

#### Goals and Targets

The 5,000 questions submitted by Bostonians in the winter of 2015 serve as the foundation for the Go Boston 2030 goals and targets. When the City and multiple partners sat down at a Question Review Session and reviewed each and every submitted question, nine themes emerged as a framework for understanding what people seemed to be requesting. Overwhelmingly, they wanted access all neighborhoods by all modes of travel, assurance that they would be safe while traveling, and confidence that the transportation systems would be reliable.

Priority questions from each theme were shared at the Visioning Lab to collect public input. This feedback was used to develop a vision, goals, and aspirational targets for each theme. Together, these serve as the framework for the upcoming Action Plan, which will describe specific projects and policies that the Boston Transportation Department will work on with partner agencies and the public.

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#### **How We Get to Work Today and Aspire to in 2030**

Mode for

Bostonian Commutes	Today*	2030 Aspirational Goal
<b>Public Transit</b>	34%	♣ Up by a third
Walk	14%	♣ Up by almost a half
Bike	2%	↑ Increases fourfold
Carpool	6%	→ Declines marginally
<b>Drive Alone</b>	39%	♣ Down by half
Other/Work from Home	5%	Slight increase in Work from Home

Mode for Commutes into Boston from the MAPC Region <sup>†</sup>	Today*	2030 Aspirational Goal
Public Transit	40% (10% Commuter Rail)	Up by a third
Walk	2%	Doubles
Bike	1%	Increases fourfold
Carpool	8%	Increase by half
Drive Alone	50%	Down by half
Other/Work from Home	1%	Slight increase in other modes (taxi, motorcycle, etc.)

The following pages summarize the themes that emerged at the Question Review Session and were refined at the Visioning Lab. Each page contains:

A *Vision* for what Boston could look and feel like if we designed transportation around the ideas in the theme.

Goals that outline a desired future for Boston's transportation policies and infrastructure, based on the vision statements of Boston's residents. Collectively they provide a broad roadmap for the City and Bostonians to take collective action.

Aspirational Targets that indicate the desired results that the residents of Boston want the projects and policies to strive to achieve. Each target is "aspirational," but measureable, in order to chart an aggressive course of action for the City of Boston and its regional partners.

Questions You Asked that came out of the Question Campaign and were shared at the Visioning Lab along with other samples of public feedback on each theme.

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<sup>\* 2014</sup> ACS 1-year estimates

<sup>&</sup>lt;sup>†</sup> 2010 ACS 5-year estimates, via CTPP

## **Expanding Access**

Make Boston's neighborhoods interconnected for all modes of travel

#### **Vision**

"Seamless," "convenient," and "easy to navigate" should be new ways to describe traveling in Boston. Residents and visitors alike will have multiple travel options to any destination, regardless of their age, income, race, or personal ability. Quality jobs, educational opportunities, healthy food, and cultural facilities will be accessible from every community. Getting between neighborhoods or connecting to the surrounding region will be easy to do without having to travel downtown.

#### **Goals**

#### Provide many travel choices close to every home

Every resident will have a variety of transportation options within a short, walkable distance of their home and workplace. Transit stops, Hubway stations, and carshare amenities will be available in every neighborhood and connected seamlessly to facilitate trip making. A resident of Codman Square who prefers not to drive will be able to walk around the corner to access regular bus and rail service, bikeshare stations, and affordable ride-hailing options.

#### Make cross-town connections between neighborhoods for transit riders, cyclists, and drivers

Boston's transportation networks will no longer be focused solely on funneling traffic and people into downtown but will provide high-quality circumferential connections as well. Direct routes and hubs for transfers will provide crosstown options by foot, bike, transit, and car that connect Brighton and Dudley Square, Roslindale and South Boston, or Fenway and Savin Hill. An expanded ferry system will link communities encircling the Harbor.

## Design streets and transit to be accessible for everyone, whether age 8 or 80

Boston's streets will become user-friendly for people who have not historically been at the center of roadway design. Travelers of all backgrounds will have easy access to all parts of the city at all times, especially populations that face personal mobility challenges, including parents with small children, older adults, young people, and people who are differently-abled. Roadway and station improvements, maintenance decisions, and snow clearance will demonstrate a commitment to being walk-friendly, transit-supporting, and bike-welcoming.

#### Connect low-income communities to job-rich districts

Recognizing that many neighborhoods outside of downtown contain important job clusters but lack robust transit access, areas such as Longwood, Logan Airport, and the South Boston Waterfront will be prioritized for improved transportation options that specifically connect to low-income communities. Residents who have been disconnected from opportunities will benefit from expanded hours of train and bus service and transportation subsidies in order to start new jobs and access educational choices.

#### **Aspirational Targets**

Every home in Boston will be within a 10 minute walk of a rail station or key bus route stop, Hubway station, and carshare.

from 42% of households to 100%

<u>Transportation infrastructure</u> will be completely ADA compliant at all points of access.

