



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

7/11/2023 Board Meeting

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**8-1**

**Subject**

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Award a \$3,740,792 contract to M.S. Construction Management Group Inc. to replace a portion of the existing fire sprinkler system's piping and network components at Metropolitan's Headquarters Building; the General Manager has determined that the proposed action is exempt from CEQA

**Executive Summary**

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Metropolitan regularly performs assessments of the Headquarters Building fire sprinkler system to ensure that the 25-year-old system provides reliable fire/life safety protection for all building occupants and facility infrastructure. A recently completed series of assessments determined that a large portion of the fire sprinkler piping in the building's parking garage level P1 has deteriorated and needs to be replaced. This action awards a construction contract to replace a portion of the fire sprinkler piping network components in level P1 of the Headquarters Building.

**Details**

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**Background**

Metropolitan's Headquarters Building is a 522,682 square-foot, concrete-frame structure with a 12-story high-rise tower attached to a five-story wing. The Headquarters Building was constructed by a developer in the 1990s under a development agreement with Metropolitan. The business functions located in this building are critical for maintaining the continuity of Metropolitan's day-to-day operations. The occupants of the Headquarters Building include Metropolitan staff and frequent visitors such as the Board of Directors and members of the public. The building has a fire sprinkler system which was part of the original building's construction. The fire sprinkler system is an integral part of the fire/life safety protection system for building occupants and facility infrastructure. The fire sprinkler piping network distributes fire water to the building parking garage levels P1 and P2 and each of the stories on the high-rise tower and the wing.

The fire sprinkler system in the building is the type referred to as a "wet pipe" system which means that the piping system is continuously pressurized with water. This type of system is potentially susceptible to corrosion due to the continuous presence of stagnant water in the pipe. This potential corrosive condition is mitigated by conducting periodic piping inspections, performing drain tests to measure the sprinkler system's water pressure, and early identification of corrosion indicators like plugged sprinklers and pinhole leaks.

Despite regular maintenance, the main fire sprinkler piping in level P1 developed pinhole-sized leaks that led to the replacement of approximately 350 feet of piping over the last several years. In August 2020, Metropolitan staff performed a comprehensive assessment of the building fire sprinkler system with the support of technical experts in the field. The inspections involved video capture of selected fire sprinkler piping mains and collecting and testing water samples and piping material. The investigation revealed significant corrosion of the fire sprinkler piping in level P1 due to iron-related bacteria in the fire-protection water. This condition, known as microbiologically-induced corrosion, causes the rapid development of pinhole-sized leaks and highly obstructive pipe interior biological growths. Other floors in the building were found to be in good condition with no significant leak risk at this time.

Final design to replace fire sprinkler piping network components in level P1 is now complete, and staff recommends moving forward with award of a construction contract at this time. The design of the replacement

piping and equipment will ensure longer life of the system due to improved design and maintenance capabilities. For example, the improved design capabilities include increased wall pipe thickness, additional air vents at high points to remove trapped air in the piping (reduces corrosion), and installation of additional isolation valves that will allow isolation/maintenance activities without draining the entire system. The scope of work for this project has been coordinated with the ongoing construction of the fire alarm and smoke control systems upgrades at the Headquarters Building.

### **Budget Impact**

In accordance with the April 2022 action on the biennial budget for fiscal years 2022/23 and 2023/24, the General Manager will authorize staff to proceed with the replacement of fire sprinkler piping network components in level P1 of the Headquarters Building, pending board award of the contract described below. Based on the current Capital Investment Plan (CIP) expenditure forecast, funds for the work to be performed pursuant to this action during the current biennium are available within the CIP Appropriation for Fiscal Years 2022/23 and 2023/24 (Appropriation No. 15525). This project anticipates an expenditure of \$5.7 million in capital funds. All expenditures will be incurred in the current biennium and have been previously authorized. This project has been reviewed in accordance with Metropolitan's CIP prioritization criteria and was approved by Metropolitan's CIP evaluation team to be included in the System Reliability Program.

