secure flashings in place using concealed fasteners. Use exposed fasteners only in locations indicated or authorized by Architect.

1. Fasten in accordance with SMACNA. Ensure fasteners penetrate wood nailers minimum 1 inch and through metal backing minimum 1/4 inch.
2. Secure sheet metal runs to underlying material by fastening through slotted holes in flange at 3 inches oc maximum, unless indicated otherwise.

3. Provide waterproof washers where fasteners penetrate flashings.

4. Where sheet metal occurs over other sheet metal, use nails with minimum 1 inch diameter metal disks.

H. Fit flashings tight in place. Make corners square, faces true and straight in planes, and lines accurate to profiles.

I. Install metal flashing joints watertight.

J. Solder metal joints for full metal surface contact. After soldering, wash metal clean with neutralizing solution and rinse with water.

K. Install sheet metal work to provide adequate resistance to bending and to allow for expansion and contraction in finished work.

L. Apply joint compound at slip joints or wherever metal-to-metal contact occurs and movement may occur.

M. Install sealant and sealant accessories in accordance with Section 07900.

3.5 ADJUSTING

A. Replace damaged material with new undamaged material prior to final acceptance.

3.6 CLEANING

A. Clean sheet metal work; leave free from grease, finger marks and stains.

B. Remove scrap and debris from surrounding areas and grounds.

3.7 PROTECTION

A. Protect installed work of this section from defacement or damage until final acceptance.

END OF SECTION

SECTION 07900

JOINT SEALERS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Sealants and joint backing.

B. Sealant types for sections referencing this section for products.

1.2 RELATED SECTIONS

A. Section 07540 - Thermoplastic Membrane Roofing: Sealants used in conjunction with membrane roofing.

B. Section 07620 - Sheet Metal Flashing and Trim: Sealants used in conjunction with sheet metal flashing.

C. Section 09225 - Portland Cement Plaster Systems: Sealants used in conjunction with weather resistive barrier at patches in cement plaster.

1.3 REFERENCES

A. ASTM C834 - Specification for Latex Sealing Compounds.

B. ASTM C920 - Specification for Elastomeric Joint Sealants.

C. ASTM C1311 - Specification for Solvent Release Sealants.

D. ASTM D518 - Test Method for Rubber Deterioration - Surface Cracking.

E. ASTM D1056 - Specification for Flexible Cellular Materials - Sponge of Expanded Rubber.

1.4 SUBMITTALS

A. Samples: Submit samples of exposed sealant manufacturer's full range of colors for Architect's selection.

B. Manufacturer's Certificates: Certify that products meet or exceed specified requirements.

1.5 DELIVERY, STORAGE AND HANDLING

A. Deliver products to site, store, handle and protect in accordance with manufacturer’s instruction and recommendations.

B. Deliver materials to site in sealed and labeled containers.

C. Store materials in sealed and labeled containers until installation.

D. Follow manufacturer's recommendations for storage temperature.

1.6 ENVIRONMENTAL REQUIREMENTS

A. Do not install solvent curing sealants in enclosed building spaces.

B. Maintain temperature and humidity recommended by sealant manufacturer and adhesive manufacturer before, during and after installation.

1.7 COORDINATION

A. Coordinate the work of this section with sections referencing this section.

1.8 WARRANTY

A. Installer’s Warranty: Provide 3 year warranty covering damage to work resulting from failure to resist penetration of moisture. Replace sealants that fail because of loss of cohesion or adhesion, or do not cure.

PART 2 PRODUCTS

2.1 SEALANTS

A. Exterior Non-Traffic Sealants:

1. Butyl or Polyisobutylene Type Sealant: ASTM C1311; butyl rubber or butyl rubber/polyisobutylene blend; single component; solvent release; ±5 percent movement capacity; Pecora BC-158 One-Part Butyl Rubber Sealant or Tremco Butyl Sealant or equal product substituted under provisions of section 01625.

2. Polyurethane Type Sealant: ASTM C920, Type S, Grade NS, Class 25; polyurethane base; single component; moisture cured; non-sag; ±25 percent movement capacity; Pecora Corporation "Dynatrol" I, Sika Corporation "Sikaflex-1a" or Tremco "Dymonic FC" or equal product substituted under provisions of section 01625.

3. Silicone Type Sealant: ASTM C920, Type S, Grade NS, Class 25 to 50; 100 percent silicone; single component; neutral cure; low to medium modulus; non-sag; GE Silicones “Silpruf” SCS 2000, Pecora 864 Architectural Silicone Sealant or Tremco “Spectrem 2” or equal product substituted under provisions of section 01625.

B. Exterior Traffic Bearing Sealants:

1. Polyurethane Type Sealant: ASTM C920, Type S, Grade P; Class 25; polyurethane base; single component; self-leveling; accelerated cure; ±25 percent movement capacity; Shore A hardness of 35 to 50; Pecora Corporation "Urexpan" NR-201, Sika Corporation "Sikaflex-1CSL" or Tremco "Vulkem 45" or equal product substituted under provisions of section 01625.

C. Interior Sealants:

1. Acrylic Latex Type Sealant: ASTM C834; acrylic latex; single component; non-sag, mildew resistant, paintable; ±7.5 percent movement capacity; Adco Products, Inc. Adco AL-800 Acrylic Latex Sealant, Pecora Corporation AC-20+Silicone, or Tremco "Tremflex" 834 or equal product substituted under provisions of section 01625.

2. Silicone Type Sanitary Sealant: ASTM C920, Type S, Grade NS, Class 25; silicone; single component; mildew resistant; ±25 percent movement capacity; Dow Corning Corporation 786 Mildew Resistant Silicone Sealant, GE Silicones Sanitary 1700 Sealant, Pecora Corporation 898 Silicone or Tremco "Tremsil 200" or equal product substituted under provisions of section 01625.

D. Equal product substitutions: Under provisions of Section 01625.

2.2 ACCESSORIES

A. Primer: Quick-drying, colorless, non-staining type, recommended by sealant manufacturer to suit application.

B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.

C. Joint Fillers: ASTM D1056, round, closed cell polyethylene foam rod; oversized 30 to 50 percent; as recommended by joint sealer manufacturer.

D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

E. Masking Tape: Non-staining, non-absorbent type compatible with joint sealants and surfaces adjacent to joints.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify joint dimensions, physical, and environmental conditions are acceptable to receive work of this section.

B. Do not begin installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean out joints immediately before installing sealants and adhesives.

B. Remove any loose materials and other foreign matter which might impair adhesion of sealant and adhesive. Sandblast vertical concrete walls to receive epoxy adhesive to expose aggregate.

C. Verify proper surface and ambient temperatures.

D. Verify that joint backing and release tapes are compatible with sealant.

E. Protect elements surrounding the work of this section from damage or disfiguration. Use masking tape where required to prevent contact of sealant with adjoining surfaces.

F. Prime joint surfaces where recommended by joint sealant manufacturers. Apply primer to comply with joint sealant manufacturer's recommendations.

3.3 INSTALLATION

A. Install sealant in accordance with manufacturer's instructions and recommendations.

B. Measure joint dimensions and size materials to achieve required width/depth ratios.

C. Install joint backing to achieve neck dimension no greater than 1/3 the joint width.

D. Apply sealant within recommended temperature ranges. Consult manufacturer when sealant cannot be applied within recommended temperature ranges.

E. Install sealant free of air pockets, foreign embedded matter, ridges and sags.

F. Tool joints concave.

G. Remove masking tape immediately after tooling joints without disturbing joint seal.

3.4 CLEANING AND REPAIRING

A. Clean adjacent soiled surfaces.

B. Repair or replace defaced or disfigured finishes caused by work of this section.

3.5 PROTECTION OF FINISHED WORK

A. Protect sealants until cured.

END OF SECTION

SECTION 08690

SKYLIGHT RESTORATION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Removal and reinstallation of existing skylight glazing.

B. Glazing gaskets and accessories.

C. Perimeter sealant.

1.2 RELATED SECTIONS

A. Section 02222 - Minor Demolition for Remodeling: Removal of building components other than specified in this section.

1.3 ALTERNATES

A. Add Alternate #1 - Skylight Restoration: Provide alternate bid price to add removal and reinstallation of existing skylight glazing as specified in this section and as indicated on the Drawings.