By supporting the development of mixed-use neighborhoods and improved pedestrian facilities, the number of households classified as "car dependent" will be cut in half.

from 14% of households classified as "car dependent" by Walk Score in 2015 to 7%

#### **Questions Bostonians Asked**

How can we make sure all of Boston is T accessible?

How can Boston be 100% bike friendly by 2030?

How can we better use Boston's waterways for travel?

Parking is an issue in Boston-how can we manage spots better?

How can we have a more responsive or flexible transit system such as pop-up bus service, car share, and off-board fare collection?

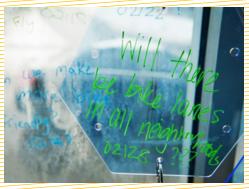
What if we could better connect our neighborhoods by train without going downtown?

How can differently-abled people, elders, and the parents of young children more easily move through Boston?



"Will there be a train on Blue Hill Ave?"

-Collected from 02124 in January of 2015



**Expanding Access** 

"Will there be bike lanes in all neighborhoods?"

-Collected from 02128 in February of 2015

#### **ADA Ramps**

The City of Boston is significantly ahead of schedule in bringing all of the city's pedestrian ramps into ADA/MAAB compliance. As of the end of the 2016 construction season, nearly 50% of the city's approximately 23,000 ramps were compliant. Approximately 950 ramps are reconstructed each year, putting the City on track to achieve full compliance by 2028, 10 years ahead of schedule.





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## **Improving Safety**

Substantially reduce collisions on every street through education, enforcement, and designs that reallocate street space to prioritize moving people safely rather than faster

#### **Vision**

Imagine traveling in a safer Boston where roads are smooth and well-marked, sidewalks and curb ramps are consistent and clear of obstructions, biking is hazard-free, and buses and trains do not break down or malfunction. Everyone will be able to choose to drive, walk, bike, or ride safely in any Boston neighborhood because our systems will be designed to be shared by many modes while our enforcers, operators, and educators promote patience and respect.

#### Goals

## Prioritize safety improvements in areas where fatal and injury related crashes have been concentrated

Improve safety by slowing drivers with visual and physical cues, and create residential streets that are safe and inviting for walking and bicycling. By tackling unsafe speeds, redesigning roadways, and reducing distracted and impaired driving, we can create a culture of empathy and hold ourselves accountable for reducing traffic fatalities along high crash corridors such as Massachusetts Avenue and citywide.

## Reallocate street space to prioritize moving people safely rather than faster

Traditionally Boston's compact road network has been designed to move people in cars faster. Boston will prioritize travel space to be equitably shared by every person who rides transit, drives, walks, and bikes, by focusing on moving people instead of "level of service." Crossing a wide boulevard like Melnea Cass, riding on a bicycle-busy street like Commonwealth Ave in Allston, or accessing buses at hubs like Kenmore Square will be safer as streets are redesigned. Neighborhood residential streets will be designed to support slow family-friendly speeds and a sense of community.

#### Implement designs that make streets safer for people who walk and bike

People walking in Boston will feel safer and be protected from traffic through improved designs including wider sidewalks, especially where cars move at higher speeds. Smarter signals will make crossing streets easier, particularly across Boston's wider boulevards, such as Huntington Ave. Protected lanes and intersections will improve safety for people on bikes and create a low-stress network that connects riders to paths and parks like the Southwest Corridor and the Emerald Necklace.

## Ensure quality maintenance of transit facilities, sidewalks, and roadway surfaces

From the Mattapan trolley to the sidewalks of East Boston, every neighborhood's travel systems will be in good working order, clean, and safely lit. The MBTA will be safer with better-maintained equipment, shelters, and stations. Well-cared-for biking networks will encourage greater use by more riders over more seasons. Damaged roadways and sidewalks will be repaved and repaired quickly and responsively. Collectively, all travelers will feel safer moving through shared spaces, waiting for their bus, and driving home.

#### Provide people-focused service

Every person who designs, enforces, and maintains Boston's transportation networks will be focused on moving people safely and with respect, including when Bostonians come together at Fenway Park, ride a busy Route 39 bus, or rush home along Columbus Avenue or Morton Street. Transit operators will be considerate of riders and people using other modes of travel. Signage and staff will help travelers navigate downtown streets, understand which bus to take, and find new ways to travel in their neighborhoods.

#### **Aspirational Targets**

## Eliminate traffic fatalities and severe injuries in Boston.

— from an average of 18 per year to zero traffic related deaths

#### Reduce the number of <u>pedestrian</u> and bicycle related collisions by 30%.

from 1,279 total collisions reported by EMS for 2014 to 895 or fewer

All households will be within a 5-minute walk of a protected bicycle facility or shared use path.

— from 20% to 100%

#### **Questions Bostonians Asked**

How can we eliminate harassment on public transit?

How can we make it safe to walk 24/7 in every neighborhood?

How might pedestrians, bikers, and drivers share the road more safely?

How can we safely bike with our children anywhere in Boston?

How can transit police be better trained in customer service and cultural competency?

How can people get around in a safer and healthier way?



