



**Massachusetts Bay  
Transportation Authority**

# Fare Transformation Update

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Fiscal and Management Control Board

Ronald N. Renaud & Laurel Paget-Seekins

27 April 2020

# Background to the Fare Transformation Reset

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- In 2018, MBTA entered into a Public Private Partnership with a joint venture (called Boston AFC 2.0 OpCo) for a new fare collection system.
  - The FMCB authorized the original AFC 2.0 contract to include \$356.8m in payments for the capital cost of the new system and a ten year stream of operations and maintenance payments totaling \$366.5m for a total cost of \$723.3m.
- In December 2019, key changes were made to the project based on feedback and lessons learned.
- To support the new project plan, the FMCB authorized two contracts with:
  - Scheidt & Bachmann (to invest in the legacy system); and
  - Cubic Transportation Systems, Inc. and Boston AFC 2.0 OpCo, LLC (a bridge agreement to advance the project while final contract amendment was negotiated).
- Today's vote seeks further authorization to enter into the amendment of the 2018 contract.





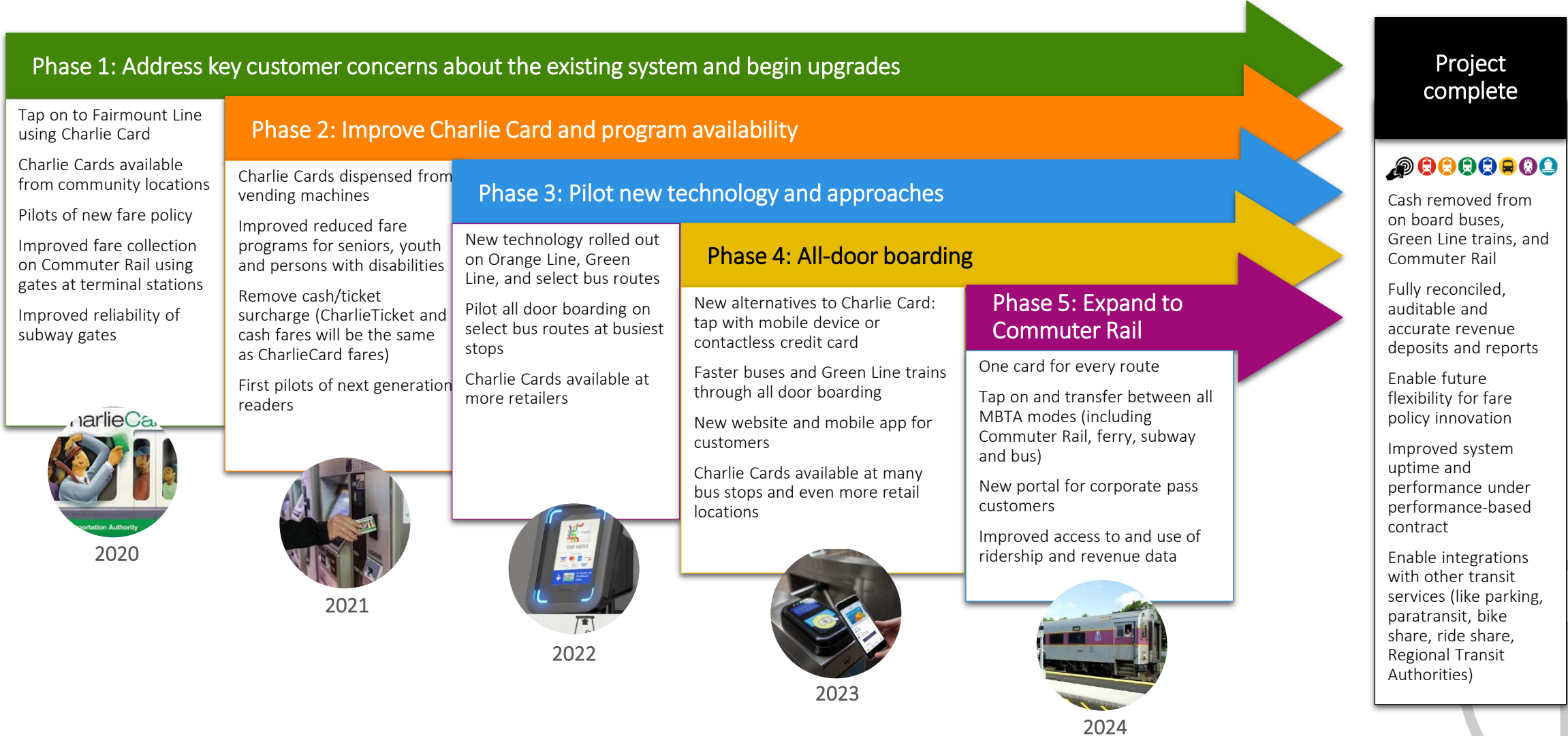
# Benefits of the New Fare System

Laurel Paget-Seekins

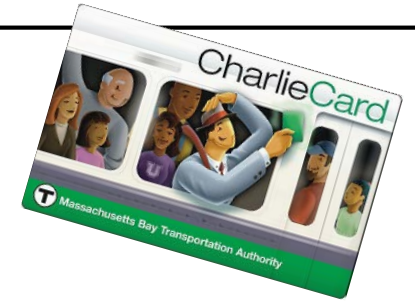


# Fare Transformation Roadmap

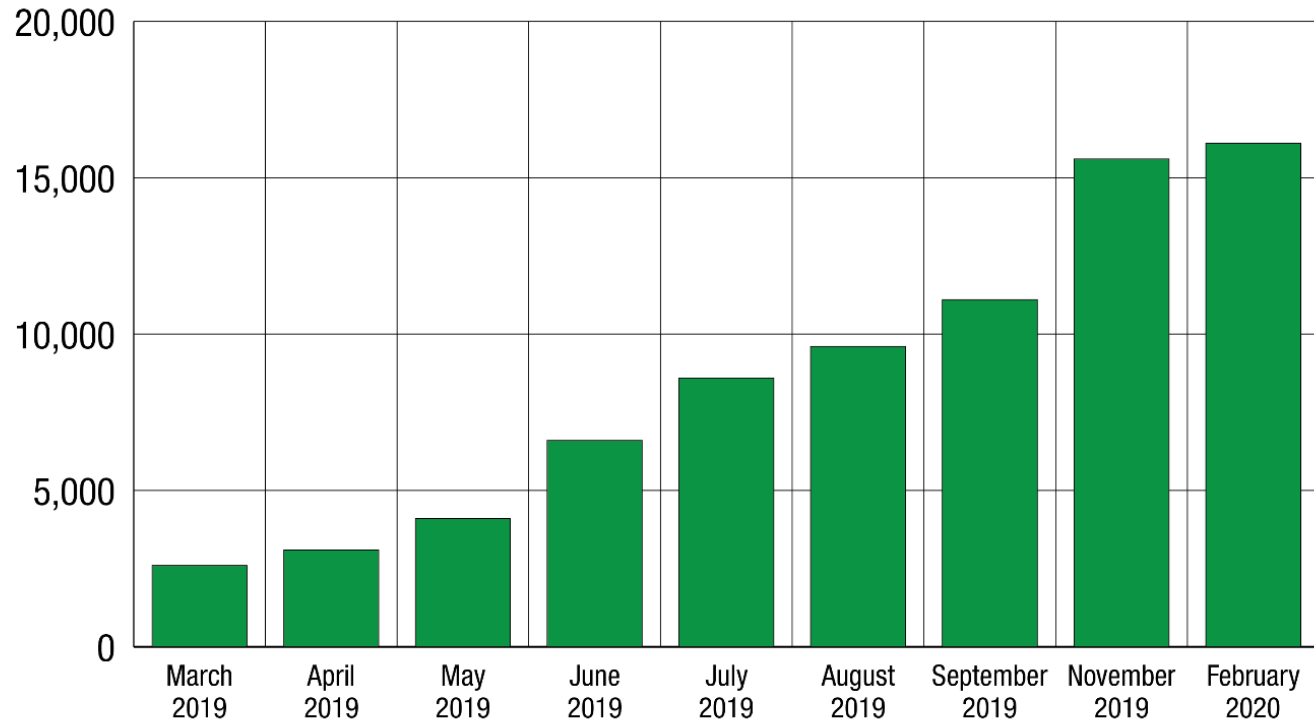
A program of continuous improvements to the MBTA's fare system



