

## AGENDA REPORT

**Resolution:** Budget Approval and Authorization to Enter into a Procurement Contract for Perimeter Security System for the Runway 12-30 Rehabilitation Project, OAK (**Aviation**)

**MEETING DATE:** 2/9/2017

**AMOUNT:** \$382,000 FY 2017 Capital Budget  
Capital Expenditure

**PARTIES INVOLVED:** Supplier: TBD

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

**APPROVED BY:** J. Christopher Lytle, Executive Director

**ACTION TYPE:** Resolution

### **EXECUTIVE SUMMARY**

This Agenda Report seeks budget approval and associated authorizations to enter into a procurement contract to purchase a perimeter security system for use to maintain airport security during the intense construction activities anticipated during construction of the Runway 12-30 Rehabilitation Project. The recommended actions include:

1. Approval of budget of \$382,000 for equipment procurement, installation, commissioning, and configuration, and change order authority;
2. Authorization for the Director of Engineering to approve the Procurement Manual;
3. Authorization for the Executive Director to execute a contract with the lowest responsive responsible bidder in an amount not to exceed \$306,000; and
4. Authorization for the Executive Director to resolve any bid protests in accordance with the Port Purchasing Ordinance.

This project is included in the Port's proposed Fiscal Year 2017 Capital Improvement Program (CIP).

### **BACKGROUND**

The Runway 12-30 Rehabilitation project includes an asphalt concrete overlay and upgrades to the existing in-pavement lighting infrastructure for the main air carrier runway at Oakland International Airport (OAK). This runway previously received a pavement overlay in 2001 that was engineered for a 15-year design life. The runway is currently due for a new overlay to ensure continued availability and to provide a safe operating surface for aircraft.

Runway 12-30 is typically in service 24 hours per day. As a result, the project will face a significant challenge constructing the project while avoiding negative impacts to air carrier operations. Staff has conducted a planning process with airlines, air carriers, the FAA and other stakeholders to develop assess and identify a preferred option to construct the runway rehabilitation project. Port staff is recommending a full closure option for Runway 12-30, which includes enabling work to convert Taxiway W into a temporary runway for use during construction. A general layout of Runway 12-30 and Taxiway W is included in Figure 1.

