



Agenda Item No. (3)

To: Building and Operating Committee/Committee of the Whole  
Meeting of August 21, 2025

From: Malini Brown, Senior Project Manager  
Jamie Briggs, Electrical Superintendent  
David Rivera, Deputy General Manager, Bridge Division  
Denis J. Mulligan, General Manager

Subject: **APPROVE ACTIONS RELATIVE TO AWARD OF CONTRACT NO. 2025-B-091, P25 PHASE II RADIO UPGRADE, TO TAIT COMMUNICATIONS**

### **Recommendation**

The Building and Operating Committee recommends that the Board of Directors approve actions relative to the Radio Upgrade project as follows:

1. Approve award of Contract No. 2025-B-091, *P25 Phase II Radio Upgrade*, to Tait Communications (Tait) of Houston, Texas to upgrade the District's Radio system for a 10-year term in a not-to-exceed amount of \$9,622,216; and,
2. Authorize a contract contingency in the amount of \$1,571,034.

This matter will be presented the Board of Directors at its August 22, 2025, meeting for appropriate action.

### **Summary**

The Golden Gate Bridge, Highway and Transportation District (District) has its own P25 radio system for bridge, bus, and ferry operations. The radio system supports 240 portable (handheld) radios, 280 mobile radios (in cars, buses, and ferries) and five active Dispatch centers. The District uses radios as the primary form of communication for bus dispatch, bus operators, bridge sergeant's office, bridge operations and maintenance, Ferry Division mechanics, terminal supervisors, and Vessel Masters.

The current Motorola Vesta Radio system will no longer be eligible for support starting May 2026. As recommended by the District's hired radio consultants, Mission Critical Partners, staff have elected not to replace the radio system in its entirety but instead upgrade only the components that are in critical need of upgrade and/or replacement.

A radio system is comprised of the following:

- 1) Base Stations - responsible for receiving and transmitting radio signals and are located at individual sites, such as mountain tops and the Bridge south tower;
- 2) The Radio Core - the central brain of the radio system; and,
- 3) Subscriber Radios - end user radios devices (i.e., portable and mobile radios).

The critical component the District needs to replace is the radio core; it is end of life and will be out of support by June 2026. The base stations are still usable and will be supported by Tait. The subscriber radios are also end of life and will be replaced as part of the overall project.

If the District were to upgrade the radio system with Motorola, all three components would need to be replaced. However, since the base stations are Tait equipment and do not require upgrading, it is financially prudent for the District to replace only the core with Tait equipment. This allows the District to consider upgrading other components of the broader radio network, such as the microwave network that connects the base stations to the core and is the backbone of the radio system.

### **Background**

Although the existing radio system is operated on software from and supported by Motorola, the equipment is not Motorola's. The radio system came under Motorola's support when Motorola acquired Airbus DS Communications in 2018.

The District's radio system consists of:

- An Airbus radio system core;
- Tait base stations; and,
- Kenwood subscriber radios; mobiles (installed in vehicles) and portables (handheld).

In March 2023, Motorola informed the District that the current radio system would be out of support in 2024. At staff's request, Motorola provided a budgetary proposal to upgrade to its latest Astro25 system. The estimated cost to upgrade the core and base stations and replace all mobile and portable radios came in at \$12.6 million. Given the substantial cost, staff determined that an independent assessment would be prudent to evaluate whether to proceed with the Motorola upgrade or pursue an alternative solution. To ensure that the radio system would be supported while an assessment was conducted, Motorola agreed to extend support by two years if the District replaced six servers that were no longer being supported by the manufacturer. In April 2024, staff requested and received approval from the Board to execute a third amendment to Contract 2017-D-28, *Radio System Upgrade and Enhancement of Coverage Area*, with Motorola Solutions, Inc. to provide the District with replacement servers and to extend support through May 23, 2026.

Following a Request for Proposals (RFP), the District entered into a contract with Mission Critical Partners, LLC (MCP) in October 2024 to support the District's assessment of the radio system. The full scope of the contracted work was broken into two phases, as follows:

**Phase 1**

1. Review and assess the District's current radio set up, including its integration with other systems, the microwave backhaul, and all associated infrastructure and peripherals.
2. Deliver a report upon completion of the assessment that presents the options available to the District, including pros and cons for each and a recommendation on how the District should proceed.