1.4 REFERENCES

A. AAMA 501.2 - Field Check of Metal Storefronts, Curtain Walls and Sloped Glazing Systems for Water Leakage.

1.5 SYSTEM DESCRIPTION

A. Skylight Restoration: Restoration of existing aluminum framed skylight to eliminate leaks due to missing, dislodged and deteriorated glazing gaskets and including:

1. Removing and salvaging existing perimeter flashing as required to access aluminum retaining caps.

2. Removing existing perimeter sealant.

3. Removing and salvaging existing aluminum retaining caps.

4. Removing existing glazing gaskets and glazing accessories.

5. Removing and salvaging existing glass.

6. Cleaning glazing channels, gutters and weeps.

7. Reinstalling existing glass, aluminum retaining caps and flashing utilizing newly manufactured glazing gaskets and accessories and newly manufactured perimeter sealant.

8. Replacing missing and broken components with matching newly fabricated components.

9. Cleaning skylight surfaces.

1.6 SUBMITTALS

A. Product Data: Submit manufacturer’s data for glazing gaskets and sealant materials.

B. Samples: Submit samples, minimum 12 inches long, of each type and profile glazing gasket used.

1.7 QUALIFICATIONS

A. Installer: Company specializing in reglazing existing aluminum skylight systems with minimum 5 years documented experience.

1.8 PREINSTALLATION CONFERENCE

A. Convene preinstallation conference minimum 1 week prior to commencing work of this section.

B. Attendance: Contractor, installer and Architect.

C. Agenda: Review construction schedule, demolition and reinstallation procedures, coordination required with work of other trades, cleaning and protection of sloped glazing. Conduct inspection of openings and substrates.

1.9 DELIVERY, STORAGE AND HANDLING

A. Deliver products to site, store, handle and protect in accordance with manufacturer’s instructions and recommendations.

B. Deliver materials in manufacturer's original unopened and undamaged containers with labels clearly identifying product name and manufacturer.

C. Store materials protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.

1.10 PROJECT CONDITIONS

A. Restrict restoration operations to times which do not interfere with building function. Coordinate with Owner.

B. Provide, erect and maintain temporary barriers and security devices necessary to protect public, staff and existing improvements to remain.

C. Maintain protected egress and access at all times.

1. Do not close or obstruct exit ways.

2. Do not close or obstruct egress width to exits.

D. Do not disable or disrupt building fire or life safety systems without minimum 3-day prior written notice to Owner.

E. Unless specifically indicated otherwise, materials removed as part of work of this section become property of Contractor.

1. Dispose of removed materials outside project site; do not dispose of removed materials to general public by sale, gift or other manner at project site.

2. Removal of debris from site including removal of inventory from site of storage shall be accomplished by Contractor's personnel and no others.

1.11 ENVIRONMENTAL REQUIREMENTS

A. Do not install sealants when ambient temperature is less than 40 degrees F.

B. Maintain this minimum temperature during and after installation of sealants.

1.12 COORDINATION

A. Coordinate work of this section with demolition specified under other sections.

PART 2 PRODUCTS

2.1 MATERIALS

A. Glazing Gaskets: Pressure-glazing silicone-compatible thermoplastic rubber gaskets of elastomer type and hardness to comply with specified requirements; profiles to match existing.

B. Spacers, Edge Blocks and Setting Blocks: Permanent non-migrating type of elastomer; types and profiles to match existing.

C. Sealant Materials:

1. Sealant: Silicone Type Exterior Sealant as specified in Section 07900.

2. Backing Materials: Backer rod as specified in Section 07900.

D. Sealing Washers: Neoprene bonded washers with aluminum or stainless steel backing; size to match screw sizes.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine skylight components to be removed. Where existing conditions conflict with representations of Contract Documents, notify Owner and obtain written clarification from Architect before proceeding.

B. Do not proceed with removal until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Protect existing materials, appurtenances, structures and facilities which are not to be removed. Repair or replace, to satisfaction of Owner and Architect, items damaged as result of renovation operations at no increase in Project Price.

B. Erect and maintain weatherproof closures for exterior openings.

3.3 REMOVAL

A. Remove existing flashing required to access aluminum retaining caps. Remove with fasteners and related sealant. Retain flashing and fasteners for reinstallation.

B. Remove existing aluminum retaining caps. Remove with fasteners and glazing gaskets. Retain aluminum retaining caps and fasteners for reinstallation.

C. Remove existing glass and glazing accessories. Retain glass for reinstallation.

D. Remove materials to be retained for reinstallation in manner to prevent damage to materials and to permit reinstallation in kind.

1. Use utmost care to ensure least possible damage to materials removed and surrounding work to remain.

2. Remove complete with fasteners and anchors.

3. Inventory, catalog and label; note components missing or damaged.

4. Store in manner to ensure against components being separated or lost and to prevent damage to components and component finishes.

3.4 REINSTALLATION

A. Clean existing glazing channels, gutters and weeps to remove accumulated dirt and debris. Remove excess sealant from glass and retaining caps.

B. Reinstall glass utilizing newly manufactured glazing accessories to match original installation. Avoid point loading glass.

C. Secure glass in place utilizing newly manufactured glazing gaskets and salvaged aluminum retaining caps to match original installation. Secure caps with salvaged fasteners; augment exposed fasteners with newly manufactured sealing washers.

D. Reinstall perimeter flashing utilizing existing fasteners. Augment exposed fasteners with newly manufactured sealing washers.

E. Install perimeter sealant in accordance with Section 07900.

F. Replace missing, broken and damaged components.

1. Replace glass broken or damaged during restoration operations with matching material.

2. Replace missing and damaged caps and fasteners with matching materials.

3. Replace missing and damaged flashing and fasteners with matching materials.

3.5 FIELD QUALITY CONTROL

A. Engage qualified independent testing agency to perform field quality control tests and to prepare test reports.

B. Testing Agency will conduct water spray test in accordance with AAMA 501.2.

C. Repair or replace skylight components that do not pass tests or that are damaged by testing. Retest repaired or replaced components.

3.6 CLEANING

A. Clean skylights inside and outside immediately after glass reinstallation and after sealants have cured. Include member connections and inside corners.

B. Remove excess sealant in accordance with sealant manufacturer’s instructions.

C. Clean framing and glass using materials and methods that will not damage finishes or glazing.

3.7 PROTECTION OF FINISHED WORK

A. Protect finished work from damage in accordance with manufacturer’s instructions. Ensure that glazing assembly will be without damage or deterioration at time of substantial completion.

B. Protect exposed portions of aluminum surfaces from damage by grinding and polishing compounds, plaster, lime, acid, cement and other contaminants.

C. Remove and replace glass that is broken, chipped, cracked, abraded or damaged during construction.

END OF SECTION

SECTION 09225

PORTLAND CEMENT PLASTER SYSTEMS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Patching existing Portland cement plaster.

B. Metal lath and accessories.

1.2 RELATED SECTIONS

A. Section 02222 - Minor Demolition for Remodeling: Removal of existing cement plaster.

B. Section 07620 - Sheet Metal Flashing and Trim: Sheet metal escutcheon trim.

C. Section 07900 - Joint Sealers: Sealant types.

D. Section 09900 - Paints and Coatings: Finish painting of cement plaster surfaces.

1.3 REFERENCES

A. ASTM C25 - Test Methods for Chemical Analysis of Limestone, Quick Lime and Hydrated Lime.

B. ASTM C144 - Aggregate for Masonry Mortar.

C. ASTM C150 - Portland Cement.

D. ASTM C207 - Hydrated Lime for Masonry Purposes.

E. ASTM C897 - Aggregate for Job-Mixed Portland Cement Plaster.

F. ASTM C932 - Surface Applied Bonding Agents for Exterior Plastering.

G. ASTM C1002 - Steel Drive Screws for the Application of Gypsum Board.

H. ASTM C1063 - Installation of Lathing and Furring for Portland Cement-Based Plaster.

I. CBC - Uniform Building Code, 2001 edition.

1.4 SUBMITTALS

A. Product Data: Provide product data on lathing components, plastering materials and plastering accessories.

B. Samples: Submit samples, minimum 12 x 12 inches in size, of specified stucco finish applied to cementitious backer units illustrating finish texture.

1.5 REGULATORY REQUIREMENTS

A. Comply with requirements of CBC Chapter 25.

1. Lath: Comply with Section 2502 and 2506.

2. Plaster: Comply with Sections 2502 and 2508.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver products to site, store, handle and protect in accordance with manufacturer's instructions and recommendations.

B. Deliver manufactured products to job site in their original unopened containers with labels intact and legible at time of use.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Do not apply plaster when prevailing outdoor temperature is below 40 degrees F. If freezing is expected, do not apply plaster beyond period of day necessary for hydration.

