**DATE:** September 27, 2010

ADDENDUM NUMBER: 1

**MODIFYING:** Specifications No. 1624

PROJECT: Air Release and Vacuum Valve Relocation for Treated Water Pipelines

Construction Package No. 9

**BID TIME AND DATE:** 2:00 p.m., October 6, 2010

FROM: THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

700 North Alameda Street, Third Floor

Los Angeles, California 90012

(213) 217-6515

**TO:** All prospective bidders

This addendum forms a part of the contract documents. Use Specifications No. 1624 as originally issued to submit bids, in conjunction with this addendum, and acknowledge receipt of this addendum by completing Document 00420, "Bidder's General Information," in the specifications.

This addendum consists of two pages of text and five pages of attached documents.

# CHANGES TO BIDDING REQUIREMENTS

1. In Document 00200, "Information Available to Bidders," at the end of Agency Permits, add the attached document titled "Communication with Culver City for Sites 865, 866 and 874."

# **CHANGES TO SPECIFICATIONS:**

2. Delete Section 03250, "Concrete Anchors in Cured Concrete," dated July 21, 2009, and replace with the attached Section 03250, dated August 25, 2010.

# **CHANGES TO DRAWINGS:**

3. Metropolitan has made changes to the following drawings without issuing revised drawings at this time; however, Metropolitan will issue revised drawings showing these changes after the contract is awarded.

Reference No.	Sheet No.	Drawing No.	Description of Changes		
1.	C-158.2	B-114958	On each of these drawings, delete Construction Note No. 25,		
2.	C-160.2	B-114962	and replace with the following: 25. INSTALL 1-INCH PVC ELECTRICAL CONDUIT		
3.	C-164.2	B-114965	INCLUDING PULL ROPE, EXTENDING FROM		
4.	C-169.2	B-114968	EXISTING VAULT TO ABOVE GRADE CABINET. CONDUIT BENDS SHALL BE IN ACCORDANCE		
5.	C-722.2	B-114998	WITH NEC ARTICLE 352.24. FACTORY MADE		
6.	C-730.2	B-115001	ELBOWS SHALL BE USED FOR ALL BENDS 30 DEGREES OR LARGER. PVC COATED RIGID STEEL		
7.	C-740.2	B-115004	ELBOWS SHALL BE USED ON ALL 90-DEGREE		
8.	C-741.2	B-115007	UPWARD BENDS WHERE CONDUIT RISES TO GRADE. EXTEND CONDUIT ABOVE GRADE IN		
9.	C-742.2	B-115009	CABINET A MINIMUM OF 3 INCHES.		

Reference No.	Sheet No.	Drawing No.	Description of Changes
10.	C-743.2	B-115013	
11.	C-793.2	C-115016	
12.	C-204.2	B-114971	
13.	C-213.2	B-114974	
14.	C-215.2	B-114977	
15.	C-217.2	B-114980	
16.	C-218.2	B-114983	
17.	C-241.2	B-114986	
18.	C-245.2	B-114989	
19.	C-252.2	B-114992	
20.	C-283.2	B-114995	
21.	C-865.2	B-115019	
22.	C-866.2	B-115022	
23.	C- 867.2	B-115025	
24.	C-874.2	B-115028	
25.	C-876.2	B-115031	
26.	C-877.2	B-115034	
27.	C-878.2	B-115037	
28.	C-215.3	B-114978	In Grid K-4, delete the description at the end of the leader and replace with the following: 20" ID CASING PIPE SHALL MEET THE REQUIREMENTS OF SECTION 64572, CHAPTER 16 OF TITLE 22, CCR
29.	C0742.3	B-115011	In Grid J-6, delete the description at the end of the leader and replace with the following: 20" ID CASING PIPE SHALL MEET THE REQUIREMENTS OF SECTION 64572, CHAPTER 16 OF TITLE 22, CCR

END OF ADDENDUM

From: Zargham,Khash
To: SpecsDesk;

**Subject:** FW: VVAR Relocation Sites @ Culver City (Sites 865, 866, and 874)

Date: Thursday, September 09, 2010 3:31:20 PM

**From:** Julius Smith [mailto:jsmith@bullock-consulting.com]

Sent: Thursday, September 09, 2010 12:15 PM

**To:** Zargham, Khash

Cc: 'kenyon'

**Subject:** RE: VVAR Relocation Sites @ Culver City (Sites 865, 866, and 874)

# Khash,

Culver City is ok with the explanation and approach to remediating graffiti as long as the contact information is included on the enclosure and response times are reasonable.