### **Headquarters Building Fire Sprinkler Level P1 Replacement – Construction**

The scope of the construction contract consists of replacement of approximately 2,300 linear feet of the existing horizontal fire sprinkler piping in level P1 of the Headquarters Building. This represents approximately 50 percent of the fire sprinkler piping on the P1 level. The work also includes replacement of ancillary isolation valves and fire hydrant connections, as well as installation of new control valves, air vents at high points of the system, and domestic water piping to the existing stairwell sump pumps. Metropolitan forces will perform equipment start-up and testing, fire alarm system integration support for isolation valves, and dewatering and refilling of fire water piping during replacement. Construction work will be performed during non-business hours to maintain Metropolitan's day-to-day operations at the Headquarters building. An enhanced level of on-site security services will be provided during outage of the fire sprinkler system.

A total of \$5.7 million is required for this work. In addition to the construction contract amount, allocated funds for professional services include: \$170,000 for enhanced security services, which will be provided by Securitas under an existing board-authorized agreement; and \$120,000 for technical support during construction by Carollo Engineers Inc. under an existing professional services agreement. Allocated funds for Metropolitan staff include: \$216,000 for Metropolitan construction, as described above; \$473,000 for construction management and inspection; \$206,000 for submittal review and record drawings preparation; \$378,000 for permitting, contract administration, and project management; and \$396,208 for the remaining budget.

**Attachment 1** provides the allocation of the required funds. The total estimated cost to complete the project, including the amount allocated to date and funds allocated for the work described in this action, is \$6.46 million.

### ***Award of Construction Contract (M.S. Construction Management Group Inc.)***

Specification No. 2007 for replacement of fire sprinkler piping network components in level P1 of the Headquarters Building was advertised for bids on April 6, 2023. As shown in **Attachment 2**, two bids were received and opened on May 24, 2023. The low bid from M.S. Construction Management Group Inc., in the amount of \$3,740,792, complies with the requirements of the specifications. The second bid was \$6.66 million, while the engineer's estimate for this project was \$4.2 million. For this contract, Metropolitan established a Small Business Enterprise participation level of at least 25 percent of the bid amount. M.S. Construction Management Group Inc. has committed to meet this level of participation. The subcontractors for this contract are listed in **Attachment 3**.

This action awards a \$3,740,792 contract to M.S. Construction Management Group Inc. to replace existing fire sprinkler piping network components in level P1 of the Headquarters Building. As described above, Metropolitan staff will perform construction management and inspection. Engineering Services' performance metric target range for construction management and inspection of projects with construction greater than \$3 million is 9 to 12 percent. For this project, the performance metric goal for inspection is 11.5 percent of the total construction

cost. The total cost of construction for this project is \$4,126,792, which includes the amount of the contract (\$3,740,792), Metropolitan construction activities (\$216,000), and on-site security services (\$170,000).

### **Alternatives Considered**

During the design process, staff considered replacing portions of the fire sprinkler piping as failures occurred. However, this method is not cost-effective since the fire sprinkler piping is deteriorating at a rapid pace, and potential failures are unpredictable. The selected alternative involves replacing a portion of the existing fire sprinkler network components, including main piping in level P1, isolation valves and appurtenant equipment, along with installing new isolation valves and air vents to prevent the development of microbiologically-induced corrosion in the replaced piping. This approach was preferred as it will maintain the long-term operational reliability of the Headquarters' fire/life protection system and provide the best value to Metropolitan.

### **Summary**

This action awards a \$3,740,792 contract to M.S. Construction Management Group Inc. to replace existing fire sprinkler piping network components in level P1 at Metropolitan's Headquarters Building. See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the listing of Subcontractors for Low Bidder, and **Attachment 4** for the Location Map.

### **Project Milestone**

June 2024 – Completion of construction

### **Policy**

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Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

Metropolitan Water District Administrative Code Section 8140: Competitive Procurement

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 21997, dated April 11, 2022, the Board appropriated a total of \$600 million for projects identified in the Capital Investment Plan for Fiscal Years 2022/23 and 2023/24.

### **California Environmental Quality Act (CEQA)**

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#### **CEQA determination for Option #1:**

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action involves repair, maintenance, permitting, leasing, or minor alterations of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use, or replacement or reconstruction of existing structures and facilities that will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structures replaced. Accordingly, the proposed action qualifies for Class 1 and Class 2 (Sections 15301 and 15302 of the State CEQA Guidelines).

