
Phase 2 South Safety and Security Management Plan for FFGA

For the
Central Florida Commuter Rail Transit Project



and



Florida Department of Transportation

District 5

FEBRUARY 2015

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List of Acronyms

ADA	Americans with Disabilities Act
ANSI	American National Standards Institute
APTA	American Public Transit Association
AREMA	American Railroad Engineering and Maintenance-of-Way Association
CCAC	Configuration Control Advisory Committee
CCTV	Closed Circuit Television
CDRL	Contract Deliverable Requirement List
CEI	Construction Engineering and Inspection
CEO	Chief Executive Officer
CFCRC	Central Florida Commuter Rail Commission
CFCRT	Central Florida Commuter Rail Transit
CFR	Code of Federal Regulations
CFRC	Central Florida Rail Corridor
SSCC	Central Florida Rail Coordination Corridor
CCSP	Contractor Construction Safety Plan
CHA	Collision Hazard Analysis
DO	Chief Operating Officer
C - SSPP	Contractor System Safety Program Plan
C - SPP	Contractor System Security Plan
CSXT	CSX Transportation
DB	Design/Build Contractor
DBB	Design/Bid/Build Contractor
DHS	Department of Homeland Security
DOT	Dept of Transportation
EA	Environmental Assessment
EIC	Employee-in-Charge
ERP	Emergency Response Plan
FDOT	Florida Department of Transportation
FFGA	Full Funding Grant Agreement
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
IOS	Initial Operating Segment

ITN.....	Invitation to Negotiate
LPA	Locally Preferred Alternative
LYNX.....	Central Florida Transportation Authority
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
NEPA.....	National Environmental Policy Act
NFC	National Fire Codes
NFPA	National Fire Protection Association
NTP	Notice to Proceed
O&M	Operations and Maintenance
PE	Preliminary Engineering
PHA	Preliminary Hazard Analysis
PMC	Project Management Consultant
PMT	Project Management Team
PMOC.....	Project Management Oversight Consultant
PMP	Project Management Plan
PTC	Positive Train Control
PTCSP	Positive Train Control Safety Plan
QA	Quality Assurance
QAPP	Quality Assurance Program Plan
QC	Quality Control
RAMP	Real Estate Acquisition and Management Plan
RE.....	Resident Engineer
RFI	Request for Information
RFP	Request for Proposal
ROW	Right-of-Way
RSD	Revenue Service Date
SIP	Safety Integration Plan
SMF.....	Signal Maintenance Contractor
SPE	CEI Consultant Senior Project Engineer
SSC	Safety and Security Certification
SSI.....	Security Sensitive Information
SSM.....	Safety and Security Manager
SSMP	Safety and Security Management Plan
SITP.....	System Integration Testing Plan

VOTRAN Volusia County Transit System

1. Management Commitment and Philosophy

1.1. Safety and Security Policy Statement

The Central Florida Commuter Rail Transit (CFCRT) Phase 2 South Project is described extensively in the CFCRT Phase 2 South Project Management Plan (PMP), as revised for each project phase during project development. The information, policies, and activities discussed in this Safety and Security Management Plan (SSMP) are applicable to the Phase 2 South Project.

The CFCRT Phase 1 Project received a Full Funding Grant Agreement on July 18, 2011 to begin construction of a new 32-mile commuter rail line which is planned to start operations by May 2014. . The Phase 2 South Project when combined with Phase 1 (IOS) completes the Locally Preferred Alternative (LPA) which was evaluated under the federal National Environmental Policy Act (NEPA) process in the Environmental Assessment, as provided in Figure 1-1.

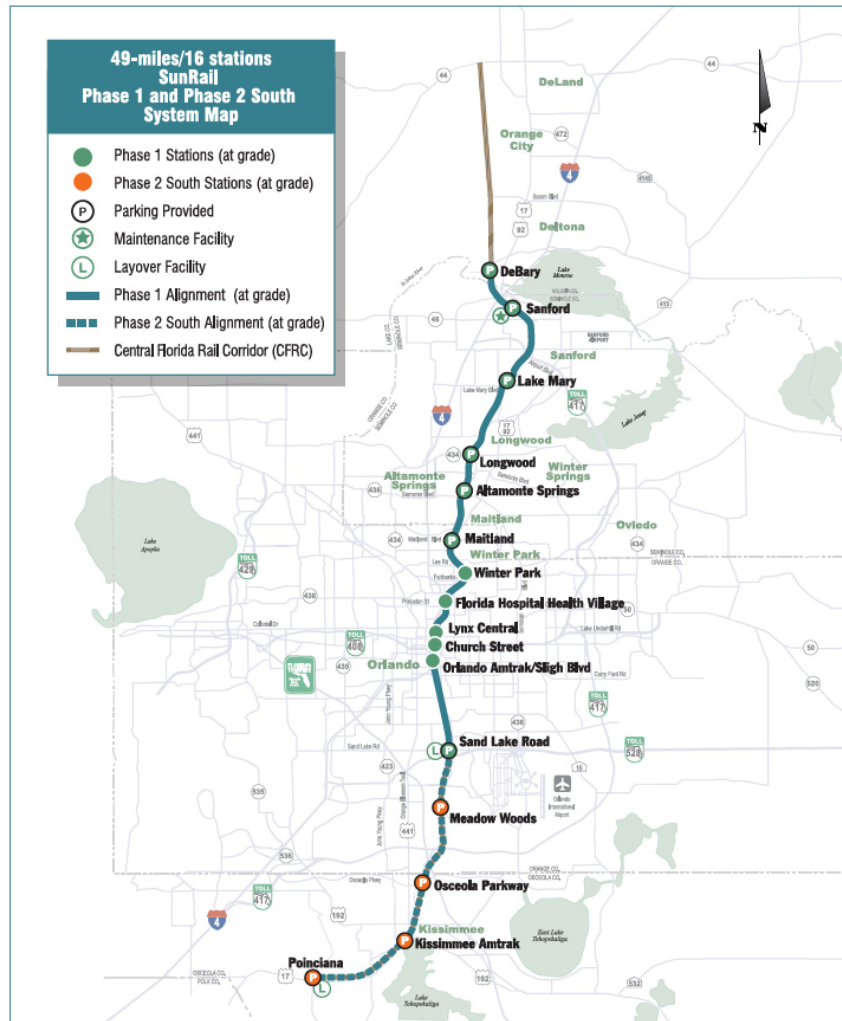


Figure 1-1 – CFCRT Project LPA System Map

The CFCRT Phase 2 South Project uses an active Class IV mixed freight and passenger railroad right of way (ROW) acquired from CSXT in November, 2011 for rail operations extending south of Orlando through Kissimmee to unincorporated Osceola County and property adjacent to the rail corridor for station site parking, kiss-and-ride and bus circulation. Specifically, the CFCRT Phase 2 South Project is a 17.2 mile southern extension of the CFCRT Phase 1 Initial Operating Segment (IOS). The Project Corridor has received the Federal Railroad Administration (FRA) alpha designation Central Florida Rail Corridor or CFRC. Additionally, through a branding exercise, FDOT has selected SunRail as the name for the new passenger rail service that will operate on this corridor. The SunRail service will operate entirely at grade, sharing tracks owned by FDOT with freight service provided by CSXT and Florida Central Railroad (FCEN) and Amtrak intercity passenger rail service.

It shall be the policy of FDOT to perform work on this Phase 2 South Project in a manner that protects the safety and security of employees, contractors and the public. Safety and security shall be priority considerations in the planning and execution of all work activities on this Project.

The design, construction, testing, and start-up of the Phase 2 South Project will comply with applicable safety and security laws, regulations and requirements. The Phase 2 South Project will maintain or improve upon the public transit industry standards for safety and security. All facilities and systems will be designed and constructed in a manner that promotes the safety and security of persons and property.

This SSMP, as a component of the Phase 2 South PMP, is the prime document describing management of safety and security for the Phase 2 South Project. It establishes safety and security activities for each phase of the Project, and responsibility for their performance and oversight. It also describes the safety and security organizational interfaces, policies, procedures, goals, and objectives.

FDOT is committed to providing a safe and secure travel and work environment for the CFRC. Therefore, safety, accident prevention and security breach prevention must be incorporated into the performance of every task. Each employee and contractor is responsible for accident/security breach prevention and for maintaining safety and security standards consistent with their position and organizational function. Through a cooperative team effort and the systematic application of safety and security principles, the CFRC and SunRail Phase 2 South service will be designed and constructed to run safely, securely, dependably, and efficiently.

FDOT District 5 Secretary

Date

1.2. Purpose of SSMP

This SSMP describes the integration of safety and security activities into every phase of the Phase 2 South Project, identifies who will perform these activities, and who will be responsible for their oversight. The positions and titles in this document for project participants (present and future) originated within the Phase 2 South CF CRT PMP and are provided in the organization charts contained therein and also provided within this document in Section 2. This submittal also identifies committees and plans that define and manage safety and security, as well as the activities that will be performed by contractors.

1.3. Applicability and Scope

This version of the SSMP, developed during the Project's Entrance to Final Design for Phase 2 South, attempts to describe safety and security issues for all future project stages, from preliminary engineering, into final design, and through application for FFGA, construction, integration testing, and pre-revenue operations and start-up. The SSMP will be updated during the latter Project stages to reflect Project changes that have impacts to safety and security planning and implementation. Once Phase 2 South receives safety and security certification for revenue operations and meets all FRA operating requirements, the current CFRC/SunRail System Safety Program Plan (SSPP) and System Security Plan (SSP) will be updated to incorporate the Phase 2 South SunRail service.

This SSMP will address Project safety and security management for the construction of the southern extension of the Project and the four new commuter rail stations. The stations include Meadow Woods in Orange County; and Osceola Parkway, Kissimmee Amtrak and Poinciana in Osceola County. There are 2.87 miles of existing double track with 11.81 miles of second track being added, and a new railway wayside signal and communication system. Additional improvements include grade crossing enhancements, station platforms, canopies and park and ride lots. The proposed Vehicle Storage and Light Maintenance Facility (VSLMF) will be built adjacent to the Poinciana Station and serve as an end of the line fueling and layover facility for up to four train sets. Train wash services and heavy vehicle maintenance will continue to be provided at the existing Amtrak Auto Train Yard in Sanford. The Vehicle Storage and Maintenance Facility (VSMF) and an Operations Control Center (OCC) built as part of the Phase 1 (IOS) Project are located at Rand Yard in Sanford, Florida. The Design Consultant will be responsible for the Final Design of the civil, track work, communication systems, and structures for the Phase 2 South Project.

The Department has prepared design plans for SunRail Phase 2 South. These plans will be incorporated into the Design/Build reference documents as Concept Plans for the Design/Build Firm. The Design Criteria Package will include the *Lessons Learned* from the SunRail Initial Operating Segment (IOS Phase 1) and the Value Engineering Study that was conducted for Phase 2 South. The design Request for Proposal (RFP) will include the criteria package, specification documents, and FDOT Standards. In addition, FDOT has developed CFRC Railway Standards:

- CFRC Maintenance of Way Instructions (MWIs) and CFRC Standard Drawings
- CFRC Field Maintenance Manual
- CFRC Continuously Welded Rail Plan (CWR Plan)
- CFRC Signal Design Instructions
- CFRC Roadway Worker Protection

- CFRC Operating Rules
- CFRC System Safety Program Plan (SSPP)

The D/B Contractor will be responsible for the construction, acceptance testing and system integration testing of the Project. Construction services will be two separate procurements with two D/B firms who will be responsible for the scope of work in the RFP.

The 1st RFP will include three separate projects. This procurement includes both FFGA scoped items as well as non-FFGA items.

1. SunRail Phase 2 South (FFGA Funds): Installation of new 2nd track as specified, sections of track will be upgraded and special track work, sub-grade civil construction, drainage; retaining walls, pier protection crash walls, and replacement of the existing bridges/culverts will be required; Communications; a Vehicle Storage and Light Maintenance Facility (VSLMF), upgrading the CAD system located at the existing CFRC OCC. The stations construction portion will include station platforms, finishes, parking lots, landscaping, lighting, security cameras and signage.
2. SunRail Phase 1 IOS and Phase 2 PTC (non-FFGA Funds): PTC System to include Wayside signal interface, Back Office Server (BOS), ITS, communication to Control Points, and intermediate signal locations.
3. Kissimmee Intermodal Parking Garage (non-FFGA Funds): Four level parking garage structure, driveway entrance, landscaping, stairways and elevators. This project includes exterior aesthetic features that are compatible with the surrounding architecture/buildings. Final Plans and specifications will be provided in the procurement package.

The 2nd RFP will be Design/Build for signal construction. This is a separate procurement due to the existing agreement between FDOT and the Brotherhood of Railway Signalmen. This procurement includes FFGA-scoped items.

1. SunRail Phase 2 South Signal Construction (FFGA Funds): Installation and testing of new Wayside signals and pedestrian and grade crossing signals.

In the final FDOT awarded contracts, the D/B Contractor(s) will be held contractually responsible to comply with all provisions of the specific Contract. Standard FDOT procurement methods and procedures will be used to solicit and award the contracts for the Phase 2 South Project.

Other Capital Improvements

As part of the Phase 1 (IOS) Project, FDOT executed contracts with third-party contractors that contained options to purchase the rolling stock and fare collection equipment needed for the Phase 2 South Project. Procurement was based upon criteria prepared by the FDOT's Construction Major Projects Manager, Phase 1 Project Rolling Stock PMC representative and Fare Collection Equipment PMC.

SunRail Vehicles: Rolling stock for Phase 2 South was procured under options in the Phase 1 Project contracts. FDOT exercised the option with Motive Power, Inc. (MPI) to purchase two additional locomotives required for Phase 2 South on May 1, 2012. FDOT exercised the option

with Bombardier to purchase one additional coach and three cab cars required for Phase 2 South on August 14, 2012. The locomotives, cab cars, and coach car required for Phase 2 South operations have been received by FDOT. The safety and security documents generated for these vehicles will be updated, if necessary.

Fare Collection Equipment: FDOT has procured the fare collection equipment for Phase 2 South with LYNX. There is an option in the fare collection system contract that was procured under Phase 1 that enables FDOT to order the additional fare collection equipment for Phase 2 South. Equipment includes full service ticket vending machines (TVMs), cashless TVMs, station platform ticket validator units, hand held validator units, software and back-of-house equipment.

Construction Management Services: FDOT entered into multiple Cost-Plus-Fixed-Fee Contracts for Program Management Consultants (PMC) for the engineering oversight during construction, testing, and start-up portions of the Phase 1 (IOS) Project and will have a similar practice for the Phase 2 South Project.

In April 2013, FDOT contracted with O&M Contractors for maintenance of the CFRC track, signals, corridor infrastructure and operation of the future SunRail passenger service. The O&M Contractor is responsible for all maintenance and servicing of Phase 1 (IOS) revenue vehicles including: preventive maintenance, corrective maintenance, cleaning and servicing, and major maintenance campaigns. Car and locomotive daily service and inspections is the responsibility of the O&M Contractor, whereas performance of corrective and preventive maintenance will be split between the O&M Contractor and Amtrak.

The SunRail service, Amtrak intercity passenger service, CSXT freight service and FCEN freight transfer service will operate on the CFRC corridor and will be governed by the Central Florida Operations and Management Agreement (CFOMA) and amendments. Separate operating agreements have been executed with Amtrak and FCEN.

This SSMP provides for the submission of the updated SSPP to the Florida State Safety Oversight Agency (FDOT Central Office), and receipt of approval prior to the start of Phase 2 South revenue operations. It also provides for establishment of the mechanism, through the CFCRT Project Phase 2 South Safety and Security Certification Plan (SSCP), to track any restrictions to full safety and security certification into revenue operations and until full resolution.

This SSMP was developed in response to FTA Final Circular, FTA C 5800.1, Safety and Security Management Guidance for Major Capital Projects, dated August 1, 2007, and FTA Oversight Procedure 22, SSMP Review, Rev.2, May 2010. The SSMP is also compliant with Florida Department of Transportation Fixed Guideway Transportation System (FGTS) Safety and Security Oversight (SSO) Program Implementation Guidelines (July 2007), as well as the provisions of Section 341.061, Florida Statutes and the Florida DOT SSO Fixed Guideway Transportation Systems Standards Manual, April 2007, #725-030-014.1. As a subordinate document and derivative of the CFCRT Phase 2 South PMP, the SSMP incorporates the CFRC system description as provided in Section 1.1 of the Phase 2 South PMP.

¹ <http://www.dot.state.fl.us/transit/Pages/SafetyandSecurityOversightProgram.pdf>

1.4. SSMP Goal

FDOT's overarching goal in developing and using this SSMP is to describe FDOT's program to ensure the Phase 2 South Project is safe and secure for passengers, employees, public safety personnel, and the general public during construction and upon entering revenue service. Sub-goals that further define the overarching goal are to provide:

- Clear determination regarding acceptable safety and security risks;
- Verification that an acceptable level of safety and security is designed into the Phase 2 South Project;
- Consistent evaluation of safety and security risk throughout the project development process ; and
- Consistent application of safety and security certification to support initiation of the Project into revenue service.

2. Safety and Security Integration into Project Development

2.1. Safety and Security Activities

This section of the SSMP describes how FDOT plans to integrate safety and security activities into the overall project management for the Phase 2 South Project. Consideration was given to lessons learned from the design and construction activities during the Phase 1 (IOS) Project as well as experience shared by similar-sized commuter rail systems around the country.

This section documents FDOT's approach:

- To identify all safety and security tasks that will be performed throughout the Project
- To assign resources for their performance.
- To develop policies and procedures for management review and evaluation of safety and security activities.
- The safety and security tasks that have been and will be performed by project phase are listed in Table 2-1, Safety and Security Activity Matrix. Due to the changes in the required activities during the life cycle of the Project, the activities are identified by stage: Preliminary Engineering, Final Design, Construction, System Integration Testing and Start-up and Testing/Commissioning. Safety Certification is undertaken throughout all phases as described in the table. The activities listed in Table 2-1 are separated into Project system elements as well as major safety and security efforts. This categorization of activities allows for tracking and monitoring the status of key safety and security objectives throughout the Project.
- Project participants are assigned responsibility for the implementation of the safety and security activities in order to provide the resources to meet the objectives. Assigning resources to safety and security activities is a major part of this SSMP. The specific assignments are described in Table 3, Safety and Security Responsibility and Authority.

Table 2-1: Safety and Security Activities Matrix

Safety & Security Activities	Life-Cycle Phases				
	Preliminary Engineering	Final Design and Construction Mobilization	Construction	Integration Testing	Commissioning
Civil Work 1. Stations 2. Park and Ride Lots	Preliminary design reviewed to ensure civil and parking lot safety and security requirements are included in design. Design Consultant performs HA (including CHA component) and TVA for these items Certifiable Items Lists (CILs) for Civil components developed	Perform final design review (including HA (including CHA component) to identify new hazards/changing conditions. Certifiable Items List (CILs) is revised to identify additional Civil safety and security components Civil Design Criteria Conformance Checklists completed Review plans with local jurisdictions and agencies (including DHS, police and fire departments).	Review Contractor Civil RFIs for safety and security considerations. Construction Contractor provides Quality Control/Quality Assurance for the Project and FDOT provides oversight of the Contractor's Quality Assurance process and independent Quality Assurance. Revise/Complete CIL for civil elements. Civil Construction Conformance Checklists completed Finalize Integrated Test requirements.	Construction Contractor 'redlines' as-built safety and security changes to plans and submits to CCAC and Executive SSC review, as required. Construction Contractor documents completion of the construction in compliance with the specification. Phase 2 South certifications will be reviewed by the SSCC. Construction Contractors conduct System Integration Tests. FDOT accepts integration tests.	Construction Contractor completes final as-built drawings. Construction Contractor submits applicable Certificates of Conformance for all Certifiable Elements. FDOT accepts Construction Contractor certification.

Table 2-1: Safety and Security Activities Matrix

Safety & Security Activities	Life-Cycle Phases				
	Preliminary Engineering	Final Design and Construction Mobilization	Construction	Integration Testing	Commissioning
<p>Signal and Communications</p> <ol style="list-style-type: none"> 1. Wayside Signal 2. Communications 3. Highway-Rail Grade Crossings 	<p>Preliminary design reviewed to ensure Signal and Communications safety and security requirements are included in design.</p> <p>Design Consultant performs HA (including CHA component) and TVA for these items</p> <p>Signal and Communications items on Certifiable Items List (CILs) developed</p> <p>Crossing diagnostics performed with FRA, FDOT and local agencies, as required.</p>	<p>Perform final design review (including HA (including CHA component) to identify new hazards/changing conditions and ensure Signal and Communications safety and security requirements are included based on FRA standards.</p> <p>Certifiable Items List (CILs) is revised to identify additional Signal and Communications safety and security components.</p> <p>Signal and Communications Design Criteria Conformance Checklists completed.</p>	<p>Signal Construction Contractors develop construction phasing plan and coordinate with Public Involvement Consultant to convey crossing construction schedule to local jurisdictions.</p> <p>Review Signal Construction Contractors' grade crossing RFIs for safety and security considerations.</p> <p>Signal Construction Contractor provides Quality Control/ Quality Assurance for the Project and FDOT provides oversight of the Contractor's Quality Assurance process and independent Quality Assurance.</p> <p>Revise/Complete CIL for Signal and Communications elements.</p> <p>Signal and Communications Construction Conformance Checklists completed.</p> <p>Finalize Integrated Test requirements.</p>	<p>Signal Construction Contractor 'redlines' as-built changes to plans and submits to FDOT.</p> <p>Signal Construction Contractor documents completion of the construction in compliance with the specification.</p> <p>Phase 2 South certifications will be reviewed by the SSCC.</p> <p>Signal Construction Contractors conduct System Integration Tests.</p> <p>FDOT documents acceptance of the Project for testing.</p>	<p>FDOT/ CM staff inspects and accepts Signal and Communications elements.</p> <p>Signal Construction Contractor submits applicable Certificates of Conformance for all Certifiable Elements.</p> <p>FDOT accepts Signal Construction Contractor certification.</p>

Table 2-1: Safety and Security Activities Matrix

Safety & Security Activities	Life-Cycle Phases				
	Preliminary Engineering	Final Design and Construction Mobilization	Construction	Integration Testing	Commissioning
Positive Train Control (PTC)		Certifiable Items List (CILs) is revised to identify additional PTC safety and security components. PTC Design Criteria Conformance Checklists completed.	PMC Consultant participates in equipment inspections at the manufacturing facility, as applicable, and at installation. PTC Contractor provides Quality Control/ Quality Assurance for the Project and FDOT provides oversight of the Contractor's Quality Assurance process and independent Quality Assurance. Revise/Complete Complete CIL for PTC elements. PTC Construction Conformance Checklists completed. Finalize Integrated Test requirements.	PTC Contractor 'redlines' as-built changes to plans and submits to FDOT. PTC Contractor documents completion of the construction in compliance with the specification. Phase 2 South PTC certifications will be reviewed by the SSCC. PTC Contractors conduct System Integration Tests. FDOT documents acceptance of the Project for testing.	FDOT/ CM staff inspects and accepts PTC elements. PTC Contractor submits applicable Certificates of Conformance for all Certifiable Elements. FDOT accepts PTC Contractor certification.