B. Protect plaster from uneven and excessive evaporation during dry weather.

PART 2 PRODUCTS

2.1 LATHING MATERIALS

A. Expanded Metal Lath: 3.4 lbs/sq yd; galvanized.

1. For Application Directly Over Open Framing with Supports on 16 Inch Centers or Less: Self-furring; diamond-mesh.

2. For Application Directly Over Open Framing with Supports Over 16 Inch Centers: High rib; herringbone mesh with 3/8 inch deep ribs at 4-1/2 inch centers.

B. Fasteners:

1. Screws: ASTM C1002; zinc plated steel self-drilling drywall screw; lath head; #8 x length sufficient to penetrate framing minimum 1 inch.

2. Tie Wires: Galvanized annealed wire; No. 18 W&M gauge.

2.2 ACCESSORIES

A. Strip Mesh: Expanded metal; flat diamond; weighing 3.4 pounds per square yard; galvanized; 6 inches wide.

B. Sealant: Silicone Type Sealant as specified under Section 07900.

2.3 PLASTERING MATERIALS

A. Portland Cement: ASTM C150 Type I, low alkali.

B. Lime: ASTM C207, Type S; special hydrated lime for masonry purposes; containing not more than 8 percent unhydrated oxide by weight when tested in accordance with ASTM C25.

C. Water: Taken from a domestic source; free of deleterious substances and alkali salts at time of incorporation into plaster mix.

D. Sand for Portland Cement Plaster: ASTM C897 except with following gradation:

	% Retained on Each Sieve By Weight	
Sieve Size No.	Maximum	Minimum
4	0	--
10	0	0
16	40	10
30	65	30
50	90	70
100	100	90-95
200	--	--

Sand should have not more than 50 percent retained between any 2 consecutive sieves nor more than 25 percent between No. 50 and No. 100 sieves.

E. Glass Fibers: Alkaline-resistant chopped fiberglass strands; 1/2 inch long.

F. Stucco Finish Coat: Factory-packaged stucco having Portland cement base; prepared in accordance with specifications of Stucco Manufacturer's Association; water repellant; natural gray color.

G. Admixture for Stucco Finish Coat: Formulation of acrylic polymers and modifiers in water based emulsion which improves adhesion and flexural and shear bond strength of stucco mix and aids curing by trapping free water; Thoro Systems Products "Acryl 60" or equal product substituted under provisions of Section 01625

H. Bonding Agent: ASTM C932; Larsen's "Weld-Crete," Thorosystems Products "Thoro-

bond," or equal product substituted under provisions of Section 01625.

I. Equal product substitutions: under provisions of Section 01625.

2.4 PORTLAND CEMENT PLASTER MIXES

A. Portland Cement Plaster:

1. Sand/Cement Proportions for Portland Cement Plaster Over Lath:

a. Scratch Coat:

Portland Cement: 1 part
Sand: 3-1/2 parts
Lime: Up to 10 pounds
Glass Fibers: 2 pounds

b. Brown Coat:

Portland Cement: 1 part
Sand: 3-1/2 parts
Lime: Up to 10 pounds
Glass Fibers: 2 pounds

2. Add glass fibers to mixer after mixer has been operating at least 2 minutes.

3. Mix only as much plaster as can be used in 1 hour.

4. Mix cement, sand and lime dry, to uniform color and consistency, before adding water.

5. Protect mixes from frost, dust, and evaporation.

6. Do not retemper mixes after initial set has occurred.

B. Stucco Finish Coat:

1. Admixture Solution Proportions:

Admixture: 1 part
Water: 3 parts

2. Mix finish coat admixture with premixed stucco finish coat in accordance with admixture manufacturer's instructions.

3. Use only sufficient amount of solution necessary to produce plastic stucco mix.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine installed work of other trades and verify that such work is complete to point work of this section may begin.

B. Verify that substrate is plumb, level, square and aligned.

C. Verify that existing exterior cement plaster to be removed has been removed and has been removed in manner to permit lath installed under this section to be lapped with existing lath as specified.

D. Do not begin installation until unsatisfactory conditions have been corrected.

3.2 PROTECTION

A. Protect elements surrounding work from damage and disfiguration.

B. Provide temporary protective coverings.

C. Do not permit scattering of materials and equipment; ensure neatness of site and structure at all times.

3.3 LATHING

A. Install metal plaster bases and accessories in conformance with ASTM C1063 and CBC Section 2506A.

B. Expanded Metal Lath Over Horizontal Open Framing:

1. Install expanded metal lath directly to soffit framing.

2. Install lath with long dimensions perpendicular to framing; stagger end joints.

3. Lap lath not less than 1/2 inch at sides. Secure lath at side laps with wire ties at 6 inches oc.

4. Lap lath at ends not less than 1 inch. Where possible, locate end laps over framing. Secure lath end laps not at supports with wire ties at 6 inches oc.

5. Secure lath to framing with screws or wire ties at maximum of 6 inch intervals, not more than 3 inches from edge of each sheet.

C. Accessories:

1. Apply accessories at openings as detailed.

2. Attach accessories per manufacturer's recommendations.

3. Reinforce reentrant corners and other angular openings in building wall with strip mesh.

   a. Position minimum 18 inch long mesh strip as close as possible to corner centered on point of corner and extending minimum 9 inches diagonally from point of corner.

   b. Secure strip mesh to lath with wire ties.

4. Apply accessories firmly in true alignment and in single length whenever possible.

3.4 PORTLAND CEMENT PLASTER OVER LATH

A. Scratch Coat:

1. Where scratch coat butts existing cement plaster, apply bonding agent to edge of existing plaster and allow to become tacky before applying scratch coat.

2. Apply scratch coat to approximate thickness of 1/2 inch. Cover metal reinforcement.

3. After application, lightly score scratch coat to receive brown coat horizontally only.

4. If brown coat cannot be applied within 4 or 5 hours, keep scratch coat moist for 48 hours.

B. Brown Coat:

1. Where brown coat butts existing cement plaster, apply bonding agent to edge of existing plaster and allow to become tacky before applying brown coat.

2. Moisten scratch coat at time of applying brown coat.

3. Apply brown coat to thickness required to produce minimum 3/4 inch combined thickness of scratch and brown coat. At high rib lath, apply brown coat to thickness required to produce minimum 7/8 inch combined thickness.

4. Rod brown coat straight and true in every direction. Provide uniform float finish to assure good bond of finish coat.

5. Break joining of scratch coat and brown coat at different locations to avoid scaffold "cold" joints. Apply entire panels of plaster without visual jointings.

6. Keep brown coat moist for at least 48 hours. Extend moist curing in hot and windy weather. Allow brown coat to hydrate an additional eight days prior to application of finish coat.

3.5 STUCCO FINISH

A. Apply bonding agent to edge of existing stucco at patches in existing surfaces to receive stucco finish. Allow bonding agent to become tacky before applying stucco finish coat.

B. Dampen cement plaster brown coat evenly before applying finish coat.

C. Apply entire panels of finish coat without joints with necessary joints occurring at natural breaking points and control joints.

D. Apply tight trowel coat to approximately 1/8 inch thickness.

E. Texture: Hand applied to match existing.

3.6 TOLERANCES

A. Finish Surfaces: True and even within 1/8 inch tolerance in 5 feet; to proper form and shape; properly meeting adjacent surfaces and materials.

3.7 ADJUSTING

A. Point-up plaster surfaces around items that penetrate plaster surfaces.

B. Repair or replace work to eliminate blisters, buckles, check cracking, dryouts, efflorescence, excessive pinholes and similar defects.

C. Repair or replace to Architect’s and Owner's satisfaction surfaces damaged by work of this section.

D. Seal annular spaces around items that penetrate plaster surfaces. Install sealant and backing materials in accordance with Section 07900.

3.8 CLEANING

A. Remove protective material on control joints, screeds and other accessories.

B. Remove waste and surplus materials, rubbish and equipment from facilities and from site.

C. Limit cleaning of tools and equipment to area designated for that purpose.

D. Schedule post cleanup inspection with subcontractor, installer and Architect.

1. Conduct walk-over inspection of site.

2. Record and correct deficiencies in cleanup as directed by Architect.

3. Notify Owner upon completion of corrective work. Architect will reinspect site to verify that deficiencies have been corrected.

3.9 PROTECTION OF INSTALLED WORK

A. Provide means necessary to protect lath and plaster after installation.

END OF SECTION

SECTION 09250

GYPSUM BOARD

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Patching existing gypsum board.

