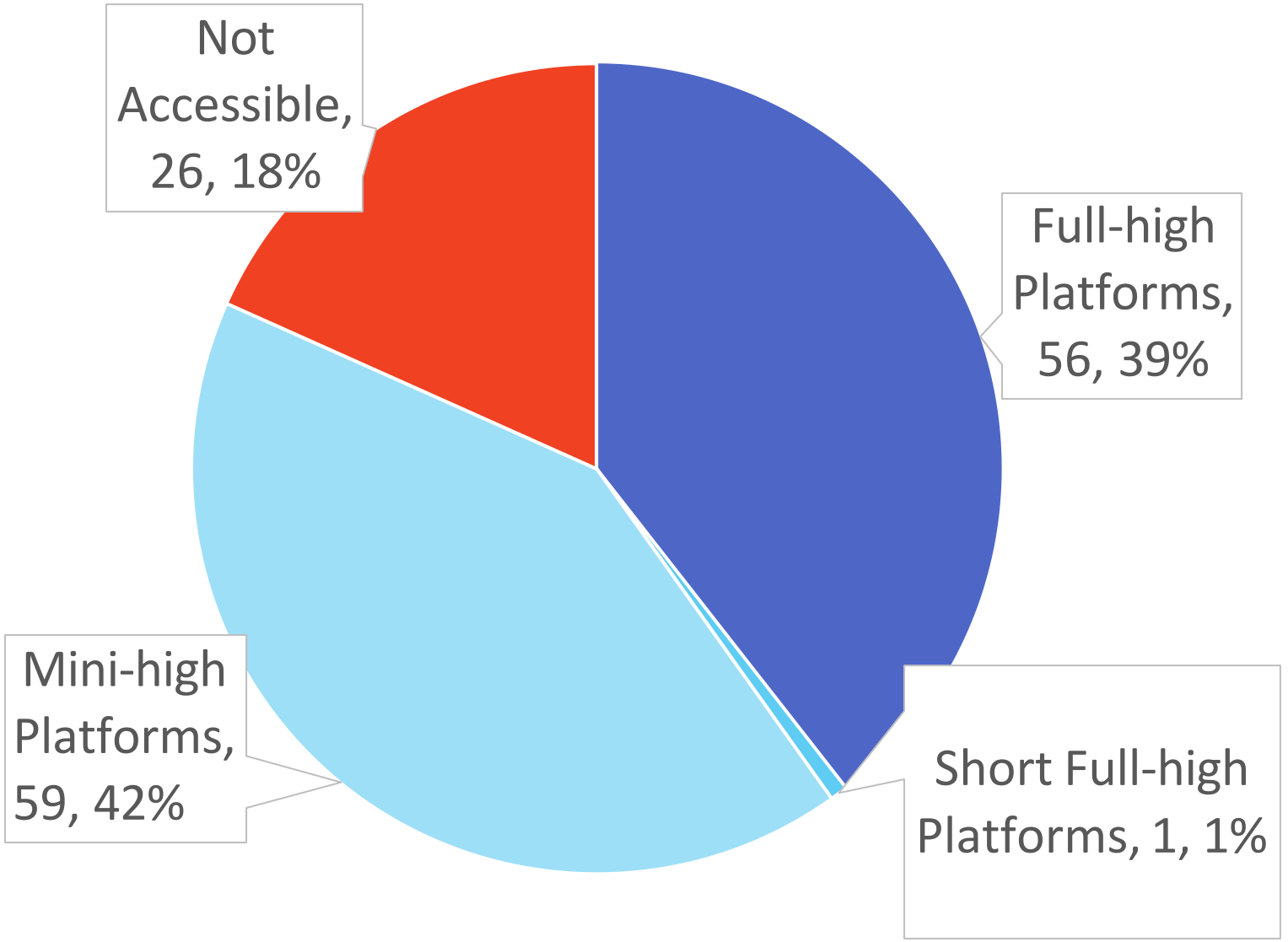
Massachusetts Bay Transportation Authority

Accelerating Accessibility within the Commuter Rail: Freestanding Mini-high Platform Initiative

Presentation to the MBTA Board of Directors

May 23, 2024

Snapshot of Current Commuter Rail Station Accessibility



Full High-Level Platforms

- Typically 800 feet in length
- Ensure that level boarding is provided at all doors of the train
- Generally required at new and altered stations

- Available at 56 (39%) stations

Short Full-High Platforms

- Vary in length, but significantly shorter than 800 feet
- Provides level boarding to train cars that align with the platform
  - Train is repositioned to align with additional cars as requested
- All customers board/exit from the same platform. No portion of the platform is inaccessible.
- Available at 1 (1%) station

Mini-High Platforms

- Vary in length, but generally 45-60 feet
- Provides level boarding to first two cars that align with the platform
  - Train is repositioned to align with additional cars as requested
- Customers not requiring level boarding can also board from an inaccessible low-level platform
- A common approach to providing accessibility in 1990s-2000's, but generally no longer acceptable at new/altered stations
- Available at 59 (42%) stations