Table 2-1: Safety and Security Activities Matrix

Safety & Security Activities	Life-Cycle Phases				
	Preliminary Engineering	Final Design and Construction Mobilization	Construction	Integration Testing	Commissioning
<p>Project Emergency Response Plans (ERP)</p> <ol style="list-style-type: none"> 1. CFRC Security and Emergency Preparedness Plan (SEPP) 2. Contractor Emergency Response Plan (C-ERP) 3. Passenger Train Emergency Preparedness Plan (PTEPP) 	<p>SSCC will monitor emergency hotline and respond to safety and security concerns as required.</p> <p>CFRC/SunRail Director of Operations conducts regular coordination meetings with TSA/local law enforcement</p>	<p>All Construction Contractors will provide a C-ERP.</p> <p>All Construction Contractors for Phase 2 South will be required to comply with the CFRC's current PTEPP and the CFRC SEPP</p> <p>SSCC will monitor emergency hotline and respond to safety and security concerns as required.</p> <p>CFRC/SunRail Director of Operations conducts regular Coordination meetings with TSA/local law enforcement</p>	<p>Project ERP document will be reviewed and updated during construction.</p> <p>SSCC will monitor emergency hotline and respond to safety and security concerns as required.</p> <p>CFRC/SunRail Director of Operations conducts regular coordination meetings with TSA/local law enforcement</p> <p>Construction Contractors to participate in CFRC tabletop drills or field exercises readiness</p>	<p>CFRC's PTEPP and SEPP updated to include Phase 2 South by O&M. Plans reviewed by the SSCC for safety certification.</p> <p>SSCC will monitor emergency hotline and respond to safety and security concerns as required.</p> <p>Revised PTEPP submitted to FRA</p> <p>Training of emergency response support, SSCC staff and O&M personnel will be initiated to address Phase 2 South commuter service.</p> <p>CFRC / SunRail Director of Operations conducts regular coordination meetings with TSA/local law enforcement</p>	<p>SSCC will monitor emergency hotline and respond to safety and security concerns as required.</p> <p>Training of emergency response support, SSCC staff and O&M personnel completed.</p> <p>CFRC/SunRail Director of Operations conducts regular coordination meetings with TSA/local law enforcement</p>

Table 2-1: Safety and Security Activities Matrix

Safety & Security Activities	Life-Cycle Phases				
	Preliminary Engineering	Final Design and Construction Mobilization	Construction	Integration Testing	Commissioning
Emergency Responder Training		<p>Provide emergency responders with applicable Project design information for their review and comment.</p> <p>Meet with the Local Emergency Planning Committees to provide updates, determine emergency response training needs and solicit their assistance in response training.</p>	<p>Communicate updated corridor information to emergency service providers.</p> <p>Participate in safety and security tabletop exercises with local stakeholders and emergency response drills.</p>	<p>Provide training to emergency service providers required for PTEPP training (including SunRail equipment familiarization).</p> <p>Conduct tabletop exercises and emergency response drills and safety certification in accordance with the SSCP requirements.</p>	<p>Provide on-going training to emergency service providers and conduct additional emergency response drills for operations and responder training, as required.</p>

Table 2-1: Safety and Security Activities Matrix

Safety & Security Activities	Life-Cycle Phases				
	Preliminary Engineering	Final Design and Construction Mobilization	Construction	Integration Testing	Commissioning
Railroad Workplace Safety (49 CFR 214): Roadway Worker Protection training (Subpart C)	Project Personnel who require RWP Training are trained in accordance with applicable regulations.	<p>All Phase 2 South personnel comply with CFRC RWP plan during mobilization.</p> <p>Construction Contractors' Trainers are qualified by CFRC.</p> <p>Construction Contractors' On-Track Worker training program and documentation is accepted by FDOT.</p> <p>Construction Contractors' train and qualify applicable maintenance personnel in accordance with FRA regulations.</p>	Construction Contractors' comply with all regulatory requirements, including training, as specified by FRA, are implemented by the DBM and audited jointly by FDOT, SunRail Operations Office and FRA.	<p>CFRC and O&M Contractor update the CFRC RWP plan for revenue operations.</p> <p>FDOT monitors Construction Contractors' training program to ensure compliance with FRA regulations.</p> <p>O&M Trainer's train and qualify O&M required personnel to address Phase 2 South revenue service in accordance with FRA regulations.</p>	FDOT monitors O&M training programs to ensure compliance with FRA regulations.

Table 2-1: Safety and Security Activities Matrix

Safety & Security Activities	Life-Cycle Phases				
	Preliminary Engineering	Final Design and Construction Mobilization	Construction	Integration Testing	Commissioning
Phase 2 South Safety and Security Management Plan (SSMP)	<p>FDOT prepared Phase 2 South SSMP and submits to FTA/PMOC.</p> <p>Design Consultant performs analyses in accordance with SSMP: HA (including CHA component) and TVA for Stations and Corridor</p> <p>Design Consultant performs Trespass Analysis of Phase 2 Corridor</p>	<p>FDOT revises Phase 2 South SSMP for submission with application for FFGA.</p> <p>Design Consultant updates analyses in accordance with SSMP: HA (including CHA component) and TVA for Stations and Corridor</p> <p>O&M Contractor and Construction Contractors will comply with current CFRC SSMP.</p>	<p>Revise Phase 2 South Plan as required by events/changes or if requested by FTA.</p> <p>O&M Contractor and Construction Contractors will comply with current CFRC SSMP.</p>	<p>Revise Phase 2 South Phase 2 South Plan as required by events/changes or if requested by FTA.</p> <p>O&M Contractor and Construction Contractors will comply with current CFRC SSMP.</p>	<p>Revise Phase 2 South Plan as required by events/changes or if requested by FTA.</p> <p>O&M Contractor and Construction Contractors will comply with current CFRC SSMP.</p>
Contractor Construction Safety Plan (CCSP)			All Phase 2 South Project Construction Contractors are required to submit a site-specific Contractor CCSP	Construction Contractors to revise CCSP as required.	Construction Contractors to revise CCSP as required.

Table 2-1: Safety and Security Activities Matrix

Safety & Security Activities	Life-Cycle Phases				
	Preliminary Engineering	Final Design and Construction Mobilization	Construction	Integration Testing	Commissioning
<p>System Safety Program Plan (SSPP)</p> <ol style="list-style-type: none"> CFRC SSPP Contractor System Safety Program Plan (C-SSPP) 	O&M Contractor developed and implemented CFRC SSSP.	O&M Contractor and Construction Contractors will comply with current CFRC SSPP during mobilization.	<p>All Phase 2 South Project Construction Contractors are required to submit a C-SSPP for their scope</p> <p>Construction Contractors to revise C-SSPP as required.</p> <p>O&M Contractor and Construction Contractors will comply with current CFRC SSPP.</p>	<p>Construction Contractors to revise System Safety Program Plan as required.</p> <p>O&M Contractor to revise the current CFRC/SunRail SSPP for Phase 2 South revenue operations with oversight of CFRC/CFRC/SunRail Director of Operations.</p> <p>O&M Contractor and Construction Contractors will comply with current CFRC SSPP.</p>	The revised CFRC SSPP will be provided to the FDOT Central Office, FTA and FRA 180 days before SunRail revenue service begins.
<p>System Security Plan (SSP)</p> <ol style="list-style-type: none"> CFRC SPP Contractor System Security Plan (C-SPP) <p>(Plans are SSI)</p>	O&M Contractor developed and implemented CFRC SSP.	O&M Contractor and Construction Contractors will comply with current CFRC SPP during mobilization.	<p>All Phase 2 South Project Construction Contractors are required to submit a C-SPP for their scope</p> <p>Construction Contractors to revise C-SPP as required.</p> <p>O&M Contractor and Construction Contractors will comply with current CFRC SPP.</p>	<p>O & M Contractor to revise the CFRC/SunRail SSP for revenue operations with oversight of the CFRC/CFRC/SunRail Director of Operations.</p> <p>O&M Contractor and Construction Contractors will comply with current CFRC SPP.</p>	<p>The CFRC/SunRail SSP will be completed by the O&M Contractor 180 days before SunRail revenue service begins.</p> <p>Non-SSI elements of the SSP may be available for review by the FTA and FRA 180 days before SunRail revenue service begins.</p>

Table 2-1: Safety and Security Activities Matrix

Safety & Security Activities	Life-Cycle Phases				
	Preliminary Engineering	Final Design and Construction Mobilization	Construction	Integration Testing	Commissioning
Rail Activation Plan			Phase 2 South Rail Activation Committee commence meetings	Provide oversight of SITP, SSCP and RSP	Provide oversight of SITP, SSCP and RSP
Project Safety and Security Certification Plan (SSCP)	<p>FDOT developed CFRC SSCP Safety and Security Certification Committee (SSCC) for CFCRT Project.</p> <p>All Project Consultants and Contractors to support CFCRT Project SSCP program and participate on SSCC.</p> <p>Design Consultant to develop CIL.</p>	<p>CFRC and O&M Contractor to revise SSCP (update as needed throughout Project).</p> <p>Master Certifiable Items List (CILs) is revised to identify additional safety and security components</p> <p>Design Consultant, Signal Construction Contractor and PTC Contractor to complete and sign Design Criteria Conformance Checklist.</p> <p>SSCC to implement Safety and Security Critical Items (SCIL) tracking log for Phase 2 South</p>	<p>Revise/Complete CIL.</p> <p>SCILs will be identified by Project Contractors and reported on the SCIL tracking log for Phase 2 South maintained by the CFRC/SunRail System Safety Administrator and SSC and/or/SSCC, as applicable.</p> <p>All Project Contractors to complete and sign Construction Conformance checklists, as applicable.</p> <p>Identify any restrictions and workarounds.</p>	<p>All Project Contractors certify applicable elements identified in the SSCP, including integration tests, drills, and training elements.</p>	<p>All Project Contractors submit respective final safety and security certifications and obtain acceptance by FDOT.</p> <p>CFRC/SunRail Director of Operations prepares the SSCVR to applicable committees for acceptance and final report to the CFRC/SunRail CEO</p>

Table 2-1: Safety and Security Activities Matrix

Safety & Security Activities	Life-Cycle Phases				
	Preliminary Engineering	Final Design and Construction Mobilization	Construction	Integration Testing	Commissioning
System Integration Test Plan (SITP) and Contractor – System Integration Testing Plan (C-SITP)		All Project Contractors are required to develop a draft SITP, as applicable for their scope that recognizes requirement to contribute to overall plan.	<p>FDOT develops overarching SITP during Construction phase</p> <p>Develop System Integration Testing Committee (SITC) early in the Construction Phase</p> <p>All Project Contractors to submit the final document to the SITC</p>	Contractors to conduct Integration Tests per SITP, including system readiness/emergency drills with oversight from the CFRC Rail Operations Office.	<p>FDOT continues to work on resolving any restrictions which are placed on specific elements.</p> <p>Pre-Revenue Operations conducted; additional drills may be conducted.</p> <p>Complete Integration Testing.</p>
Rail Services Plan (RSP)			<p>The O&M Contractor will begin development of the Phase 2 South RSP with the oversight of the CFRC Officers.</p> <p>Develop training modules for O&M personnel.</p> <p>Identify workarounds during construction</p>	<p>Finalize O&M Plans and Procedures.</p> <p>Emergency drills and field tests coordinated.</p>	<p>Complete Operational Readiness Review (including work-arounds).</p> <p>Complete O&M personnel training for additional Phase 2 South service.</p> <p>Performance testing occurs with joint testing by FRA and SunRail Operations Office.</p>

Table 2-1: Safety and Security Activities Matrix

Safety & Security Activities	Life-Cycle Phases				
	Preliminary Engineering	Final Design and Construction Mobilization	Construction	Integration Testing	Commissioning
Public Safety and Security Program(s)	<p>CFCRT Project Public Involvement Plan initiated and underway.</p> <p>FDOT established Public Information Office (PIO) telephone information line to respond to inquiries from the public on Phase 1.</p> <p>Public Involvement Consultant developed a public safety and security program(s) to provide education about rail crossing safety, trespassing and safety/ security for passengers in coordination with Operation Lifesaver.</p>	<p>Public Involvement Contractor coordinates with the Construction Contractors during mobilization to anticipate impacts to the public during construction which may impact travel or create safety hazards.</p> <p>FDOT PIO will work with City of Kissimmee and Counties in Phase 2 (Orange and Osceola) to assist with neighbourhood issues for grade crossing closings.</p> <p>FDOT PIO, Public Involvement Consultant and Construction Contractors coordinate on elements of Construction Public Information Program to develop a schedule for public safety and security information in and around construction areas.</p>	<p>Implement Construction Public Information Program. FDOT issues press releases notifying the public about safety issues during construction and traffic detours caused by construction.</p> <p>Public Involvement Consultant provides public safety and security program(s) to provide education about rail crossing safety, trespassing and safety/ security for passengers in coordination with Operation Lifesaver.</p>	<p>Public Involvement Consultant implements public safety and security program(s) to educate public of opening of commuter rail service.</p> <p>Public Involvement Consultant issues press releases notifying the public about safety and security issues during testing, initial pre-revenue operations, and traffic detours caused by testing.</p> <p>FDOT monitors PIO telephone information line and feedback from SSCC to respond to inquiries from the public.</p>	<p>Public Involvement Consultant continues implementation of public safety and security program(s) through commissioning and early revenue operations.</p> <p>Implement the public safety/security program(s) through media and information at the Phase 2 South stations and on the SunRail vehicles.</p> <p>FDOT monitors PIO telephone information line and feedback from SSCC to respond to inquiries from the public.</p>

During Preliminary Engineering for Phase 2 South FDOT has integrated safety and security activities into the design development process and specifically integrated tasks in accordance with FTA's guidelines in "Handbook for Transit Safety and Security Certification (2002)". These tasks are:

- Identify existing safety and security requirements for the acquisition process;
- Integrate safety and security design criteria into the Phase 2 South Design Criteria;
- Identify safety and security certifiable elements and items;
- Initiate project documentation system;
- Integrate operations and maintenance requirements into the design; and
- Ensure contractors' participation in implementing safety and security activities in their respective scope of services

The Hold Point process will also be established for Phase 2 South which will verify readiness to enter three main phases: System Integration Testing, Pre-Revenue Operation and Revenue Operations. Essential activities and pre-requisites must be completed and signed off prior to entering into the next phase of the project. Upon review of the pre-requisites and if acceptable, the particular hold point will then provide approval by management to enter into the next phase.

2.2. Safety and Security Procedures and Resources

The safety and security of the entire CFRC and future SunRail commuter service is under the day-to-day management of the O&M Contractors with oversight from CFRC/SunRail Director of Operations (DO), the CFRC/SunRail Safety and Security Manager (SSM), and the CFRC/SunRail Safety Specialist (SSS). They also maintain open lines of communication with Federal Railroad Administration (FRA) Headquarters and Region 3 representatives to ensure that the plans and procedures required for safe railroad operations are in place for corridor operations and the start-up of Phase 2 South revenue service. Additionally, FDOT has a CFRC Safety Integration Plan that is a document for effective communications and coordination between FDOT, all railroads operating on the Corridor (CSXT, Florida Central Railroad (FCEN) and Amtrak), and FDOT Contractors.

The O&M Contractor's Safety and Security Manager has the following duties, but are not limited to:

- Auditing the 61.2 mile corridor's rail operations, maintenance activities and commuter rail service for compliance with CFRC, Federal, and State requirements; and,
- Assisting the CFRC/SunRail SSM and SSS as an alternate Reporting Officer for Federal and State Safety Oversight reporting requirements, performing operating rules testing, and response and investigation to accidents and safety-related incidents.

In addition, all Construction Contractors are contractually obligated to provide safety oversight of their personnel to ensure compliance with all CFRC safety rules, procedures and plans. The Construction Contractor safety representatives will coordinate with the SSM and each other for safety compliance, safety audits, required training, and all other CFRC requirements within their scope.

Railroad Coordination

Coordinators will be employed on the Project to ensure communication and coordination among the users of the CFRC from Final Design to Start-up.

Each Construction Contractor will designate a point-of-contact who will be responsible for communications and coordination to assure that all operations and work is accomplished safely and with minimum disruption to existing train service. The Construction Contractor representatives will provide coordination for all construction and maintenance activities in the Central Florida Rail Corridor (CFRC) between the CFRC/SunRail Director of Operations, the O&M Contractor, CSXT Coordinator, Amtrak Coordinator, the Public Involvement Consultant, other contractors working on the corridor, and all other operating railroads on the corridor.

During construction of Phase 2 South, a CSXT representative will be designated by CSXT to work closely with the CFRC/SunRail Director of Operations, FDOT Construction Management, Construction Contractors, Amtrak and other Project contractors to assure that all operations and work are accomplished safely and with minimum disruption to existing train service. FDOT and its contractors are ultimately responsible for the operations and maintenance of the corridor during and after construction of Phase 2 South.

The Amtrak Coordinator is a person designated to work closely with the CFRC/SunRail Director of Operations, FDOT Project Management, Construction Contractors, CSXT and other Project contractors to assure that all operations and work are accomplished safely and with minimum disruption to existing Amtrak train service during construction activity within the corridor, and to coordinate during Phase 2 South start-up, operations and maintenance activities.

To facilitate the dissemination of information, the CFRC/SunRail Director of Operations also hosts a weekly CFRC Operations conference call with Amtrak, CSXT, FCEN, FRA and FDOT Project Management.

Public Information

The Phase 2 South Project Public Involvement Consultant and Construction Contractor will develop a schedule for updating the Public and Emergency Responders on construction activities within the Construction Public Information program. FDOT, through the Public Involvement Consultant, has initiated outreach activities in coordination with Operation Lifesaver to provide railroad safety for the CFRC and hazard awareness education to local community groups and Emergency Response Agencies for future construction activities.

Construction Activities

Safety and security objectives will be integrated into the Phase 2 South construction by including contract provisions in the procurement documents for safety and security compliance by all contractors working on the Project. The timeline for the various expected "Notice to Proceed" dates for various contract packages including operations and maintenance contracts are shown in the Phase 2 South PMP Table 5-1, Procurement Packaging Matrix.

Safety and security objectives will be integrated into the Phase 2 South System Integration by including specific contract provisions in the construction contracts for systems integration testing, by the development of plans in accordance with FRA regulations and by including safety critical elements in the safety certification process; all of which will be coordinated by the CFRC/SunRail System Safety Specialist.

Construction site safety will be achieved by close coordination and accurate communication of upcoming construction activities with appropriate corresponding approvals. Construction Contractors will be expected to comply with all applicable FRA regulations. Mandatory safety job briefings will be conducted with all workers in the construction zone to promote safe work practices, increase hazard awareness and provide a consistent means for safety concerns to be communicated between management and workers. These job briefings are mandated by the FRA when on railroad property, and are also required by the CFRC.

The Phase 2 Construction Contractors safety representatives, the Construction Engineering Inspection (CEI) Safety representative and CFRC/SunRail SSM or its designate will provide daily safety oversight to ensure that all roadway workers involved with construction and maintenance activities on the CFRC adhere to all standard work practices established in accordance with the current On-Track Roadway Worker Protection Handbook and current CFRC Operating Rules.

Construction Contractor Safety Manager, the O&M Safety and Security Manager, PTC Contractor Safety Representative and Signal Construction Contractor Representative shall attend all scheduled Safety and Security Committee meetings and any other meetings as directed by the CFRC/SunRail Director of Operations to discuss recent safety-related incidents and concerns, and contractor compliance with the System Safety Program. In the event that any Phase 2 South Project Contractor becomes aware of an unsafe, non-secure, or potentially unsafe or non-secure condition during construction activities or maintenance activities, the Contractor shall immediately take all actions required to remedy the circumstances.

FDOT will continue to communicate with CSXT, Amtrak and FCEN on construction activities pertaining to CFCRT Project Phase 2 South, in addition to corridor maintenance, emergency response, training requirements and track protection.

Safety and security objectives are integrated into the Commissioning Phase of the Phase 2 South Project through a detailed Rail Activation Plan. To have a smooth transition of the south corridor service from testing integration into commissioning and revenue service, FDOT will have the Operations and Maintenance Contractor (O&M Contractor) begin integration of Phase 2 South services in accordance with the Project Master Schedule prior to the start of commuter revenue service. This will allow for a measured handoff of safety and security functions from all Construction Contractors to the O&M Contractor.

Incident Reporting

The CFRC/SunRail and Phase 2 South Project Team are committed to full compliance of FRA and SSO reporting regulation and the complete and accurate reporting of all accidents, incidents, injuries, and occupational illnesses arising from the operation of the railroad and construction activities. All contractors are required to be in compliance with the Internal Control Plan for the CFCRT Project and CFRC in accordance with 49 CFR Part 225 and under the authority of the CFRC/SunRail Director of Operations.

To improve communications and maintain a safe and secure environment for all users of the CFRC, hazards and safety incidents that may affect the safety of rail services or construction activities shall be reported to the CFRC/SunRail Safety and Security Committee as detailed in the Internal Control Plan (49 CFR Part 225 and Section 341.061 State Safety Oversight) through the following process:

The immediate supervisor or management responsible for the employee(s) involved in a safety/security incident will be expected to supply the CFRC/SunRail SSM with a completed initial report within 48 hours of the incident. Follow-up investigation of the incident will be performed by a team that may include representatives from the CEI, FDOT Construction Office, CFRC/SunRail Officers, the Construction Contractor, the O&M Contractor, the SMF Contractor, government officials, and, when a railroad operating on the Corridor is involved, a representative of that railroad. Their completed Incident Report will then be presented to the Safety and Security Committee. The Committee will determine whether further investigation is warranted, what mitigation would eliminate or reduce the potential for similar incidents, and make recommendations.

The CFRC/SunRail SSM will then prepare an Incident Review Summary that will be distributed to all members of the Safety and Security Committee. The CFRC/SunRail Safety and Security Committee will convene on a monthly schedule, typically the second Tuesday of the month, to review hazard and incident activity and if necessary make recommendations for corrective action.

The following chart is a diagram of the process flow:

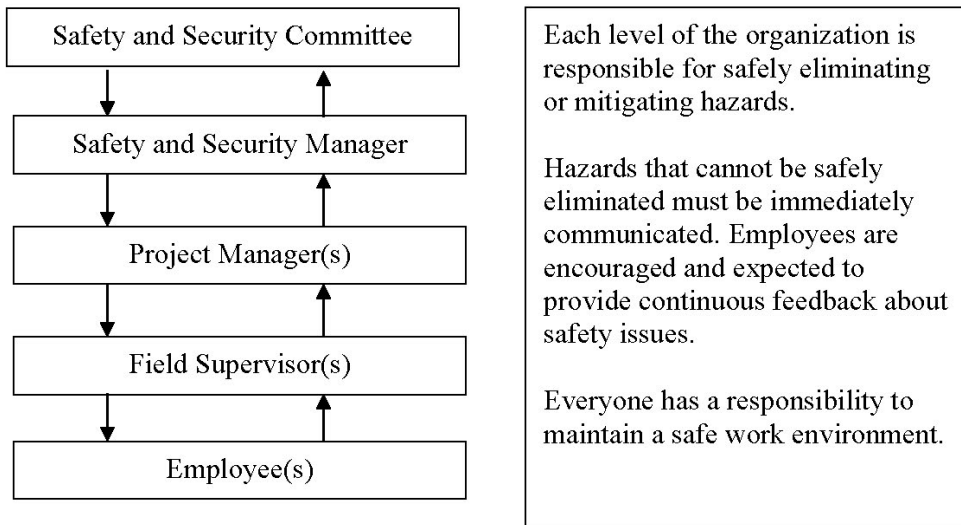


Figure 2-1 – Safety Incident Flowchart

Safety Observation Program

The Safety Observation Program, which is a component of the current CFRC SIP, was created to enhance safety for all railroad personnel (Host and Tenant railroads) that work within the Corridor and to facilitate compliance with all applicable safety rules, instructions, policy and procedures pertaining to the CFRC and CFCRT Project. The Program tenets are that by reviewing safety and security rules and requirements with personnel in a field environment, managers can get a better understanding of hazards and identify safety improvements that may be required. Safety representatives of the Project Construction Contractors, O&M Contractor, CEI Consultant, and CFRC Officers will conduct single or joint observations as a Safety Observation Team to determine the extent of compliance to safety rules and safe work practices. Although all workers can make safety observations and should report unsafe acts to their supervisors, designated observers for the Safety Observation Team will perform observations for work activities in which they are qualified.

Safety observations are an opportunity to verify that Construction Contractor employees are working safely and in compliance with their company policies and procedures and Phase 2 South Project plans, including, but not limited to the CFRC SIP and each Construction Contractor’s safety plan.

Individuals who are observed in non-compliance of a rule, policy or procedure, must be notified of the non-compliance as promptly as possible and corrective measures taken to ensure safety. More information on the Safety Observation Program is available in Section 10 of the CFRC SIP.

Employee Non-Compliance

The failure of Phase 2 South Construction Contractors or third-party contractors to comply with Project-specific safety and security plans, or to otherwise comply with applicable safety requirements, shall be considered reason for removal from the Project.

2.3. Training Program

Training and qualifying of Construction Contractor personnel will be completed prior to commencement of construction activities. Milestones for the Construction Contractor's activities are shown in the Project Master schedule in the PMP Attachment C.

The O&M Contractor personnel are trained through the O&M Contractor's training program for each title, with modifications specific to the CFRC and SunRail commuter rail service and equipment. Safety and security (system, personal, and public) will be required elements of every training curriculum

In addition to training required by title and position, all employees, consultants, and contractor personnel who are authorized to work within 25' of the CFRC track, must receive appropriate 49 CFR 214 RWP training and have evidence of this training on their person when they are within the CFRC ROW.

A roadway worker is any contractor working on the CFRC Project Phase 2 South or contractor to the CFRC whose duties include inspection, construction, maintenance or repair of: track, bridges, roadway, signal and communications systems, electrical traction systems, roadway facilities or roadway maintenance machinery...on or near track or with the potential for fouling track. All roadway workers working on or near CFRC bridges and/or involved with bridge construction and/or bridge maintenance activities on the CFRC or Phase 2 South must comply with the current version of the CFRC Bridge Safety Management Plan. CFRC bridge worker safety protection is based on Title 49 CFR §214, Subpart B - Bridge Worker Safety Protection for fall protection (49 CFR Part 214.103). These rules are in addition to the requirement to comply with the operating and safety rules adopted by the CFRC and Occupational Safety and Health Administration (OSHA).