**From:** Zargham, Khash [mailto:kzargham@mwdh2o.com]

Sent: Thursday, September 09, 2010 8:53 AM

**To:** Julius Smith **Cc:** kenyon

**Subject:** FW: VVAR Relocation Sites @ Culver City (Sites 865, 866, and 874)

From: Zargham, Khash

Sent: Tuesday, December 22, 2009 9:12 AM

**To:** 'Julius Smith'; 'kenyon walker' **Cc:** Narvaiz, John D; Bukirin, Bert

**Subject:** VVAR Relocation Sites @ Culver City (Sites 865, 866, and 874)

Julius: we are still working on the comments for the

culver City. However, the comment below should be addressed to the Culver city reviewer regarding anti graffiti comment made for the enclosure. We have already relocated fifteen sites on the culver city feeder and the permits were issued and there was no problems.... Thank you... Khash

Contractor shall provide the valve enclosure coating requirements as specified in the specification section 09900.

# Explanation to the City's attention:

In reference to applying anti graffiti coating Metropolitan maintains the operations of the systems and all its appurtenances, because at the present time, MWD finds it quicker and more cost effective to paint over graffiti versus trying to prevent it by applying anti-graffiti coatings – The alternative to cleaning graffiti resistant coatings is to simply paint over the graffiti marked structure. With the anti-graffiti coatings, many are sacrificial, and must be recoated following cleaning. The time it takes to clean, dry, and restore the anti-graffiti coating could double and even triple the time and cost to overcoat the graffiti. This is the reason why Metropolitan chooses to paint over graffiti instead of attempting to prevent it."

Meanwhile, Metropolitan is following up with the research regarding anti graffiti coating, and once the outcome is finalized, all the enclosures will be maintained accordingly

# SECTION 03250 CONCRETE ANCHORS IN CURED CONCRETE

# PART 1 GENERAL

### 1.01 REFERENCES

# A. General

- 1. The publications listed below form a part of this specification to the extent referenced.
- 2. Where a date is given for reference standards, the edition of that date shall be used. Where no date is given for reference standards, the latest edition available on the date of Notice Inviting Bids shall be used.
- B. American Society for Testing and Materials (ASTM)
  - 1. ASTM D4263, Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method
- C. International Code Council-Evaluation Services (ICC-ES)
  - ICC-ES Report No. ESR-2427, ITW Red Head Trubolt Plus, 304 Stainless Steel Seismic Expansion Anchors
  - 2. ICC-ES Report No. ESR-1771, Simpson Strong-Tie Co., Inc., Strong Bolt Concrete Expansion Anchors
  - 3. ICC-ES Report No. ESR 1917, Hilti Inc., Kwik Bolt TZ Expansion Anchors
  - 4. ICC-ES Report No. ESR-2508, Simpson Strong-Tie Co., Inc., SET XP Epoxy Tie Adhesive Anchors
  - 5. ICC-ES Report No. ESR-2322, Hilti Inc., HIT-RE 500-SD, Adhesive Anchors
  - 6. ICC-ES Report No. ESR-1137, ITW Red Head EPCON G5, Adhesive Anchors
  - 7. ICC-ES Report No. ESR-3013, Hilti Inc., HY-150 Max-SD, Adhesive Anchors

## D. NSF International (NSF)

- NSF 61, Drinking Water System Components—Health Effects International Building Code revisions 2004 and 2006
- E. American Concrete Institute
  - 1. ACI 318-05: Building Code Requirements for Structural Concrete and Commentary
  - 2. ACI 355.2 Qualification of Post-Installed Mechanical Anchors in Concrete and Commentary

### 1.02 SUBMITTALS

- A. Product Data: The Contractor shall submit manufacturer's standard catalog data sheets. Material safety data sheets for proposed adhesives and solvents shall be submitted.
- B. Test Reports and Certifications: The Contractor shall submit a manufacturer's certification verifying conformance to these specifications and that all products in contact with potable water are NSF-approved.
- C. Manufacturer's Instructions: Manufacturer's printed instructions for shipping, storing, mixing, and application and the applicable ICC report shall be submitted prior to delivery of the product.

### 1.03 DELIVERY, STORAGE, AND HANDLING

- A. Materials shall be delivered in sealed containers with labels legible and intact. Each container shall be clearly marked with the following information:
  - 1. Name of manufacturer
  - 2. Manufacturer's product identification
  - 3. Manufacturer's instructions for mixing
  - 4. Warning for handling and toxicity
  - 5. Manufacturer's batch numbers

- B. Materials shall be stored at temperatures between 50° and 100° F unless specifically stipulated otherwise by the manufacturer.
- C. Materials shall be handled safely and in a manner that will avoid breaking container seals.

