

CITY OF HIGH POINT

AGENDA ITEM

**Title: Public Transportation Agency Safety Plan**

From: Mark McDonald, P.E., Transportation Director **Meeting Date:** November 16, 2020

Public Hearing: N/A

Advertising Date /

Advertised By: N/A

Attachments: 1. Public Transportation Agency Safety Plan

PURPOSE:

As a recipient of Federal Transit Administration (FTA) funds, the City is required to comply with 49 CFR Part 643, Public Transportation Safety Plan. Each year recipients must certify annually that they have a compliant safety plan as a condition of receiving ongoing federal funds.

BACKGROUND:

Each Public Transportation Agency Safety Plan (PTASP) must include the four Safety Management System (SMS) principles as well as set and define safety performance targets as defined in the National Safety Plan (NSP).

See the attached memo that details the requirements, the method staff utilized to meet the compliance deadline, and a summary of the SMS Readiness Assessment and recommendations prepared by the consulting firm assisting the transit system.

BUDGET IMPACT:

The primary budget impact is the addition of the additional staff position who would be assigned the day-to-day implementation and operation of SMS and the PTASP. The new position is projected to cost \$80,034 which includes salary, benefits, and operational costs. The expense would be covered initially by 100% CARES Act funding and future years would be covered with the transit system's normal Section 5307 funding. The typical cost share with the Section 5307 funding is 40% federal, 17% state, 17% farebox, 6% other revenues such as advertising, concessions, and sale of equipment that has exceeded its useful life and 20% city general fund revenues.

RECOMMENDATION / ACTION REQUESTED:

Staff recommends that City Council approve the PTASP as submitted and authorize the City Manager and City Attorney to certify in the Transit Awards and Management System (TrAMS) completion of a PTASP that meets the regulation requirements.



City of High Point North Carolina



Department of Transportation

Public Transportation Division

To: Mark McDonald, P.E., Transportation Director
From: Angela Wynes, Transit Manager *AW*
Date: November 6, 2020
Subject: Public Transportation Agency Safety Plan

This memorandum provides a report on the development of the Public Transportation Agency Safety Plan in compliance with the Public Transportation Agency Safety Plan final rule (49 C.F.R. Part 673) that was issued on June 19, 2018.

Agency Safety Plan Requirements Recap

Each transit system must name an Accountable Executive and Chief Safety Officer/SMS Executive for the transit agency. The Accountable Executive is a single, identifiable individual who has the ultimate responsibility for carrying out the PTASP and ensuring the effective implementation of the SMS. The Accountable Executive must designate a Chief Safety Officer/SMS Executive who has the authority and responsibility for the day-to-day SMS implementation and operation. The Chief Safety Officer/SMS Executive must report directly to the Accountable Executive. Mrs. Angela Wynes, Transit Manager, will be the Accountable Executive and in the interim she will serve as the Chief Safety Officer/SMS Executive. As safety is the responsibility of all transit system employees, in addition to managers and supervisors, all employees will have some responsibilities under the plan.

The PTASP must:

- Be based on the Safety Management System (SMS) approach
- Contain performance targets based on safety criteria established under the National Public Transportation Safety Plan
- Establish a process for annual review
- Be approved by the agency board of directors or equivalent authority by July 20, 2020. On April 22, 2020, FTA issued a notice of enforcement discretion that effectively delays the due date to December 31, 2020.

Where Are We in the Process?

To meet the compliance deadline, the Transit Manager solicited proposals from firms with expertise in transit and SMS to assist with drafting SMS policies and procedures. The Florida based firm of K&J Safety and Security Consulting Services, Inc (K&J) was selected to assist transit staff. The K&J project manager, James Dougherty, has over 30 years of transit safety experience.

Mr. Dougherty was on-site May 20 and 21 to interview staff and observe operations. Mr. Dougherty completed the SMS gap analysis and prepare the final report summarizing his findings. Even though the system is doing some good things in the area of safety, the SMS gap analysis revealed that High Point Transit has a significant amount of work to do to be in compliance with the the federal regulations. The complete report is attached.

Mr. Dougherty then took the findings from the SMS gap analysis to prepare the SMS Implementation Plan. This document provides the necessary actions to develop a fully compliant safety management system; this document also recognizes that High Point Transit System is a small system, and these changes will need to be implemented over time. The first step was the creation of the safety management policy statement that identifies safety as one of the core business functions and the commitment of management to improve its safety functions through the adoption of SMS. Transit System staff will need to begin to think and perform differently ensuring that hazard/risk analysis are considered in all aspects of the system.

SMS Readiness Assessment/ Gap Analysis Summary and Recommendations

HPTS only had a 21.3% compliance rating with the SMS requirements. The primary areas in need of improvement are Safety Management Policy, Safety Risk Management, and Safety Assurance. The driving factor was that the transit system does not have a singular functional group or person solely responsible for managing safety. The lack of an individual dedicated to overseeing the transit safety program contributes to the lack of a standardized training program and inefficient safety program management.

Mr. Dougherty developed the following recommendations

1. Begin the SMS Implementation Plan as outlined with the establishment of the committees
2. Develop an SMS Program budget to include the establishment of a Transit Safety Officer position
3. Designate the Transit Safety Officer as the Chief Safety Officer/SMS Manager, who reports directly to the Transit Manager
4. Add a category to evaluate safety performance to employee appraisals that currently do not have safety as an competency or goal.

There were three (3) slides that were inadvertently left out of my presentation on November 2nd, and I am attaching the slides to this memo.

Action Steps

Mr. Dougherty, with staff input, has developed our PTASP which incorporates the addition of a new position for a Transit Safety Officer who has responsibility for the day-to-day implementation and operation of SMS.

I request that City Council approve the PTASP as submitted and authorize the City Manager and City Attorney to certify in the Transit Awards and Management System (TrAMS) completion of a PTASP that meets the regulation requirements.

Summary of Findings from SMS Readiness Assessment

- HPTS only had a 21.3% compliance rating with the SMS requirements.

Priority	Component	Score
1	Safety Management Policy	6.1%
2	Safety Risk Management	16.7%
3	Safety Promotion	25.0%
4	Safety Assurance	31.8%

Summary of Findings from SMS Readiness Assessment

- Transit does not have a singular functional group or person solely responsible for managing safety.
 - Shared with other City departments
 - Most transit systems have a dedicated safety person or with larger systems, a safety department
- Lack of a standardized training program that includes both transportation and occupational safety and health elements.
 - No dedicated trainer
 - Existing training needs improvement to the safety content
- Inefficient safety program management
 - Lack of clearly defined safety roles and responsibilities
 - Lack of defined training program
 - Ineffective safety communication pathways
 - Incomplete hazard identification, hazard analysis, and hazard mitigation processes

Recommendations

- Begin SMS Implementation Plan
- Develop SMS Program Budget to include establishment of a Transit Safety Officer position
- Transit Safety Officer position
 - Position reports to Accountable Executive/Transit Manager per the requirements of the National Safety Plan and CFR Parts 670 and 673
 - Serve as SMS Manager and SMS Subject Matter Expert
 - Better focus of safety messages to employees
 - Develop and implement consistent training
 - Develop and monitor hazard identification, hazard analysis, and hazard mitigation
 - Continuously collecting and analyzing data and monitoring trends
 - Monitoring key performance indicators (KPIs) to achieve safety targets
 - Monitor the employee safety reporting program



High Point Transit System

City of High Point, North Carolina

Public Transportation AGENCY SAFETY PLAN

ORIGINAL VERSION 1.0
TRANSIT-031220-R-0010 PHASE 2
OCTOBER 5, 2020

Prepared By:
K&J Safety and Security Consulting Services, Inc.
3257 Elcano Lane
Cantonment, FL 32533



Approvals

The SMS Implementation Plan has been reviewed and authorized by the following individuals:

Ms. Angela Wynes

Transit Manager / Accountable Executive

Ms. Angela Wynes

Chief Safety Officer / SMS Manager

Mr. Keith Craven

Assistant Transit Manager / Assistant SMS Manager

[Vacant]

Transit Supervisor

Mr. Jamael Wiley

Paratransit Supervisor

Mr. Tim Arnold

Transit Maintenance Supervisor

Transit Agency Information

High Point Transit System
716 W Martin Luther King Jr. Drive
High Point, North Carolina 27262
(336) 8889-7433

City Council	Hon. Jay W. Wagner	<i>Mayor</i>
Accountable Executive	Angela Wynes	<i>Transit Manager</i>
SMS Manager	Angela Wynes	<i>Transit Manager</i>
Assistant SMS Manager	Keith Craven	<i>Assistant Transit Manager</i>
Modes	Bus and Paratransit	<i>Fixed-Route, Bus Paratransit</i>
FTA Funding Types	5303, 5307, 5309, 5337, and 5339	<i>Urban Area and Advanced Mobility Capital Investments State of Good Repair Bus and Bus Facility Program</i>

Document Control

No.	Modification / Edit	Page	Section	Name	Initials	Date
1	Original Public Transportation Agency Safety Plan Document			Angela Wynes, Transit Manager		
2						
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PTASP Certification

This Agency Safety Plan (PTASP) was drafted by the High Point Transit System through collaboration with K&J Safety and Security Consulting Services, Inc.

The following signatures provide certification that this Agency Safety Plan (PTASP) complies with 49 CFR Part 673, for a Small Bus Agency.

1. Signature by the Accountable Executive			
	Angela Wynes Transit Manger / Accountable Executive		Date of Signature
2. Approval by the High Point City Council			
	Honorable Jay W. Wagner Mayor		Date of Approval
3. Certification of Compliance with 49 CFR Part 673			
	Angela Wynes Transit Manager / SMS Manager		Date of Certification

The following documents are “incorporated by reference” and available for review by authorized parties at the High Point Transit System’s Headquarters:

- 1) City of High Point Continuity of Operations / Broad Avenue Terminal – December 1, 2016
- 2) City of High Point Safety Program Book – January 2011

HIGH POINT TRANSIT SYSTEM SAFETY MANAGEMENT POLICY STATEMENT

The mission of the High Point Transit System (HPTS) is to provide a safe and reliable transportation service for the public, healthful and safe working conditions for all HPTS employees, and to comply with all applicable Federal, State, and local laws and regulations.

HPTS is fully committed to SMS and to providing its customers with a safe transportation service, maintaining a strong safety culture, and providing a working environment that ensures the safety and health of its employees and protects the environment. HPTS is further committed to developing, implementing, maintaining, and continuously improving its processes to ensure that all transit service delivery activities occur under a balanced allocation of organizational resources, aimed at achieving the highest level of safety performance and meeting the established standards. As such, HPTS is placing the management of safety as one of the core business functions of the organization, across all modes of transportation.

It shall be the responsibility of management at all levels of the organization, as well as employees in each division to be accountable for delivery of the highest level of safety performance, beginning with the Transit Manager (TM). Therefore, HPTS is committed to achieving the following objectives:

1. **Supporting** the SMS and the management of safety by providing appropriate resources to support an organizational culture that fosters safe operational practices, encourages effective safety reporting and communication, and actively manages safety with the same attention to results as that given to the other management systems of the Agency;
2. **Integrating** the management of safety as part of the primary responsibilities of all HPTS managers and employees.
3. **Clearly Defining** accountabilities and responsibilities of all employees and managers alike to uphold the organization's safety performance goals and performance of the Safety Management System (SMS).
4. **Establishing and Operating** a Safety Risk Management process allowing for hazard identification, analysis, and risk evaluation utilizing an employee reporting program as a principal source for information gathering.
5. **Prioritizing** the elimination or mitigation of calculated identified safety risks created by operating conditions or activities, to a level consistent with the Agency's acceptable level of safety performance.
6. **Ensuring** that no action will be taken against any employee who discloses a safety concern through an employee safety reporting program unless disclosure indicates through the investigative process and beyond a reasonable doubt, an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures was committed.
7. **Complying** with, or exceeding when possible, legislative, and regulatory requirements and standards.
8. **Ensuring** sufficiently trained and knowledgeable human capital is available to implement the various SMS processes, including as part of service delivery operations.
9. **Ensuring** all employees are provided with adequate and appropriate safety-related information and training, competent in safety management processes and subject, and allocated only tasks commensurate with their skills.
10. **Establishing and Measuring** safety performance against data-driven safety performance indicators and targets.

HIGH POINT TRANSIT SYSTEM SAFETY MANAGEMENT POLICY STATEMENT

11. **Continuous Improvement** of safety performance and the SMS through management processes that ensure appropriate safety risk management, assurance, and promotion activities are identified, implemented, and effective.
12. **Ensuring** externally supplied systems and services to support HPTS operations are delivered in a manner to meet safety performance standards
13. **Defining** processes to address conditions when disciplinary actions will be exempt based on the actions of an employee, in support of promoting a positive safety culture.

To implement this Agency Safety Plan (PTASP), HPTS's employees and contractors must focus on the following Safety Management System components:

- **Safety Management Policies** to guide the development, implementation, and maintenance of the SMS processes.
- **Safety Risk Management** process for identifying hazards and analyzing, assessing, and mitigating safety risk to the lowest reasonable level.
- **Safety Assurance** to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that the Authority meets or exceeds its safety objectives through the collection, analysis, assessment, and trending of information.
- **Safety Promotion** to support SMS, including safety communications and training.

This policy statement will be reviewed and updated to align SMS processes with ongoing and evolving safety performance goals and objectives.



Angela Wynes

Transit Manager

High Point Transit System

August 2020

Acronyms

AAR	After-Action Reports
ACSE	American Society of Safety Engineers
ADA	Americans with Disabilities Act
AE	Accountable Executive
ANSI	American National Standards institute
APTA	American Public Transit Association
ASTM	American Society for Testing and Materials
AVL	Automatic Vehicle Locator
BMP	Bus Maintenance Plan
CAP	Corrective Action Plan(s)
CCB	Change Control Board
CCR	Configuration Change Request
CFR	Code of Federal Regulations
COOP	Continuity of Operations Plan
DBE	Disadvantaged Business Enterprise
DHS	Department of Homeland Security
DoD	United States Department of Defense
EMA	Emergency Management Agency
EMP	Emergency Management Program
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
ESRP	Employee Safety Reporting Program
EX	Emergency Exercise
FAMP	Facilities Management Plan
FLSC	Fire Life Safety and Security Working Group
FSE	Full-Scale Exercise
FTA	Federal Transit Administration
GPS	Global Positioning Satellite
HPMPO	High Point Metropolitan Planning Organization
HPTS	High Point Transit System
HSEEP	Homeland Security Exercise and Evaluation Program
IAPP	Internal Audit Program Plan
ICS	Incident Command System
ID	Identification
ISA	Internal Safety Audit
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITP	Individual Training Program
KPI	Key Performance Indicators
MAP-21	Moving Ahead for Progress in the 21 st Century
MBE	Minority Business Enterprise
MIL-STD	Military Standard
MPO	Metropolitan Planning Organization
MSDS	Material Safety Data Sheets
MSF	Maintenance and Storage Facility
MTM	Manager of Streetcar Maintenance

N/A	Not Applicable
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NPTSP	National Public Transportation Safety Plan
NSC	National Safety Council
NSP	National Safety Plan <i>also see NPTSP</i>
NTD	National Transit Database
NTI	National Transportation Institute
NTSB	National Transportation Safety Board
O&M	Operation and Maintenance
OEM	Original Equipment Manufacturer
OMP	Operations and Maintenance Plan
OSHA	Occupational Safety and Health Administration
PHA	Preliminary Hazard Analysis
PM	Preventative Maintenance
PMI	Preventative Maintenance Inspection
PMMS	Preventative Maintenance Management System
PPE	Personal Protective Equipment
PRO	Pre-Revenue Operations
PTASP	Public Transportation Agency Safety Plan
PTSCTP	Public Transportation Safety Certification Training Program
QA	Quality Assurance
QC	World Safety Organization
SA	Safety Assurance
SDS	Safety Data Sheet <i>also see MSDS</i>
SGR	State of Good Repair
SIT	System integration testing
SME	Subject Matter Expert
SMS	Safety Management System
SOP	Standard Operating Procedures
SPC	Safety Performance Criteria
SPI	Safety Performance Indicators
SPT	Safety Performance Targets
SRA	Safety Risk Analysis
SRCP	Safety Rules Compliance Program
SRL	Safety Risk Log
SRM	Safety Risk Management
SSC	Safety and Security Certification
SSCP	Safety and Security Certification Plan(s)
SSEPP	System Security and Emergency Preparedness Plan
SO	Safety Officer
SSPP	System Safety Program plan
TAM	Transit Asset Management Plan
TSA	Transportation Security Administration
TSO	Transit Safety Officer
TTX	Tabletop Exercise
TVA	Threat and Vulnerability Analysis

U.S.C.	United State Code
UASI	Urban Area Security Initiative
UC	Unified Command
VRM	Vehicle Revenue Miles
WBE	Woman Business Enterprise
WSO	World Safety Organization

Definitions¹

Accident: An event that involves any of the following:

1. A loss of life.
2. Report of a serious injury to a person.
3. A collision of public transportation vehicles.
4. A runaway train (N/A to HPTS).
5. An evacuation for life safety reasons; (N/A to HPTS) or
6. Any derailment of a rail transit vehicle (N/A to HPTS).

Accountable Executive: A single, identifiable person who has ultimate responsibility for carrying out the Public Transportation Agency Safety Plan of a public transportation agency; responsibility for carrying out the agency's Transit Asset Management Plan; and control or direction over the human and capital resources needed to develop and maintain both the agency's Public Transportation Agency Safety Plan, in accordance with 49 U.S.C. 5329(d), and the agency's Transit Asset Management Plan in accordance with 49 U.S.C. 5326.

Administrator: The Federal Transit Administrator or the Administrator's designee.

Collision: All collisions between a rail transit vehicle and another rail transit vehicle; all collisions resulting in substantial property damage, serious injury, or fatality.

Configuration Management: A process to assure that all documentation that describes a system and its various components is current and reflects the actual functional and physical characteristics of the system throughout its life cycle.

Contractor: An entity that performs tasks required on behalf of the oversight or rail transit agency. The rail transit agency may not be a contractor for the oversight agency.

Corrective Action Plan (CAP): A plan prepared by an RTA that describes the actions it will take to correct, eliminate, mitigate, or control hazardous conditions.

Derailment: A non-collision event in which one or more wheels of a rail transit vehicle unintentionally leaves the rails. Two-Hour Accident notification is required anytime there is the derailment of a rail transit vehicle at any location, at any time, whatever the cause.

Emergency: A situation, which is life threatening or which causes damage on or in any RTA facility, right-of-way or vehicle.

Equivalent Authority: An entity that carries out duties similar to that of a Board of Directors, for a recipient or subrecipient of FTA funds under 49 U.S.C. Chapter 53, including sufficient authority to review and approve a recipient or subrecipient's Public Transportation Agency Safety Plan.

Evacuation: A condition that occurs when persons depart from transit vehicles or facilities for life safety reasons, including self-evacuation.

Event: Any Accident, Incident, or Occurrence

Fatality: A death or suicide occurring at the scene or within 30 days following the accident; excludes deaths resulting from illness or other natural causes and criminal homicides that are not related to collisions with a rail transit vehicle.

¹ Definitions are referenced from 49 CFR Part 673

Findings of Non-Compliance: Those instances where the RTA's SSPP, SSP/SEPP or supporting documents and manuals do not meet state or federal requirements, or in cases where internal practices do not follow the RTA's own plans or procedures.

Findings with Recommendation: identify conditions, practices, or procedures that are undocumented, inconsistently applied, or are non-existent despite being important to safety and security of the transit system. Industry best practices and gaps or deficiencies in the RTA's policies, procedures, or in the implementation of policies and procedures may also be accounted for.

FTA: The Federal Transit Administration, an operating administration within the United States Department of Transportation.

Hazard: Any real or potential condition that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a public transportation system; or damage to the environment.

Hazard Analysis: A systematic analysis performed to identify hazards and establish requirements for their elimination or control.

Hazardous Condition: A condition that may endanger human life or property (formally called "unacceptable hazardous condition")

Hazardous Material: Any commodity or product identified or regulated by the United States Department of Transportation in title 49 CFR Parts 171 -179 which may be transported under restricted conditions.

Incident: An event that involves any of the following: A personal injury that is not a serious injury; one or more injuries requiring medical transport; or damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of a transit agency.

Individual: A passenger; employee; contractor; other rail transit facility worker; pedestrian; trespasser; or any person on rail transit-controlled property.

Injury: A human condition of the magnitude requiring medical treatment or transport to a health care facility for medical treatment.