Training curriculums shall be maintained by the manager of the department responsible for performing the training and shall be reviewed and updated as conditions warrant. Training, licensing, and certification requirements for each title shall be identified in the individual title descriptions. Employee files shall contain evidence that each employee has had the appropriate qualifications, licenses, certifications, and training for the title and responsibilities.

CFRC Operating Rules Training

During the mobilization period for the Construction Contractor, select Construction Contractor personnel may be qualified by CFRC representatives on Operating Rules and physical characteristics of the CFRC to provide appropriate rules training to their personnel, as required by FRA regulations. The Phase 2 South Construction Contractors will also be responsible to have in place an OSHA-compliant safety program, which includes training personnel on safe construction methods for their specific work assignments.

Other Safety and Security Activities

Activities to be performed to ensure safety and security, which are integrated into the Project activities by various Project participants, are described in Table 3-1. Other programs not included in Table 3-1 are addressed elsewhere in the SSMP or will be addressed separately in

each Construction Contractor's SSPP and SSP, the CFRC/SunRail SSPP and SSP (available at IOS revenue service), and the Phase 2 Project SSCP. These programs include, but are not limited to: security awareness training for employees, development of safety and security committees as addressed in Section 3.2; development of Passenger Train Emergency Preparedness Plan required by FRA as addressed in Section 10 and TSA requirements as discussed in Section 11.

2.4. System Safety and Security Plans

CFRC/SunRail Director of Operations will have the responsibility for the review and acceptance of all Phase 2 South safety and security project plans. The CFRC/SunRail SSM will also review all submitted safety and security project plans and make recommendations to the DO and FDOT COO/Passenger Rail Operations Manager as to each plan's status.

CFRC/SunRail Safety and Security Plans: Approximately 180 days before the Revenue Service Date (RSD) for Phase 2 South, FDOT will revise the current CFRC/SunRail SSPP, SSP and Security and Emergency Preparedness Plan (SEPP) to include the Phase 2 SunRail operations. HA will continue to be performed as part of a broader effort of additional hazard analysis in accordance with the CFRC/SunRail's SSPP.

Contractor System Safety Program Plan (C-SSPP): All Phase 2 South Project Construction Contractors are required to submit a C-SSPP for their scope based on appropriate regulations, standards and guidelines, which will identify, eliminate, minimize, and control safety hazards and their attendant risks. The C-SSPP shall meet all applicable federal and other legal requirements and regulations, and must be provided to the CFRC/SunRail DO 30 days before construction commences for review and acceptance. If not accepted, the Contractor C-SSPP must, within 30 days, be revised by the Construction Contractor to an acceptable level.

Contractor Construction Safety Plan (CCSP): All Phase 2 South Project Construction Contractors are required to submit a site-specific Contractor Construction Safety Plan (CCSP) that details how the Contractor will implement the construction components of the C-SSPP and other specific safety and security requirements identified in the bid documents. This CCSP, which will comply with all government requirements and industry standards including, but not limited to the application of OSHA Safety and Health Regulations for Construction (29 CFR Part 1926) and General Industry (29 CFR Part 1910), will attempt to coordinate all available means of eliminating or controlling hazards and risks associated with the type of work activities undertaken by the Construction Contractor.

Contractor System Security Plan (C-SSP): All Phase 2 South Project Construction Contractors are required to submit a Phase 2 South Project Contractor – System Security Plan (C-SSP) that be provided to the Safety and Security Administrator 30 days before construction commences for review and acceptance, and meet all applicable federal and other legal requirements, regulations, and standards. If not accepted, the C-SSP must, within 30 days, be revised by the Construction Contractor to an acceptable level. This C-SSP will be updated annually 30 days prior to the anniversary date of its initial plan submittal, and will detail the Contractor's security policies, procedures and programs. The C-SSP will further ensure compliance with FDOT's background verification program (e-RAILSAFE SHORTLINE©) employee verification under FDOT's established account, an identification badge system for contract employees; a vehicle control system for employee vehicles within the CFRC and a plan for restricting access to facilities.

Safety and Security Certification Plan (C-SSCP): All Phase 2 South Project Construction Contractors are required to develop and implement a Contractor - Safety and Security Certification Plan (C-SSCP) within their scope, and develop and complete the Construction Conformance Checklist to verify that CFCRT Project as-built facilities and systems incorporate the safety and security-related requirements identified in the Final Design specifications and drawings for construction and captured in design conformance checklists.

Construction Contractors will be provided with the current CFRC SSPP, SSP and Security Emergency Preparedness Plan (SEPP) developed for IOS revenue service as a guide for development of their Phase 2 South documents. All Contractors are expected to comply with current CFRC/SunRail safety and security policies and procedures. As elements of the CFRC SSP and CFRC SEPP include Security Sensitive Information (SSI), all Construction Contractors with possession of these documents will be required to comply with CFRC/SunRail Standard Operating Procedure (SOP) S190.01 for SSI.

System Integration Testing Plan (SITP): All Phase 2 South Project Construction Contractors are required to submit a draft Phase 2 South Project Contractor – System Integration Testing Plan (C-SITP) that will be provided to the CFRC/SunRail Director of Operations during construction mobilization for initial review and acceptance, and meet all applicable federal and other legal requirements, regulations, and standards. Each Phase 2 South Project Construction Contractor will submit the final document to the SITC for review and acceptance, no later than 60 days before system integration testing commences in accordance with the Master Project Schedule, and include emergency drills. The Project System Integration Testing Committee (SITC) will be formed early in the construction phase of the Project. An overarching CFRC/SunRail SITP that identifies the roles of all Phase 2 South Contractors will be developed by FDOT with assistance by the O&M Contractor during the construction phase.

Rail Services Plan: The Rail Services Plan is intended to address the operational issues of passenger service on the Phase 2 South segment and will be developed by the FDOT's existing O&M Contractor for Phase 1 (IOS) SunRail commuter service.

Examples of these activities are receipt of manuals and training documentation from Project Contractors, conduct of the training plans, developing an operational schedule and SOPs, modifications to the CFRC Operating Rules, community relations, and coordination with local fire and emergency services. Emergency readiness drills performed during the SIT phase may be repeated as operational training exercises and to serve as a tool to familiarize fire/life/safety personnel on the Phase 2 South alignment and SunRail commuter vehicles. The Rail Services Plan will be monitored by the Rail Activation Committee.

Rail Activation Plan (RAP): The purpose of the Rail Activation Plan (RAP) is to transition the Phase 2 South CFCRT Project from construction to revenue service. The RAP is comprised of three subsidiary plans which are described in detail within this section and in Table 2-1: the CFRC/SunRail SSCP, which identifies requirements, processes, and responsibilities for SCIL, hazard and vulnerability resolution verification, and the certification of design, construction, integration testing, pre-revenue operations, training, development of needed operational plans and procedures, and all other required elements for safe and secure operation; the CFRC/SunRail RSP which identifies all requirements for Phase 2 South pre-revenue operations, such as additional O&M training, and the plans and procedures needed for operations; and the CFRC/SunRail SITP, which includes all tests and drills required to verify the safety and security of the completed CFRC and extended SunRail operations.

The RAP is administered by the Rail Activation Committee (RAC) and its three subsidiary committees, as delineated in Table 3-1. The RAC is formed during the Construction Phase and provides management oversight of the process for verifying and certifying the remaining elements for rail activation during the latter phases of the Project.

The CFRC/SunRail Rail Office organization and the O&M Contractor assumed safety and security responsibilities for the operational life cycle of the CFRC system with commencement of Phase 1 (IOS) commuter rail service, and will assume responsibility for Phase 2 South commuter service at the revenue service date as specified in the Phase 2 South Master Project Schedule.

Contractor Emergency Response Plan (C-ERP): All Construction Contractors will provide to the CFRC/SunRail Director of Operations for acceptance a C-ERP to effectively address conditions resulting from major storms and other natural occurrences that could disrupt rail service. Construction Contractors will be provided with the current CFRC documents, as stated above, to develop this plan in accordance with CFRC policies. The C-ERP shall include, but is not limited to, protection of: personnel working on the ROW; travelling public near the ROW; CFRC property, including work and materials; and directives for compliance with State of Florida Executive Orders. The Safety and Security Administrator will review the C-ERP, and either accept the Plan, or direct the Contractor to revise the plan and re-submit within 30 days. The C-ERP shall detail the specific use and assignment of all resources available and the Contractor shall provide additional resources as necessary.

Joint Passenger Train Emergency Preparedness Plan (PTEPP): All Construction Contractor for Phase 2 South will be required to comply with the CFRC's current Joint Passenger Train Emergency Preparedness Plan (PTEPP) with Amtrak and the CFRC SEPP that will be developed prior to IOS revenue service. During system integration testing and pre-revenue service phases, the O&M Contractor and Construction Contractors will be contractually obligated to perform tabletop, functional and field incident drills, as appropriate, to demonstrate to the CFRC/SunRail Director of Operations their personnel's readiness to respond to emergencies on the Corridor prior to South Corridor SunRail operations.

An emergency telephone number has been established for the CFRC with the call letters 1-877-CFL-Rail (1-877-235-7245). This number is posted on all grade crossing signs and CFRC community outreach material. The Safety and Security Communications Coordinator (SSCC) personnel receive and process information from the CFRC Train Dispatcher, CFRC/SunRail Officers, O&M personnel, emergency responders and members of the public on situations such as derailments, trespass activities, fatalities/injuries, fires and warning device malfunctions, and provide updates and instructions on these situations to the applicable parties. SSCC personnel are thoroughly familiar with the physical characteristics of the Corridor and able to identify all locations along the ROW that allow for access by emergency responders as well as locations that Amtrak passenger trains might utilize during an emergency situation. The Phase 2 South Construction Contractor, PTC Contractor and Signal Construction Contractors will notify the SSCC of all emergency situations within the Corridor.

Hazard Analysis Plan: The methodology for the All-Hazard Analysis (HA) was developed during the latter part of Final Design for Phase 1 (IOS), and describes the general processes used to recognize, evaluate and resolve potential hazards and/or vulnerabilities associated with the design, construction, testing, and commissioning of the Project for patrons, employees, emergency responders, and the public. A Phase 2 South HA was completed during Preliminary Engineering for Phase 2 South, and follows, but is not limited to the FRA "Collision Hazard Analysis Guide: Commuter and Intercity Passenger Rail Service", Final (2007) and the FTA "An Introduction to All-Hazards Preparedness for Transit Agencies"(May 2010). As a result of the

Hazard Analysis, modifications to the Preliminary Design have been recommended to FDOT and will be implemented. Implementing these modifications will reduce “unacceptable hazards” to “acceptable with review” or to “acceptable”.

Identified hazards through the HA process will be placed on a Safety and Security Critical Items List (SCIL) and tracked until resolution: i.e., implementation of corrective action or acceptance of risk by the CFRC/SunRail Director of Operations and Safety and Security Manager, and the CFRC/SunRail Safety and Security Certification Committee. The HA will be updated by the Design Consultant during the Final Design Phase prior to construction of the Phase 2 South system elements.

Procedure for Handling Sensitive Security Information

Federal regulations in 49 CFR Part 15, Protection of Sensitive Security Information (SSI), promulgated by the US Secretary of Transportation, and 49 CFR 1520, Protection of Sensitive Security Information, issued by the Transportation Security Administration (TSA), Department of Homeland Security (DHS), primarily deal with handling SSI in aviation and maritime operations, as well as critical transportation infrastructure. TSA, amended 49 CFR 1520 in November 2008 to include in § 1520.7 (n) “covered persons” as “Each railroad carrier, rail hazardous materials shipper, rail hazardous materials receiver, and rail transit system subject to the requirements ...” of 49 CFR Part 1580. *CFRC/SunRail SOP S190.01* is the standard operating procedure (SOP) for handling SSI that will be used for the Phase 2 South Project. This SOP follows project-relevant and applicable clauses from 49 CFR Part 15 and 1520 federal regulations. The procedure is based on guidance provided by the Federal Transit Administration (FTA), “Sensitive Security Information (SSI): Designation, Markings, and Control, Resource Document for Transit Agencies, March 2009” and includes:

- “Scope” which meets the intent of paragraph 1 in 49 CFR Part 15, as applicable to the CFCRT Project.
- “Terms used in this procedure” which meets the intent of paragraph 3 in the above 49 CFR Part, as applicable to the CFCRT Project.
- “Sensitive security information” which meets the intent of paragraph 5 in the above 49 CFR Part, as applicable to the CFCRT Project.
- “Covered persons” which meets the intent of paragraph 7 in the above 49 CFR Part, as applicable to the CFCRT Project.
- “Restrictions on the disclosure of SSI” which meets the intent of paragraph 9 in the above 49 CFR Part, as applicable to the CFCRT Project.
- “Persons with a need to know” which meets the intent of paragraph 11 in the above 49 CFR Part, as applicable to the CFCRT Project.
- “Marking SSI” which meets the intent of paragraph 13 in the above 49 CFR Part, as applicable to the CFCRT Project.
- “SSI disclosed by TSA or DOT” which meets the intent of paragraph 15 in the above 49 CFR part, as applicable to the CFCRT Project.
- “Consequences of unauthorized disclosure of SSI” which meets the intent of paragraph 17 in the above 49 CFR part, as applicable to the CFCRT Project.
- “Destruction of SSI” which meets the intent of paragraph 19 in the above 49 CFR part, as applicable to the CFCRT Project.

The CFRC/SunRail Director of Operations will review, revise and update the categories of SSI documents, including documentation for Phase 2 South, on an annual basis, or as required, to identify which specific information created, collected, or maintained under the CFCRT system security should be designated and maintained as SSI. The duties of the Director of Operations may be delegated to the Safety and Security Manager who is also designated the Rail Security Coordinator in accordance with TSA's regulation 49 CFR Part 1580, Rail Transportation Security, § 1580.201 Rail Security Coordinator.

2.5. Agency/Grantee Management Interfaces

FTA Circular 5200.1 provides Grantees with guidance and direction on the development of Full Funding Grant Agreements (FFGAs) for major capital investment projects and defines the PMP as a written plan developed and implemented by a Grantee to cover the "Grantee's detailed project management strategy, including safety and security, and a Safety and Security Plan is always required. FTA has also provided Circular 5800.1 "Safety and Security Management Guidance for Major Capital Projects," which clarifies Grantees' safety and security management activities in each phase of project development. During the Request to Enter Final Design, the PMOC reviews FDOT's SSMP for adequacy and soundness.^{2 3}

FDOT will participate in quarterly meetings between FTA and FDOT for the purpose of reviewing progress with FTA staff and the PMOC and allowing meaningful dialog to take place on Project issues, including safety and security. FDOT will ensure that all of its Phase 2 South Project consultants provide written documentation of all safety and security activities in a manner which can be reviewed by representatives of FDOT and the FTA and its representatives.

Despite the allocation of certain Project tasks to consultants, contractors, third parties, or other agencies, FDOT remains responsible for the successful implementation of the Project. Figure 2-2 shows the organizational structure for the Project. FDOT has organized and staffed FDOT resources to maintain control of both Phases of the CFCRT Project and to oversee any work formally allocated to others for each phase.

The FDOT District 5 CFCRT Project organization for Phase 1 (IOS) and Phase 2 South consists of a District Secretary, two Department Directors, a Transportation Support Manager, Public Information Office, a Chief Counsel, and a Quality Assurance (QA) Manager. The project duties and responsibilities of each Department Director and the Project duties and responsibilities of each Department are clearly established and delineated in Section 9 of the Phase 2 South PMP for Entrance into Final Design.

Figure 2-3 illustrates the future Rail Office Organization and the future Operations and Maintenance (O&M) Contract Organization that FDOT will implement in preparation for Phase 1 (IOS) SunRail commuter rail service and continue for Phase 2 South SunRail commuter rail service. The future Rail Office Organization will be responsible for implementing all rail policy and procedures for the CFRC Corridor, capital planning, customer service, regulatory compliance, financial management and management of the O&M Contractor. The day to day

² U.S. DOT Federal Transit Administration, TPM-20 Office of Engineering, Project Management Oversight, Oversight Procedure 20 - Project Management Plan Review, Rev. 2, May 2010.

³ U.S. DOT Federal Transit Administration, TPM-20 Office of Engineering, Project Management Oversight, Oversight Procedure 22 – Safety and Security Management Plan Review, Rev. 2, May 2010.

operations of the SunRail commuter service and the maintenance of the CFRC railroad system on the corridor will be the responsibility of the Operations & Maintenance (O&M) Contractor.

Figure 2-4 shows the Project Team organization for the Final Design phase with projected reporting relationships. Personnel shown as Internal FDOT Resources provide occasional support to the Project team from within FDOT's standard organization.

Figure 2-5 depicts FDOT's Construction Management Organization during construction of Phase 2 South, including the future Construction Engineering Inspection (CEI) consultant. The CEI consultant will provide day-to-day construction contract management, coordination and QA/QC for the Project under the direction of the FDOT Resident Engineer, hereafter referred to as the Resident Engineer.