"How can people get around in a safer and healthier way? (less toxic)" —Collected from 02136

in January of 2015

Improving Safety

#### **Mission Accomplished**

In 2015, one of the targets was "Lower default speed limit to 25 mph" from the existing default of 30 mph. In August of 2016, after Mayor Martin J Walsh joined other elected official in a supporting this policy, new state legislation opened the door for Boston to make this a legal change. With approval from City Council, the new default speed limit went into effect on January 9, 2017 in Boston.

#### Learn more at:

www.boston.gov/news/boston-pursuing-25-mph-speed-limit

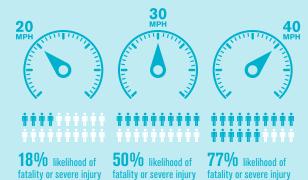
#### **Boston EMS Activity**

In 2014 there were 724 pedestrian and 555 confirmed cyclist incidents documented by Boston EMS.

Vision Zero Boston is working to address locations where severe and fatal crashes occur.

Learn more at: www.visionzeroboston.org

Higher vehicle speeds increase the risk of a pedestrian fatality or severe injury.



Source: "Impact Speed and a Pedestrian's Risk of Severe Injury or Death", Brian Tefft, AAA Foundation for Traffic Safety, 2011.

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## **Ensuring Reliability**

Prioritize making travel predictable on Boston's transit and roadway networks

#### **Vision**

What if Boston was admired for an interconnected system of trains and buses that ran on schedule—around the clock all year long—and was known for traffic that flowed smoothly regardless of congestion or the weather? In 2030, every Bostonian will have real-time information at their fingertips about service changes and traffic. A dense system of interconnected walking, biking, transit, and driving networks will ensure redundancy and reliability citywide.

#### Goals

#### Have consistently on-time, allweather rail and bus service

Boston's transit networks are hampered by age and fleet complexity. The City will work with the MBTA to ensure that buses arrive on time consistently in every Boston neighborhood and in all weather conditions. Bus routes will have a level of service that provides their riders with first class service and predictable travel times. Transfers at key transit hubs such as Andrews and Ashmont stations will be smooth and efficient. Sources of recurring delays will be addressed with improvements to signals and fare payment systems.

## Provide reliable real-time information to plan all trips or make in-route adjustments

No Bostonian will be left wondering when a bus will show up or how long it will take to reach their destination. Using electronic signs, in-vehicle displays, and robust mobile data apps, Bostonians will know just when to step into the cold to catch the bus and when there's traffic ahead. Way-finding signs and directions will be provided for a mix of modes so that each traveler can select the best way to get around each day depending on price, congestion, weather, or carbon footprint.

#### Develop new travel options to reduce delays

Strategies and services to that reduce wait and travel times will be deployed to complement Boston's existing transit services including exclusive bus lanes; smaller, more nimble shuttles; and shared rides. Integrating innovative fare collection, dispatching, and dynamic routing will also reduce bus delays. Broadening the reach of Hubway and accommodating bikes on trains during rush hour will enable more people to incorporate cycling into their commute and overcome gaps in the network.

#### **Ensure predictable driving commute times**

People who drive on Boston's streets will experience consistent traffic flows on their commutes to work or home. Drive times will be predictable leaving job-rich areas like the financial district during the evening peak, returning home along a major north-south artery such as Dorchester Avenue, or arriving on time for your doctor's appointment at Mass General. Regional travelers will remain on major arterials like I-93 because it will be faster than searching for shortcuts through residential neighborhoods.

#### **Aspirational Targets**

## Bostonians' <u>average</u> commute to work time will decrease by 10%.

— from 28.8 minutes to 25.9

Wait and travel times for MBTA customers will be as fast as scheduled times (or faster) 90% of the time.

Maintain <u>consistent average travel</u> <u>times</u> for vehicle traffic along major arterials during peak hours every day.

All train stations will have bus service and/or shuttle service, carshare, and bikeshare stations.

from only five in the system to 100%

Real time arrival information will be displayed at <u>all rail stations and key route bus stops.</u>

from 86% of heavy rail/rapid transit stations and two bus stops to 100%

#### **Questions Bostonians Asked**

What if buses didn't have to sit in traffic and make me worry about being late?

What will it take for Boston to be a city that is admired for its innovative solutions to its transportation problems?

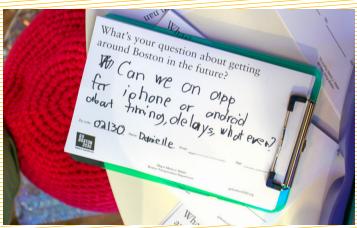
What can be done about congestion so people can get where they need to be faster?

What if taking transit to work was always faster than driving?

What can we do differently so the MBTA is reliable in all kinds of weather?

What if our trains and buses got me to work or school on time?

Can we [get] an app for iPhone or android about timing, delays, whatever?



"Can we [get] an app for iPhone or android about timing, delays, whatever?"

