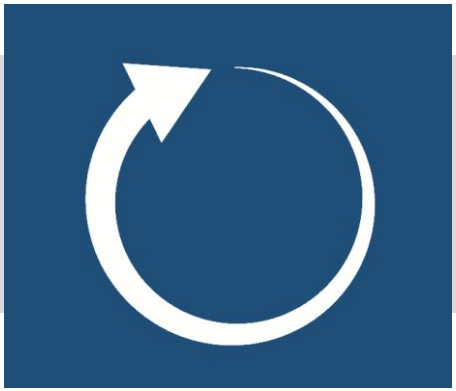
INMAN SQUARE INTERSECTION IMPROVEMENTS PROJECT

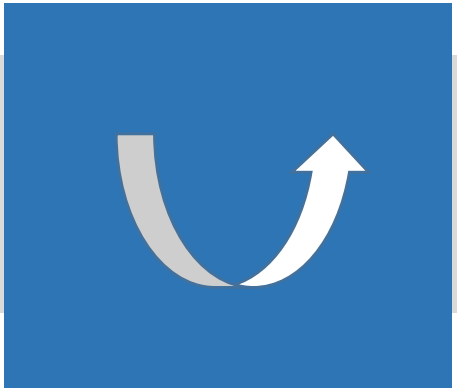
Community Meeting #3: Plaza Design Input | July 25, 2017

INMAN SQ PROJECT

Agenda



Project Background

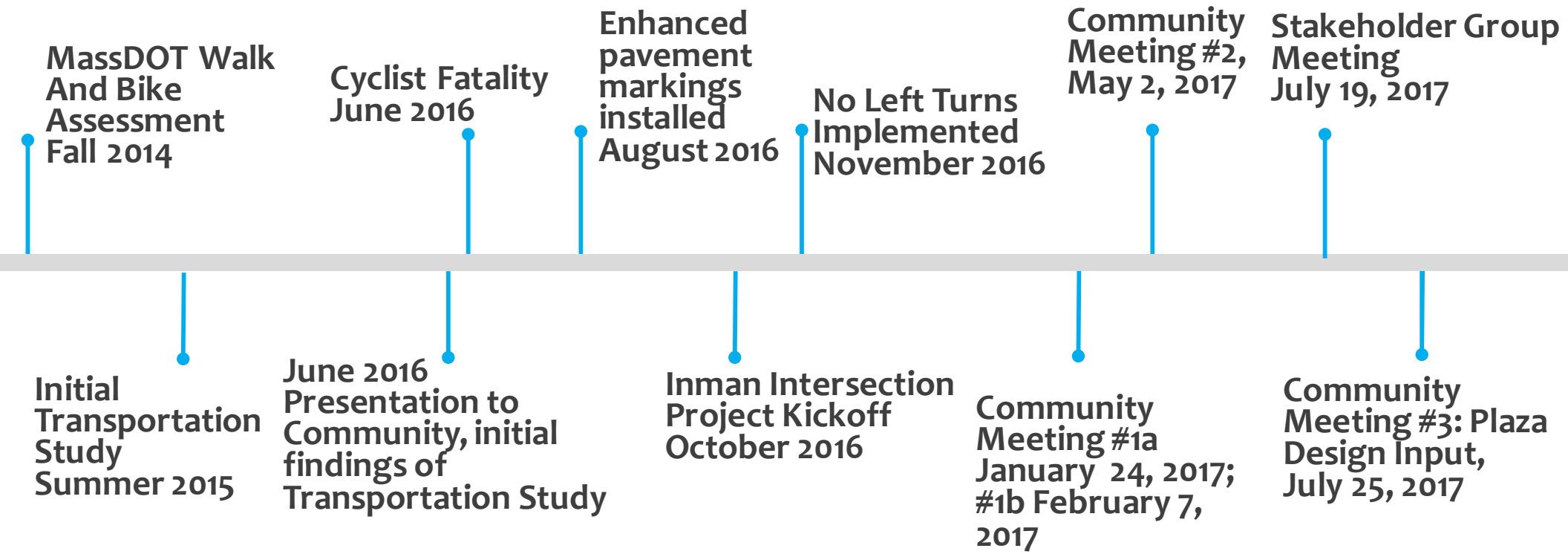


Review Preferred Concept

Plaza/Open Space Considerations

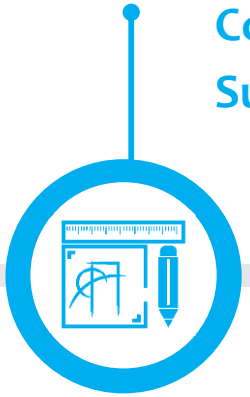
Next Steps

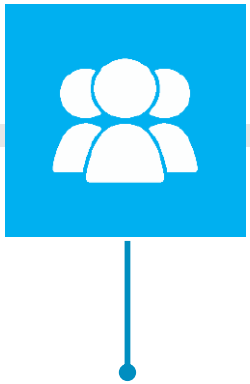
Project Timeline



Project Timeline

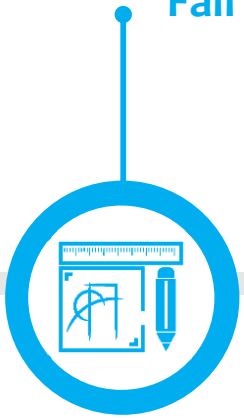
Complete 25% Conceptual Design
Summer 2017



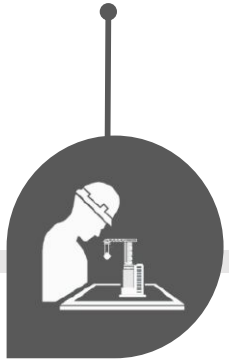


Community Meetings #3 and #4;
Stakeholder Group Meetings
Summer/Fall 2017

Complete Final Design
Fall 2017



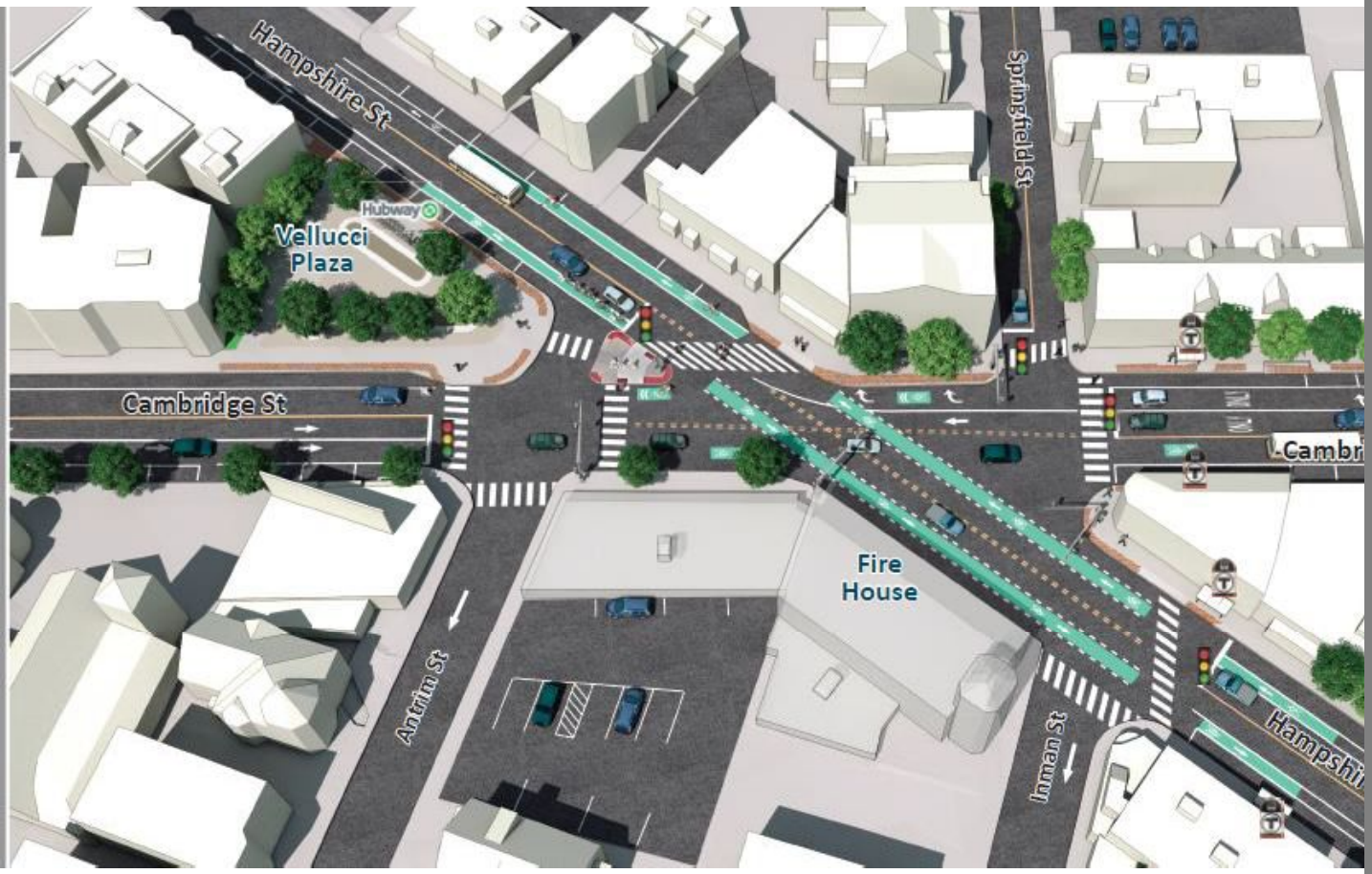
Construction Start
Winter 2017



Initial Transportation Study

- **Complaints of high delay for all modes of transportation**
  - Long signal cycle lengths
  - High volumes of bicyclists
- **Existing operational deficiencies**
  - Layout of crosswalks irregular
  - Large intersection for bicyclists and vehicles to traverse
- **Review of Crash Data 2008-2012**
  - 69 total crashes in 5 years (exceeds MassDOT avg Statewide crash rate)
  - Most frequent type of crash type – angle crash
  - 15 bicycle involved crashes, 5 pedestrian involved crashes

Existing Conditions



1. Crosswalks outside of desire lines and some not signal controlled
2. Existing geometry results in long distance for pedestrians and bikes to travel
3. No signal control for Hampshire Street Southbound turn to Antrim Street
4. Issues with clearance time for all users
5. Unclear lane control on Cambridge Street

Desired Outcomes

- Reduce exposure through more compact intersection design
- Minimize conflicts with turning vehicles
- Provide separation

- Reduce length of crosswalks and signal wait times
- Provide more direct crosswalk routing
- Provide improved pedestrian environment through landscaping and enhanced amenities

- Reduce unnecessary vehicular delay
- Provide clear guidance and lane controls
- Increase efficiency through more compact intersection design

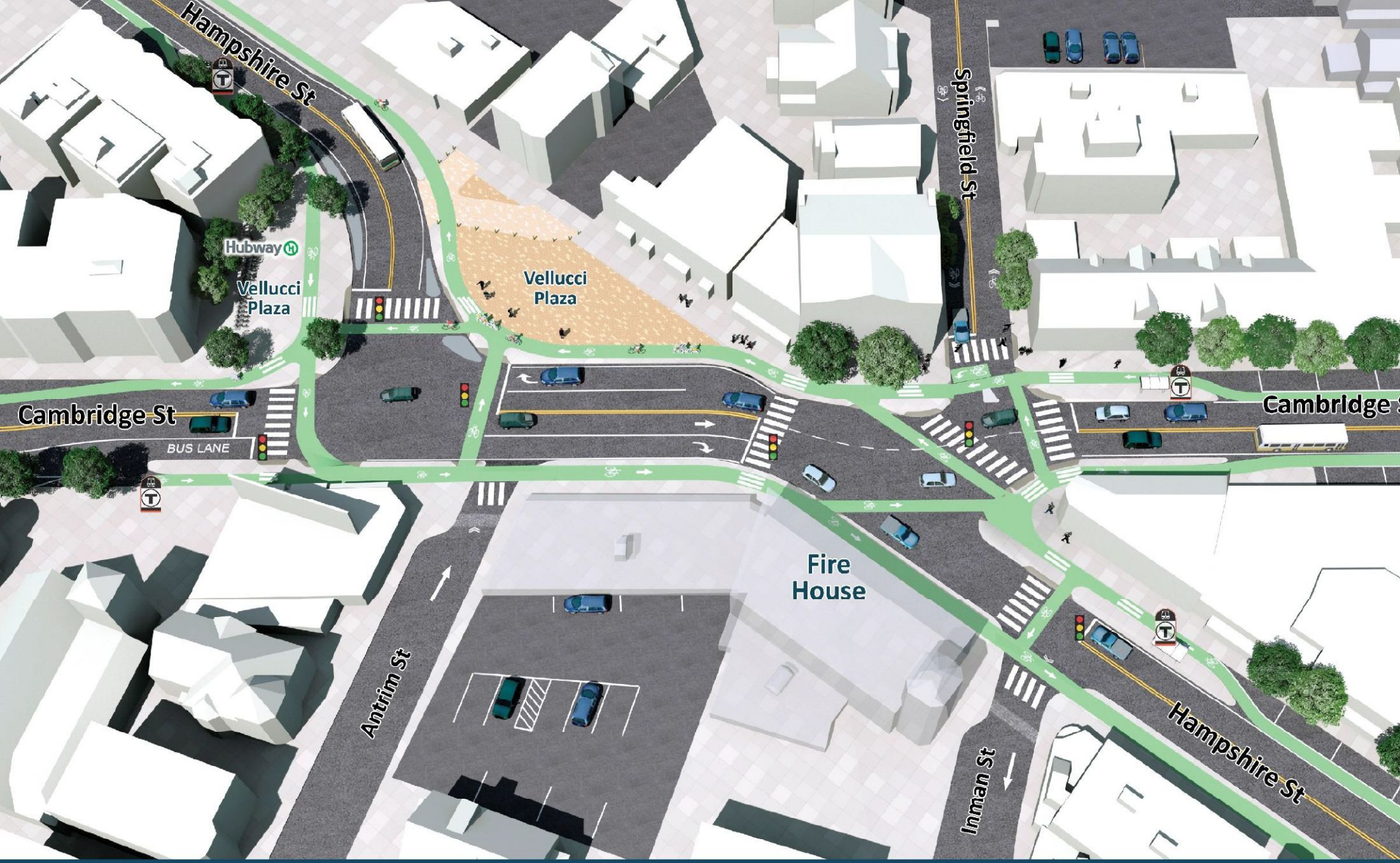
- Reduce bus/transit delay
- Improve location of and access to MBTA bus stops

Desired Outcomes (continued)

- Provide pedestrian plaza adjacent to businesses

- Maintain truck access through intersection

- Maintain protected firehouse egress/access

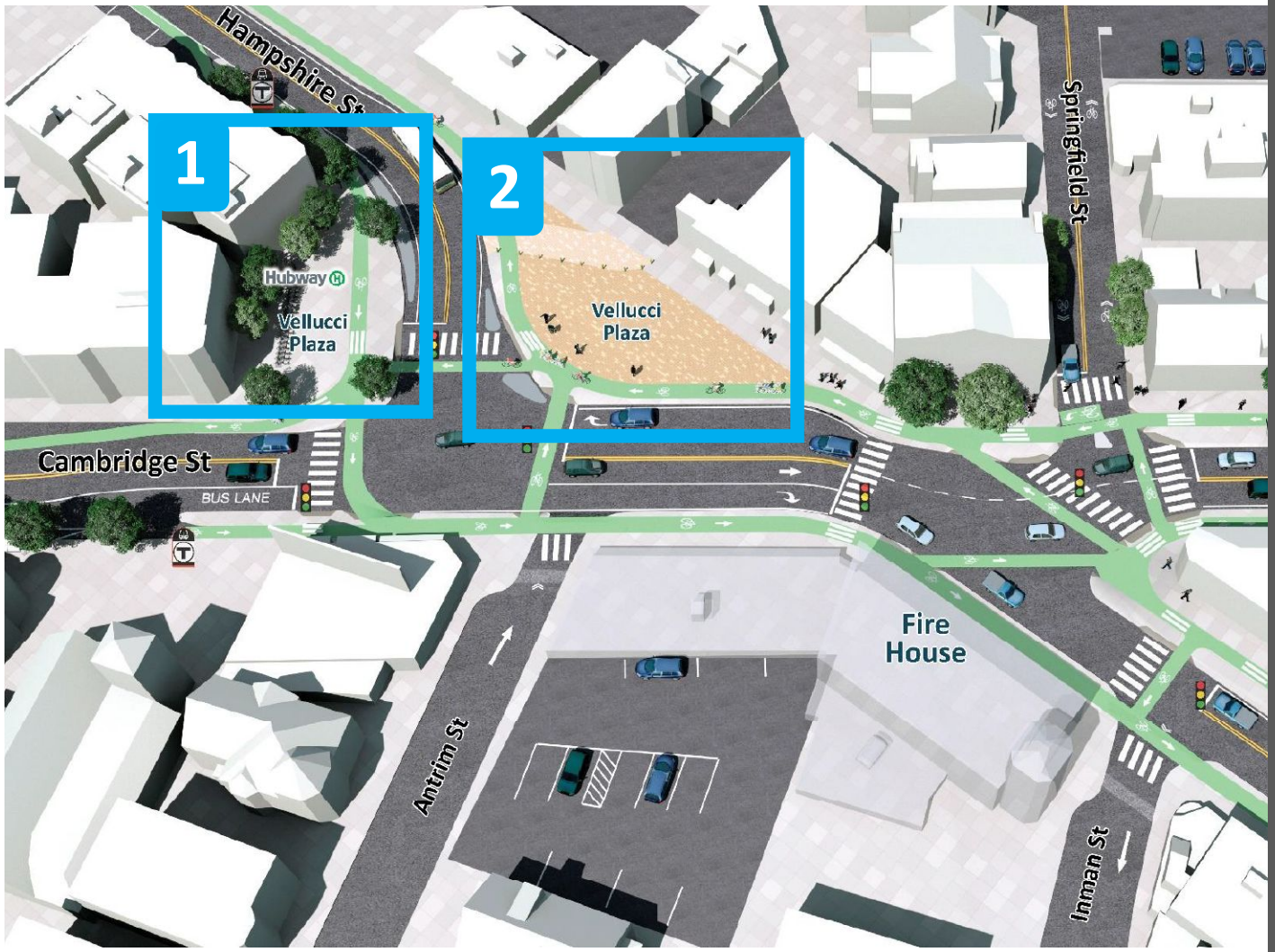


Inman Square - Preferred Concept

City of Cambridge
July 2017

PREFERRED CONCEPT

Design Highlights



1. Separated bike lane through existing Vellucci Plaza

   Maintain large caliper trees

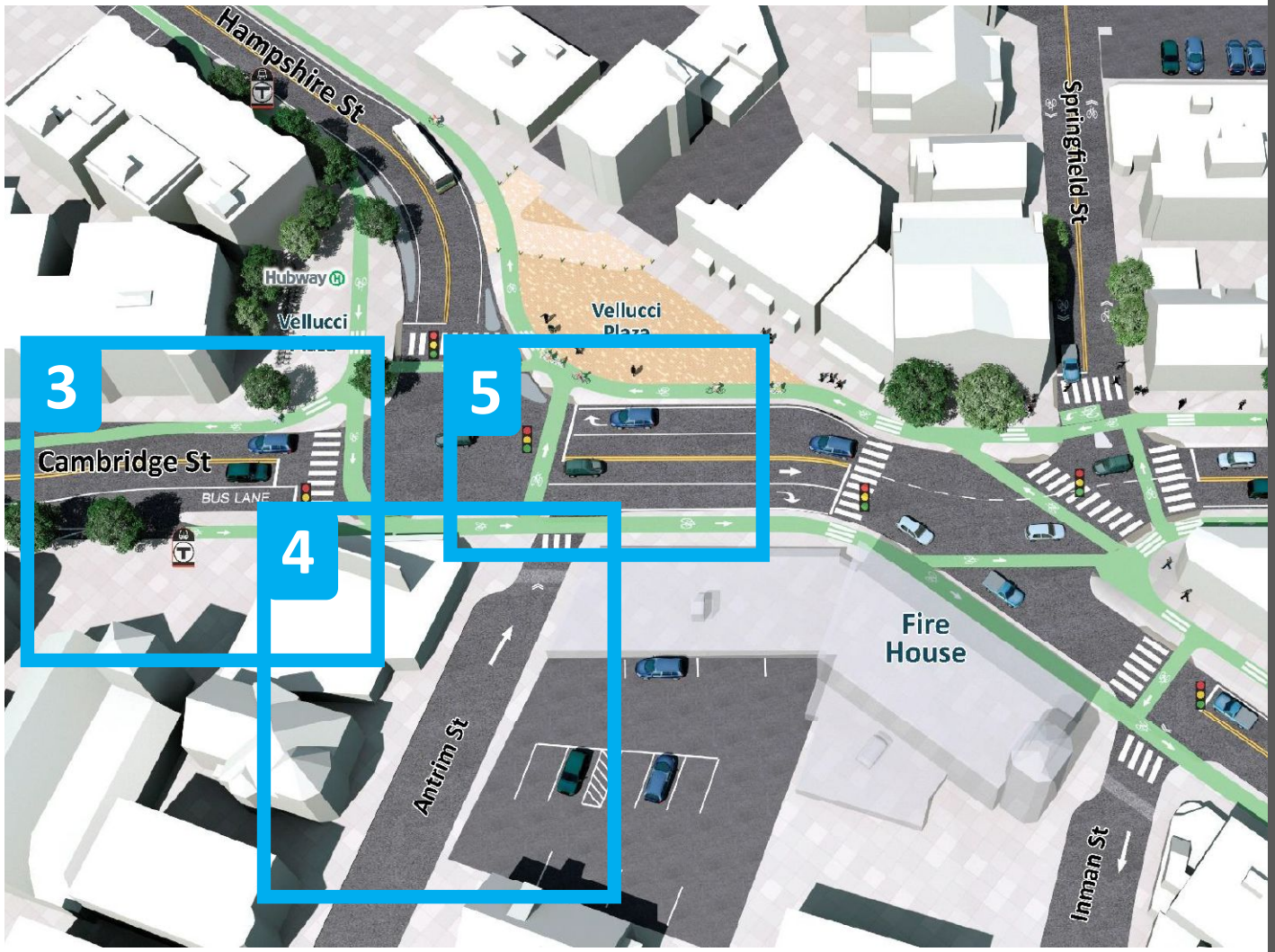
   Maintain and/or expand Hubway station

2. Create new Vellucci Plaza adjacent to retail

   Maintain driveway access to businesses

PREFERRED CONCEPT

Design Highlights



3. Balance between parking and transit

   Transit priority opportunity

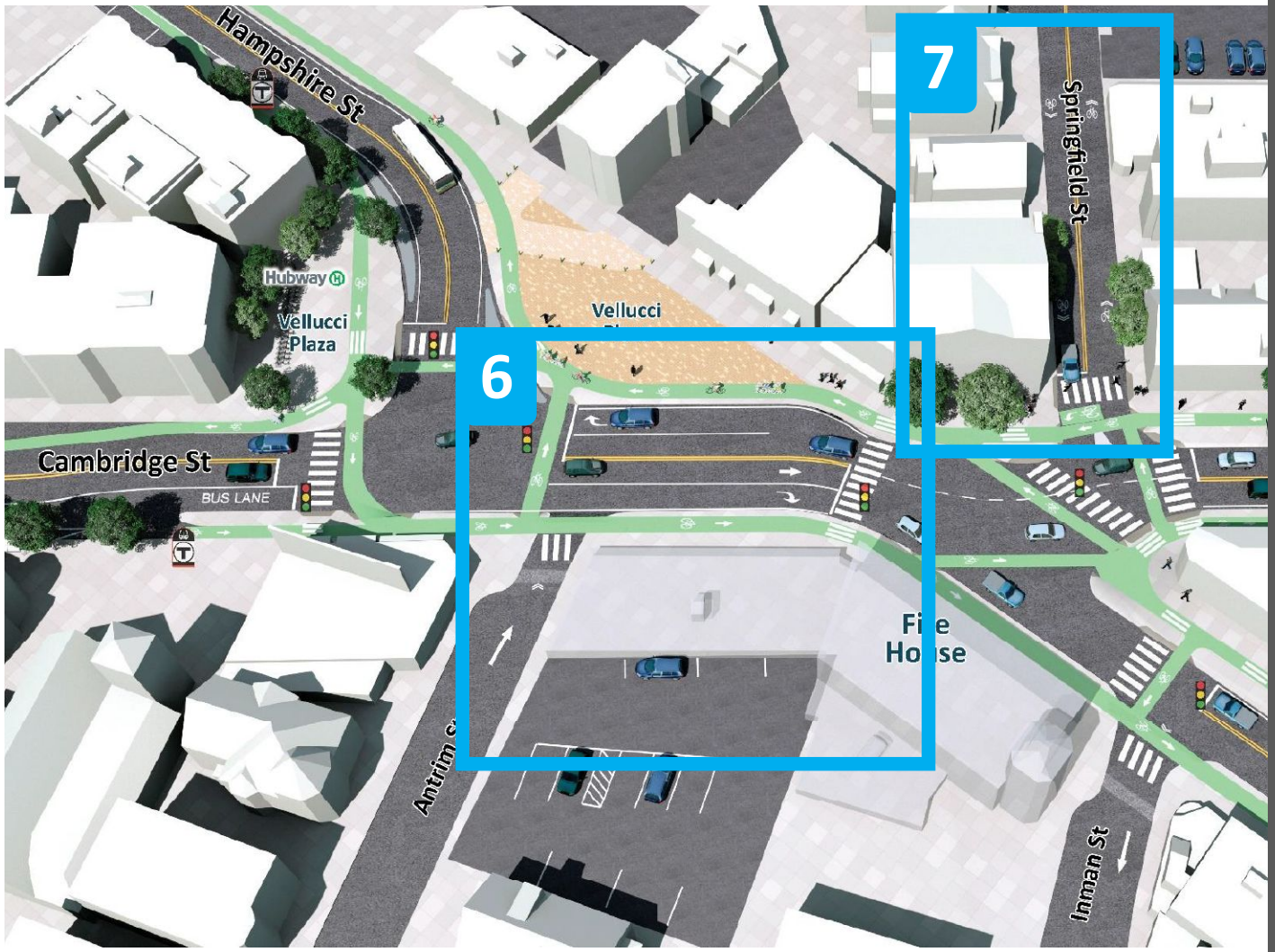
4. Consider Reversing Direction of Antrim Street (not required)

5. Vehicle turn lanes to allow for protected pedestrian crossings

   Potential to improve morning peak hour service on MBTA Bus Route 91

PREFERRED CONCEPT

Design Highlights



6. Pedestrian crossing at heart of intersection

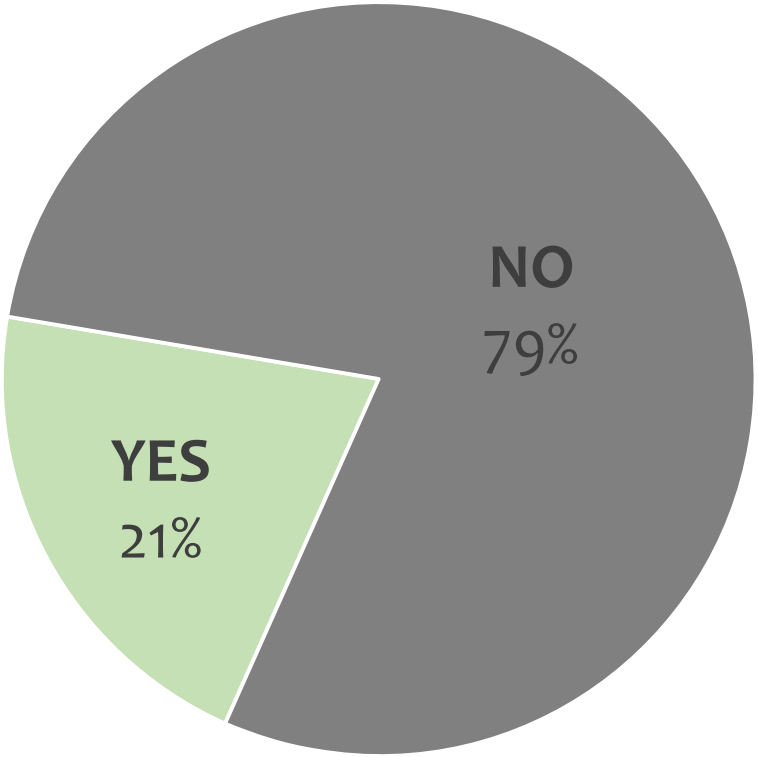
   Signalized access to fire house maintained

7. Maintain two-way direction on Springfield Street

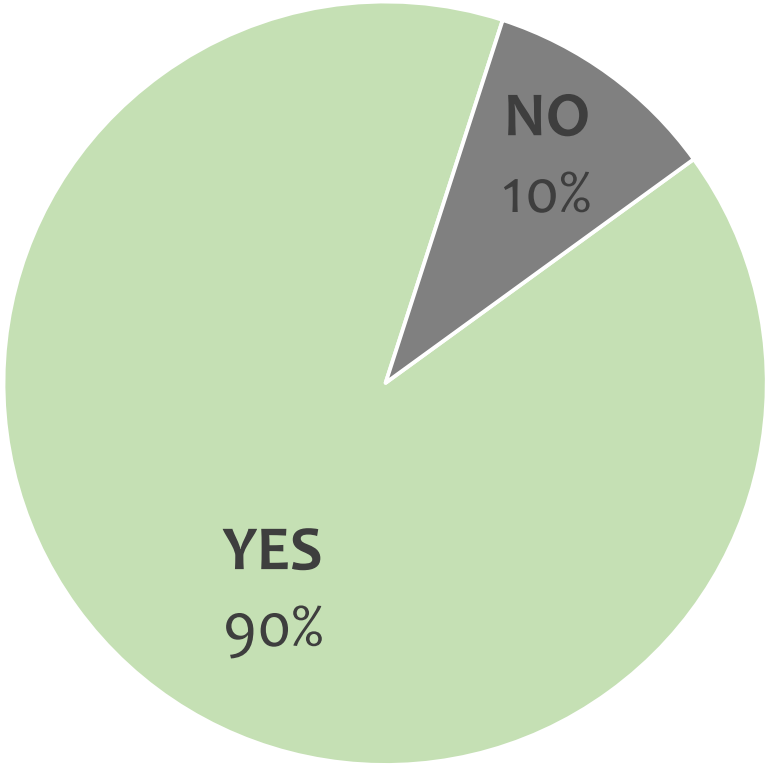
   Relocate MBTA Bus Route 91 to Prospect Street

Community Feedback

Do you think Vellucci Plaza should stay the way it is today?

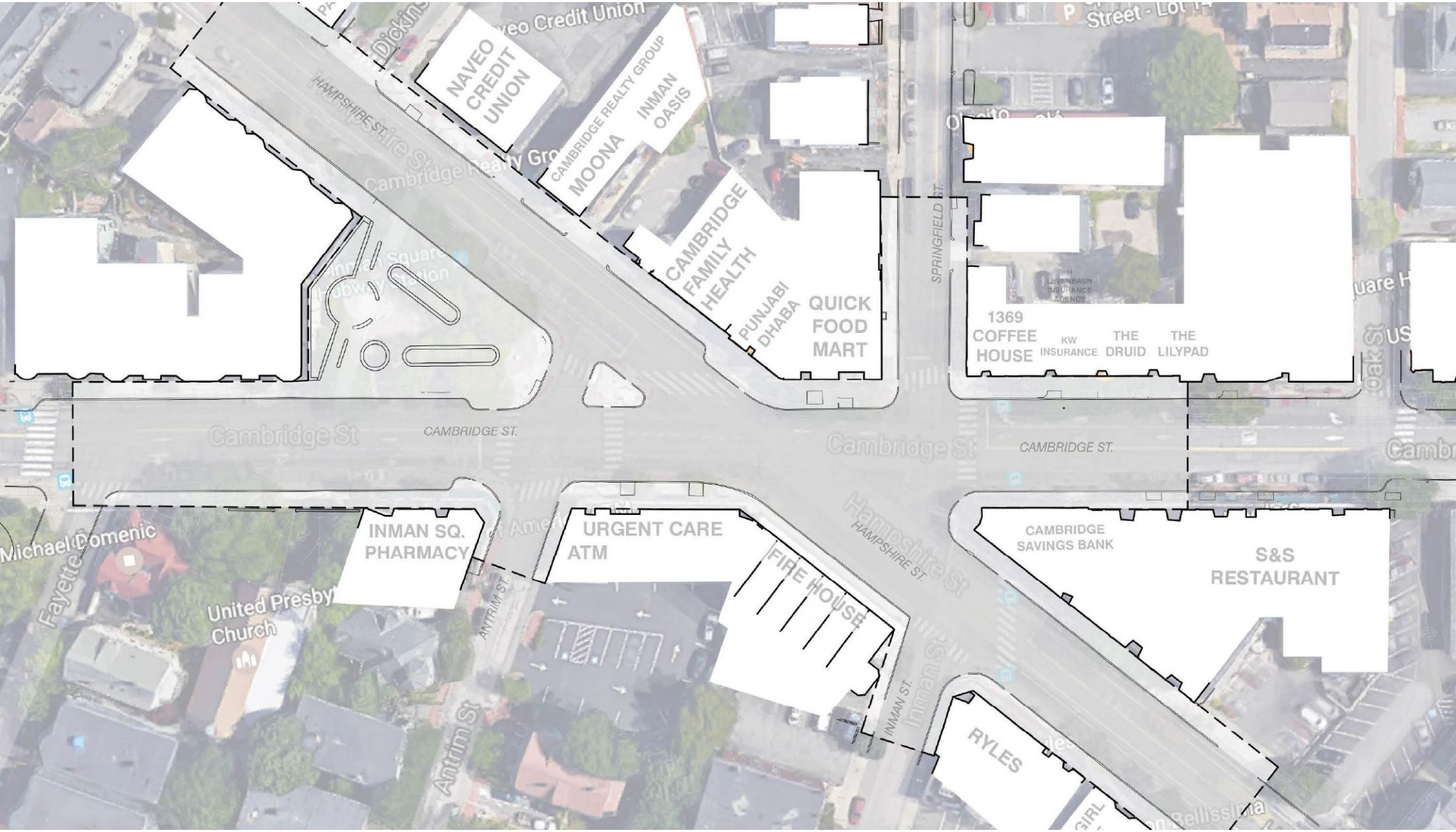


Do you think there should be additional pedestrian-oriented space in the Inman Area?



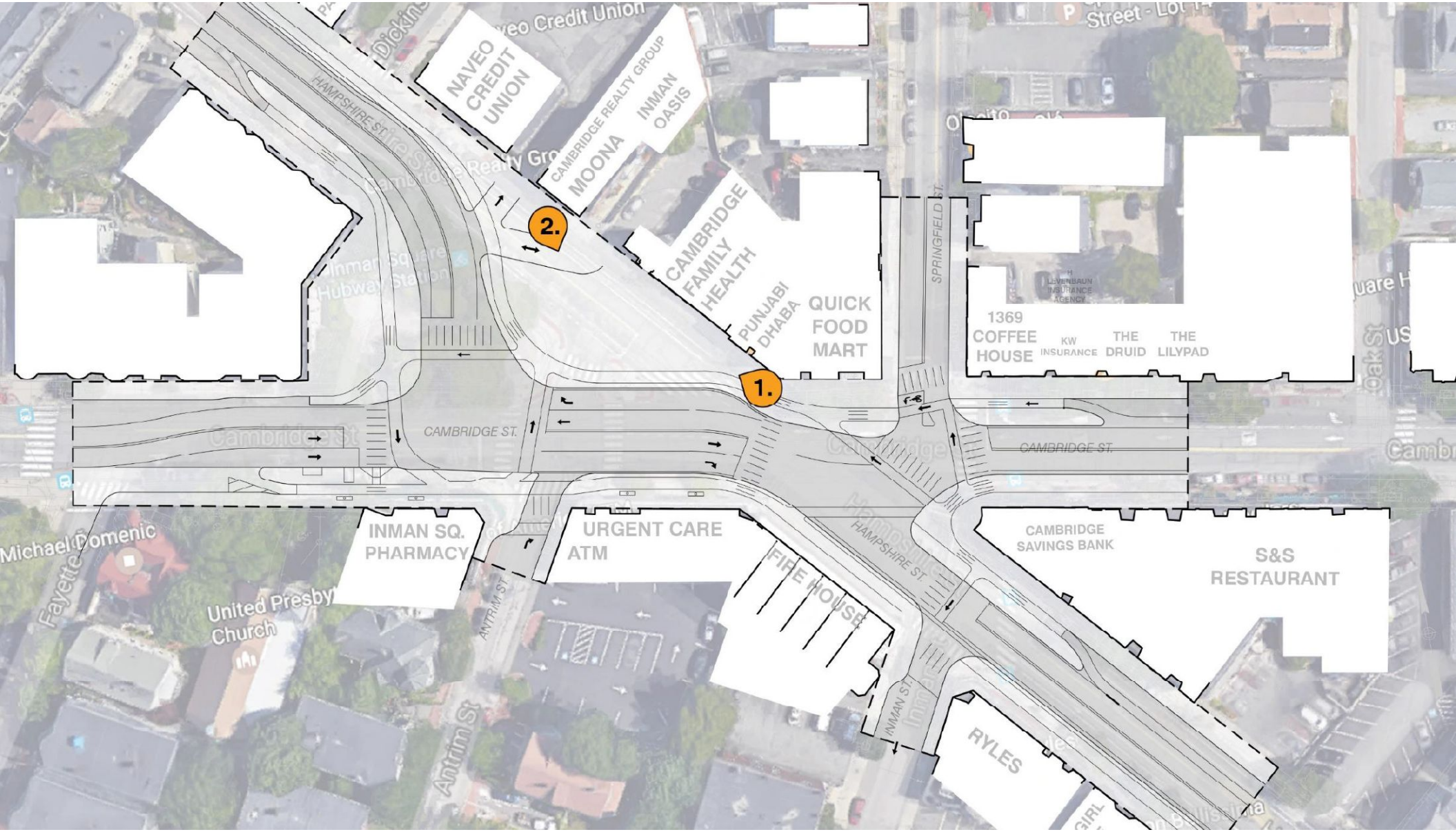
Plaza/Open Space Considerations

Review of Concept Design - Existing



Plaza/Open Space Considerations

Review of Concept Design - 2 Views



View 1: Existing Conditions

View 1: Proposed Concept

View 2: Existing Conditions

View 2: Proposed Concept

Plaza/Open Space Considerations

- **Inman Square**
  character, identity, scale
- **Plaza Concept**
  spatial "heart of the square"
- **Plaza Design**
  precedents & elements
- **Additional Design Opportunities**
  edges, memorials, art

Plaza/Open Space Considerations

Character & Identity

Character & Identity

Cambridge Street - Inman Square

Plaza/Open Space Considerations

Character & Identity

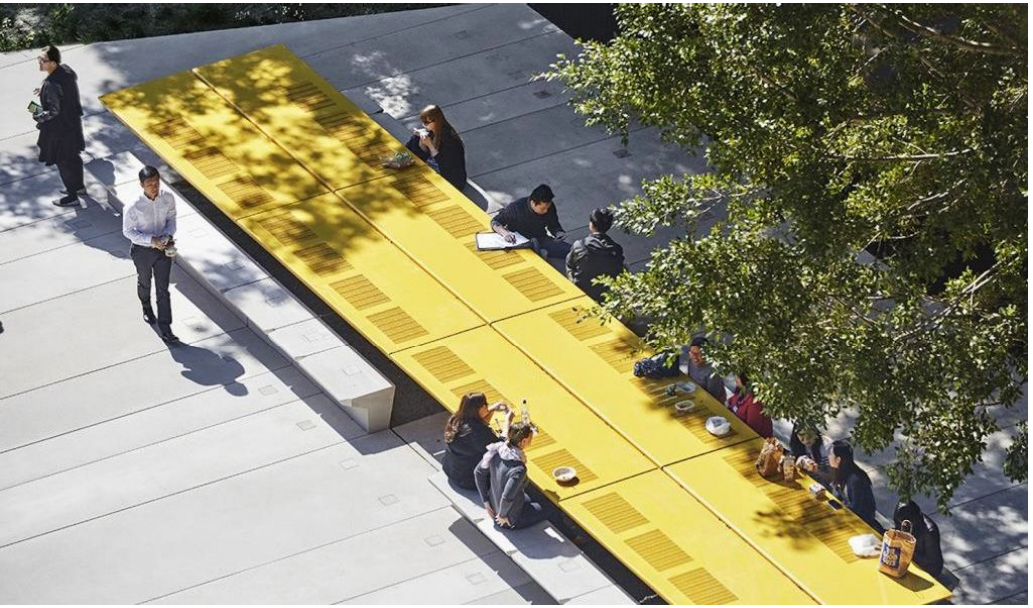
Cambridge Street - Inman Square

Mass Ave - Central Square

Multiple Scales – Regional/City

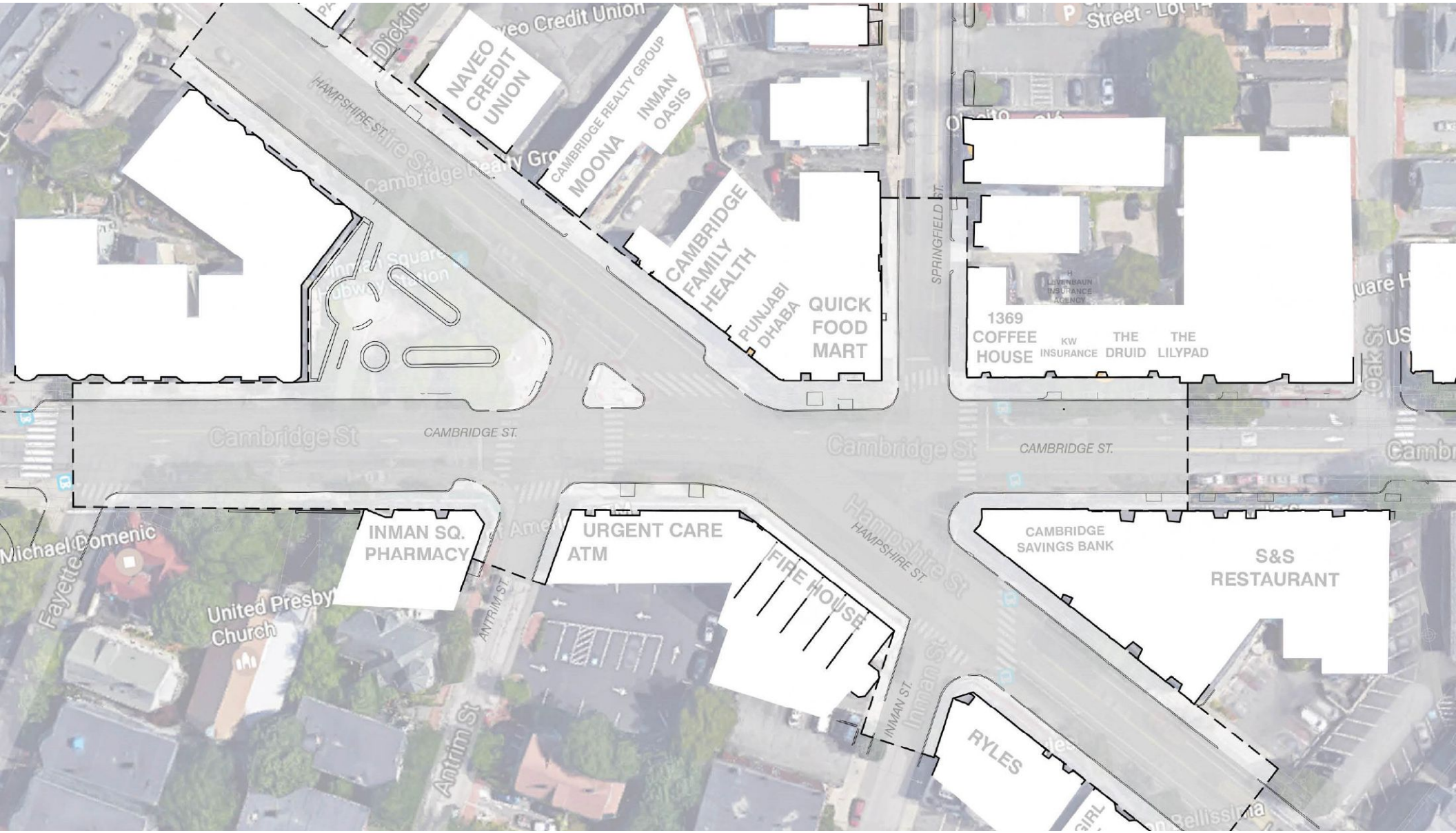
Multiple Scales – Neighborhood/Site

Multiple Scales – Personal/Detail



Plaza/Open Space Considerations

The Spatial 'Heart of the Square'



Plaza/Open Space Considerations

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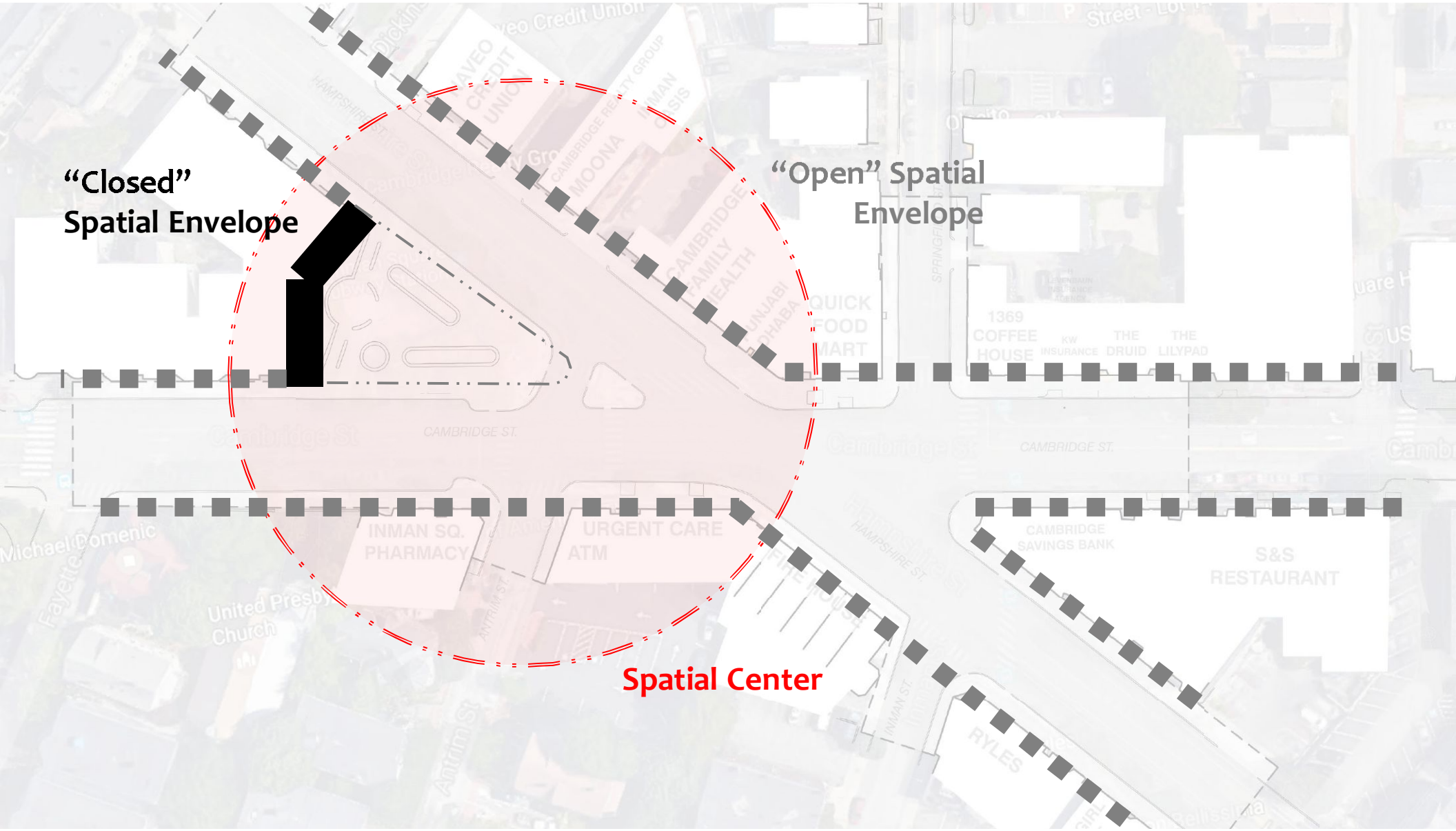
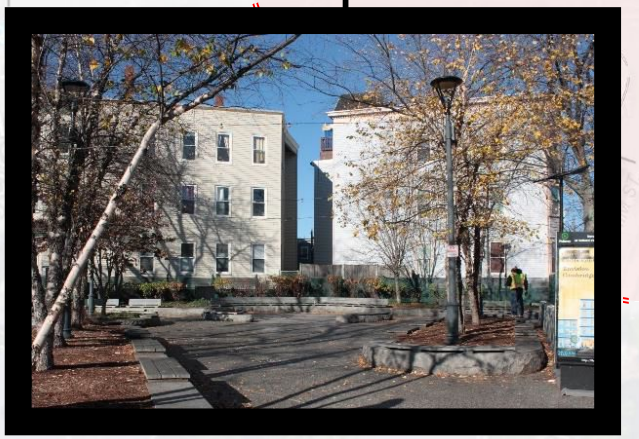


The Spatial 'Heart of the Square'

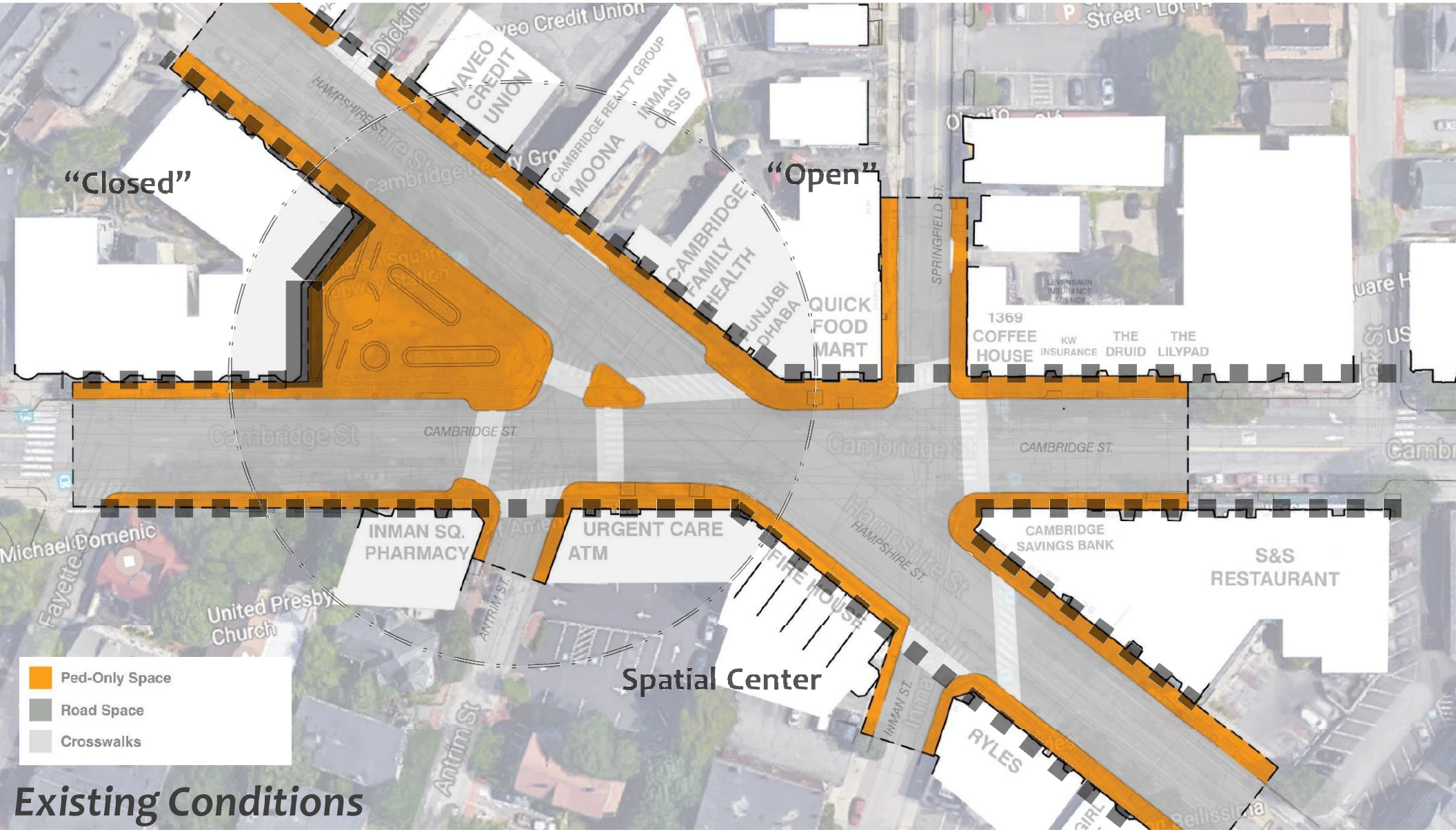
"Closed" Spatial Envelope (fence, buffer, back/side of residences)

"Open" Spatial Envelope (storefronts, entrances, stoops)



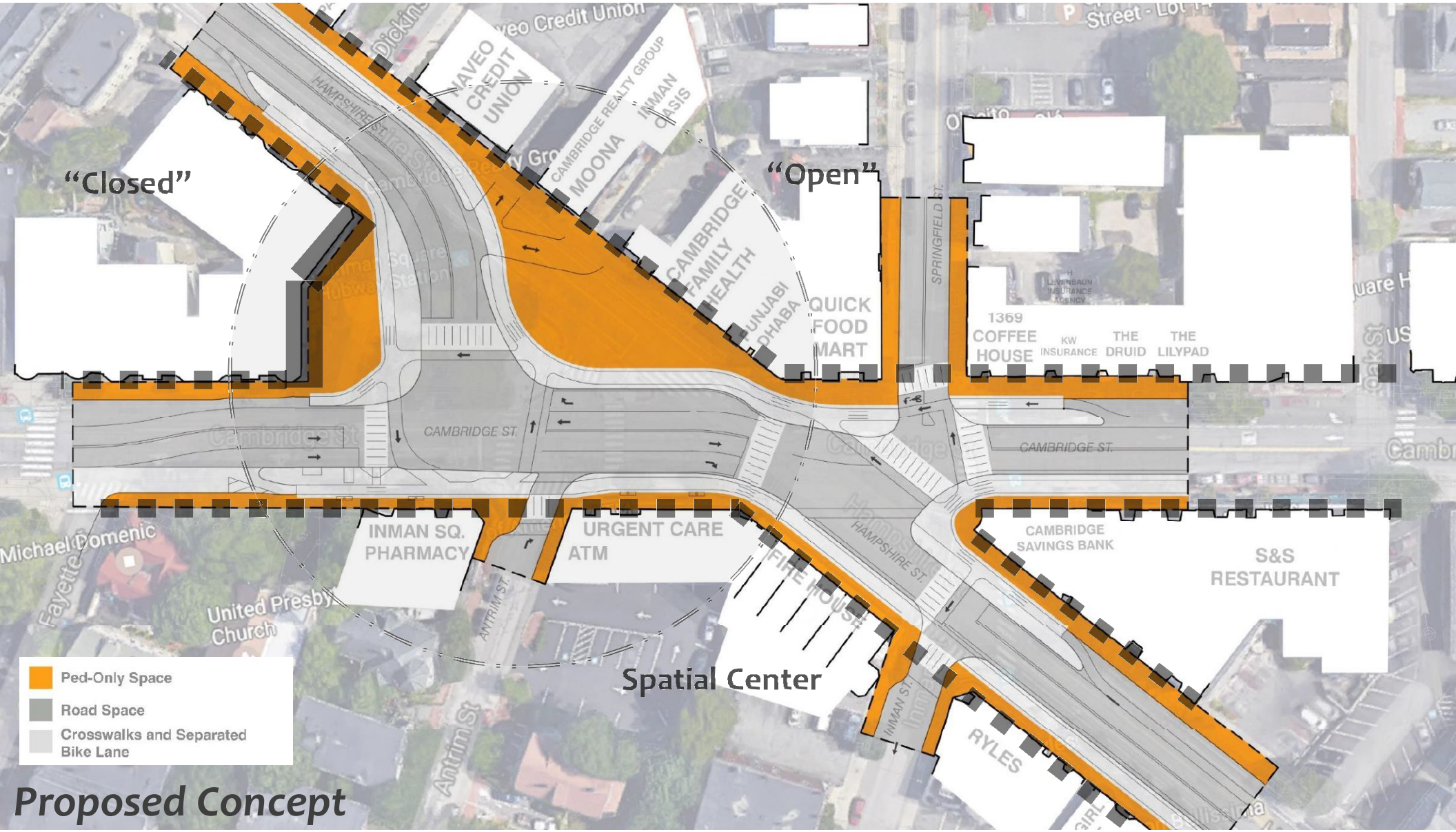
Spatial Center

Re-Centering the Plaza



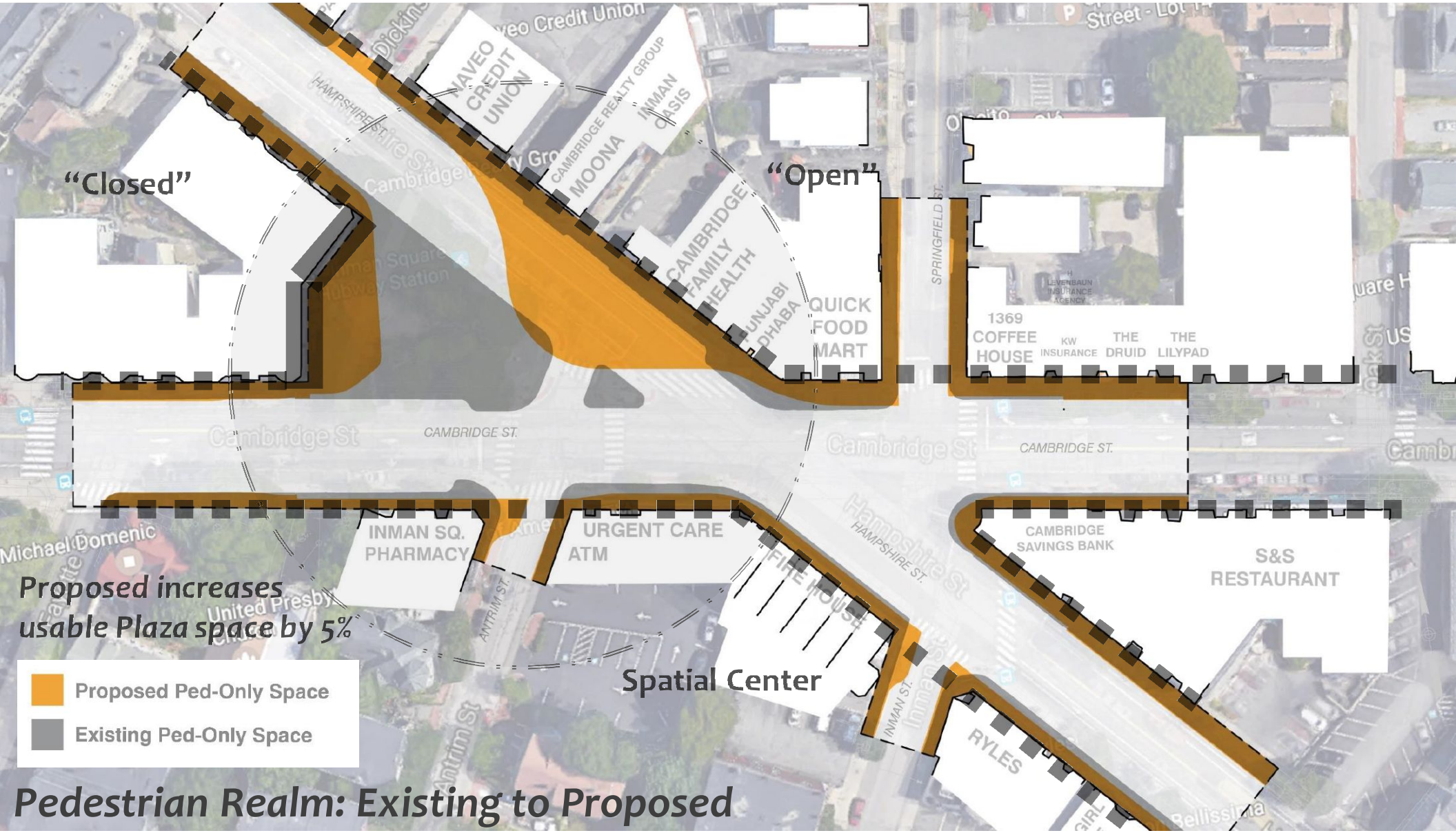
Existing Conditions

Re-Centering the Plaza



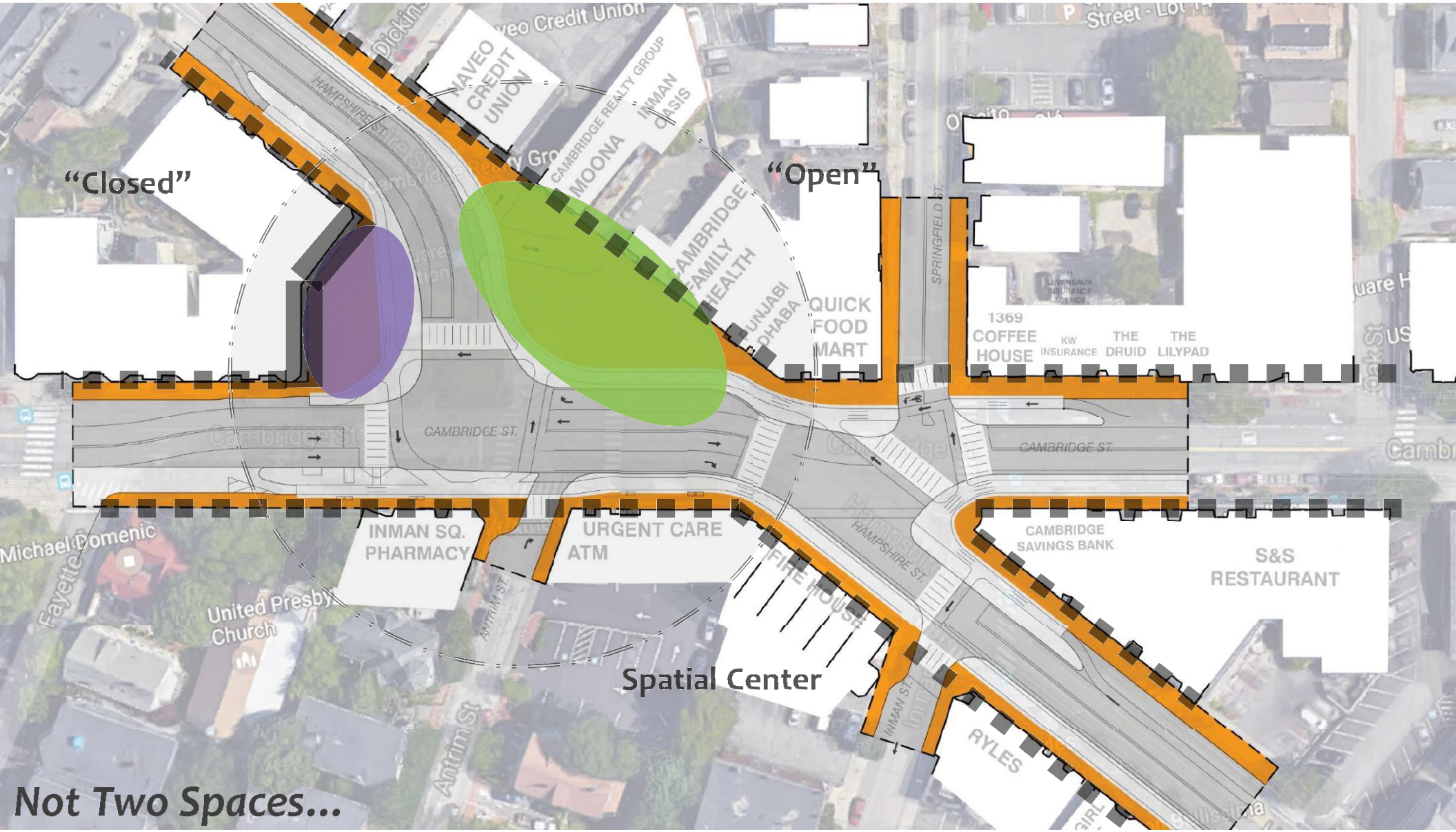
Proposed Concept

Re-Centering the Plaza



Plaza/Open Space Considerations

Connecting Spaces



Plaza/Open Space Considerations

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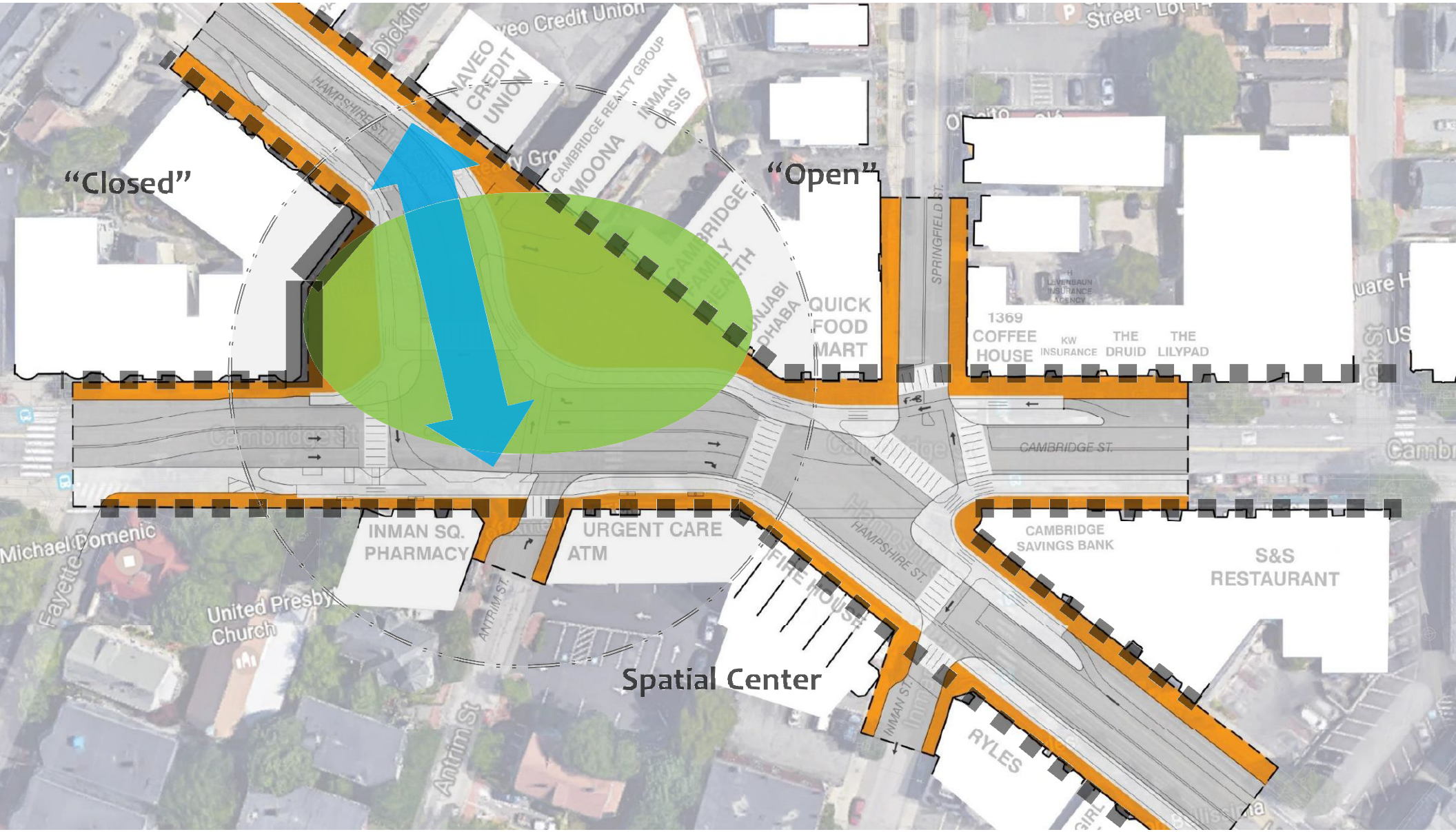


QUESTION

What key features will help make the Plaza memorable?

Plaza/Open Space Considerations

Plaza Design

Existing Vellucci Plaza

Lafayette Square, Cambridge

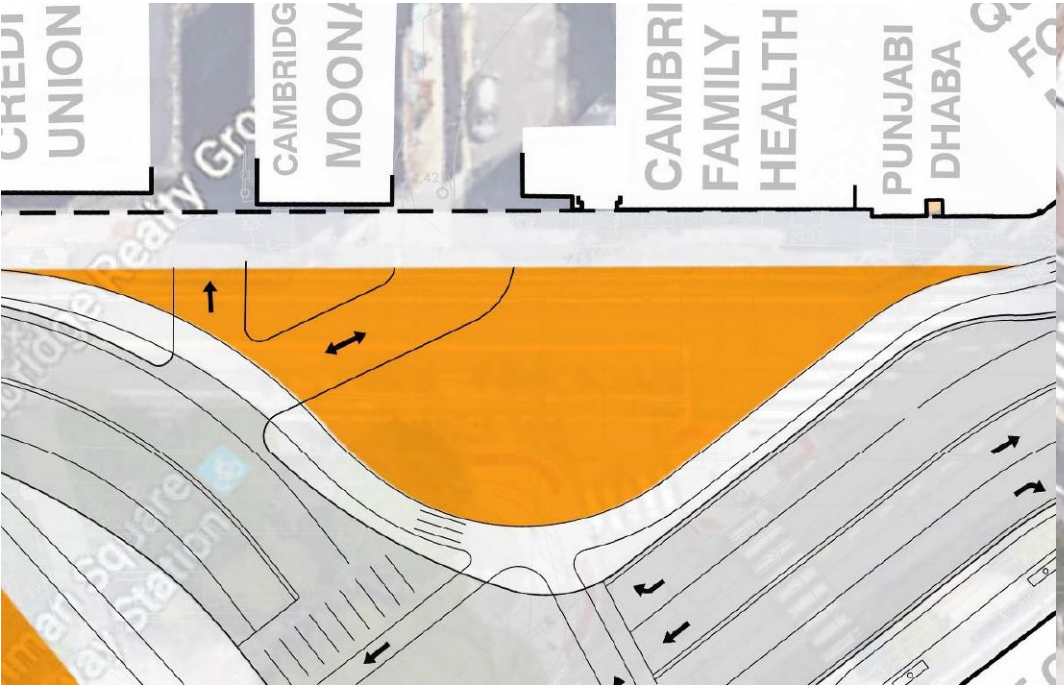
Plaza/Open Space Considerations

Plaza Design

Proposed Concept – Inman Square

Lafayette Square, Cambridge

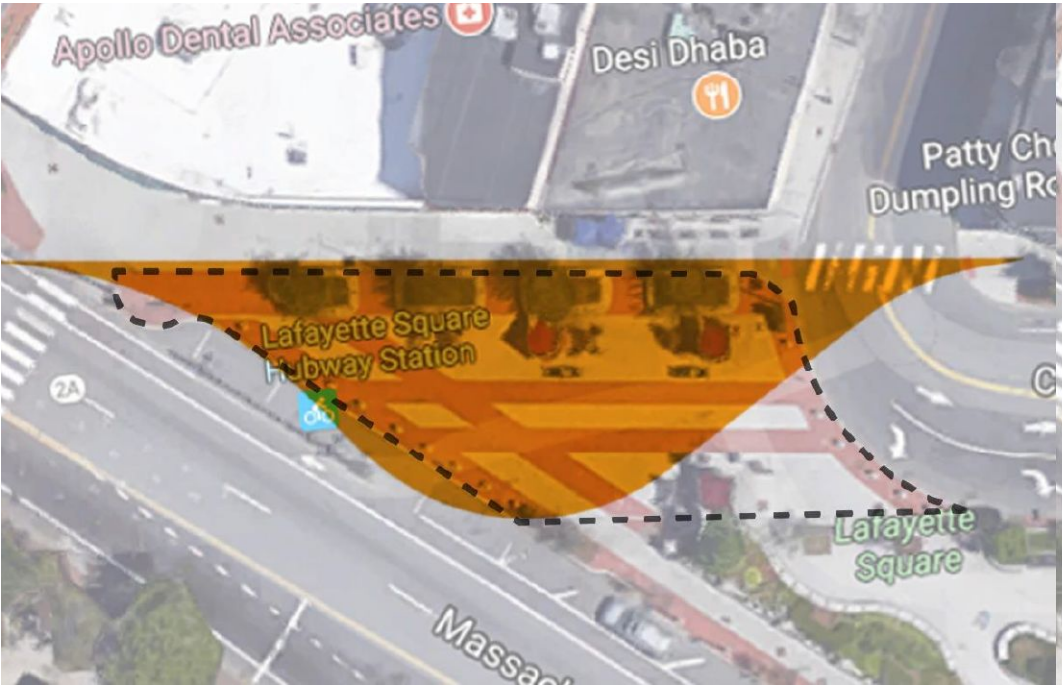
Plaza Design



Proposed Vellucci Plaza

Lafayette Square, Cambridge

Plaza Design



Proposed Vellucci Plaza – w/ Lafayette Square underlay

Lafayette Square, Cambridge

Plaza/Open Space Considerations

Plaza Design

Square Dancing in Lafayette Square, Cambridge

How do we make a Plaza that is …

Flexible
Functional
Engaging
Busy
Green
Inclusive
Artful
Distinctive, and
Memorable?

Plaza/Open Space Considerations

Plaza Design

New Road, Brighton, UK

Create a distinctive ground plane to define the space …

Plaza/Open Space Considerations

Plaza Design

Parklet Washington, DC

MassArt Residence Hall, Boston

Integrate memorable site elements that engage people …

Harvard Science Center, Cambridge

Ping Pong, Bryant Park, NYC

Plaza Design


Existing Lighting Inman Square


Manhattan, NY

Incorporate lighting to distinguish the Plaza's features and illuminate the pedestrian realm ...

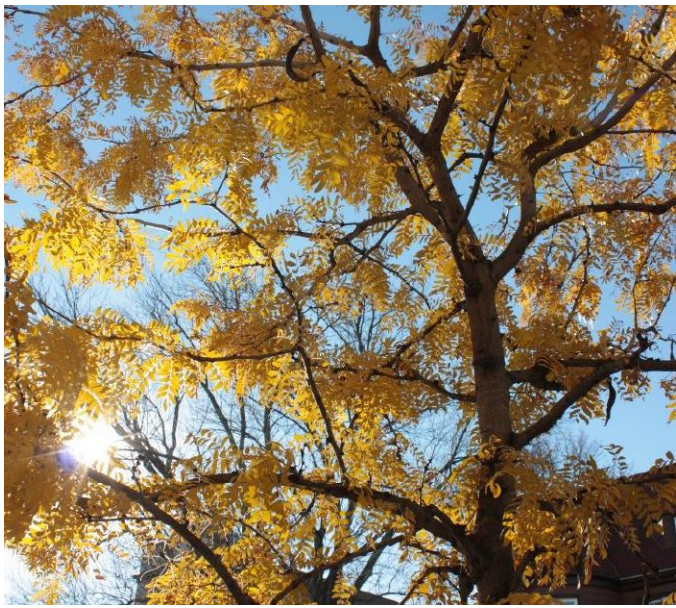

Langley, British Columbia, Canada


Harvard Square, Cambridge

Plaza Design

Yorkville Park, Toronto, ON

Construct a tree canopy as a signature spatial feature to be enjoyed at multiple scales …



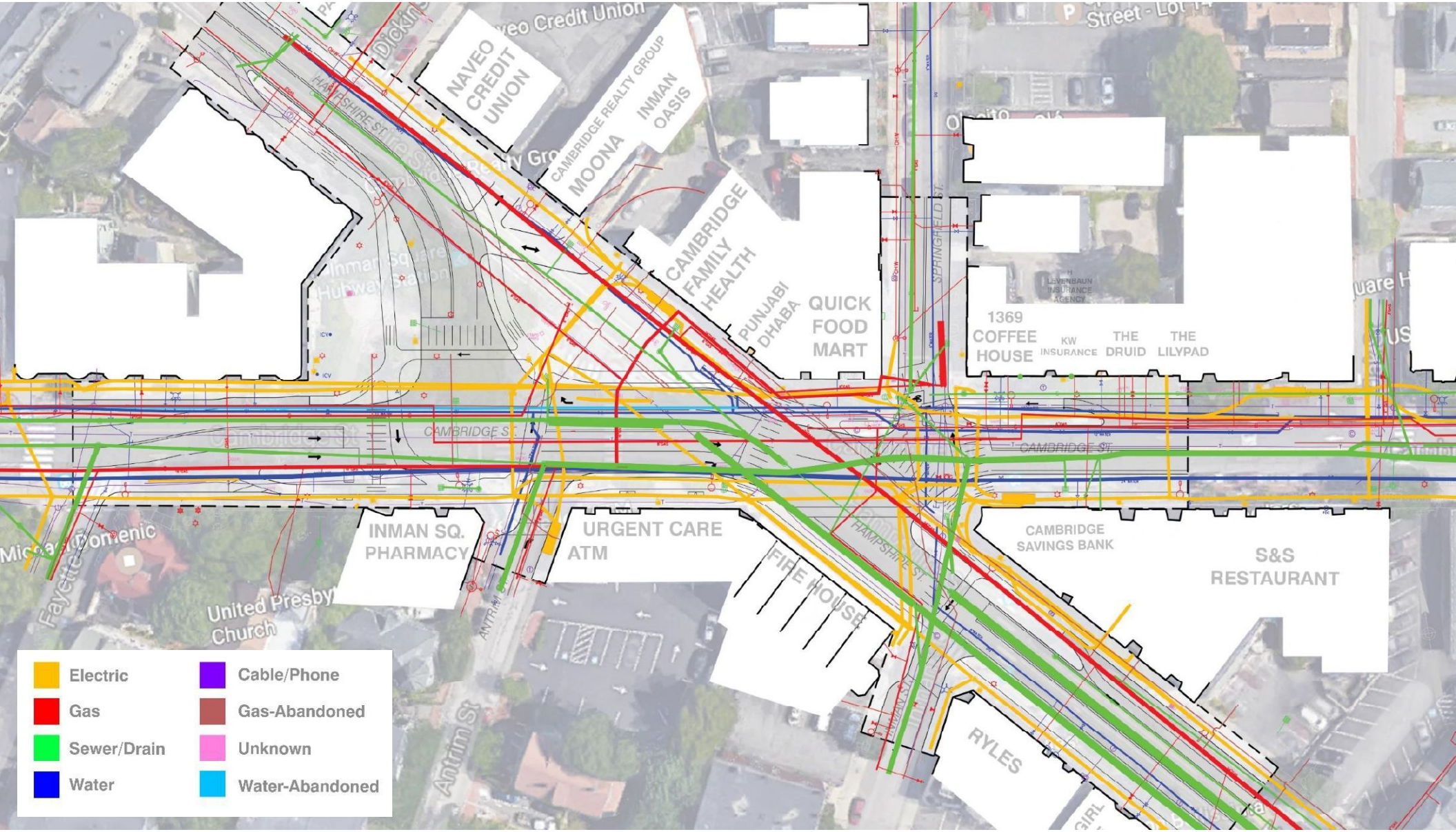
Plaza/Open Space Considerations

Plaza Design

Plaza Design

Shade: Spring, Summer, and Fall

Plaza Design



QUESTION

What elements will help make the Plaza welcoming and well-used? What do you like or not like about similar places?

Additional Design Opportunities

Bicycle/Pedestrian Edges

Contribute to the Character of Plaza

Memorialization

Site/Place as Memorial

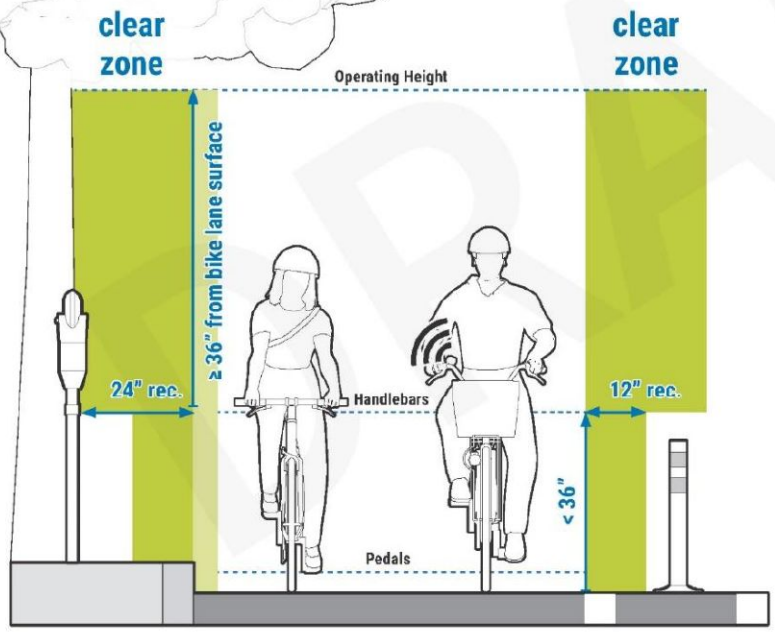
Public Art

Integrated with Site

Bicycle/Pedestrian Edges

USABLE BIKE LANE WIDTH

Proximity to objects or curbs along the bike lane edge can affect the comfort of the separated bike lane. Bicyclists will naturally shy away from these obstructions - and increase their operating spaces - to avoid handlebar or pedal strikes. The rideable surface of the bike lane would be reduced and passing functionality potentially eliminated if vertical objects are too close to bicyclists or curbs too high.



3.5 SIDEWALK BUFFER ZONE

The sidewalk buffer zone separates the bike lane from the sidewalk. It communicates that the sidewalk and the bike lane are distinct spaces. By separating people walking and bicycling, encroachment into these spaces is minimized and the safety and comfort is enhanced for both users. Design strategies for the sidewalk buffer include object separation (e.g., street furniture or landscaping), curb separation or visual separation (i.e., variation of surface materials). The design team may use a combination of these strategies, for example supplementing street furniture with brick or unit pavers.

Physical separation with street furniture, landscaping or other objects is recommended for the sidewalk buffer provided that an accessible path of travel and sufficient sidewalk width is maintained for unobstructed pedestrian flow.

In constrained locations where physical separation is desirable because of moderate to high pedestrian demand, for example town centers and urban areas, curb separation is preferable to ensure pedestrians do not walk in the bike lane, and bicyclists do not ride on the sidewalk. However it is also possible to achieve the desired separation when the sidewalk and bike lane are at the same elevation and are directly adjacent to each other by providing a high degree of visual contrast between the two. This can be accomplished through the utilization of different materials for each zone, stained surfaces, or applied surface colorization materials.

- Sidewalks must provide a **4 ft.** minimum continuous and unobstructed clear width, excluding the width of the curb.
- A sidewalk width narrower than **5 ft.** excluding the width of the curb requires a design exception. Wider sidewalks ranging from **6 ft. to 20+ ft.** are recommended for town centers and urban areas (see Section 5.3.1 of the PD&DG).
- Shy distances to objects and curbs may impact the usable width of the bike lane (see Section 3.3.3) and the sidewalk (see Section 5.3.1 of the PD&DG).
- Maintain adequate offsets between objects (e.g., trees, streetlights, hydrants, etc.) and locations (e.g., driveways, loading zones, transit stops and intersections).
- Refer to local streetscape and historic district guidelines for recommended sidewalk buffer materials.
- Sidewalk buffer may utilize permeable pavers to assist with on-site stormwater management (see Section 3.8.2).

