

SECTION 4 - AGREEMENT

PROJECT AGREEMENT

THIS AGREEMENT is made this ____ day of _____, 2017, by the CITY OF GARDEN GROVE, a municipal corporation, ("CITY"), and **OCC Builders, Inc.**, hereinafter referred to as ("CONTRACTOR").

RECITALS:

The following recitals are a substantive part of this Agreement:

This Agreement is entered into pursuant to Garden Grove COUNCIL AUTHORIZATION, DATED _____.

CITY desires to utilize the services of Furnish all Materials, Equipment, Tools and Labor for the Remodel of an Existing Metal Building for Animal Control Services per the bid specifications.

CONTRACTOR is qualified by virtue of experience, training, education, and expertise to accomplish services.

AGREEMENT

THE PARTIES MUTUALLY AGREE AS FOLLOWS:

- 4.0 **Compensation.** CONTRACTOR shall be compensated as follows: Compensation under this agreement shall be a Not to exceed (NTE) amount of One Hundred Forty Five Thousand Dollars (\$145,000.00), payable in arrears and in accordance with Bid Pricing Sheet (Attachment B), which is attached and is hereby incorporated by reference. Payment for work under this Agreement shall be made per invoice or request for work completed subject to Section 4.11 hereof. All work shall be in accordance with Bid No. S-1209 and the Plans and Specifications (Attachment A), which are attached and are hereby incorporated by reference.
- 4.1 **General Conditions.** CONTRACTOR certifies and agrees that all the terms, conditions and obligations of the Contract Documents as hereinafter defined, the location of the job site, and the conditions under which the work is to be performed have been thoroughly reviewed, and enters into this Contract based upon CONTRACTOR'S investigation of all such matters and is in no way relying upon any opinions or representations of CITY. It is agreed that this Contract represents the entire agreement. It is further agreed that the Contract Documents including the Notice Inviting Bids, Special Instructions to Bidders, if any, Plans and Specifications, and Contractor's Proposal, are incorporated in this Contract by reference, with the same force and effect as if the same were set

forth at length herein, and that CONTRACTOR and its subcontractors, if any, will be and are bound by any and all of said Contract Documents insofar as they

relate in any part or in any way, directly or indirectly, to the work covered by this Contract.

"Project" as used herein defines the entire scope of the work covered by all the Contract Documents. Anything mentioned in the Specifications and not indicated in the Plans, or indicated in the Plans and not mentioned in the Specifications, shall be of like effect as if indicated and mentioned in both. In case of discrepancy in the Plans or Specifications, the matter shall be immediately submitted to City's Engineer, without whose decision CONTRACTOR shall not adjust said discrepancy save only at CONTRACTOR'S own risk and expense. The decision of the Engineer shall be final.

4.2 Materials and Labor. CONTRACTOR shall furnish, under the conditions expressed in the Plans and Specifications, at CONTRACTOR'S own expense, all labor and materials necessary, except such as are mentioned in the Specifications to be furnished by the CITY, to complete the project, in good workmanlike and substantial order. If CONTRACTOR fails to pay for labor or materials when due, CITY may settle such claims by making demand upon the surety to this Agreement. In the event of the failure or refusal of the surety to satisfy said claims, CITY may settle them directly and deduct the amount of payments from the Contract price and any amounts due to CONTRACTOR. In the event CITY receives a stop notice from any laborer or material supplier alleging non-payment by CONTRACTOR, CITY shall be entitled to deduct all of its costs and expenses incurred relating thereto, including but not limited to administrative and legal fees.

4.3 Project. The PROJECT is described as Furnish all Materials, Equipment, Tools and Labor for the Remodel of an Existing Metal Building for Animal Control Services per the bid specifications.

4.4 Plans and Specifications. The work to be done is described in a set of detailed Plans and Specifications for: Furnish all Materials, Equipment, Tools and Labor for the Remodel of an Existing Metal Building for Animal Control Services per the bid specifications.

Said Plans and Specifications and any revisions, amendments or addenda thereto are attached hereto and incorporated herein as part of this Contract and referred to by reference. The work to be done must also be in accordance with the General Provisions, Standard Specifications and Standard Plans of City which are also incorporated herein and referred to by reference.

4.5 Time of Commencement and Completion. CONTRACTOR agrees to commence the Project with TEN (10) calendar days from the date set forth in the "Notice to Proceed" sent by City and shall diligently prosecute the work to completion within

60 calendar days of the Notice to Proceed, excluding delays caused or authorized by the CITY as set forth in Sections 4.7, 4.8 and 4.9 hereof.

4.6 Time is of the Essence. Time is of the essence of this Contract. As required by the Contract Documents, CONTRACTOR shall prepare and obtain approval of all shop drawings, details and samples, and do all other things necessary and incidental to the prosecution of CONTRACTOR'S work in conformance with an approved construction progress schedule. CONTRACTOR shall coordinate the work covered by this Contract with that of all other contractors, subcontractors and of the CITY, in a manner that will facilitate the efficient completion of the entire work in accordance with Section 4.5 herein. CITY shall have complete control of the premises on which the work is to be performed and shall have the right to decide the time or order in which the various portions of the work shall be installed or the priority of the work of other subcontractors, and, in general, all matters representing the timely and orderly conduct of the work of CONTRACTOR on the premises.

4.7 Excusable Delays. CONTRACTOR shall be excused for any delay in the prosecution or completion of the Project caused by acts of God; inclement weather; damages caused by fire or other casualty for which CONTRACTOR is not responsible; and act, neglect or default of CITY; failure of CITY to make timely payments to CONTRACTOR; late delivery of materials required by this CONTRACT to be furnished by CITY; combined action of the workers in no way caused by or resulting from default or collusion on the part of CONTRACTOR; a lockout by CITY; or any other delays unforeseen by CONTRACTOR and beyond CONTRACTOR'S reasonable control.

City shall extend the time fixed in Section 4.5 herein for completion of the Project by the number of days CONTRACTOR has thus been delayed, provided that CONTRACTOR presents a written request to CITY for such time extension within fifteen (15) days of the commencement of such delay and CITY finds that the delay is justified. CITY'S decision will be conclusive on the parties to this Contract. Failure to file such request within the time allowed shall be deemed a waiver of the claim by CONTRACTOR.

No claims by CONTRACTOR for additional compensation or damages for delays will be allowed unless CONTRACTOR satisfies CITY that such delays were unavoidable and not the result of any action or inaction of CONTRACTOR and that CONTRACTOR took all available measures to mitigate such damages. Extensions of time and extra compensation as a result of incurring undisclosed utilities will be determined in accordance with Section 9-103A of the State of California Department of Transportation Standard Specifications. The CITY'S decision will be conclusive on all parties to this Contract.

4.8 Extra Work. The Contract price includes compensation for all work performed by CONTRACTOR, unless CONTRACTOR obtains a written change order signed by a designated representative of CITY specifying the exact nature of the extra work and the amount of extra compensation to be paid all as more particularly set forth

in Section 4.9 hereof. CITY shall extend the time fixed in Section 4.5 for completion of the Project by the number of days reasonably required for CONTRACTOR to perform the extra work, as determined by CITY'S Engineer. The decision of the Engineer shall be final.

4.9 Changes in Project.

4.9.1 CITY may at any time, without notice to any surety, by written order designated or indicated to be a change order, make any change in the work within the general scope of the Contract, including but not limited to changes:

- a. in the Specifications (including drawings and designs);
- b. in the time, method or manner of performance of the work;
- c. in the City-furnished facilities, equipment, materials, services or site; or
- d. directing acceleration in the performance of the work.

4.9.2 A change order shall also be any other written order (including direction, instruction, interpretation or determination) from the CITY which causes any change, provided CONTRACTOR gives the CITY written notice stating the date, circumstances and source of the order and that CONTRACTOR regards the order as a change order.

4.9.3 Except as provided in this Section 4.9, no order, statement or conduct of the CITY or its representatives shall be treated as a change under this Section 9 or entitle CONTRACTOR to an equitable adjustment.

4.9.4 If any change under this Section 4.9 causes an increase or decrease in CONTRACTOR'S actual, direct cost or the time required to perform any part of the work under this Contract, whether or not changed by any order, the CITY shall make an equitable adjustment and modify the Contract in writing. Except for claims based on defective specifications, no claim for any change under paragraph (4.9.2) above shall be allowed for any costs incurred more than 20 days before the CONTRACTOR gives written notice as required in paragraph (4.9.2). In the case of defective specifications for which the CITY is responsible, the equitable adjustment shall include any increased direct cost CONTRACTOR reasonably incurred in attempting to comply with those defective specifications.

4.9.5 If CONTRACTOR intends to assert a claim for an equitable adjustment under this Section 4.9, it must, within thirty (30) days after receipt of a written change order under paragraph (4.9.1) or the furnishing of a written notice under paragraph (4.9.2), submit a written statement to the CITY setting forth the general nature and monetary extent of such claim. The CITY may extend the 30-day period. CONTRACTOR may include the statement of claim in the notice under paragraph (4.9.2) of this Section 4.9.

4.9.6 No claim by CONTRACTOR for an equitable adjustment shall be allowed if made after final payment under this Agreement.

4.9.7 CONTRACTOR hereby agrees to make any and all changes, furnish the materials and perform the work that CITY may require without nullifying this Contract. CONTRACTOR shall adhere strictly to the Plans and Specifications unless a change therefrom is authorized in writing by the CITY. Under no condition shall CONTRACTOR make any changes to the Project, either in additions or deduction, without the written order of the CITY and the CITY shall not pay for any extra charges made by CONTRACTOR that have not been agreed upon in advance in writing by the CITY. CONTRACTOR shall submit immediately to the CITY written copies of its firm's cost or credit proposal for change in the work. Disputed work shall be performed as ordered in writing by the CITY and the proper cost or credit breakdowns therefor shall be submitted without delay by CONTRACTOR to CITY.

4.10 Liquidated Damages for Delay. The parties agree that if the total work called for under this Contract, in all parts and requirements, is not completed within the time specified in Section 4.5 herein, plus the allowance made for delays or extensions authorized under Section 4.7, 4.8 and 4.9 herein, the CITY will sustain damage which would be extremely difficult and impractical to ascertain. The parties therefore agree that CONTRACTOR will pay to CITY the sum of two hundred and fifty dollars (\$250.00) per day for each and every calendar day during which completion of the Project is so delayed. CONTRACTOR agrees to pay such liquidated damages and further agrees that CITY may offset the amount of liquidated damages from any moneys due or that may become due CONTRACTOR under the Contract.

4.11 Contract Price and Method of Payment. CITY agrees to pay and the CONTRACTOR agrees to accept as full consideration for the faithful performance of this Contract, subject to any subsequent additions or deductions as provided in approved change orders, the sum as itemized in the bid proposal. Progress payments shall be made to the CONTRACTOR per month for each successive month as the work progresses. The CONTRACTOR shall be paid such sum as will bring the total payments received since the commencement of the work up to ninety five percent (95%) of the value of the work completed, less all previous payments, provided that the CONTRACTOR submits the request for payment prior to the end of the day required to meet the payment schedule. The CITY will retain five percent (5%) of the amount of each such progress estimate and material cost until 30 days after the recordation of the Notice of Completion.

Payments shall be made on demands drawn in the manner required by law, accompanied by a certificate signed by the CITY'S Engineer, stating that the work for which payment is demanded has been performed in accordance with the terms of the Contract. Partial payments of the Contract price shall not be considered as an acceptance of any part of the work.

4.12 Substitution of Securities in Lieu of Retention of Funds. Pursuant to California Public Contract Code Section 22300, the CONTRACTOR will be entitled to post approved securities with the CITY or an approved financial institution in order to have the CITY release funds retained by the CITY to ensure performance of the Contract. CONTRACTOR shall be required to execute an addendum to this Contract together with escrow instructions and any other documents in order to effect this substitution.

4.13 Completion. CITY may require affidavits or certificates of payment and/or releases from any subcontractor, laborer or material supplier in connection with Stop Notices, which have been filed under the provisions of the statutes of the State of California.

4.14 Contractor's Employee Compensation.

4.14.1 General Prevailing Rate. CITY has ascertained CONTRACTOR shall comply with all applicable requirements of Division 2, Part 7, Chapter 1 of the California Labor Code and all applicable federal requirements respecting the payment of prevailing wages. If there is a difference between the minimum wage rates predetermined by the Secretary of Labor and the prevailing wage rates determined by the Director of the Department of Industrial Relations (DIR) for similar classifications of labor, the CONTRACTOR and its Subcontractors shall pay not less than the higher wage rate. The DIR will not accept lower State wage rates not specifically included in the Federal minimum wage determinations. This includes "helper" (or other classifications based on hours of experience) or any other classification not appearing in the Federal Wage determinations. Where Federal wage determinations do not contain the State wage rate determination otherwise available for use by the CONTRACTOR and Subcontractors, the CONTRACTOR and its Subcontractors shall pay not less than the Federal Minimum wage rate which most closely approximates the duties of the employees in question.

4.14.2 Forfeiture for Violation. CONTRACTOR shall, as a penalty to the CITY, forfeit one hundred dollars (\$100.00) for each calendar day or portion thereof for each worker paid (either by the CONTRACTOR or any subcontractor under it) less than the prevailing rate of per diem wages as set by the Director of Industrial Relations, in accordance with Sections 1770-1780 of the California Labor Code for the work provided for in this Contract, all in accordance with Section 1775 of the Labor Code of the State of California.

4.14.3 Apprentices. Section 1777.5, 1777.6 and 1777.7 of the Labor Code of the State of California, regarding the employment of apprentices is applicable to this Contract and the CONTRACTOR shall comply therewith; provided, however, that this requirement shall not apply if and/or to the extent that the Contract of the general CONTRACTOR, or the contracts of

specialty contractors not bidding for work through a general or prime contractor involves less than thirty thousand dollars (\$30,000.00).

4.14.4 Workday. In the performance of this Contract, not more than eight (8) hours shall constitute a day's work, and CONTRACTOR shall not require more than eight (8) hours of labor in a day from any person employed by him thereunder except as provided in paragraph (4.14.1) above. CONTRACTOR shall conform to Article 3, Chapter 1, Part 7 (Sections 1810 et seq.) of the Labor Code of the State of California and shall forfeit to the CITY as a penalty, the sum of twenty-five dollars (\$25.00) for each worker employed in the execution of this Contract by CONTRACTOR or any subcontractor for each calendar day during which any worker is required or permitted to labor more than eight (8) hours in any one calendar day and forty (40) hours in any one week in violation of said Article. CONTRACTOR shall keep an accurate record showing the name and actual hours worked each calendar day and each calendar week by each worker employed by CONTRACTOR in connection with the Project.

4.14.5 Record of Wages: Inspection. CONTRACTOR agrees to maintain accurate payroll records 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 it in connection with the Project and agrees to require that each of its subcontractors does the same. The applicable CONTRACTOR or subcontractor or its agent having authority over such matters shall certify all payroll records as accurate. CONTRACTOR further agrees that its payroll records and those of its subcontractors shall be available to the employee or employee's representative, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards and shall comply with all of the provisions of Labor Code Section 1776, in general. CONTRACTOR shall comply with all of the provisions of Labor Code Section 1776, and shall submit payroll records to the Labor Commissioner pursuant to Labor Code section 1771.4(a)(3).

4.14.6 CONTRACTOR REGISTRATION; MAINTENANCE OF PAYROLL RECORDS; JOB SITE POSTING

4.14.6.1 Contractor Registration. CONTRACTOR and its subcontractors must be registered with the California Department of Industrial Relations pursuant to Labor Code Section 1725.5. This Agreement shall not be effective until CONTRACTOR provides proof of registration to the CITY.

4.14.6.2 Payroll Records. CONTRACTOR shall maintain accurate payroll records and shall comply with all of the provisions of Labor Code Section 1776, and shall submit payroll records to the Labor Commissioner pursuant to Labor Code section 1771.4(a)(3).

4.14.6.3 **Posting of Job Site Notices**. CONTRACTOR shall comply with the job site notices posting requirements established by the Labor Commissioner pursuant to Title 8, California Code of Regulations Section 16461(e) or other regulation promulgated pursuant to Labor Code Section 1771.4(a)(2).

4.14.6.4 **Notice of DIR Compliance Monitoring and Enforcement**. Pursuant to Labor Code Section 1771.4, this Project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations.

4.15 Surety Bonds. CONTRACTOR shall, upon entering into performance of this Agreement, furnish bonds in the amount of one hundred percent (100%) of the Contract price bid, to guarantee the faithful performance of the work, and the other in the amount of one hundred percent (100%) of the Contract price bid to guarantee payment of all claims for labor and materials furnished. This Contract shall not become effective until such bonds are supplied to and approved by the CITY. The Surety Company must have an AM Best rating of A- VII or better.

4.16 Insurance.

4.16.1 CONTRACTOR is also aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or undertake self-insurance with provisions of that Code and will comply with such provisions before commencing the performance of the work of this Contract.

4.16.2 CONTRACTOR and all subcontractors will carry and provide Workers' Compensation insurance for the protection of its employees during the progress of the work and *provide Employers Liability in an amount not less than \$1,000,000*. The insurer shall waive its rights of subrogation against the CITY, its officers, agents and employees and shall issue a certificate to the policy evidencing same.

4.16.3 For any claims related to this Agreement, CONTRACTOR'S insurance coverage shall be primary insurance as respects CITY, its officers, officials, employees, agents, and volunteers. Any insurance or self-insurance maintained by the CITY, its officers, officials, employees, agents, or volunteers shall be in excess of the CONTRACTOR'S insurance and shall not contribute with it.

4.16.4 Before CONTRACTOR performs any work at, or prepares or delivers materials to, the site of construction, CONTRACTOR shall furnish certificates of insurance and endorsements evidencing the foregoing insurance coverage and such certificates of insurance and endorsements

shall provide the name and policy number of each carrier and that the insurance is in force and will not be cancelled without 30 days written notice to the CITY. CONTRACTOR shall maintain all of the foregoing insurance in force until the work under this contract is satisfactorily and fully completed to the satisfaction of the CITY. The requirement for carrying the foregoing insurance shall not derogate from the provisions for indemnification of CITY by Contractor under Section 4.17 of this Contract. Notwithstanding nor diminishing the obligations of CONTRACTOR with respect to the foregoing, CONTRACTOR shall subscribe for and maintain in full force and effect during the life of this Contract, the following insurance in amounts not less than the amounts specified and issued by a company having a Best's Guide Rate of A-, Class VII or better (claims made and modified occurrence policies are not acceptable).

4.16.5 COMMENCEMENT OF WORK. CONTRACTOR shall not commence work under this Agreement until all certificates and endorsements have been received and approved by the CITY. All insurance required by this Agreement shall contain a Statement of Obligation on the part of the carrier to notify the CITY of any material change, cancellation, or termination at least thirty (30) days in advance. Contractor shall also provide a waiver of subrogation for each policy.

4.16.6 INSURANCE AMOUNTS. CONTRACTOR and all subcontractors shall maintain the following insurance in the amount and type for the duration of this Agreement:

- (a) Commercial general liability in an amount not less than \$1,000,000 per occurrence, and not excluding XCU; (**claims made and modified occurrence policies are not acceptable**); Insurance companies must be acceptable to CITY and have an AM Best's Guide Rating of A-, Class VII or better, as approved by the CITY.
- (b) Automobile liability in an amount not less than \$1,000,000 combined single limit; (**claims made and modified occurrence policies are not acceptable**); Insurance companies must be acceptable to CITY and have an AM Best's Guide Rating of A-, Class VII or better, as approved by the CITY.

An Additional Insured Endorsement, **ongoing and products-completed operations**, for the policy under section 4.16.6 (a) shall designate CITY, its officers, officials, employees, agents, and volunteers for this contract and all public agencies from whom permits will be obtained and their directors, officers, agents, and employees, as determined by the CITY, as additional insureds for liability arising out of work or operations performed by or on behalf of the CONTRACTOR. CONTRACTOR shall provide to CITY proof of insurance and endorsement forms that conform to city's requirements, as approved by the CITY.

An Additional Insured Endorsement for the policy under section 4.16.6 (b) shall designate CITY, its officers, officials, employees, agents, and volunteers for this contract and all public agencies from whom permits will be obtained and their directors, officers, agents, and employees, as determined by the CITY, as additional insureds for automobiles owned, leased, hired, or borrowed by the CONTRACTOR. CONTRACTOR shall provide to CITY proof of insurance and endorsement forms that conform to CITY's requirements, as approved by the CITY.

For any claims related to this Agreement, CONTRACTOR's insurance coverage shall be primary insurance as respects CITY, its officers, officials, employees, agents, and volunteers for this contract and all public agencies from whom permits will be obtained and their directors, officers, agents, and employees. Any insurance or self-insurance maintained by the CITY, its officers, officials, employees, agents, or volunteers, for this contract and all public agencies from whom permits will be obtained and their directors, officers, agents, and employees, as determined by the CITY shall be excess of the CONTRACTOR's insurance and shall not contribute with it.

If CONTRACTOR maintains higher insurance limits than the minimums shown above, CONTRACTOR shall provide coverage for the higher insurance limits otherwise maintained by the CONTRACTOR.

4.17 Risk and Indemnification. All work covered by this Contract done at the site of the Project or in preparing or delivering materials to the site shall be at the risk of CONTRACTOR alone. CONTRACTOR agrees to save, indemnify and keep CITY, its Officers, Agents, Employees, Engineers, and Consultants for this Contract, and all public agencies from whom permits will be obtained and their directors, Officers, Agents and Employees harmless against any and all liability, claims, judgments, costs and demands, including demands arising from injuries or death of persons (CONTRACTOR'S employees included) and damage to property, arising directly or indirectly out of the obligations herein undertaken or out of the operations conducted by CONTRACTOR, save and except claims or litigation arising through the *active negligence* or sole willful misconduct of CITY and will make good to reimburse CITY for any expenditures, including reasonable attorneys' fees CITY may incur by reason of such matters, and if requested by CITY, will defend any such suits at the sole cost and expense of CONTRACTOR.

4.18 Termination.

4.18.1 This Contract may be terminated in whole or in part in writing by the CITY for its convenience, provided that the CONTRACTOR is given (1) not less than ten (10) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate, and (2) an opportunity for consultation with the terminating party prior to termination.

Termination of contract shall conform to Section 8-1.11 of the State of California, Department of Transportation Standard Specifications.

- 4.18.2** If termination for default or convenience is effected by the CITY, an equitable adjustment in the price provided for in this Contract shall be made, but (1) no amount shall be allowed for anticipated profit on unperformed services or other work, and (2) any payment due to the CONTRACTOR at the time of termination may be adjusted to cover any additional costs to the CITY because of the CONTRACTOR'S default. The equitable adjustment for any termination shall provide for payment to the CONTRACTOR for services rendered and expenses incurred in accordance with section 8-1.11 of the State of California, Department of Transportation Standard Specifications.
- 4.18.3** Upon receipt of a termination action under paragraph (4.18.1) or (4.18.2) above, the CONTRACTOR shall (1) promptly discontinue all affected work (unless the notice directs otherwise), and (2) deliver or otherwise make available to the CITY all data, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by the CONTRACTOR in performing this Contract whether completed or in process.
- 4.18.4** Upon termination under paragraphs (4.18.1) and (4.18.2) above, the CITY may take over the work and may award another party an agreement to complete the work under this Contract.

4.19 Warranty. The CONTRACTOR agrees to perform all work under this Contract in accordance with the CITY'S designs, drawings and specifications.

The CONTRACTOR guarantees for a period of one (1) year from the date of the notice of completion of the work that the completed work is free from all defects due to faulty materials, equipment or workmanship and that he shall promptly make whatever adjustments or corrections which may be necessary to cure any defects, including repairs or any damage to other parts of the system resulting from such defects. The CITY shall promptly give notice to the CONTRACTOR of observed defects. In the event that the CONTRACTOR fails to make adjustments, repairs, corrections or other work made necessary by such defects, the CITY may do so and charge the CONTRACTOR the cost incurred. The performance bond shall remain in full force and effect through the guarantee period.

The CONTRACTOR'S obligations under this clause are in addition to the CONTRACTOR'S other express or implied assurances provided under this Contract and in no way diminish any other rights that the CITY may have against the CONTRACTOR for faulty materials, equipment or work.

4.20 Attorneys' Fees. If any action at law or in equity is necessary to enforce or interpret the terms of this Contract, *each party shall be responsible for their own attorneys' fees, costs and necessary expenses.* If any action is brought against the CONTRACTOR or any subcontractor to enforce a Stop Notice or Notice to Withhold, which named the CITY as a party to said action, the CITY shall be entitled to all attorneys' fees, costs and necessary disbursements arising out of the defense or such action by the CITY. The CITY shall be entitled to deduct its costs for any Stop Notice filed, whether court action is involved or not.

4.21 Appropriations. This Agreement is subject to and contingent upon funds being appropriated therefor by the Garden Grove City Council for each fiscal year covered by the term of this Agreement. If such appropriations are not made, this Agreement shall automatically terminate without penalty to the CITY.

4.22 Notices. Any notice required or permitted under this Contract may be given by ordinary mail at the address set forth below. Any party whose address changes shall notify the other party in writing.

