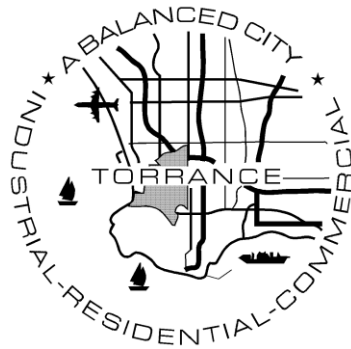


**PROJECT MANUAL BID FOR EVAPORATIVE CONDENSER REPLACEMENT AT
HUMAN RESOURCES BUILDING**

B2020-30



August 2020

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PART A
NOTICE INVITING BIDS

**CITY OF TORRANCE
CALIFORNIA**

NOTICE INVITING BIDS

Notice is hereby given that sealed bid proposals for performing the following described work will be received at the office of the City Clerk of the City of Torrance, California, until **3:00 p.m. on Wednesday, October 28, 2020**. Bidders may attend the bid opening at **3:10 p.m. via conference call**. Please contact the City Clerk's office at **(310) 618-2870** for the conference number. No bidders will physically be allowed at the bid opening.

**BID FOR EVAPORATIVE CONDENSER REPLACEMENT AT HUMAN RESOURCES
BUILDING B2020-30**

There will be a mandatory pre-bid conference held on **Wednesday, September 30, 2020 at 10:00 a.m. commencing at the Human Resources Building, 3231 Torrance Boulevard, Torrance, CA 90503**. The City of Torrance will consider the bidder as non-responsive if the bidder does not attend the mandatory pre-bid conference. The pre-bid conference will start promptly at the time and location listed above. You must arrive on time and stay for the entire conference. **Due to the pandemic you must wear a mask/face covering and keep 6 feet apart from others at all times.**

Addenda will be issued only by email and only to those who attended the mandatory pre-bid conference. All addenda must be acknowledged. Failure to acknowledge addenda on the bid forms provided may render the proposal non-responsive and cause it to be rejected. It is the Bidder's sole responsibility to visit the project's website to obtain and administer any Addendum related to this bid. An Addendum must be acknowledged by a bidder in its submitted form of Proposal. **If a bidder submits its Bidder's Submittal on forms other than the official Bidder's Submittal forms, the City may declare the bid as non-responsive.**

The project manual, and bid proposal packet are available online for viewing and printing at: <https://www.torranceca.gov/government/general-services/completed-projects>

The bid proposal packet and bound specifications (project manual) may be obtained online or may be requested to be mailed. A \$5.00 fee, if requesting bid proposal packet to be mailed. A \$15.00 fee if requesting both bound specifications (project manual) and bid proposal packet by mail. All amounts include tax. No amount is refundable. A prospective bidder must provide to the City Clerk's office the firm's name, address, telephone and fax number, a contact person and a valid email address

If requesting any item(s) by mail, please send check to the following:

CITY OF TORRANCE

**OFFICE OF THE CITY CLERK
3031 TORRANCE BLVD
TORRANCE, CA 90503-2970
ATTN: B2020-30**

Scope of work: The City of Torrance is seeking qualified contractors to replace evaporative condenser at the Human Resources building.

The general scope of work will entail:

- Removal and haul away of the old Evap Condenser and replacing it with RECOLD Model# (1) JC-38-1G 3PH/60HZ 460V. With VFD.
- Refrigerant will be recovered and disposed of as per ASHRAE standards.
- Pipe in new condenser using vibration isolators on discharge and liquid lines.
- Awarded contractor is to secure new condenser to existing concrete pad.
- Install new sight glass on receiver.
- Replace existing filter dryers.
- Install new fusible disconnect.
- Reconnect makeup water line.
- Reconnect chemical feed lines.
- New Condenser to maintain 80-85 degree sump temperature.
- Start up and verify proper operation.

See "Section F" for specifications.

The Specifications in section F are intended to govern all aspects of the appurtenant construction including, but not limited to, materials, methods and details, except as modified herein or as inconsistent with the provisions hereof.

- The project will need to be scheduled with City of Torrance to minimize interruptions to City functions.

The contract completion term will begin upon the receipt of the Notice to Proceed (NTP) and will remain in effect for **two hundred forty (240)** calendar days. The **two hundred forty (240)** calendar days schedule includes: completion of contractual paperwork, submittal review, lead time for items, and onsite work. Bids are required for the entire work described herein.

The City has determined the bidder must have a "C-20" Warm-Air Heating, Ventilating and Air Conditioning Contractor. Bidder, as the prime contractor, must have successfully completed at least three (3) public works project of a similar size and scope within the last five (5) years. Bidder must have at least five (5) years' experience under current license (California State License Board), company registration (California Secretary of State). References must reflect this experience.

Per Division 2, Chapter 2 of the Torrance Municipal Code, the Torrance City Council may reject any and all bids, waive any informality or irregularity in such bids, and determine the lowest responsible bidder.

No Facsimile Bids shall be accepted by the City.

By order of the City Council of the City of Torrance, California.

This contract is subject to California State Prevailing Wage- Pursuant to Section 1771 and 1773 of the Labor Code, the general prevailing wage rates in the county in which the work is to be done have been determined by the Director of the California Department of Industrial Relations. These wages are set forth in the General Prevailing Wage Rates for this project, are attached and available from the California Department of Industrial Relations' internet site at <http://www.dir.ca.gov/Public-Works/Prevailing-Wage.html>. Future effective general prevailing wage rates which have been predetermined and are on file with the California Department of Industrial Relations are referenced but not printed in the general prevailing wage rates.

APPRENTICESHIP EMPLOYMENT STANDARDS. Attention is directed to the provisions in Sections 1776 and 1777.5 of the California Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under them.

One of the legal requirements for working on a public works project is the employment of apprentices. The Division of Apprenticeship Standards provides assistance to contractors in employing apprentices on public works sites.

Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, <http://www.dir.ca.gov/das/PublicWorksForms.htm>

Contractor Registration with the Department of Industrial Relations (SB 854)

- No contractor or subcontractor may be listed on a bid proposal or awarded a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- No contractor or subcontractor may be awarded a contract for public work on public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement). For additional information and to register online go to <http://www.dir.ca.gov/Public-Works/Contractors.html>

Fall Protection: Roof – Safety Requirement - OSHA requires employers to protect workers from falls. Falls can cause death and very serious injuries -and can be prevented. OSHA's fall protection requirements are as follows: for general industry, fall protection must be used while working at heights of four or more feet (see www.osha.gov/SLTC/fallprotection/index.html). Fall protection can be accomplished through the use of guardrail systems, safety net systems, personal fall arrest systems, or similar systems.

PART B

INSTRUCTIONS TO BIDDERS

**CITY OF TORRANCE
CALIFORNIA**

INSTRUCTIONS TO BIDDERS

A. QUALIFICATION OF BIDDERS

1. Competency of Bidders

The Bidder shall be thoroughly competent and capable of satisfactorily performing the Work covered by the Bid. As specified in the Bid Documents, the Bidder shall furnish statements of previous experience on similar work. When requested, the Bidder shall also furnish a plan of procedure proposed; organization, machinery, plant and other equipment available for the Work; evidence of financial condition and resources; and any other documentation as may be required by the City to determine if the Bidder is responsible.

2. Contractor's License

At the time of submitting the Bid, the Bidder shall be licensed as a contractor in accordance with the provisions of Chapter 9, Division 3, of the California Business and Professions Code. The required prime contractor license class for the Work is shown in the project Notice Inviting Bids. However, the City reserves the right to award the Contract to a contractor with another class if the City determines that the license is proper for the work.

B. BIDDER RESPONSIBILITY

A responsible Bidder is a Bidder who has demonstrated the attribute of trustworthiness, as well as ability, fitness, capacity and experience to satisfactorily perform the work.

Bidders are notified that, in accordance with Division 2, Chapter 2 of the Torrance Municipal Code, the City Council may determine whether the Bidder is responsible based on a review of the Bidder's performance on other contracts.

If, based on the provision and criteria in Division 2, Chapter 2 of the Torrance Municipal Code, the General Services Director proposes not to recommend the award of contract to the apparent low bidder, the Director shall notify the Bidder in writing of its intention to recommend to the City Council that the Council award the contract to the next lowest responsible bidder. If the Bidder presents evidence in rebuttal to the recommendation,

the Director shall evaluate the merits of such evidence, and based on that evaluation, make a recommendation to the City Council.

C. ADDENDA TO THE CONTRACT DOCUMENTS

The City reserves the right to revise or amend these specifications prior to the date set for opening bids. Revisions and amendments, if any, will be announced by an addendum to this bid. If the revisions require additional time to enable Bidders to respond, the City may postpone the opening date accordingly. In such case, the addendum will include an announcement of the new opening date.

All addenda must be attached to the bid. Failure to attach any addendum may render the bid non-responsive and cause it to be rejected.

D. PREPARATION OF THE BID

1. Examination of Site, Plans and Specifications

Bidders shall examine the site of the work and acquaint themselves with all conditions affecting the work. By submitting a bid, the bidder shall be held to have personally examined the site and the drawings, to have carefully read the specifications, and to have satisfied itself as to its ability to meet all the difficulties attending the execution of the proposed contract before the delivery of this proposal, and agrees that if awarded the contract, will make no claim against the City based on ignorance or misunderstanding of the plans, specifications, site conditions and/or contract provisions.

The Contractor shall have included in the contract price a sufficient sum to cover all items, including labor, materials, tools, equipment and incidentals, that are implied or required for the complete improvements as contemplated by the drawings, specifications, and other contract documents.

2. Bid Instructions and Submissions

The Bid shall be submitted on the Bid Proposal forms included in the Specifications. All Bid Documents must be completed, executed and submitted with Bid by Bidder. Required seven (7) Bid Proposal Documents:

1. Bidder's Proposal
2. Addenda Acknowledgment
3. Contractor's Affidavit
4. Bid Bond (10% of Bid)
5. List of Subcontractors
6. References
7. Bidder's Information

All prices submitted will be considered as including any and all sales or use taxes. In case of a discrepancy between a unit bid price and total bid, the unit price shall prevail.

E. BID FORM/BOND

The Bid must be accompanied by cash, a certified or cashier's check, or a surety bond (bid bond) payable to the City of Torrance. Bids must be submitted on the proposal forms furnished by the City Clerk's office. The Bid Guaranty shall be in an amount equivalent to at least 10% of the Total Contract Bid Price.

Within ten (10) days after the award of the contract, the City Clerk will return the proposal guarantees accompanying those proposals, which are not to be considered in making the award. All other proposal guarantees will be held until the contract has been finally executed, after which they will be returned to the respective bidders whose proposals they accompany.

F. AFFIDAVIT

An affidavit form is enclosed. It must be completed signifying that the bid is genuine and not collusive or made in the interest or on behalf of any person not named in the bid, that the bid has not directly or indirectly induced or solicited any other Bidder to put in a sham bid or any other person, firm, or corporation to refrain from bidding, and that the Bidder has not in any manner sought by collusion to secure for itself an advantage over any other Bidder. Any bid submitted without an affidavit or in violation of this requirement will be rejected.

G. NONRESPONSIVE BIDS AND BID REJECTION

1. A Bid in which bid proposal documents are not completed, executed and submitted may be considered non-responsive and be rejected.
2. A Bid in which the Contract Unit Prices are unbalanced, which is incomplete or which shows alteration of form or irregularities of any kind, or which contains any additions or conditional or alternate Bids that are not called for, may be considered non-responsive and be rejected.

H. AWARD OF CONTRACT

In accordance with Division 2, Chapter 2 of the Torrance Municipal Code, the City Council reserves the right to reject any and all bids received, to take all bids under advisement for a period not-to-exceed sixty (60) days after date of opening thereof, to waive any informality or irregularity in the Bid, and to be the sole judge of the merits of material included in the respective bids received.

This bid does not commit the City to award a contract or to pay any cost incurred in the preparation of a bid. All responses to this bid become the property of the City of Torrance.

I. NOTICE OF INTENT TO AWARD

Approximately two (2) weeks prior to the anticipated City Council meeting awarding a contract as a result of the RFP or bid, results will be posted on the City of Torrance Web site at <https://www.torranceca.gov/government/city-clerk/request-for-proposals>

J. BID PROTEST PROCEDURES

Please refer to City of Torrance website link below to obtain the City's Protest Procedures at <https://www.torranceca.gov/government/city-clerk/request-for-proposals>

K. EXECUTION OF CONTRACT

After the Contract is awarded, the awarded bidder shall execute the following five (5) documents:

1. Performance Bond (100% of Bid)
2. Labor and Material Bond (100% of Bid)
3. Contract – Contract Services Agreement
4. Verification of Insurance Coverage (Certificates and Endorsements)
5. Business License Application Form

The contract shall be signed by the successful bidder and returned, together with the contract bonds and evidence of required insurance coverage, **within ten (10) working days**, not including Sundays, after the bidder has received notice that the contract has been awarded. Failure to execute the contract as specified above shall be just cause for annulment of the award and forfeiture of the proposal guarantee. The Contract shall not be considered binding upon the CITY until executed by the authorized CITY officials.

Bond amounts shall be as provided in Section 2-4 of the Standard Specifications for Public Works Construction. The Performance Bond shall be required to remain in effect for one (1) year following the date specified in the City's Notice of Completion, or, if no Notice of Completion is recorded for one (1) year following the date of final acceptance by the City Manager.

L. PERMITS, LICENSES AND CONTRACT SERVICES AGREEMENT

The Contractor shall procure and execute all permits, licenses, pay all charges and fees, and give all notices necessary and incidental to completion of Work. The Contractor shall execute a Contract Services Agreement. No fee is charged for a permits issued by the City of Torrance for a City project. The Contractor shall obtain a City of Torrance Business License. To obtain a Torrance Business License please call 310-618-5923.

M. INSURANCE

The Contractor shall maintain Automobile Liability, General Liability and Workers' Compensation Insurance as specified in the Contract Services Agreement included in the Project Specifications.

N. SUBCONTRACTS

Each Bidder shall comply with the Chapter of the Public Contract Code including sections 4100 through 4114. The Contractor shall perform, with its own organization,

Contract work amounting to at least 50 percent of the Contract price. When a portion of an item is subcontracted, the value of the work subcontracted will be based on the estimated percentage of the Contract Unit Price, determined from information submitted by the Contractor, subject to approval by the City Manager (or his designate representative). This percentage will be based on direct labor hours used on the project. Supervision and overhead are not included in this calculation.

- O. TRAFFIC CONTROL- Not applicable
- P. PRE-BID INQUIRIES

Bidders with pre-bid inquiries must submit questions in writing to the General Services Department. Any and all questions must be emailed to Nina Schroeder, Business Manager at NSchroeder@TorranceCA.gov. Please list **“Bid for Replacement of Evaporative Condenser Replacement at Human Resources Building”** in the subject line of the email.

- Q. RESPONSIBILITY OF CITY

The City of Torrance shall not be held responsible for the care or protection of any material or parts of the work prior to final acceptance, except as expressly provided in these specifications.

- R. CONSTRUCTION SCHEDULE AND PRECONSTRUCTION CONFERENCE.

The office staff of the City is currently operating on a 9/80 work week; therefore, City Hall is closed every other Friday.

In accordance with the herein Special Provisions, after notification of award and prior to start of any work, **the Contractor shall submit to the City for approval its proposed Construction Schedule within ten (10) working days from the date of Notice to Proceed.** At least two (2) days, exclusive of Saturdays, Sundays and holidays, prior to commencement of work, the Contractor shall attend a pre-construction conference.

The Contractor will provide all product and equipment submittals to the City of Torrance or designated consultant within ten (10) working days from the date of Notice to Proceed. The Contractor shall immediately order materials requiring a delivery delay upon receipt of a written notice from the City that the City Council has approved an Award of Contract. Contractor shall provide written proof(s) of timely material order(s) and shall include any delivery delays in the Construction Schedule.

- S. PROGRESS OF THE WORK AND TIME FOR COMPLETION

The Contractor shall begin work after the mailing, from the City Manager to the Contractor, by first class mail, postage prepaid, of a Notice to Proceed. **The Contractor shall diligently prosecute the same to completion within two hundred forty (240) calendar days of the start date specified in said Notice.** The **two hundred forty** calendar schedule includes, completion of contractual paper work, equipment material submittal review, the lead time for materials and equipment, and on site work.

During periods when weather or other conditions are unfavorable for construction, the Contractor shall pursue only such portions of the work as shall not be damaged thereby. No portions of the work whose acceptable quality or efficiency will be affected by any unfavorable conditions shall be constructed while those conditions exist. It is expressly understood and agreed by and between the Contractor and the City that the Contract time for completion of the work described herein is a reasonable time taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the work.

T. LIQUIDATED DAMAGES

The Contractor agrees that failure to complete work within the time allowed will result in damages being sustained by the City. Contractor and City agree that failure to complete the project will result in inconvenience to the citizens of Torrance and the City of Torrance and their customers using the affected areas. Such delay will also result in the necessity of several inspections each day to ensure that the project is properly progressing. The parties also agree that failure to complete the project on time will prevent the City from having the use of the facility. Therefore, the parties agree such damages among others are, and will continue to be, impracticable and extremely difficult to determine, but that **five hundred dollars (\$500) per calendar day** is the minimum value of such costs to the City and is a reasonable amount that the Contractor agrees to reimburse the City for each calendar day of delay in finishing the work in excess of the time specified for completion, plus any authorized time extensions.

Execution of the contract under these specifications shall constitute agreement by the Contractor and the City that five hundred dollars (\$500) per calendar day is the minimum value of the costs and actual damage caused by failure of the Contractor to complete the work within the allotted time, that such sum is liquidated damages and shall not be construed as a penalty, and that such sum may be deducted from payments due the Contractor if such delay occurs. Said amount may be reduced by the City if work is sufficiently completed within the allotted time so that the damages are minimized.

The Contractor will not be assessed liquidated damages for any delay in completion of the work when such delay was caused by the failure of the City or the owner of a utility to provide for removal or relocation of the existing utility facilities; provided, however, that the Contractor shall have given the City and the owner of a utility timely notice of the interference. "Timely notice" shall be defined as a verbal notice (to be followed up in writing) no later than one (1) hour after initial discovery of the interference unless the City Representative is present, in which case notice shall be given immediately in writing to the City Manager.

U. GENERAL PREVAILING WAGE RATE

This contract is subject to California State Prevailing Wage.

Pursuant to Section 1771 and 1773 of the Labor Code, the general prevailing wage rates in the county in which the work is to be done have been determined by the Director of the California Department of Industrial Relations. These wages are set forth in the General Prevailing Wage Rates for this project, are attached and available from the California Department of Industrial Relations' internet site at <http://www.dir.ca.gov/Public-Works/Prevailing-Wage.html>. Future effective general prevailing wage rates which have

been predetermined and are on file with the California Department of Industrial Relations are referenced but not printed in the general prevailing wage rates.

APPRENTICESHIP EMPLOYMENT STANDARDS. Attention is directed to the provisions in Sections 1776 and 1777.5 of the California Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under them.

One of the legal requirements for working on a public works project is the employment of apprentices. The Division of Apprenticeship Standards provides assistance to contractors in employing apprentices on public works sites.

Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, <http://www.dir.ca.gov/DAS/DASApprenticesOnPublicWorksSummaryOfRequirements.htm>

Contractor Registration with the Department of Industrial Relations (DIR)

- No contractor or subcontractor may be listed on a bid proposal or awarded a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.
- All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement).

For additional information and to register online go to <http://www.dir.ca.gov/Public-Works/Contractors.html>

DIR provides a searchable database of registered contractors and subcontractors on its website <http://efiling.dir.ca.gov/PWCR/Search>, so that all contractors can comply with the requirement to only use registered contractors and subcontractors.

Labor Code Section 1813

The contractor or subcontractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars (\$25) for each worker employed in the execution of the contract by the respective contractor or subcontractor for each calendar day during which the worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violations of the provisions of this article. In awarding any contract for public work, the awarding body shall cause to be inserted in the contract a stipulation to this effect. The awarding body shall take cognizance of all violations of this article committed in the course of the execution of the contract, and shall report them to the Division of Labor Standards Enforcement.

Labor Code Section 1815

Notwithstanding the provisions of Sections 1810 to 1814, inclusive, of this code and notwithstanding any stipulation inserted in any contract pursuant to the requirements of said sections, work performed by employees of contractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon public work upon compensation for all hours worked in excess of 8 hours per day than 1 ½ times the basic rate of pay.

V. PRELIMINARY NOTICES

Preliminary Notices should be mailed to the following address.

Nina Schroeder
General Services Department
3350 Civic Center Drive
Torrance, CA 90503

PART C
SPECIAL PROVISIONS

SECTION A. GENERAL

The Project Specifications for all work on this project are the specifications contained in the **“Project Manual for Evaporative Condenser Replacement at Human Resources Building”** per plans and specifications provided by IDS Group Inc., and the City of Torrance.