Investigation: The process of determining the causal and contributing factors of an accident, incident, or hazard, for the purpose of preventing recurrence and mitigating risk.

Life Safety Reasons: A situation such as a fire; the presence of smoke or noxious fumes; a fuel leak; a vehicle fuel leak; an electrical hazard; a bomb threat; a suspicious item or other hazard that constitutes a real or potential danger to any person.

Life Cycle: The course of developmental change, which a transit system passes through from its inception to its retirement and disposal

National Public Transportation Safety Plan: The plan to improve the safety of all public transportation systems that receive Federal financial assistance under 49 U.S.C. Chapter 53.

New Start Project: Any rail fixed guideway system funded under FTA's 49 U.S.C. 5309 discretionary construction program.

NTSB: The National Transportation Safety Board is an independent Federal agency that conducts accidents investigations across several transit disciplines.

Observations: Consist of concerns that do not warrant a formal Finding. Observations may include site-specific or non-systemic deficiencies found. Alternately, Observations may highlight the RTA's practices deemed commendable by FDOT.

Occurrence: An Event without any personal injury in which any damage to facilities, equipment, rolling stock, or infrastructure does not disrupt the operations of a transit agency.

Office of Transit Safety and Oversight (TSO): The FTA office that administers a national transit safety program and program compliance oversight process through adherence with legislative, policy and regulatory requirements as established by FTA.

On-Site Safety Audit: a formal, comprehensive, on-site examination by the Oversight Agency of a transit agency's safety practices to determine whether they comply with the policies and procedures required under the transit agency's SSPP.

Operator of a Public Transportation System: A provider of public transportation as defined under 49 U.S.C. 5302(14).

Passenger Operations: The period of time when any aspect of the transit agency's operations are initiated with the intent to carry passengers.

Performance Measure: An expression based on a quantifiable indicator of performance or condition that is used to establish targets and to assess progress toward meeting the established targets.

Performance Target: quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a time period required by the Federal Transit Administration (FTA).

Person: A passenger, employee, contractor, pedestrian, trespasser, or any individual on the property of a rail fixed guideway public transportation system.

Public Transportation Agency Safety Plan: The documented comprehensive agency safety plan for a transit agency that is required by 49 U.S.C. 5329 and this part.

Reportable Accidents: accidents which exceed the thresholds which are associated with the operation and maintenance of transit vehicles.

Risk: The composite of predicted severity and likelihood of the potential effect of a hazard.

Risk Mitigation: A method or methods to eliminate or reduce the effects of hazards.

Rolling Stock: A wheeled vehicle operating on roadways.

Safety: Freedom from harm resulting from unintentional acts or circumstances.

Safety Assurance: Processes within a transit agency's Safety Management System that functions to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that the transit agency meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

Safety Management Policy: a transit agency's documented commitment to safety, which defines the transit agency's safety objectives and the accountabilities and responsibilities of its employees in regard to safety.

Safety Management System (SMS): The formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards.

Safety Management System (SMS) Manager: HPTS Transit Manager, Transit Safety Officer or an equivalent.

Safety Performance Target: A Performance Target related to safety management activities.

Safety Promotion: A combination of training and communication of safety information to support SMS as applied to the transit agency's public transportation system.

Safety and Security Audit: A formal, comprehensive, internal on-site examination by the transit agency of all or part of a systems safety and security practices conducted annually to determine whether they comply with the policies and procedures required under the system's SSPP and SEPP.

Safety Related Activities: An activity that performed in a prescribed manner to assure that the transit agency meets its stated safety goals and objectives. Typical examples include designing, acquiring, constructing, inspecting, testing, operating, maintaining, repairing, modifying or extending those elements of the public transit agency that are important to preventing or mitigating accidents.

Safety Risk Assessment: The formal activity whereby a transit agency determines Safety Risk Management priorities by establishing the significance or value of its safety risks.

Safety Risk Management: A process within a transit agency's Public Transportation Agency Safety Plan for identifying hazards and analyzing, assessing, and mitigating safety risk.

Security: freedom from harm resulting from intentional acts or circumstances.

Security and Emergency Preparedness Plan (SEPP): a document developed and adopted by the agency describing its security policies, objectives, responsibilities, and procedures of HPTS.

Serious Injury: any injury which:

1. Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received.
2. Results in a fracture of any bone (except simple fractures of fingers, toes, or noses);
3. Causes severe hemorrhages, nerve, muscle, or tendon damage.
4. Involves any internal organ; or
5. Involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

Small Public Transportation Provider: A recipient or subrecipient of Federal financial assistance under 49 U.S.C. 5307 that has one hundred (100) or fewer vehicles in peak revenue service and does not operate a rail fixed guideway public transportation system.

State: A State of the United States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, Guam, American Samoa, and the Virgin Islands.

State of Good Repair: The condition in which a capital asset is able to operate at a full level of performance.

Substantial Damage: Any physical damage to transit or non-transit property including vehicles, facilities, equipment, rolling stock, or infrastructure. Substantial damage includes damage which adversely affects the structural strength, performance, or operating characteristics of the vehicle, facility, equipment, rolling stock, or infrastructure requiring towing, rescue, onsite maintenance, or immediate removal prior to safe operation. Substantial damage excludes damage such as cracked windows, dented, bent or small punctured holes in the body, broken lights, mirrors, or removal from service for minor repair or maintenance, testing, or video and event recorder download.

System Safety Program Plan (SSPP): A document developed and adopted by the transit agency, describing its safety policies, objectives, responsibilities, and procedures. Until one year after the issuance of 49 CFR Part 673 (July 2020) as a final rule, the SSPP shall take the place of the PTASP required under 49 CFR 674.

System Security and Emergency Preparedness Plan (SEPP): a document, similar to the SEPP, developed and adopted describing its security policies, objectives, responsibilities, and procedures of fixed-route and paratransit systems.

Transit Agency: An operator of a public transportation system.

Transit Asset Management Plan: The strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles, for the purpose of providing safe, cost-effective, and reliable public transportation, as required by 49 U.S.C. 5326 and 49 CFR part 625.

Transit Safety Officer: An adequately trained individual who has responsibility for safety and reports directly to a transit agency's chief executive officer, general manager, president, or equivalent officer. A Transit Safety Officer should not serve in other operational or maintenance capacities, unless the Transit Safety Officer is employed by a transit agency that is a small public transportation provider as defined in this part, or a public transportation provider that does not operate a rail fixed guideway public transportation system.

Vehicle: Any rolling stock of a public transportation system, including but not limited to passenger and maintenance vehicles.

Referenced Documents

	Document Name	Version
1.	Transit Operators Handbook	2018
2.	Paratransit Operators Rules and Regulations	2018
3.	Drug and Alcohol Policy	Update Pending
4.	City of High Point (CHP) Safety Manual	2011
5.	Facility Maintenance Plan	2019
6.	Vehicle Maintenance Plan	2019
7.	Hazard Communications	2011
8.	Transit Asset Management Plan	2020

Part A: Program Overview

1.0 Introduction

Modern safety management practices that systematically and proactively identify factors contributing to unsafe events and prevent or minimize the likelihood of their occurrence have proven effective in addressing similar concerns in other transportation industries. Such practices call for setting safety goals and objectives, defining clear levels of accountability and responsibility for safety, establishing proactive approaches to managing risks and hazards in the day-to-day activities, risk-based resource allocation, monitoring and evaluating performance towards goals, and continuous learning and improvement. Safety management is based upon the idea that safety is not an absolute condition; there will always be hazards and risks in public transportation. However, the traditional approach of primarily reacting to accidents by prescribing measures to prevent recurrence alone will not contribute to sustaining and improving public transportation safety. The need for a new approach to addressing public transportation safety has become especially urgent considering high-profile transit (primarily rail) accidents.

To advance a comprehensive approach to safety decision-making and progress modern safety principles, the Federal Transit Administration (FTA) adopted a Safety Management System (SMS) model to developing and implementing the National Safety Program initial established by the Moving Ahead for Progress in the 21st Century Act (MAP-21). The requirements to implement an SMS was first introduced by the FTA in 2016 through the publication of the National Public Transportation Safety Plan (NPTSP) defined in 49 Code of Federal Regulation (CFR) 670. Two (2) years following the release of 670, the FTA published 49 CFR 673, which states that “any State, local governmental authority, and any other operator of a public transportation system that receives Federal financial assistance under 49 U.S.C. Chapter 53” shall develop a Public Transportation Agency Safety Plan (PTASP).² This includes recipients or sub-recipients of financial assistance under 49 U.S.C. § 5307 that operate a public transportation system.

The NPTSP now serves as the basis for establishing a safety program that includes safety performance standards, SMS guidelines, best practices, and technical assistance.

The High Point Transit System’s (HPTS) Public Transportation Agency Safety Plan (PTASP) is thus developed to meet the following requirements:

- FTA required practices pursuant to 49 CFR 673
- FTA requirement to set safety performance targets based on the performance measures in the National Safety Plan (NSP) pursuant to 49 CFR 670

These publications establish the minimum content and required elements detailed in this PTASP, including but not limited to SMS principles and methodology, and the components of Safety Management Policy, Safety Risk Management, Safety Assurance, and Safety Promotion, as well as the various sub-components of an SMS.

² 49 CFR 673.1(a)

2.0 Purpose and Scope

This PTASP has been developed to encompass the following modes of transportation at HPTS:

1. Fixed-Route Bus
2. ACCESS Paratransit.

Per the National Safety Plan (49 CFR 670), and 49 CFR 673, the HPTS is formally adopting the processes and standards of SMS. The SMS is appropriately scaled to the size, scope, and complexity of the agency based on the SMS assessment and implementation strategy identified in the SMS Assessment / Analysis Report and SMS Implementation Plan. Copies of these documents can be available upon request to HPTS's Transit Manager / Accountable Executive.

SMS is a formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of a transit agency's safety risk mitigation. SMS includes systematic procedures, practices, and policies for managing risks and hazards. The process offers a means to reduce the potential for public transportation accidents by integrating safety into all aspects of a transit system's activities, including planning, design, construction, operations, and maintenance.

SMS builds on the public transportation industry's three (3) decades of experience with system safety by bringing management processes, integrated data analysis, and organizational culture more squarely into the industry's overall risk management framework. SMS is a management approach that provides processes that ensure each public transportation agency, no matter its size or service environment, has the necessary organizational structures, accountabilities, and policies and procedures in place to direct and control resources to manage safety optimally. When systematically applied, the SMS approach provides a set of decision-making tools that allow transit agencies to prioritize safety and establish sound transit asset management when making informed operating and capital investment decisions.

SMS combines established system safety engineering principles with advanced organizational management techniques, and supports continuous improvement in safety performance through a positive safety culture founded on four (4) key components and 11 sub-components:

Safety Management Policy

- 1.1. Safety Management Policy Statement
- 1.2. Safety Accountabilities and Responsibilities
- 1.3. Integration with Public Safety and Emergency Management
- 1.4. SMS Documentation and Records

Safety Risk Management

- 1.1. Hazard Identification and Analysis
- 1.2. Safety Risk Evaluation

Safety Assurance

- 1.1. Safety Performance Monitoring and Measurement
- 1.2. Management of Change
- 1.3. Continuous Improvement

Safety Promotion

- 1.1. Safety Communications
- 1.2. Competencies and Training

Requirements for an agency to adopt an SMS were effective on July 19, 2019, when the prior regulations, 49 CFR 659, were superseded by 49 CFR 673: Public Transportation Agency Safety Plan. The new rule requires public transit agencies to develop and implement a PTASP using the four (4) components of SMS. Through 49 CFR 673 and section 5329(d)(1) of title 49, U.S.C., requires each transit agency that receives certain FTA funding to certify that it has established a comprehensive PTASP.

3.0 Program Administration

The following section will describe how HPTS will maintain SMS documentation and ensure all SMS documentation will be maintained for no less than three (3) years after this PTASP has been approved. Other critical processes supporting the SMS, but not specific to the PTASP are included within those process specific documents.

3.1 PTASP Schedule

The following schedule will be used to ensure the PTASP is implemented, reviewed, and maintained in accordance with federal requirements.

Table 1: PTASP Management Schedule

Milestone	Schedule
PTASP Initial Certification	<i>By December 31, 2020</i>
Annual Revisions	<i>February 28</i>
Ongoing Revisions	<i>30 Days prior to effective date</i>
Pre-Revenue, Capital Projects	<i>180 Days Prior to Revenue Service</i>

3.2 Document Control and Updates

Based on the requirements of 49 CFR Parts 673, HPTS is required to submit upon request its PTASP to the FTA. All operating rules, procedures, and materials referenced in the PTASP should also be submitted along with the PTASP to ensure an efficient and complete review of the safety program.

The TSO³ will develop and manage the review processes of the PTASP in coordination with other key staff members. It will be the TSO's responsibility to ensure proposed changes from the findings and recommendations of internal safety audits, incident, accident and hazard investigations, corrective action plans, changes in regulations, system modifications and expansions, transit industry advancements, technology advancements and changes in operating conditions are incorporated, as needed.

3.2.1 Annual Revisions

Per the FTAs requirements, HPTS will review the PTASP at least annually and make any modifications as needed to ensure that the plan is current and accurate. HPTS will retain a current PTASP version and provide upon FTA request. Each updated draft PTASP should include a

³ The TSO role and functions will be accomplished by the AE/Transit Manager and Assistant Transit Manager until the TSO position is filled.

summary identifying and explaining the changes. No changes to the PTASP should also be indicated in the review and approval process.

This PTASP will be updated as relevant organizational or process changes occur and at a minimum annually.⁴ In addition, HPTS will maintain its PTASP in accordance with recordkeeping requirements⁵ and will maintain its relevant SMS documents and those referenced herein for a minimum of three (3) years after they are created.

3.2.2 Ongoing Revisions

The PTASP is a living document that governs safety compliance for HPTS Fixed-Route Bus, and Paratransit systems including meeting all internal and external requirements. As such, changes to the operating system may require changes to the PTASP. Changes may also be required from external audit findings, internal reviews, investigations, or changing trends in safety and security data and information analysis.

Revisions to the PTASP initiated by HPTS will be retained in compliance with the recordkeeping requirements.

3.3 Authority

HPTS is the public transportation provider for the City of High Point. As a public transit provider in the state of North Carolina, HPTS transports customers within the City limits of the City of High Point, within Guilford County, on fixed-route buses and paratransit vehicles. The system is governed by the High Point City Council.

3.3.1 Federal Transit Act

In response to congressional concern regarding the potential for catastrophic accidents and security incidents on rail transit systems, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) added Section 28 to the Federal Transit Act (codified at 49 U.S.C. Section 5330). This section requires the FTA to issue a rule creating the state-managed oversight program for rail transit safety and security.

The FTA published the revised Rail Fixed Guideway Systems: State Safety Oversight Rule on April 29, 2005, codified as 49 CFR Part 659, subsequently referred to as State Safety Oversight Rule. Only those states with RFGPTS meeting the definition specified in Part 659 was required to comply with the FTA's State Oversight Rule revisions. On March 16, 2016, the FTA published a new State Safety Oversight Rule, 49 CFR 674, which went into effect on April 15, 2016. Three (3) years after this date, on April 15, 2019, Part 674 went into effect, superseding 49 CFR 659.

Public transportation safety requirements are defined in 49 CFR 673, requiring HPTS to develop a PTASP by July 20, 2020, with FTA enforcement activity *extended until December 31, 2020* (due to the COVID-19 pandemic). which further requires the Rail Transit Agency (RTA) to establish and implement an SMS. The PTASP and any subsequent updates are to be signed by the Accountable Executive and approved by the High Point City Council, and subsequently certified annually by the HPTS. Further requirements of part 673 require compliance with the minimum safety performance standards authorized under 49 U.S.C. 5329(b)(2)(C).

⁴ 49 CFR 673.11(a)(5)

⁵ 49 CFR 673.11(c)

3.3.2 Accountable Executive

The Accountable Executive for HPTS is the Transit Manager. The Accountable Executive is the single identifiable person who:⁶

- Has ultimate responsibility for carrying out the PTASP of a public transportation agency.
- Responsibility for carrying out the agency's Transit Asset Management Plan; and
- Control or direction over the human and capital resources needed to develop and maintain both the agency's PTASP and Transit Asset Management (TAM) Plan.

In addition to these responsibilities, the Accountable Executive is accountable for ensuring that the agency's SMS is effectively implemented. Additionally, the Accountable Executive must ensure action is taken, when necessary, to address substandard safety performance of the agency. The TM/Accountable Executive may delegate specific safety responsibilities; however, they are ultimately accountable for the agency's safety performance.

3.3.3 Transit Safety Officer

HPTS's Transit Safety Officer (TSO) is designated by the Accountable Executive as the SMS Executive, and holds a direct line of reporting to the TM/Accountable Executive.⁷ Overall, the TSO/SMS Manager has the authority and responsibility for the day-to-day implementation and operations of the SMS program. Due to the size of the organization, the SMS Manager does maintain oversight of HPTS's security functions as well, as authorized by FTA guidance.

4.0 System Overview

The HPTS Transit System (HPTS) is a municipal transit service established in 1975. It provides transit service within the city limits of High Point, North Carolina. A division of the City's Transportation Department, the transit system is governed by the Mayor and City Council of High Point. The day-to-day operation of the transit system is the responsibility of the Transit Manager who reports to the Transportation Director. Until July 1, 2015, the City passed operating assistance funding through to Davidson County and Guilford County, NC for demand-responsive and deviated fixed-route services. The population of the HPTS service area is approximately 110,640.

HPTS directly operates fixed-route and paratransit service. HPTS operates a network of seventeen (17) fixed bus routes with a timed-transfer network oriented at HPTS's Broad Avenue Terminal. Bus service is provided weekdays from 5:45 a.m. to 7:30 p.m. Saturday service is operated from 8:45 a.m. to 5:15 p.m. There is no service on Sundays. HPTS's ADA complementary paratransit service, known as ACCESS, is operated during the same days and hours of service as the fixed-route service.

The base adult fare is \$1.25. A reduced fare of \$0.60 is offered to senior citizens (60 years or older), persons with disabilities, and Medicare cardholders during all hours. The fare for ADA paratransit service is \$2.50.

HPTS operates a fleet of 17 buses for fixed-route service. HPTS also has a fleet of six light transit vehicles that are operated for ACCESS service. The Operations Center is located at 716 West

⁶ 49 CFR 673.23(d)(1)

⁷ 49 CFR 673.23(d)(2)

Martin Luther King, Jr. Drive in High Point. Service is oriented around the Broad Avenue Terminal located in downtown High Point. Both of these facilities were constructed with FTA assistance.

In addition to directly operating HPTS, the City provides funding for the Piedmont Authority for Regional Transportation (PART) regional express bus service for people traveling between High Point, Greensboro, and Winston-Salem. PART Express travels between each city's downtown transit center to the PART Regional Hub. From the regional Hub, PART shuttles provide a link for passengers to get to work or other destinations in and around the airport area and Piedmont Center. These complimentary shuttles are provided Monday through Friday.

The City's National Transit Database Report for fiscal year (FY) 2018 provided the following financial and operating statistics for its fixed-route and ADA complementary paratransit service:

Table 2: Agency Profile

Operating Statistic	Fixed-Route Service	ADA Complementary Paratransit Service
Unlinked Passengers	1,029,995	21,701
Revenue Hours	29,238	7,890
Operating Expenses	\$2,589,065	\$538,090

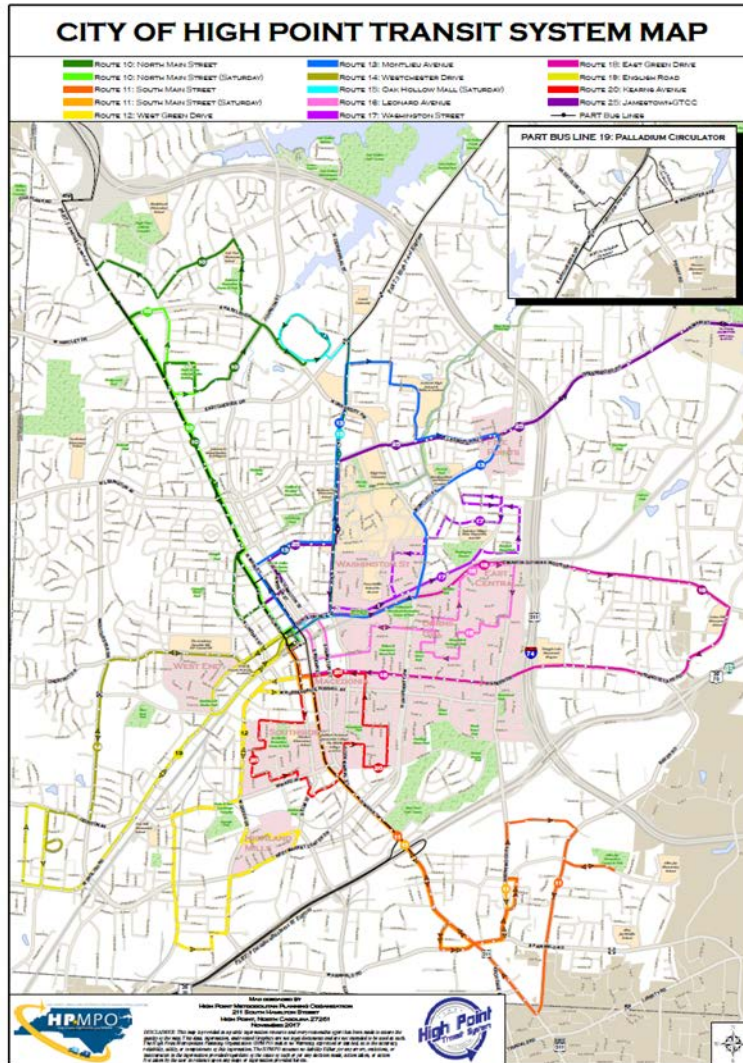


Image 1: HPTS System Map

4.1 Vehicle and Facilities

High Point Transit utilizes four (4) facilities to support its operations.