To CITY: City of Garden Grove
 City Attorney
 11222 Acacia Parkway
 Garden Grove, California 92840

To CONTRACTOR: OCC Builders, Inc.
 Attention: Shauwki Haasen, President
 11037 Warner Avenue #111
 Fountain Valley, CA 92708

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(Agreement Signature Block on Next Page)

IN WITNESS THEREOF, these parties have executed this Project Agreement on the day and year shown below.

Date: _____

"CITY"
CITY OF GARDEN GROVE

By: _____
City Manager

ATTEST:

City Clerk


Date: _____

"CONTRACTOR"
OCC Builders, Inc.

Contractor's State Lic. No. 999117

DIR Registration Number 1000036963

Expiration Date: 12/31/2018

By: Shauwki Haasen 

Title: President

Date: Feb 27, 17

Tax ID No. 80-0894505

If CONTRACTOR is a corporation, a Corporate Resolution and/or Corporate Seal is required. If a partnership, Statement of Partnership must be submitted to the CITY.

APPROVED AS TO FORM:



Garden Grove City Attorney

OCC BUILDER, INC.
LIC.# 999117

Attachment "A"

IFB No S-1209

SPECIFICATIONS

**Furnish all Materials, Equipment, Tools and Labor for
the Remodel of an Existing Metal Building for Animal
Control Services per the bid specifications**

**City of Garden Grove, CA
ANIMAL SHELTER HOLDING FACILITY
LOCATED AT MUNICIPAL SERVICE CENTER**

13802 Newhope St. Garden Grove, CA 92843

INDEX TO SPECIFICATIONS

November 17, 2016

Animal Shelter holding

TECHNICAL SPECIFICATIONS

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DIVISION 2 - SITEWORK:				
02055	Demolition	2	14	15
DIVISION 3 - CONCRETE:				
03001-	Concrete Work	2	16	17
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DIVISION 6 - Wood and Plastics				
6100	Rough Carpentry	2	20	21
6200	Finish Carpentry	2	22	23
DIVISION 7 - Thermal and Moisture Protection				
07210	Building Insulation	1	24	24
DIVISION 8 - DOORS AND WINDOWS				
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08200	Wood Doors and Frames	2	27	28
08710	Door Hardware	9	29	37
DIVISION 9 - FINISHES:				
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09300	Ceramic Tile	2	41	42
09656	Epoxy Floor Finish	4	43	46
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DIVISION 13 - Special Construction				
13120	Dog Runs & Cages & Special Equipment	2	52	53
DIVISION 15 - Mechanical:				
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15801	HVAC	2	64	65
16000-	Electrical and Lighting	4	64	69
		69		

NAME OF PROJECT:
ANIMAL SHELTER HOLDING FACILITY

OWNER: City of Garden Grove, CA
C/o A.J. Holmon and Mark Ladney - City of Garden Grove Public Works Dept.
13802 Newhope St.
Garden Grove, CA 92843

DESCRIPTION OF WORK:

The City of Garden Grove will accept proposals from qualified Contractors to furnish materials and labor to complete structure as described on the Drawings and Specifications.

Construction of new interior partitions and ceilings. Remodeling of interior of existing exterior walls, Furnishing and installing equipment as shown on plans and specified herein. This work will include new HVAC, electrical and plumbing work.

Specific requirements that must be met by all Contractors are contained in the attached bid documents, Basic requirements and technical Specifications. Other factors involved in the selection will be Cost of the Construction, Time of the Construction and track record of the Contractor in this type of work.

The City of Garden Grove reserves the right to select whichever Contractor that, in the opinion of the City, can most closely meet the requirements and needs for the projects.

Plans for the Basic Building Permit will be submitted and paid for by the City. General Contractor and/or his subcontractors will pickup and sign for all permits required.

OCCUPANCY: B

Type of Construction VI

SECTION 01001

BASIC REQUIREMENTS

PART 1 GENERAL

- 1 ATTACHMENT 1 - INCLUDED AS A PART OF THESE SPECIFICATIONS BUT NOT BOUND HEREIN, ARE SUPPLEMENTAL REQUIREMENTS BY THE CITY OF GARDEN GROVE. IN CASE OF CONFLICT WITH THIS SECTION THE MORE RESTRICTIVE CONDITION SHALL GOVERN.

SECTION INCLUDES

- A. Summary of Work:
 - 1.1 Work by Contractor
 - 1.2 Work By Owner

- B. Contract Considerations:
 - 1.3 Minimum Requirements.
 - 1.4 Use of Premises.
 - 1.5 Plans Permits and Licenses
 - 1.6 Inspection and Testing Allowances.
 - 1.7 Schedule of Values.
 - 1.8 Applications for Payment.
 - 1.9 Alternates.

- C. Coordination and Meetings:
 - 1.10 Coordination.
 - 1.11 Field Engineering.
 - 1.12 Cutting and Patching.
 - 1.13 Conferences.
 - 1.14 Progress Meetings.

- D. Submittal:
 - 1.15 Submittal Procedures.
 - 1.16 Construction Progress Schedules.
 - 1.17 Proposed Products List.
 - 1.18 Shop Drawings.
 - 1.19 Product Data.
 - 1.20 Samples.
 - 1.21 Manufacturers' Instructions.
 - 1.22 Manufacturers' Certificates.

- E. Quality Control:
 - 1.23 Quality Assurance/Control of Installation.
 - 1.24 References.
 - 1.25 Field Samples.
 - 1.26 Inspection and Laboratory Services.

- F. Construction Facilities and Temporary Controls:
 - 1.27 Temporary Electricity.

- 1.28 Temporary Lighting.
- 1.29 Telephone Service.
- 1.30 Temporary Water Service.
- 1.31 Temporary Sanitary Facilities.
- 1.32 Barriers and Fencing.
- 1.33 Water Control.
- 1.34 Exterior Enclosures.
- 1.35 Protection of Installed Work.
- 1.36 Security.
- 1.37 Parking.
- 1.38 Progress Cleaning.
- 1.39 Field Offices and Sheds.
- 1.40 Removal of Utilities, Facilities and Controls.

G. Material and Equipment:

- 1.41 Products.
- 1.42 Transportation, Handling, Storage and Protection.
- 1.43 Products Options.
- 1.44 Substitutions.

H. Starting of Systems:

- 1.45 Starting Systems.
- 1.46 Demonstration and Instructions.
- 1.47 Testing, Adjusting, and Balancing.

I. Contract Closeout:

- 1.48 Contract Closeout Procedures.
- 1.49 Final Cleaning.
- 1.50 Adjusting.
- 1.51 Project Record Documents.
- 1.52 Operation and Maintenance Data.
- 1.53 Warranties.
- 1.54 Spare Parts and Maintenance Materials.
- 1.1

A SUMMARY OF WORK:

1.1 WORK BY CONTRACTOR:

The new work shall be constructed above and around the existing Material Storage Bins.

1.2 WORK BY OWNER

B. CONTRACT CONSIDERATIONS:

1.3 MINIMUM REQUIREMENTS:

Details and specific requirements in these plans are minimum requirements only. All work shall conform to the California Building Code (current prevailing edition), unless the governing building department has different standards. All local applicable ordinances, laws, standards and regulations shall be adhered to.

It shall be assumed that the mechanics, craftsmen and subcontractors are sufficiently competent and knowledgeable in their own specific areas of work to be familiar with these applicable codes and requirements at the time of bidding and claimed ignorance of these standards during constructions shall not constitute a basis for obtaining extra charges. The act of offering a bid proposal shall be interpreted as evidence that the contractor or subcontractor has fully examined the site, the plans and

all contract documents affecting the work and unless he has notified the owner in writing of any conflict or condition which would prevent him from producing a completed and operational project, he shall be held to performance of the contract in every way and as reasonably implied therein.

1.4 USE OF PREMISES

- A. Limit use of premises to allow:
 - 1. Owner occupancy.
 - 2. Work by Others and Work by Owner.

As an essential condition of the contract, the owner may have access to and use of the premises without prejudicing any other condition of this contract. Before acceptance of the building by the owner, the building shall be fully operative, connected to all utilities and functioning perfectly with all on and off site work included in the contract completed to the satisfaction of the owner, local building officials and all parties having jurisdiction.

1.5 PLANS, PERMITS AND LICENSES:

- A. Plans for the building permit for the construction of this project shall be the responsibility of the General Contractor except as noted under Summary of work in this document. Plans for permits required for individual Plumbing, Electrical and HVAC subcontracts shall be prepared by the Contractors respective consultants and paid for by the General Contractor.
- B. All drainage fees, sewer fees, water acreage fees or street tree fees shall be paid for by the Owner.
- C. The General Contractor and all subcontractors shall have a current business license from the City of Garden Grove before beginning work on this project. The cost of these licenses shall be born by the Contractor or Subcontractor involved.

1.6 INSPECTION AND TESTING ALLOWANCE

- A. There is no Inspection and testing allowance in this contract. Cost of engaging an inspection or testing firm, execution of inspection or tests, and reporting of results, if required, shall be paid for by the General Contractor. Special testing required by the Owner, shall be as noted under section 1.26.

1.7 SCHEDULE OF VALUES

- A. Submit schedule on AIA Form G703. Contractor's standard form or electronic media printout will be considered.
- B. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.

1.8 APPLICATIONS FOR PAYMENT

- A. Submit three copies of each application on AIA Form G702, unless noted otherwise in previous sections.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Payment Period: Monthly.

1.9 ALTERNATES

- A. Alternates (If any) quoted on Bid Forms will be reviewed and accepted or rejected at the Owner's option.
- B. Coordinate related Work and modify surrounding Work as required.

C. COORDINATION AND MEETINGS:

1.10 COORDINATION

- A. Coordinate scheduling, submittal, and Work of the various Sections of specifications to assure efficient and

orderly sequence of installation of interdependent construction elements.

- B. Verify utility requirement characteristics of operating equipment are compatible with building utilities.
- C. Coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable.
- D. In finished areas, conceal pipes, ducts, and wiring within the construction.

1.11 FIELD ENGINEERING:

- A. Employ a Land Surveyor to locate a reference datum and protect survey control and reference points.
- B. Establish elevations, lines, and levels and certify that elevations and locations of the Work conform with Contract Documents.

1.12 CUTTING AND PATCHING

- A. Employ a skilled and experienced installer to perform cutting and patching new Work; restore Work with new Products.
- B. Submit written request in advance of cutting or altering structural or building enclosure elements.
- C. Fit Work tight to adjacent elements. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- D. Refinish surfaces to match adjacent finishes.

1.13 CONFERENCES

- A. City of Garden Grove will schedule a pre-construction conference after Notice of Award for all affected parties.
- B. When required in individual specification Section, convene a pre-installation conference at project site prior to commencing Work of the Section.

1.14 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at maximum every two week intervals.
- B. Preside at meetings, record minutes, and distribute copies within two days to those affected by decisions made.

D. SUBMITTALS:

1.15 SUBMITTAL PROCEDURES

- A. Submittal form to identify Project, Contractor, Subcontractor or supplier; and pertinent Contract Document references. A minimum of 3 sets required unless more are requested under specific section of Specifications.
- B. Apply Contractor's stamp, signed or initialed, certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.

- C. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
- D. Revise and resubmit submittal as required; identify all changes made since previous submittal.

1.16 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial progress schedule in duplicate within 20 days after date of Owner-Contractor Agreement for City of Garden Grove review.
- B. Submit revised schedules with each Application for Payment, identifying changes since previous version. Indicate estimated percentage of completion for each item of Work at each submission.
- C. Submit a horizontal bar chart with separate line for each major section of Work or operation, identifying first work day of each week.

1.17 PROPOSED PRODUCTS LIST

- A. Within 20 days after date of Owner-Contractor Agreement, submit complete list of major Products proposed for use, with name of manufacturer, trade name, and model number of each Product.

1.18 SHOP DRAWINGS

- A. Submit in digital form and five 5 opaque reproductions.

1.19 PRODUCT DATA

- A. Submit the number of copies which the Contractor requires, plus two copies which will be retained by the City of Garden Grove.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this project.

1.20 SAMPLES

- A. Submit samples to illustrate functional and aesthetic characteristics of the Product.
- B. Submit samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for City of Garden Grove's selection.

1.21 MANUFACTURERS' INSTRUCTIONS

- A. When specified in individual specification Sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.

1.22 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification Sections, submit manufacturers' certificate to City of Garden Grove for review, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

E. QUALITY CONTROL:

1.23 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.
- C. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

1.24 REFERENCES

- A. Conform to reference standard by date of issue current as of date of Contract Documents.
- B. Should specified reference standard conflict with Contract Documents, request clarification from City of Garden Grove before proceeding.

1.25 FIELD SAMPLES

- A. Construct field samples at the site for review as required by individual specifications Sections. Acceptable samples represent a quality level for the Work.

1.26 INSPECTION AND TESTING LABORATORY SERVICES

- A. If Owner requires additional testing, other than that normally required or called for in the plans and specifications, Owner will appoint and employ services of an independent firm to perform inspection and testing at Owners option. If after testing the item does not meet the required specification, Contractor shall pay for services of retesting. All other testing shall be paid for by the General Contractor.
- B. The independent firm will perform inspections, tests, and other services as required.
- C. Cooperate with independent firm; furnish samples as requested.
- D. Re-testing required because of non-conformance to specified requirements will be charged to the Contractor.
- E. Report observations and site decisions or instructions that are supplemental or contrary to manufacturers' written instructions.

F. CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS:

1.27 TEMPORARY ELECTRICITY

- A. Connect to existing power service. Power consumption shall not disrupt Owner's need for continuous service. Owner to pay for power consumed.
- B. Provide power outlets for construction operations, branch wiring, distribution boxes, and flexible power cords as required.

1.28 TEMPORARY LIGHTING

- A. Provide and maintain temporary lighting for construction operations.
- B. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.

C. Permanent building lighting may be utilized during construction.

1.29 TELEPHONE SERVICE

A. Provide, maintain and pay for telephone service to field office at time of project mobilization.

1.30 TEMPORARY WATER SERVICE

A. Connect to existing water source for construction operations.

1.31 TEMPORARY SANITARY FACILITIES

- A. Maintain required facilities and enclosures.
- B. Maintain in clean and sanitary condition.

1.32 BARRIERS AND FENCING

A. Provide security to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage. Security may be in form of locking and maintaining existing doors in secure condition. Any demolition exposing area to unauthorized entry shall be secured by the General Contractor before leaving the premises each day. It is the General Contractors responsibility to maintain security of all areas of his work at all times.

1.33 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification Sections.
- B. Prohibit traffic or storage upon waterproofed or roofed surfaces.

1.34 SECURITY

A. Provide security and facilities to protect Work and existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft. It shall be the General Contractors responsibility to pay for or replace any materials lost or stolen from the project.

1.35 PARKING

A. Arrange for temporary parking areas to accommodate construction personnel.

1.36 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

1.37 PROJECT IDENTIFICATION

- A. Provide an 8 ft wide x 6 ft high project sign of exterior grade plywood and wood frame construction, painted, to City of Garden Grove's design and colors.
- B. Erect on site at location established by City of Garden Grove.

1.38 FIELD OFFICES AND SHEDS

A. Office: Weather-tight, with lighting, electrical outlets, heating, cooling and ventilating equipment, and equipped with sturdy furniture and drawing display table. Use of interior room in area of work will be acceptable.

1.39 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary above grade or buried utilities, equipment, facilities, materials, prior to Substantial Completion Final Application for Payment inspection.
- B. Remove underground installations to a minimum depth of 2 ft Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

G. MATERIAL AND EQUIPMENT:

1.40 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work, but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components specifically identified for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically identified or allowed by the Contract Documents.
- C. Use interchangeable components of the same manufacture for similar components.

1.41 TRANSPORTATION, HANDLING, STORAGE AND PROTECTION

- A. Transport, handle, store and protect Products in accordance with manufacturer's instructions.

1.42 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

1.43 SUBSTITUTIONS

- A. City of Garden Grove will consider requests for Substitutions only within 15 days after date of Owner-Contractor Agreement.
- B. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- C. Submit three copies of requests for Substitution for consideration. Limit each request to one proposed Substitution.

H. STARTING SYSTEMS:

1.44 STARTING SYSTEMS

- A. Provide seven days notification prior to start-up of each item.
- B. Ensure that each piece of equipment or system is ready for operation.
- C. Execute start-up under supervision of responsible persons in accordance with manufacturers' instructions.
- D. Submit a written report that equipment or system has been properly installed and is functioning correctly.

1.45 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products to Owner's personnel two weeks prior to date of final inspection.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at equipment location.

1.46 TESTING, ADJUSTING, AND BALANCING

- A. Contractor shall appoint and employ services of an independent firm to perform testing, adjusting, and balancing. Contractor shall pay for these services as part of the General Contract.
- B. Reports will be submitted by the independent firm to the City indicating observations and results of tests and

indicating compliance or non-compliance with specified requirements and with the requirements of the Contract Documents.

- C. Cooperate with independent firm; furnish assistance as requested.
- D. Re-testing required because of non-conformance to specified requirements will be charged to the Contractor.

I. CONTRACT CLOSEOUT:

1.47 CONTRACT CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and Work is complete in accordance with Contract Documents and ready for City of Garden Grove's inspection.
- B. Submit final Application for Payment identifying total adjusted Contract Sum/Price, previous payments, and amount remaining due.

1.48 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean interior and exterior surfaces exposed to view. Vacuum carpeted and soft surfaces.
- C. Clean debris from site, roofs, gutters, downspouts, and drainage systems.
- D. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.49 ADJUSTING

- A. Adjust operating Products and equipment to ensure smooth and unhindered operation.

1.50 PROJECT RECORD DOCUMENTS

- A. Maintain on site, one set of Contract Documents to be utilized for record documents.
- B. Record actual revisions to the Work. Record information concurrent with construction progress.
- C. Specifications: Legibly mark and record at each Product Section a description of actual Products installed.
- D. Record Documents and Shop Drawings; Legibly mark each item to record actual construction.
- E. Submit documents to City of Garden Grove with claim for final Application for Payment.

1.51 OPERATION AND MAINTENANCE DATA

- A. Submit two sets prior to final inspection, bound in 8-1/2 x 11 inch text pages, three D side ring binders with durable plastic covers.
- B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", and title of project.
- C. Internally subdivide the binder contents with permanent page dividers, logically organized, with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Contents:
 - 1. Directory, listing names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.
 - 2. Operation and maintenance instructions, arranged by system.
 - 3. Project documents and certificates.

WARRANTIES

- E. Contractors shall provide a one year guarantee against defective workmanship and materials. The Contractor shall upon notification, immediately correct any and all defects that may occur within one year after signing the notice of completion. Contractor shall at the completion of the job, furnish the owner with all required "as built" drawings, all operating manuals for installed equipment and all manufacturers warranties and guarantees.
- F. Provide duplicate notarized copies.
- G. Execute and assemble documents from Subcontractors, suppliers, and manufacturers.
- H. Submit prior to final Application for Payment.

1.52 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide Products, spare parts, maintenance and extra materials in quantities specified in individual specification Sections.
- B. Deliver to Project site and place in location as directed; obtain receipt prior to final payment.

END OF BASIC REQUIREMENTS SECTION 01001

SECTION 02055

DEMOLITION

PART 1: GENERAL

1.1 SCOPE OF WORK

Furnish all labor, material, tools and equipment necessary for and incidental to the completion of all DEMOLITION WORK as shown on the drawings or specified herein. This Section relies extensively on Section 01001 of these specifications and all requirements therein must be adhered to by this Contractor.

1.2 SECTION INCLUDES:

- A Saw cutting of existing slab for new waste.
- B Relocation of existing electrical or control wiring and conduit that could be damaged by new construction.

1.3 RELATED WORK:

1.4 REGULATORY REQUIREMENTS

- A. Conform to the requirements of the City of Garden Grove and OSHA standards for demolition of structure, safety of adjacent structures, dust control, service utilities, discovered hazards, and asbestos removal if required.
- B. Conform to the California Green Building Code in regards to storm water pollution and recycling requirements.

PART 2: PREPARATION

- A. Notify adjacent occupants and owners of work which may affect their property, potential noise, utility outage, or disruption. Coordinate with owner.
- B. Protect existing materials and structures which are not to be demolished.
- C. Protect existing items which are not indicated to be removed.

PART 3: EXECUTION

3.1 DEMOLITION REQUIREMENTS

- A. Conduct demolition to minimize interference with adjacent structures and building areas not scheduled to be removed.
- B. Coordinate work with the City of Garden Grove representative
- C. Maintain protected egress and access at all times. Do not close or obstruct roadways sidewalks without permits.
- D. Cease operations immediately if adjacent structures appear to be in danger. Notify Owner and Architect.
- E. If plywood shear walls are encountered, notify the Architect or City Engineer before proceeding with removal. Do not remove unless approved by the above to do so.

3.2 SELECTIVE DEMOLITION

- A. Demolish and remove components in an orderly and careful manner, in sequence as indicated on Drawings or as required by General Contractor to obtain an efficiently run operation..
- B. Protect existing supporting structural members and finishes scheduled to remain.

3.3 PREPARATION

- A. Provide, erect, and maintain temporary barriers and security devices.
- B. Protect existing items which are not indicated to be removed.

3.4 CLEAN UP

- A. Remove demolished materials from site as work progresses. Leave areas of work in clean condition.

END OF DEMOLITION SECTION

SECTION 03001

CONCRETE

PART 1 GENERAL

1.1 SCOPE OF WORK:

Furnish all labor, material, tools and equipment necessary for and incidental to the completion of all CONCRETE WORK as shown on the drawings or specified herein. This Section relies extensively on Section 01001 of these specifications and all requirements therein must be adhered to by this Contractor.

1.2 SECTION INCLUDES

- A. Filling of slab where cut for installation of new plumbing under existing slab.

1.3 WORK INCLUDED:

- A. Furnishing and installation of all dowels, bolts, sleeves and anchors embedded in concrete.
- B. All formwork required for concrete work.
- C. Furnishing and installation of all reinforcing steel embedded in concrete.
- D. Furnishing and installation of any base material.

1.4 GENERAL:

All work shall comply with the California Building Code, (current prevailing edition) and the requirements of the City of Garden Grove Building Department.

1.5 PERMITS, LICENSES AND INSPECTIONS:

This Contractor shall call for all inspections required for his portion of construction by the City of Garden Grove. He shall show proof of workman's compensation insurance and pay for a CITY BUSINESS LICENSE per section 01001 of this specification.

1.6 QUALITY ASSURANCE

- A. Construct and erect concrete formwork and cast-in-place concrete work in accordance with ACI 301, unless specified otherwise in this Section.
- B. Perform concrete reinforcing work in accordance with ACI 301 and Manual of Standard Practice ASTM A184, unless specified otherwise in this Section.

PART 2 PRODUCTS

2.1 REINFORCEMENT MATERIALS

- A. Reinforcing Steel: ASTM A615, intermediate grade 40 ksi (276 MPa) yield grade; deformed new billet steel bars.
- B. Welded Steel Wire Fabric: ASTM A185, plain type, in flat sheets.
- C. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for support of reinforcing.
- D. Fabricate concrete reinforcing in accordance with ACI 315.

2.2 CONCRETE MATERIALS

- A. Cement: ASTM C150, Type II, low alkali, Portland type,
- B. Fine and Coarse Aggregates: ASTM C33.
- C. Water: Clean, potable and not detrimental to concrete.

2.3 CONCRETE MIX

- A. Ready-mixed concrete shall conform to U.B.C. Standard no. 26-13. Mix and deliver concrete in accordance with ASTM C94.
- B. Provide concrete of the following strength: (Unless indicated differently on Structural drawings.)
 - 1. Compressive Strength: 1,600 psi (7 day).
 - 2. Compressive Strength: 2,500 psi (28 day).
 - 3. Slump: 4 inches.
- B. If concrete of f_c' over the 2,500 psi noted herein is called for on Plans then that concrete will require special inspection.

PART 3 EXECUTION

All concrete work shall be level, straight and even, or sloped when required as noted on plans. Then finished in the appropriate manner. Steel trowel finish on interior and light broom finish on exterior walks, slabs and stops. Exterior walks, slabs and stops shall be sloped at a rate of 1/4" per foot for drainage unless specified otherwise on drawings.

3.1 REINFORCEMENT PLACEMENT

- A. Place reinforcement, supported and secured against displacement prior to placing concrete.
- B. Ensure reinforcing is clean, free of loose scale, dirt, or other foreign coatings.
- C. Install #3 dowels (or larger if noted on plans) @ 18" o.c., embedded min. 4" into existing slab and projecting at least half way across opening at all sawcuts for plumbing or similar trenching. Embed into existing concrete using epoxy cement bond approved for this use.

3.2 PLACING CONCRETE

- A. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent. Apply bonding agent in accordance with manufacturer's instructions.
- B. Place concrete continuously between predetermined expansion, control and construction joints. Do not break or interrupt successive pours such that cold joints occur.
- C. Where new concrete is dowelled to existing work, drill holes in existing concrete, insert steel dowels and pack with non-shrink grout.

3.3 CONCRETE WALK FINISHING

- A. Finish concrete walk surfaces in accordance with ACI 301. and ACI 302.
- B. Uniformly spread, screed, and float concrete.
- C. Steel trowel surfaces and finish with light broom finish.