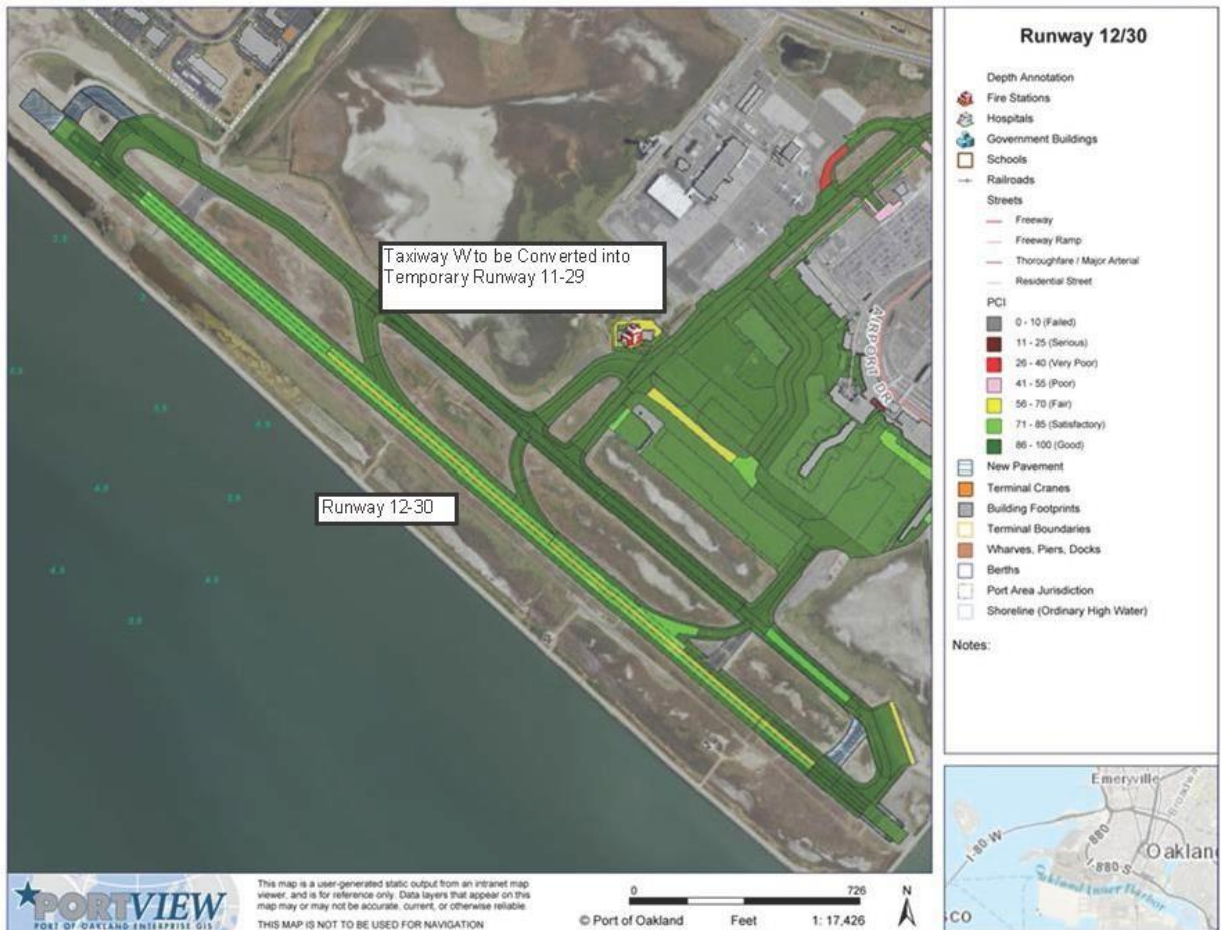


Figure 1. Layout of Runway 12-30 and Taxiway W

A summary of previous Board actions to date along with the budget approvals are as follows:

- On April 23, 2015, the Board approved a capital budget of \$2.5 million for initial planning and design, which included \$2.014 million of AIP grant funds received from the FAA.
- On July 28, 2016, the Board approved a budget of \$5.275 million for final design, resulting in a total revised budget of \$7.775 million, and authorized acceptance of \$3.97 million of AIP grant funds received from the FAA. In addition, the Board authorized the Executive Director to enter into a professional services agreement with Kimley-Horn and Associates, Inc. for the design of the Runway 12-30 Rehabilitation project for a total contract value of \$5.1 million.
- On December 1, 2016, Port staff requested the Board to approve a budget of \$211,000 for costs related to a Reimbursable Agreement with the FAA, resulting in a total revised budget of \$7.986 million. The Port will seek to include these Reimbursable Agreement costs in the next AIP grant funding request for this project.
- On December 15, 2016, Port staff requested the Board to approve a budget of \$450,000 for costs related to the purchase of electrical equipment related to the construction of the Runway 12-30 Rehabilitation Project that are anticipated to have long manufacturing and delivery lead times.
- On January 26, 2017, the Board authorized the Executive Director to apply for and accept AIP Federal grant funding and authorized the Director of Engineering to approve the Plans and Project Manual, advertise and solicit bids, and extend bids for up to 180 days to construct the Project.

## **ANALYSIS**

In accordance with TSA requirements, un-badged construction personnel must be escorted by badged personnel at all times within the secured area of the airport. Airport security guards are utilized to provide escort and to monitor the perimeter of the construction site and along haul routes to ensure no person or vehicle leaves the work zone. In typical airfield construction projects, the airport is able to provide up to 10 to 12 guards to support construction projects for a limited duration.

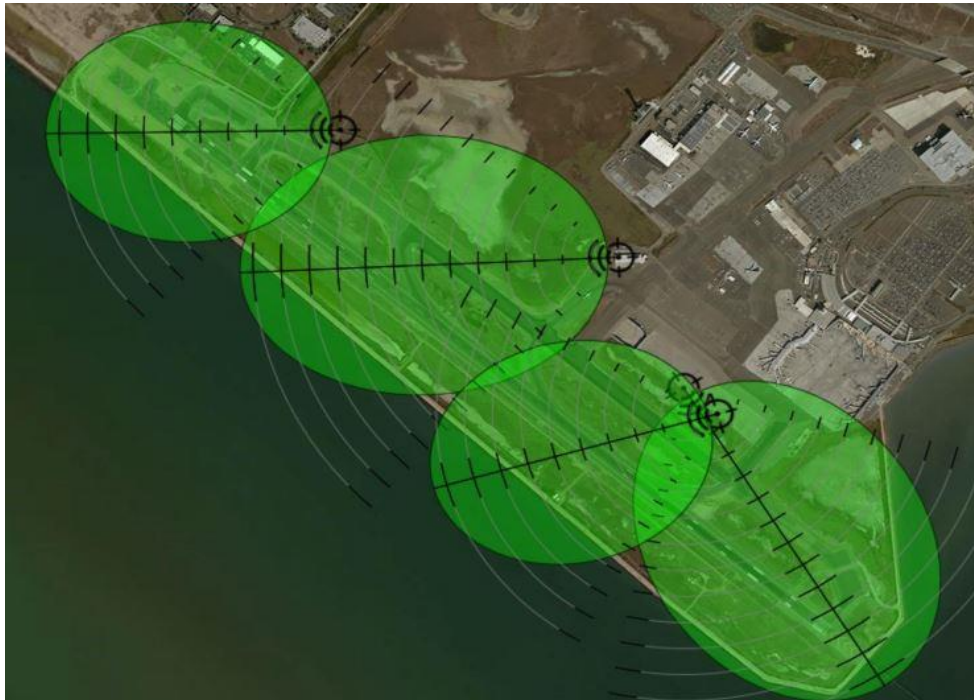
For the Runway 12-30 Rehabilitation project, Aviation Security (AVSEC) anticipates 20 to 60 guards would be needed to provide adequate coverage within the work zone during all phases of construction. The Runway 12-30 Rehabilitation project generally consists of four construction phases:

