

# Annual Public Rail Transit Safety Report

*for Calendar Years 2020 and 2021*



**Diane Gutierrez-Scaccetti**  
Commissioner  
Department of Transportation



**Philip D. Murphy**  
Governor

**Sheila Y. Oliver**  
Lt. Governor

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PATCO Lindenwold Station

## *Introduction*

The purpose of this report is to provide an overview of New Jersey's State Safety Oversight Agency's (NJ SSOA) program.

Pursuant to 49 Code of Federal Regulation (CFR) Part 674.11, "Within three years of April 15, 2016, every State that has a Rail Fixed Guideway Public Transportation System [RFGPTS or Rail Transit System (RTS)] must have a State Safety Oversight (SSO) program that has been approved by the Administrator [of the Federal Transit Administration (FTA)]. The FTA will audit each State's compliance at least triennially, consistent with the regulation, 49 [United States Code] U.S.C. 5329(e)(9). At minimum, an SSO program must:

- Explicitly acknowledge the State's responsibility for overseeing the safety of the rail transit systems within the State;
- Demonstrate the State's ability to adopt and enforce Federal and relevant State law for safety in rail transit systems;
- Establish a State Safety Oversight Agency (SSOA), by State law, in accordance with the requirements of 49 U.S.C. 5329(e) and this part;
- Demonstrate that the State has determined an appropriate staffing level for the SSOA commensurate with the number, size, and complexity of the rail transit systems in the State, and that the State has consulted with the Administrator for that purpose;
- Demonstrate that the employees and other personnel of the SSOA who are responsible for the oversight of RTSs are qualified to perform their functions, based on appropriate training, including substantial progress toward or completion of the Public Transportation Safety Certification Training Program (PTSCPT); and
- Demonstrate that by law, the State prohibits any public transportation agency in the State from providing funds to the SSOA."

Under 49 CFR Part 674.13(a)(7), the State must report, at least once a year, the status of the safety of each RTS to the Governor(s), the FTA, and the board of directors of each RFGPTS.

Executive Order 65 (1997) designates the New Jersey Department of Transportation (NJDOT) as the SSOA. New Jersey Administrative Code (N.J.A.C.) 16:53E establishes rules concerning the State's oversight of the safety of RFGPTSs through the NJDOT.

NJDOT (or the NJ SSOA as designated by E.O. 65 (1997)) provides light rail system safety oversight, reviews projects in engineering and construction, performs accident investigations, approves corrective action plans, and conducts compliance audits for four RTSs in the State of New Jersey. These rail systems are the River LINE, Newark Light Rail (NLR) and Hudson Bergen Light Rail (HBLR) which are all owned by NJ Transit, and the Port Authority Transit Corporation (PATCO)'s Speedline.

## *What is the State Safety Oversight Program?*

The purpose of a State Safety Oversight (SSO) program is to oversee the safety of a Rail Transit System (RTS). An SSO program is administered by eligible states with RTSs under their jurisdiction. The Federal Transit Administration (FTA) provides federal funds through the SSO Formula Grant Program for eligible states to develop and carry out their SSO program. Under 49 U.S.C. Section 5329(e), as amended by the Moving Ahead for Progress in the 21st Century Act (MAP-21), the FTA is required to certify each state's program to ensure compliance with MAP-21. The New Jersey State Safety Oversight Agency (NJ SSOA) program received FTA certification on February 28, 2019.

The NJ SSOA oversees the safety of four RTSs to ensure they are upholding industry-wide safety standards for riders, employees, equipment, facilities, and the right-of-way (land on which railroad track is located). The program verifies and enforces federal safety regulations throughout each RTS by use of the federally mandated Public Transportation Agency Safety Plan (PTASP), and further ensures that each system incorporates a Safety Management System (SMS) throughout its operation, utilizing a top-down system of safety promotion and accountability.

## *The Role and Responsibility of the Federal Transit Administration (FTA)*

The FTA monitors each State Safety Oversight Agency (SSOA) via quarterly check-ins and audits completed every three years. The monitoring is accomplished by utilizing standard evaluation criteria tied directly to FTA regulations. The FTA confirms that SSOA programs are both compliant with federal regulations and effective in safety oversight. The FTA evaluates previous audit findings, risks, and newly identified issues at an SSOA and/or Rail Fixed Guideway Public Transportation System (RFGPTS).

FTA safety-related regulations provide several ways for the FTA to provide safety oversight for the SSO programs and the RFGPTS:

- The FTA may join/participate or lead an investigation or audit. (49 CFR Part 674)
- The FTA may issue a General Directive (49 CFR Part 670) – The Administrator may issue a general directive that is applicable to all recipients or a subset of recipients due to an unsafe condition or practice, or a combination of unsafe conditions and practices exists such that there is a risk of death or personal injury, or damage to property or equipment or any situation where the public interest requires the avoidance or mitigation of a hazard or risk.
- The FTA may issue a Special Directive (49 CFR Part 670) – The Deputy Administrator may issue a special directive to one or more named recipients due to a recipient engaging in conduct, or there is evidence of a pattern or practice of a recipient's conduct, in violation of the Public Transportation Safety Program (PTASP) or any regulation or directive issued under those laws or an unsafe condition or practice, or a combination of unsafe conditions and practices exists such that there is a substantial risk of death or personal injury, or damage to property or equipment.

The Fixing America's Surface Transportation (FAST) Act grants the FTA the authority to



temporarily assume direct administration of a SSO program in the event of a nonconforming, inadequate, or incapable SSO program. Specifically, the statute outlines three situations where the FTA may assume the safety oversight of an SSO program:

- SSO program “is not being carried out in accordance” with 49 U.S.C. § 5329;
- SSO program “has become inadequate to ensure enforcement of Federal safety regulation”;
- SSO program “is incapable of providing adequate safety oversight consistent with the prevention of substantial risk of death or personal injury”.

While monitoring SSO programs, should the FTA uncover risks/issues that reach a level of concern, in which regular check-ins do not remedy the situation, the FTA can escalate identified risks/issues to the FTA Administrator, who will determine if temporary direct administration of an SSO program is required. If required, the FTA performs an assessment to inform the forthcoming assumption of decision. The assessment begins the FTA’s process, which consists of the following five distinct phases:

- **Assessment:** Gather and validate information on the SSO program identified as potentially at risk of nonconformance or ineffectiveness;
- **Decision:** Determine if it is necessary to temporarily administer the SSO program;
- **Planning:** Develop a tailored plan for the FTA to temporarily assume direct administration of safety oversight of an SSO program;
- **Execution:** Conduct direct safety oversight for the SSO program and assist the SSO to resolve deficiencies;
- **Relinquishment:** Recertification of an improved SSO program per 49 U.S.C. 5329(e)(8)(B)(ii).

## ***The State Safety Oversight (SSO) Program Funding***

Congress establishes the funding for the Federal Transit Administration (FTA) grant programs. This funding is used by the FTA to issue grants for up to 80% of the reasonable costs of an SSO program. Every State is expected to use these funds to strengthen their program and comply with federal regulations. The New Jersey Department of Transportation (NJDOT) applies toll credits for the remaining 20% of the grant. These grants are made available annually to the NJDOT. The NJDOT Office of Fixed Guideway applies for and manages the grant funding. **Table 1-1** presents the apportionment made available for the New Jersey State Safety Oversight Agency (NJ SSOA) program for calendar years 2020 and 2021.

Table 1-1: 2020/2021 NJ SSOA Program Funding

Federal Grant Year(s)	Federal Allocation	State Allocation (toll credits)	Total
2020	\$735,530	\$183,882	\$919,412
2021	\$864,660	\$216,165	\$1,080,825

The FTA reviews activities to ensure that grant recipients use the funds in a manner consistent with their intended purpose and in compliance with regulatory and statutory requirements. The FTA assesses state management practices and program implementation of several formula grants. The reviews are conducted every three years and encompass 17 areas of compliance. In the 2021 triennial audit of the NJ SSOA, no grant related issues were identified.

## *The State Safety Oversight Agency (SSOA)*

Under 49 CFR Part 674.7, an SSOA is an agency established by a State that meets the requirements and performs the functions specified by 49 U.S.C. Section 5329(e) and the regulations set forth in this part.

## *The Role and Responsibility of the New Jersey State Safety Oversight Agency (NJ SSOA)*

The Program Standard developed by the NJ SSOA, follows all requirements stipulated in 49 CFR 672, 49 CFR 673, and 49 CFR 674. This includes minimum standards for the safety of all Rail Transit Agencies and Systems (RTA/RTSs) within its oversight. These standards are consistent with the National Public Transportation Safety Plan (NPTSP), the Public Transportation Safety Certification Training Program (PTSCPT), the rules for Public Transportation Agency Safety Plans (PTASP) and all applicable federal and state laws.