3.4 CURING

- A. CURING METHOD: Apply sodium silicate base curing compound "CURE-TREAT R.T.U." as manufactured by D.F.C. Curing compound shall comply with ASTM C309 or ASTM C1316.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. If curing materials specified should effect bonding or are not recommended by Epoxy floor finish manufacturer, then do not use. Verify with Architect any other method of curing

3.5 DEFECTIVE CONCRETE

- A. Modify or replace concrete not conforming to required lines, details and elevations, as directed by City of Garden Grove/Engineer.

SECTION 05400

METAL STUD FRAMING

(Optional)

1 PART 1 GENERAL

1.1 SCOPE OF WORK:

Furnish all labor, material, tools and equipment necessary for and incidental to the completion of all METAL STUD FRAMING WORK as shown on the drawings or specified herein. This section is an alternate to wood stud framing of interior partitions. This Section relies extensively on Section 01001 of these specifications and all requirements therein must be adhered to by this Contractor.

METAL STUD FRAMING: As an option, metal stud framing may be used in place of wood stud framing provided all elements meet minimum building code standards and requirements listed below. If this option is selected by the Contractor, he shall be required to meet all of the structural requirements, sizes and details currently detailed or specified in wood at no additional cost.

1.2 SECTION INCLUDES

- A. Metal stud wall framing.
- B. Metal channel ceiling framing.
- C. All Steel framing required to install window, exhaust fans and penetrations through existing metal building.
- D. All backing for other trades and equipment.

1.3 RELATED WORK NOTED ELSEWHERE:

- A. Windows.
- B. Gypsum board with taped and sanded joint treatment.
- C. Building insulation.
- D. Optional wood stud framing.

1.4 SYSTEM DESCRIPTION

- A. This Section added as an alternate method of framing interior, non-bearing partitions. Either wood studs or metal studs may be used at the option of the General Contractor. If this option is to be used, it shall be so stated at the time of submitting bids.
- B. Conform to applicable codes for fire rated assemblies where required and to all structural and architectural requirements.
- C. If this system of partition construction should be used in lieu of wood stud construction, it shall be the responsibility of the Contractor to complete the construction as detailed in wood as required by the building department. Any additional costs for larger or stronger material shall be borne by this Contractor.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with ASTM C840, GA-216 - Recommended Specifications for the Application and Finishing of Gypsum Board, and GA-600 - Fire Resistance Design Manual.
- B. Work shall meet the requirements of:
 - 1. American Iron and Steel Institute (A.I.S.I.), Design of Cold Formed Steel Structural Members, 1980.
 - 2. American Welding Society (A.W.S.) D.1.3, 1981 Structural Welding code - Sheet Steel.
 - 3. American Institute of Steel Construction (A.I.S.C.), Manual of Steel Construction, latest edition.

2 PART 2 PRODUCTS

2.1 METAL STUD SYSTEM

- A. Manufacturers:
 - 1. Milcor Division of Inryco. Type 20 ga, galvanized.
 - 2. CIMCO Type 20 ga, galvanized.
- B. Studs and Tracks: Shall meet ICBO report #4560 and ASTM A-568; galvanized sheet steel, 20 gage thick, C shape, with serrated faces with a minimum yield point of 33,000 psi. Steel must comply with the ductility requirements listed in Section 27.902 of UBC Standard No. 27-9.
- C. SHOT PINS: Install track to concrete slab with power driven shot pins meeting ICBO report #2388. Approved manufacturer: "Hilti" SDS22 P8, 7/8" long shaft, drywall track pins or "Ramset" #1506. Space pins @ minimum 32" O.C. or as required by code.

2.2 ACCESSORIES

- A. Acoustical Sealant: Non-hardening, non-skinning, for use in conjunction with gypsum board.

3 PART 3 EXECUTION

3.1 INSTALLATION - METAL STUDS

- A. Install studding in accordance with ASTM C754.
- B. Metal Stud Spacing: As noted on drawings, but in no case to exceed 24 inches o.c.
- C. Partition Heights: To height to bottom of 2nd floor sheathing or roof sheathing as appropriate.

3.2 INSTALLATION - CEILING FRAMING

- A. Install in accordance with ASTM C754.
- B. Coordinate location of hangers with other work. Install ceiling framing independent of walls, columns, and above ceiling work.
- C. Reinforce openings in ceiling suspension system which interrupt main carrying channels or furring channels, with lateral channel bracing. (If suspended ceiling is required per plans)
- D. Laterally brace entire suspension system. (If suspended ceiling is required per plans)

3.3 INSTALLATION - ACOUSTICAL ACCESSORIES

- A. Install acoustical sealant under floor plate, where stud abuts masonry walls and within partitions in accordance with manufacturer's instructions.

3.4 TOLERANCES

Maximum Variation from True Flatness: 1/8 inch in 10 feet in any direction.

END OF SECTION

SECTION 06100

ROUGH CARPENTRY

1 PART 1: GENERAL

1.1 SCOPE OF WORK:

Furnish all labor, material, tools and equipment necessary for and incidental to the completion of all ROUGH CARPENTRY WORK as shown on the drawings or specified herein. This Section relies extensively on Section 01001 of these specifications and all requirements therein must be adhered to by this Contractor.

1.2 SECTION INCLUDES

- A. New structural and non-bearing walls and ceiling framing.
- B. Installation of rough hardware incidental to work of this Section.
- C. Backing for items requiring backing including those items indicated in Restroom Accessories (Section 10800).
- D. Miscellaneous cutting, blocking and wood framing required for other trades.

1.3 RELATED WORK NOTED ELSEWHERE:

- A. Section 06200 "Finish Carpentry".
- B. Section 09111 "Metal Stud Framing" (ALTERNATE).

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with the following agencies:
 - 1. Lumber Grading Agency: Certified by ALSC.
 - 2. Plywood Grading Agency: Certified by APA.

2 PART 2 PRODUCTS

2.1 LUMBER MATERIALS

- A. Lumber Grading Rules: WWPA.
- B. Beam Framing: Stress Group 1500 p.s.i., Douglas Fir species, No. 1 grade, 19 percent maximum moisture content.
- C. Joist Framing: Stress Group 1500, Douglas Fir species, No. 1 grade, 19 percent maximum moisture content.
- D. Non-structural Light Framing: Stress Group 1050, Douglas Fir species, Construction grade, 2" to 4" thick and 2" to 4" wide classification, 19 percent maximum moisture content.
- E. Studding: Stress Group 600 psi, Douglas Fir species, Stud grade, 2" to 4" thick and 2" to 4" wide classification, 19 percent maximum moisture content.
- F. Sill Plate: Pressure treated douglas fir.

2.2 ACCESSORIES

- A. Fasteners: Galvanized steel for exterior, high humidity, and treated wood locations, plain finish elsewhere.

- B. Joist Hangers: Galvanized steel, sized to suit framing conditions.

3 PART 3 EXECUTION

3.1 FRAMING

- A. Erect wood framing members in accordance with Uniform Building code. Place members level and plumb. Place horizontal members crown side up.
- B. Frame double joist headers at floor and ceiling openings. Frame rigidly into joists. Frame double joists under wall studding.
- C. Bridge floor joists framing in excess of 8 feet span at mid-span of members. Fit solid blocking at ends of members.
- D. Curb all roof openings except where curbs are provided. Construct curb members of single pieces per side.

3.2 SHEATHING

- A. Install roof sheathing perpendicular to framing with end joints staggered. Secure sheet edges over firm bearing.
- B. Install sheathing to two span continuous 48 inches minimum length.
- C. Secure wall sheathing with ends staggered, over firm bearing.

END OF RO. CARPENTRY SECTION

SECTION 06200

FINISH CARPENTRY

1 PART 1: GENERAL

1.1 SCOPE OF WORK:

Furnish all labor, material, tools and equipment necessary for and incidental to the completion of all FINISH CARPENTRY WORK as shown on the drawings or specified herein. This Section relies extensively on Section 01001 of these specifications and all requirements therein must be adhered to by this Contractor.

1.2 SECTION INCLUDES

- A. Finish carpentry items, including new doors, hardware and attachment of accessories.
- B. Installation of doors, jambs and door hardware.
- C. Cabinets and counter tops.
- F. Any other cabinets noted as new on plans and/or Interior elevations.

1.3 RELATED WORK NOTED ELSEWHERE:

- A. Hardware for all doors. (SECTION 08710)
- B. Wood Doors, section 08200.

1.4 QUALITY ASSURANCE

- A. Perform cabinet work in accordance with Woodwork Institute of California (W.I.C.) Custom quality.

2 PART 2: PRODUCTS

2.1 CABINETS:

- A. Shall be "Woodwork Institute of California" (WIC) Custom grade. All exposed finishes to be laminated plastic covered, Euro-style, WIC style A-Type 1.
- B. Plastic Laminate shall be as specified in Section 2.3 below.
- C. Countertops shall be "Laminated Plastic with rounded outer corners and selfcovered splash. or approved equal.

2.2 FINISH MATERIALS

- A. Plastic Laminate: Shall be as manufactured by Wilson Art or approved equal, NEMA LD 3.1. Color, pattern and surface texture as selected by City of Garden Grove. See finish schedule under cabinets for location of counter top material.

2.3 LUMBER MATERIALS

- A. Softwood Lumber: PS 20; Graded in accordance with WIC Custom standards; maximum moisture content of 6 percent.
- B. Hardwood Lumber: Graded in accordance with Custom; oak species, maximum moisture content of 8 percent.

2.4 SHEET MATERIALS

- A. Softwood Plywood: PS 1 Grade C-D; Graded in accordance with APA, veneer core.
- B. Wood Particle board: ANSI A208.1 Type 1 2; standard, composed of wood chips made with waterproof resin binders, sanded faces.

C. Hardboard: ANSI A135.4; Pressed wood fiber with resin binder; tempered grade.

2.5 ACCESSORIES

- A. Fasteners: Size and type to suit application; Electro galvanized steel for exterior, high humidity and treated wood locations, plain finish elsewhere.
- B. Contact Adhesives: "Lockwood" contact cement.
- C. Wall Adhesive: Cartridge type, compatible with wall substrate, capable of achieving durable bond.

2.6 HARDWARE

A. Cabinet Hardware:

- (1) HINGES: Blum or equal, self closing, concealed, wit a minimum 125 degree open angle.
- (2) PULLS: "Bainbridge" BA1710- recessed. finish as selected by Owner.
- (3) SHELF STANDARDS: KV255, KV256 supports, stainless finish.
- (4) SHELF BRACKETS: type to match brackets.
- (5) DRAWER SLIDES:
 - (a) "Blum" epoxy coated bottom mount, 100 lb. load capacity for standard drawers.
 - (b) "Accuride" full extension, 150 lb load capacity for file drawers.

B. Door Hardware: See Door Hardware schedule in Section 08705.

2.7. FABRICATION

- i) Fabricate to W.I. Custom standards.

PART 3 EXECUTION

a) INSTALLATION

- i) Install work in accordance with W.I. Custom Quality Standard.
- ii) Set and secure materials and components in place, plumb and level.
- iii) Cover exposed edges of shelving with laminated plastic edging.
- iv) Apply plastic laminate finishes with adhesive over entire surface. Apply laminate backing sheet on reverse side of plastic laminate finished surfaces.
- v) Install hardware supplied by Section 08705 in accordance with manufacturer's instructions.

b) PREPARATION FOR FINISH

- i) Sand work smooth and set exposed fasteners. Apply wood filler in exposed fastener indentations.
- ii) Site Finishing: Refer to Section 09900.

END OF SECTION

SECTION 07210

BUILDING INSULATION

PART 1 GENERAL

1.1 SCOPE OF WORK:

Furnish all labor, material, tools and equipment necessary for and incidental to the completion of all BUILDING INSULATION WORK as shown on the drawings or specified herein. This Section relies extensively on Section 01001 of these specifications and all requirements therein must be adhered to by this Contractor.

SECTION INCLUDES

- A. Installation of new batt insulation in all existing exterior walls except overhead doors.
- B. Installation of new R-19 batt insulation in existing sloped roof/ceiling.
- C. Installation of new sound batt insulation in all New interior walls and on new 8'-0" high interior ceilings

ENVIRONMENTAL REQUIREMENTS

Install insulation in accordance with manufacturer's instructions and State of California Environmental and OSHA standards.

PART 2 PRODUCTS

1.2 INSULATION MATERIALS

1. R-19 Batt Insulation : ASTM C665; Type 1 Owens Corning PSK-faced (White), Ecotouch Flame spread 2.5 fiberglass insulation. To be installed on existing roof/ceiling .
2. R-19 " Thermal batt insulation ASTM C665; Type 1 Owens Corning "Ecotouch" thermal batt insulation. To be installed inside existing exterior metal walls.
3. R-11 Batt Insulation : ASTM C665; Type 1 glass fiber sound insulation batts. "Sonobatts" as manufactured by Owens Corning Fiberglas Corp, To be installed in new wood or metal stud partitions and their ceilings.

PART 3 EXECUTION

EXAMINATION

Verify that electrical and plumbing work in walls is installed and that all new or open walls scheduled to receive drywall are ready to receive insulation.

INSTALLATION - BATT INSULATION

Install in partitions full height to underside of existing roof.
Fit insulation tight in spaces. Leave no gaps or voids.
Install friction fit insulation tight to framing members, completely filling prepared spaces.

END OF BUILDING INSULATION SECTION

SECTION 08560

WINDOWS

PART 1 GENERAL

1.1 SCOPE OF WORK:

Furnish all labor, material, tools and equipment necessary for and incidental to the completion of all VINYL WINDOWS as shown on the drawings or specified herein. This Section relies extensively on Section 01001 of these specifications and all requirements therein must be adhered to by this Contractor.

1.2 SECTION INCLUDES

A VINYL windows.

1.3 RELATED WORK NOTED ELSEWHERE:

- A. Demolition section.
- B. Steel framing of opening in existing exterior metal wall.

1.4 SYSTEM DESCRIPTION

- A. Remove portion of existing metal siding to fit new vinyl windows,
- B. Install new window using recommended methods with flashing installed to protect wall from leakage and proper functioning of windows after completion.
- C. Drain water entering the frame, to exterior.

1.5 SUBMITTALS

- A. Shop Drawings: Indicate dimensions, relation to construction of adjacent work, air and vapor seal with adjacent construction, component anchorage and locations, anchor methods, shim methods and materials, hardware, and installation details.

PART 2 PRODUCTS

2.1 WINDOW UNITS

- A. Units are vinyl, dual glazed, sliding windows. Anderson or approved equal.
- B. Weather Stripping: Roll formed stainless steel brass wool pile flexible plastic, configured for a flexible fit.
- C. Bituminous Paint: Asphaltic coating.
- D. Anchor Devices: Non-corroding.

2.2 GLASS AND GLAZING MATERIALS

- A. Glass and Glazing Materials in Window Lights: Dual glazed As specified in Section 08800, Type glass.

2.3 HARDWARE

- A. Horizontal Sliding Sash: Extruded PVC interfacing tracks Nylon ball bearing rollers in steel bracket, screw adjustable, with limit stops in head and sill track.
- B. Sash lock: Lever handle with cam lock.

C. Threshold: Extruded aluminum, sloped to exterior, except interior sliding door shall be as noted.

D. Bottom Rollers: Stainless steel, adjustable.

E. Limit Stops: Resilient rubber .

2.4 FABRICATION

A. Fabricate frames and mullions with reinforced corners and joints. Supplement frame with internal reinforcement where required for structural rigidity.

B. Permit internal drainage weep holes and channels to migrate moisture to exterior.

C. Form glass stops, exterior sills, closures, weather stops, and flashings of same material as window frame.

D. Assemble insect screens of formed rectangular sections with mesh set into frame and secured. Fit frame with four spring loaded pin retainers.

E. Double weather strip operable units.

F. Apply asphaltic paint to concealed metal surfaces in contact with cementitious surfaces or dissimilar metals.

2.5 FINISHES

A. Exterior and Interior Surfaces: As selected by Owner.

B. Conceal Steel Items: Galvanize to 2.0 oz/sq ft. Prime paint.

C. Apply bituminous paint to concealed aluminum and steel surfaces in contact with cementitious or dissimilar materials.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Verify that rough openings are correctly sized and located.

B. Prepare opening to permit correct installation of frame and achieve continuity of air and vapor barrier seal.

3.2 INSTALLATION

iii) Install frames, glazing, hardware and flashings in accordance with manufacturer's instructions.

iv) Use anchorage devices to securely attach frames to structure.

v) Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.

vi) Install glass in accordance with Section 08800, using vinyl glazing channel method of glazing.

vii) Install perimeter type sealant, backing materials, and installation requirements in accordance with Section 07900.

3.3 SCHEDULES

viii) See drawing sheet A-9 for sliding door and window schedule.

END OF windows SECTION

SECTION 08200

WOOD DOORS and FRAMES

1 PART 1: GENERAL

1.1 SCOPE OF WORK:

Furnish all labor, material, tools and equipment necessary for and incidental to the completion of all WOOD DOOR WORK as shown on the drawings or specified herein. This Section relies extensively on Section 01001 of these specifications and all requirements therein must be adhered to by this Contractor.

1.2 SECTION INCLUDES

- A. Prefinished "laminated plastic finished" wood type doors.
- B. Steel frames for these doors.
- C. All vents in doors related to these doors and frames.

1.3 RELATED WORK SPECIFIED ELSEWHERE:

- A. Finish Carpentry, (Section 06200).
- B. Door hardware under section 08708

1.4 QUALITY ASSURANCE

- A. Perform work in accordance with the following:
 - 1. ANSI/NWDA I.S.1.
 - 2. Fire Door and Panel Construction; Conform to ASTM E152 NFPA 252 UL 10B.
 - 3. Installed Door and Panel Assembly; Conform to NFPA 80 for fire rated class as scheduled, as indicated.

2 PART 2 PRODUCTS

2.1 DOOR TYPES

- A. Wood Doors shall be prefinished "Laminated Plastic finish" doors. They shall have a prefinished surface of laminated plastic and fitted for metal frames listed below. When required to be fire rated, they shall be a minimum of 20 minute fire resistive or better as noted on door schedule. Rated doors shall have fire rated frames of equal or higher rating.

2.2 DOOR JAMBS (frames)

- A. Frames for wood type doors designated as "Timely" on doors schedule shall be 18 ga. series "C" Pre-finished steel frames as manufactured by "Timely Industries" of Sun Valley, CA. Color shall be browntone or as selected by City of Garden Grove. Acceptable substitute - "Rediframe" of equal metal thickness and finish as manufactured by "Slimfold Manufacturing Co."

2.3 FABRICATION

- A. Fabricate non-rated doors in accordance with ANSI/NWDA I.S.1 requirements.
- B. Fabricate fire rated doors in accordance with ANSI/NWDA I.S.1 and to UL Warnock-Hersey requirements. Attach fire-rating label to door edge.

- C. Fabricate doors with hardware reinforcement blocking in place.
- D. Factory machine doors for finish hardware.
- E. Factory pre-fit doors for frame opening dimensions identified on shop drawings.

3 PART 3 EXECUTION

3.1 INSTALLATION

- A. All items under this heading shall be set in their correct locations as shown on the plans and shall be level, square, plumb and at proper elevation and alignment with other work in accordance with manufacturer's instructions and ANSI/NWWDA I.S.1 requirements.
- B. Hardware shall be installed on the doors as specified in the hardware schedule, well secured, straight, neat, complete and in perfect working condition.
- C. Adjust doors for smooth and balanced door movement.

3.2 INSTALLATION TOLERANCES

- A. Conform to ANSI/NWWDA requirements for fit and clearance tolerances and maximum diagonal distortion.

3.3 SCHEDULE

- A. See Door Schedule sheets A-2 of the drawings and floor plan sheets A-3 for additional information on these doors.

END WOOD DOORS SECTION

SECTION 08710

DOOR HARDWARE

PART 1 GENERAL

1.01 SUMMARY

- A. Hardware for Wood, Hollow Steel, Aluminum Plastic Laminate Faced doors.
- B. Thresholds.
- C. Gasketing.

1.02 REFERENCES

- A. ANSI A117.1 - Specifications for making buildings and facilities accessible to and usable by Physically Handicapped People.
- B. NFPA 80 - Fire Doors and Windows.
- C. NFPA 101 - Fire Life Safety
- D. WIC - Woodwork Institute of California.
- E. BHMA - Builders' Hardware Manufacturers Association.
- F. DHI - Door and Hardware Institute.
- G. NAAMM - National Association of Architectural Metal Manufacturer.
- H. CBC - California Building Code
- I. SDI - Steel Door Institute.
- J. ADA - Americans With Disabilities Act.

1.03 COORDINATION

- A. Coordinate work of this Section with other directly affected Sections involving manufacturer of any internal reinforcement for door hardware.

1.04 QUALITY ASSURANCE

- A. Manufacturers: Companies specializing in manufacturing door hardware with minimum five years experience.
- B. Hardware Supplier: Company specializing in supplying institutional door hardware with three years documented experience. Company shall employ Architectural Hardware Consultant (AHC) who shall be available for jobsite meetings and required by Architect, owner or contractor.
- C. Source Limitation: Obtain each type and variety of door hardware from only one

manufacturer, although several may be indicated as offering products complying with requirements.

- D. Scheduled Designations: Except as otherwise indicated, the use of one manufacturer's numeric designation system in schedules does not imply that another manufacturer's products will not be acceptable, unless they are not equal in design, size, weight, finish, function, or other quality of significance. However, do not make substitutions after Architect's acceptance of hardware supplier's completed hardware schedule.

1.05 REGULATORY REQUIREMENTS

- A. Conform to California Building Code and NFPA Standard No. 80, for requirements applicable to fire rated doors and frame.
- B. The hardware schedule shall detail all door locations, sizes, materials, labels and proper handing.
- C. Conform to the applicable sections of the California Building Code, CBC Sections 1133B.2.1, 1133B.2.5, 1133B.2.5.1, 1003.1.8, 1003.3.1.9, and 1133B.2.4.1.
- D. Provide UL labels on all panic devices in fire-rated openings.
- E. Provide California State Fire Marshall Listing for all fire exit hardware.
- F. Comply with ADA - Americans with Disabilities Act.

1.06 SUBMITTALS

- A. Submit schedule, shop drawings, and product data under provisions of Section 01300, Submittals. The Door Schedule on the Contract Drawings indicates which Hardware Group is to be used with each door.
- B. The hardware schedule shall detail all door locations, sizes, materials, labels and proper handing.
- C. Indicate locations and mountings heights of each type of hardware.
- D. Provide product data on specified hardware.
- E. Indicate quantity, complete part numbers and installation location for each piece of hardware.
- F. Provide final keying charts for Owner approval.
- G. Submit manufacturer's part list, templates and installation instructions under provision of Section 01300, Submittals.
- H. Submit manufacturer's certificate that fire-rated hardware meets or exceeds specified requirements.

1.07 OPERATION AND MAINTENANCE DATA

- A. Submit operation and maintenance data.
- B. Include data on operating hardware, lubrication requirements, and inspection procedures

related to preventative maintenance.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Package hardware items individually, group small items together, label and identify package with door opening code to match hardware schedule. Identify location of each door opening. Deliver in strong sturdy containers.
- B. Deliver keys to Owner by security shipment direct from Lock Manufacturer. Failure to comply will result in rekeying of facility at supplier's expense.
- C. Protect hardware from theft by cataloging and storing in dry, secure area.

1.09 GUARANTEE

- A. Provide a 2-year written guarantee. Said guarantee shall read as follows: "For a period of not less than two (2) years, we (Firm Name) will service and or replace, at no charge to the Owner, any part proving defective due to faulty manufacture of materials. Exit Devices to be guaranteed for five years & Door Closers shall be guaranteed for twenty-five years. This guarantee does not cover abnormal operation conditions or abusive jobsite treatment after acceptance of work by Owner".

1.10 MAINTENANCE MATERIALS

- A. Provide special wrenches and tools applicable to each different or special hardware component.
- B. Provide maintenance tools and accessories supplied by hardware component manufacturer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

<u>Hardware Item</u>	<u>Listed Manufacturer</u>	<u>Approved Equals</u>
HINGES	(BOM) Bommer	As Listed
LOCKS & CYLINDERS	(MAR) Marks USA	As Listed
DOOR CLOSERS	(DOR) Dorma	As Listed
PUSH/PULLS/KICKS	(TRI) Trimco	As Listed
WALL & FLOOR STOPS	(TRI) Trimco	As Listed
WEATHERSTRIP & THRESHOLDS	(NGP) National Guard Products	As Listed

2.02 KEYING

- A. Locks, Deadbolts, Cylinders, Padlocks
 - 1. All Locks and Cylinders shall be keyed to an existing 6-pin Grandmasterkey system. Furnish 6 of each Masterkey. Furnish 3 change keys per lock.

2. All Keying requirements shall be established by Hardware Distributor with input from Owner and Architect.
3. Deliver all Permanent keys directly to Owner's Representative via registered delivery.

2.03 KEY CONTROL SYSTEM & CABINET – Not Required

2.04 FINISHES

- A. Finishes are identified in Schedule at end of this Section.
- B. Finishes to conform to the following standards of symbols.

