



**Massachusetts Bay
Transportation Authority**

**CIP Discussion: Commuter Rail Stations
with Partial Construction Funding**

May 7, 2018



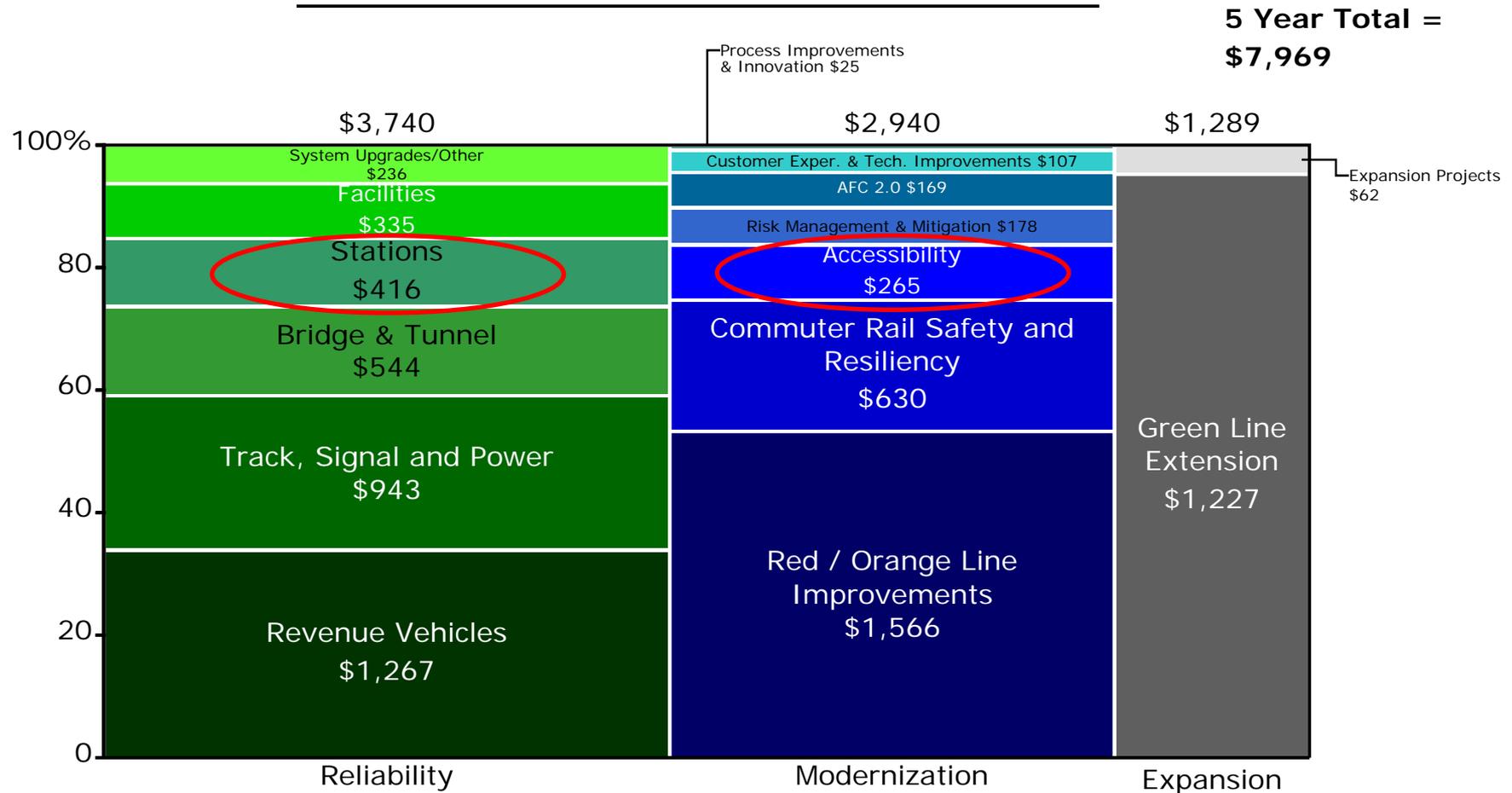
The Policy Issues

- In general, the FY19-23 CIP focuses investment on revenue vehicles, track, signal, and power infrastructure, and major programs
 - Station reconstruction dollars need to be carefully prioritized
- CIP generally programs either design only or full construction cost
- For two longstanding Commuter Rail station projects, programmed funding is insufficient for station construction
- Staff seeks board input on policy for whether and when it is appropriate to carry only partial construction costs



