Today’s Agenda

- Welcome and Overview  5 minutes
- Review of Public Input  10 minutes
- Conceptual Design Development  15 minutes
- Concept Walkthrough  30 minutes
- Clarifying Questions  10 minutes
- Detailed Comments on Draft Concept  45 minutes
- Conclusion  5 minutes
Welcome and Overview
River St Reconstruction Project Area

Hoyt Field

Riverside Press Park
Project Team

City Team

• Jerry Friedman
  Public Works

• Bill Deignan
  Community Development

• Patrick Baxter
  Traffic, Parking & Transportation

Consultant Team

• HDR Engineering
• Halvorson Design Partnership
• McMahon Associates
• Project for Public Spaces
• GEI Consultants
• BSI Engineering
• Feldman Land Surveyors
Expected Timeline

Issues & Opportunities, Existing Conditions

2019

Conceptual Design

F M A M J J A S O N D J

Dates to be determined

2020

F M A M J

Ongoing Carl Barron Plaza Engagement

Public Meeting #1

Public Meeting #2

Public Meeting #3

Working Group

Public Walks

Today
Upcoming Meetings

• **Working Group #8 Meeting:** Tuesday, December 17, 6-8pm at Manning Apartments
  - Review feedback from tonight’s Public Meeting #2
  - Review refined concept which incorporates public comments
  - Refine conceptual framework for Carl Barron Plaza and Massachusetts Avenue intersection

• **Working Group #9 Meeting:** Date to be determined
  - Carl Barron Plaza concepts and River Street from Auburn Street to Massachusetts Avenue

• **Public Meeting #3:** Date to be determined
  - Carl Barron Plaza concepts and River Street from Auburn Street to Massachusetts Avenue
Iterative Design Stage

IDENTIFY ISSUES
Define and analyze challenges and opportunities through perceptions and data

ESTABLISH VISION
What are our goals, in the context of existing planning & policies?

ITERATIVE DESIGN
Discuss and evaluate concept alternatives
Develop the final concept

IMPLEMENTATION
We are here

Public Meeting #2, November 19, 2019 – Slide 10
Review of Public Input
City Policies and Planning

New Mobility Blueprint

Toward A Sustainable Future
Cambridge Growth Policy
UPDATE 2007

VISION ZERO CAMBRIDGE
Public Meeting #1 3/26/19 – 81 Attendees
Comment: This crosswalk across River Street in front of Riverside Pizza feels unsafe (even with walk sign) because it angles away from Putnam. Many a time we have been crossing River (with walk sign) and a car turning right from Putnam onto River turns without seeing pedestrians. Especially at night.
7 Working Group Meetings So Far…
The Working Group

- Patrick Barrett
- Dan Beaulieu
- Seanna Berry
- Sai Boddupali
- Valerie Bonds
- Matthew Ciborowski
- Gabriel Cira
- Abby Duker
- Samuel Gebru
- Melissa Greene
- Kai Long
- Neil Rodriguez
- Randy Stern
- Andrew Tarsy
- Christopher Tassone
- Annie Tuan
- Olivia Turner
- Saul Tannenbaum
Other outreach...

• River Street pre-construction survey (83 respondents so far)

• Cambridge Winter Farmers Market (3/23/19)

• Mobility Walk (5/14/19)

• River Festival (6/1/19)

• Urban Design Walk (6/11/19)

• Parking Day (9/20/19)

• Business focus groups (8/27/19 and 10/16/19)

• Ongoing coordination with Department of Human Service Programs and Cambridge Police Department

• Carl Barron outreach (full exploration of Carl Barron outreach scheduled for next Public Meeting)
What we heard (highlights):

- Improve safety / lower speeds
- Reduce noise by slowing traffic
- Improve accessibility
- Enhance public space
- Add more greenery
- Expand and activate open space
- Support businesses
- Regulate parking, meet business needs
- Create spaces that encourage people to stay and support retail businesses
- Widen sidewalk near Star Variety store

- Make transportation / movement of people more efficient
- Add separated bikeways
- Reduce bus delay
- Improve bus stops, add amenities, and alleviate crowding
- Create shorter, safer, and more visible crossings
- Improve visibility on turns
- Create long lasting, smooth surfaces
- Provide amenities for the unhoused community (water fountain, public restrooms, etc.)
Guidance for Our Designers: Shared Design Goals

- Safe
- Inclusive
- Human Scale
- Ecological
- Multimodal
- Activated
- Resilient
Guidance for Our Designers:
Location-Specific Comment Map

- Add greenery in front of business
- Request to replace parking with wider sidewalk
- Request to have parking spaces marked
- Cyclists riding against traffic
- Crosswalk requested
- Keep pedestrian scramble
- Benches requested
- Poor visibility of pedestrians for NB-EB right turns reported
- Request for separated bike lane
- Request for more trees and LID features
- Bus bump out requested
- Remove billboard here
- Sightline issues at crosswalk. Cars don't stop. Children cross here to access MLK School.
Complete and Share the Pre-Construction Survey!!