B. Trim and accessories.

C. Taped and sanded joint treatment.

1.2 RELATED SECTIONS

A. Section 02222 - Minor Demolition for Remodeling: Removal of existing gypsum board.

B. Section 07540 - Thermoplastic Membrane Roofing: Gypsum roof board.

C. Section 07900 - Joint Sealers: Sealant types.

D. Section 09900 - Paints and Coatings: Gypsum board pretreatment for GA 214 Level 5 finish; finish painting.

1.3 REFERENCES

A. ASTM C36 - Specification for Gypsum Wallboard.

B. ASTM C1002 - Specification for Steel Drill Screws for the Application of Gypsum Board.

C. CBC - California Building Code, 2001 edition.

D. GA 214 - Recommended Specifications for Levels of Gypsum Board Finish.

E. GA 216 - Recommended Specifications for the Application and Finishing of Gypsum Board.

1.4 SUBMITTALS

A. Product Data: Provide product data on gypsum board, gypsum board trim, control joints and fasteners, joint tape and compound.

1.5 QUALITY ASSURANCE

A. Perform gypsum board systems work in accordance with recommendations of GA 214 and GA 216 unless otherwise specified in this section.

B. Keep copy of GA 214 and GA 216 in field office for duration of project.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturer of gypsum board with minimum 10 years documented experience.

B. Applicator: Company specializing in application of commercial gypsum board systems work with minimum 5 years documented experience.

1.7 REGULATORY REQUIREMENTS

A. Fire Rated Partitions and Ceilings:

1. Walls and Partitions: Comply with CBC Section 709.

2. Floor/Ceiling and Roof/Ceiling Assemblies: Comply with CBC Section 710.

1.8 DELIVERY, STORAGE AND HANDLING

A. Deliver products to site, store, handle and protect in accordance with manufacturer's instruction and recommendations.

B. Deliver materials to site in original unopened containers or bundles clearly marked with manufacturer’s name, brand name, size, grade, testing agency listing if applicable and other pertinent data.

C. Store materials in original packaging with seal unbroken and labels intact until time of use.

D. Protect materials from damage, dirt and moisture.

E. Stack gypsum board neatly, flat, with care to avoid damage to edges, ends and surfaces.

1.9 ENVIRONMENTAL REQUIREMENTS

A. Maintain room temperature at not less than 40 degrees F during application of gypsum board except when adhesive is used for attachment of gypsum board.

B. For bonding of adhesive and joint treatment, maintain room temperature at not less than 50 degrees for 48 hours prior to application and continuously thereafter until adhesive and joint treatment are completely dry.

C. When temporary heat source is used, ensure temperature does not exceed 95 degrees F during application of gypsum board and joint finishing.

D. Provide adequate ventilation to eliminate excessive moisture minimum 24 hours be-

fore, during and after gypsum board application and joint finishing.

1. Under slow drying conditions, allow additional drying time between coats of joint treatment.

2. During hot, dry weather, protect installed materials from drafts.

1.10 COORDINATION

A. Coordinate installation of gypsum board with installation of storm drainage piping work specified under Section 15160.

B. Coordinate installation of gypsum board with application of gypsum board pretreatment specified under Section 09900. Ensure joint treatment specified under this section combined with gypsum board pretreatment results in GA 214 Level 5 finish on painted gypsum board surfaces.

PART 2 PRODUCTS

2.1 GYPSUM BOARD

A. Provide gypsum board materials in accordance with recommendations of GA 216.

B. Fire Rated Gypsum Board: ASTM C36; UL rated with Type X fire resistant core; 5/8 inch thick; maximum permissible length; ends square cut; tapered edges.

2.2 ACCESSORIES

A. Provide gypsum board accessories in accordance with GA 216.

B. Metal Trim: All-metal; flanges perforated for face attachment.

1. Corner Beads: Galvanized sheet steel; 1-1/4 perforated flanges; 1/8 inch nose; United States Gypsum's Dur-A-Bead Corner Bead #103, Western's Drywall Corner Bead, or Gold Bond's Wallboard Corner Bead or equal product substituted under provisions of section 01625.

2. Edge Trim: Galvanized sheet steel; minimum 7/8 inch perforated flanges; 1/8 inch bead.

a. Locations with Exposed Gypsum Board Edges: "LC" bead; United States Gypsum's #200-A, Western's #108 U-Metal, or Gold Bond's #100 Wallboard Casing or equal product substituted under provisions of section 01625.

b. Other Locations: "L" bead; United States Gypsum's #200-B, Western's "L" Metal #202, or Gold Bond's #200 Wallboard Casing or equal product substituted under provisions of section 01625.

3. Control Joints: Roll formed zinc; 3/32 inch grounds; 1/4 inch wide x 7/16 inch deep "V" reveal; removable strip protection; United States Gypsum's Control Joint #093 or equal product substituted under provisions of section 01625.

4. Equal product substitutions: Under provisions of Section 01625.

C. Fasteners: GA 201; ASTM C1002.

1. To Metal: Type S bugle head drywall screws; 1-1/4 inch or length sufficient to penetrate through framing minimum 1/4 inch, whichever is greater.

2. To Gypsum Backing Board or Base Ply: Type G; 1-1/2 inches long.

D. Laminating Adhesive: GA 216; setting type powder gypsum board joint compound; rapid chemical hardening; low shrinkage; high bond strength; recommended by manufacturer for laminating multiple layer fire-rated assemblies.

E. Reinforcing Tape: GA 216; cross-fibered paper tape.

F. Joint Compound: GA 216; ready-mixed type or powder type of field mixing.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that site conditions are ready to receive work and opening dimensions are as instructed by manufacturer.

B. Verify that mechanical, plumbing, electrical and other items to be enclosed in walls and partitions are installed, inspected and approved.

C. Do not begin installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install gypsum board to match existing adjacent installation in accordance with recommendations of GA 216.

B. Use screws when fastening gypsum board to furring and framing. Use screws in combination with laminating adhesive at double layer applications.

C. In rated assemblies, space fasteners in accordance with listed designs. In non-rated partitions, space fasteners in accordance with CBC Table 25A-G.

D. Make cut-outs in gypsum board regular; do not fracture core or tear covering of gypsum board. Minimize penetrations. Penetrate only where necessary.

E. Replace corner beads at external corners. Replace edge trim where gypsum board

terminates and abuts dissimilar materials.

1. Use longest practical lengths.

2. Secure to framing with screws through face of flanges.

F. Replace control joints consistent with lines of building spaces. Space control joints to match original installation.

3.3 GYPSUM BOARD JOINT TREATMENT

A. Tape, fill and sand joints, fastener heads, edges and corners to GA 214 Level 4.

1. Embed tape in joint compound at joints and interior angles.

2. Apply 3 separate coats of joint compound over joints, angles, fastener heads, and accessories.

3. Finish joint compound smooth and free of tool marks and ridges.

4. Coordination of pretreatment emulsion specified under Section 09900; ensure that application of emulsion in combination with Level 4 joint treatment provides Level 5 finish.

B. Feather each successive coat beyond edge of previous coat so that maximum camber is 1/32 inch.

1. At tapered edges of gypsum board, feather each successive coat 2 inches beyond edge of previous coat.

2. On square edges of gypsum board, feather each successive coat 4 inches beyond edge of previous coat.

3. At fastener heads, feather each successive coat 2 inches beyond edge of previous coat.

4. At corner beads and edge trim, feather each successive coat 2 inches beyond edge of previous coat.

C. Allow joint compound to thoroughly dry between coats.

D. Sand joint compound between coats. Lightly sand last coat to eliminate laps and to smooth surface while taking care not to roughen face paper of gypsum board.

E. Backfill cutouts with joint compound so that annular space does not exceed 1/8 inch.

3.4 TOLERANCES

A. Maximum Variation from True Flatness: 1/8 inch in 10 feet in any direction.

3.5 ADJUSTING

A. Repair evidence of popping or ridging fasteners.

END OF SECTION

SECTION 09900

PAINTS AND COATINGS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Field application of paints and coatings to newly installed surfaces and reinstalled surfaces.

1.2 RELATED SECTIONS

A. Section 07620 - Sheet Metal Flashing and Trim: Back painting metal surfaces with protective backing paint.

1.3 REFERENCES

A. ASTM D16 - Definitions of Terms Relating to Paint, Varnish, Lacquer, and Related Products.

B. ASTM D2016 - Test Method for Moisture Content of Wood.

C. CBC - California Building Code, 2001 edition.

1.4 DEFINITIONS

A. Conform to ASTM D16 for interpretation of terms used in this section.

1.5 SUBMITTALS

A. Product Data: Submit complete list of materials in form of paint systems scheduled listing specific product intended for each coat. In addition, submit manufacturer's data for each product to be used identified by manufacturer's name and product label or stock number.

B. Samples: Submit samples, minimum 8-1/2 x 11 inches in size, illustrating finishes and colors to be used. Identify each sample with color name, color number, finish name, and formula.