Scope of work: The City of Torrance is seeking qualified contractors to replace evaporative condenser at the Human Resources building.

The general scope of work will entail:

- Removal and haul away of the old Evap Condenser and replacing it with RECOLD Model# (1) JC-38-1G 3PH/60HZ 460V. With VFD.
- Refrigerant will be recovered and disposed of as per ASHRAE standards.
- Pipe in new condenser using vibration isolators on discharge and liquid lines.
- Awarded contractor is to secure new condenser to existing concrete pad.
- Install new sight glass on receiver.
- Replace existing filter dryers.
- Install new fusible disconnect.
- Reconnect makeup water line.
- Reconnect chemical feed lines.
- New Condenser to maintain 80-85 degree sump temperature.
- Start up and verify proper operation.

See “Section F” for specifications.

The Specifications in section F are intended to govern all aspects of the appurtenant construction including, but not limited to, materials, methods and details, except as modified herein or as inconsistent with the provisions hereof.

- The project will need to be scheduled with City of Torrance to minimize interruptions to City functions.

Scope of work must include all labor, equipment, materials and accessories for a complete and useable project acceptable to the City of Torrance.

The Specifications are included on the plans and are intended to govern all aspects of the appurtenant construction including, but not limited to, materials and details, except as modified herein or as inconsistent with the provisions hereof.

DEFINITIONS

Whenever the following terms are used, they shall be understood to mean and refer to the following:

CITY - City of Torrance.

Board - The City Council of the City of Torrance herein referred to as City Council.

City Manager - The General Services Director of the City of Torrance, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

Laboratory - The designated laboratory authorized by the City of Torrance to test materials and work involved in the contract.

SECTION B. REFERENCE TO STANDARDS OR PUBLICATIONS

Any reference made in the Contract Documents to any specification, standard, or publication of any organization shall, in the absence of a specific designation to the contrary, be understood to refer to the latest edition of the specification, standard, or publication in effect as of the date of advertising the work, except to the extent that said standard or publication may be in conflict with applicable laws, ordinances, or governing codes. Contractors should be aware of all new code requirements (such as Cal-Green) when dealing with other general building work. No requirements of these specifications or the drawings shall be waived because of any provisions of, or omission from, said standards or publications.

SECTION C. DESCRIPTION OF THE WORK

1. Scope of the Work. Scope of work must include all labor, equipment, materials and accessories for a complete and useable project acceptable to the City of Torrance and per project plans. Contractor is responsible to investigating existing site conditions, prior to submitting a bid.

SECTION D. GENERAL PROCEDURES

1. Specifications and Drawings Complementary. The Drawings are complementary, and what is called for in one shall be as binding as if called for in both.
2. Order of Precedence of Contract Documents. In resolving conflicts resulting from conflicts, errors, or discrepancies in any of the Contract Documents, the order of precedence shall be as follows:
 1. Change Orders (including Plans and Specifications attached thereto).
 2. Permits Issued by other agencies
 3. Contract Services Agreement
 4. Addenda
 5. Special or General Provisions
 6. Plans
 7. City Standard Plans
 8. Instructions to Bidders
 9. Reference Specifications

Within the Specifications the order of precedence is as follows:

1. Addenda/Change Orders
2. Permits from other agencies/supplemental agreements
3. Special or General Provisions

4. Instructions to Bidders
5. Referenced Standard Plans
6. Referenced Specifications

With reference to the Plans/Drawings the order of precedence is as follows:

1. Change Orders plans govern over Addenda and Contract Drawings
 2. Addenda plans govern over Contract plans.
 3. Contract plans govern over standard plans
 4. Detail plans govern over general plans
 5. Figures govern over scaled dimensions
3. Discrepancies in the Contract Documents. Any discrepancies, conflicts, errors or omissions found in the Contract Documents shall be promptly reported in writing to the City Manager, who will issue a correction in writing. The Contractor shall not take advantage of any such discrepancies, conflicts, errors or omissions, but shall comply with any corrective measures regarding the same prescribed by the City Manager, and no additional payment or time shall be allowed therefor.
- If discrepancies are discovered between the drawings and the specifications, and no specific interpretation is issued prior to bidding, the decision regarding this interpretation shall rest with the City Manager. The Contractor shall be compelled to act on the City Manager's decision as directed. In the event the installation is not in compliance with the direction of the City Manager, the installation shall be corrected by and at the expense of the Contractor at no additional cost to the City.

See Section E of these Special Provisions for "Claims".

4. Errors and Omissions. If the Contractor, in the course of the work, becomes aware of any claimed errors or omissions in the contract documents or in the City's field work, he shall immediately inform the City Manager. The City Manager shall promptly review the matter, and if the City Manager finds an error or omission has been made the City Manager shall determine the corrective actions and advise the Contractor accordingly. If the corrective work associated with an error or omission increases or decreases the amount of work called for in the Contract, the City shall issue an appropriate Change Order. After discovery of an error or omission by the Contractor, any related work performed by the Contractor shall be done at its risk unless authorized by the City Manager.
5. Changed Conditions. The plans for the work show conditions as they are believed by the City Manager to exist, but it is not intended or to be inferred that the conditions as shown thereon constitute a representation by the City that such conditions are actually existent, nor shall the City be liable for any loss sustained by the Contractor as a result of any variance of the conditions as shown on the plans and the actual conditions revealed during the progress of the work or otherwise. The word "conditions" as used in this paragraph includes, but is not limited to, site conditions, both surface and subsurface.

The Contractor shall examine the site, compare it with the drawings and specifications and shall satisfy itself as to the conditions under which the work is to be performed. The Contractor shall ascertain and check the location of all existing structures, utilities and equipment, which may affect its work. The Contractor shall be responsible to re-examine the site, as necessary, for performance of change orders or other proposed changes, which may affect its work. No allowance shall subsequently be made on the Contractor's

behalf for any extra expense or loss of time, which is incurred due to failure or negligence on its part to make such examination.

6. As-built Drawings. The Contractor shall maintain a control set of Plans and Specifications on the Work site at all times. All final locations determined in the field, and any deviations from the Plans and Specifications, shall be marked in red on this control set to show as-built conditions. Upon completion of Work, the Contractor shall submit the control set to the Engineer for approval. Final payment will not be made until this requirement is met.
7. Construction Staking. The Contractor is responsible for all construction staking and shall be responsible for the cost of any restaking required due to disturbance caused by its operations, failure to protect the work site from vandalism or other causes of loss.
8. Notice to Proceed. Notwithstanding any other provisions of the Contract, the Contractor shall not be obligated to perform any work and the City shall not be obligated to accept or pay for any work performed by the Contractor prior to delivery of a Notice to Proceed. The City's knowledge of work being performed prior to delivery of the Notice to Proceed shall not obligate the City to accept or pay for such work. The Contractor shall provide all required contract bonds and evidences of insurance prior to commencing work at the site.
9. Delay in Obtaining Materials. No extension of time will be granted for a delay caused by the inability to obtain materials unless the Contractor either obtains advance written approval from the City Manager or obtains from the supplier and furnishes to the City Manager documentary proof that such materials could not be obtained due to war, government regulations, labor disputes, strikes, fires, floods, adverse weather necessitating the cessation of work, or other similar action of the elements. The Contractor is required to order materials in a timely manner as specified in the "Instruction to Bidders".
10. Inspection and Testing. The Work is subject to inspection and approval by the CITY or any authorized representative. It is the duty of the Contractor to notify the inspector that specific work is ready for inspection. Requests for inspections should be made through the automated phone system at 310-618-5901, using the permit number and following the prompts. Requests can be made up to 11pm the night before an inspection is required. The inspections will be typically made the next day.

All rough Mechanical, Electrical and Plumbing should be inspected by the City Specialty Inspectors and approved prior to any framing inspection. All framing, fire-blocking and bracing shall be in place prior to ordering a framing inspection. Gypsum board shall only be installed after approved framing inspection and then order a gypsum board nailing inspection prior to tape and finishing.

The CITY will make, or have made, such inspections and tests, as the City deems necessary to see that the Work is in conformance with the Contract Documents. The contractor will be responsible for coordinating the inspections and tests and pay for all related costs. In the event such inspections or tests reveal noncompliance with the Contract Documents, the Contractor shall bear the cost of such corrective measures as deemed necessary by the CITY, as well as the cost of subsequent re-inspection and re-testing.

Work done in the absence of inspection by the CITY may be required to be removed and replaced under the inspection of the CITY, and the entire cost of removal and replacement, including the cost of all materials which may be furnished by the CITY and used in the work thus removed, shall be borne by the Contractor, regardless of whether the work removed is found to be defective or not. Work covered without the approval of the CITY shall, if so directed, be uncovered to the extent required by the CITY, and the Contractor shall similarly bear the entire cost of performing all the work and furnishing all the materials necessary for the removal of the covering and its subsequent replacement, including all costs for additional inspection.

The CITY and any authorized representatives shall at all times have access to the Work during its construction at shops and yards as well as the Work site. The Contractor shall provide every reasonable facility for ascertaining that the materials and workmanship are in accordance with the Contract Documents.

Inspection of the Work shall not relieve the Contractor of the obligation to fulfill all conditions of the Contract.

11. Project Schedule

Within ten (10) working days after the receipt of the Notice to Proceed, the Contractor shall submit a proposed construction schedule to the CITY for approval. The schedule shall be in accordance with section 6 and shall be in sufficient detail to show chronological relationship of all activities of the Work. These include, but are not limited to: estimated starting and completion dates of various activities, submissions of submittals per 3.83 shop drawings, procurement of materials and scheduling of equipment.

No work may be started until the Schedule has been approved in writing. The work shall be scheduled to assure that construction will be completed within the specified time. The Contractor shall be responsible for coordination of all phases of the operation so that the time schedule can be met.

During construction, the Contractor shall also submit to the CITY, a two-week "look ahead" construction schedule during the construction progress meetings held biweekly. If the Contractor decides to make a major change in the method of operations after commencing construction, or if the schedule fails to reflect the actual progress, the Contractor shall submit to the CITY a revised construction schedule in advance of beginning revised operations.

Sequence of Construction - The Contractor shall sequence the Work in a manner to expeditiously complete the project with a minimum of inconvenience to the CITY or adjacent owners.

The construction schedule shall conform to the following criteria:

- 1) The schedule shall be prepared using the latest version of Microsoft Project or approved equal.
- 2) Work activities shall be based on the following:
 - a) Contract Unit Price items shall be subdivided into those portions to be constructed during each stage or phase of construction. (If applicable)
 - b) Lump sum items shall be subdivided into those portions to be constructed during each stage or phase of construction.
- 3) Utility relocations and/or coordination by the Contractor per section 14 of these Special Provisions shall be considered as activities.
- 4) Required submittals, working and shop drawings shall be included as activities.
- 5) The procurement of construction materials and equipment with long lead times for deliveries shall be included as activities.
- 6) Work to be performed by subcontractors shall be identified and shown as work activities.
- 7) Start and completion dates of each activity shall be illustrated.
- 8) Completion of all Work under the Contract shall be within the time specified in these Special Provisions and in accordance with the Plans and Specifications.

12. Mobilization

- 12.1 Scope. Mobilization shall include the provision of the Construction Schedule; Best Management Practices, Safety Plan, site review; obtaining all permits, insurance, and bonds; moving onto the site all materials and equipment; furnishing temporary construction facilities, and removal of same at completion of the project; all as required for the proper performance and completion of the work.

Mobilization shall include, but not be limited to, the following principle items.

- (a) Submittal and modification, as required, of the Construction Schedule.
- (b) All associated documentation and submittals as required.
- (c) Installing temporary construction power and wiring.
- (d) Establishing fire protection system.

- (e) Developing construction water supply.
- (f) Providing on-site sanitary facilities and portable water facilities, as required.
- (g) Arranging for and erection of Contractor's work and storage yard.
- (h) Submittal of all required insurance certificates and bonds, including subcontractors.
- (i) Obtaining all required permits.
- (j) Posting all OSHA required notices and establishment of safety programs.
- (k) Have the Contractor's superintendent at the job site full-time.
- (l) Pot-holing and other research and review as necessary to verify site conditions and utility locations, including research and review as necessary for change orders.
- (m) Demobilization.

13. Markup

The markups mentioned hereinafter shall include, but are not limited to, all costs for the services of superintendents, project managers, timekeepers and other personnel not working directly on the change order, and pickup or yard trucks used by the above personnel. These costs shall not be reported as labor and equipment elsewhere except when actually performing work directly on the change order and then shall be reported at the labor classification of the work performed.

The following percentages shall apply for additional work:

Profit	5% maximum
Overhead	10% maximum

Subcontractor markup: maximum allowed is 5% for profit and 10% for overhead on the subcontractor's costs.

To the sum of the costs and markups provided for in this subsection, one (1) percent shall be added as compensation for bonding and one (1) percent for insurance.

For changes involving only a decrease in price, the contractor and subcontractors shall return as credit for overhead and profit those same percentages which are allowed for like changes involving increase in price. On changes involving both an increase and decrease in price, overhead and profit will be allowed only on the net increase.

14. Utilities. The Contractor shall provide coordination with all the utility companies involved and shall provide protection from damage to their facilities. The Contractor shall be

responsible for repair or replacement to said facilities made necessary by its failure to provide required protection. The Contractor is required to include utility requirements in the Construction Schedule.

The Contractor shall be solely responsible to check all utility record maps, books, and/or other data in the possession of the CITY, other agencies, and/or all utility companies, and no allowance shall be made for any failure to have done so.

The Contractor shall utilize the services of "Underground Service Alert - Southern California" for utility locating in all public right-of-ways by calling 1-800-227-2600 at least 48 hours prior to any excavation.

15. Completion, Acceptance, Warranty: If, in the CITY's judgment, the Work has been completed and is ready for acceptance, the CITY will so certify and will determine the date when the Work was completed. This will be the date when the Contractor is relieved from responsibility to protect the Work. The CITY may cause a Notice of Completion to be filed and recorded with the Los Angeles County Recorder's Office. At the CITY's option, the CITY may certify acceptance to the City Council who may then cause a Notice of Completion to be filed and recorded with the Los Angeles County Recorder's Office.

Manufacturer's warranties and guaranties furnished for materials used in the Work and instruction sheets and parts listed supplied with materials shall be delivered to the CITY prior to acceptance of the Work. The duration of the warranty or guaranty shall be the standard of the industry with a minimum of 1 year from the date of Notice of Completion or Date of Acceptance.

The prime contractor will be required to warranty the entire project regardless of whether warranties from subcontractors are also required. Coordination and correction of any issue related to project scope that arises during that one (1) year warranty period will be the responsibility of the prime contractor.

Manufacturer's warranties shall not relieve the Contractor of liability under these Specifications. Such warranties only shall supplement the Contractor's responsibility.

The CITY may require a manufacturer's warranty on any product offered for use.

16. Superintendent. Contractor shall employ a superintendent to be in attendance at all times on the Project site during the performance of the work. Superintendent shall represent the Contractor, and communications given to the superintendent shall be binding as if given to the Contractor. The superintendent must be able to communicate verbally and in writing to both City Representatives and all contract labor regarding all aspects of work. The superintendent shall be approved by the CITY prior to the start of the work. If the designated superintendent is rejected, the Contractor shall immediately designate another superintendent in writing and submit to the City for consideration. The CITY shall have the authority to require the Contractor to remove its superintendent and/or alternate superintendent at any time and at no cost to the CITY.

17. Requirements for Recycling Construction Materials

The City of Torrance requires that all demolition projects and construction or remodeling projects valued at \$100,000 or more must recycle or reuse at least 65% of the materials that leave the project site and 100% of excavated soil and land-clearing debris and any universal wastes. A Waste Management Plan (WMP) form is part of the permit process for projects that meet these criteria. The WMP form is available at the permit counter or a downloadable form is available here:

<https://www.torranceca.gov/our-city-/public-works/construction-material-recycling>

Step 1 - when applying for the permit, you must complete the WMP form stating that at least 65% of the waste generated by the project will be recycled or reused and that 100% of excavated soil and land-clearing debris and universal wastes will be recycled or reused.

Step 2 - collect and keep all receipts and records of the disposal, recycling, donations, and reuse of the materials from your project. Receipts must show material type, tonnage or weight, how the materials were treated, the facility used, and the address of the jobsite.

Step 3 - complete the WMP by attaching the receipts listing the actual disposal and recycling that occurred and submitting the WMP to Public Works for approval. This is required before your project can get its final inspection.

Failure to fulfill the requirements of the WMP process will result in penalties of \$5,000 for construction projects and \$10,000 for demolition projects, as per the Torrance Municipal Code.

For additional information concerning recycling or recycling facilities please contact the City of Torrance Public Works Department website at (310) 781-6900.

SECTION E. PAYMENTS TO CONTRACTOR AND CLAIMS

1. Breakdown of Contract Prices. The Contractor shall, within ten (10) working days of receipt of a request from the City, submit a complete breakdown of lump sum bid prices showing the value assigned to each part of the work, including an allowance for profit and overhead. The breakdown shall include separate line for each subcontractor's bid and/or contract amount. In submitting the breakdown, the Contractor certifies that it is not unbalanced and that the value assigned to each part of the work represents its estimate of the actual cost, including profit and overhead, of performing that part of the work. The breakdown shall be sufficiently detailed to permit its use by the City Manager as one of the bases for evaluating requests for payment. No extra costs shall be allowed for these breakdowns.
2. Payment for Labor and Materials. The Contractor shall pay and cause the subcontractors to pay any and all accounts for labor, including Worker's Compensation premiums, State Unemployment and Federal Social Security payments and all other wage and salary deductions required by law. The Contractor also shall pay and cause the subcontractors to pay any and all accounts for services, equipment and materials used by it and the subcontractors during the performance of work under this contract. All such accounts

shall be paid as they become due and payable. If requested by the City Manager, the Contractor shall immediately furnish the City with proof of payment of such accounts.

3. Additional Work. Payment for additional work and all expenditures in excess of the bid amount must be authorized in writing by the City Manager. Such authorization shall be obtained by the Contractor prior to engaging in additional work. It shall be the Contractor's sole responsibility to obtain written approval from the City Manager for any change(s) in material or in the work proposed by suppliers or subcontractors. No payment shall be made to the Contractor for additional work which has not been approved in writing, and the Contractor hereby agrees that it shall have no right to additional compensation for any work not so authorized.
4. Claims. The Contractor shall not be entitled to the payment of any additional compensation for any cause, including any act, or failure to act, by the City, or the happening of any event, thing or occurrence, unless he shall have given the City due written notice of potential claim as hereinafter specified.

The written notice of potential claim shall set forth the reasons for which the Contractor believes additional compensation will or may be due, the nature of the costs involved, and, insofar as possible, the amount of the potential claim. Said notice shall be submitted on a form approved by the City at least forty-eight (48) hours (two working days) in advance of performing said work, unless the work is of an emergency nature, in which case the Contractor shall notify and obtain approval from the Inspector prior to commencing the work. The City Manager may require the Contractor to delay construction involving the claim, but no other work shall be delayed, and the Contractor shall not be allowed additional costs for any said delay but may be allowed on extension of time if the City Manager agrees that the work delayed is a controlling element of the Construction Schedule. The Contractor shall be required to submit any supporting data (or a detailed written explanation justifying further delay) within five (5) Work Days of a request from the City Manager and shall be responsible for any delays resulting from late and/or incomplete submittals. By submitting a Bid, the Contractor hereby agrees that this Section shall supersede Sections 6-4.3 and 6-4.4 of the Standard Specifications.

The City shall be the sole authority to interpret all plans, specifications and contract documents, and no claim shall be accepted which is based on the Contractor's ignorance, misunderstanding or noncompliance with any provision or portion thereof.

The Contractor shall be responsible to provide all data and to obtain all approvals required by said Specifications. No claims or extras shall be approved by the City unless all work was done under the direction of and subject to the approval of the Inspector.

It is the intention of this Subsection that differences between the parties arising under and by virtue of the Contract be brought to the attention of the City Manager at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. The Contractor hereby agrees that it shall have no right to additional compensation for any claim that may be based on any such act, failure to act, event, thing or occurrence for which no written notice of potential claim as herein required was filed.

5. Noncompliance with Plans and Specifications. Failure of the Contractor to comply with any requirement of the Plans and Specifications, and/or to immediately remedy any such noncompliance upon notice from the City Manager, may result in suspension of Contract Progress Payments. Any Progress Payments so suspended shall remain in suspension until the Contractor's operations and/or submittals are brought into compliance to the satisfaction of the City Manager. No additional compensation shall be allowed as a result of suspension of Progress Payments due to noncompliance with the plans or specifications. The Contractor shall not be permitted to stop work due to said suspension of Progress Payments.