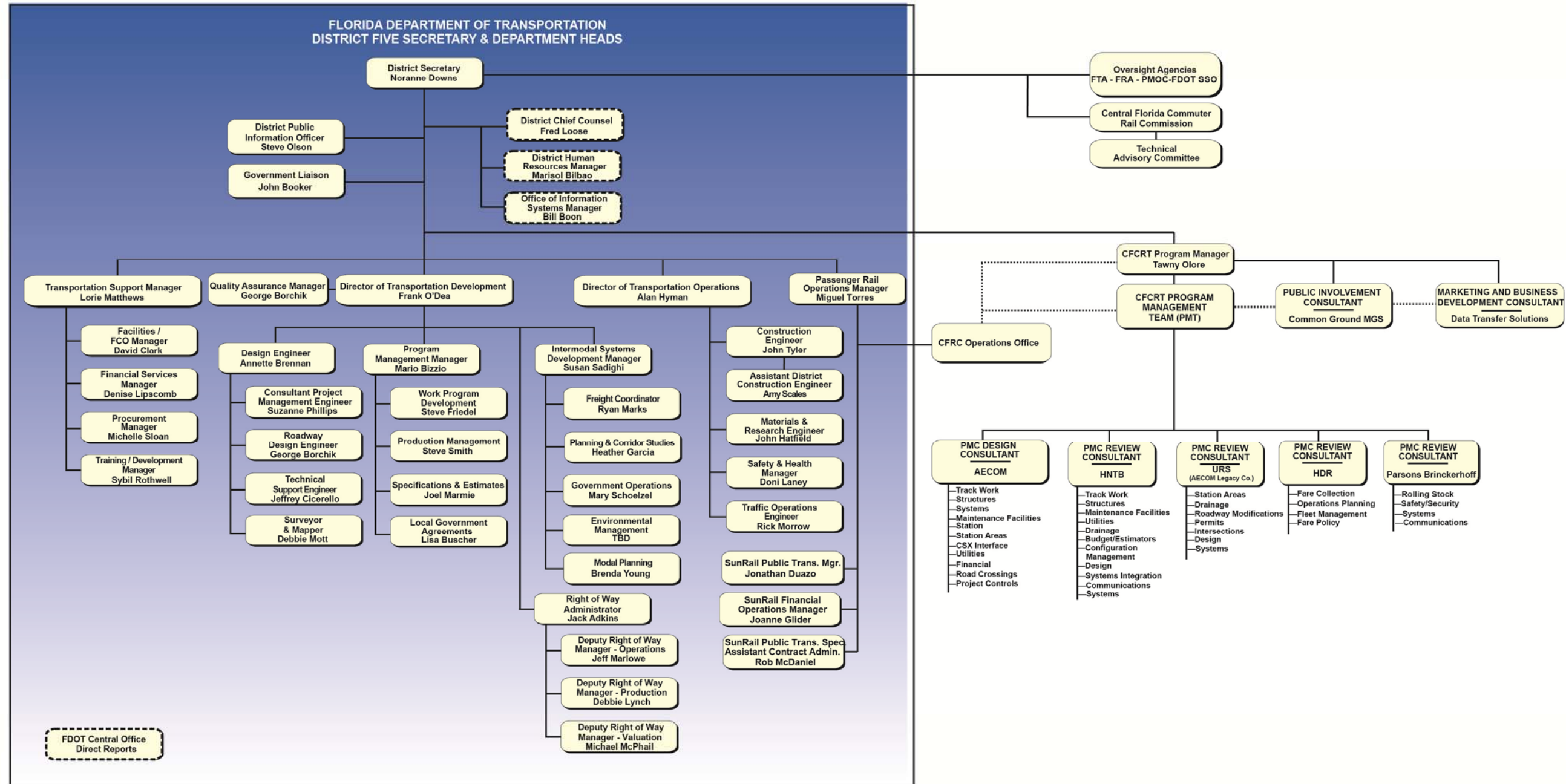


Figure 2-2 – Functional Organization Chart

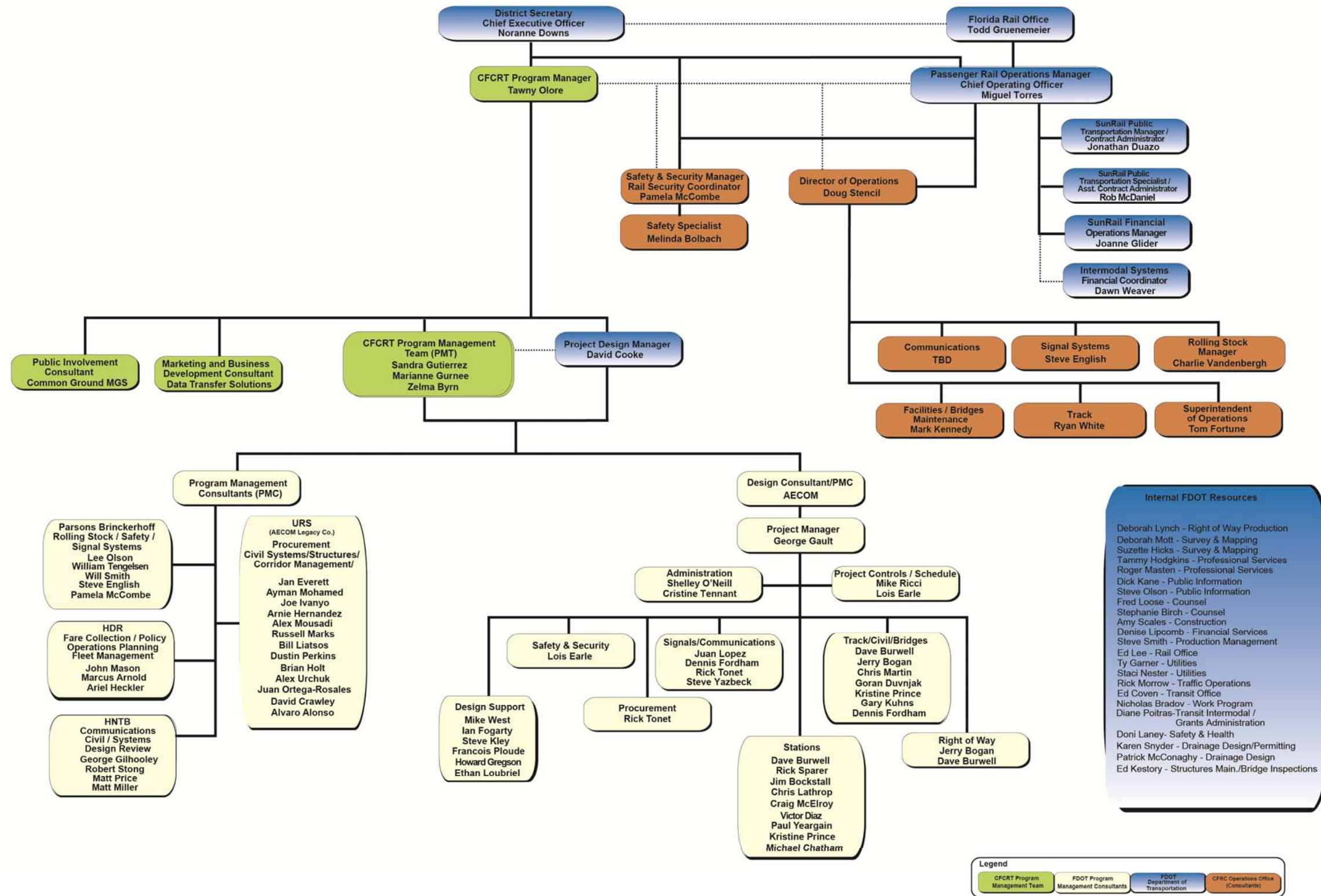


Figure 2-4 – Project Office Organization

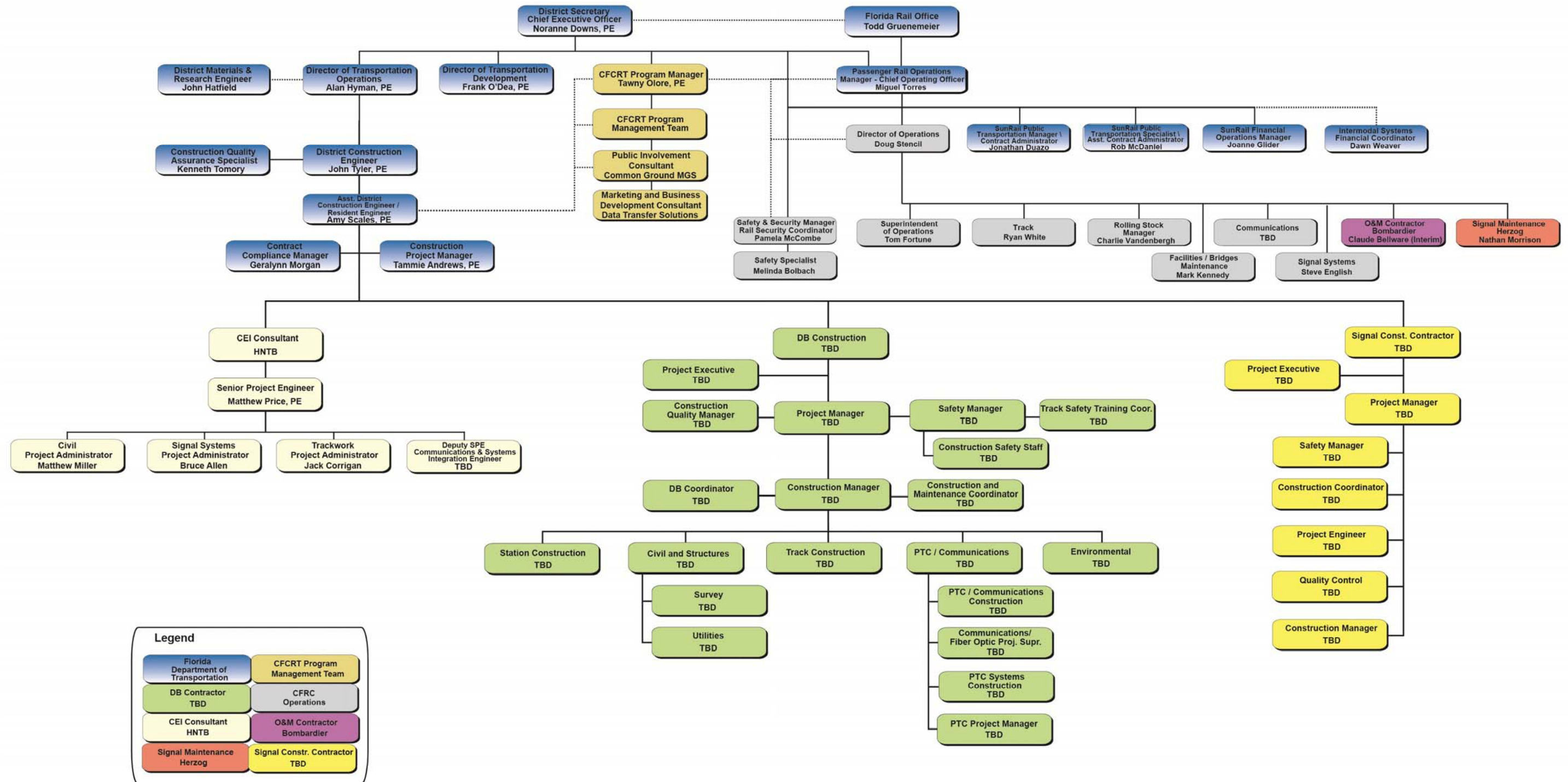


Figure 2-5 – Phase 2 South Construction Management Organization

2.6. Identification of Safety and Security Decision Makers

The FDOT District 5 Secretary, in the role of CFRC/SunRail Chief Executive Officer (CEO), is ultimately responsible for safety and security for all aspects of the CFCRT Phase 2 South Project. The CFRC/SunRail CEO has delegated authority to FDOT Chief Operations Officer and the CFCRT Program Manager to act for the CEO in performing or overseeing performance of the tasks for which they are ultimately responsible. Accordingly, within FDOT District 5 the Transportation Development Department (during Design) and the Transportation Operations Department (during Construction) have the respective responsibility to ensure that the design, construction, installation, and testing of all critical system elements of the Phase 2 South Project have been evaluated for conformance with the safety and security requirements and to verify operational readiness before completing each phase of the Project. The CFCRT Program Manager, under the direction of the CFRC/SunRail Director of Operations, provides overall day-to-day direction to the CFCRT Project organization and is accountable for the quality of work and adherence to budget and schedule.

Safety and security for the Project will also be coordinated as appropriate by the SunRail Oversight Team with outside agencies including the Federal Transit Administration (FTA), Federal Railroad Administration (FRA), Department of Homeland Security (DHS), and Transportation Security Administration (TSA), FDOT Central Office – State Safety Oversight (deemed external for purposes of state safety oversight of the Fixed Guideway Transit System per Florida Statutes), counties and local municipalities having jurisdiction to ensure conformity and coordination in the safety and security approach to the Project with existing standards and practices.

2.7. Defined Interfaces for Grantee staff and Construction Contractors

FDOT Construction Management, comprised of the FDOT Resident Engineer and FDOT support staff, and engineers and inspectors provided by a CEI Consultant, will ensure that the Project is constructed according to the drawings and specifications. This effort will be coordinated by the CFRC/SunRail Director of Operations who also is responsible for certifying that Phase 2 South SunRail commuter service is safe and ready for revenue operations.

3. Safety and Security Responsibility Assignments

3.1. Responsibility and Authority

Safety and security responsibilities and authorities change through the Phase 2 South Project development life cycle phases of design, construction, integration testing, and commissioning. Table 3-1 shows safety and security authority and responsibility for key personnel for each phase of the Project.

FDOT procurement and CEI personnel shall ensure that all Construction Contractors submit their own construction safety and security program documents as detailed in Section 2.3. A C-SSPP and C-SPP are to be developed by the Construction Contractors during the Construction Mobilization period, as well as a specific CCSP that details how each Contractor will meet the RFP requirements. Proper supervision and training at all tier-levels with employee participation in construction safety and security will be required.

CEI Consultant safety and security professionals will provide daily oversight of the contractor's application of the Construction Contractor's approved CCSP. FDOT's contract documents, including the CFRC Roadway Worker Protection Plan and the SIP state that the FDOT Project Management Team, including the CEI Consultant personnel, as well as CFRC/SunRail Director of Operations and CFRC/SunRail Safety and Security Manager have the authority to stop any unsafe construction activity and prescribe necessary conditions that must be met for work to resume. In addition, these Project personnel will report all observed unsafe working conditions or security breaches to the Construction Contractors and the Safety and Security Committee, notify the Construction Contractors and the Safety and Security Committee in writing of non-compliance with any of the safety and security requirements, maintain written documentation of communications with the Construction Contractors concerning accident prevention and security breaches, and review Construction Contractors' Daily Reports, Equipment Maintenance Logs, Accident Report Forms, and other applicable forms. Violations may result in suspension of work until the violations are corrected, or termination of the contract. Repeated violations by an individual may result in FDOT ordering of a Construction Contractor or subcontractor to remove the individual (temporarily or permanently) from the construction site as per Division 1 Specifications Section 8-5.

The Phase 2 South SSMP incorporates safety and security as a priority for every member of the management team, including FDOT staff and design and quality assurance contracted professionals. All members of the Project Team are responsible for exercising their part of the Safety and Security Management Program. This includes the reporting of unsafe and vulnerable conditions or activities, as well as receiving safety and security awareness and other safety and security training appropriate to the individual's specific role, under the direction and guidance of the CFRC/SunRail Director of Operations.

The CEI Consultant Rail Safety Coordinator, as specified in Figure 2-5 of this document will evaluate the contractors' adherence to the contract documents and construction phase safety and security requirements, under the overall direction of the CFRC/SunRail Director of Operations. Assistance in assessing the security requirements will be provided by the CFRC/SunRail Safety and Security Manager. The need for other full or part-time construction safety or security professionals during the construction phase will be re-evaluated continually throughout the duration of construction by the CFCRT Program Manager and the CFRC/SunRail Director of Operations. Construction safety personnel assigned to the Project (part or full time) will undertake compliance checking activities (including but not limited to submittal review and field observations) to insure the compliance and quality of the contractor's construction safety and security activities.

3.2. Committee Structures

Membership for committees that have a safety and security component is summarized in Table 3-1.

3.2.1. Executive Safety and Security Committee

The Executive Safety and Security Committee consists of FDOT and Phase 2 South Project senior management decision makers with authority to allocate resources for any corrective action proposed. This group will meet once a quarter with set dates on their calendar, unless a serious issue needs to be addressed sooner. The FDOT District 5 Secretary or designee will be the Chair of this committee.

3.2.2. Safety and Security Operations Committee

The Safety and Security Operations Committee consists of representatives from the various entities on both phases of the CFCRT Project involved in the day-to-day construction activities and operations on the railroad. This group meets monthly on a set day to discuss issues related to Safety and Security. Included among the members are the CFRC/SunRail Director of Operations' Rail Office, and the Public Involvement Consultant's Information Specialists to keep the public aware of progress, rail-highway grade crossing closures or any issues that may impact the daily lives of the public who come in contact with the CFRC/SunRail system. This group will be chaired by the CFRC/CFRC/SunRail Director of Operations and/or Safety Group. When needed, the Director of Operations and/or the Safety Group will make arrangements to convene meetings with the Executive Safety and Security Committee, not associated with regularly scheduled quarterly meetings, to present safety or security issues needing immediate attention. Safety and security issues will also be discussed at daily operations meetings that are chaired by the CFRC/SunRail Director of Operations. At these morning meetings all reportable and non-reportable accidents/incidents/security issues that occurred within the previous 24 hours as well as initial management response to these issues will be scrutinized.

3.2.3. Fire/Life Safety Committee

The Fire/Life Safety Committee oversees and provides guidance for CFRC/SunRail's system safety fire/life approach and processes. Committee participation will vary, in response to specific system issues, and will include, as appropriate, stakeholder-designated representatives from local first responders (Fire, Police Departments and Emergency Operation Centers), CFRC Officers, FDOT D5, Construction Contractors for Phase 1 and 2 and the O&M Contractor. The Fire/Life Safety Committee may review components of hazard analyses and safety certifications, witness Project testing associated with fire/life safety issues and participate in pre-revenue service emergency planning and testing, such as table-top and field drills. The Fire/Life Safety Committee will meet on an as-needed basis during the construction period. The chair for this committee is the CFRC/SunRail Director of Operations and/or the Safety Group. The functions and processes of this committee also parallel emergency preparedness requirements of 49 CFR Part 239, referenced in CFRC Passenger Train Emergency Preparedness Plan (PTEPP).

3.2.4. Configuration Control Advisory Committee

Configuration management is the systematic control of the Project's physical, safety, security, operational and aesthetic features and the monitoring and documenting of all changes to these features. The goal of configuration management is to ensure that the overall configuration of the Project is not changed without a systematic review of the change and that the impact of the change on all other aspects of the system and Project objectives is recognized. To this effect, a Configuration Control Advisory Committee (CCAC) is a vital management tool in evaluating recommended design changes to the Phase 2 South Project.

The Configuration Control Advisory Committee (CCAC) is a forum where proposed Project changes are fully scrutinized by FDOT management. The process of configuration management is intended to ensure that all changes have been fully evaluated and that a conscious decision has been made that the change is necessary and thus will benefit the Project.

A Configuration Control Advisory Committee (CCAC) was established as the central management tool in evaluating recommended design changes during Final Design of Phase 1 (IOS), and the Committee will continue to function for the purpose of ensuring effective configuration management for Phase 2 South of the CFCRT Project.

The Project Bi-weekly FDOT Executive Management Meeting functions as the CCAC. One meeting per month includes Project consultants and contractor representatives; one meeting per month is also reserved solely for FDOT Executive Management. Standing Membership of the CCAC includes:

- FDOT District 5 Secretary (Chair)
- FDOT Director of Transportation Development
- FDOT Director of Transportation Operations
- FDOT Chief Operating Officer/Passenger Rail Operations Manager
- FDOT SunRail Contract Administrator
- CFCRT Program Manager
- FDOT Chief Counsel (Resource)
- FDOT Government Affairs Liaison (Resource)
- FDOT Transportation Support Manager (resource)
- FDOT District Construction Engineer (Resource)
- FDOT Resident Engineer or RE representative (Resource)
- CFRC Director of Operations (Resource)
- CFRC Safety and Security Manager (Resource)
- PMC Consultant Project Manager (Resource)
- Project CEI Senior Project Engineer (Resource)
- Design Consultant Project Manager (Resource)
- Other FDOT Department Heads and Auditors, as required (Resource)

The FDOT Passenger Rail Operations Manager and CFCRT Program Manager have the responsibility for setting the agenda for issues to come before the CCAC and ensuring decisions are implemented in a timely manner. Alternates may be assigned to the CCAC with the approval of the Chair.

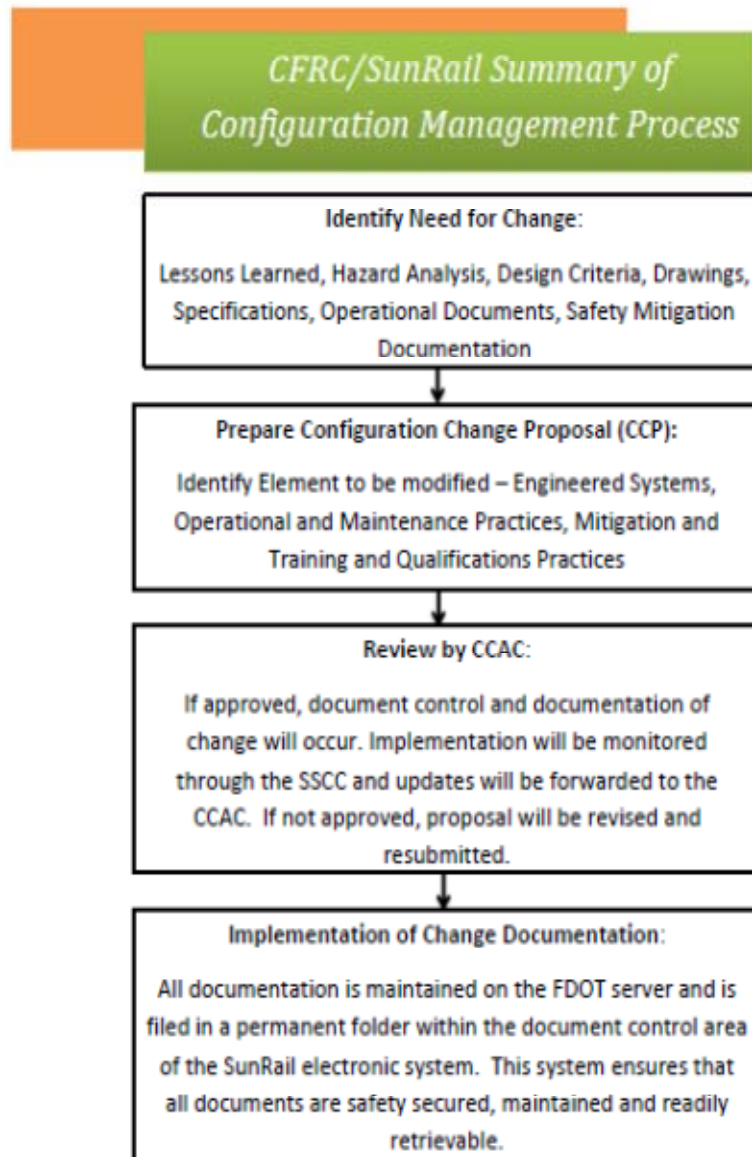
There may be situations where the Phase 2 South Design Criteria is further refined by input from oversight agency comments, prospective bidders' comments and FDOT design directives. If changes or variances are needed to the Design Criteria during Final Design and beyond, those changes or variances will be brought before the CCAC.

Records of the committee meeting minutes as well as the Design Criteria will be processed into FDOT District 5 CFCRT's document control system. Design Criteria that need to be revised during Final Design and beyond that have an impact on safety and/or security and may adversely affect safety and/or security risk will be brought to the Project's Executive Safety and Security Committee for review and direction. This information may be derived from HA's and TVA's which commenced during Preliminary Engineering and are updated throughout the Project phases.

During Engineering and Construction phases for Phase 2 South, the PMT and CEI Consultant will assist FDOT in documenting all changes. FDOT will be kept informed of these potential changes as to schedule and budget implications through the use of the CCAC.

After the baseline for the Project's design has been set, changes to the contract requirements must follow a formalized process. The purpose of the process is to obtain input from affected disciplines prior to authorizing a change, document all changes, insure configuration / document control, and safeguard the original contract documents. The CCAC will approve all changes before revisions are made to the original documents. In addition, all changes which affect the Project quality, budget or schedule, require approval of the FDOT Executive Oversight Team.

In addition, the O&M Contractor is responsible to maintain a configuration management system for system equipment and facilities to assure that decisions to change or modify designs, equipment and facilities result after deliberate evaluation and findings of conformance with safety requirements; and are implemented with proper and complete documentation to all affected design/specification records, and to all other affected documents such as operating procedures and training manuals. Elements of this configuration management process are described in the O&M Contractor's QAPP and Information Management Plan. The flowchart below summarizes the configuration management process:



3.2.5. Safety and Security Certification Committee

The Safety and Security Certification Committee (SSCC) has primary responsibility to ensure that the certification program is implemented through all phases of the Phase 1 (IOS) and Phase 2 South Projects. Membership on the SSCC will vary as the Phase 1 (IOS) Project is completed and the Phase 2 South Project moves into the Construction Phase. The SSCC will meet on no less than a monthly basis and the schedule may be adjusted as the Project progresses to meet any additional needs of the CFRC/SunRail SCC Program.

The SSCC will review safety and security certification documentation provided by the Construction Contractors and their oversight representatives and, if satisfied, countersign recommendation for certification, and a Certificate of Conformance will be issued. As necessary, the SSCC will elevate issues to the Executive Safety and Security Committee for review.

As the CFCRT System Integration Test Program proceeds, the SSCC has the responsibility to verify that all safety-related tests are successfully completed. This is accomplished by witnessing tests, independently reviewing tests that affect system safety to ensure that identified hazards have been controlled or eliminated, and verifying that certificates of compliance are issued for each safety- and security-critical element, indicating that it meets established safety and security requirements.

Members of the SSCC representing the Construction Contractor, O&M Contractor and Vehicle Program Management Consultant for Rolling Stock will provide resources for final live testing of the system and to verify all system elements have been determined to be compatible and operate safely prior to commencement of Phase 2 South revenue service.

The activities of the Rail Integration Testing group will report on their activities and deliverables to the Safety and Security Operations Committee.

3.2.6. Rail Activation Committee

Members from the SITC and SSCC will form the Rail Activation Committee (RAC) to implement the Rail Activation Plan by providing oversight for the transition process from construction to revenue service and resolving outstanding issues that affect multiple aspects of the Project or issues that cannot be resolved by a single committee. Rail Service issues will also be addressed at this committee and will verify operational needs, including emergency preparedness, rail service training and pre-revenue testing. The O&M Contractor will prepare the Rail Services Plan and will be forwarded to the Rail Activation Committee for review and acceptance.

3.2.7. Construction and Operations Coordination Weekly Progress Meetings

Rail operational issues will be addressed at the Construction weekly progress meetings with the O&M Contractors, CEI, and CFRC Operations Office. These meetings will focus on the following:

- Verify operational needs
- Request track time and RWP issues
- Verify construction sequencing and coordination with the O&M Contractor and the Construction Contractor
- Monitor and coordinate testing
- Look ahead schedules and submittals
- Review RFIs and other project related issues

3.2.8. System Integration Testing Committee

The main purpose of the System Integration Testing Committee (SITC) is to provide resources for final live testing of the system and to verify that all system elements have been verified for compatibility and for safety operations prior to commencement of revenue service. The System Integration Test Plan will be forwarded to the SSCC for review and acceptance. Test results will be presented both to the SSCC and ESSC for review and will then be submitted to the PMOC for review. Coordination issues with Integration Testing, construction and rail service will be discussed at the Rail Activation Committee.

Table 3-1 - CFCRT Phase 2 South Project Safety and Security Committees

Committee	Chair	Members
CCAC (Alternates may be assigned)	FDOT District 5 Secretary (Chair)	<p>Convenes bi-weekly.</p> <ul style="list-style-type: none"> • CFRC/SunRail Director of Operations • FDOT District 5 Secretary (Chair) • FDOT Director of Transportation Development • FDOT Director of Transportation Operations • FDOT Chief Operating Officer/Passenger Rail Operations Manager • FDOT SunRail Contract Administrator • CFCRT Program Manager • FDOT Chief Counsel (Resource) • FDOT Government Affairs Liaison (Resource) • FDOT Transportation Support Manager (resource) • FDOT District Construction Engineer (Resource) • FDOT Resident Engineer or RE representative (Resource) • CFRC Director of Operations (Resource) • CFRC Safety and Security Manager (Resource) • PMC Consultant Project Manager (Resource) • Project CEI Senior Project Engineer (Resource) • Design Consultant Project Manager (Resource) • Other FDOT Department Heads and Auditors, as required (Resource)
Executive Safety and Security Committee (Alternates may be assigned)	FDOT District 5 Secretary	<p>Meets quarterly (or as needed).</p> <ul style="list-style-type: none"> • CFRC/SunRail Director of Operations • FDOT District 5 Secretary (Chair) • FDOT Chief Operating Officer/Passenger Rail Operations Manager • CFRC Director of Operations (Resource) • CFRC Safety and Security Manager and Specialist • Project CEI Senior Project Engineer • FDOT SunRail Contract Administrator • CFCRT Program Manager • FDOT Resident Engineer or RE representative • FDOT Chief Counsel (Resource) • FDOT Government Affairs Liaison (Resource) • FDOT Transportation Support Manager (resource) • FDOT District Construction Engineer (Resource) • FDOT Resident Engineer or RE representative (Resource) • PMC Consultant Project Manager (Resource) • Design Consultant Project Manager (Resource) • Other FDOT Department Heads and Auditors, as required (Resource) <p>*Immediate hazards and security breach will require immediate convening.</p>

<p>Safety and Security Operations Committee (SSOC) (Alternates may be assigned)</p>	<p>CFRC/SunRail Director of Operations/Safety and Security Manager</p>	<p>Convenes monthly.</p> <ul style="list-style-type: none"> • FDOT Chief Operating Officer/Passenger Rail Operations Manager • CFRC Director of Operations • CFRC Safety and Security Manager and Specialist • Project CEI Senior Project Engineer • CFRC/SunRail Director of Operations • CFRC Operations Office • FDOT District 5 Safety & Health Manager • CFCRT Program Manager and/or alternate • O&M Safety Manager • O&M General Manager • CEI Consultant Representative • Construction Contractor Safety & Security Managers/Representatives (resource) • FDOT Public Involvement Consultant (resource) • Design Consultant Safety Representative (resource)
<p>Safety and Security Certification Committee (SSCC) (Alternates may be assigned, as applicable)</p>	<p>CFRC/SunRail Safety and Security Manager</p>	<ul style="list-style-type: none"> • FDOT Chief Operating Officer/Passenger Rail Operations Manager • CFRC Director of Operations • CFRC Safety and Security Manager and Specialist • Project CEI Senior Project Engineer • CFRC/SunRail Director of Operations Office • FDOT District 5 Safety & Health Manager • CFCRT Program Manager • FDOT Resident Engineer or RE representative • O&M Safety Manager • O&M General Manager • CEI Consultant Representatives • FDOT Public Involvement Consultant (resource)
<p>Fire/Life Safety Committee (Alternates may be assigned, as applicable)</p>	<p>CFRC/SunRail Director of Operations</p>	<ul style="list-style-type: none"> • FDOT Chief Operating Officer/Passenger Rail Operations Manager • CFRC Director of Operations (Resource) • CFRC Safety and Security Manager and Specialist • Project CEI Senior Project Engineer • FDOT District 5 Safety & Health Manager • O&M Safety Manager • Local Emergency Responder Groups (Fire/EMS/ Law Enforcement)
<p>Rail Activation Committee (RAC) (Alternates may be assigned, as applicable)</p>	<p>PMT Project Manager</p>	<ul style="list-style-type: none"> • FDOT Chief Operating Officer/Passenger Rail Operations Manager • CFRC Director of Operations (Resource) • CFRC Operations Office • CFRC Safety and Security Manager and Specialist • Project CEI Senior Project Engineer and/or representative • CFCRT Program Manager and/or alternate • O&M General Manager and Representatives • Construction Contractor Project Manager • FDOT Program Management Team

