

AGENDA REPORT

Resolution: Approval of Additional \$903,000 in Project Budget Authorization for the Construction of Checked Baggage Inspection System to Support Explosives Detection System Recapitalization at Terminal 2, Oakland International Airport (Aviation/Engineering) [Choose an item.](#)

MEETING DATE: 5/24/2018

AMOUNT: \$903,000 – Additional Budget Authorization

Capital Expenditure

PARTIES INVOLVED: SilMan Venture Corporation dba SilMan Construction,
San Leandro, CA
Tom Mangin, President

SUBMITTED BY: Chris Chan, Director of Engineering
Bryant L. Francis, Director of Aviation

APPROVED BY: J. Christopher Lytle, Executive Director

ACTION TYPE: Resolution

EXECUTIVE SUMMARY

This agenda report outlines and recommends to the Board of Port Commissioners (Board) to authorize additional capital budget of \$903,000 (including \$650,000 in Change Order Authority) for the construction of the Checked Baggage Inspection System (CBIS) to support Explosives Detection System Recapitalization at Terminal 2, Oakland International Airport (OAK).

BACKGROUND

Prior Board actions to date authorized a total budget of \$9,736,000 for the design and construction of the CBIS project, along with entering into an Other Transaction Agreement (OTA) with the Transportation Security Administration (TSA) to fund \$8,494,004 for all eligible costs.

On April 26, 2017, three (3) bids were received and opened, and on June 8, 2017, the Port awarded the contract to SilMan Venture Corporation dba SilMan Construction (SilMan) for \$6,298,906. The Notice-To-Proceed (NTP) was issued to SilMan on September 18, 2017. Field construction began on January 30, 2018 and substantial completion is expected before the end of 2018.

The Checked Baggage Inspection System (CBIS) is a critical and essential part of the outbound baggage screening process and must be functioning properly during the construction period to

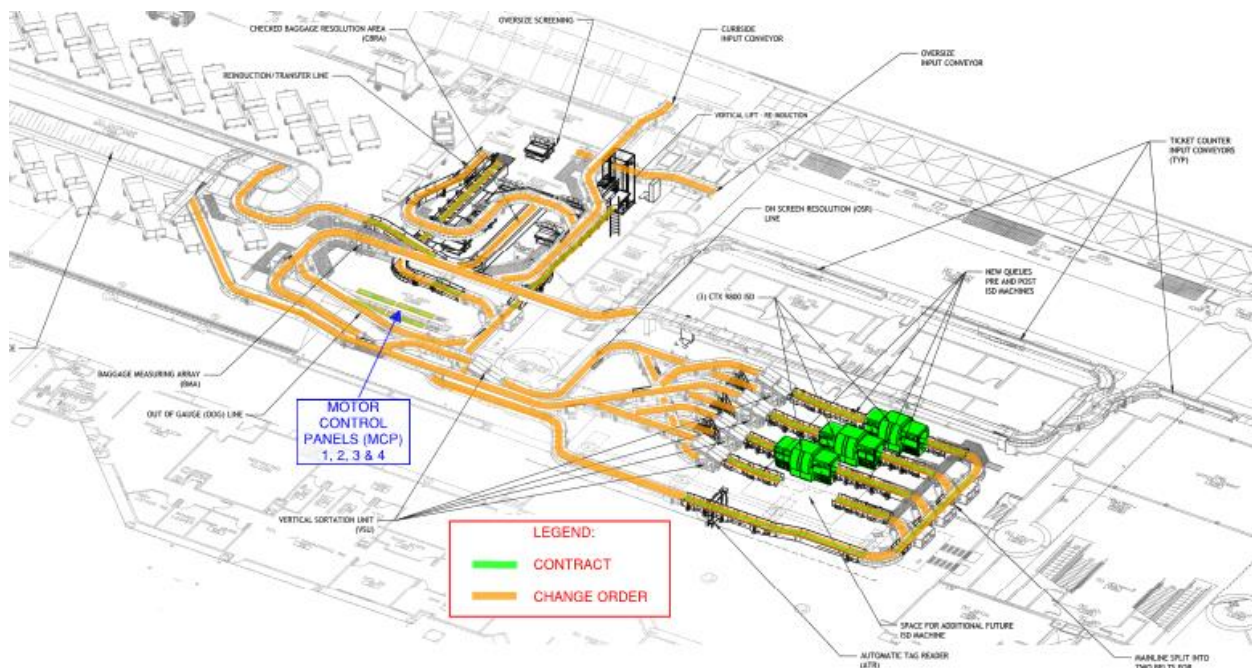
maintain acceptable operations for the airlines. To minimize impacts to airline operations, the Contractor (SilMan) is limited to night-time work hours, typically 10:00 pm to 3:00 am in order to return the system to full functionality for the first outbound flights in the morning. Additionally, contingency plans involving the Transportation Security Administration (TSA), airlines, Port Aviation, and Port Engineering Project Team, have been put into place to minimize construction risk to operations. This Project Team continues to assess risks throughout the project to minimize the need to use the contingency plan.

The CBIS is supported by the Baggage Handling System (BHS), which is a conveyor system that transports baggage within the terminal for security screening and loading/unloading at ticketing, carousel, and aircraft ramp areas. The BHS utilizes Variable Frequency Drives (VFD), which are a component of the Motor Control Panel (MCP) that controls the BHS motors.