Responsibilities of the NJ SSOA program include:

- Requiring Rail Transit Agencies and Systems (RTA/RTSs) to maintain a PTASP that complies with the NJ SSOA Program Standard and federal regulations;
- Requiring the RTAs to develop and follow safety standards based on an all-hazards approach for operations, command and control, and maintenance of the Rail Transit Systems (RTSs);
- Requiring the RTA/RTSs to develop, document, and administer a process for performing internal safety program compliance reviews/audits and submitting audit plans and procedures to the NJ SSOA program for review and potential participation in the actual safety program and Safety Management System (SMS) compliance audits;
- Conducting on-site safety program and SMS compliance audits of the RTA/RTSs safety program under the NJ SSOA program jurisdiction once every three years to assess the RTA/RTSs implementation of its safety program and SMS based on the PTASP;
- Requiring RTA/RTSs to notify the NJ SSOA and Federal Transit Administration (FTA) within a required timeframe of any reportable safety event or significant hazard, as defined in the Program Standard and federal regulations;
- Investigating (or causing to be investigated) any reportable event or significant hazard as



defined in the Program Standard and federal regulations;

- Requiring RTA/RTSs to develop Corrective Action Plans (CAPs). Tracking progress and evidence of resolving CAPs and monitoring identified safety risks at the RTA/RTS through reports, meetings, as well as visits to the RTA/RTS;
- Providing required and requested information, data, and reports to the FTA;
- Participating in capital projects related to rail transit and safety program aspects of the project, including design through safety certification and successful transition from the project to revenue operations and maintenance.

Safety oversight is accomplished through transparent interactions and partnership with each RTA/RTS and the monitoring of all requirements. These requirements are based on the federal and state regulations, the Program Standard, the PTASP and related minimum standards for safety. Any significant issues with meeting these requirements are communicated to the RTA in an appropriate timeframe and tracked. Priorities are established to achieve the following:

- Monitor each RTS's current safety performance compared to the RTA's board approved safety performance targets.
- Monitor each RTS's staff competencies, specifically those who are designated as responsible for audits, examinations and investigations.
- Work to assure that the SSOA program development and processes are adequate to be aware of each RTS's safety performance and safety risks in operations, maintenance, and projects or modifications to the rail systems and infrastructure.

During certification in 2019, the FTA recommended that the New Jersey Department of Transportation (NJDOT) maintain a minimum staffing of seven Full Time Employees (FTEs). To comply with this requirement, an average of four FTEs is staffed by NJDOT employees and an average of three FTEs is staffed by consultant support. This demonstrates NJDOT's level of commitment to the delivery of the program.

The FTA expects the States to staff and otherwise resource their SSO programs (appropriate to the size, number, and complexity of RTSs) with personnel skilled in investigation, analysis, auditing, inspections, administration, and as appropriate, engineering and capital projects management. The SSO program is responsible for ensuring that designated safety staff (individuals responsible for conducting audits and examinations of transit systems) are qualified through appropriate training, which includes completion of the PTSCTP. The staffing and training of employees must be approved by the FTA and the NJDOT is required to notify the FTA of any changes in staffing.

During this reporting period, the NJDOT met the FTA's recommendation for staffing, and designated safety staff completed and/or continued progress towards completing the FTA training requirements. As of 2021, 50% of the designated safety staff completed their PTSCTP, and the others are in progress.

For 2020 and 2021, a total of 11,819 and 17,037 hours were expended, respectively by the combined efforts of both NJDOT and contracted staff. The difference of hours in 2020 and 2021 is attributed to several factors, including staffing changes and the ongoing Coronavirus Disease 2019 (COVID-19) pandemic. Notably, in 2021, the NJ SSOA added one FTE and additional contracted staff, who are dedicated to performing direct observations of the RTSs, and NJ SSOA program development.

## *State Safety Oversight Program Standard (SSOPS)*

A State Safety Oversight Agency (SSOA) must develop and distribute a written State Safety Oversight Program Standard (SSOPS), consistent with the National Public Transportation Safety Plan (NPTSP) and the rules for the Public Transportation Agency Safety Plans (PTASPs). This SSOPS must identify the processes and procedures that govern the activities of the SSOA. Also, the Program Standard must identify the processes and procedures a Rail Transit System (RTS) must have in place to comply. The New Jersey Department of Transportation (NJDOT) SSOPS is available on the State of New Jersey website for transparency with the RTAs/RTSs.

Revisions to the NJDOT SSOPS were initiated in 2019 and completed in 2021. The NJDOT SSOPS has been updated to meet the federal requirements set forth in 49 CFR Part 672, 49 CFR Part 673 and 49 CFR Part 674.

## *Rail Fixed Guideway Public Transportation Systems (RFGPTS)*

The New Jersey State Safety Oversight Agency (NJ SSOA) is responsible for overseeing the safety of four rail systems, within two rail agencies, that operate under the jurisdiction of the State of New Jersey. One system, Port Authority Transit Corporation (PATCO), also operates in Philadelphia, Pennsylvania. **Table 1-2** presents the RTAs/RFGPTS.

*Table 1-2: Rail System Information*

RTA	RFGPTS	FTA Mode	Operated & Maintained by	System Length
Delaware River Port Authority	Port Authority Transit Corporation (PATCO)	Heavy Rail	PATCO	14.5 miles
NJ Transit	River LINE	Light Rail	Southern New Jersey Rail Group, LLC, under contract	34 miles
NJ Transit	Newark Light Rail (NLR)	Light Rail	NJ Transit	6.9 miles
NJ Transit	Hudson-Bergen Light Rail (HBLR)	Light Rail	21st Century Rail Corporation, under contract	17 miles

# Port Authority Transit Corporation (PATCO)

## Overview

PATCO is owned and operated by the Delaware River Port Authority (DRPA), a heavy rail line that travels between New Jersey and Pennsylvania. PATCO is unique as it is the only bi-state RTS regulated by the NJ SSOA. Oversight has been determined through a Memorandum of Agreement (MOA) between New Jersey and Pennsylvania. PATCO extends approximately 14.5 miles of double track grade separated system from Lindenwold, New Jersey to the City of Philadelphia. There are 13 active rail stations that service an estimated 34,000 daily passengers. Passengers are transported on 60 married pairs of recently refurbished railcars (120 cars in total). PATCO uses the Benjamin Franklin Bridge to provide train service between New Jersey and Pennsylvania. The transit line includes 2.3 miles of downtown subway and 12.2 miles above ground track. The system has seven stations below ground (one of which, Franklin Square, is permanently closed), as well as seven stations above ground. PATCO operates 24-hours-a-day service throughout the year. System safety is provided by Pulse Code Cab Signal System and Wayside Signals at interlockings. Train cars operate under an Automatic Train Control, from a Central Train Control Tower located in Camden. Train movement is powered by a 750 VDC third rail electric power system.



# River LINE



## Overview

The River LINE is owned by New Jersey Transit and operated and maintained by Southern New Jersey Rail Group, LLC. The River LINE operates 20 married pairs of articulated vehicles. The light rail transit system operates for approximately 34 miles between the cities of Trenton and Camden, New Jersey. The River LINE provides service to major New Jersey locations including the Waterfront Entertainment Center, Rutgers University, Walter Rand Transportation Center in Camden, the Trenton Transportation Center, and towns throughout Burlington County. The River LINE operates as a Light Rail Transit in the city of Camden, in street running mode. The alignment has 73 grade crossings, 21 station stops, and 23 rail bridges. It travels through small towns and sensitive wetland areas. Outside the City of Camden, the River LINE operates on comingled track with Conrail operating over the track at night. Train safety is provided by Wayside Signals with Positive Inductive Train Stop for absolute stop signals. Train movements function according to the Northeast Operating Rules Advisory Committee (NORAC) using the Central Traffic Controls (CTC) from a command office in Camden. The River LINE provides service to approximately 5,500 passengers daily.





# Newark Light Rail



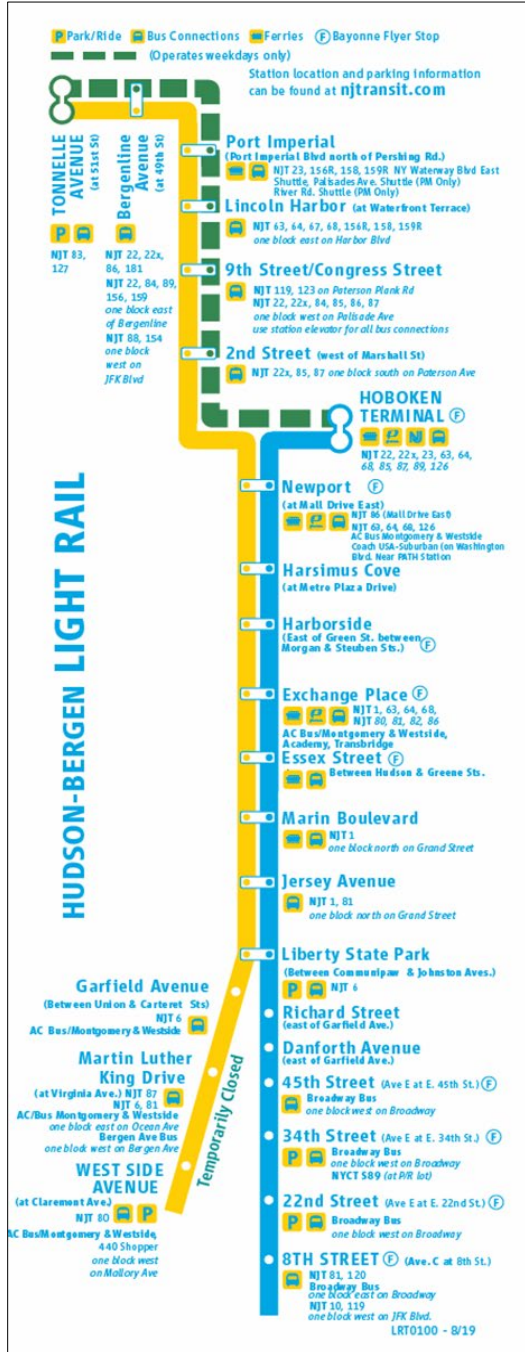
## Overview

The Newark Light Rail (NLR) System is owned and operated by New Jersey Transit. It is a 6.9-mile light rail line that operates as a rapid transit link between terminal stations at Penn Station in Newark, NJ and Grove Street Station in Bloomfield, NJ, with an extension connection from Penn Station to Broad Street Station. The double-tracked light rail line is in an underground tunnel for 1.7 miles and either at grade or a grade separated depressed cut for 3.8 miles and approximately 1 mile of street running territory. The light rail transit vehicles are virtually identical to those used on Hudson – Bergen Light Rail (HBLR), without the running gear. The NLR system is powered by a direct current (DC) variable tension catenary electrical system. The system serves approximately 16,000 passengers daily and operates 21 hours a day, 7 days a week.