## PART 2 PRODUCTS

#### 2.01 GENERAL

- A. This section specifies products that are subject to the pre-qualified products provisions of Section 01300.
- B. Stainless steel anchors shall be used in all applications shown on the drawings and in all cases where they will be intermittently or continuously in contact with water or in a moist environment whether or not shown on the drawings.
  - 1. All components of stainless steel concrete anchors shall be Type 304 or Type 316. The anchors shall be equipped with appropriate hexagon cap screws and washers or hex nuts and washers as required.
- C. Galvanized concrete anchors shall be used in all locations except where anchors are specified to be stainless steel.
- D. The use of powder-driven anchors will not be permitted.
- E. Examples of pre-qualified products are shown in tables 1 and 2. Additional pre-approved products can be found in the Approved Products Listing as provided through the Resident Engineer or by contacting the Materials and Metallurgy Team at 909-392-5227.
- F. Each pre-qualified product is approved for specific service conditions as delineated in the Approved Products Listing, and should be used in only the conditions for which the product has passed testing.
- G. Anchors that will be subjected to seismic or high workloads shall comply with IBC 2006, ACI-318 and ACI 355.2 in design and performance.

#### 2.02 EXPANSION ANCHORS

- A. Expansion anchors shall be used for the installation of comparatively light metal accessories such as handrails and etc. that are not required to be installed before the concrete is placed. Expansion anchors shall be drop-in anchor systems or mechanical-stud anchor systems.
- B. Drop-in anchors will not be permitted in applications to resist seismic or wind loading.
- C. Expansion anchors will not be permitted in applications that will be subjected to vibrations or impact loads and shall not be used in concrete masonry.
- D. Examples of Prequalified products (expansion anchors) are shown in Table 1.

Table 1 Prequalified Expansion Anchors								
Anchor System Type	Manufacturer	Product	ICC-ES Report	IBC and ACI compliant				
Mechanical-Stud	Hilti, Inc.	Kwik-Bolt TZ	ESR-1917	IBC 2006 and ACI 318				
Mechanical-Stud	ITW Red Head	Trubolt Plus Stainless Steel Seismic Anchor	ESR-2427	IBC 2006 and ACI 318				
Mechanical-Stud	Simpson Strong-Tie	Strong Bolt	ESR-1771	IBC 2006 and ACI 318				

#### 2.03 ADHESIVE ANCHORS

- A. Adhesive for anchorage and doweling in hardened concrete shall be 2-component, insensitive to moisture. The Contractor shall use a pre-proportioned adhesive cartridge system or a pre-proportioned adhesive capsule system.
- B. Examples of Prequalified products (adhesive anchors) are shown in Table 2.

Table 2 Prequalified Adhesive Anchors								
Anchor System Type	Conditions at Time of Installation	Manufacturer	Product	ICC-ES Report	IBC and ACI compliant			
Cartridge Adhesive	Wet, dry or damp surface conditions	ITW Red Head	Epcon G5	ESR-1137	IBC 2006 and ACI 318			
Cartridge Adhesive	Dry surface conditions	Hilti, Inc	HY-150 Max-SD	ESR-3013	IBC 2006 and ACI 318			
Cartridge Adhesive	Wet, dry or damp surface conditions	Simpson Strong- Tie	S.E.T. XP Epoxy-Tie Adhesive	ESR- 2508	IBC 2006 and ACI 318			
Cartridge Adhesive	Wet, dry or damp surface conditions	Hilti, Inc.	HIT-RE 500- SD Adhesive	ESR-2322	IBC 2006 and ACI 318			

### PART 3 EXECUTION

#### 3.01 PREPARATION OF CONCRETE SURFACES

A. Concrete surfaces shall be prepared in accordance with the manufacturer's written recommendations and the requirements of the applicable ICC report.

### 3.02 INSTALLATION

A. Concrete anchors shall be installed in accordance with the manufacturer's written recommendations and the requirements of the applicable ICC report.

# 3.03 CURING OF ADHESIVE MATERIALS

A. Adhesive materials shall be protected from temperature extremes during curing. The temperature of the base materials shall not exceed the range permitted for the adhesive. During hot weather, adhesive anchors shall be shaded to provide uniform curing conditions.

# 3.04 FIELD QUALITY CONTROL

- A. The Engineer will inspect concrete surfaces prior to installation of concrete anchors.
- B. The Engineer will perform inspections or tests on adhesive anchor installations to ensure:
  - 1. The adhesive has not exceeded its shelf life at time of use.
  - 2. The foundation or substrate has been properly prepared, cleaned, saturated, and is protected from contamination.
  - 3. The set time, curing time, and strength of the adhesive is in accordance with the manufacturer's specifications.
  - 4. The placing methods specified by the manufacturer are used.
  - Curing is initiated at the correct time and maintained for the correct time period at the proper temperature.
  - 6. Shims, wedges, or other leveling devices are removed, if required, and necessary repairs are made.
  - Temperature of the substrate, bonding materials, and air are within the manufacturer's specification limits.

# 3.05 CLEANUP

- A. Concrete surfaces beyond the limits of the surface receiving adhesive shall be protected against spillage.
- B. Adhesive applied or spilled beyond desired areas shall be immediately removed. Cleanup shall be performed with material designated by the adhesive manufacturer. Contamination of work areas shall be avoided.

## **END OF SECTION**