#### **CEQA determination for Option #2:**

None required

### **Board Options**

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#### **Option #1**

Award a \$3,740,792 contract to M.S. Construction Management Group Inc. to replace a portion of the existing fire sprinkler system's piping and network components at Metropolitan's Headquarters Building.

**Fiscal Impact:** Expenditure of \$5.7 million in capital funds. All expenditures will be incurred in the current biennium and have been previously authorized.

**Business Analysis:** This option will enhance reliability of the fire/life safety protection system for building occupants and facility infrastructure at the Headquarters building.

**Option #2**

Do not proceed with the project at this time.

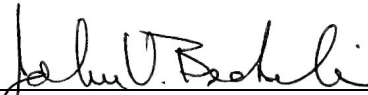
**Fiscal Impact:** None

**Business Analysis:** Under this option, staff would continue to replace portions of the fire sprinkler system as failures occur. This approach would lead to further deterioration of the fire sprinkler piping and potential building-wide shutdowns.

**Staff Recommendation**


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Option #1

  
\_\_\_\_\_  
John V. Bednarski  
Manager/Chief Engineer  
Engineering Services

6/16/2023

Date

  
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Adel Hagekhalil  
General Manager

6/27/2023

Date

**Attachment 1 – Allocation of Funds**

**Attachment 2 – Abstract of Bids**

**Attachment 3 – Subcontractors for Low Bidder**

**Attachment 4 – Location Map**

Ref# es12684449

### Allocation of Funds for Headquarters Building Fire Sprinkler Level P1 Replacement

	<b>Current Board Action</b>
	<b>(Jul. 2023)</b>
Labor	
Investigations & Conceptual Design	\$ -
Final Design	-
Owner Costs (Program mgmt., permitting, envir. monitoring)	378,000
Submittals Review & Record Drwgs.	206,000
Construction Inspection & Support	473,000
Metropolitan Force Construction	186,000
Materials & Incidentals	30,000
Professional/Technical Services	-
Carollo Engineers Inc.	120,000
Securitas	170,000
Right-of-Way	-
Equipment Use	-
Contracts	-
M.S. Construction Management Inc.	3,740,792
Remaining Budget	396,208
<b>Total</b>	<b>\$ 5,700,000</b>

The amount expended to date for the Headquarters Fire Sprinkler Level P1 Replacement is approximately \$760,000. The total estimated cost to complete this project, including the amount appropriated to date and funds allocated for the work described in this action, is \$6.46 million.

**The Metropolitan Water District of Southern California**

**Abstract of Bids Received on May 24, 2023, at 2:00 P.M.**

**Specifications No. 2007  
Headquarters Building Fire Sprinkler Level P1 Replacement**

The work consists of replacement of existing horizontal fire main piping, ancillary isolation valves, and fire hydrant connections from the parking-level P1 fire pump room to the stairwell vertical risers piping connections; installation of new control valves, and 2-inch domestic water piping to the existing stairwell sump pumps; and coordination of fire watch to meet Los Angeles Fire Department requirements, as specified and shown on the drawings.

Engineer’s estimate: \$4,200,000

<b>Bidder and Location</b>	<b>Total</b>	<b>SBE \$</b>	<b>SBE %</b>	<b>Met SBE<sup>1</sup></b>
<b>M.S. Construction Management Group Inc. Dana Point, CA</b>	<b>\$3,740,792</b>	<b>\$1,952,220</b>	<b>52%</b>	<b>Yes</b>
Pro-Craft Construction Inc. Redlands, CA	\$6,656,000	-	-	-

<sup>1</sup> Small Business Enterprise (SBE) participation level established at 25% for this contract.

**The Metropolitan Water District of Southern California**  
**Subcontractors for Low Bidder**  
**Specifications No. 2007**  
**Headquarters Building Fire Sprinkler Level P1 Replacement**

Low bidder: M.S. Construction Management Group Inc.

<b>Subcontractor</b>	<b>Service Category; Specialty</b>
Streamline Fire Protection Inc. Signal Hill, CA	Fire Sprinkler System
K.E. Rodgers Inc. Redlands, CA	Plumbing
PMK Professional Inc. Irvine, CA	Electrical/Fire Alarm
Commerce Coating Services Torrance, CA	Painting/Coating

# Distribution System

