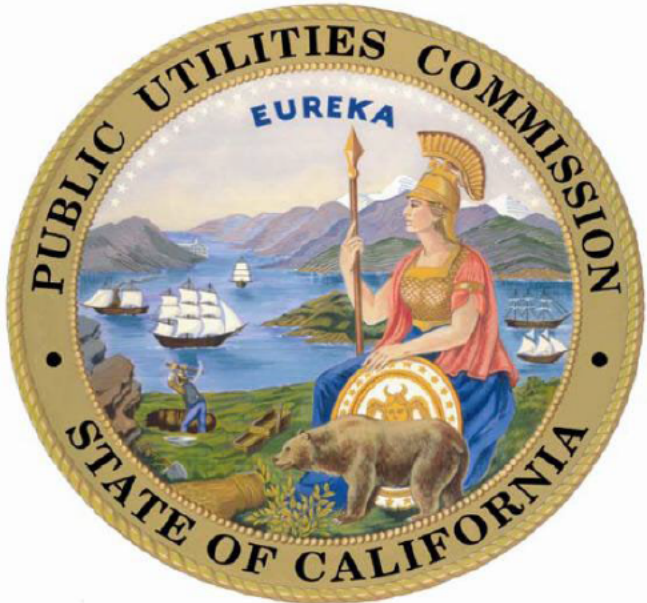

**2019
TRIENNIAL
SECURITY REVIEW OF
BAY AREA RAPID TRANSIT DISTRICT
OAKLAND AIRPORT CONNECTOR
(BART OAC)**

RAIL TRANSIT SAFETY BRANCH
RAIL SAFETY DIVISION
CALIFORNIA PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102

October 16, 2020

Final Report
(Confidential)

Matthew Ames, Director
Rail Safety Division



2019 TRIENNIAL SECURITY REVIEW OF BAY AREA RAPID TRANSIT DISTRICT OAKLAND AIRPORT CONNECTOR

ACKNOWLEDGEMENT

The California Public Utilities Commission's Rail Transit Safety Branch (RTSB) staff conducted this system security program review. Staff members directly responsible for conducting review and inspection activities include:

Rupa Shitole – Utilities Engineer

Joey Bigornia – Utilities Engineer

Mike Warren – Utilities Engineer

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1. EXECUTIVE SUMMARY

The California Public Utilities Commission's (Commission) Rail Safety Division (RSD), Rail Transit Safety Branch staff (Staff) conducted an on-site system security review of the Bay Area Rapid Transit District (BART) Oakland Airport Connector (OAC) in October 2019. The review is focused on verifying the effective implementation of the System Security Plan (SSP), addressing Threat & Vulnerability Assessments (TVA) and emergency response.

The on-site review was preceded by an opening conference meeting between BART personnel and Staff, on Monday, October 21, 2019. The security review took place on October 24, 2019, and focused on verifying the effective implementation of BART's SSP.

A post-review conference meeting followed the review on August 14, 2020, during which Staff provided OAC personnel with a summary of the review findings. Staff made no findings of non-compliance and issued no recommendations during the review.

The report Introduction is presented in Section 2. The Background, in Section 3, contains a description of the BART rail system. Section 4 provides a description of the 2019 security review procedures. The review's findings and recommendations are listed in Section 5. A listing of the Acronyms is in Appendix A. The BART 2019 Triennial Security Review Checklist Index and the Triennial Security Review Checklists are included, respectively, in Appendices B and C.

This report reflects Staff's triennial security review of BART OAC. The BART OAC on-site triennial safety review report is contained in a separate Report and is brought before the Commission for approval in a separate Resolution.¹

¹ Staff's safety review and report, "2019 Triennial Safety Review of Bay Area Rapid Transit District Oakland Airport Connector" is being brought before the Commission concurrently in Resolution ST-237.

2. INTRODUCTION

The Commission's General Order (GO) 164-E, *Rules and Regulations Governing State Safety Oversight of Rail Fixed Guideway Systems*, require the Commission Staff to perform a review of each rail transit agency's system safety and security program(s) at a minimum of once every three years. The purpose of the triennial review is to evaluate the effectiveness of each rail transit agency's System Security Plan (SSP) and to assess the level of compliance with GO 164-E as well as other Commission safety and security requirements. Staff conducted the previous BART on-site security review in October 2016.

Staff notified BART OAC's Manager by letter, dated September 17, 2019, of the scheduling of the Commission's Safety and Security Reviews to begin on October 21, 2019. The notification provided BART with the opportunity to review the five Triennial Security checklists which served as the basis for the Security Review, as well as to provide comments.

