

# West Virginia Department of Transportation

Division of Multimodal Transportation Facilities – Public Transit Section



## State Safety Oversight Program

Covering the West Virginia University Personal Rapid Transit System

### 2023 Annual Safety Status Report

May 13, 2024

The West Virginia Department of Transportation – Division of Multimodal Transportation Facilities – Public Transit Section (WVDOT-DMTF-PT) State Safety Oversight (SSO) Program is a statewide program mandated by the Federal Transit Administration (FTA) and implemented by the West Virginia Legislature through West Virginia Code §17 – 16E. It is funded by the FTA and operated by WVDOT to provide comprehensive and ongoing safety oversight of rail fixed guideway public transportation systems (RFGPTSs), as defined by the FTA. The West Virginia University Personal Rapid Transit (WVU PRT) system, located in Morgantown, West Virginia, is the only fixed guideway transit agency in the state.

Designed, engineered, and constructed by Boeing in the early 1970s, the PRT runs as a fully automated system. During a typical school year, the system provides service to an average of 15,000 daily passengers through the WVU campus, and ridership peaks to 32,000 daily passengers during special events, such as WVU football games. The current operating fleet includes 69 vehicles that travel over 8.7 miles of single-lane guideway.

WVDOT-DMTF-PT SSO Agency (SSOA) fosters a close working relationship with WVU PRT, implementing a practical approach across many task areas. WVDOT-DMTF-PT SSOA is a resource for oversight rules, risk analysis, and policy development, providing technical assistance in developing plans, policies, and procedures.

## **Federal Legislation and Requirement**

In 1995, FTA published its state safety oversight rule Rail Fixed Guideway Systems; State Safety Oversight, codified in Title 49 of the United States Code of Federal Regulations (CFR) Part 659. West Virginia was not originally under these regulations. In April 2005, the FTA published a revised version of 49 CFR Part 659. The Moving Ahead for Progress in the 21st Century Act (MAP-21) took effect on October 1, 2012. In MAP-21, the FTA safety programs were changed with significantly higher expectations and responsibilities for safety oversight and safety performance for the FTA, states, and the transit agencies authorized in Title 49 of the United States Code (USC) Section 5329. After this new legislation, West Virginia was required to, and subsequently developed, an SSO program.

The WVDOT-DMTF-PT SSOA complies with federal SSO guidelines and was certified in May 2018 to be compliant with 49 CFR Part 674, the SSO Final Rule codified from MAP-21. All 30 states that have RFGPTS, including West Virginia and the District of Columbia, have been certified as of March 2019.

## Message from the Executive Director, DMTF – Public Transit Section



*Executive Director, William C. "Bill" Robinson*

It is with great pleasure that I welcome the opportunity to speak on the WVDOT-DMTF-PT State Safety Oversight (SSO) Program and the progress made since our last report.

It is particularly gratifying to provide the students of WVU a reliable form of transportation to move amongst the campuses at WVU with confidence. The PRT will continue to deliver students safely to their destinations because of the efforts of the FTA, WVDOT, and WVU.

WVU, as a partner, has evolved as well. It is my belief that WVU is uniquely positioned to begin a new era with the PRT - both in utilizing modern technology to upgrade a historic transportation facility and investing in new human capital to provide the leadership necessary to take the PRT experience into the second decade of the 21st century.

But there is no resting on your laurels. Safety is a discipline of constant vigilance and the DMTF and WVU welcome the challenges as they come. The mission of safely transporting the passengers so they can receive their education and fulfill their promise as the next generation is an endeavor the partners take seriously, and we view our progress in fulfilling this mission with pride.

Safety Oversight of WVU PRT continues with attendance at monthly safety committee meetings, quarterly meetings between the WVU PRT and SSOA personnel, triennial audits, and safety system improvements. In-person and onsite work remained regular in 2023 after resuming in 2022 to pre-COVID standards.

Organizational changes occurred at the SSO level, as Mr. Timothy Walker took the role of State Safety Oversight Program Manager. At the rail transit agency level, Mr. Joshua Murray became the new Chief Safety Officer at WVU PRT. There were no additional changes at the WVU PRT level, or at the FTA.

The PRT Agency Safety Plan (PRTASP) continued to develop in 2023 as annual changes and revisions were implemented. This safety plan brought forward more emphasis on Safety Management Systems (SMS) and processes. The PRTASP was also updated to reflect personnel changes at both WVU PRT and WVDOT-DMTF-PT.

