



*City of Alamogordo*

Purchasing Dept. • 2600 N. Florida Ave. • Alamogordo, NM 88310 • (575) 439-4115 • FAX (575) 439-4117

August 20, 2018

**ADDENDUM NO. 1  
PUBLIC WORKS BID NO. 2018-007  
REHAB UPPER HEIGHTS GROUND STORAGE TANK**

Each bidder shall acknowledge receipt of this Addendum Number One (1) by including in the Bid proposal.

Addendum Number 1 is issued to provide changes and/or clarifications to the above referenced PWB as follows:

**Question:** We appreciated being able to come to the pre-bid yesterday but were wondering if the bid date could be changed and moved back 1 week. We will be out of town next week through the 25 or so. We are a local contractor and would love to be able to bid on this project but may not be able to at the current bid date. Please let us know if this could be possible.

**Answer:** Request is denied.

**Question:** Is there an inspection report for the Rehab Upper Heights Ground Storage Tank so we can use to see the interior of the tank?

**Answer:** Inspection report is attached.

**Clarification:**

1. Prospective bidders are advised that UPS and FEDEX cannot guarantee delivery by 2:00 p.m.
2. The attendance roster from the August 9, 2018 mandatory prebid conference is attached.

All other provisions of the Contract Documents shall remain unchanged. This addendum is hereby made part of the Contract Documents. Each bidder shall acknowledge receipt of this Addendum Number One (1) using this acknowledgement page and submit with the Bid proposal.

Sincerely,

Barbara Pyeatt  
Chief Procurement Officer

Received By: \_\_\_\_\_

Date Received: \_\_\_\_\_

Business Name: \_\_\_\_\_

Signature: \_\_\_\_\_

# Water Tank Evaluation Report

## Upper Heights Ground Storage Reservoir

Prepared for City of Alamogordo, New Mexico

### 1.0 Remaining Tank Life

Information from our field evaluation process indicates that the City of Alamogordo should consider reconditioning of this facility. Based on the degree of failures observed along with the age of both the interior and exterior coating systems, work should be scheduled for sometime within the next 12 to 24 months. This will prevent any serious damage to already exposed surfaces.

Upon completion of the recommended modifications, repairs, and coating application, this tank should continue to provide service to the City for many years to come. The normal expectancy of an elevated tower is 60+ years when prescribed periodic maintenance is followed.

Periodic maintenance following guidelines as prescribed by AWWA in Manual M42 is recommended.

### 2.0 Recommendations

Based on the information obtained during our Field Evaluation Process we recommend the following:

#### 2.1 Structural

##### 2.1.1 Interior Structural

1. Seal the following with elastomeric caulk to inhibit the occurrence of rust bleed:
  - Gaps in the lapped plates including the collar to roof plate, roof to roof radial/torus plates, and roof rafters (seams above the normal waterline)
  - Roof openings and other roof penetrations

##### 2.1.2 Exterior Structural

1. Remove the existing safety climb system and replace them with a rigid notched or trolley type carrier system for easier access and fall-protection
2. Remove the existing center-screened roof vent modifying the spool flange and replacing it with a new AWWA frost-free design
3. Add a new 24" pressure man-way 180 degrees from the existing shell man way in compliance with AWWA and OSHA confine space guidelines
4. Replace the handrail system, with toe-plate, meeting OSHA standards to provide safer conditions when conducting periodic tank maintenance.

5. Provide new locks for all roof hatches
6. Replace shell man-way bolts and gaskets

## 2.2 Cathodic Protection

This tank is not equipped with a cathodic protection (CP) system. Based on the condition of this tank, as observed during our investigation, the addition of a CP system is not warranted.

## 2.3 Interior Coating

Based on the extent of observed coating failures as documented in the Coating Summary, a total reconditioning is recommended.

All surfaces should be abrasive blasted to a Society for Protective Coatings (SSPC) SP-10 "Near White" standard of cleanliness. Surface discontinuities such as erection marks, weld spatter, and sharp fins should be removed by grinding, and re-blasted to achieve a uniform surface profile consistent with the coating manufacturer's product recommendation. This would also include all applicable structural repairs and modifications.

Following surface preparation, all surfaces should receive a two to three-coat application (depending on product manufacturer) of a zinc/epoxy-polyamide coating system certified in accordance with ANSI/NSF standard 61.

## 2.4 Exterior Coating

The general condition of the exterior coating system is poor, as based on the adhesion results stated in the Coating Summary Report. The system is representative of the system applied in 1998. Based on this assessment SEH recommends complete reconditioning of the tanks exterior surfaces.

Complete removal and replacement with a new epoxy/polyurethane coating system offers a long-term solution to the existing system. All surfaces should be prepared to an SSPC SP-6 or equal "Commercial Blast" level of cleanliness. This should be followed by a zinc/polyamide-epoxy/acrylic-polyurethane coating system. To avoid fugitive dust emissions and/or paint drift, a full-containment structure will need to be constructed.