Administrative offices, employees' lounge, training/conference room, money counting room, vehicle maintenance bays and mechanical work areas, and parts storage rooms occupy the largest of the three main facilities, the Administration Building. Detached from it is a vehicle wash bay that is located near the Administration Building and at the back of the property, adjacent to the bus parking lot. A third building has 6,000 square feet of space (3,000 square feet of offices and 3,000 square feet of open space for warehousing) and is used by HPTS for the paratransit operations offices and has a small meeting room/employee lounge, file storage, and a fitness center and shower room. The warehouse spaces houses larger spare parts items, tires, and miscellaneous equipment.

The fourth facility is the Broad Avenue Terminal.

All of the facilities are brick construction.

A chain-link fence surrounds the premises of the Administration Building and the Wash Bay. Automated gates were installed in Spring 2020 allowing only authorized vehicles access.

HPTS currently has three (3) physical locations for providing operations and service:

1. **Administrative Building – 716 West Martin Luther King Drive, High Point, NC**
2. **Paratransit Operations Center – 718 West Martin Luther King Jr Drive, High Point, NC**
3. **Broad Street Terminal – 201 West Broad Street, High Point, NC**

4.2 Rolling Stock

HPTS has a total of 30 vehicles within its asset inventory. The fleet count is in the table below, and is inclusive of out-of-service vehicles:

Table 3: HPTS Fleet Count

Vehicle Type	Count
Bus Fixed-Route	17
ACCESS Paratransit Vehicles	6
Service Vehicles, Non-Revenue	7

Part B: Safety Performance

MAP-21 transformed the means by which transit agencies monitor and improve their overall performance by establishing safety management structures and asset management program. Through the establishment of goals, measures, targets and plans, performance management refocuses the attention of agency leadership on accountability and transparency, which improves decision-making capabilities through performance-based planning. By defining attainable Safety Performance Targets (SPT), HPTS will increase its capacity to monitor and evaluate its safety performance, which will facilitate more effective resource investments.

5.0 Safety Performance Targets

HPTS's SPT are based on the Safety Performance Criteria (SPC) defined by the NSP as required in 49 CFR 670, Subpart D.⁸ In addition to the requirements set forth in the NSP, the safety performance targets for System Reliability correlate to the requisites identified in 49 CFR 625 for the agency TAM, which is further referenced in the NSP. In accordance with 49 CFR 670, the following Performance Criteria are measured:

1. **Fatalities**
2. **Injuries**
3. **Safety Events**
4. **Security Incidents** (*Additional HPTS Performance Target*)
5. **System Reliability**

To define SPT rates, HPTS must first identify its Safety Performance Indicators (SPI). SPIs are specific data points that must be monitored to track the agency's overall safety performance. SPIs illustrate the ability for HPTS to fulfil its SPTs. Data sets that support performance metrics include, but are not limited to:

⁸ 49 CFR 673.11(3)

Table 4: Safety Performance Indicators⁹

Safety Performance Target Criteria	Safety Performance Indicators	SPI Examples (rates)
1. Fatalities Total number of reportable fatalities and rate per total vehicle revenue miles, by mode.	A. Bus Fatalities B. Paratransit Fatalities C. Employee Fatalities	a) <i>Suicides</i> b) <i>Workplace Accidents</i> c) <i>Collisions</i>
2. Injuries Total number of reportable injuries and rate per total vehicle revenue miles, by mode.	A. Bus Passenger Injuries B. Paratransit Passenger Injuries C. Employee Injuries	a) <i>Onboard vehicles</i> b) <i>Within a facility/station</i>
3. Safety Events Total number of reportable safety events and rate per total vehicle revenue miles, by mode.	A. Fixed-Route Events B. Paratransit Events	a) <i>Collisions</i> b) <i>Fire/Smoke</i> c) <i>Evacuations</i>
4. Security Incidents Total number of reportable security incidents and rate per total vehicle revenue miles, by mode.	A. Fixed-Route Incidents B. Paratransit Incidents	a) <i>Assaults</i> b) <i>Larceny</i> c) <i>Robbery</i>
5. System Reliability Mean distance between major mechanical failures, by mode.	A. Fixed-Route Failures B. Paratransit Failures	a) <i>Vehicle failure</i> b) <i>Other System Failures</i>

For all SPT rates, the total number of events will be multiplied by 100,000 Vehicle Revenue Miles (VRM). then divided by the total number of VRMs traveled in the previous year. Therefore, the equations to determine the event rate is as follows, unless otherwise specified below:

Figure 1: “Current” Rate Equation

$$\text{MODE EVENT RATE} = \frac{\text{EVENT COUNT} \times 100,000 \text{ VRM}}{\text{TOTAL NUMBER OF (MODE) REVENUE MILES}}$$

Once the actual event rate is established, HPTS will use any of the following strategies to establish the initial SPT per the NSP:

1. Five -Year Trends
2. Number and Rate Reduction
3. Benchmarking

⁹ The thresholds for *reportable* fatalities, injuries, and events are defined in the NTD Safety and Security Reporting Manual

Due to past system practice of data collection at the HPTS, the development of historical statistical SPTs for HPTS vehicles will not provide meaningful data trends because the system has not tracked data in this manner previously. As such, HPTS will begin benchmarking their data on a quarterly basis and begin annual comparison of their data points to the same quarter previous year. Data recording, tracking, and monitoring would continue until HPTS establishes two (2) complete years of data. For Bus and Paratransit services, a number and rate reduction will be used to establish an SPT per event type. In other terms, HPTS may establish a percentage threshold for event reduction, determined through organizational goals and objectives.

SPTs will be made available to state agencies upon request to assist in planning processes. This includes members of the Metropolitan Planning Organization (MPO). The Accountable Executive and SMS Manager will coordinate, to the greatest extent possible, with the MPO staff to review HPTS's SPTs in support of transit improvement efforts.

5.1 Fatality Rate

A reportable fatality is a death due to a:

1. Collision, including suicides
2. Fire
3. Hazardous Materials Spill
4. Act of God (i.e. hurricane, earthquake)
5. Other safety events

Fatalities that occur because of illnesses or other natural causes - including individuals who are found deceased, are not reportable and are thus are not required to be measured as part of the Safety Performance criteria.

Table 5: Fatality Rate by Mode

Fatality Rate	Count <i>(Total)</i>	Total VRM 2019	Current <i>(See equation above)</i>	Target 2020 <i>(See equation above)</i>	Variance <i>= $\frac{\text{Target Rate}}{\text{Current Rate}}$</i>
Bus Fixed Route	0	450,780	0	0	0
ACCESS Paratransit	0	78,831	0	0	0

5.2 Injury Rate

An Injury is defined as harm to a person, requiring that person to be transported from the scene of an incident to a hospital or medical facility for treatment. This includes any damage or harm to persons that requires immediate medical attention away from the scene because of a reportable event must be reported as an injury. Reportable events further require monitoring of serious injuries as well as injuries where an individual seeks medical care several hours after an event, or in the days following an event. The Injury Rate is thus based on NTD Reporting Criteria.

Table 6: Injury Rate by Mode

Injury Rate	Count <i>(Total)</i>	Total VRM 2019	Current <i>(See equation above)</i>	Target 2020 <i>(See equation above)</i>	Variance $= \frac{\text{Target Rate}}{\text{Current Rate}}$
Bus Fixed Route	2	450,780	.44	.67	1.51
ACCESS Paratransit	3	78,831	3.81	0	0

5.3 Safety Event Rate

A Safety Event, also referred to as an Event, is defined as any Accident, Incident, or Occurrence. The *Safety Event Rate* by mode is calculated using the following equation:

Table 7: Safety Events Rate by Mode

Safety Events	Count <i>(Total)</i>	Total VRM 2019	Current <i>(See equation above)</i>	Target 2020 <i>(See equation above)</i>	Variance $= \frac{\text{Target Rate}}{\text{Current Rate}}$
Bus Fixed Route	2	450,780	.44	.67	1.51
ACCESS Paratransit	1	78,831	1.27	1.27	0

5.4 Security Incident Rate

A Security Incident is defined as any incident of intentionally causing harm, injury, or death of another person and/or causing physical harm to property. The *Safety Event Rate* by mode is calculated using the following equation:

Table 8: Security Incidents Rate by Mode

Security Incidents	Count <i>(Total)</i>	Total VRM 2019	Current <i>(See equation above)</i>	Target 2020 <i>(See equation above)</i>	Variance $= \frac{\text{Target Rate}}{\text{Current Rate}}$
Bus Fixed Route	3	450,780	.67	.67	1.01
ACCESS Paratransit	0	78,831	0	0	0

Note: Although not specifically required by 49CFR670 and 673 the HPTS is including the Security Incident Rate Table as a Safety Performance Measure, as a significant and important measure to monitor.

5.5 System Reliability

Safety and performance of the HPTS are collectively dependent, in part, on the condition of its assets. When transit assets are in a state of disrepair, the likelihood of consequential event occurring increases, as well as the likely impact against the system. Therefore, system reliability metrics illustrates the relationship between safety and the asset condition. The data collected for system reliability should support and provide input into HPTS's TAM.

System Reliability is thus calculated through the following equation:

$$\text{SYSTEM RELIABILITY (BY MODE)} = \frac{\text{REVENUE MILES OPERATED (BY MODE)}}{\text{NUMBER OF MAJOR MECHANICAL FAILURES}}$$

Table 9: System Reliability Rate by Mode

System Reliability	Count (Total)	Total VRM 2019	Current (See equation above)	Target 2020 (See equation above)	Variance $= \frac{\text{Target}}{\text{Current}}$
Bus Fixed Route	8	450,780	56,348	112,695	2
ACCESS Paratransit	4	78,831	19,708	39,416	2

6.0 Metropolitan Planning Organization

HPTS will coordinate with the High Point Urban Area Metropolitan Planning Organization (HPMPO) by making its safety performance targets available to aid in the planning process.¹⁰

6.1 HPMPO History

The first thoroughfare plan for the High Point area was adopted in 1962. It was based on a 1960 origin and destination study and included High Point, Jamestown, Archdale, and part of Guilford County.

In 1965, comprehensive planning was formalized by a Memorandum of Understanding between High Point, Jamestown, Guilford County, and the North Carolina State Highway Commission, in cooperation with the United States Department of Commerce Bureau of Public Roads, which established a Technical Coordinating Committee.

The High Point Urban Area Thoroughfare Plan was updated in 1968 and revised in 1977, based on a 1973 origin and destination study. A Thomasville Thoroughfare Plan was developed in 1969.

In the 1970's, Archdale, Thomasville, Davidson County and Randolph County were formally added to the High Point Urban Area MPO, the City of High Point was designated as the lead planning agency, and a Transportation Advisory Committee was established.

¹⁰ 49 CFR 673.15

The High Point Urban Area Thoroughfare Plan was updated in 1980, revised in 1982 and updated again in 1989. Since that time, the City of Trinity was added to the MPO in 1999 and Forsyth County was added in 2003.¹¹¹²

6.2 HPMPO Responsibility

The High Point Urban Area Metropolitan Planning Organization (HPMPO) is responsible for an on-going, cooperative effort by local, state, and federal governments to do the following:

- Identify transportation needs by analyzing existing conditions and trends and make projections of future changes.
- Provide a factual basis for public policies and goals to meet the needs of people and their organizations.
- Prepare a plan in which streets, public transit, highways and other means of moving people and goods are properly related to plans and programs for the physical, social, economic and environmental development of the High Point urban area.
- Maintain a continuing, cooperative and comprehensive planning process that will enable plans to be kept up-to-date to meet changing conditions and enable the region to qualify for federal transportation funds¹³.

MEMBER JURISDICTIONS

- | | |
|---------------|---------------------------|
| • Archdale | • Wallburg |
| • Denton | • Davidson County |
| • High Point | • Forsyth County |
| • Jamestown | • Guilford County |
| • Lexington | • Randolph County |
| • Thomasville | • NCDOT Divisions 7, 8, 9 |
| • Trinity | |

¹¹<https://www.highpointnc.gov/268/HPMPO-History>

¹² 49 CFR 673.15(b)

¹³<https://www.highpointnc.gov/261/HPMPO>

Part C: Safety Management Policy

Component 1 of the SMS structure is the Safety Management Policy.¹⁴ The Safety Management Policy is the keystone of HPTS's SMS and provides direction for effective Safety Risk Management, Safety Assurance, and Safety Promotion. Per 49 CFR 673, HPTS must establish the following sub-components of the Safety Management Policy:

- 673.23(a) Safety Management Policy Statement.
- 673.23(a) Organizational Accountabilities and Responsibilities.
- 673.23(b) Employee Reporting Program
- 673.11(6)(b) Integration with Public Safety and Emergency Management
- 673.23(d) Accountabilities and Responsibilities
- 673.31 Documentation and Recordkeeping

The Safety Management Policy thus assists in assuring management's involvement and commitment to the SMS and agency-wide safety improvement, by laying out the policies and procedures required to carry out the SMS. This is only accomplished through a clearly defined statement that defines the organizational structures, effectively identifies accountabilities, and SMS planning efforts.

HPTS's Safety Management policy will be communicated throughout the organization.

7.0 Safety Management Policy Statement

The mission of the High Point Transit System (HPTS) is to provide a safe and reliable transportation service for the public, healthful and safe working conditions for all HPTS employees, and to comply with all applicable Federal, State, and local laws and regulations.

HPTS is fully committed to SMS and to providing its customers with a safe transportation service, maintaining a strong safety culture, and providing a working environment that ensures the safety and health of its employees and protects the environment. HPTS is further committed to developing, implementing, maintaining, and continuously improving its processes to ensure that all transit service delivery activities occur under a balanced allocation of organizational resources, aimed at achieving the highest level of safety performance and meeting the established standards. As such, HPTS is placing the management of safety as one of the core business functions of the organization, across all modes of transportation.

It shall be the responsibility of management at all levels of the organization, as well as employees in each division to be accountable for delivery of the highest level of safety performance, beginning with the Transit Manager (TM). Therefore, HPTS is committed to achieving the following objectives:

1. **Supporting** the SMS and the management of safety by providing appropriate resources to support an organizational culture that fosters safe operational practices, encourages effective safety reporting and communication, and actively manages safety with the same attention to results as that given to the other management systems of the Agency;
2. **Integrating** the management of safety as part of the primary responsibilities of all HPTS managers and employees.

¹⁴ 49 CFR 673.23

3. **Clearly Defining** accountabilities and responsibilities of all employees and managers alike to uphold the organization's safety performance goals and performance of the Safety Management System (SMS).
4. **Establishing and Operating** a Safety Risk Management process allowing for hazard identification, analysis, and risk evaluation utilizing an employee reporting program as a principal source for information gathering.
5. **Prioritizing** the elimination or mitigation of calculated identified safety risks created by operating conditions or activities, to a level consistent with the Agency's acceptable level of safety performance.
6. **Ensuring** that no action will be taken against any employee who discloses a safety concern through an employee safety reporting program unless disclosure indicates through the investigative process and beyond a reasonable doubt, an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures was committed.
7. **Complying** with, or exceeding when possible, legislative, and regulatory requirements and standards.
8. **Ensuring** sufficiently trained and knowledgeable human capital is available to implement the various SMS processes, including as part of service delivery operations.
9. **Ensuring** all employees are provided with adequate and appropriate safety-related information and training, competent in safety management processes and subject, and allocated only tasks commensurate with their skills.
10. **Establishing and Measuring** safety performance against data-driven safety performance indicators and targets.
11. **Continuous Improvement** of safety performance and the SMS through management processes that ensure appropriate safety risk management, assurance, and promotion activities are identified, implemented, and effective.
12. **Ensuring** externally supplied systems and services to support HPTS operations are delivered in a manner to meet safety performance standards
13. **Defining** processes to address conditions when disciplinary actions will be exempt based on the actions of an employee, in support of promoting a positive safety culture.

To implement this Agency Safety Plan (PTASP), HPTS's employees and contractors must focus on the following Safety Management System components:

- **Safety Management Policies** to guide the development, implementation, and maintenance of the SMS processes.
- **Safety Risk Management** process for identifying hazards and analyzing, assessing, and mitigating safety risk to the lowest reasonable level.
- **Safety Assurance** to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that the Authority meets or exceeds its safety objectives through the collection, analysis, assessment, and trending of information.
- **Safety Promotion** to support SMS, including safety communications and training.

The signed Safety Management Policy Statement can be found on Pages iiv and iiiv of this PTASP.

7.1 Safety Goals

The goal of this PTASP is to establish processes and procedures of the SMS that will support the efforts of the organization to provide reliable service. The processes defined in the PTASP will ensure programs effectively address, manage, and monitor safety performance efforts throughout the four (4) components of SMS.

HPTS has established three (3) goals to optimize the SMS and manage its safety risks across all two (2) modes of transportation. These goals aim to certify compliance with the Safety Performance Targets. As the SMS programs matures, the goals and objectives of the Agency may change to accommodate the changing environment.

Table 10: SMS Program Goals

No.	Goal	Responsibility
1.	Establish and maintain a strong SMS across each mode of transportation operated by HPTS that will sustain a safety culture permissive of effective communications, continuous improvement, and risk reduction.	-TM -TSO -Key Staff
2.	Integrate Safety Risk Management processes into organizational efforts, programs, and procedures in an effort to identify, analyze, evaluate, and mitigate hazards to the lowest practical level in an effort to meet Safety Performance Targets.	-TM -Key Staff -Managers / Supervisors -Front Line Staff -Contractors
3.	Establish and maintain a high level of safety for Bus and Paratransit services, consistent with industry practices and all applicable requirements.	-TM -TSO -Key Staff -Managers / Supervisors

7.2 Safety Objectives

HPTS's safety objectives provide greater insight to the safety goals defined above. The objectives will further support HPTS's ability to achieve the SPTs. The objectives will be reviewed and updated annually or as needed.

Table 11: SMS Program Objectives

No.	Objective
A.	Support the SMS and the management of safety by providing appropriate resources to support an organizational culture that fosters safe operational practices, encourages effective safety reporting and communication, and actively manages safety with the same attention to results as that given to the other management systems of the Agency
B.	Integrate the management of safety as part of the primary responsibilities of all HPTS managers, supervisors, and employees
C.	Define accountabilities and responsibilities of all employees and managers alike, to uphold the organization's safety performance goals and performance of the SMS
D.	Establish and operate a Safety Risk Management process that allows for hazard identification, analysis, and risk evaluation utilizing an employee reporting program as a principal source for information gathering
E.	Prioritize the elimination or mitigation of calculated, identified safety risks created by operating conditions or activities to a level consistent with the agency's acceptable level of safety performance
F.	Ensure that no action will be taken against any employee who discloses a safety concern through an employee safety reporting program, unless disclosure indicates through the investigative process and beyond a reasonable doubt, an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures was committed
G.	Comply with, or exceed when possible, legislative, and regulatory requirements and standards
H.	Ensure sufficiently trained and knowledgeable human capital is available to implement the various SMS processes, including as part of service delivery operations
I.	Ensuring all employees are provided with adequate and appropriate safety-related information and training, competent in safety management processes and subject, and allocated only tasks commensurate with their skills;
J.	Establishing and Measuring safety performance against data-driven safety performance indicators and targets;
K.	Continuous Improvement of safety performance and the SMS through management processes that ensure appropriate safety risk management, assurance, and promotion activities are identified, implemented, and effective
L.	Ensure externally supplied systems and services to support HPTS operations are delivered in a manner to meet safety performance standards
M.	Define processes to address conditions when disciplinary actions will be exempted based on the actions of an employee, in support of promoting a positive safety culture.