- Still live at cambridgema.gov/riverstreet!
- Will become the “before” survey for the River Street Reconstruction
- When the post-construction survey is complete, the two surveys will help the City evaluate the project
- Please help us distribute to your neighbors!
Conceptual Design Development: 5 Design Toolbox Highlights
Pedestrian Crossings

- Pedestrian Hybrid Beacon/HAWK
- Signalized
- Curb Ramps and Detectable Warning Strips
- Crosswalk Illumination
- Crosswalk
- Rapid Flashing Beacon
Separated Bike Lanes

Raised—No Parking

Raised—Buffered w/ Parking

Raised Mountable Curb

Protected Intersections

Signal Control
Bus Priority

Bus Lane

Transit Signals/Bus Queue Jump
## Flexible Curbside Space

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<td>Provides storage for vehicles and equipment</td>
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Conceptual Design Development: Givens and Constraints
Givens

• Address flooding & drainage capacity
• Upgrade and/or protect public and private utilities
• Preserve healthy trees
• Maximize additional trees & improve growing conditions
• Access for emergency vehicles (18-20 feet)
• Accommodate routine maintenance and operations (snow, trash, etc.)
• Include separated bicycle facility
• Regulate parking to allow us to use curbside space more efficiently
• Maintain regional truck route
• Raise crossings on side streets
• Improve intersections
Occasionally, sidewalk narrows to 4.5’
Example of Utility Constraint

- Existing tree pits
- Gas transmission lines

Public Meeting #2, November 19, 2019 – Slide 31
Consider planning for greater electricity, natural gas, and telecom needs?

Preserve gas transmission lines

Update and separate portions of sewer & drainage and mitigate flooding risks with improved stormwater management

Replace gas distribution lines (to start in 2020)

Upgrade soil conditions for trees and plantings

Replace and upsize water main

Subsurface Work
Concept Walkthrough
Memorial Drive to Putnam Ave

- Two travel lanes
- Potential BlueBikes Locations
- New trees & landscaping for “neighborhood feel”
- Bus lane begins at bus stop, reducing amount of traffic adjacent to cycle track
- Alternative bus stop location
- Combined turn lane & bus lane

Note, private property – feasibility TBD
Extending the Neighborhood Feel

New planting areas/BlueBikes locations
River Street Concept

- **Sidewalk Buffer**: Varies
- **Travel Lane**: VARIES
- **Bus Lane**: 6" curb
- **Bus Stop**: (bus stop) at widened area
- **Parking Garage**: -
- **Existing Gas Transmission Line**: -
- **Sidewalk**: 5'-0" in most locations

Public Meeting #2, November 19, 2019 – Slide 37
River at Putnam: The impact of signal timing

- Signals influence how many people get through an intersection
- Today’s "exclusive" pedestrian phasing increases delays for all users
- In the future, “concurrent" pedestrian phasing could help move everyone through with less delay (people walking, biking, taking the bus, and driving)

Based on field measurements of vehicle queues
Today's signal timing at Putnam limits all users of River St.

- **3-phase signal**, total 100-second cycle time

- The “all-stop” or exclusive pedestrian phase forces pedestrians to wait longer to cross (up to 73 seconds), and limits how many vehicles can get through during the green time.
Concurrent phasing at Putnam Avenue could “open the valve”

- **2-phase signals** are more efficient for everyone
- **What about safety?**
  - Concurrent (pedestrians cross with parallel traffic) with 4-7 second pedestrian head start (Leading Pedestrian Interval)
  - Safety is improved with shorter crossing distances and better sightlines

Pedestrians cross concurrently with traffic in an intersection with a safer geometry
Putnam Avenue Intersection

- Shorter pedestrian crossings & leading pedestrian interval (pedestrian head start)
- Narrower street west of Putnam and presence of people indicates pedestrians/neighborhood to drivers, calming traffic
- Protected intersection elements (and head start) for bikes
- Mountable truck apron to slow turning cars & allow truck turns
One-lane east of Putnam Avenue?
One-lane east of Putnam Avenue?

