City of Cambridge
Commission for Persons with Disabilities
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The next meeting of the Cambridge Commission for Persons with Disabilities will be held online via Zoom on Thursday, May 13, 2021 at 5:30 PM

PLEASE MAKE EVERY EFFORT TO JOIN BY 5:30 PM

AGENDA

Please keep your microphone muted when you are not speaking

1.	Introductions *If needed, alternates named*	2 min.	
2.	DPW's Annual Presentation on the Five-Year Street & Sidewalk Plan *See page 6 of agenda packet for copy of presentation*	60 min.	Kathy Watkins, City Engineer
3.	Approval of April 8 Minutes *See page 4 of agenda packet for April minutes*	2 min.	CCPD Board
4.	Announcements	2 min.	CCPD staff / Board
5.	Nominations & Elections for Chair & Secretary	5 min.	CCPD Board
6.	Chair's Report	15 min.	Phil Kongtcheu
7.	Public Input *See pages 2&3 of this agenda packet for instructions on providing public comment*	3 min.	general public

CART/closed captioning will be provided for this meeting.

Captions can be turned on within the Zoom platform. Additionally, you may stream CART in a separate URL at http://bit.ly/CCPDCART
(captions will not appear until the meeting has started)

The City of Cambridge Commission for Persons with Disabilities, does not discriminate, including on the basis of disability. The Commission for Persons with Disabilities will provide auxiliary aids and services, written materials in alternative formats, and reasonable modifications in policies and procedures to persons with disabilities upon request.

The next CCPD meeting will be held online on Thursday, June 10

Due to the pandemic, CCPD is not meeting in person for the foreseeable future.

Members of the public: See instructions on following pages on how to watch the CCPD meeting and provide public comment via Zoom

Instructions on How to Join the May 13, 2021 CCPD Meeting as a Member of the Public

Join Online:

Registration is required in order to view the meeting or to participate in public comment. Register online at https://cambridgema.zoom.us/webinar/register/WN_3sCqTOOLTDmq_gW0iRWq_Q

After registering, you will receive a confirmation email containing information about joining the webinar. For more information regarding Zoom technology visit: https://www.cambridgema.gov/Departments/citycouncil/zoomonlinemeetinginstructions

Join by Phone:

If you do not have access to the internet, you may also call into the meeting using a phone by dialing any of the following numbers and entering the Webinar ID (registration is not required). For higher quality, dial a number based on your current location:

+1 301 715 8592
+1 312 626 6799
+1 929 436 2866
+1 253 215 8782
+1 346 248 7799
+1 669 900 6833

When prompted, enter the webinar ID: **851 5689 9485**

NOTE: your microphone will be automatically muted until you are called on to speak during the public comment period of the meeting. See instructions on the following page for how to “raise your hand” in order to indicate that you would like to provide public comment.

Instructions for Providing Public Comment During CCPD Meetings via Zoom

Anyone wishing to address the Cambridge Commission for Persons with Disabilities (CCPD) during the Public Comment section of the agenda may indicate that by "raising their hand" virtually within the Zoom platform. The host (CCPD staff) will call on members of the public to speak in the order in which their hands were raised. Please note that while you may raise your hand at any point during the meeting, you will not be called on to speak until the Public Comment period of the meeting.

To raise your hand:

- On a Mac or PC:
  - Click “raise hand” in the webinar control panel
  - Alternatively, you may you the keyboard shortcut to raise and lower your hand:
    - Windows: press “Alt+Y”
    - Mac: press “Option+Y”
  - When you are called on by the host to speak, you will be prompted to unmute your microphone (you must unmute yourself, as the host does not have the ability to unmute individuals).
  - After you have spoken or once your 3 minutes are up, your microphone will be muted by the host

- If you are calling in by phone:
  - Press *9 to raise and lower your hand
  - When you are called on to speak during the public comment period, you will need to press *6 to unmute yourself (press it again to mute yourself)
    - Note: your phone number will be visible to only the host of the meeting (CCPD staff). Because your name will not be displayed, we will call on you when it’s your turn to comment by using the last four (4) numbers of your phone number to identify you. For example, “The person calling in from the number ending in ####, you may now provide public comment.”
    - After you have spoken or once your 3 minutes are up, your microphone will be muted by the host

Once they have the floor, members of the public are asked to identify themselves, and each speaker is limited to not more than three (3) minutes. Although the public comments should, whenever possible, address one or more items on the agenda for that particular meeting, if time permits, the Chair may allow a speaker to comment on matters that may not directly address an item on the agenda, but do concern the Commission.

Thank you for your patience as we work together to make virtual meetings accessible for everyone!

Draft
Cambridge Commission for Persons with Disabilities
Minutes for Thursday, April 8, 2021
Online via Zoom
Meeting was called to order at 5:30 pm

Present:
Members: Phil Kongtcheu, Avril de Pagter, Dan Stubbs, Stelios Gragoudas, Loring Brinckerhoff, Valerie Hammond, Gary Dmytryk, Nicole Horton-Stimpson, Mary Devlin, Jackie Jones

Staff: Rachel Tanenhaus

Guest Speaker: Michael Stein, Executive Director, Harvard Law School Project on Disability

Presentation on the Convention on the Rights of Persons with Disabilities:
Phil introduced Professor Michael Stein with a brief video.

Professor Stein presented on the United Nations (UN) Convention on the Rights of Persons with Disabilities (CRPD) which was adopted in 2006. To date it has been ratified by 182 of the 193 UN States, but not the US. The Convention aligns with other treaties that impact people with disabilities including: the World Health Organization (WHO) Mental Health treaty, the Marrakesh Treaty (regarding access to published works for blind persons), the Habitat 3 (regarding accessibility and 'smart cities'), and the Paris Agreement (regarding climate change which has a negative impact on people with disabilities).

The CRPD also includes the Articles of Rights for Persons with Disabilities that move us from compliance and accommodation to full inclusion and belonging to improve the quality of life for everyone.

The full content of the Convention can be found at:
https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html

Discussion:
In response to a question about accessible housing mandates in construction, Professor Stein agreed that we need to avoid clusters of accessible housing and must instead make it easier for people to modify their current homes rather than moving.

When asked what it would mean for Cambridge to adopt the CRPD and if adoption would move us forward at the federal level, Professor Stein responded that it wouldn't really make a difference to the federal ratification of the CRPD. The impact would be felt more at the local/state level, as an indication of Cambridge's willingness to accept the CRPD tenets of participation and inclusion. He also noted that the CRPD is aspirational in discussing full social inclusion while the ADA focusses more on standards and compliance for accessibility.

In response to a question about federal support for adapted sports programs, Professor Stein suggested moving the focus away from programs that accommodate people with disabilities and comply with current regulations, towards programs that affirmatively include people with disabilities. He advocates for a society that is actually built for all people in all settings and not one where accommodations continue to be "noticed" or highlighted.

When asked about what we can do now in Cambridge, Professor Stein suggested:

- Advocate for targeted funding regulations, i.e., sign language services at all events
- Encourage participation of people with disabilities in Cambridge events, i.e., integrated sports, theatre and arts, Cambridge Science Fair, etc.
- Notice the activities in which people with disabilities are and are not engaged, and question "why?" or "why not?".

Board members further discussed what CCPD can do now and suggestions included:

- Setting action items for the CCPD with benchmarks
- Gather data on what is currently happening in Cambridge in adaptive sports, inclusion in youth groups, and housing mandates/exemptions/compliance rates. Nicole noted that DHSP probably has some data that could be shared with CCPD.
- Approach the Arts Commission to advocate for more art by/for people with disabilities.
- Professor Stein also suggested reviewing the New York City Report outlining requirements for "Smart Cities" including accessibility, environment and employment.