Overall, 2023 was a successful year for safety management at WVU PRT. The organizational changes invigorated the relationship between WVU PRT and the SSO. WVU PRT continued to make progress closing Corrective Action Plans (CAPs) and continued efforts to activate WVU PRT's Internal Safety Reviews (internal audits). It is anticipated that the relationship between the SSO and the PRT will continue to develop in 2024 the Risk-Based Inspection Program, which is well underway. I look forward to the continued leadership by Mr. Walker at WVDOT and Mr. Murray at WVU PRT.

## Safety Events

Safety events include accidents, incidents, and occurrences, which are defined as the following:

- **Accident:** An event that involves any of the following: A loss of life; report of a serious injury to a person; a collision involving a fixed guideway transit vehicle; a runaway vehicle; an evacuation for life safety reasons; or any derailment of a fixed guideway transit vehicle.
- **Incident:** An event that involves any of the following: A personal injury that is not serious; one or more injuries requiring medical transport; or damage to facilities, equipment, rolling stock, or infrastructure that disrupts the operations of a fixed guideway transit agency.
- **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 fixed guideway transit agency.

In 2023, WVU PRT experienced 17 events, including:

- 2 accidents
- 12 incidents
- 3 occurrences

Of the 17 events, WVU PRT encountered two (2) reportable accidents in 2023. One accident was due to an unauthorized PRT vehicle movement, which meets FTA's notification criteria for a "runaway train." The other reportable accident was an evacuation for life safety reasons of a WVU PRT station due to a bomb threat at a nearby building on WVU's campus, off the PRT system.

WVU PRT encountered 12 incidents. Six (6) incidents involved employee injuries: two (2) because of a slip, trip, or a fall, two (2) due to employees not wearing safety glasses, and two (2) associated with lifting heavy objects. Three (3) incidents involved passenger evacuations onto the right-of-way for convenience due to equipment failure, two (2) others involved passengers entering the guideway, and one (1) involved fire at the station.

## **Corrective Action Plans**

Corrective Action Plans (CAPs) are developed as actions to minimize, control, correct, or eliminate hazards or safety deficiencies and the schedule for implementing those actions. CAPs can stem from event investigations, hazard identification activities, inspections, and other sources.

WVU PRT closed four (4) CAPs in 2023. Meanwhile, four (4) CAPs were developed in 2023, for a total number of 50 CAPs since WVU PRT has been under SSO. There are currently three (3) open CAPs.

### **CAPs created in 2023:**

- 23-01C: WVDOT-DMTF-PT Program Compliance
- 23-02C: Minimum Annual Inspection of PRT Vehicles
- 23-03C: SDS Management
- 23-04C: ATS-Runaway Train

### **CAPs closed in 2023:**

- 21-02C: PRT Rules of Compliance
- 22-03C: Hazard Management
- 22-04C: ESMR Compliance
- 23-02C: Minimum Annual Inspection of PRT Vehicles

## **Hazard Identification and Analysis**

Since the PRT has been under SSO, 27 hazards have been documented in the WVU PRT Hazard Log. Three (3) of these hazards were added in 2023. A total of 25 hazards have been addressed (closed) and two (2) hazards are currently open. The open hazards are:

- There are corroded steel fascia panels along the guideway that could fall. WVU PRT is actively working to remove them in phases during the system's summer shutdowns.
- The potholes on the test loop blacktop pose a trip hazard and concern when moving materials. WVU PRT anticipates mitigating and closing out this hazard in 2024.

When comparing hazard data from the previous years, in 2022 there were two (2) open hazards by the end of the year, and in 2021 there were six (6) open hazards by the end of the year.

## **PRT Projects**

Outlined below are the various projects that have been completed in 2023:

- Updating signage/wayfinding
- Americans with Disabilities Act upgrades and tactile strip at open berth areas on platforms
- Concrete repairs
- Modernization to:
  - Steam systems (support from Siemens)
  - Guideway
- Beechurst Station upgrades
  - Platform coating
- Elevator upgrades at Engineering Station



## **PRT Safety and Security Committee**

The Safety and Security Committee (SSC) supports WVU PRT's Safety Management System (SMS) through active participation in hazard identification and analysis, risk assessment, incident investigations, and mitigation strategy development. All findings from the monthly facility inspection, or any concerns reported from employees, get tracked via the WVU PRT Safety and Security Committee's Action Item Log, reviewed, then, if appropriate, added to the Hazard Log.