6. Request for Payment. Contractor shall submit all requests for payment on AIA Document G702 – Application and Certificate for Payment and G703- Continuation Sheet. For each item provide a column for listing: Item Number; Description of Work; Scheduled Value, Previous Application; Authorized Change Orders; Total completed and Stored to Date of Application; Percentage of Completion; Balance to Finish; and Retainage.

Prior to submittal of said form, all items for which payment is requested shall be checked and approved in writing by the City Manager. No payments will be made unless all back-up data is submitted with the payment request and the Progress Payment Invoice is signed by both Contractor and Manager.

Back up data required to process payment shall include but not limited to the following:

- Copies of Certified payroll covering the payment period and proof of submission to the Department of Industrial Relations (DIR). Although this project is subject to compliance monitoring and enforcement by the DIR. The City reserves the right to review the certified payroll for compliance, request additional clarification and require the contractor to provide proof of payment such as cancelled checks prior to payment of invoice.
- Conditional and Unconditional lien releases from contractor, subcontractor and suppliers from which the contractor is expecting payment. Release forms must reflect amount of draw and through date of invoice payment.
 1. Conditional releases for the current pay period shall be provided with the current payment request.
 2. Unconditional releases for the immediate prior pay period shall be provided with the current payment request. Unconditional lien release forms must match the preceding Conditional release form in amount and through date and must be signed authorized company representative. Unconditional Lien Release on Final Payment with a zero balance is required from all material suppliers and subcontractors with the request for final payment (retention). All Unconditional Lien Release on Final Payments will be signed authorized company representative and notarized. Release forms can be found at the Contractors State License Board website at https://www.cslb.ca.gov/Consumers/Legal_Issues_For_Consumers/Mechanics_Lien/Conditional_And_Unconditional_Waiver_Release_Form.aspx. The most update current lien release forms must be used.
- Any required outside agency reports and/or written observations.

The City will retain 5 percent of the value of all work done and materials installed as part security for fulfillment of the contract by Contractor. The full 5 percent retention will be retained on all payments for 35 days after the filing of the Notice of Completion. In addition 125% of the amount of the “unreleased” STOP notice will be withheld.

There shall be no separate payment for any relocations, barriers or forms, grading or temporary construction required to construct the improvements herein. Payment for these items shall be absorbed in the Bid Prices for the applicable work to which they are appurtenant, and no extra costs shall be allowed.

The payment of amounts due to the Contractor shall be contingent upon the Contractor furnishing the City with a release of all claims against the City arising by virtue of the Contract related to said amounts. It is the contractor’s responsibility to provide the correct releases in order to obtain payment by the City.

7. Preconstruction Meeting. The City will hold a preconstruction meeting with awarded contractor and discuss procedural, and mobilization issues. The contractor needs to have key administrative staff attend such as: project manager, superintendent, administrative personnel who handle the certified payroll and pay requests. Attendees can also include subcontractors and major suppliers/fabricators.

In addition to staffing preconstruction meeting, the awarded contractor will need to bring the following to the preconstruction meeting for review and discussion.

- Project Schedule (see Special Provisions section D General Procedures #10 for details)
- Schedule of Values (see Special Provisions section E, Payment to Contractors #1 for details)
- Submittal Log, list all the submittals you plan to submit for review.
- List of subcontractors and contact information
- Prime Contractor’s Safety Plan
- Example of Daily Project Report and Daily Sign In Sheet for Review (see #8 below for details)
- Prime contractors’ signed contract, performance and labor and material bonds, insurance certificates with endorsements, workers compensation certificate and Torrance Business License. The exact verbiage of additionally insured clause for the insurance is found Item 18 of the contract. The certificate needs to be endorsed as well naming the City as additional insured.
- Signed contracts for subcontractors, insurance certificates with endorsements, workers compensation certificates. Subcontractor’s insurance must also meet the contract limits and language and be endorsed.

8. Daily Project Report and Contractor Daily Sign In Sheets.

The contractor will provide daily project reports and/or contractor daily sign in sheets on a daily basis (next working day) during the entire project's onsite work. At minimum the report/sign in sheets consist of the following:

Daily Project Report

- Date, Day of the Week, and Weather
- List all staffing by prime and subcontractors each, include classification and count of persons within the specific classification and denote journeyman vs. apprentice.
- List all deliveries of equipment and materials to site.
- List onsite discussions, meetings any resolution or direction given.
- List progress of the project (i.e. was scheduled and completed).
- List all visitors to the site.

Daily Sign In Sheet

- Date and Day of the Week
- Employee Name (printed), company and classification of work, denote journeyman vs. apprentice for each classification.
- Time started and time completed, any breaks.
- Employee signature of the individual worker (confirming reported time)

PART D
BID DOCUMENTS

BIDDER'S PROPOSAL

**BID FOR EVAPORATIVE CONDENSER REPLACEMENT AT
HUMAN RESOURCES BUILDING
B2020-30**

In accordance with the Notice Inviting Bids pertaining to the receiving of sealed proposals by the City Clerk of the City of Torrance for the above titled improvement, the undersigned hereby proposes to furnish all work to be performed in accordance with the Contract Documents, prepared by the City of Torrance for the bid as set forth in the following schedules.

Assignment of Contractor's values:

Item	Description	Total Amount In Figures*
01	Evaporative Condenser Replacement at Human Resources Building per Bid B2020-30 in its entirety.	\$
B2020-30 – BID TOTAL – in figures*		\$

Bidders Proposal – B2020-30

BASE BID TOTAL: _____
(In Words)*

***BID MAY BE REJECTED IF TOTAL IS NOT SHOWN IN FIGURES AND WORDS.**

The City of Torrance awards to the lowest responsible bidder per the Torrance Municipal Code. Based on the funding available, the City reserves the right to select any combination of roofs to proceed with replacement to determine the lowest responsible bidder for award.

The undersigned furthermore agrees to enter into and execute a contract, with necessary bonds, at the prices set forth herein and in case of default in executing such contract, with necessary bonds, the check or bond accompanying this bid and the money payable thereon shall be forfeited thereby to and remain the property of the City of Torrance.

The above prices include all work appurtenant to the various items as outlined in the project plans and specifications and all work or expense required for the satisfactory completion of said item.

The undersigned declares that it has carefully examined the Specifications, Plans and Contract Documents, and has investigated the site of the work and is familiar with the conditions thereon.

Company Name

Signature of principal in company

Date

Name and Title of Signer

Address: _____

Phone: _____

Fax: _____

Email: _____

Public Works Registration (PWCR) Number: _____

License No. & Classifications _____

ACKNOWLEDGMENT OF ADDENDA RECEIVED

B2020-30

The Bidder shall acknowledge the receipt of addenda by placing an "X" by each addendum received.

Addendum No. 1 _____

Addendum No. 2 _____

Addendum No. 3 _____

Addendum No. 4 _____

Addendum No. 5 _____

Addendum No. 6 _____

Addendum No. 7 _____

Addendum No. 8 _____

If an addendum or addenda have been issued by the City and not noted above as being received by the Bidder, the Bid Proposal may be rejected.

Bidder's Signature

Date

STATE OF CALIFORNIA }
 }
COUNTY OF _____ }

CONTRACTOR'S AFFIDAVIT
B2020-30

_____, being first duly sworn,
deposes and says:

1. That he is the _____
 Title
of _____
 (Name of Partnership, Corporation, or Sole Proprietorship)

hereinafter called "Contractor," who has submitted to the City of Torrance a proposal for the BID FOR EVAPORATIVE CONDENSER REPLACEMENT AT HUMAN RESOURCES BUILDING, B2020-30.

2. That said proposal is genuine; that the same is not sham; that all statement of facts therein are true;
3. That such proposal was not made in the interest or behalf of any person, partnership, company, association, organization or corporation not named or disclosed;
4. That the Contractor did not directly or indirectly induce, solicit or agree with any-one else to submit a false or sham bid, refrain from bidding, or withdraw the bid, to raise or fix the bid price of the Contractor or anyone else, or to raise or fix any overhead, profit or cost element of the Contractor's price or the price of anyone else; and did not attempt to induce action prejudicial to the interest of the City of Torrance or any other bidder, or anyone else interested in the proposed contract;
5. That the Contractor has not in any manner sought by collusion to secure for itself an advantage over any other bidder or to induce action prejudicial to the interests of the City of Torrance, or of any other bidder or of anyone else interested in the proposed contract;
6. That the Contractor has not accepted any bid from any subcontractor or materialman through any bid depository, the bylaws, rules or regulations of which prohibit or prevent the Contractor from considering any bid from any subcontractor or materialman, which is not processed through said bid depository, or which prevent any subcontractor or materialman from bidding to any contractor who does not use the facilities of or accept bids from or through such bid depository;

CONTRACTOR'S AFFIDAVIT B2020-30 (CONTINUED)

7. That the Contractor did not, directly or indirectly, submit the Contractor's bid price or any breakdown thereof, or the contents thereof, or divulge information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, or to any individual or group of Individuals, except to the City of Torrance, or to any person or persons who have a partnership or other financial interest with said Contractor in its business.

Dated this _____ day of _____, 20_____.

Subscribed and Sworn to _____ before me this _____
(Contractor)

of _____, 20_____ _____
(Title)

(Seal) _____ Notary Public in and for said County and State.

NOT FOR PRINT

BID BOND

B2020-30

KNOW ALL MEN BY THESE PRESENTS: That we, _____

as principal, and _____
as sureties, are held and firmly bound unto the City of Torrance, State of California, in the penal sum of _____ dollars (\$_____), for the payment whereof we hereby bind ourselves, our successors, heirs, executors or administrators jointly and severally, firmly by these presents.

The condition of this obligation is such that, whereas the above bounded principal is about to file with and submit to the City of Torrance a bid or proposal for the performance of certain work as required in the City of Torrance, Project No. **B2020-30**, said work being: **Evaporative Condenser Replacement at Human Resources Building** in compliance with the Plans therefore under an invitation of said City contained in a notice or advertisement for bids or proposals; now if the bid or proposal of said principal shall be accepted and if said work be thereupon awarded to the principal by said City and if the said principal shall enter into a contract with the said City in accordance with said bid or proposal, or if the bid or proposal of the said principal is rejected, then this bond shall be void and of no effect and otherwise in full force and effect.

WITNESS our hands this _____ day of _____, 20 _____.

Principal

Surety/Attorney-in-Fact

Signature

Name: _____

Local Address: _____

Phone No.: _____

Fax No.: _____

LIST OF SUBCONTRACTORS

The Bidder is required to fill in the following blanks in accordance with the provisions of the Subletting and Subcontracting Fair Practices Act (Chapter 2 of Division 5, Title 1 of the Government Code of the State of California) and should familiarize itself with Section 2-3 of the Standard Specifications.

1. Name Under Which Subcontractor is Licensed: _____

Subcontractor's Address: _____

Specific Description of Sub-Contract: _____

License Number: _____ CA License Classification/Type: _____

Public Works Registration (PWCR) Number: _____

2. Name Under Which Subcontractor is Licensed: _____

Subcontractor's Address: _____

Specific Description of Sub-Contract: _____

License Number: _____ CA License Classification/Type: _____

Public Works Registration (PWCR) Number: _____

3. Name Under Which Subcontractor is Licensed: _____

Subcontractor's Address: _____

Specific Description of Sub-Contract: _____

License Number: _____ CA License Classification/Type: _____

Public Works Registration (PWCR) Number: _____

4. Name Under Which Subcontractor is Licensed: _____

Subcontractor's Address: _____

Specific Description of Sub-Contract: _____

License Number: _____ CA License Classification/Type: _____

Public Works Registration (PWCR) Number: _____

5. Name Under Which Subcontractor is Licensed: _____

Subcontractor's Address: _____

Specific Description of Sub-Contract: _____

License Number: _____ CA License Classification/Type: _____

Public Works Registration (PWCR) Number: _____

6. Name Under Which Subcontractor is Licensed: _____

Subcontractor's Address: _____

Specific Description of Sub-Contract: _____

License Number: _____ CA License Classification/Type: _____

Public Works Registration (PWCR) Number: _____

7. Name Under Which Subcontractor is Licensed: _____

Subcontractor's Address: _____

Specific Description of Sub-Contract: _____

License Number: _____ CA License Classification/Type: _____

Public Works Registration (PWCR) Number: _____

Subcontractors must be properly licensed under the laws of the State of California for the type of work which they are to perform. Do not list alternate subcontractors for the same work.

The Bidding Contractor must include each subcontractor's contract license number (AB 44). An inadvertent error in listing the subcontractor's license number shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive, if the corrected contractor's license number is submitted to the public entity by the prime contractor within 24 hours after the bid opening-provided that the correct license number corresponds to the submitted name and location of the subcontractor.

No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1 (a)].

No contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

REFERENCES

Bidder must have completed at least three (3) **public works** projects of a similar size and scope within the last five (5) years. The references must reflect this requirement. ***Do not list a reference more than once or include the City of Torrance as a reference.***

1	Name of Firm/Agency:	
	Street Address:	
	City: State, Zip Code:	
	Name of Person to Contact:	
	Phone Number of Contact:	
	Email Address of Contact:	
	Title of Project:	
	Project Location:	
	Date of Completion:	
	Contract Amount:	
2	Name of Firm/Agency:	
	Street Address:	
	City: State, Zip Code:	
	Name of Person to Contact:	
	Phone Number of Contact:	
	Email Address of Contact:	
	Title of Project:	
	Project Location:	
	Date of Completion:	
	Contract Amount:	
3	Name of Firm/Agency:	
	Street Address:	
	City: State, Zip Code:	
	Name of Person to Contact:	
	Phone Number of Contact:	
	Email Address of Contact:	
	Title of Project:	
	Project Location:	
	Date of Completion:	
	Contract Amount:	

Contractor's License No.: _____ Class: _____

Contractor's Public Works Registration (PWCR) Number: _____

Date first obtained: _____

Has License ever been suspended or revoked? _____

If yes, describe when and why _____

Any current claims against License or Bond? _____

If yes, describe claims: _____

Type of entity (check one)

_____ Incorporated _____ Partnership _____ Sole Proprietorship

If incorporated, in what state _____

Federal Tax ID Number # _____

Principals in Company (List all - attach additional sheets if necessary):

<u>NAME</u>	<u>TITLE</u>	<u>LICENSE NO.</u> (If Applicable)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Bidder's Information

The bidder must provide a detailed list of the trades and the description of the work they will perform with their own company for this project.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

NOT FOR PRINT

PART E

**DOCUMENTS TO BE COMPLETED
AND DELIVERED TO CITY AS PART
OF CONTRACT WITH THE CITY**

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____ as Principal(s) and ____ a _____ corporation, incorporated, organized, and existing under the laws of the State of _____, and authorized to execute bonds and undertakings and to do a general surety business in the State of California, as Surety, are jointly and severally held and firmly bound unto the City of Torrance, a municipal corporation, located in the County of Los Angeles, State of California, in the full and just sum of: _____ Dollars (\$ _____), lawful money of the United States of America, for the payment of which sum, well and truly to be made, we bind ourselves and our respective heirs, executors, administrators, representative, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that: WHEREAS, said Principal(s) have/has entered into, or are/is about to enter into, a certain written contract or agreement, dated as of the _____ day of _____, 20____, with the said City of Torrance for the **EVAPORATIVE CONDENSER REPLACEMENT AT HUMAN RESOURCES, B2020-30**, all as is more specifically set forth in said contract or agreement, a full, true and correct copy of which is hereunto attached, and hereby referred to and by this reference incorporated herein and made a part hereof;

NOW, THEREFORE, if the said Principal(s) shall faithfully and well and truly do, perform and complete, or cause to be done, performed and complete, each and all of the covenants, terms, conditions, requirements, obligations, acts and things, to be met, done or performed by said Principal(s), including any guarantee period as set forth in, or required by, said contract or agreement, all at and within the time or times, and in the manner as therein specified and contemplated, then this bond and obligation shall be null and void; otherwise it shall be and remain in full force, virtue and effect.

The said Surety, for value received, hereby stipulates and agrees that no amendment, change, extension of time, alteration or addition to said contract or agreement, or of any feature or item or items of performance required therein or there under, shall in any manner affect its obligations on or under this bond; and said Surety does hereby waive notice of any such amendment, change, extension of time, alteration, or addition to said contract or agreement, and of any feature or item or items of performance required therein or there under.

PERFORMANCE BOND B2020-30 (CONTINUED)

In the event any suit, action or proceedings is instituted to recover on this bond or obligation, said Surety will pay, and does hereby agree to pay, as attorney's fees for said City, such sum as the Court in any such suit, action or proceeding may adjudge reasonable.

EXECUTED, SEALED AND DATED this _____ day of _____, 20____

CORPORATE SEAL

PRINCIPAL(S):

BY _____

BY _____

CORPORATE SEAL

SURETY:

BY _____

Name: _____

Local Address: _____

Phone No.: _____

Fax No.: _____

LABOR AND MATERIAL BOND
B2020-30

KNOW ALL MEN BY THESE PRESENTS:

That we, _____
As Principal(s) and _____ a
corporation, incorporated, organized, and existing under the laws of the State of
_____, and authorized to execute bonds and undertakings and to do a general surety
business in the State of California, as Surety, are jointly and severally held and firmly bound unto:

- (a) The State of California for the use and benefit of the State Treasurer, as ex-officio Treasurer and custodian of the Unemployment Fund of said State; and
- (b) The City of Torrance, California; and
- (c) Any and all persons who do or perform or who did or performed work or labor upon or in connection with the work or improvement referred to in the contract or agreement hereinafter mentioned; and
- (d) Any and all materialmen, persons, companies, firms, association, or corporations, supplying or furnishing any materials, provisions, provender, transportation, appliances or power, or other supplies used in, upon, for or about or in connection with the performance of the work or improvement contracted to be executed, done, made or performed under said contract or agreement; and
- (e) Any and all persons, companies, firms, associations, or corporations furnishing, renting, or hiring teams, equipment, implements or machinery for, in connection with, or contributing to, said work to be done or improvement to be made under said contract or agreement; and
- (f) Any and all persons, companies, firms, associations, or corporations who supply both work and materials;

and whose claim has not been paid by said Principal(s), in full and just sum of _____ Dollars (\$_____), lawful money of the United States of America, for the payment of which will and truly to be made, said Principal(s) and said Surety do hereby bind themselves and their respective heirs, executors, administrators, representatives, successors and assigns, jointly and severally, firmly by these presents.

LABOR AND MATERIAL BOND (CONTINUED)

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH, THAT: WHEREAS, said Principal(s) have/has entered into or are/is about to enter into a certain written contract or agreement, dated as of the _____ day of _____ 20 ____, with the City of Torrance for the **EVAPORATIVE CONDENSER REPLACEMENT AT HUMAN RESOURCES BUILDING; B2020-30**, all as is more specifically set forth in said contract or agreement, a full, true and correct copy of which is hereunto attached, and hereby referred to and by this reference incorporated herein and made a part hereof;

NOW, THEREFORE, if the said Principal(s) (or any of his/her, its, or their subcontractors) under said contract or agreement fails or fail to pay:

- (1) For any materials, provisions, provender, transportation, appliances, or power, or other supplies; or
- (2) For the hire of any teams, equipment, implements, or machinery; or
- (3) For any work or labor; supplies, furnished, provided, used, done or performed in, upon, for or about or in connection with the said work or improvement; or
- (4) For amounts due under the Unemployment Insurance Act of the State of California with respect to such work or improvement;

the Surety on this bond will pay the same in an amount not exceeding the sum hereinabove specified in this bond; and, also, in case suit is brought upon this bond, said Surety will (and does hereby agree to) pay a reasonable attorney's fee, to be fixed and taxed as costs, and included in the judgment therein rendered.

This bond shall (and it is hereby made to) insure to the benefit of any and all persons entitled to file claims under Section 1192.1 of the Code of Civil Procedure of the State of California, so as to give a right of action to them or their assigns in any suit brought upon this bond, all as contemplated under the provisions of Section 4205 of the Government Code, and of Chapter 1 of Title 4 of Part 3 of the Code of Civil Procedure, of the State of California.

This bond is executed and filed in connection with said contract or agreement hereunto attached to comply with each and all of the provisions of the laws of the State of California above mentioned or referred to, and of all amendments thereto, and the obligors so intend and do hereby bind themselves accordingly.

LABOR AND MATERIAL BOND B2020-30 (CONTINUED)

The said Surety, for value received, hereby stipulates and agrees that no amendment, change, extension of time, alteration, or addition to said contract or agreement, or of any feature or item or items of performance required therein or thereunder, shall in any manner affect its obligations on or under this bond; and said Surety does hereby waive notice of any such amendment, change, extension of time, alteration, or addition to said contract or agreement, and of any feature or item or items of performance required therein or thereunder.