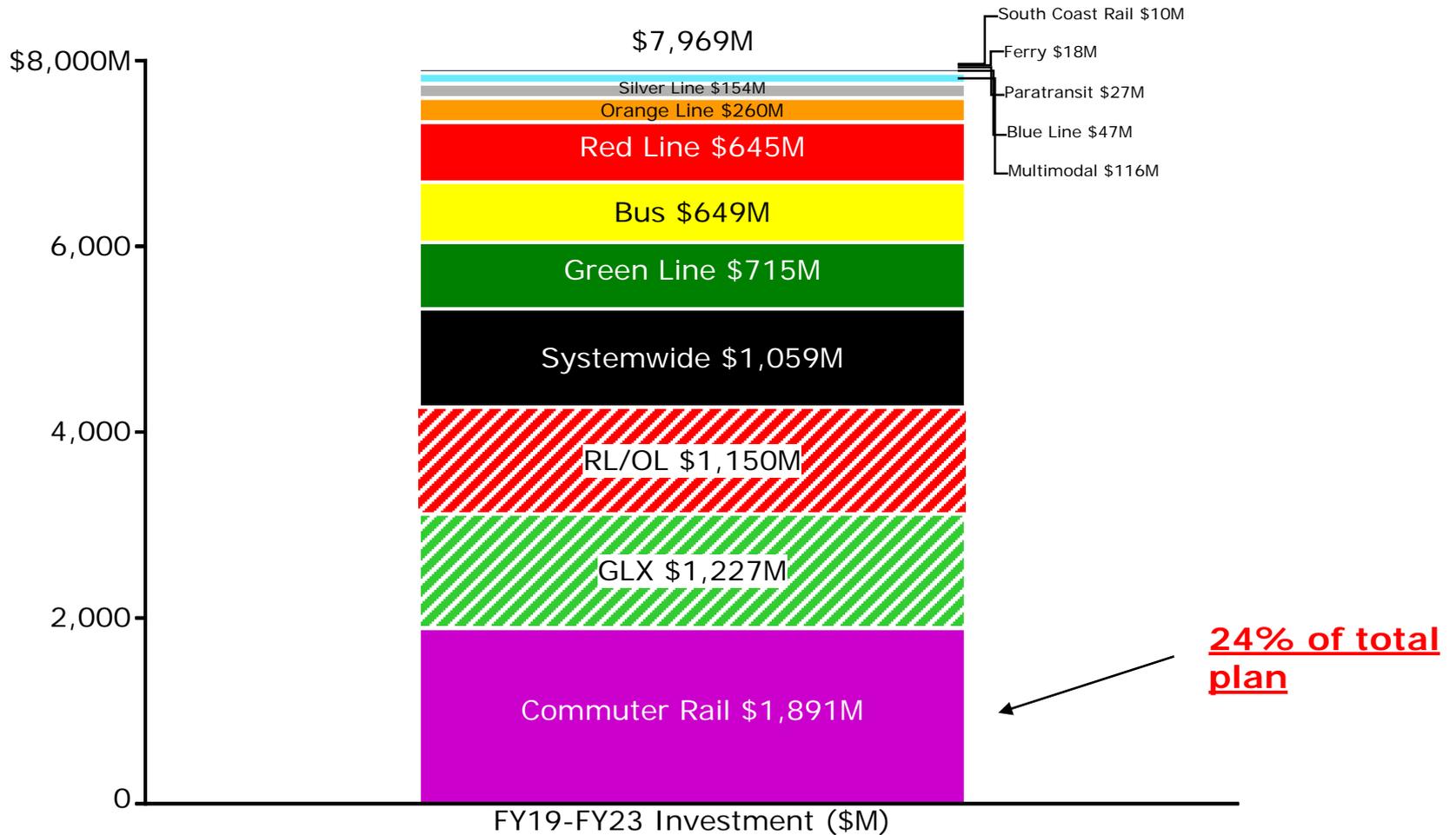
Draft FY19-23 CIP allocates ~\$680M for Stations and Accessibility across all modes

