Roof – Start Up of Air Handling Unit
1.1 Project Status

Notice to Proceed: 02/07/11
Substantial Completion: 06/21/11 (135 calendar days)

Original Contract Days: 135
Time Extension Days - Approved: 0
Revised Contract Days: 135

Total Days to Date: 267
Days Past Completion Date: 132
% Completed by Time: 197.8%

Original Contract Amount: $1,151,000
Change Order Amount - Approved: $ 0
Current Contract Amount: $1,151,000

Progress Payment
  Request through 08/31/11: $1,114,028
% Completed by Contract Value: 96.8%

Therapy Pool Area – Cleaning Hard Duct and Attaching Fabric Duct
1.2 Contract Schedule/Work

The following work was performed from the 10/01/11 through 10/31/11:

- inspecting, adjusting, testing and start up of dehumidification air handling units was performed by the dehumidification air handling unit manufacturer’s start up technician with the assistance of the maintenance contractor and the electrical contractor. The following work was performed:
  - installed manual relays to rooftop air handling units to disable compressors when windows are opened at the Therapy Pool and to signal to the hot water coils to shut down.
  - turned on rooftop air handling units to blow out ductwork to Therapy Pool so fabric duct could be connected.
  - connected fabric ductwork to hard ductwork at Therapy Pool area.
  - added additional freon to each rooftop air handling unit as required by manufacturer.
  - completed balancing, testing and start up on rooftop air handling units, including adding oil to units, testing the window contact to confirm when opening windows, the compressors disable.
  - completed start up reports for rooftop air handling units.
  - inspected Patio Yard air handling unit (AH-1) and Mechanical air handling unit (AH-2).
  - started fans and compressors at the Patio Yard and Mechanical Yard air handling units.
  - turned on air handling units at Patio Yard and Mechanical Yard to blow out ductwork to Competitive Pool and Activities Pool so fabric duct could be connected.
  - connected fabric ductwork to hard ductwork at Competitive Pool and Activities Pool areas.
  - tied in circulation pump relay and boiler enable relay at air handling units.
  - completed balancing, testing and start up on Patio Yard and Mechanical Yard air handling units.
  - completed start up reports for Patio Yard and Mechanical Yard air handling units.
  - provided training to City personnel.
- changed/corrected wiring on the Remote Display Terminals (RDT) for Patio Yard air handling unit (AH-1) and Mechanical Yard (AH-2) to correct order of RDTs (AH-1 RDT on top and AH-2 RDT directly below). RDTs located in Mechanical Room 109.
- checked continuity for AH-1 window limit switches and determined the signal was getting to the contact at the control panel in Patio Yard air handling unit (AH-1). AH-1 unit was providing false reading to AH-1’s RDT. Mechanical contractor consulted with manufacturer’s start up technician and discovered start up jumper had not been removed. Removed jumper and unit correctly communicating with RDT.
- performed air balance on dehumidification air handling units (AH-1, AH-2, AH-3, AH-4).
- performed air test/balance on exhaust fans.
- performed hydronic balance of piping systems.
- repaired wiring at limit switch for center windows at Activity Pool. The limit switch wiring was corrected to signal air handling unit (AH-2) that the center windows are open.
- worked with fire alarm panel technician on programming and pre-testing air handling units smoke detectors.
- tested air handling units’ smoke detectors, Rooftop unit (AH-3) did not shut down.
- worked with manufacturer’s start up technician and discovered that a contact for the smoke alarm needed to be moved on the terminal block. After change, smoke detector signaled unit.
- performed smoke test on air handling units smoke detectors with Lompoc Fire Marshal and assistance of fire alarm panel technician.
- replaced lamp on light standard at north lawn, by Mechanical Yard.
1.2 Contract Schedule/Work – continued
- replaced closer covers and arms.
- cleaned stainless steel roll-up doors.
- cleaned pool handrails.
- cleaned stainless steel hardware on doors, used silicone sealer in screw holes, then installed screws.
- cleaned bolts, nuts and plates on slide stairs guardrail.
- cleaned exterior of stainless steel AH-2 ductwork.
- brushed off rust and sprayed old galvanize on welded joints of duct supports at all air handling units.
- placed sod by new sidewalk west of Mechanical Yard.
- repaired/heat welded jacketing patches on AH-1, AH-2, AH-3, AH-4 ductwork.