EXECUTED, SEALED AND DATED this _____ day of _____, 20 _____

CORPORATE SEAL

PRINCIPAL:

BY _____

CORPORATE SEAL

SURETY:

BY _____

Name: _____

Local Address: _____

Phone No.: _____

Fax No.: _____

CONTRACT SERVICES AGREEMENT

This CONTRACT SERVICES AGREEMENT (“Agreement”) is made and entered into as of Date (the “Effective Date”), by and between the CITY OF TORRANCE, a municipal corporation (“CITY”), and Contractor Name, type of entity (“CONTRACTOR”).

RECITALS:

- A. The CITY wishes to retain the services of an experienced and qualified CONTRACTOR to Description of Project Project Name & Bid Number;
- B. In order to obtain the desired services, The CITY has circulated a Notice Inviting Bids for the Description of Notice Inviting Bid Project Name & Bid Number (the “NIB”); and
- C. CONTRACTOR has submitted a Bid (the “Bid”) in response to the NIB. CONTRACTOR represents that it is qualified to perform those services requested in the Plans and Specifications. Based upon its review of all Bids submitted in response to the NIB, The CITY is willing to award the contract to CONTRACTOR.

AGREEMENT:

1. SERVICES TO BE PERFORMED BY CONTRACTOR

CONTRACTOR will provide the services and install those materials listed in the Plans and Specifications, which are on file in the General Services Department. The NIB and the Plans and Specifications are made a part of this Agreement. A copy of the Bid is attached as Exhibit A.

2. TERM

Unless earlier terminated in accordance with Paragraph 4 below, this Agreement will continue in full force and effect for One/Two Year(s) from the Effective Date.

3. COMPENSATION

- A. CONTRACTOR’s Fee.

For services rendered pursuant to this Agreement, CONTRACTOR will be paid in accordance with CONTRACTOR’s Bid; provided, however, that in no event will the total amount of money paid the CONTRACTOR, for services initially contemplated by this Agreement, exceed the sum of \$Insert Dollar Amount (“Agreement Sum”), plus a contingency of \$Insert Dollar Amount, if first approved in writing by the CITY.

- B. Schedule of Payment.
Provided that the CONTRACTOR is not in default under the terms of this Agreement, upon presentation of an invoice, CONTRACTOR will be paid monthly, within 30 days after the date of the monthly invoice.

4. TERMINATION OF AGREEMENT

- A. Termination by CITY for Convenience.

1. CITY may, at any time, terminate the Agreement for CITY's convenience and without cause.
2. Upon receipt of written notice from CITY of such termination for CITY's convenience, CONTRACTOR will:
 - a) cease operations as directed by CITY in the notice;
 - b) take actions necessary, or that CITY may direct, for the protection preservation of the work; and
 - c) except for work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.
3. In case of such termination for CITY's convenience, CONTRACTOR will be entitled to receive payment for work executed; and costs incurred by reason of such termination, along with reasonable overhead and profit on the work not executed.

B. Termination for Cause.

1. If either party fails to perform any term, covenant or condition in this Agreement and that failure continues for 15 calendar days after the nondefaulting party gives the defaulting party notice of the failure to perform, this Agreement may be terminated for cause; provided, however, that if during the notice period the defaulting party has promptly commenced and continues diligent efforts to remedy the default, the defaulting party will have such additional time as is reasonably necessary to remedy the default.
2. In the event this Agreement is terminated for cause by the default of the CONTRACTOR, the CITY may, at the expense of the CONTRACTOR and its surety, complete this Agreement or cause it to be completed. Any check or bond delivered to the CITY in connection with this Agreement, and the money payable thereon, will be forfeited to and remain the property of the CITY. All moneys due the CONTRACTOR under the terms of this Agreement will be retained by the CITY, but the retention will not release the CONTRACTOR and its surety from liability for the default. Under these circumstances, however, the CONTRACTOR and its surety will be credited with the amount of money retained, toward any amount by which the cost of completion exceeds the Agreement Sum and any amount authorized for extra services.
3. Termination for cause will not affect or terminate any of the rights of the CITY as against the CONTRACTOR or its surety then existing, or which may thereafter accrue because of the default; this provision is in addition to all other rights and remedies available to the CITY under law.

C. Termination for Breach of Law.

In the event the CONTRACTOR or any of its officers, directors, shareholders, employees, agents, subsidiaries or affiliates is convicted (i) of a criminal offense as an incident to obtaining or attempting to obtain a public or private contract or subcontract, or in the performance of a contract or subcontract; (ii) under state or federal statutes of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or any other offense indicating a lack of business integrity or business honesty

which currently, seriously, and directly affects responsibility as a public consultant or contractor; (iii) under state or federal antitrust statutes arising out of the submission of bids or proposals; or (iv) of violation of Paragraph 19 of this Agreement; or for any other cause the CITY determines to be so serious and compelling as to affect CONTRACTOR's responsibility as a public consultant or contractor, including but not limited to, debarment by another governmental agency, then the CITY reserves the unilateral right to terminate this Agreement or to impose such other sanctions (which may include financial sanctions, temporary suspensions or any other condition deemed appropriate short of termination) as it deems proper. The CITY will not take action until CONTRACTOR has been given notice and an opportunity to present evidence in mitigation.

5. FORCE MAJEURE

If any party fails to perform its obligations because of strikes, lockouts, labor disputes, embargoes, acts of God, inability to obtain labor or materials or reasonable substitutes for labor or materials, governmental restrictions, governmental regulations, governmental controls, judicial orders, enemy or hostile governmental action, civil commotion, fire or other casualty, or other causes beyond the reasonable control of the party obligated to perform, then that party's performance shall be excused for a period equal to the period of such cause for failure to perform.

6. RETENTION OF FUNDS

CONTRACTOR authorizes the CITY to deduct from any amount payable to CONTRACTOR (whether or not arising out of this Agreement) any amounts the payment of which may be in dispute or that are necessary to compensate the CITY for any losses, costs, liabilities, or damages suffered by the CITY, and all amounts for which the CITY may be liable to third parties, by reason of CONTRACTOR's negligent acts or omissions or willful misconduct in performing or failing to perform CONTRACTOR's obligations under this Agreement. In the event that any claim is made by a third party, the amount or validity of which is disputed by CONTRACTOR, or any indebtedness exists that appears to be the basis for a claim of lien, the CITY may withhold from any payment due, without liability for interest because of the withholding, an amount sufficient to cover the claim. The failure of the CITY to exercise the right to deduct or to withhold will not, however, affect the obligations of CONTRACTOR to insure, indemnify, and protect the CITY as elsewhere provided in this Agreement.

7. THE CITY'S REPRESENTATIVE

City Representative is designated as the "City Representative," authorized to act in its behalf with respect to the work and services specified in this Agreement and to make all decisions in connection with this Agreement. Whenever approval, directions, or other actions are required by the CITY under this Agreement, those actions will be taken by the City Representative, unless otherwise stated. The City Manager has the right to designate another City Representative at any time, by providing notice to CONTRACTOR.

8. CONTRACTOR REPRESENTATIVE(S)

The following principal(s) of CONTRACTOR are designated as being the principal(s) and representative(s) of CONTRACTOR authorized to act in its behalf with respect to the work specified in this Agreement and make all decisions in connection with this Agreement:

Representative 1

9. INDEPENDENT CONTRACTOR

The CONTRACTOR is, and at all times will remain as to the CITY, a wholly independent contractor. Neither the CITY nor any of its agents will have control over the conduct of the CONTRACTOR or any of the CONTRACTOR's employees, except as otherwise set forth in this Agreement. The CONTRACTOR may not, at any time or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of the CITY. CITY has no duty, obligation, or responsibility to CONTRACTOR's agents or employees under the Affordable Care Act. CONTRACTOR is solely responsible for any tax penalties associated with the failure to offer affordable coverage to its agents and employees under the Affordable Care Act and any other liabilities, claims and obligations regarding compliance with the Affordable Care Act with respect to CONTRACTOR's agents and employees. CITY is not responsible and shall not be held liable for CONTRACTOR's failure to comply with CONTRACTOR's duties, obligations, and responsibilities under the Affordable Care Act. CONTRACTOR agrees to defend, indemnify and hold CITY harmless for any and all taxes and penalties that may be assessed against CITY as a result of CONTRACTOR's obligations under the Affordable Care Act relating to CONTRACTOR's agents and employees.

10. BUSINESS LICENSE

The CONTRACTOR must obtain a City business license prior to the start of work under this Agreement, unless CONTRACTOR is qualified for an exemption.

11. OTHER LICENSES AND PERMITS

CONTRACTOR warrants that it has all professional, contracting and other permits and licenses required to undertake the work contemplated by this Agreement.

12. FAMILIARITY WITH WORK

By executing this Agreement, CONTRACTOR warrants that CONTRACTOR (a) has thoroughly investigated and considered the scope of services to be performed, (b) has carefully considered how the services should be performed, and (c) fully understands the facilities, difficulties and restrictions attending performance of the services under this Agreement. If the services involve work upon any site, CONTRACTOR warrants that CONTRACTOR has or will investigate the site and is or will be fully acquainted with the conditions there existing, prior to commencement of services set forth in this Agreement. Should CONTRACTOR discover any latent or unknown conditions that will materially affect the performance of the services set forth in this Agreement, CONTRACTOR must immediately inform the CITY of that fact and may not proceed except at CONTRACTOR's risk until written instructions are received from the CITY.

13. CARE OF WORK

CONTRACTOR must adopt reasonable methods during the life of the Agreement to furnish continuous protection to the work, and the equipment, materials, papers, documents, plans, studies and other components to prevent losses or damages, and will be responsible for all

damages, to persons or property, until acceptance of the work by the CITY, except those losses or damages as may be caused by the CITY's own negligence.

14. CONTRACTOR'S ACCOUNTING RECORDS; OTHER PROJECT RECORDS

Records of the CONTRACTOR's time pertaining to the project, and records of accounts between the CITY and the CONTRACTOR, will be kept on a generally recognized accounting basis. CONTRACTOR will also maintain all other records, including without limitation specifications, drawings, progress reports and the like, relating to the project. All records will be available to the CITY during normal working hours. CONTRACTOR will maintain these records for three years after final payment.

15. PREVAILING WAGE

All Services rendered pursuant to this agreement must be provided in accordance with all ordinances, resolutions, statutes, rules, regulations, and laws of City and any Federal, State, or local governmental agency of competent jurisdiction. Contractor is aware of the requirements of California Labor Code Sections 1720, et seq., and 1770, et seq., as well as of California Code of Regulations, Title 8, Sections 1600, et seq., (collectively, the "Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "Public works" and "Maintenance" projects. If the Services are being performed as part of an applicable "Public works" or "Maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is ONE THOUSAND DOLLARS (\$1,000) or more, Contractor agrees to fully comply with the Prevailing Wage Laws including, but not limited to, requirements related to the maintenance of payroll records and the employment of apprentices.

Pursuant to California Labor Code Section 1725.5, no contractor or subcontractor may be awarded a contract for public work on a "Public works" project unless registered with the California Department of Industrial Relations ("DIR") at the time the contract is awarded. If the Services are being performed as part of an applicable "Public works" or "Maintenance" project, as defined by the Prevailing Wage Laws, this project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations ("DIR"). Contractor will maintain and will require all subcontractors to maintain valid and current DIR Public Works Contractor registration during the term of this Agreement. Contractor must notify City in writing immediately, and in no case more than twenty-four (24) hours, after receiving any information that Contractor's or any of its subcontractor's DIR registration status has been suspended, revoked, expired, or otherwise changed.

It is understood that it is the responsibility of Contractor to determine the correct salary scale. Contractor will make copies of the prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Services available to interested parties upon request, and post copies at Contractor's principal place of business and at the project site, if any. The statutory penalties for failure to pay prevailing wage or to comply with State wage and hour laws will be enforced. Contractor must forfeit to City TWENTY FIVE DOLLARS (\$25.00) per day for each worker who works in excess of the minimum working hours when Contractor does not pay overtime. In accordance with the provisions of Labor Code Sections 1810 et seq., eight (8) hours is the legal working day.

Contractor must also comply with State law requirements to maintain payroll records and must provide for certified records and inspection of records as required by California Labor Code Section 1770 et seq., including Section 1776. Contractor will defend (with counsel selected by

City), indemnify, and hold City, its elected officials, officers, employees, and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. It is agreed by the parties that, in connection with performance of the Services, including, without limitation, any and all "Public works" (as defined by the Prevailing Wage Laws), Contractor will bear all risks of payment or non-payment of prevailing wages under California law and/or the implementation of Labor Code Section 1781, as the same may be amended from time to time, and/or any other similar law. Contractor acknowledges and agrees that it will be independently responsible for reviewing the applicable laws and regulations and effectuating compliance with those laws. Contractor will require the same of all subcontractors.

16. INDEMNIFICATION

CONTRACTOR will indemnify, defend, and hold harmless CITY, the City Council, each member thereof, present and future, its officers, agents and employees from and against any and all liability, expenses, including defense costs and legal fees, and claims for damages whatsoever, including, but not limited to, those arising from breach of contract, bodily injury, death, personal injury, property damage, loss of use, or property loss however the same may be caused and regardless of the responsibility for negligence. The obligation to indemnify, defend and hold harmless includes, but is not limited to, any liability or expense, including defense costs and legal fees, arising from the negligent acts or omissions, or willful misconduct of CONTRACTOR, its officers, employees, agents, subcontractors or vendors. It is further agreed, CONTRACTOR's obligations to indemnify, defend and hold harmless will apply even in the event of concurrent negligence on the part of CITY, the City Council, each member thereof, present and future, or its officers, agents and employees, except for liability resulting solely from the negligence or willful misconduct of CITY, its officers, employees or agents. Payment by CITY is not a condition precedent to enforcement of this indemnity. In the event of any dispute between CONTRACTOR and CITY, as to whether liability arises from the sole negligence of the CITY or its officers, employees, agents, subcontractors or vendors, CONTRACTOR will be obligated to pay for CITY's defense until such time as a final judgment has been entered adjudicating the CITY as solely negligent. CONTRACTOR will not be entitled in the event of such a determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

17. NON-LIABILITY OF THE CITY'S OFFICERS AND EMPLOYEES

No officer or employee of the CITY will be personally liable to CONTRACTOR, in the event of any default or breach by the CITY or for any amount that may become due to CONTRACTOR.

18. INSURANCE

A. CONTRACTOR and its subcontractors must maintain for the duration of the Agreement at its sole expense the following insurance, which will be full coverage not subject to self-insurance provisions:

- (1) Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability:

- (a) Primarily Bodily Injury with limits of at least \$500,000 per person, \$1,000,000 per occurrence; and
 - (b) Primary Property Damage of at least \$250,000 per occurrence; or
 - (c) Combined single limits of \$1,000,000 per occurrence.
 - (2) Commercial General Liability including coverage for premises, products and completed operations, independent contractors, personal injury and contractual obligations with combined single limits of coverage of at least \$2,000,000 per occurrence, \$4,000,000 aggregate.
 - (3) Workers' compensation coverage as required by the Labor Code of the State of California and, if workers' compensation is required, employer's liability insurance with minimum limits of (\$1,000,000) per occurrence or occupational illness. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the CITY for all work performed by the CONTRACTOR, its employees, agents and subcontractors.
- B. The insurance provided by CONTRACTOR will be primary and non-contributory.
- C. CITY, the Successor Agency to the Former Redevelopment Agency of the City of Torrance, the City Council and each member thereof, members of boards and commissions, very officer, agent, official, employee and volunteer must be named as additional insureds under the automobile and general liability policies. Additional insured coverage endorsement must also apply to all work performed by CONTRACTOR.
- D. CONTRACTOR must provide certificates of insurance including all required amendatory endorsements (or copies of the applicable policy language effecting coverage required by this clause) indicating appropriate coverage, to the City Clerk of the City of Torrance before the commencement of work.
- E. Each insurance policy required by this Paragraph must contain a provision that no termination, cancellation or change of coverage can be made without notice to the CITY.
- F. CONTRACTOR must include all subcontractors as insureds under its policies or must furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors will be subject to all of the requirements of this Paragraph 18.
- G. If the CONTRACTOR maintains broader coverage and/or higher limits than the minimums shown above, the CITY requires and shall be entitled to the broader coverage and/or the higher limits maintained by the CONTRACTOR. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the CITY.
- H. The procuring of insurance shall not be construed as a limitation on liability nor as full performance of the indemnification provisions of the CONTRACTOR.

- I. CONTRACTOR hereby grants to CITY a waiver of any right to subrogation which any insurer of said CONTRACTOR may acquire against the CITY by virtue of the payment of any loss under such insurance. CONTRACTOR agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the CITY has received a waiver of subrogation endorsement from the insurer.

19. SUFFICIENCY OF INSURERS

Insurance required by this Agreement will be satisfactory only if issued by companies admitted to do business in California, rated “A” or better in the most recent edition of Best’s Key Rating Guide, and only if they are of a financial category Class VII or better, unless these requirements are waived by the Risk Manager of the CITY (“Risk Manager”) due to unique circumstances. In the event the Risk Manager determines that the work or services to be performed under this Agreement creates an increased or decreased risk of loss to the CITY, the CONTRACTOR agrees that the minimum limits of any insurance policies and/or the performance bond required by this Agreement may be changed accordingly upon receipt of written notice from the Risk Manager; provided that CONTRACTOR will have the right to appeal a determination of increased coverage by the Risk Manager to the City Council of the CITY within 10 days of receipt of notice from the Risk Manager.

20. CONFLICT OF INTEREST

- A. No officer or employee of the CITY may have any financial interest, direct or indirect, in this Agreement, nor may any officer or employee participate in any decision relating to the Agreement that effects the officer or employee’s financial interest or the financial interest of any corporation, partnership or association in which the officer or employee is, directly or indirectly interested, in violation of any law, rule or regulation.
- B. No person may offer, give, or agree to give any officer or employee or former officer or employee, nor may any officer or employee solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation or any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any way pertaining to any program requirement, contract or subcontract, or to any solicitation or proposal.

21. NOTICE

- A. All notices, requests, demands, or other communications under this Agreement will be in writing. Notice will be sufficiently given for all purposes as follows:
 - 1. Personal delivery. When personally delivered to the recipient: notice is effective on delivery.
 - 2. First Class mail. When mailed first class to the last address of the recipient known to the party giving notice: notice is effective three mail delivery days after deposit in an United States Postal Service office or mailbox.

3. Certified mail. When mailed certified mail, return receipt requested: notice is effective on receipt, if delivery is confirmed by a return receipt.
4. Overnight delivery. When delivered by an overnight delivery service, charges prepaid or charged to the sender's account: notice is effective on delivery, if delivery is confirmed by the delivery service.
5. Facsimile transmission. When sent by fax to the last fax number of the recipient known to the party giving notice: notice is effective on receipt. Any notice given by fax will be deemed received on the next business day if it is received after 5:00 p.m. (recipient's time) or on a non-business day.
7. Addresses for purpose of giving notice are as follows:

CONTRACTOR: Contractor's Name and Address

Fax: Insert Fax Number

CITY: City Clerk
 City of Torrance
 3031 Torrance Boulevard
 Torrance, CA 90503
 Fax: (310) 618-2931

with a copy to: Attn: Project Manager's Name
 Department Name
 Address
 Torrance, CA 90503
 Fax: Insert Fax Number

- B. Any correctly addressed notice that is refused, unclaimed, or undeliverable because of an act or omission of the party to be notified, will be deemed effective as of the first date the notice was refused, unclaimed or deemed undeliverable by the postal authorities, messenger or overnight delivery service.
- C. Either party may change its address or fax number by giving the other party notice of the change in any manner permitted by this Agreement.

22. PROHIBITION AGAINST ASSIGNMENT AND SUBCONTRACTING

This Agreement and all exhibits are binding on the heirs, successors, and assigns of the parties. The Agreement may not be assigned or subcontracted by either the CITY or CONTRACTOR without the prior written consent of the other.

23. INTEGRATION; AMENDMENT

This Agreement represents the entire understanding of the CITY and CONTRACTOR as to those matters contained in it. No prior oral or written understanding will be of any force or effect with

respect to the terms of this Agreement. The Agreement may not be modified or altered except in writing signed by both parties.

24. INTERPRETATION

The terms of this Agreement should be construed in accordance with the meaning of the language used and should not be construed for or against either party by reason of the authorship of this Agreement or any other rule of construction that might otherwise apply. To the extent that the terms of the Bid or Proposal are inconsistent with the terms of this Agreement, the terms of this Agreement shall control.

25. SEVERABILITY

If any part of this Agreement is found to be in conflict with applicable laws, that part will be inoperative, null and void insofar as it is in conflict with any applicable laws, but the remainder of the Agreement will remain in full force and effect.

26. TIME OF ESSENCE

Time is of the essence in the performance of this Agreement.

27. GOVERNING LAW; JURISDICTION

This Agreement will be administered and interpreted under the laws of the State of California. Jurisdiction of any litigation arising from the Agreement will be in Los Angeles County, California.