Low-Level (Inaccessible) Platforms

- No level/accessible boarding available
- Customers must climb steps within train car to board

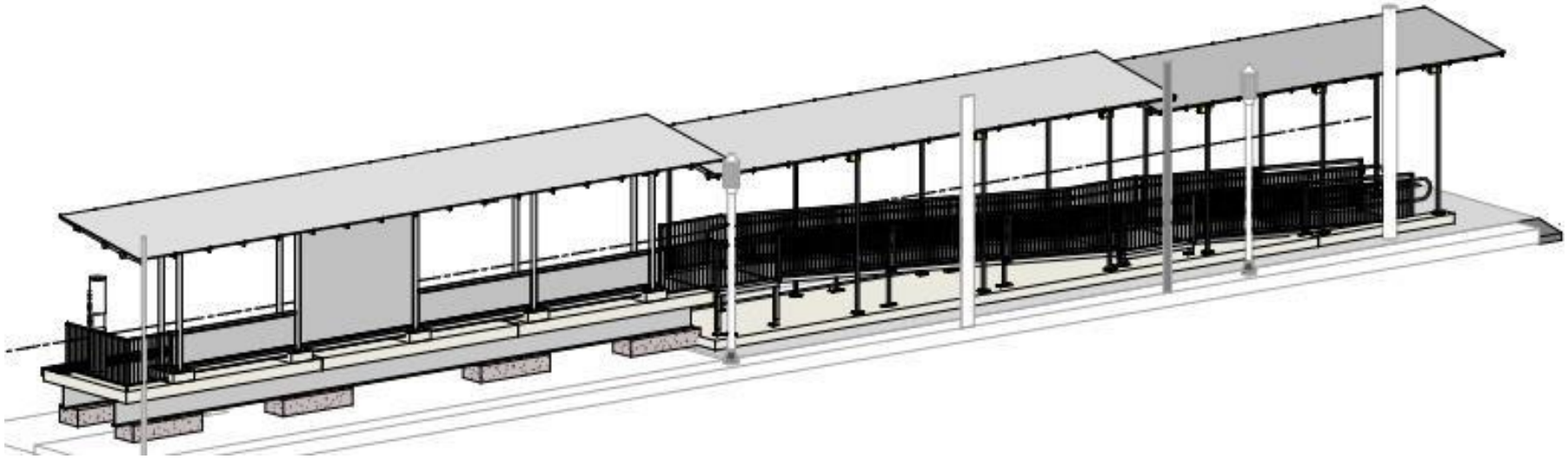
- 26 (19%) stations

The Challenge

- Based on recent project costs, a typical comprehensive Commuter Rail station upgrade with full-high platforms and appropriate vertical circulation ranges between $55-90 million and takes between 4-8 years to design and construct
- To address all 26 inaccessible stations = $1.25+ billion over the course of 15+ years
- Traditional mini-highs are not a viable solution as they require alterations to the underlying platform, thereby triggering the obligation for full-high platforms
  - Per DOT regulation, alterations to inaccessible platforms require level-boarding be provided to all cars (49 CFR 37.42.)

The Solution

- Over the last two years, the MBTA has worked to design an entirely freestanding mini-high level platform that sits on top of the existing low-level platforms
  - Concrete base
  - Made in part from recycled bridge deck and/or scaffolding
  - No alteration to existing platform required



The Plan

- Construct and install freestanding mini-highs at inaccessible Commuter Rail stations that do not have complex topography and/or require significant vertical circulation
  - Address minor-moderate accessibility needs at the same time (accessible parking, etc.)
  - Cost = roughly $3 million per station. Six+ months to construct.
- Designs for Wellesley Square, West Medford, Franklin and Walpole are complete. Construction expected to be finished by start of 2025
  - Keolis crews to perform the work
- Funding has been secured to design and construct freestanding mini-highs at Wakefield, Concord, Lincoln, Wyoming Hills and Endicott thanks to fair share revenue

Future Opportunities

- Should this solution/approach prove successful, with additional funding the following stations will likely be good candidates for freestanding platforms
  - Wellesley Hills
  - Greenwood
  - Melrose Cedar Park
  - Belmont

Critical Step in Longer-Term Strategy

Phase I: Address 26 stations that are currently completely inaccessible

- Complete permanent upgrades at the 3 stations fully funded through construction
  - Natick, Winchester, North Wilmington
- **Construct interim freestanding mini-high platforms at 13 stations**
- Explore the feasibility of constructing short full-high platforms at Islington, Kendall Green, Shirley
- Advance designs of permanent upgrades at the 7 stations that require complex solutions
  - Auburndale/Newtonville/West Newton (under design), Waverly (MAAB commitment),Ayer, Wellesley Farms, Windsor Gardens

Phase II: Rebuild stations with mini-highs to provide full-high platforms and appropriate vertical circulation

- With focus on stations at which accessibility upgrades may soon be triggered by other essential station work (e.g. stair and/or platform alterations)

Questions?