<u>Finish/Description</u>	<u>US Symbol</u>	<u>BHMA No.</u>
1. Prime Coat	PC	600
2. Polished Brass	3	605
3. Satin Brass	4	606
4. Polished Bronze	9	611
5. Satin Bronze	10	612
6. Oil Rubbed Bronze	10B	613
7. Satin Chromium	26D	626/652
8. Polished Chromium	26	625/651
9. Stainless Steel	32D	630
10. Polished Stainless Steel	32	629

2.05 SUBSTITUTION REQUESTS

- A. No substitutions for manufacturer's products specified or those listed as an approved equal will be allowed unless written request is submitted. Requests for approval shall comply with Section 01630, Product Options and Substitutions. All requests for substitution must be submitted with a CSI substitution form.
- B. Requests for substitution must list specified item (s) and the proposed substitution. Catalog cuts for specified item (s) and the proposed substitution must be included with transmittal. Include cost savings where applicable.
- C. Requests for substitution must also state the effects that the substitution will have on other trades.
- D. Products listed in the specification have been selected for the performance required for this project. Any proposed substitution must meet the material content, design, accessory features and installation requirements or approval will be denied.

PART 3 EXECUTION

3.01 INSPECTION

- A. Verify that doors and frames are ready to receive work and dimensions are as indicated on shop drawings.
- B. Verify that power supply is available to power operated devices.

- C. Beginning of installation means acceptance of existing conditions.

3.02

INSTALLATION

- A. Install hardware in accordance with Manufacturer's instructions and with CBC Section 1133B.2.5.1.
- B. Use the templates provided by hardware item manufacturer.
- C. Mounting heights for Hardware:
 - 1. Locksets: 40-5/16 inches from floor to centerline of lever or handle.
 - 2. Hinges: 5 inches from head of opening to top of top hinge; 10 inches from finish floor to bottom of bottom hinge; intermediate hinge(s) spaced equidistant between top and bottom butts.
- D. Conform to ANSI A117.1 for positioning requirements for accessibility.
- E. After fitting hardware to doors remove all finish hardware except butt hinges, carefully replace in properly marked boxes and place in storage until painting and finishing is completed. After painting and finishing is completed, permanently install finish hardware.
- F. Secure finish hardware with suitable fasteners of the same material and finish as the item being attached. Contractor shall provide blocking in walls to receive wall stops or holders.
- G. Provide expansion anchors for attaching hardware items to concrete or masonry.
- H. Mount exit devices and closers on mineral or particle core fire doors with closed head sex bolts.

3.03

FASTENERS

- A. Screws for strikes, face plates and similar items shall be flat phillips head, countersunk type; provide machine screws for metal and standard wood screws for wood.
- B. Screws for butt hinges shall be flat phillips head, countersunk, full-thread type.
- C. Fastening of closer bases of closer shoe to doors shall be by means of sex bolts and spray painted to match closer finish.
- D. Use manufacturer's supplied attachments.

3.04

BUTT HINGES

- A. Furnish 3 ea. 4-1/2" ball or 'oilite' bearing hinges at doors up to 89" tall. Furnish one additional hinge for each additional 30" of door height.
- B. Furnish 5" extra heavy duty hinges at doors 42" and wider.
- C. Furnish 5" extra heavy duty hinges where listed in hardware groups.
- D. Provide extra heavy duty hinges where listed in hardware groups.

- E. Stainless steel hinges shall have stainless steel pins and shall be manufactured with 304L stainless steel.
- F. Provide sufficient hinge width to clear trim and allow 180 degree swing.
- G. All hinges shall be manufactured in the United States of America.

3.05 LOCKS

- A. Provide locks as scheduled with 2-3/4" backset. Locks for labeled doors shall be ANSI Grade I – Certified and UL Listed for 3 hours.
- B. Furnish strikes with curved lip of sufficient length to clear trim and protect clothing.

3.06 DOOR CLOSERS

- A. Provide adjustable sized closers with the following maximum pressure for opening of doors. Adjust closers after installation and test doors in the event of fire.
 - 1. Maximum effort to operate doors shall not exceed 5 pounds for exterior doors and 5 pounds for interior doors, such pull or push effort being applied at right angles to hinged doors and at the center plane of sliding or folding doors.
 - 2. Compensating devices or automatic door operators may be utilized to meet the above standards.
 - 3. When fire doors are required, the maximum effort to operate the door may be increased to the minimum allowable by the appropriate administrative authority, not to exceed 15 pounds.
- B. Comply with CBC Section 1133B.2.5.
- C. If the door has a closer, then the sweep period of the closer shall be adjusted so that from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the landing edge of the door.
- D. The Factory representative for the door closer manufacturer shall visit the project prior to acceptance of the project by the owner to insure installation and adjustment of the closers has been performed properly.
- E. The supplier and installer shall furnish mounting plates and brackets necessary to allow for a complete and secure installation, whether specified or not.
- F. Where parallel arm closers are mounted in conjunction with surface mounted door seal, and the closer will be mounted on top of the seal, provide parallel arm brackets with spacer blocks to secure the bracket with the "5th" screw attachment. Spacer blocks shall be furnished 3/4" in height when seal extrusion is 1/4" and the frame stop is 1/2" in depth. If frame stop is 5/8", the spacer block shall be 7/8" in height.

3.07 SIGNS

- A. Exit doors with dead locks (for "B" occupancies) shall have indicating type lock hardware or appropriate signing in accordance with CBC Sections 1117B.5 & 1103.2.4, "THIS DOOR TO REMAIN UNLOCKED WHENEVER THE BUILDING IS OCCUPIED" ..

3.10

THRESHOLDS, DOOR SEALS, DOOR BOTTOMS, DOOR SWEEPS AND ASTRAGLS

- A. Standard: BHMA A156.21 and A156.22. Listed under Category J in BHMA's "Certified Product Directory".
- B. General: Provide continuous weatherstrip gasketing on exterior and provide smoke, intumescent, light or sound gasketing on interior doors as indicated and specified in the individual finish hardware sets. Provide manufacturers supplied non-corrosive fasteners for exterior applications and elsewhere as indicated.
 - 1. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame. Where NGP 700ASseal is specified, install seal before exit device strikes and closers.
 - 2. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
 - 3. Door Bottoms: Shall require low force operation and shall be applied to the bottom of the door, forming a seal with the threshold when door is closed.
- C. Air Leakage: Not to exceed 0.50 CFM per foot (0.000774 cu. m/s per m) of crack length for gasketing, other than for smoke control, as tested in accordance to ASTM E 283.
- D. Smoke-Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke-control ratings indicated, based on testing according to UL 1784.
- E. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to NFPA 252, UBC Standard 7-2 and UL 10B & C.
- F. Sound Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated, based on testing according to ASTM 1408.
- G. Color of Seal & Brush Material: Provide all seals, sweeps and door bottoms with matching color of extrusions and seal & brush material..
- H. Surface applied sweeps and door bottoms shall be mounted with an attachment screw located within ¼" of each end of aluminum extrusion holding the seal.
- I. When screw on gasketing is applied to the frame, an attachment screw shall be applied within ¾" each end of the extrusion holding the seal.
- J. Thresholds: Shall meet accessibility requirements to comply with "Americans with Disabilities Act" (ADA), Title 24 of the California Building Code (CBC) Section 1133B.2.4.1 and to "Accessibility Guidelines for Building and Facilities (ADAAG)".
 - 1. Bevel raised thresholds with a slope of not more than 1:2. Provide thresholds not more than ½ inch (13mm) high.
 - 2. Thresholds shall be extruded from S6063-T5 alloy aluminum, and /or #385 alloy bronze/brass.
 - 3. Thresholds/carpet separators shall be provided as necessary to comply with NFPA

80 fire codes.

4. Thresholds installed at exterior locations shall be set in a full bed of butyl mastic.
5. Thresholds at doors requiring sound control shall be set in a full bed of butyl mastic. This would include conference rooms, elevator equipment rooms, etc.

K. Warranty: Thresholds and weatherstripping shall have a 5-Year warranty. Thresholds with "SIA" finish shall be warranted for Ten Years.

3.11 PUSH-PULLS, STOPS, KICKPLATES, ARMOR PLATES, MOP PLATES, STRETCHER PLATES, FLOOR AND WALL STOPS & HOLDERS

Shall be provided by one manufacturer. All products shall be provided in brass, bronze, stainless steel metals as specified. Stainless steel plates shall be of 304L grade stainless steel. All plates shall have four beveled edges and any units furnished with sharp edges shall be rejected. Immediate replacement with acceptable units will be required. All products specified and furnished shall be installed with manufacturer's supplied screw attachments. Kickplates and armor plates over 16 inches in height and installed on rated wood doors, shall be UL approved and furnished with UL labels. Wall stops shall have an embedded steel washer in the rubber portion so that vandals cannot pry out the rubber. All floor stops and holders shall be mounted within 4 inches of adjacent walls and partitions. Do not place stops in the path of travel and, where stop and holders cannot be mounted within 4 inches of adjacent walls and partitions, furnish overhead stops and holders, as required for proper door control, per Policy 99-08.

3.12 SCHEDULE OF PRODUCTS

DOOR INDEX

<u>DOOR #</u>	<u>HW. SET</u>
1	1
2	2
3	2
4	3

HW. SET 1

1 DOOR 1 — MAIN RM TO OFFICE

3 EA	HINGES	BB5002-450	630	BOM
1 EA	LOCKSET	195L	626	MAR
1 EA	KICKPLATE	K0050 10" x 2" LDW B4E	630	TRI
1 EA	MOP PLATE	KM050 4" x 2" LDW B4E	630	TRI
1 EA	STOP	1211BS	626	TRI
1 SET	SEAL	2525W @ HEAD & JAMBS	WHT	NGP

HW. SET 2

1 DOOR 2 — MAIN RM TO STORAGE

1 DOOR 3 — MAIN RM TO STORAGE

3 EA	HINGES	BB5000-450	652	BOM
1 EA	LOCKSET	195F x SCH. "C" K WY	626	MAR
1 EA	STOP	1270CXCP	626	TRI

HW. SET 3

1 DOOR 4 – MAINROOM TO RESTROOM

3 EA	HINGES	BB5002-450	630	BOM
1 EA	PRIVACY SET	195L	626	MAR
1 EA	CLOSER	8916	689	DOR
1 EA	KICKPLATE	K0050 10" x 2" LDW B4E	630	TRI
1 EA	MOP PLATE	KM050 4" x 2" LDW B4E	630	TRI
1 EA	STOP	121IES	626	TRI
1 SET	SEAL	2525W @ HEAD & JAMBS	WHT	NGP

GENERAL NOTES & GUIDELINES:

1. STEEL DOORS & FRAMES SHALL BE FACTORY PREPPED FOR ALL SPECIFIED DOOR HARDWARE INCLUDING HINGES, LOCKSETS, ASTRAGALS AND CONCEALED DOOR BOTTOMS.
2. ALL EXTERIOR EXPOSED SCREWS SHALL BE TAMPER PROOF TYPE; I.E. TORX, ONE WAY, ETC.

END OF FINISH HARDWARE SECTION 08711

SECTION 09250

GYPSUM BOARD

PART 1: GENERAL

1.1 SCOPE OF WORK:

Furnish all labor, material, tools and equipment necessary for and incidental to the completion of all GYPSUM DRYWALL WORK as shown on the drawings or specified herein. This Section relies extensively on Section 01001 of these specifications and all requirements therein must be adhered to by this Contractor.

1.2 SECTION INCLUDES

- A. Gypsum board with taped and sanded joint treatment.
- B. Nailing, Metal corner bead.
- C. Textured or smooth finish.

1.3 RELATED WORK NOTED ELSEWHERE:

- A. Wood stud wall & ceiling framing. (Rough Carpentry - Section 06100)
- B. (Alternate) Metal stud wall or ceiling framing. (Section 09111)
- C. Building Insulation (Section 07210).

1.4 SUBMITTALS

- A. Submit under provisions of Section 01001, part D of "Basic Requirements".

1.5 SYSTEM DESCRIPTION

- A. Plan shall be carefully examined and drywall covering partitions extended to underside of ceiling, where noted on Plans or Specifications. Partitions to be covered with gypsum drywall shall not be enclosed until insulation has been installed. All new interior walls or walls where drywall is removed shall be covered with gypsum board per finish schedule.
- B. See reflected ceiling plan and Finish Schedule for areas of ceiling to receive drywall.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with ASTM C840, GA-216 - Recommended Specifications for the Application and Finishing of Gypsum Board, and GA-600 - Fire Resistance Design Manual.

2 PART 2 PRODUCTS

2.1 GYPSUM BOARD SYSTEM

- A. Manufacturer specified: (Products refer to this manufacturer, approved equal manufacturers products will be acceptable)
 - Goldbond Building Products
 - 1850 West 8th St.
 - Long Beach, CA 90813
- B. Acceptable alternate manufacturers:
 - 1. United States Gypsum
 - 2. Pabco

3. Flintkote
 4. Kaiser Gypsum
- C. Gypsum Board Types: All material shall be 5/8 inch thick, type "X", maximum permissible length; ends square cut, tapered edges; unless noted otherwise as follows:
1. Standard Type: ASTM C36.
 2. Fire Rated Type: ASTM C36 fire resistive, UL rated.
 3. Moisture Resistant Type: ASTM C630.
- D. Moisture resistant wallboard (MRGB) Shall be provided on Restroom walls, Janitors closet and walls of all wet areas, unless cement plaster is specified on plans.

2.2 ACCESSORIES

- A. Acoustical Sealant: Goldbond "Sound Seal" Non-hardening, non-shrinking g, for use in conjunction with gypsum board;
- B. Corner Beads: shall be of "square" type and shall be formed from galvanized steel, no lighter than 0.0217 thickness (26 ga.)
- C. Joint Materials: ASTM C475 GA 201 and GA 216, reinforcing tape, joint compound, adhesive, and water.
- D. Fasteners: ASTM C1002 Type W nails or ASTM C1002 Type S12 hardened screws.
1. Nails shall conform to Federal Specification FF-N-105B. Wallboard nails shall be type II, style 19, with mechanically deformed shank, blued finish, 1-1/4" length for 1/2" wallboard and 1-3/8" length for 5/8" wallboard.
 2. Screws for wallboard attachment shall be shouldered flat-headed design for use with special power-driven tools. Wood screws shall be as recommended by drywall manufacturer but not less than 1-1/4" long.
- F. Adhesive: ASTM C557, shall be of the type recommended in writing by the wallboard manufacturer for the following uses:
1. Joint and fastener concealment.
 2. Embedding compound for first and second coat.
 3. Finishing compound for final coat.
- G. Textured Finish Materials: Latex based texturing material, containing fine aggregate, Wall Spray Texture manufactured by Goldbond.
- H. Reinforcing tape shall be Goldbond Joint Tape or approved equal.

3 PART 3 EXECUTION

3.1 INSTALLATION - ACOUSTICAL ACCESSORIES

- A. Place acoustical insulation in all partitions, tight within spaces, around cut openings, behind and around electrical and mechanical items within or behind partitions, and tight to items passing through partitions. See Building Insulation Specification Section.
- B. Install acoustical sealant within partitions in accordance with manufacturer's instructions.

3.2 INSTALLATION - GYPSUM BOARD

- A. GENERAL; Wallboard shall be applied first to ceilings and then to walls, with the separate boards in moderate contact but not forced into place. The boards shall be so staggered that the corners of any 4 boards will not meet at a common point except at vertical corners.
- B. Nailing shall be spaced at 6" o.c. along nailing members at ceilings and at 8" o.c. at walls. (Unless closer spacing is required for shear panel spacing noted on plans.)
- C. Screws at edges shall be spaced at 6 o.c. Screws in field shall be spaced at 12" o.c. at ceilings and walls except where framing members attachments may be used in lieu of nailing. (Unless closer spacing is required for shear panel spacing noted on plans.)
- D. Joints shall be treated with a uniform layer of compound not less than 6" wide with joint tape imbedded in layer. After drying, a 2nd coat shall be applied over tape and fastening heads. After drying and sanding a final layer of finishing compound shall be applied and feathered not less than 12" wide. Treated area then must be sanded to obtain a smooth uniform surface.
- E. Install gypsum board in accordance with GA-201, GA-216 and GA-600.

Fasten gypsum board to furring or framing with nails or screws. Staples may only be used when securing the first layer of double layer applications.
- G. Place control joints consistent with lines of building spaces.
- H. Place corner beads at external corners. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials. Use bullnose corner bead at all 90 degree outside corners.
- I. Treat cut edges and holes in moisture resistant gypsum board with sealant.

3.3 JOINT TREATMENT

- A. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
- B. Feather coats onto adjoining surfaces so that camber is maximum 1/16 inch.

3.4 TOLERANCES

- A. Maximum Variation from True Flatness: 1/8 inch in 10 feet in any direction.
- B. As work progresses and upon completion of the work under this section, Contractor shall remove from the premises all surplus material, tools, equipment, rubbish and debris resulting from his work at his own expense and leave the installation in a neat, clean and workmanlike condition satisfactory to the Owner.

END OF GYPSUM BOARD SECTION

SECTION 09300

CERAMIC TILE

PART 1 GENERAL

1.1 SCOPE OF WORK:

Furnish all labor, material, tools and equipment necessary for and incidental to the completion of all CERAMIC TILE WORK as shown on the drawings or specified herein. This Section relies extensively on The General Conditions of the Contract of these specifications and all requirements therein must be adhered to by this Contractor.

1.2 SECTION INCLUDES

- A. Ceramic wall tile over mortar base at west wall, portion of south wall and Restroom using mortar base application method. See Plans.

1.3 RELATED WORK NOTED ELSEWHERE:

- A. Epoxy flooring section 09650.
- B. Drywall, section 09680.

1.4 SUBMITTALS

- A. Product Data: Provide material specifications, characteristics, and instructions for using adhesives and grouts. Submit per The General Conditions of the Contract.
- B. Samples: Submit two samples illustrating size, color range and finish for selection.
- C. Maintenance Instructions: Include recommended cleaning methods, cleaning materials, stain removal methods [and polishes and waxes].

1.5 QUALITY ASSURANCE

- A. Perform work in accordance with TCA Handbook for Ceramic Tile Installation, ANSI A108.1-1985, ANSI A108.4-1985, ANSI A108.5 AND A108.10-1985.

PART 2 PRODUCTS

- A. Manufacturer shall be "Dal-Tile Corporation", 2051 E. Howell, Anaheim, CA 92806. Ph (714) 634-2546. Mr.
- B. **Ceramic Wall Tile:** Per ANSI A137.1; 6"x6" -5/16" size, semi-glass surface finish, as selected from Dal Tile #0190 "Arctic White" color or as selected by owner. Requires all normal bullnose edges, ends and corners. Grout shall be summitville 962 to match tile color.

- C. **Base:** Standard 6" x 6" high sanitary cove base at walls and 4" base at cabinets. Cut base to fit under cabinet toe space if necessary.

2.1 SETTING MATERIALS

- A. Organic Adhesive: ANSI A136.1, Type I, thinset bond type for ceramic wall tile.
- B. Thinset Mortar Materials: ANSI A118.4 Latex Modified, Portland cement, sand, latex additive, and water.

2.2 GROUT MATERIALS

- A. Grout: ANSI A118.6, Ceramic Tile Grout. "Hydrament" grout.

2.3 ACCESSORIES

- A. Threshold: Marble type, matching color finish, full depth and width of frame opening, bevelled on thinner side. Required only where floor finishes change from tile to thicker or thinner material.

2.4 MORTAR AND GROUT MIX

- A. Mix and proportion pre-mix mortar and grout materials in accordance with manufacturer's instructions and TCA Handbook.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Seal substrate surface cracks with filler. Level and taper surfaces to a smooth, even finish. Acceptance of surface is indication that final product will be even, smooth level or plumb as required for good quality project with top quality workmanship as is reasonably implied therein.

3.2 INSTALLATION

- A. Install adhesive, tile, and grout in accordance with TCA Handbook. Use manufacturer recommended corner pieces, interior pieces and bullnose where ever required.
- B. Set tile to pattern indicated. Do not interrupt tile pattern through openings. Use full tile pieces wherever possible. If cut pieces are required, locate in rear or inauspicious locations.
- C. Cut and fit tile tight to penetrations. Form corners and bases] neatly. Align floor, base and wall joints.
- D. Grout tile joints. Make joints watertight, without voids, cracks, excess mortar or excess grout.
- E. Apply sealant to junction of tile and dissimilar materials and junction of dissimilar planes.

END OF Ceramic Tile SECTION

SECTION 09656

EPOXY FLOOR COATINGS

PART I GENERAL

1.1 SUMMARY

- A. Section Includes: Provide a complete epoxy floor system for concrete surfaces that meet the requirements for specific use indicated in the contract documents. Include all applicable substrate testing, surface preparation, and detail work.

1.2 RELATED SECTIONS

- A. Section 033000 – Cast-In-Place Concrete
- B. Section 090000 - Finishes

1.3 SUBMITTALS

- A. Submit under provisions of Section 013300.
- B. Product Data: Submit manufacturer's product data sheets on each product and system to be used including:
 - 1. Preparation Instructions and recommendations.
 - 2. Storage and handling requirements.
 - 3. Installation methods.
 - 4. Maintenance requirements.
- C. Selection Samples: For each system specified, provide two sets of samples and color charts, representing manufacturer's full range of colors and patterns.

1.4 QUALITY ASSURANCE

- A. All materials used in the epoxy floor system shall be manufactured and provided by a single manufacturer to ensure compatibility and proper bonding.
- B. Use adequate numbers of skilled workmen thoroughly trained and experienced in the necessary crafts and completely familiar with the specified requirements and methods needed for proper performance of the work of this section.
- C. Contractor shall have a minimum of 3 years experience installing epoxy floor coatings similar to that which is required for this project and who is acceptable to the manufacturer.
 - 1. Applicator shall designate a single individual as project foreman who shall be on site at all times during installation.
 - 2. Contractor must show and have QCA Qualified Contractor/Applicator paperwork from the manufacturer of the coating system, as required to obtain a long-term jobsite specific warranty.
- D. Convene a pre-application meeting before the start of application of coating system. Require attendance of parties directly affecting work of this section, including: Architect, contractor, applicator, and authorized representative of the coating system manufacturer and interfacing trades. Review the following:
 - 1. Drawings and specifications affecting work of this section.
 - 2. Protection of adjacent surfaces.
 - 3. Surface preparation and substrate conditions.
 - 4. Application.
 - 5. Field quality control.
 - 6. Protection of coating system.
 - 7. Repair of coating system.
 - 8. Coordination with other work.

1.5 DELIVERY, STORAGE & HANDLING

- A. Delivery: Materials shall be delivered to the job site in sealed, undamaged containers. Each container shall be clearly marked with manufacturer's label showing type of material, color, and lot number.
- B. Storage: Store all materials in a clean, dry place with a temperature range in accordance with manufacturer's instructions.
- C. Handling: Handle products carefully to avoid damage to the containers. Read all labels and Material Safety Data Sheets prior to use.

1.6 PROJECT SITE CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within the limits recommended by the manufacturer.
- B. Concrete shall be tested for moisture before applying seamless coating. Water vapor transmission upwards through on-grade concrete slabs may result in loosening of epoxy floors or improper curing of epoxy materials. If moisture emissions exceed 5 pounds per 1,000 square feet contact the manufacturer before application.
- C. Concrete must be at least 2500 psi and feel like 30 or 50 grit sandpaper.
- D. Concrete must be cured for a minimum of 28 days before coating is applied.
- E. Schedule coating work to avoid excessive dust and airborne contaminants. Protect work areas from excessive dust and airborne contaminants during coating application.
- F. Before any work is started, the applicator shall examine all surfaces for any deficiencies. Should any deficiencies exist, the architect, owner or general contractor shall be notified in writing and any corrections necessary shall be made.

1.7 WARRANTY

- A. Upon completion of the work in this section provide a written warranty from the manufacturer against defects of materials for a period of 1 (one) year. To obtain project specific warranty the coating system applicator must be a Westcoat Qualified Contractor/ Applicator and apply for warranty.

I. PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable manufacturer: Westcoat Specialty Coatings; 770 Gateway Center Drive, San Diego, CA 92102. Telephone 800-250-4519. Fax 619-262-8606. Web Site: www.westcoat.com.

2.2 MATERIALS

- A. As basis of design Westcoat Liquid Dazzle System 100% solids decorative epoxy floor coating system with metallic additives.

2.3 COMPONENTS

- A. Liquid Dazzle System: 100% solids epoxy system with metallic additives.
 - 1. Primer: EC-12 Epoxy Primer pigmented 250-300 square feet per gallon.

2. Top Coat: EC-38 Liquid Dazzle Epoxy 50 square feet per gallon.
3. Optional Top Coat: EC-95 Polyurethane Topcoat or SC-66 Satin Water-Based Polyurethane 300-500 square feet per gallon.

2.4 ACCESSORIES

- A. Supplemental Materials:
 1. Patching materials shall be EC-72 Epoxy Patch Gel or TC-5 Concrete Patch.
 2. Optional aggregate shall be CA-30 Safe Grip, or other sand designed to meet the owners skid resistance requirements.

II. PART 3 EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions.
 1. Inspect all surfaces to receive epoxy flooring. Verify that surfaces are dry, clean, and free of contaminants that would prevent epoxy flooring from properly adhering to the surface.
 2. Conduct calcium chloride testing according to ASTM F1869.
 3. Conduct surface profile inspection according to ICRI Technical Guideline No.03732.
 4. Before starting work, report in writing to the authority having jurisdiction any unsatisfactory conditions.