C. Manufacturer's Application Instructions: Indicate preparation and application requirements and procedures.

1.6 QUALITY ASSURANCE

A. Source Limitation: Provide paint products from single manufacturer.

1.7 QUALIFICATIONS

A. Product Manufacturer: Company specializing in manufacturing quality paint and finish products with minimum 5 years documented experience.

B. Applicator: Company specializing in commercial painting and finishing with minimum 5 years documented experience and approved by product manufacturer.

1.8 REGULATORY REQUIREMENTS

A. Conform to regulations of Bay Area Air Quality Management District and California Air Resources Board regarding use of architectural coatings (paint).

1.9 FIELD SAMPLES

A. Provide field-test panels testing adhesion of specified primers to existing surfaces. Provide 1 sample, minimum 24 x 24 inches in size for each type of existing surface to be painted or finished.

1. Apply primer to prepared substrate and allow to dry in accordance with manufacturer’s application instructions.

2. Cut “X” minimum 12 x 12 inches through primer; cover with 2 inch wide thoroughly adhered masking tape.

3. After minimum 48 hours, remove tape. If primer remains totally adhered, proceed with specified system. If primer fails, notify Owner.

B. Provide field-test panels testing color match of final reviewed samples to existing painted surfaces. Provide 1 sample, minimum 24 x 24 inches in size, for each paint color.

1. Apply complete paint system including primer to prepared substrates and allow to dry in accordance with specifications and manufacturer's instructions.

2. Modify color formulas and reapply final finish coat as necessary to achieve match acceptable to Architect.

C. Locate test panels where directed.

D. Totally adhered primers may remain as part of work.

1.10 DELIVERY, STORAGE AND HANDLING

A. Deliver products to site, store, handle and protect in accordance with manufacturer's instructions and recommendations.

B. Deliver products to site in sealed and labeled containers; inspect to verify acceptance.

C. Container labeling to include manufacturer's name, type of paint, brand name, brand

code, coverage, surface preparation, drying time, cleanup, color designation, and instructions for mixing and reducing.

D. Store paint materials at minimum ambient temperature of 45 degrees F and maximum of 90 degrees F in well ventilated area, unless required otherwise by manufacturer's instructions.

E. Take precautionary measures to prevent fire hazards and spontaneous combustion.

1.11 ENVIRONMENTAL REQUIREMENTS

A. Provide continuous ventilation and heating facilities to maintain surface and ambient temperatures above 45 degrees F for 24 hours before, during, and 48 hours after application of finishes, unless required otherwise by manufacturer's instructions.

B. Do not apply exterior coatings during rain or snow, or when relative humidity is above 50 percent, unless required otherwise by manufacturer's instructions.

C. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.

D. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

1.12 EXTRA MATERIALS

A. Deliver 1 gallon container of each color and surface finish to Owner.

B. Label each container with color, finish, and room locations, in addition to manufacturer's label.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Paints:

1. The Sherwin Williams Company.

2. Manufacturers Offering Acceptable Equivalent Products:

a. Dunn-Edwards Corporation.

b. Frazee Corporation.

c. ICI Dulux Paints.

3. Equal product substitutions: Under provisions of Section 01625.

B. Gypsum Board Pretreatment:

1. United States Gypsum Company: Sheetrock Primer-Surfacer.

2. Other Manufacturers Offering Acceptable Equivalent Products:

   a. Hamilton Industries, Inc.

   b. The Sherwin Williams Company.

3. Substitutions: Equal products compatible with paint and substrate and acceptable to paint manufacturer may be substituted under provisions of Section 01625

2.2 MATERIALS

A. Paints:

1. Ready mixed.

2. Process pigments to soft paste consistency, capable of being readily and uniformly dispersed to homogeneous coating.

3. Good flow and brushing properties; capable of drying or curing free of streaks or sags.

B. Gypsum Board Pretreatment: Flat latex basecoat paint formulated to equalize differences in porosity and texture variations of gypsum board face paper and joint compound to provide level 5 finish per GA 214 when applied over Level 4 finish.

C. Accessory Materials: Linseed oil, turpentine, paint thinners, shellacs and other materials not specifically indicated but required to achieve finishes specified, of commercial quality.

2.3 FINISHES

A. Refer to schedule at end of section for surface finish schedule.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.

B. Verify that surfaces are ready to receive work as instructed by product manufacturer.

C. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below following maximums:
   1. Gypsum Wallboard: 12 percent.

2. Cement Plaster: 12 percent.

D. Do not begin installation until unsatisfactory conditions have been corrected. Application of prime coat will be considered acceptance of receiving surface.

3.2 PREPARATION OF NEWLY INSTALLED SURFACES FOR PAINTING

A. Prepare newly installed surfaces in accordance with paint manufacturer's instructions and recommendations.

B. Correct minor defects and clean surfaces which affect work of this section.

C. Seal marks which may bleed through surface finishes.

D. Impervious Surfaces: Remove mildew by scrubbing with solution of trisodium phosphate and bleach. Rinse with clean water and allow surface to dry.

E. Cement Plaster (Stucco) Surfaces: Fill hairline cracks, small holes and imperfections with latex patching plaster. Match texture of, and make flush with, adjacent surfaces. Wash and neutralize high alkali surfaces.

F. Gypsum Board Surfaces: Latex fill minor defects; texture or sand to match adjacent surface. Sweep surface clean with broom and wipe with damp rag; remove excess powder from sanding. Apply gypsum board pretreatment in accordance with manufacturer's instructions and recommendations to gypsum board surfaces scheduled to receive coating system. Ensure gypsum board is finished to Level 5 per GA 214 with surface that is smooth, even and true to plane.

G. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Etch, rinse and allow to dry.

H. Uncoated Steel and Iron Surfaces: Remove grease, scale, dirt, and rust. Where heavy coatings of scale are evident, remove by wire brushing or with solvent. Apply treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Spot prime paint after repairs.

I. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Prime metal items including shop primed items.

J. Prefinished Steel Surfaces: Remove oil, grease, dirt and other contaminants. Etch, rinse and allow to dry.

3.3 PREPARATION OF EXISTING SURFACES FOR REPAINTING

A. Prepare existing surfaces in accordance with paint manufacturer's instructions and recommendations.
B. Refer to Article 3.2 for preparation of unpainted and uncoated existing surfaces.

C. Correct minor defects and clean surfaces which affect work of this section.

D. Seal marks which may bleed through surface finishes.

E. Lead based paint materials may be present on site; inform employees and subcontractors of potential presence of these materials.

1. Do not scrape, sand or otherwise treat painted surfaces in manner that could produce paint chips, paint debris and airborne lead dust.

2. If pressure washers are used for surface preparation, use low pressure washers operated with less than 500 psi pressure in manner that does not generate loose paint chips and debris.

F. Metals, Painted: Solvent wash to remove surface contamination and oils. Shop prime bare metal. Chemically treat glossy surfaces; do not sand or scrape.

3.4 PROTECTION

A. Protect elements surrounding work of this section from damage or disfiguration.

B. Repair damage to other surfaces caused by work of this section.

C. Furnish drop cloths, shields, and protective methods to prevent spray or droppings from disfiguring other surfaces.

D. Remove empty paint containers from site.

3.5 APPLICATION

A. Apply products in accordance with manufacturer's instructions.

B. Apply material evenly, free from sags, runs, crawls, holidays, brush marks, lap marks, defects and blemishes. Cut sharply to lines.

C. Do not apply finishes to surfaces that are not dry.

D. Apply each coat to uniform finish with dry mil thickness recommended by manufacturer.

E. Apply each coat of paint slightly darker than preceding coat unless otherwise approved.

F. Sand lightly between coats to achieve required finish.

G. Allow applied coat to dry before next coat is applied.

H. Paint every exposed interior and exterior newly installed and reinstalled surface, except as specified or noted otherwise, whether or not paint is scheduled and colors are designated.

1. Do not paint plated or prefinished surfaces unless painting is specified, scheduled, or noted.

2. Paint hot dipped galvanized and electrolytic zinc coated surfaces. Include metal copings and counterflashings exposed to weather and vent metal flashings and risers on roof.

3. Paint factory primed surfaces.

4. Paint piping exposed to weather.

5. Do not paint existing surfaces other than salvaged sheet metal copings.

6. Do not paint roofing other than 6 inch wide warning stripe.

3.6 CLEANING

A. As work proceeds, promptly remove paint where spilled, splashed, spattered or oversprayed.

B. Repair surfaces damaged by spilled, splashed, spattered or oversprayed paint. Replace surfaces which cannot be repaired to satisfaction of Owner and Architect.