The Review began with an opening conference meeting on October 21, 2019, attended by Staff, BART OAC's Manager, and Safety and Security Manager, Doppelmayr Cable Car's (DCC) managers, and supervisors.

Staff performed the triennial security review on October 24, 2019, at the BART offices. Staff developed five (5) checklists for the inspection of the System Security Program. Staff derived the checklist review questions from CPUC's GO 164-E, FTA's guidance on performing triennial security reviews, Transportation Security Administration's (TSA) Baseline Security Review, and BART's SSP. At the conclusion of each review activity, staff provided BART personnel a verbal summary of the preliminary findings and discussed potential recommendations for corrective actions.

On August 14, 2020, Staff conducted a post-review exit meeting with BART OAC's and DCC's managers to verbally convey all the findings from the Review. Staff indicated it did not identify any findings and did not issue any recommendations.

3. BACKGROUND

The Bay Area Rapid Transit District (BART) began operation on September 11, 1972, with 28 miles of track in Alameda County, servicing Oakland to Fremont. The second segment opened on January 29, 1973, with 12 miles of track extending the service from Fremont to Richmond. The third segment opened on May 21, 1973, with 17 additional miles of track marking the opening of the Concord Line. On November 5, 1973, service began between the Montgomery Street Station in downtown San Francisco and the Daly City Station, adding another 7.5 miles of track to the system. Transbay service began on September 16, 1974, bringing the full 71.5 miles of track into service. On May 27, 1976, the Embarcadero Station officially opened for revenue service, bringing the total station count to 34. Additional extensions have occurred over the years to expand the system.

Currently, the BART system operates six lines on 107.2 miles of track with 45 stations. These six lines are:

- Fremont – Daly City Line
- Dublin/Pleasanton – Daly City Line
- Pittsburg/Bay Point- SFO Line/Millbrae Line
- Richmond- Millbrae Line
- Richmond-Fremont Line
- Oakland Airport Connector

Oakland Airport Connector (OAC)

BART's Oakland Airport Connector (OAC), also known as BART to OAK, began revenue operation on November 22, 2014. The system was designed and constructed by Flatiron Construction and Parsons Transportation along with Doppelmayr Cable Car (DCC) who designed, manufactured, and supplied the Automated People Mover (APM) system and guideway. DCC now operates and maintains the system as part of a 20-year BART Operations and Maintenance Contract.

The OAC is a fully automated driverless transportation system operating along a 3.2 mile partially elevated, partially at-grade, partially below-grade, dual guideway, providing a comfortable and reliable link between the Airport Station and Coliseum Station. The APM system operates with up to four cable propelled 3-car trains. Each station consists of a single-sided passenger boarding platform with a barrier wall and automatic platform door system separating the passenger platform from the guideway tracks. Near the mid-point of the end stations is the maintenance and storage facility (or Wheelhouse). The Wheelhouse houses administrative offices, the Central Control Room, the ropeway drive machinery, and provisions for trains to be stored off of the mainline for maintenance. Two Tow/Maintenance Vehicles allow personnel to perform guideway inspections and maintenance activities, including towing revenue vehicles in and out of service.

The initial system consists of four 3-car trains operating in a pinched loop configuration on two separate lanes. The system is expandable, when built to ultimate capacity (4-car trains), to provide a peak period line capacity of 1900 passengers per hour per direction.

Status of the 2016 BART OAC Triennial Security Review

Staff performed the previous triennial on-site security review in 2016. No Findings or Recommendations were identified during that review. CPUC Resolution ST-203, adopted on April 27, 2017, granted Commission approval of Staff's final 2016 BART OAC On-Site Triennial Security Review report.

4. SYSTEM SECURITY REVIEW PROCEDURE

Staff conducted the 2019 Triennial Security Review of Bay Area Rapid Transit District Oakland Airport Connector in accordance with Rail Transit Safety Branch Procedure Four (4), *Procedure for Performing Triennial Safety & Security Reviews of Rail Transit Systems*. Staff developed five (5) checklists to evaluate the adequacy of BART's system security plan and the efficacy of its implementation.

The security evaluation includes the BART security department, programs and processes which have system security functions and responsibilities. The review is based on Commission and FTA requirements, BART's SSP, TSA baseline review list, TSA security related documents, and the staff's knowledge of the BART transit system. The five (5) checklists are listed in Appendix C.