FY19-23 CIP Spending by Priority and Program
(\$million)





Draft FY19-FY23 invests \$1.9 billion in Commuter Rail projects out of \$8 billion total





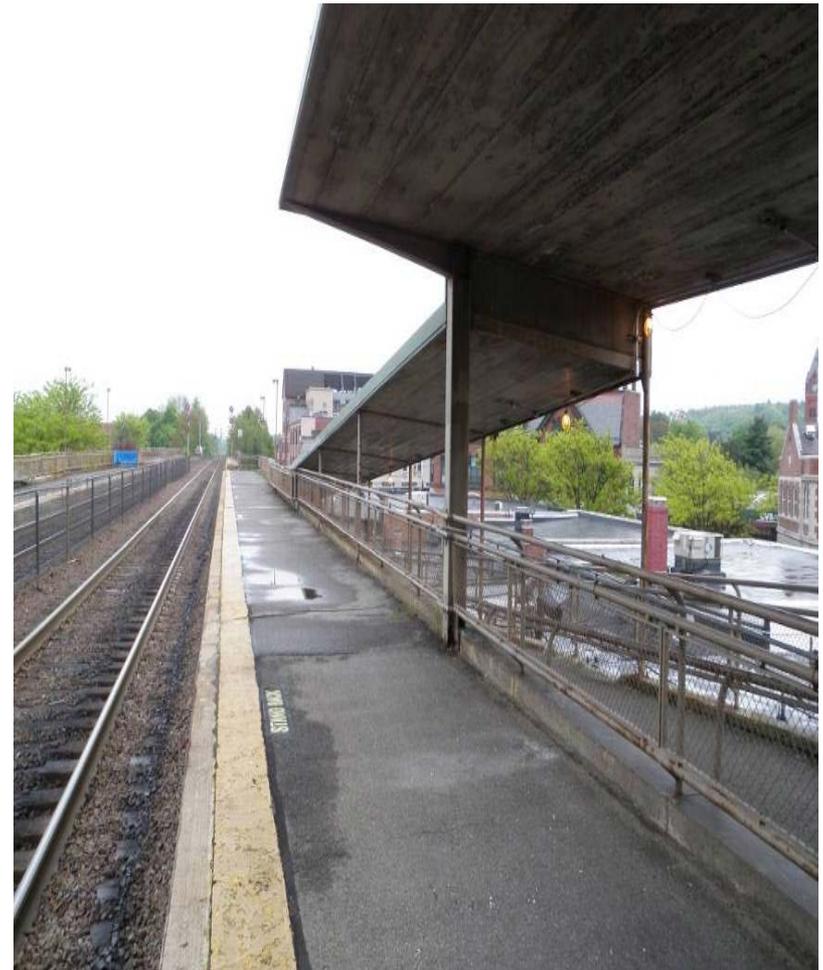
Draft FY19-23 CIP: Commuter Rail Station Projects (only station-specific)

CIP Program	Project	Phase	FY19-23 CIP	Total Funding
Stations	Ruggles Station Upgrade	Design and Construction	\$31.6M	\$39.4M
Stations	Winchester Station	Design and partial construction	\$33.0M	\$34.6M
Stations	Lynn Station Phase II	Design and construction	\$33.1M	\$33.1M
Stations	Back Bay Station Ventilation	Design and Construction	\$25.4M	\$26.9M
Accessibility	Newton Commuter Rail Stations	Design and partial construction	\$19.5M	\$21.5M
Accessibility	Mansfield Station	Design and Construction	\$8.5M	\$13.1M
Stations	Worcester Union Station Design	Design only	\$2.9M	\$3.0M
Accessibility	Natick Center Station Accessibility	Design only	\$1.8M	\$2.2M
Stations	South Attleboro Station Improvements	Immediate needs	\$1.0M	\$1.2M
Total, Commuter Rail Station Projects			\$156.9M	\$175.0M



