

**Metropolitan Domestic Water Improvement District
Board of Directors Meeting**

November 14, 2022

Approval and Award for the Diablo Village West Storage Tank Coating

Synopsis

The Board is being requested to approve the internal tank coating of the Diablo Village No. 1 West 200,000 gallon storage tank and award the work to AO Painting Inc.

Background

The District operates eight active steel storage tanks in the Metro Southwest service area. The tanks allow the District to meet the daily and hourly peak water demands as a staging location between water production and distribution to customers. The steel storage tanks are internally coated with a potable coating to provide a barrier between the water and the steel. The barrier protects the steel from corrosion due to contact with the water. Over time, the coating will fail, permitting corrosion to start. The American Water Works Association (AWWA) notes the life of an epoxy coating, which the District uses, can be up to 20 years. The life of a coating is dependent on the environment it is exposed to, and how well it was applied during installation both factors can contribute to longer or shorter life spans.

Issues

The westernmost storage tank at Diablo Village No. 1 has a capacity of 200,000 gallons. The District acquired the site in December 2009; the date of any prior interior coating on this tank is unknown. The District recently constructed an additional 182,000 gallon storage tank at the Diablo Village No. 1 well site in 2019 giving the Diablo Village service area added storage capabilities along with being able to take the older tank temporarily offline for maintenance. In 2020, the west storage tank was drained and, upon inspection, staff identified multiple areas on the floor and walls of the tank in need of coating replacement. Staff determined it was best to completely sandblast and recoat the floor in 2020 adding additional protection until budget funding was available for the complete recoat. Replacement of the internal coating system is being recommended by staff to extend the life of the storage tank. To replace the interior coating, the contractor will sand blast the interior of the tank to near white metal. The sandblasting will remove all the existing coating and any corrosion. Once sandblasted, the tank will be inspected for pitting and any required repairs to the steel. The coating system will be applied following any repairs.

The District requested quotes from both vendors listed on the City Tucson Cooperative Purchasing Contract: Painting and Other Related Services. The request for quotes (RFQ) requested a high solids and standard epoxy hybrid allowing the high solids product to be applied to all areas below the water line. Since it is a high solids content, it has very low volatile organic compounds (VOCs). Standard epoxy is higher in VOCs and has provided challenges in curing before the tank can be placed into service. The hybrid version has the standard epoxy on the roof and rafters that are above the water line. The standard epoxy is easier to apply to the sharp corners of the rafters and provides better coverage in tight places being a thinner material. Since it is applied above the water line, there should not be any VOC issues.

AO Painting Inc. was the only respondent to the request for quotes. Wiese Painting Contractors Inc. did not respond. AO Painting's quote including bonds was \$127,839.00. Depending on the condition found after the sandblasting, some welding and patching may be required. The Southwest Approved Budget for storage tank rehabilitation is \$128,047.00.

Staff Recommendation

It is recommended by staff the Board approve and award the Diablo Village No. 1 West 200,000 gallon storage tank internal coating work to AO Painting Inc. for the amount of \$127,839.00. It is also recommended that the Board authorize the General Manager to approve up to an additional \$3,000 for unforeseen work related to tank repairs.

Suggested Motion

I move to approve and award the Diablo Village No. 1 West 200,000 gallon storage tank internal coating work to AO Painting Inc. for the amount of \$127,839.00 and to authorize the General Manager to approve additional funds up to \$3,000 for unforeseen tank repairs.

Respectfully submitted,

Steven D. Shepard
Utility Superintendent

I concur with the above-noted recommendation.
Respectfully submitted,

Joseph Olsen, P.E.
General Manager