Additional Comments:

- Dan noted there is more discussion among architects on creating equity and inclusive design in buildings, moving away from a compliance 'checklist' towards being inclusive.
- Avril, Valerie and Mary observed we need to make a mindset shift; moving away from the current perception of aesthetics (i.e., brick sidewalks) to one that embraces an aesthetic that is inclusive to everyone. We should build on other disability movements to change how we refer to people in conversations and regulations to also change perceptions.
- Nicole mentioned that privilege is often a barrier to change and we should be reminding people that everyone may need accessibility at some point in their lives. Phil reinforced this by suggesting we make it economically advantageous for those who comply to drive the change.
- Loring noted our role is to "push some buttons" to effect change.

New/Old Business:

Next month will be nominations and elections for Board Chair and Secretary; currently Phil is Chair and Gary is Secretary. Gary commented that it has been his pleasure to be a board officer, but he is open to stepping down if someone else wants to take a leadership role.

Phil suggested the CCPD create a Special Advisor Role and appoint Michael Stein. Suggestion will be discussed at a future meeting.

Minutes:

A motion to approve the March 11 meetings was seconded and passed unanimously

Submitted by Mary Devlin

City of Cambridge
Department of Public Works

Five Year Sidewalk and Street Reconstruction Plan

April 2021

5 YEAR PLAN | TABLE OF CONTENTS

CAMBRIDGE DEPARTMENT OF PUBLIC THE WORKS

INTRODUCTION | COMPLETE STREETS

Complete Streets are **streets for everyone**. They are designed and operated to enable **safe access for all users**. Pedestrians, bicyclists, motorists, and public transportation (transit) users of all ages and abilities are able to safely move along and across a Complete Street. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They help buses run on time and make it safe for people to walk to and from train stations.

More sidewalks and bicycle facilities are included in Complete Streets, which provide **increased accessibility for pedestrians and cyclists**.

During design and construction of Complete Streets, the City's goal is to communicate projects with neighborhoods, facilitate an integrated design process, minimize disruption to community life, and provide reasonable access for all users during reconstruction.

INTRODUCTION | BICYCLE ORDINANCE

In 2019, the Cambridge City Council passed a **Cycling Safety Ordinance** to support the City's commitment to Vision Zero and the construction of a connected network of permanent separated bicycle lanes across the City. The 2020 amendments to the Ordinance aim to **increase the rate that protected bike lanes are created in the City** by adding ambitious requirements for the installation of approximately 25 miles of separated bike lanes within the next six to eight years.

Under the Ordinance, whenever improvements are made under the City's Five Year Sidewalk and Street Reconstruction Plan, **the improvements shall be consistent with the Cambridge Bicycle Plan**. If improvements are made to a segment of the separated bicycle network, a permanent separated bicycle lane shall be installed along that segment.

Improvements do not include routine maintenance, repairs, restriping of the road surface, or emergency repairs to the surface of the roadway.

www.cambridgema.gov/streetsandtransportation/policiesordinancesandplans/cyclingsafetyordinance

INTRODUCTION | VISION ZERO

On March 21, 2016, the Cambridge City Council unanimously passed resolutions put forth by the City Manager to formally adopt Complete Streets and Vision Zero policies, showing that the City is committed to achieving these goals, assuring safe access for all users.

VISION ZERO CAMBRIDGE

Vision Zero calls for the elimination of fatalities and serious injuries resulting from traffic crashes, and emphasizes that they can and should be prevented. The City of Cambridge is the 17th city in the U.S. to commit to a Vision Zero policy.

PRIORITIES | CONSTRAINTS

Projects are constrained when:

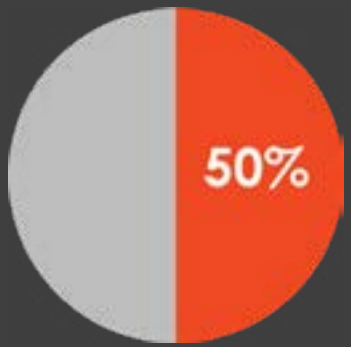
- Budget predictions are uncertain.
- Sewer separation/storm water management project schedules are uncertain.
- Future street condition assessments change.
- Utility failure, repair, or replacement is not considered.
- Severe winter conditions lead to higher-than-expected levels of deterioration on streets.

The Department of Public Works (DPW) will review the Five Year Plan on an annual basis. The variables and constraints are significant, and thus the annual revisions may need to reflect these uncertainties.

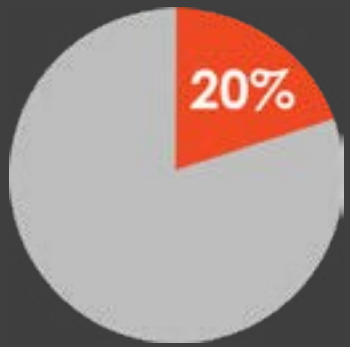
PRIORITIES | HIGH PRIORITY AREAS

Reconstruct sidewalks and streets in poor condition in **High Priority Areas**:

- Areas within a 150-foot buffer of parks, major squares, libraries, schools, youth centers, senior housing, and senior centers.
- Areas within a 40-foot buffer of bus routes.
- Major thoroughfares to maintain the structural integrity of streets under heavy traffic.
- Streets on Cambridge Bicycle Plan's Bicycle Network Vision.
- Priorities identified by the Commission for Persons with Disabilities.



Just over 50% of City sidewalks and streets are located outside High Priority Areas. These corridors serve residential connections and need to be maintained to the extent that funding allows.



Approximately 20% of street and sidewalk funding will be reserved for areas located outside High Priority Areas.

PRIORITIES | HIGH PRIORITY AREAS

Projects are evaluated in coordination with the **Cambridge Bicycle Plan** to identify streets with non-existent or inadequate bicycle facilities, particularly where reconstruction could improve route connectivity and continuity for cyclists. The Plan is set to be updated in 2021.

For more information, visit: www.cambridgema.gov/CDD/Transportation/bikesincambridge/bicyclenetworkplan