28. COMPLIANCE WITH STATUTES AND REGULATIONS

CONTRACTOR will be knowledgeable of and will comply with all applicable federal, state, county and city statutes, rules, regulations, ordinances and orders.

29. WAIVER OF BREACH

No delay or omission in the exercise of any right or remedy by a nondefaulting party on any default will impair the right or remedy or be construed as a waiver. A party's consent or approval of any act by the other party requiring the party's consent or approval will not be deemed to waive or render unnecessary the other party's consent to or approval of any subsequent act. Any waiver by either party of any default must be in writing and will not be a waiver of any other default concerning the same or any other provision of this Agreement.

30. ATTORNEY'S FEES

Except as provided for in Paragraph 16, in any dispute, litigation, arbitration, or other proceeding by which one party either seeks to enforce its rights under this Agreement (whether in contract, tort or both) or seeks a declaration of any rights or obligations under this Agreement, the prevailing party will be awarded reasonable attorney's fees, together with any costs and expenses, to resolve the dispute and to enforce any judgment.

31. EXHIBITS

All exhibits identified in this Agreement are incorporated into the Agreement by this reference.

32. CONTRACTOR’S AUTHORITY TO EXECUTE

The persons executing this Agreement on behalf of the CONTRACTOR warrant that (i) the CONTRACTOR is duly organized and existing; (ii) they are duly authorized to execute this Agreement on behalf of the CONTRACTOR; (iii) by so executing this Agreement, the CONTRACTOR is formally bound to the provisions of this Agreement; and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which the CONTRACTOR is bound.

33. PUBLIC RECORDS ACT

Any documents submitted by the CONTRACTOR; all information obtained in connection with the CITY’s right to audit and inspect the CONTRACTOR’s documents, books, and accounting records pursuant to paragraph 14 Contractor’s Accounting Records; Other Project Records; as well as those documents which were required to be submitted in response to the Bid used in the solicitation process for this Contract, become the exclusive property of the City. All such documents become a matter of public record and shall be regarded as public records. Exceptions will be those elements in the California Government Code Section 6250 et seq. (Public Records Act) and which are marked “trade secret”, “confidential”, or “proprietary”. The CITY shall not in any way be liable or responsible for the disclosure of any such records including, without limitation, those so marked, if disclosure is required by law, or by an order issued by a court of competent jurisdiction.

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In the event the CITY is required to defend an action on a Public Records Act request for any of the aforementioned documents, information, books, records, and/or contents of a proposal marked “trade secret”, “confidential”, or “proprietary”, the CONTRACTOR agrees to defend and indemnify the CITY from all costs and expenses, including reasonable attorney’s fees, in action or liability arising under the Public Records Act.

CITY OF TORRANCE,
a municipal corporation

Firm Name
Type of Entity

Patrick J. Furey, Mayor

By: _____
Signer Name, Title

ATTEST:

Rebecca Poirier, MMC
City Clerk

APPROVED AS TO FORM:

PATRICK Q. SULLIVAN
City Attorney

By: _____

Attachment: Exhibit A: Bid
Rev. 0819

EXHIBIT A

Bid

PART F

**SPECIFICATIONS FOR EVAPORATIVE CONDENSER REPLACEMENT
AT HUMAN RESOURCES BUILDING**

Specs for Evaporative Condenser Replacement at Personnel Bldg.

Project will need to be scheduled with City of Torrance to minimize interruptions to City functions.

Remove and haul away old Evap Condenser.

Replace existing Evap Condenser with the following:

RECOLD Model# (1) JC-38-1G 3PH/60HZ 460V.

2 1/8 in OUTLET

1 5/8 in Inlet

REFRIGERANT R-134a CONDENSING TEMP 105°F TOTAL HEAT REJECTION
468,000 Btu/h

Base Tower Construction/Equipment:

Tower Construction/Equipment:

- Galvanized steel base construction.
- Series 301L stainless steel sump pan sides, floor panels, coil supports, anti-cavitation swirl arrestor hood
- External float box.
- Belt drive centrifugal fan.
- Triple-pass 17 mil PVC drift eliminators designed and manufactured by Marley.
- Motors will meet or exceed the EISA 2007 government efficiency standards
- Greaselines will be included outside of the tower's casing for ease of maintenance.

Coil Section:

- Corrosion resistant copper tube bundle constructed with 5/8 in O.D. copper tubing. Heavy Wall Tube, Top 4 Rows.
- Medium Wall Tube, Rest of Coil.
- Tube bundles water immersion tested to 350 psi.
- Collection Basin Connections and Accessories:
- Mechanical type water make-up float valve.

Spray System and Accessories:

- PVC distribution header pipe and branch arms with polypropylene spray nozzles.
- Spray pump installed and piped in the factory.

Maintenance & Maintenance Access Features:

- Large removable access doors in sump section and coil section.
- Fan and motor located out of the wet area, for ease of access and maintenance.
- (1) Starter Panel with Intergraded VFD.

Start up and verify proper operation.

JC series
EVAPORATIVE CONDENSER

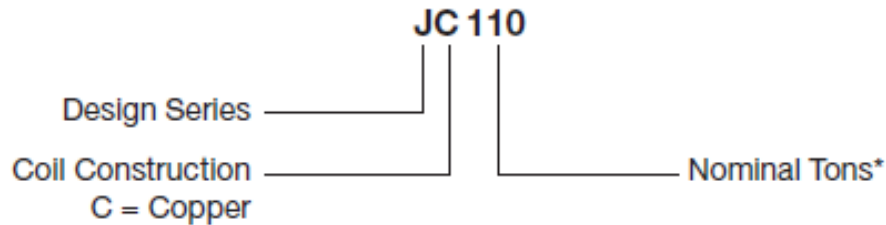
engineering data



RECOLD 

Construction.....	3
Schematic	4
Engineering Data.....	5
Selection Procedure.....	6-9
Multi-Circuited Selection Procedure.....	10-11
Accessories.....	12

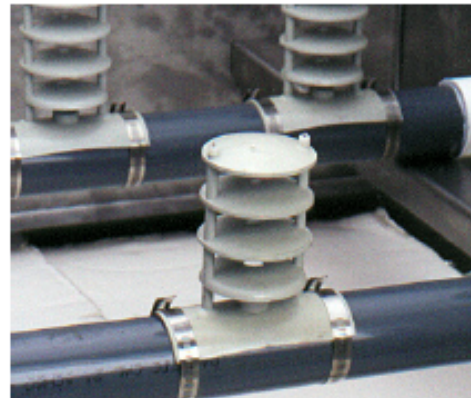
Nomenclature



*At 105°F condensing temperature, 78° wet bulb temperature, 40°F suction temperature, refrigerants R12, R22, R502.

RECOLD HYDROSPRAY

Recold engineering has developed an exclusive water distribution system called hydro spray. This unique system provides optimum water coverage of the heat transfer coil for maximum efficiency and virtual elimination of harmful scale problems that result from uneven water distribution. This process is accomplished through a limited number of large orifice non-clogging diffusers mounted on a heavy duty PVC pipe water header.



The JC Evaporative Condenser is a ruggedly built unit constructed to provide many years of durable, dependable service with minimal maintenance requirements. Quality materials and workmanship are a key factor in meeting this objective.

FAN MOTORS

Fan motors furnished as standard equipment are open drip-proof type suitable for outdoor service. Motors have a 1.15 service factor and are mounted on a heavy duty adjustable base located for easy access.

FAN GUARD SCREENS

All moving parts are protected with OSHA approved galvanized steel screens. Each guard is easily removed for access to the fan.

FAN SECTION

The centrifugal fan is forward curved, statically and dynamically balanced and constructed of galvanized steel. The fan housing has curved inlet rings for efficient air entry and discharge into the pan. Fans are mounted on a solid steel shaft coated to resist corrosion. Heavy duty, pillow block type, self-aligning ball bearings are located at each end of the fan shaft.

No intermediate bearings are required

Extended lube lines are supplied as standard equipment to allow servicing bearings without removal of fan guard screens.

WATER CIRCULATION PUMP

The water circulation pump is a close coupled, bronze fitted centrifugal type with mechanical seal. Each pump is factory mounted and piped. Standard motor is open drip-proof suitable for outdoor service.

DRIFT ELIMINATORS

Eliminators are constructed of PVC assemblies in removable, easy to handle sections. Each section has a three break design allowing three changes in air flow and measure approximately 5 inches in depth. The use of durable PVC eliminates the corrosion problems associated with galvanized eliminators.

HEAT EXCHANGE COIL

Coil tube bundle is constructed of 3/8" copper tubing with stainless steel tube sheets and copper headers. The copper construction offers a noncorrosive coil for extended service life.

ACCESS DOORS

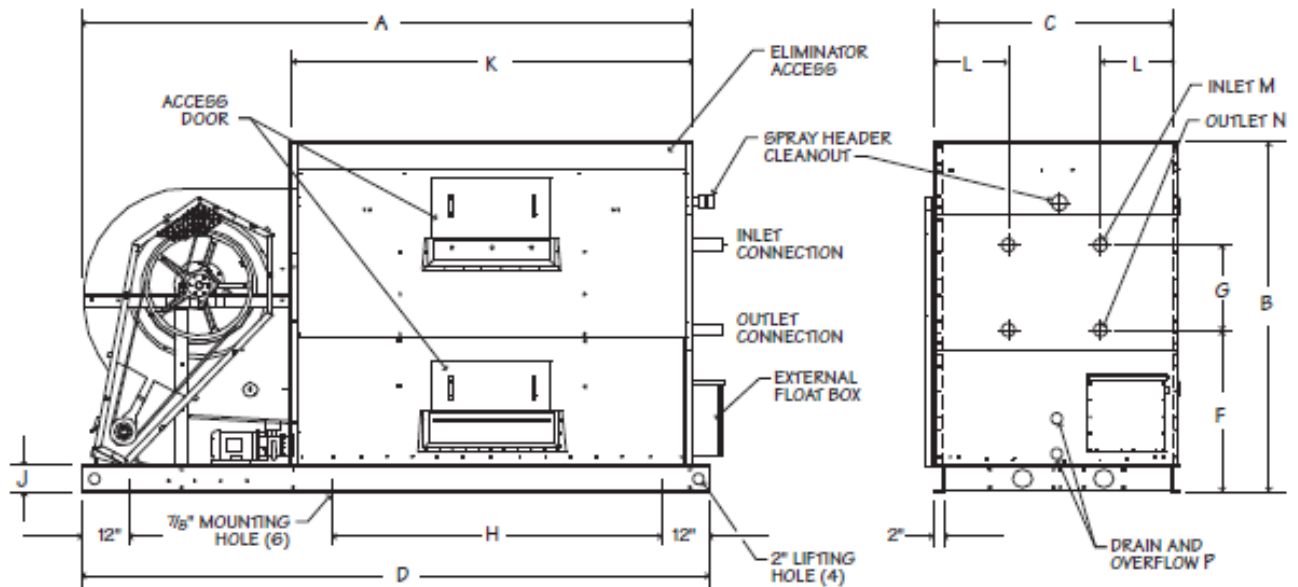
Large rectangular access doors are strategically located to provide access to both upper water distribution system and lower pan basin. The patented doors provide a complete air and water tight seal without the use of gaskets or fasteners

WATER MAKE-UP

Water make-up is provided by a solid brass float valve with arm and float ball installed in an external float box. This allows easy observation of the water operating level and maintenance of the valve with unit in operation.



CONSTRUCTION: The Evaporative Condenser sump pan is constructed of 300 series stainless steel and casing panels are constructed of heavy gauge, G-235 galvanized steel. The sump pan and casing panels are flanged outward so that all the connecting fasteners are located outside the flooded section of the unit to help prevent leaks in the unit and provides a more permanent watertight joint. To provide further protection from corrosion, no welded joints are located below the water line. The unit is designed for a 30 psf on any projected area and ships in one piece on a minimum 6" high stainless steel channel base to help in handling and installation of the unit.



MODEL	DIMENSIONS												ACCESS DOORS				OVERFLOW DRAIN (FT)	WATER SUPPLY (FT)
													FAR SIDE		NEAR SIDE			
	A	B	C	D	F	G	H	J	K	L	M	N	TOP	BOTTOM	TOP	BOTTOM		
JC20 thru JC30	80"	76"	32"	84"	32W"	20W"	—	6"	53"	13W"	2W"	1W"	1	1	—	—	2W"	W"
JC38 thru JC58	96"	76"	38"	102"	31W"	20W"	—	6"	65"	16	2W"	1W"	1	1	—	—	2W"	W"
JC63 thru JC80	115W"	77"	46W"	124"	33W"	20W"	51W"	6	76W"	20W"	2W"	2W"	1	1	1	1 note 3	2W"	W"
JC90 thru JC120	139W"	81"	56W"	144"	38"	19W"	51"	6"	92"	14W"	3W"	2W"	1	1	1	1 note 3	2W"	W"
JC135 thru JC200	172W"	92W"	67W"	180W"	41"	19W"	71W"	6"	115"	17W"	3W"	2W"	2	1	2	1 note 3	2W"	1"
JC240 thru JC285	184W"	98	94W"	192"	47"	19W"	84W"	8"	115"	note 4	2g3W"	2g2W"	2	1	2	1 note 3	3"	1W"
JC320 JC350	208"	98W"	94W"	217"	47"	19W"	96W"	8"	139W"	note 4	2g3W"	2g3W"	2	1	2	1 note 3	3"	1W"
JC375 JC400	221"	118W"	101W"	225"	67"	19W"	80"	10"	139W"	note 4	2g3W"	2g3W"	2	2	2	2 note 3	4"	1W"
JC425 JC450	245W"	118W"	101W"	248"	67"	19W"	104"	10"	164W"	note 4	2g3W"	2g3W"	2	2	2	2 note 3	4"	1W"
JC475 JC525	269"	118W"	101W"	273"	67"	19W"	128"	10"	188"	note 4	2g3W"	2g3W"	2	2	2	2 note 3	4"	1W"

Note

- 1 Use this bulletin for preliminary layouts only. Obtain current drawing from your Recold sales representative.
- 2 If required add 6 1/2" for positive closure dampers.
- 3 An additional bottom access door is installed on the connection end.
- 4 Consult Recold for size and location of connections on multi-circuited coils.
- 5 If supporting the unit on beams, refer to the Recold suggested supporting steel drawing for required mounting hole location.

MODEL	FAN MOTOR hp*	STANDARD FAN MOTOR FRAME	SUMP HEATER kW	SUMP CAPACITY gal	AIR VOLUME cfm	FAN RPM	FAN SIZE in	COIL FACE sq ft
JC20	2	145T	1.5	32	3200	960	18	704
JC25	2	145T	1.5	43	5280	589	18	9.7
JC30	3	182T	1.5	43	5900	796	18	9.7
JC38	3	182T	2.6	64	7400	601	21	14.5
JC46	3	182T	2.6	64	7000	636	21	14.5
JC52	5	184T	2.6	64	8500	729	21	14.5
JC58	5	184T	2.6	64	8300	740	21	14.5
JC63	3	182T	2.6	95	9600	452	25	21.6
JC72	5	184T	2.6	95	11800	523	25	21.6
JC80	7½	213T	2.6	95	13000	614	25	21.6
JC90	7½	213T	4.0	163	19000	413	31	32.5
JC110	10	215T	4.0	163	20000	462	31	32.5
JC120	10	215T	4.0	163	19500	476	31	32.5
JC135	10	215T	5.5	248	26500	344	37	49.6
JC165	10	215T	5.5	248	26000	356	37	49.6
JC180	10	215T	5.5	248	24100	350	37	49.6
JC200	15	254T	5.5	248	28400	385	37	49.6
JC240	20	256T	8.0	374	37200	385	40	70.4
JC270	20	256T	8.0	374	36600	385	40	70.4
JC285	25	284T	8.0	374	39000	415	40	70.4
JC320	30	286T	11.0	454	52300	415	40	85.5
JC350	30	286T	11.0	454	50000	430	40	85.5
JC375	30	286T	11.0	748	58300	252	49	92.5
JC400	30	286T	11.0	748	61000	267	49	92.5
JC425	41	324T	14.0	880	66000	256	49	108.9
JC450	41	324T	14.0	880	69000	271	49	108.9
JC475	50	326T	16.0	1012	76500	262	49	125.2
JC525	50	326T	16.0	1012	80000	278	49	125.2

* For static pressure from ¼ to ½ ESP use next size larger motor

MODEL	PUMP MOTOR hp	SPRAY WATER GPM	REFRIGERANT CHARGE lb		APPROXIMATE WEIGHT lb	
			R-22	R-404	SHIPPING	OPERATING
JC20	½	40	47	49	810	1230
JC25	½	40	40	41	910	1450
JC30	½	40	52	54	960	1500
JC38	½	50	61	64	1280	1940
JC46	½	50	81	84	1350	2010
JC52	½	50	91	95	1360	2020
JC58	½	50	99	103	1435	2395
JC63	¾	70	121	126	1940	2900
JC72	¾	70	138	144	1955	2915
JC80	¾	70	150	156	2074	3483
JC90	1	110	142	149	2965	4190
JC110	1	110	188	196	3090	4560
JC120	1	110	230	240	3305	4919
JC135	2	150	236	246	4355	6335
JC165	2	150	312	326	4610	6680
JC180	2	150	354	369	4860	7020
JC200	2	150	393	410	4880	7040
JC240	3	270	437	456	6675	10200
JC270	3	270	498	516	7045	10900
JC285	3	270	522	544	7075	11200
JC320	3	325	455	478	7725	11900
JC350	3	325	484	580	8180	12900
JC375	5	365	599	604	9160	15700
JC400	5	365	748	753	9660	16300
JC425	5	400	705	710	10070	17700
JC450	5	400	881	888	10660	18500
JC475	5	450	817	824	11005	19600
JC525	5	450	1015	1022	11700	20700

The JC Series unit model selection may be obtained by using one of two methods presented. The simplest method is based on evaporator ton load and is *intended for open type reciprocating compressor applications*.

The second method is selected by total heat of rejection which provides a more comprehensive and accurate procedure. In addition to selecting units for open type reciprocating compressor systems, this method may be applied to selecting condensers for systems with centrifugal, hermetic reciprocating or rotary screw type compressors.

EVAPORATOR TON METHOD

The JC condenser model numbers in **Table 1** are equal to the unit capacity in evaporator tons at standard conditions for refrigerant 12, 22 and 502 at 105°F condensing temperature, 40°F suction temperature, and 78°F wet bulb temperature.

When selecting a unit for non-standard conditions, enter **Table 2, Page 7**, to select capacity correction factors and multiply times the system evaporator ton load. Select the standard unit model number which is greater than or equal to this product.

From **Table 4** Capacity Factor at 75° F wet bulb and 105°F Cond. – .93.

EXAMPLE

Given:	Evaporator Load, R-22	81 Tons
	Entering Air Wet Bulb	72°F
	Condensing Temperature	105°F
	Suction Temperature	30°F

Determine Condenser Selection:

From **Table 2** Capacity Factor at 72°F wet bulb and 105°F Cond. – .86.

Suction Pressure Capacity Factor at 30°F – 1.03.

81 Tons x .86 x 1.03 – 71.7 corrected tons

Select Model JC72 since its model number is greater than the design corrected evaporator load.

TABLE NO. 1: Standard Conditions

JC MODEL NUMBER AND CAPACITY																											
20	25	30	38	46	52	58	63	72	80	90	110	120	135	165	180	200	240	270	285	320	350	375	400	425	450	475	525

Based on standard conditions for refrigerants R-12, R-22 and R-502 at 105°F cond, 40° suction, 78° WB.
 JC Series is not applicable for ammonia systems.

TABLE NO. 2: Evaporator Capacity Factors

NON-STANDARD CONDITIONS - REFRIGERANTS R12, R22, R500 AND R502														
COND. PRESSURE PSIG		COND. TEMPERATURE °F	WET BULB TEMPERATURE °F											
R12	R22		50	55	60	65	68	70	72	75	78	80	85	90
91.8	155.7	85	1.05	1.16	1.33	1.61	1.87	1.98	2.26	2.80				
99.8	168.4	90	.90	.98	1.11	1.28	1.43	1.54	1.72	1.96	2.33	2.70		
108.3	181.8	95	.75	.85	.93	1.04	1.12	1.18	1.28	1.39	1.59	1.75	2.50	
117.2	195.9	100	.70	.75	.81	.88	.93	.97	1.03	1.11	1.22	1.32	1.70	2.53
126.6	210.8	105	.63	.66	.70	.76	.79	.83	.86	.93	1.00	1.05	1.27	1.67
136.4	226.4	110	.57	.60	.63	.67	.70	.72	.75	.80	.85	.89	1.02	1.26
146.8	242.7	115		.54	.57	.60	.63	.64	.66	.69	.73	.75	.84	.99
157.7	259.9	120				.53	.55	.56	.58	.60	.63	.65	.70	.81

Evap Load x Factors = Corrected Tons

SUCTION PRESSURE CAPACITY FACTORS									
SUCTION PRESSURE PSIG	R-12	0.6	4.5	9.2	14.6	21.0	26.5	37.0	46.7
	R-22	10.2	16.5	24.0	32.8	43.0	54.9	68.5	84.0
	R-502	15.5	22.8	31.2	41.1	52.5	65.4	80.2	96.9
SUCTION TEMPERATURE °F		-20	-10	0	+10	+20	+30	+40	+50
CAPACITY FACTOR		1.32	1.23	1.17	1.11	1.07	1.03	1.00	.97

HEAT OF REJECTION METHOD

Many times, the specification for an evaporative condenser will be expressed in "Total Heat Rejection" (THR) at the condenser, rather than the net refrigeration effect at the evaporator. Basically, total heat rejection is the sum of the compressor capacity in BTUH and the heat corresponding to the brake horsepower (BHP) in BTUH for open type compressors or to the kilowatt (kW) input in BTUH for hermetic compressors.