Winchester Center Station Overview

- The existing Station, built in the 1950's, consists of approximately 600-foot long, low-level asphalt platforms accessed by four concrete ramp structures.
- The MBTA currently runs 26 inbound and 23 outbound Lowell/Haverhill Line trains on a typical weekday
- The Line also serves Amtrak intercity trains with approximately 5 northbound and 5 southbound trains on a typical weekday as well as on weekends and holidays.
- Ridership at the Winchester Center Station was measured at 789 inbound boardings (on a typical weekday).





Winchester Center Station Project Proposal: Overview

- Design for capital improvements to Winchester Center Station has been included in the MBTA CIP since FY 2012.
- The primary driver for Winchester Center Station reconstruction is to replace the platforms and ramps, which have undergone multiple temporary repairs to maintain the safe operation of the station
- However, any substantial capital investment necessitates full compliance with ADA and MAAB requirements, including high-level platforms and accessible ramps/elevators
- Furthermore, the station is located on a 40-foot high viaduct through the town center within a limited right of way used by freight as well as MBTA, resulting in challenging construction conditions



Winchester Center Station Project Proposal: Project Elements

- Proposed Winchester Center Station project would include:
 - New Platforms: Two 724-foot long ADA-compliant high-level platforms for level boarding
 - Access ramps and elevators: Four new elevators and ramps to replace existing ramps that are not ADA-compliant
 - Station platform canopies: 300-foot long glass and steel canopies on both inbound and outbound platforms
 - Lighting, signage, wayfinding: New lighting system to improve security, visibility, and passenger comfort; new porcelain enamel signage on platforms and walkways
 - Station amenities: Benches, schedule cases, trash receptacles, bicycle racks, maintenance shed, variable message signs, a public address system, emergency police call back system, closed circuit television cameras and landscaping
 - Gauntlet track for wide freight rail operated by Pan Am Railways and STRACNET



Winchester Center Station Funding History

Winchester Center Station has been in the MBTA CIP since FY2012:

- FY12-16 CIP: Project funded for design only at **\$1.0M**
- FY13-17 CIP: Project funded for design only, increased to **\$1.3M**
- FY14-18 CIP: Project funded for design only at \$1.3M
- FY15-19 CIP: Project funded for design only at \$1.3M
- FY16-20 CIP: Project funded for design only \$1.3M
- FY17-21 CIP: Project funded for design and construction, increased to **\$34.8M**
- FY18-22 CIP: Project funded for design and construction at \$34.8M
- FY19-23 DRAFT CIP: Project funded for design and construction at \$34.8M

*Based on change from original scope and revised estimates, moving forward with the current design as proposed would require a total project budget of **\$53.8M***



Winchester Center Station Funding Options

Funding Options:

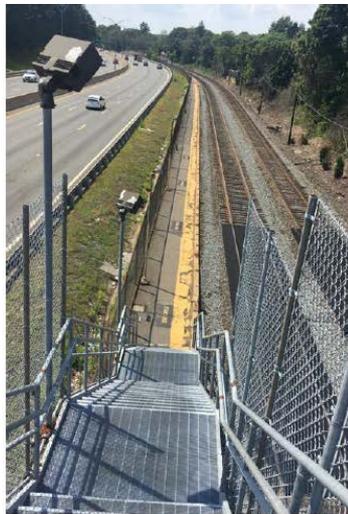
- A. Maintain existing funding **(staff recommendation)**
 - Advance design services for new scope with goal of reducing construction costs (~\$5M);
 - Once design is complete, consider programming construction funding in subsequent CIP
- B. Repurpose existing funding for ongoing repairs; defer accessibility upgrades and station improvements except for required safety repairs
- C. Reallocate funding from another project or program to advance the Winchester Center Station project through construction at \$53.8M project cost
- D. Seek third party contributions or partnership to fill budget gap