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# Hudson-Bergen Light Rail



## Overview

The Hudson Bergen Light Rail Transit System (HBLR) is owned by New Jersey Transit and operated and maintained by Twenty First Century Rail Corporation. The system operates for approximately 17 route miles of double track between Bayonne, New Jersey and North Bergen, New Jersey. HBLR operates 52 recently refurbished and extended, electrically powered train cars, operating in married pairs. The trains are powered by a direct current (DC) catenary system. The HBLR line provides service to approximately 52,000 passengers daily while running 20 hours a day, 7 days a week. The high-speed rail service provides 24 station stops and 2 employee flag stops. The line starts above ground at the southern terminus in Bayonne, NJ and operates primarily on grade separated right-of-way with approximately two miles of street running in mixed traffic. The at-grade crossings are equipped with transit signal priority to automatically change the traffic signal to favor the light rail transit system. Train movements are governed by a multi- aspect color signal system. The rail line progresses north through a double track 4,096-foot-long tunnel to the northern terminus at North Bergen, NJ.





## *Implementation of New Federal Regulations*

### **Public Transportation Agency Safety Plan (PTASP) (49 CFR Part 673)**

In accordance with federal regulation 49 CFR Part 673, all Rail Transit Agency(s) (RTAs) are required to have a fully approved Public Transportation Agency Safety Plan (PTASP) by July 20, 2020. Due to the extraordinary operational challenges presented by the Coronavirus Disease 2019 (COVID-19) pandemic, the Federal Transit Administration (FTA) issued a Notice of Enforcement Discretion effectively extending the PTASP compliance deadline to December 31, 2020. The RTAs achieved compliance ahead of the original July 20, 2020 deadline.

SMS is a formal top-down, organization-wide approach to managing safety risk and assuring the effectiveness of risk mitigation. The four SMS components are:

- ***Safety Management Policy*** defines management commitment to meet established safety objectives and safety performance targets. This includes approval at the board level;
- ***Safety Risk Management*** promotes the identification of hazards before they escalate into incidents or accidents by evaluating safety risk and implementing necessary mitigations;
- ***Safety Assurance*** is a never-ending process that monitors the safety performance of an organization and ensures that RTAs/RTSs implement appropriate and effective mitigation;
- ***Safety Promotion*** encourages and instructs safety through effective communication and training. It ensures that employees at all levels receive the training needed to perform their job safely.

During the 2020 and 2021 reporting period, the New Jersey State Safety Oversight Agency (NJ SSOA) and RTAs made significant progress toward full implementation of the new regulations. Both RTAs met the deadline by transitioning from a System Safety Program Plan (SSPP) to a PTASP in 2020 which incorporates an SMS. In addition, the NJ SSOA Program Standard version 2.0 was released to comply with the new regulations in 2021.

### **Bipartisan Infrastructure Law**

Congress establishes the funding for Federal Transit Administration (FTA) programs through authorizing legislation that amends Chapter 53 of Title 49 of the U.S. Code. On November 5, 2021, congress sent President Biden the Bipartisan Infrastructure Law for signature. The legislation reauthorizes surface transportation programs for fiscal years 2022-2026 and provides advance appropriations for certain programs. The Bipartisan Infrastructure Law authorizes up to \$108 billion to support federal public transportation programs, including \$91 billion in guaranteed funding.

The Bipartisan Infrastructure Law will enhance State Safety Oversight (SSO) programs by strengthening rail inspection practices, protecting transit workers and riders from injuries, and ensuring safe access to transit. The FTA's Public Transportation Safety Program will be updated

to improve safety training, to work to reduce assaults on vehicle operators, to encourage development of transit agency safety plans, and to institute measures to reduce vehicular and pedestrian accidents.

## *State Safety Oversight Reporting and Data Collection*

### **Electronic Reporting**

The collection and evaluation of data is essential to improving safety. The New Jersey State Safety Oversight Agency (NJ SSOA) focuses on collecting and analyzing meaningful and actionable data. The data in this report is compiled from the annual submission to the Federal Transit Administration (FTA) for calendar years 2020 and 2021, as submitted via the FTA’s State Safety Oversight Reporting (SSOR) database. SSOR fulfills the following requirements:

- 49 CFR Part 674.39 states data “must be submitted electronically through a reporting system specified by FTA.”
- 49 CFR Part 674.33(a) includes “the criteria and thresholds for accident notification and reporting are defined in a reporting manual developed for the electronic reporting system specified by the FTA as required in 49 CFR Part 674.39(b), and in appendix A.”

In July 2019, a pilot of the FTA’s SSOR system was released and thereafter used for annual reporting beginning March 2020. In addition to data collection and submission of transit safety data to the FTA, the web based SSOR system provides: Data Analytics, Communications (between FTA and NJ SSOA), and an Event Discrepancy Tracker. The NJ SSOA met the FTA SSOR annual reporting deadlines for calendar years 2020 and 2021.

### **New Jersey State Safety Oversight Agency (NJ SSOA) Databases**

Since 2018, the NJ SSOA has maintained two databases created to collect and store data, the Electronic Accident Reporting (EAR) database and Accident / Incident Database (ACID). The Rail Transit Agencies and Rail Transit Systems (RTA/RTSs) enter data into the EAR database, which is then imported into ACID by the NJ SSOA. This data is evaluated for accuracy and monitored as part of the oversight process. In 2021, the NJ SSOA updated both databases to align with the Federal Transit Administrations (FTA)’s State Safety Oversight Reporting (SSOR) tool to ensure standardization of data. Portions of numerous reports are shared with the FTA and utilizing a systematic verification process increases the data’s credibility. These two databases have continued to ensure the accuracy and efficiency of reportable events as well as the flow of communication between the NJ SSOA and the RTAs. **Figures 1-1** and **1-2** show the interface of the NJ SSOA’s ACID database.

*Figure 1-1: ACID Database - Dashboard*



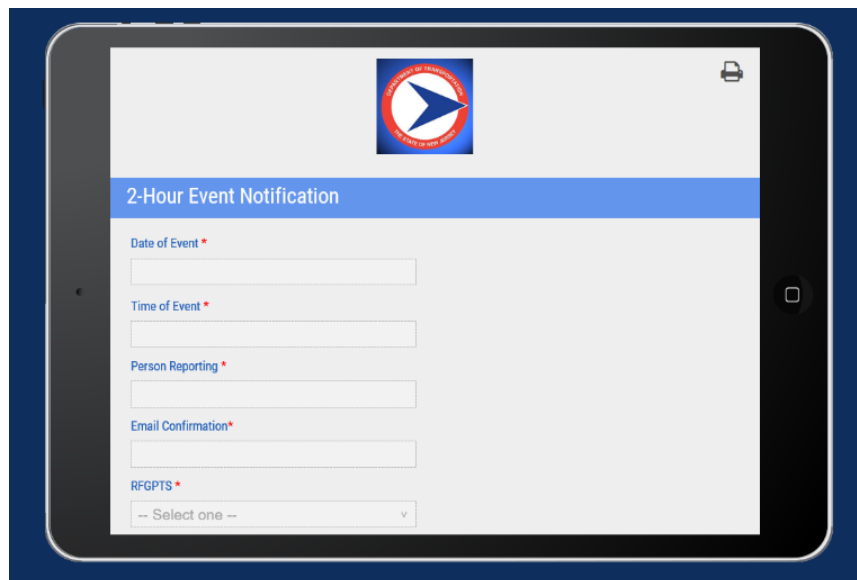
Figure 1-2: ACID Database - Data Entry Selection



## SimpliGov Applications

During the reporting period, the New Jersey State Safety Oversight Agency (NJ SSOA) developed and implemented cloud based SimpliGov applications for use by Rail Transit System (RTS) and NJ SSOA personnel. The state of New Jersey maintains a subscription with SimpliGov, which offers web-based workflow automation. These applications improved data transmission and collection. Applications were implemented for 2-Hour Notification for Accidents and Station Inspections. The 2-Hour Notification for Accidents application was developed for RTS personnel to report accidents to the NJ SSOA and the FTA. The application was programmed by the NJ SSOA to streamline and standardize notifications. **Figure 1-3** shows the interface of the SimpliGov 2-Hour Notification Application.