Staff's checklist identifies the core security-related elements and characteristics reviewed. Each checklist references Commission, BART, and other documents that establish the security program requirements. The methods used to perform the review include:

- Discussions and interviews with BART Police and DCC Management
- Reviews of rules, procedures, policies, and records

Immediately following the security review, staff summarized the findings and the preliminary recommendations (if appropriate) with BART's Director of Security Programs. The post-review summary is beneficial for clarifying findings or best-practices and provided BART an opportunity to promptly address any necessary security improvements.

5. FINDINGS AND RECOMMENDATIONS

Review findings identify areas where changes should be made to further improve the SSP. The review results are derived from documents reviewed, issues discussed with management, and interview with BART Staff. The review identified no findings and this report makes no recommendations.

Following are the results for each checklist:

1. Identify Policies, Goals and Procedures

No findings of non-compliance; no recommendations.

2. Process for Management of Threats and Vulnerability (TVA)

No findings of non-compliance; no recommendations.

3. ID Concepts for Passenger and Employee Security

No findings of non-compliance; no recommendations.

4. Process for Internal Security Reviews

No findings of non-compliance; no recommendations.

5. Process for Generating its Security Plan

No findings of non-compliance; no recommendations.

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APPENDIX A

ACRONYMS LIST

Abbreviation / Acronym	Description
APM	Automated People Mover
BART	Bay Area Rapid Transit District
CAP	Corrective Action Plan
CFR	Code of Federal Regulations
Commission	California Public Utilities Commission
CPTED	Crime Prevention Through Environmental Design
CPUC	California Public Utilities Commission
DCC	Doppelmayr Cable Car
DMU	Diesel Multiple Unit
eBART	East Contra Costa BART Extension
FTA	Federal Transit Administration
GO	General Order
ICS	Incident Command System
ISA	Internal Security Audit
OAC	Oakland Airport Connector
OCC	Operations Control Center
RTCB	Rail Transit and Crossing Branch
RTSS	Rail Transit Safety Section
SARA	Scanning Analysis Response Assessment
SSPP	System Security Program Plan
Staff	Rail Safety Division personnel
SVRT	Silicon Valley Rapid Transit
TSA	Transportation Security Administration
TVA	Threat and Vulnerability Assessment
VTA	Santa Clara Valley Transportation Authority

APPENDIX B

BART 2019 TRIENNIAL SYSTEM SECURITY REVIEW CHECKLIST INDEX

- 1 Identify Policies, Goals and Objectives
- 2 Process for Management of Threats and Vulnerabilities (TVA)
- 3 ID Concepts for Passenger and Employee Security
- 4 Process for Internal Security Reviews
- 5 Process for Generating its Security Plan

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APPENDIX C

BART 2019 TRIENNIAL SYSTEM SECURITY REVIEW CHECKLISTS

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**2019 CPUC SYSTEM SECURITY REVIEW CHECKLIST FOR
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
OAKLAND AIRPORT CONNECTOR (BART OAC)**

Checklist No.	1	Element	Identify Policies, Goals, and Objectives
Date of Audit	October 24, 2019	Department(s)	BART Police Department
Auditors/ Inspectors	Mike Warren Joey Bigornia Rupa Shitole	Persons Contacted	Mimi Bolaffi, Director of Security Programs Orville Riley – Operation and Maintenance Manager (Doppelmayer) Tony Onisko – Safety Manager Sgt. Jonathan Gurrera, BART PD Michael Forte, BART Superintendent eBART/OAC Systems
REFERENCE CRITERIA			
1. General Order 164-E 2. BART System Security Plan (SSP) Book 484 dated February 2019			
ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION			
Identify Policies, Goals, and Objectives Interview the person(s) in charge of BART's Oakland Airport Connector (OAC) Security Policies, Goals and Objectives. Review and evaluate the various documents as indicated below for the past year(s) to determine if:			
[REDACTED]			
[REDACTED]			
[REDACTED]			
[REDACTED]			
[REDACTED]			

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FINDINGS AND RECOMMENDATIONS

Activities:

Staff interviewed BART OAC personnel to determine the following:

[REDACTED]

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Sensitive Security Information (SSI)

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

“Warning: This record contains Sensitive Security Information (SSI) that is controlled under 49 CFR parts 15 and 1520. No part of this record may be disclosed to persons without a “need to know” as defined in 49 CFR parts 15 and 1520, except with the written permission of the Administrator of the transportation security Administration or the secretary of Transportation. Unauthorized release may result in civil penalty or other action. For U.S. government agencies, public disclosure is governed by U.S.C. 552 and 49 CFR parts 15 and 1520.”