# Distributing CharlieCards at Community Locations



## CharlieCards Distributed\*



\* Cumulative Monthly Totals

### Partner Cities and Organizations

#### Ashmont

Boston City Hall

#### Boys & Girls Club of Boston

- Edgerley Family South Boston Club
- Yawkey Club of Roxbury
- Jordan Club
- Sumner Club
- Berkshire Partners Blue Hill Club
- Charlestown Club
- Franklin Hill Club
- Salesian Boys & Girls Club of East Boston
- Orchard Gardens Club

#### Boston Library Branches

- Egleston Square
- Fields Corner
- Mattapan
- East Boston
- Brighton
- Connolly
- Hyde Park
- Roslindale
- West Roxbury
- Charlestown
- Central Branch
- South Boston
- Codman Square
- Parker Hill
- Uphams Corner

#### Chelsea CAPIC

Chelsea City Hall

Chelsea Public Library

Chelsea Senior Center

Fairmount

Lower Roxbury

Lynn

Mattapan

Revere City Hall

Salem

Somerville

Watertown

Winthrop

### New Partners

- Greater Boston Food Pantry
- Boys & Girls Club of Boston
- Cambridge Libraries and Municipal Buildings

### Contacted Cities and Towns

- Bruce Bolling Building
- Quincy
- Malden
- Lynn
- Arlington
- Reading
- Woburn

### Future Contacts

- Melrose
- Everett
- Medford
- Braintree
- Hingham
- Hull
- Brockton
- Somerville



# Fare Collection is Critical to MBTA Operations

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- The MBTA collected **\$671.7 million in fares** in FY19
- Fare revenue accounts for a **significant percentage of our operating budget**
  - Our farebox recovery ratio was 42% in FY19
  - We rely on fare revenue to fund services
- We have an aging fare system, which will soon be incapable of accepting credit cards. So the near-term upgrades we're making are essential, but do not eliminate the need for a **significant strategic investment** in a new system that **reliably and flexibly collects fares**.
- The new fare system **supports our ability to continue collecting** fares
- We expect to collect **more than \$8 billion in fares** during the 10 years that this new system will be in place