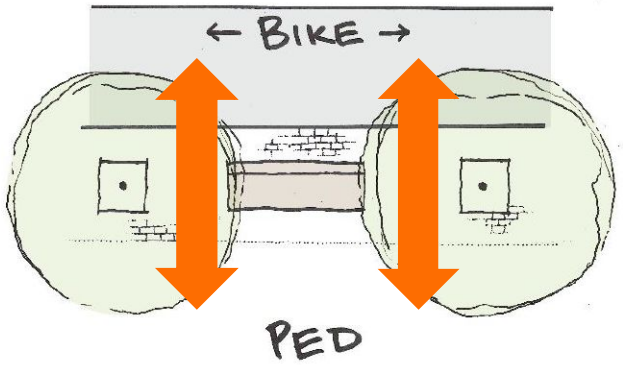

Cambridge, MA

MassDOT Separated Bike Lane Planning & Design Guide 39

Design Guidelines

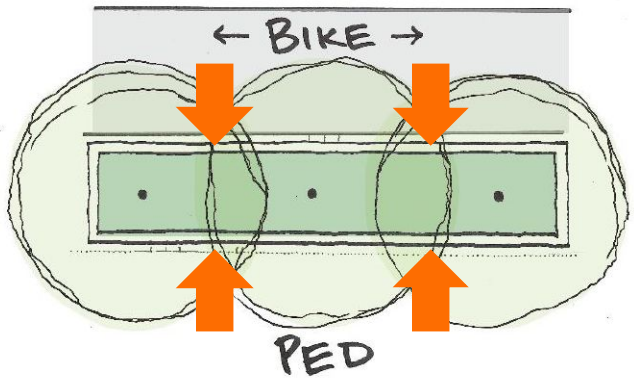
Bicycle/Pedestrian Edges

Bicycle/Pedestrian Edges



Bollards
Individual Planters
Trees in Pavers
Benches
Bike racks
Art

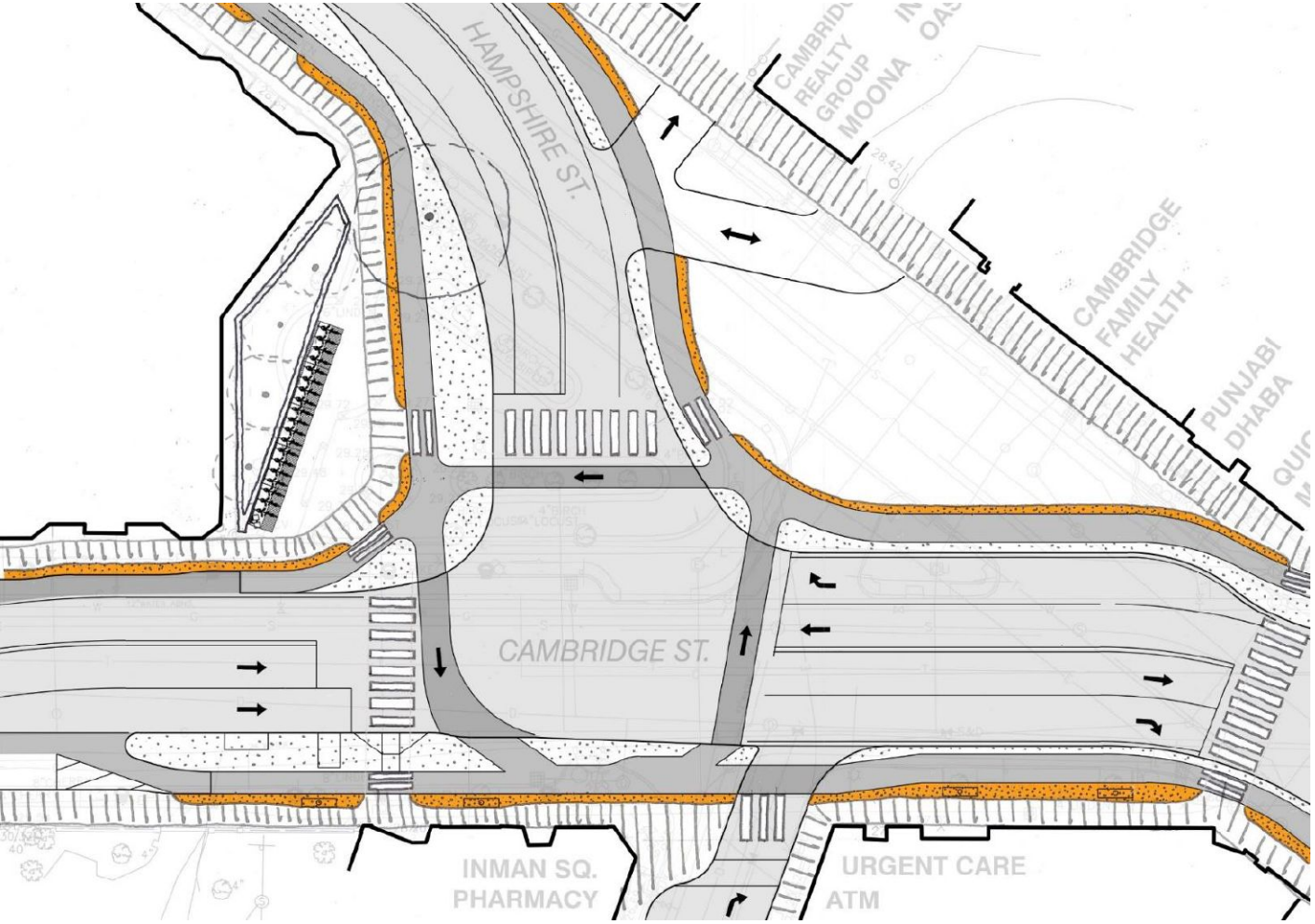
POROUS EDGES



Fences
Walls
Scrims/Screens
Continuous Planters
Planting Beds
Seat Walls
Art

NON-POROUS EDGES

Bicycle/Pedestrian Edges

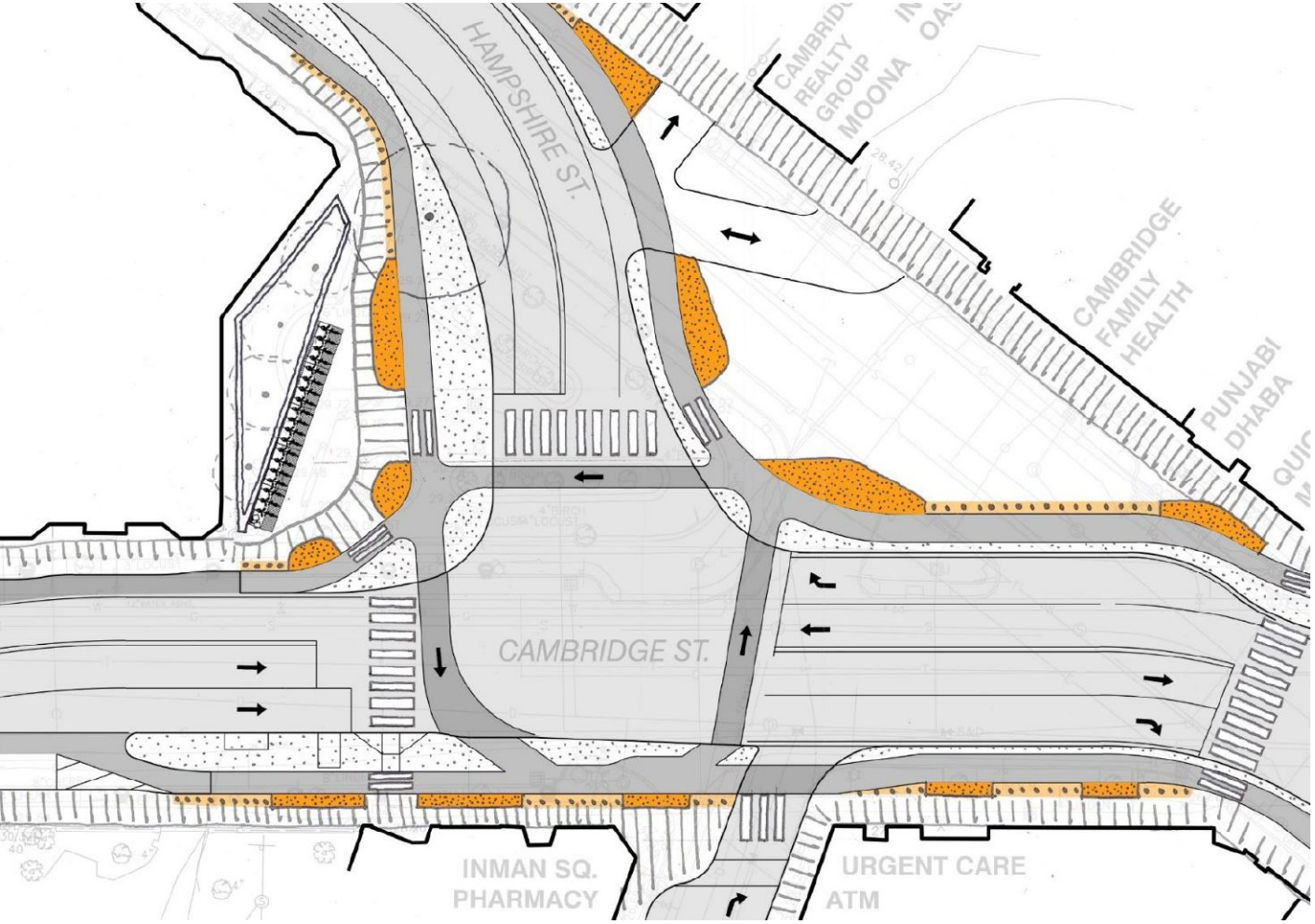


Non-Porous Edge

e.g., continuous/thin

Mermoz, Lyon, France

Bicycle/Pedestrian Edges



Porous Edge

e.g., broken/varied

Bicycle/Pedestrian Edges

Hubway Station

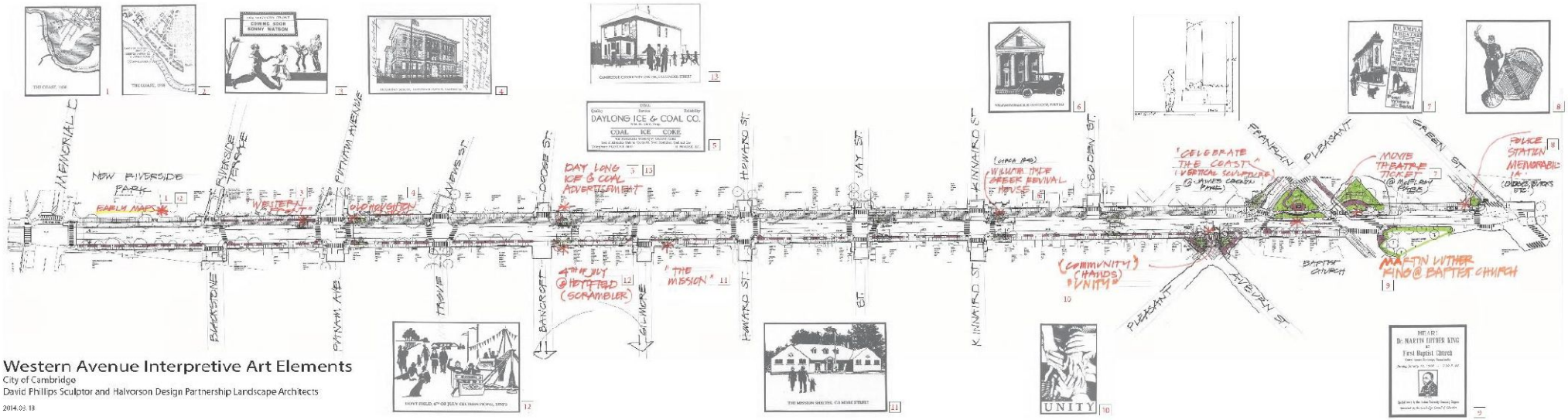
w/ landscape buffer

Plaza/Open Space Considerations

Memorialization

Plaza/Open Space Considerations

Memorialization

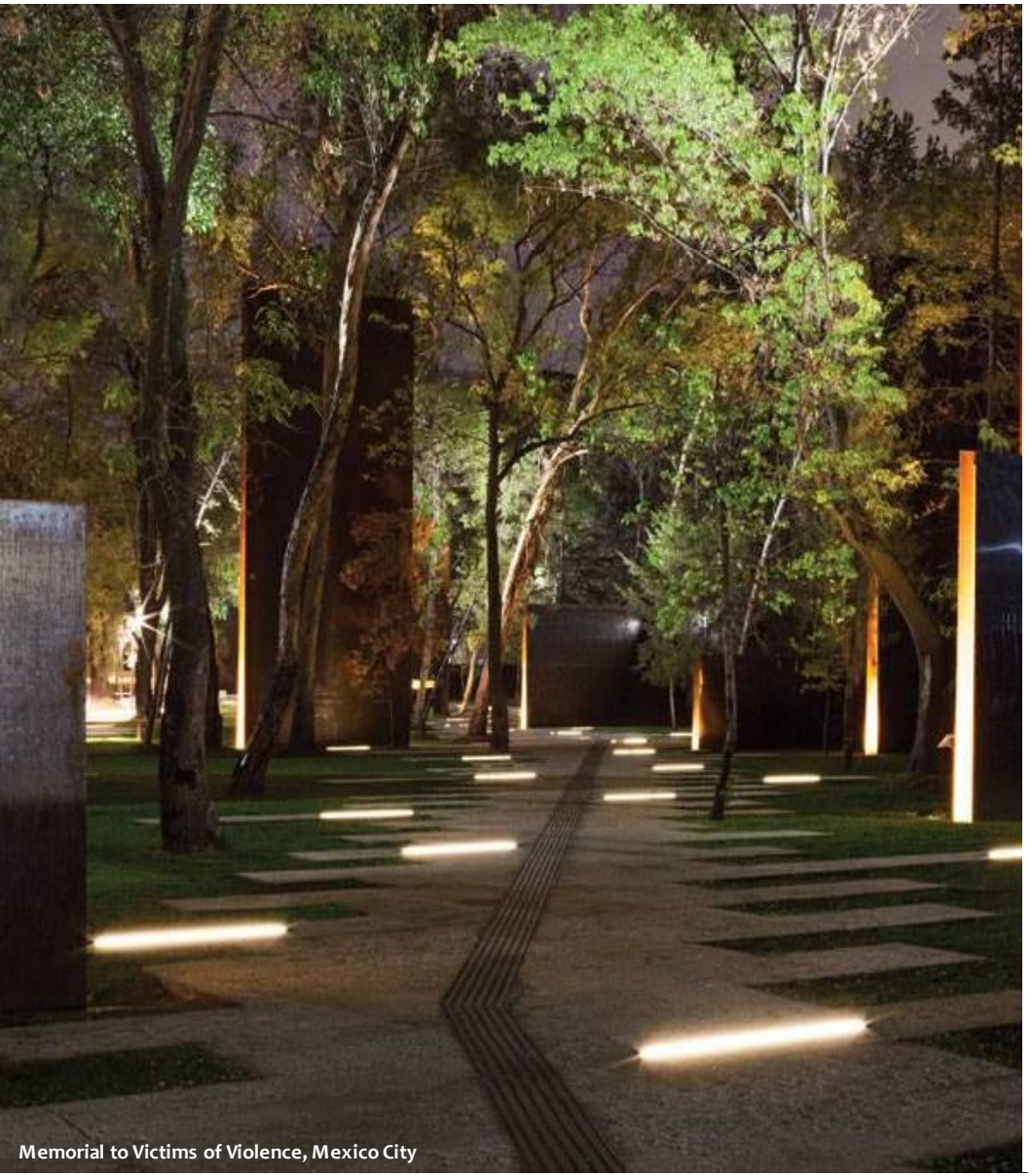


Western Avenue Interpretive Art Elements
City of Cambridge
David Phillips Sculptor and Halvorson Design Partnership Landscape Architects
2014.03.18

Western Avenue, Cambridge

Plaza/Open Space Considerations

Memorialization



Memorial to Victims of Violence, Mexico City

Salem Witch Trials Memorial

Place / Site / Landscape as Memorial

Site/Place as Memorial

QUESTION

In what ways do you imagine memorials being incorporated into the Plaza?

Plaza/Open Space Considerations

Site-Integrated Public Art


Stained Glass House, Brooklyn Bridge Park, NYC


Reflective Birds, Temporary Installation Cambridge St., MA

Art can operate at multiple scales within and beyond the Plaza …


Interactive Benches, Brooklyn Bridge Park, NYC


Artful Playground, Cambridge, MA

Site-Integrated Public Art


Minneapolis Courthouse Plaza, MN

Art can integrate with the landscape elements and materials within the Plaza …


Social Benches - Belgium


Portland, ME

Site-Integrated Public Art

QUESTION

In what ways do you imagine art being incorporated into the Plaza?

Questions for Feedback

1. What elements will help make the Plaza welcoming and well-used? What do you like or not like about similar places?

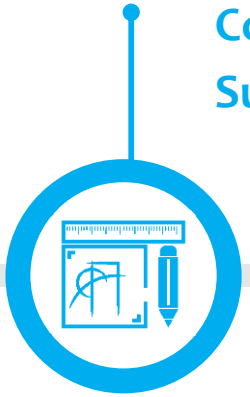
2. What key features will help make the Plaza memorable?

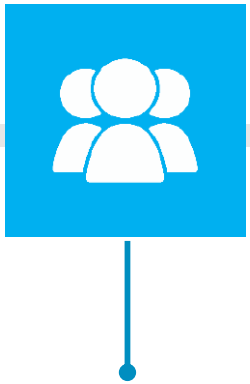
3. In what ways do you imagine memorials being incorporated into the Plaza?

4. In what ways do you imagine art being incorporated into the Plaza?

Next Steps

Complete 25% Conceptual Design
Summer 2017





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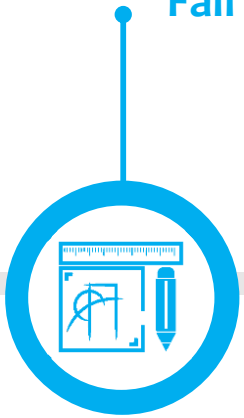
Stakeholder Group Meetings
Summer/Fall 2017

Complete Final Design
Fall 2017



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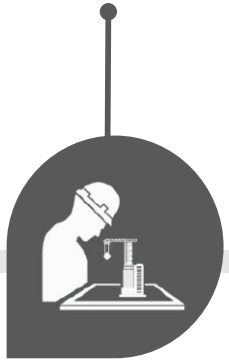
Winter 2017



Next Steps

CONTACT INFORMATION:

Community.Cambridge@kleinfelder.com

www. cambridgema.gov/theworks/inmansquare