Figure 1-3: 2-Hour Notification



The Station Inspection application was developed for NJ SSOA personnel to capture station inspections. The application was programmed by the NJ SSOA to assist the inspector through organized flow of work phases, thereby, improving performance, quality, and data collection. In addition, any photographs captured during the inspections can be uploaded and submitted through the application for ease of processing.

## 2020 and 2021 Annual Safety Statistics

The following sections represent data submitted as part of the New Jersey State Safety Oversight Agency (NJ SSOA) Annual Submission to the Federal Transit Administration (FTA) using the State Safety Oversight Reporting (SSOR) database for the calendar years 2020 and 2021. For uniformity, data is represented by Rail Transit Agency (RTA). Port Authority Transit Corporation's (PATCO) data is singular and NJ Transit's data is an aggregate of three Rail Transit Systems (RTSs): River LINE, Newark Light Rail (NLR), and Hudson-Bergen Light Rail (HBLR).

### Field Visits

Recognizing that each Rail Transit System (RTS) has unique characteristics, the New Jersey State Safety Oversight Agency (NJ SSOA) routinely visits each system to perform observations and build our knowledge. During the visits, the NJ SSOA examines the system's implementation of their safety program and performs inspections of vehicles, stations, and facilities. The intent of these activities is to identify and prevent potential safety concerns from developing into safety events. **Table 2-1** presents NJ SSOA field visits completed for the calendar years 2020 and 2021.

Table 2-1: 2020/2021 NJ SSOA Field Visits

RTA/RFGPTS	2020	2021
DRPA - PATCO	5	25
NJ Transit (River LINE, NLR, and HBLR)	16	79

### Public Transportation Agency Safety Plans (PTASPs)

A PTASP describes a rail agency's safety policies, procedures, objectives, and responsibilities. All Rail Transit Agencies (RTAs) were required to have a fully approved plan to facilitate the use of a Safety Management System (SMS) by December 31, 2020. All PTASPs were approved in 2020, within the compliance deadline. In 2021, all RTAs conducted annual reviews of their PTASPs, resulting in revisions to the three NJ Transit PTASPs, which are currently in progress. **Table 2-2** presents PTASP implementation dates for calendar year 2020.

Table 2-2: RFGPTS PTASP Implementation Dates

RTA/RFGPTS	Implementation Date
DRPA - PATCO	June 2, 2020
NJ Transit (River LINE, NLR, and HBLR)	August 3, 2020

### Accidents – Notification and Reporting

In accordance with 49 CFR Part 674.33, Appendix to 49 CFR Part 674 (shown below), and the New Jersey Department of Transportation (NJDOT) State Safety Oversight Agency (SSOA) Program Standard, events that meet the thresholds in **Table 2-3** are required to be reported to and investigated by the NJ SSOA and the Federal Transit Administration (FTA).

Table 2-3: Appendix to Part 674 – Notification and Reporting of Accidents

Human Factors	Property Damage	Types of Events (Examples)
<ul style="list-style-type: none"> <li>- Fatality (occurring at the scene or within 30 days following the accident)</li> <li>- One or more persons suffering serious injury</li> </ul>	<ul style="list-style-type: none"> <li>- Property damage resulting from a collision involving a rail transit vehicle or any derailment of a rail transit vehicle</li> </ul>	<ul style="list-style-type: none"> <li>- A collision between a rail transit vehicle and another rail transit vehicle</li> <li>- A collision at a grade crossing resulting in a serious injury or fatality</li> <li>- A collision with a person resulting in a serious injury or fatality</li> <li>- A runaway train</li> <li>- Evacuation due to life safety reasons</li> <li>- A derailment (mainline or yard)</li> <li>- Fires resulting in a serious injury or fatality</li> </ul>

As part of the Rail Transit Agency (RTA)’s responsibility, they must also report these events electronically to the FTA’s National Transit Database (NTD) within 30 days of an event. Submissions for events that meet the FTA’s threshold for a Reportable Accident are pre-populated into the FTA State Safety Oversight Reporting (SSOR) system, and categorized by the FTA into one of the following Event Types:

- Derailment
- Rail Grade Crossing (RGX) Collision
- Collision (Non-RGX)
- Fire (Causing Serious Injury or Fatality)
- Runaway Train
- Evacuation due to life safety reasons
- Fatalities (one or more within 30 calendar days of safety event)
- Serious Injury

## Accident Reporting in 2020 and 2021

**Table 2-4** presents the total number of accidents reported by the Rail Transit Agencies (RTAs) to the New Jersey State Safety Oversight Agency (NJ SSOA) and Federal Transit Administration (FTA) for calendar years 2020 and 2021:

Table 2-4: 2020/2021 Accidents

RTA/RFGPTS	2020	2021
DRPA - PATCO	8	4
NJ Transit (River LINE, NLR, and HBLR)	21	11
Total	29	15

### 2020: PATCO Accidents and Probable Causes

**Figure 2-1** presents the 8 accidents reported by PATCO for calendar year 2020, categorized by FTA Event Type, and **Figures 2-1a** and **2-1b** present the probable causes identified by PATCO and the National Transportation Safety Board (NTSB).

Figure 2-1: 2020 PATCO Accidents (8)

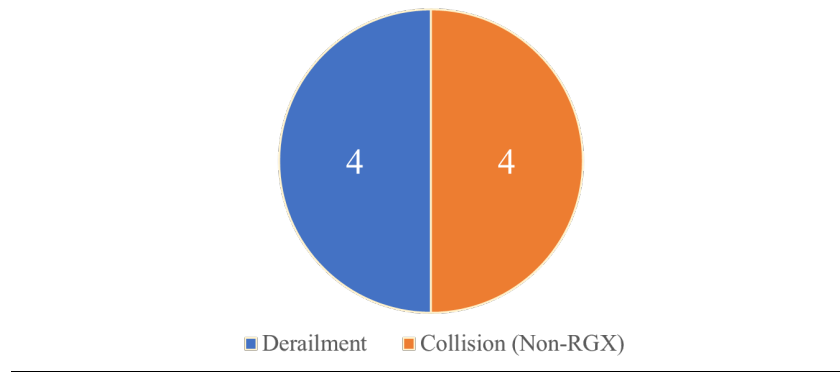
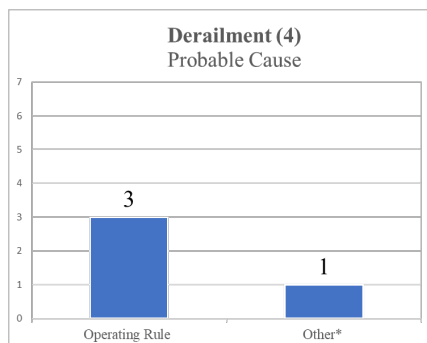
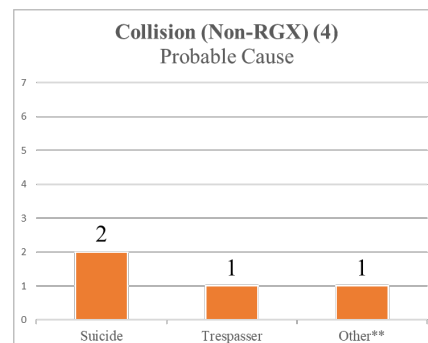


Figure 2-1a: Derailment Probable Causes



\*Smaller wheel diameter on contractor equipment

Figure 2-1b: Collision (Non-RGX) Probable Causes



\*\* Inadequate procedure for use of yard walkway; see details from NTSB report below



## National Transportation Safety Board (NTSB) Investigation of PATCO Collision (Non-RGX)

On Sunday, July 26, 2020, approximately 8:44 p.m., a PATCO maintenance employee was struck and killed between two railcars at the Lindenwold Yard facility on track 12. This event met the Federal Transit Administration (FTA)'s threshold for a reportable accident and notifications were made by PATCO to the New Jersey State Safety Oversight Agency (NJ SSOA) and the FTA, within two hours of the safety event as required under 49 CFR Part 674.33(a). In addition, PATCO notified the National Transportation Safety Board (NTSB) which performed the investigation.

The NTSB issued their investigation report on June 28, 2021. The report stated that the probable cause of the event was “the maintenance employee walking in an area not designated for foot traffic between two railcars with insufficient clearance and being struck during an uncoupling maneuver. Contributing to the accident was the Port Authority Transit Corporation’s storage of railcars on the designated employee walkway and not requiring employees to use these walkways in the yard.” The report listed the post-accident actions taken by PATCO to mitigate recurrence.

The NTSB did not provide any recommendations. However, PATCO developed and submitted five Corrective Action Plans (CAPs) to the NJ SSOA for review and approval, which included revisions to PATCO’s existing roadway worker procedures. The NJ SSOA approved the CAPs and evaluated the NTSB’s findings to ensure that all findings were addressed. Of the five CAPs submitted, four were closed in 2020, and one in 2021. **Figure 2-2** is an aerial photograph of the employee walkway.

*Figure 2-2: Aerial photograph of the PATCO employee walkway*



(Photo courtesy of NJDOT, UAS Drone Program)

For additional details, see NTSB Report NTSB/RAB-21/01 which is available on the NTSB’s website <https://www.nts.gov/Pages/home.aspx>.