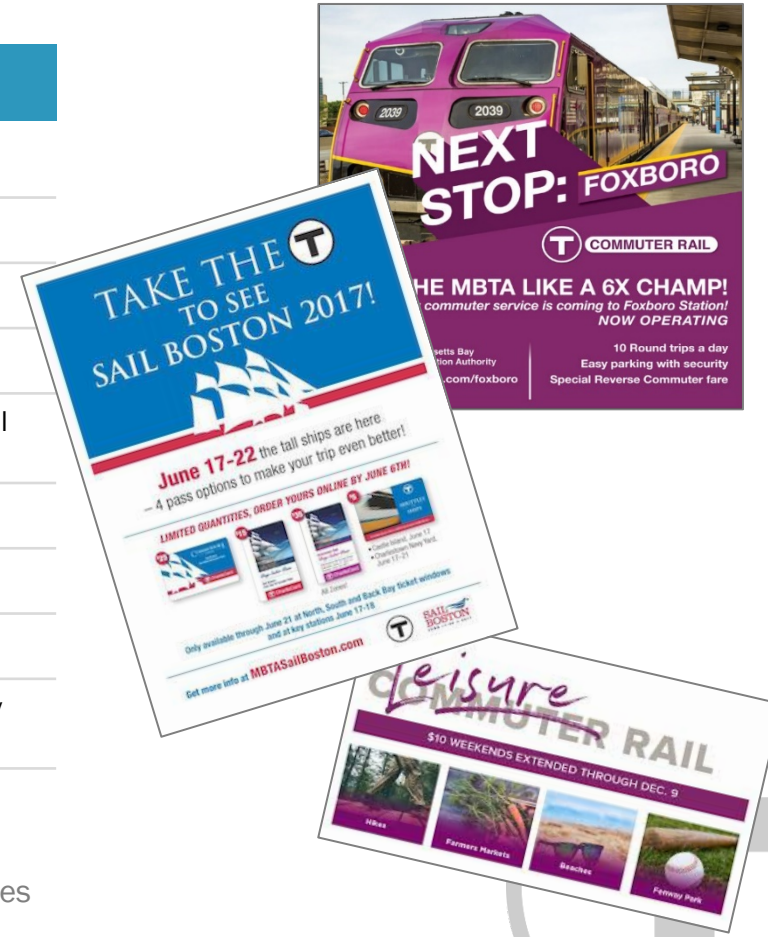


# Flexible Fare System

To support the future needs of the MBTA and its customers

The new system will enable future changes to fare structures and the ability to integrate with other transit and mobility providers

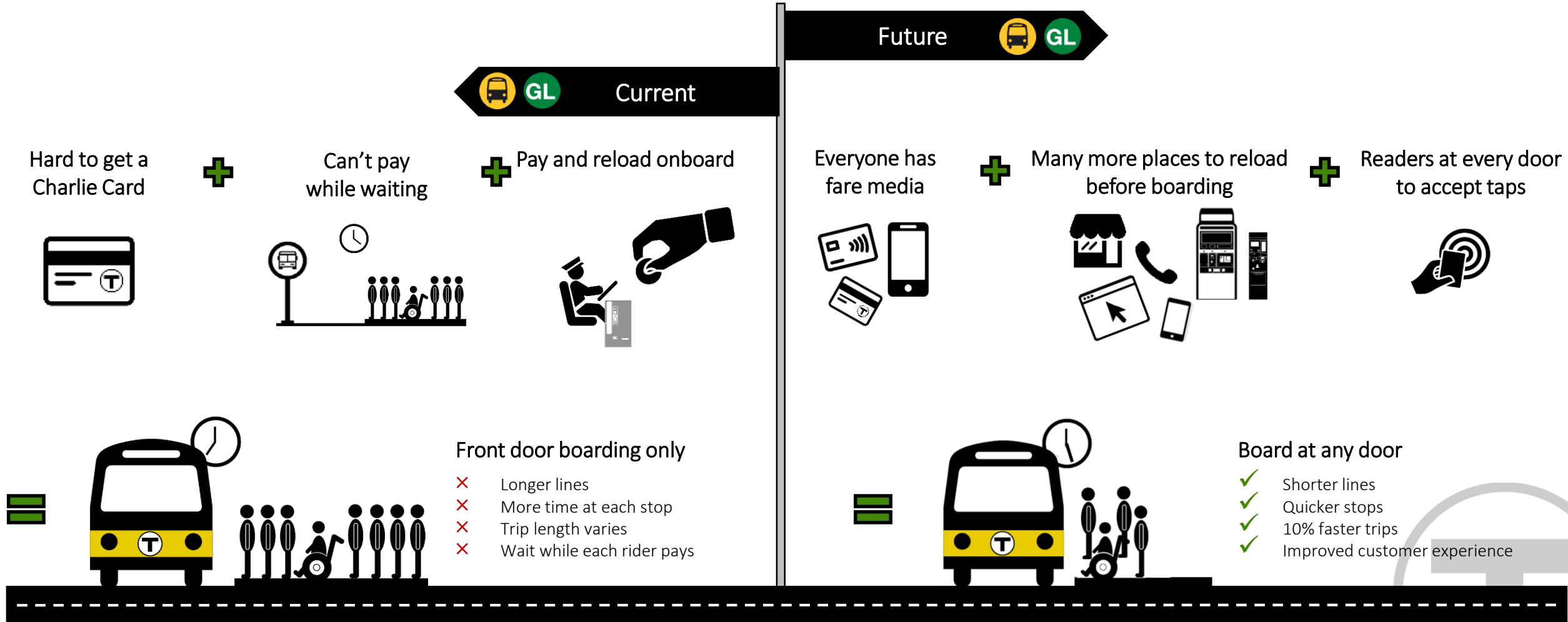
Fare options	Example of possible implementation*
 <b>Intermodal transfers</b>	Transfer between bus, subway, ferry and Commuter Rail and pay with your Charlie Card
 <b>Time of day fares</b>	Commute during off-peak hours and pay a lower fare
 <b>Day of week fares</b>	Ride the T on the weekend and pay a lower fare than on weekdays
 <b>Reduced fare groups</b>	Expand reduced fare programs and improve ease of application
 <b>Best value / capping</b>	Rather than buying a weekly pass, pay only for rides you take on the bus and subway until the value of a 7 Day Link Pass is reached and then ride for free for the rest of the week
 <b>Zonal / distance based fares</b>	Pay a different fare based on where your journey starts and ends
 <b>Reverse-commute fares</b>	Pay a lower fare when you travel outbound in the morning and inbound in the evening
 <b>Rolling period passes</b>	30 day passes that can be purchased on any day instead of calendar month passes
 <b>Transfer between carriers</b>	Take a trip that involves both MBTA and Regional Transit Authority (RTA) services and pay for the whole thing with your Charlie Card, possible partnerships with micro-mobility, etc.
 <b>Special event fares</b>	Buy a special event pass to cover all of your travel to, from and during a special event