<p>Systems Integration & Testing Committee (SITC) (Alternates may be assigned, as applicable)</p>	<p>CFRC Operations Office, Safety & Security Manager or designee</p>	<ul style="list-style-type: none"> • Construction Contractor Representative (s), as applicable • CFRC Operations Office CEI Consultant Representative(s) • O&M Contractor •
<p>Construction Weekly Progress Meetings</p>	<p>CEI Senior Project Manager</p>	<ul style="list-style-type: none"> • CEI representatives • CFRC Operations Office • O&M Contractor and representatives • Construction Contractor and representatives • Other stakeholders, as needed

3.3. Safety and Security Responsibility and Authority

Table 3-2 - Safety and Security Responsibility and Authority

	Design Phase PE and FD	Construction Phase	Integration Testing, Pre-Revenue Operation, Commissioning and Start- up Phases
FDOT District 5 Secretary/ CFRC Chief Executive Officer	<ul style="list-style-type: none"> Overall Responsibility for Safety & Security Chair of the Safety and Security Executive Committee 	<ul style="list-style-type: none"> Overall Responsibility for Safety & Security Chair of the Safety and Security Executive Committee 	<ul style="list-style-type: none"> Overall Responsibility for Safety & Security Approves the Safety and Security Certification Verification Report (SSCVR) and provides certification to FDOT SSO and FRA that the system is ready for revenue operations Chair of the Safety and Security Executive Committee
FDOT Director of Transportation Development	<ul style="list-style-type: none"> District Secretary's Authority for all Transportation development activities Project planning, engineering, management and control; environmental compliance; value engineering; real estate actions, intergovernmental coordination and quality assurance/quality control Review and approval of engineering studies, reports, drawings and other design documents produced for the Project Review and approval of logistical modeling of railroad operations through the phased construction of the Project 	<ul style="list-style-type: none"> District Secretary's Authority for all Transportation development activities Monitors Project safety compliance, environmental compliance, value engineering, and quality assurance/quality control 	<ul style="list-style-type: none"> District Secretary's authority for all transportation development activities Monitors Project safety compliance, environmental compliance, value engineering, and quality assurance/quality control
FDOT Director of Transportation Operations	<ul style="list-style-type: none"> Executing all capital projects (Construction) Project management and control Monitors safety compliance, environmental compliance, value engineering, and quality assurance/quality control Monitoring the implementation of Quality Assurance Upholding applicable FTA guidelines Participant in Project design reviews 	<ul style="list-style-type: none"> Guiding the Project through construction Member of the Safety and Security Executive Committee Executing all capital projects (Construction) Project management and control Monitoring safety compliance, environmental compliance, value engineering, and quality assurance/quality control 	<ul style="list-style-type: none"> Guide the Project through Integration Testing through Start-up and Testing phases Member of the Safety and Security Executive Committee

	Design Phase PE and FD	Construction Phase	Integration Testing, Pre-Revenue Operation, Commissioning and Start- up Phases
<p>CFRC Chief Operating Officer/Passenger Rail Operations Manager</p>	<ul style="list-style-type: none"> • Overall Responsibility for Safety & Security • Chair of the Safety and Security Executive Committee • Provides oversight of day-to-day operations of the Central Florida Rail Corridor (CFRC) and SunRail commuter rail operations. • Establishes and maintains communication links between FDOT, FRA, the Operations and Maintenance (O&M) contractor and the CFRC's tenant railroads (Amtrak and FCEN). • Oversee service provided by the O&M contractor to ensure compliance with service standards and budgets, including oversight of all contracted services. • Provides timely coordination with the appropriate staff of the individual Signatory Member Agencies, LYNX, VOTRAN, CSXT, FCEN, and Amtrak in the event of an emergency (such as the need for bus bridges, public service announcements, security, or railroad property issues). • Provides timely and comprehensive operational input to and coordination with the individual Signatory Member Agencies and the O&M contractor in order to enable FDOT to effectively respond to the needs and requirements of the individual Signatory Member Agencies and to enhance SunRail service for the IOS and future expansions • Ensures the maintenance of a high standard of customer relations with all users of the CFRC and SunRail. 	<ul style="list-style-type: none"> • Overall Responsibility for Safety & Security • Provides oversight of day-to-day operations of the Central Florida Rail Corridor (CFRC) and SunRail commuter rail operations and facilitates coordination between the design build contractor and the O&M contractors. • Coordinates operational issues with the FTA, Program Management Team (PMT), Program Management Consultants (PMCs) and the Department's managers overseeing the design build contractor during future construction activities 	<ul style="list-style-type: none"> • Overall Responsibility for Safety & Security • Reviews the Safety and Security Certification Verification Report (SSCVR)

	Design Phase PE and FD	Construction Phase	Integration Testing, Pre-Revenue Operation, Commissioning and Start- up Phases
FDOT CFCRT Design Management	<ul style="list-style-type: none"> Provides management of the design process Leads the Project design reviews Manages conformance to safety and security design criteria Leads design quality control process 	<ul style="list-style-type: none"> Provides management of the design process Responds to Contractor requests for information 	
CFRC/SunRail Director of Operations	<ul style="list-style-type: none"> Member of both Safety and Security Committees Provide Oversight for safety and security Training Programs (Operations, Maintenance and Construction) Participate in Safety and Security Project Plan Reviews Participate in Project Procurement Activities Lead Response Efforts to Reported Incidents and Emergencies Advise FDOT Management regarding Safety and Security Analysis Enforce Applicable FRA Rules and Regulations in Maintenance and Operations Activities 	<ul style="list-style-type: none"> Member of both Safety and Security Committees Provide Oversight for safety and security Training Programs (Operations, Maintenance and Construction) Participate in Safety and Security Project Plan Reviews Participate in Project Procurement Activities Lead Response Efforts to Reported Incidents and Emergencies Advise FDOT Management regarding Safety and Security Analysis Enforce Applicable FRA Rules and Regulations in Maintenance and Operations Activities Responsible for Maintenance Activities in Corridor 	<ul style="list-style-type: none"> Member of both Safety and Security Committees Responsible for Maintenance and Operations activities in Corridor Provide Oversight for safety and security Training Programs (Operations, Maintenance and Construction) Participate in Safety and Security Project Plan Reviews Manage Transition of Contractor activities to O&M Responsibilities Enforce Applicable FRA Rules and Regulations in Maintenance and Operations Activities Lead Response Efforts to Reported Incidents and Emergencies

	Design Phase PE and FD	Construction Phase	Integration Testing, Pre-Revenue Operation, Commissioning and Start- up Phases
CFRC/CFRC/SunRail Director of Operations	<ul style="list-style-type: none"> Participates in design reviews for safety and security requirements in contract documents. Member of the Configuration Control Advisory Committee Member of the Safety and Security Committee and member of Executive Committee Administer the Safety and Security Certification Program Overall responsibility for implementing the Safety and Security Management Plan (SSMP) Oversight of safety and security analyses (PHA, TVA & CHA) and resolution of identified hazards/ vulnerabilities Enforce applicable FTA guidelines and FRA regulations in design 	<ul style="list-style-type: none"> Participates in construction management reviews of Contractors for safety and security requirements in contract documents. Member of the Configuration Control Advisory Committee Member of the Safety and Security Committee and member of Executive Committee Administer the Safety and Security Certification Program Overall responsibility for implementing the SSMP Oversight of implementing safety and security analyses (PHA, TVA & CHA) and resolution of identified hazards/ vulnerabilities Enforce applicable FTA guidelines and FRA regulations in design, and construction, 	<ul style="list-style-type: none"> Member of the Configuration Control Advisory Committee Coordinates emergency response training drills Member of the Safety and Security Committee and member of Executive Committee Administer the Safety and Security Certification Program and Certifies to the FDOT District Secretary that the Phase 2 Project system is ready for revenue operations Oversight of safety and security analyses (PHA, TVA & CHA) and resolution of identified hazards/ vulnerabilities Enforce applicable FTA guidelines and FRA regulations in design, construction, operations, maintenance, and training
CFRC/SunRail Safety and Security Manager	<ul style="list-style-type: none"> Review and prepare all Project safety and security plans and programs developed and submitted Chair of the Safety and Security Operations and Certification Committees 	<ul style="list-style-type: none"> Review and prepare all Project safety and security plans and programs developed and submitted Chair of the Safety and Security Operations and Certification Committees Perform Joint Safety and Security Audits 	<ul style="list-style-type: none"> Review and prepare all Project safety and security plans and programs developed and submitted Chair of the Safety and Security Operations and Certification Committees Perform Joint Safety and Security Audits

	Design Phase PE and FD	Construction Phase	Integration Testing, Pre-Revenue Operation, Commissioning and Start- up Phases
CFRC/SunRail System Safety/ Security Specialist	<ul style="list-style-type: none"> Develop/update all system safety and security programs and plans in accordance with FTA, FRA and APTA guidelines and regulations. Support the Safety and Security Manager's Plans and Programs, including review of all Project safety and security plans and programs developed and submitted Assists with all rail safety, security and operations and provide leadership in the related safety and security activities. Provides technical support for FRA emergency preparedness rules and regulations Perform Rail Security coordinator/Intelligence Liaison Officer function for all TSA communication 	<ul style="list-style-type: none"> Develop/update all system safety and security programs and plans in accordance with FTA, FRA and APTA guidelines and regulations. Support the Safety and Security Manager's Plans and Programs, including review of all Project safety and security plans and programs developed and submitted Assists with all rail safety, security and operations and provide leadership in the related safety and security activities. Provides technical support for FRA emergency preparedness rules and regulations Perform Rail Security coordinator/Intelligence Liaison Officer function for all TSA communication Perform Joint Safety and Security Audits 	<ul style="list-style-type: none"> Develop/update all system safety and security programs and plans in accordance with FTA, FRA and APTA guidelines and regulations. Support the Safety and Security Manager's Plans and Programs, including review of all Project safety and security plans and programs developed and submitted Assists with all rail safety, security and operations and provide leadership in the related safety and security activities. Provides technical support for FRA emergency preparedness rules and regulations Perform Rail Security coordinator/Intelligence Liaison Officer function for all TSA communication Perform Joint Safety and Security Audits
FDOT District Construction Engineer	<ul style="list-style-type: none"> Project management and control Monitor safety compliance, environmental compliance and quality assurance/quality control Monitoring the implementation of Quality Assurance Upholding applicable FTA guidelines Review scope of work and selection criteria for the Construction contracts 	<ul style="list-style-type: none"> Project management and control Monitor safety compliance, environmental compliance, and quality assurance/quality control Maintain project management and control Participation in Value Engineering Studies Participate in the solicitation process for the Construction Contractors 	<ul style="list-style-type: none"> Project management and control Monitor safety compliance, environmental compliance, and quality assurance/quality control

	Design Phase PE and FD	Construction Phase	Integration Testing, Pre-Revenue Operation, Commissioning and Start- up Phases
FDOT Resident Engineer (RE) and/or Construction Project Manager	<ul style="list-style-type: none"> Assures safety and security requirements are included in contract documents Monitoring safety compliance, environmental compliance, and quality assurance/quality control Maintain project management and control Monitoring the implementation of Quality Assurance Upholding applicable FTA guidelines Participant in Project design reviews 	<ul style="list-style-type: none"> Authority for oversight of construction safety and security and construction quality control Monitoring safety compliance, environmental compliance, and quality assurance/quality control Provide construction management and oversight Review and approve Contractor Submittals Monitor construction adherence to Project requirements Observe testing of the Project work 	<ul style="list-style-type: none"> Authority for oversight of construction safety and security and construction quality control Monitoring safety compliance, environmental compliance, and quality assurance/quality control Observe testing of the Project work Review and approve Contractor Submittals
CFCRT Program Manager	<ul style="list-style-type: none"> Provides project management for all aspects of the Project Provides oversight of the design process Participates in Project design reviews Member of the Safety and Security Executive Committee 	<ul style="list-style-type: none"> Provides project management for all aspects of the Project Provides oversight of the construction activities Member of the Safety and Security Executive Committee 	<ul style="list-style-type: none"> Provides project management for all aspects of the Project Provides oversight of the testing, evaluation and commissioning activities Member of the Safety and Security Executive Committee
	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none">
FDOT District Safety and Health Manager	<ul style="list-style-type: none"> Participates in design reviews and ERP planning Member of FDOT Safety and Security Committee 	<ul style="list-style-type: none"> Member of Project Safety and Security Committee Participate in safety and security audits Participates in safety and security coordination with stakeholders and outside agencies, including DHS and local first responders 	<ul style="list-style-type: none"> Member of Project Safety and Security Committee Participate in Safety Observations Participates in safety and security coordination with stakeholders and outside agencies, including DHS and local first responders
Public Involvement Consultant	<ul style="list-style-type: none"> coordinates with FDOT Public Information Office (PIO) and Construction Contractor on elements of Construction Public Information Program Member of the Safety and Security Committee 	<ul style="list-style-type: none"> coordinates with PIO to provide Public updates on construction related street closures and other safety related issues Supports development of public safety and security program(s) to provide community outreach and education for railroad crossing safety and safety/security for passengers. Member of the Safety and Security Committee 	<ul style="list-style-type: none"> Implements the public safety outreach program for revenue service Member of the Safety and Security Committee

	Design Phase PE and FD	Construction Phase	Integration Testing, Pre-Revenue Operation, Commissioning and Start- up Phases
CFRC Operations Office	<ul style="list-style-type: none"> • Review Design Criteria for FDOT • Review Preliminary Engineering Documents • Review design and contracting packages • Recommend Project Delivery Strategy for all elements of the Project • Review scope of work and selection criteria for the Construction contracts • Review Construction Contractor pre-qualifications package • Develop specification for rolling stock • Prepare performance specifications • Participate in Value Engineering and Risk Assessment • Provides oversight of the train control and signal system design development, vehicle specifications • • Member of the Executive Safety and Security Committee, SSCC and SSOC, as applicable • 	<ul style="list-style-type: none"> • Provide quality assurance and quality control oversight • Participate in Value Engineering and Risk Review • Provide technical assistance for FDOT • Provide on-site review of vehicles during fabrication • Review drawings and Supplemental Agreements • Provides detailed oversight of the train control and signal system equipment manufacturing and installation, vehicle construction • Provides management of vehicle inspectors • Prepare system Integration test Plan • Member of the Executive Safety and Security Committee, SSCC and SSOC, as applicable • Member of the Configuration Control Advisory Committee • Observe testing of the Project work 	<ul style="list-style-type: none"> • Provide CRT Operations Assistance • Observe testing of the Project work • Accept certification of the vehicles, signaling system and train control system • Member of the Executive Safety and Security Committee, SSCC and SSOC, as applicable • Member of the Configuration Control Advisory Committee • Manage system Integration testing

	Design Phase PE and FD	Construction Phase	Integration Testing, Pre-Revenue Operation, Commissioning and Start- up Phases
Design Consultant	<ul style="list-style-type: none"> • Prepare Design Criteria for FDOT • Prepare and finalize the Preliminary Engineering and Final Design documents to assure agreement with Design Criteria • Member of the Configuration Control Advisory Committee • Member of the Safety and Security Committees • Participant in project design reviews • Support CFRC/SunRail Director of Operations • Prepare HA, TVA and Trespass Addendum for Stations and System elements • Develop and complete design criteria conformance checklists for Stations and System elements • Incorporate safety and security requirements into contract document for the Construction Contractors • Provide requisite RWP Training for Phase 2 South Project Design Consultant personnel and subcontractors 	<ul style="list-style-type: none"> • Support CFRC/SunRail Director of Operations • Review Contractors' safety and security submittals and provide comments to CFRC/SunRail Director of Operations • Monitor construction adherence to Project requirements • Observe testing of the Project work • Provide requisite RWP Training for Phase 2 South Project Design Consultant personnel and subcontractors • Member of the Configuration Control Advisory Committee • Member of the Safety and Security Committees 	<ul style="list-style-type: none"> • Support CFRC/SunRail Director of Operations • Observe testing of the Project work • Provide requisite RWP Training for Phase 2 South Project Design Consultant personnel and subcontractors • Member of the Configuration Control Advisory Committee • Member of the Safety and Security Committees
All personnel authorized to enter the Project ROW	<ul style="list-style-type: none"> • Ensure all required training is received and current before entering ROW • Follow all applicable safety rules and regulations • Report all suspicious and trespass activity in accordance with Project security protocols. 	<ul style="list-style-type: none"> • Ensure all required training received is and current before entering ROW • Follow all applicable safety rules and regulations • Report all suspicious and trespass activity in accordance with Project security protocols. 	<ul style="list-style-type: none"> • Ensure all required training is received and current before entering ROW • Follow all applicable safety rules and regulations • Report all suspicious and trespass activity in accordance with Project security protocols.
Construction Engineering & Inspection (CEI) Consultant	<ul style="list-style-type: none"> • Reviews contract specifications for construction safety adequacy • Member of the Safety and Security Committee • Member of the Configuration Control Advisory Committee • Provides RWP Training for CEI personnel 	<ul style="list-style-type: none"> • Provides detailed oversight of Contractor's safety program • Performs construction safety and security audits • Member of the Safety and Security Committees • Member of the Configuration Control Advisory Committee • Provides field inspection of all construction activities 	<ul style="list-style-type: none"> • Performs construction safety and security audits • Member of the Safety and Security Committees • Member of the Configuration Control Advisory Committee • Provides field inspection of all construction activities

	Design Phase PE and FD	Construction Phase	Integration Testing, Pre-Revenue Operation, Commissioning and Start- up Phases
All Construction Contractors	<ul style="list-style-type: none"> • Comply with all applicable FTA, FRA and FDOT Rules and regulations • Develop and implement all identified plans within the SSAR in accordance with applicable guidelines listed within the SSAR • Ensure Construction personnel are qualified to perform On-Track Protection services before commencement of Corridor activities • Provide RWP training to all Phase 2 South Project Construction personnel, sub-contractors and third-party personnel prior to beginning work within the Project ROW and maintain appropriate training • Participates in all CFRC/SunRail safety and security committees and audits • Support CFRC/SunRail ERP, including taking part in Emergency Preparedness Drills 	<ul style="list-style-type: none"> • Comply with all applicable FTA, FRA and FDOT Rules and regulations • Updates and maintains SSAR deliverables • Manage the Construction Contractor's safety and security programs • Participates in all CFRC/SunRail safety and security committees and audits • Provides reporting on safety and security performance • Develop and complete construction criteria conformance checklists for all items within scope • Coordinate with local law enforcement and O&M Contractor for construction security issues • Provide RWP training to all Phase 2 South Project Construction personnel, sub-contractors and third-party personnel prior to beginning work within the Project ROW and maintain appropriate training • Support CFRC/SunRail ERP, including taking part in Emergency Preparedness Drills (perform tabletop, functional and field incident drills) 	<ul style="list-style-type: none"> • Comply with all applicable FTA, FRA and FDOT Rules and regulations • Updates and maintains SSAR deliverables • Manages the Contractor's safety and security program • Participates in all CFRC/SunRail safety and security committees and audits • Provides reporting on safety and security performance • Transition Project safety and security responsibilities to O&M Contractor • Provide RWP training to all Phase 2 South Project Construction personnel, sub-contractors and third-party personnel prior to beginning work within the Project ROW and maintain appropriate training • Support CFRC/SunRail ERP, including taking part in Emergency Preparedness Drills to support pre-revenue service activities (perform tabletop, functional and field incident drills)

	Design Phase PE and FD	Construction Phase	Integration Testing, Pre-Revenue Operation, Commissioning and Start- up Phases
Positive Train Control Contractor	<ul style="list-style-type: none"> Design the CFRC PTC system Develop and complete design criteria conformance checklists for PTC system 	<ul style="list-style-type: none"> Install the CFRC PTC System Develop and complete construction criteria conformance checklists for PTC system Create CFRC PTC training curriculum and training manuals Support CFRC/SunRail ERP, including taking part in Emergency Preparedness Drills Participates in all CFRC/SunRail safety and security committees and audits Prepare the PTC Safety Plan for FRA submittal 	<ul style="list-style-type: none"> Perform training on the PTC System to the O&M Contractor personnel Coordinate system interoperability testing with CFRC tenant railroads Coordinate system integration and commissioning of the CFRC PTC system for revenue service Develop and Coordinate system documentation for FRA certification Support CFRC/SunRail ERP, including taking part in Emergency Preparedness Drills to support pre-revenue service activities (perform tabletop, functional and field incident drills) Participates in all CFRC/SunRail safety and security committees and audits
Tenant Railroad Corridor Operations coordinators (CSXT, Amtrak and FCEN)	<ul style="list-style-type: none"> Coordinate Project activities with the CFRC/SunRail Director of Operations, CFRC Dispatcher Desk, CSXT CFCRT Project Representative, Amtrak CFCRT Project Representative, other contractors and all other operating railroads on the corridor 	<ul style="list-style-type: none"> Coordinate Corridor activities with the, CFRC/SunRail Director of Operations, CFRC Dispatcher Desk, CSXT CFCRT Project Representative, Amtrak CFCRT Project Representative, other contractors and all other operating railroads on the corridor 	<ul style="list-style-type: none"> Coordinate Corridor activities with the CFRC/SunRail Director of Operations, CFRC Dispatcher Desk, CSXT CFCRT Project Representative, Amtrak CFCRT Project Representative, other contractors and all other operating railroads on the corridor
Ticket Vending Machine (TVM) Supplier	<ul style="list-style-type: none"> Comply with all applicable FTA and FDOT Rules and regulations 	<ul style="list-style-type: none"> Comply with all applicable FTA and FDOT Rules and regulations 	<ul style="list-style-type: none"> Comply with all applicable FTA and FDOT Rules and regulations

	Design Phase PE and FD	Construction Phase	Integration Testing, Pre-Revenue Operation, Commissioning and Start- up Phases
Operations & Maintenance (O&M) Contractor	<ul style="list-style-type: none"> • Comply with all applicable FTA, FRA and FDOT Rules and regulations on Project Corridor • Responsible for SunRail Commuter Rail service and maintenance activities within entire CFRC • Participate on all CFRC/SunRail safety and security-related committees • Provide personnel to perform alternate Rail Security coordinator function • Responsible for conducting Incident Investigation in accordance with the SunRail Internal Control Plan. 	<ul style="list-style-type: none"> • Comply with all applicable FTA, FRA and FDOT Rules and regulations on Project Corridor • Responsible for SunRail Commuter Rail service and maintenance activities within CFRC • Participate on all CFRC/SunRail safety and security-related committee • Provide personnel to perform alternate Rail Security Coordinator function • Responsible for configuration management of the Vital PTC software 	<ul style="list-style-type: none"> • Comply with all applicable FTA, FRA and FDOT Rules and regulations on Project Corridor • Responsible for SunRail Commuter Rail service and maintenance activities within CFRC • Assist with Phase 2 South System Integration Testing Program • Perform Operations and Support Hazard (OHA) Analysis • Conduct all pre-revenue testing activities in accordance with the Rail Activation Plan • Perform tabletop, functional and field incident drills • Update the Rail Services Plan to integrate Phase 2 South services • Qualify Train and Engine Crews on Phase 2 South Corridor • Participate on all CFRC/SunRail safety and security-related committees • Provide personnel to perform alternate Rail Security Coordinator function • Responsible for configuration management of the Vital PTC software • Coordinate and participate in integration testing, interoperability testing and commissioning of the entire PTC system/SunRail vehicles

4. Safety and Security Analysis

This section of the SSMP describes the processes FDOT will use to recognize, evaluate and resolve potential hazards or vulnerabilities associated with the design, construction, testing, and commissioning of the Phase 2 South Project for patrons, employees, emergency responders, and the public.

4.1. Requirements for Safety and Security Analysis

FDOT is required to perform, at a minimum, the following safety and security analyses for the Phase 2 South Project:

- Collision Hazard Analysis
- Preliminary Hazard Analysis
- Operational Hazard Analysis
- Threat and Vulnerability Analysis

Each identified hazard or vulnerability resolution or mitigation is added to design and construction requirements as well recorded on a tracking list or Open Items List. The list is used by Project personnel to follow each item through the design, construction, and testing process. For each hazard or vulnerability resolution or mitigation, the means of verifying its adequacy is defined in the tracking documents and may vary from simple observation to comprehensive testing.

During pre-revenue testing and start-up activities, requests for work-arounds and temporary permits of use will be made. The Open Items List will support tracking of the work-arounds or restrictions in those situations when a safety certifiable element/item cannot be closed or meet design expectations prior to revenue operation. The work around will describe operational procedures that ensure safe system operations, even though certification requirements are not completed. The work-arounds will be submitted to the SSCC and the ESSC for acceptance. The Open Items will be tracked to closure.

