

Redwood Details – Hangar 1 Removal Action

The following paragraphs provide some general contract information on the removal action, background on the redwood sheathing, and the Navy's path forward for Hangar 1. The proposals that AMEC received from subcontractors during the bidding process (there were five bidders) did not specifically break out salvage value, only a lump sum cost for waste segregation and disposal, which incorporated any salvage assumptions. The pricing that AMEC provided was in accordance with the Navy work elements and assures the best overall value for the Navy. During the request for proposal, the Navy asked potential contractors to provide a cost on a firm fixed price for the complete demolition and disposal of interior structures (with the exception of the historical items that have been identified since the beginning of this process). Based on historical review, site walks, and numerous meetings with Navy, NASA and/or the State Office of Historical Preservation (OHP), the redwood was not identified as having historical significance. AMEC's proposal was selected as the best value contract meeting the objectives of the Engineering Evaluation/Cost Analysis and Action Memorandum. Because the scope of work was competitively bid, the subcontractors had to carefully estimate their total project costs, salvage included. Salvage is an integral and routine component of demolition that contractors use to offset the costs of the project and give maximum value (lowest price) to their clients.

To reiterate, the redwood in its current condition is a hazardous material. The regulatory agencies would not allow the redwood to be used for any purpose in its current state. In order to re-use the redwood the contamination needs to be removed. Upon abatement of this contamination, the redwood will no longer hold its current dimensions (removal of tongue and groove and a reduced length, width and height). This renders the redwood nearly impossible for re-use as original sheathing. There are extensive costs in abating the redwood, including processing the wood in an explosion-proof containment unit (fire marshal requirement). To justify trying to remove the contamination and make any re-use of the redwood possible, the contractor must be able to re-coup these costs. If the abatement costs cannot be offset, the redwood will need to be disposed of as a hazardous waste. Below is a breakdown of the current redwood estimates:

- Estimated Salvageable Quantities: 413,000 bf
- Estimated Salvage Value: \$1.50 - \$4.50/bf (depending on final quantity/quality)
- Current Salvage Status: Multiple offers but nothing contracted as of October 24, 2011

As stated previously, the Historic American Engineering Record (HAER) document did not identify the redwood as a character defining feature. These documents were specifically created as a historical mitigation measure for the selected remedy at Hangar 1 and state, "The uppermost 70 ft of Hangar 1 consists of 2 in. redwood sheathing". There is no note or mention of historical significance quoted on the redwood throughout the document. HAER documentation was created by NASA historians, NASA contractors, NASA historic preservation consultants, and the Navy. Agencies, firms, and individuals involved in preparing the documentation went to great lengths to research websites, review published and unpublished resources, review of correspondence and resources on file at the Moffett Field Historical Society, and invaluable photographs and discussions with Mr. Bill Stubkjaer of the Moffett Field Museum.

On September 14, 2011, the Navy spoke with the OHP to further discuss the concerns of the RAB and the HAER language. Our discussion included the HAER documentation that stated "the redwood materials were identified as "sheathing" and were not identified as a character defining feature of the hangar. Therefore, the redwood holds no historical significance and does not require any additional mitigation measures as part of the Hangar 1 Removal Action." OHP indicated during this meeting that their office did not have any issues with the project moving forward and the Navy completing the removal action. OHP also indicated that they had been in consultation with NASA on not using the redwood as part of the re-siding plans.

Based on all the information that has been provided and the fact that the Navy has gone to great lengths to preserve the Hangar's structure, has salvaged many historical items, and is completing mitigation measures for the adverse effects to Hangar 1, the Navy considers the issue surrounding the redwood as final, and we are proceeding with our environmental responsibilities under the CERCLA program. The Navy's actions have and will continue to support NASA's responsibility to re-use and maintain Hangar 1's historical significance as a contributing member of the Shenandoah Plaza National Historic District.