Under all options, MBTA and Keolis will continue to monitor and maintain the safe operation of Winchester Center Station



Newton Stations Overview

- Auburndale, West Newton, and Newtonville are inaccessible, low level, single side platforms adjacent to I-90
- MBTA currently runs 12 inbound and 14 outbound Worcester Line trains on a typical weekday; ridership for all three stations is approximately 900 weekday boardings
- Planning and design for accessibility improvements to Auburndale Station has been funded in the MBTA CIP since at least 2009.



Auburndale



West Newton



Newtonville



Newton Stations Proposal

- In early 2017, the MBTA decided that the three Newton Commuter Rail Stations should be evaluated together, given the interdependencies within this corridor and operational impact of the Auburndale design
- An analysis of the 100% design for Auburndale identified that the recommended interlocking at CP-10 would have degraded service for the entire Worcester Line
- Looking across all three stations, MBTA consultants recently completed a Conceptual Design and Operations Analysis to identify and evaluate alternatives for station design and related infrastructure:
 - Alternative 1: Single Side Platform (MBTA preferred approach)
 - Alternative 2: Double Side Platform
 - Alternative 3: Center Island Platform
- Constructing all three Newton stations together would cost at least **\$46M**



Newton Stations Funding History

Auburndale Station has been in the MBTA CIP since at least FY2009:

- FY09-13 CIP: Auburndale Station Improvements Study funded at \$7.9M
- FY10-14 CIP: Auburndale Station Improvements Study funded at \$7.9M
- FY11-15 CIP: Auburndale Station Improvements Study funded at \$7.9M
- FY11-15 CIP: Auburndale Station Improvements Study funded at \$7.9M
- FY12-16 CIP: Auburndale Station funded within \$19.7M “Accessibility Improvements”
- FY13-17 CIP: Auburndale Station funded within \$25.7M “Accessibility Improvements”
- FY14-18 CIP: Auburndale Station funded within \$25.7M “Accessibility Improvements”
- FY15-19 CIP: Auburndale Station funded within \$30.3M “Accessibility Improvements”
- FY16-20 CIP: Auburndale Station Accessibility – Design funded at \$3.5M
- FY17-21 CIP: Auburndale Station Design and Construction funded at \$21.5M
- **FY18-22 CIP: Funds repurposed for three Newton Commuter Rail Stations at \$21.5M total; initial study funded at \$500k**
- FY19-23 DRAFT CIP funds Newton Commuter Rail Stations at \$21.5M

*Newton Stations “Alternative 1” design and construction would require a total project budget of **\$46M***



Newton Stations Funding Options

Funding Options:

- A. Maintain existing funding **(staff recommendation)**
 - Advance all three stations to 100% design
 - Once design is complete, consider programming construction funding in subsequent CIP
- B. Reallocate funding from another project or program to fully fund construction for Newton Stations Alternative 1
- C. Seek third party contributions or partnership to fill budget gap
- D. Defer Newton Stations improvements project until full construction funding is identified



Policy questions

1. Draft FY19-23 CIP program sizes support relatively limited station improvements, in favor of aggressive investment in vehicles and infrastructure.
 - *Should FY19-23 CIP program sizes be reallocated to allow for more investment in MBTA stations?*
2. Currently, the CIP includes two legacy projects with partial funding to allow design or planning to advance even though full funding for construction is not yet identified.
 - *Should the MBTA continue to carry partial funding for specific legacy projects or program either design only or all costs for projects in the CIP?*
3. The MassDOT/MBTA third party contributions policy is focused on potential expansion projects with localized benefits, rather than more traditional state of good repair or accessibility projects.
 - *Should the MBTA seek municipal contributions or partnerships to fund station improvements and other SGR/modernization projects? Should projects with potential third party funding be prioritized over other projects?*