3.2 SURFACE PREPARATION

- A. Prepare surfaces using methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- B. Create a surface profile by shot blasting or mechanically abrading the surface.
- C. Clean Surfaces thoroughly prior to installation.
- D. Rout and clean moving cracks and joints: fill with manufacturer's recommended flexible epoxy filler material.
- E. Repair any non-moving surface deviations with manufacturer's recommended patching material.

3.3 INSTALLATION

- A. Install coatings in accordance with manufacturer's instructions.
- B. Mix multi-component materials in accordance with manufacturer's instructions.
- C. Use application equipment, tools, and techniques in accordance with manufacturer's instructions.
- D. Uniformly apply coatings at spread rates and in number of coats to achieve specified mil thickness recommended by the manufacturer.
 1. Install integral cove base where indicated on the contract drawings and according to manufacturer's instructions.
 2. Key in all drains, edges, and transition points according to manufacturer's instructions.
- E. Broadcast aggregates in accordance with the specified system and manufacturer's instructions.
- F. Adhere to all limitations, instructions, and cautions for epoxy coating as stated in the manufacturer's published literature.

3.4 FIELD QUALITY CONTROL

- A. Verify coatings and other materials are as specified.
- B. Verify coverages of the system as work progresses. Areas found not to meet the required thickness shall receive additional material until specified thickness is attained.
- C. Manufacturer's representative shall provide technical assistance and guidance for surface preparation and application of coating systems.

3.5 PROTECTION AND CLEAN-UP

- A. Installation areas must be kept free from traffic and other trades during the application procedure and cure time.
- B. Protect finished surfaces of coating system from damage during construction.
- C. Touch-up, repair or replace damaged flooring system after substantial completion.
- D. Clean area and remove all debris upon completion of work. Dispose of empty containers properly according to current Local, State and Federal regulations.

3.6 MAINTENANCE

- A. Contractor shall provide to owner, maintenance and cleaning instructions for the floor system upon completion of work. Owner is required to clean and maintain the surfaces to maintain manufacturer's warranty.

END OF epoxy floor SECTION

SECTION 09900

PAINTING

PART 1 GENERAL

A. SCOPE OF WORK:

Furnish all labor, material, scaffolding, tools and equipment necessary for and incidental to the completion of all PAINTING WORK as shown on the drawings or specified herein. This Section relies extensively on Section 01001 of these specifications and all requirements therein must be adhered to by this Contractor.

B. SECTION INCLUDES

1. Surface preparation for and field application of paints and coatings of all new work on the interior and exterior of the new building and canopy.
2. Painting work shall include but is not limited to:

EXTERIOR:

- a) Sheet metal flashing and trim that is not pre-finished..
- b) Steel column supports, steel beams, and purlins
- c) Misc. areas not prefinished.

INTERIOR:

- d) All new work on this project is considered exterior.

C. AREAS NOT REQUIRING PAINT:

- B. Prefinished metal sheathing of roof and walls.

D. SYSTEM DESCRIPTION

- C. Intent is to Paint all new surfaces not prefinished in color selected by Owner.

E. STORAGE:

D. The contractors operations for the preparation of paints and storage of materials shall be limited to a designated area, and such space shall be kept clean and orderly at all times. the contractor shall employ all safety measures during operations for the prevention of fire.

F. ENVIRONMENTAL REQUIREMENTS

- E. Store and apply materials in environmental conditions required by manufacturer's instructions.

PART 2 PRODUCTS

G. MATERIALS

1. Manufacturers:
Dunn Edwards Paint Co

2. Manufacturers considered equal:
Frazee Paint Co
Sinclair Paint Co.
3. Finish Materials: Conform to State of California codes for environmentally allowed materials, including flame/smoke rating requirements
4. Coatings: Ready mixed except field catalyzed coatings of good flow and brushing properties, capable of drying or curing free of streaks or sags
5. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials required to achieve the finishes specified. (Except if disallowed by State of California.)

FINISHES

Refer to schedule at end of section for surface finish schedule.

PART 3 EXECUTION:

1.1 EXAMINATION AND PREPARATION

- A Verify that substrate conditions are ready to receive work, correct minor defects and clean surfaces which affect work of this Section.
- B Remove [or mask] electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
- C Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.
- D Concrete and Unit Masonry Surfaces Scheduled to Receive Paint Finish: Remove foreign matter. Remove oil and grease with a solution of tri-sodium phosphate, rinse and allow to dry.
- E Uncoated Ferrous Surfaces: Remove scale by wire brushing, sandblasting, clean by washing with solvent. Apply treatment of phosphoric acid solution. Prime paint after repairs.
- F Shop Primed or previously painted steel surfaces: Sand and scrape to remove loose primer and rust, clean surfaces with solvent, Prime bare steel surfaces.

1.2 APPLICATION

- A Apply products in accordance with manufacturer's instructions.
- B Sand transparent finishes lightly between coats to achieve required finish.
- C Where clear finishes are required, tint fillers to match wood.
- D Back prime interior and exterior wood work scheduled to receive paint finish with primer paint.

1.3 CLEANING

- A As the work proceeds, Contractor shall protect the public and all property from damage due to his operations and shall be responsible for any and all kinds of damage to the work or property caused by his employees. Contractor shall promptly remove any finishes where spilled, splashed, or spattered.

The following paint schedule refers to Dunn-Edwards paint numbers. Paints of equal quality may be used. Acceptable equals are "Sinclair" and "Frazee". All products must comply with the current air quality regulations governing architectural coatings. The following numbers correspond to those on the finish schedule:

1.4 SCHEDULE - INTERIOR SURFACES

PT-1 Steel - Primed:

- 1 ct. BLOC-RUST Premium (BRPR00-1-WH metal primer.
- 2nd and 3^d cts. SYN-LUSTRO (w9) Acrylic Semigloss Paint.

COLORS TO BE SELECTED BY OWNER DURING CONSTRUCTION.

END OF PAINTING SECTION

SECTION 10800

RESTROOM ACCESSORIES

PART 1 GENERAL

1.2 SCOPE OF WORK:

Furnish all labor, material, tools and equipment necessary for and incidental to the completion of all RESTROOM ACCESSORIES as shown on the drawings or specified herein. This Section relies extensively on Section 01001 of these specifications and all requirements therein must be adhered to by this Contractor.

1.3 SECTION INCLUDES

- A. Restroom accessories.
- B. Grab bars.
- C. Handicapped signs
- D. Mirrors

1.4 RELATED WORK NOTED ELSEWHERE:

- A. Plumbing Fixtures, under Plumbing.
- B. Section 06100 Rough Carpentry: Placement of backing plate reinforcement.

1.5 SYSTEM DESCRIPTION

- A. All work shall comply with the Uniform Building Code, (current prevailing edition), the City of Garden Grove, and the requirements of State of California Administrative code, title 24 regulations governing handicapped requirements.
- B. Provide one item of each type listed in schedule below in each appropriate restroom.

1.6 SUBMITTALS

- A. Product Data: Provide data on accessories describing size, finish, details of function, attachment methods.

2 PART 2 PRODUCTS

2.2 MATERIALS

- A. Manufacturers: (Or approved Equal)
 - 1. BOBRICK WASHROOM EQUIPMENT, INC.
11611 Hart St., North Hollywood, CA 91605
(714) 662-1278

2.3 FINISHES

- A. Anchors: Galvanize to 1.25 oz/Sq yd.
- B. Enamel: Pretreat, one coat primer and two coats electrostatic baked enamel.
- C. Chrome/Nickel Plating: ASTM B456, Type SC 2; satin polished finish.
- D. Stainless Steel: No. 4 satin luster finish.

PART 3 EXECUTION

3.2 EXAMINATION AND PREPARATION

- A. Verify exact location of accessories for installation. Confirm with General Contractor that backing has been installed where needed.
- B. Deliver inserts and rough-in frames to site. Provide templates and rough-in measurements as required.

3.3 INSTALLATION

- A. Install all accessories listed in this Specification or noted on plans or normally required under this section in accordance with the California Administrative Code, Title 24 regulations regarding handicapped requirements and manufacturers' instructions.

3.4 LOCATION:

- A. All equipment must be installed at heights and locations as required by law and recommended by the manufacturer. Areas requiring such equipment shall be as noted on plans and specification. If required herein but not shown on plans, Contractor shall request clarification from City of Garden Grove. See finish schedule sheet, interior elevations and specifications.
- B. Install plumb and level, securely and rigidly anchored to substrate.

3.5 BACKING:

- A. Backing must be placed in the area of the grab bars and other equipment requiring backing prior to installation of drywall. If this is not done then the wall finishes, drywall, etc. must be removed, blocking installed and material replaced in an acceptable manner at no expense to the Owner.

3.6 SCHEDULE

<u>ITEM</u>	<u>BOBRICK MODEL #</u>	<u>FINISH</u>
A. PAPER TOWEL DISPENSER	Bobrick #B-262	Stainless Steel
B. Toilet Tissue Dispenser Bobrick, double roll	B-697	Stainless Steel
C. Toilet Seat Cover Dispenser	B-221	Stainless Steel
E. Soap Dispenser Surface mounted, Liquid type	B-2112	Stainless steel
F. Grab Bars-Tubular Spec. or Bobrick	1111 1-1/4"dia. B-3267	14ga. SS Stainless Steel
G. MIRRORS	1/4" PL glass per interior elevations.	
H. Handicapped wall sign	8"x8" #2385222	Blue
I. Handicapped door sign	12" dia. #RFH12RR	

END of Restroom Accessories SECTION

SECTION 11005

DOG RUNS, CAGES and EQUIPMENT

PART 1 GENERAL

1.1 SCOPE OF WORK:

Furnish all labor, material, tools and equipment necessary for and incidental to the completion of all **DOG RUNS CAGES and EQUIPMENT** as shown on the drawings or specified herein. This Section relies extensively on Section 01001 of these specifications and all requirements therein must be adhered to by this Contractor.

1.2 SECTION INCLUDES

- A. Run dividers, run floors, Gates and Trough Covers.
- B. Cages (N.I.C. -BY OWNER).
- C. Washer/Dryer (N.I.C. -BY OWNER).
- D. Exam table (Wall mounted, fold up type)
- E. Installation of all N.I.C. equipment.
- F. Furnish and install any and all additional equipment so designated on plans.

1.3 RELATED WORK NOTED ELSEWHERE:

- A. Section 01001, General Requirements
- B. Section 06100, Rough Carpentry: Placement of backing plate reinforcement.
- C. Section 15400, Plumbing.
- D. Section 16000, Electrical.

1.4 SYSTEM DESCRIPTION

- A. All work shall comply with the Uniform Building Code, (current prevailing edition), the City of GARDEN GROVE, and the requirements of State of California Administrative code, title 24 regulations governing handicapped requirements
- B. Install all required electrical and plumbing needed for proper operation of equipment.
- E. Section 01001, General Requirements

1.5 SUBMITTALS

- A. Product Data: Provide data on accessories describing size, finish, details of function, attachment methods. (3 copies)

PART 2 PRODUCTS

2.1 RUN GATES, DIVIDERS, FLOORS AND TROUGH COVERS:

- A. Shall be as manufactured by "Mason Company" of Leesburg OH.
- B. Gates shall be Stainless Steel wire grid.
- C. Run Dividers shall be FRP W with 24" high stainless steel wire above
- D. Floors shall be composite "Ultrabase" with rest bench.
- E. Water and Food dishes, (built-in)

2.2 Approved equal manufacturers are:

- A. "Shor-Line" of Kansas City Missouri (1-800-444-1579 or "Suburban Surgical Co." of Wheeling Illinois. (1-800-323-7366.

2.3 (N.I.C.) NOT IN CONTRACT Items)

The following items are N.I.C. (Not in contract) and will be furnished by the Owner or his own subcontractor but are to be installed, connected or otherwise prepared for by the General Contractor or his subcontractors as noted below. Any reference to the owner means the Owner or his subcontractor. Any reference to the contractor or subcontractor means the General Contractor or his sub-contractor. G.C.=General Contractor; S.C.=Subcontractor; REC = Elec. Receptacle; Sep. Circ.= Separate elec. circuit;

- A. **CAGES:** New units will be furnished by Owner. General contractor will aid in installing when ready.

- B. **COMPUTER SYSTEM:** This system will be installed by owners subcontractor. Electrician will prepare outlets and conduit per electrical plan and G.C. will alert Owner as soon as facility is ready for installation of this equipment.
- C. **EXAM TABLE:** New units will be furnished by Owner, and installed by General Contractor.
- D. **WASHER & DRYER** (stacked type) shall be furnished by Owner and installed by General Contractor.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Verify exact location of accessories for installation. Confirm with General Contractor that backing has been installed where needed
- B. Deliver inserts and rough-in frames to site. Provide templates and rough-in measurements as required

3.2 INSTALLATION

- A. Install all accessories listed in this Specification or noted on plans or normally required under this section in accordance with the California Administrative Code, Title 24 regulations regarding handicapped requirements and manufacturers' instructions.
- B. **LOCATION:** All equipment must be installed at heights and locations as required by law and recommended by the manufacturer. Areas requiring such equipment shall be as noted on plans and specification. If required herein but not shown on plans, Contractor shall request clarification from Architect. See finish schedule sheet, Interior elevations and specifications.
- C. Install plumb and level, securely and rigidly anchored to substrate.

3.2 BACKING and BLOCKING FOR EQUIPMENT:

- A. Backing must be placed in the areas of the exam table walls as required by manufacturer to support wall hung exam tables. blocking installed and material replaced in an acceptable manner at no expense to the Owner.

END OF Dog Runs & Equipment SECTION

SECTION 15400

PLUMBING

PART 1.00 - GENERAL

1.01 SCOPE OF WORK

Furnish all labor, materials, equipment, appliances and necessary incidentals for the complete installation of all plumbing as shown on the drawings and as specified herein.

A. Work Specified in this Section

1. Sanitary soil, waste, and vent system.
2. Domestic hot and cold water systems.
3. Pipe covering, insulation, and wrapping.
4. Excavation and backfill.
5. Rough-in and final connections to fixtures and equipment
6. All plumbing fixtures, valves, and other miscellaneous items of equipment required for a complete installation.

B. Related Work in Other Sections

1. Temporary facilities as specified in Section 01500.
2. Cutting and patching as specified in Section 01010.
3. Concrete work as specified in Division 3.
4. Electrical work as follows will be provided under Division 16:
 - a. Conduit and wiring as indicated on the drawings and as required.
 - b. Installing electrical devices such as starters, disconnects, control panels, and when indicated, furnishing such devices.

1.02 QUALITY ASSURANCE

A. Codes and Standards

1. All items indicated on site, Architectural or Mechanical drawings are to be provided complete from point of connection to finished fixture in conformance with all governing authority requirements. Nothing in these drawings or specifications shall be construed to permit work in violation of governing codes.
2. In addition to the requirements of all governing codes, ordinances, and agencies, conform to the requirements of the following codes and standards:
 - a. California Building Code, 2013 Edition.
 - b. Uniform Plumbing Code, current prevailing Edition.
 - c. City of Garden Grove.
 - d. State Fire Marshal.
 - e. State Health Department requirements.
 - f. All requirements of CAL/OSHA.
 - g. Title 24 of California Administrative Code.
 - h. All other regulatory agencies having jurisdiction over this work.

B. Guarantees

Furnish a written guarantee form required under Division 1, against defects in materials and workmanship for one year. Guarantee shall include repair of damage to, or replacement (if so required) of any part of premises caused by water, oil, or gas leaks or breaks in pipe, fixtures, or equipment provided under this Section.

1.03 SUBMITTALS

A. Manufacturer's Literature

Within 35 days after award of contract and before any of the materials of this section are delivered to the job site, submit five complete brochures of all materials and equipment, per Division 1 of these specifications.

B. Other Submittals

1. Shop Drawings.
2. Test data.

C. Operating and Maintenance Instructions

Deliver to Architect two complete sets in bound booklet form of written operating and maintenance instructions and brochures for equipment specified in this section. Fully instruct Owner's operating personnel and demonstrate performance, operating, and maintenance of equipment. Amount of time allocated for said instruction and demonstrations of equipment and systems shall be part of these obligations. One additional set of approved instructions shall be suitably framed behind glass and mounted as directed.

D. Record Drawings

Comply with requirements of Division 1. Keep an accurate dimensioned record of as-built locations and elevations, as referred to approved base datum, of buried concealed lines, manholes, cleanouts, valves, plugged tees, capped ends, and of work which is installed different from that indicated.

1.04 PRODUCT HANDLING

A. Protection

Take all precautions necessary to protect the materials of this section before, during, and after installation.

B. Replacements

In the event of damage, immediately repair all damaged and defective work to the approval of the Architect at no additional cost to the Owner.

1.05 MISCELLANEOUS

A. Examination of the Site

Exercise care in examining the site and coordinate all work indicated on the drawings with existing conditions. Report to Architect in writing conditions that will prevent proper provisions of this work. Verify depth and location of service lines with servicing companies having jurisdiction before excavating. By submission of the bid, the Contractor warrants that he has familiarized himself with the existing conditions and will perform all work as required for hookup and as required by the contract documents at no additional cost to the Owner.

B. Permits and Fees

Arrange and pay for all permits, inspections and fees required by all governing agencies. Deliver all certificates to Owner through the Architect.

C. Service Connections

Make all necessary arrangements with applicable utility company for connection to existing service lines. Pay all fees associated with work including meters and hookup charges. Utility assessment fees, if any, will be paid by the Owner and are not part of this contract.

D. Drawings

Coordinate all space requirements with other trades. Drawings indicate desired location and arrangement of piping, equipment, and other items and are to be followed as closely as possible.

PART 2.00 - PRODUCTS

2.01 GENERAL

A. Pipe Sleeves and Wrapping

Provide polished chromium plate and brass set screw flanges where plumbing pipes pass through walls, floors, ceilings, and partitions in finished portions of building, including flanges on pipes at fixtures. All sleeves in concealed and exterior walls shall be 20 ga. galvanized iron one inch o.d. larger than the pipe, caulked if below grade in a moisture proof manner.

B. Pipe Identification

1. Piping identification per ANSI and OSHA standards in Mechanical equipment areas only: Each individual pipeline shall be marked for quick and easy identification as to content and character of material carried in the pipes by Seton SNA or STR markers.
2. Markers shall be installed and spaced at not more than 8 ft. intervals and so located that markers shall be visible where piping system is exposed.
 - a. One marker shall be installed at each side of valves, special fittings, and at branch take-off. In furred spaces install one marker 2 ft. above floor and one marker 18 in. below ceiling line.
 - b. Furnish two identification charts complete with glass and frame showing list of materials carried in the piping system, classified by nature of its contents and respective identifying colors.
3. Color scheme shall be approved. Basic color for markers shall be as follows:
 - Domestic hot water - Orange
 - Domestic cold water - Green
 - Fuel gas - Yellow
 - Sanitary sewer - Green
 - Sanitary vent - Green

C. Materials

Materials when not otherwise definitely specified shall conform to the applicable ASTM, ASME, AGA, and ANSI standards.

D. Equal Materials and Substitutions

In addition to manufacturers specified, the following shall also be considered equal, provided corresponding models meet specified requirements. Equivalent substituted equipment named herein shall be submitted to Architect for approval. Submit alternate selections at time of bid, listing major equipment.

<u>ITEM</u>	<u>MANUFACTURER</u>
Strainers:	Walworth, Bailey, Mueller
Valves:	Walworth, Milwaukee
Pipe Hangers & Supports:	Fee & Mason, Elsen
Access Panels:	Milco
Gas Vents:	Metalbestos, Amerivent
Insulation:	Johns Manville, Gustin Bacon, Fiberglas
Plumbing Fixtures:	Kohler, Crane
Toilet Seats:	Church, Beneke
Flush Valves:	Delaney
Pressure Gauges:	Marsh, Marshalltown, Terrice
Water Heaters:	American, State, National
Soil Pipe:	Tyler, Universal

PLUMBING FIXTURES SHALL BE AS SPECIFIED ON DRAWINGS.

2.02 PIPE AND FITTING SCHEDULE

- A. Soils and storm drain lines 5 ft. from building: Vitrified clay pipe and fittings for soil pipe; service weight no-hub cast-iron pipe and fittings CISPI-301. Install in accordance with authorities having jurisdiction.

- B. Soil, waste, vent, and storm drain piping and to 5 ft. outside building: Service weight no-hub cast-iron pipe and fittings CISPI-301.
- C. Hot and cold water piping above ground: Type L hard-drawn copper tube, ASTM B88, and wrought copper fittings, ANSI B16.22.
- D. Cold water piping below ground and outside the building:
 - 1. 3 in. and smaller: Type K hard-drawn copper tube, ASTM B88, and wrought copper fittings ANSI B16.22, brazed joint type (refer to paragraph "Pipe Wrapping" herein).
 - 2. 4 in. and larger: Bell and Spigot Class 50 ductile iron pipe centrifugally cast, cement lined inside.
- E. Indirect Drains
Schedule 40 hot dipped galvanized steel pipe, ASTM A120, or Type M copper tube, ASTM B88 and wrought copper fittings, ANSI B16.22, solder joint type.
- F. Gas Piping
 - 1. 2 in. and smaller: Schedule 40 black steel pipe, ASTM A53, A120, with 300 lb. WOG black banded malleable iron screwed fittings.
 - 2. 2-1/2 in. and larger: Schedule 40 black steel pipe, ASTM A53, A120, with tube-turn econo-weight welded fittings.

2.03 MATERIALS FOR JOINTS, FITTINGS, AND VALVES

- A. Soil, Waste, Vent, and Storm Drain Cast-Iron Pipe Above Ground:
 - 1. Vertical: "No-Hub" couplings as approved by the cast-iron soil pipe foundation, CISPI-301.
 - 2. Horizontal: 4 in. and smaller, "No-Hub" couplings, 5 in. and larger, "M.G." cast-iron or Clamp-All couplings.
- B. Braze for Water Piping
Equivalent to Harris Stay-Silv O lead-free copper braze alloy. 95-5 solders are not approved.
- C. Welded Joints
Welding shall be performed only by qualified welders, and shall comply with ASME Boiler Construction Code, ANSI Code for pressure piping, and state requirements.
- D. Unions and Gaskets
 - 1. 2 in. and under for steel pipe: Screwed malleable-iron ground joint, 300 lb. WOG. Class with brass-to-iron seat, galvanized or black to suit service.
 - 2. 2-1/2 in. and larger for steel pipe: Cast-iron flanged gasket type, conforming to ANSI B16.1, galvanized or black to suit service, or 160 lb. forged steel slip-on flanges.
 - 3. Unions for copper tubing: Cast bronze, ground joint pattern, soldered joint connection, ASTM B62 and ANSI B16.18.
 - 4. Dielectric Unions: Epc, complete with isolators and gaskets of same size as pipe, galvanized or black to suit service.
 - 5. Dielectric Flanges: F. H. Maloney Co., Type E flanges for cathodic insulation.
 - 6. Gaskets: 1/16 in. Garlock #17022.
- E. Strainers
Y-type with stainless steel screen with perforations suitable for service requirements, same size as pipeline in which installed. Provide gate valve with hose connection at each strainer blow-off.
 - 1. 2 in. and smaller: Bailey 3131 bronze body, 500 lb. WOG, screwed ends with screwed gasketed cap.
 - 2. 2-1/2 in. and larger: Bailey 3132 cast-iron body, 125 lb. or 3102 cast-iron body 250 lb., flange ends and bolted gasketed cap.
- F. Valves
Valves shall be of same manufacturer, or of specifically approved manufacturer. Provide adaptors for valves in copper tubing where necessary.

Flanged iron body valves used in copper piping systems shall be installed with Maloney Flange and Bolts insulating kits.
 - 1. Eccentric valves 4 in. and smaller, gas: DeZurik #425 valve with RS49, plug seals, iron body, screwed or flanged, U. L.

listed.

2. Gates valves, 2 in. and smaller, water: 200 psi WOG, solid wedge disc, screwed bonnet, rising stem.

	<u>Threaded</u>	<u>Solder</u>
Nibco	T-111	S-111
Crane	428UB	1334
Stockham	B-100	B-108

3. Gate Valves, 2-1/2 in. and larger, water: 200 psi WOG, solid wedge disc, union bonnet, rising stem, flanged.

Nibco	F-617-0
Crane	465 1/2
Stockham	G-623

4. Partition Stop Valves: T&S B416, loose-key type with wall flange.

5. Ball Valves - Water: Bronze, Class 125, threaded.

Jamesbury 300 Series

Nibco T-580

Watts 6000

Stockham S-216-BR-RT

G. Check Valves

1. Horizontal swing:

- a. 2 in. and smaller (200 psi WOG), bronze screwed cap, swing.

	<u>Threaded</u>	<u>Solder</u>
Nibco	T-413(BWY)	S-413(BWY)
Crane	37	1342
Stockham	B314	B-309

- b. 2-1/2 in. and larger (200 psi WOG), iron body, bronze trim, screwed cap, swing, Y-pattern, regrinding, flanged.

Nibco F-918-B

Crane 373

Stockham G-931.