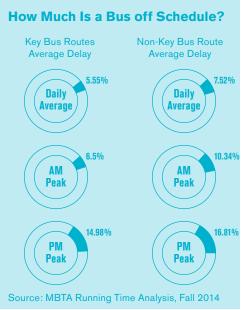
**Ensuring Reliability** 

-Collected from 02130 in January of 2015

#### Time to Destination Signs

BTD is making it easier for drivers to exit the fast-growing South Boston Waterfront. Signs using real-time traffic data from area roads will help direct drivers to the quickest route, which often isn't the shortest route to the highway.





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## **Focusing on Experiential Quality**

Develop public spaces on streets and at transit stations that are welcoming, clean, and fun

#### **Vision**

Every trip will be enjoyable, with continuously inviting, comfortable, and clean public spaces and wellmaintained facilities. All Bostonians, regardless of their background or ability, will be respected and accommodated by the transportation system and other travelers in every neighborhood and on all modes of travel. Bus rides will be smooth, quiet, and clean. Sidewalks and plazas will be enhanced with art and activity.

#### Goals

#### Be welcoming and respectful of all travelers

Everyone, regardless of their age, size, race, or ability, should feel welcomed on streets, sidewalks, and transit and have a quality travel experience. Wait times for buses at busy stations like Ruggles will be reasonable and boarding a bus will be comfortable. Crowed corridors such as Centre Street will have room to walk unobstructed and be safe for children crossing the street. Train stations will be accessible for people with wheelchairs and strollers. Service by public employees and user-friendly. will be culturally competent, and multilingual information will be visible throughout the system. New bicycle riders will have plenty of protected places to ride. People who walk, bike, and drive will courteously follow the rules and share the road with a smile.

#### Make travel entertaining, culturally vibrant, and fun

Waiting for a bus or train or walking to a neighborhood destination will not feel boring or like wasted time. Riding a train or bus will be relaxing and stimulating. Amenities throughout Main Streets districts and at plazas near stations as dissimilar as Maverick and Readville will reflect their history and support the present community of the surrounding area with vibrant public art, gathering spaces, and activities. Networks of interesting routes for walking and biking will make visits, errands, and commutes enjoyable. The City will support community-driven efforts to implement placemaking strategies.

#### Maintain a clean and comfortable public realm

Boston's sidewalks, transit station areas, and public spaces will create a sense of place and be comfortable venues to socialize in every neighborhood. Residents from Brighton to Mattapan will take pride in their regularly-cleaned and well-kept transportation facilities featuring good lighting, places to sit, and trees for shade. Streets, bus stops, and bike lanes will be regularly cleared of dirt, debris, and snow to keep them safe

#### **Trouble Finding a Seat on the T?**

During the morning rush, nearly all subway seats have been filled before trains even get to Boston, forcing Bostonians to stand. Off-peak, seats are easy to find.

Train Capacity vs. Boarding by Line

range Line	
------------	--

Northbound from Back Bav	Southbound
HUIII Dack Day	from Haymarket
6,507	7,312
11	12
Northbound from State	Southbound from NE Medical Center
6,424	5,573
12	12
Northbound from Broadway	Southbound from Central
10,216	8,931
14	14
Northbound from Kendall	Southbound from South Station
8,321	8,545
15	16
	Northbound from State  6,424 12  Northbound from Broadway  10,216 14  Northbound from Kendall

#### **Aspirational Targets**

There will be room on every train and bus for anyone waiting to board during peak times.

All street and transit infrastructure will be kept in a state of good repair.

All transportation infrastructure will be clean and clear of trash within 24 hours.

All T stations and Mobility Hubs will have public art or gathering spaces.

from 16% of Commuter Rail and Rapid Transit stations with public art to 100%

#### **Questions Bostonians Asked**

When will the T be clean, efficient, comfortable, and even interesting?

Will there ever be a day when Boston's sidewalks are plowed BEFORE the roads?

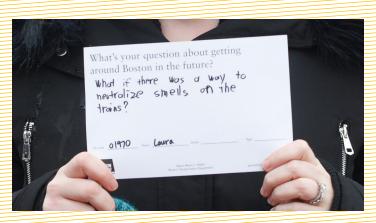
What if people came to Boston just to ride the T?

What if moving through the city made us healthier, happier, and more connected? What would that look like?

How can we replace friction among cars, bikes, and pedestrians with harmony?

How can the way children and youth move through Boston be more supportive to them and their families?

What if there was a way to neutralize smells on the trains?



"What if there was a way to neutralize smells on the trains? -Collected from 01970

Focusing on Experiential Quality

#### **Public Art and Transportation**

Boston's transportation system is enhanced by public art across the city. From rotating murals at Dewey Square to sculptures in stations along the Orange Line to murals outside Red Line stations, art enriches the ways we get around.





Boston Transportation Department

# **Leveraging Innovation** and **Technology**

Lead the nation in supporting new mobility technology and innovations in shared transportation that reach all Bostonians

#### **Vision**

Imagine technologies that enable people in all neighborhoods to move more intelligently and efficiently. The creativity of Bostonians and local start-ups will drive improvements in mobility choice and user experience. New ways to travel will allow us to untether our reliance on fossil fuels. Boston will pursue unique demonstration projects to jump-start the adoption of new vehicles and strategies for moving people and goods.

