



KEEPING PACE

*How Greater Boston's Bus System
Can Support a Growing and Changing Region*

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EXECUTIVE SUMMARY

Fifty years ago, Greater Boston was home to 3.2 million people; today that number is up to 4.9 million, a 53% increase in the overall population. Meanwhile, our bus system has failed to keep up with this population increase.

The current MBTA bus fleet is actually smaller than it was 50 years ago. In our most heavily transit-dependent communities, train service is limited or nonexistent, and bus service has not kept up with the surging demand. Key corridors are choked with traffic and air pollution and low-income riders and people of color are disproportionately impacted. This is especially apparent in communities like Revere, Chelsea, and Everett, which have seen a staggering 42% growth since 1990.

While municipalities and State agencies are making laudable steps to improve bus service, recognizing the air quality and climate benefits of buses, progress has been piecemeal and insufficient. The region is crippled by having too few buses, too few and outdated facilities, slow and unreliable service, and underlying it all, a broken budget. Only a comprehensive, coordinated, and well-resourced effort to transform the bus system will bring it up to speed to meet the region's current and future needs. **No one player — not the MBTA, the legislature, the City of Boston, nor the 50 other communities served by the bus system — can fix this problem alone.**

This report outlines a concrete, time-bound plan for policymakers across all levels of government to get our bus system on the right track.

First, the Governor and the State Legislature must make a real effort to adequately fund the MBTA and allow for regional funding of transit projects. They must do this while working on actionable policies that eliminate the existing capital and operating budget gaps and increase matching funds for federal grant opportunities.

Municipalities in the Greater Boston region also have an important role to play: They have ownership of the streets that carry thousands of bus riders every day. Some of the key steps they can take to improve bus operations in their own communities are prioritizing multimodal streets that include bus priority, improving bus stops, and amending zoning codes to allow for more housing near transit.

And, of course, the MBTA has a critical role in advancing the bus system across the region. One of its greatest challenges will be to improve service with the existing bus fleet while expanding the electric fleet and the bus network. This will include building new bus facilities, purchasing 200 to 600 additional electric buses, and recruiting and retaining bus operators to support current and future bus operations.

The recommendations in this report build on two previous reports: *Better Buses: Getting Boston on Board*¹ and *64 Hours: Closing the Bus Equity Gap*.² The conclusions have been vetted by peers in the advocacy, environmental justice, and business communities, as well as by public sector staff with direct experience shaping the transit system. Public outreach was also conducted to help inform a vision of success that centers on the experiences of the actual people who live with this bus system and feel the impact of its failures and successes every day.

The path laid out in this report is entirely achievable by 2030 — and it is necessary if we intend to do right by our neighbors, our co-workers, our family members, and future generations.





WHAT WOULD A
SUCCESSFUL
MBTA BUS SYSTEM
LOOK LIKE?

What would a successful MBTA bus system look like?

The bus is the workhorse of Greater Boston's transportation system. Buses provide 38% of the region's transit trips — up to 291,000 weekday trips — and serve the highest rate of low-income riders across MBTA services, with 42% of bus riders considered low-income; 48% are people of color. Nearly 300,000 people rely on MBTA buses each day,³ reflecting a ridership that has retained and regained its numbers more steadily than all other transit modes. The bus serves working-class parents trying to make it home in time for dinner, college students hurrying to class, seniors making weekly grocery trips, and many more. Few public resources rival the bus system's potential to boost the economy, reduce traffic congestion and greenhouse gas (GHG) emissions, and improve the daily lives of people in the region.

All too often we measure the success of our transit systems in minutes and miles. While important to have measurable goals for improved service, if those measures of success aren't felt by riders, they aren't particularly helpful.

In 2022, LivableStreets conducted six different outreach deployments across Greater Boston related to bus prioritization, the MBTA's Bus Network Redesign project, and the Orange Line Shutdown. Riders participated in a two-minute survey that aimed to understand what their current experience taking or relying on the bus system was like, what they believed would make their bus trips better, and how the cost of the T affected their day-to-day lives. Riders were surveyed while waiting for their buses so as not to impact their travel, and were given Dunkin' gift cards for their time.

Participant demographics were not collected but the Street Ambassadors who conducted the outreach reported talking with Spanish and Haitian Creole speakers, the elderly, students, and people with disabilities.

Below is a summation of how these everyday bus riders would measure a successful bus system:

1. Buses are fast and reliable.

When a parent in Chelsea needs to get to work in the morning or a student in Allston must get to Boston University for class, they can leave minutes, not hours, before they need to arrive and be confident they'll get there on time every day. Modern, electric, clean vehicles show up on schedule, regardless of traffic, thanks to dedicated bus lanes and faster boarding. Schedules are easy to understand, and buses can be tracked in real time through smartphone apps or digital signage at stops. Long waits rarely happen, thanks to better planning and dispatching.

2. Bus routes get you where you need to go.

Whether you are heading to an early-morning shift in Malden or to meet friends for live music in the Fenway, there's a bus that can get you there — or at least to the commuter rail or subway stop that will. There's rarely the need to drive, hail a car, or embark on endless walks to cover the last one or two miles to your destination. An improved bus network pairs high-volume routes with shorter ones more effectively, and all are interwoven with green, safe bike and pedestrian paths. Buses offer better night, midday, and weekend service. More routes are available overall, especially in neighborhoods that are growing and thus are highly dependent on the bus.

3. Bus service is equitable and accessible for all.

Riding the bus is convenient and reliable throughout the system, whether you're boarding at Chelsea, Back Bay, Nubian, or Harvard. Bus Rapid Transit features make waiting at bus stations and boarding effortless for people traveling with wheelchairs, strollers, grocery



THE MBTA AND MUNICIPALITIES HAVE TAKEN SIGNIFICANT STEPS TO IMPROVE SERVICE OVER THE LAST FIVE YEARS.

THIS WORK INCLUDES:

Better Bus Project: Launched in 2018 with 3 key assessment reports, this initiative took preliminary steps to improve poorly functioning bus routes, setting in motion much of the following.⁴

Bus Network Redesign: Launched in 2022, the process aims to redraw the map of bus routes to make them less complicated and more equitable.⁵

Pledge to Increase Service: In 2022 the MBTA committed to expand bus service by 25% and weekend service by 70%.⁶

Dedicated Bus Lanes: Since 2017, 25 miles of bus lanes have been painted in the region, and in 2021, the first center-running bus lanes in New England opened on Columbus Avenue in Boston.

Better Bus Stops: While most stops still have barriers to accessibility, the MBTA is working to make some of them more accessible, safer, and more comfortable.⁷

Free Fares: The City of Boston is running a pilot project for fare-free service on 23, 28, and 29 buses, which has reduced travel times and increased ridership by as much as 38%.⁸

carts, or small children. Better wayfinding and tech features make access easy for people who are vision- or hearing-impaired or neurodivergent. Electric buses in environmental justice communities make the air easier to breathe, and street trees offer shade to waiting passengers. More people ride for free.

4. People riding the bus feel safe, comfortable, and respected.

Bus riders do not feel like second-class citizens; nor do they feel like customers paying for a cut-rate service. People have pride in riding the bus and users of other transit modes respect bus lanes, bus riders, and bus drivers. Older people can rest in comfort during short waits, protected from the elements. Families, women/femmes, and gender-nonconforming people feel safe while using clean, well-maintained, well-lit facilities and vehicles. Clean restrooms are available at stations and key stops. Riders trust the MBTA and know that the people running the system listen to and care about their needs — and are doing everything they can to support them.

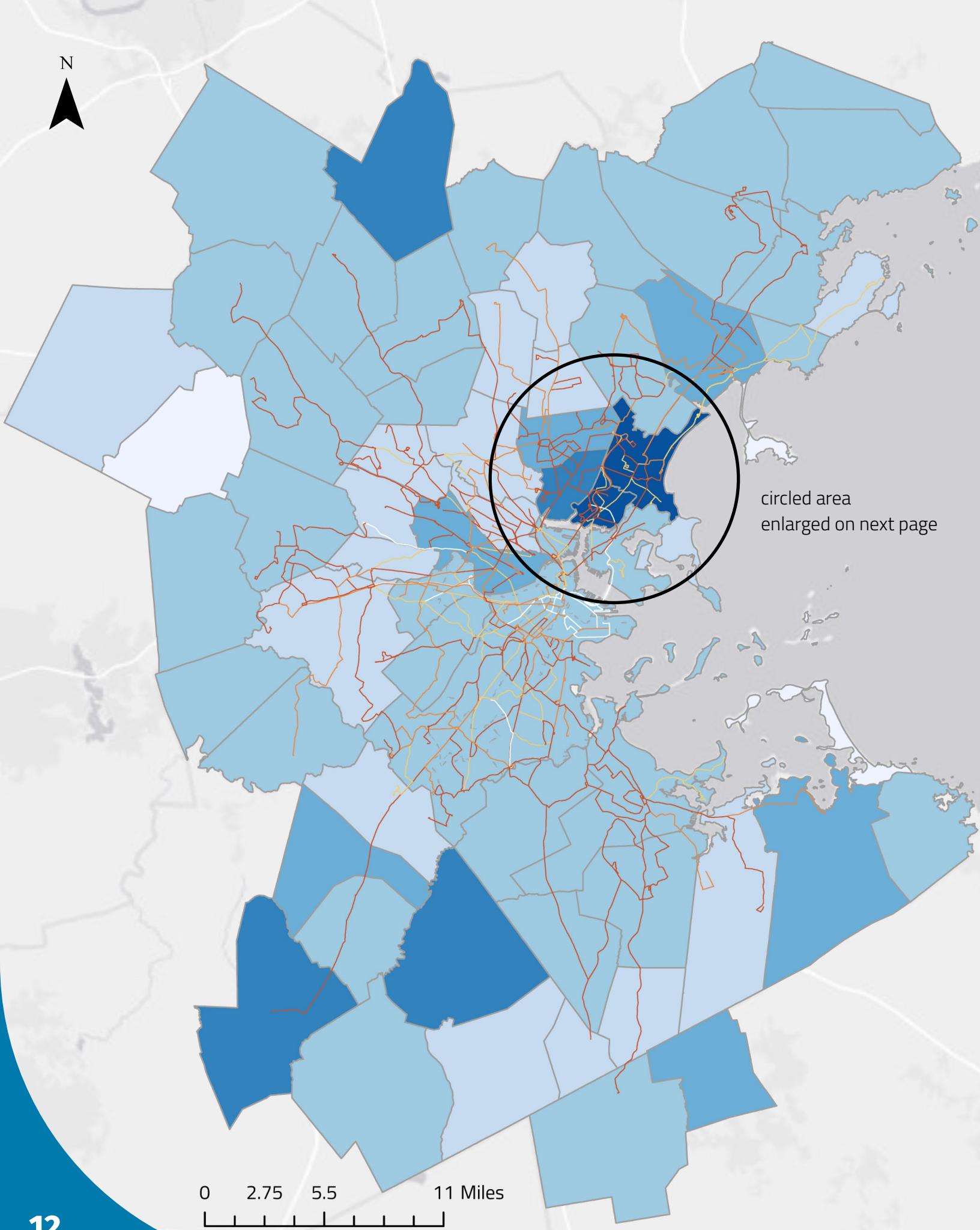


I take my kids to the Jackson Mann school. We used to have to wait 45 to 1 hr in the snow. Now it's much faster!"

Bus rider, Brighton Ave, Boston; July 2019



**TODAY'S REGION,
YESTERDAY'S
BUS SERVICE**



What is Holding Back Greater Boston's Bus System?

Four core problems are holding back the bus system:

1. Staffing shortages

A report studying the 2015 workforce of the US transit sector predicted the retirement of 72% of its bus operators by 2022.¹² This, coupled with a lack of new entrants into the workforce due to issues of compensation, safety, and changing workplace culture, has created a critical shortage of bus operators nationwide. The MBTA has been hit especially hard by this operator shortage. In addition to the 300 drivers they currently lack to meet current service needs, the MBTA will also need to deploy 440 additional bus drivers to provide the 25% service increase proposed in the Bus Network Redesign project.¹³ While the MBTA has invested significant resources to hire new bus operators, even if they double the current rate of hiring, it could take up to two years to hire and train enough operators to bring bus service up to the pre-pandemic level.¹⁴ The MBTA must also hire more dispatch, maintenance, and managerial personnel to assist those operators.

Both Washington, D.C. and Montreal are in the process of building multiple new facilities to maintain 750 (DC) and 900 (Montreal) buses. Both bus fleets contain diesel and electric propulsion types and a mix of vehicle lengths and will accommodate buses ranging from \$522,000 to \$1.8 million per vehicle (an average of around \$850,000 per bus). Each city is building or expanding four garages over a period of more than a decade, similar to the program the MBTA plans to undertake and all facilities are fully-enclosed.

Bus garages built in the US and Canada since 2010 (housing at least 100 buses)¹⁵

*costs are in USD and are inclusive of land acquisition, design and construction

Total Buses Accommodated	3,618
Average Cost per Bus*	\$779,741

**excludes Boston's Quincy garage and Manhattan's Mother Clara Hale garage

2. Too Few Buses

Attempts to significantly improve service will only succeed with a bigger fleet. **The 64 Hours: Closing the Bus Equity Gap report found that the MBTA needs an additional 200 to 600 more buses to run service more frequently and appropriately service the needs of communities of color.** An expanded fleet must also meet modern bus standards: in the past decade, buses have shifted from running entirely on fossil fuels (diesel, biodiesel, and compressed natural gas) toward electricity, a transition that Greater Boston must make to protect public health and meet GHG emission reduction goals. Existing facilities, however, are not equipped to store or maintain electric buses, and there are not nearly enough of them.

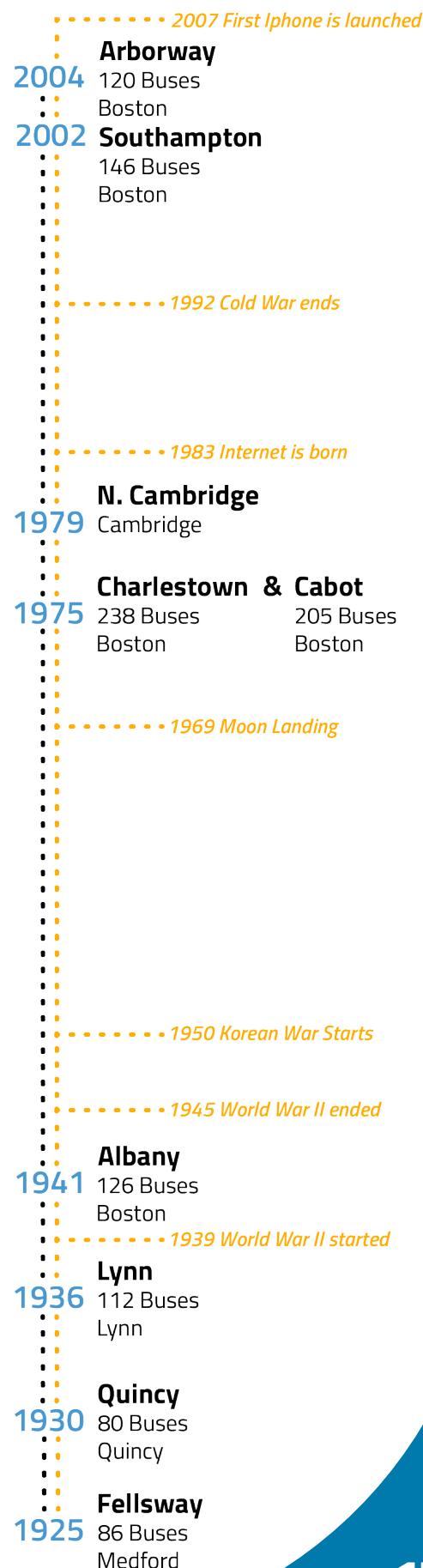
3. Insufficient and Outdated Facilities

The MBTA relies on a network of nine garages to service its bus fleet. **The newest of these facilities — aside from a temporary facility at Arborway — is approximately 40 years old, with the oldest dating back nearly a century.**

The MBTA is planning to replace most of its bus maintenance facilities in the next decade and to consolidate some of its smaller, outlying facilities into larger, more centralized facilities that can better serve the needs of a modern fleet, including power and facilities for electrification, but this will be an enormous undertaking.

The cost of building new bus maintenance facilities is comparable to replacing the MBTA's bus fleet — for each bus a facility can house, the building cost is similar to purchasing a new bus, meaning that a garage that holds 100 buses costs roughly the same as purchasing 100 new buses. And while a bus maintenance facility will last around 75 years, the total investment is required upfront.

Replacing both the bus fleet and the facilities over the next decade may strain the MBTA's capital budget over this period. The MBTA must carefully optimize and control costs in order to provide the facilities necessary to operate current and additional service, particularly if decarbonization goals are to be met through electrification.





4. Slow, Unreliable Service

Greater Boston has made good progress on rolling out dedicated bus lanes, and residents have enjoyed the benefits — both performance and rider satisfaction have increased consistently. But municipalities must give buses greater priority on the region's streetscape while removing barriers that slow down service.

More priority bus lanes are needed, especially in high-frequency, high-congestion corridors. Much more can also be done to improve service, including implementing center-running bus lanes, all-door boarding, signal priority for buses, elevated boarding, fare-free buses, faster fare collection, and the use of automated camera enforcement to keep bus lanes clear of vehicles other than buses.

5. A Broken Budget

The MBTA is insufficiently funded and has been for years. Prior to 2000, the MBTA covered a portion of its operating budget through a combination of fares and other revenue streams, like parking fees. The legislature, recognizing the MBTA as a necessary public service, would cover any remaining costs. This approach allowed the MBTA to prioritize service and safety first.¹⁷

However, starting in 2001, the legislature adopted "forward funding," which was supposed to make the MBTA more efficient. In reality, it has caused a fiscal crisis that we are paying for today. Forward Funding increased local assessment fees and allocated one penny from the state's sales tax to the MBTA. Sales tax revenues — which were expected to go up 3% every year — have instead held around 1%,¹⁸ while operating expenses, especially energy costs, health care for workers, and the cost of providing paratransit service, have far outpaced projections. **This funding strategy has never generated enough to cover the MBTA's costs, leading to an ever-growing gap in the budget.**¹⁹

The consistent underfunding of the MBTA has led to a massive backlog of needed repairs, dangerous infrastructure and facilities,²⁰ routine breakdowns and derailments, and an overall unpleasant experience for everyone.

*"I need heating
and more seating."*

*Bus rider, Columbus Ave,
Boston; December, 2021*

OPERATING, CAPITAL, + DEBT

Every major transit agency in the country has two budgets: operating and capital. The operating budget covers day-to-day expenses, including labor, fuel, and maintenance. The capital budget funds long-term infrastructure needs, including new buses, storage and maintenance facilities, and infrastructure improvements.

As part of Forward Funding, the MBTA was granted the ability to issue its own bonds to pay for capital projects like buying new equipment. But as part of the deal, the Commonwealth shifted \$3.3 billion in debt to the MBTA. This means that every year a large portion of the MBTA's operating budget — the funds that help keep the system operating safely and efficiently day to day — are spent just paying off debt.

This is similar in concept to checking and savings accounts. The checking account pays for regular expenses like groceries, while the savings account pays for larger, unexpected expenses, like a new appliance. In this analogy, the MBTA doesn't have much of a savings account, and is constantly tapping into its day-to-day budget to cover big repairs and upgrades as they arise; putting them off for another day, creating a dangerous backlog; or charging them to a credit card and struggling to pay down that debt.

Until the MBTA is relieved of the debt it is unfairly saddled with and is provided appropriate sustainable funding, it will never be able to catch up.²¹

How Does This Impact People in Greater Boston?

While the bus system's shortcomings impact the entire region, this mismatch means there are booming areas of the region where transit is overcrowded, unreliable, and in poor condition. Much like neighborhoods where populations are soaring like Chelsea and Everett, booming job centers like the Longwood Medical Area, Watertown, and the Seaport also lack sufficient bus service. Furthermore, while systemwide MBTA ridership has yet to fully recover from the COVID-19 pandemic, bus-dependent areas like Chelsea, Lynn, Everett, and Allston now are have greater bus ridership than they did before the virus. This underscores the need for reliable bus service in these areas.²²

Those who can afford to might get behind the wheel of a car, but every resident forced to do so further chokes Boston's streets with traffic, which is already among the worst in the nation.²³ Biking is an alternative for some of the population, but for workers traveling long distances every day, seniors on their way to the doctor, people with disabilities, and many others who don't have access to a car or have no direct access to a subway or commuter rail line, riding the bus is the only option.

In short, entire neighborhoods of people who are integral to our economy and the fabric of our community struggle daily to get to and from their jobs, their schools, their homes, and the resources that make Greater Boston a good place to live.

In 2022, LivableStreets deployed Street Ambassador to talk to bus riders throughout the region to learn more about their experiences. Here is what the Ambassadors learned in three bus-reliant neighborhoods where we spoke directly to bus riders about their experiences.



CASE STUDIES

Dudley Department Store

Donald E. Green

ROYCE

ALMA PIZZA

ROXBURY IS THE HEART OF BOSTON, AND RESIDENTS HAVE A LONG LIST OF UNMET NEEDS

Located in the center of the city, Roxbury is a working-class community of 59,790 residents, 55.6% of whom are Black or African-American.²⁴ At its core is Nubian Station, one of the highest-traffic hubs in the region's bus system. Though several high-frequency bus routes run in and out of the square, the neighborhood has been underserved by the MBTA for decades, creating a deep mistrust between the people and MBTA. Nubian was once served by an elevated Orange Line, but it was removed from the neighborhood in the 1980s. Promises to rebuild rail service were abandoned.²⁵ Aside from the Silver Line bus, which has served as a subpar replacement for this rail line, Roxbury has few dedicated bus lanes, despite 36% of residents taking transit to work, mostly on the bus.

Mornings and evenings at Nubian Square bring long waits, packed buses, and frustrated residents who cite many wants and needs that would improve their lives and make them ride the bus more. These include common requests such as buses that arrive more often and on time and don't fill the air with exhaust. But Roxbury residents' concerns run deeper than typical transit metrics. Riders also lamented worn-down, poorly maintained facilities, with

Nubian Station in particular perceived as dirty, uncomfortable, and unsafe.

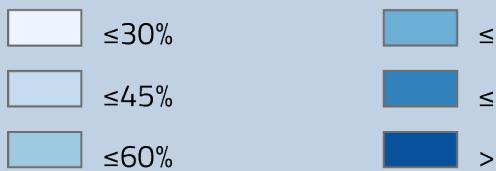
In addition, there's a persistent distrust of the MBTA, driven by feelings that the agency does not treat people with respect or listen to their concerns and needs.

"If the station was cleaned more, if folk didn't hang out here too much. Bus drivers can get a little disrespectful which I don't like. I use the bus to explore and get to know my city but sometimes riding the bus can be unpleasant."

