



● **Board of Directors**
Engineering and Operations Committee

4/14/2015 Board Meeting

7-3

Subject

Appropriate \$680,000; and award \$374,867 contract to Kaveh Engineering & Construction, Inc. to upgrade the Iron Mountain Pumping Plant Vehicle Service Center (Approp. 15438)

Executive Summary

This action awards a contract to upgrade the vehicle service center at Iron Mountain Pumping Plant on the Colorado River Aqueduct (CRA). Upgrades are needed to restore functionality of the service center and allow maintenance and repairs of equipment to be performed in a safe and efficient manner.

Timing and Urgency

Metropolitan's vehicles and construction equipment in the desert region are maintained at the vehicle service center located at Iron Mountain Pumping Plant. These vehicles and equipment are critical to support both routine maintenance and urgent repairs along the CRA. Following 50 years of continuous use, several features of the service center need to be upgraded. For example, the concrete walls and floor of the service center's access pit are severely cracked and the pit is no longer safe to occupy. This access pit would normally be used to inspect and repair the underside of vehicles and heavy equipment. Due to its removal from service, mechanics must employ a portable system of hydraulic jacks, lifts, and stands for maintenance and repairs. This portable system cannot accommodate larger equipment items and is much less efficient than use of the pit. The subject project will upgrade the service center so that full functionality of the facility will be restored.

This project has been reviewed with Metropolitan's Capital Investment Plan (CIP) prioritization criteria, and is categorized as an Infrastructure Reliability project. Funds for this action are available within Metropolitan's capital expenditure plan for fiscal year 2014/15.

Details

Background

The vehicle service center at Iron Mountain Pumping Plant is the desert region's primary facility for vehicle and equipment maintenance and repair. All mobile equipment assigned to the desert region is maintained at this facility, including cranes, bulldozers, road graders, and light- and heavy-duty utility trucks. These vehicles support CRA maintenance activities and capital projects, as well as urgent repairs. Examples of these activities include aqueduct and pump plant maintenance, structural repairs and upgrades, facility maintenance and painting, access road grading, property maintenance, quagga mussel control, shutdown activities, and security patrols.

The service center is 17,000 square feet in area and features a single 35-foot-long by 6-foot-deep concrete access pit that is used to maintain vehicles from below. The access pit has a 42-inch-wide opening that allows staff to stand while servicing the underside of a vehicle. Over its 50 years of service, the access pit's walls have severely cracked. Staff has determined that the pit is unsafe to occupy, and so its use has been discontinued. Further, in order to comply with current building codes and Occupational Safety and Health Administration (OSHA) requirements, additional upgrades are needed to the service center. Improvements to the ventilation system are required to extract exhaust fumes; safety lighting is needed; and a new safety cover should be provided for the

access pit to prevent falls. Presently, while the pit remains out of service, mechanics have employed a system of portable heavy duty hydraulic jacks, specialty lifting equipment, and stands to elevate vehicles and equipment for maintenance and repairs. These portable systems have capacity limitations, are less efficient, and restrict working space.

In August 2010, Metropolitan's Board authorized final design to upgrade the Iron Mountain Vehicle Service Center. Final design has been completed, and construction is recommended to move forward at this time.

Iron Mountain Pumping Plant Vehicle Service Center Upgrades – Construction (\$680,000)

Planned rehabilitation work includes demolition of the existing access pit and construction of a new pit that can accommodate equipment weighing up to 110,000 pounds. Additional upgrades include increasing the service pit sump capacity, improving lighting, and upgrading the ventilation system to comply with current building codes.

Specifications No. 1763 for the Iron Mountain Pumping Plant Vehicle Service Center Upgrades was advertised for bids on January 28, 2015. As shown in [Attachment 2](#), three bids were received and opened on March 3, 2015. The low bid from Kaveh Engineering & Construction, Inc. in the amount of \$374,867 complies with the requirements of the specifications. The two higher bids were \$379,584 and \$575,023, while the engineer's estimate was \$310,000. Staff investigated the difference between the engineer's estimate and the low bid, and attributes the difference to the contractor's anticipated costs to mobilize staff and to support work activities at a remote location. For this contract, Metropolitan established a Small Business Enterprise (SBE) participation level of at least 20 percent of the bid amount. Kaveh Engineering & Construction, Inc. is an SBE firm and thus achieves 100 percent participation.

This action appropriates \$680,000 and awards a \$374,867 construction contract to Kaveh Engineering & Construction, Inc. In addition to the amount of the contract, the appropriated funds include \$49,000 for support by Metropolitan forces, which include relocation of equipment and construction of temporary access and dust barriers. Requested funds also include \$63,000 for construction inspection; \$25,000 for submittals review and technical support by Metropolitan design staff; \$12,000 for preparation of record drawings; \$65,000 for project management; and \$91,133 for remaining budget.

Construction inspection will be performed by Metropolitan staff. For this project, the anticipated cost of inspection is approximately 15 percent of the total construction cost. Engineering Services' goal for inspection of construction contracts less than \$3 million is 9 to 15 percent. The total cost of construction for this project, which includes the construction contract and Metropolitan force activities, is \$423,867.

The total estimated cost to complete the rehabilitation of the Iron Mountain Pumping Plant Vehicle Service Center, including the amount appropriated to date and current funds requested, is approximately \$908,000.