2.04 HOSE BIBBS

- A. HB-1; Equivalent to Woodford 24P-3/4, with vacuum breaker. (Keyless)

2.05 PIPE HANGERS

- A. Hangers shall be supplied with factory installed isolation and di-chromate finish.

1. 2 in. and smaller: Super Strut C-727-F.
2. 2-1/2 in. and larger: Super Strut C-710-F.
3. Concrete inserts: Super Strut 452.
4. Riser clamps for copper piping: Super Strut C-720-P, plastic coated.
5. Riser clamps for other piping: Super Strut C-720.

- B. Hanger rods shall conform to the following table:

Pipe size 2 inches and smaller:	3/8 inch rods
Pipe size 2-1/2 inches and 3 inches:	1/2 inch rods
Pipe size 3 inches and larger:	5/8 inch rods

2.06 ROOF FLASHING

- A. Sanitary Vent Flashings

Stoneman 1100-3 or 1100-5, with one piece lead flashing and counterflashing sleeve.

- B. Other Pipe Through Roof Flashing

Stoneman 1100-2 or 1100-4, one piece 4 lb. lead flashing and counterflashing sleeve.

2.07 PIPE SLEEVES

At concrete walls or floors, Adjust-to-Crete, Paramount, or Shamrock Cretesleeve. Floor sleeves shall extend to top of concrete curbs for piping rising through floors. Wall sleeves shall be flush with finished surface. Sleeves shall be sized to allow 1/2 in. clearance around pipe insulation. Insulation and covering shall be continuous through wall and floor sleeves.

2.08 ACCESS PANELS

A. Access Panels in Plaster Walls and Ceilings

Elmdor PW 24x24 in. with metal access door and frame, prime coated steel and painted to match adjacent surfaces. For fire rated areas use FR 1-1/2 hour "B" Label access panels, U. L. listed.

B. Access Panels in Acoustic Tile Ceilings

Elmdor AT 24x24 in. with metal access door and frame, 24x24 in. minimum size, prime coated steel, recessed to accept standard tile in full opening door.

C. Access Panels in Ceramic Tile Walls

Smith 4730 chrome plated cover and frame of suitable size for purpose intended, but not less than 8x8 in. size. For fire rated areas use FR 1-1/2 hour "B" Label access panels, U. L. listed.

2.09 CLEANOUTS

For cast-iron soil pipe, iron body with extra heavy bronze plugs screwed into caulking ferrules; for steel pipe, extra heavy bronze plugs; and for vitrified clay pipe, vitrified clay plugs.

Where cleanouts occur in finished interior walls, provide access panels, plates, and frames for flush mounting. Exposed parts of floor cleanouts shall have adjustable top. All cleanouts and cleanout plugs shall be accessible. Cleanout shall be the following:

A. In finished floors: Cast-iron with polished nickel bronze round top, non-skid diamond tread set flush with the floor. Provide flashing flange when used with waterproofing membrane.

Smith - 4023

Wade - W-6000

Zurn - ZN-1420-2

B. In Mechanical equipment areas: Cast-iron with heavy cast-iron round top, non-skid diamond tread set flush with the floor. Provide flashing flange when used with waterproofing membrane.

Smith - 4223

Wade - W-6000

Zurn - ZN-1420-25

C. In walls: Cleanout tee with squared polished nickel bronze access plate with vandalproof screws and frames. Opening 8x8 in. minimum.

Smith - 4558-U

Wade - W-8460-S

Zurn - ZN-1445-3

D. In exterior grades: Cast-iron body, vandalproof cover, non-skid diamond tread, set flush with grade or finished surface. In non-surfaced area, they shall be cast in a concrete block 14x14x6 in. deep.

Smith - 4020-U

Wade - W-8300MF

Zurn - ZN-1460-15-W/Z-1450-8

2.10 SHOCK ABSORBERS

Zurn "Shocktrol" with stainless steel continuous bellows which shall expand and dissipate the shock pressure into a Hydro-Pneumatic cushion, installed as indicated or as recommended by PDI pamphlet WWH-201. Provide access panel for a single multiple fixture installation (not of flush valve type). In no case shall a fixture be installed without shock protection.

2.11 PRESSURE TEMPERATURE RELIEF VALVE

Provide domestic water heater with ASME rated pressure/temperature relief valve set to relieve at 125 psi pressure and at 188 degrees to 208 degrees F temperature range.

2.12 PRESSURE GAUGES

Potter-Roemer 6240-U. L. - F. M. 0-300 psi range, complete with 3-1/2 in. diameter dial and gauge cock. Install pressure

gauges where indicated and as required.

2.13 INSULATION

- A. All pipe insulation shall comply with the State of California Energy Conservation Standards. Insulation thicknesses indicated are based on insulation having thermal resistances in the range of R-4.0 to R-4.6 per inch of thickness on a flat surface at a mean temperature of 75°F. Thicknesses indicated are minimum and shall be increased proportionately for materials having R values less than 4.0 per inch of thickness or may be reduced for materials having R values greater than 4.6 per inch thickness. Install pipe insulation after piping is installed, tested, and approved and is in clean, dry condition. Firmly butt insulation joints.
- B. Insulate all hot water and interior condensate drain piping with glass fiber pipe insulation with factory applied white jacket, J-M Micro-Lok 650 AP, 1 in. thick for pipe sizes to 1-1/4 in. and larger. Insulate fittings and valves with preformed insulation with PVC premolded one piece fitting cover, J. M. Zeston cover. Adhere longitudinal laps and butts of strips of jacket with factory applied pressure sensitive tape system, J-M AP-T. Flanges and unions shall not be covered.
- C. Insulate all piping under lavatories accessible to the physically handicapped with Armaflex P-trap insulation as fabricated by Thorpe Insulation Company.

2.14 PLUMBING FIXTURES AND EQUIPMENT

A. General

Plumbing fixtures trim and exposed supplies and wastes shall be brass with polished chrome plated finish. Provide individual loose key stops or, if so specified, screw driver stops for supplies and, unless integral with valves or faucets, mount under fixture. Separately trap all wastes. Provide exposed supplies and wastes to wall with polished chrome plated cast brass wall escutcheons. All lavatories shall have 1-1/2 in. 17 gauge chrome plated cast brass P-traps.

B. Wall-Hung Fixtures

Fixtures specified with hangers or supporting arms shall have hangers or arms securely mounted on a 1/4 in. thick by 6 in. wide steel wall plate which extends at least one stud beyond first and last fixture mounting points, or a total of three studs minimum. Attach wall plate to each structural stud it crosses by tack welding each side of stud flange at top and bottom of plate. Fixture or supporting arms shall be securely and firmly attached to steel wall plate in accordance with manufacturer's instructions. If structural studs are not being installed behind wall-hung fixtures, Plumbing Contractor shall notify Architect and Mechanical Engineer immediately.

C. Floor-Mounted Water Closets

Install on slotted cast-iron floor flanges. Make joints permanently gas and water tight with a preformed wax gasket and held in place with 5/16-in. solid brass bolts concealed with vitreous china bolt caps. Color to match fixture.

D. See drawings for fixtures, trim, equipment, and accessories specifications.

PART 3.00 - EXECUTION

3.01 SURFACE CONDITIONS

A. Inspection

1. All plumbing shall be installed in accordance with the requirements of all governing authorities, the original design, and the referenced standards.

B. Discrepancies

1. In the event of discrepancy, immediately notify the Architect.
2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.
3. Interferences between installed work of various trades due to lack of coordination shall be resolved by Architect whose decision is final. Relocate or offset any work as required to accommodate work of other trades at no extra cost to the Owner when so directed by the Architect.

3.02 LOCATIONS AND SPACE REQUIREMENTS

- A. Contractor shall fully inform himself regarding peculiarities and limitations of spaces available for installation of work under this division. Drawings indicate desired location and arrangement of piping, equipment, and other items, and are to be

followed as closely as possible. Work specified and not clearly defined by drawings shall be installed and arranged in a manner satisfactory to Architect. In event changes in indicated locations and arrangements are deemed necessary by Architect, they shall be made by Contractor without additional charge provided the change is ordered before work is installed and no extra materials are required.

- B. Verify all spaces, dimensions for all fixtures, equipment, tenant or Owner furnished equipment and equipment furnished under other sections.
- C. Obtain all necessary rough-in data and dimensions for all fixtures, equipment, tenant or Owner furnished equipment and equipment furnished under other sections.
- D. Maintain ample headroom clearances and accessibility. Maintain ceiling heights.
- E. Constantly check work of other trades to prevent interference with this installation.
- F. No shop assembled plumbing pipe trees allowed.

3.03 PIPE INSTALLATION

- A. Make pipe runs straight and true. Springing or forcing piping into place is not permitted. Install in manner to prevent any undue strain on equipment. Make joints smooth and unobstructed inside and out, and ream pipe ends thoroughly to remove burrs. Conceal piping in finished portions of the buildings except as otherwise directed or indicated. Cap or plug ends and openings in pipe and fittings immediately to exclude dirt until equipment is installed or final connections are made. Make pipe size reductions with reducing fittings. Use no bushings unless specifically authorized. Use no close nipples. Proceed to rough-in as rapidly as general construction of building will permit and complete and test before any lathing, plastering, or drywall, or other finish work is started. Fit work to available space and accurately rough-in. Grade and valve water piping so as to provide for complete drainage and control of the system. Provide clamps and/or concrete thrust blocks at dead ends, angles, or other points where separation of joints may occur. Grade vent piping to allow piping to free itself of condensation or water.
- B. Install piping to clear beams unless sleeving is indicated. Constantly check work of other trades to prevent interference with this installation. Obtain approval from Architect if coring or cutting of concrete work is necessary due to failure to install required sleeves prior to time of concrete pour. Cost of coring and cutting work shall be borne by the Subcontractor.
- C. Exposed Plated or Enameled Pipe
Make connections to equipment with special care. Show no tool marks or threads.
- D. Dielectric Unions
Make connections between two dissimilar metal pipes with dielectric unions.
- E. Unions
Provide a union on one side of each shutoff valve, at both sides of automatic valves, at equipment connections and elsewhere indicated or required, unless flanges are indicated.
- F. Floor, Wall, and Ceiling Plates
Provide where pipes pierce finished surfaces.
- G. Noise
Install soil, waste, and water piping in manner that prevents any unusual noise from flow of water under normal conditions.
- H. Shutoff Valves
Provide where indicated and required for adequate control of systems and for isolation of fixture groups of equipment.
- I. Buried Piping
Install with minimum 36 in. coverage unless otherwise indicated. Lay piping accurately to grade where invert elevations are indicated. When required, provide thrust blocks per manufacturer's recommendations.
- J. Equipment and Materials
Install per manufacturer's recommendations.
- K. Accessibility

Install work readily accessible for normal operation, reading of instruments, adjustment, service, inspection, and repair. Provide access panels where indicated and required.

L. Pipe Joints

Make screwed joints with a minimum amount of compound applied to the male thread only. All joints shall be made per code requirements.

3.04 HANGERS AND SUPPORTS

A. Hold horizontal pipe runs firmly in place using approved steel and iron hangers, supports, and/or pipe rests unless otherwise indicated. Suspend hanger rods from concrete inserts or from approved brackets, clamps, or clips. Hang pipes individually or in groups if supporting structure is adequate to support weight of piping and fluid. Except for buried piping, hang or support pipe runs so that they may expand or contract freely without strain to pipe or equipment.

1. Horizontal steel piping: Provide hangers or supports every 10 ft. except every 8 ft. for piping 1-1/4 in. and smaller.
2. Horizontal copper tubing: For 2 in. diameter and over, provide hangers every 10 ft.; for 1-1/2 in. diameter and smaller, every 6 ft.
3. Horizontal cast-iron hub and spigot piping: Provide hangers or supports at each hub.
4. Horizontal cast-iron no-hub piping: Provide hangers or supports at each side of a no-hub fitting. Provide anti-separation bracing at each 90° change of direction.
5. Vertical piping: Support at floor with iron pipe clamps.
6. Sway brace in accordance with NFPA 13.

B. Branches

Provide separate hangers or support for branch lines 6 ft. or more in length.

C. Sound and Electrolysis Isolators

Provide at all hangers and supports for hot and cold domestic water lines. Securely attach pipe to walls, studs, etc. All such piping isolated from structure by "Trisolators".

3.05 EXPANSION AND CONTRACTION

Install piping subject to expansion and contraction with expansion loops made up of bends, fittings, or Victaulic couplings, expansion joints, swing joints, or other approved methods or devices.

Branch lines from mains subject to expansion and contraction shall have a swing joint at a point of connection with the main. Risers which pass through one or more floors shall have swing joints at their base. Anchor lines subject to expansion and contraction by approved methods to restrict movement.

3.06 CORROSION PREVENTION

Make joint between cuprous and ferrous materials with approved nylon insulating couplings. Separate contact surfaces of dissimilar metals with non-conducting coating or sheet.

3.07 CLEANOUTS

A. Provide cleanouts where indicated and required. Unless otherwise indicated, cleanouts shall be accessible with extension to grade, to outside of buildings, or to floors above as indicated or required. Do not locate cleanouts in public lobbies and public corridors unless approved by Architect.

B. Membranes

Where waterproofing membrane occurs under floor, bring membrane to cleanout without puncturing, and permanently anchor to integral anchoring flange with a heavy cast-iron clamping collar and rustproofed bolts.

C. Covers

Set cleanout covers with all finished wall, floor, or grade. In all cases securely anchor by means of integral lugs and bolts. Where surfacing material such as resilient covering is specified, ascertain thickness being used and set cleanout top so

finished floor is smooth.

D. Use Acorn 3500 thread compound.

3.08 ACCESS BOXES AND PANELS

A. Provide valve boxes for valves located below grade. Provide metal access panels of size and type specified for valves or shock absorbers located in concealed areas.

B. Access Boxes and Panels

Set flush with finished wall, floor, or ceiling. Those in finished walls shall have door or plate removed during construction or be otherwise suitably covered to protect finish.

C. Outside General Service Access Boxes

Provide with metal, asbestos cement, or clay pipe sleeve extensions where added depth is necessary. Do not locate boxes in public walks, driveways, or covered passages unless indicated.

3.09 WRAPPING FOR BURIED STEEL PIPING

A. All buried steel pipe shall be factory coated with Plexco 25 mil high density polyethylene coating (yellow). Finished coating shall have continuous imprinting of coating type and applicator and pipe type and manufacturer. All fittings and field joints of buried steel piping shall be cleaned, primed then fully protected by wrapping with two separate wrappings (each half lapped) of 0.010x2 in. wide pressure sensitive polyvinyl tape equivalent to Johns-Manville "Trantex". All fitting and joint wrapping shall overlap pipe wrapping a minimum of 2 in.

3.10 PROTECTION FOR UNDERGROUND DUCTILE AND CAST IRON PIPE AND FITTINGS

Wrap all pipe and fittings with 20 mil PVC pipe tape and primer per manufacturer's directions, or install in 20 mil polyethylene encasement in accordance with ANSI/AWWA Standard C105/A21.5-82. Bed and backfill with clean sand a minimum of 4 in. all around pipe and fittings

3.11 EXCAVATION AND BACKFILLING

Perform excavation and backfilling required work under this section unless otherwise specified. Conform to requirements of Division 2 and of public authorities having jurisdiction.

3.12 SPECIALTY ITEMS

Install as indicated on the drawings, as herein specified, and as recommended by manufacturer.

3.13 STERILIZATION

Sterilize each unit of water supply and distribution system with liquid chloride or hypochloride before acceptance for operation in accordance with AWWA C601, "Standard for Disinfecting Water Mains". Work shall be done by Contractor and, unless otherwise required by public authorities having jurisdiction, shall conform to the following:

A. Materials

1. Liquid chlorine: U. S. Army Specification 4-1.
2. Hypochloride: Liquid shall conform to Fed. Spec. O-C-111RA (Int. 4).

B. Method

Amount of chlorine shall provide a dosage of 50 ppm minimum. Introduce chlorinating materials into lines and distribution system in approved manner. After a contact period of 24 hours minimum during which period chlorine residual shall be maintained at 5 ppm minimum, flush out systems with clean water until residual content is not greater than 0.2 ppm. Open and close valves in lines being sterilized several times during contact period.

C. Test Reports

Furnish one copy of test report of complete and adequate sterilization to Architect before final acceptance of work. Certificates shall bear signature of an official of laboratory responsible for test.
Cost of testing

SECTION 15801

HEATING, VENTILATING & AIR CONDITONING

PART 1 - GENERAL

1.01 GENERAL CONDITIONS AND DIVISION ONE

The General Conditions, Supplementary Conditions and Division One are hereby made a part of this Section.

1.02 SCOPE OF WORK

THE WORK OF THIS SECTION INCLUDES RELOCATING EXISTING HVAC DUCTS AND REGISTERS IN A MANNER TO GIVE ADEQUATE HEATING, VENTILATION AND EXHAUST TO THE EXISTING RESTROOMS. NO NEW DUCTWORK OR REGISTERS WILL BE REQUIRED UNLESS DAMAGED OR REMOVED DURING CONSTRUCTION.

THERE ARE NO SEPERATE HVAC DRAWINGS. REFERENCE TO THE EXISTING LOCATION OF THE SUPPLY AND RETURN REGISTERS CAN BE FOUND ON THE FLOOR PLANS.

Furnish all design plans, labor, materials, equipment, appliances, and necessary incidentals for the complete installation of all heating, ventilating, and air conditioning as shown on the Architectural Drawings and specified herein.

A. Work Specified in this Section

1. Air conditioning for all renovated restroom areas defined on plans, controls, branch ducts, and air distribution equipment.
2. Ventilation from all renovated restrooms and adjacent areas where required.

B. Related Work Included in this Section

1. Furnishing electrical devices necessary for mechanical work, except disconnects unless indicated otherwise.
2. Line and low voltage wiring for mechanical controls including final connections as indicated on wiring diagrams.
3. Conduit for line and low voltage wiring for mechanical controls as indicated on wiring diagrams.
4. Responsibility for obtaining clarification of discrepancies between mechanical and electrical work from Architect prior to proceeding with the work.

C. Related Work Specified in Other Sections

1. Painting of exposed piping, ductwork, and unfinished portions of fixtures and equipment.
3. Miscellaneous equipment furnished by Owner or under other Sections except exhaust and ventilation connections for the equipment shall be made under this Section.
4. Electrical work as follows will be provided under Electrical Section of these Specifications.
 - a. Conduit for line wiring for equipment and devices as indicated or specified except conduit for line and low voltage wiring for mechanical controls.
 - b. Line wiring for equipment and devices as indicated or specified herein except line and low voltage wiring for mechanical controls.
 - c. Providing disconnect switches.
 - d. Installing electrical devices such as starters and disconnects, and, when indicated, furnishing all such devices.

1.03 QUALITY ASSURANCE

A. Codes and Standards

In addition to the requirements of all governing codes, ordinances, and agencies, conform to the requirements of the latest edition of the following Codes and Standards:

1. State of California Administrative Code.
2. Health and Safety Code, State of California.
3. National Board of Fire Underwriter's Publications:
 - a. Pamphlet #70 - National Electrical Code.
 - b. Pamphlet #90A - Air Conditioning Systems.
4. California Building Code, 2010 Edition.
5. California Mechanical Code, 2010 Edition.

End HVAC Specification

SECTION 16000

ELECTRICAL

PART 4. GENERAL

SCOPE OF WORK:

Furnish all labor, material, tools and equipment necessary for and incidental to the completion of all ELECTRICAL WORK as shown on the drawings or specified herein. This Section relies extensively on Section 01001 of these specifications and all requirements therein must be adhered to by this Contractor.

SECTION INCLUDES

The work of this section includes the furnishing and installing of all electrical work, including labor, materials, delivery, insurance fees, taxes, equipment and scaffolding, as shown and noted on the drawings and specified herein. The following is a general list of the work included; the list is not necessarily all inclusive.

- i. Removal or relocation of existing electrical panels and work shown on electrical plan and observable by examination of the site as being a hinderance to the new construction. Existing electrical material, fixtures, equipment, conduit, wiring etc. not required for final construction.
- ii. Testing of contracted work.
- iii. Clean up and Record Drawings.

1.04 STANDARDS:

- A. All electrical work shall be installed or performed in compliance with the City Electrical Code, State Fire Marshal Regulations and the National Electrical Codes, except that the conduit fill shall be as indicated on the drawings. In case of conflict, the most restrictive code shall apply.
- B. All material used in the electrical work herein specified shall be new and suited to the intended use, shall be listed by a Nationally recognized testing laboratory, and shall meet their requirements and bear their label whenever standards have been established and label service is regularly furnished by that agency.
- C. All equipment shall conform to National Electrical Manufacturer's Association (NEMA) industry standards.
- D. The installation shall conform to the requirements of NECA "Manual of Good Workmanship" (Standard of Installation)

1.08 PERMITS, INSPECTIONS AND TESTS:

A. Permits and Inspections: Shall be as specified in General Requirements Section 01001. The Contractor shall obtain and pay for all permits, licenses and fees required for the execution of his work, Except that the basic electrical permit shall be submitted and paid for by the Owner and signed for and picked up by the electrical subcontractor. Electrical subcontractor shall arrange for and pay for all required tests and inspections, and shall give all notices required by any and all laws, rules, regulations and ordinances which pertain to the work.

B. Tests: All wiring and connections shall be tested for continuity, short circuits and improper grounds. Each lighting panel shall be tested with mains disconnected from feeder, branches connected, wall switches closed, fixtures connected, but without lamps.

1.10 COOPERATION WITH OTHERS: The Contractor shall consult and cooperate fully with all trades furnishing labor, material or services, so the work as a whole, shall be executed in the most efficient manner and without conflict or delay.

1.11 TEMPORARY POWER: The Contractor shall make all arrangements for, and shall install the necessary provisions for temporary electrical construction power, sized as required.

1.13 PRELIMINARY OPERATION: Should the Owner and/or Architect deem it necessary that the electrical installation or any part thereof be operated prior to completion and/or acceptance of the work, the Contractor shall consent to such preliminary operations. Preliminary operation shall be conducted under the supervision of the Contractor. All costs except cost of electricity occasioned by such operations, shall be paid by the Contractor. Preliminary operation shall not be construed as an acceptance of any work installed under the Contract.

1.15 INSPECTION: Architect's Electrical Engineer shall check all rough electrical work prior to pouring of concrete slab, and upon completion of work. The Contractor shall notify the Architect at least three days in advance of these dates.

PART 5. EXECUTION

3.01 SAFETY PRECAUTIONS:

The Contractor shall be responsible for the protection and good condition of all new electrical material and equipment for the entire installation, until final acceptance by the Owner. He shall erect and maintain suitable barriers, protective devices, lights and warning signs where required for the protection of public and employees about the building and he shall be fully responsible for any loss or injury to persons or property resulting from his neglect of these precautions, his own carelessness, or neglect of his employees. Compliance with the requirements of OSHA is the Contractor's responsibility.

G. Hangers and Supports: Furnish and install all inserts, hangers and supports required for supporting switches, conduits, junction and pull boxes, fixtures and similar materials and equipment. All horizontal and vertical runs of exposed conduits, and conduits larger than one inch located above furred ceilings, shall be supported at intervals of not more than 10 feet. Conduits one inch or smaller, located above suspended ceilings shall be fastened to the ceiling furring in an approved manner.

1. Supports for Individual Conduits: Individual conduits, one inch and smaller, shall be secured with one hole malleable iron pipe straps and screws and inserts on concrete construction, and with suitable clamps on steel construction. Conduits larger than one inch shall be attached to framing members with approved pipe hangers. Perforated steel plumbers tape shall not be used. Conduit shall not be attached to motors or other vibration producing equipment.

2. Supports for Groups of Conduits: Where conduits are grouped together, they shall be supported on "Unistrut", "Kindorf" or equivalent channels,

3. Supports for outlet boxes in stud walls shall consist of bar hanger mounted between studs to prevent box wobble.

4. The Contractor has the responsibility of providing additional pull or junction boxes in conduit runs where he deems them necessary for the work or where required by code. The chosen location shall be accessible and shall be approved by the Architect.

H. Conduit Installation:

1. Conduit in finished areas shall be run concealed except as otherwise shown on the drawings or as herein specified. Conduit may be run exposed in mechanical equipment and electrical rooms. Conduit

shall be connected to outlet boxes and cabinets with double locknuts and bushings. Where conduit cannot be connected with standard couplings, only approved conduit unions shall be used. Running thread connections shall not be used. Threadless fittings shall not be used. Where conduits cross expansion or seismic joints, "O.Z." Type DX, or equal, expansion and deflection fittings shall be used. Each run of conduit shall be entirely of one material. Open ends of conduits, unless in a closed box or cabinet, shall be closed with approved conduit caps or closures, as soon as installed, and kept closed until ready to pull in conductors. Bends in all conduits one inch trade size, or larger, shall be made with factory elbows or with an approved hydraulic bender.

2. The joints of all conduits installed in the ground, in concrete in contact with the ground, or where exposed to the weather, shall be made liquid and gastight, and the outside of each metallic coupling and adjacent conduit and all wrench abrasions shall be painted with "P and B" or equal compound. In addition to the above, the entire length of metallic conduits installed in the ground shall be painted with "P and B" or equal compound.