PRIORITIES | SIDEWALK CONDITIONS

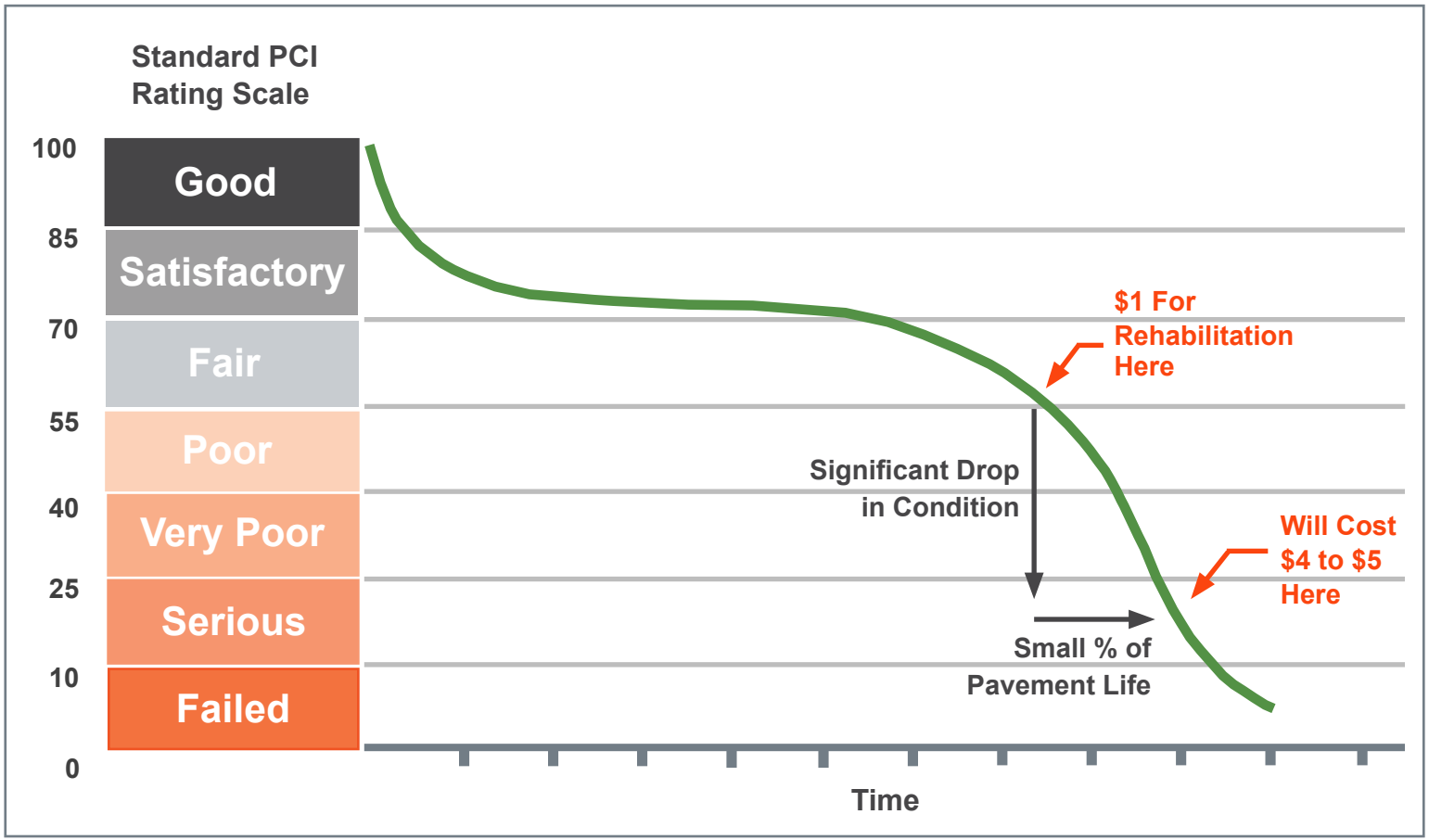
Each block of sidewalk received a rating between 0 (excellent) and 35 (poor) based on the following criteria:

- Driveway conditions
- Trees or other obstructions
- Cross-slope
- Overall structural condition

PRIORITIES | PAVEMENT CONDITIONS

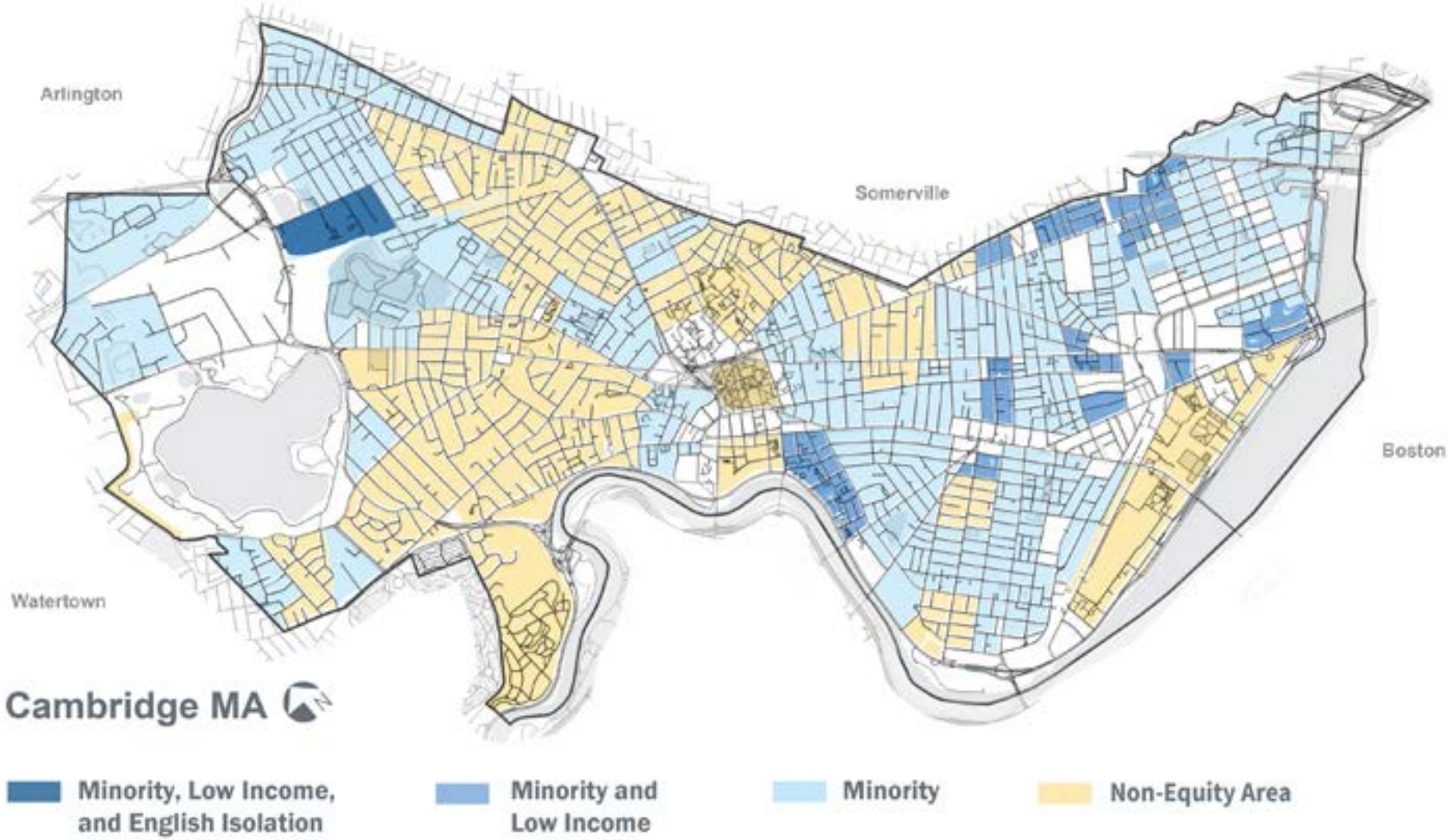
New street condition assessments are completed every three years and the plan is updated accordingly.

PRIORITIES | PAVEMENT CONDITIONS



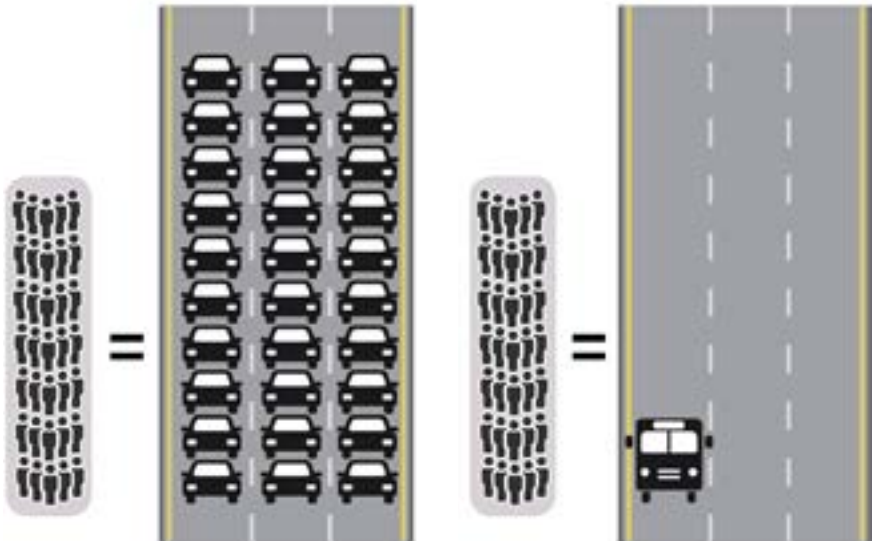
Based on the Pavement Condition Index (PCI), the City's average rating is 66.2. The average is holding steady year to year. A combination of capital construction and maintenance have resulted in a decrease of $2.4 million in the backlog of repairs.