C. During progress of work maintain premises free of unnecessary accumulation of tools, equipment, surplus materials, and debris.

D. Collect cotton waste, cloths, and material which may constitute fire hazard, place in closed metal containers and remove daily from site.

3.7 PAINTING AND FINISHING SCHEDULE - EXTERIOR NEWLY INSTALLED SURFACES

A. Cement Plaster: Flat Acrylic Latex; Acrylic Primer

1st coat	A24W300 Loxon Primer
2nd coat	A6 Series A-100 Exterior Latex Flat
3rd coat	A6 Series A-100 Exterior Latex Flat

B. Uncoated Ferrous Metals: Semi-Gloss Acrylic Enamel; Acrylic Primer

1st coat	B66W310 Pro-Cryl Universal WB Primer
2nd coat	B42-100 Metalatex Semi-Gloss Coating
3rd coat	B42-100 Metalatex Semi-Gloss Coating

D. Shop Primed Ferrous Metals: Semi-Gloss Acrylic Enamel; Acrylic Primer

Touch-up	B66W310 Pro-Cryl Universal WB Primer
1st coat	B66W310 Pro-Cryl Universal WB Primer

2nd coat	B42-100 Metalatex Semi-Gloss Coating
3rd coat	B42-100 Metalatex Semi-Gloss Coating

E. Galvanized Metals: Semi-Gloss Acrylic Enamel; Acrylic Primer

Pretreatment	Acid etch
Rinse	Clear water
1st coat	B71Y1 DTM Wash Primer
2nd coat	B42-100 Metalatex Semi-Gloss Coating
3rd coat	B42-100 Metalatex Semi-Gloss Coating

F. Shop Primed Galvanized Metals: Semi-Gloss Acrylic Enamel; Acrylic Primer

Touch-up	B66W1 DTM Acrylic Primer
1st coat	B66W1 DTM Acrylic Primer
2nd coat	B42-100 Metalatex Semi-Gloss Coating
3rd coat	B42-100 Metalatex Semi-Gloss Coating

G. Phosphate Treated Galvanized Metals: Semi-Gloss Acrylic Enamel; Acrylic Primer

1st coat	B71Y1 DTM Wash Primer
2nd coat	B42-100 Metalatex Semi-Gloss Coating
3rd coat	B42-100 Metalatex Semi-Gloss Coating

H. Prefinished Metal: Semi-Gloss Acrylic Enamel: Acrylic Primer

Pretreatment	Detergent Wash
Rinse	Clear Water
1st coat	B66A50 DTM Bonding Primer
2nd coat	B71W200 Bond-Plex WB Coating
3rd coat	B71W200 Bond-Plex WB Coating

I. Polyvinyl Chloride: Semi-Gloss Acrylic Enamel; Acrylic Primer

1st coat	B66W1 DTM Acrylic Primer
2nd coat	B42-100 Metalatex Semi-Gloss Coating
3rd coat	B42-100 Metalatex Semi-Gloss Coating

3.8 PAINTING AND FINISHING SCHEDULE - INTERIOR NEWLY INSTALLED SURFACES

A. Gypsum Board:

1. Eggshell Sheen: Eggshell Latex Enamel; Acrylic Primer

Pretreatment	Sheetrock Primer-Surfacer
1st coat	B28W200 PrepRite Latex Primer
2nd coat	B20W251 ProMar 200 Eg-Shel Enamel
3rd coat	B20W251 ProMar 200 Eg-Shel Enamel

2. Semi-Gloss Sheen: Semi-Gloss Latex Enamel; Acrylic Primer

Pretreatment	Sheetrock Primer-Surfacer
1st coat	B28W200 PrepRite Latex Primer
2nd coat	B30W251 ProMar 200 Semi-Gloss Enamel
3rd coat	B30W251 ProMar 200 Semi-Gloss Enamel

3.9 PAINTING AND FINISH SCHEDULE – EXTERIOR EXISTING SURFACES

A. Painted Metals: Semi-Gloss Acrylic Enamel; Acrylic Primer

Touch-up	B66W1 DTM Acrylic Primer
1st coat	B66W1 DTM Acrylic Primer
2nd coat	B42-100 Metalatex Semi-Gloss Coating
3rd coat	B42-100 Metalatex Semi-Gloss Coating

3.10 SCHEDULE OF SHEENS AND COLORS

A. Sheens:

1. Gypsum Board: To match sheen of existing adjacent paint.

2. Other Materials: As scheduled in “Painting and Finish Schedules” above except where indicated otherwise on Drawings.

B. Colors: To match colors for like materials in like locations on existing buildings

END OF SECTION

SECTION 15160

STORM DRAINAGE PIPING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Rain water leaders with fittings, hangers and supports.

B. Roof drains.

1.2 RELATED SECTIONS

A. Section 02222 - Minor Demolition for Remodeling: Removal of designated existing roof drains and rain water leaders.

B. Section 07540 - Thermoplastic Membrane Roofing: Installation of roofing membrane into roof drains.

C. Section 07620 - Sheet Metal Flashing and Trim: Sheet metal escutcheon trim at termination of overflow drain piping.

1.3 REFERENCES

A. ASME B31.9 - Building Services Piping.

B. ASTM F708 - Standard Practice for Design and Installation of Rigid Pipe Hangers.

C. CISPI 301 - Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications.

D. MSS SP 89 - Pipe Hangers and Supports - Fabrication and Installation Practices.

1.4 SUBMITTALS

A. Shop Drawings: Indicate pipe materials used, jointing methods and supports.

B. Product Data: Submit manufacturer’s data for piping and pipe supports.

1.5 QUALIFICATIONS

A. Manufacturers: Companies specializing in manufacture of fire protection piping and supports with minimum 5 years documented experience.

B. Installer: Company specializing in installation of fire protection piping with minimum 5 years documented experience.

1.6 PREINSTALLATION CONFERENCE

A. Convene preinstallation conference minimum 1 week prior to commencing work of this section.

B. Attendance: Contractor, storm drainage piping installer, roofing applicator and Architect.

C. Agenda: Review construction schedule, installation procedures and coordination required with work of other trades. Conduct inspection of substrate conditions.

1.7 DELIVERY, STORAGE AND HANDLING

A. Deliver products to site, store, handle and protect in accordance with manufacturer's instructions and recommendations.

B. Protect piping systems from entry of foreign materials by temporary covers.

1.8 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

PART 2 PRODUCTS

2.1 MATERIALS

A. Piping: CISPI 301; cast iron pipe; hubless; service weight; diameter to match existing pipe diameter.

1. Fittings: CISPI 301; cast iron.

2. Joints: Neoprene gaskets with stainless steel clamp-and-shield assemblies.

B. Pipe Supports:

1. Pipe Hangers: Adjustable clevis assembly consisting of strap and T-bolt with nut; electrogalvanized carbon steel; sized to accommodate specified pipe diameter; Unistrut Corporation "J" Conduit and Pipe Hanger, equivalent product of Tolco or equal product substituted under provisions of Section 01625.

2. Beam Clamps:

a. Transverse Brace to Beam Connection: Assembly consisting of formed steel clamp housing and "J" bolt with nut; bolt sized to accommodate beam flange; assembly configured for securing to threaded rod with 2 nuts; electrogalvanized carbon steel; Unistrut Corporation P2824 Pipe Clamp, equivalent product of Tolco or equal product substituted under provisions of Section 01625.

b. Hanger to Beam Connection: Assembly consisting of “Z” shaped plate with 1/2 inch -13 x 1-1/2 inch set screw; sized and configured for securing to 1-5/8 inch wide framing channel with cap screw and channel nut; electrogalvanized carbon steel; Unistrut Corporation P1379S Pipe Clamp, equivalent product of Tolco or equal product substituted under provisions of Section 01625.

3. Framing Channels: 12 gauge plain steel with hot-dipped galvanized finish; 1-5/8 inches wide x 1-5/8 inches high; 9/16 inch diameter holes at 1-7/8 inch centers along web; Unistrut Corporation P1000HS Channel, equivalent product of Tolco or equal product substituted under provisions of Section 01625.

4. Hanger Rods: 1/2 inch diameter steel threaded rod; 13 threads per inch; electrogalvanized finish; Unistrut Corporation HTHR050 Steel Threaded Rod, equivalent product of Tolco or equal product substituted under provisions of Section 01625.