#### Goals

#### Flexibility to accommodate disruptive mobility technologies

The arrival and adoption of new technology—such as autonomous cars, electric tricycles, and self-driving buses—is imminent. Boston will accommodate these and other emerging vehicle types by creating infrastructure networks that can be easily repurposed. Car and curbside lanes on major corridors like Columbia Road or in dense areas such as the Theater District will offer parking at some times and bus or bike lanes at others and serve as designated pick-up and drop-off locations for passengers and parcels. Traffic signals will adapt automatically, relying on sensors and algorithms to optimize the movement of people. New buses will be compatible with older fleet vehicles while leveraging emerging technology.

#### Innovation in on-demand services and real-time information for all

Travel apps and ride-hailing services have proliferated nation-wide. Boston will create the next generation of innovations that make travel easier, better coordinated, and more enjoyable while reducing cost, language, and other obstacles. Passengers at a hub like Dudley Station will accurately know their trip time and available travel options to places around the corner in Mission Hill or as far away as Washington, D.C. A single card or device will serve as a comprehensive platform to pay for all types of travel.

#### Smart energy grids connecting Boston's infrastructure

Plug-in and solar-powered infrastructure is installed every day citywide. Boston will interconnect these amenities into a smart, regenerating grid that efficiently allocates energy where and when it is needed. Solar panels on bus shelters along Key Bus Routes will feed charging stations for electric cars while clean fuel buses will recharge at major terminals such as Kenmore and Sullivan Squares with connections to wind and solar energy farms along the Mass Turnpike or at maintenance yards.

#### Crowdsourcing local talent and university expertise

The Boston area has one of the most educated workforces and strongest academic clusters in the world. Public agencies will continue to harness local talent and establish partnerships with universities, industry startups, and early-adopters to allow for experimentation in transportation. Collaborations will focus on creating an environment conducive to prototype testing and demonstration projects. Resources will be steered toward car and transit vehicle technology and the collection, sharing, and use of data.

#### **Aspirational Targets**

## Every traffic signal will automatically adapt to bus, car, and bike demands.

→ from 0% to 100%

The <u>number of vehicles</u> in the Boston region providing shared transportation such as carshare, bikeshare, ferries, and pop-up buses will double.

from approximately 2,500
 Hubway bikes, Zipcar vehicles,
 and Enterprise CarShare vehicles
 today to 5,000

The occupancy status of <u>every</u> metered on-street parking space in Boston will be available in real time.

── from none to 100%

#### The proportion of registered clean fuel vehicles will increase fivefold.

from 0.1% of vehicles registered in Boston as electric and 2% as hybrid electric to a combined total of 10%

Pilot five <u>demonstration projects</u> every year that leverage new technology for mobility.

#### **Questions Bostonians Asked**

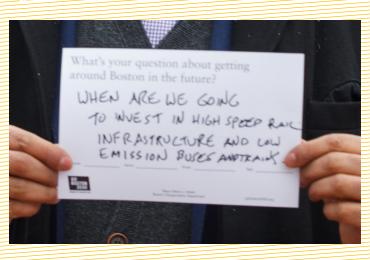
How can we use new technologies to move people faster, smarter, and more efficiently?

How can real time transit data help me?

How can commuting create energy, not just use it?

What if more parking spaces became park spaces?

When are we going to invest in high speed rail infrastructure and low emission buses and trains?

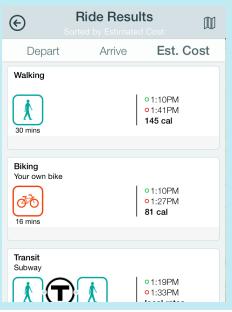


"When are we going to invest in high speed rail infrastructure and low emission buses and trains?"

-Collected in January of 2015

#### **New Apps for Trip Planning**

Most people use their smart phones to find routes after they have selected their preferred mode. RideScout changes how people think about their trips by allowing users to decide whether time or cost matters more and compares trip options by looking at calories burned and dollars spent.



#### Preparing for Autonomous Vehicles with New Partnerships

Leveraging Innovation and Technology

Boston, along with Gothenburg, Sweden, and Singapore, was selected by the World Economic Forum (WEF) to work with the Boston Consulting Group on a study of the Future of Urban and Autonomous Mobility, which is considering the business models, use cases, and possible necessary regulation of autonomous vehicles. BTI has also been supporting the work of T4Mass's Innovative Mobility Roundtable that has brought to the discussion a wide range of practitioners, publi leaders, consultants, and community advocates to consider the implications of change.



Illustration by Cindi Anderson, courtesy of Argonno National Laboratory's TransForum

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## **Securing Affordability**

Restructure transportation costs to address income disparities

#### **Vision**

Picture a Boston where every neighborhood has affordable housing and quality transportation choices. Vulnerable groups including young people and seniors will be able to afford to use bikeshare, ride the bus, or take a train. State and city agencies will invest in and expand the transit network so that affordable options exist while service quality is maintained. **Transportation** improvements will not cause rents to rise and displace residents, because good connections will be everywhere.