8.0 Accountabilities and Responsibilities

This section describes the integration of safety throughout the HPTS's two (2) modes of transportation: Fixed-Route Bus, and Paratransit. It will describe the accountabilities and responsibilities of the Accountable Executive, the TSO, the Leadership Team, and key staff, for their respective departments. Ultimately, the management of safety is an agency-wide function that encompasses all departments and is supported by all departments. All employees play a part in safety, including management and front-line employees.

The organizational charts are located in Appendix A.

8.1 Accountable Executive¹⁵

The Accountable Executive for HPTS is the Transit Manager and is the single identifiable person who:

- Has ultimate responsibility for carrying out the PTASP of the HPTS
- Communicating the Safety Management Policy to all employees and contractors
- Responsibility for carrying out the agency's Transit Asset Management Plan; and
- Control or direction over the human and capital resources needed to develop and maintain both the agency's PTASP and TAM
- Ensuring adequate resources are available to support the SMS Program
- Continuous monitoring of the SMS program
- Supporting the Employee Safety Reporting Program

In addition to these responsibilities, the Accountable Executive is accountable for ensuring that the agency's SMS is effectively implemented. Additionally, the Accountable Executive must ensure action is taken, when necessary, to address substandard safety performance of the agency. The TM/Accountable Executive may delegate specific safety responsibilities; however, they are ultimately accountability for the agency's safety performance.

8.2 SMS Manager

HPTS has designated the Transit Manager as the SMS Manager and the Assistant Transit Manager as the Assistant SMS Manager for the Agency, *pending establishing a Transit Safety Officer position*. The SMS Manager will be responsible for oversight of the transit agency's safety function, including, but not limited to:

- Overseeing hazard management practices
- Overseeing transit agency accident investigations
- Coordinating with the CHP Health and Safety Department
- Communicating with leadership and the City Council
- Overseeing the transit agency's safety certification
- Managing internal safety audit programs
- Overseeing the development, implementation, and continuous improvement of SMS processes and activities

¹⁵ 49 CFR 673.23(d)(1)

- Communicating SMS implementation progress and challenges to the Transportation Director

As part of the SMS implementation process, HPTS SMS Manager, with assistance of the Assistant SMS Manager, will also act in the capacity of the SMS Project Manager to oversee the implementation process. In this role, the SMS Manager will provide leadership of cross-functional groups and support the Accountable Executive's goals and objectives. Responsibilities include the daily management of the transit agency's SMS function during SMS implementation, including, but not limited to:

- Serving as the agency's SMS Subject Matter Expert
- Coordinating Key Staff to support SMS implementation
- Procuring technical resources for SMS implementation
- Socializing SMS activities with agency executives and staff as necessary
- Communicating SMS implementation progress and challenges to the management team
- Facilitating the development, implementation, and continuous improvement of SMS processes and activities

8.2.1 Transit Safety Officer

HPTS's Transit Safety Officer¹⁶ is designated by the Accountable Executive as the SMS Manager, and holds a direct line of reporting to the TM/Accountable Executive.¹⁷ Overall, the SMS Manager has the authority and responsibility for the day-to-day implementation and operations of the SMS program and generally does not serve in other operational or maintenance capacities. Due to the size of the organization, the SMS Manager does maintain oversight of HPTS's security functions as well, as authorized by FTA guidance.

Roles and responsibilities of the TSO for Safety and Security include:

- Overseeing the safety risk management process
- Overseeing accident/incident investigations
- Ensuring coordination with other High Point Departments during all applicable program processes, including, but not limited to triennial audits, annual plan certification, CAP
- Communicate and coordinate with other HPTS Leaders and City Departments to ensure continuous safety improvement
- Overseeing safety and security certifications
- Exercise the authority to suspend unsafe operations, as necessary
- Advising the TM, the Safety Committee and other managers, and staff as appropriate, concerning safety and regulatory compliance analyses SMS
- Implement policies and programs that ensure all aspects of the agency are effectively and successfully operating under the overarching umbrella of SMS, and supports the goals, objectives and mission of the System
- Coordinate safety activities and develops programs to support Safety Assurance practices

¹⁶ Pending filling of the Transit Safety Officer position, current vacant and held by the Transit Manager

¹⁷ 49 CFR 673.23(d)(2)

- Advise and coordinate with all divisions to ensure that all safety and environmental related activities conducted by the divisions are performed in accordance with the PTASP and in compliance with applicable codes and regulations to include implementing the requirements detailed in MAP-21 regulation and 49 CFR Part 673
- Provide analyses of key issues and policy decisions
- Provide direction for Safety Risk Management efforts, safety and environmental policy development, comprehensive accident investigations, compliance reviews, engineering, industrial hygiene studies, and comprehensive occupational safety and environmental management programs
- Establish and maintain effective communication, liaison, and cooperative relationships with federal, state, and local governmental agencies
- Provide oversight of compliance with the standards and regulations
- Assist in the development of effective safety and environmental training and education programs for employees, and as required, for the general public, and contractors.
- Supporting the develop and management of HPTS's SMS, by providing technical assistance to identify trends in implementation success and program monitoring
- Supporting the development and monitoring of HPTS's Safety Assurance function, including identification, and updating of safety performance measure thresholds required in the NSP.
- Conducting comprehensive analyses to determine if safety risk mitigations are implemented, adhered to, appropriate, effective, and sufficient in addressing the potential consequences of identified hazards and vulnerabilities
- Working collaboratively with HPTS personnel, including managers, supervisors, and frontline staff to identify, analyze, mitigate, and track hazards for rail, bus, and paratransit services
- Working closely with the SSOR and SSOB to identify, analyze, track, and mitigate safety/security issues
- Preparing safety risk analyses to identify trends in safety data that will inform management on means of improving safety strategies of the organization
- Collaborating with HPTS personnel to provide data that will inform the Agency's TAM and State of Good Repair (SGR) objectives
- Supporting the compilation and reporting of safety critical data to oversight authorities including, but not limited to FTA, and the NTD
- Coordinating with all operating departments of HPTS, encompassing Fixed-Route, and Paratransit, to document and track safety events.
- Actively monitor and participate in workplace safety observations, inspections, audits, and other activities designed to support safety oversight and safety performance monitoring of the transit agency's operations and maintenance activities
- Preparing presentations, technical reports, and analyses to department leadership and safety committees illustrating trends in safety and security data as well as the maturity of the SMS
- Producing safety metrics on a monthly basis, or as needed/requested by HPTS management staff and the SMS Steering Committee
- Participating as a member of the Safety Audit team in the administration and execution of the Internal Safety Audit program to ensure adherence to the PTASP, Security and Emergency Preparedness Plan (SEPP), and System Security and Emergency Preparedness Plan (SSEPP), federal, state and local regulations, industry standards and HPTS policies and procedures

- Performing field observations to ensure compliance with safety policies and procedures
- Developing, updating, and maintaining databases relating to SMS programs
- Documenting and monitoring lessons learned from past projects, accidents, incidents, and other relevant safety events to ensure mitigations remain effective and similar scenarios do not repeat
- Managing the tracking and disposition of all HPTS CAPs
- Coordinate with maintenance supervisory personnel to develop and implement a quality assurance (QA)/quality control (QC) program for routine maintenance and Preventative Maintenance Inspection (PMI) activities
- Ensuring adequate response to all incidents, including implementation of the COOP

During the implementation of the SMS, the TSO/SMS Manager will hold the following responsibilities:

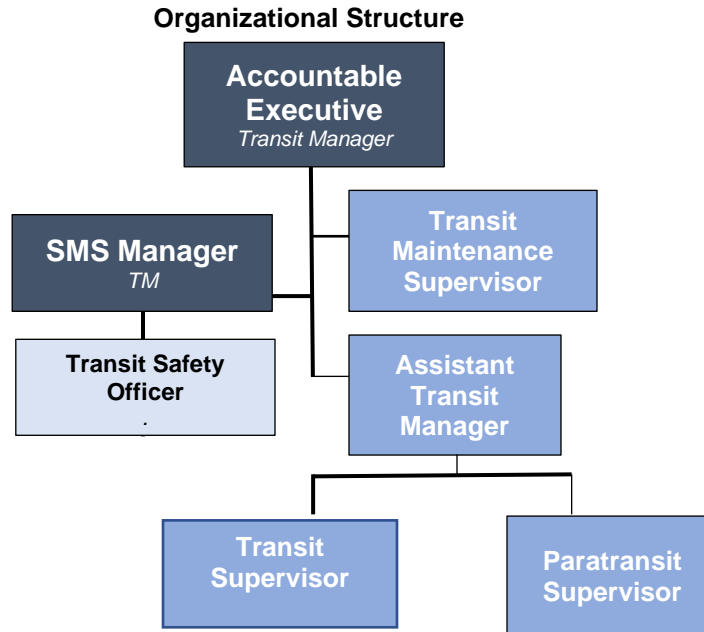
- Coordinate with Key Staff to support SMS implementation
- Facilitate the development, implementation, and continuous improvement of SMS processes and activities
- Procure technical and personnel resources for SMS implementation
- Socialize SMS activities with agency managers and staff as necessary
- Communicate SMS implementation progress and challenges

The TSO will rely on the Subject Matter Experts (SME) of each unit to support the development and integration of SMS into the agency that is appropriately scaled and sized to meet the needs of the organization.

8.3 HPTS Management Team

HPTS's Management Team is comprised of the following individuals:

- Transit Manager
- Assistant Transit Manager
- SMS Manager / Transit Safety Officer
- Transit Supervisor
- Transit Maintenance Supervisor
- Paratransit Supervisor



The Management Team will support the TSO/ SMS Manager by ensuring safety management practices are incorporated into the agency's operational areas. This includes maintaining accountability for safety performance of their divisions as well as establishing and maintaining clear lines of safety communication to front line staff by means of the SMS Key Staff identified below. Responsibility of the Management Team further includes reasonably designating representatives from operations, maintenance, and other revenue service support functions to serve as SMS Key Staff. Doing so depicts management's oversight of the safety management process, which will entice greater support and training opportunities for staff.

8.4 SMS Key Staff

SMS implementation requires a multi-disciplinary approach involving representatives from the various divisions of HPTS that are familiar with their department's process and practices. SMS Key Staff, including managers, supervisors, and specialists will serve as the subject matter experts representing their department's during the SMS implementation. Their responsibilities include providing insight on how to adapt existing departmental practices to work in concert with the SMS. This will include identifying departmental data and information resources to support the SMS Steering Committee's objectives, as well as ongoing SMS decision making processes. Ultimately, their responsibility will be to identify and provide concerns and solutions for SMS implementation that ensures the program works in tandem with the departmental practices and duties. SMS Key Staff will include, but is not limited to, the following job functions:

<i>Operations</i>	<i>Human Resources</i>
<i>Maintenance</i>	<i>Finance, Grants, and Procurement</i>
<i>Marketing and Public Outreach</i>	<i>Data Analyst</i>
<i>Information Technology</i>	<i>Safety and Security</i>
<i>Planning and Scheduling</i>	

Included in the key staff framework are members whose functions include finance, procurement, and budget. SMS implementation requires management's commitment to the proper allocation of resources that support the SMS. Therefore, members from finance and procurement, as well as other key departments, will continuously monitor the needs of the program, assess potential impacts of the SMS to the organization, and support budget monitoring activities throughout implementation and maturity.

The roles identified above may be held by single individuals at HPTS under their normal job duties and responsibilities. A detailed list of SMS Key Staff is illustrated in Figure 2 below.

8.4.1 Assistant Transit Manager

HPTS's Assistant Transit Manager reports the Transit Manager and is responsible for all fixed-route bus and ACCESS paratransit operations. The Assistant Transit Manager is responsible for ensuring proper and safe conditions exist throughout the HPTS fixed-route bus and ACCESS paratransit system by providing safe working conditions for all transit employees. The Assistant Transit Manager's safety responsibilities include, but are not limited to the following:

- Managing all fixed-route bus operations personnel, including supervisors, operators, run dispatchers, and specialists
- Managing all ACCESS paratransit operations personnel, including supervisors, operators, run dispatchers, and specialists
- Developing and implementing SOP for fixed-route bus operations
- Developing and implementing SOP for ACCESS paratransit operations
- Ensuring personnel are fully trained in and comply with HPTS fixed-route bus and ACCESS paratransit rules, procedures, bulletins, and other directives
- Ensuring adequate capital and personnel resources are allocated to accomplish safety and security goals and objectives of operations activities
- Supporting internal safety audits and other Safety Assurance functions
- Coordinating with the TM and TSO to ensure that all personnel fully document safety, security, and emergency management activities, events, occurrences, and tasks, and that reports on these activities are properly delivered to the TSO
- Ensuring the compliance and cooperation of all management staff with all HPTS fixed-route bus requirements
- Track and maintain data that supports Safety Risk Management and Safety Assurance components of the SMS
- Reviewing, revising, and updating fixed-route bus and ACCESS paratransit rulebooks and SOPs to ensure compliance with current operating conditions, in coordination with the SMS Steering Committee
- Developing, reviewing, and maintaining the operational rules compliance program
- Support, develop, and maintain employee reporting programs for operations employees to report safety events, hazards, and other safety concerns

8.4.2 Transit Maintenance Supervisor

HPTS's Transit Maintenance Supervisor reports to the Transit Manager and is responsible for all facility and vehicle maintenance. The Transit Maintenance Supervisor performs difficult skilled mechanical and technical work in supervising the servicing and maintenance of a variety of

automotive, heavy and specialized equipment; does related work as required. Work is performed under general supervision. Supervision is exercised over all automotive shop personnel.

The Transit Maintenance Supervisor's safety responsibilities include, but are not limited to the following:

- Plans, assigns and supervises the work of mechanics and other workers based on priority of work and available resources
- Monitors preventive maintenance reports and prepares service/repair orders
- Maintaining accurate records of all inspections, maintenance work, work orders, special maintenance activities, and responses to emergencies and accidents/incidents
- Assisting in developing Preventive Maintenance Inspection procedures and ensuring that introduction of new equipment or policies conform to configuration management standards and meet all safety and security requirements
- Gives technical advice and assistance to mechanics and attendants and supervises work on difficult jobs and inspects jobs for adherence to standards
- Answers incoming telephone calls and complaints
- Maintains individual vehicle/equipment records, files copies of completed service/repair orders and stores requisitions, etc., in appropriate files
- Inspects work in process and upon completion
- Manages the ordering of parts and maintains inventory of garage supplies
- Supervises and often performs facility maintenance tasks
- Oversees special projects such as vehicle and maintenance purchases, facility renovations and major repairs
- Selects, trains, motivates and evaluates assigned personnel; provides or coordinates staff training; works with employees to correct deficiencies; implements discipline
- Maintains the computerized maintenance system and promotes the full use of all of the functionality available within the system
- Monitors radio communications during route times and ensures that all operator inquiries related to the mechanical operation of the vehicle are responded to immediately
- Ensures that all work is performed in accordance with OSHA and City Safety Standards and Policies
- Ensuring the physical security is maintained of all facilities
- Ensuring maintenance facilities are properly equipped for emergency response
- Ensuring maintenance activities for HPTS fixed-route bus and paratransit feed into the Safety Risk Management and Safety Assurance components of the SMS by coordinating with management, staff, supervisors, and operators
- Tracking and identifying KPIs to monitor safety performance and address State of Good Repair requirements as defined in the TAM
- Ensuring all maintenance personnel know and implement all safety, security and emergency management programs, plans and procedures
- Ensuring adequate resources are available to respond to all safety events, including implementation of the COOP for operations and maintenance personnel
- Continuous monitoring of the SMS program
- Supporting the Employee Safety Reporting Program

8.4.3 Transit Supervisor

The HPTS's Transit Supervisor reports to the Assistant Transit Manager and oversees and supervises daily fixed-route transit operations; provides responsible staff assistance to the Assistant Transit Manager; Work is performed under the regular supervision of the Assistant Transit Manager. Supervision is exercised over assistant transit supervisors, transit operators and transit customer service specialists.

The Transit Supervisor's safety responsibilities include, but are not limited to the following:

- Oversee and supervise daily fixed-route employees; lead and participate in the more complex and difficult work of staff including ensuring transit operations are in compliance with the federal Americans with Disabilities Act (ADA)
- Participate in the selection of assigned staff; train assigned employees in their areas of work including methods, procedures and techniques of safe transportation operations
- Maintain attendance, discipline and other personnel records on employees; conduct employee evaluations; investigate, prepare, and conduct counseling and initiate disciplinary as required
- Schedule assigned employees for regularly scheduled and special service
- Ensure customer service specialists maintain facility cleanliness, manage passes and monies, and provide timely and accurate information to the public
- Verify the work of assigned employees for accuracy, proper work methods, techniques and compliance with applicable standards and specifications; Inspect operator uniforms
- Assist with the preparation, distribution and collection of fare boxes
- Participate in the development of policies and procedures; monitor work activities to ensure compliance with established federal and state laws and regulations, and city policies and procedures; make recommendations for changes and improvements to existing standards and procedures
- Respond to and investigate complaints from the general public regarding fixed-route operations; resolve problems in a timely and efficient manner
- Investigate accidents and review accident reports for employee' responsibility
- Coordinate the maintenance, repair and installation of bus route signs, fixtures, benches, and shelters at bus stops
- Develop and distribute announcements and brochures to promote transit services
- Supervise operators and ensure compliance with schedules
- Inspect buses for damages and required maintenance
- Assist with travel training and orientation to riding the bus for new riders
- Oversee route changes or additions due to inclement weather conditions, road closings, or occurrences
- Prepares and maintains various reports
- Assists with other related transit duties as assigned
- Ensures that all work is performed in accordance with OSHA and City Safety Standards and Policies
- Continuous monitoring of the SMS program
- Supporting the Employee Safety Reporting Program
- Assist with ensuring the physical security is maintained of all facilities
- Assist with ensuring all HPTS facilities are properly equipped for emergency response

- Ensuring operations activities for HPTS fixed-route bus feed into the Safety Risk Management and Safety Assurance components of the SMS by coordinating with management, staff, supervisors, and operators

8.4.4 Paratransit Supervisor

The HPTS's Paratransit Supervisor reports to the Assistant Transit Manager and performs responsible technical and clerical work in planning, organizing, coordinating, monitoring and managing the direct operation of the Paratransit operations while ensuring full compliance with Americans with Disabilities Act (ADA) and paratransit rules and regulations. Paratransit operations includes both complimentary ADA service as well as general demand response service for the elderly and services outside the ADA area; does related work as required.

The Paratransit Supervisor's safety responsibilities include, but are not limited to the following:

- Supervises staff including prioritizing and assigning work, conducting performance appraisals, enforcing policies and procedures, making hiring decisions, conducting training, and making disciplinary decisions and recommendations
- Manages the paratransit reservations, scheduling, and dispatching. Troubleshoots issues and concerns with staff. Ensures service compliance with local, state and federal rules and regulations including the Americans with Disabilities Act
- Responsible for the eligibility process to include reviewing applications and conducting in-person and functional assessments as necessary
- Establish policies and procedures for Paratransit operations
- Manage and foster the Paratransit operation's safety efforts and programs; Investigate, prepare reports, and follow up regarding paratransit accidents; Perform post-accident and post-incident risk management activities
- Prepare monthly reports to include ridership, operating statistics for inclusion in local, state, and federal reports
- Participates in the preparation of the annual operating budget, including conducting analysis and forecasting operating revenue
- Manages customer service for paratransit responding to service inquiries and customer complaints. Ensures appropriate investigation and response to issues and problems. Documents resolutions within customer comment software
- Mediates sensitive issues involving paratransit clients using application of pertinent local, State and Federal rules, regulations and laws governing paratransit services
- Coordinate paratransit vehicle maintenance with the Maintenance Supervisor
- Fills in for paratransit services coordinator as necessary to include taking reservations, scheduling, and dispatching trips, recording, and posting operating data including trips, time, mileage, and ridership
- Develops recommendations relating to transportation services
- Coordinates special service activities and requirements with outside agencies; Determines community needs for special services
- Develops marketing programs and strategies for paratransit services
- Drives paratransit trips as needed
- Assists with fixed-route operations as needed
- Other duties as assigned

- Ensures that all work is performed in accordance with OSHA and City Safety Standards and Policies.
- Developing and implementing SOPs consistent with safety standards and SMS principles
- Ensuring personnel are fully trained in and comply with HPTS's paratransit rules, procedures, bulletins, and other directives
- Ensuring adequate capital and personnel resources are allocated to accomplish safety and security goals and objectives of operations activities
- Overseeing HPTS scheduling efforts to ensure maximum safety is achieved for operators and patrons
- Supporting internal safety audits and other Safety Assurance functions
- Coordinating with the TSO to ensure that all personnel fully document safety, security, and emergency management activities, events, occurrences, and tasks, and that reports on these activities are properly delivered to the TSO
- Tracking and maintaining data that supports Safety Risk Management and Safety Assurance components of the SMS
- Reviewing, revising, and updating paratransit rulebooks and SOPs to ensure compliance with current operating conditions, in coordination with the SSRC
- Developing, reviewing, and maintaining the operational rules compliance program
- Support, develop, and maintain employee reporting programs for operations employees to report safety events, hazards, and other safety concerns

8.4.5 Other SMS Related Key Functions

Other Key Functions required to successfully support the HPTS SMS Program include:

- Human Resources
- Information Technology
- Procurement
- City Safety and Health (General and Construction Occupational Safety and Health)

These above SMS support functions although included in the duties of the High Point Transit System staff are generally supported and resourced by other City of High Point departments.

8.5 Transit Safety Officer

The Accountable Executive has delegated authority to the TSO to develop, implement, and maintain the PTASP in accordance with applicable federal and state regulations and guidelines. Under this direction, policies, procedures, and plans are developed in direct support of the PTASP. This responsibility is shared across HPTS under the authority of the TSO. The TSO will support the efforts of each division, who are independently responsible for supporting the SMS initiatives and implementing cohesive safety and security processes.

8.6 Operations and Maintenance Personnel

Operations and maintenance personnel are responsible in the course of their normal duties for complying with and implementing all HPTS rules and procedures as follows:

- Reporting any safety condition to the on-duty supervisor and/or the safety department
- Contributing ideas and suggestions for improving the safety of conditions or procedures to their immediate supervisor, who will follow up with the Safety and Security Department
- Using individual knowledge and influence to improve safety performance

- Attending safety training and safety meetings
- Reporting accidents and injuries to supervisory and management staff immediately
- Reporting any suspicious activity, persons, or objects observed
- Abiding by the safety rules and regulations
- Having regard for the safety of fellow workers and clients at all times

It is the responsibility of each employee to abide by all rules and regulations and to comply with all laws pertaining to safety and health in the workplace. Safety becomes a shared responsibility between management and the employee and working safely is a condition of employment.

8.7 Contractors

HPTS may retain the services of outside contractors to assist with various aspects of the system's operations and maintenance. All contractors are subject to the requirements of this PTASP and all applicable requirements. The TSO, or their designee will conduct periodic reviews of contractor onsite work practices to ensure compliance with the HPTS's PTASP.

HPTS will require each contractor to assign safety and quality assurance functions to its personnel working on the HPTS property. Based upon the scope of the project the TSO may recommend the assignment of a dedicated contract employee to carry out these tasks. Contractor personnel will work in cooperation with the TSO and conduct a variety of activities in support of this plan, including:

- Reviewing the Original Equipment Manufacturer (OEM) submittals and specifications
- Developing a safety training program for their contractor personnel
- Maintaining compliance with occupational safety standards and guidelines
- Reporting on any and all activities as required by the TSO or HPTS personnel
- Conducting any required safety or security activity deemed necessary by the TSO or HPTS personnel
- Maintaining records consistent with Safety Risk Management and Safety Assurance components

9.0 Employee Safety Reporting Program

HPTS has established a process that allows all employee, including relevant contract employees, to report safety conditions to senior management.¹⁸ This program is intended to help the Accountable Executive, TSO, and key staff obtain important safety information throughout the agency. The defined Employee Safety Reporting Program (ESRP) is aimed at building a greater level of trust, which will improve HPTS's ability to learn about safety conditions and make meaningful change in collaboration with frontline staff. Therefore, HPTS is committed to ensuring that no action is taken against an employee who discloses a safety concern through an employee safety reporting program, unless disclosure indicates through the investigative process and beyond a reasonable doubt, an illegal act, gross negligence, or a deliberate or willful disregard of regulations or procedures was committed.

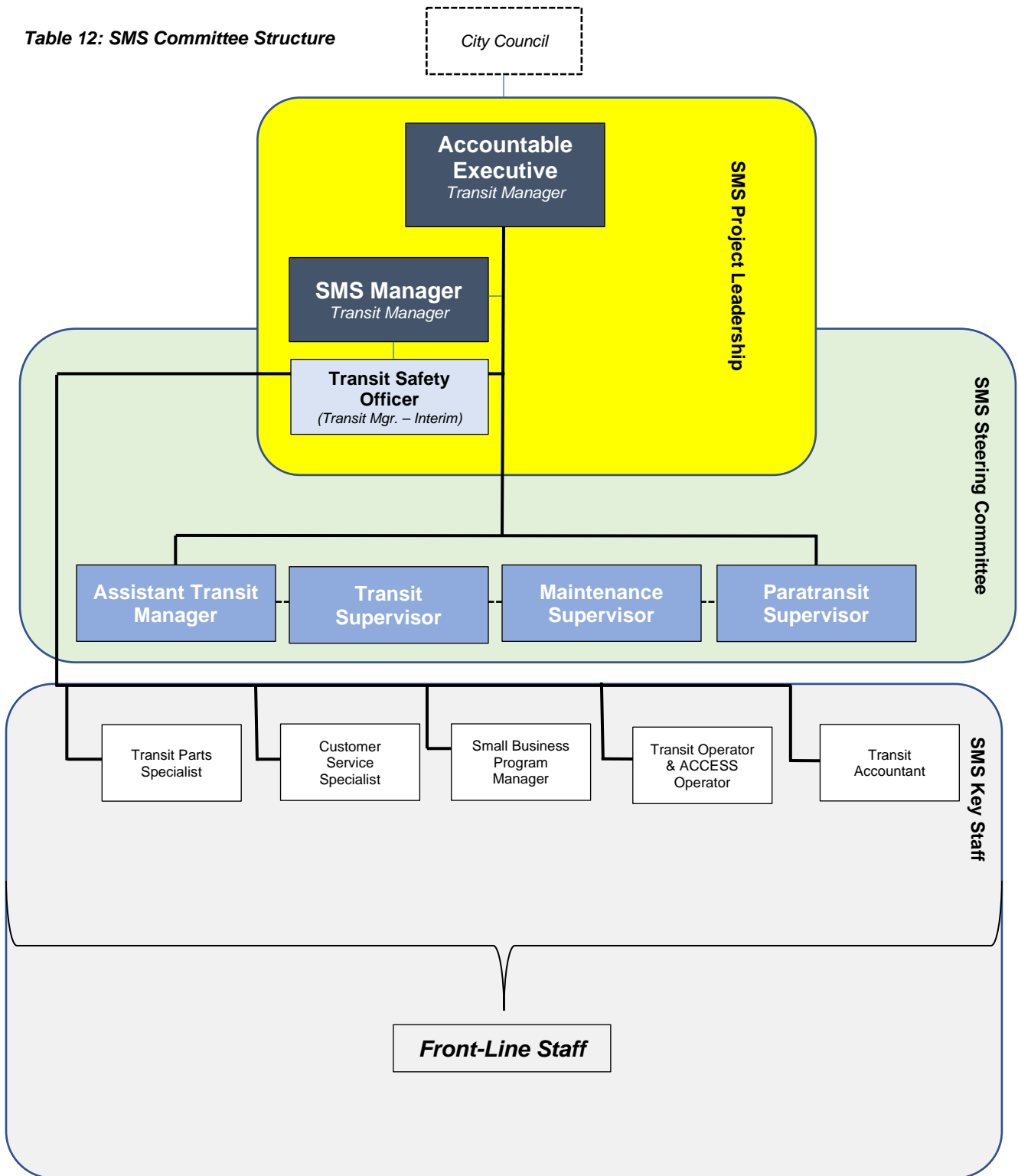
HPTS uses its safety committee structure to allow employees to report safety concerns. As the SMS matures, new ESRP platforms may be developed.

¹⁸ 49 CFR 673.23(b)

9.1 Committee Structure

HPTS's SMS committee structure provides an open forum for safety concerns to be communicated, or reported, from the frontline staff through to managers and up towards the Accountable Executive. Similarly, this structure allows management to more uniformly communicate safety and security topics through the organization. The figure below provides the hierarchy of the committee structure, which provides a mechanism for employees to report safety and security concerns.

Table 12: SMS Committee Structure



9.1.1 HPTS SMS Steering Committee

HPTS has started up the SMS Steering Committee working in concert with the Transit Manager's Leadership Team meetings. The committee will be comprised of the seven (7) managers/supervisors/representatives of fixed route, paratransit, and maintenance. The members should have the experience and knowledge to provide valuable input to directing the HPTS's safety strategies by identifying the appropriate safety performance metrics and objectives. Also sitting on the committee should be the Transit Safety Officer (new position) to ensure continuity of information is passed through the SMS Steering Committee.

To ensure SMS is effectively implemented to meet the demands of the organization, the SMS Steering Committee will share a common purpose, while managing the unique needs of each of their departments. More importantly, the Steering Committee will actively support the SMS Manager while the SMS Manager simultaneously supports the needs of the organization's operations. This configuration of the project's framework allows key resources to be allocated to the implementation process to meet the program's demands.

9.1.2 Safety Committee

The Safety Committee is being established in coordination with the SMS Steering Committee and will be chaired by the Assistant Transit Manager / Assistant SMS Manager. Members of the Safety Committee includes the SMS Key Staff who will further manage implementation within their respective departments.

The Safety Committee will discuss cross-departmental SMS implementation progress, issues, and goals with the primary mission of promoting SMS to the front-line staff level. By comprising the committee of the divisional managers, the Safety Committee will be able to demonstrate the commitment of management to SMS compliance. The Safety Committee will provide updates to the SMS Steering Committee, at least monthly or as needed.

10.0 Integration with Emergency Management & Public Safety

This section describes the process used by HPTS to coordinate emergency management activities, which include meetings with external agencies, emergency planning processes, including emergency exercises, After-Action Reports (AAR) and implementation of findings, revision and distribution of emergency response procedures familiarization training for public safety organizations, and employee training.

Detailed emergency preparedness activities for fixed-route and paratransit systems can be located in the *HPTS System Security and Emergency Preparedness Plan Version 1, May 3, 2019*.

10.1 Emergency Preparedness Responsibilities

The Accountable Executive has designated the TSO as the Emergency Preparedness point of contact for the development and implementation of the HPTS Emergency Management Program (EMP). The TSO has been granted the authority to utilize HPTS resources to develop the Security and Emergency Preparedness Program and to monitor its implementation, and to ensure attainment of security and emergency preparedness goals and objectives.

Since the High Point Transit System is an entity of the City of High Point, the HPTS is a component of the City Plan. The City of High Point, High Point Transit System Safety and Health Manual Subject: Emergency Action (January 2011) is hereby incorporated by reference and available for review by authorized parties.

Tasks have been identified to provide direction in implementation of the SSEPP. These tasks are on-going and are considered minimum requirements. Tasks are identified in the matrices below. Also identified are the organizational / participant responsibilities for each task. The table follows the roles and responsibilities found in section 3.3.2 of the SSEPP. The organizational/participant responsibilities for each task, as designated by the following code:

- P** Primary Task Responsibility
- S** Secondary or Support Responsibility
- R** Review/Comment Responsibility
- A** Approval Responsibility

Table 13: Emergency Preparedness Matrix

Task	TM	TSO	Steering Comm	CHP	Frequency
Conduct Emergency Preparedness Training		P	S	S	As Required
Attend UASI/EMA Meetings		S		P	Monthly
Develop Emergency Response Plans	A	P	R	P	As Required
Review Emergency SOPs		S/R	S/R	R	As Required
Review Emergency Management Trends		P			Daily
Develop Emergency Operations Plans	A	P	S	S	As Required
Review Current Incidents	R	P	S		Daily
Ensuring Integration in the City/County's ERP		P		P	Yearly
Conduct Internal Training Audits	R/A	P	P/S/R		Monthly
External Audits	R	P	S	S	As Required
Emergency Exercises	S	P	S	S	Annually
Liaison with Public Safety Agencies	S	P			Daily

10.2 Evaluation of Emergency Management

HPTS, in cooperation with the CHP, will evaluate its emergency management function by implementing a comprehensive drill and exercise program in accordance with the Homeland Security Exercise and Evaluation Program (HSEEP). The program will organize various emergency response agencies to critique emergency preparedness activities by simulating scenarios involving HPTS various system components, including infrastructure, vehicles, facilities, and equipment. Drills and exercises HPTS will incorporate include, but are not limited to, the following:

1. **Tabletop Exercise (TTX):** A TTX is intended to generate discussion of various issues regarding a hypothetical, simulated emergency. TTXs can be used to enhance general awareness, validate plans and procedures, rehearse concepts, and/or assess the types of systems needed to guide the prevention of, protection from, mitigation of, response to, and recovery from a defined incident. Generally, TTXs are aimed at facilitating conceptual understanding, identifying strengths and areas for improvement, and/or achieving changes in perceptions.
2. **Drills:** A drill is a coordinated, supervised activity usually employed to validate a specific function or capability in a single agency or organization. Drills are commonly used to provide training on new equipment, validate procedures, or practice and maintain current skills. For example, drills may be appropriate for establishing a community-designated disaster receiving center or shelter. Drills can also be used to determine if plans can be executed as designed, to assess whether more training is required, or to reinforce best practices. A drill is useful as a stand-alone tool, but a series of drills can be used to prepare several organizations to collaborate in a Full-Scale Exercise (FSE).
3. **Full-Scale Exercise (FSE):** FSEs are typically the most complex and resource-intensive type of exercise. They involve multiple agencies, organizations, and jurisdictions and validate many facets of preparedness. FSEs often include many players operating under cooperative systems such as the Incident Command System (ICS) or Unified Command (UC). In an FSE, events are projected through an exercise scenario with event updates that drive activity at the operational level.

HPTS will conduct one of the above types of emergency preparedness activities at least once annually. The Agency may also implement other drills and exercises defined in the HSEEP framework and will utilize the exercise methodology illustrated below.

Figure 2: HSEEP Exercise Cycle

Exercise program should be based on a set of strategic, high-level priorities selected by HPTS's SMS Steering Committee. These priorities guide the development of exercise objectives, ensuring that individual exercises build and sustain preparedness in a progressive and coordinated fashion. Exercise program priorities are developed at the Training and Exercise Planning Workshop (TEPW).

10.2.1 After Action Reports

An evaluation will be completed after each exercise to provide HPTS personnel the opportunity to assess the capabilities needed to accomplish a mission, function, or objective. This will be completed through the AAR, which will document key information related to evaluation. The length, format, and development timeframe of the AAR depend on the exercise type and scope. The focus of the AAR is the analysis of core capabilities and will include the following sections:

- Exercise name
- Type of exercise
- Date of the exercise
- Location(s) of the exercise
- Participating organizations
- Mission area(s)
- Specific threat or hazard
- A brief scenario description
- The name of the exercise sponsor and Point of Contact.
- Analysis of Core Capabilities
- Corrective Action Plan(s), as necessary

CAPs will be developed and monitored in accordance with Section 22.

10.3 Meetings with External Agencies

In addition to the SMS Steering and Safety Committee, the TSO will participate in a variety of committees and groups, within the CHP and external agencies to maintain open lines of communication with Public Safety agencies

10.4 Emergency Procedures

HPTS's Emergency Procedures are contained in the bus, and paratransit SOPs, and the various rulebooks. Initial documents will be reviewed as indicated in the proceeding sections and will be evaluated at least annually per HPTS procedures. Emergency procedures will also be evaluated after any event and after the Drills and Exercise program. The TSO will distribute updated documents to the appropriate divisions, personnel, and if necessary, external public safety agencies.

10.5 Emergency Training

Emergency training is the responsibility of the HPTS TSO. The SOPs and operating rules have been developed to provide a basis for training of all employees in their security related responsibilities. All operations and maintenance personnel are required to undergo emergency response training to ensure they have a thorough understanding of their roles and responsibilities during an emergency. At a minimum, training is provided to HPTS employees based on job description and function. HPTS personal are also trained for specific threats such as workplace violence and active shooter situations.

Ad-hoc training for internal or external personnel may be performed at the discretion of the TSO, should the need arise, depending on local or international events of a security or emergency response nature, response to a specific credible threat to the system, required corrective action, program enhancement or any other appropriate reason at any time.

10.5.1 Familiarization Training

Periodic, but at least biennially, familiarization and refresher training is provided by HPTS to local emergency response personnel. This training, which is in addition to scheduled tabletop exercises and drills, has included some printed takeaways, covering vehicle access, vehicle emergency equipment, and communications.

11.0 Safety Management Policy Communication

In accordance with 673.29(b), HPTS will ensure that all employees are aware of any policies, activities, and procedures that are related to their safety-related roles and responsibilities. Safety communications may include information on hazards and safety risks that are relevant to the employee's role and responsibilities; explain reasons that HPTS introduces or changes policies, activities, or procedures; and explain to an employee when actions are taken in response to reports submitted by the employee through the employee safety reporting program.

Part D: Safety Risk Management

The FTA's 673 rule requires HPTS to develop and document in its PTASP, a process to identify and resolve hazards for new starts projects, extensions, or modifications of existing systems, operational or environmental changes, or from hazards discovered from employee reports, public complaints, reviews, audits, inspections, and investigations

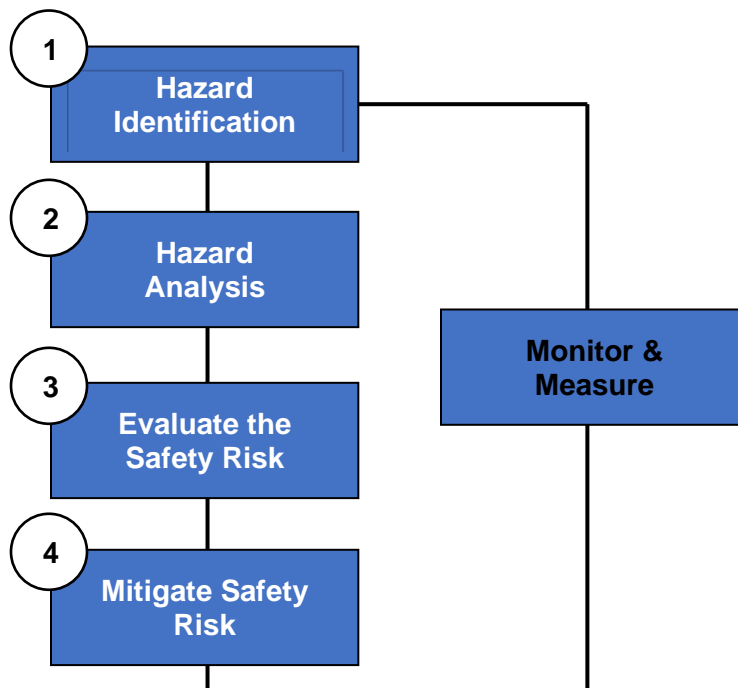
Safety Risk Management (SRM) is an essential process within HPTS's SMS for identifying hazards and analyzing, assessing, and mitigating safety risk. The SRM component has two (2) major sub-components

1. Hazard Identification and Analysis, and
2. Safety Risk Evaluation and Mitigation

The SRM process and its sub-components provides a formal process to systematically identify, evaluate, and mitigate potential hazards associated with the construction, maintenance, and operation of HPTS operating systems for patrons, employees, and the general public. Known hazards are categorized as to their potential severity and probability, analyzed for potential impact, and resolved by design, procedure, warning device, or other methods so they fall within a level of risk acceptable to the HPTS. This process provides HPTS's management team and the necessary information to prioritize decision making efforts.

The following figure provides an illustration of steps used in Safety Risk Management process:

Figure 3: SRM 4-Step Process



The proceeding sections document the risk management process and HPTS's approach to hazard investigations, including the notification and investigation requirements.

12.0 Safety Hazard Identification

49 CFR Part 673 requires transit agencies to establish methods or processes to identify hazards and consequences of hazards. A hazard will inform the agency of what is wrong, while a consequence identifies what could happen. When the HPTS properly identifies and clearly defines hazards, the organization can more easily identify potential consequences that will help management allocate safety resources based on safety risk.

HPTS must include data and information provided by the FTA (e.g., Safety Bulletin, General Directives, Special Directives or Notices). HPTS will also consider outputs of Safety Assurance (SA) activities, such as employee safety reporting programs, event investigations, monitoring of operations and maintenance procedures, or system changes, as sources for hazard and consequence information. HPTS will also consolidate consequence and hazard information in one location for easier sorting and analysis to share information and enable analysis.

HPTS uses a variety of methodologies in identifying hazards on the system, including, but not limited to:

- Employee or patron reports
- Near miss/close call events
- Special/Capital projects/construction activity
- Drills and exercises
- New systems testing
- Safety data trend analysis
- Event investigations
- Discussions and deliberations from safety committee meetings
- Reports from operations and maintenance personnel
- Results from rules compliance checks and evaluations
- Analysis of maintenance data
- Results from facilities and vehicles inspections
- Findings from internal safety and security audits

13.0 Safety Risk Analysis & Evaluation

Hazards which are not resolved at the operating, maintenance, or other front-line department level are appropriately investigated by the TSO, assisted by the responsible operations and maintenance department. Investigation findings are documented and reported to the safety committee. Those issues that the safety committee are unable to resolve are escalated to the SMS Steering Committee through the TSO for resolution.

13.1 Hazard Categorization

This involves categorizing identified hazards in terms of each one's severity or consequence and its probability of occurrence. The United States Department of Defense (DoD) Standard Practice for System Safety, Military Standard (MIL-STD) 882 Version E, establishes system safety criteria guidelines for determining hazard severity and probability and is the standard relied on by the HPTS in its hazard identification and resolution process.

The hazard severity categories listed below provide the qualitative indication of the relative severity of the possible consequences of the hazardous conditions. HPTS assigns hazard categories based on the "worst-case" event.

Table 14: Severity Categories

Description	Score	Mishap Result Criteria
Catastrophic	1	Could result in one or more of the following: death, permanent total disability, irreversible significant environmental impact, or monetary loss equal to or exceeding \$2 Million.
Critical	2	Could result in one or more of the following: permanent partial disability, injuries or occupational illness that may result in hospitalization of at least three personnel, reversible significant environmental impact, or monetary loss equal to or exceeding \$1 Million but less than \$2 Million.
Marginal	3	Could result in one or more of the following: injury or occupational illness resulting in one or more lost workday(s), reversible moderate environmental impact, or monetary loss equal to or exceeding \$250,000 but less than \$1 Million.
Negligible	4	Could result in one or more of the following: injury or occupational illness not resulting in a lost workday, minimal environmental impact, or monetary loss less than \$250,000.

Once a hazard's severity has been determined, the analysis will consider the probability, or likelihood the consequences will exist if the hazard is not corrected or controlled. The susceptibility of a location to a hazard occurring is measured using the following table.

Table 15: Probability Categories

Description	Score	Specific Individual Item	Fleet or Inventory
Frequent	A	Likely to occur often in the life of an item.	Continuously experienced
Probable	B	Will occur several times in the life of an item.	Will occur frequently
Occasional	C	Likely to occur sometime in the life of an item.	Will occur several times
Remote	D	Unlikely, but possible to occur in the life of an item.	Unlikely, but can reasonably be expected to occur
Improbable	E	So unlikely, it can be assumed occurrence may not be experienced in the life of an item.	Unlikely to occur, but possible
Eliminated	F	Incapable of occurrence. This level is used when potential hazards are identified and later eliminated.	Incapable of occurrence. This level is used when potential hazards are identified and later eliminated.

Together, the hazard severity and probability properties measure the Safety Risk Score and the priority for applying control measures. Using this scale, the TSO, with approval of the Transit Manager, will examine, quantify, and resolve the hazards based on the severity of a potential outcome and the likelihood that such an outcome will occur.

Figure 4: Safety Risk Matrix

Severity Probability	Catastrophic 1	Critical 2	Marginal 3	Negligible 4
A - Frequent	1A	2A	3A	4A
B - Probable	1B	2B	3B	4B
C - Occasional	1C	2C	3C	4C
D - Remote	1D	2D	3D	4D
E - Improbable	1E	2E	3E	4E
F - Eliminated	Eliminated			

1A, 1B, 1C, 2A, 2B	High	Unacceptable
1D, 2C, 3A, 3B	Serious	Undesirable, management's decision is required
1E, 2D, 2E, 3C, 3D, 3E, 4A, 4B	Medium	Acceptable, with review by the SSRC
4C, 4D, 4E	Low	Acceptable, without review by the SSRC
F	Eliminated	Eliminated

The results from using the Safety Risk Matrix will then be used to determine whether a hazardous condition should be eliminated, controlled, or accepted. Hazards rated as or "High" must be addressed to control or eliminate the risk to the lowest practical level through the processes defined in section 14.0. Hazards classified as "Serious" may be tolerable if it can be demonstrated that its occurrence is highly improbable.

High/Unacceptable: The risk cannot remain and must be mitigated through the HSSRC. The Safety Risk Analysis (SRA) and subsequent analyses will present options for elimination or reductions of high risks.

Serious/Undesirable: The risk should be reduced if at all practical to do so with support from the SSRC. The Safety Risk Analysis (SRA) and subsequent hazard analyses will provide options, where possible, to reduce risks.

Medium/Acceptable, With Review: The risk is can be acceptable after review by management and the SSRC. The Safety Risk Analysis will recommend either that the hazard be left as is or be acted upon to further reduce risk. The OSSRC makes final determination.

Low/Acceptable: The risk is acceptable as is and does not require further review. The Safety Risk Analysis will not recommend any action be taken to address a low risk. Final determination is made by the TSO.

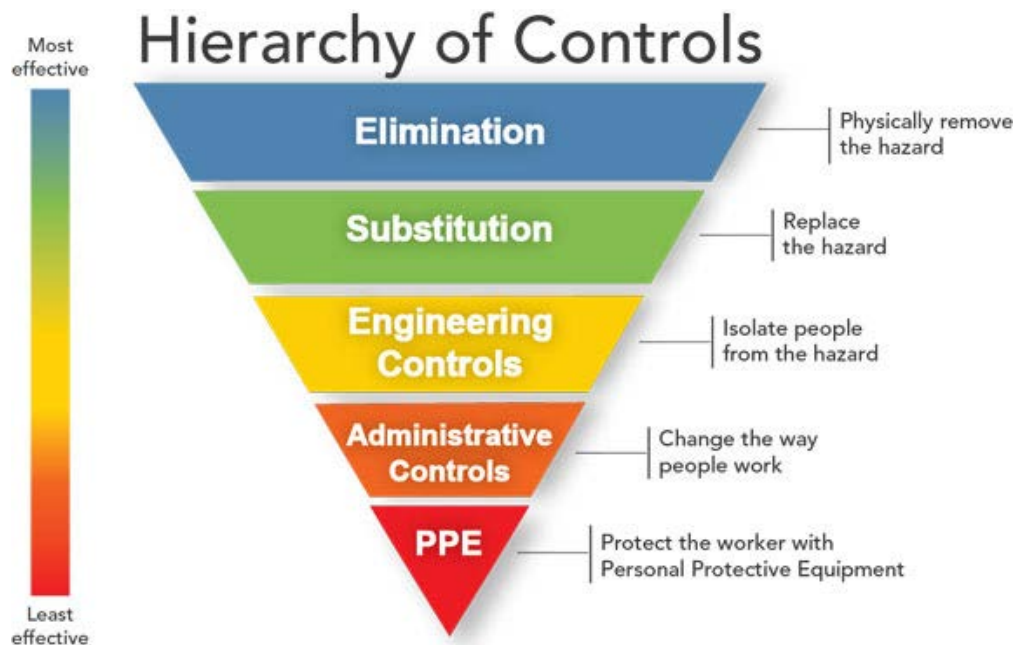
Eliminated: The risk no longer exists.

14.0 Safety Risk Mitigation

49 CFR 673 requires transit agencies to establish methods or processes to identify mitigations or strategies necessary, as a result of agencies' safety risk assessment, to reduce the likelihood and/or severity of the consequences. The goal of risk mitigation is to reduce the assessed risk rating to an acceptable level; however, mitigations do not typically eliminate the risk entirely. HPTS will consider input from SMEs from different departments to ensure that the selected safety risk mitigation is appropriate. Input from multiple sources can help prevent unintended effects, including new hazards.

Hazard control process will follow the Hierarchy of Controls as defined by the National Institute for Occupational Safety and Health (NIOSH).

Figure 5: NIOSH Hierarchy of Controls



A combination of controls may be used when no single method fully protects the system or components of the system.

Elimination or Substitution: While most effective at reducing hazards, these methods tend to be the most difficult to implement in an existing process. The core methodology between elimination and substitution is the separation of the hazard from the system or sub-system either by means of removal or modification/replacement. These steps are most effectively implemented at the early stages of a process, and if the process is still at the design or development stage, elimination and substitution of hazards may be inexpensive and simple to implement.

Where some hazards are inherent and cannot be eliminated completely through design, they should be substituted, if possible, to reduce the risk to the lowest acceptable level. This can be accomplished by incorporating, as necessary, fail-safe devices and principles in design, incorporating high-reliability system components, and using redundant or backup hardware and software devices.

Engineering Controls: This methodology is designed to remove the hazard at the source, before it comes in contact with the worker. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The initial cost of engineering controls can be higher than the cost of administrative controls or Personal Protective Equipment (PPE), but over the longer term, operating costs are frequently lower, and in some instances, can provide a cost savings in other areas of the process. Examples include reducing exposure to noise through redesigning equipment or infrastructure or increasing air circulation to eliminate heat related stress of workers and patrons.

Administrative Controls and PPE: Administrative controls and PPE are frequently used with existing processes where hazards are not particularly well controlled. Administrative controls and PPE programs may be relatively inexpensive to establish but, over the long term, can be very costly to sustain. Administrative controls essentially change the way people work. This method limits exposure to the hazard rather than removing it. Similarly, PPE does not eliminate hazards and may result in workers being exposed if the equipment fails.

Therefore, these methods for protecting workers have also proven to be less effective than other measures, requiring significant effort by the affected workers. As such, Administrative Controls and PPE should be used as a last resort if the other methodologies are not feasible

15.0 Safety Risk Management Tracking

When a potential hazard is identified, it will be added to HPTS's Safety Risk Log (SRL). The SRL will contain, at a minimum:

- Safety risk description
- Immediate mitigation (if needed)
- Origin of safety risk
- Date safety risk was identified
- Responsible investigator or committee leader
- Safety risk analysis results
- Proposed CAP(s) including all relevant information
- Date safety risk closed

15.1 Hazard Prioritization

All hazards will be prioritized based on the Safety Risk Score calculated during the Analysis and Evaluation process. The score is achieved by combining the Severity rating with its Probability. The greater the score, the higher the hazard's prioritization. Hazard ranked as High/Unacceptable or Serious/Undesirable should be mitigated first, with High/Unacceptable ranking as the greatest. Prioritizing risks will support management in the decision-making process by elevating the hazards and vulnerabilities that need immediate attention to the forefront for action.

15.2 Hazard Acceptance

If it is not possible to reduce a hazard by any means, a decision must be made to accept the hazard or to dispose of the system. This decision is made by the TM, as the AE. The TM has final signatory authority for hazard acceptance. As in all other hazard management activities, full documentation of hazard acceptance will be maintained by HPTS's TSO.

16.0 Hazard Notification

Unacceptable, or High, hazardous conditions must be reported to the TSO and TM/AE. Additional hazards identified by HPTS may also be reportable to the TSO.

16.1 Notification of Unacceptable Hazards

Unacceptable hazardous conditions must also be reported to the TM/AE immediately upon discovery.

16.2 Fatalities & Serious Injuries

The HPTS TSO, TM/AE, and Assistant Transit Manager will be notified immediately of any accidents, incidents, and/or events that involve any HPTS employee / vehicle / and/or occur on HPTS property.

17.0 Cooperation / Coordination with CHP

HPTS employees are expected to cooperate and coordinate, as necessary, with the City of High Point agencies, including police, fire, medical and other city, state, and federal entities investigating an Accident / Incident / Event / Injury within their respective jurisdiction.

Incident / Accident / Event / Injury reports will be completed and submitted, by all involved and witnessing employees to the appropriate supervisor immediately following such Incident / Accident / Event / Injury, provided the employee is physically able to complete the report. If the employee is unable to complete the Incident / Accident / Event/ Injury report immediately following the Incident / Accident / Event / Injury, the report must be filed as soon as possible.

Reports should be inputted in the HPTS TrackIt System.

18.0 Hazardous Materials Program

HPTS will minimize and control the generation of hazardous waste and pollutants to protect the environment. All HPTS activities must comply with applicable federal, state, and city environmental protection laws.

HPTS must follow the City of High Point's Safety Program Manual. The Hazard Communication Policy is included in the CHP Safety Program Manual (January 2011). All employees complete the training programs within the CHP Manual upon employment and annually. These training programs are completed by computer-based training.

Part E: Safety Assurance

Safety Assurance is Component 3 of the SMS framework. It is the process within HPTS's SMS that functions to ensure the implementation and effectiveness of safety risk mitigation, and to ensure that the HPTS meets or exceeds its safety objectives through the collection, analysis, and assessment of information. This section will describe the activities HPTS will use to monitor its system for compliance with, and sufficiency of, the agency's procedures for operations and maintenance. Furthermore, during these processes HPTS will review system functions to identify safety risk mitigations that may require further improvements or are functioning as intended.

19.0 Safety Performance Monitoring & Measuring

Safety Performance Monitoring and Measuring activities are aimed at the quantification of HPTS's safety effectiveness and efficiency during service delivery operations. This is accomplished through a combination defining and tracking SPI to measure HPTS's ability to meet its SPTs. This is a continuous process that aims to provide feedback to the SMS on how well safety performance targets are being met. The data used to monitor and measure the SPT will be supplemented by information collected from SMEs and data input from this process will be reviewed, monitored, and analyzed for trends through various lenses of HPTS's operations (i.e. by mode, department, location, line, day of the week, time of day, employee, etc.). Reports will be then developed, as necessary and provided to HPTS's management staff for review and identification of mitigation if required. Specific SPTs are defined in Part B, Section 6 of this PTASP.

19.1 Safety Data Acquisition and Analysis

It is critical to safety assurance at HPTS that safety-related data is acquired from various sources. Furthermore, analysis and distribution of that data to HPTS management and staff is also critical to ensuring safe operation and performance. Trend analysis is performed on the acquired data as a means of identifying trends in accidents and occupational injuries in order to develop and implement corrective action to predict and prevent further occurrences.

Safety data is collected from numerous sources by HPTS. Sources include but are not limited to the following:

Accident Statistics	Maintenance Records
Accident/Incident Reports	NTSB Reports
Claims Reports	Occupational Injury Reports
Customer Feedback	Public Comment / Concerns
Daily Activity Logs	Inspection Reports
Drills and Exercises	Rules Compliance Program
Drug & Alcohol Testing	Safety Meetings and Committees
Employee Reporting Program	Security Reports
First Responders	Supervisor Logs
Internal Audits	

Safety data analysis also involves obtaining technical information from external sources for use in identifying trends and developing and implementing corrective actions. Sources for such data include but are not limited to the following:

- Peer agencies
- American National Standards Institute (ANSI)

- American Public Transportation Association (APTA)
- American Society for Testing and Materials (ASTM)
- Department of Homeland Security (DHS)
- Environmental Protection Agency (EPA)
- Federal Transit Administration (FTA)
- Municipal Statutes and Public Laws
- Safety Data Sheets (“SDS”)
- National Fire Protection Association (NFPA)
- National Transportation Institute (NTI)
- Occupational Safety and Health Administration (OSHA)
- Transportation Security Administration (TSA)
- Other transit systems

Other data sources, standards and guidelines will be identified, as they are applicable to the analysis being conducted. The TSO is responsible for ensuring that appropriate and adequate safety data collection is maintained for the operations and maintenance activities and adequate analysis is performed on the data, shared appropriate system-wide and acted upon to predict and prevent adverse events for safety assurance purposes.

19.1.1 Access to Data

All departments are charged with providing analysis of internal data as requested by the TSO. The data is indicated in the table above. Please note this is not an exhaustive list, but simply a basic guideline. The TSO will ensure that each department is aware of the data that it is required to collect, analyze and subsequently provide to the TSO for review, further analysis, and corrective action. Data from individual departments will be made available to the TSO upon request and similarly, the TSO will distribute any data analysis as appropriate to the applicable division(s).

19.1.2 Data Analysis

The TSO will delegate to the Safety Data Analyst the responsibility to track safety-related data to identify trends, including those related to hazards. The data analysis process will involve collaborating with SMEs and the Safety and Security Officers. Identified trends for all data are then analyzed and/or investigated by the TSO or their designee with the cooperation of the appropriate department(s) to determine causal factors.

19.1.3 Safety Performance Indicators

SPI are quantifiable parameters used for monitoring and assessing safety performance and SPT. SPIs should be clearly defined with input on what the indicators are based on data and information provided by the SMEs. More importantly, SPIs should be quantifiable, and measured by using the data provided in Section 5.0. There are two (2) common types of indicators:

Lagging Indicators: Data related to things that have already happened. HPTS will define lagging SPIs using historical data of negative outcomes, such as accidents, incidents, and occurrences.

Leading Indicators: Measure conditions that have the potential to become or contribute to a negative outcome before the outcome occurs. Leading indicators can be very valuable because will allow HPTS to monitor precursors to events and offer the opportunity to act before something bad happens.

HPTS will use both lagging and leading indicators to measure and monitor its safety performance and feed the SPTs.

19.2 Investigations of Safety Events

The investigation process is a critical component of the SA function of the SMS and is one (1) indicator to measure safety performance success.

HPTS shall investigate any reportable Accident or Unacceptable hazardous condition, as well as any other safety events as deemed necessary by the agency. The investigation will be documented in a final report that includes a description of investigation activities, findings, identified causal factors, and CAP(s) as necessary. At the discretion of the HPTS management, the final investigation report will be separated in two parts as follows:

- Description of investigation activities, investigation findings, and determination of the most probable cause and additional contributing causes
- Recommendations to prevent recurrence and a corrective action plan, if required

HPTS will investigate Safety Events as summarized below:

1. Each Transit Agency investigation shall be documented in a final report that includes a description of investigation activities, findings, identified causal factors, and CAP(s) as warranted.
2. The investigation report shall be submitted to the TM and TSO within three (3) calendar days following completion of the investigation.
3. HPTS shall provide quarterly status reports to the SMS Steering Committee that document investigation activities and findings.

19.2.1 Investigation Procedure

At a minimum, an investigation must determine the facts relative to the cause of the event, including the identification of causal factors. The investigation must document specific actions that should be taken to prevent or reduce the likelihood further occurrences.

The on-scene investigation will focus on the following tasks:

1. Evaluate the accident scene to determine what occurred, document the final uncontrolled position of employee, type and severity of injury, position of vehicles and equipment involved, and any other relevant situational data
2. Evaluate the accident scene to determine any mechanical, physical, and environmental conditions that may have contributed to the accident/incident
3. Conduct interviews of persons essential to the investigation of the incident, such as the vehicle Operator, witnesses, injured persons, Supervisors, and dispatchers
4. Evaluate what job the employee was performing or assigned to, and whether or not the employee was properly trained and qualified to perform the duty assigned at the time of the accident and incident
5. Make a preliminary assessment whether an unsafe action or unsafe condition contributed to the accident and incident
6. Determine what personal protective equipment was required for the job being performed, whether it was being worn, and whether it was in good condition and proper for hazard protection

The investigator is responsible for the initial investigation of all non-criminal incidents, unless directed otherwise by the TM / ATM / TSO. This includes obtaining information required for the preparation of the Preliminary Investigation Report. In situations where a serious crime has occurred or where HPPD has selected to assume jurisdiction, the investigator will work closely with HPPD personnel to ensure the scene is secured and information is exchanged appropriately. The investigator shall focus on, at a minimum:

- Interviewing employees, witnesses, and passengers.
- Focusing on conditions and hazards that caused accident.
- Collecting and protecting or directing the collection and protection of all physical evidence. This might include the presence, absence and description of skid marks, condition of the road, and other road defects, traffic control signals and devices, area speed limit signs, and other warning or control signs or devices for vehicular traffic;
- Examining the operating compartments, working environments, and other environmental conditions involved with the operation of the system leading to the event's occurrence.
- Ensuring that a description of the event is recorded. Required documentation includes photographs, measurements, and sketches at a minimum. Other documentation should be obtained to the greatest extent possible.

At an accident/incident scene, upon being briefed by personnel already on the scene, the TSO may assume command of HPTS activities, working closely with the Incident Commander and other HPTS responders and response personnel from High Point or area emergency response agencies. Depending on the severity of the accident or incident, the TSO may remain in command of the situation until the scene is cleared.

Based on the above information, the investigator will complete and submit the initial investigation report within twenty-four (24) hours to the TSO or their designee, as necessary for review. The investigator shall assist, as directed by the TSO, in completing any follow-up investigation, as necessary.

19.2.2 Investigator Qualifications

The TSO is trained on basic investigation processes and procedures for both modes of transportation. Under conditions where TSO functions change, training for personnel will include review and understanding of existing procedures, as well as other industry courses relevant to incident investigations, including those required under 49 CFR 672 as defined in Part F of this PTASP.

19.2.3 Investigation Reports

The final report includes the following information, at a minimum:

- 1. Investigation Report General Outline**
 - a. Event description
 - b. Notification, Incident Response, and Incident Command
 - c. Initiating Event
 - d. Immediate Corrective Actions
 - e. Operator Information – Fatigue Evaluation and Training
 - f. Investigation
 - g. Operator event report
 - h. Field supervision report
 - i. Employee record/history

2. Post-Accident Safety Inspection

- a. Video analysis
- b. Communications analysis
- c. Findings, Potential Causal Factors, and Recommendations (CAPs)
- d. Investigator
- e. Date of Report
- f. Distribution

19.2.4 Internal Notifications

HPTS employees are required to make a verbal report to Dispatch immediately of all events, followed as soon as practical by written reports. HPPD covers accident response in detail.

Since each accident and incident may be different, the process and task detailed in this document will not necessarily be applied to, nor required for, every investigation. That decision is based upon experience and good judgment of Management.

19.3 Safety Rules Compliance

Operational rules and procedures are contained in the HPTS Transit Operator Handbook – 2018 and Paratransit Operator Rules and Regulations Manual - 2018. Additional procedures (i.e. SOPs, and plans, programs, and other documentation) are developed to support all operations as needed. These procedures are generally developed and maintained by the respective department. Other safety rules, processes, and practices may be contained in these procedures.

19.3.1 Review of Rules and Procedures

Operational rules and procedures are contained in the HPTS Transit Operator Handbook – 2018 and Paratransit Operator Rules and Regulations Manual - 2018. Additional procedures have been or are being developed in support of transit operations. Rulebooks and procedures are maintained by the departments to which they apply.

The following table provides a schedule for when rules and procedures, by mode, are reviewed and revised, if needed, and with whom the responsibility lies. Other rules and procedures may be reviewed but are not listed below.

Table 16: Fixed-Route Rules and Procedures Review Schedule

Procedure(s)	Freq.	Responsibility
Vehicle PMIs	Triennially	Maintenance Supervisor
Operating Rulebook	Annually	Transit Supervisor
Supervisor SOPs	Annually	Assistant Transit Manager

Table 17: Paratransit Rules and Procedures Review Schedule

Procedure(s)	Freq.	Responsibility
Vehicle PMIs	Triennially	Maintenance Supervisor
Operating Rulebook	Annually	Paratransit Supervisor
Dispatchers SOPs	Annually	Assistant Transit Manager
Supervisors SOPs	Annually	Assistant Transit Manager

Responsibilities may be delegated by the responsible party, as appropriate.

Any changes to operating procedures, rulebooks, or maintenance plans with safety implications will be reviewed by the TSO for approval. Upon approval, changes are made, and the rulebook is signed and distributed by the Assistant Transit Manager. Individuals receiving a new or revised Rulebook are required to sign, date, and return a form indicating receipt.

All HPTS employees and contractors are responsible for knowing and abiding by the rules and procedures of the agency and for its appropriate implementation at all times while on duty. HPTS employees must know and follow the rules when on HPTS property.

19.3.2 Safety Rules Compliance Program

The Safety Rules Compliance Program (SRCP) is the process used by HPTS to develop, maintain, and ensure compliance with rules and procedures having a safety impact, including identification of operating and maintenance rules and procedures subject to review; techniques used to assess the implementation of operating and maintenance rules and procedures by employees. There are three (3) fundamental outputs for the SRCP:

1. Measure the effectiveness of supervision relating to implementation of operating and maintenance rules
2. Documentation of results
3. Incorporation of findings into the SRM

Supervisory and management personnel will be required to make periodic checks of employees to ensure compliance with the Rulebook and relevant procedures. Management personnel are also expected to observe inspections during daily operations and on-the-job training for all employees.

The following techniques will be used to monitor compliance for operations and maintenance personnel.

- A. Assessment of Operations Personnel:** Periodic operational checks are made in the field by Supervisors including but are not limited to the following:
- Speed Checks
 - Observation of safety vehicle operations
 - Proper use of safety devices
 - Observation on the use of safety devices
 - Wheelchair securement practices
 - Wheelchair ramp operations

Periodic spot checks are made when requested or deemed necessary by management. The TSO may conduct random safety checks that include but are not limited to the following:

- General vehicle operations
- Attention to duty
- Signal compliance
- Door operations

B. Assessment of Maintenance Personnel: The Maintenance Supervisor enforces rules and procedures by observing and monitoring employee and contractor performance in shops and yard. Rules and procedures monitored and observed for compliance include but are not limited to the following:

- General safety
- Proper use of tools, equipment, and machinery
- Proper use of personal protective equipment
- Fire Life safety
- Materials handling and storage
- Quality Assurance activities

The Maintenance Supervisor also conducts follow-up activities following any non-compliance as a technique to ensure reinstruction of employees has resulted in compliance with maintenance rules.

C. Supervisory Personnel: Periodic reviews of Leads are performed by their respective supervisor and shall include required supervisory activities defined in the Rulebook and procedures, as well as the individual's job description and the safety and security requirements outlined in this plan.

Follow-ups will occur periodically following a finding of rules/procedure non-compliance.

19.3.3 Documentation

Supervisory personnel are primarily responsible for formally documenting procedures and rules observed for compliance. Violation(s) are to be documented and brought to the attention of managers and the TSO who will ensure that appropriate documentation is maintained. Records of rules and procedures violations are maintained by each department and copies will be submitted to the TSO for continued review and monitoring.

Formal ride checks are documented on the appropriate forms or means (tablets) and copies are provided to the ATM and TSO. Formal weekly and monthly reports, as appropriate, on rules and procedure compliance will also be provided by supervisors to the TSO.

19.4 Inspection and Maintenance Program

HPTS facilities, vehicles, and terminals, are inspected at regular intervals per procedures provided in maintenance plans. Maintenance records are maintained by the Maintenance Supervisor and Transit Parts Specialist.

Critical items/conditions disclosed during inspection are repaired immediately or taken out of service until work can be performed. Non-critical items/conditions are cycled through the work order process. Inspection notes recorded on checklists are given to the Maintenance Supervisor for review and filing. When reports of defects or problems are reported from other sources, they

are responded to, inspected, and followed up via immediate repair, work order, or out-of-service status per criticality and crew availability.

19.4.1 Facility Inspections

An essential element of the HPTS SMS is regular inspection of facilities to ensure safe and effective operation. The TSO will work closely with the Maintenance Supervisor to ensure that appropriate checklists and procedures are in place to monitor fire/life safety, industrial, and occupational safety requirements are met.

19.4.2 Equipment Inspections

Equipment inspections are performed according to OEM requirements and recommendations, statutory requirements, industry best practices, equipment conditions and use and other applicable requirements.

Table 18: Equipment Inspections

Equipment	Typical Items Inspected/Tested
Non-Revenue Vehicles	Cars and light trucks, emergency generators, and forklifts
Revenue Vehicles	Wheelchair ramps, interior lighting, communication equipment, ADA equipment, exterior lighting, gauges

19.4.2.1 Vehicle Maintenance Inspections, Bus

HPTS maintains and inspects its vehicles in accordance with the Vehicle Maintenance Plan (VMP) The VMP is designed to guide for actions within the Maintenance Department. As new technologies are phased into HPTS, it may become necessary to institute new personnel training, and changes to this plan. The plan will serve as the primary policy for the Maintenance Department and will be used to guide Vehicle Maintenance employees in safe and efficient maintenance practices and provide a high level of customer service. The plan will be utilized as a guide in making decisions on a daily basis and may be updated as required.

All fleet vehicles, both revenue and non-revenue, are incorporated into the preventative maintenance inspection interval. Inspection tasks and intervals will be structured around the manufacturer's published recommendations and updates. The Maintenance Supervisor may approve additional tasks and increased intervals based upon trend analysis, information from OEM providers and other transit maintenance professionals, and experience of maintenance mechanics / technicians. The Maintenance Supervisor manages the preventative maintenance inspection program, assigns mechanics to PM inspections and ensures all PM services are completed and all mechanical repairs possible are completed during the inspection shift.

19.4.3 Inspection Checklists

The TSO will work closely with maintenance department to ensure that appropriate checklists and procedures are in conformance with fire/life safety, industrial safety, and occupational safety requirements. The Maintenance Plans describes all inspection and maintenance programs that are currently in effect. Inspection checklists pertaining to specific system elements are contained in relevant maintenance plan.

19.4.4 Corrective Actions

Findings identified during maintenance audits/inspections are recorded and monitored until resolved and closed in accordance with the SRM and CAP processes. Hazards that require coordination across departments or additional resources are addressed by the TSO. In addition, the managers / supervisors will formally notify the TSO upon identification of a hazardous condition. Unresolved hazardous conditions may be submitted to the TSO / TM for review, analysis, and resolution.

19.5 Training and Certification Reviews

Compliance with training requirements is assessed by the TSO on an on-going basis. Assessments of compliance are based on student course evaluations, instructor course evaluations, and an annual management review of courses for content and relevance. All recommendations for changes in course content or delivery mechanism will be approved of the TSO and appropriate manager as appropriate prior to any substantial changes.

20.0 Management of Change

All changes or modifications in the HPTS's system must be controlled to ensure that safety and security are managed throughout the process. Change management is the process through which HPTS will ensure that any changes or proposed changes do not introduce new hazards or vulnerabilities. If changes have introduced newly identified risks, HPTS will measure the risks to mitigate their potential consequences are implemented.

HPTS may experience change due to the following reasons:

- Expansion of the system
- Changes to its existing rules
- Procurement of equipment
- Modifications to programs and services
- Introduction of new equipment or procedures.

Hazards may inadvertently be introduced into the system whenever change occurs. Changes can also impact the appropriateness and or effectiveness of existing safety risk mitigation strategies. Changes may be external to the organization, or internal; however, HPTS will ensure that all changes are evaluated through the Safety Risk Management process. The process requires the review of all system documentation by the SMS Steering Committee for compliance with the PTASP and the inclusion of proper safety and security requirements where appropriate.

The TSO, through the SMS Steering Committee is responsible for ensuring that all HPTS departments have appropriate processes for documenting their configuration, including, but not limited to:

- Specifications, drawings and diagrams
- Procedures, policies and guidelines
- Equipment and vehicles
- Facilities and structures, infrastructure
- Administrative, quality, security and emergency processes,
- IT systems and processes

In lieu of a Change Control Board (CCB) to review, consider, and approve/disapprove/modify all requested System changes, any proposed changes will be reviewed by the SMS Steering Committee.

20.1 Change Management Process

While it is anticipated that most individually initiated proposals for configuration change will result from an observed need by operations supervisors, maintenance, or managers, employee improvement suggestions may also lead to modifications that require configuration management assessment. All proposals, whether originally from an employee suggestion or originated at a higher level, are to be submitted in writing to the TSO, for review by the SMS Steering Committee.

Configuration Change Requests (CCR) may result from needs identified during formal targeted operations or maintenance reviews, hazard analysis or threat and vulnerability assessment findings, annual safety and security audits, and reviews, or accident investigations. These will likely be discussed by the SMS Steering Committee before a decision is made to initiate a proposal to change configuration.

Once a determination is made as to the degree of impact the change will have, the evaluation of the proposed modification can continue with determining merit, cost, safety and security impact, implementation schedule, and potential impact on other HPTS elements.

All CCRs are to be assigned a number and entered into a Tracking Matrix. The matrix will contain every CCR entered in numerical (and chronological) order, whether rejected, approved, and completed, or in progress.

20.1.1 Authority for Change Management

The SMS Steering Committee maintains the following authority for the management of change:

- Review and approve or reject all proposed major configuration changes
- Review and approve certification documentation for previously approved changes after they are implemented and tested
- Review and comment, as deemed appropriate, on all proposed minor configuration changes.

In support of the SMS Steering Committee, the following individuals will have additional responsibilities for managing change:

A. Transit Safety Officer

- Review all configuration change proposals and determines if each represents a major change requiring formal safety and security certification or a minor change
- Determine the certification requirements to be used for minor changes
- For all proposed changes, determines if formal hazard analyses or threat and vulnerability assessments are required, and what level of training or retraining of personnel will be required
- Maintain the Configuration Change Tracking Matrix and signs off on all proposals to verify that implementation will not degrade safety or security

B. Assistant Transit Manager

- Review all proposed major configuration changes of HPTS Fixed Route operations and recommends approval or disapproval SMS Steering Committee
- Approves implementation of minor changes to HPTS Fixed-Route operations if the SMS Steering Committee raises no questions, approves documentation certifying their acceptable installation, or changes do not require their review

C. Maintenance Supervisor

- Review all configuration change proposals generated by maintenance personnel, or by others, to assess impact on maintainability, reliability, and personnel safety
- After evaluating received comments, forward the comments to the SMS Steering Committee with a recommendation for submission for approval or for rejection
- Regularly monitor the status of maintenance related proposals and provide updated information to the SMS Steering Committee

20.1.2 Formal Notification to All Involved Departments

It is required, under oversight of the TSO, that the initiators of any change request, or proposed alteration of any existing system or facility configuration, notify all departments that may be impacted by the change. The notification should include a description of the proposed change, its likely impact on maintenance and operations, both during its implementation and after it is implemented, and any known information on impacts on specific departments. This process is codified in the above Change Management Process.

20.2 Safety and Security Certification

When applicable, HPTS will implement a Safety and Security Certification (SSC) process for major capital projects. Certification is a formal process that provides documented verification that all Project components comply with all safety and security standards, criteria, and requirements. The SSC establishes program requirements for capital projects and describes how all safety and security components are reviewed, analyzed, and verified throughout all phases of a project's life cycle. The SSC process will identify the certification processes to verify and document that:

1. Design, construction, installation, testing, and pre-revenue operations (PRO) of terminals, facilities, systems, and equipment; and construction testing is in compliance with safety and security requirements to ensure that all hazards, threats, and vulnerabilities identified through the Preliminary Hazard Analysis (PHA), Threat and Vulnerability Analysis (TVA), and supplemental hazard analyses processes are acceptably resolved or mitigated;
2. System integration testing (SIT), including emergency exercise (EDs), will adequately demonstrate that the interface between all separately certified systems will provide an overall safe and secure system; and
3. Operation and Maintenance (O&M) personnel and responder training, rulebooks, procedures, manuals, plans and procedures, as-built drawings, all other required materials and documentation, and PRO have been performed or delivered to ensure the provision of safe and secure revenue service.

To accomplish this, HPTS's certification process will follow the FTA's 10-step methodology, however modifications to the process can be made depending on the scope of the work. This determination will be made by the TSO. The SSC thus will be accomplished through a formal process that will begin early in design and continue until revenue operations begin. The steps in the process will be implemented by application of procedures that ensure consistency in the certification of each element. The steps in the process are:

1. Identify Certifiable Elements
2. Develop Safety and Security Design Criteria
3. Develop and Complete Design Criteria Conformance Checklist
4. Perform Construction Specification Conformance
5. Identify Additional Safety and Security Test Requirements
6. Perform Testing and Validation in Support of the SSC Program
7. Manage Integrated Tests for the SSC Program
8. Manage "Open Items" in the SSC Program
9. Verify Operational Readiness
10. Conduct Final Determination of Project Readiness and Issue Safety and Security Certification

Detailed processes will be identified in project specific Safety and Security Certification Plans (SSCP) using the Safety Risk Management process.

21.0 Continuous Improvement

The continuous improvement of the SMS is guided by the ability to achieve the defined safety objectives and safety performance targets. The TSO, in coordination with each department, will implement HPTS's internal review process. This process allows HPTS to continually and objectively examine its own compliance with the requirements prescribed in this PTASP and identify any deviations from meeting the SPTs, Safety Objectives, and Safety Goals. Internal

reviews thus aim to determine the effectiveness of the PTASP, plus verify the need for implementing constituent program processes.

In addition to the internal review process, HPTS will continuously monitor, track, and report on safety data in effort to identify trends towards achieving SPTs.

21.1 Internal Safety Review Program

The TSO develops, coordinates, and executes the Internal Safety Audit Program to monitor the application of this PTASP. The internal safety and security audit process is a Safety Assurance activity required to ensure a proactive approach to identifying hazards before they become accidents or incidents, and to verify that safety and security programs have been developed and implemented. Specifically, items assessed during the audit process will include:

- The level of effectiveness of safety and security programs
- Process effectiveness
- Hazards and potential hazards in the system
- Verification that prior corrective actions are implemented, tracked to closure and effective
- System safety and system security improvements

The TSO, under the authority of the TM, has the responsibility to audit any system activity, operations, or processes across all HPTS departments.

21.1.1 Scope of Activities

The Internal Safety Audit Program is intended to assist HPTS Safety (TSO) in implementing an internal auditing process in a logical and organized manner. In developing this plan, HPTS has incorporated the safety policies, plans, and governmental reporting requirements from the following references:

- 49 CFR 673
- HPTS PTASP
- HPTS Corrective Action Plan Program
- HPTS Safety Risk Management Program
- HPTS Safety Assurance Program

21.1.2 Program Overview

HPTS's TSO will conduct planned and scheduled internal safety and security reviews to ensure compliance with the PTASP including:

- Identification of departments and functions subject to review
- Responsibility for scheduling reviews
- Process for conducting reviews, including the development of checklists and procedures, and the issuing of findings
- Review reporting requirements
- Tracking the status of implemented recommendations

21.1.3 Internal Review Internal Audit Checklists

HPTS's TSO will use internal departmental plans and procedures and other pertinent process documents as a basis for preparing the internal audit checklists. The checklists will provide

sufficient criteria to determine if all audited criteria are performing as intended. Examples of referenced documents include, but are not limited to:

- System operating rule books, bulletins, notices, and procedures
- Maintenance plans, manuals and procedures
- Preventive maintenance inspection processes
- Employee training programs
- Environmental compliance procedures
- Other documents deemed by the TSO
- Previous internal and external audits, including FTA audit reports
- CAPs for accidents, security incidents, and unacceptable hazards

The pre-audit checklist is preliminary and subject to modification as the audit process progresses.

21.1.4 Internal Review Schedule and Milestones

The TSO will draft its three-year cycle internal safety and security audit schedule that shows a review of all components of this PTASP. The schedule will be submitted to the TM by January 31st of the year starting the three-year cycle with a schedule of each of the three (3) years of audits for the safety program. This schedule of internal safety audits can change as needed so long as the overall three (3) year requirements of completing all elements is met. The schedule and progress of internal safety audits each year is tracked as part of the monthly status tracking of CAPs.

22.0 Corrective Action Plans

HPTS will identify whether a CAP is needed under three (3) conditions:

1. During the investigation of an Accident/Incident to avoid or minimize the reoccurrence of the investigated event or address a related, systemic problem
2. To correct safety risks

HPTS will develop a formal CAP to correct those elements or activities identified as deficient. Within the CAP, HPTS will include the following information:

- The hazard or programmatic deficiency.
- Action taken to correct the hazard
- An implementation schedules
- The individual(s) and department(s) responsible for the implementation
- Interim/short-term steps taken while awaiting implementations of long-term mitigations

22.1 Monitoring and Tracking

HPTS maintains a CAP tracking log that provides pertinent information on specific CAPs. The log contains the following information:

- Identify noted deficiency/finding/hazard
- Date corrective action plan was opened
- Process, plan, or mechanism to address and resolve deficiency
- Timeframe for implementation of each part of the plan
- Department(s) and person(s) who will be responsible for implementation
- Source of the CAP
- CAP tracking ID
- Line for TSO approval and date of approval
- Proposed implementation date, including interim milestone date(s) as appropriate
- Actual implementation date (once approved and completed)
- Issues preventing resolution
- TSO verification that CAP was implemented
- Other critical information, as appropriate

The TSO will submit the CAP log to the SMS Steering Committee monthly and shall provide information of monthly updates progressing towards closure.