5. Bracing: Prime painted structural steel angles of sizes indicated on Drawings or framing channels as specified above.

a. Fixed Angle Connection: Formed steel plate bent at 135 degrees with single 9/16 inch diameter hole in each flange; sized for 1-5/8 inch wide framing channel; electrogalvanized finish; Unistrut Corporation P1546 Angular Fitting, equivalent product of Tolco or equal product substituted under provisions of Section 01625.

b. Adjustable Hinged Connection: 2-1/8 inch leaves each with single 9/16 inch diameter hole; sized for 1-5/8 inch wide framing channel; electrogalvanized finish; Unistrut Corporation P1843 Adjustable Hinged Connection, equivalent product of Tolco or equal product substituted under provisions of Section 01625.

6. Fasteners:

a. Nuts: Hexagonal; diameter and thread to match threaded rod; electrogalvanized steel; Unistrut Corporation HHXN050EG Hexagon Nuts, equivalent product of Tolco or equal product substituted under provisions of Section 01625.

b. Cap Screws: Hex head machine screws; 1/2 x 1-3/16 inch size; electrogalvanized steel; Unistrut Corporation HHCS050119EG Hex Head Cap Screws, equivalent product of Tolco or equal product substituted under provisions of Section 01625.

c. Channel Nuts: Configured for used with framing channel; diameter and thread to match cap screws; grooves spaced for 1-5/8 inch wide framing channel; spring sized for 1-5/8 inch deep furring channel; Unistrut Corporation P1010 Channel Nuts with Springs, equivalent product of Tolco or equal product substituted under provisions of Section 01625.

C. Roof Drains:

1. Primary Roof Drains: Cast iron body with adjustable extension sleeve; reversible collar; combined flashing clamp/gravel stop; polyethylene dome; no-hub connection for 3 inch diameter pipe; 1-12 inch extension; L-shaped underdeck clamp; sump receiver; Jay R. Smith Mfg. Co. #1015Y03-E015-CL-R; equivalent product of Zurn or equal product substituted under provisions of Section 01625.

2. Overflow Roof Drains: Cast iron body; combined flashing clamp/gravel stop; polyethylene dome; cast iron water dam; no-hub connection for 3 inch diameter pipe; 1-12 inch extension; L-shaped underdeck clamp; sump receiver; Jay R. Smith Mfg. Co. #1080Y03-E015-CL-R; equivalent product of Zurn or equal product substituted under provisions of Section 01625.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine conditions under which storm drainage piping and roof drains are to be installed.

1. Where existing conditions conflict with representations of Contract Documents, notify Owner and obtain written clarification from Architect before proceeding.

2. Verify that existing roof drains, overflow drains and rain water leaders designated to be removed have been removed.

3. Verify that specified components are compatible with and can be connected to existing components.

B. Do not proceed with removal until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install pipe hangers and supports in accordance with ASME B31.9, ASTM F708 and MSS SP 89.

1. Support horizontal piping as indicated and scheduled on Drawings.

2. Install hangers to provide minimum 1/2 inch space between finished covering and adjacent work.

3. Place hangers within 12 inches of each joint and each horizontal elbow.

B. Install piping to provide minimum 1/8 inch/foot slope from roof drain to existing point of connection.

1. Prior to assembly, ream pipe ends; remove burrs. Remove scale and foreign

material from inside and outside of pipe. Keep open ends free from scale and dirt; protect with temporary plugs or caps.

2. Route piping in orderly manner and maintain gradient. Maintain headroom.

3. Install piping to allow for expansion and contraction without stressing pipe and joints.

C. Install roof drains in accordance with manufacturer's instructions; coordinate with installation of membrane roofing.

1. Cut hole in deck to receive drain. Set sump receiver plate over hole.

2. Screw studs into bosses under flange or drain body; drop drain boy into recess of sump receiver.

3. Attach under deck clamp to underside of deck.

4. Position reversible collar to accommodate insulation thickness; bolt lower collar to drain body incorporating gasket.

5. Insert O-ring in groove at inside diameter of lower collar; thread adjustable extension into lower collar until extension flange is flush or slightly higher than insulation.

6. Coordinate installation of roof membrane; ensure membrane is run onto extension flange to inside diameter of drain body. Clamp membrane in place with flashing clamp/grave guard.

7. Install domes; lock in place.

3.3 FIELD QUALITY CONTROL

A. Test storm drainage piping system in accordance with applicable code.

END OF SECTION

SECTION 15300

FIRE PROTECTION PIPING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Removal and reconfiguration of designated existing fire sprinkler piping.

B. Pipe, fittings and connections for reconfigured fire sprinkler piping.

1.2 RELATED SECTIONS

A. Section 02222 - Minor Demolition for Remodeling: Removal of building components other than specified in this section.

B. Section 06100 - Rough Carpentry: Roofed-in sleepers under reconfigured fire sprinkler piping.

C. Section 07540 - Thermoplastic Membrane Roofing: Roofing membrane under reconfigured fire sprinkler piping; membrane flashing at roofed-in sleepers under reconfigured fire sprinkler piping.

D. Section 07620 - Sheet Metal Flashing and Trim: Sleeper cap flashing under reconfigured fire sprinkler piping.

1.3 REFERENCES

A. AWWA C110 - American National Standard for Ductile-Iron and Grey-Iron Fittings, 3 in. through 48 in. (75 mm through 1200 mm), for Water and Other Liquids.

B. AWWA C111 - American National Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.

C. AWWA C151 - American National Standard for Ductile-Iron Pipe, Centrifugally Cast, for Water.

D. NFPA 13 - Installation of Sprinkler Systems.

1.4 SYSTEM DESCRIPTION

A. Removal and Reconfiguration of Existing Fire Sprinkler Piping: Removal of designated existing fire sprinkler piping installed immediately above roof and installation of newly manufactured pipe and components to raise piping sufficiently above roof surface to permit reroofing with membrane flashing of sufficient height to satisfy roofing manufacturer’s warranty requirements.

1.5 SUBMITTALS

A. Shop Drawings: Indicate pipe materials used, jointing methods and supports.

B. Product Data: Submit manufacturer's data for piping and pipe supports.

1.6 QUALITY ASSURANCE

A. Perform work in accordance with NFPA standards.

1.7 QUALIFICATIONS

A. Manufacturers: Companies specializing in manufacture of fire protection piping and supports with minimum 5 years documented experience.

B. Installer: Company specializing in installation of fire protection piping with minimum 5 years documented experience.

1.8 PREINSTALLATION CONFERENCE

A. Convene preinstallation conference minimum 1 week prior to commencing work of this section.

B. Attendance: Contractor, fire protection piping installer, roofing applicator and Architect.

C. Agenda: Review construction schedule, demolition and installation procedures and coordination required with work of other trades. Conduct inspection of existing installation.

1.9 DELIVERY, STORAGE AND HANDLING

A. Deliver products to site, store, handle and protect in accordance with manufacturer's instructions and recommendations.

B. Furnish temporary end caps and closures on piping and fittings. Maintain in place until installation.

1.10 PROJECT CONDITIONS

A. Restrict demolition operations to times which do not interfere with building function. Coordinate with Owner.

B. Provide, erect and maintain temporary barriers and security devices necessary to protect public, staff and existing improvements to remain.

C. Maintain protected egress and access at all times.

1. Do not close or obstruct exit ways.

2. Do not close or obstruct egress width to exits.

D. Do not disable or disrupt building fire or life safety systems without minimum 3-day prior written notice to Owner.

E. Minimize disruption of building fire and life safety systems. Reconnect fire sprinkler piping by end of day on which it was disconnected or provide constant continuous fire watch until system is reconnected and operational.

F. Unless specifically indicated otherwise, materials removed as part of work of this section become property of Contractor.

1. Dispose of removed materials outside project site; do not dispose of removed materials to general public by sale, gift or other manner at project site.

2. Removal of debris from site including removal of inventory from site of storage shall be accomplished by Contractor's personnel and no others.

1.11 COORDINATION

A. Coordinate work of this section with demolition specified under other sections. Ensure existing fire sprinkler line is removed prior to removal of existing roofing specified under Section 02222 - Minor Demolition for Remodeling.

B. Coordinate reconfiguration of fire protection piping with roofing warranty requirements. Ensure reconfigure line is elevated sufficiently to permit proper installation of membrane flashing at roofed-in sleeper supports specified under Section 07540 - Thermoplastic Membrane Roofing.

C. Coordinate installation of pipe supports with installation of roofed-in sleepers specified under Section 06100 - Rough Carpentry and sheet metal cap flashing specified under Section 07620 - Sheet metal Flashing and Trim.

PART 2 PRODUCTS

2.1 MATERIALS

A. Piping: AWWA C151; cast iron pipe; diameter to match existing pipe diameter.

1. Fittings: AWWA C110; standard thickness.

2. Joints: AWWA C111; rubber gasket.

3. Mechanical Grooved Couplings: Malleable iron housing clamps to engage and lock; "C" shaped composition sealing gasket; steel bolts, nuts, and washers.