## 3.0 Engineers Estimate

Tank description	Units	Cost
<b>Interior Structural</b>		
Caulking	LF	\$24,600
<b>Interior Coating:</b>	LS	\$379,700
<b>Exterior Structural</b>		
Handrail system replacement	LS	\$11,500
Install manway	EA	\$6,500
Roof vent replace with frost-free	LS	\$7,500
Replace manway bolts and gaskets	LS	\$500
Safety-climb	LS	\$1,500
<b>Exterior Coating:</b>	LS	\$208,100
<b>Containment</b>	LS	\$70,000
<b>Subtotal</b>		\$709,900
<b>15% Contingency</b>		\$106,500
<b>Estimated Project Cost</b>		\$816,400

The above project costs are based on current pricing derived from consultation with area contractors, suppliers, and manufacturers as applicable to the scope of work. SEH suggests that the project be bid several months prior to the anticipated start date attract competitive bids. We estimate this project to be completed in 12 weeks.

SEH also recommends inspection during critical operations on the project to ensure proper surface preparation and coating system application, along with any other work noted herein.

***As an alternative, SEH through its subsidiary SEH Design Build can provide the City with seamless delivery of the entire project.***

***State law specific to water tank maintenance allows City's to avoid the traditional contracting process and enter into reliable long-term maintenance agreements. Through SEH Design Build the City can defer full-payment up to five years, and have the workmanship guaranteed. SEH has teamed exclusively with Classic Protective Coatings.***

## 4.0 Summary

### 4.1 Standard of Care

The conclusions and recommendations contained in this report were developed in accordance with generally accepted professional engineering practices at this time and location. Other than this, no warranty is implied or intended.

#### 4.1.1 Structural Evaluation

*Structural commentary under this section refers to the general condition of the foundation, and plate sections of the tank.*

Based on our visual examination of the tank structure and footings, it appears that the facility is in good condition at this time. However, modifications are necessary to bring it into compliance with current standards with respect to both ventilation and personal access. In addition, repairs within the tank interior are suggested before any recoating in order to enhance its long-term serviceability.

Specific references to items requiring maintenance repair, replacement, or installations to provide code compliance are included in the Recommendation section of this report under *Interior or Exterior Structural*.

Our inspection of the tanks footing revealed no significant cracking or spalling. The grout between the base plates and foundation was also found to be in good condition. The surrounding area is sloped away from the tank providing good drainage.

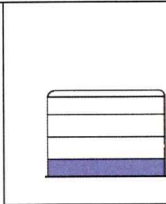
The interior of the tank is in good condition, with no observed pitting of steel plates. Few deficiencies were identified with regard to weld finish.

### 4.2 Coating Evaluation

Interior and exterior paint chip samples were not extracted during our evaluation. Coating systems provided at the time of this tank's construction, were neither lead nor chromium based. The exterior system will not require any provisions that include the abatement of lead or chromium, or the disposal of hazardous waste materials, however, containment would be necessary to prevent the emission of fugitive dust during operations that include the removal of the exterior coating system.

## Exterior Coating Summary

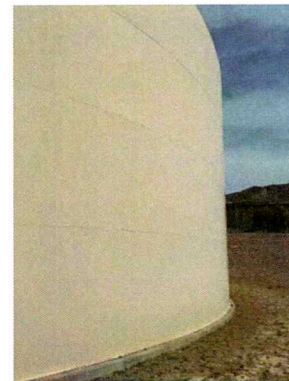
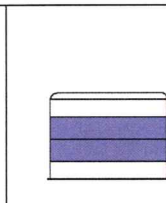
<b>Location:</b>	Exterior		
<b>Area:</b>	Shell (Lower)		
<b>Adhesion:</b>	2A		
<b>Overall Condition:</b>	Fair		
<b>Dry Film Thickness:</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
	1.5	3.9	2.8



Condition	Severe	Advanced	Moderate	Slight	None/NA
<b>Rusting</b>				●	
<b>Blistering</b>					●
<b>Cracking</b>					●
<b>Peeling</b>					●
<b>Pitting</b>					●
<b>Chalking</b>		●			
<b>Delamination</b>					●

**Comments:** Slight rusting in localized areas, advanced chalking throughout

<b>Location:</b>	Exterior		
<b>Area:</b>	Shell (Mid)		
<b>Adhesion:</b>	-		
<b>Overall Condition:</b>	Fair		
<b>Dry Film Thickness:</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
	-	-	-