4.2. Approach to Safety and Security Analysis

During Preliminary Engineering (PE), FDOT performed a Hazard Analysis (HA) and a Threat and Vulnerability Analysis (TVA) for the Phase 2 South stations and key Phase 2 South commuter rail components (including track, signal, and grade crossings). FDOT used an 'All-Hazards' approach as specified in the *Collision Hazard Analysis (CHA) Methodology for the CFCRT IOS Project, October, 2010* that "includes an integration and prioritization process whereby the risks and mitigations identified in hazards analyses, TVAs, and capabilities assessments are considered simultaneously to facilitate the effective application of resources to reduce all risks."⁴ The HA for civil, systems and track also considered the contribution of Phase 2 South system elements to collision and derailment hazards on the south segment alignment in

⁴ FTA, *An Introduction to All-Hazard Preparedness, May 2010*

accordance with FRA guidance.⁵ The HA and TVA will be updated by the Design Consultant during Final Design.

During Phase 1 (IOS), the vehicle manufacturers and FDOT performed HA, TVA and CHA components to address hazards associated with the locomotives and coaches and cab cars train sets that will be used for Phase 1 (IOS) and Phase 2 South revenue service. If there are any modifications to the train set configurations, FDOT will ensure that additional and appropriate HA and TVA analysis is performed.

4.2.1. Preliminary Hazard Analysis

The methodology for conducting the Phase 2 South HA follows the FTA's guidelines and methodology specified in "Hazard Analysis Guidelines for Transit Projects" document dated 2000 and "An Introduction to All-Hazard Preparedness, May 2010."

Generally, for the CFCRT Project, hazards will be identified by the following methods, as applicable:

- Formal hazard analyses using the inductive process. This may include, but not be limited to, Failure Modes and Effects Analysis (FMEA), Sub-System Hazard Analysis (SSHA) and Operations and Support Hazard (OHA) Analysis
- Hazards that are recognized through experience: Designers, safety managers, and other Project personnel use their knowledge and experience to recognize designs or constructed elements as having potential to result in accidents/incidents. This method will be used for system elements and subsystems such as track, grade crossing, platform, and park-and-ride lots.
- Facility inspections that identify unsafe conditions. This method will be used to identify hazards during actual construction, testing and commissioning.
- Employee observations of unsafe conditions or behaviours. This method will be used during pre-revenue testing.

Based on a prioritization of the hazards in the categorization phase of the analysis, the Phase 2 South Project Team will work through resolution/mitigation/control of the hazards. Depending on the status of the design and construction and the risk category, the appropriate means will be employed to resolve identified hazards. The order of precedence for resolving hazards is as follows:

- Design for Minimum Risk: From the first, design to eliminate hazards through design selection.
- Safety Devices: Hazards that cannot be eliminated or controlled through design selection shall be controlled to an acceptable level using fixed, automatic or other protective design features or devices. Provisions shall be made for periodic functional checks of safety or security devices.

⁵ FRA, "Collision Hazard Analysis Guide: Commuter and Intercity Passenger Rail Service", Final, 2007.

- **Warning Devices:** When neither design nor safety devices can effectively eliminate nor control an identified hazard, devices shall be used to detect the condition and to generate an adequate warning signal to advise personnel or the public of the hazard and provide for personnel evacuation, if warranted. Warning signals and their application shall be designed to minimize the probability of incorrect personnel reaction to the signals and shall be standardized within similar types of systems.
- **Procedures and Instruction:** Where it is impossible to eliminate or adequately control a hazard through design selection or use of warning devices, procedures and training shall be used to mitigate the hazard. Procedures may include the use of personal protective equipment. Safety critical tasks and activities may require certification of personnel authorization.
- **Reduce, Replace, Remove, or Do Not Operate:** If there is no practical way to reduce the hazard, replacement, removal or non-operation is indicated.
- **Accept:** If a hazard will result in less than minor illness, injury, or system damage, no further action is necessary.

Reduction of potential hazards during final design is the primary goal for the Design Consultant. Appropriate controlling measures are presented to the CFCRT Program Management Team and the CFRC/SunRail Director of Operations. Identified hazards that incur an initial rating of unacceptable or undesirable will be documented in the CFCRT Safety and Security Items List (SCIL) for tracking by the CFCRT Safety and Security Committee, and resolution will be documented and presented to FDOT Project Management for review and comment.

4.2.2. Threat and Vulnerability Analysis

Understanding a system's existing security exposure is a two-step process. A threat analysis is performed, followed by a vulnerability analysis. This proactive management approach encourages the implementation of an analysis process that will identify threats and vulnerabilities to the system so that controls and mitigation efforts can be "designed into" the Phase 2 South Project, to "harden" system elements against criminal activity.

The threat analysis includes examining the design of the system infrastructure and actually determining threats to which a particular component or element is vulnerable. The emphasis of the analysis is on correlating and linking threats to specific system elements to ensure proper use of security resources, including budgets, time, people, and equipment.

The vulnerability analysis consists of a series of activities intended to identify security-related shortcomings or weaknesses in the proposed system. The process for determining vulnerabilities begins with the identification and grouping of system assets to rank system components based on their criticality to transit operations, their attractiveness as targets for security breaches or terrorist attack, and their vulnerability to the impacts of a successful breach or attack. Critical assets are defined as the specific assets most critical to its mission to protect people and the agency's ability to provide service.

The Phase 2 Project methodology follows FTA guidelines for TVA in "Public Transportation System Security and Emergency Preparedness Planning Guide" document dated 2003 and the TVA Methodology used for Phase 1 (IOS). Analysis for stations and the Phase 2 South Corridor

was performed during Preliminary Engineering and updated as part of the Final Design phase, before building the Phase 2 South system element or subsystem.

Identification of high risk SunRail station and Phase 2 South alignment vulnerabilities and implementation Crime Prevention Through Environmental Design (CPTED) strategies to design out vulnerabilities for the stations and Phase 2 Corridor is a primary goal. The purpose of CPTED is to minimize potential threats and vulnerabilities to the transit system, facilities and patrons and maximize safety and security through engineering and design. Good CPTED strategies include: maximizing visibility of people, parking areas, patron flow areas and building/structure areas; providing adequate lighting minimizing shadows; graffiti guards; landscape plantings that maximize visibility; gateway treatments; decorative fencing; perimeter control; fencing; minimizing park-n-ride and parking structure access points; elimination of structural hiding places; open lines of sight.

Examples of CPTED strategy include:

- Adequate lighting of all areas appropriate for their use including perimeter lighting in park-n-Rides so the edge of the park-n-Ride is illuminated the same as the rest of the park-n-Ride (refer to station design criteria for lighting levels).
- When using shrubs, use species with a maximum height or spread that will minimize visibility obstructions. The preliminary design shall be approved by RTD prior to final design and implementation.
- When using trees, use deciduous trees with branches no lower than six feet from ground surface.

The process of TVA includes identification of specific security issues and appropriate countermeasures in a prioritized vulnerabilities/countermeasures list that is presented to the CFCRT Program Management Team and the CFRC/SunRail Director of Operations for review and comment.

The security design reviews will be conducted throughout the entire Phase 2 South design process at conceptual, 30%, 60%, 90%, and 100% design phases and the TVA worksheets will evolve to address newly identified threat scenarios and vulnerabilities as well as to modify existing threats and vulnerabilities to incorporate lessons learned from Phase 1 security measures and/or if new intelligence, infrastructure or procedures are forthcoming. Identified vulnerabilities that incur an initial rating of High (unacceptable) or Serious (undesirable) are documented in the CFCRT Safety and Security Items List (SCIL) for tracking by the CFCRT Safety and Security Committee. Resolution of vulnerabilities will occur through CFCRT Project design review process, the CFRC/SunRail Safety and Security Committee and the Executive Safety and Security Committee.

FDOT will continue to collaborate with DHS and local law enforcement station and share Phase 2 South station and VSLMF plans as they progress to 100% Final Design. The CFRC/SunRail Director of Operations' Office will also continue to participate on the CFIX Transportation Committee, and receive regional security briefings from the intelligence community.

Designs will be formally certified and security items will be identified through standards and requirements and in accordance with the CFRC/SunRail SSCP. Industry standards and experience will also be used to evaluate unique issues related to transit security. Specific areas under review during security design reviews will focus on the following key areas:

- Integration of the approved security design criteria from the CFCRT Design Criteria for the IOS and Phase 2 South.

- Integration of the Crime Prevention through Environmental Design (CPTED) Concepts for Phase 2 South stations
- Identification of new security issues created by design and/or design changes
- Integration of recommendations from the Phase 1 (IOS) Contractor's TVA
- Integration of recommendations from TSA, local law enforcement and FRA

4.2.3. Trespass Analysis

As a requirement of the Federal Transit Administration (FTA) and Federal Railroad Administration (FRA), a study was conducted by FDOT in 2008 to evaluate the prevalence of trespassing along the CSXT railroad Right-of-Way (ROW), develop a trespass risk matrix and identify locations along the Central Florida Commuter Rail (CFCRT) Phase 1 Initial Operating Segment (IOS) Project where the use of fencing or other mitigations might reduce the accessibility of the ROW to trespassers. The initial trespass study reviewed trespasser incidents along the 32-mile IOS between 2000 and April of 2008. An addendum to the CFRC ROW Trespass Report was completed during the Preliminary Engineering Phase of Phase 2 South Project to address additional information for the IOS and the 17.2 mile south extension of the Corridor. The results of the Addendum and possible mitigation strategies were provided to FDOT Corridor Management Manager and the CFRC/SunRail Director of Operations. Based on the results of the study, trespass behaviors can be reduced largely with educational programs, such as Operation Lifesaver presentations and other community outreach programs; warning signs, such as No Trespassing Signs; and reporting of dumping, encroachments and trespass by the O&M Contractor during inspections of the ROW to FDOT and local law enforcement.

4.2.4. Operations and Support Hazard Analysis

The O&M Contractor shall perform Operations and Support Hazard (OHA) Analysis to identify and analyze hazards associated with personnel and procedures during installation, testing, training, operations, maintenance, and emergencies prior to Phase 2 South revenue service. The OHA is conducted on all tasks and human actions, including acts of omission and commission, by persons interacting with the system, subsystems, and assemblies, at any level. Particular emphasis will be on dispatcher, train and engine crews, SSCC and Customer Service operations

The OHA will provide for corrective or preventive measures to be taken to minimize the possibility that any human error or procedure will result in injury or system damage. This includes recommendations for changes or improvements in design or procedures to improve efficiency and safety, development of warning and caution notes to be included in manuals and procedures, and special training of personnel who will carry out the operation and maintenance of the system. The OHA will be reviewed on a continuous basis to provide an updated list of recommendations.

5. Safety and Security Design Criteria

5.1. Approach

The approach of FDOT is to integrate the safety and security requirements for each specific design element into the corresponding element design criteria. There are no separate sections in the CFCRT Project design criteria specifically identified as "safety and security design criteria." Design requirements which contribute to safety and security of the system have been

incorporated into the individual system elements and subsystems design criteria as part of the design development process by the CFCRT Project team design engineers in their respective disciplines, and compiled in the CFCRT Phase 2 South Design Criteria Document. Design criteria are addressed in the CFCRT Phase 2 South Project Management Plan (PMP) Section 3.2.

The development of the Project design criteria will be advanced during the Phase 2 South Final Design by the Design Consultant and subsequent PMC review for inclusion in applicable Phase 2 South Construction Contracts.

The Phase 2 South Design Criteria will be further refined as required by oversight agency comments, prospective bidders' comments, FDOT design directives and SunRail Oversight. Design Criteria that need to be revised during Phase 2 South Final Design and beyond that have impact on safety and security and may adversely affect safety and security risk will be brought to the Safety and Security Committee for review and direction, and may be based on HA and TVAs. HA and TVAs may also proactively result in recommendations to change design criteria related to safety and security improvements on the Phase 2 South Project. Any recommendation for a variance from the approved design criteria will be brought before the CCAC for approval.

The design criteria for Phase 2 South will include the Lesson Learned for Phase 1 as well as the Preliminary Hazard Analysis. CFRC Operations Office is reviewing the design criteria, PHA and design drawings and specifications to verify that the lessons have been incorporated into all of the documents. Such lessons learned are pedestrian gates for crossings at Station platforms and at highway–rail grade crossings, pre-emption in accordance with Florida Statutes and AREMA recommendations, short storage lengths issues, platform communications issues, ADA refinements at the parking lots, and ramps at the stations,

The Design Criteria for the Project are developed from several sources, mainly:

- Standards developed by APTA, NFPA, AREMA, FRA, FTA as well as other industry or technical standards. Examples of FRA and APTA Standards are contained in the Appendices to the APTA Manual for the Development of System Safety Program Plans for Commuter Railroads. (May 15, 2006). Additionally FTA, the Transportation Research Board, and national safety and security committees on critical infrastructure protection provide safety and security design guidelines.
- Engineering experience of the design team obtained from numerous other commuter rail projects.
- The technical specifications for vehicles, signaling systems and train control that reference the required FRA safety and security specifications.

FDOT perceives the safety and security risks to be fundamentally similar to those on similar urban commuter rail systems. FDOT will incorporate Best Practice safety and security elements from other projects and those open items identified in Phase 1 into the Phase 2 South Project Design Criteria and specifications where applicable.

5.2. Safety and Security Design Reviews

Drawings and specifications for the Project are reviewed informally during development and formally at discrete points in the process (i.e. Preliminary and Final Design). The reviews verify conformance with all of the Project Design Criteria. In addition to design review during formal HA and TVA, reviews to assure all safety and security requirements are met will be completed by individual discipline design personnel and their design supervisors during safety and security

design reviews. Additional reviews are conducted by the CFRC Operations Office and representatives from the Phase 2 South PMC, as needed (refer to Figures 2-3 and 2-4 of this SSMP). Safety and security design issues that occur during the Final Design process will be elevated to the Project SSCC and/or the Project CCAC, as applicable.

Similarly, the design conformance checklists are accepted by the Safety and Security Certification Committee. After the checklists are completed by the designers and/or contractors, they will be reviewed and verified by CFRC Operations Office the CEI, and the PMC, as needed. The checklists will then be submitted to the SSCC for acceptance.

5.3. Deviations and Changes

As discussed in Section 3.2.4, configuration management is the systematic control of the Project's physical, safety, security, operational and aesthetic features and the monitoring and documenting of all changes to these features and the CCAC is the forum where proposed Project changes are fully scrutinized by FDOT management. . For the CFCRT Project (Phase 1 and Phase 2 South), the Project Bi-weekly FDOT Executive Management Meeting functions as the Project CCAC. There may be situations where Phase 2 South Design Criteria is further refined by input from oversight agency comments, prospective bidders' comments and FDOT design directives. If changes or variances are needed to the Design Criteria during Final Design and beyond, those changes or variances will be brought before the CCAC.

6. Operations and Maintenance Personnel

6.1. Operations and Maintenance Personnel Requirements

The day to day operations of the SunRail commuter service and the maintenance of the CFRC railroad system on the corridor will be the responsibility of the Operations & Maintenance (O&M) Contractor that is part of the Rail Office Organization, as specified in Section 9.3.8 of the Phase 2 South PMP. The O&M Contractor General Manager staff will include the following key personnel:

- Chief Transportation Officer
- Chief Mechanical Officer
- Chief Engineer / Maintenance Manager
- Safety and Security Manager
- Administrative & Financial Staff

In addition, the O&M Firm shall be responsible for managing the following functional areas:

- Management and Administration
- Managing Corridor
- Operations
- Designated Supervisor of Locomotive Engineers (DSLE)
- Safety
- Training
- Security
- Equipment Maintenance
- Signal Maintenance
- Construction Administration
- Field Construction Support and Coordination

- Customer Services
- ADA Compliance
- Stations and Facilities
- Accounting
- Communications Maintenance

The O&M Firm shall provide an organizational structure to address these functional areas. Descriptions for all key positions shall be provided to the CFRC/SunRail Director of Operations for review and approval days after Notice to Proceed for mobilization. Key Management Personnel may not be substituted without prior written approval of the CFRC/SunRail Director of Operations.

The O&M Contractor is scheduled to start mobilization in December 2012 in advance of Phase 1 (IOS) commuter rail service.

Staffing of O&M titles, qualifications, responsibilities of each title, and training requirements for operation and maintenance of the CFRC and SunRail commuter services will be similar to those of existing commuter rail personnel in similar systems with modifications specific to the Corridor, as provided in Figure 2-3. Personnel staffing requirements have been developed by FDOT and incorporated into the O&M Contract requirements. O&M required training will be completed as part of the transition from Construction to Operations (as shown on the Project Master Schedule, Attachment C of the PMP).

The O&M Contractor will be required to maintain personnel, including suitable extraboard contingencies where appropriate, at a level required to successfully and safely deliver all of the provisions of O&M Services. The level of staffing will be as defined by O&M Contractor to meet the minimum operating and maintenance standards, and it may become necessary over time to add or delete positions. With respect to the O&M Contractor's work force assigned to provide O&M Services, the CFRC/SunRail Director of Operations shall have the right to approve the creation of any new positions prior to O&M Contractor implementation of any such decisions, provided, however, that such approval shall not be unreasonably withheld. The O&M Contractor will give the CFRC/SunRail Director of Operations written notice of any key positions that become vacant, or are anticipated becoming vacant and the CFRC/SunRail Director of Operations shall have the right to approve any candidate proposed for the vacant position.

The O&M Contractor's safety management duties will include, but are not limited to, auditing of rail operations and maintenance activities for compliance with Department, Federal, and State requirements including operating rules testing; 24 hours per day, seven (7) days a week to respond to all accidents or safety-related incidents; accident and incident investigation; assisting the Reporting Officer for Federal and State reporting requirements; use the Rail Management Information System (RMIS) for the purpose of entering safety-related information such as identified hazards, corrective actions, training records, accident/incident information, and audit reports (both internal and external), available to FDOT and FRA upon request; completion of an annual internal audit to determine compliance with the SSPP and SSP; establishment and staffing of emergency operations; participation in the tri-annual SSPP and SSP third-party audit; coordination of required Emergency Response Drills with local agencies and in compliance with the PTEPP; coordination and participation of all safety and security committees and meeting requirements for these committees; participation in the Rules and Operating Practices Committee; oversight of O&M Contractor training requirements as identified in the SSPP and SSP; handling of all environmental and employee health issues; and other duties as required by the O&M Agreement or as assigned by FDOT.

In addition, the O&M Contractor developed a random testing program as required by 49CFR219 and is responsible for submitting to the FRA for approval no later than 30 days prior to any covered O&M Contractor employees performing covered service under the terms of the O&M Agreement. Prior to submission to the FRA, the O&M Contractor shall submit the program to the CFRC/SunRail Director of Operations for review and approval.

The O&M Contractor shall be responsible to administer and enforce their FRA approved random testing program. The O&M Contractor shall generate a report on their random testing program and submit to the CFRC/SunRail Director of Operations annually. The O&M Firm shall change the drug and alcohol testing procedures as and when required by any applicable law or regulation, but shall not make any other changes to these procedures without prior notice to, and approval of the CFRC/SunRail Director of Operations. Names and test results will always be maintained in a confidential manner, to the extent allowed by law.

6.2. Emergency Preparedness

During the rail activation process to transition the Phase 2 South Project from construction to revenue service, the O&M Contractor will be responsible to revise the current CFRC/SunRail safety and security plans to include south segment commuter service. To meet FRA/APTA, FTA and SSO safety oversight requirements for new commuter rail operations, these plans and subordinate activities include, at a minimum:

- System Safety Program Plan (SSPP)
- System Security Plan (SSP) and subordinate Safety and Security Emergency Preparedness Plan (SEPP)
- Passenger Train Emergency Preparedness Plan (PTEPP)
- Operations and Support Hazard Analysis (OHA)

The O&M Contractor will update the Security and Emergency Preparedness Plan (SEPP) that contains safety and security emergency preparedness policies, procedures, goals and objectives. Whereas the PTEPP under 49CFR239 describes the procedures and policies for SunRail commuter trains, the SEPP will describe emergency preparedness for the entire corridor, including new Phase 2 South facilities such as the VSLMF and the station sites. This Plan will also effectively address preparation, cessation of operations and recovery from conditions resulting from major storms, such as hurricanes and tornadoes, and other natural occurrences that could disrupt railroad services.

The O&M Contractor is responsible to ensure that the OCC and SSCC can fulfill the function of an Emergency Operations Center (EOC) that is capable of sustaining and controlling CFRC/SunRail operations and communications for a minimum of 72 hours during a prolonged emergency.

All O&M personnel are required to adhere to the policies, procedures, and requirements stated in the SEPP and to properly and diligently perform the security and emergency response-related functions of their jobs as a condition of employment. This updated document must be available for review by the regulatory agencies no later than 180 days prior to revenue operations.

The SEPP will also describe the process for identifying the critical risks to organizational readiness, the strategies that best mitigate the risks, planning for service recovery and a Continuity of Operations Plan (COP) to ensure the survival and recovery of SunRail commuter service critical operations, including, but not limited to communication capability, RMIS, staffing, payroll, and infrastructure. In the event that the OCC facilities cannot be used as an Emergency Operations Center (EOC), the O&M Contractor shall staff an alternate EOC provided by the

FDOT at a location other than the OCC that is capable of independent operations for a minimum of 72 hours during a prolonged emergency.

National Incident Management System (NIMS) training from Federal Emergency Management Agency (FEMA) is required for O&M Contractor managers along with training on standardized emergency management system from Florida's Division of Emergency Management/Regional Emergency Operation Centers. In addition, the O&M Contractor will plan for and staff the alternate EOC for one field drill/exercise and one table top/EOC drill annually, coordinated with the FDOT and regional EOC activities as appropriate and include outside agencies, as necessary. The O&M Contractor's Safety representatives will collaborate with FDOT during the planning stage of all emergency preparedness exercises and must submit an Incident Command System (ICS) compliant exercise plan for the FDOT approval no less than 60 days prior to any intended exercise.

The SEPP will contain Security Sensitive Information (SSI), as described in the (SSI) 190.01 SOP. The O&M Contractor is subject to the safeguarding and non-disclosure restrictions of 49 CFR Part 15 and 49 CFR Part 1520 and SOP S190.01 - Sensitive Security Information in the handling of this document.

To meet FRA requirements and FDOT rail safety oversight agency requirements for new commuter rail starts, O&M Contractor plans for the operational life cycle of the SunRail passenger service over the CFRC must be completed no later than 180 days before start of revenue service. Key milestones are shown in the Project Master Schedule in the PMP.

As specified in Section 2.4 and Table 3-2, during the Project construction phase, drills will be identified to be incorporated into the SITP and RSP. Procedures will be developed to identify all participants, including outside agency emergency response personnel. The SITP, RSP and drill procedures will identify how each drill is assessed for acceptance as meeting requirements stated in the procedures. If a drill does not meet these expected results, it will be repeated.

6.3. O&M Contractor Training Program

The O&M Contractor, in accordance with CFRC, SunRail, Federal and State regulations and standards, shall develop and implement an ongoing, comprehensive training and certification program (Training Program) for employees who are providing O&M Services including, but not limited to, all craft and management employees. The Department's objective is to have the highest level of trained and skilled staff. The O&M's training programs will compliment this expectation and emphasize a customer-driven approach. All employees, which are required to be a qualified person or qualified maintenance person, shall be trained and certified as required for the task(s) performed or equipment operated consistent with the requirements in 49CFR. Training shall include those elements required for the performance of duties in addition to specific areas of training for handling hazardous materials, SunRail operations, and safety and security training for new hires consistent with current CFRC and SunRail programs. Training courses shall include provisions for refresher training. In addition, the O&M Contractor will designate personnel to receive a Train-the-Trainer course from CFRC personnel so that they shall have the ability to train and qualify the O&M personnel. In addition the designated personnel will be responsible for providing refresher or recertification training for O&M personnel.

All employees shall be trained to the extent necessary to be fully qualified and competent to perform their duties for the CFRC and SunRail. Those who are identified as being deficient in knowledge or skills shall be required to promptly attend and pass courses of instruction specific

to their craft or service area. Employees who refuse or decline training and fail to successfully pass certification tests shall not be allowed to hold a position where such certification is required. The O&M Contractor shall be required to remove from CFRC and SunRail service any O&M Contractor personnel who fails to successfully complete training required in the approved Training Program. The O&M Contractor may reinstate the removed O&M Contractor personnel to CFRC and SunRail service once the employee successfully completes the required training. The Department reserves the right to review O&M training records and request evidence that the O&M Contractor's employees and subcontractors who are providing O&M Services are appropriately trained and certified and have completed appropriate efficiency and competency tests. The FRA and SSO will also be provided access to audit the O&M Contractor's training programs.

The O&M Contractor shall meet quarterly with Department to review the effectiveness of the approved Training Program. The O&M Contractor shall also provide the Department with a training report furnished to the Department at least two weeks prior to the training review, which will initially occur on a quarterly basis. The O&M Contractor is responsible for formulating and coordinating all training activities. The O&M Contractor shall provide training within the SunRail Service Property, unless prior written approval to hold training elsewhere is provided by the Department. The O&M Contractor shall schedule training activities so as to not interfere with its provision of services under the O&M Agreement. The O&M Contractor shall provide a schedule of all planned training and upon request shall make available to Department employees (up to 10) and to third-party personnel any training offered to or by its own personnel who are assigned to work under the O&M Agreement. All training courses developed by the O&M Contractor shall be specific to CFRC and SunRail and shall be submitted to the Department for review and approval.

