



COUNCIL AGENDA: 6/18/24
FILE: 24-147327
ITEM: 2.13

Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Kerrie Romanow
Matt Loesch

SUBJECT: SEE BELOW

DATE: May 22, 2024

Approved

Date

6/5/24

**SUBJECT: CONSTRUCTION CONTRACT CONTINGENCY INCREASE FOR THE
8781 – FIRE LIFE SAFETY UPGRADES PROJECT AT THE SAN JOSE-
SANTA CLARA REGIONAL WASTEWATER FACILITY**

RECOMMENDATION

- (a) Approve a \$250,000 increase to the construction contingency amount of \$425,850 for a revised total contingency amount of \$675,850 for the 8781 – Fire Life Safety Upgrades Project; and
- (b) Approve a 215 workday time extension to the substantial completion date for the contract with Blocka Construction, Inc. for the 8781 – Fire Life Safety Upgrades Project.

SUMMARY AND OUTCOME

Approval of the recommended construction contract contingency increase will provide funding for the construction unforeseen site conditions, design changes, and City-requested changes encountered to date, and sufficient funding to cover future changes due to unforeseen and differing site conditions. This increase and the 215 workday time extension will allow for the proper completion of the 8781 – Fire Life Safety Upgrades Project (Fire Life project) at the San José-Santa Clara Regional Wastewater Facility (RWF) by summer 2024.

BACKGROUND

On August 23, 2022, the City Council awarded a construction contract for the Fire Life project to the low bidder, Blocka Construction, Inc. (contractor) for \$2,839,000 and approved a 15% contingency of \$425,850. Key construction elements of the Fire Life project include the standardization and upgrade of fire life safety systems in six newly constructed buildings and seven existing buildings, and the installation of a new centralized fire alarm monitoring system to comply

with current building and fire codes. The Fire Life project will enhance the safety of the occupants of each building and improve RWF reliability. See **Attachment** for a project site map.

The City issued the Notice to Proceed for construction on October 27, 2022 with an original contract duration of 260 working days. Construction is approximately 80% complete to date, with work finished in 12 of the 13 buildings. At the time of award, substantial completion was anticipated to be reached by November 2023.

A total of four change orders have been approved to date, totaling \$220,322 for various items of work. This represents approximately 52% of the approved contingency amount of \$425,850. Additional change orders totaling \$202,168, or 47% of the approved contingency, are pending or under review. These change orders are related to unforeseen site conditions, design changes, and City-requested changes.

Reason for Change Orders	Approved Change Orders	Pending Change Orders	Totals
Unforeseen site conditions	\$ 46,511	\$ 74,633	\$121,144
Design changes	173,811	81,535	255,346
City-requested changes	-	46,000	46,000
Total	\$220,322	\$202,168	\$422,490
Approved Contingency			\$425,850
Contingency Balance			\$ 3,360

ANALYSIS

Standardizing and upgrading the fire alarm systems in the Fire Life project included integrating a new fire control panel in each of the 13 buildings while keeping operations uninterrupted. The integration involved connecting the existing fire suppression system (water or gaseous suppression) into the new local fire control panel. During the design, challenges arose from the lack of record drawings for the buildings. While staff and the design consultant made efforts to investigate the site conditions and gain understanding of complex existing systems, they were not able to obtain access to all of them. These circumstances resulted in several changes needed during construction.

Unforeseen Site Conditions

Each building presented unique challenges and its own set of unforeseen conditions. Some of these conditions included:

- hidden asbestos in air handler unit casings;
- wrong wiring terminations;
- non-documented fire alarm shutdown sequences;

- complex process heating, ventilation, and air conditioning (HVAC) functions and process control system integration with fire alarms; and,
- stray voltage issues in three buildings.

Many of the fire alarm panels had process and HVAC control functions that were not discovered until the contractor performed functional testing. Any issues that arose from these additional functions required time and work from the contractor, design consultant, and RWF staff to address.

This additional work resulted in approximately \$121,145 in executed and pending change orders that impacted the schedule. Staff anticipates encountering additional unforeseen conditions, such as repairs to outdated life safety equipment and fiber optic network, before reaching substantial completion. The cost to manage these unknowns is anticipated not to exceed \$143,360.

Design Changes

Fire alarm systems pose unique challenges since they are usually closed and proprietary in nature, which results in compatibility issues among manufacturers. A significant challenge is that the design consultant must either assume a particular manufacturer will be chosen or must limit the design to functional requirements. Both could result in the need for design changes in the field. Another challenge the Fire Life project encountered stemmed from having to integrate four different manufacturer products across the existing buildings. Additionally, as mentioned above, a number of design issues resulted from a lack of existing record drawings.

Significant design changes are listed below.

- Redesigning the fire alarm network to run independently of the RWF's distributed control system, which is responsible for operating plant processes, to avoid cybersecurity risks.
- Redesigning the fire alarms in Building 40 for a dry agent fire suppression system.
- HVAC units requiring duct smoke detectors at the Administration Building for automatic shutoffs to meet code.
- Establishing existing baseline of fiber infrastructure capability by testing existing fiber network.
- Replacing air diffusers in three buildings to match new ceiling grid patterns.
- Reconfiguring utilities at the Paint Shop to accommodate larger than designed panel sizes.