B. Pipe Supports: Conforming to NFPA 13.

1. Pipe Clamps: Assembly consisting of cushion, clamp and hardware; sized to accommodate specified pipe diameter; Unistrut Corporation Cush-A-Clamp ® Assembly, equivalent product of Haydon Corporation or equal product substituted under provisions of Section 01625.

    a. Cushion: Thermoplastic elastomer.

    b. Clamp: Stainless steel; 2-piece strap assembly with controlled squeeze shoulder bolt; notched each edge to twist and lock into 1-5/8 inch wide framing channel.

2. Framing Channels: 12 gauge plain steel with hot-dipped galvanized finish; 1-5/8 inches wide x 1-5/8 inches high; 9/16 inch diameter holes at 1-7/8 inch centers along web; Unistrut Corporation P1000HS Channel, equivalent product of Haydon Corporation or equal product substituted under provisions of Section 01625.

3. Fasteners: Stainless steel or hot-dipped galvanized lag screws; hex head; 1/2 inch diameter x length sufficient to penetrate roofed-in sleeper minimum 2 inches.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine fire protection components to be removed.

1. Where existing conditions conflict with representations of Contract Documents, notify Owner and obtain written clarification from Architect before proceeding.

2. Verify that specified components are compatible with and can be connected to existing components.

B. Do not proceed with removal until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Protect existing materials, appurtenances, structures and facilities which are not to be removed. Repair or replace, to satisfaction of Owner and Architect, items damaged as result of renovation operations at no increase in Project Price.

B. Erect and maintain weatherproof closures for exterior openings.

3.3 REMOVAL

A. Remove existing fire protection piping traversing roof. Completely remove piping and piping appurtenances above roof. Remove piping below roof to nearest appropriate joint permitting installation of newly manufactured pipe and fittings.

B. Dispose of removed piping and piping appurtenances.

3.4 INSTALLATION

A. Install piping in accordance with NFPA 13.

B. Prior to assembly, ream pipe ends; remove burrs. Remove scale and foreign material from inside and outside of pipe.

C. Install piping following routing and maintaining gradient of original installation but raised sufficiently above roof to permit removal of existing roofing, reroofing and flashing.

1. Install piping to allow for expansion and contraction without stressing pipe and joints.

2. Temporarily brace piping in place until sleepers, roof membrane, membrane flashing and sheet metal cap flashing are installed.

D. Install pipe supports in accordance with NFPA 13 and pipe support manufacturer's instructions and recommendations.

1. Set framing channels over sheet metal cap flashing; secure to roofed-in sleepers with minimum 2 fasteners per channel. Set fasteners in sealant.

2. Slide pipe clamp assembly into place; secure shoulder bolt.

E. Prepare pipe, fittings and accessories for finish painting.

3.5 FIELD QUALITY CONTROL

A. Perform following field tests and inspections to verify system is operational; prepare test reports:

1. Leak Test: After piping installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.

2. Flush, test, and inspect sprinkler systems according to NFPA 13, "Systems Acceptance" Chapter.

B. Report test results promptly and in writing to Owner and authorities having jurisdiction.

END OF SECTION

PARKSIDE HALL ROOF IMPROVEMENTS PROJECT CALENDAR

JUNE

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					NO WORK ALLOWED ON SITE 1-JUNE	NO WORK ALLOWED ON SITE 2-JUNE
NO WORK ALLOWED ON SITE 3-JUNE	NO WORK ALLOWED ON SITE 4-JUNE	NO WORK ALLOWED ON SITE 5-JUNE	NO WORK ALLOWED ON SITE 6-JUNE	NO WORK ALLOWED ON SITE 7-JUNE	NO WORK ALLOWED ON SITE 8-JUNE	NO WORK ALLOWED ON SITE 9-JUNE
NO WORK ALLOWED ON SITE 10-JUNE	NO WORK ALLOWED ON SITE 11-JUNE	NO WORK ALLOWED ON SITE 12-JUNE	NO WORK ALLOWED ON SITE 13-JUNE	NO WORK ALLOWED ON SITE 14-JUNE	NO WORK ALLOWED ON SITE 15-JUNE	NO WORK ALLOWED ON SITE 16-JUNE
17-Jun	**18-Jun**	**19-Jun**	**20-Jun**	**21-Jun**	**22-Jun**	NO WORK ALLOWED ON SITE 23-JUNE
NO WORK ALLOWED ON SITE 24-JUNE	**25-Jun**	**26-Jun**	**27-Jun**	**28-Jun**	NO WORK ALLOWED ON SITE 29-JUNE	NO WORK ALLOWED ON SITE 30-JUNE

JULY						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
NO WORK ALLOWED ON SITE 1-JULY	NO WORK ALLOWED ON SITE 2-JULY	NO WORK ALLOWED ON SITE 3-JULY	NO WORK ALLOWED ON SITE 4-JULY	NO WORK ALLOWED ON SITE 5-JULY	NO WORK ALLOWED ON SITE 6-JULY	NO WORK ALLOWED ON SITE 7-JULY
8-Jul	**9-Jul**	**10-Jul**	**11-Jul**	**12-Jul**	**13-Jul**	**14-Jul**
15-Jul	**16-Jul**	**17-Jul**	**18-Jul**	**19-Jul**	**20-Jul**	**21-Jul**
22-Jul	**23-Jul**	**24-Jul**	NO WORK ALLOWED ON SITE 25-JULY	NO WORK ALLOWED ON SITE 26-JULY	NO WORK ALLOWED ON SITE 27-JULY	NO WORK ALLOWED ON SITE 28-JULY
NO WORK ALLOWED ON SITE 29-JULY	NO WORK ALLOWED ON SITE 30-JULY	NO WORK ALLOWED ON SITE 31-JULY				

AUGUST						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Aug	**2-Aug**	**3-Aug**	NO WORK ALLOWED ON SITE 4-Aug
NO WORK ALLOWED ON SITE 5-Aug	NO WORK ALLOWED ON SITE 6-Aug	NO WORK ALLOWED ON SITE 7-Aug	NO WORK ALLOWED ON SITE 8-Aug	NO WORK ALLOWED ON SITE 9-Aug	NO WORK ALLOWED ON SITE 10-Aug	NO WORK ALLOWED ON SITE 11-Aug
NO WORK ALLOWED ON SITE 12-Aug	NO WORK ALLOWED ON SITE 13-Aug	NO WORK ALLOWED ON SITE 14-Aug	NO WORK ALLOWED ON SITE 15-Aug	NO WORK ALLOWED ON SITE 16-Aug	NO WORK ALLOWED ON SITE 17-Aug	NO WORK ALLOWED ON SITE 18-Aug
19-Aug	**20-Aug**	**21-Aug**	**22-Aug**	**23-Aug**	NO WORK ALLOWED ON SITE 10-Aug	NO WORK ALLOWED ON SITE 10-Aug
NO WORK ALLOWED ON SITE 26-Aug	**27-Aug**	**28-Aug**	NO WORK ALLOWED ON SITE 29-Aug	NO WORK ALLOWED ON SITE 30-Aug	NO WORK ALLOWED ON SITE 31-Aug	

SEPTEMBER						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						NO WORK ALLOWED ON SITE 1-Sept
NO WORK ALLOWED ON SITE 2-Sept	NO WORK ALLOWED ON SITE 3-Sept	NO WORK ALLOWED ON SITE 4-Sept	**5-Sep**	**6-Sep**	**7-Sep**	NO WORK ALLOWED ON SITE 8-Sept
9-Sep	**10-Sep**	**11-Sep**	NO WORK ALLOWED ON SITE 12-Sept	NO WORK ALLOWED ON SITE 13-Sept	**14-Sep**	NO WORK ALLOWED ON SITE 15-Sept
NO WORK ALLOWED ON SITE 16-Sept	**17-Sep**	**18-Sep**	**19-Sep**	NO WORK ALLOWED ON SITE 20-Sept	NO WORK ALLOWED ON SITE 21-Sept	NO WORK ALLOWED ON SITE 22-Sept
NO WORK ALLOWED ON SITE 23-Sept	NO WORK ALLOWED ON SITE 24-Sept	NO WORK ALLOWED ON SITE 25-Sept	NO WORK ALLOWED ON SITE 26-Sept	NO WORK ALLOWED ON SITE 27-Sept	NO WORK ALLOWED ON SITE 28-Sept	NO WORK ALLOWED ON SITE 29-Sept
NO WORK ALLOWED ON SITE 30-Sept	**NO WORK ALLOWED THRU FEBRUARY 5, 2008**					