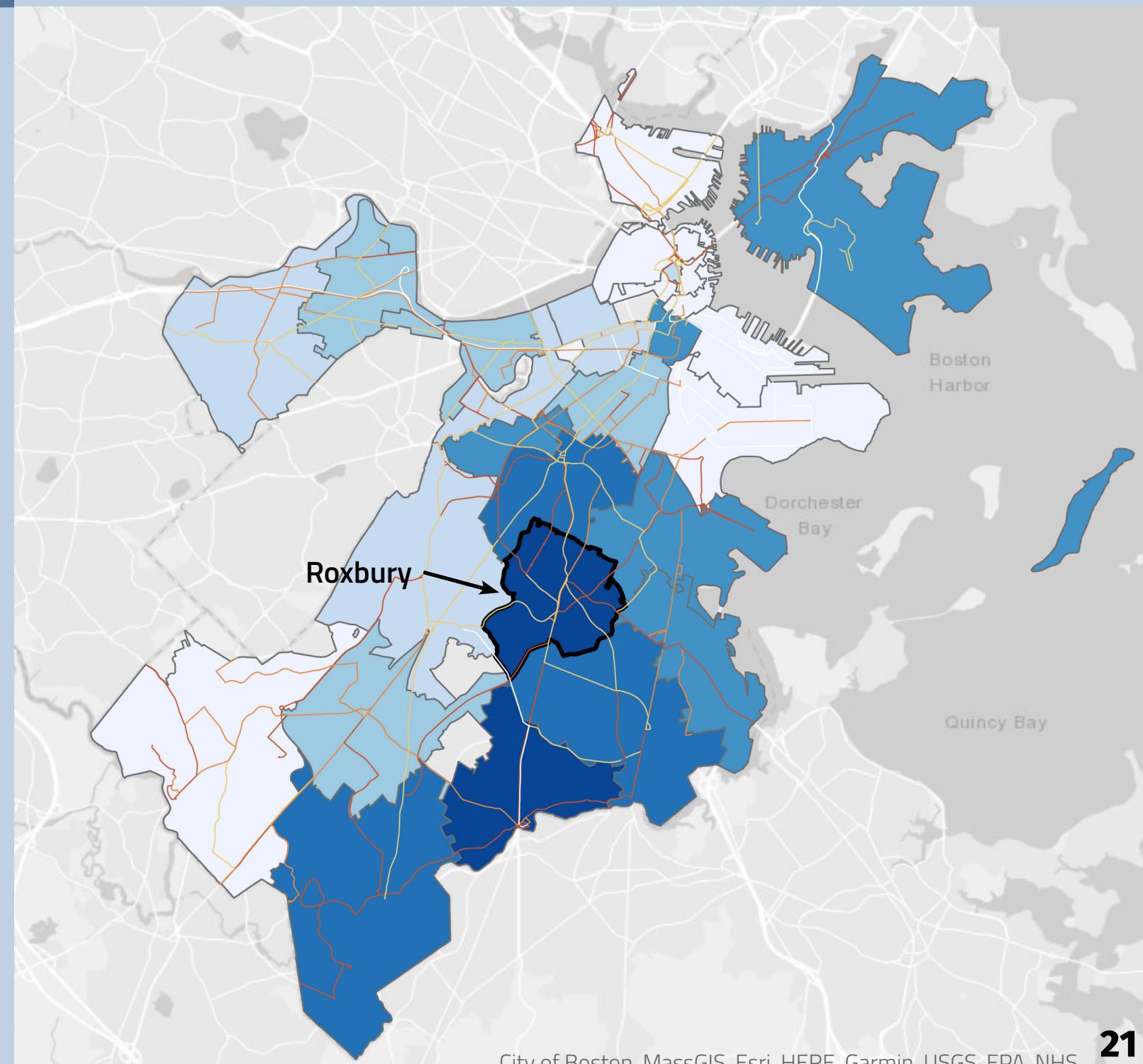
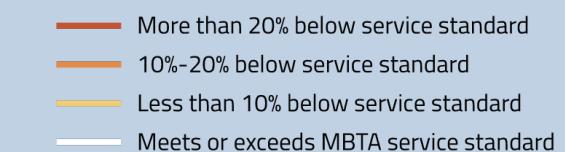
Bus rider, Nubian Square, Roxbury;
March 2022.

MAP KEY

Percent of Non-White Residents in 2020



MBTA Bus Reliability by Route On-Time Performance (OTP)



CHELSEA IS A HUB FOR ESSENTIAL WORKERS, HELD BACK BY PACKED, INFREQUENT BUSES

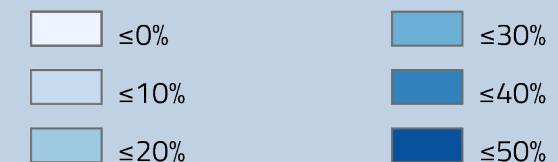
Chelsea is one of the most densely populated communities in Massachusetts, with more than 40,000 people living within its 1.8 square miles. It has long been a home for immigrants, from Irish and Russian-Jewish immigrants in the early 20th century to many Latinx immigrants today. About 70% of Chelsea's population identify as a racial or ethnic minority, 62% identify as Hispanic or Latinx,²⁶ and 38% of residents were born outside the United States. People in Chelsea rely heavily on buses, and the community's major routes include a branch of the Silver Line 3 and bus routes 111 and 116/117.²⁷ Both the Silver Line 3 and the 111 have dedicated bus lanes on sections of the routes.

Even with its proximity to downtown and its high-volume bus corridors, Chelsea's transit service is insufficient for the volume of riders who depend on it and the growth it has experienced. Chelsea riders reported that their biggest concern is that buses do not show up when they say they will, and when they do, they are often overcrowded. This makes it difficult to depend on the bus to get to work, school, or appointments. Complicating matters further, residents are increasingly traveling away from Downtown Boston and toward growing North Shore communities like Revere and Malden, where there is even less bus service.

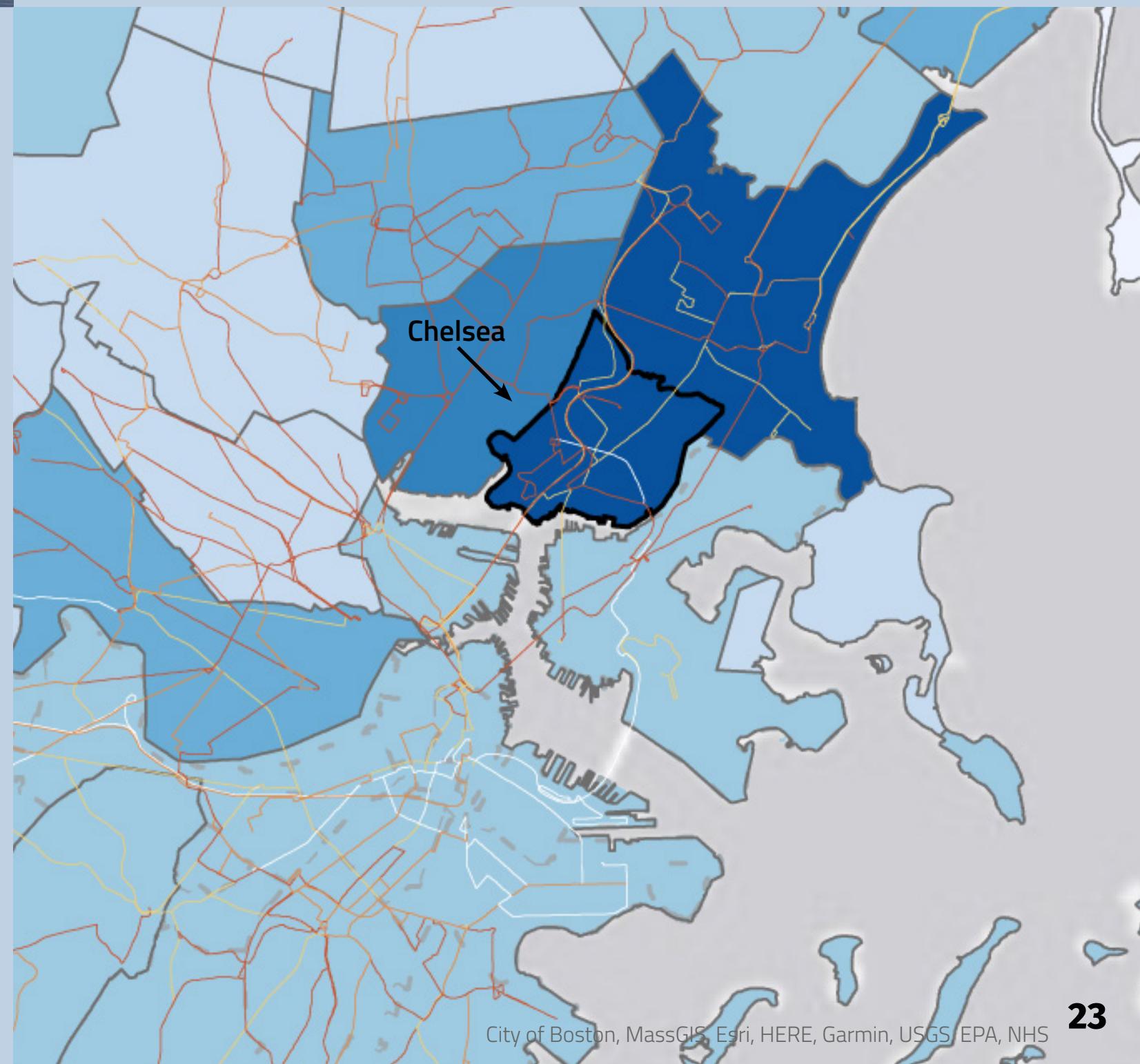
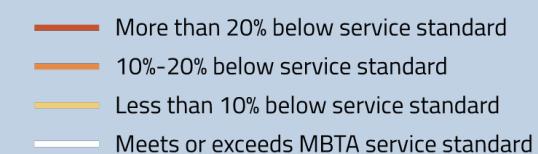
"I rely on the bus. Having it free or discounted would help anyway. I need to get to a lot of medical appointments and after a while they add up."

MAP KEY

Percent Population Change by County Subdivision 1990-2020



MBTA Bus Reliability by Route On-Time Performance (OTP)



IN ALLSTON, A YOUNG AND GROWING POPULATION CANNOT RELY ON KEY BUS ROUTES

Allston is a neighborhood on the west side of Boston that's home to an increasingly large population of students and young families, as the area develops. Nearly 80% of residents are between 18 and 34 years old, and it's also a racially diverse community, with 44% of the population identifying as people of color, with a large Asian population in particular.²⁶ Allston is served in large part by two key bus routes — the 57 and 66 — and three Green Line stops. Several of the routes serving Allston today were created in 1989 when they were changed from an 1800s-era route structure. Despite its high-frequency bus lines, there is still only one dedicated bus lane, which is curbside and shared with bicycles.

The biggest problem cited by Allston transit riders is, without question, poor reliability. Residents find themselves waiting for inconsistent buses that are delayed in traffic when they are needed the most. Many people resort to driving or ride-hailing out of frustration — if they have the means to do so — thus worsening the already bad traffic. Allston's bustling nightlife, combined with limited late-night bus service, lines its streets with double-parked ride-share vehicles, creating unsafe conditions for pedestrians and conflicts for vehicles trying to navigate the streets, especially buses.

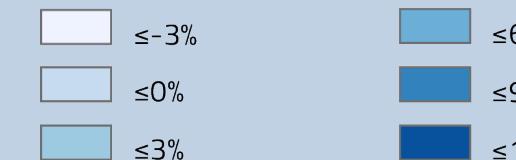
New residents report driving private vehicles for most of their trips, making bus service even less reliable and air quality worse.

"If I was walking and I only had enough for one more ride when the bus passes, I don't want to waste my last ride. It would help the most if I didn't have to pay to ride and I can just get on."

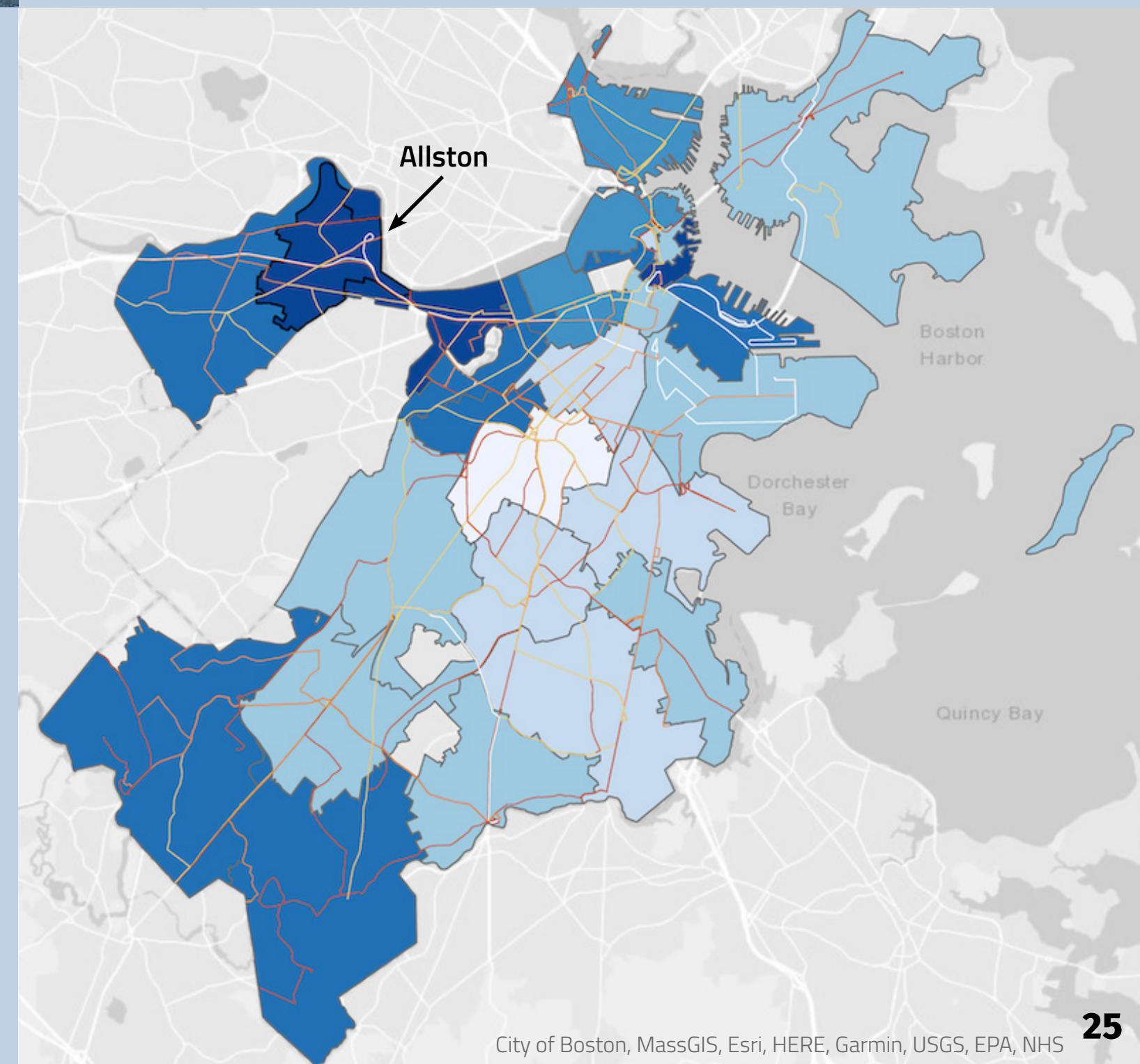
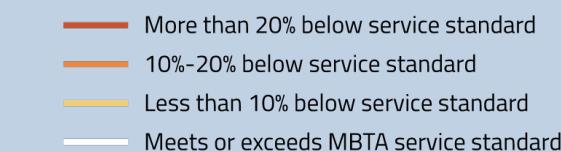
Bus rider, Union Square, Allston;
March 2022

MAP KEY

Change in Percent of Non-White Residents 2010-2020



MBTA Bus Reliability by Route On-Time Performance (OTP)

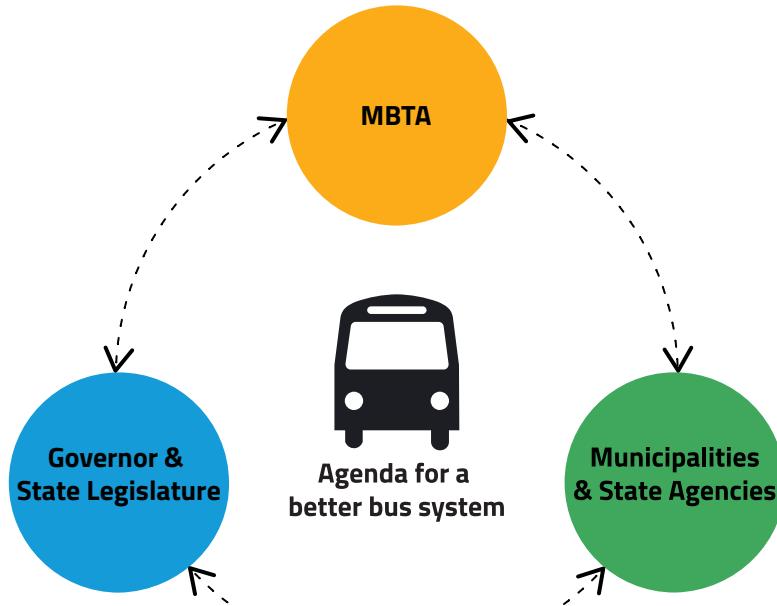




RECOMMENDATIONS: AN AGENDA TO FIX GREATER BOSTON'S BUS SYSTEM

Recommendations: **An Agenda to Fix Greater Boston's Bus System**

Greater Boston demands a significantly better bus network to sustain economic prosperity and quality of life. We believe this bus system is within reach within the next decade. However, the only successful path forward involves the combined efforts of state policymakers, municipalities and state agencies, and the MBTA itself.



Below we have outlined an actionable agenda for decision-makers at the state, agency, and local level to enact within the next few years. While the problem may be daunting, the bus system is one of the most flexible and adaptable pieces of the transit system. Dramatic improvement is possible by 2030 if actors at all levels of government work together to make it a reality.

Governor and State Legislature

1. Provide stable and sufficient funding for the MBTA.

The legislature must work with the Governor to provide stable and sufficient financial resources for the MBTA, beginning in 2023. Long before the pandemic, the MBTA was chronically underfunded. Buses are often overlooked when the media and public discuss rail and subway needs. **However, bus service is a major part of the MBTA's budget, with the FY23 MBTA Operating Budget allocating nearly 2,500 of the 5,641 (45%) total positions to bus operations and maintenance.** Therefore, bus service needs to be actively considered in financing conversations for the MBTA.²⁸

While the successful passage of the Fair Share amendment has the potential to begin to address the funding gap, it will not be enough. The MBTA needs immediate support, but it also needs more than a short-term fix. The Massachusetts House and Senate must advance a balanced-revenue package that provides our transportation system statewide with dedicated revenue to keep transit moving. This should be a top priority for the legislative session beginning in 2023.

In addition to hiring 600-800 additional operators, buses and bus maintenance facilities will undoubtedly demand a heavy portion of funding for the MBTA between now and 2030, particularly if decarbonization and greenhouse gas emission reduction goals are to be met. Buses running on congested streets with diesel-powered engines simply will not lead the Commonwealth to net-zero emissions by 2030, and the communities that are disproportionately burdened by hazardous air pollution today will continue to experience health inequities.

2. Allow for regional funding of MBTA and other transportation projects.

The Commonwealth should pass legislation enabling regional groups of municipalities to hold votes to raise funds for specific projects or lists of projects, through increases in the property tax, sales tax, parking fees, excise tax, real estate transfer tax, or other sources. This is a major source of revenue used to finance transportation investments in states across the country, including California, Colorado, Georgia, Michigan, Missouri, Idaho, Ohio, South Carolina, and Louisiana and frequently have high rates of passage (70%–80%).²⁹

As the legislature advances meaningful opportunities for local and regional funding mechanisms for transportation, it should also ensure that those policies do not unintentionally exclude communities where transit needs are high but municipal capacity to fund improvements are lower than surrounding cities and towns. This could potentially be achieved by ensuring Environmental Justice communities are explicitly prioritized for funding and transit improvement projects.

3. Reset the Capital and Operating Budgets; Delete the “Big Dig” Debt.

The Commonwealth should take on the big dig-era debt that it saddled the MBTA with unfairly in 2008. This poor decision was made decades ago, and it has not aged well. **The legislature should work with the administration to reform the MBTA's operating and capital budgets based on best practices for transit funding in other regions.** This could include revenue sources that will help reduce single occupancy vehicle trips while also generating resources for transit, such as congestion or Vehicle Miles Traveled (VMT) fees. Overall, the region should not be forced to choose between capital improvements and operating services, which

often leads to prioritizing capital investments at the expense of people who need the bus today. This work should begin in earnest in 2023.

4. Provide more matching funding; apply for more federal grants.

The federal government offers several matching grant programs for fixed guideway transit, complete streets, and other bus-related improvement projects. Greater Boston has been successful in winning federal discretionary Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grants over the last couple of years for bus projects on Blue Hill Avenue in Boston and the Lynnway multimodal corridor in Lynn. The challenge now is accessing even larger funding opportunities that can support more complex multi-jurisdictional bus-based infrastructure projects. Greater Boston has, for example, only applied for one fixed guideway Capital Investment Grant (CIG) in the past 20 years for the Green Line Extension.

The administration should work with the MBTA, municipalities, and the Metropolitan Planning Organization (MPO) to include more bus-related projects, especially in Environmental Justice communities. And the legislature should work with the administration to provide additional matching funds to strengthen Massachusetts' competitiveness for federal grant dollars.

5. Protect bus priority and prevent vehicle incursions into bus-only spaces.

While bus lanes continue to be implemented across the region, the prevention of vehicle incursions into the lanes is limited. Based on



Massachusetts law, driving in a bus-only lane is not currently a moving violation, and the MBTA (which has many existing cameras on buses, including forward-facing mounted cameras) has no ability to use the on-vehicle front-facing cameras to issue citations to drivers operating or parking their vehicles in bus lanes. While local and transit police can enforce vehicles blocking lanes using a marked-lane violation, this encourages additional, and often unnecessary, police interactions. Though automated camera enforcement remains a punitive measure, given the demographics of bus ridership, the swift movement of public transportation buses is a matter of equity and must be prioritized over individual drivers. **The legislature should make driving in a bus-only lane a moving violation,**

educate drivers, and enable the use of camera enforcement for bus lane and bus stop infractions in the 2023–2024 legislative session. This legislation will not mandate the use of camera enforcement, and will simply allow the MBTA or municipalities to opt in.

It is important to note with the enabling of camera enforcement, extreme caution and thought should be put into implementation. Citizens must be clearly informed in multiple languages about where and how to operate around bus lanes. Any program implemented after the fact should have the goal of issuing zero citations and collecting \$0 in fines — and include issuing warnings, keeping fines low and non-escalatory, ensuring thorough data protections, regularly evaluating the impacts of the program, as well as ensuring the process is easy and clear for people to navigate paying, contesting, or requesting assistance with their ticket. The primary goal should be to keep buses, and the people on them, moving forward.

Municipalities and State Agencies

1. Prioritize streets and sidewalks that prioritize transit and people.

The MBTA does not control the streets it operates buses on, so it is imperative that the municipalities and state agencies that oversee those streets rebuild roadways to prioritize people riding transit and to assure safe conditions for people walking and biking. This is largely a role for city governments, but many state-owned roads carry buses or influence bus reliability and speeds — and they are among the worst offenders. **By 2024, MassDOT, DCR, MassPort, and the municipalities that have MBTA bus service should commit to supporting the MBTA's comprehensive bus priority plan, and proactively allocate more street space to buses on high-frequency and high-ridership corridors that builds on the existing bus priority network.** Municipalities and state agencies should also ensure that those projects are implemented within the next 5 years.