Where the "Total Heat Rejection" is not specified, it can be readily calculated by using the following formulas:

Open Type Compressor:

$$\text{THR} = \text{Compressor Evaporator Capacity (BTUH)} + \text{Compressor bhp} \times 2545$$

Hermetic Compressor:

$$\text{THR} = \text{Compressor Evaporator Capacity (BTUH)} + \text{Compressor kW} \times 3413$$

The selection procedure for this method is similar to that given for the evaporator ton method once the heat of rejection requirements are known. Enter Table 4 and select a capacity factor per design condensing temperature and entering air wet bulb. Multiply the factor times the system total heat of rejection. Select the unit model from Table 3 whose heat of rejection is greater than or equal to this product.

EXAMPLE:

Given:

Compressor Evaporator Capacity	51 Tons
Wet Bulb Temperature	75°F
Condensing Temperature	105°F
Type Compressor	Hermetic R-22
Compressor KW Input	49.0 kW

Determine Condenser Selection:

Heat of Rejection

$$51 \text{ Tons} \times 12,000 = 612,000 \text{ BTUH}$$

$$49.0 \text{ kW} \times 3413 = 167,000 \text{ BTU}$$

$$\text{Total Heat Rejection} = 779,000 \text{ BTUH}$$

From Table 4 Capacity Factor at 72°F wet bulb and 105°F Cond. = .86

$$779,000 \text{ BTUH} \times .86 = 724,470 \text{ BTUH approx. (724.5 MBH)}$$

Select Model JC52 condenser since its nominal total heat rejection is greater than or equal to the required THR.

TABLE 3 – Nominal Total Heat Rejection – MBH

MODEL	HEAT REJECTION MBH*	MODEL	HEAT REJECTION MBH*
JC20	294.0	JC165	2425.5
JC25	367.5	JC180	2646.0
JC30	441.0	JC200	2940.0
JC36	558.6	JC240	3528.0
JC46	676.2	JC270	3969.0
JC52	764.4	JC285	4189.0
JC58	852.6	JC320	4689.2
JC63	926.1	JC350	5203.8
JC72	1058.4	JC375	5513.0
JC80	1176.0	JC400	5880.0
JC90	1323.0	JC425	6336.0
JC110	1617.0	JC450	6762.0
JC120	1764.0	JC475	7159.0
JC135	1984.5	JC525	7644.0

*Based on standard conditions for refrigerants R-12, R-22 and R-502 at 105°F cond., 40° suction, 78° WB.

TABLE NO. 4: Heat Rejection Capacity Factors

NON-STANDARD CONDITIONS - REFRIGERANTS 12, 22, 500 AND 502														
COND. PRESSURE PSIG		TEMPERATURE °F	WET BULB TEMPERATURE °F											
R12	R22		50	55	60	65	68	70	72	75	78	80	85	90
76.9	133.5	75	1.46	1.66	1.96	2.51	3.11	3.46	4.26					
84.1	145.0	80	1.26	1.41	1.64	2.03	2.44	2.69	3.19	3.93	4.02			
91.8	155.7	85	1.10	1.22	1.39	1.67	1.94	2.13	2.45	2.94	3.02	3.63		
99.8	168.4	90	.93	1.02	1.14	1.32	1.47	1.59	1.75	2.00	2.38	2.75	3.34	
108.2	181.8	95	.80	.87	.95	1.08	1.16	1.22	1.32	1.45	1.61	1.79	2.56	3.09
117.2	195.9	100	.71	.76	.82	.89	.93	1.00	1.03	1.12	1.23	1.33	1.72	2.50
126.6	210.8	105	.63	.66	.70	.76	.79	.83	.86	.93	1.00	1.05	1.27	1.61
136.4	226.4	110	.56	.59	.62	.66	.70	.71	.75	.79	.84	.88	1.01	1.19
146.8	242.7	115		.52	.55	.58	.60	.62	.64	.67	.70	.73	.81	.92
157.7	259.9	120				.51	.53	.54	.55	.57	.60	.62	.68	.75

Total Heat of Rejection x Factor = Nominal Total Heat Rejection

BASIC CONSTANTS

- 500 – Thermal capacity water in BTUH/°F/GPM
– 8.33 (lb/gallon water x 1.0 (specific heat of water at 60°F) x 60 (minutes/hour))
- 0.075 – weight one cubic foot standard air (lb)
- 4.5 – pounds of air/hour/cfm
– .075 (weight one cubic foot standard air) x 60 (minutes/hour)
- 0.242 – specific heat of air (BTU/pound/°F)
- 1.09 – 4.5 (pounds of air/hour/cfm x 0.242 (specific heat of air, BTU/pound/°F))

Subcooling:

Standard subcooling coil conditions are 78°WB, 105° entering liquid, 95° leaving liquid or 10° subcooling.

JC Series Evaporative Condensers are designed for applications where a multiple of refrigeration systems are connected to a single unit. The JC Series Evaporative Condensers can be furnished from the factory having the condenser coil divided into individual refrigerant circuits, each sized to meet a specified capacity. Each circuit is supplied with a hot gas inlet connection and liquid outlet connection, each tagged for identification.

The procedure for selecting a multi-circuited condenser coil is described in the "Selection Example," as outlined below. For circuit identification purposes it is required that circuits be arranged in numerical sequence. The connections for the individual circuits, will be **numbered at the factory, from left to right when facing connection end of unit**, with the number 1 circuit being on the extreme left.

Selection Example:

Given:

Condensing Temperature 100°F.

Entering Air Wet Bulb Temp. 72°F.

Ten individual suction cooled hermetic compressors operating at suction temperatures and compressor capacities, as shown in the tabulation below.

Procedure

1. Tabulate data in Columns 1, 2 and 3, making sure circuits are in correct numerical sequence.
2. From Table 5, "Hermetic Compressors," select Evaporator Temperature Capacity Factor applicable to each Suction Temperature listed in Column 2 and tabulate in Column 4.
3. From Table 7, select "Condenser Capacity Conversion Factor" applicable to the design condensing temperature and the design entering air wet bulb temperature and tabulate in Column 5.

4. Multiply figures in Columns 3, 4 and 5 for each circuit, and tabulate in Column 6.

5. Add all the capacities in Column 6, to arrive at the Total Adj. BTUH to Nominal required and use the total to select the proper size condenser.

Selection

The total Adj. BTUH to Nominal capacity, for the four refrigeration systems, of 994,900 BTUH, Table 6 shows the smallest unit that will meet the requirement is Model JC72 with a THR of 1,058,400 BTUH. To determine the number of tube circuits required for each sequence number circuit divide Column 6 by Column 7, for each circuit and tabulate in Column 8. If the decimal part of the tube circuit requirement is less than .3, drop the decimal and enter the whole number in Column 9. If the decimal part is equal to or greater than .2, round off to the next higher whole number and enter in Column 9.

The "Tabulation Sample" shows 33 tube circuits are required, for this example, and Table 6 shows that Model JC72 has 33 tube circuits available, therefore, is the proper unit selection.

Note:

If the summation of the number of tube circuits assigned to the individual circuits is less than the total number of tube circuits available in the unit, by inspection, add enough tubes to effect a balance. If the summation of the number of tube circuits assigned to the individual circuits is greater than the total number of tube circuits available in the unit by inspection, delete enough tubes to effect a balance. However, if such reduction causes more than a 10% reduction in any of the circuits, go to the next larger unit size and reassign tube circuits to give adequate capacity to every circuit.

Tabulation Example

1	2	3	x	4	x	5	=	6	/	7	=	8	9
CIRCUIT NUMBER	SUCTION TEMP °F	COMP. CAPACITY BTUH	x	EVAP. TEMP. CAP. CONVERSION TABLE 11	x	COND. CAP. CONVERSION FACTOR TABLE 12	=	ADI. BTUH TO NOMINAL	/	CAPACITY PER TUBE CIRCUIT TABLE 10	=	NUMBER OF CIRCUITS REQUIRED	NUMBER OF CIRCUITS USED
1	-20	108,600	x	1.79	x	1.03	=	200,200	/	32,070	=	6.24	7
2	+10	90,700	x	1.51	x	1.03	=	141,100	/	32,070	=	4.40	5
3	+20	185,400	x	1.45	x	1.03	=	276,900	/	32,070	=	8.63	9
4	+40	275,000	x	1.23	x	1.03	=	376,700	/	32,070	=	11.75	12
								994,900					33

TABLE 5 – Evaporative Temperature Capacity Conversion Factor

EVAPORATIVE TEMP °F	-40	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50
Open Compressors	1.75	1.65	1.62	1.59	1.55	1.53	1.50	1.47	1.44	1.40	1.37	1.35	1.32	1.30	1.28	1.26	1.24	1.22
Hermetic Compressors	2.02	1.90	1.852	1.79	1.74	1.69	1.65	1.61	1.57	1.51	1.48	1.45	1.40	1.36	1.34	1.33	1.32	1.31

TABLE 6 – Total Heat Rejection Capacity

MODEL NUMBER	NUMBER OF TUBE CIRCUITS AVAILABLE	AT 105°F COND. TEMPERATURE 78°F WB TEMPERATURE REFRIGERANTS R12, R22 AND R502	
		TOTAL UNIT BTUH	BTUH PER TUBE CIRCUIT
		JC20	19
JC25	21	367,500	17,500
JC30	21	441,000	21,000
JC38	26	558,600	21,485
JC46	26	676,200	26,000
JC52	26	764,400	29,400
JC58	26	852,600	32,790
JC63	33	926,100	28,060
JC72	33	1,058,400	32,070
JC80	33	1,176,000	35,636
JC90	82	1,323,000	16,130
JC110	82	1,617,000	19,220
JC120	82	1,764,000	21,510
JC135	100	1,984,500	19,845
JC165	100	2,425,500	24,255
JC180	100	2,646,000	26,460
JC200	100	2,940,000	29,400
JC240	140	3,528,000	25,200
JC270	140	3,969,000	28,350
JC285	140	4,189,500	29,925
JC320	140	4,689,300	33,495
JC350	140	5,203,800	37,170
JC375	152	5,513,000	36,270
JC400	152	5,880,000	38,680
JC425	152	6,336,000	41,680
JC450	152	6,762,000	44,490
JC475	152	7,159,000	47,100
JC525	152	7,644,000	50,290

Note: Models JC240 through JC525 coil arrangements provide two equal circuits as standard.

TABLE 7 – Condenser Capacity Conversion Factors

COND. PRESSURE PSIG		COND. TEMPERATURE °F	REFRIGERANTS 12, 22, 500 AND 502 WET BULB TEMPERATURE °F											
R12	R22		50	55	60	65	68	70	72	75	78	80	85	90
76.9	133.5	75	1.46	1.66	1.96	2.51	3.11	3.46	4.26					
84.1	145.0	80	1.26	1.41	1.64	2.03	2.44	2.69	3.19	3.93	4.02			
91.8	155.7	85	1.10	1.22	1.39	1.67	1.94	2.13	2.45	2.94	3.02	3.63		
99.8	168.4	90	.93	1.02	1.14	1.32	1.47	1.59	1.75	2.00	2.38	2.78	3.34	
108.3	181.8	95	.80	.87	.95	1.08	1.16	1.22	1.32	1.45	1.61	1.79	2.56	3.09
117.2	195.9	100	.71	.76	.82	.89	.93	1.00	1.03	1.12	1.23	1.33	1.72	2.50
126.6	210.8	105	.63	.66	.70	.76	.79	.83	.86	.93	1.00	1.05	1.27	1.61
136.4	226.4	110	.56	.59	.62	.66	.70	.71	.75	.79	.84	.88	1.01	1.19
146.8	242.7	115	.49	.52	.55	.58	.60	.62	.64	.67	.70	.73	.81	.92
157.7	259.9	120	.41	.45	.48	.51	.53	.54	.55	.57	.60	.62	.68	.75

CAPACITY CONTROLS

Dual Fan Motors—The dual fan motor package is available as a proven energy saving capacity control option. It consists of furnishing a high efficiency motor, a 1200 RPM, low speed motor, two sets of drives and belts, extended fan shaft and motor bases on opposite sides of the blower. A UL control-starter panel is available as a completely wired package for one point connection.

Variable Speed Drive—A Variable Speed Drive automatically minimize the tower's noise level during periods of reduced load and/or reduced ambient temperature without sacrificing the system's ability to maintain a constant cold water temperature. This is a relatively inexpensive solution, and can pay for itself quickly in reduced energy costs.

Electric Damper Controls—An electric damper control package is available as an accessory for modulating the internal damper system. A proportional solid state actuator is factory mounted below the fan scroll and attached to the damper shaft by connecting linkage. A sensing bulb connected to the actuator by a capillary tube is normally mounted in the unit pan water basin for monitoring the system. However, when specified, a pressure control may be supplied for field mounting to allow direct head pressure control. An end switch located inside the motor actuator may be adjusted to cycle the fan motor on for pressure rise and off when dampers close.

ELECTRONIC WATER LEVEL CONTROL

The electronic water level control package provides a constant and accurate means of monitoring water level in the unit. For this reason, it is often recommended for those installations which require year round operation in low ambient conditions.

The complete package includes an electric float switch with stilling chamber which is factory installed in the pan section of the unit. An electric solenoid valve for water make-up is shipped loose for remote installation. All wiring must be provided in the field by others.

PAN HEATER

The use of a remote sump tank located indoors is a common form of pan water freeze protection for evaporative cooling equipment. However, for those installations which will not allow this type of system, freeze protection may be provided by electric immersion heaters or steam or hot water coils installed in the pan.

The electric heater package consists of immersion heaters installed in the pan to provide efficient even heat distribution. Standard heaters are selected to provide approximately 40°F pan water at -10°F ambient temperature. A low water cutout switch is supplied to prevent heater operation when the elements are not completely submerged. The heaters are monitored by a sump thermostat with remote sensing bulb located in the pan water. All heaters and controls are factory installed for field wiring by others.

NOTE: Pan heater packages are designed to prevent pan water freezing during unit shutdown with fans and pump idle.

SUB-COOLING COILS

The sub-cooling coil accessory consists of an additional coil section located below the standard condensing coil. All coils are leak tested to 350 PSIG under water.

The sub-cooling coil is intended for halocarbon refrigerant applications which specify sub-cooling or system design. In some cases sub-cooling is needed to prevent excessive refrigerant flash off due to a vertical rise in liquid lines or high pressure drop.

The standard design for a sub-cooling section provides approximately 10°F of sub-cooling at standard conditions for halocarbon refrigerants.

VIBRATION ISOLATORS

Spring type vibration isolator rails may be supplied for field installation: some units will require base frame structural support.

STAINLESS STEEL CONSTRUCTION

300 stainless steel construction is offered as an option for sump pan and upper casing panels.

SPX COOLING TECHNOLOGIES, INC.

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In the interest of technological progress, all products are subject to design and/or material change without notice.



PART G
PREVAILING WAGE DETERMINATIONS

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

LOCALITY: LOS ANGELES COUNTY

DETERMINATION: LOS-2019-2

CRAFT (JOURNEY LEVEL)	ISSUE DATE	EXPIRATION DATE	BASIC HOURLY RATE	HEALTH AND WELFARE	EMPLOYER PAYMENTS			STRAIGHT-TIME			TOTAL HOURLY RATE
					PENSION	VACATION / HOLIDAY	TRAINING	OTHER	HOURS		
# BRICKLAYER, STONEMASON, MARBLE MASON, CEMENT BLOCKLAYER, POINTNER, CAULKER, CLEANER	08/22/2019	04/30/2020**	A 40.950	8.750	8.610	-	B 1.000	0.450	C 8.0	59.76	
# BRICKLAYER:											
MASON FINISHER	08/22/2019	04/30/2020*	A 28.670	8.750	8.610	-	B 0.870	0.450	C 8.0	47.35	
# BRICK TENDER E	08/22/2019	06/30/2020**	33.060	7.470	8.400	F 4.380	0.650	0.440	C 8.0	54.40	
# BRICK TENDER:											
FORKLIFT OPERATOR	08/22/2019	06/30/2020**	33.510	7.470	8.400	F 4.380	0.650	0.440	C 8.0	54.85	
# CARPET, LINOLEUM,											
RESILIENT TILE LAYER	08/22/2019	12/31/2019**	G 36.350	5.330	5.550	2.050	0.630	0.280	8.0	50.19	
MATERIAL HANDLER I	08/22/2019	12/31/2019**	G 12.000	5.330	1.940	0.550	0.630	0.280	8.0	20.73	
# DRYWALL FINISHER											
DRYWALL FINISHER K	08/22/2019	09/30/2019**	L 36.050	8.850	6.630	3.070	0.670	0.770	8.0	56.04	
DRYWALL FINISHER	08/22/2019	09/30/2019**	G 40.180	8.850	6.630	3.070	0.670	0.770	8.0	60.17	
# ELECTRICIAN:											
COWM & SYSTEM INSTALLER	02/22/2019	11/30/2019*	36.070	8.560	5.120	-	0.650	0.250	8.0	51.73	
INSIDE WIREMAN, RADIO											
MONITOR TECHNICIAN	02/22/2019	06/30/2019*	45.200	12.740	14.570	R -	0.710	0.500	8.0	75.08	
CABLE SPLICER-WELDER	02/22/2019	06/30/2019*	47.460	12.740	14.570	R -	0.710	0.500	8.0	77.40	
TUNNEL WIREMAN	02/22/2019	06/30/2019*	49.720	12.740	14.570	R -	0.710	0.500	8.0	79.73	
TUNNEL CABLE SPLICER	02/22/2019	06/30/2019*	52.210	12.740	14.570	R -	0.710	0.500	8.0	82.30	
TRANSPORTATION SYSTEMS											
ELECTRICIAN	02/22/2019	06/30/2019*	45.250	12.740	14.520	R -	0.710	0.500	8.0	75.08	
TRANSPORTATION SYSTEMS											
ELECTRICIAN (CABLE											
SPLICING, WELDING, AND											
NETA TESTING)	02/22/2019	06/30/2019*	47.510	12.740	14.520	R -	0.710	0.500	8.0	77.41	
TRANSPORTATION SYSTEMS											
TECHNICIAN S	02/22/2019	06/30/2019*	33.940	12.740	14.520	R -	0.710	0.500	8.0	63.43	
# FIELD SURVEYOR:											