3. Electrical metallic tubing shall be installed with threaded gland compression type connectors and couplings. Indentor type or set-screw type fittings shall not be used. Flexible metallic conduit shall be installed with clamp type or Thomas and Betts "Tight-Bite" connectors. Angle type connectors shall be used only for exposed work. Liquid-tight flexible metallic conduit shall be installed with special fittings approved for the purpose.

3.04 CONDUCTOR INSTALLATION:

A. Wire shall be new, in unbroken reels or containers of recent manufacture, shall bear the label of a nationally recognized testing laboratory, the manufacturer's trademark, and the type and size of wire. Conductors shall not be installed in any conduit system until the following has been performed:

1. Conduit system is free of moisture.

3.05 LIGHTING FIXTURES:

Incandescent fixture outlet boxes shall be provided with the proper hangers or fixture studs and shall be substantially supported from the structural elements. All fixtures shall be provided with all necessary hanging, supporting and accessory devices required for the installation in their particular locations, including earthquake clips. End-to-end fluorescent units shall be mounted on a straight line and shall be provided with an approved raceway for branch circuit conductors. The Contractor shall refer to the Architectural reflected ceiling plan for exact locations of all ceiling mounted fixtures.

B. Where cutting is necessary to install work under this section, it shall be done by methods that will not damage the structure, and shall have the Architect's approval.

3.07 FLASHING:

Wherever conduits extend through the roof, furnish and install galvanized steel flashing consisting of a No. 24 gauge roof jack and a flashing collar strapped to the conduit set in mastic and covering the top of the roof jack. Roof jack shall extend not less than 6 inches out of roof and up conduit. Conduit shall be allowed to slip in the roof jack. Coordinate installation of flashing with roofing installation to permit mopping in flanges by the Roofing Contractor.

3.08 CONNECTION TO EQUIPMENT:

A. All electrical outlets, apparatus, motors, equipment, fixtures, wiring devices and appliances, whether

they are installed under the contract for electrical work, or not, which require electrical connections, shall be fully connected in an approved manner to the corresponding electrical system.

B. Where the work under this section requires connection to be made to equipment that is furnished and set in place under other sections of these Specifications, the Contractor shall obtain roughing-in dimensions from the installer of each such item of equipment and assume full responsibility for the neat and work-manlike installation of the connections thereto.

3.10 EQUIPMENT SUPPORTS:

A. Fabricate supports for panelboards, lighting fixtures and other equipment of structural steel, or where applicable, of structural systems such as "Unistrut" or "Kindorf". Do all drilling and tapping of the building structure and all welding required for installing equipment supports.

B. **Welding:** Welding shall be done by the electric arc process by welders who are fully qualified for this work. Where brackets are welded to structural steel, the prime coat of paint on the steel shall be scraped away from the area in which welding is to be done.

C. **Painting:** All equipment and conduit supports, fabricated of structural steel, shall receive a shop coat of "Pabco" No. 7356 zinc dust, zinc-oxide metal primer. After erection and welding is completed, all structural steel supports shall be given a touch-up coat of paint specified for shop painting. All welds, bolts and spots where shop coating is damaged or removed shall be touched up to match shop coat.

3.13 CLEANING:

A. **Galvanized Surfaces:** Brush thoroughly and wipe with solvent to remove dirt, oil and grease.

C. **Lighting Fixtures:** Clean and polish fixtures, diffusers and trim.

D. **Removal of Rubbish:** Remove from the site all packing cartons, scrap materials and other rubbish incidental to the work under this section, and leave the premises in a condition acceptable to the Architect.

3.14 TESTS:

A. Upon request of the Owner, at any time prior to completion, the Contractor shall make all necessary tests which will insure that all equipment, materials or installation methods are as specified. Qualified representatives of the Contractor shall perform the tests under the supervision of the Owner's representative. Any equipment or materials failing to meet the required standards shall be immediately replaced at no cost to the Owner.

B. Upon job completion, all electrical loads and controls shall be tested under full operating conditions and all defective materials, equipment, devices or faulty workmanship shall be immediately replaced at no cost to the Owner. The Contractor will be required to make standard equipment, material and performance tests and also reasonable tests that may be required, such as electrical insulation resistance or equipment temperature rise. The cost of all tests will be the responsibility of the Contractor.

*****END ELECTRICAL SECTION*****

GENERAL NOTES:

1. THIS PLAN AND SPECIFICATIONS SHALL BE CONSIDERED AS THE BASIS FOR THE CONTRACT. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF LOS ANGELES SPECIFICATIONS FOR THE CONSTRUCTION OF BUILDINGS AND STRUCTURES, LATEST EDITION, UNLESS OTHERWISE SPECIFIED. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE APPROVED BY THE CITY ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF LOS ANGELES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF LOS ANGELES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF LOS ANGELES.

STANDARD CONTRACTUAL CONDITIONS:

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF LOS ANGELES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF LOS ANGELES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF LOS ANGELES.

GENERAL AND STRUCTURAL SPECIFICATIONS:

3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF LOS ANGELES SPECIFICATIONS FOR THE CONSTRUCTION OF BUILDINGS AND STRUCTURES, LATEST EDITION, UNLESS OTHERWISE SPECIFIED. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE APPROVED BY THE CITY ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF LOS ANGELES.

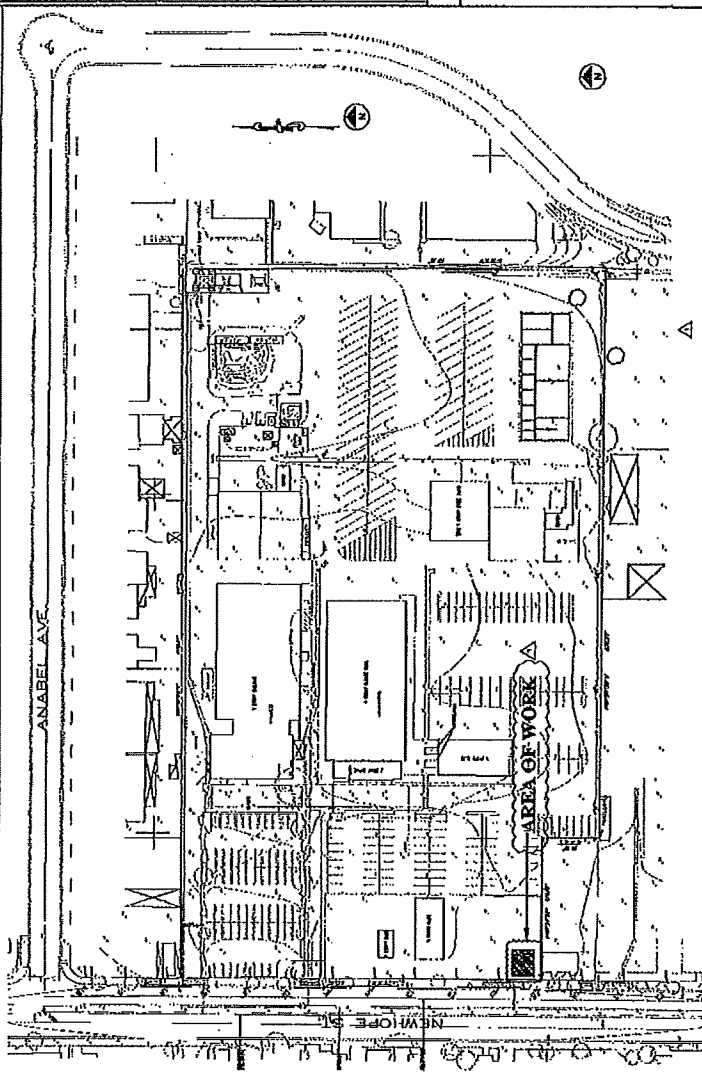
**City of Garden Grove
ANIMAL SHELTER**

PROJECT DATA

NAME OF PROJECT: ANIMAL SHELTER
PROJECT ADDRESS: 1000 GARDEN GROVE AVENUE, GARDEN GROVE, CA 92643
OWNER: CITY OF GARDEN GROVE, CA
DATE OF CONTRACT: 10/15/2010
TYPE OF CONSTRUCTION: REPAIR/REPLACE
AREA OF BUILDING: 600 SQ. FT.

INDEX TO DRAWINGS

NO.	DESCRIPTION
1	1-A-1 SITE DATA SCHEDULES & NOTES
2	1-A-2 FLOOR PLANS
3	1-A-3 INTERIOR ELEVATIONS & SECTION
4	1-A-4 DETAILS
5	1-B-1 MECH. PLANS
6	1-B-2 PLUMBING
7	1-B-3 ELECTRICAL
8	1-B-4 EXTERIOR
9	1-B-5 GENERAL



EXISTING SITE PLAN SCALE: 1/8" = 1'-0"

DESCRIPTION OF ANIMAL SHELTER WORK

This project involves the construction of a building to be used for the housing of animals. The building will be constructed on a lot located at the intersection of Anabel Avenue and Nihope Street. The building will be constructed in accordance with the City of Garden Grove specifications for the construction of buildings and structures. The building will be constructed in accordance with the City of Garden Grove specifications for the construction of buildings and structures.

1. Reinforce and finish exterior walls.
2. Reinforce and finish interior walls.
3. Reinforce and finish floor slabs with an epoxy coating. This to include reinforcement of existing slabs and new slabs.
4. Reinforce and finish roof structure, eave and parapet walls of existing building.
5. Reinforce and finish new interior partition including new doors and ceilings.
6. Reinforce and finish new exterior wall.
7. Reinforce and finish new door and eave. Included necessary plumbing, electrical and mechanical work.
8. Reinforce and finish new window and door. Included necessary plumbing, electrical and mechanical work.
9. Reinforce and finish new window and door. Included necessary plumbing, electrical and mechanical work.
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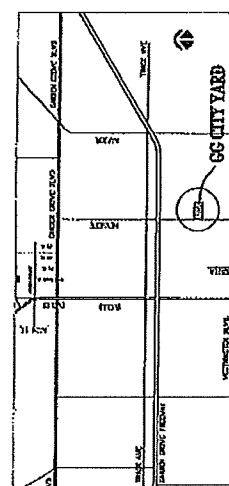
FINISH SCHEDULE

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
1	REINFORCE AND FINISH EXTERIOR WALLS	SQ. FT.	100	10.00	1000.00
2	REINFORCE AND FINISH INTERIOR WALLS	SQ. FT.	200	10.00	2000.00
3	REINFORCE AND FINISH FLOOR SLABS	SQ. FT.	100	10.00	1000.00
4	REINFORCE AND FINISH ROOF STRUCTURE	SQ. FT.	100	10.00	1000.00
5	REINFORCE AND FINISH NEW INTERIOR PARTITION	SQ. FT.	100	10.00	1000.00
6	REINFORCE AND FINISH NEW EXTERIOR WALL	SQ. FT.	100	10.00	1000.00
7	REINFORCE AND FINISH NEW DOOR AND EAVE	SQ. FT.	100	10.00	1000.00
8	REINFORCE AND FINISH NEW WINDOW AND DOOR	SQ. FT.	100	10.00	1000.00
9	REINFORCE AND FINISH NEW WINDOW AND DOOR	SQ. FT.	100	10.00	1000.00
10	REINFORCE AND FINISH NEW WINDOW AND DOOR	SQ. FT.	100	10.00	1000.00
11	REINFORCE AND FINISH NEW WINDOW AND DOOR	SQ. FT.	100	10.00	1000.00
12	REINFORCE AND FINISH NEW WINDOW AND DOOR	SQ. FT.	100	10.00	1000.00
13	REINFORCE AND FINISH NEW WINDOW AND DOOR	SQ. FT.	100	10.00	1000.00

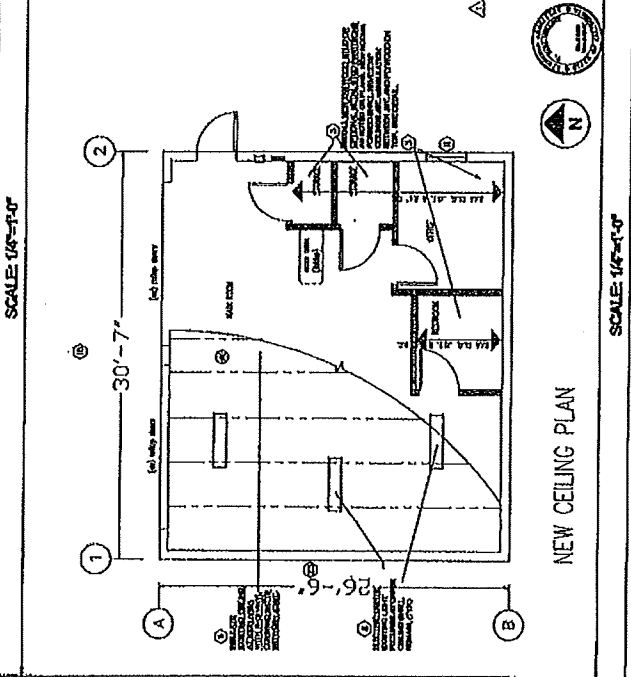
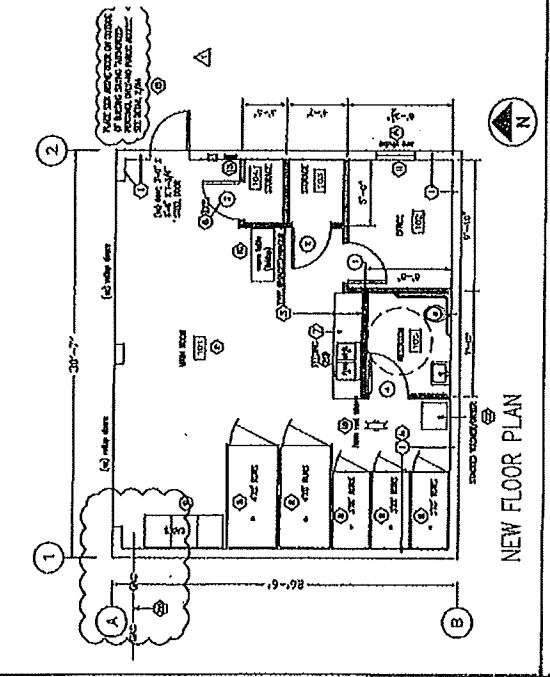
DOOR SCHEDULE

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
1	DOOR WITH GLASS	EA	10	100.00	1000.00
2	DOOR WITH GLASS	EA	10	100.00	1000.00
3	DOOR WITH GLASS	EA	10	100.00	1000.00
4	DOOR WITH GLASS	EA	10	100.00	1000.00
5	DOOR WITH GLASS	EA	10	100.00	1000.00
6	DOOR WITH GLASS	EA	10	100.00	1000.00
7	DOOR WITH GLASS	EA	10	100.00	1000.00
8	DOOR WITH GLASS	EA	10	100.00	1000.00
9	DOOR WITH GLASS	EA	10	100.00	1000.00
10	DOOR WITH GLASS	EA	10	100.00	1000.00

FLOOR PLAN - New Layout in EXISTING BUILDING SCALE: 1/8" = 1'-0"

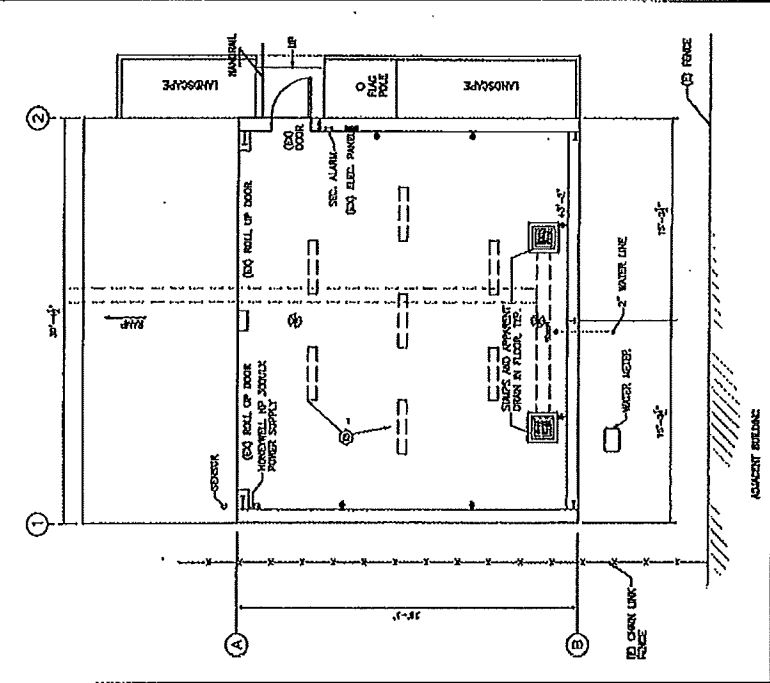


VICINITY MAP



KEYNOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND ALL APPLICABLE REGULATIONS.
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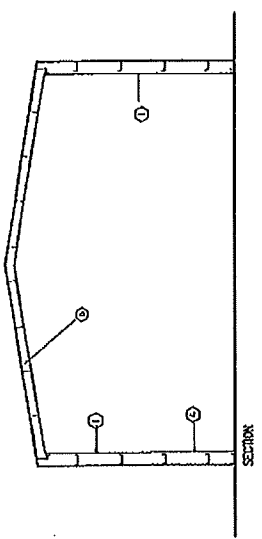
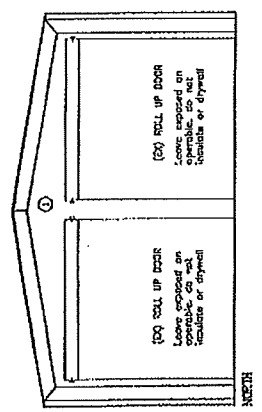
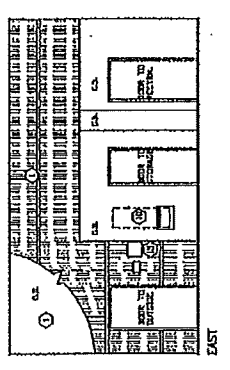
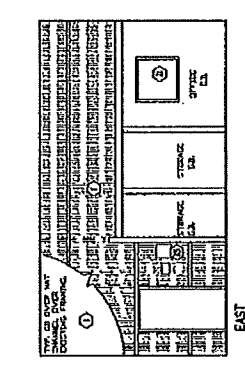
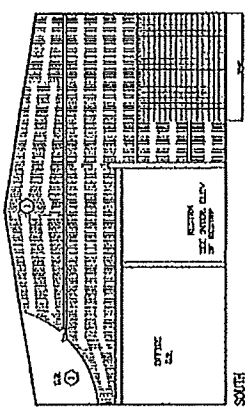
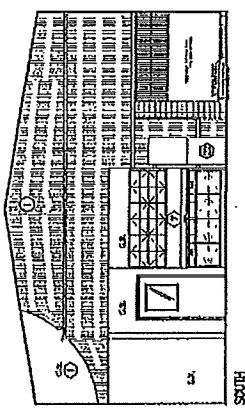
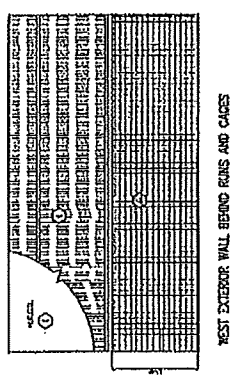
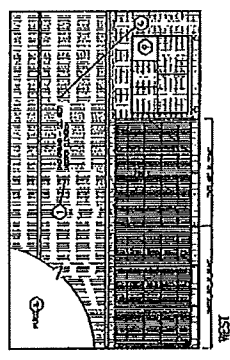
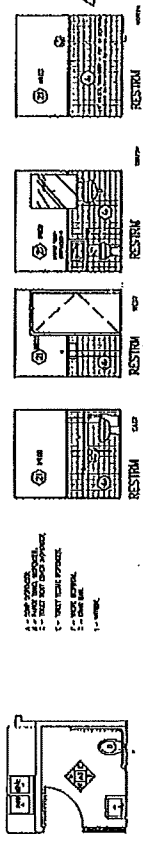
EXISTING FLOOR PLAN SCALE: 1/4"=1'-0"



PROJECT: ANNUAL STREET
 CITY OF GARDEN GROVE, CALIFORNIA
 SHEET: INTERIOR ELEVATIONS
 DATE: 03/17/2015
 DRAWN BY: J. S. [unreadable]

R. HART MELOTT AIA
 ARCHITECT AND ASSOCIATES
 819 AVOCADO ST. BREA, CA 92622
 TEL: (714) 828-7318
 FAX: (714) 828-7310

- 1. SEE GENERAL NOTES FOR FINISHES AND MATERIALS.
- 2. ALL INTERIOR SURFACES TO BE FINISHED WITH THE FOLLOWING:
- 3. WALLS: 1/2" GYPSUM BOARD OVER STUDS AND JOISTS.
- 4. CEILING: 5/8" GYPSUM BOARD OVER JOISTS.
- 5. FLOORS: 1/2" GYPSUM BOARD OVER CONCRETE SLAB.
- 6. ALL INTERIOR DOORS TO BE 1-1/2" THICK SOLID CORE.
- 7. ALL INTERIOR WINDOWS TO BE 1/2" GYPSUM BOARD OVER SILL AND HEAD CASING.
- 8. ALL INTERIOR PARTITIONS TO BE 5/8" GYPSUM BOARD OVER STUDS AND JOISTS.
- 9. ALL INTERIOR SURFACES TO BE FINISHED WITH THE FOLLOWING:
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- 29. ALL INTERIOR PARTITIONS TO BE 5/8" GYPSUM BOARD OVER STUDS AND JOISTS.
- 30. ALL INTERIOR SURFACES TO BE FINISHED WITH THE FOLLOWING:
- 31. WALLS: 1/2" GYPSUM BOARD OVER STUDS AND JOISTS.
- 32. CEILING: 5/8" GYPSUM BOARD OVER JOISTS.
- 33. FLOORS: 1/2" GYPSUM BOARD OVER CONCRETE SLAB.
- 34. ALL INTERIOR DOORS TO BE 1-1/2" THICK SOLID CORE.
- 35. ALL INTERIOR WINDOWS TO BE 1/2" GYPSUM BOARD OVER SILL AND HEAD CASING.
- 36. ALL INTERIOR PARTITIONS TO BE 5/8" GYPSUM BOARD OVER STUDS AND JOISTS.
- 37. ALL INTERIOR SURFACES TO BE FINISHED WITH THE FOLLOWING:
- 38. WALLS: 1/2" GYPSUM BOARD OVER STUDS AND JOISTS.
- 39. CEILING: 5/8" GYPSUM BOARD OVER JOISTS.
- 40. FLOORS: 1/2" GYPSUM BOARD OVER CONCRETE SLAB.
- 41. ALL INTERIOR DOORS TO BE 1-1/2" THICK SOLID CORE.
- 42. ALL INTERIOR WINDOWS TO BE 1/2" GYPSUM BOARD OVER SILL AND HEAD CASING.
- 43. ALL INTERIOR PARTITIONS TO BE 5/8" GYPSUM BOARD OVER STUDS AND JOISTS.
- 44. ALL INTERIOR SURFACES TO BE FINISHED WITH THE FOLLOWING:
- 45. WALLS: 1/2" GYPSUM BOARD OVER STUDS AND JOISTS.
- 46. CEILING: 5/8" GYPSUM BOARD OVER JOISTS.
- 47. FLOORS: 1/2" GYPSUM BOARD OVER CONCRETE SLAB.
- 48. ALL INTERIOR DOORS TO BE 1-1/2" THICK SOLID CORE.
- 49. ALL INTERIOR WINDOWS TO BE 1/2" GYPSUM BOARD OVER SILL AND HEAD CASING.
- 50. ALL INTERIOR PARTITIONS TO BE 5/8" GYPSUM BOARD OVER STUDS AND JOISTS.