PRIORITIES | EQUITY



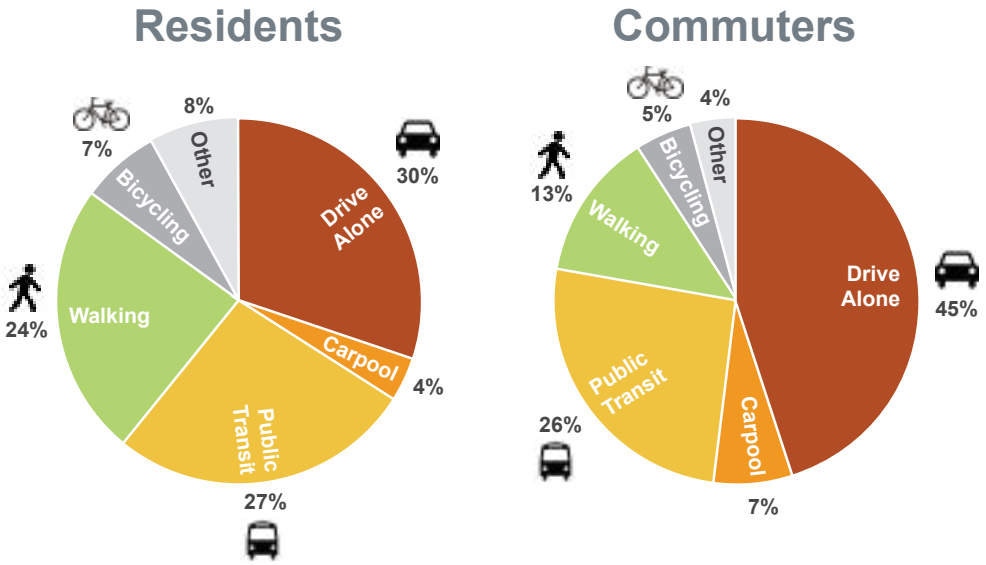
The Five Year Plan considers many factors beyond condition, including ensuring that infrastructure in neighborhoods across the City is equitably maintained.

PRIORITIES | TRANSIT



The graphics above illustrate the same number of people in cars versus in a bus.

Cambridge Commuting: Getting Around



Benefits of good transit access:

- A sustainable and efficient mode of transportation that moves people safely compared to driving in private automobiles.
- In some cases, more people on the road may be on buses than in private cars.
- Dense economic and commercial centers thrive (e.g., Kendall Square).

5 YEAR PLAN | SCOPE OF WORK

Our approach emphasizes **streets designed and operated for everyone**. The following elements allow pedestrians, bicyclists, motorists, and transit users of all ages and abilities to safely move along and across **Complete Streets**.

Accessibility: Ensure pedestrian ramps and sidewalks are accessible for all, and implement universal design

Vision Zero: Eliminate fatalities and serious injuries resulting from traffic crashes

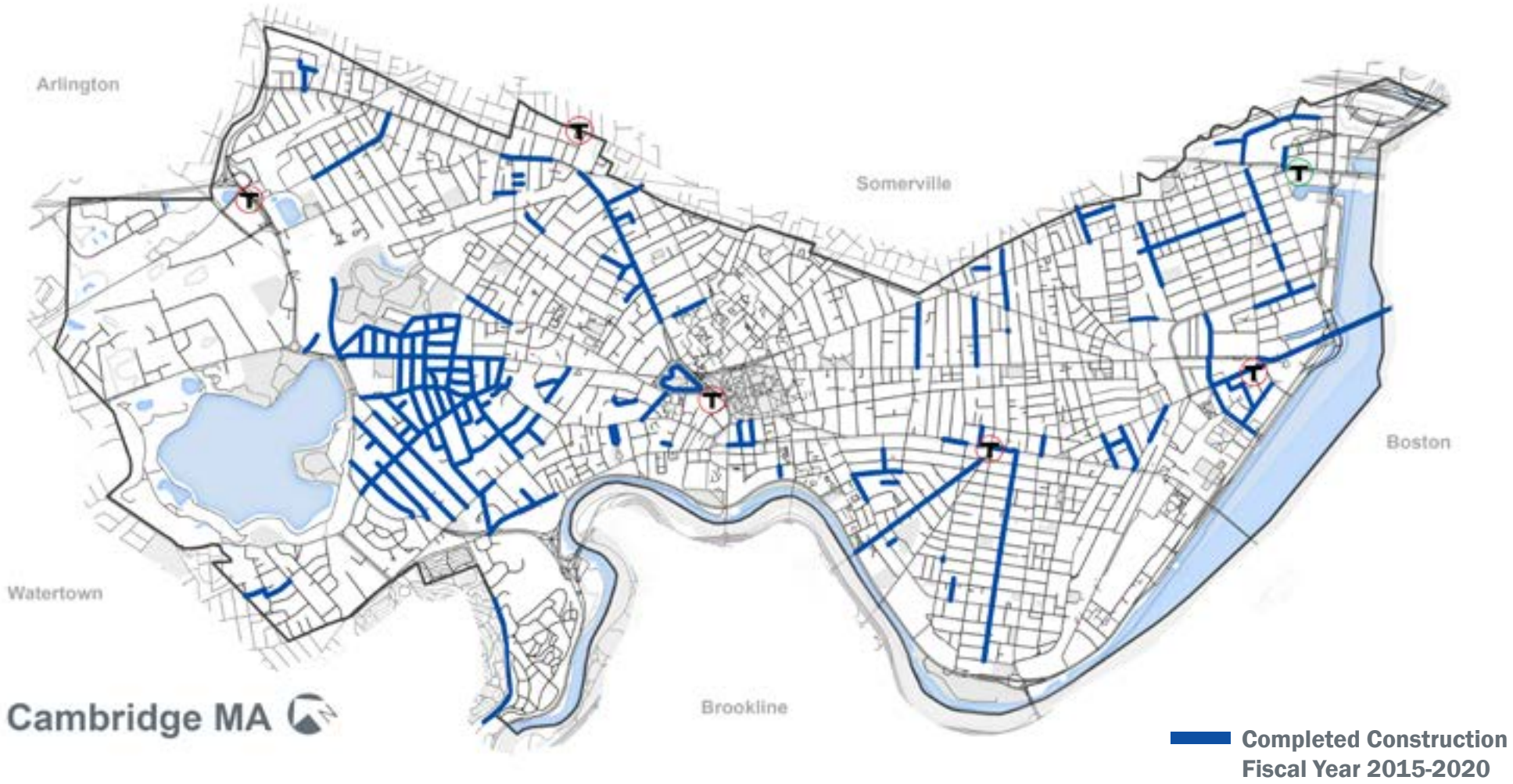
Transit: Provide accessibility of bus stops and prioritization of transit

Bicycle network: Support people of all ages and abilities to bike safely throughout the City

Street trees & green infrastructure: Reduce urban heat island and improve water quality

Infrastructure: Maintain and improve City infrastructure; coordinate with private utilities to facilitate upgrades

5 YEAR PLAN | COMPLETED STREETS



5 YEAR PLAN | PLANNED CONSTRUCTION

For an interactive construction map, visit: www.cambridgema.gov/theworks/constructionmap

5 YEAR PLAN | FUNDING

Each year, approximately **$13.5 million** is spent on the Complete Streets Program:

- $2.5 million comes from the State (Chapter 90)
- $6 million comes from the City budget
- $5 million per year starting in 2022 to further implementation of separated bike lanes

Due to more demand than **funding** or **ability to construct**, the City must identify streets:

- In high priority locations that benefit the most people
- That have overlapping needs/benefits
- That prioritize accessibility, active transportation, and safety
- That maintain infrastructure

In addition to the Complete Streets funding summarized above, the City allocated **$232 million** for the following projects in this year's plan:

- $38 million for Central Square improvements
- $6 million for Eliot Street improvements
- $9 million for Inman Square improvements
- $45 million for Kirkland Street improvements
- $80 million for The Port improvements
- $54 million for River Street reconstruction

PROGRAMS | SEWER SEPARATION & STORMWATER

The City has an ongoing Five Year Capital Program for sewer separation, stormwater management and infrastructure renewal. The City is committed to **restoring** and **enhancing streets, sidewalks,** and **bicycle facilities** as an integral part of the Capital Program. These projects are subject to change in the schedule due to financial, legal, environmental, and level of service considerations.