**2019 CPUC SYSTEM SECURITY REVIEW CHECKLIST FOR
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
OAKLAND AIRPORT CONNECTOR (BART OAC)**

Checklist No.	2	Element	Process for Management of Threats and Vulnerabilities
Date of Audit	October 24, 2019	Department(s)	BART Police Department
Auditors/ Inspectors	Joey Bigornia Rupa Shitole Mike Warren	Persons Contacted	Mimi Bolaffi, Director of Security Programs Orville Riley – Operation and Maintenance Manager (Doppelmayr) Tony Onisko – Safety Manager Sgt. Jonathan Gurrera, BART PD Michael Forte, BART Superintendent eBART/OAC Systems

REFERENCE CRITERIA

1. General Order 164-E
2. BART System Security Plan (SSP) Book 484 dated February 2019

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Process for Management of Threats and Vulnerabilities

Interview the BART representatives responsible for the protection against threats and vulnerabilities. Review the SSP, Threat and Vulnerability Assessments (TVAs), and related documents for the past year(s) to determine if:

[illegible]

[REDACTED]

FINDINGS AND RECOMMENDATIONS

Activities:

Staff met with BART Director of Security Programs and BART Superintendent, eBART/OAC Systems and found the following:

[REDACTED]

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Sensitive Security Information (SSI)

[REDACTED]

[REDACTED]

[REDACTED]

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Sensitive Security Information (SSI)



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**2019 CPUC SYSTEM SECURITY REVIEW CHECKLIST FOR
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
OAKLAND AIRPORT CONNECTOR (BART OAC)**

Checklist No.	3	Element	ID Concepts for Passenger and Employee Security
Date of Audit	October 24, 2019	Department(s)	BART Police Department
Auditors/ Inspectors	Rupa Shitole Joey Bigornia Mike Warren	Persons Contacted	Mimi Bolaffi, Director of Security Programs Orville Riley – Operation and Maintenance Manager (Doppelmayr) Tony Onisko – Safety Manager Sgt. Jonathan Gurrera, BART PD Michael Forte, BART Superintendent eBART/OAC Systems
REFERENCE CRITERIA			
1. General Order 164-E 2. BART System Security Plan (SSP) Book 484 dated February 2019			
ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION			
ID Concepts for Passenger and Employee Security Interview the BART representatives responsible for the Oakland Airport Connector (OAC) Security & Communication. Review the security incident reporting program for the past year to determine if:			

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[REDACTED]

FINDINGS AND RECOMMENDATIONS

Activities:

Staff interviewed BART OAC representatives and found the following:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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Sensitive Security Information (SSI)



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**2019 CPUC SYSTEM SECURITY REVIEW CHECKLIST FOR
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
OAKLAND AIRPORT CONNECTOR (BART OAC)**

Checklist No.	4	Element	Process for Internal Security Reviews
Date of Audit	October 24, 2019	Department(s)	BART Police Department
Auditors/ Inspectors	Michael Warren Rupa Shitole Joey Bigornia	Persons Contacted	Mimi Bolaffi, Director of Security Programs

REFERENCE CRITERIA

1. General Order 164-E
2. BART System Security Plan (SSP) Book 484 dated February 2019

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Process for Internal Security Reviews

Interview the BART representatives responsible for the Internal Security Audit (ISA) Process. Review the appropriate procedure(s) and audit report(s) for the past year(s) to determine if:

[REDACTED]

FINDINGS AND RECOMMENDATIONS

Activities:

Staff interviewed BART Safety and Security personnel responsible for performing Internal Security Audits and determined the following:

[REDACTED]

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Sensitive Security Information (SSI)



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**2019 CPUC SYSTEM SECURITY REVIEW CHECKLIST FOR
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
OAKLAND AIRPORT CONNECTOR (BART OAC)**

Checklist No.	5	Element	Process for Generating its Security Plan
Date of Audit	October 24, 2019	Department(s)	BART Police Department
Auditors/ Inspectors	Michael Warren Rupa Shitole Joey Bigornia	Persons Contacted	Mimi Bolaffi, Director of Security Programs

REFERENCE CRITERIA

1. General Order 164-E
2. BART System Security Plan (SSP) Book 484 dated February 2019

ELEMENT/CHARACTERISTICS AND METHOD OF VERIFICATION

Process for Generating its Security Plan

Interview the BART representative(s) responsible for SSP administration. Review the SSP implementation, and update process of the SSP for the past year(s) to determine if:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

FINDINGS AND RECOMMENDATIONS

Activities:

Staff interviewed BART Security personnel responsible for SSP updates and determined the following:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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