

GLTPS



GREEN LINE TRAIN PROTECTION SYSTEM

A CAPITAL TRANSFORMATION PROJECT

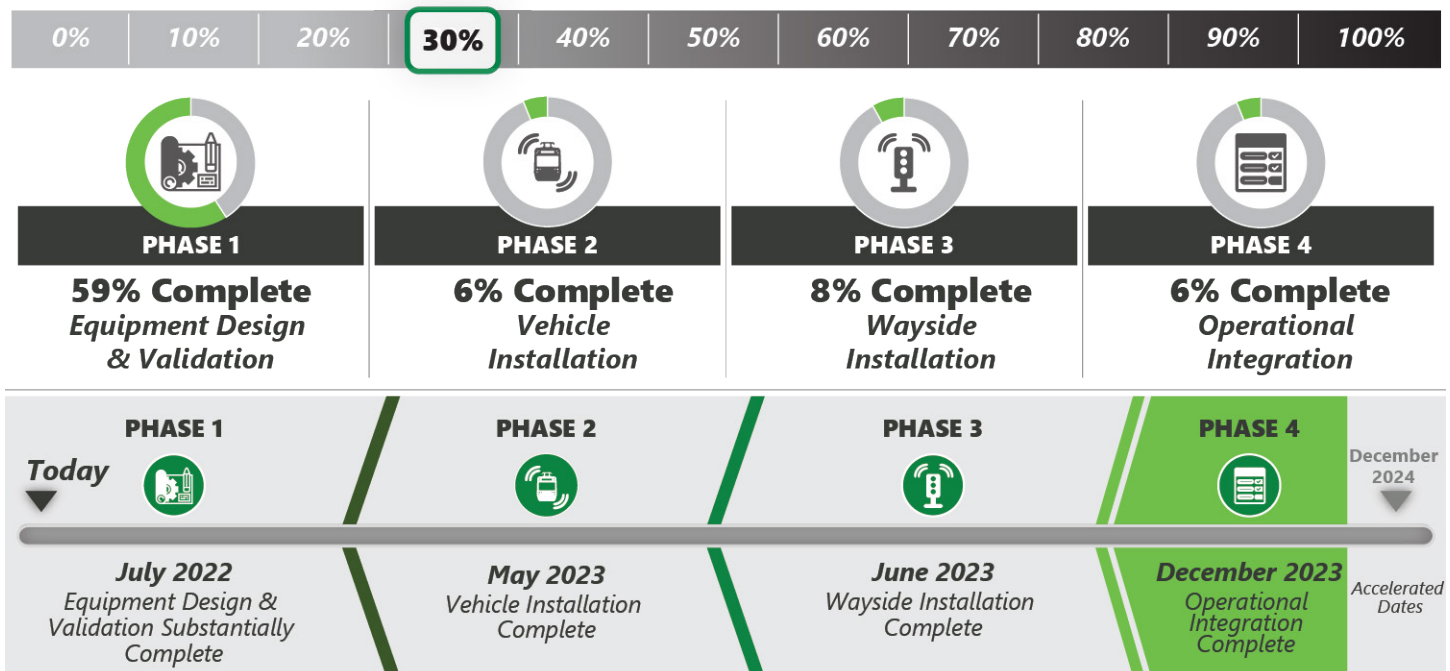
Monthly Review and Lookahead Thursday, February 24, 2022

Overview: The Green Line Train Protection System (GLTPS) combines vehicle and wayside equipment, that work together to avoid train on train collisions, add red light signal protection, and incorporate speed enforcement. The project has four (4) overlapping phases starting with Equipment Design that integrates new components into the legacy system. The Vehicle and Wayside installation phases are currently in planning. The final Operational Integration phase prepares the MBTA to use the new safety system on its Green Line. Currently our primary focus is working toward the baseline design finalization for Wayside and Type 7 vehicle.

Did you know...

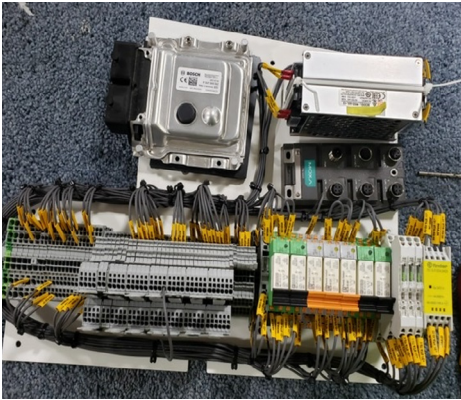
... the Collision Avoidance System (CAS) being installed as part of the Green Line Train Protection System (GLTPS) does not utilize any wayside equipment therefore it even works outside of track sections that are not equipped with GLTPS Wayside Equipment such as yard tracks.

GLTPS by the Numbers





Equipment Design & Validation



- **First Article Inspection:** A first article inspection (FAI) is a design validation using objective evidence as a formal method of providing a reported measurement for each manufactured feature of a part or assembly. These reports are being generated.
- **Pre-First Article Inspection (PreFAI) Working Sessions** are ongoing between the System Integrator/Designer and MBTA Engineering Resources to review reports of the design and safety compliance of Vehicle and Wayside components to be installed.
- **Green Line Train Protection System (GLTPS) Vehicle Components** are housed in manufactured aluminum enclosures. Multiple fitting sessions were held at Riverside Carhouse to ensure critical dimension changes were correct before beginning design finalization.



Vehicle Installation



- **Received Industrial Layout Plan for GLX** to begin permit process at the new Green Line Extension (GLX) facility in Somerville. This plan will allow for the Green Line Train Protection System (GLTPS) installation to be performed in parallel of Vehicle Maintenance activities after mobilization.



Wayside Installation



- **Wayside site surveys were conducted on the D Branch** the weekend of February 19-20th to confirm status of the signal and wiring configuration recently installed.
- **Wayside Installation Package is being finalized to reflect recent optimized approach.** The updated package allows for better public accessibility points during the planned Summer Surges to accommodate for the Wayside Installation activities.

Lookahead for March



Equipment Design & Validation

- Conduct component First Article Inspections (FAIs) for Type 7 vehicle & wayside assemblies
- Complete wayside and component functional interface pilot testing in Riverside and on the D Branch



Wayside Installation

- Finalize wayside installation documentation for procuring installer
- Continue logistics and planning for Summer Surge installation plans



Vehicle Installation

- Continue preparation of GLX in advance of carborne equipment installation
- Continue revising timeline and labor resourcing for Type 7 pilot installation
- Formalize vehicle installation contract actions



Operational Integration

- Complete Test Track Equipment Installation and start validation testing at Riverside
- Engage stakeholders for operational readiness including safety certification and training