PROJECT:
 ANIMAL SHELTER
 1555 LEVINE STREET, OLYMPIA, WA 98512

DATE:
 11/27/2016

SCALE:
 AS SHOWN

REVISIONS:

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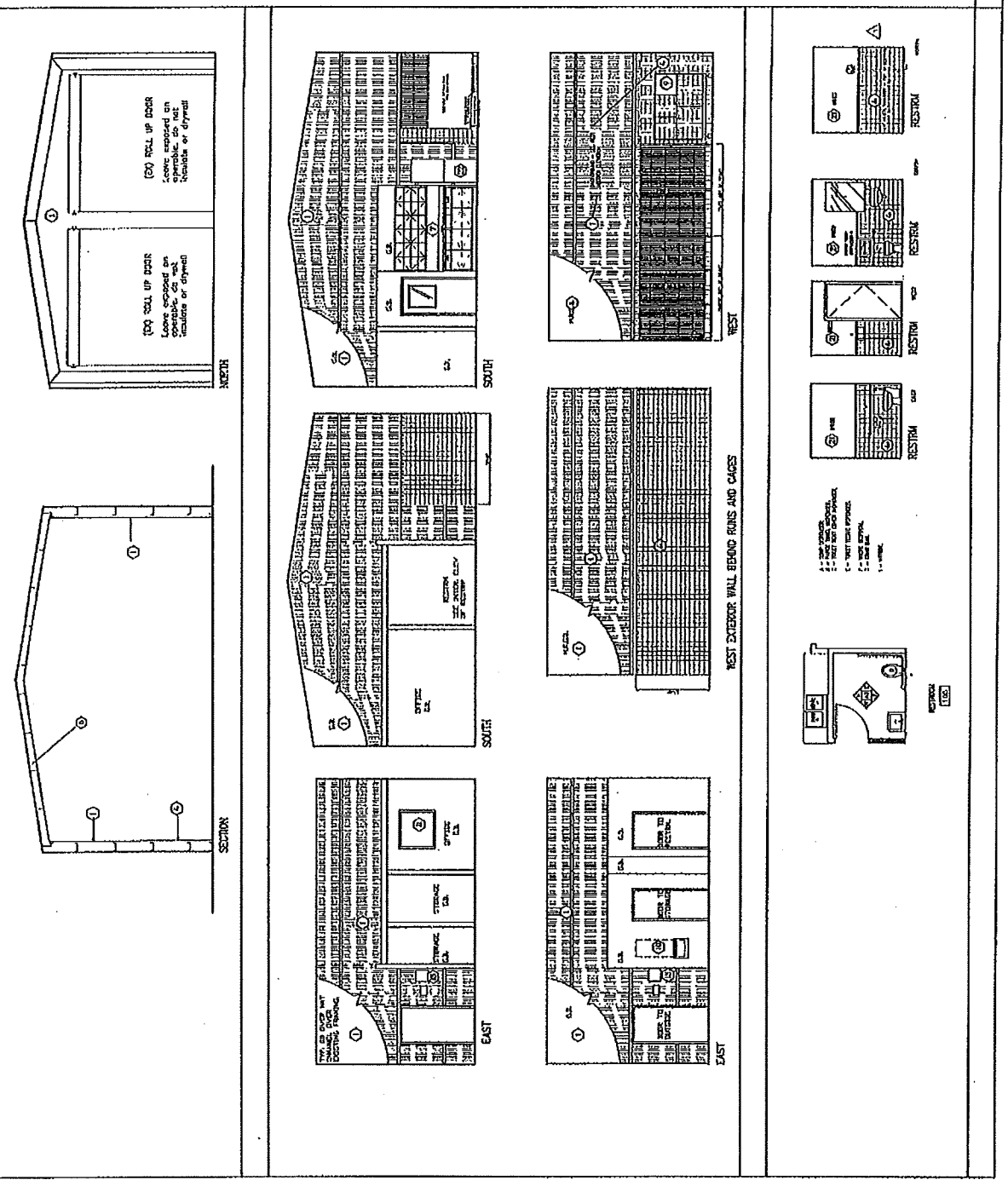
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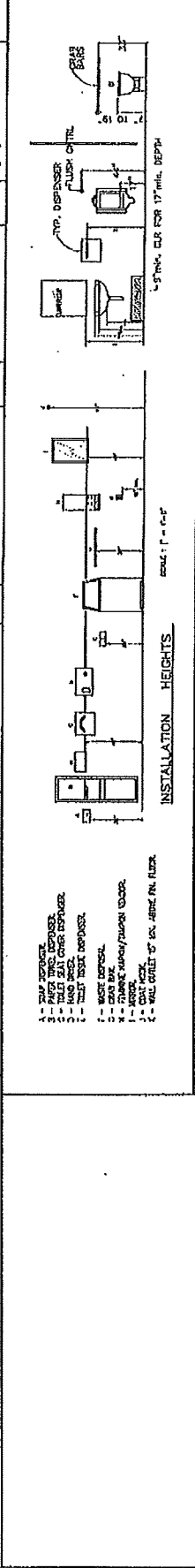
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<p>SCALE: 1/4" = 1'-0"</p>	<p>EXTERIOR WALL SECTION</p>	<p>9</p>	<p>EXTERIOR WALL SECTION</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>EXTERIOR WALL SECTION</p>	<p>10</p>	<p>EXTERIOR WALL SECTION</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>INTERIOR PARTITION</p>	<p>7</p>	<p>INTERIOR PARTITION</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>INTERIOR PARTITION</p>	<p>8</p>	<p>INTERIOR PARTITION</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>INTERIOR PARTITION</p>	<p>9</p>	<p>INTERIOR PARTITION</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>INTERIOR PARTITION</p>	<p>10</p>	<p>INTERIOR PARTITION</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>INTERIOR PARTITION</p>	<p>11</p>	<p>INTERIOR PARTITION</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>EXTERIOR WALL</p>	<p>4</p>	<p>EXTERIOR WALL</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>EXTERIOR WALL</p>	<p>5</p>	<p>EXTERIOR WALL</p>
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<p>SCALE: 1/4" = 1'-0"</p>	<p>INTER. PART.</p>	<p>7</p>	<p>INTERIOR PARTITION</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>INTER. PART.</p>	<p>5</p>	<p>EXTERIOR WALL</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>INTER. PART.</p>	<p>7</p>	<p>INTERIOR PARTITION</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>INTER. PART.</p>	<p>8</p>	<p>EXTERIOR WALL</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>INTER. PART.</p>	<p>9</p>	<p>EXTERIOR WALL</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>INTER. PART.</p>	<p>10</p>	<p>EXTERIOR WALL</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>INTER. PART.</p>	<p>11</p>	<p>EXTERIOR WALL</p>	<p>SCALE: 1/4" = 1'-0"</p>	<p>INTER. PART.</p>	<p>12</p>	<p>EXTERIOR WALL</p>
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EN-1

SHEET



SB&A
CONSULTING ENGINEERS, INC.
10000 Wilshire Blvd., Suite 1000
Los Angeles, CA 90024
Tel: (213) 552-7510

STATE

CITY OF

PLUMBING

MECHANICAL

ANNUAL SHEET

1971-1972

MECHANICAL TITLE 24

ENERGY FORMS

ARCHITECT

F. EARL MELLOTT A. A.

110 AVOCADO ST. OMAHA, NE 68102

TEL. (402) 528-7510

TABLE 1 - MECHANICAL EQUIPMENT

NO.	DESCRIPTION	TYPE	MANUFACTURER	MODEL	DATE	STATUS
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TABLE 2 - MECHANICAL EQUIPMENT

NO.	DESCRIPTION	TYPE	MANUFACTURER	MODEL	DATE	STATUS
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TABLE 3 - MECHANICAL EQUIPMENT

NO.	DESCRIPTION	TYPE	MANUFACTURER	MODEL	DATE	STATUS
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TABLE 4 - MECHANICAL EQUIPMENT

NO.	DESCRIPTION	TYPE	MANUFACTURER	MODEL	DATE	STATUS
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TABLE 5 - MECHANICAL EQUIPMENT

NO.	DESCRIPTION	TYPE	MANUFACTURER	MODEL	DATE	STATUS
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TABLE 6 - MECHANICAL EQUIPMENT

NO.	DESCRIPTION	TYPE	MANUFACTURER	MODEL	DATE	STATUS
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ADDENDUM No. 1

Covering

CHANGE IN SPECIFICATIONS AND/OR PLANS

Date Issued: January 9, 2017

Date Effective: January 9, 2017

IFB No. S-1209

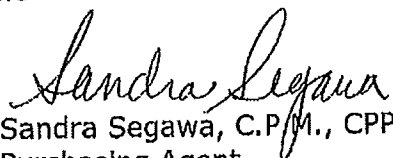
Furnish all Materials, Equipment, Tools and Labor for the Remodel of an Existing Metal Building for Animal Control Services per the bid specifications.

INTENT

1. This addendum is issued prior to receipt of bids to provide for modifications in plans and/or specifications. Acknowledgment of this addendum shall be made and cost for work included in proposer's submittal.
2. The Engineers Estimate for this project is \$160,000.00.

The contractor is hereby notified that Addendum No. 1 must be acknowledged and submitted as part of the bid. Failure to do so, could result in the City designating said bid as "Non Responsive". All other terms and conditions of the BID shall remain the same

Issued by:


Sandra Segawa, C.P.M., CPPB
Purchasing Agent
City of Garden Grove

ADDENDUM No. 2

Covering

CHANGE IN SPECIFICATIONS AND/OR PLANS

Date Issued: January 10, 2017

Date Effective: January 10, 2017

IFB No. S-1209

Furnish all Materials, Equipment, Tools and Labor for the Remodel of an Existing Metal Building for Animal Control Services per the bid specifications.

INTENT

1. This addendum is issued prior to receipt of bids to provide for modifications in plans and/or specifications. Acknowledgment of this addendum shall be made and cost for work included in proposer's submittal.
2. Please see the responses to questions that have been sent in regarding this bid. The City's responses can be found in the bold and italicized font.

1. It said don't paint the main room ceiling in the notes but then in the finish schedule to paint it with P-1. ***Main room ceiling is prefinished vinyl cover insulation batts left exposed to interior. Do not paint.***

2. Walls are flat finish in all but the bathroom but the ceilings are P- which is semi-gloss, and storage 103 has no finish on the lid. Is this correct? ***No, Ceilings in rooms 102, 103 and 104 are to be flat finish like walls (P-1). Paint finish in 103 ceiling was inadvertently left off schedule. It should have indicated P-1 paint and hgt. of 8'-0".***

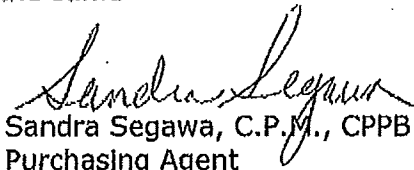
3. Can't find anywhere that we paint the doors or the trim? ***Doors are all laminated plastic finish and jambs and trim are prefinished "Timely" (or approved equal). They do not require paint.***

4. Is there any painting exterior? ***The only painting required on the exterior is where new penetrations from exhaust fans, evaporative cooler, plumbing vents and similar penetrations of the exterior envelope and window flashing is exposed .***

5. Is there any existing fire alarm system? Please provide details (who previously installed if any). **No. If an alarm system is to be installed it shall be the responsibility of the City.**

6. Is telecom part of the contract per plan? **The outlet and conduit shown on the plans shall be installed by the General Contractor or his subcontractor. Pulling of wire and the rest of the system will be furnished by the City.**

The contractor is hereby notified that Addenda No. 1 and 2 must be acknowledged and submitted as part of the bid. Failure to do so, could result in the City designating said bid as "Non Responsive". All other terms and conditions of the BID shall remain the same

Issued by: 
Sandra Segawa, C.P.M., CPPB
Purchasing Agent
City of Garden Grove

ADDENDUM No. 3

Covering

CHANGE IN SPECIFICATIONS AND/OR PLANS

Date Issued: January 14, 2017

Date Effective: January 14, 2017

IFB No. S-1209

Furnish all Materials, Equipment, Tools and Labor for the Remodel of an Existing Metal Building for Animal Control Services per the bid specifications.

INTENT

1. This addendum is issued prior to receipt of bids to provide for modifications in plans and/or specifications. Acknowledgment of this addendum shall be made and cost for work included in proposer's submittal.
2. The bid due date is hereby extended from 2:00 p.m., local time, on January 17, 2017 to a **new bid due date of 2:00 p.m., local time, on Wednesday, January 25, 2017.**

The contractor is hereby notified that Addenda No. 1, 2 and 3 must be acknowledged and submitted as part of the bid. Failure to do so may result in the City designating said bid as "Non Responsive". All other terms and conditions of the BID shall remain the same

Issued by: *Sandra Segawa*
Sandra Segawa, C.P.M., CPPB
Purchasing Agent
City of Garden Grove

ADDENDUM No. 4

Covering

CHANGE IN SPECIFICATIONS AND/OR PLANS

Date Issued: January 17, 2017

Date Effective: January 17, 2017

IFB No. S-1209

Furnish all Materials, Equipment, Tools and Labor for the Remodel of an Existing Metal Building for Animal Control Services per the bid specifications.

INTENT

1. This addendum is issued prior to receipt of bids to provide for modifications in plans and/or specifications. Acknowledgment of this addendum shall be made and cost for work included in proposer's submittal.
2. Please see the responses to questions that have been sent in regarding this bid. The City's responses can be found in the bold and italicized font.
 1. Please provide a list of the OFCI items to verify the equipment/fixtures that are unclear as to whether being provided by the Owner or not such as, EC-1, EF-2, WH-1, IH-1, H-1, etc. ***Items questioned EC-1, Ef-2, WH-1 are all supplied by the Contractor. I do not know what IH-1 or H-1 are (Please explain or show location on plans or Specs.) Generally all equipment noted on Plumbing and Mech. are in the Contract. Items Not in Contract are washer/dryer, exam table and small animal cage unit which are to be supplied by Owner and installed by contractor.***
 2. Please advise as to whether electronic bids are acceptable or all bids must be received in person inside sealed packages. ***Electronic bids are NOT acceptable. All bids must be sealed and submitted in paper format.***
 3. Please advise as to whether it would be acceptable to provide the list of the subcontractors to be used after being awarded the job, or the names of the subcontractors must be listed under the "DESIGNATION OF SUB-CONTRACTORS" at the time of bid. ***All sub-contractors must be listed on the "DESIGNATION OF SUB-CONTRACTORS" form and***

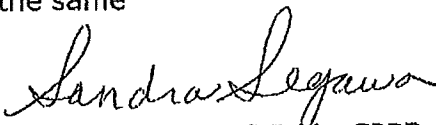
the form must be submitted on the bid due date and time. Proof of registration with the DIR must also be submitted for the bidder and all sub-contractors at the time the bid is submitted.

4. Please advise on the outcome, should the selected GC need to use subcontractor(s) after being awarded the job, whose names weren't listed under the "DESIGNATION OF SUBCONTRACTORS" at the time of bid. **Only those qualified sub-contractors listed on the DESIGNATION OF SUB-CONTRACTORS" form that is submitted with the bid will be allowed on the job site. The sub-contractors must also meet the City's requirements in order to perform the work under this contract.**
5. Please advise on the type of "adequate" backing called out for the support of the wall mounted exam table (e.g. wood, steel, etc.) **This means 2x blocking between studs nailed in adequately to support the weight of the exam table with a 100 pound dog on it. The location to be determined by mounting instruction from the manufacturer. If this does not answer your question you can contact the manufacturer (Shoreline/Schroer of Kansas City, KS)**
6. 1) Verify the Top Set Base (TS) at Room #102, #103, & #104. Is it required 4" rubber cove base? If so, what manufacturer's product being preferred? - No Spec. being called (Ref. Finish Schedule on DWG. A-1). **Base Materials where called out on finish schedule shall be: Rubber top set base shall be 4" high rubber cove base and 4" high-- carpet base by "Burke" or approve equal. Color to be selected by Owner. FS SS-W-40, Type I rubber top set coved at sheet vinyl flooring that requires base (see finish schedule and toeless at carpet; premolded external corners:
Height: [4] inch
Thickness: [1/8] inch thick
Manufacturers: Burke or approved equal.**
7. Keyed Notes #2 on DWG. E-1 called, "Existing Panel and Feeder shall be upgraded into 100A." What is the current/total amperage on the sub-panel? **71 amps. It is on the electrical plans.**

8. What is the distance from Main Electrical Panel to the Sub-Panel that is required to be upgraded? ***Pulling of wire from the main panel to the new subpanel will be done by the City through the existing conduit. The new 100 A. panel, new breaker and remaining electrical work in the shelter building will be the responsibility of the Contractor.***
9. Sheet A-4 Detail #9: For the exterior wall hat channel attachment at the top of the wall/ The existing has a steel beam that is not in line with the wall member that we are to attach the hat channel. Please provide a detail how the attachment. ***Provide a sheet metal angle attached to bottom of steel beam and projecting out far enough to align the face with the face of the lower horizontal beams of existing building. See detail 2/A-REV included.***
10. Sheet A-4 Detail #4 Shows a new metal framed wall that the new 3x ledger attaches on sheet A-2 new ceiling plan does not show a new wall at the exterior where the 3x should attach, If we attach it to the vertical hat channel that point would be over 12" from the horizontal attachment point on the existing wall member from below and 4' from the top. Please advise. ***See new revised detail 3/A-REV included for this condition.***
11. Sheet A-3 North elevation note 1 calls for insulation and drywall the existing condition has a steel I beam at the roof line and no wall members to attach the hat channel to please provide a detail on the attachment. ***See new revised detail 4/A-REV for this condition.***
12. Sheet A-3 West elevation note 1 calls for insulation and drywall and note 4 calls for ceramic tile the existing condition has a steel X Support braces that are on the surface of the horizontal wall members that the hat channel attaches to. The braces cannot be removed or relocated and would be in conflict of the drywall and tile. Can we frame with 1 5/8" studs and conceal the supports? The detail 10 on sheet A-4 has the hat channel 24" on center on the West wall has tile over mortar. Should the spacing be 12" or 16" on center to carry the mortar and tile? ***Yes, 2x4's flat at 16" oc. are acceptable instead of hat channel. See new revised detail 1/A-REV included for this condition.***

13. Sheet E-1 New power plan does not show any outlets on the west wall. Now there are two existing outlets also on the south and east walls. Should some of the outlets be removed or relocated to finish flush with the new finishes?
Yes. Remove all of the existing outlets located on the North south and east walls Install new outlets per electrical plan.

The contractor is hereby notified that Addenda No. 1, 2, 3, and 4 must be acknowledged and submitted as part of the bid. Failure to do so, could result in the City designating said bid as "Non Responsive". All other terms and conditions of the BID shall remain the same

Issued by: 
Sandra Segawa, C.P.M., CPPB
Purchasing Agent
City of Garden Grove

ATTACHMENT "B"

(BID PRICING)

SECTION 2 - BID PRICING
THE HONORABLE MAYOR AND CITY COUNCIL
CITY OF GARDEN GROVE
11222 ACACIA PARKWAY
GARDEN GROVE, CALIFORNIA 92840

To: THE HONORABLE MAYOR AND CITY COUNCIL

The undersigned having carefully examined the Plans and Specifications for Furnish all Materials, Equipment, Tools and Labor for the Remodel of an Existing Metal Building for Animal Control Services per the bid specifications. HEREBY PROPOSE to furnish all labor, materials, and equipment and do all the work required to complete work in accordance with the Plans and Specifications for the sum of:

BID PROPOSAL	
LOCATION	TOTAL COST
Furnish all Materials, Equipment, Tools and Labor for the Remodel of an Existing Metal Building for Animal Control Services per the bid specifications.	\$ 145,000.00
TOTAL COST in Written Words: One Hundred Fourty Five Thousand .	
PARTIAL BIDS WILL NOT BE ACCEPTED!	
The above bid price includes all applicable taxes for the pricing proposed in this submittal. Note: In case of discrepancy between the words and figures, the words prevail.	

It is understood and agreed that:

- (a) No verbal agreement or conversation with any officer, agent or employee of CITY, either before or after the execution of the Agreement shall affect or modify any of the terms or obligations of this Proposal.
- (b) CITY will not be responsible for any errors or omissions on the part of the undersigned in making up his bid, nor will bidders be released on account of errors.
- (c) The undersigned hereby certifies that this Proposal is genuine and is not sham or collusive, or made in the interest or in behalf of any person not herein named, and that the undersigned has not directly or indirectly induced or solicited any other bidder to put in a sham bid, or any other

11037 Warner Ave # 111

Address

Fountain Valley, CA 92708

City - State - Zip

714/280-7101

Telephone Number

ocbuilders@yahoo.com

Email Address

999117

CA Contractors License Number

1000036963

DIR Registration Number

OCC Builders Inc

Bidder's Name (Please Print)

Shauwki Haasen /President *shauwki Haasen*

Authorized Signature

OCC
Builders Inc

Schedule of Values

City of Garden Grove , Remodel Existing Metal Building for Animal Control

11222 Acacia Parkway, Room 220,Garden Grove CA.

ESTIMATE NO
IFB NO.S-1209

DATE
1/25/2017 2pm

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1	Demo/and preparation for new construction	\$1,800.00	\$1,800.00
1	Framing /Material and Labor	\$23,000.00	\$23,000.00
1	Insulation Labor /Material	\$2,170.00	\$2,170.00
1	Drywall Labor / Material	\$16,000.00	\$16,000.00
1	Plumbing /Labor material	\$17,000.00	\$17,000.00
1	Electrical/ Labor /Material/	\$6,500.00	\$6,500.00
1	HVAC/ Evaporative Cooling Labor/Material /	\$24,000.00	\$24,000.00
1	Cabinet with counter /sink	\$4,800.00	\$4,800.00
1	Celling insulation/ Labor /Material	\$1,300.00	\$1,300.00
1	Base	\$1,890.00	\$1,890.00
1	Floor epoxy	\$6,700.00	\$6,700.00
1	Ceramic Tile/ Labor/ Material	\$10,700.00	\$10,700.00
5	4 Doors and 1 window /Labor/ Material	\$400.00	\$2,000.00
1	T-Kennel Dog Run (3) 36"x 72" and (2) 48"x96" Labor/ Material	\$8,200.00	\$8,200.00
8	Install cage and washer and dryer and exam table /Labor only	\$142.00	\$1,136.00
1	Interior paint / Labor/Material	\$4,600.00	\$4,600.00
3	Sign/Labor/Material	\$350.00	\$1,050.00
1	bath accessories	\$2,800.00	\$2,800.00
1	Gas Fired Heater	\$2,100.00	\$2,100.00
1	Gas Line	\$2,200.00	\$2,200.00
SUBTOTAL			\$139,946.00

THIS PROPOSAL INCLUDES THE CONDITIONS NOTED:

4 Addendum

Overhead	\$5,054.00
TOTAL	\$145,000.00

Authorized Rep

Date

**BIDDER/CONTRACTOR STATEMENT
REGARDING INSURANCE COVERAGE
(Submit with IFB/RFP Package)**

This signed document must be included with your bid package in order for your bid/proposal to be considered complete!

BIDDER/CONTRACTOR HEREBY CERTIFIES that he/she has reviewed and understands the Insurance coverage requirements specified as in the attached Insurance Requirements Checklist.

Should we/I be awarded the contract, we/I certify that we/I can meet the specified requirements for insurance, including insurance coverage of the subcontractors, and agree to name the **City/Successor Agency/Sanitary District** and other additional insureds as per the agreement for the work specified. And we/I will comply with 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, before commencing the performance of the work specified.

OCC Builders Inc

Please Print (Person, Firm, or Corporation)

Signature of Authorized Representative

shauwki Haasen

Please Print (Name & Title of Authorized Representative)

Shauwki Haasen/ President

Date

Phone Number

Email

Jan 24, 17

714/280-7101

occbuilders@yahoo.com

Insurance Certificates and Endorsements will also be accepted via email and must be emailed to the following email address only: sandras@garden-grove.org. This is the preferred and quickest method of submitting insurance certificates and endorsements.

Insurance Certificates and Endorsements can also be mailed to: City of Garden Grove
Attention: Sandra Segawa:
Purchasing Division
11222 Acacia Parkway
Garden Grove, CA 92840

NOTE: All insurance certificates and endorsements must be received by the City of Garden Grove Purchasing Division within ten (10) City working days of the original request or the City reserves the right to proceed with the next lowest responsible bidder or the next highest scoring proposer in the process.

SECTION 3 - DOCUMENTS (Cont.).

DESIGNATION OF SUB-CONTRACTORS

1. Pursuant to Public Contract Code Sections §4104 of California Public Contract Code, the undersigned certifies that it has used the sub-bids of the following listed subcontractors to whom the Bidder proposes to subcontract portions of the work in an amount in excess of one-half of one percent of the total Bid Proposal and that the subcontractors listed will be used for the work for which they bid subject to the approval of the Engineer and in accordance with the applicable provisions of the Specifications. Please attach additional pages if needed.

1. Name of Subcontractor: Petra Air System DIR Reg# 1600046149
Address: 2860 W. Ball Rd # D12 Anaheim CA Phone No: 714 316-1103
Individual, Partnership or Corporation: Individual
Work to be performed: HVAC

2. Name of Subcontractor: UC Electric DIR Reg# 1000032144
Address: 24849 Lorna Drive Moreno Valley CA Phone No: 909 821-9182
Individual, Partnership or Corporation: individual
Work to be performed: Electrical

3. Name of Subcontractor: _____ DIR Reg# _____
Address: _____ Phone No: _____
Individual, Partnership or Corporation: _____
Work to be performed: _____

4. Name of Subcontractor: _____ DIR Reg# _____
Address: _____ Phone No: _____
Individual, Partnership or Corporation: _____
Work to be performed: _____

5. Name of Subcontractor: _____ DIR Reg# _____
Address: _____ Phone No: _____
Individual, Partnership or Corporation: _____
Work to be performed: _____

Legal Name OCC BUILDERS INC.	Registration Number 1000036963	County ORANGE	City FOUNTAIN VALLEY	Registration Date 06/29/2016	Expiration Date 06/30/2017
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Legal Name	Registration Number	County	City	Registration Date	Expiration Date
MUAD ALABBADI	1000046149	ORANGE	ANAHEIM	01/24/2017	06/30/2017

Legal Name	Registration Number	County	City	Registration Date	Expiration Date
UC ELECTRIC	1000092144	RIVERSIDE	MORENO VALLEY	07/05/2016	06/30/2017



CONTRACTORS
STATE LICENSE BOARD
ACTIVE LICENSE



License # **999117**

Entity **CORP**

Business Name **OCC BUILDERS INC**

Classification **B A C39**

Expiration Date **12/31/2018**

www.cslb.ca.gov