CHIEF OF PARTY (018.167-010) T	02/22/2019	09/30/2019*	50.160	11.450	10.650	F	4.620	1.100	0.150	8.0	78.13
INSTRUMENTMAN											
(018.167-034) T	02/22/2019	09/30/2019*	47.660	11.450	10.650	F	4.450	1.100	0.150	8.0	75.46
CHAINMAN/RODMAN											
(869.567-010) T	02/22/2019	09/30/2019*	47.080	11.450	10.650	F	4.400	1.100	0.150	8.0	74.83
# GLAZIER	08/22/2019	12/31/2019**	45.450	7.750	16.410	W	-	0.770	0.880	8.0	71.26
# MARBLE FINISHER	08/22/2019	05/31/2020*	33.430	9.250	3.950		-	0.910	0.370	8.0	47.91
# PAINTER:											
PAINTER, LEAD ABATEMENT											
AC	08/22/2019	06/30/2020**	32.120	8.900	4.040		2.550	0.600	1.010	8.0	49.22
REPAINT PAINTER, LEAD											
ABATEMENT AC	08/22/2019	06/30/2020**	28.590	8.900	4.040		2.430	0.600	1.010	8.0	45.57
PAINTER, LEAD ABATEMENT											
AF	08/22/2019	06/30/2020**	27.680	8.900	4.040		2.410	0.600	1.010	8.0	44.64
REPAINT PAINTER, LEAD											
ABATEMENT AF	08/22/2019	06/30/2020**	25.400	8.900	4.040		2.330	0.600	1.010	8.0	42.28
INDUSTRIAL PAINTER AC	08/22/2019	06/30/2020**	34.020	8.900	4.040		2.850	0.700	1.010	8.0	51.52
INDUSTRIAL REPAINT											
PAINTER AC	08/22/2019	06/30/2020**	30.340	8.900	4.040		2.710	0.700	1.010	8.0	47.70
# PLASTERER	08/22/2019	08/04/2020**	37.860	9.380	5.840	AG	5.870	0.810	1.040	8.0	60.80
# PLASTER TENDER AJ	08/22/2019	08/04/2020**	37.370	7.470	8.300	AK	5.180	1.020	0.960	8.0	60.30
PLASTER CLEAN-UP LABORER	08/22/2019	08/04/2020**	34.820	7.470	8.300	AK	5.180	1.020	0.960	8.0	57.75
# PLUMBER:											
PLUMBER, INDUSTRIAL AND											
GENERAL PIPEFITTER	08/22/2019	08/31/2020**	51.380	9.160	12.250	AP	-	2.250	1.270	8.0	76.31
SEWER AND STORM DRAIN											
PIPELAYER	08/22/2019	08/31/2020**	38.490	9.050	9.400	AP	-	1.980	1.270	8.0	60.19
SEWER AND STORM DRAIN											
PIPE TRADESMAN AS	08/22/2019	08/31/2020**	19.040	8.800	0.380		-	1.110	1.120	8.0	30.45
LANDSCAPE/IRRIGATION											
FITTER	08/22/2019	08/31/2020**	34.400	9.160	12.250	AP	-	1.640	1.070	8.0	58.52
LANDSCAPE/IRRIGATION											
TRADESMAN AU	08/22/2019	08/31/2020**	14.940	3.000	1.130		-	0.100	0.870	8.0	20.04
REFRIGERATION SERVICE											
HVACR	08/22/2019	09/01/2019**	47.200	10.620	9.340	R	-	2.000	0.600	8.0	69.76
REFRIGERATION SERVICE											
TRADESMAN HVACR	08/22/2019	09/01/2019**	12.900	10.620	1.900	R	-	1.950	0.480	8.0	26.95
FIRE SPRINKLER FITTER											
(PROTECTION AND CONTROL											
SYSTEMS, OVERHEAD AND											
UNDERGROUND) AY	02/22/2019	03/31/2019*	39.730	10.020	12.010		-	0.520	0.250	8.0	62.53
FIRE SPRINKLER FITTER											
(PROTECTION AND CONTROL											
SYSTEMS, OVERHEAD AND											
UNDERGROUND) BA	08/22/2019	08/31/2020*	46.510	10.020	16.600	R	-	1.600	0.300	8.0	75.03

# ROOFER	08/22/2019	07/31/2020*	BD	39.520	8.560	BE	8.370	BF	-	0.510	BG	0.630	8.0	57.59	
PITCH WORK	08/22/2019	07/31/2020*	BD	41.270	8.560	BE	8.370	BF	-	0.510	BG	0.630	8.0	59.34	
PREPARER	08/22/2019	07/31/2020*	BD	40.520	8.560	BE	8.370	BF	-	0.510	BG	0.630	8.0	58.59	
# SHEET METAL WORKER BH	08/22/2019	06/30/2020*	L	45.780	10.870	BI	17.290	-	-	0.820	-	0.650	8.0	75.41	
# SHEET METAL WORKER BK	08/22/2019	06/30/2020**	G	35.380	10.870	BL	15.470	-	-	1.670	-	0.350	C	8.0	63.74
# TERRAZZO FINISHER	08/22/2018	08/31/2019*	G	31.250	8.970	-	3.790	R	-	0.650	-	0.260	AR	8.0	44.92
# TERRAZZO WORKER	08/22/2018	08/31/2019*	G	38.390	9.250	-	3.970	R	-	0.960	-	0.260	AR	8.0	52.83
# TILE FINISHER	08/22/2019	05/31/2020*	Y	28.230	9.250	-	2.560	-	-	0.840	-	0.310	-	8.0	41.19
# TILE LAYER	08/22/2019	05/31/2020*	Y	40.070	9.250	-	8.090	-	-	1.020	-	0.370	-	8.0	58.80

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS

PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

* EFFECTIVE UNTIL SUPERSEDED BY A NEW DETERMINATION ISSUED BY THE DIRECTOR OF INDUSTRIAL RELATIONS. CONTACT THE OFFICE OF THE DIR AT (415) 703-4774 FOR THE NEW RATES AFTER TEN DAYS AFTER THE EXPIRATION DATE IF NO SUBSEQUENT DETERMINATION IS ISSUED.

** THE RATE TO BE PAID FOR WORK PERFORMED AFTER THIS DATE HAS BEEN DETERMINED. IF WORK WILL EXTEND PAST THIS DATE, THE NEW RATE M BE INCORPORATED IN CONTRACTS ENTERED INTO NOW. CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT FOR SPECIFIC RATES AT (415) # INDICATES AN APPRENTICEABLE CRAFT. THE CURRENT APPRENTICE WAGE RATES ARE AVAILABLE ON THE INTERNET @ [HTTP://WWW.DIR.CA.GOV/OPRL/PWAPPAGE/PWAPPAGESTART.ASP](http://www.dir.ca.gov/OPRL/PWAPPAGE/PWAPPAGESTART.ASP). TO OBTAIN ANY APPRENTICE WAGE RATES AS OF JULY 1, 2008 AND PRIOR TO S PLEASE CONTACT THE DIVISION OF APPRENTICESHIP STANDARDS OR REFER TO THE DIVISION OF APPRENTICESHIP STANDARDS' WEBSITE AT [HTTP://WWW.DIR.CA.GOV/DAS/DAS.HTML](http://www.dir.ca.gov/DAS/DAS.HTML).

& THE BASIC HOURLY RATE AND EMPLOYER PAYMENTS ARE NOT TAKEN FROM A COLLECTIVE BARGAINING AGREEMENT FOR THIS CRAFT OR CLASSIFICATI

A INCLUDES AMOUNT WITHHELD FOR DUES CHECK OFF AND CONTRACT COMPLIANCE.

B INCLUDES AN AMOUNT FOR IMI TRAINING FUND.

C SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT BEYOND THE CONTROL OF THE EMPLOYER.

D RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND H RATE.

E THE RATIO OF BRICK TENDERS TO BRICKLAYERS SHALL BE AS FOLLOWS: ONE (1) BRICK TENDER TO NO MORE THAN THREE (3) BRICKLAYERS DURI BLOCK ON A TYPICAL MASONRY PROJECT.

F INCLUDES AN AMOUNT PER HOUR WORKED FOR SUPPLEMENTAL DUES.

G INCLUDES AMOUNT WITHHELD FOR DUES CHECK OFF.

H RATE APPLIES TO THE FIRST 12 HOURS WORKED ON SATURDAY, ALL OTHER TIME IS PAID AT DOUBLE TIME. SATURDAY MAY BE WORKED AT THE ST FOR THE FIRST 8 HOURS IF INCLEMENT WEATHER FORCES A SYNTHETIC/ARTIFICIAL TURF PROJECT TO SHUT DOWN DURING THE REGULAR WORK WEEK

I A MATERIAL HANDLER MAY BE UTILIZED IN RATIO OF ONE (1) MATERIAL HANDLER WITH ANY FIVE (5) JOURNEYMEN ON ANY GIVEN PROJECT.

J RATE APPLIES TO THE FIRST 12 HOURS ON SATURDAY, ALL OTHER TIME IS PAID AT DOUBLE TIME.

K RATE ONLY APPLIES TO WORK PERFORMED IN ANTELOPE VALLEY WHICH IS HIGHWAY 5, SOUTH ON U.S. 5 TO HIGHWAY N2; EAST ON HIGHWAY N2 TO HIGHWAY 14; SOUTH TO HIGHWAY 18; EAST TO HIGHWAY 395.

L INCLUDES AMOUNT WITHHELD FOR WORKING DUES.

M RATE APPLIES TO FIRST 8 HOURS ONLY. DOUBLE TIME THEREAFTER. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF DURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER.

AQ INCLUDES AN AMOUNT FOR THE P.I.P.E. LABOR MANAGEMENT COOPERATION COMMITTEE AND THE CONTRACTOR EDUCATION & DEVELOPMENT FUND.
AR SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT
AS PIPE TRADESMEN SHALL NOT BE PERMITTED ON ANY JOB WITHOUT A JOURNEYMAN.
AT INCLUDES AN AMOUNT WITHHELD FOR ADMINISTRATIVE DUES WHICH IS NOT FACTORED IN THE OVERTIME RATES.
AU TRADESMEN SHALL ONLY BE USED IF THE FIRST WORKER ON THE JOB IS A LANDSCAPE/IRRIGATION FITTER, SECOND WORKER MUST BE A LANDSCAPE
APPRENTICE LANDSCAPE/IRRIGATION FITTER. THE 3RD AND 4TH MAY BE A TRADESMAN. THE 5TH MUST BE A LANDSCAPE/IRRIGATION FITTER AND T
WILL BE REFERRED ON A 50-50 BASIS, TO JOURNEYMAN OR APPRENTICE.
AV INCLUDES AN AMOUNT FOR 401A PLAN.
AW INCLUDES AN AMOUNT FOR THE P.I.P.E. LABOR MANAGEMENT COOPERATION COMMITTEE TRUST FUND AND FOR PROMOTION FUND.
AX SATURDAY MAY BE PAID AT STRAIGHT TIME IF THE WORK WEEK IS TUESDAY THROUGH SATURDAY.
AY RATE APPLIES TO REMAINDER OF COUNTY.
AZ INCLUDES AN AMOUNT FOR SUPPLEMENTAL PENSION FUND.
BA RATE APPLIES TO LOS ANGELES CITY LIMITS AND TWENTY-FIVE (25) MILES BEYOND CITY LIMITS OF LOS ANGELES.
BB AMOUNT IS FOR INDUSTRY PROMOTION FUND AND P.I.P.E. FUND.
BC RATE APPLIES TO THE FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND H
RATE.
BD INCLUDE AMOUNTS FOR DUES CHECK OFF AND VACATION/HOLIDAY, WHICH ARE NOT FACTORED INTO OVERTIME.
BE INCLUDES AN AMOUNT PER HOUR WORKED FOR ANNUITY TRUST FUND.
BF INCLUDED IN BASIC HOURLY RATE. VACATION IS NOT FACTORED INTO OVERTIME
BG INCLUDE AMOUNTS FOR ADMINISTRATIVE FUND, COMPLIANCE FUND, INDUSTRY FUND, AND RESEARCH AND EDUCATION TRUST FUND.
BH APPLIES TO THAT PORTION OF THE COUNTY SOUTH OF A STRAIGHT LINE DRAWN BETWEEN GORNAN AND BIG PINES.
BI PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXA
RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WA
BJ RATE APPLIES FOR THE FIRST 4 OVERTIME HOURS MONDAY THROUGH FRIDAY AND THE FIRST 12 HOURS WORKED ON SATURDAY. ALL OTHER TIME IS
SUNDAY/HOLIDAY RATE. SATURDAYS IN THE SAME WORKWEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKW
WEATHER.
BK APPLIES TO THAT PORTION OF THE COUNTY NORTH OF A STRAIGHT LINE DRAWN BETWEEN GORNAN AND BIG PINES INCLUDING THE CITIES OF LANCA
BL INCLUDES AMOUNTS FOR LOCAL PENSION, NATIONAL PENSION PLAN, 401(A) PLAN, RETIREE'S SUPPLEMENTAL HEALTH PLAN. PURSUANT TO LABOR C
1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL H
STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.
BM RATE APPLIES TO FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 12 HOURS ON SATURDAY AND SUNDAY. ALL OTHER OVERTIME HOURS IS AT DOU
BN RATE APPLIES TO THE FIRST 8 HOURS WORKED ON A SIXTH OR SEVENTH CONSECUTIVE DAY DURING ANY ONE CALENDAR WEEK UP TO 50 HOURS IN A
ALL OTHER TIME IS PAID AT THE HOLIDAY RATE.
RECOGNIZED HOLIDAYS: HOLIDAYS UPON WHICH THE GENERAL PREVAILING HOURLY WAGE RATE FOR HOLIDAY WORK SHALL BE PAID, SHALL BE ALL HOLI
COLLECTIVE BARGAINING AGREEMENT, APPLICABLE TO THE PARTICULAR CRAFT, CLASSIFICATION, OR TYPE OF WORKER EMPLOYED ON THE PROJECT,
THE DIRECTOR OF INDUSTRIAL RELATIONS. IF THE PREVAILING RATE IS NOT BASED ON A COLLECTIVELY BARGAINED RATE, THE HOLIDAYS UPON
RATE SHALL BE PAID SHALL BE AS PROVIDED IN SECTION 6700 OF THE GOVERNMENT CODE. YOU MAY OBTAIN THE HOLIDAY PROVISIONS FOR THE
ON THE INTERNET AT [HTTP://WWW.DIR.CA.GOV/OPRL/DPReWageDetermination.htm](http://www.dir.ca.gov/OPRL/DPReWageDetermination.htm). HOLIDAY PROVISIONS FOR THE CURRENT OR SUPERSEDED DETERM
OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.
TRAVEL AND/OR SUBSISTENCE: IN ACCORDANCE WITH LABOR CODE SECTIONS 1773.1 AND 1773.9, CONTRACTORS SHALL MAKE TRAVEL AND/OR SUBSISTE
WORKER TO EXECUTE THE WORK. YOU MAY OBTAIN THE TRAVEL AND/OR SUBSISTENCE PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTE
[HTTP://WWW.DIR.CA.GOV/OPRL/DPReWageDetermination.htm](http://www.dir.ca.gov/OPRL/DPReWageDetermination.htm). TRAVEL AND/OR SUBSISTENCE REQUIREMENTS FOR CURRENT OR SUPERSEDED DETERMI
BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

LOCALITY: LOS ANGELES COUNTY

DETERMINATION: LOS-2019-2

CRAFT (JOURNEY LEVEL)	ISSUE DATE	EXPIRATION DATE	BASIC HOURLY RATE	HEALTH AND WELFARE	PENSION	VACATION / HOLIDAY	TRAINING	STRAIGHT-TIME			TOTAL HOURLY RATE
								OTHER	HOURS	HOURS	
# CARPET, LINOLEUM, RESILIENT TILE LAYER - SECOND SHIFT MATERIAL HANDLER - SECOND SHIFT B	08/22/2019	12/31/2019**A	43.620	5.330	5.550	2.050	0.630	0.280	0.280	8.0	57.46
# ELECTRICIAN: CONV & SYSTEM INSTALLER, SECOND SHIFT	08/22/2019	12/31/2019**A	14.400	5.330	1.940	0.550	0.630	0.280	0.280	8.0	23.13
CONV & SYSTEM INSTALLER, SECOND SHIFT	02/22/2019	11/30/2019*	42.310	8.560 C	5.120	-	0.650 D	0.250	0.250	8.0	58.16
CONV & SYSTEM INSTALLER, THIRD SHIFT	02/22/2019	11/30/2019*	47.400	8.560 C	5.120	-	0.650 D	0.250	0.250	8.0	63.40
INSIDE WIREMAN, 2ND SHIFT	02/22/2019	06/30/2019*	53.020	12.740 H	14.570 I	-	0.710	0.500	0.500	8.0	83.13
INSIDE WIREMAN, 3RD SHIFT	02/22/2019	06/30/2019*	59.390	12.740 H	14.570 I	-	0.710	0.500	0.500	8.0	89.69
CABLE SPLICER-WELDER, 2ND SHIFT	02/22/2019	06/30/2019*	55.670	12.740 H	14.570 I	-	0.710	0.500	0.500	8.0	85.86
CABLE SPLICER-WELDER, 3RD SHIFT	02/22/2019	06/30/2019*	62.360	12.740 H	14.570 I	-	0.710	0.500	0.500	8.0	92.75
TUNNEL WIREMAN SECOND SHIFT	02/22/2019	06/30/2019*	58.320	12.740 H	14.570 I	-	0.710	0.500	0.500	8.0	88.59
TUNNEL WIREMAN THIRD SHIFT	02/22/2019	06/30/2019*	65.330	12.740 H	14.570 I	-	0.710	0.500	0.500	8.0	95.81
TUNNEL CABLE SPLICER SECOND SHIFT	02/22/2019	06/30/2019*	61.240	12.740 H	14.570 I	-	0.710	0.500	0.500	8.0	91.60
TUNNEL CABLE SPLICER THIRD SHIFT	02/22/2019	06/30/2019*	68.600	12.740 H	14.570 I	-	0.710	0.500	0.500	8.0	99.18
TRANSPORTATION SYSTEMS ELECTRICIAN (SECOND SHIFT)	02/22/2019	06/30/2019*	53.080	12.740 H	14.520 I	-	0.710	0.500	0.500	8.0	83.14
TRANSPORTATION SYSTEMS ELECTRICIAN (THIRD SHIFT)	02/22/2019	06/30/2019*	59.460	12.740 H	14.520 I	-	0.710	0.500	0.500	8.0	89.71

SPLICING, WELDING, AND META TESTING) 2ND SHIFT TRANSPORTATION SYSTEMS ELECTRICIAN (CABLE SPLICING, WELDING, AND META TESTING) 3RD SHIFT TRANSPORTATION SYSTEMS TECHNICIAN (SECOND SHIFT) K	02/22/2019	06/30/2019*	55.730	12.740	H	14.520	I	-	0.710	0.500	8.0	85.87
TRANSPORTATION SYSTEMS TECHNICIAN (THIRD SHIFT) K	02/22/2019	06/30/2019*	62.430	12.740	H	14.520	I	-	0.710	0.500	8.0	92.77
PLUMBER: PLUMBER, INDUSTRIAL AND GENERAL PIPEFITTER (2ND SHIFT)	02/22/2019	06/30/2019*	39.810	12.740	H	14.520	I	-	0.710	0.500	8.0	69.47
SEWER AND STORM DRAIN PIPELAYER (2ND SHIFT) SEWER AND STORM DRAIN PIPE TRADESMAN (2ND SHIFT) R	02/22/2019	06/30/2019*	44.600	12.740	H	14.520	I	-	0.710	0.500	8.0	74.41
LANDSCAPE/IRRIGATION FITTER SECOND SHIFT LANDSCAPE/IRRIGATION TRADESMAN SECOND SHIFT U	08/22/2019	08/31/2020**L	58.600	9.160	M	12.250	N	-	2.250	1.270	8.0	83.53
REFRIGERATION SERVICE HVACR- 2ND SHIFT	08/22/2019	08/31/2020**L	44.080	9.050	M	9.400	N	-	1.980	1.270	8.0	65.78
FIRE SPRINKLER FITTER (PROTECTION AND CONTROL SYSTEMS, OVERHEAD AND UNDERGROUND)- 2ND SHIFT Z	08/22/2019	08/31/2020**S	21.900	8.800		0.380		-	1.110	1.120	8.0	33.31
	08/22/2019	08/31/2020**T	39.150	9.160	M	12.250	N	-	1.640	1.070	8.0	63.27
	08/22/2019	08/31/2020**T	17.180	3.000	M	1.130		-	0.100	0.870	8.0	22.28
	08/22/2019	09/01/2019**A	53.940	10.620	V	9.340	I	-	2.000	0.600	8.0	76.50
	08/22/2019	08/31/2020*	53.490	10.020		16.600	I	-	1.600	0.300	8.0	82.01

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

* EFFECTIVE UNTIL SUPERSEDED BY A NEW DETERMINATION ISSUED BY THE DIRECTOR OF INDUSTRIAL RELATIONS. CONTACT THE OFFICE OF THE DIR AT (415) 703-4774 FOR THE NEW RATES AFTER TEN DAYS AFTER THE EXPIRATION DATE IF NO SUBSEQUENT DETERMINATION IS ISSUED.

** THE RATE TO BE PAID FOR WORK PERFORMED AFTER THIS DATE HAS BEEN DETERMINED. IF WORK WILL EXTEND PAST THIS DATE, THE NEW RATE M BE INCORPORATED IN CONTRACTS ENTERED INTO NOW. CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT FOR SPECIFIC RATES AT (415) # INDICATES AN APPRENTICEABLE CRAFT. THE CURRENT APPRENTICE WAGE RATES ARE AVAILABLE ON THE INTERNET @ HTTP://WWW.DIR.CA.GOV/OPRL/PWAPPAGE/PWAPPAGESTART.ASP. TO OBTAIN ANY APPRENTICE WAGE RATES AS OF JULY 1, 2008 AND PRIOR TO 5 PLEASE CONTACT THE DIVISION OF APPRENTICESHIP STANDARDS OR REFER TO THE DIVISION OF APPRENTICESHIP STANDARDS' WEBSITE AT HTTP://WWW.DIR.CA.GOV/DAS/DAS.HTML.