- Phase 1- Conversion of parallel Taxiway W to a temporary runway to accommodate aircraft that are unable to use the North Field runways while Runway 12-30 is closed for the overlay construction;
- Phase 2- Overlay Runway 12-30 around the clock during a two-week closure of Runway 12-30;
- Phase 3- Open Runway 12-30 for operations and restore Taxiway W to standard configuration; and

- Phase 4-Groove and permanently stripe Runway 12-30

Aviation Security (AVSEC) anticipates that up to 20 guards would be necessary to secure the construction work areas during Phases 1, 3, and 4. During Phase 2, it would be necessary to provide staff for 336 consecutive hours to secure the work site and accommodate non-stop construction. AVSEC estimates up to 60 guards would be needed to provide adequate coverage during this 2-week intense round-the-clock 24/7 construction period. It is highly unlikely that the Airport's security guard company can provide enough guards to adequately cover both the large construction site and haul routes simultaneously for the duration of the project, especially during Phase 2 construction.

AVSEC has an existing, operable ground radar system (SpotterRF) that is performing well in a perimeter intrusion detection system configuration. AVSEC has tested the same technology to provide enhanced security awareness in the paid public parking lots at the Airport (and plans to deploy the technology there again in the future). Additionally, AVSEC is testing overwater detection capabilities of the system. The ground radar system has the ability to monitor zone for motion and alarm based on the type of object detected. Alarms are received in the Airport Operations Center (AOC) for review and Airside Operations staff are dispatched for investigation. Additionally, the radar system integrates camera technology compatible with existing systems to provide the AOC with visual confirmation of the alarm.



To comply with TSA requirements, Port staff propose to use the ground radar system to supplement and complement the use of guards and patrols to monitor work zones and haul routes to ensure that no person or vehicle would leave the designated work zone during construction of the Runway 12-30 Rehabilitation Project. The ground radar system does not totally replace guards but reduces guard demand to a reasonable level that is attainable.

Additionally, the system provides a safety benefit by alerting the AOC if a vehicle is errantly driving towards active aircraft movement areas and monitoring key vehicle crossings for safety concerns.

Port staff estimates the project cost to implement the ground radar perimeter security system at \$382,000. With guard coverage on haul routes, the total project cost for a ground radar system and guard solution is \$483,000, which would be at a savings of approximately \$167,000 compared to the original estimate of \$650,000 to provide security using a guard-only solution.

Port staff will prepare a procurement manual for the ground radar system, which includes system fabrication, delivery, integration, commissioning, and configuration. A combination of on-call contractors and in-house support from Aviation Facilities and Information Technology will be used to provide installation conduits and cables required for connectivity of the perimeter security system to the existing security network.

After completion of the Project, AVSEC will re-purpose the radar units to enhance the existing system providing improved safety and security for the Airport.

Port staff recommends that the perimeter security system be approved for use on the Runway 12-30 Rehabilitation project to provide security and safety during construction at a significant cost savings over a guard-only solution.

## **BUDGET & STAFFING**

The Project is estimated to cost up to \$57 million based on the current design and is subject to change based on actual construction bids received. Budget authorization for the remaining project costs will be requested of the Board at a future date, based on the actual construction bids. The \$57 million project funding plan was presented to the Board on January 26, 2017.