## 2020: NJ Transit (River LINE, NLR, HBLR) Accidents and Probable Causes

**Figure 2-3** presents the 21 accidents reported by NJ Transit for calendar year 2020, categorized by FTA Event Type, and **Figures 2-3a through 2-3d** present the probable causes identified by NJ Transit.

Figure 2-3: 2020 NJ Transit Accidents (21)

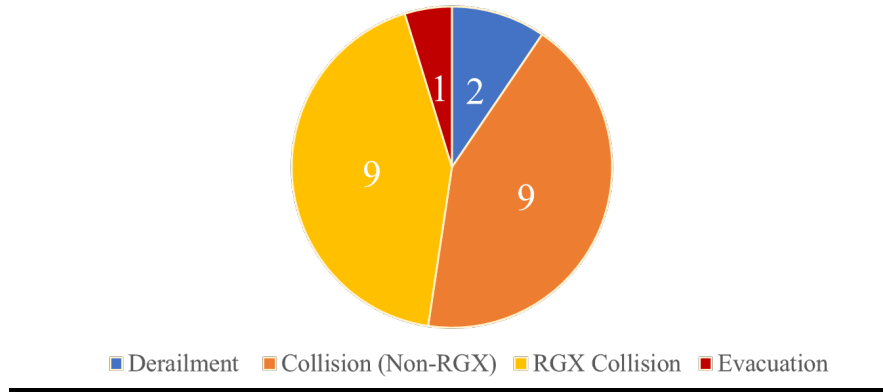


Figure 2-3a Derailment Probable Causes

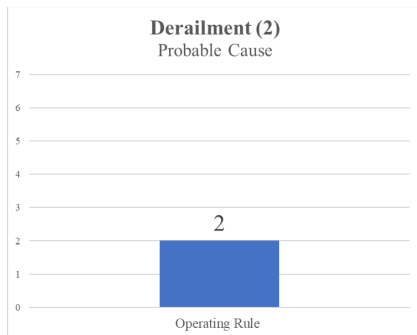
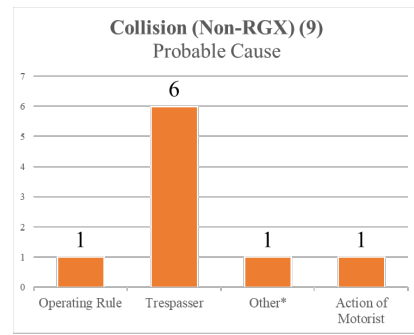


Figure 2-3b: Collision (Non-RGX) Probable Causes



\*Weather (Effects of tropical storm Isaias)

Figure 2-3c: RGX Collision Probable Causes

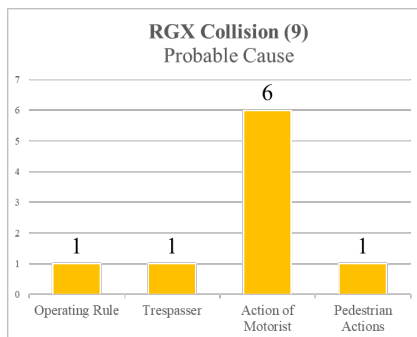
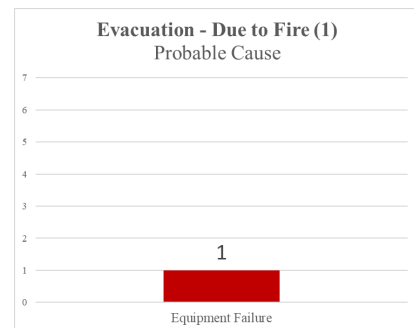


Figure 2-3d: Evacuation Probable Cause



## 2021: PATCO Accidents and Probable Causes

**Figure 2-4** presents four accidents reported by PATCO for calendar year 2021, categorized by FTA Event Type, and **Figures 2-4a through 2-4d** present the probable causes identified by PATCO.

Figure 2-4: 2021 PATCO Accidents (4)

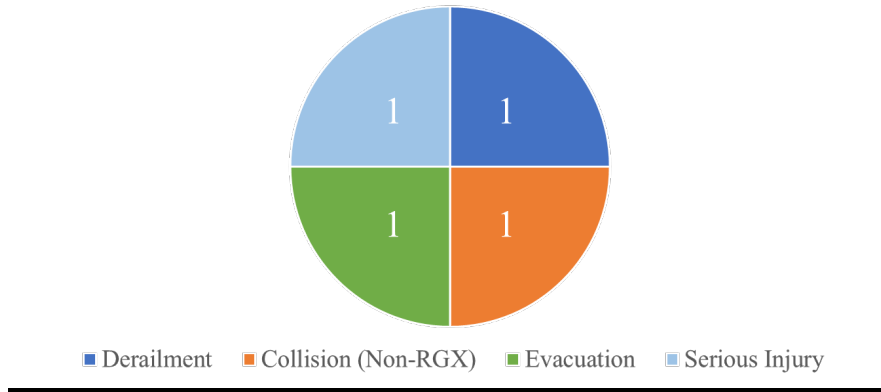


Figure 2-4a: Derailment Probable Cause

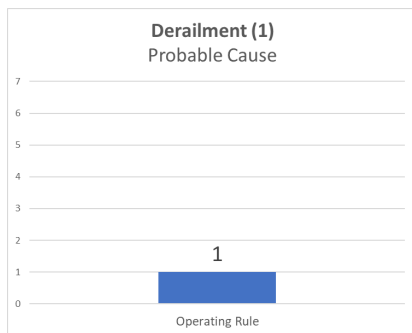


Figure 2-4b: Collision (Non-RGX) Probable Cause

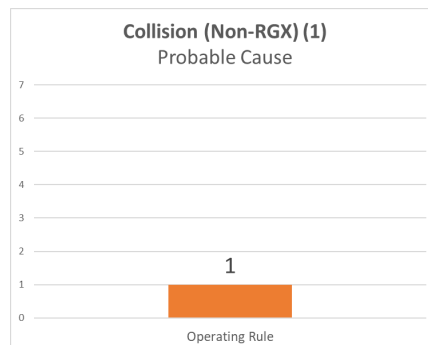


Figure 2-4c: Evacuation Probable Cause

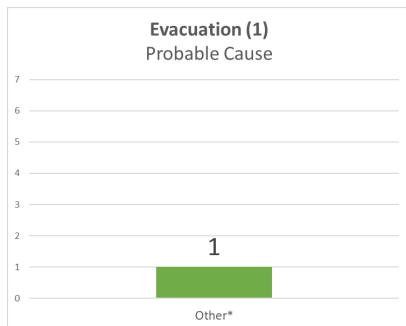
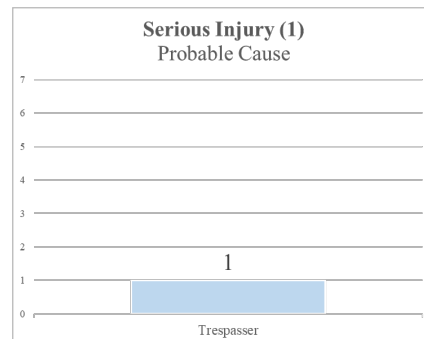


Figure 2-4d: Serious Injury Probable Cause



\*Gaps in wall let generator fumes into the facility

## 2021: NJ Transit (River LINE, NLR, HBLR) Accidents and Probable Causes

**Figure 2-5** presents the 11 accidents reported by NJ Transit for calendar year 2021, categorized by FTA event type, and **Figures 2-5a through 2-5c** present the probable causes identified by NJ Transit.

Figure 2-5: 2021 NJ Transit Accidents (11)

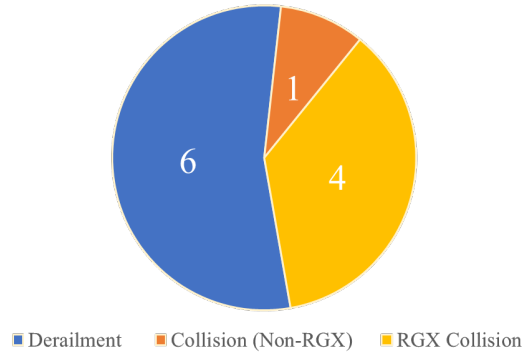


Figure 2-5a: Derailment Probable Causes

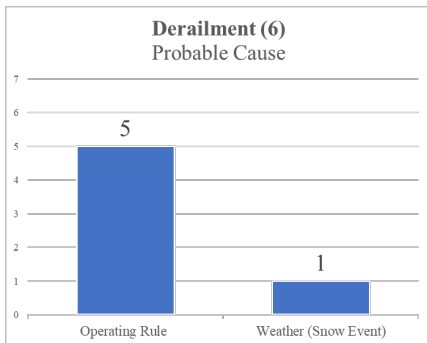


Figure 2-5b: Collision (Non-RGX) Probable Cause

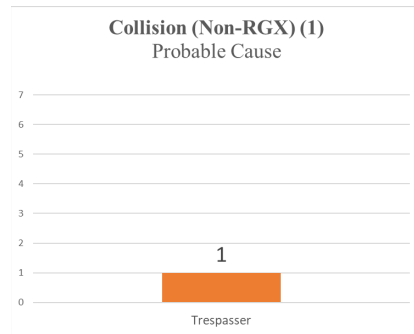
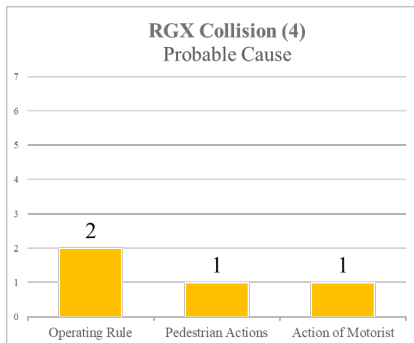


Figure 2-5c: RGX Collision Probable Causes



## Corrective Action Plans (CAPs)

As part of its responsibilities under the New Jersey State Safety Oversight Agency (NJ SSOA) program, the NJ SSOA oversees the Rail Transit Agency (RTA)'s development and implementation of CAPs. The purpose of a CAP is to establish the basis of a plan, developed by the RTA, which describes the discovery of a risk or hazard and the actions the RTA will take to minimize, control, correct or eliminate that risk or hazard; including the schedule for the planned actions and the responsible individual who will actualize and execute the plan (49 CFR Part 674.37). In addition, the RTA must provide periodic CAP updates to the NJ SSOA until the risk or hazard has been resolved, or until the risk has been lowered to an acceptable level; thereby, keeping the safety issue in the forefront of the RTA's efforts and preventing neglect.