#### **Goals**

#### Protect affordable housing when improving transportation

Upgrades to the transportation system should not make housing more expensive for residents with fixed or limited income. Places like South Boston should preserve affordability even as transit and bike networks through the neighborhood improve. Enhanced transit along the Fairmont Line or other corridors will be accompanied by a mix of housing options for all incomes. With all Bostonians living within a short walk of transit stations, carshare spots, and biking routes, more residents can avoid the high costs of owning a vehicle.

#### Make transportation affordable to those most in need

Transit in Boston will be affordable to all, including youth, students, people with disabilities, elders, and people on fixed incomes or with minimum wage jobs. Innovative ways to fund and subsidize transportation for historically underserved populations—such as Boston Bikes' subsidized Hubway memberships and the expanded Youth Pass "S-card"—will reduce the cost of transportation so that the expense of getting around is no longer a barrier to finding work, getting to school, or improving quality of life.

#### Invest dollars fairly to distribute costs evenly and reduce longterm debt

Funding strategies will ensure that capital investments made today will not create legacy debts to be paid-off by future generations the way that the Big Dig did. Project financing that leverages Boston's booming economy will pay for maintenance and service improvements, thereby reducing the strain on T riders and taxpayers. Any increase in the cost of transit must correspond to improved levels of service.

## Average Transportation Costs as % of Income for a Median Income Family by Neighborhood

South Boston Waterfront	6.6%
Beacon Hill	8.0%
Fenway	9.4%
North End	10.6%
East Boston	10.7%
West End	10.8%
South End	11.5%
Back Bay	11.7%
South Boston	11.7%
Downtown	12.0%
Allston	12.2%
Charlestown	12.2%
Jamaica Plain	12.3%
Mission Hill	12.3%
Roxbury	12.4%
Mattapan	12.5%
Longwood Medical Area	12.6%
City of Boston (average)	13.0%
Brighton	13.7%
Dorchester	14.3%
Roslindale	15.1%
Hyde Park	16.4%
	16.5%

#### **Aspirational Targets**

Reduce the transportation cost burden for very low income individuals to the citywide average for a median household.

in 2015, from 33% of income spent on transportation to 13%.

The <u>cost of subsidized transit</u> <u>passes</u> will remain constant relative to inflation.

based on \$1.05 per subway ride for seniors and students in 2015.

Double the number of jobs reachable within a 30-minute transit commute.

——⊸ from 27% to 60%.

#### **Questions Bostonians Asked**

When will the youth of Boston get free rides to school and back?

I am a student. I have disabilities. I am an elder. I lived on a fixed income. I have a minimum wage job. In 2030, will I be able to afford to commute to a job or school in Boston?

How do we fund upgrades without burdening fare payers?

How do we better maintain our transportation equipment?

How can Boston engage its citizens as owners, not merely users, of our public transit?

How will the City guarantee protection from displacement for people who live near new and improved transit projects?

What if public transportation was free for youth and elders?



Public Transportation was Free For Youth & Elders?

"Ensure that existing residents can stay close to transportation options as service improves."

"What if public transportation was free for youth and elders?"

-Collected in February of 2015

#### Rising cost of taking the T MBTA Subway Fare History 1918 - 2016 Nominal Fare: Described as minimum base subway fare, not accounting for zones or Charlie Card discounts \$2.75 \$2.50 •••••• Inflation: Cost of a base subway fare indexed to 1918 via Consumer Price Index, \$2.25 annual value of 1918 Base Subway Fare (\$0.08) \$2.00 \$1.75 \$1.50 \$1.25 \$1.00 \$0.75 \$0.50 \$0.25

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## **Building for Resiliency**

Prepare for sea level rise along Boston's coastline and reduce greenhouse gas emissions

#### **Vision**

Imagine traveling without needing to rely on your personal car because Boston is committed to reducing greenhouse gas emissions by investing in transit improvements and new multiuse path networks. Clean fuel shared vehicles will be readily available if you choose to drive. Infrastructure will be designed to be resilient to increasing occurrences of coastal flooding, extreme weather, and highdemand public events.

#### **Goals**

## Reduce emissions through dramatic mode shifts and adaption of clean fuel vehicles

Transportation emissions contribute significantly to pollution in Boston today. People who drive alone will shift to using vastly improved transit and bicycle networks or switch to cleaner vehicles. This will improve air quality in neighborhoods along the Southeast Expressway and at congested intersections such as like Sullivan Square. While vehicle fuel-economy standards will be improved through regulation, clean-fuel vehicles will be supported by the installation of charging infrastructure and alternative fuel supplies.

#### Build for resilience to adverse weather and events

Events that change normal traffic patterns—ranging from Winter Storm Nemo to Red Sox victory parades—will not restrict the flow and movement of people and goods in the city. Drainage systems and green infrastructure will efficiently handle stormwater, plows will clear bicycle and vehicle lanes, and the MBTA will flex to meet weather challenges. If the city is shut down by extreme emergencies, the transportation system will bounce back quickly.