22.3 Verification and Closure of CAPs

The respective HPTS supervisor will submit verification to the TSO for any CAP proposed for closure. Information regarding the closure must be included in the CAP Log and include any additional actions that were implemented to complete the CAP. Verification documentation may include:

- Photographs
- Receipt of new or revised document
- Work order or similar document showing full completion

23.0 Drug and Alcohol Program

HPTS is dedicated to providing safe, dependable, and economical transportation services to its customers. HPTS employees are a valuable resource and it is also our goal to provide a safe, healthy, and satisfying working environment for our employees. In meeting these goals, it is our policy to:

- Ensure that employees are not impaired in their ability to perform assigned duties in a safe, productive, and healthy manner.
- Create a workplace environment free from the adverse effects of drug and alcohol abuse or misuse.
- Prohibit the unlawful manufacture, distribution, dispensing, possession, or use of controlled substances.
- Encourage employees to seek professional assistance when substance abuse adversely affects their ability to perform their assigned duties.

In accordance with *49 CFR 655, Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations*, and *49 CFR Part 40, Procedures for Transportation Workplace Drug*

and Alcohol Testing Programs the City of High Point maintains a written policy that documents its substance awareness programs which are compliant with 49 CFR 40 and 655 to ensure employee fitness for duty, and to protect our employees, passengers, and the general public from the risks posed by the use of alcohol and prohibited drugs. The City of High Point Drug and Alcohol Policy is also intended to comply with and incorporate 49 CFR Part 32, The Drug-Free Workplace Act of 1988, which requires the establishment of drug-free workplace policies and the reporting of certain drug-related offenses to the FTA, including the reporting of employees convicted of criminal drug offenses that occur in the workplace.

HPTS's Drug and Alcohol Policy applies to all safety-sensitive transit system employees as identified and described below as well as paid part-time employees and contractors, when performing safety-sensitive duties.

Safety-Sensitive Employees and Applicants for Safety-Sensitive Positions covered by this Policy include those who:

1. Operate a revenue service vehicle, including when not in revenue service
2. Operate a non-revenue service vehicle when such is required to be operated by a holder of a commercial driver's license
3. Control the movement/dispatch of a revenue service vehicle
4. Perform maintenance on a revenue service vehicle or equipment used in revenue service
5. Carry a firearm for security purposes

23.1 Program Monitoring

HPTS's Drug and Alcohol Testing Program is administered by the City of High Point. Implementation details are contained in CHP Drug and Alcohol Policy. The TSO will monitor the implementation of this program for compliance and will conduct a formal internal audit of the program at least once on a 3-year cycle. The TSO will review all updates to HPTS's Drug and Alcohol Policy.

24.0 Procurement

HPTS must ensure that its designated purchasing agent obtains supplies, materials and equipment that meet or exceed required standards. Purchasing procedures for both formal and informal bidding will be documented based on the City of High Point's requirements. Procurements of new equipment, materials and supplies are first reviewed by the user department in conjunction with the TSO to ensure safety within the HPTS system.

For the procurement of outside contract work, all contracts must stipulate that all work, materials and equipment used in the project are subject to adequate inspection and testing in accordance with accepted standards and that the contractor must provide the necessary testing and inspection services required by the manufacturer and the contract.

To ensure inclusion of the HPTS safety program, HPTS will provide a copy of this PTASP to all contractors and/or subcontractors, who are obligated to adhere to its provisions during all stages of their work assignments. HPTS will also require safety plans of its contractors, which will be reviewed and approved by the TSO prior to award of any contract.

It is also the policy of HPTS to obtain Safety Data Sheets (SDS) for all samples and products for prior approval before samples or products are accepted for review and/or use. The designated

purchasing agent is required to make every possible effort to preclude the introduction of unauthorized, hazardous materials and supplies, as well as defective or deficient equipment into a project.

Part F: Safety Promotion

Part F of this PTASP outlines the processes in which HPTS will promote both SMS practices and safety throughout a transit agency. As part of 49 CFR Part 673, this section will discuss the following two (2) sub-components of Safety Promotion:

- Competencies and training
- Safety communication

25.0 Competencies and Training

HPTS provides training in safety, operations, and maintenance to ensure that employees are qualified to perform their tasks safely. Safety training is also integrated into operations and maintenance training as a means of informing employees about hazards associated with their jobs and the appropriate methods for controlling these hazards. HPTS's training programs are based on industry requirements, standards, and recommendations. Training methods include classroom lecture, written materials, video presentation, hands-on training, and assessment of knowledge and skills. There are training programs for operators and maintainers. Training programs include classroom instruction, with lesson plans and manuals. Testing is conducted as necessary to ensure training effectiveness.

25.1 Designated Personnel

HPTS encourages participation and completion of the prescribed courses in 49 CFR Part 672. Although not required by 49 CFR 672 for agencies that do not operate a transit rail mode, this training is encouraged. Completion of these courses afford an individual the opportunity to complete the Individual Training Program (ITP), also referred to as the Public Transportation Safety Certification Training Program (PTSCTP). HPTS personnel that may consider this course of study include employees and contractors whose job function is directly responsible for safety oversight of HPTS. More specifically, this includes personnel whose primary job function includes the development, implementation and review of this PTASP. These individuals include:

- Transit Safety Officer
- Safety contractors

Additional designated personnel may be identified as the SMS continues to mature. Courses for designated personnel include:

Table 19: PTSCTP Required Curriculum

Course Name	Methodology	Duration
SMS Awareness	e-Learning	1 Hour
Safety Assurance	Virtual Classroom	2 Hours
SMS Principals for Transit	Virtual Classroom	20 Hours
Bus System Safety	Classroom	36 Hours
Effectively Managing Transit Emergencies	Classroom	32 Hours
Fundamentals of Bus Collision Investigation	Classroom	36 Hours

25.2 HPTS Personnel

HPTS uses safety training programs that are integrated into operations and maintenance training as a means of informing employees about hazards associated with their jobs and the appropriate methods for controlling these hazards. As such, safety training is incorporated into three (3) types of curriculums:

1. Initial Training
2. Periodic Training
3. Retraining

Training mechanisms may involve classrooms, field exercises, and drills. HPTS is currently reviewing other means for providing training, including more virtual programs.

25.2.1 HPTS Fixed Route and Paratransit

Operations and maintenance personnel performing safety-related work are trained, qualified, and certified in accordance with all regulatory requirements and industry standards. The following are some of the areas of focus:

- **Safety and Security Training:** Training is consistent with the employee's responsibilities to includes safety and security overviews, incident/accident investigation, report requirements, emergency preparedness, and hazard identification.
- **Operator Training:** The Assistant Transit Manager and Transit / Paratransit Supervisor is responsible for operator training that Includes standard bus operating procedures, defensive driving, common bus emergencies, passenger relations, workplace violence, active shooter response, and emergency communication
- **Maintenance Training:** The Maintenance Supervisor is responsible for the training of maintenance personnel. Training for bus maintenance personnel consists of instruction in maintenance best practices/industry standards, maintenance policy/procedures, and hazard materials control.

25.3 Contractors

All HPTS contractors doing work at HPTS facilities are required to be knowledgeable of, instructed in, and follow the necessary rules and procedures to ensure safety. It is HPTS's policy that all contractors must comply with all of the requirements of the PTASP and all relevant regulations pertaining to workplace safety.

In the event that a contractor or contractor employee is required to work on HPTS property under operating conditions, training requirements will be defined in the contract. HPTS rules and procedures will be applied without exception to all members of the contractor's work force affected. Contractors will be provided HPTS procedures and are expected to follow these procedures.

25.4 Training Record Keeping

HPTS training records will be recorded and maintained in the user's department as well as Human Resources.

26.0 Safety Communication

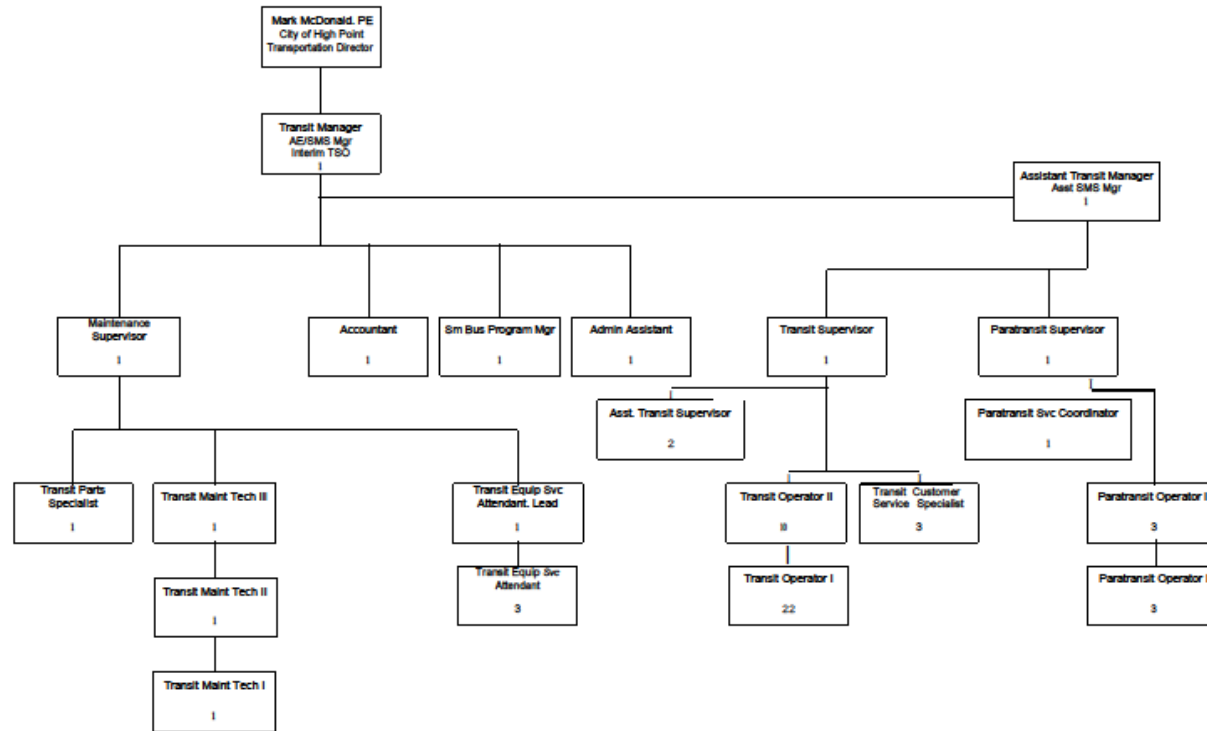
Communicating with frontline employees about safety and security is crucial in establishing a positive safety culture. Effective safety communication makes personnel aware of safety priorities and initiatives and ensures that feedback is captured and acted upon as appropriate. HPTS will focus on relaying safety-related information on a regular basis, focusing on raising awareness of potential safety risks and progress of the agency's safety programs. Accomplishing this will encourage employees to report concerns and demonstrates management commitment to both the employees and the agency's safety performance objectives. In accordance with 673.29(b), HPTS also will ensure that all employees are aware of any policies, activities, and procedures that are related to their safety-related roles and responsibilities.

Communication of safety programs, including SMS initiatives and achievement of SPTs, Goals and Objectives will be led by the TSO in coordination with managers and supervisors. Mechanisms for communication include, but are not limited to:

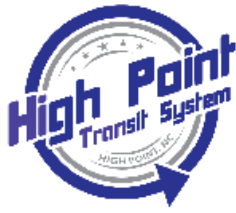
- Employee Reporting Program
- Safety Committee
- Training
- HPTS Policies and Procedures
- CHP Safety Program (i.e. Right to Know, HAZCOM)

Safety communications will include information on safety risks that are relevant to the employee's role and responsibilities, explain reasons that a transit agency introduces or changes policies, activities, or procedures, and explain to an employee when actions are taken in response to reports submitted by the employee through the employee safety reporting program.

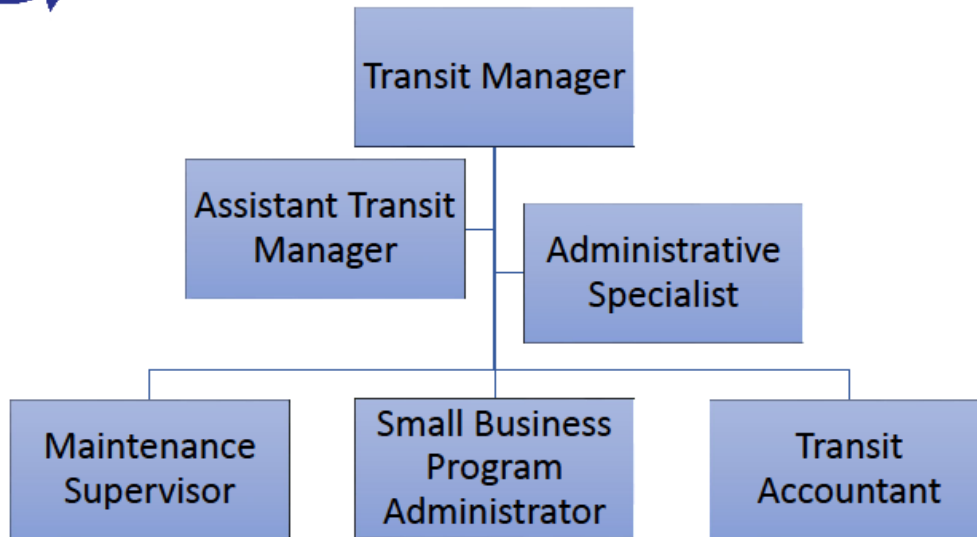
Appendix A: HPTS Organizational Chart



Appendix A.1 HPTS Management Structure



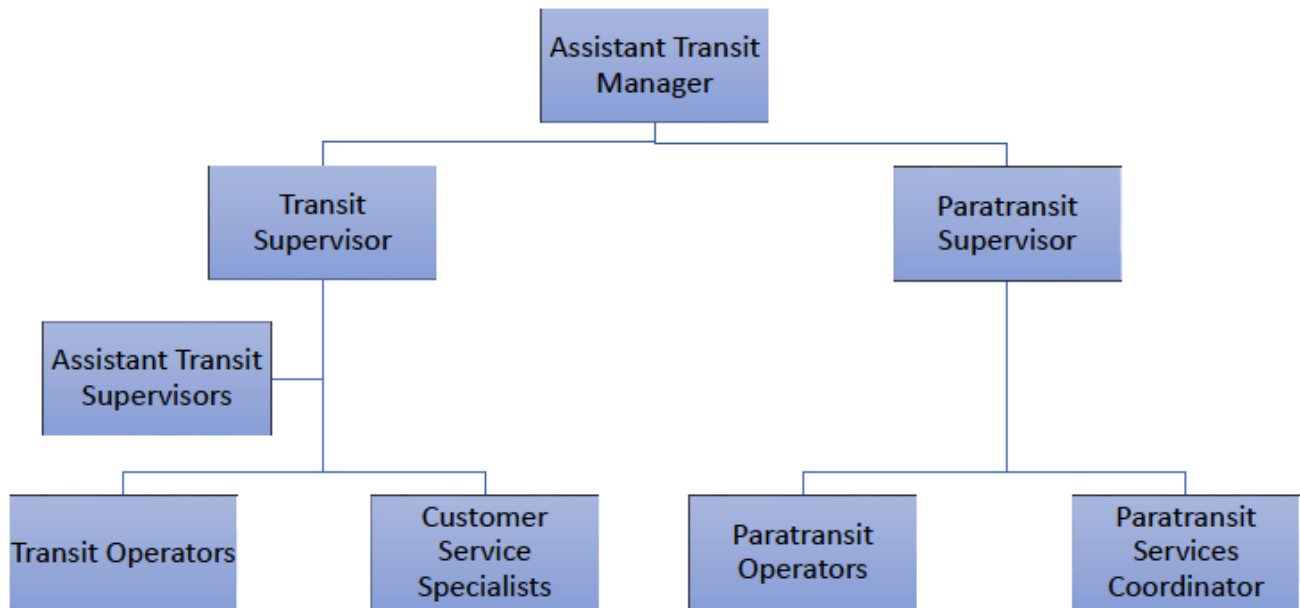
HIGH POINT TRANSIT SYSTEM



Appendix A.2 HPTS Operations Structure



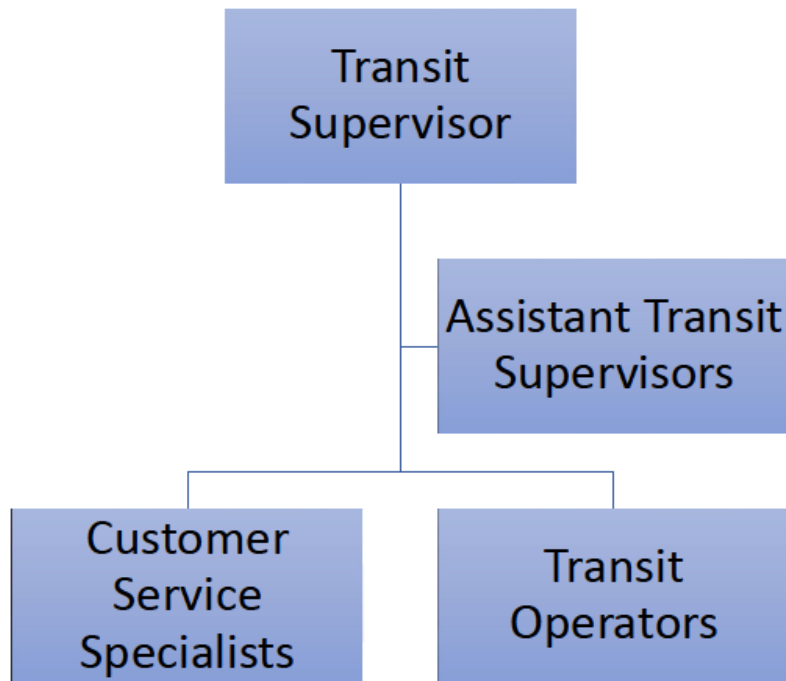
HIGH POINT TRANSIT SYSTEM OPERATIONS



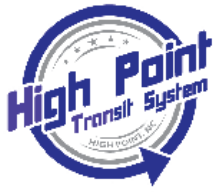
Appendix A.3 HPTS Fixed Route Structure



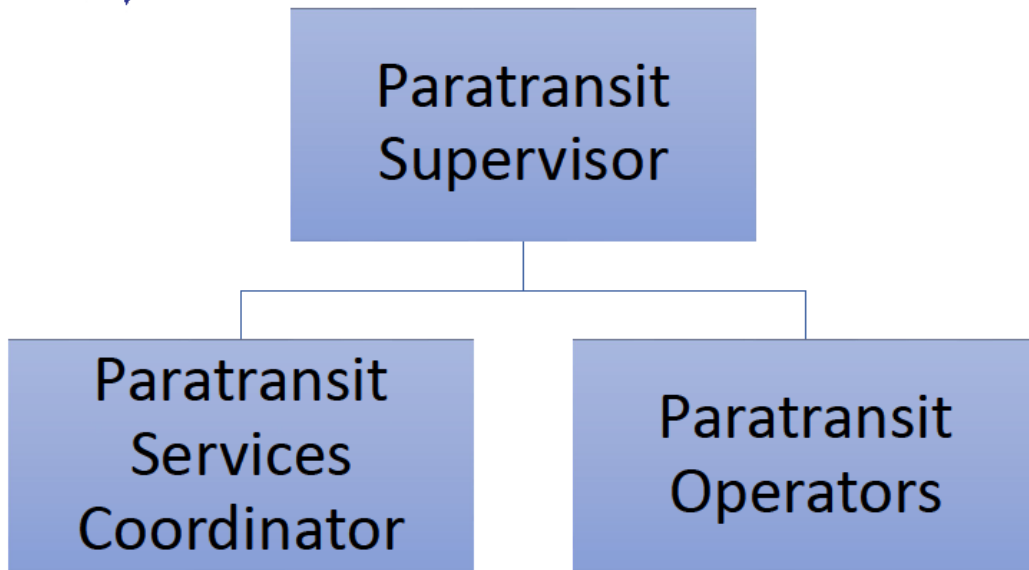
HIGH POINT TRANSIT SYSTEM FIXED ROUTE



Appendix A.4 HPTS Paratransit Structure



HIGH POINT TRANSIT SYSTEM PARATRANSIT



Appendix A.5 HPTS Maintenance Department Structure



HIGH POINT TRANSIT SYSTEM MAINTENANCE DEPARTMENT