CAPs are developed by the RTAs for the following activities: investigation reports, internal or external safety compliance audits, and three-year safety compliance reviews and audits (from the NJ SSOA program or Federal Transit Administration (FTA) triennial compliance audit of the NJ SSOA program). CAPs may also be developed from other sources such as a hazard identification and analysis, risk assessments, and risk monitoring by the RTA or the NJ SSOA.

### CAP Reporting in 2020 and 2021

**Table 2-5** presents the total number of CAPs reported by the RTAs to the NJ SSOA for calendar years 2020 and 2021:

*Table 2-5: Reported CAPs in 2020/2021*

RTA/RFGPTS	2020	2021
DRPA - PATCO	6	3
NJ Transit (River LINE, NLR, and HBLR)	5	45
<b>Total</b>	<b>11</b>	<b>48</b>

The difference in CAPs reported in 2020 and 2021 is attributed to the implementation of a Safety Management System (SMS) which promotes the development of CAPs. Notably the NJ SSOA completed triennial audits of two systems at the end of 2020, which resulted in the development of CAPs by the RTAs in 2021.

The FTA categorizes CAPs into the following **Source Types**:

- Event
- Inspection (Announced)
- Inspection (Unannounced)
- Internal Audit
- SMS Assessment
- SSO Triennial Audit of RTA
- Other

## PATCO CAPs

**Figure 2-6** presents six CAPs reported by PATCO for calendar year 2020, categorized by FTA Source Type. **Figure 2-7** presents three CAPs reported by PATCO for calendar year 2021, categorized by FTA Source Type:

Figure 2-6: 2020 PATCO CAPs (6)

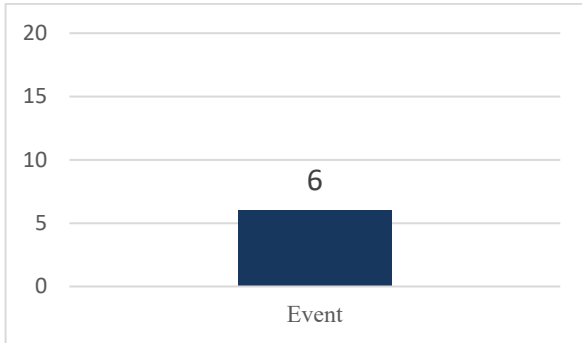
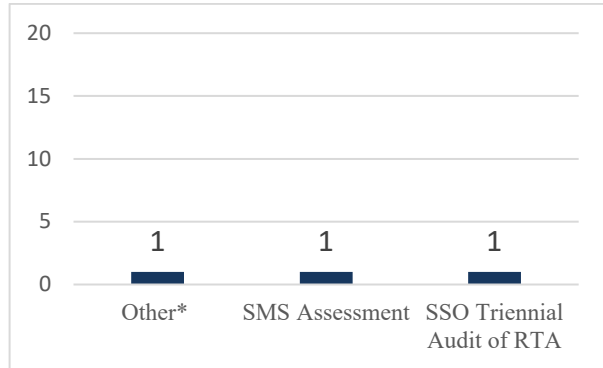


Figure 2-7: 2021 PATCO CAPs (3)



*\*One CAP was developed to address non-conformance with accident notifications*

## NJ Transit CAPs

**Figure 2-8** presents five CAPs reported by NJ Transit for calendar year 2020, categorized by FTA Source Type. **Figure 2-9** presents 45 CAPs reported by NJ Transit for calendar year 2021, categorized by FTA Source Type:

Figure 2-8: 2020 NJ Transit CAPs (5)

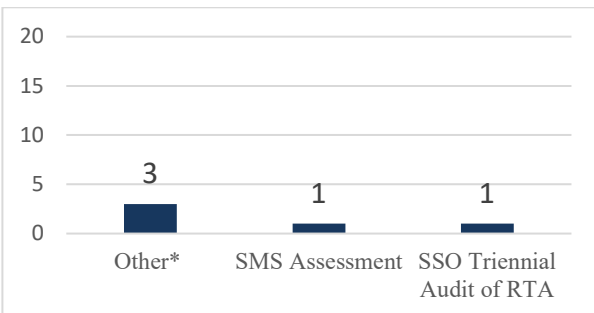
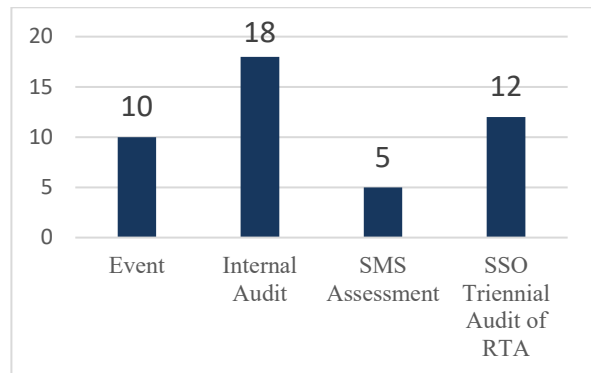


Figure 2-9: 2021 NJ Transit CAPs (45)



*\*Three (3) CAPs were developed to address non-conformance with accident notifications*



## Hazards

Hazards are real or potential conditions that can cause injury, illness, or death; damage to or loss of the facilities, equipment, rolling stock, or infrastructure of a Rail Fixed Guideway Public Transportation System (RFGPTS); or damage to the environment; and that meet the Rail Transit Agency’s (RTA) thresholds in their safety plans for reporting to the New Jersey State Safety Oversight Agency (NJ SSOA) program.

The Federal Transit Administration (FTA) categorizes hazards into the following categories:

- Unwanted Energy
- Configuration
- Mechanical
- Gravity
- Chemicals/ Substances
- Overexertion
- Environmental
- Human Factors

### Hazards Reporting in 2020 and 2021

**Table 2-6** presents the Hazards that were identified, mitigated, and monitored by the RTA/RFGPTS for calendar years 2020 and 2021:

*Table 2-6: 2020/2021 Hazards*

FTA Hazard Category	Question	PATCO	NJ Transit
Unwanted Energy	Is there an environment capable of producing an unwanted release of energy?	0	0
Configuration	Is the workplace configured so that workers can be caught in, on, between equipment and that employees can strike an object?	2	13
Mechanical	Can an employee be struck by an object or be struck by a moving mechanical object?	1	1
Gravity	Is there potential for slipping, tripping, or falling due to gravity?	0	0
Chemicals/ Substances	Does the presence of chemicals or substances pose a threat to the safety and health of the workers and customers?	0	8
Overexertion	Could the employee overexert from pushing, pulling, bending, twisting, repetitive motion, vibration or lifting?	0	0
Environmental	Is the working or operating environment hazardous to safety and/or health?	2	1
Human Factors	Is the task designed to be either too complicated, too simple, or contribute to human error?	10	5

## Coronavirus Disease 2019 (COVID-19)

On April 14, 2020, the Federal Transit Administration (FTA) issued Safety Advisory 20-1: *Recommended actions to reduce the risk of coronavirus disease 2019 (COVID-19) among transit employees and passengers*. Two weeks later, the New Jersey State Safety Oversight Agency (NJ SSOA) program issued an advisory to the Rail Transit Agencies (RTAs) identifying COVID-19 as an operational hazard and requiring the RTAs to document their actions (mitigations). The five FTA recommendations shown below were legally binding through Executive Orders (EOs) 107 and 125.