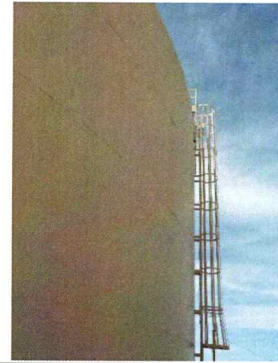
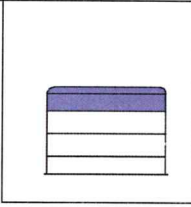


Condition	Severe	Advanced	Moderate	Slight	None/NA
<b>Rusting</b>					●
<b>Blistering</b>					●
<b>Cracking</b>					●
<b>Peeling</b>					●
<b>Pitting</b>					●
<b>Chalking</b>		●			
<b>Delamination</b>					●

**Comments:** Advanced chalking throughout

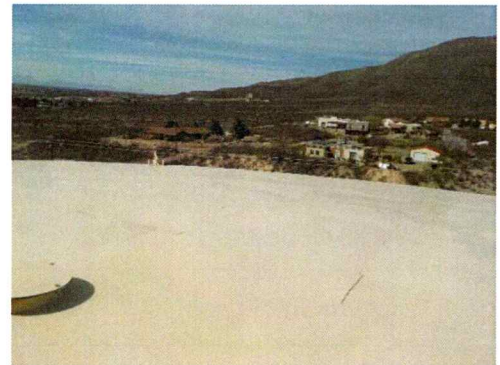
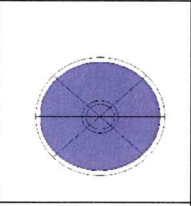
## Exterior Coating Summary

<b>Location:</b>	Exterior		
<b>Area:</b>	Shell (Upper)		
<b>Adhesion:</b>	-		
<b>Overall Condition:</b>	Fair		
<b>Dry Film Thickness:</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
	-	-	-



Condition	Severe	Advanced	Moderate	Slight	None/NA
Rusting				●	
Blistering					●
Cracking					●
Peeling					●
Pitting					●
Chalking		●			
Delamination					●
<b>Comments:</b> Slight rusting along seams, advanced chalking throughout					

<b>Location:</b>	Exterior		
<b>Area:</b>	Roof		
<b>Adhesion:</b>	-		
<b>Overall Condition:</b>	Fair		
<b>Dry Film Thickness:</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
	2.7	6.3	4.6



Condition	Severe	Advanced	Moderate	Slight	None/NA
Rusting			●		
Blistering					●
Cracking					●
Peeling					●
Pitting					●
Chalking		●			
Delamination					●
<b>Comments:</b> Moderate rusting at penetrations, advanced chalking throughout					

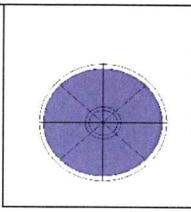
## Exterior Accessories

Exterior						
	Level	Condition	Agency Compliant	Comments		
Ladders	Shell	Good	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	None		
Ladder Cage	Shell	Good	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	None		
Climb Device	Roof	Fair	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Notched-rail		
Handrail	Roof	Good	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Pipe Ht. <42"		
	Level	Condition	Type	Size	Agency Compliant	Comments
Confined Space Entry					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Manways	Shell	Good	Bolted	48"	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Replace gasket
Vent	Roof	Fair	Screened	68"	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Replace with Frost Free
	Level	No.	Interference	Comments		
Antenna	Roof	1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Omni		
	Size	Type	Condition	Agency Compliant	Comments	
Overflow/Splash-pad	Unknown	N/A	Good	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Underground Discharge	
	Condition			Comments		
Foundation/Footings	Very Good			Settlement <input type="checkbox"/> Cracks <input type="checkbox"/> Spalling <input type="checkbox"/>		
				Grout:		
	Level		Comments			
Paint Sample	None					



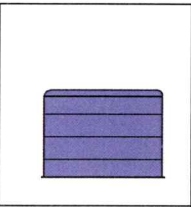
## Interior Coating Summary

<b>Location:</b>	Interior		
<b>Area:</b>	Floor		
<b>Adhesion:</b>	-		
<b>Overall Condition:</b>	Fair		
<b>Dry Film Thickness:</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
	-	-	-



Condition	Severe	Advanced	Moderate	Slight	None/NA
Rusting				●	
Blistering					●
Cracking					●
Peeling					●
Pitting					●
Chalking			●		
Delamination					●
<b>Comments:</b> Rigid sediment throughout. Based on observed coatings, slight rusting in localized areas, moderate chalking throughout					

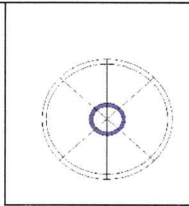
<b>Location:</b>	Interior		
<b>Area:</b>	Shell		
<b>Adhesion:</b>	-		
<b>Overall Condition:</b>	Fair		
<b>Dry Film Thickness:</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
	-	-	-