ANALYSIS

Construction of the CBIS improvements requires multiple shutdowns and restarts of the BHS during construction of the Project. The original scope of the project assumed replacement of 58 of the VFDs for the portion of the BHS that is being modified under this contract. Figure 1 shows the extent of contract work in green. However, the project has experienced unanticipated VFD failures throughout the BHS during system shutdowns, many of which are outside the original scope of this project. The failing VFDs were evaluated and determined to be older

Figure 1. Limits of VFD Contract and Change Order Work



models that are susceptible to failure following a system shutdown and restart due to cooling and subsequent reheating following the restart. In addition to the originally scoped 58 VFD's another 133 VFDs are also at risk of failure throughout the BHS.

Replacement of VFDs following a failure at restart risks delaying resumption of BHS operations which would delay airline departures and can result in a significant increase in operational cost (e.g., implementing contingency plan using portering and enacting canine screening). In order to minimize the risk of BHS downtime during CBIS construction, as well as to improve future operational reliability, it is requested that all of the VFDs be replaced with newer model VFDs. Figure 1 shows the extent of the proposed VFD contract change order work in orange, which would provide critical reliability improvements for the entire BHS system.

The total additional project cost to replace all the VFDs is \$903,000 (\$650,000 for construction contract work plus \$253,000 in Port labor, construction management and construction support services) and the substantial completion date of the project will be delayed by an estimated 3 months.

Because VFDs have a long procurement lead-time, Port Engineering issued a change order for \$317,397.79 on April 27, 2018 utilizing the change order contingency to initiate the procurement of VFDs and associated equipment to minimize the cost and schedule delay of the VFD changes and plan to issue the remaining change order(s) if the Board approves the additional budget.

The breakdown of the budget request is shown below:

Table 1. Recommended Project Budget

Description	Previously Approved Budget	Proposed Change	New Budget
Port Labor	\$ 995,000	\$ 146,000	\$ 1,141,000
Consultants ¹	\$ 1,194,000	\$ 87,000	\$ 1,281,000
Construction ²	\$ 7,243,850	\$ 650,000	\$ 7,893,850
Other Related Costs ³	\$ 303,150	\$ 20,000	\$ 323,150
TOTAL	\$ 9,736,000	\$ 903,000	\$ 10,639,000

¹-Consultant costs include Design and Construction Management services

²-Base Contract plus Change Order contingencies

³-Other Construction Related Costs include permitting, MAPLA, agency coordination and OCIP

BUDGET & STAFFING

The current Board authorized project budget is \$9,736,000, which included \$945,000 for change order contingencies. The additional \$903,000 for the unforeseen costs for VFD replacement would increase the total project budget to \$10,639,000.

The project has been included in the Port's 5-Year (FY 2018-2022) Capital Improvement Plan (CIP) and the revised project cost will be included in the FY2019-2023 CIP, which is currently under development. The increase in cost will be partially funded through reimbursement from the TSA (approximately 20%) and the remaining through Port cash (which will be repaid by the airlines over time through the terminal rental rate).

The proposed action does not have any staffing impact.

MARITIME AVIATION PROJECT LABOR AGREEMENT (MAPLA)

The provisions of the Port of Oakland Maritime and Aviation Project Labor Agreement (MAPLA) apply to this work.

STRATEGIC PLAN

The action described herein would help the Port achieve the following goals and objectives in the Port's Strategic Business Plan (2018-2022).

<https://www.portofoakland.com/wp-content/uploads/Port-of-Oakland-Strategic-Plan.pdf>

- Goal: Improve Customer Service
- Goal: Modernize and Maintain Infrastructure

LIVING WAGE

Living wage requirements, in accordance with the Port's Rules and Regulations for the Implementation and Enforcement of the Port of Oakland Living Wage Requirements (the "Living Wage Regulations"), do not apply because the contract is a construction contract covered by state prevailing wage rules and the prevailing rate of wage is higher than the wage required by the Living Wage Regulations.

SUSTAINABILITY

Port staff completed the Sustainability Opportunities Assessment Form for this project pursuant to the 2000 Sustainability Policy and updated procedures. The replacement of aging equipment will make the system more energy efficient reducing the overall energy consumption for the checked baggage screening.

ENVIRONMENTAL

CEQA Determination: This action was reviewed in accordance with the requirements of the California Environmental Quality Act (CEQA). The Port has determined that this project is categorically exempt from the California Environmental Quality Act (CEQA) Guidelines pursuant to Section 15302, Replacement or Reconstruction. Section 15302 exempts from CEQA the replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced, including replacement of existing utility facilities involving negligible or no expansion of capacity.

GENERAL PLAN

Pursuant to Section 727 of the City of Oakland Charter, this project has been determined to conform to the policies for the transportation designation of the Oakland General Plan.

OWNER-CONTROLLED INSURANCE PROGRAM (OCIP)

As the construction project is a capital improvement project, the applicable Owner Controlled Insurance Program (OCIP) coverages and provisions apply to the construction phase.

OPTIONS

1. Approve the actions as outlined in this agenda report. This is the recommended option.
2. Do not approve the actions. The risk of BHS and EDS systems failure is high during construction. This option would necessitate increased use of Alameda County Sheriff's Office staff and their K-9 units for bag screening when the EDS and BHS system are not functioning and could cause airline delays. Furthermore, without the VFD upgrades, the BHS and EDS systems would not see the benefit of improved operational reliability of the overall BHS system.

RECOMMENDATION

It is recommended that the Board authorize additional budget of \$903,000 (including \$650,000 in Change Order Authority) for the construction of the Checked Baggage Inspection System (CBIS) to support Explosives Detection System Recapitalization at Terminal 2, Oakland International Airport (OAK).