#### Take steps to protect infrastructure from rising tides and flooding

With nearly 47 miles of coastline along the harbor, Boston's transportation infrastructure is vulnerable to sea level rise and extreme precipitation. Roadways, bridges, paths, and tunnels will be constructed and retrofitted to withstand more frequent and more extensive coastal and inland flooding. This may range from raising roadway surfaces to redesigning subway entrances. Boston will leverage the harbor and connect waterfront assets in places like East Boston and South Boston with expanded ferry service.

#### Carbon emissions have started coming down

Since 2005, on-road vehicles in Boston have reduced their greenhouse gas emissions by 8%. This is primarily due to the increased efficiency of vehicles. Like households and businesses across Boston, the City is greening its fleet of cars, trucks, and buses.

Cars (EVs and hybrids): 99 Trucks (biodiesel and hybrids): 58 Buses (propane and new, more efficient school buses): 216

#### **Aspirational Targets**

#### Reduce greenhouse gas emissions from transportation by 50% of 2005 levels by 2030.

→ from 1.67 million metric tons to 1.25

Regional vehicle miles traveled will reduce by 5.5% below 2005 levels by 2020.

---- from 3.1 billion in 2013 to 2.9 billion in 2020

All transportation systems will be able to continue operating or have sufficient alternatives during a flood or snow event.

#### Adopt a municipal vehicle fleet that has <u>no carbon emissions.</u>

currently the vehicle fleet is about 25% emissions-free

#### **Questions Bostonians Asked**

In 2030, how will our transportation system handle 70,000 more people?

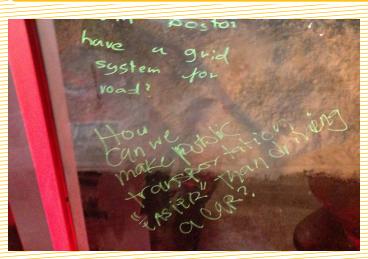
How can we prepare our transportation system for global warming?

What are ways we can incentivize people not to own cars?

How do we help families who rely on cars?

What if our transportation cleaned the air? What would that look like?

How can we make public transportation "easier" than driving a car?



**EV Charging Station** 

"How can we make public transportation "easier" than driving a car?" —Collected in February of 2015

**Building for Resiliency** 

#### **Electric Vehicles**

In 2015, there were 351
electric vehicles registered
in Boston. Roughly
two-thirds are plug-in
hybrid (PHEZ), and the
remaining onethird are battery
electric (BEZ).

# The current MBTA bus fleet contains: Electric Trolley 3% Diesel Electric 3% Diesel Hybrid 8% 1,006 MBTA Buses Compressed Natural Gas 35%

A Cleaner Bus Fleet

Boston 2030 Boston Transportation Department

# **Advancing Transparent Governance**

Include neighborhood residents as key decision makers in transportation design and funding

#### **Vision**

Community aspirations will drive strategic government investments. Our leaders will embrace Boston as the hub of a region designed around public transportation and walkable neighborhoods that can move people effectively without relying on driving. When public officials select transportation projects and funding priorities, they will consider the mobility, housing, and employment needs of historically marginalized groups including youth, seniors, low-income residents, and people of color.

#### Goals

#### Prioritize the movement of people over cars

Boston will continue to redesign itself as a transit-first city. Public agency planning and funding will focus on improvements for trains and buses, recognizing that these are more effective ways to move large numbers of people than single occupancy vehicles. Priority will be given to transit on major corridors such as Commonwealth Avenue, Blue Hill Avenue, and Washington Street. Civic leaders will promote a culture of respect in all neighborhoods that embrace those who travel without a car.

## Strengthen partnerships with surrounding cities and with regional and state agencies

As the Hub of a thriving region, Boston serves as a catalyst and leader for regional coordination. Boston agencies will work beyond the city's borders to champion regional solutions that benefit cities such as Quincy and Somerville, agencies such as MassDOT and Massport, and Boston itself. Projects that help non-residents travel into and through the city without driving will be supported in order to reduce or mitigate congestion.

#### Make transit improvements without displacement

Boston will proactively invest in transit in traditionally underserved neighborhoods. Improvements to rail and bus service will balance the desire to provide high quality public transit access while mitigating the negative effects of gentrification to areas such as Hyde Park, Roxbury, and Roslindale. Transportation investments will focus on stabilizing neighborhoods and proactively avoid disrupting effective communities.

#### **Embrace broad resident participation** and transparency in decision making

Community ideas will serve as the backbone of transportation decisions. The City will use creative, inclusive, and transparent engagement strategies to gather input from diverse stakeholders for projects ranging from street reconstruction to regional rail solutions. Culturally sensitive and linguistically appropriate methods will ensure that government hears all voices, not just the loudest, from Brighton to Chinatown and East Boston to Mattapan.

#### **Aspirational Targets**

A larger share of capital improvement dollars will be assigned to underserved communities to achieve equitable distribution of investment in transportation infrastructure.

The participants in transportation planning processes will be representative of the demographic make-up of neighborhoods affected by the project.

All transportation infrastructure for City or developer managed projects will adhere to the Complete Streets Guidelines.