A major source of design changes stemmed from functional testing. In some cases, certain tests triggered alarms or minor shutdowns. To avoid this, the contractor was directed to avoid performing select tests, and assumptions were used instead. Some of those assumptions proved to be incorrect and resulted in additional change orders and schedule delays.

Design changes are a normal occurrence in all projects; however, the Fire Life project has experienced a higher rate than expected. Changes to date amount to \$255,345 in executed and pending change orders. Future costs in this category are estimated not to exceed \$80,000.

City-Requested Changes

During construction, the City asked the contractor to perform some activities during off hours and weekends, to minimized the impact to RWF staff and operations. These premium time work resulted \$46,000 in pending change orders. Future costs in this category are estimated not to exceed \$30,000.

Contingency Increase Needed

The combination of issues described above resulted in a depletion of the existing contingency and the need for additional funds to complete the Fire Life project. The total amount of contingency increase requested in this memorandum is summarized in the following table.

Reason for Change Orders	Approved Change Orders	Pending Change Orders	Forecasted Change Orders	Totals
Unforeseen Site Conditions	\$ 46,511	\$ 74,634	\$143,360	\$264,505
Design Changes	173,811	81,534	80,000	335,345
City-Requested Changes	-	46,000	30,000	76,000
Totals	\$220,322	\$202,168	\$253,360	\$675,850
Current Authorized Contingency				\$425,850
Total Estimated Contingency Increase Required				\$250,000

Time Extension Needed

In addition to unforeseen conditions and design changes, the construction schedule was impacted by the fire alarm permit process. The contractor had to complete functional tests to prepare permit drawings. A total of 15 permits were required by City's Fire Department. Coordinating shutdowns and submittal reviews required more time than anticipated. Functional tests uncovered wiring issues or undocumented functions needing engineering resolutions and design updates. These additional efforts and delayed permit approval impacted the schedule.

Two Time Impact Analyses submitted by the contractor for additional compensation were rejected due to a lack of merit. Staff reviewed the schedule for delay responsibilities, and after discussions with the contractor, it was determined that there were delays due to the contractor's actions, concurrent delays due to actions of the City and contractor, and other City-caused delays.

Due to these delays, the expected substantial completion date of November 17, 2023 is projected into summer 2024. Staff recommends extending the contract by 215 working days. This extension of time significantly impacts the contractor's ability to maintain staffing, facilities, equipment, and other site-related overhead costs. The contract allows such costs, but through agreement with the contractor, no time-related overheads are anticipated to be paid for these time extensions due to the many changes.

EVALUATION AND FOLLOW-UP

No follow-up action with City Council is expected at this time. Quarterly progress reports of the RWF Capital Improvement Program are submitted to the Treatment Plant Advisory Committee and posted on the City's website.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION: \$250,000
2. COST OF CONTRACT

Original Construction Contract Amount	\$2,839,000
Original Contingency (15%)	\$425,850
Proposed Contingency Increase	\$250,000
Total Amount	\$3,514,850
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Current Project Delivery	\$3,985,412
Total Project Costs	\$7,500,262
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Prior Year Expenditures	\$6,811,040
Remaining Project Costs	\$689,222
3. SOURCE FUNDING: 512 - San José-Santa Clara Treatment Plant Capital Fund.
4. PROJECT COST ALLOCATION: Following the recommendations outlined in the Capital Project Cost Allocations Technical Memorandum (Carollo Engineers, March 2016), this Project is allocated between four billable parameters relative to the rolling weighted average distribution of all RWF assets.

BUDGET REFERENCE

The table below identifies the funds and appropriations to fund the contract recommended as part of this memorandum and the remaining Fire Life project costs, including project delivery, construction, and contingency costs.

Fund #	Appn. #	Appn. Name	Total Appn.	Amt. for Amendment	2023-2024 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
512	7681	Support Building Improvements	\$11,334,000	\$250,000	285	01/09/2024 Ord. No. 31003

COORDINATION

This memorandum has been coordinated with the City Attorney's Office, the City Manager's Budget Office, and the Finance Department.

PUBLIC OUTREACH

This memorandum will be posted on the City Council's Agenda website for the June 18, 2024 City Council meeting.

COMMISSION RECOMMENDATION AND INPUT

This item is scheduled to be heard at the June 13, 2024 Treatment Plant Advisory Committee meeting. A supplemental memorandum with the committee's recommendation will be included in the June 18, 2024 City Council meeting agenda.

CEQA

Exempt, File No. ER22-161, CEQA Guidelines Section 15061(b)(3).

The activity is covered by the common sense exemption that CEQA applies only to projects which can have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.

HONORABLE MAYOR AND CITY COUNCIL

May 22, 2024

Subject: Construction Contract Contingency Increase for the 8781 – Fire Life Safety Upgrades Project at the San José-Santa Clara Regional Wastewater Facility

Page 7

PUBLIC SUBSIDY REPORTING

This item does not include a public subsidy as defined in section 53083 or 53083.1 of the California Government Code or the City's Open Government Resolution.

/s/

KERRIE ROMANOW

Director, Environmental Services Department

/s/

Matt Loesch

Director of Public Works

For questions, please contact Mathew Nguyen, Deputy Director, Public Works Department, at (408) 535-5350.

Attachment: Fire Life Project Location Map

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