\* Examples are intended to illustrate system capabilities, MBTA plans a robust public process on any new fare structures

# All Door Boarding

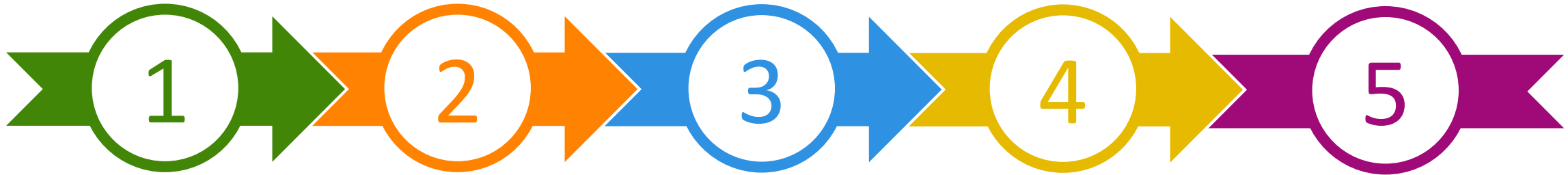
To improve speeds of bus and Green Line










# Fare Transformation Customer Journey

Customers will see improvements rolled out in five stages






## Key frustrations addressed

2020

-  Tap on to Fairmount Line using my Charlie Card
-  Get a new Charlie Card from a location in my community
-  See fares being collected consistently on Commuter Rail using gates at terminal stations
-  See fewer subway gates out of service or in need of repairs
-  Take advantage of the new fare options being piloted





## Easier to get a Charlie Card

2021

-  Get a new Charlie Card from a vending machine at any subway station
-  Apply for or renew a reduced fare pass more easily (for seniors, youth and persons with disabilities)
-  Pay the same fare regardless of whether I use a Charlie Card, Charlie Ticket or pay with cash

## New ways to pay

2022

-  Tap using my contactless credit card, Apple Pay or Google pay on the Orange Line, Green Line, and select bus routes
-  Participate in a pilot and be the first to have the new Charlie Card and mobile app
-  Board on the rear door on at the busiest stops on select bus routes
-  Get a Charlie Card and reload at a growing number of retailers





## Faster buses and Green Line trains

2023

-  Tap using my mobile device, contactless credit card, or new Charlie Card on all bus and subway routes
-  Board at any door on buses and Green Line trains
-  Use the Charlie website to manage my account online
-  Download the Charlie mobile app to view my balance and reload on the go
-  Get a Charlie Card and reload at many bus stops and even more retail locations

## Seamless payments on all modes

2024

-  Use the same card to tap no matter where I travel
-  Tap on and transfer between all MBTA modes (including Commuter Rail, ferry, subway and bus)
-  My employer has new tools to manage the pass I get through work and I have self-service options to manage my own account
-  See improvements to MBTA services overall, stemming from use of better ridership and revenue data

# Next Steps for Fare Transformation

## Near term customer experience improvements

- **Roll out phase 1** improvements



Launch CharlieCard readers on Fairmount Line



Continue to build out CharlieCard community distribution program



Complete mechanical overhaul of subway gates



Install fare gates at Commuter Rail terminal stations



Complete means-tested fares study

- **Plan for phase 2** improvements

- Make upgrades to back-end technology to improve reduced fare programs
- Eliminate differential between CharlieCard and CharlieTicket/cash fares



# The Reset of the Fare Transformation Public Private Partnership (P3)

Ronald N. Renaud

# Fare Transformation Reset

As described in our presentation in December 2019, we have a new plan for improving fare collection at the MBTA. It's going to take longer and cost more than our original plan, but we are confident that the outcome will result in meaningful benefits to our customers in both the near term and the long term.