NOTE: Dehumidification air handling unit manufacturer is to send the following parts to the maintenance contract for replacement:
1. Exhaust Differential Air Pressure Switch for Patio Yard air handling unit (AH-1).
2. Overload switches for Patio Yard air handling unit (AH-1) and Mechanical Yard air handling unit (AH-2). Start up technician stated overload switches need to be larger.

NOTE: On 10/19/11 received letter from Contractor stating substantial completion notification. A response letter was sent to contractor on 10/21/11 listing contract requirements which need to be completed prior to requesting substantial completion.

NOTE: Contractor removed scissor lift and ladders from project site on Friday, 10/21/11.

1.3 Schedule Update Narrative
As of October 2011, a project construction schedule has not been approved.

To date the revised schedule with all activities and contract requirements through completion of the project have not been provided by the Contractor. A directive has been issued to the contractor to install insulation on the indoor condensate drain piping in accordance with the requirements of the specifications, work remains. The resubmittal of the layout drawings, delivery and installation of the roof screen remains.

1.4 Potential Delays
The contractor previously noted the following delays:
1. Numerous submittals for the nonmetal (fabric) duct system. The nonmetal duct system was approved as noted on June 2, 2011. The H-track system for the nonmetal duct arrived on site on June 29, 2011. On July 11th, 14th and 25th the nonmetal (fabric) duct for AH-1 was delivered and installed. Delivery and installation of the fabric duct for AH-2, AH-3 and AH-4 was completed on August 2, 2011.
2. The Contractor claims that limited information provided for the design of the controls system is taking considerable time to design a sequence of operations to conform to contract requirements. Contractor completed a physical and functional inspection of the fire alarm system and submitted their findings via email. A meeting with the design team, air handler manufacturer, contractor, construction manager and City was held on July 29, 2011 to review control issues. Final wiring diagrams for the pool water pumps
and hot water pump were transmitted to the Contractor on August 11, 2011. The air handling units controller connection drawings were transmitted to the Contractor on August 16, 2011. Replacement of the disconnects for the pumps with combination disconnects-motor starters was completed on August 29, 2011. Wiring and installation of the temperature sensors for AH-1 & AH-2 was completed on September 6, 2011.

3. Roof screen manufacturer’s revision and submission of the engineering for the roof screen. Contractor submitted the shop drawings and design calculations on June 29, 2011. The preparation/installation instructions and manufacturer’s warranty were submitted on July 11, 2011 and the samples were submitted on July 12, 2011. The submittals were returned on August 12, 2011. Due to an access issue from the roof hatch, two panels on the east side of the roof screen are to be deleted. Resubmittal of the layout drawings are needed from the manufacturer. The Contractor submitted 2 Requests for Information regarding the roof screen system structural connections, channels and welding at the existing roof structure. The Requests for Information were answered on September 20th and September 23rd. The Contractor has performed layout for the roof screen system and has prepared the roofing areas for installation of the roof screen channels. Shop inspection for the roof screen channels is scheduled for November 1, 2011.

4. Curtain wall panel was approved on July 21, 2011 and the panels have been installed. The plumbing and electrical conduits penetrations have been completed and the piping and conduit connections made to AH-2.
1.5 Site Visitors

The following visitors were on site during the period of 10/01/11 through 10/31/11:

10/03/11 Dehumidification air handling unit manufacturer’s regional manager and start up technician arrived at the project site to review site conditions and coordinate with maintenance contractor and electrician for systems start up.

10/03/11 Maintenance contractor on-site for coordinate with air handling unit manufacturer’s start up technician.