Training Manuals: The O&M Contractor will coordinate with the all Project Contractors (Construction/PTC/Signal and Communications) to ensure that all required operations and maintenance manuals and other related data items listed on the Master Certifiable Elements List are received and in accordance with contract schedules. The Vehicle Representatives, the PMC for Vehicles and the SSCC will ensure that these documents are certified in accordance with this SSCP. In turn, the O&M Contractor will provide Operations and Maintenance (O&M) procedures and manuals for all fixed facilities and systems for FDOT and O&M personnel.

6.3.1. Hazardous Materials Training Requirements

The O&M Contractor shall provide training, consistent with the Hazardous Materials Site Specific Health and Safety Plan to O&M personnel who may impact hazardous material transportation safety. O&M Contractor shall train O&M personnel on the Material Safety Data Sheets for the hazardous materials stored on the Service Property. Employees who inspect or transport hazardous material by rail must have a copy of and comply with the United States Hazardous Materials Instructions for Rail, as well as a copy of the current Emergency Response Guidebook (ERG) readily accessible while on duty.

6.3.2. FRA Compliant Training

The CFRC, owned by FDOT, is the entity FRA will hold responsible for compliance by all O&M Contractor personnel with FRA-required operations and maintenance rules, standards, training, and certifications, applicable to such personnel. The O&M Contractor shall comply with all FRA regulatory requirements and shall develop for the FDOT's approval a training program that meets all the training requirements, as applicable, of 49 CFR Parts 200 to 299. CFRC Officers

and FRA shall have access to these records. FDOT recognizes that the FRA has issued a Notice of Proposed Rulemaking (NPRM) for Training, Qualification and Oversight for Safety-Related Railroad Employees (49CFR243) Rule that, if adopted, may include additional requirements not currently found in 49CFR 214 and 232. FRA has also issued a NPRM to revise existing regulations for passenger train emergency preparedness, ensure that railroad personnel who communicate and coordinate with first responders during emergency situations receive initial and periodic training and are subject to operational (efficiency) tests and inspections and develop procedures addressing the safe evacuation of passengers with disabilities during emergency situations. The O&M Contractor will develop training based on current regulatory requirements at the time of award of contract. The training program will include, at a minimum:

- The O&M Contractor will be required to develop for the FDOT's approval, in accordance with Part 213.7, a comprehensive training program for the application of written Continuous Welded Rail procedures, with provisions for annual re-training, for those individuals designated under §213.7(c) as qualified to supervise the installation, adjustment, and maintenance of CWR track and to perform inspections of CWR track. The track owner shall make the training program available for review by FRA upon request.
- All roadway workers and third party contractors performing O&M Services shall be trained, qualified in, and work in compliance with the CFRC Roadway Worker Safety Protection Plan and all applicable regulations contained in 49CFR214. The O&M Contractor shall ensure that all personnel affected by the CFRC Roadway Worker Training, in accordance with Part 214, maintain their qualifications as detailed within the CFRC RWP Safety Plan. Training and qualification records must be maintained by the O&M Contractor and made available to the CFRC/FDOT upon request.
- The O&M Contractor shall ensure that all third party contractors or any other persons to whom the plan may apply meet all applicable requirements of the program prior to performing any work on the CFRC.
- The Part 217.9, Program of Operational Tests and Inspections. The O&M Contractor shall develop a training program and train and qualify managers and supervisors that are responsible for conducting Operational Tests and Inspections and Record keeping. O&M Contractor Testing Officers shall:
 - Be qualified on the railroad's operating rules;
 - Be qualified on the operational testing program requirements and procedures relevant to the tests the officer will conduct;
 - Receive appropriate field training, as necessary to achieve proficiency on each operational test the officer is authorized to conduct; and
 - Conduct operational tests as required by this plan.
- The O&M Contractor shall also develop, for the FDOT's approval, a training program that meets the requirements of 49CFR217.11. The O&M Contractor will train and qualify all employees whose job and/or function requires operating rules qualification in the requirements of this Part.
- The O&M Contractor shall develop for the FDOT's approval a training program that meets the requirements of Part 218.95 subpart F – Handling Equipment, Switches, and Fixed Derails Training Program. The O&M Contractor shall develop a schedule to train and qualify all new hire employees whose job and/or function requires initial operating rules qualification in the requirements of Part 218.95.
- The O&M Contractor will be required to provide a Reasonable Suspicion Training Program for all managers and supervisors as outlined in Part 219. Training will include

classroom and field training. Subject material includes applicable parts of Parts 217 and 218.

- The O&M Contractor will be required to provide covered employees a minimum of two (2) hours of training covering Part 219 alcohol and substance abuse awareness. All non-covered O&M Contractor employees will be provided with substance abuse awareness training in accordance with the CFRC/SunRail SSPP.
- The O&M Contractor will be required to develop for the FDOT's approval, in accordance with Part 220.25, radio communications instruction and testing.
- The O&M Contractor will be required to develop for the FDOT's approval, in accordance with Part 228, an Hours of Service training program. The O&M Contractor shall develop a schedule to train employees whose job function requires that their work hours be reported.
- The O&M Contractor will be required to develop for the FDOT's approval a railroad signal systems training program. This program shall include highway-rail grade crossing warning systems training and wayside signal training in accordance with Part 236 Subpart H – Standards for Processor-based Signal and Train Control Systems and Part 236.18 – Software Management Control Plan. The O&M Contractor shall develop a schedule to train and qualify all new hire employees whose job and/or function requires training under Parts 236.18, 236.925, 236.927 and 236.929 and shall provide for annual safety training courses.
- During the execution of the O&M Agreement, the installation of Positive Train Control (PTC) will occur. The O&M Contractor will be provided initial training in accordance with Part 236 Subpart I – Positive Train Control Systems. The O&M Contractor will be responsible for establishing and implementing training and qualification programs for PTC systems in accordance with Part 236 Subpart I, the CFRC Positive Train Control Development Plan (PTCDP) and the CFRC Positive Train Control Safety Plan (PTCSP).
- The O&M Contractor will be required to develop for the FDOT's approval and submittal to the FRA, in accordance with Part 240, a qualification and certification training program for SunRail locomotive engineers 30 days after Notice to Proceed. Train engineers shall be qualified, certified and trained in accordance with 49CFR240 by the O&M Contractor's DSLE and shall have a valid driver's license issued by a state within the United States. All engineers must be able to qualify on SunRail equipment, which includes train handling, operating rules, and physical characteristics through written and oral testing and demonstrated and observed train handling. In addition to the safe operation of the train, engineers must possess specific knowledge to be able to trouble shoot routine mechanical issues en route. The O&M Contractor's training program must include provisions for such trouble shooting purposes. Engineers must also be trained on applicable components of PTEPP.
- The O&M Contractor will be required to develop for the FDOT's approval, in accordance with Part 242, a qualification and certification training program for SunRail passenger train conductors. The O&M Contractor shall provide conductors that are qualified on Operating Rules, Air Brake Instruction, Safety Rules, PTEPP and Emergency Evacuation procedures, Security Awareness, CPR/AED and First Aid Training, Timetable Special Instructions, basic mechanical troubleshooting, Fare Inspection and ADA and customer service requirements. Conductors shall be trained according to the O&M Contractor's approved training plan and operate the train according to the FDOT-approved Train and Engine Crew SOPs that will be developed by the O&M Contractor.
- The O&M Contractor shall develop a Rolling Stock Training Program for the FDOT's approval, in accordance with Part 238, for the SunRail Commuter Rail system. The Plan shall, at a minimum, accomplish the following:

- 1) Identify the tasks related to the inspection, testing, and maintenance required by this Part that must be performed on each type of equipment that the railroad operates
 - 2) Develop written procedures for the performance of the tasks.
 - 3) Identify the skills and knowledge necessary to perform each task.
 - 4) Adopt a training curriculum that includes classroom and “hands-on” lessons designed to impart the skills and knowledge identified as necessary to perform each task. The training curriculum shall specifically address the Federal regulatory requirements contained in this Part that are related to the performance of the tasks identified.
 - 5) Require all employees and contractors to pass either a written or an oral examination covering the equipment and tasks for which they are responsible that are required by this part as well as the specific Federal regulatory requirements related to equipment and tasks to achieve and maintain required passenger railcar maintenance qualification.
 - 6) Require all employees and contractors to individually demonstrate “hands-on” capability to successfully perform the tasks required by this part that must be performed as part of their duties.
 - 7) Require supervisors to complete the training program that covers the employees whom they supervise.
 - 8) Requires supervisors to exercise oversight to ensure that all identified tasks are performed in accordance with SunRail written procedures.
 - 9) Designate in writing that all applicable O&M Contractor personnel and required sub-contractors have the knowledge and skills necessary to perform the safety-related tasks
 - 10) Require periodic refresher training that includes classroom and “hands-on” training, as well as testing, at an interval not to exceed three years.
 - 11) Add new equipment to qualification and designation program prior to its introduction to service.
 - 12) Maintain records adequate to demonstrate that all O&M Contractor personnel performing safety related tasks on SunRail passenger equipment are currently qualified to do so. These records shall be adequate to distinguish the qualification so the employee as a qualified person or as a qualified maintenance person.
 - 13) The O&M Contractor shall coordinate with Amtrak to ensure that records adequate to demonstrate that each employee at Amtrak Sanford Yard Facility performing safety related tasks on SunRail passenger equipment is currently qualified to do so and that these records will be available for inspection by the FDOT and FRA. These records shall be adequate to distinguish the qualification so the employee as a qualified person or as a qualified maintenance person.
- The O&M Contractor shall develop, for the FDOT’s approval, a training program for rail vehicle maintenance employees. The O&M Contractor shall develop a schedule to train and qualify all new hire employees and shall provide for annual safety refresher courses. This safety training course shall, at a minimum, provide the following:
 - 1) Roadway Worker Protection;
 - 2) Safe work practices on and around railroad equipment;
 - 3) Blue Flag Protection;
 - 4) Materials Handling (HAZMAT);
 - 5) High Voltage Electricity on Applicable Railway Equipment;
 - 6) Drug and Alcohol awareness (Supervisors/Managers)

- The O&M Contractor shall review the Contract Requirements as well as Training, Manuals and Parts Catalog deliverables from locomotive and Coach/cab-car manufacturers (the O&M Contractor will participate in the review and approval of the Training Plan, Training Documents, and O&M Manuals and Parts Catalogs being provided for cars and locomotives)
- The O&M Contractor shall develop for the FDOT's approval a training program that meets the requirements of the FRA 49 CFR 238.109, Training, Qualification and Designation program. The O&M Contractor shall develop a schedule to train all employees whose job function requires compliance with Part 238.109 and shall provide for annual training.
- OCC Training:
 - 1) SSCC personnel with duties essential to Part 239, Passenger Train Emergency Preparedness Plan (PTEPP) shall be trained by the O&M Contractor in the requirements of the PTEPP to ensure that they are properly prepared to respond to emergency situations. SSCC personnel shall receive, at a minimum, initial Roadway Worker Protection Training, SSCC General Operating Procedures, Radio Rules, Security Awareness and CPR/First Aid, in addition to the specific requirements of the CFRC Emergency Preparedness Training Program for SSCC personnel provided in Attachment 20, Passenger Train Emergency Preparedness Plan.
 - 2) Dispatcher qualifications and training shall be consistent with industry standards and subject to the approval of the DO. Training shall include, but not be limited to: Safety; Operating Rules; Physical Characteristics; Emergency Management, Incident Command System (ICS); general troubleshooting and equipment familiarization. The O&M Contractor shall also provide on the job training (posting) of sufficient duration as approved by the DO. Dispatchers shall participate in familiarization training, as approved by the DO, regarding how to communicate and work effectively with the OCC and local and regional designated Emergency 911 Communications Centers.

6.3.3. Safety and Security Training Requirements

The O&M Contractor will develop and provide applicable safety training, testing and rules qualification for O&M Contractor personnel, subcontractors and third-party contractors in accordance with the CFRC's SSPP, SSP, SEPP, Operating and Safety Rule Books and PTEPP. The O&M Contractor will develop and provide, in collaboration with the FDOT's Representatives' and in consultation with the emergency responder organizations and the operating railroads in the SunRail system service area, a training program for emergency responders who could reasonably be expected to respond to a corridor emergency. The O&M Contractor will conduct tabletop and other emergency simulations using guidance from Homeland Security Exercise Program (HSEEP), as specified in the PTEPP and SEPP developed by the O&M Contractor in collaboration with these groups during the mobilization period to ensure preparedness for passenger train and railroad right-of-way emergencies.

National Incident Management System (NIMS) training from the Federal Emergency Management Agency (FEMA) will be required for all O&M Contractor Managers as part of the emergency preparedness planning required within the SSPP to ensure an appropriate response to all incidents and emergencies that occur on the corridor.

All facilities maintenance tasks performed by O&M personnel or by third party contractors for the Local Government Partners, at the station sites and VSMF OCC facility will be "non-railroad"

tasks maintaining facilities adjacent to the railroad and will not be "roadway workers" as defined in FRA Part 214.7 and may not need roadway worker training per FRA Part 214.343. The O&M Contractor will ensure that they receive railroad safety awareness training and security awareness training in accordance with the FDOT's requirements.

The O&M Contractor will administer security-related training courses, drills and simulations, using guidance from Homeland Security Exercise Program (HSEEP), with their personnel and applicable outside agencies, as specified in the CFRC SSP and SEPP and approved by the FDOT. This training shall enable O&M Contractor personnel, SunRail passengers and third-party contractors to identify, record and report to the proper authorities, as appropriate, any criminal acts, suspicious activities and occurrences, or other security concerns identified within CFRC/SunRail operations.

6.4. Public Awareness/Public Education Program

FDOT has contracted the services of a professional public information firm to be a part of the Project Team to deliver Community Outreach Services. This Public Involvement Consultant will assist the FDOT Public Information Office and PMT Public Liaison to obtain community input and solicit community support regarding the Project by performing outreach efforts to individuals, civic groups, government officials, neighborhood associations, and other interested parties. The Project team also is available to meet with individuals, civic groups, government officials, neighborhood associations, and other interested parties to assist the Public Involvement Consultant. Briefing opportunities and contact information also are prominently displayed on the Project website, www.sunrail.com.

This process allows FDOT to gain insights from the community and to keep the community informed of progress / status on the CFCRT Project. Input obtained from these meetings is provided to the FDOT managers for consideration in Planning and Development of all phases of the CFCRT Project.

A Project-specific website, www.sunrail.com contains links to a number of other sites, including the Florida Department of Transportation, local transit operators (VOTRAN and LYNX and other organizations. Information posted on the website includes Corridor safety and security awareness and upcoming events; construction activities and upcoming events.

The Project website provides the public information and an opportunity to offer feedback or comments about the CFCRT Project. Public Involvement Consultant personnel respond to all comments and questions.

The Project website is continually updated with new and relevant information about Phase 1 construction, including information about construction activities, construction schedules, and appropriate contact information for consumer questions. Phase 2 South planning activities will also be updated as this phase progresses through construction to revenue service. All information will be coordinated with the Florida Department of Transportation Consumer Outreach Program.

The Public Involvement Program Manager is responsible for oversight and coordination of all public involvement activities including Operation Lifesaver, community outreach, website development and updates, construction outreach activities, stakeholder coordination, special events and meeting coordination and support. Public Involvement Specialists and Assistant Public Involvement Specialists are responsible for planning and conducting outreach to communities affected by SunRail construction. This includes the development of collateral materials, presentations, videos and other outreach tools. These team members are also responsible for social media outreach, Operation Lifesaver outreach and other safety-related

initiatives including door-to-door outreach and delivery of construction alerts and other materials to affected communities and neighborhoods.

Security Awareness Programs. Prior to Phase 2 South revenue operations, FDOT's Public Involvement Consultant will begin public service announcements (PSAs) to inform the traveling public of the existing security awareness programs in place to report criminal activities in and around the CFRC corridor and SunRail commuter service.

Operation Lifesaver. FDOT will continue to participate with Operation Lifesaver of Florida, both financially and by volunteering staff to speak at schools and other organization on rail safety. This public education program is an important component for public awareness of the CFRC corridor and future SunRail commuter service. This drive will be lead by the Project's Public Involvement Consultant with participation from the CFRC/SunRail Public Information Liaison and FDOT's Public Information Office.

The status of the public outreach program will be presented by the Public Information Consultant at monthly Safety and Security Certification Committee meetings.

7. Safety and Security Verification Process

This section describes how FDOT plans to conduct activities to verify the compliance of the delivered Project with the criteria and specifications developed and approved during the design development process.

7.1. Design Criteria Verification Process

Safety and security design criteria are an integral part of the CFCRT Design Criteria Manual. Design criteria were developed during PE by the CFCRT Design Consultant, which include safety and security design criteria as an integral part of the CFCRT Design Criteria for the corridor, track, signals, structures, station finish amenities, station site, parking lots, landscaping, station and site lighting, etc. The CFCRT Design Consultant who prepares the 100% design drawings and specifications verifies that design criteria have been addressed or otherwise been modified with rationale in accordance with Project configuration management practices.

The final approved 100% drawings and specifications will conform to the Criteria Conformance Checklist at the end of Final Design. The Design Engineer shall identify and define each certifiable item, design requirement(s), requirement source, applicability, and provide name and signature of person and Design Engineer responsible for identifying element and defining requirements. The Design Engineer shall separately verify design requirements and provide name and signature of person and Design Engineer responsible for concurrence for design review. For each certifiable item, the Design shall define a basis from which to judge compliance with safety requirements, such as an independent verification by audit of 10 to 25% of each Specification Package and/or Plan Set.

Similarly, the design conformance checklists are accepted by the Safety and Security Certification Committee. After the checklists are completed by the designers and/or contractors, they will be reviewed and verified by the CFRC Operations Office and the CEI, and the PMC, as needed. The checklists will then be submitted to the SSCC for acceptance

These Criteria will be incorporated into the Procurement documents issued for the Construction Contract for civil, systems, and station and track system elements encompassing all Phase 2 South system elements.

Additional rolling stock procurement will be accomplished through options negotiated during the Phase 1 (IOS) vehicle procurement with MPI (locomotives) and Bombardier (coaches and cab cars). The safety and security documents generated for these vehicles will be updated, as required, within the SSCP program items for key vehicle components.

The various contract packages for the CFCRT Phase 2 South Project, including their status as of June 2012 are shown in the PMP Table 5-1, Procurement Packaging Matrix.

7.2. Construction Specification Conformance Process

For the Construction Contract encompassing most CFCRT system elements, and for other contracts, as applicable, the procurement documents require each Construction Contractor to implement a C-SSCP within scope. The process includes safety and security related requirements compiled in Specifications Conformance Checklists for Project certifiable items at the Contractor's Project phases of construction, manufacture, installation, testing, and commissioning. The specifications conformance checklist is an extension of the Design Criteria Conformance Checklist and shall document and verify that all safety and security related requirements in the contract documents have been met by each Contractor. The Design Consultant supplies a signature section on the Design Criteria Conformance Checklist for future verification that construction complies with design through inspection, testing and the provision of documentation to serve as evidence that construction complies with design.

The following program requirements shall also be included in the Specification Conformance Checklist:

- Safety Analysis and resolution of Safety Critical Items List (SCIL).
- TVA and resolution of Security Critical Items List (SCIL).
- Traceability Matrices showing how design criteria and specification requirements were met by the contractor and subcontractors through design, analysis, construction, manufacture, installation and testing.
- Testing requirements addressing factory, acceptance, field, static, commissioning, dynamic, system wide, integration, and end-to-end tests.
- Training.
- Procedure Development.

Construction specification conformance verification checklist will be managed by the CFRC/SunRail Director of Operations or the CFRC/SunRail Safety and Security Manager and SSCC during the Construction phase for each certifiable element, as appropriate. The Certifiable Elements will be broken into the Certifiable Items that are the sub-systems and sub-elements that make up the element. These checklists will identify the tests and verification methods necessary to ensure that the as-built configuration contains the safety-related requirements identified in the applicable specifications and other contract documents. The verification of the checklists will provide documentation that the delivered project meets these requirements. Documentation supporting verification of the safety requirement will be available for review by the Project team. Certifications, inspector's reports, job photos or other evidence may be submitted as documentation. Any contractor submittal used for verification needs to be approved by the proper authority (Resident Engineer, CEI Consultant, etc.).

Similarly, the construction conformance checklists are accepted by the Safety and Security Certification Committee. After the checklists are completed by the CEI and/or contractors, they will be reviewed and verified by the CFRC Operations Office, the CEI and the PMC, as needed. The checklists will then be submitted to the SSCC for acceptance

7.3. Testing/Inspection Verification

Verification of testing and inspection requirements is done in two stages; both require that all safety and security elements be adequately inspected and tested before acceptance. All contractually required inspections and tests (factory, material, and field) are overseen by construction managers, PMC, FDOT Construction Quality Assurance Specialists (CQAS), and by safety and security personnel when they deem it necessary. The O&M Contractor is also required to attend the integration testing when appropriate. Tests that are required to assure proper integration of systems, or are safety or security intensive, are included in the SITP. The development of the SITP will follow similar tests as was conducted for the IOS, with the addition of PTC. The SITP will be submitted to the SSCC and ESCC for acceptance.

During the construction, integration, and start-up phases, many contractual and integrated tests are conducted for the purpose of validating proper operation of equipment furnished and constructed for the Project. Those that are necessary prior to substantial completion of construction are identified in the contract documents and will be performed by contractors under Project oversight by the CEI Consultants and/or Vehicle PMC. The FDOT testing and commissioning processes require that a detailed RAP be prepared for the Project and its execution be overseen by the Safety and Security Certification Committee. All System Integration Test Plans and Integration test results will be submitted to the SITC, the SSCC and the ESSC for review and final acceptance.

7.4. Hazard and Vulnerability Resolution Verification

The hazard and vulnerability identification and resolution process was described earlier in the SSMP. Each identified and management approved hazard or vulnerability resolution or mitigation is added to design and construction requirements and recorded on a tracking list. The list is used by Project personnel to follow each item through the design, construction, and testing process. For each hazard or vulnerability resolution or mitigation, the means of verifying its adequacy is defined in the tracking documents and may vary from simple observation to comprehensive testing.

The verification that all hazard and vulnerability resolutions have been appropriately included in the design will be included in the verification of design criteria conformance checklists during Final Design. The verification that all hazard and vulnerability resolutions have been appropriately constructed will be included in the verification of construction conformance checklists during the Construction phase. Those that require systems integration for resolution will be included in the appropriate tests within the SITP.

A preliminary hazard analysis will be conducted throughout the conceptual and design phases. Various operating hazard analyses will be conducted throughout the latter part of final design and construction and testing phases. The collision hazard analysis will also be conducted during all phases. All identified hazards will be ranked using the MIL standard 882 – D. The collision analysis used the ranking agreed upon by the FRA.

Hazards that are identified through the PHA process and are not designed out during the design phase will be converted to Operations Hazard Analyses (OHAs) where it is feasible. Rules, plans or procedures will be identified, developed and verified prior to revenue operations.

Corrective actions will be prepared for all hazards identified. Corrective actions for the elimination and control of unacceptable and undesirable hazards will include the following order of precedence:

- Design out the hazard to eliminate it.
- Incorporate safety devices such as protective devices, interlocks, messaging systems.
- Add warning devices such as warning signals
- Lastly, incorporate procedures and training only when specific approval is provided.

The PHA's focus is on design issues and interfaces between various systems. Other potential failures are examined as the system moves into final design and construction, and corrective actions are taken to eliminate those failures. The OHAs will focus on the procedures and emergency plans. Any existing procedures or plans requiring improvement are prepared. Any design improvement issues are also evaluated at this time to mitigate the hazard. The PHA and OHA will be updated and reviewed during the Final Design and will be submitted to the SSCC for acceptance.

A Safety (and Security) Critical Items List (SCIL) OR OPEN Items List will be used to track the status and/or resolution of those open items that are identified by hazard or threat vulnerability analyses as having the potential to result in harm (Category I & II Hazards), which are at a risk level of Unacceptable and Undesirable. In addition, when a safety certifiable element/item cannot meet design specifications and/or construction conformance prior to the initiation of revenue service, it will be transferred to the SCIL/Open Items List for continued tracking. The SunRail SSM will monitor the status of SCIL/Open items and the CIL sheets. The CFRC Chief Operating Officer/Passenger Rail Operations Manager, with assistance of the CEI and with input from the SSCC, will provide final approval regarding work-arounds, restrictions and exceptions to open items. The SSCC will be the authority accepting the remedial actions or will elevate the item status to the ESSC.

New SCIL items may require detailed hazard analysis and/or resolution activities to be brought to closure.