1. Establish and implement policies and procedures for transit agency employees and passengers regarding the use of face coverings and personal protective equipment to reduce the risk of COVID-19 among employees and passengers. [Also covered in EO 125 1(f)]
2. Establish and implement policies and procedures for routine cleaning and disinfection of surfaces frequently touched by employees and passengers, including equipment, digital interfaces such as touchscreens and fingerprint scanners, vehicles, and facilities to reduce the risk of COVID-19 among employees and passengers. [Also covered in EO 125 1(c), 1(e)]
3. Establish and implement measures to create physical separation greater than six feet between transit facility employees, transit operators, and passengers. [Also covered in EO 107 pg3 par 4 and EO 125 1(a), 1(f)]
4. Establish and implement policies and procedures that reinforce healthy hygiene practices, including policies to provide sufficient opportunities for employees to practice healthy hygiene and to ensure transit vehicles and facilities are appropriately cleaned. [Also covered in EO 125 1(b), 1(e)]
5. Revise policies, procedures and measures developed and implemented pursuant to this Safety Advisory as new or revised Center for Disease Control (CDC) and Occupational Safety and Health Administration (OSHA) guidance becomes available. [Also covered in EO 125 pg3 par4]

The NJ SSOA reviewed the RTA's documented policy and procedural changes to address the ongoing COVID-19 pandemic. Regular updates were given at monthly safety meetings with the RTAs, held virtually using Microsoft Teams, where industry best practices and FTA/CDC guidelines were discussed. The NJ SSOA augmented onsite checklists and procedures to verify that the RTAs were adhering to their COVID-19 policies and procedures. NJ SSOA staff also conducted independent observations for shop, vehicle, and station cleaning, and the results were provided to each RTA. Thereafter, each RTA addressed any issues found.

The Port Authority Transit Corporation (PATCO) and NJ SSOA were asked to present their efforts during the FTA's virtual SSO and RTA Virtual Workshop held in October of 2020. The presentation was titled *Operating in a Coronavirus Disease 2019 (COVID-19) Environment Oversight of a Multi-State Rail Transit Agency with Two State Requirements and One Transit System*. The presentation covered employee and rider safety and the procedures implemented to reduce exposure to COVID-19. **Figure 2-10** illustrates various PATCO COVID-19 mitigations.

Figure 2-10 PATCO COVID-19 Mitigations



### Federal Transit Administration (FTA) Safety Advisory 21-1: Fleet-Wide Inspection of Wheel Gauging on Rail Rolling Stock

In response to a Washington Metropolitan Area Transit Authority (WMATA) Metrorail derailment event, the FTA issued Safety Advisory 21-1 to require State Safety Oversight Agencies (SSOAs) to report information to the FTA regarding out-of-tolerance wheel gauges, and to require fleet-wide inspections of wheel gauges on all rail transit rolling stock in revenue service.

On October 12, 2021, at about 4:50 pm local time, outbound WMATA Metrorail train 407 derailed between the Rosslyn and Arlington Cemetery stations. The train was traveling southbound on track No. 2 of WMATA’s Blue Line toward Franconia-Springfield with 187 passengers onboard. The National Transportation Safety Board (NTSB) is investigating this safety event, focusing on the pressed wheel/axle interface and widening wheel gauge on wheels and axles.

The NJ SSOA coordinated the collection of data and submitted to the FTA via the State Safety Oversight Reporting (SSOR) database. No rail transit rolling stock were found to have any issues relating to the safety advisory. The NJ SSOA added this item to our risk-based monitoring program.

## Internal Audits by Rail Transit Agencies (RTAs)/Rail Fixed Guideway Public Transportation Systems (RFGPTSs)

Each Rail Transit System (RTS) is required to develop a three-year cycle of internal compliance audits of all aspects of the Public Transit Agency Safety Plan (PTASP), covering approximately one-third of the PTASP’s components and subcomponents each year. The purpose of the internal safety audit is to compare the content of the safety program documentation to the activities that the RTS implements. Findings and changes may require the program documentation or minimum standards for safety to be updated to reflect current activities, or activities may need to be changed or added so the documents and activities match.

Each RTA/RFGPTS is required to provide the New Jersey State Safety Oversight Agency (NJ SSOA) program with an Annual Report by February 12th which includes: a listing of the internal safety audits/reviews conducted for that year, a discussion of where the RTA/RFGPTS is regarding its three-year audit/review schedule, and the status of all findings, recommendations and corrective actions taken/plans resulting from the audit/reviews conducted that year.

**Table 2-7** presents the status of internal audits for calendar years 2020 and 2021:

*Table 2-7: 2020/2021 Internal Audit Status*

RTA	RFGPTS	2020	2021
DRPA	PATCO	Completed	Completed
NJ Transit	River LINE	Completed	Completed
NJ Transit	NLR	Completed	Completed
NJ Transit	HBLR	Completed	Completed

## Triennial Audits by the New Jersey State Safety Oversight Agency (NJ SSOA)

49 CFR 674.31 requires SSOAs to complete comprehensive safety audits of each Rail Transit System (RTS) under its oversight, once every three years. The audits at each system examine implementation of the safety program as documented in their Public Transportation Agency Safety Plan (PTASP), including the minimum standards for safety and related documentation, NJ SSOA State Standards and Federal Transit Administration (FTA) regulations. In 2020, the NJ SSOA completed scheduled audits of two RTSs, Port Authority Transit Corporation (PATCO) and Newark Light Rail (NLR). The focus was a detailed examination of system processes and procedures as well as implementation. According to the audit cycle, no audits were scheduled in 2021.

## FTA Triennial Review of the New Jersey State Safety Oversight Agency (NJ SSOA)

The FTA performed a triennial review of the New Jersey State Safety Oversight Agency (NJ SSOA) program in 2021 and distributed the final report on October 7, 2021. The FTA Audit Team identified nine findings of noncompliance in the NJDOT SSO program. A finding of noncompliance is determined when FTA finds that a required element of an SSOA’s program does not meet the SSO Rule (49 CFR Part 674) requirements. Three findings relate to the NJDOT Program Standard, dated March 2018, which does not include the Public Transportation Agency

Safety Plan (PTASP) rule requirements. One finding relates to NJDOT Staffing and Qualifications and the remaining findings relate to deficiencies of NJDOT oversight of rail transit agencies (RTAs) in the areas of: Internal safety review notifications; Accident notifications; Corrective action plan (CAP) review and approval processes; and CAP schedules for implementation.

**Table 2-8** presents the nine findings of noncompliance in the NJDOT SSO program.

*Table 2-8: 2021 NJDOT Audit Review Findings by FTA*

Finding	Required Actions	Compliance Status	Implementation Date
1) Section 2.8. 674.25(a)–NJDOT must submit an updated Program Standard incorporating FTA rules requirements.	NJDOT must update its Program Standard and implement minimum standards consistent with FTA rules.	Open	Proposed 3/31/23
2) Section 4.1.674.27(a)(2)–NJDOT did not annually review, revise, and distribute the Program Standard.	NJDOT must develop and implement a process for the annual review, revision, and distribution of the Program Standard.	Closed	8/17/22
3) Section 4.2. 674.27(a) –NJDOT’s Program Standard did not meet the minimum requirements established under 49 CFR Part 674.27.	NJDOT must submit an updated Program Standard incorporating the FTA rules requirements.	Closed	1/27/22
4) Section 5.2. 674.25(f) and 672.21 – NJDOT did not ensure that all designated personnel were identified in the Technical Training Plan (TTP) and did not ensure that all designated personnel were enrolled in the Public Transportation Safety Certification Training Program (PTSCTP).	NJDOT must submit documentation showing all designated SSO personnel are included in the TTP and enrolled in the PTSCTP.	Closed	1/27/22
5) Section 6.1. 673.13(a), 674.13(a)(4), 674.25(b), 674.29(c), and 674.37(a) – NJDOT did not have a documented process for review and approval of the RTA’s Public Transportation Agency Safety Plans.	NJDOT must develop, submit, and implement a process for reviewing and approving Public Transportation Agency Safety Plans.	Open	Proposed 3/31/23
6) Section 7.1. 674.27(a)(4) –NJDOT did not ensure that the RTAs’ internal safety audit notifications were properly provided.	NJDOT must update, submit, and implement its process for RTAs’ internal safety audit safety reviews.	Closed	8/17/22
7) Section 8.1. 674.33(a) –NJDOT did not ensure that the RTAs met the FTA two-hour notification requirement. NJDOT must update, submit, and implement its process to ensure RTAs notify FTA of all reportable accidents.	NJDOT must update, submit, and implement its process to ensure RTAs notify FTA of all reportable accidents within two hours.	Closed	8/17/22
8) Section 10.1. 674.27(a)(8) and 674.37(a) –NJDOT did not ensure that the RTAs developed CAPS as required.	NJDOT must develop, submit, and implement a CAP process, to include, identifying thresholds for developing CAPs and ensure RTA CAPs are submitted, reviewed, approved, and tracked.	Open	Proposed 3/31/23
9) Section 10.2. 674.37(a) –NJDOT did not ensure that the RTAs included an accurate schedule for CAPs.	NJDOT must develop, submit, and implement a CAP monitoring process to ensure CAP tracking logs are updated and contain all required information, including current schedules.	Open	Proposed 3/31/23

## Annual Major System Improvements

**Table 3-1** presents major improvement projects that were either started, continued, or completed for calendar years 2020 and 2021 at the Rail Transit Systems (RTSs).