# The Contract Amendment

The new contract amends the original 2018 AFC 2.0 contract.

## Benefits of the amendment to the MBTA

- Achieves all of the **original goals** for improving fare collection
- Strengthens the **original contract**
  - Associates payments with additional milestones
  - Incorporates payment industry changes that are on the horizon
  - Reduces construction risk
- Features a **phased rollout**
  - Prioritizes improvements for bus and subway customers
  - Improves appearance and reliability of equipment ASAP
  - Provides a better experience for reduced customers
- Has an **achievable schedule**
  - Allows more time for testing, installation, and migrating customers
  - Includes a longer transition period to allow customers more time to get a new Charlie Card
- Supports a new approach to designing the **sales network**
  - Vastly expands retail and vending machine network
  - Provides more opportunities for a community driven process
- Delivers additional functionality for **customer experience** improvements
  - Improves the customer experience during the transition
  - Supports broader access to Charlie Cards
  - Reduces customer pain associated with Charlie Card fees
  - Forgives customer mistakes as new tap on/off behavior on Commuter Rail is learned





# Cost of the New Contract: Capital

Capital costs of the contract cover the design, development, implementation, integration, testing, and financing of the project, and installation on vehicles.

The incremental value of the amendment we are seeking approval of today is an additional **\$240.7m** of Capital Cost above the original approved amount of **\$356.8m** for a total capital cost of **\$597.5m**.<sup>1</sup>

The incremental Capital Cost includes a **\$10.0m** Benchmark Interest Rate Movement Contingency.

The capital portion of the Contract Amount is expected to be paid in the following annual profile:

\$'m	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Capital Cost: <sup>1,2</sup>	0.0	14.5	9.8	9.2	10.0	214.9	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	16.3 <sup>3</sup>

<sup>1</sup> This amount was calculated from the Systems Integrator Bid Model received 04/22/2020.

<sup>2</sup> Annual Capital Cost does not include the \$10.0m Benchmark Interest Rate Movement Contingency.

<sup>3</sup> FY34 is a partial year.



# Cost of the New Contract: Operations and Maintenance

O&M costs cover operations, maintenance, management, asset renewal, and system transaction processing costs.

The incremental value of the amendment we are seeking approval of today is a reduction of **\$28.6m** in operations and maintenance costs from the original approved amount of **\$366.5m** for a total operations and maintenance cost of **\$337.9m**.<sup>1,2</sup>

While the reset added some functionality and devices, some contract costs have been reduced, including by the MBTA reinvesting in and reusing existing equipment for longer than originally planned, and because retail commissions and cash servicing will be treated as reimbursable expenses rather than contract cost.

The operating portion of the Contract Amount is expected to be paid in the following annual profile:

\$'m	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
O&M Cost: <sup>2</sup>	0.0	0.0	0.1	0.8	1.6	33.2	33.0	33.7	34.5	35.3	36.1	36.9	37.8	38.6	16.4 <sup>3</sup>

<sup>1</sup> This does not include estimated cash and retail costs of \$56.4m which were previously part of the project operating cost payments.

<sup>2</sup> This amount was calculated from the Systems Integrator Bid Model received 04/22/2020.

<sup>3</sup> FY34 is a partial year.



# Cost of the New Contract: Total

	Original contract	Amended contract	Total
Capital	\$356.8m	\$240.7m	\$597.5m
O&M	\$366.5m	-\$28.6m <sup>1</sup>	\$337.9m
<b>Total</b>	<b>\$723.3m</b>	<b>\$212.1m</b>	<b>\$935.4m</b>

## Revenue collection

The system will be used to collect over **\$8 billion**<sup>2</sup> in fare revenue during the 10 year operating period.

