

**Project Number: 640-14-916**  
**Scope of Work**  
**Building 331 Cooling Tower Replacement**  
**Revision 3/17/15**

***1.1 General Intent***

1.1.1 The contractor must provide all personnel, equipment, tools, materials, supervision, and other items and services necessary to perform the replacement of the EVAPCO cooling tower located at building 331, at Veterans Affairs Palo Alto Health Care System (VAPAHCS), 795 Willow Road; Menlo Park, CA 94025.

1.1.2. Due to the facility being a community living center (constant patient occupancy). The replacement of the tower shall be limited to a ten (10) hour timeframe, or the Contractor shall provide a temporary cooling tower while the permanent tower is under replacement. The contractor must perform to the standards in this contract. This project shall take no longer than ninety (90) calendar days from the notice to proceed to complete.

1.1.3. This project and any required utility shutdowns shall be coordinated through the appointed COR. Patient care and normal operations of the facilities shall not be interrupted. Shutdowns shall be scheduled with minimal impact to operations, and shall be at the convenience of VAPAHCS. The Contractor shall give a minimum of three (3) weeks' notice for requested shutdowns. On-site work shall be conducted during weekend hours only due to patient impact. The Contractor shall submit a Crane Pick Plan as a transmittal during pre-construction.

**2.0 Specific Tasks**

***2.1 General Information***

The objective of this project is to replace the existing cooling tower located behind building 331. The new tower shall utilize the existing site conditions and connections, reuse the existing scaffolding, and shall be located at its current location. The new tower shall be comprised of stainless steel components and be sized to the current conditions.

The Contractor shall provide operation and maintenance instructions at the completion of general performance. Manufacturer documentation and maintenance schedule to be provided in close out documents.

The contractor shall provide one year of full parts and labor warranty on the newly installed equipment.

The contractor shall provide all tools and equipment necessary to complete this project.

The contractor shall provide daily cleanup and securing of work site, including securing tools and equipment. Disposal of all waste is at the contractor's own expense including removal and disposal of the existing tower.

The contractor shall provide quality control of all work conducted and the individual appointed shall be competent and educated/experienced in the field of work this scope encompasses.

All work shall be coordinated with the COR assigned to this project and only commence once submittals and scheduling have been accepted by the assigned COR.

**2.2 Replace the existing EVAPCO cooling tower (Model 89-3J) with a like kind EVAPCO cooling tower (model CATW 89-3J). The scaffolding system shall be retained for use on the new tower.**

**2.3 The new EVAPCO cooling tower shall be installed per the manufacturer requirements and follow all applicable code requirements for cooling towers.**

**2.4 The Contractor shall adapt the new tower to all existing services at the facility.**

**2.5 The Contractor shall pretreat the tower for any foreign material accumulated during the installation of the new unit. The tower sump shall be scrubbed and vacuumed out of any debris prior to filling the tower with water. The tower shall be filled with water treated with 50ppm of Chlorine/Chloramine and bio dispersant and left for a 4 hour hold time. The tower shall be drained and vacuumed out after it has been flushed as described above, and then refilled with treated water again.**

**2.6 The Contractor shall reinstall the existing water treatment system into the new tower.**

**2.7 The Contractor shall install the retained scaffolding onto the new cooling tower. (See technical exhibit for photos)**

**2.8 The Contractor shall provide commissioning, and configuration.**

**2.9 The Contractor shall provide interfacing of the existing variable frequency drive feeding the new cooling tower.**

**2.10 The contractor shall provide operator training on the installed equipment for the VAPAHCS facilities maintenance shop.**

**2.11 The contractor shall provide two additional sets of air inlet louvers in the original factory packaging.**

### **Technical Exhibit 3 – Specifications**

Section 01 00 00 General Requirements

Section 01 33 23 Shop Drawings, Product Data, and Samples

Section 01 91 00 General Commissioning Requirements

Section 13 05 41, Seismic Restraint Requirements for Non-Structural Components  
Section 23 05 10 Common Work Results for Boiler Plant and Steam Generation  
Section 23 05 12 General Motor Requirements for HVAC  
Section 23 05 41 Noise and Vibration Control for HVAC Piping and Equipment  
Section 23 21 13 Hydronic Piping  
Section 23 25 00 HVAC Water Treatment  
Section 23 65 00 Cooling Towers

**Technical Exhibit 4 – EVAPCO Existing model**

**Technical Exhibit 5 – EVAPCO Replacement model**

**Technical Exhibit 6 – Existing Tower photos**

### **General Administrative Requirements**

**1.1 Badges:** Contractor will obtain required ID badges for all employees used on project at start of each workday; badges obtained from VA Police Service, Bldg. 100 F wing, 1<sup>st</sup> floor.

**1.2 Security:** The contractor and their personnel shall be subject to the same Federal laws, regulations, standards, and VA policies as VA personnel regarding information and information system security.

**1.3 Schedule:** Normal work hours will be 7:00am – 4:30 pm Monday-Friday excluding Government holidays unless otherwise approved by the COR. It is the intent of the Palo Alto VA Medical Center that the work is to be completed within 90 days from the issuance of the Notice to Proceed (NTP). Aspects of work may be conducted during non-normal work hours if permitted and approved. Requests for shutdowns and non-normal work hours shall be submitted a minimum of 3 weeks prior to the requested dates. Submission of shutdown on specific dates does not provide a guarantee of actual performance of the requested day; shutdowns are tentative until VAPAHCS reviews and approves the request. Requests for shutdown shall be submitted after preliminary submittal review is completed, and only accompanied by a method of procedure. The method of procedure shall provide as much detail as possible and include time frames required and personnel to perform the work listed.