This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal year 2014/15 capital expenditure plan. See [Attachment 1](#) for the Financial Statement, [Attachment 2](#) for the Abstract of Bids, [Attachment 3](#) for the List of Subcontractors, and [Attachment 4](#) for the Location Map.

The Iron Mountain Pumping Plant Vehicle Service Center Upgrades is included within Capital Appropriation No. 15438, the CRA Reliability Appropriation – FY 2006/07 Through FY 2011/12, which was initiated in fiscal year 2006/07. With the present action, the total funding for Appropriation No. 15438 will increase from \$42,464,000 to \$43,144,000.

Project Milestone

November 2015 – Completion of construction

Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

Metropolitan Water District Administrative Code Sections 8121 and 8122(g): General Authority of the General Manager to Enter Contracts

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed project involves the funding for replacement of existing public facilities along with the construction of minor appurtenant structures with no expansion of use and no possibility of significantly impacting the physical environment. Accordingly, the proposed action qualifies under Class 1, Class 2, and Class 3 Categorical Exemptions (Sections 15301, 15302, and 15303 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under three Categorical Exemptions (Class 1, Section 15301; Class 2, Section 15302; and Class 3, Section 15303 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination that the proposed action is categorically exempt, and

- a. Appropriate \$680,000; and
- b. Award \$374,867 contract to Kaveh Engineering & Construction, Inc. to upgrade the vehicle service center at Iron Mountain Pumping Plant.

Fiscal Impact: \$680,000 of capital funds under Approp. 15438

Business Analysis: This project will enhance operational efficiency and workplace safety at the service center.

Option #2

Do not proceed with the project at this time.

Fiscal Impact: None

Business Analysis: This option would forgo an opportunity to rehabilitate the access pit at Iron Mountain Pumping Plant, and to improve workplace conditions. Staff will continue to use a less efficient system of portable hydraulic lifts and jacks to lift and lower vehicles and equipment.

Staff Recommendation

Option #1


 _____ 3/24/2015
 Gordon Johnson Date
 Manager/Chief Engineer
 Engineering Services


 _____ 3/27/2015
 Jeffrey Nightlinger Date
 General Manager

- [Attachment 1 – Financial Statement](#)
- [Attachment 2 – Abstract of Bids](#)
- [Attachment 3 – List of Subcontractors](#)
- [Attachment 4 – Location Map](#)

Financial Statement for CRA Reliability Appropriation – FY 2006/07 Through FY 2011/12

A breakdown of Board Action No. 29 for Appropriation No. 15438 to upgrade the vehicle service center at Iron Mountain Pumping Plant¹ is as follows:

	Previous Total Appropriated Amount (Nov. 2014)	Current Board Action No. 29 (Apr. 2015)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 2,246,800	\$ -	2,246,800
Final Design	5,118,900	-	5,118,900
Owner Costs (Program mgmt.)	3,779,090	65,000	3,844,090
Submittals Review & Record Drwgs	693,600	37,000	730,600
Construction Inspection & Support	2,452,500	63,000	2,515,500
Metropolitan Force Construction	4,165,600	49,000	4,214,600
Materials & Supplies	2,995,405	-	2,995,405
Incidental Expenses	138,800	-	138,800
Professional/Technical Services	4,001,000	-	4,001,000
Equipment Use	25,505	-	25,505
Contracts	15,216,370	374,867	15,591,237
Remaining Budget	1,630,430	91,133	1,721,563
Total	\$ 42,464,000	\$ 680,000	\$ 43,144,000

Funding Request

Appropriation Name:	CRA Reliability Appropriation – FY 2006/07 Through FY 2011/12		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15438	Board Action No.:	29
Requested Amount:	\$ 680,000	Budget Page No.:	280
Total Appropriated Amount:	\$ 43,144,000	Total Appropriation Estimate:	\$ 73,300,000

¹ The total amount expended to date on the vehicle service center at Iron Mountain Pumping Plant is approximately \$228,000. The total estimated cost to complete this project, including the amount authorized to date and current funds requested, is approximately \$908,000.

The Metropolitan Water District of Southern California
Abstract of Bids Received on March 3, 2015 at 2:00 P.M.
Specifications No. 1763
Iron Mountain Pumping Plant Vehicle Service Center Upgrades

The project consists of construction of a new concrete service pit, upgrades to the ventilation system, and installation of new lighting.

Engineer's Estimate: \$310,000

Bidder and Location	Total	SBE \$	SBE %	Met SBE¹
Kaveh Engineering & Construction, Inc. Anaheim, CA	\$374,867	\$374,867	100	Yes
Gantry Constructors, Inc. Clarkdale, AZ	\$379,584	-	-	-
Diversified Project Services International, Inc. Long Beach, CA	\$575,023	-	-	-

¹ SBE (Small Business Enterprise) participation level established at 20% for this contract.

The Metropolitan Water District of Southern California

Subcontractors for Low Bidder

Specifications No. 1763

**Iron Mountain Pumping Plant
Vehicle Service Center Upgrades**

Low Bidder: Kaveh Engineering & Construction, Inc., Anaheim, CA

Subcontractor and Location
Peterson Industrial Scaffolding, Inc., Concord, CA
Performance Abatement Services, Inc., Anaheim, CA

Location Map