## Payments and deductions

Contract payments of approximately **5%** will be made before full implementation completion. Release of those payments is contingent on successful completion of significant milestone events. The remaining **95%** will be paid after full implementation completion.

Monthly payments scheduled for after full implementation completion will be paid over the subsequent 10 year operating period and a **significant portion of these payments are subject to deductions for underperformance** by the SI.

<sup>1</sup> This does not include estimated cash and retail costs of \$56.4m which were previously part of the project operating cost payments.

<sup>2</sup> Source: <https://cdn.mbta.com/sites/default/files/2020-02/2020-02-10-fmcb-18-five-year-pro-forma.pdf>. FY25 pro-forma is expected to be \$801.1m, based on 5.2% increase year on year of FY24 Revenue from Transportation of \$761.5m. Ten year estimate is based on this annual rate and does not account for annual volume increases, fare increases, or any impact from COVID-19.



# Legacy System O&M Costs Declining

- Operations and maintenance cost to run the legacy fare collection system in FY21 is **\$17.2m**
- This includes:
  - Cash handling
  - Fare media
  - Maintenance (non-labor)
  - Labor
  - PCI compliance
  - Transaction costs
  - Other miscellaneous costs
- As we roll out the new fare collection system and phase out the legacy fare collection system, the costs associated with maintaining the legacy system **will gradually decline**



# Getting to Financial Close on the New Contract

- Financial Close of the new contract **will not be completed until the SI is able to execute a refinancing** to allow the MBTA and the Systems Integrator to achieve a price below the authorized Contract Amount.
  - This refinancing is not complete and is subject to further negotiation, lenders credit committee and other risks. Upwards movement in the lending base rate (LIBOR) or lending costs would likely result in the SI not being able to arrange financing at the expected rates.
  - Should this occur and the authorized Contract Amount would be exceeded, the MBTA will not enter into the transaction.
  - A failure by the SI to close a successful refinancing would leave the project in an uncertain situation.
- Financial Close is expected to occur by **June**.





# Today's Requested Actions

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1. That the General Manager is hereby authorized to enter into the Amended and Restated Project Agreement, in such final form as may be approved by the General Counsel, with Boston AFC 2.0 OpCo LLC for a total estimated amount of **\$935,411,841.44** (the "Contract Amount"), which is comprised of certain lump sum milestone payments as the System is developed and installed and monthly availability payments (including payment for capital costs, operating costs and transaction costs) which ramp up as the System becomes fully operational, costs relating to the MBTA's portion of the payment of the Independent Certifier, costs relating to the MBTA's portion of the payment of fees for mediators who may be retained to assist the parties to resolve disputes, costs relating to the MBTA's portion of the payment of the Independent Payment Consultant, and a contingency for costs relating to benchmark interest rate movements;
2. That the General Manager is hereby authorized to enter into the Financial Close Agreement with Boston AFC 2.0 OpCo LLC in such final form as may be approved by the General Counsel and subject to the Contract Amount; and
3. That the General Manager is hereby authorized to enter into certain ancillary agreements, including the Amended and Restated Lenders' Remedies Agreement, the Amended and Restated Material Contract Direct Agreement, the Amended and Restated Independent Certifier Agreement, MBTA Standard Non-Disclosure Agreements, and all other contracts, documents and agreements as may be necessary to effectuate the Amended and Restated Project Agreement and carry out the responsibilities of the MBTA thereunder, all in such final form as may be approved by the General Counsel; provided that such authorization is subject to the Contract Amount.



# Next Steps for Fare Transformation

## Contract management

- Progress to **financial close** on the amended P3 contract
- Award **site installation design contract**
- Continue to **build out team** for implementation and operation of new system
  - Reorganize existing staff
  - Supplement the team with new staff
  - Add partners
- Continue **working on implementation** with our partners
  - Design and development of the new system with Cubic
  - Upgrade of existing devices with Scheidt & Bachmann
  - Design of implementation of gates for Commuter Rail terminal stations with Keolis

# More Information

[www.mbta.com/Fare-Transformation](http://www.mbta.com/Fare-Transformation)