**Phase 2**

3. Support the District to procure, plan, and implement the District's chosen solution.

MCP completed its assessment in May 2025 and recommended that the District pursue the following initiatives in Phase 2:

- 1) As a priority, replace the outdated Airbus core with a Tait core, leveraging the existing viable Tait base stations.
- 2) Replace subscriber radios (mobiles and portables), which are all out of support.
- 3) Update the microwave network and DC Power systems; equipment is outdated and needs replacing. As part of the update, expand the microwave network to enable the deployment of Bus dispatch radio consoles at Novato (D2) and Santa Rosa (D3), which is something Bus Division has been wanting to do for some time.
- 4) Conduct structural analysis of antenna towers to determine necessary upgrades.
- 5) Address issues with radio coverage at specific locations at the Bridge (i.e., inside the towers, the north anchorage, and the bunkers).

Items 3 to 5 were not included in Motorola's budgetary proposal and were identified as a result of the assessment conducted by MCP.

MCP has broken out the work into a series of logical activities that will extend over a period of 2-3 years with an estimated total spend of \$12 to \$14 million. Staff agree with the results of the assessment and the proposed recommendations.

**Recommendation to Execute Contract No. 2025-B-091, P25 Phase II Radio Upgrade**

As part of the assessment, MCP conducted a comparative assessment of the Motorola budgetary proposal and Tait's proposal. If the District does not need to upgrade the base stations, Tait's overall cost comes in significantly lower than Motorola's. It is for this reason that staff recommend executing a contract with Tait to upgrade the radio core. The lower cost will allow the project funds of Bridge Division Capital Project #2421, *District-wide Radio Project*, to be used to complete the other initiatives recommended by MCP.

The contract with Tait includes the following equipment and services:

1. System core, network equipment, monitoring equipment, and licensing.

2. Spare equipment.
3. Professional services for design, implementation, and training.
4. Ten years of support and maintenance of the entire radio system.
5. Refresh of core and base station hardware in Year 5 of the support and maintenance agreement.
6. Site survey to assess antennas and transmission lines.
7. Optional services and equipment, which will be executed at staff's discretion. Tait has provided estimated pricing for all options. It should be noted that costs could increase for some of the options dependent on when they are executed. Staff will use contract contingency to cover any differences.

### **Recommendation to Add a Contract Contingency**

Given the complexity of this project, staff recommends including a contract contingency to account for unforeseen circumstances that may arise during the project and to accommodate potential price increases for optional services and equipment. Contingency is calculated as 20% of the overall contract value less the guaranteed pricing for support and maintenance for years two to five.

### **Fiscal Impact**

The fiscal impact of this contract is \$7,956,722 in capital expenses, which includes estimated costs for sales tax and freight, and \$3,236,528 in operating expenses. Capital Project #2421, *District-wide Radio Project*, totaling \$12 million, has sufficient funds to support all capital expenditures as detailed in Table 1 and is fully funded by District funds. The annual maintenance support fee of approximately \$322,000 annually will be budgeted accordingly in future operating budgets in the Bridge Division.

**TABLE 1: CONTRACT BUDGET**

| <b>CONTRACT BUDGET</b>   | <b>AMOUNT</b>       |
|--|---------------------|
| <b>Capital Expenditures (Project #2421)</b>  |                     |
| Prime Contract (includes estimated sales tax and freight)  | \$6,726,325         |
| Prime Contract Contingency (20% of the one-time implementation cost and options that can be capitalized) | \$1,230,397         |
| <b>Subtotal – Capital</b>  | <b>\$7,956,722</b>  |
|  |                     |
| <b>Operating Expenditures</b>  |                     |
| Annual Fees Yr. 2 to Yr. 10  | \$2,895,891         |
| Prime Contract Contingency (20% of Annual Fees Yr. 6 to 10)  | 340,637             |
| <b>Subtotal – Operating</b>  | <b>\$3,236,528</b>  |
|  |                     |
| <b>TOTAL CONTRACT BUDGET (Capital &amp; Operating Expenditures)</b>                                      | <b>\$11,193,250</b> |