8 THE BASIC HOURLY RATE AND EMPLOYER PAYMENTS ARE NOT TAKEN FROM A COLLECTIVE BARGAINING AGREEMENT FOR THIS CRAFT OR CLASSIFICATION.

- A INCLUDES AMOUNT WITHHELD FOR DUES CHECK OFF.
- B A MATERIAL HANDLER MAY BE UTILIZED IN RATIO OF ONE (1) MATERIAL HANDLER WITH ANY FIVE (5) JOURNEYMEN ON ANY GIVEN PROJECT.
- C IN ADDITION, AN AMOUNT EQUAL TO 3% OF THE BASIC HOURLY RATE IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE BENEFIT BOARD.
- D INCLUDES AN AMOUNT FOR THE NATIONAL LABOR-MANAGEMENT COOPERATION FUND AND THE ADMINISTRATIVE MAINTENANCE FUND.
- E RATE APPLIES TO THE FIRST 4 DAILY OVERTIME HOURS; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY NON-SHIFT DIFFERENTIAL OVERT DISREGARD THIS RATE. FOR THE FIRST 12 HOURS OF WORK PERFORMED ON SATURDAY, USE THE SATURDAY NON-SHIFT DIFFERENTIAL RATE FOR THE PUBLISHED IN THE DIRECTOR'S GENERAL PREVAILING WAGE DETERMINATIONS.
- G DISREGARD THIS RATE. USE THE SUNDAY AND HOLIDAY NON-SHIFT DIFFERENTIAL RATE FOR THIS CLASSIFICATION AS PUBLISHED IN THE DIRECT WAGE DETERMINATIONS.
- H IN ADDITION, AN AMOUNT EQUAL TO 3% OF THE BASIC HOURLY RATE IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE BENEFIT BOARD. PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING R INCLUDED IN STRAIGHT-TIME HOURLY RATE.
- I DISREGARD THIS RATE. FOR THE FIRST 12 HOURS OF WORK ON SATURDAY, USE THE SATURDAY NON-SHIFT DIFFERENTIAL RATE. FOR ALL HOURS HOURS WORKED ON SATURDAY, USE THE SUNDAY AND HOLIDAY NON-SHIFT DIFFERENTIAL RATE.
- K THE MAXIMUM ALLOWABLE RATIO IS ONE TRANSPORTATION SYSTEMS TECHNICIAN TO ONE JOURNEYMAN ON EACH JOB.
- L INCLUDES AN AMOUNT WITHHELD FOR ADMINISTRATIVE DUES WHICH IS NOT FACTORED INTO OVERTIME AND AN AMOUNT FOR VACATION WHICH IS FAC ALL OVERTIME.
- M INCLUDES AMOUNT FOR NATIONAL PENSION AND RETIREE'S X-MAS FUND.
- N AMOUNT INCLUDED IN BASIC HOURLY RATE AND FACTORED AT 1.5 TIMES FOR ALL OVERTIME.
- O INCLUDES AN AMOUNT FOR THE P.I.P.E. LABOR MANAGEMENT COOPERATION COMMITTEE AND THE CONTRACTOR EDUCATION & DEVELOPMENT FUND.
- P RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND H RATE.
- Q SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT R PIPE TRADESMEN SHALL NOT BE PERMITTED ON ANY JOB WITHOUT A JOURNEYMAN.
- S INCLUDES AN AMOUNT WITHHELD FOR ADMINISTRATIVE DUES WHICH IS NOT FACTORED IN THE OVERTIME RATES.
- T INCLUDES AMOUNT WITHHELD FOR ADMINISTRATIVE DUES.
- U TRADESMEN SHALL ONLY BE USED IF THE FIRST WORKER ON THE JOB IS A LANDSCAPE/IRRIGATION FITTER, SECOND WORKER MUST BE A LANDSCAPE APPRENTICE LANDSCAPE/IRRIGATION FITTER. THE 3RD AND 4TH MAY BE A TRADESMAN. THE 5TH MUST BE A LANDSCAPE/IRRIGATION FITTER AND T WILL BE REFERRED ON A 50-50 BASIS, TO JOURNEYMAN OR APPRENTICE.
- V INCLUDES AN AMOUNT FOR 401A PLAN.
- W INCLUDES AN AMOUNT FOR THE P.I.P.E. LABOR MANAGEMENT COOPERATION COMMITTEE TRUST FUND AND FOR PROMOTION FUND.
- X SATURDAY MAY BE PAID AT STRAIGHT TIME IF THE WORK WEEK IS TUESDAY THROUGH SATURDAY.
- Y RATE APPLIES TO WORK ON HOLIDAYS ONLY; SUNDAYS ARE PAID AT THE SATURDAY OVERTIME HOURLY RATE.
- Z RATE APPLIES TO LOS ANGELES CITY LIMITS AND TWENTY-FIVE (25) MILES BEYOND CITY LIMITS OF LOS ANGELES.
- AA AMOUNT IS FOR INDUSTRY PROMOTION FUND AND P.I.P.E. FUND.
- AB RATE APPLIES TO THE FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND H RATE.

RECOGNIZED HOLIDAYS: HOLIDAYS UPON WHICH THE GENERAL PREVAILING HOURLY WAGE RATE FOR HOLIDAY WORK SHALL BE PAID, SHALL BE ALL HOLIDAY COLLECTIVE BARGAINING AGREEMENT, APPLICABLE TO THE PARTICULAR CRAFT, CLASSIFICATION, OR TYPE OF WORKER EMPLOYED ON THE PROJECT, THE DIRECTOR OF INDUSTRIAL RELATIONS. IF THE PREVAILING RATE IS NOT BASED ON A COLLECTIVELY BARGAINED RATE, THE HOLIDAYS UPON

RATE SHALL BE PAID SHALL BE AS PROVIDED IN SECTION 6700 OF THE GOVERNMENT CODE. YOU MAY OBTAIN THE HOLIDAY PROVISIONS FOR THE ON THE INTERNET AT [HTTP://WWW.DIR.CA.GOV/OPRL/DPrelageDetermination.htm](http://www.dir.ca.gov/OPRL/DPrelageDetermination.htm). HOLIDAY PROVISIONS FOR THE CURRENT OR SUPERSEDED DETERMINATION OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE: IN ACCORDANCE WITH LABOR CODE SECTIONS 1773.1 AND 1773.9, CONTRACTORS SHALL MAKE TRAVEL AND/OR SUBSISTENCE WORKER TO EXECUTE THE WORK. YOU MAY OBTAIN THE TRAVEL AND/OR SUBSISTENCE PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT [HTTP://WWW.DIR.CA.GOV/OPRL/DPrelageDetermination.htm](http://www.dir.ca.gov/OPRL/DPrelageDetermination.htm). TRAVEL AND/OR SUBSISTENCE REQUIREMENTS FOR CURRENT OR SUPERSEDED DETERMINATIONS OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.

GENERAL PREVAILING WAGE APPRENTICE RATES

APPRENTICE INFORMATION

Determination: **2019-2** *Issue Date:* **08-22-2019** *Expire Date:* **09-01-2019** ****** *Page:* **1**

Craft/Classification: **Plumber, Refrigeration Service HVACR** *Shift:* **1**

Counties: Los Angeles, Orange

Period	Duration Months	OJT Hours	Hourly Basic Rate	Health & Welfare	Pension	Vacation /Holiday	Training	Other	Hourly Total Rate
1	12		\$23.600	\$11.120	\$1.020		\$1.530	\$.480	\$37.750
2	12		\$28.320	\$11.120	\$1.270		\$1.530	\$.540	\$42.780
3	12		\$33.040	\$11.120	\$1.270		\$1.530	\$.540	\$47.500
4	12		\$37.760	\$11.120	\$1.520		\$1.530	\$.540	\$52.470
5	12		\$42.480	\$11.120	\$1.770		\$1.530	\$.540	\$57.440

Footnote(s):

Basic Hourly Rate--Includes amount withheld for dues check-off.

Vacation/Holiday--Included in basic hourly rate and factored at 1.5 times for all overtime (Period 1: \$1.15, Period 2: \$1.38, Period 3: \$1.61, Period 4: \$1.84, Period 5: \$2.07).

Pension--Includes amount for National Pension and 401A plan.

Other--Includes an amount for PIPE and Promotion Fund.

**** Journeyman Predetermined Increases:**

Effective 9/2/2019: An increase of \$2.15 allocated as follows: \$1.65 to Basic Hourly Rate and \$0.50 to Pension.

Effective 8/31/2020: \$2.15 to be allocated to the following: \$1.90 to wages and/or fringes and \$0.25 to Training.

Effective 8/30/2021: \$2.15 to be allocated to the following: \$1.90 to wages and/or fringes and \$0.25 to Training.

Effective 9/5/2022: \$2.15 to be allocated to the following: \$1.90 to wages and/or fringes and \$0.25 to Training.

Effective 9/4/2023: \$2.15 to be allocated to wages and/or fringes.

There may be corresponding predetermined increase(s) to the apprentices associated with this journeyman craft/classification. Please fax a request to (415) 703-4771 or send to the following address:

Department of Industrial Relations
Office of the Director - Research Unit
P.O. Box 420603
San Francisco, CA 94142-0603

Apprentice Prevailing Wage Rates are paid only to apprentices registered with the State of California, Division of Apprenticeship Standards, for work the registered apprentice performs in his/her specific craft or trade. You may check whether an Apprentices is registered at <http://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp>

GENERAL PREVAILING WAGE APPRENTICE RATES

APPRENTICE INFORMATION

Determination: **2019-2** *Issue Date:* **08-22-2019** *Expire Date:* **09-01-2019** ****** *Page:* **2**

Craft/Classification: **Plumber, Refrigeration Service HVACR** *Shift:* **2**

Counties: Los Angeles, Orange

Period	Duration Months	OJT Hours	Hourly Basic Rate	Health & Welfare	Pension	Vacation /Holiday	Training	Other	Hourly Total Rate
1	12		\$26.970	\$11.120	\$1.020		\$1.530	\$.480	\$41.120
2	12		\$32.360	\$11.120	\$1.270		\$1.530	\$.540	\$46.820
3	12		\$37.760	\$11.120	\$1.270		\$1.530	\$.540	\$52.220
4	12		\$43.150	\$11.120	\$1.520		\$1.530	\$.540	\$57.860
5	12		\$48.550	\$11.120	\$1.770		\$1.530	\$.540	\$63.510

Footnote(s):

Basic Hourly Rate--Includes amount withheld for dues check-off.

Vacation/Holiday--Included in basic hourly rate and factored at 1.5 times for all overtime (Period 1: \$1.15, Period 2: \$1.38, Period 3: \$1.61, Period 4: \$1.84, Period 5: \$2.07)

Pension--Includes amount for National Pension and 401A plan.

Other--Includes an amount for PIPE and Promotion Fund.

**** Journeyman Predetermined Increases:**

Effective 9/2/2019: An increase of \$2.33 allocated as follows: \$1.83 to Basic Hourly Rate and \$0.50 to Pension.

Effective 8/31/2020: \$2.15 to be allocated to the following: \$1.90 to wages and/or fringes and \$0.25 to Training.

Effective 8/30/2021: \$2.15 to be allocated to the following: \$1.90 to wages and/or fringes and \$0.25 to Training.

Effective 9/5/2022: \$2.15 to be allocated to the following: \$1.90 to wages and/or fringes and \$0.25 to Training.

Effective 9/4/2023: \$2.15 to be allocated to wages and/or fringes.

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GENERAL PREVAILING WAGE APPRENTICE RATES

APPRENTICE INFORMATION

Determination: **2019-2** *Issue Date:* **08-22-2019** *Expire Date:* **06-30-2020** ****** *Page:* **1**

Craft/Classification: **Sheet Metal Worker**

Indentured prior to 1/1/16

Counties: Kern, Los Angeles (Portions North Of A Straight Line Drawn Through Gorman And Big Pines)

Period	Duration Months	OJT Hours	Hourly Basic Rate	Health & Welfare	Pension	Vacation /Holiday	Training	Other	Hourly Total Rate
1	6		\$15.920	\$6.220	\$2.100		\$1.670	\$.350	\$26.260
2	6		\$17.690	\$6.220	\$2.230		\$1.670	\$.350	\$28.160
3	6		\$19.460	\$6.220	\$2.350		\$1.670	\$.350	\$30.050
4	6		\$21.230	\$6.220	\$2.470		\$1.670	\$.350	\$31.940
5	6		\$23.000	\$6.220	\$2.590		\$1.670	\$.350	\$33.830
6	6		\$24.770	\$6.220	\$2.720		\$1.670	\$.350	\$35.730
7	6		\$26.540	\$6.220	\$2.840		\$1.670	\$.350	\$37.620
8	6		\$28.300	\$6.220	\$2.960		\$1.670	\$.350	\$39.500
9	6		\$30.070	\$6.220	\$3.080		\$1.670	\$.350	\$41.390
10	6		\$31.840	\$6.220	\$3.210		\$1.670	\$.350	\$43.290

Footnote(s):

BASIC HOURLY RATE: Includes an amount for Dues Check-off.

PENSION includes amounts for National Pension, Local Pension and 401(a) plan. Pursuant to Labor Code sections 1773.1 and 1773.8, the amount paid for this employer payment may vary resulting in a lower taxable basic hourly wage rate, but the total hourly rates for straight time and overtime may not be less than the general prevailing rate of per diem wages.

****Journeyman Predetermined Increases**

Effective 7/1/2020: \$0.25 to Health and Welfare, \$0.25 to Pension, and \$1.50 to wages and/or fringes.

There may be corresponding predetermined increase(s) to the apprentices associated with this journeyman craft/classification. Please fax a request to (415) 703-4771 or send to the following address:

Department of Industrial Relations
Office of the Director - Research Unit
P.O. Box 420603
San Francisco, CA 94142-0603

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GENERAL PREVAILING WAGE APPRENTICE RATES

APPRENTICE INFORMATION

Determination: **2019-2** *Issue Date:* **08-22-2019** *Expire Date:* **06-30-2020** ****** *Page:* **2**

Craft/Classification: **Sheet Metal Worker**

Indentured on or after 1/1/16

Counties: Kern, Los Angeles (Portions North Of A Straight Line Drawn Through Gorman And Big Pines)

Period	Duration Months	OJT Hours	Hourly Basic Rate	Health & Welfare	Pension	Vacation /Holiday	Training	Other	Hourly Total Rate
1	6		\$15.920	\$6.220	\$2.100		\$1.670	\$.350	\$26.260
2	6		\$17.340	\$6.220	\$2.200		\$1.670	\$.350	\$27.780
3	6		\$18.750	\$6.220	\$2.300		\$1.670	\$.350	\$29.290
4	6		\$20.170	\$6.220	\$2.400		\$1.670	\$.350	\$30.810
5	6		\$21.580	\$6.220	\$2.490		\$1.670	\$.350	\$32.310
6	6		\$23.000	\$6.220	\$2.590		\$1.670	\$.350	\$33.830
7	6		\$24.410	\$6.220	\$2.690		\$1.670	\$.350	\$35.340
8	6		\$25.830	\$6.220	\$2.790		\$1.670	\$.350	\$36.860
9	6		\$27.240	\$6.220	\$2.890		\$1.670	\$.350	\$38.370
10	6		\$28.660	\$6.220	\$2.980		\$1.670	\$.350	\$39.880

Footnote(s):

BASIC HOURLY RATE: Includes an amount for Dues Check-off.

PENSION includes amounts for National Pension, Local Pension and 401(a) plan. Pursuant to Labor Code sections 1773.1 and 1773.8, the amount paid for this employer payment may vary resulting in a lower taxable basic hourly wage rate, but the total hourly rates for straight time and overtime may not be less than the general prevailing rate of per diem wages.

****Journeyman Predetermined Increases**

Effective 7/1/2020: \$0.25 to Health and Welfare, \$0.25 to Pension, and \$1.50 to wages and/or fringes.

There may be corresponding predetermined increase(s) to the apprentices associated with this journeyman craft/classification. Please fax a request to (415) 703-4771 or send to the following address:

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GENERAL PREVAILING WAGE APPRENTICE RATES

APPRENTICE INFORMATION

Determination: **2019-2** *Issue Date:* **08-22-2019** *Expire Date:* **06-30-2020** * *Page:* **1**

Craft/Classification: **Sheet Metal Worker (HVAC)**

Ind. fr. 1-1-11 to 12-31-15

Counties: Inyo, Los Angeles (Portions South Of A Straight Line Drawn Through Gorman And Big Pines), Mono, Orange, Riverside, San Bernardino

Period	Duration Months	OJT Hours	Hourly Basic Rate	Health & Welfare	Pension	Vacation /Holiday	Training	Other	Hourly Total Rate
1	6	812	\$20.140	\$6.220	\$5.880		\$.820	\$.650	\$33.710
2	6	812	\$21.970	\$6.220	\$6.050		\$.820	\$.650	\$35.710
3	6	812	\$23.810	\$6.220	\$6.220		\$.820	\$.650	\$37.720
4	6	812	\$25.640	\$6.220	\$6.390		\$.820	\$.650	\$39.720
5	6	812	\$27.470	\$10.870	\$6.560		\$.820	\$.650	\$46.370
6	6	812	\$29.300	\$10.870	\$6.730		\$.820	\$.650	\$48.370
7	6	812	\$31.130	\$10.870	\$6.900		\$.820	\$.650	\$50.370
8	6	812	\$32.960	\$10.870	\$7.070		\$.820	\$.650	\$52.370
9	6	812	\$34.790	\$10.870	\$7.250		\$.820	\$.650	\$54.380
10	6	817	\$36.620	\$10.870	\$7.420		\$.820	\$.650	\$56.380

Footnote(s):

This wage determination applies to apprentices indentured from January 1, 2011 to December 31, 2015.

Basic Hourly Rate - Includes amount for Working Dues.

Health & Welfare - Includes amount for SMOHIT and HRA

Pension - Includes amount for 401(k). Pursuant to Labor Code Sections 1773.1 and 1773.8, the amount paid for this employer payment may vary resulting in a lower taxable basic hourly wage rate, but the total hourly rates for straight time and overtime may not be less than the general prevailing rate of per diem wages

Other - Includes amounts for Industry Fund, LMCT, & NEMI.

*No Predetermined Increases.

Apprentice Prevailing Wage Rates are paid only to apprentices registered with the State of California, Division of Apprenticeship Standards, for work the registered apprentice performs in his/her specific craft or trade. You may check whether an Apprentices is registered at <http://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp>

GENERAL PREVAILING WAGE APPRENTICE RATES

APPRENTICE INFORMATION

Determination: **2019-2** *Issue Date:* **08-22-2019** *Expire Date:* **06-30-2020** * *Page:* **2**

Craft/Classification: **Sheet Metal Worker (HVAC)**

Indentured on/after 1-1-2016

Counties: Inyo, Los Angeles (Portions South Of A Straight Line Drawn Through Gorman And Big Pines), Mono, Orange, Riverside, San Bernardino

Period	Duration Months	OJT Hours	Hourly Basic Rate	Health & Welfare	Pension	Vacation /Holiday	Training	Other	Hourly Total Rate
1	6	812	\$18.310	\$6.220	\$5.710		\$.820	\$.650	\$31.710
2	6	812	\$18.310	\$6.220	\$5.710		\$.820	\$.650	\$31.710
3	6	812	\$20.600	\$6.220	\$5.920		\$.820	\$.650	\$34.210
4	6	812	\$22.890	\$6.220	\$6.140		\$.820	\$.650	\$36.720
5	6	812	\$25.180	\$10.870	\$6.350		\$.820	\$.650	\$43.870
6	6	812	\$27.470	\$10.870	\$6.560		\$.820	\$.650	\$46.370
7	6	812	\$29.760	\$10.870	\$6.780		\$.820	\$.650	\$48.880
8	6	812	\$32.050	\$10.870	\$6.990		\$.820	\$.650	\$51.380
9	6	812	\$34.340	\$10.870	\$7.200		\$.820	\$.650	\$53.880
10	6	817	\$36.620	\$10.870	\$7.420		\$.820	\$.650	\$56.380

Footnote(s):

This wage determination applies to apprentices indentured on/after January 1, 2016.

Basic Hourly Rate - Includes amount for Working Dues.

Health & Welfare - Includes amount for SMOHIT and HRA.

Pension - Includes amount for 401(k). Pursuant to Labor Code Sections 1773.1 and 1773.8, the amount paid for this employer payment may vary resulting in a lower taxable basic hourly wage rate, but the total hourly rates for straight time and overtime may not be less than the general prevailing rate of per diem wages

Other - Includes amounts for Industry Fund, LMCT, & NEMI.

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Apprentice Prevailing Wage Rates are paid only to apprentices registered with the State of California, Division of Apprenticeship Standards, for work the registered apprentice performs in his/her specific craft or trade. You may check whether an Apprentices is registered at <http://www.dir.ca.gov/DAS/appcertpw/AppCertSearch.asp>