To date the Board has authorized \$8.436 million for planning, design, FAA reimbursable costs, procurement of long lead-time electrical equipment, and other enabling work for the project. AIP grants totaling \$5.984 million have been awarded to pay for these costs. Port staff is requesting approval of additional budget of \$382,000 to procure, implement, and make ready the proposed perimeter security system prior to the start of construction.

The requested costs may be eligible for AIP funding. Port staff plan to submit an AIP grant application to the FAA that will include a perimeter security system in the project description. Port staff is working with the FAA to confirm if the perimeter security system is eligible for AIP funding. If the FAA does not approve the requested procurement of the perimeter security system in the planned AIP grant for construction, the budget increase may have to be funded with Port cash. The cash-funded portion of the project would be reimbursed through airlines' rates and charges over the useful life of the equipment, estimated at up to seven years.

A summary of previous and current budget approvals for the total project to date is shown in Table 1 below:

**Table 1 –Runway 12-30 Rehabilitation Project  
Budget Summary (in 1,000's)**

Description	Current Approved Budget	Procurement of Perimeter Security System	Total Budget
Federal Share*	\$6,514	\$295	\$6,809
Port Share**	\$1,922	\$87	\$2,009
<b>Total</b>	<b>\$8,436</b>	<b>\$382</b>	<b>\$8,818</b>

\* Federal Share includes AIP Grants 072 and 075 for design in current approved budget and future grant for FAA reimbursable agreement, and procurement of electrical equipment.

\*\* Port Share includes Passenger Facility Charges (PFCs) and Port cash. .

Port staff plans to submit an AIP grant application for the Runway 12-30 Rehabilitation construction and construction management in FFY 2017 based on received bids and will return to the Board to seek budget and other project authorizations.

There is no anticipated staffing impact associated with the requested project authorizations.

**MARITIME AVIATION PROJECT LABOR AGREEMENT (MAPLA)**

The procurement of perimeter security equipment is not within the scope of the MAPLA, and so the provisions of the MAPLA do not apply.

**STRATEGIC PLAN**

The action described herein would help the Port achieve the following goals and objectives in the Port’s Strategic Plan (<http://www.portoakland.com/pdf/about/strategicPlan2011-2015.pdf>)

**Goal D: Improve the Port’s financial position:**

- Goal D: Objective 3: Maximize return on investments (ROI)

**Goal L: Provide Timely and Relevant Information to Support Critical Analysis and Decision-making:**

- Goal L: Objective 3: Modernize and update Port technology systems and tools to enhance organizational productivity, efficiency and data analysis capabilities.

**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 requested action is not an agreement, contract,

lease, or request to provide financial assistance within the meaning of the Living Wage Regulations.

## **ENVIRONMENTAL**

CEQA Determination: The proposed project was reviewed in accordance with the requirements of the California Environmental Quality Act (CEQA). Projects that restore or rehabilitate deteriorated or damaged structures, facilities, or mechanical equipment to meet current standards of public health and safety are exempt from the provisions of CEQA pursuant to CEQA Guidelines Sections 15301, Existing Facilities. The Port has determined that the proposed project meets this exemption and will not have a significant effect on the environment.

## **GENERAL PLAN**

This action does not change the use of any existing facility, make alterations to an existing facility, or create a new facility; therefore, a General Plan conformity determination pursuant to Section 727 of the City of Oakland Charter is not required.

## **OWNER-CONTROLLED INSURANCE PROGRAM (OCIP)**

This action is not subject to the Port's Owner Controlled Insurance Program (OCIP) as it is an equipment procurement and not a capital improvement construction project.

## **OPTIONS**

The following are options for the Board's consideration:

1. Approve the actions as outlined in this agenda report. This is the recommended option.
2. Do not proceed with the actions requested in this agenda report. This is not recommended because it is impractical to attract, retain, and screen the large number of guards required to monitor construction, especially during 24/7 two-week paving phase. Additionally, even if it were feasible to obtain the number of guards necessary to secure the runway for this phase of the work, the cost to provide guard-only service would be significantly greater than purchasing and implementing the perimeter security system to supplement guards.

## **RECOMMENDATION**

Staff recommends that the Board approve the following actions for the Runway 12-30 Rehabilitation project related to procurement of perimeter security system for use during construction:

1. Approval of budget of \$382,000 for equipment procurement, installation, commissioning, and configuration, and change order authority;
2. Authorization for the Director of Engineering to approve the Procurement Manual;

3. Authorization for the Executive Director to execute a contract with the lowest responsive responsible bidder in an amount not to exceed \$306,000; and
4. Authorization for the Executive Director to resolve any bid protests in accordance with the Port Purchasing Ordinance.