Table 3-1: Major System Improvement Projects

#	RTS	Project	Value (\$Million)	2020 Status	2021 Status
1	PATCO	Station Enhancements	6	Ongoing	Ongoing
2	PATCO	Franklin Square Station Reopening	30	Design	Awarded
3	PATCO	Elevator Installations	31	Ongoing	Ongoing
4	PATCO	Lindenwold Yard Rehabilitation	45	Completed	-
5	PATCO	Transit Car Overhaul	194	Completed	-
6	PATCO	Solar Energy Generation	-	Initiated*	Ongoing
7	PATCO	Philadelphia Flooring Upgrades	1.1	Completed	-
8	PATCO	Woodcrest Lot Rehabilitation	5.2	Completed	-
9	PATCO	In-Ground Hoist	5.9	Initiated*	Ongoing
10	PATCO	Way Interlocking Rehabilitation	14.3	Initiated*	Ongoing
11	River LINE	Onboard Security Cameras	0.7	Initiated	Ongoing
12	River LINE	Right-of-Way Flooding Mitigation Study	1	Planning	Planning
13	River LINE	River LINE Fleet Overhaul	85	Planning	Planning
14	NLR	Capacity Enhancement Program	33	Planning	Planning
15	NLR	Station Modernization and Access Program	130	Planning	Planning
16	NLR	Newark Penn Station (Backup Operations Control) Rehabilitation		Planning	Planning
17	HBLR	Hoboken Wye Bypass	89	Planning	Planning
18	HBLR	Paterson Ave Grade Crossing Elimination	136	Planning	Planning
19	HBLR	Route 440 Extension	248	Initiated	Planning
20	HBLR	Northern Branch Corridor	1180	Planning	Planning

\*In construction



## *Annual Rail Transit System (RTS) Emergency Drills*

Annually, each RTS conducts emergency drills in coordination with local emergency responders. Emergency drills are recommended by the Federal Transit Administration (FTA), the Transportation Security Administration (TSA) and American Public Transportation Association (APTA). NJ Transit drills are coordinated by the NJ Transit Police Department (NJTPD), and PATCO drills are coordinated by the Delaware River Port Authority Police Department (DRPA PD). The New Jersey State Safety Oversight Agency (NJ SSOA) attends drills as an observer and reviews the after-action report. A summary of the drills completed for calendar years 2020 and 2021 are detailed below.

### **PATCO Emergency Drills**

On October 28, 2020, PATCO, in coordination with DRPA Police and Department of Homeland Security, practiced a scenario of a “large group of political activists gathering in Camden at the Walter Rand Transportation Center, as well as PATCO’s City Hall and Broadway Stations, before making their way toward the Ben Franklin Bridge to cross into Philadelphia, PA”. The drill evaluated PATCO, DRPA Police and local first responders on coordination, critical decision making, and integration of local, county and state assets to protect the public’s health and safety. The agencies completed an after-action report which indicated that the exercise was a success.

In addition, PATCO completed a Tabletop Exercise on August 3, 2021. The exercise included review of Cyber Security. The agency completed an after-action report which indicated that the exercise was a success.

### **NJ Transit Emergency Drills**

#### River LINE

On November 21, 2020 and May 1, 2021, River LINE conducted drills to simulate a pedestrian/trespasser strike, entrapment under a light rail vehicle, and extraction. The 2020 drill was conducted at a passenger station and the 2021 drill was conducted at the yard. The agency completed after action reports which indicated the drills were successes. **Figures 3-1** and **3-2** show River LINE’s 2020 and 2021 emergency drills.

*Figure 3-1: 2020 River LINE Drill*



*Figure 3-2: 2021 River LINE Drill*





## Newark Light Rail (NLR)

On October 24, 2020 and December 18, 2021, NLR conducted drills focusing on responding to a fire on a light rail vehicle. The 2020 drill was conducted at the yard and the 2021 drill was conducted at an underground subway station. The agency completed after action reports which indicated the drills were successes. **Figures 3-3** and **3-4** show NLR's 2020 and 2021 emergency drills.

*Figure 3-3: 2020 NLR Drill*



*Figure 3-4: 2021 NLR Drill*



## Hudson-Bergen Light Rail (HBLR)

On November 15, 2020 and October 2, 2021, HBLR conducted drills focusing on responding to a fire on a light rail vehicle. The 2020 drill was conducted at the yard and the 2021 was conducted at a passenger station. The agency completed after action reports which indicated the drills were successes. **Figures 3-5** and **3-6** show HBLR's 2020 and 2021 emergency drills.

*Figure 3-5: 2020 HBLR Drill*



*Figure 3-6: 2021 HBLR Drill*



## ***Key Activities 2022 and Beyond***

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*The NJDOT SSOA upcoming activities include the following:*

*Conduct HBLR and River LINE Triennial Audits – 2022*

*FTA Grant Application cycle - 2022*

*EAR/ACID Update Version 2.0 – 2022*

*SimpliGov – Train Ride-Along Application- 2022*

*Bipartisan Infrastructure Law Requirements – 2022/2023*

*Conduct PATCO and NLR Triennial Audits – 2023*

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# **Acknowledgement**

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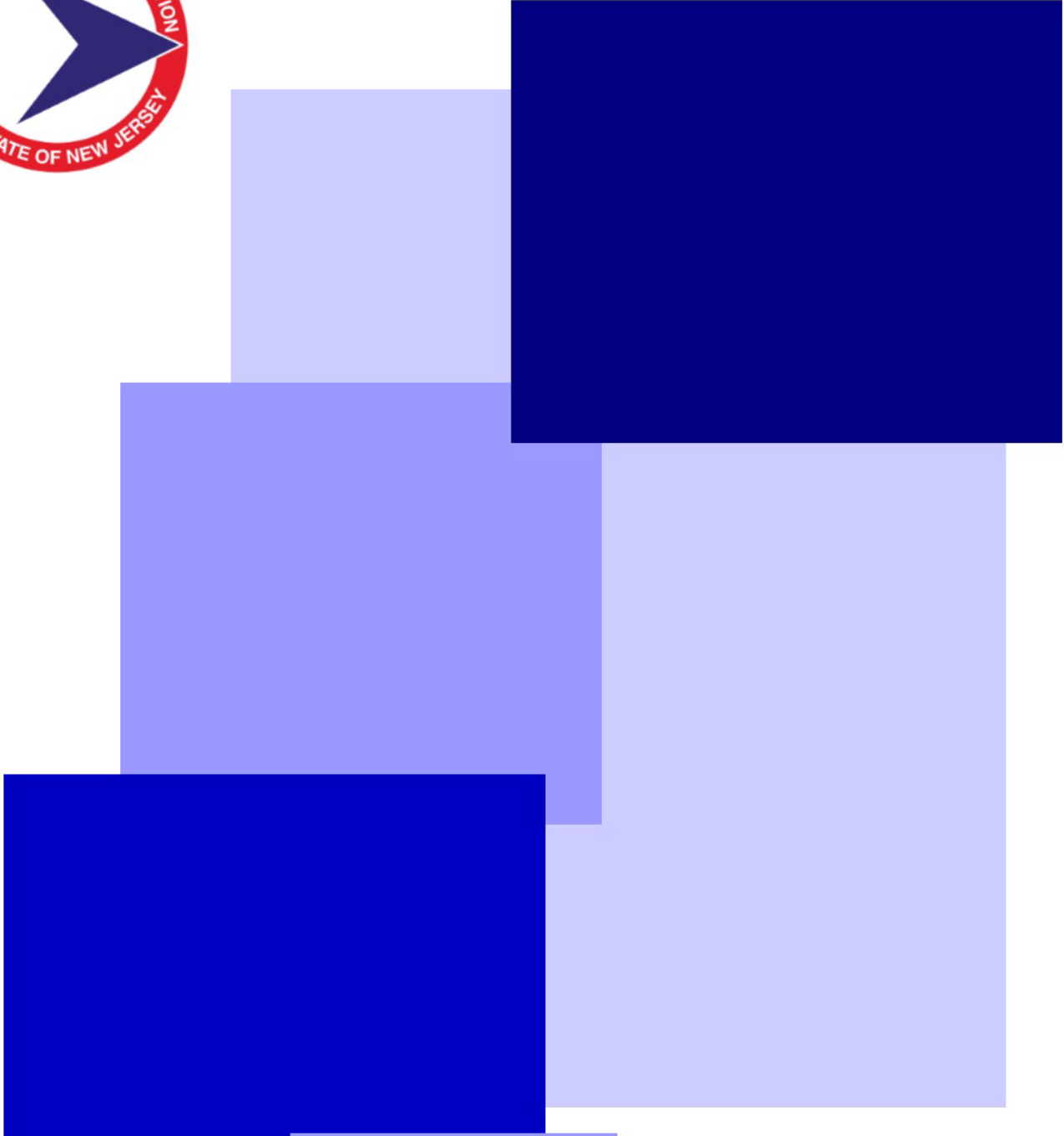
**Kimbrali Davis, Manager**

**Todd Kropilak, NJ SSOA Program Manager**

New Jersey Department of Transportation  
Office of Fixed Guideway  
1035 Parkway Avenue, MOB 3rd Floor PO Box 600  
Trenton, NJ 08625  
609-963-2090 (Office)  
[njofgsso@dot.nj.gov](mailto:njofgsso@dot.nj.gov) (E-Mail)



# New Jersey Department of Transportation



**Office of Fixed Guideway**  
**1035 Parkway Avenue**  
**PO Box 600**  
**Trenton, NJ 08625**  
**609-963-2090 (Office)**  
**[njofgssso@dot.nj.gov](mailto:njofgssso@dot.nj.gov) (E-Mail)**