Beyond bus lanes, municipalities can also improve the conditions of their sidewalks and crosswalks to ensure people of all ages and abilities can safely and comfortably access bus stops. Many municipalities could also improve their curbside management, and on-street parking policies to prioritize the movement of people walking, biking and taking the bus.

Lastly, municipalities have a responsibility to make sure bus

"My commute is much smoother, especially during the morning rush hour. There are still issues – with the T, like bus arrival times – but once I'm on the bus there are a narrower band of times that my ride takes. There are fewer times now that I have to call an "emergency" Uber. I am really satisfied with these lanes. I don't know how to drive and part of what I looked for when I moved was a city with dependable transportation alternatives."

*Bus rider, Broadway,
Somerville; October 2019*

TRANSIT, HOUSING, + DISPLACEMENT

operators have space to rest, take breaks, and access bathroom facilities. Public and clearly communicated bathrooms and layover facilities are critical to support the needs of bus drivers, older adults, and indeed anyone else moving around public spaces.

2. Manage traffic signals to prioritize transit.

Buses abide by traffic signals, but there is no reason why signals can't be set to prioritize buses. Transit signal priority (TSP) is used widely in many regions but only sparingly by the MBTA,³⁰ and a key roadblock is an integration across traffic signals in multiple jurisdictions.³¹ In cooperation with the MBTA, **cities, and towns must lead the way to implement signal systems that can be adapted for transit signal priority.** While the Boston region has implemented transit signal *priority*, transit signal *preemption* is a more active measure.³² Rather than extending or compressing lights, it actively changes signals to ensure that buses only hit green lights. While this may not be appropriate for every intersection on every bus route, **heavily used transit corridors should implement transit signal preemption**, even if it means small inconveniences for people driving cars.

3. Improve bus stops and stations.

Of the nearly 8,000 bus stops in the MBTA system, only around 8% are sheltered and most lack adequate facilities, like benches or clear signage for passengers waiting for the bus. Additionally weather conditions like snow can cause serious safety and accessibility issues especially for residents with disabilities. While the MBTA is actively working to keep their bus stops up to date and running, cities and towns often own the property where bus stops are located. **Municipalities should work with the MBTA to set measurable goals to provide more passenger amenities by 2030, including lighting, shelter, wayfinding, on-demand heat, real-time departure information, and raised curbs for easier boarding.** While overhauling all bus stops in the system will take time, at a minimum all bus stops should meet basic accessibility requirements by 2030.

4. Ensure housing and transit are planned together — and include the bus

Transit only works when it has people to carry, and people must be able to live near transit to use it. Many neighborhoods in and around Boston are zoned for single-family housing or have high parking space requirements that increase the cost of housing units, even if they are well-served by transit, walking, and biking infrastructure. Studies conducted over the Greater Boston Region have shown that the average parking supply exceeds the average demand of parking in all of the municipalities,

While a good transit system is the backbone of a thriving city, it can also add to displacement pressures in low to middle income communities in a region already struggling with low housing supply.

In the fall of 2022, Boston surpassed San Francisco to become the second most expensive rental market in the country, with the median price of a one-bedroom in Boston now more than \$3,000 a month. Boston has also been ranked the third-most gentrified city in the nation, according to a 2020 study published by the National Community Reinvestment Coalition.³³ With a growing population and a supply of housing not keeping pace with regional growth, renters with lower incomes and renters with families must compete in a rental market with higher income earners which can result in the displacement of these lower income renters and families.

As Greater Boston redesigns its transit system we also need to design policy to protect low income communities and communities of color from displacement, especially the designated Environmental Justice Communities.

Housing advocates and activists have been working with state legislators and local policy makers on a series of solutions to keep our region's most vulnerable renters housed and stabilize tenancies while new supply of housing is underway:

Create Special Protection (Anti-Displacement) Zones: Protect current residents from being displaced through updates in the zoning code through the use of an overlay district with special standards to maintain current demographic/racial/ethnic and economic character.³⁴

Tenant Opportunity to Purchase Act (TOPA): This enabling legislation would allow municipalities the option of providing tenants in multi-family buildings the right to match a third-party offer when their

"I'm an 89-year-old woman! They need to make all the platforms on T stations smooth like this one. I fell the other day at Jackson Square because the ground wasn't flat."

Bus rider, Columbus Ave, Boston;
December 2021

homes are being sold or to designate their rights to a non-profit or local housing authority, or partner with an affordable housing purchaser.³⁵

Rent Stabilization: The percentage of residents who rent their homes is rising, while nearly half of all MA renters and over 70% of very low income renters are burdened with unaffordable housing costs. Legislation focused on rent stabilization would overturn the statewide ban on rent control and allow municipalities to explore capping percentages on rent increases or other stabilizing measures.

probing us to rework the parking minimums inculcated in our zoning laws.³⁶

Cities and towns must allow multifamily housing development and near high-frequency transit — as recently established in the new section 3A of the state's zoning law. While this is a good start, this law defines "high frequency transit" as subway or rail service and does not include current or future high frequency bus routes. Municipalities can and should allow for and plan multi family housing near high frequency bus service as well. Doing so will start a cycle where increased population results in increased ridership and demand for more frequency. This increased demand for transit service should be intentionally planned for. It's also key to plan for the potential harms that can come from expanding and improving transit services with better housing and zoning policy that allows these new services to continue to benefit the people who already live there.

The MBTA

1. Attract and retain operators and other employees who support the bus system.

First and foremost, the MBTA must prioritize hiring and retaining bus operators and the staff that support them. Working for a transit agency has long been seen as a gateway for stable employment at a middle-class, unionized job.¹² Yet in the wake of the pandemic, the MBTA has been unable to retain and hire enough operators and other staff to maintain full service levels.

Recent initiatives to train new operators and offer signing bonuses is a good start. In 2030 the MBTA should continue to work with the Boston Carmen's Union to map out a strategy for accelerating the hiring process. Some of these strategies may include increasing starting wages, improving schedules for new operators, and creating better working conditions, as well as updating its outdated hiring policies and processes which will result in more competitive hiring, higher retention, and an influx of new entrants into the system.¹²

Additionally, the MBTA should explore ways to attract and retain more women/femme, non-binary, low-income workers, and people of color. One option to explore is **creating an employee childcare program for frontline staff**. A recent study demonstrates a gender-based wage gap that stems from the need for female employees to provide childcare duties instead of having the flexibility to take overtime shifts like their male counterparts.³⁷ Most of the MBTA's facilities date to a time when there were very few female bus drivers, but today approximately 50% of transit operators are women/femme.³⁸ Specific amenities — for example, safe, private, and clean spaces to pump breast milk — should be incorporated into new designs and retrofitted into older spaces.

The bottom line is that any and all efforts to increase and expand bus service hinge on having the workforce necessary to operate and maintain buses.

2. Expand, improve, and electrify the bus fleet and facilities.

Greater Boston needs 200 to 600 more buses to run more frequent service and expand the bus network, and hundreds more operators to drive them. They will also need new facilities to store and maintain these buses, particularly with an emphasis on accommodating electric buses which cannot be stored in outdoor yards as most MBTA buses are today. **Investing in a larger bus fleet and new storage and maintenance facilities** will reduce crowding, improve frequency and reliability, enable zero emissions service, ensure the facilities are climate resilient, and provide a bus system sized appropriately for the people who rely on it. Accomplishing these goals will also require a significant investment in updating existing facilities, many of which were originally built for streetcars in the early 1900s and the newest of which date to the 1970s. New facilities built to modern standards will allow the MBTA to electrify routes in lower-income, higher-pollution areas and to run them with a frequency that meets the demands,² as well as the goals of the Bus Network Redesign.⁵

While the MBTA must take the lead on building and purchasing their own bus fleets and facilities, it's also important to note that other State agencies and municipalities will need to prioritize working collaboratively with the MBTA to ensure that the infrastructure required to support fully electrified bus facilities is built. Massachusetts will also need to robustly pursue its already existing clean energy goals to ensure that the sources of electricity for these facilities are clean and renewable.