Address <u>all citizen requests</u> for signal, road, and sidewalk maintenance and repairs.

#### **Newbury Street Closure Pilot**

In response to community and merchant requests to make the shopping and dining experiences of Newbury Street more accessible to a broader array of Bostonians, the City piloted the full closure of Newbury Street to cars on a Saturday in August, opening it exclusively to those walking or biking.



#### **Questions Bostonians Asked**

What will it take to shift the balance from cars to other modes of transport?

How can Boston enforce traffic laws to make our streets safe for all users?

How do we better engage youth in our transportation planning?

What would it take to prioritize people over cars?

How can we make economic equity and social and racial justice a priority in our transportation plan?

How can Boston and the MBTA creatively engage with me in their planning?

Since when does Boston have a wall around it? How can we plan more as a region?

What can Boston do to elevate transportation funding as a statewide issue?





**Advancing Transparent Governance** 

#### **Making Every Street Complete**

The City of Boston has developed and now uses a cutting-edge set of guidelines so that as streets are built and rebuilt all of them will be multimodal, green, and smart. For every type of street in the city, there is now a menu of design options for balancing the needs of people who walk and bike with the needs of people who drive or take the bus while making them active and attractive places for people.

Learn more at: bostoncompletestreets.org



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## **Guaranteeing Health**

Promote active and healthy lifestyles by connecting and providing access to green corridors

#### **Vision**

Could Boston's neighborhoods have transportation options that easily connect to all essential services while promoting better health and well-being? Living a more active lifestyle that easily integrates walking, running, and cycling into residents' daily routines will be facilitated by "complete streets" that accommodate active transportation and by a network of green corridors that connect families to parks. Bostonians will enjoy excellent air quality, lower asthma rates, and fewer sedentary ailments.

#### **Goals**

#### Target emission reduction in areas with high asthma rates

New efforts to reduce traffic congestion and idling, retrofit vehicles with pollution control equipment, and promote nonpolluting travel will make Boston's air cleaner. Neighborhoods like Roxbury, with higher asthma rates and other respiratory ailments, will be targeted to reduce harmful emissions from transportation sources so that no community has inequitable health outcomes or higher costs of medical care. Substantial reductions in emissions will contribute to improved health for all residents.

#### Improve access to local and centralized healthcare facilities

Transportation will provide efficient ways to access emergency, recurrent, and preventative medical care, helping to bolster the health of all Bostonians. Remote parts of neighborhoods like West Roxbury and Charlestown will have reliable links both to local community health centers and to specialized hubs like the Longwood Medical Area and Mass General Hospital. Senior and disabled residents will have reliable ways to access the care they need on a regular basis. Healthier patients will be able to effectively access health services without relying on their private vehicle.

## Connect neighborhood residents to green corridors for walking, jogging, and bicycling

Boston will embrace active transportation, recognizing that well connected places to walk, jog, skate, or bike safely can improve the health of residents in every neighborhood. New facilities in once-disconnected neighborhoods—such as the protected bike lane on Commercial Street in the North End or the new extension of the East Boston Greenway to Constitution Beach—will be built citywide to promote walking and cycling. By improving access to open space and waterfronts, residents can also benefit from improved mental health, community cohesion, and lower healthcare costs.

#### More Bikeable Cities Are Healthier Cities

Since 2007, Boston has installed 90 miles of on-street bike facilities and more than doubled the cycling rates of Bostonians. This increase in ridership also comes from many of Boston Bikes' other accomplishments: launching bikeshare and installing over 100 Hubway stations, giving away more than 4,000 bikes through "Roll It Forward", installing bike racks across the city, and teaching more than 23,000 students how to ride with the "Youth Cycling Program."

#### **Aspirational Targets**

All health centers in Boston will be within a 5-minute walk of a bus stop, shuttle, train station, and protected bicycle facility or shared use path.

→ from 7 out of 63 within a 5-minute walk, to 100%

Rates of emergency department visits due to asthma among Black and Latinos across all ages will be reduced by 10%.

 from 30.6 per 10,000 people in 2007 to 27.5 per 10,000 people in 2030

#### **Questions Bostonians Asked**

How can transport options make residents healthier?

How can we make it easier to get to our hospitals and health centers?

How can we reduce kids' exposure to air pollution?

Where would you create more pedestrian zones?

How can our plan ensure all Bostonians can be productive, engaged, and active?



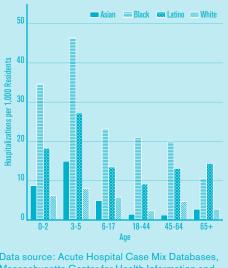
#### **Green Links**

Improving access to parks and connecting paths for people who walk, run, bike, and roll is the primary goal of Boston's Green Links Initiative. Learn more about this exciting work at boston.gov/transportation/boston-green-links.



## Asthma Emergency Department Visits by Age and Race/ Ethnicity, 2012

Guaranteeing Health



Massachusetts Center for Health Information and Analysis

80ston 2030 Boston Transportation Department March 2