10/04/11 Dehumidification air handling unit manufacturer’s start up technician and regional manager on-site for systems testing and start-up.

10/04/11 Maintenance contractor on-site to assist manufacturer’s start up technician with dehumidification systems testing and start-up.

10/05/11 Dehumidification air handling unit manufacturer’s start up technician continued with testing and start up of dehumidification systems. Regional manager provided training to City staff.

10/05/11 Maintenance contractor on-site to continue assisting manufacturer’s start up technician with dehumidification systems testing and start-up.

10/06/11 Dehumidification air handling unit manufacturer’s regional manager on-site for City staff training of monitoring/operating the dehumidification system Remote Display Terminals in Mechanical Room 109.

10/11/11 Contractor on site to coordinate with workers on miscellaneous items.

10/11/11 Contractor mechanical supervisor on-site to review moisture on AH-2 indoor condensate piping and to take temperature readings on the piping.

10/12/11 Contractor on-site to coordinate with Test-Adjust-Balance subcontractor.

10/12/11 Maintenance Contractor on site to work with Test-Adjust-Balance subcontractor and to make needed adjustments to dehumidification units. Maintenance contractor consulted manufacturer’s start up technician and identified jumper left in place inside AH-1 unit from start up. The jumper created a false reading that the windows were closed. Removed jumper and condition corrected.

10/12/11 Contractor on-site to check on status of test-adjust-balance of systems.

10/17/11 Fire alarm panel technician on-site to program fire alarm panel for air handling units’ smoke detectors and assist contractor with pre-testing air handling units’ smoke detectors.

10/20/11 Contractor on-site to coordinate with painting subcontractor and performed some cleaning on the pool handrails.

10/25/11 Fire alarm panel technician on-site to assist contractor with smoke alarm test of air handling units in the presence of the Fire Marshal.

10/25/11 Fire Marshal witnessed and timed smoke test on smoke detectors for Patio Yard air handling unit (AH-1) and rooftop air handling unit (AH-3). Systems passed.

CONTRACT MODIFICATIONS

2.1 Bulletins

The following Bulletins have been issued by the architect: NONE
2.2 Potential Change Orders

01 RFI #01 Response allowed contractor to move the equipment pad at the Patio Yard deleting the scope of work to relocate piping and cleanout.
02 RFI #27 – Storage Rooms 114 and 137 roll up door modifications for air supply.
03 RFI #30 – Replace rusted screws anchoring lighting unistrut with stainless steel screws.
04 RFI #42 – Fabricate and install stainless steel plenums for AH-1 and AH-2.
05 RFI #51R – Replace disconnects with combination disconnect-motor starters for Pool Water Pumps (PWP-1 and PWP-2).
06 RFI #54R3 – Replace disconnect with combination disconnect-motor starter for Hot Water Pump (HWP-1).
07 RFI #24 – Fabricate and install additional stainless steel ductwork for AH-3 and AH-4.
08 RFI #57 – Temperature sensors locations for AH-1 and AH-2.
09 CLAIM – AH-1 and AH-2 additional design requirements.
10 CLAIM – AH-3 additional design requirements.
11 CLAIM – AH-4 additional design requirements.
12 CLAIM – Duct supports per response to RFI #42.
13 CLAIM – Additional conduit installed for other purpose & used for temperature sensors.

2.3 Prime Contract Change Orders

The following Prime Contract Change Orders have been approved by the City:
Change Order 01 for $32,106 includes Potential Change Orders 02, 03, 04, 06, 07, 08, 11.

2.4 Request for Information (RFIs)

RFIs are currently being processed by the design team in a timely manner.
Total No. of RFIs to Date: 60
No. of RFIs under Review: NONE

2.5 Submittals

Generally, the submittals are being processed in a timely manner by the design team.
Total No. of Submittals to Date: 83
No. of Submittals under Review: NONE

Roof – Heat Welding Jacketing on Ductwork