In 2023, the PRT SSC met on the third Thursday of every month and continued to implement SMS principles into the committee structure by reviewing the safety performance measures and objectives outlined in the Personal Rapid Transit Agency Safety Plan (PRTASP). The SSC also reviewed and provided input to the PRTASP annual review updates. Meetings continued to be held at 1:00 PM, which allowed employee representatives from both the first and second shift of each department to participate. The SSC met 11 times on the dates listed below:

- January 19, 2023
- February 16, 2023
- March 16, 2023
- April 20, 2023
- May 18, 2023
- June 15, 2023
- July 20, 2023
- August 17, 2023
- September 21, 2023
- October 19, 2023
- November Canceled
- December 19, 2023

## **WVU PRT Internal Audits**

In 2023, WVU PRT completed two (2) internal safety reviews.

The first internal safety review was conducted from March 27-April 12, 2023, which included an audit of WVU PRT's Safety Assurance Program, Part 2. This audit identified zero (0) findings and one observation. The audit team consisted of the Chief Safety Officer, PRT Project Engineer, and two (2) PRT Administrators.

The second internal safety review was conducted from November 1–December 4, 2023, which included an audit of WVU PRT's Safety Promotion Program. The internal safety reviews were conducted utilizing audit checklists provided by the SSOA. The Accountable Executive, PRT Project Engineer, and PRT Information Technology (IT) Specialist conducted the internal audit. This audit identified zero (0) findings and zero (0) observations.

WVU PRT successfully completed the internal audit of its entire safety program by the end of the triennial cycle in 2023. WVU PRT will draft its 2024-2026 internal audit triennial cycle in accordance with the SSOA's own audit schedule and checklists.

## **Personal Rapid Transit Agency Safety Plan (PRTASP) Implementation**

WVU PRT submitted the draft 2023 annual review of the PRTASP (Version 4) to the SSOA on October 12, 2023 for review and conditional approval. On November 14, 2023, the SSOA provided the WVU PRT with conditional approval of the 2023 annual review of the PRTASP. The annual review and update of Version 4 of the WVU PRTASP was reviewed and approved by the WVU Board of Governors (BOG) on December 15, 2023. The final signed PRTASP was provided to the SSOA on December 19, 2023, and the SSOA provided the WVU PRT with final approval of the 2023 annual review (Version 4) of the PRTASP on December 28, 2023.

## **Training**

Mr. Walker has begun taking courses for his Public Transportation Safety Certification Training Program (PTSCTP) and is expected to complete two (2) more courses in 2024. Joshu Shih, a contract staff member from Transportation Resource Associates, Inc. (TRA), is due for his next PTSCTP refresher in November 2024. Another TRA contract staff member, Annie Mrazik, is scheduled to finish her PTSCTP in 2024.

## **Organization Changes**

At the working level of the WVDOT SSOA, a significant organizational change occurred. Timothy Walker became the State Safety Oversight Program Manager at WVDOT in July 2023, taking over for William Robinson, who was the interim manager since September 2022. Mr. Robinson continues to serve as the Executive Director of the WVDOT-DMTF-PT.

In 2023, the working relationship between the WVU PRT and the WVDOT SSOA has continued to be strong and collaborative. Significant improvements in the response and safety results generated by WVU PRT have occurred, and WVDOT expects this will continue to occur in 2024.

## State Safety Oversight Activities

- The fourth review and update of WVU PRTASP and approval by the WVDOT SSO
- Updated WVDOT-DMTF Program Standard – Version 6.0 issued in September 2023
- Published 2022 Governor’s Report
- Submitted the FTA SSO 2022 Annual Report
- Attended ten (10) WVU monthly Safety and Security Committee Meetings
  - Did not attend February 16, 2023 meeting; November meeting canceled
- Conducted four (4) Quarterly Review meetings
  - Quarter 1: May 4, 2023
  - Quarter 2: July 20, 2023
  - Quarter 3: October 19, 2023
  - Quarter 4: January 25, 2024
- Performed two (2) Triennial Audits of the WVU PRT safety program
  - Safety Assurance, Part 2 (August 2023)
  - Safety Promotion (October 2023)
- Participated in the FTA Joint SSO-RTA Workshop in St. Louis, Missouri
- Participated in four (4) FTA SSO Program Quarterly Meetings
- Participated in four (4) FTA SSO Quarterly Monitoring Calls
- Reviewed and updated the WVDOT SSO Technical Training Plan



## **West Virginia Department of Transportation**

### **STATE SAFETY OVERSIGHT PROGRAM**

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Division of Multimodal Transportation Facilities – Transit Section  
West Virginia Department of Transportation

**Timothy S. Walker, State Safety Oversight Program Manager**

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