### Pros

- 4’ to 6’ additional for activation/buffer on north side
- Shorter pedestrian crossings
- Wider bicycle facility/wider buffer
- Easier bicycle facility maintenance

### Cons

- Requires raised bikeway to be mountable (for emergency vehicle access) making illegal parking/stopping/loading likely
- Buses would experience same congestion as general vehicles
- Street/utility repairs would block entire street
- Routine operations including trash collection and street sweeping would block street
- Maintaining clear width and mountable feature would be challenging during and after snow events
East of Putnam Avenue to Franklin Street

- One general use lane accommodates existing traffic (encouraging slower speeds)
- Minimal queuing at Kelly/Howard Street signal
- Bus lane – improves bus reliability and reduces delay
- The bus lane provides flexibility for maintenance, trash operations, etc.
Putnam Avenue to Kelly Road/Howard Street

Activation zones supporting local businesses

Parking/loading in flex space also provides friction to calm traffic

One bus stop could be removed (26 people per day, 2-3.5 min walk to next stop)

Enhanced entrance to Hoyt Field (in development)

Activation zone on Kelly/Howard intersection’s south side (with bus stop design in development)
Intersection Improvements

Example

Curb extensions and cycle track improve sightlines

Raised side street crossings & better geometry calm traffic
Coast Café Area

Opportunity to provide flexible parking (resident and/or commercial?)

Roadway shift can help reduce speeding

Crosswalk moved to allow for sidewalk cafe

Cycle track bends out at intersections for raised ped & bike crossings
Coast Café Area Today
Coast Café Area Concept
At Howard Street/Kelly Road

Existing signal not warranted based on traffic volumes, but signal serves other important needs:

• Provides signalized pedestrian crossing on the Amigos School’s designated Safe Route to School

• Critical for safe Fire Department operations

• Could help mitigate traffic changes with one of two Tubman Sq. options
Kelly Road/Howard Street to Auburn Street

Mountable area for fire truck movements

Activation zones supporting local businesses

Safer intersection geometry

New pedestrian crossings

Public Meeting #2, November 19, 2019 – Slide 51
“Flatiron” building area

- New curb extensions help improve the number of vehicles that yield to pedestrians
- Enhanced safety through tighter turning radius & raised crossing
- Places people can sit and eat
- Two local restaurants
“Flatiron” Building Area Today
Tubman Square Ideas
Concept 1: Pleasant Street Plaza

- Pleasant Street as shared street/local driveway access only
- Minimal traffic diversions
- Parking impacts
  - 7 unregulated
  - 1 accessible

Street closure

Raised side street crossing
Concept 2: Kinnaird Street Closure

- Close Kinnaird Street
- Traffic calming on Pleasant Street
- Traffic diverted through Howard Street/Kelly Road intersection
- Parking impacts
  - 2 unregulated

Street closure
Raised side street crossing
Pleasant Street Plaza
Kinnaird Street Closure
Option B – Better Buffers?

Maintains activation spaces, access & loading for local businesses

Significantly reduces vehicle parking (other than business access) on River Street

Adds 3’ buffer to cycle track in some locations

Adds 4’ to landscape buffer on north side in some locations
Summary of Pedestrian Safety and Comfort Features

• Raises un-signalized side-street crossings

• Narrows turning radii on most intersections to slow down turns

• Improves visibility at intersections

• Adds to the tree canopy and increases vertical elements

• Moves general traffic in a single lane

• Adds two new crosswalks

• Reduces potential travel speeds with single general purpose lane

• Provides an increased buffer between traffic and people walking and biking (except buses and right-hand turns)

• Simplifies ADA compliant crossings

• Provides more space for people to sit, providing a more neighborhood feeling
Design Goals – How are we doing?

- Safe
- Inclusive
- Human Scale
- Ecological
- Multimodal
- Activated
- Resilient
Detailed Comments on Draft Concept
Visit the Carl Barron Update Table!

• Activity Mapping
• Movement Tracking
• Existing and Proposed Uses of the Plaza
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Ask questions and use sticky notes to tell us what you like/don’t like about the draft concepts.

Please fix this!

I like this!

Share additional ideas that you think are still missing.
Public Meeting #2 Layout

Carl Barron Area

Tubman Square Zone

Corridor Concepts

Outside

Sign-in Table

Food Table

Screen
THANK YOU!

riverstreet@cambridgema.gov