PROGRAMS | SEWER SEPARATION & STORMWATER

Twenty-five years of major investment in sewer and stormwater infrastructure and maintenance has had a **significant, positive impact on improving the water quality** of discharges to receiving waters.

The amount of Combined Sewer Overflows to the Charles River and Alewife Brook have **significantly decreased** over the past two decades: Charles River by 98%, Alewife Brook by 85%. In the Lower Charles, **water quality has improved from a grade of D to a B.** This is a significant accomplishment, but the work is not done to reach the goal of a swimmable Charles River.

Investment in infrastructure over a long period of time provides a more reliable system that better serves residents, who experience fewer backups, reduced flooding, and fewer emergency repairs.

To view the Ten Year Sewer and Drain Infrastructure Plan, visit: www.cambridgema.gov/theworks/tenyearplan

PROGRAMS | SEWER SEPARATION & STORMWATER

Since the 1800s, thousands of hours of engineering and hundreds of millions of dollars of construction have been allocated to realize a more efficient and environmentally friendly system.

1931

2016

- Sewer separation continues today, and the City's collection system currently includes approximately 113 miles of sanitary sewer, 99 miles of stormwater drains, and 40 miles of combined sewer.
- Approximately 55% of the collection system owned and maintained by Cambridge has been separated — much work remains.
- Over 270 illicit connections have been removed, reducing this sewage going untreated to the river.
- Projects involve intense construction and typically include rebuilding roadways and sidewalks.

PROGRAMS | STREET & SIDEWALK

Street and sidewalk construction projects generally include:

- Paving
- Sidewalk and pedestrian ramps
- Traffic calming
- Street trees
- Stormwater management and green infrastructure
- Bike and transit improvements

The City actively maintains and ensures safe, accessible City-owned street and sidewalks by:

- Conducting pothole repairs
- Paving streets through Miscellaneous Patch Contract
- Removing sidewalk obstructions, such as botanical, bicycle, signs, etc.
- Enforcing snow and ice removal

PROGRAMS | MISCELLANEOUS SIDEWALK

- Budget: $800,000 per year
- Program is used to address discrete sections of sidewalk throughout the City.
- Repairs typically a block in length, but can be as small as one panel.
- Priority given to sidewalks and curb cuts in High Priority Areas, and as identified by **Commission for Persons with Disabilities and the DPW**.
- The DPW makes smaller repairs throughout the year to maintain accessibility across the City.
- Portion of Miscellaneous Sidewalk Program funding reserved for **sidewalks and curb cuts** where access is of acute importance.
- If you know of a location that is a critical access issue and is not addressed in the Five Year Plan, please contact the Commission.

Cambridge Commission for Persons with Disabilities

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Kate Thurman, Disability Project Coordinator
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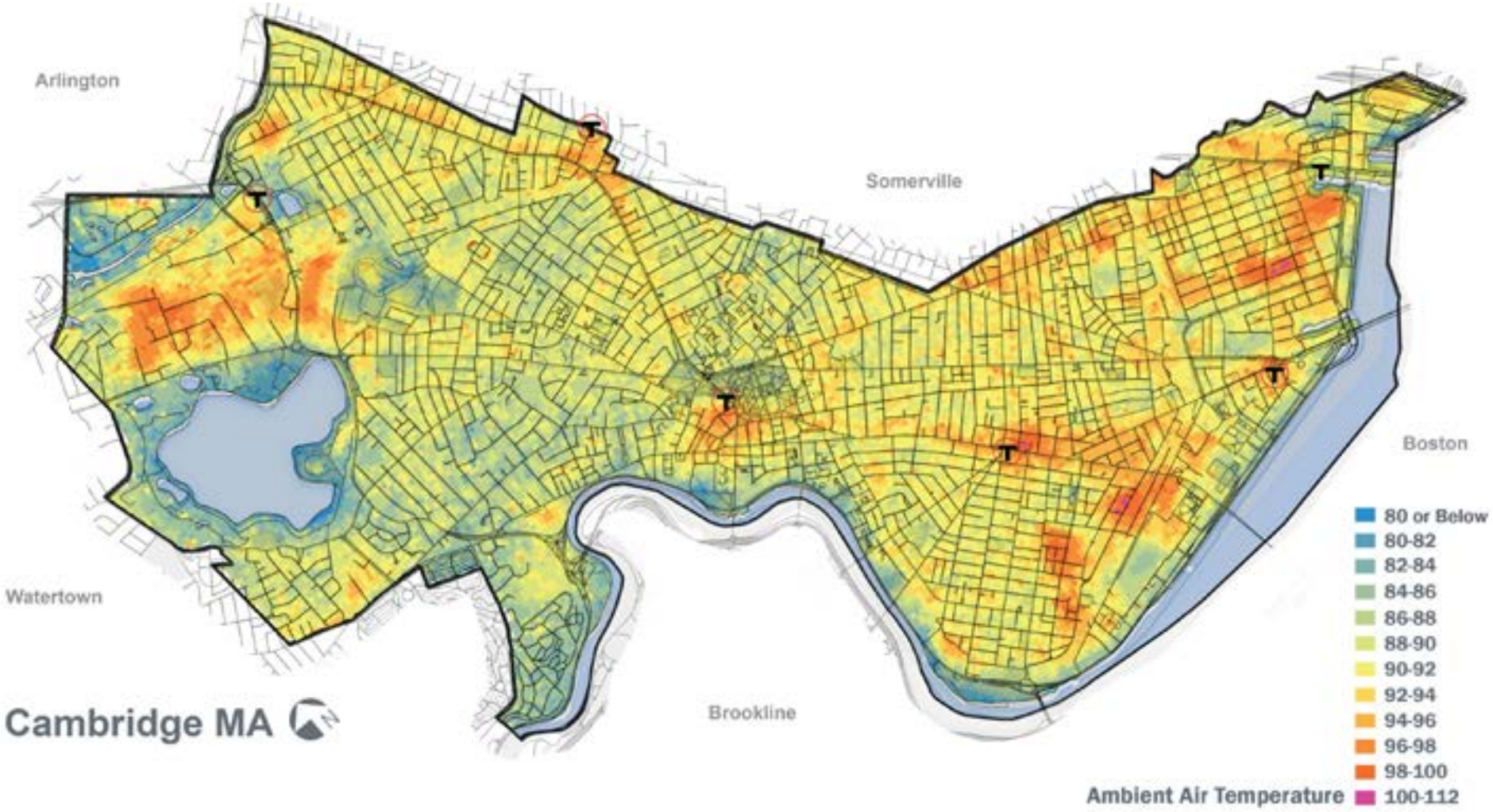
www.cambridgema.gov/disabilities

PROGRAMS | CLIMATE CHANGE

Our climate is changing, bringing more severe storms, more extreme floods, and more intense heat waves. Through projects in the Five Year Plan, we have opportunities to implement resiliency strategies, ranging from green infrastructure to improved drainage to additional tree plantings.

Courtesy photo: Chicago Heat Wave of 1995

PROGRAMS | CLIMATE CHANGE



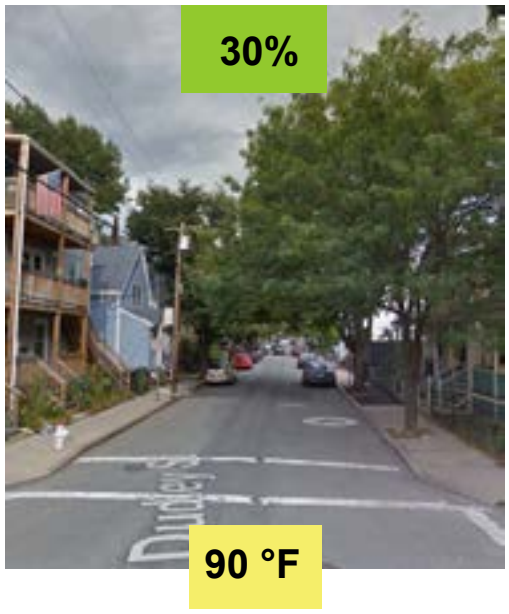
The Urban Heat Index (UHI) shows the “feels-like” temperature based on a 90-degree day with 46% humidity. Factors, such as increasing temperatures and tree canopy loss, are increasing the “feels-like” temperature over time. Young children and older residents are most at risk of heat-related illness.

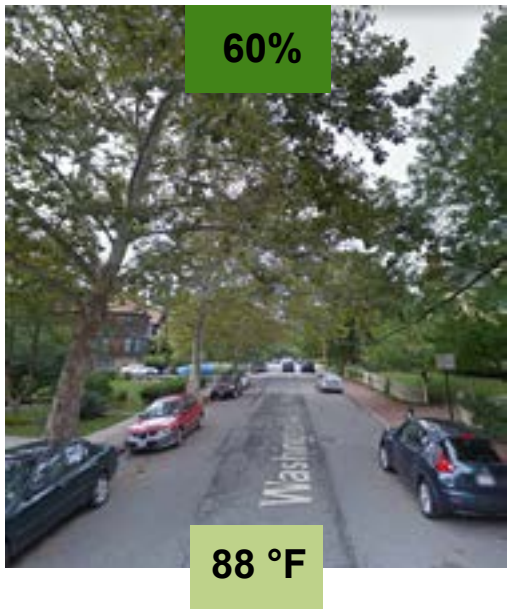
For more information, visit: www.cambridgema.gov/CDD/Projects/Climate/climatechangeresilianceandadaptation

PROGRAMS | HEALTHY FOREST - HEALTHY CITY

A healthy urban forest is a vital part of a healthy city. Trees - whether they are on streets and in parks, on private properties and campuses - help us lower sidewalk temperatures in the summer, reduce home cooling costs, improve air quality, and support a living ecosystem.

The City maintains over 19,000 trees and has developed an Urban Forest Master Plan to guide the development of the urban forest into the future. The goals are: increase canopy cover where lacking; enhance canopy cover in the public realm to create “cool corridors”; and incentivize each landowner to increase canopy cover.

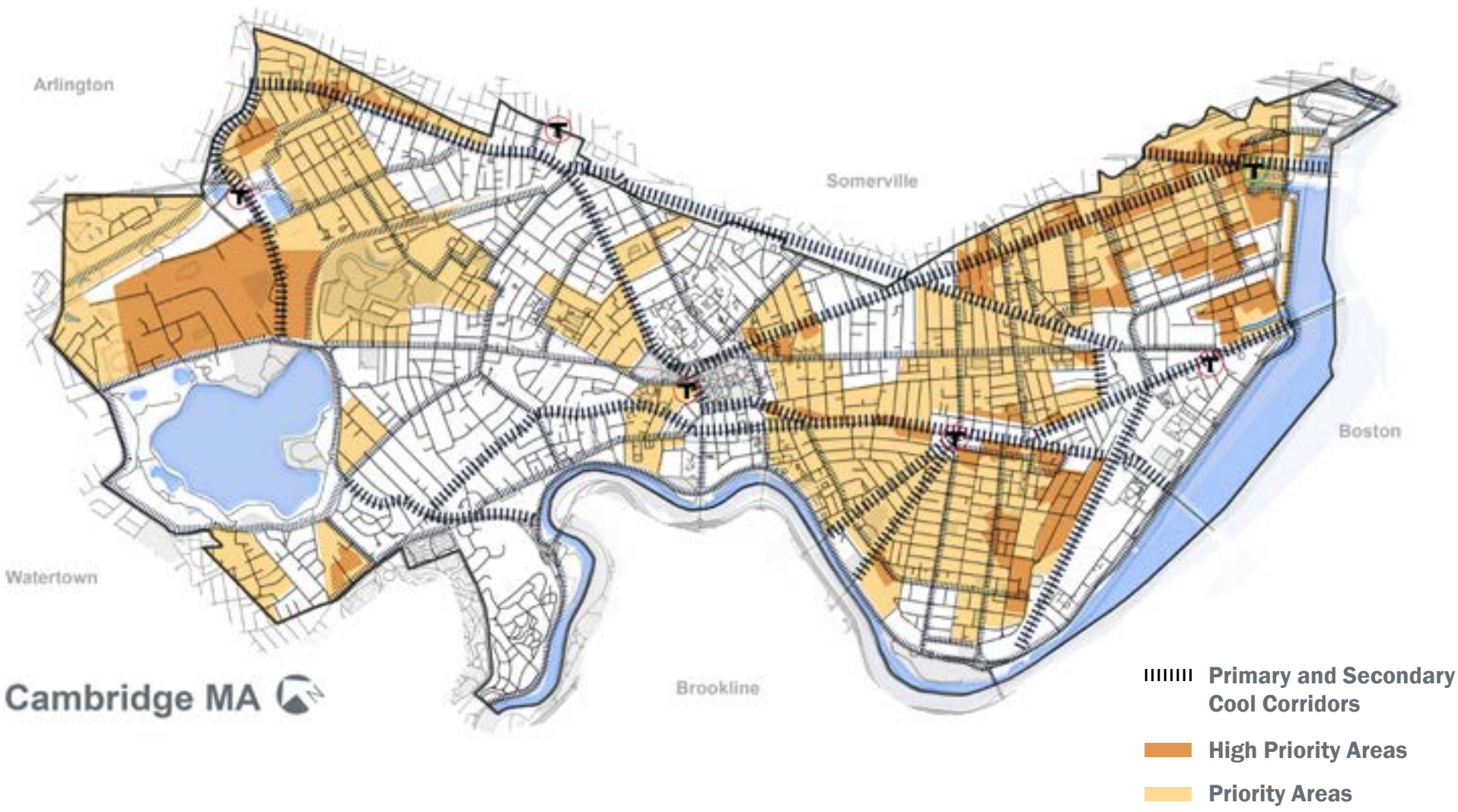




The images above show the cooling impact on a 90-degree day relative to streetscape. As the tree canopy increases, the “feels like” temperature decreases. It is our common responsibility to plant and maintain trees every year to sustain our urban forest and foster a healthy city.

For more information, visit: www.cambridgema.gov/Departments/publicworks/urbanforestmasterplan

PROGRAMS | HEALTHY FOREST - HEALTHY CITY



The map shows the priority planting areas through the City on both public and private properties. The City is committed to increasing the tree canopy on streets and sidewalks through our construction projects.

DESIGN | PEDESTRIAN RAMPS

Pedestrian ramps are a critical element of the accessible sidewalk. The details of the design and construction have a significant impact on their usability.

- All new pedestrian ramps, including landing areas, will be concrete and include tactile warning strips.
- All slopes will meet ADA/AAB requirements.
- All new pedestrian ramps will be designed to:
  - Minimize ponding
  - Locate ramps as close to the intersection as possible

The best design for pedestrian crossings, particularly on narrow side streets, may be a modified raised crosswalk that:

- Allows pedestrians to cross the street without having to ramp down.
- Reduces the risk of ponding.
- Keeps the crossing more in line with the sidewalk.

DESIGN | PEDESTRIAN ACCESS

MID-BLOCK CROSSINGS

These are generally not used, unless the blocks are especially long or there is an especially large pedestrian flow.

4-WAY INTERSECTIONS

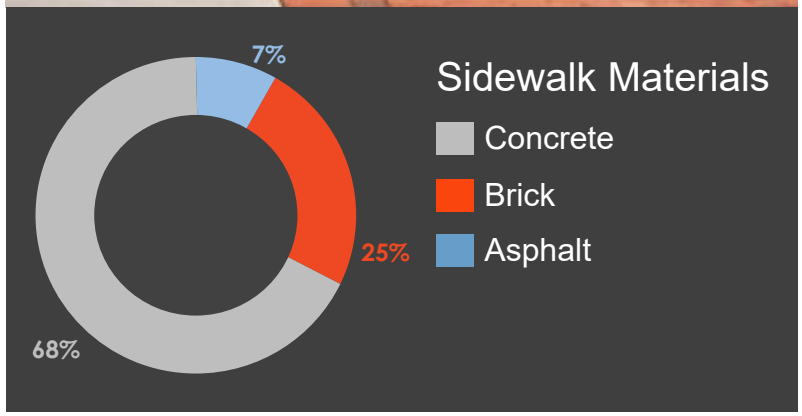
Unless site conditions warrant a different treatment, four crosswalks and eight pedestrian ramps should be provided.

‘T’ INTERSECTIONS

At least one crosswalk and two pedestrian ramps are required for accessible path of travel along the main corridor. Site conditions are considered to determine if crosswalks should be provided.

DESIGN | SIDEWALK MATERIALS

Photo courtesy of Christian Phillips Photography and Klopfer Martin Design Group



Concrete and wire-cut brick without beveled edges, placed on a smooth asphalt base, will be utilized as the sidewalk materials of choice throughout the City. Concrete is the material most frequently used in the city (~70%) and provides a relatively inexpensive, durable, and easy-to-maintain accessible sidewalk.

The City policy is to replace existing sidewalks with the same material at no cost to the property owner. However, during construction, property owners are contacted and may choose to change the sidewalk material. On larger projects, a more unified approach to sidewalk materials has been implemented as part of a community process.

Historic Districts

The DPW works collaboratively with the Historic Commission to ensure that sidewalk reconstruction work is appropriate and not incongruous to the district.

Standard Details

For more information, visit: www.cambridgema.gov/theworks/ourservices/engineering/Resources/standarddetails

DESIGN | BICYCLE FACILITIES

Photo courtesy of Nichol Figueiredo

Bicycle Facilities

Many sections of Cambridge are well served by bicycle-friendly infrastructure, but there are still significant gaps and areas in need of improvement. Improvements for bicycling are considered in all projects undertaken by the City.

The design of bicycle facilities will be guided by the **Cycling Safety Ordinance** and the **Bicycle Plan**. The fundamental guiding principle for this Plan is to enable people of all ages and abilities to bicycle safely and comfortably throughout the City.

DESIGN | TRANSIT

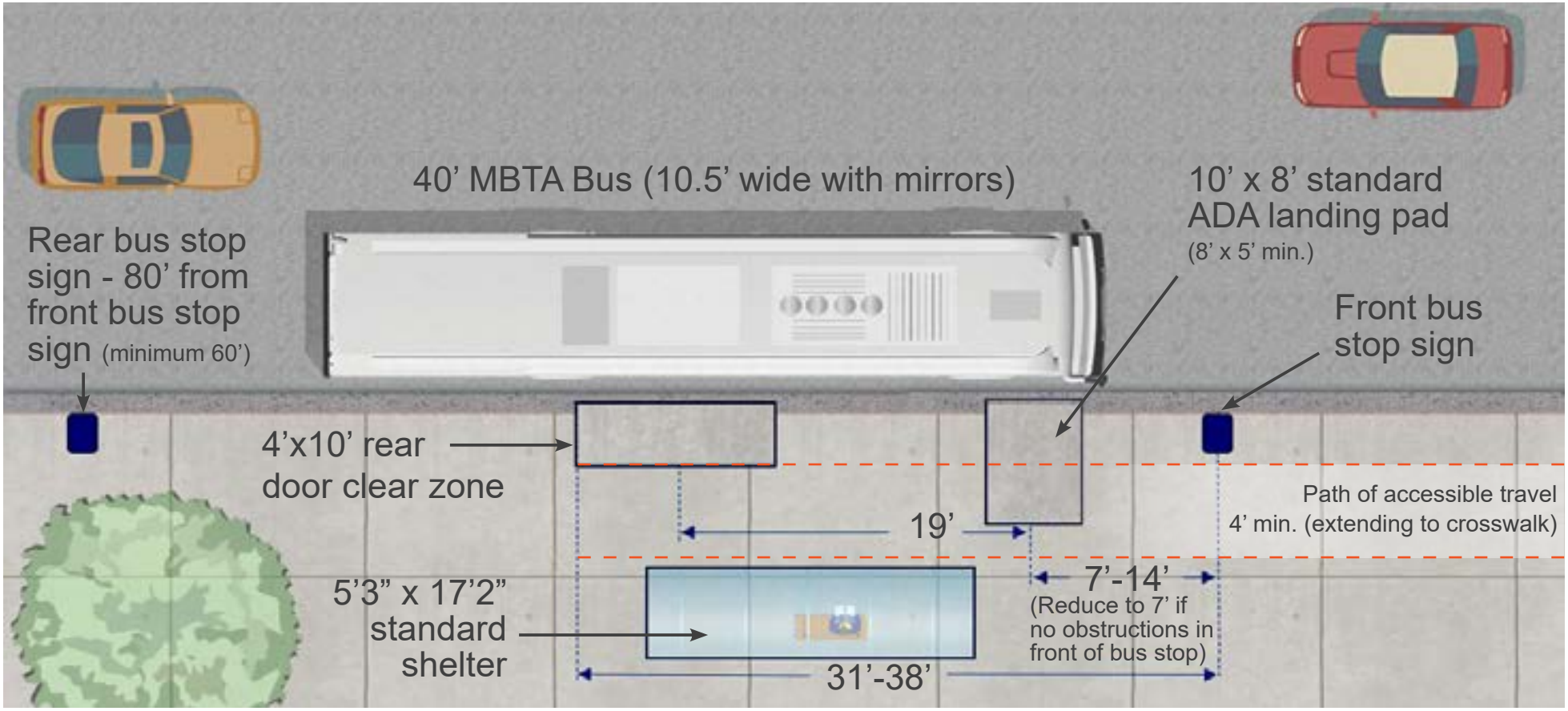
Transit considerations include:

Priority

The City performed a bus delay and reliability assessment to explore options for transit priority (e.g., dedicated lanes) in roadway projects where there are expected benefits.

Accessibility

The City developed a bus stop standard to ensure accessibility and also provide amenities when appropriate.

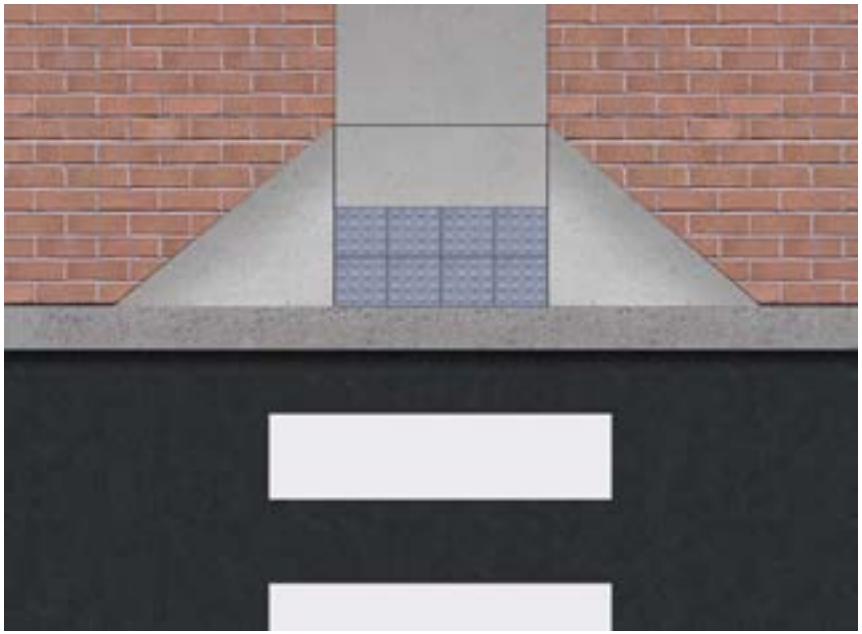


SCOPE | NEW CONSTRUCTION

City Projects

Below are the requirements specific to all City construction projects in the public Right-of-Way. The goals of these requirements are to meet state and federal regulations, maximize **accessibility improvements,** and minimize the extent to which work has to be reconstructed in the future.

- New sidewalks (concrete or brick) will **meet ADA/ AAB requirements**.
- Roadway paving that abuts pedestrian ramps will include the **reconstruction of abutting non-compliant pedestrian ramps.**
- **15 Foot Rule:** To minimize the need for non-compliant transition segments between old and new sidewalks, if a compliant segment within 15 feet of the end of proposed new work is identified, work will be extended to the compliant segment.
- If a significant portion of sidewalk on a given side of a block is reconstructed, the **entire sidewalk on that side should be compliant**.



SCOPE | NEW CONSTRUCTION

Private Utilities

Below are the requirements specific to all street and sidewalk reconstruction projects constructed by private utilities within the City public Right-of-Way.

- Sidewalk construction subsequent to utility work will meet ADA/AAB requirements.
- Roadway paving (subsequent to utility work) that abuts pedestrian ramps, will include the reconstruction of abutting non-compliant pedestrian ramps.
- If a full block of sidewalk is being reconstructed, due to utility work, a Professional Engineer must submit a stamped design prior to construction, and a certification of compliance after construction is complete.
- If more than 30 feet of contiguous sidewalk, a curb cut, or a driveway is being constructed due to utility work, a survey and design will generally be required. Survey and design requirements will be determined by the DPW based on the specific location.
- In lieu of final restoration, payments made by utility companies (Street Preservation Offset Fees) will include the complete cost of necessary sidewalk restoration.

SCOPE | NEW CONSTRUCTION

Private Entities

Requirements specific to street and sidewalk reconstruction projects constructed by private entities within the City of Cambridge public Right-of-Way will adhere to the same requirements as City projects in addition to the below requirements:

- If a full block of sidewalk is being reconstructed, a Professional Engineer must submit a stamped design prior to construction and a certification of compliance after construction is complete.
- If more than 30 feet of sidewalk, a curb cut, or a driveway is being constructed, a survey and design will generally be required. Survey and design requirements will be determined by the DPW based on the specific location.

SCOPE | STREET TREES

Existing Street Trees

Existing street trees will be protected during construction and the sidewalks will be carefully evaluated to ensure adequate accessible routes through the neighborhood.

New Tree Plantings

The City Arborist will review each street and sidewalk project to determine tree planting opportunities, with a goal of 20-foot spacing, evaluating the location of overhead and underground utilities, proximity to intersections, site lines, building setbacks, locations of entrances, etc.

- On **narrow sidewalks** (less than 8 feet wide), a minimum of 4 feet of sidewalk width will be retained adjacent to new trees.
- On **wider sidewalks** (8 feet wide or greater), a minimum of half of the overall sidewalk width will be retained for pedestrians.

Back of Sidewalk Trees

The Arborist will work with residents interested in back of sidewalk tree plantings.

Goals

- **Protect existing** street trees during construction.
- Increase the number of street trees while maintaining **accessible sidewalks**.

SCOPE | GREEN INFRASTRUCTURE

Stormwater discharges are contributing to at least 55% of impairments to Massachusetts' assessed waters. The goal is to **improve the water quality** of stormwater before discharging to outfalls at the Alewife Brook and Charles River.

The City is incorporating green infrastructure on projects, as conditions and space allow.

Installation of site infiltration system at Longfellow Park.

Types of Improvements

- Porous asphalt
- Infiltrating catch basins
- Rain gardens/bio basins
- Site infiltration

Siting Evaluation

- Soil conditions
- Groundwater
- Space constraints
- Maintenance

SCOPE | TRAFFIC SIGNALS

Accessible Pedestrian Signals (APS)

APS works in conjunction with visual pedestrian signals to provide additional information to pedestrians, including pedestrians who are blind or visually impaired. APS typically uses a combination of auditory and vibrotactile information to alert pedestrians as to when they should cross the street.

The City is implementing APS at new and existing signalized intersections. The Traffic Department consults with the Commission for Persons with Disabilities to prioritize location.

Signal Control Cabinets

Traffic signal control cabinets mounted on poles do not meet accessibility requirements as they are not detectable to pedestrians who are blind or visually impaired. In coordination with construction projects and in High Priority Areas, control cabinets are moved to ground mounted locations.

CONSTRUCTION | PEDESTRIAN ACCESS

Where pedestrian routes are closed, alternate pedestrian routes shall be provided.

The Manual on Uniform Traffic Control Devices (MUTCD), published by the U.S. Department of Transportation/Federal Highway Administration, includes specific requirements for pedestrian access in work zones.

Whenever possible, work should be done in a manner that does not create a need to detour pedestrians from existing routes or crossings.

CONSTRUCTION | BICYCLE ACCESS

Construction sites must:

- Maintain bicycle access through construction sites at all times. Where maintaining bike lanes is not possible:
  - Ensure adequate space for bicycles in travel lane.
  - Post *"Bicycles May Use Full Lane"* signs.
- Place all road signs outside the bicycle lanes.
- Use asphalt as a temporary surface.
- Place asphalt around edges for a smooth and uniform transition.
- Provide advance notice and smooth transition when steel plates are required.
- Spray paint the edges pink and post caution signs where raised castings are exposed.

For the City of Cambridge Bicycle Accommodation During Construction Guidelines, visit:
www.cambridgema.gov/theworks/ourservices/engineering/Resources/contractorresources

CONSTRUCTION | TRANSIT

Communicate closely with the Massachusetts Bay Transportation Authority (MBTA) on any impact (diversions) to transit routes.

- Hold monthly interdepartmental meetings with the MBTA.
- Coordinate with the DPW and MBTA service planning staff as needed.

During construction, routes and stops may be moved.

- Communicate relocated bus stops to the public via notices and signage.
- Ensure accessibility at temporary stops.

NEXT STEPS | CONCLUSION

The Five Year Plan is a living document that will be updated regularly. As part of that process, the DPW will:

- Review the plan annually with the Commission for Persons with Disabilities and Pedestrian, Bicycle, and Transit Committees.
- Update the pavement condition and sidewalk condition data and corresponding maps.
- Annually update the Five Year Plan to account for the changing conditions of our streets and sidewalks.

Send questions or comments to:

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Photos & Graphics by Kleinfelder

Five Year Plan

2021 - 2026 planned construction

- 2021
- 2022
- 2023
- 2024
- 2025
- 2026

CITY OF CAMBRIDGE ENGINEERING FIVE YEAR PLAN - 5/15/2021