All items on the SCIL must be tracked to closure. When it is determined that an open issue or exception cannot be resolved to meet the safety requirement for issuance of a System Safety and Security Certificate, the SSCC will determine an acceptable alternative, and formally document the decision as part of the verification for the certifiable element. The CEI and/or SSM will coordinate the decision by either issuance of a document verifying closure or proposes an acceptable resolution for these exceptions.

To verify readiness to enter the next phase of the project, the various HAs and SCILs must be completed and/or mitigations approved and audited by the SSCC as part of the hold-point process.

7.5. Operational Readiness Verification

Verification is also required for the development of all needed plans, rules, and procedures, the preparation of and acceptance of manuals showing how to operate and maintain systems equipment and facilities, and the proper training of operations and maintenance personnel, including simulation of revenue operation.

The Rail Services Plan, another subsidiary plan to the RAP described in Section 2.4, provides a process for ensuring that plans and procedures are developed to safely and securely operate

SunRail commuter service on the Phase 2 South corridor. Pre-revenue operations, including normal and non-normal operating scenarios, are performed to refine operational schedules and procedures, and to familiarize train operators and supervisors with the new route and equipment.

Walk-through inspections will be conducted to ensure that all unacceptable and undesirable hazards for both safety and security are mitigated prior to revenue operations. Open Items identified during this step are added to the Open Items List and categorized by Safety Critical and Safety Non-Critical Items. All items are tracked to closure with anticipated completion dates.

The walk-through inspections of completed facilities, stations, and vehicles are also performed to determine that fire/life safety requirements have been appropriately addressed in accordance with the design.

7.6. Safety and Security Certification Requirements / Safety and Security Certification Plan

The SSCP, as a subsidiary of the RAP, details the requirements for verification and certification of the safety and security of all elements.

The CFRC/SunRail CEO is ultimately responsible for safety and security for all aspects of the CFCRT Project. The CFRC/SunRail CEO has delegated authority to FDOT Executive Management (FDOT Directors of Transportation Operations and Development), the CFRC Chief Operating Officer/ Passenger Rail Operations Manager and the CFCRT Program Manager to act for the CEO in performing or overseeing performance of the tasks for which they are ultimately responsible.

FDOT Executive Management will have overall responsibility for overseeing that the Phase 2 South SSCP is implemented. FDOT Construction Management and the FDOT representatives (CFRC/SunRail Director of Operations, CFRC/SunRail Safety and Security Manager, CEI, Vehicle PMC, etc.) will take on the responsibility to certify system elements for safety and security. The CFCRT SSCP was developed during PE and will continue to be updated as the Project moves through Final Design and into construction and the responsibility for implementing the program certifications will move from a design focus to a construction focus.

The SSCP will certify and document that all practical steps have been taken to optimize the operational safety and security of the Project before it is placed into revenue service. The goal of the SSCP is to ensure that the Project begins revenue service on the corridor with:

- A level of safety and security equivalent to the existing system and other existing rail systems in the United States
- The elimination or control of hazards, to the extent possible, as they affect passengers, employees, and users of shared right-of-way, facilities, property and equipment
- A high level of public confidence in the safety and security of the service
- Compliance with all safety and security requirements for the CFCRT Project

During the construction period of the Project, the Construction, Signal and PTC Contractors are contractually obligated to develop and implement System Safety and Security Programs, as well as certify the construction and testing for their respective Elements was completed in accordance with the safety and security criteria developed by the Design Consultant. The Manufacturers of the locomotives and coaches and cab cars will be responsible for ensuring that the safety and security requirements are met for the SunRail vehicles. The TVM Supplier will be responsible for meeting safety and security requirements of the Fare Collection System.

As the CFCRT System Integration Test Program proceeds, the SSCC has the responsibility to work with the CFCRT System Integration Testing Committee (SITC) to verify that all safety-related tests are successfully completed. The SSCC will also maintain the System Integration Test Schedule that is prepared by the Construction Contractor.

Throughout the verification effort, quality assurance audits are conducted on a periodic basis by the FDOT Quality Manager. Audits verify that all participants in the design conformance and testing/acceptance processes are reviewing for compliance with safety and security requirements and appropriately documenting this conformance. Other activities to be assessed include:

- The status of each safety/security task
- Compliance with program milestones and safety/security program milestones
- Schedule incompatibilities that require remedial corrective action
- Contractor action to track and implement positive corrective actions

In summary, all Project contractors (construction of civil, signals and communication and PTC components for Phase 1 and Phase 2 South) will be responsible for submitting to the CEI Consultant and applicable PMCs the documentation required to verify the safety and security requirements are met. The SSCC will review each checklist and, if satisfied, countersign recommendation for certification, and a Certificate of Conformance will be issued. If satisfied, the CFRC/SunRail Director of Operations will accept the certification and it will be catalogued for the Final CFCRT Project Safety and Security Certificate and Safety and Security Certification Verification Report (SSCVR).

After all elements, including PTC, are certified in accordance with the requirements specified in the SSCP, and verified, as applicable, by the SSCC and Fire/Life Safety Committee, the Safety and Security Manager will prepare the final SSCVR for the CFCRT Project at least 2 weeks prior to revenue operation certifying that is safe and secure for revenue operation. After the SSCVR is accepted by the SSCC and RAC, it is presented to the CFCRT Project Executive Safety and Security Committee for acceptance and submission to the CFRC/SunRail CEO for final signature and transmission to oversight agencies.

8. Construction Safety and Security

8.1. Construction Safety and Security

The requirements for construction safety and security management have been imposed by FDOT on contractors through specifications in the respective procurement packages requiring the contractors to develop their own construction safety and security plans and comply with FRA safety requirements, as well as OSHA. Occupational injuries and fatalities while working on railroad right-of-way are reportable to FRA and thus compliance with FRA safety rules along the right-of-way is required. The CFRC Safety Integration Test Plan (SITP) described in the PMP addresses roadway worker protection issues on CFRC right-of way in the presence of on-track equipment and trains. The CFRC/SunRail Director of Operations and the Safety and Security Manager will ensure that all CCSPs and practices as specified in Section 2.3 include specific requirements for contractor-provided safety and security elements, including required reports to FDOT and identification of Project oversight of contractor performance by FDOT. The CFRC/SunRail Director of Operations will also make assessments to determine the need for other than routine safety and security requirements during construction and will complete these assessments prior to the start of construction. Assessments will continue to be part of the continuing construction safety and security effort by FDOT Construction Management Team and

CEI Consultant personnel, under the overall direction of CFRC/SunRail Director of Operations and the CFRC/SunRail Safety and Security Manager.

FDOT District 5 Secretary insists that safety and security be a priority for every member of the management team, including FDOT staff and design and quality assurance contracted professionals. Each member of the Project Team is responsible for exercising his or her part of safety and security. This includes the reporting of unsafe and vulnerable conditions or activities, as well as receiving safety and security awareness and other safety and security training appropriate to the individual's specific role, under the direction and guidance of the CFRC/SunRail Director of Operations.

The Construction Contractors will be contractually obligated to conduct construction safety and security audits to verify that the safety/security system plan activities are being implemented. These audits shall be performed to verify compliance against pre-selected requirements. The audit objectives shall be to:

- Verify implementation and compliance with all aspects of their SSPP/SSP and to determine the effectiveness of the system
- Assure that the audits are performed in accordance with a written checklist by qualified personnel
- Assure that all audit results are documented and reviewed by management responsible for the area audited
- Assure that follow-up actions and actual verification, including re-audit of deficient areas, are performed

Safety: In addition, all Phase 2 South Project Construction Contractors safety personnel shall perform daily inspections of their worksites to ensure corrective action is taken by the construction organization for any health, safety, or security deficiencies identified. All inspections shall be available for review by FDOT and FDOT's applicable representatives, including the CFRC/SunRail Safety and Security Manager.

Elements in FDOT Construction Management Safety and Security oversight of the Construction Contractors' construction safety program include:

- CEI Staff as shown in Figure 2-5.
- Contract documents, including technical provisions, compliance with Federal and Florida regulations, and General and Special Provisions that specify contractor requirements for safety and security during construction
- Contractor professional safety and security staff, as a required part of the Construction Contractor's Team

FDOT procurement and CEI personnel shall ensure that contractors and subcontractors submit their own construction safety and security program documents as specified in Section 2.4 of this document. A C-SSPP and C-SPP are to be developed by each Construction Contractor during the Mobilization period, and will include a specific CCSP that details how they will meet the RFP requirements. Proper supervision and training at all tier-levels with employee participation in construction safety and security will be required.

CEI safety and security professionals will provide daily oversight of each contractor's application of their respective Construction Contractors' approved CCSP. FDOT's contract documents, the Construction Contractors' CSP, the current CFRC Roadway Worker Protection Plan and the SIP state that CEI staff, the CFRC/SunRail Director of Operations and the CFRC/SunRail Safety and Security Manager has the authority to stop any unsafe construction activity and prescribe

necessary conditions that must be met for work to resume. In addition, the CEI staff and CFRC/SunRail Safety and Security Manager will report all observed unsafe working conditions or security breaches to the Contractor and the Safety and Security Committee, notify the respective Contractor and the Safety and Security Committee in writing of non-compliance with any of the safety and security requirements, maintain written documentation of communications with the Contractor concerning accident prevention and security breaches, and review Contractor's Daily Reports, Equipment Maintenance Logs, Accident Report Forms, and other applicable forms. Violations may result in suspension of work until the violations are corrected, or termination of the contract. Repeated violations by an individual may result in FDOT ordering of a contractor or subcontractor to remove the individual (temporarily or permanently) from the construction site as per Division 1 specifications Section 8-5.

Security: The CFRC/SunRail Director of Operations and CFRC/SunRail Safety and Security Manager will ensure that each Phase 2 South Construction Contractor's approved C-SSP for the Project complies with the CFRC SSP and SEPP. All Construction Contractors will be required to maintain secure work sites, material storage sites and office facilities. Provisions of security requirements shall be for the protection of both the FDOT property and the property of the contractors' from theft, vandalism, pilfering, or other destructive activities, as well as for protection of personnel.

The approved contractor's security program may include both active and passive security measures such as the following:

- **Lighting/Illumination** – Lighting at worksites, offices, and storage areas may be used to reduce vulnerability
- **Access Control/Alarms/CCTV** – Office facilities, storage yards and buildings, and completed facilities will be secured to prevent unauthorized entry and may be provided with alarm systems or remote monitoring through CCTV systems
- **Physical Barriers** – Perimeter fencing with lockable gates will be used for storage areas and may be used for vulnerable work areas or office locations
- **Signage** – Warning signs may be used for both safety and security reasons

Security Coordinator – The Construction Contractor will provide a point-of-contact to assist the CFRC/SunRail Rail Security Coordinator (RSC). This person will be responsible to convey Situational Awareness Bulletins/threat information or new or revised security procedures received from the CFRC/SunRail RSC, DHS and local law enforcement to Construction Contractor personnel.

8.2. Positive Train Control (PTC)

In accordance with the Rail Safety Improvement Act of 2008, (RSIA08) and the Final Rule – Title 49 Part 236 Subpart I – Positive Train Control System, the CFRC is required to complete the implementation of PTC by December 31, 2015.

§ 236.1015 - PTC Safety Plan content requirements and PTC System Certification – provides specific instructions and requirements for implementation of the PTC System prior to receiving certification from the FRA Associate Administrator that the system is safe to operate. The PTC Contractor will be required to prepare the CFRC Positive Train Control Safety Plan (PTCSP) and perform all required tests, analyse, verifications and supporting documentation necessary for the certification of the CFRC PTC System.

Included as part of the PTC Contractors scope of work will be the preparation of the Positive Train Control Safety Plan (PTCSP). The procurement documents for the PTC Contractor will

require tasks to include training, operations and maintenance manuals, establishment of configuration management processes, and preparation of the PTCSP for submission to the FRA by the CFRC. The complete PTC System will be integrated and tested as a continuous, complete system, prior to certification. FRA certification of the PTC System is required before the system can be placed into service.

Testing and Documentation Manager: A Testing and Documentation Manager will be required to be created for the PTC Contractor. This position will be responsible for creating the testing procedures used to verify PTC system operability and interoperability. The Testing and Documentation Manager will be responsible for the creation of the PTC Safety Plan. The Testing and Documentation Manager will also be responsible for creation of training programs for PTC Field system maintenance, PTC office maintenance, dispatcher operations and Train and Engine (T&E) crew operations.

The PTCSP submitted by CFRC will include the following elements:

- Design Criteria
- Drawings and technical specifications of the PTC System
- Test Plans and Reports for commissioning of the PTC System
- Product operations and maintenance documents
- Product training documents

8.3. Construction Safety and Security Incentives

FDOT has not specified a plan to negotiate a safety and security incentive fees based partially on Construction Contractors' safety performances.

9. State Safety Agency Coordination

The provisions of 49 CFR Part 659, Rail and Fixed Guideway Systems, does not apply to commuter railroads. Safety and security management for the CFCRT Project during the phases of Preliminary Engineering, Final Design, Construction, Installation, Testing and Start-up, leading to commencement of revenue service, falls under authority of the FTA Final Circular, FTA C 5800.1, Safety and Security Management Guidance for Major Capital Projects, dated August 1, 2007. For a New Start of a commuter railroad, before entering revenue service FRA requires the development of a System Safety Program Plan (SSPP) in accordance with the American Public Transit Association (APTA) guidelines. FDOT recognizes that the FRA has also issued an Advanced Notice of Proposed Rulemaking System Safety Rule that, if adopted, may include additional requirements not found in the APTA Manual. For a New Start project FRA will approve the SSPP when issued (180 days before revenue service). FRA approval is in accordance with FTA Final Circular, FTA C 5800.1.

FDOT Central Office as the State Safety Oversight (SSO) agency has oversight authority over the CFCRT Project as enabled by Florida State Statutes when State funds are used. The CFCRT Project is classified as "Non-FTA" project by Florida Department of Transportation Fixed Guideway Transportation System (FGTS) Safety and Security Oversight (SSO) Program Implementation Guidelines (July 2007). This SSMP complies with the provisions of Section 341.061, Florida Statutes and the Florida DOT SSO Standards Manual #725-030-014.

9.1. State Safety Agency Coordination Activities

FDOT project management works cooperatively with the FDOT Central Office in meeting FDOT Fixed Guideway Transportation System (FGTS) Safety and Security Oversight (SSO) Program Implementation Guidelines (July 2007), the provisions of Section 341.061, Florida Statutes and the Florida DOT SSO Standards Manual #725-030-014. Key program documents and specifically safety and security management program documents developed by the CFCRT Phase 2 South Project team will be provided to FDOT Central office for review and comment. Revised FRA-required CFRC/SunRail System Safety Program Plan (SSPP) and Emergency Response Plan documents that incorporate Phase 2 South will be submitted to FDOT Central Office for review and approval 180 days before commencement of revenue service. Under the SSO, FDOT Central Office does not require and does not oversee security provisions for the CFRC system operational life cycle. However, security provisions required by the APTA Manual will be incorporated in a System Security Plan submitted to FTA and FRA per the FTA circular.

FDOT Central Office is part of the process to implement the safety and security certification for the CFCRT Project. FDOT Central Office is in the review cycle of safety certification plan documents and will be part of the final safety certification and approval of the Phase 2 South system's readiness to enter revenue service.

10. FRA Coordination

The CFRC corridor is under the jurisdiction of the Federal Railroad Administration (FRA). Communication with the FRA is conducted through the District 5 Secretary and the CFRC/SunRail Director of Operations to the FRA Region 3 Office and their oversight representatives on the Project. FRA Regional and Headquarters personnel participate in planning meetings and workshops during the Preliminary Engineering and Final Design phases of the Project, particularly for hazard analysis and PTEPP. For Phase 2 South commuter service, the Project will be utilizing FRA-compliant commuter rail vehicles. FDOT will continue to coordinate closely with the FRA during construction, start-up, and commissioning of the Phase 2 South Project

Although under FRA jurisdiction, FDOT Central Office has state safety oversight authority of the CFCRT Project by Florida Statutes (refer to Section 9.1). FDOT Central Office and, as requested, FRA staff, continue to perform in-field review of the CFRC, including participation in grade crossings diagnostics.

The CFCRT SSPP will be revised and submitted for approval to FDOT SSO 180 days before opening of the system for Phase 2 South revenue service. In addition, FDOT, under the direction of the CFRC/SunRail Director of Operations, will make available for the FRA review including CHA, during Final Design phase that conforms to the hazard management process in this SSMP, and in general accordance with the FRA "Collision Hazard Analysis Guide: Commuter and Intercity Passenger Rail Service, Final (2007)".

The CFRC/SunRail Director of Operations shall coordinate and provide liaison between the CFCRT Project organization and the FRA safety oversight representatives on matters pertaining to the conduct of the CHA, and on any and all issues pertaining to compliance with FRA rules and regulations promulgated in the Code of Federal Regulations and particularly 49 CFR parts. During the PE phase of the Project FRA rules and regulations were incorporated into the CFCRT Design Criteria document for civil, systems, track, signals, rolling stock, and grade crossings. FRA rules and regulations were incorporated into the procurement documents for the

design and manufacture of the SunRail rolling stock that will be used in both the Phase 1 and Phase 2 South segments.

FDOT has incorporated FRA regulatory requirements pertaining to O&M, training and personnel certification into procurement packages to ensure a safe and efficient transition to O&M Contractor services for the day to day management of rail operations.

The FDOT District Secretary, as the CFRC/SunRail CEO and the CFRC/SunRail Director of Operations, are responsible for approving the start of Phase 2 South revenue operations. FDOT, with the assistance of the Construction Contractor, CEI Consultant, PMC and the O&M Contractor, will work with FRA to provide the FRA with access to CFR Title 49 test procedures and test results, integration testing procedures and results, and any other documentation, information, and procedures necessary to satisfy FRA requirements to commence Phase 2 South revenue operations.

Any defects identified by the FRA through various audits and inspections will be corrected promptly by the appropriate group. All such remedies will be submitted to the SSCC for review and acceptance.

11. DHS Coordination

The Transportation Security Administration (TSA) provides primary contact for any DHS coordination for security recommendations, inspections or future regulations that may affect the CFRC and SunRail commuter service. Under the Aviation and Transportation Security Act, TSA has the primary federal role for security in all modes of transportation. (See: 49 U.S.C. 114(d).) DOT agencies such as the Federal Railroad Administration (FRA) are involved in promulgating and enforcing DOT safety and security regulations related to rail and hazardous materials.

Contact with TSA as the primary liaison with DHS was established during CFCRT Phase 1 (IOS) Project and is maintained by the CFRC/SunRail Director of Operations, liaising with the TSA Office of Surface Transportation Security in Orlando, FL.

As the Phase 2 South Project progresses through Construction, Installation, Testing and Start-Up and approaches revenue operations, the CFRC/SunRail Director of Operations will continue to participate in scheduled meetings with Orlando TSA Surface Inspectors and local law enforcement, including attendance at Orlando Region Multi-Modal Meetings hosted by the Central Florida Intelligence Exchange (CFIX) Fusion Center (sponsored by the Florida Department of Law Enforcement). The DHS, Florida Department of Law Enforcement (FDLE) and local law enforcement participate in the Central Florida Intelligence Exchange (CFIX) to provide information and knowledge in the form of actionable intelligence to policy and decision makers. CFIX collects, analyzes, produces and disseminates intelligence in order to support regional efforts to detect, deter, disrupt and deny terrorist and/or criminal activity. This fusion center has subject matter experts on domestic extremism, international terrorism, gangs, organized/violent crime, emergency services, critical infrastructure and multi-modal transportation. CFIX disseminates information to Central Florida public transportation agencies, including CFRC/SunRail, through the regularly scheduled CFIX – TSA Regional Multi-Modal meetings and the recently created CFIX Transportation Committee, of which the CFRC SunRail Safety and Security Manager is a member. CFIX also transmits situational awareness bulletins and For Official Use Only (FOUO) bulletins to Intelligence Liaison Officers (ILO).

As the Phase 2 South Project progresses towards its operational phase, FDOT may also consult the TSA on operational strategies in responding to local threat conditions. The CFRC/SunRail Director of Operations and O&M Contractor for the IOS will provide the linkage

through which such information and recommendations from the DHS will be acted upon through the processes as described in this document. The CFRC/SunRail Director of Operations will solicit guidance in implementation of security design criteria, and incorporating security factors and provisions into the SEPP as appropriate to each project phase. In cases of increased state of readiness level, liaison with TSA, and if/when appropriate, FBI, may occur more often as needed.

11.1. DHS Coordination Activities

In November of 2008 the DHS promulgated 49 CFR Part 1580, Rail Transportation Security, with specific application to the CFRC found in Subpart A, General (1580.1.,.3 and .5) and Subpart C (1580.200 through 203): Passenger Rail Including Passenger Railroad Carriers, Rail Transit Systems, Tourist, Scenic, Historic and Excursion Operators, and Private Cars.

Rail Security Coordinator: Section 1580.201 of the Rule requires passenger railroad carriers and rail transit systems to designate a named individual as the Rail Security Coordinator (RSC). The CFRC/SunRail RSC or alternate is the designated security liaison between the regulated party and TSA. The CFRC/SunRail RSC or alternate will provide a primary single point of contact at the corporate level for receiving communications and inquiries from TSA concerning threat information or security procedures and coordinating responses with appropriate law enforcement and emergency response agencies. If TSA needs to convey extremely time-sensitive security information to a regulated party, particularly in situations requiring frequent information updates, it is important for the sake of continuity that TSA be able to interact with a specific individual. The CFRC/SunRail RSC must be in a position to understand security problems, raise issues with corporate leadership, and recognize when emergency response action is appropriate.

This final rule allows different people to be on call at different times throughout the day, provided that at least one RSC or alternate is available to TSA on a 24-hour, 7 days a week basis and allows a passenger rail systems to select a qualified individual who also performs other job duties to serve as the RSC. All changes to the names, titles, telephone numbers, and e-mail addresses of the RSC's and alternate RSC's must be reported to TSA within seven calendar days. TSA has determined not to provide RSC training at this time or to provide specific training standards. To meet the performance standard established for RSC's, TSA expects entities subject to this requirement to provide any necessary training, which may be specific to each entity.

The CFRC/SunRail SSM assumed the primary role of RSC in October, 2011. The Alternate RSC will be filled by an O&M Contractor representative at IOS revenue service. Phase 2 South Construction Contractors will be responsible for reporting all security issues either directly to the RSC or RSC Alternate, and/or by notifying the SSCC of the security issue. In accordance with CFRC/SunRail incident management procedures, the SSCC is responsible to convey all security issues to the CFRC/SunRail SSM.

Intelligence Liaison Officer: The CFRC/SunRail Safety and Security Manager is also the designated Intelligence Liaison Officer (ILO) for CFRC/SunRail. An ILO is an identified person (sworn or non-sworn) within a law enforcement, emergency services, or other entity, such as a rail transit agency, who is responsible for reporting and disseminating suspicious activity and other criminal intelligence information to their local agency and to the local Fusion Center (CFIX).

Specialty training is provided by a company contracted by the DHS and the Regional Domestic Security Task Force (RDSTF) Region 5, comprised of nine Central Florida Counties including the four counties that are local partners for the CFCRT Project. ILO training includes:

- Recognizing Terrorism Indicators
- Recognizing Organized Group and Gang Activities
- Intelligence Gathering Rules and Regulations
- Critical Infrastructure Protection
- Reporting Information
- Sharing Information
- Intelligence Cycle

The ILO program, while not intended to replace a current intelligence unit, provides CFRC/SunRail with a baseline capability for gathering intelligence, recognizing local threats and trends and providing community based contact to gather street level information. Cooperation with regional and state intelligence fusion centers completes the circle of information gathering and sharing of obtaining timely, accurate and actionable intelligence to protect the public, CFRC tenant railroads, and SunRail patrons.

11.2. Coordination Process

In most cases, TSA surface inspectors will notify CFRC in advance to schedule an inspection and, to the extent practicable, work in close partnership during the visit with the CFRC/SunRail RSC designated under § 1580.201 or other appropriate official(s) designated by the CFRC. TSA will also make unannounced inspections to check for compliance. TSA emphasizes that the inspection authority set forth in 49 CFR 1580.5 supersedes the provisions in TSA's Rail SD RAILPAX-04-01s that compliance visits be coordinated with the Security Coordinator.

The rule requires freight and passenger railroads to immediately report incidents, potential threats, and significant security concerns to TSA. The CFRC/SunRail RSC or the designated Alternate must make the required reports by telephoning the Freedom Center at 703-563-3240 or 1-877-456-8722.

TSA recognizes that, in some cases, notifying the local first responders to address a threat or consequences in the immediate aftermath of an incident takes precedence over notifying TSA because of the need to protect lives or property. In these cases, the CFRC/SunRail RSC or designated alternates will notify TSA simultaneously or as soon as possible after notifying 911 or other first responders.