Condition	Severe	Advanced	Moderate	Slight	None/NA
Rusting			●		
Blistering					●
Cracking					●
Peeling					●
Pitting					●
Chalking			●		
Delamination					●
<b>Comments:</b> Moderate rusting and rust bleed above the high water line at roof rafter attachments, moderate chalking throughout					

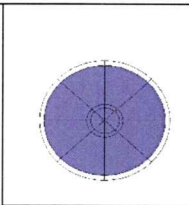
## Interior Coating Summary

<b>Location:</b>	Interior		
<b>Area:</b>	Columns		
<b>Adhesion:</b>	-		
<b>Overall Condition:</b>	Poor		
<b>Dry Film Thickness:</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
	-	-	-



Condition	Severe	Advanced	Moderate	Slight	None/NA
Rusting			●		
Blistering					●
Cracking				●	
Peeling				●	
Pitting					●
Chalking			●		
Delamination					●
<b>Comments:</b> Moderate rusting throughout, slight cracking and peeling in localized areas, moderate chalking throughout					

<b>Location:</b>	Interior		
<b>Area:</b>	Roof		
<b>Adhesion:</b>	-		
<b>Overall Condition:</b>	Poor		
<b>Dry Film Thickness:</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
	-	-	-



Condition	Severe	Advanced	Moderate	Slight	None/NA
Rusting		●			
Blistering					●
Cracking			●		
Peeling			●		
Pitting					●
Chalking			●		
Delamination					●
<b>Comments:</b> Advanced rusting with rust bloom throughout, moderate cracking and peeling at rafters, moderate chalking throughout					

## Interior Accessories

Interior Wet						
	Level	Condition	Agency Compliant	Comments		
Ladders	Shell	Good	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	None		
	Level	Condition	Type	Size	Agency Compliant	Comments
Manways	Roof	Good	Hinged	30" x 30"	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Sediment	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>Depth</b>	Distributed evenly	<b>Removed:</b>	
			<1/4"		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Sump Pit	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Cathodic Protection		<b>Type</b>		<b>Comments</b>		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		N/A				



# City of Alamogordo



**ATTENDANCE ROSTER**  
**REHAB UPPER HEIGHTS GROUND STORAGE TANK**  
**PWB 2018-007**  
**MANDATORY PREBID CONFERENCE**  
**AUGUST 9, 2018 1:30 P.M.**  
**PUBLIC WORKS ADMIN CONFERENCE ROOM**

Name: <i>Bob Johnson</i>	Signature: <i>[Signature]</i>	
Company: <i>COA-ENG</i>	Phone: <i>515.439.4337</i>	E-Mail: <i>bjohnson@ci.alamogordo.nm.us</i>

Name: <i>Simon Woodcock</i>	Signature: <i>[Signature]</i>	
Company: <i>Forrest Co</i>	Phone: <i>975-532-8071</i>	E-Mail: <i>Simon@forrestco.com</i>

Name: <i>DAVID BRACKNEY</i>	Signature: <i>[Signature]</i>	
Company: <i>Riley Industrial Services</i>	Phone: <i>(505) 327-4947</i>	E-Mail: <i>davidbrackney@rileyindustrial.com</i>

Name: <i>David Harwell</i>	Signature: <i>[Signature]</i>	
Company: <i>D &amp; R Tank</i>	Phone: <i>505-873-1101</i>	E-Mail: <i>david@drtank.com</i>

Name: <i>Donnie Anselley</i>	Signature: <i>[Signature]</i>	
Company: <i>D &amp; R Tank Co.</i>	Phone: <i>505-873-1101</i>	E-Mail: <i>Donnie@D&amp;RTank.com</i>

Name: <i>Jimmy Asher</i>	Signature: <i>[Signature]</i>	
Company: <i>Utility Service Co Inc.</i>	Phone: <i>281-255-3541</i>	E-Mail: <i>jasher@utilityservice.com</i>

Name: <i>Trevor Giest</i>	Signature: <i>[Signature]</i>	
Company: <i>LANCON INC</i>	Phone: <i>515-885-2488</i>	E-Mail: <i>Lancon@gotacc.com</i>

Name: <i>MIKE KNOWLES</i>	Signature: <i>[Signature]</i>	
Company: <i>CITY OF ALAMOGORDO</i>	Phone: <i>505-491-9295</i>	E-Mail: <i>MKNOWLES@CI.ALAMOGORDO.NM.US</i>

Name: <i>DAVID MANNING</i>	Signature: <i>[Signature]</i>	
Company: <i>CITY OF ALAMOGORDO</i>	Phone: <i>575-437-5991</i>	E-Mail: <i>DMANNING@CI.ALAMOGORDO.NM.US</i>

Name:	Signature:	
Company:	Phone:	E-Mail: