

Port Infrastructure Project WORKING GROUP

Meeting #1 | June 16, 2021



CAMBRIDGE
DEPARTMENT
OF PUBLIC
**THE
WORKS**

Remote Participation Instructions

Working Group Members

- Participants may speak and show webcam video
- Use “Raise Hand” button during discussion
- Mute your microphone when others are speaking

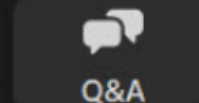
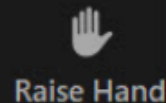
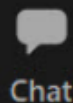
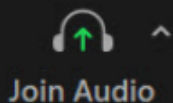
Members of the Public

- Attendees are muted and cannot show video
- Can write questions and ask for assistance in the Q&A window
- Questions can be submitted at any time and will be addressed, as time allows, after working group member discussion

Welcome Working Group Members!

As you arrive, please take a moment to test your zoom connection: take yourself off mute/turn on your video if you can and tell us what you had for breakfast (or just say hi)!

For Zoom or technical support, please email Wallenstein Joseph at wajoseph@Cambridgema.gov



Leave

Meeting Goals

1. Kickoff the Working Group and get to know each other
2. Share information on why we are doing this project and the status of planned work in the Port
3. Outline the process moving forward and get input on community engagement priorities and options from the Working Group



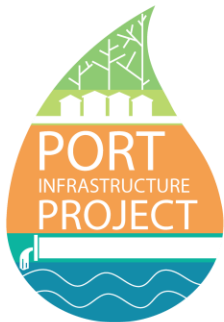
Project Team

City of Cambridge

- **Jerry Friedman**
Project Manager / Supervising Engineer
- **Kathy Watkins**
City Engineer / Assistant Commissioner
- **Gary Chan**
Neighborhood Planner
- **Matt Nelson**
Assistant to the City Manager

Consultant Team

- Kleinfelder, Inc.
- Consensus Building Institute (CBI)



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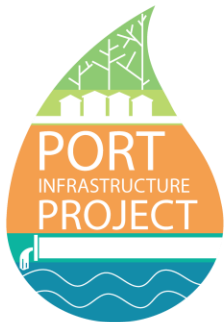
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Agenda

- 10:00am Welcome to the Working Group
- 10:15am Getting to Know Each Other
- 10:45am Overview of Potential Work in the Port and Key Areas for Community Input and Guidance
- 11:10am How Best to Involve the Community
- 11:35am Public Comment
- 11:45am Next steps
- 12:00pm Adjourn

Guiding Principles for How We'll Work Together

- Active and open discussion
 - Critique ideas, not people
- Efficient and effective use of time
 - Allow everyone a chance to speak
- Mutually respectful participation
 - Videos on if possible; use hand-raise function



Getting to Know Each Other

Please Share...

1. Your name and affiliation (if any)
2. One thing you have been grateful for about your neighborhood this past year
3. One hope for this process



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Working Group Members

Colin Fleming

Divya Errabelli

Ellis Washington

Idony Lisle

Jack O'Hearn

James Pierre

Kessen Green

Marian Darlington-Hope

Ming-Tai Huh

Paul Weaver

Raghu Krishnan

Randa Ghattas

Renee Green

Tabatha Danyow

Troy Ellerbee

Margaret Fuller House



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Goals

Flooding is a real risk to the Port neighborhood today - and will increase in the future, due to Climate Change.



Existing Conditions – Frequent / Smaller Storms

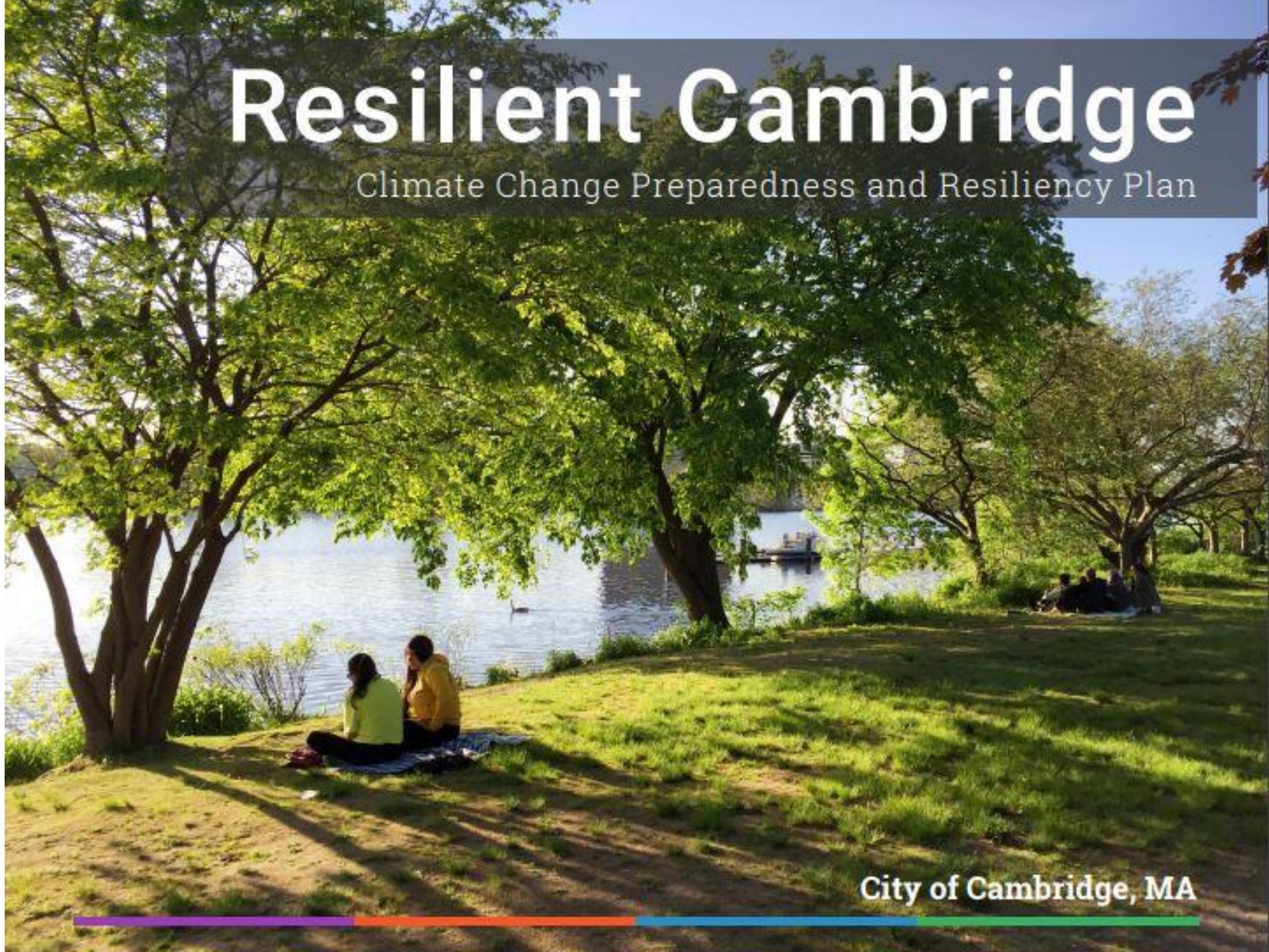


Bishop Allen Drive @ School St Looking East, July 2010




Resilient Cambridge

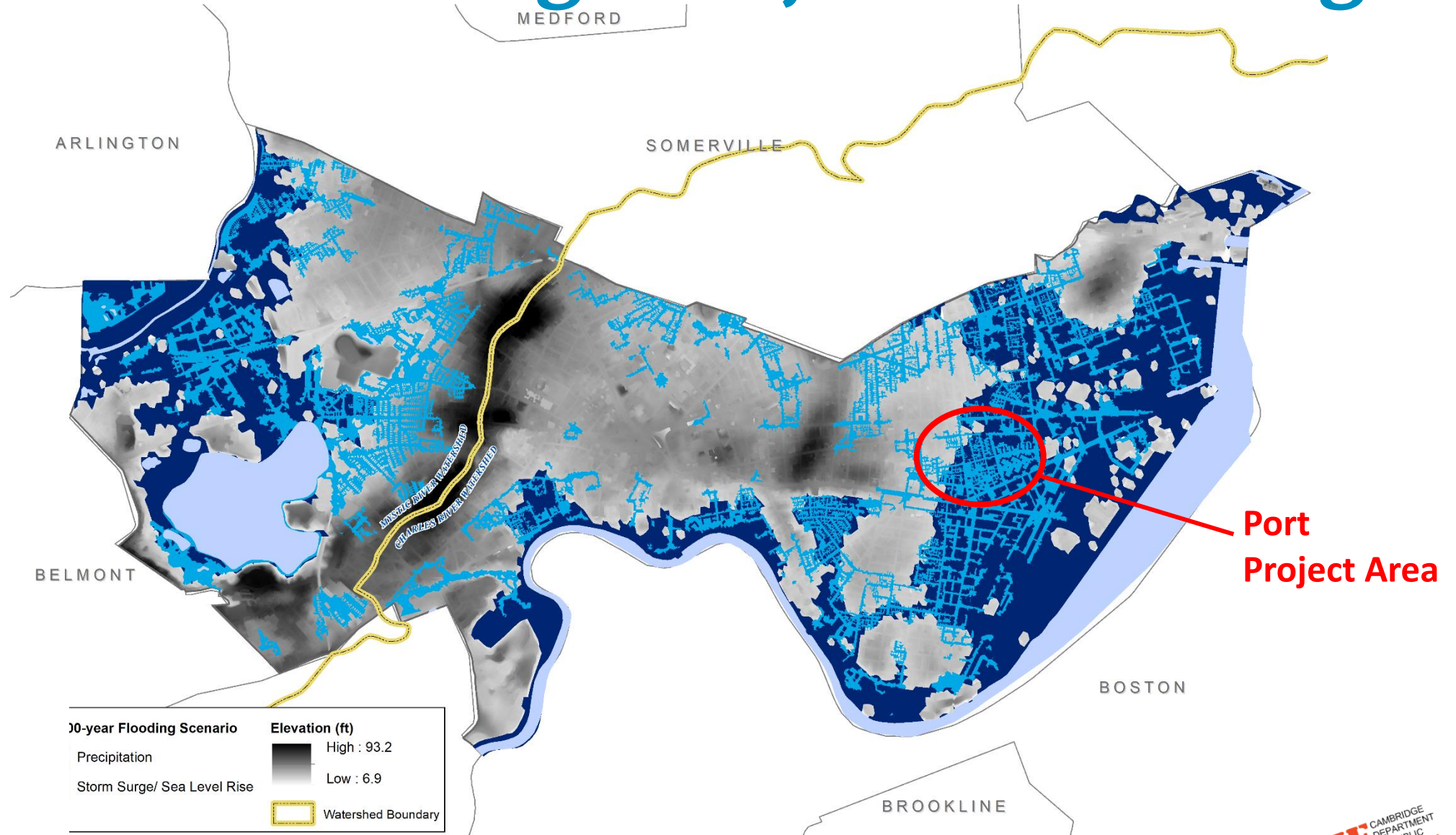
Climate Change Preparedness and Resiliency Plan



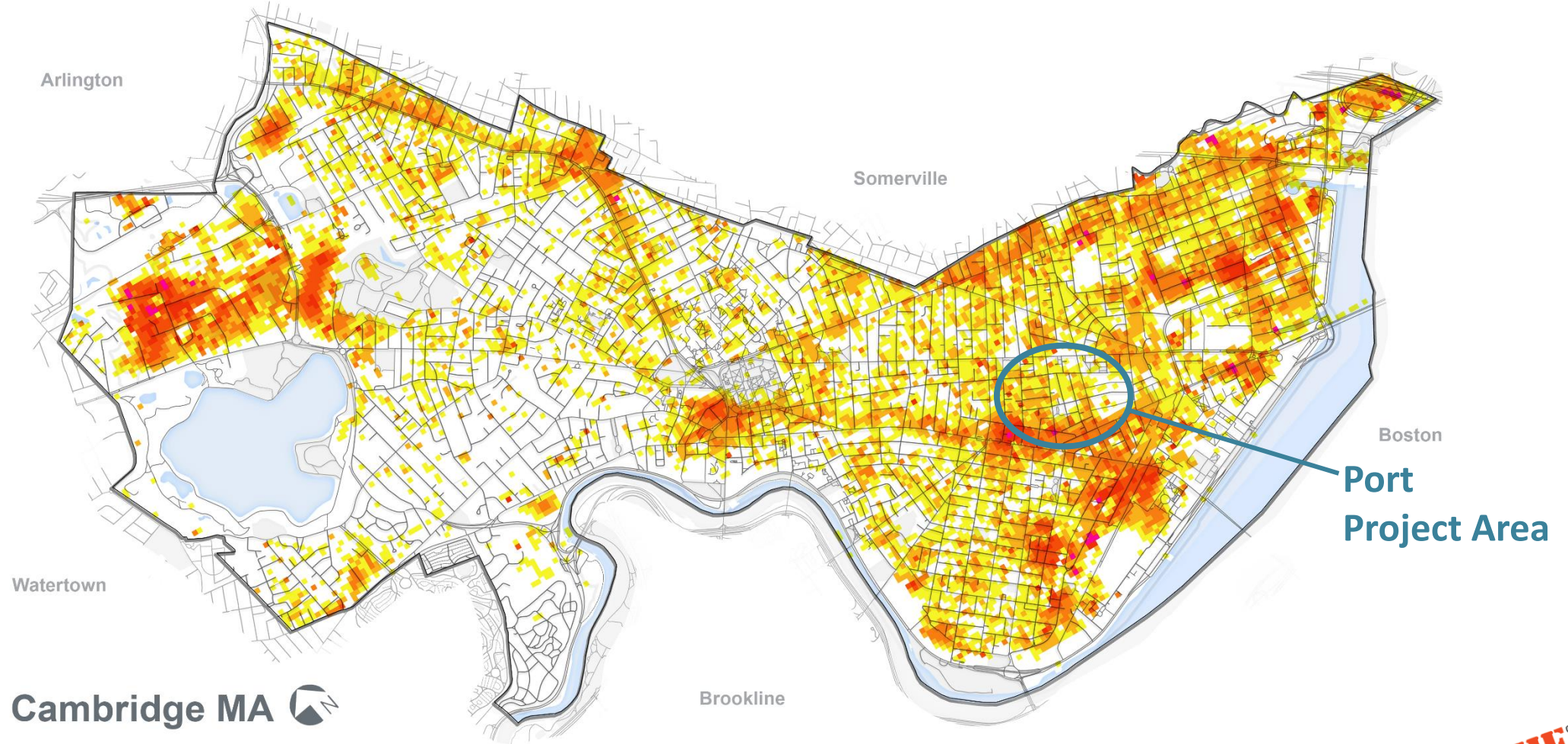
City of Cambridge, MA



Resilient Cambridge Projected Flooding



Resilient Cambridge Projected Heat



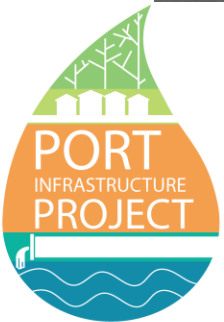
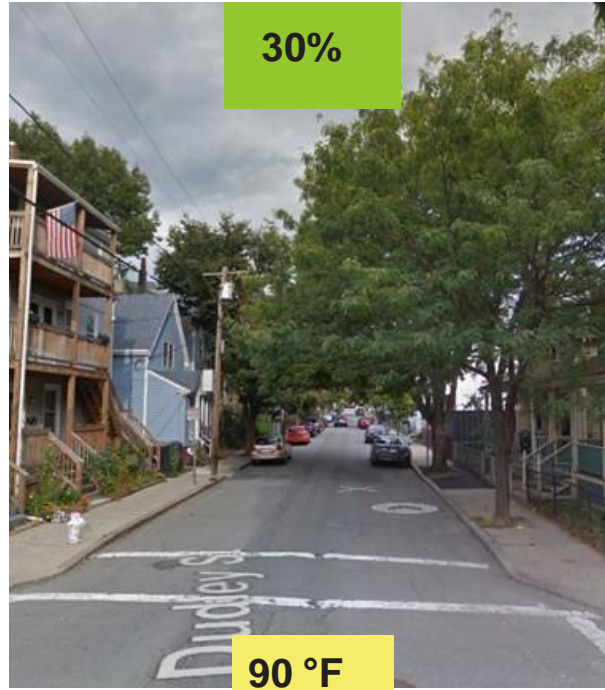
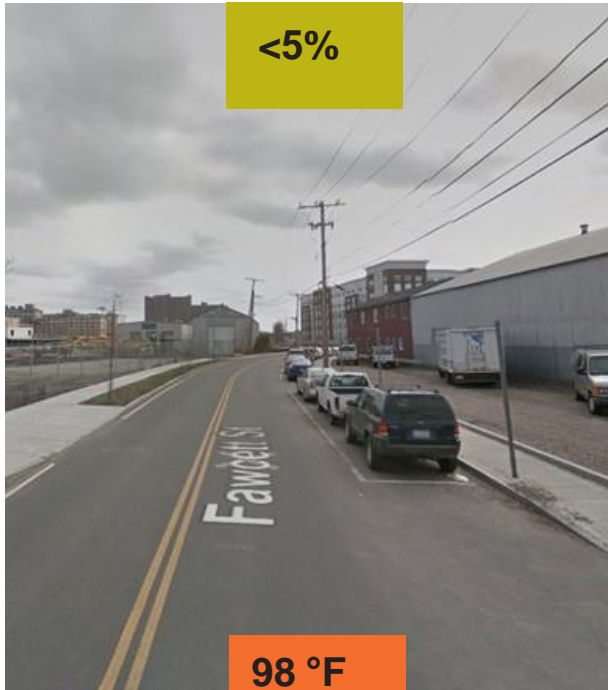
Cambridge MA 

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Urban Forest Impact on Temperature



Goals

Reduce surface flooding and sewer backups in the Port neighborhood

Risk of flooding and sewer backups expected to increase as climate changes and intense storms become more frequent

Opportunity to consider other neighborhood infrastructure



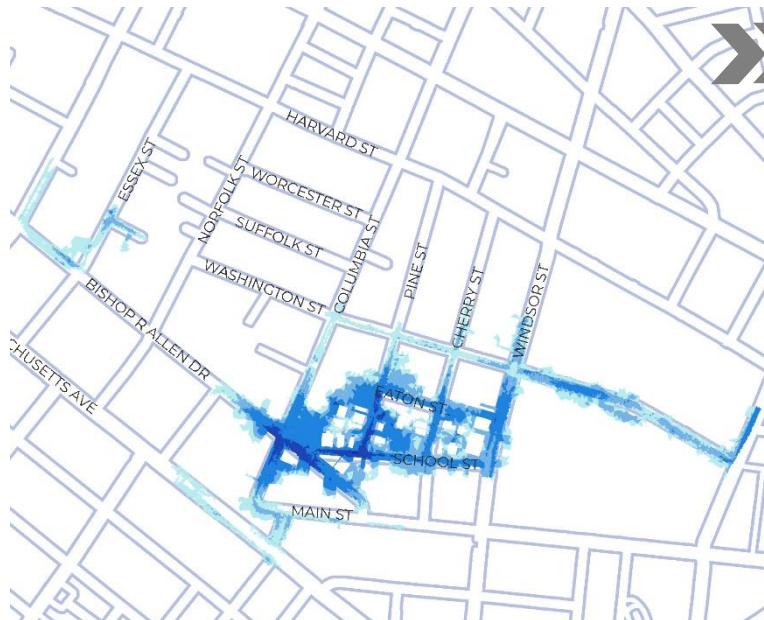
Existing Conditions – Frequent / Smaller Storms



Anticipated flooding for a 2030, 10 year / 24 hour storm

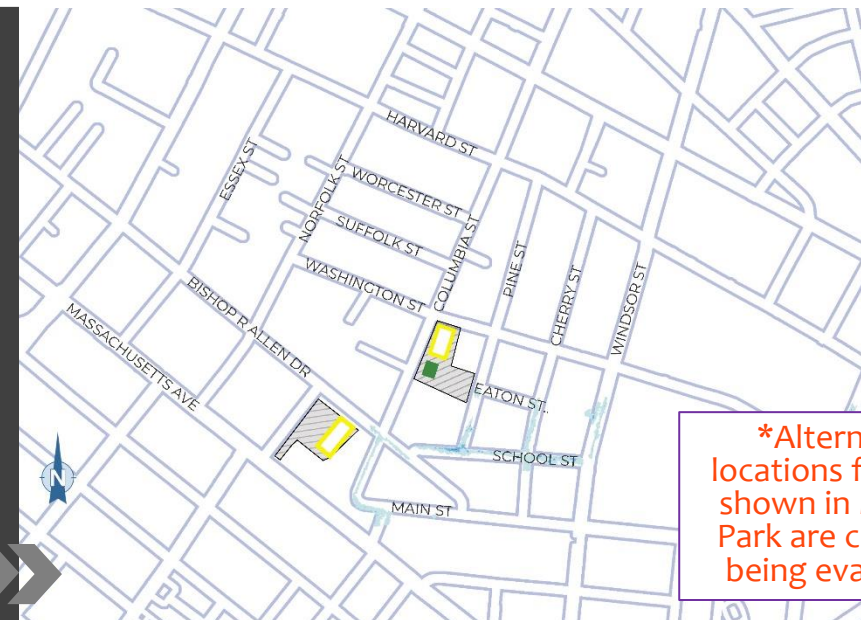
Benefits – Flood Reduction

Anticipated Flooding Without This Project



Decrease in surface flooding for frequent/smaller storms

Potential Flooding Reduced With This Project*



*Alternative locations for tanks shown in Morgan Park are currently being evaluated.

Anticipated flooding for a 2030, 10 year / 24-hour storm



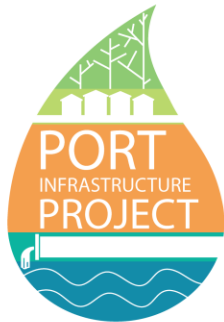
Map Key



PROJECT OVERVIEW

Flood Risk Reduced, not Eliminated

CITY OF CAMBRIDGE
Flooding: Is Your Property Protected?
 Existing Conditions
 New Construction
 Climate Change
 September 2016



WHAT CAN I DO?

1 Use Flood Resistant Materials

You can reduce the damage caused by flood waters and make cleanup easier by using flood damage resistant building materials. Building materials are considered flood resistant if they can withstand direct contact with flood waters for at least 72 hours without being significantly damaged. Flood damage resistant materials should be used for walls, floors, and other parts of a building that are below the anticipated flood level.

Flooring Materials

- Concrete, concrete tile, and pre-cast concrete
- Lalex or bituminous, ceramic, clay, terrazzo, vinyl, rubber sheets and tiles
- Pressure-treated or decay resistant lumber
- Pressure-treated wood and cold-formed steel

Other

- Hollow metal doors and metal cabinets

Wall and Ceiling Materials

- Brick, metal, concrete, concrete block, porcelain, slate, glass block, stone, and ceramic and clay tile
- Cement board, cold-formed steel, and reinforced concrete
- Polyester epoxy paint
- Pressure-treated and decay resistant lumber
- Pressure-treated and marine grade plywood
- Foam and closed-cell insulation

TIPS

- Although using flood damage resistant materials can reduce the amount and severity of water damage, it does not protect your buildings from other flood hazards, such as the impact of flood borne debris.
- All hardware used in areas below the anticipated flood level should be made of stainless or galvanized steel.

ESTIMATED COST

- The cost of using flood damage resistant materials will vary, depending on the size of the project you undertake.

BENEFITS: HELPS PREVENT DAMAGE TO A STRUCTURE AND MAKES FLOOD CLEANUP EASIER.

2 Build Exterior Floodwalls

An exterior floodwall can protect a window well or stair against low level flooding. Constructed of concrete or masonry, the walls should be supported by and securely tied into a footing so they will not be undercut by scouring. Understanding your particular flood situation and soil conditions is important in order to properly evaluate if a flood wall is the right solution for you.

- Construct a watertight flood wall around the perimeter of the opening. The wall should be designed by an engineer and be constructed of steel reinforced poured concrete or steel reinforced concrete masonry units to prevent failure under flood conditions. Install a proper footing and anchor the floodwall to existing walls.
- Install a watertight, springloaded steel access door and watertight gaskets on sides and bottom of frame at any necessary opening.



3 Install Backwater Valves

Flooding can cause flow from sanitary sewer and drain lines to back up through pipes into buildings. These backups cause damage. Backups is to install backwater valves, a device installed to prevent sewage and drainage from flowing backwards into basement fixtures which allows wastewater to flow in one direction, out towards the street, but closes automatically and does not allow flow back

TIPS

- Changes to the plumbing in your property must be done by a licensed plumber or contractor.
- Valves should be installed on sewer and drain lines that are connected to equipment that is below the potential flood level. Therefore, valves may be needed on washing machine drain lines, laundry sinks, floor drains, and sump pumps.

WHERE TO INSTALL

- Install on the plumbing of each basement fixture.
- Valves should be accessible for monthly maintenance.
- A licensed plumber can determine the appropriate installation location.

BENEFITS: HELPS PREVENT DAMAGE TO A STRUCTURE AND AVOID HAZARDOUS AND COSTLY CLEANUP, AS WELL AS PROTECT THE HEALTH AND SAFETY OF THE OCCUPANTS OF THE STRUCTURE.

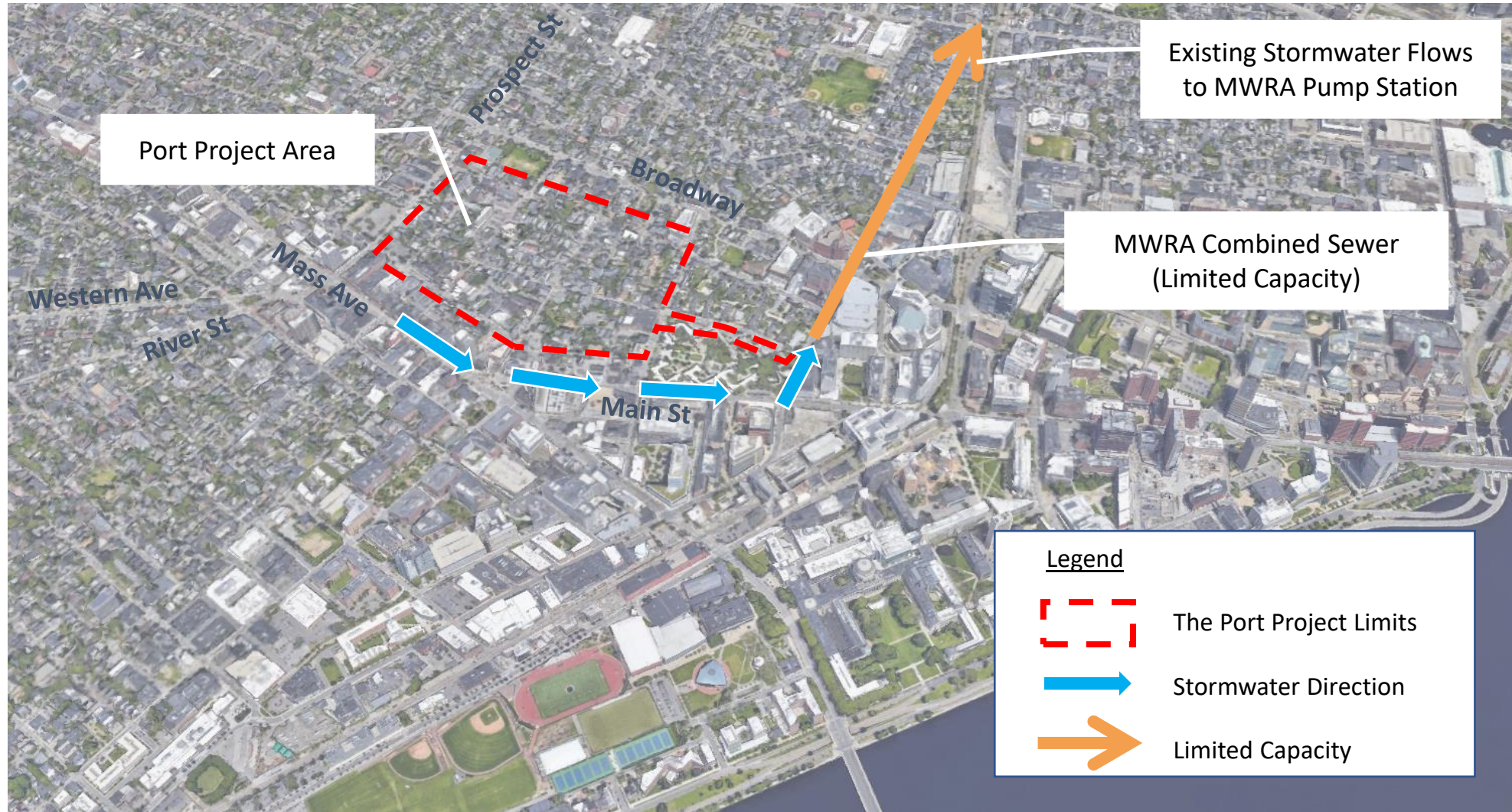
Public Outreach and Education



PROJECT OVERVIEW

Project Scope

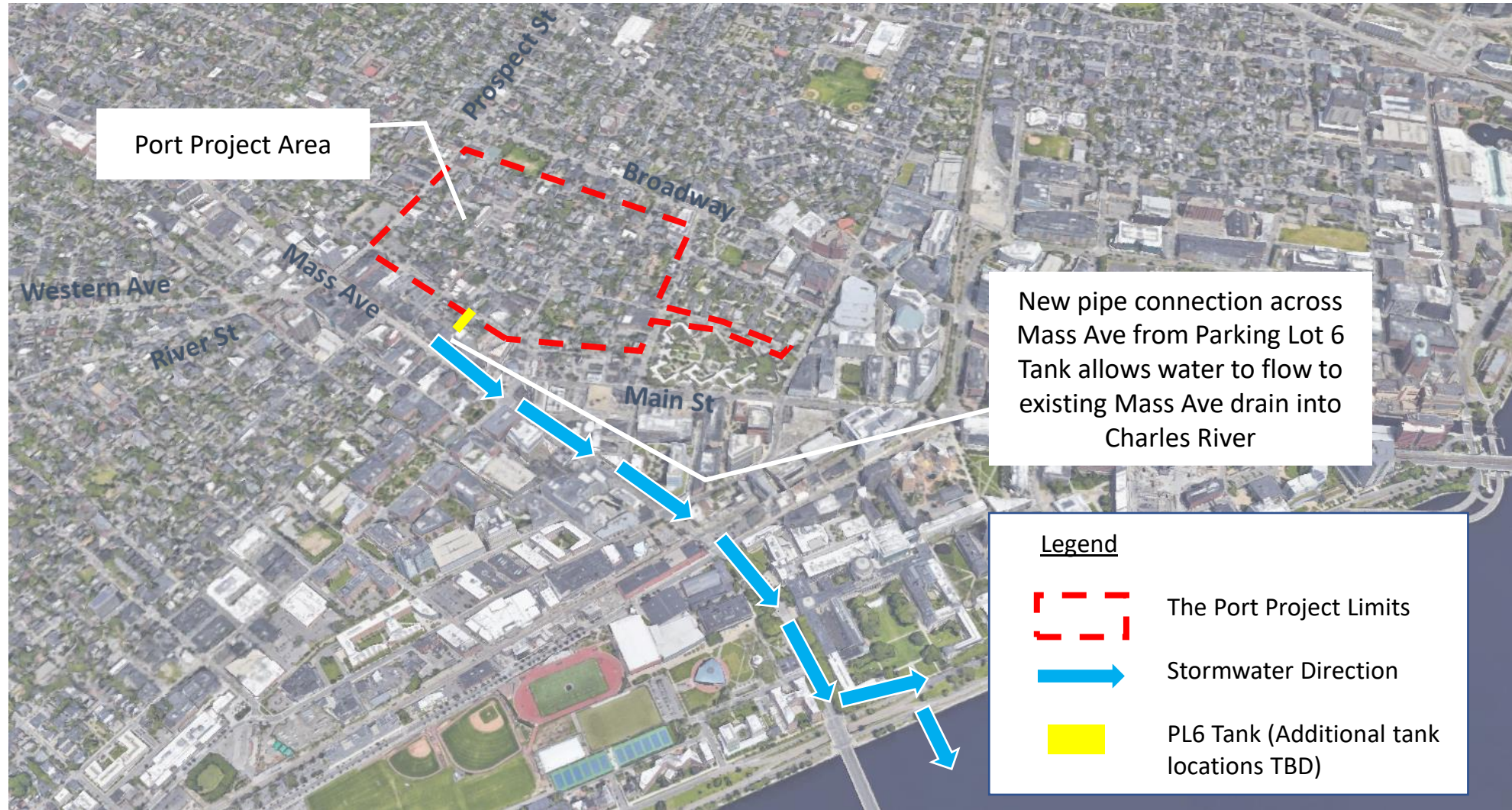
MWRA = Massachusetts Water Resources Authority; a state agency that ultimately receives and treats wastewater from Cambridge, Boston and other cities in the region



Existing Port Stormwater Flow

Project Scope

Separate stormwater from sewage and redirect stormwater to the Charles River



Stormwater Flow After Storage Tanks Installed

Project Scope and Phasing

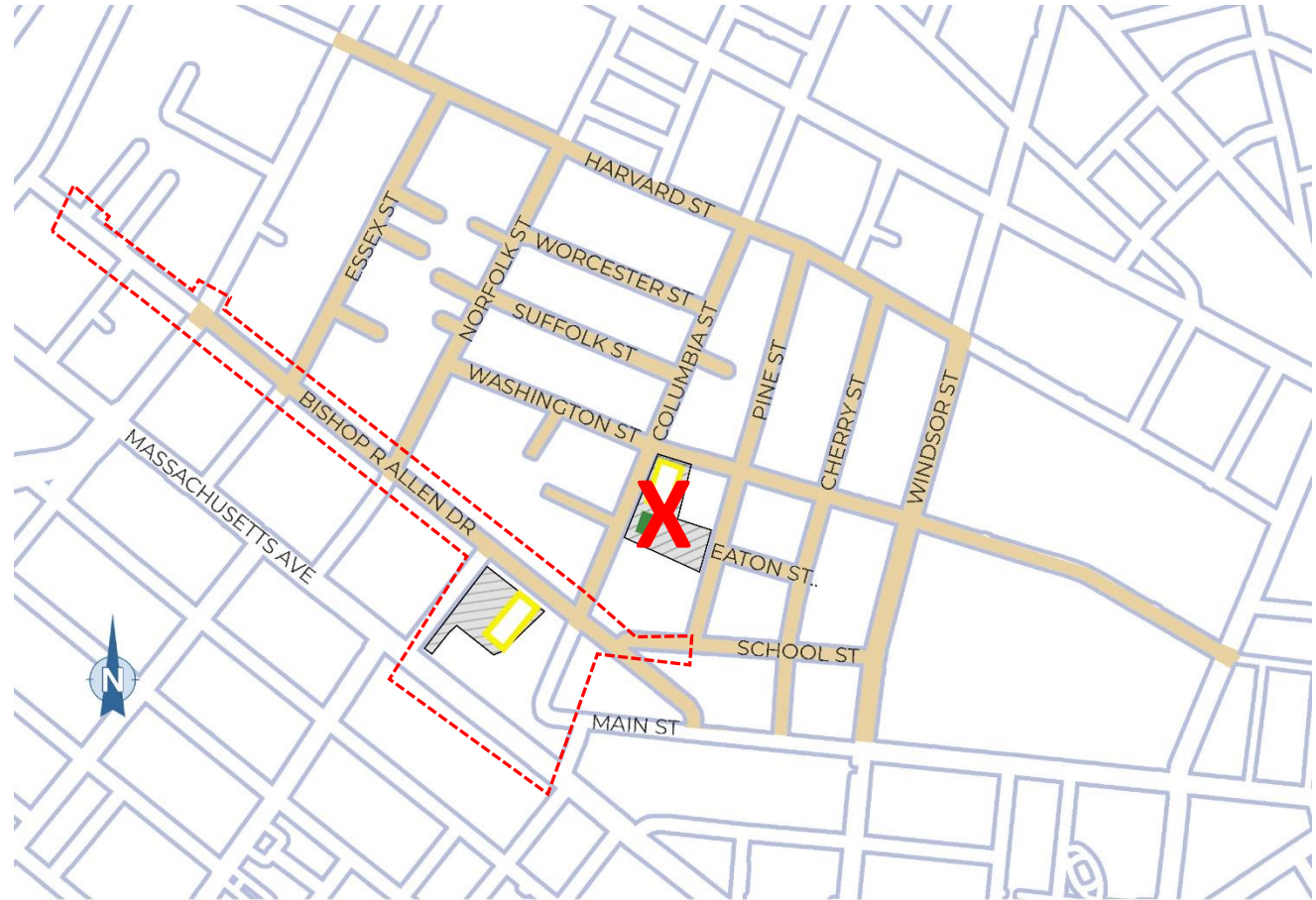
Phase 1: PL6

- Underground storage tank and pump station at Parking Lot 6
- Related work on Bishop Allen Dr. & Columbia Street
- Construction 2018-2021
- Project is complete

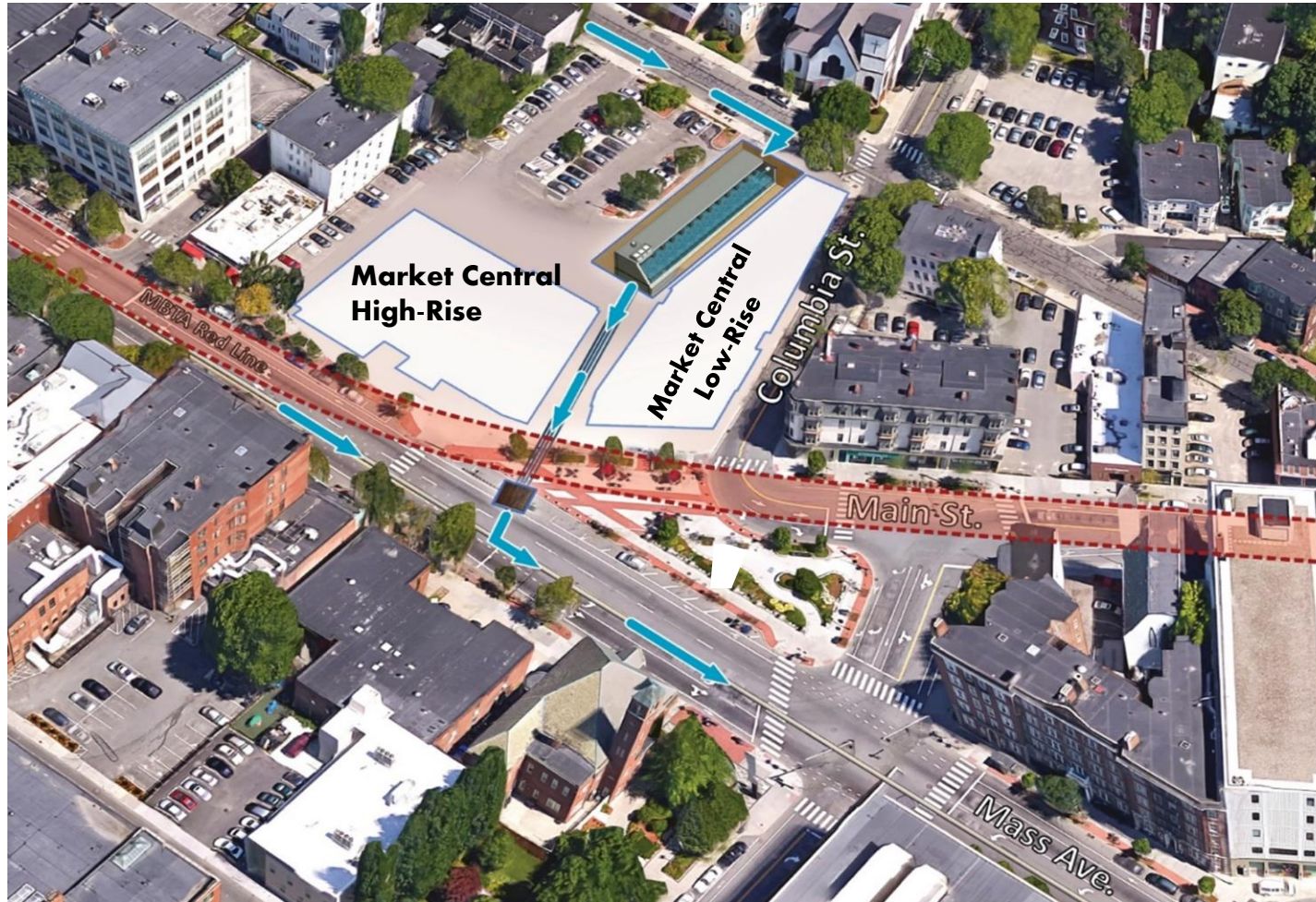
Phase 2

- Additional underground storage*
- Sewer and storm drain improvements
- Roadway & sidewalk reconstruction
- Other utility upgrades

*Storage locations to be determined.



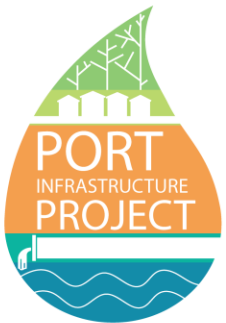
Phase 1: PL6 Tank and Pump Station



Tank constructed under City-owned Parking Lot 6.

Four 20" pipes constructed from the tank, between Market Central proposed buildings, beneath the MBTA Red Line Tunnel, and across Mass Ave.

Phase 1: PL6 Tank and Pump Station



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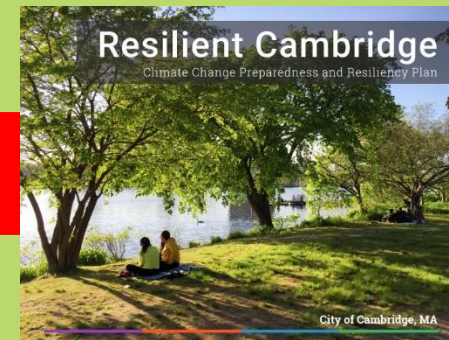
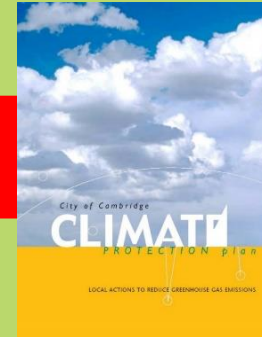
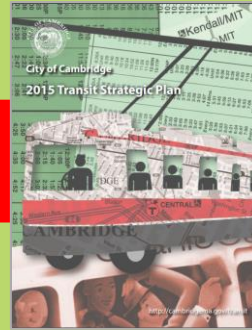
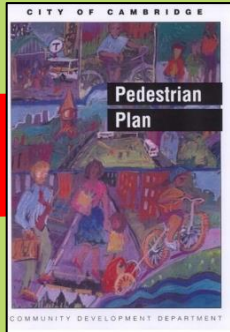


Phase 2

- Additional Underground Storage
- Sewer and Storm Drain Improvements
- Roadway & Sidewalk Reconstruction
- New Tree Plantings
- Green Infrastructure (Public Right-of-Way and Potential Private Properties)
- Other Utility Upgrades (Water, Gas, Electric)



Guiding Plans and Policies



Vehicle Trip Reduction Ordinance established programs to encourage alternatives to single-occupancy vehicle travel (1992).

Cambridge Growth Policy emphasizes sustainable modes of transportation such as walking, biking and using transit and low-emission vehicles, which promote livability and help to improve air quality and reduce greenhouse gas emissions (1993/2007).

Benefits – New Streets, Sidewalks, Trees & Plantings

Work with the community to determine best designs for streets, sidewalks, plantings, etc.



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New Tree Plantings



TOOLBOX
DESIGN ELEMENTS



PROJECT OVERVIEW

Benefits – New Streets & Sidewalks



Accessible Sidewalks

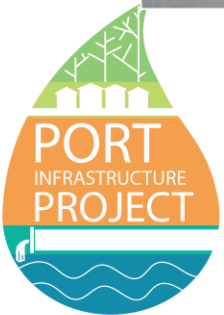


PROJECT OVERVIEW

Benefits – New Streets & Sidewalks



Accessible Sidewalks



Benefits – Street Trees & Plantings



Benefits – Green Infrastructure

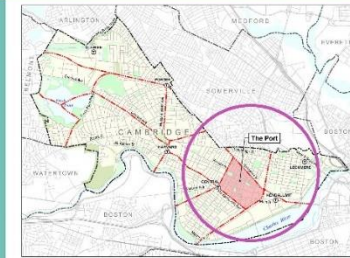


PROJECT OVERVIEW

Public Art

flow... A GRANT PROGRAM FOR THE PORT

As part of The Port Infrastructure Project being conducted by the City over the next several years, \$300,000 of percent-for-art funds are being used for a special one-time grant program entitled FLOW: A Grant Program for The Port. Cambridge Arts has been working closely with the Community Arts Center and other neighborhood organizations to develop this one-time grant program. A committee composed of community members selected 11 projects out of a total of 70 submissions.

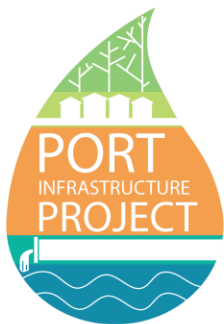


CAMBRIDGE ARTS



Where We Are Looking For Community Input

- Street & Sidewalk Improvements
- New Tree Plantings
- Green Infrastructure
 - Public right-of-way
 - Potential private properties
- Public Art
- Other Neighborhood Needs and Community Priorities



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Community Process



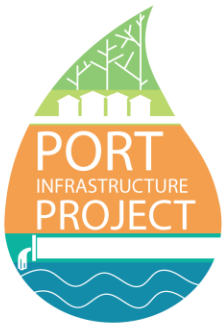
Recent DPW Outreach Efforts

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Community Outreach: Hoops n' Health



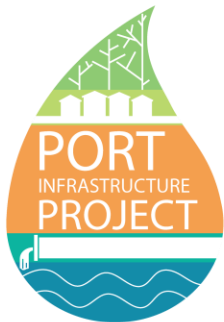
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Help Us Plan Our Public Outreach

- What has worked well (or not so well) in previous projects and interactions with the City?
- What communication channels and types of events work best?
- How can we broaden and deepen involvement from a wide range of community members?
- What is most important to community members?
- What are some good meeting locations in the neighborhood?



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Public Comment

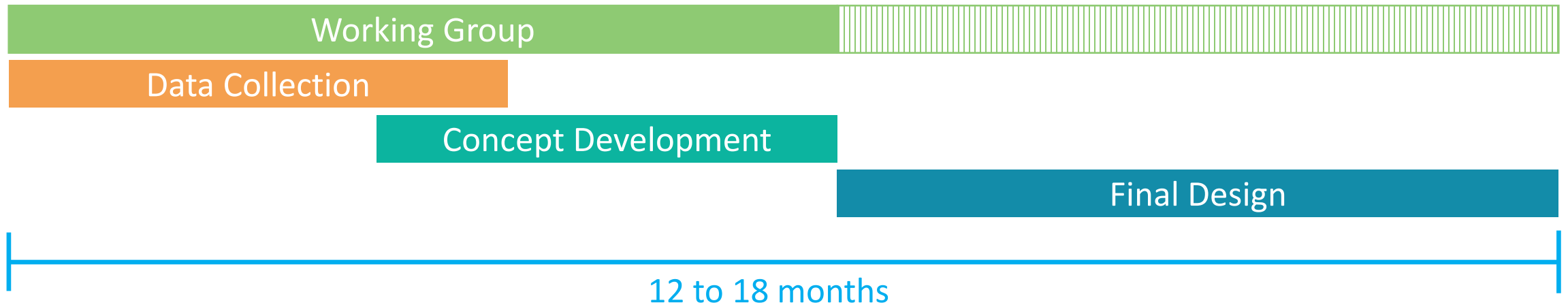
Share Your Comments and Questions:

- Type your comments and questions in Q&A window
- If you would like to speak, use the “Raise Hand” button to request to speak

We will read out questions from the Q&A and call on attendees with ‘raised hands’ as time allows.



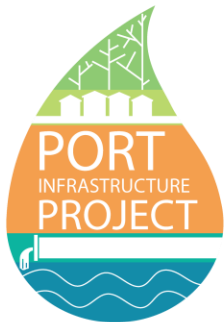
Phase 2 Sequence



Things to Think About Before We Meet Next

As you walk around the neighborhood, think about...

- Issues you are encountering
- Locations with access and accessibility issues
- Possible locations for new streets, sidewalks, trees, plantings
- Ways to engage neighborhood residents in this project



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For More Information:
www.cambridgema.gov/theworks/theport

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**COMMENTS &
QUESTIONS?**



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