3. Make more buses fare-free and improve fare collection.

Through a combination of fare-free and improved fare-collection policies, the MBTA should prioritize bus speed and reliability rather than accept fare-related delays and policing of bus riders. **The MBTA should implement a systemwide fare-free pilot in 2023 to measure the costs and benefits of a fare-free bus system.** This

"Infrastructure is great, but it doesn't help unless there are more buses."

Bus rider, Broadway, Somerville; October 2019



would also be an opportunity to measure the potential costs and impacts of a fare-free bus system on the RIDER, the MBTA's paratransit system. While fare-free bus service pilots have been proven to increase ridership and speed up service, it is not a one-size fits all solution for low-income bus riders. Most people who ride buses transfer to the subway or commuter rail, and still pay full fares on those systems.

The MBTA should also implement a low-income fare program early in 2023. This program is long overdue and MBTA staff have demonstrated that they have already done their due diligence and have mapped out a comprehensive implementation strategy.

Additionally, in situations where fares are being collected, any fare enforcement mechanisms should focus on outreach rather than enforcement to reduce additional police presence, especially in communities of color.³⁹

4. Improve bus dispatching and scheduling to prevent bunching.

On frequent routes, buses often arrive in "bunches" — two or three at a time, followed by long gaps in service. While street design and signals can help mitigate this, the MBTA should also use a multi pronged approach to addressing bunching, which could include **devoting more staff to bus dispatching, rewriting bus schedules where needed, and improving layover policies to allow operators more time between trips.**

5. Reestablish an MBTA internal planning department.

The MBTA is one of few large transit agencies without an in-house team to manage planning and technology. As a result, the agency currently relies on consultants or MassDOT transportation planners who often lack transit-specific expertise. This also puts the agency at an extreme disadvantage when it comes to securing state and federal funding and managing grant-funded projects. **The agency should reconstitute its transportation planning department and staff** — which were consolidated within MassDOT in 2007 — so it can

focus on infrastructure and policies that improve service, and more readily identify, apply for, and manage funding opportunities. Any investment in planning capacity at the T will easily be repaid when the Commonwealth can leverage additional federal funding.

6. Create consistent standards for bus infrastructure design.

The MBTA is in the process of **creating bus infrastructure design guidelines to ensure that municipalities can follow the same standards**, making it easier for people who are traveling across the

region to know what to expect and how to use new infrastructure. These guidelines should be consistent, but not so rigid that they prevent creative use of roads. Rather, they must prioritize multimodal use of roads and ensure that bus stops are accessible and easy to use. The MBTA should finalize these guidelines early in 2023 and municipalities should adopt the guidelines by the end of the year.

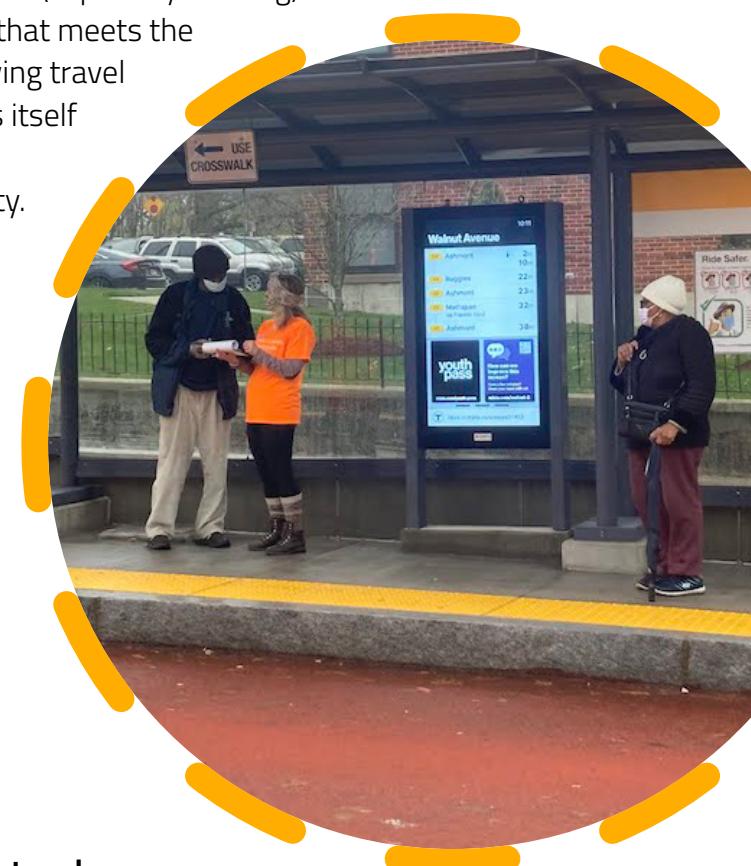
7. Integrate land-use planning with transit planning.

Working with MAPC, CTPS and municipal planning departments, the MBTA should plan bus service based on where demand will be in the near future, not just today. Iterative and holistic planning that recognizes where growth (especially housing) is planned is critical to creating a dynamic transit system that meets the growing and changing needs of our region. By only reviewing travel patterns after they have been established, the MBTA sets itself up to repeatedly fall behind, especially as more suburban municipalities grow in population and development density. Fortunately, the MBTA is already working on a tool that incorporates land use and planned development as criteria for ranking corridors for bus priority treatments, offering a powerful opportunity to avoid this outcome and direct improvements where they are needed most, both today and in the future.

The MBTA should also assess the opportunity cost of building bus facilities adjacent to high-frequency transit and, where possible, use that land for dense housing development. This could be an especially important strategy in communities that are experiencing high levels of displacement and/or are actively seeking to build more affordable housing near transit.

8. Make bus schedules easy for people to understand.

Bus service is most effective when it is both frequent and predictable. **The MBTA should consider utilizing "clock face" scheduling for bus routes that are scheduled at intervals of 15 minutes or less.** Clock face scheduling requires a bus to arrive at the same time every hour of the day. For example, a particular bus always comes at 10 and 40 minutes past the hour. Many bus systems utilize clock face scheduling because of its ease for riders. This approach is also easier for drivers, who can keep better time by making sure they pass certain landmarks at the same time before and after every hour.



"Yes! I'll spend it [the saved money] on creating my art and for food. Also, it would help a lot because I visit my grandchild a lot through the commuter rail, which gets expensive."

Bus rider, Nubian Square, Roxbury; March 2022

"I would go further, probably visit Lynn, to visit my friends."

Silver Line rider, Bellingham Square, Chelsea; March 2022



CONCLUSION

Conclusion

Greater Boston is growing and changing rapidly, but its bus system has been mostly stagnant. While the regional economy expands, employment industries boom, and the population soars and shifts, the number of buses, bus facilities, and level of service remain largely unchanged — and in some cases, decreased. In short, Greater Boston's bus system has not kept pace with the region it serves and fails the residents who depend on it to thrive. Gaps in the system's access and quality of service have become increasingly apparent, and manifest themselves in stark racial inequities, crippling traffic congestion, and unmet climate goals. In order to mitigate the disparities within the system and address the growing needs of the changing population, the Boston region needs and deserves a robust and reliable bus system.

With a combined and concerted effort from state policymakers, municipalities, state agencies, and the MBTA itself, it is reasonable for the public to expect, and demand, a dramatically improved bus system by 2030. Ongoing initiatives such as Bus Network Redesign and Bus Facility Modernization provide opportunities to achieve many of the goals put forth in this report, and an all-hands-on-deck approach between the state, the legislature, the MBTA, and municipalities is necessary to make it happen. We believe that a world-class, 21st-century bus system is within reach for our region and hope that this report offers guidance to set the path to it in motion.



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Report Contributors

ITDP

Chinmai Deo
Michael Kodransky
Aarti Mehta
Ari Ofsevit
Julia Wallerce

LivableStreets

Maha Aslam
Makayla Comas
Lorraine Fryer
Catherine Gleason
Kristiana Lachiusa
Stacy Thompson

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