Project Overview

Much of River Street's infrastructure is old, deteriorating, and needs to be repaired, upgraded, or replaced. The River Street Reconstruction project is an opportunity to replace that aging infrastructure and also redesign the street to be more comfortable to walk and bike along, more reliable for buses, and better for our local businesses and residents.

You can engage and comment online at cambridgema.gov/riverstreet, at meetings, or when you see the River Street Reconstruction “R” logo at an event nearby or at an outdoor engagement day in Carl Barron Plaza.

Make a comment and make a difference!

The Working Group

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Valerie Bonds  Kai Long     Olivia Turner
Matthew Ciborowski   Neil Rodriguez

Project Limits

Expected Timeline
## Legend

<table>
<thead>
<tr>
<th>Mode</th>
<th>AM</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cars and Trucks</td>
<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>Buses</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>Bicycles</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>Pedestrians</td>
<td>45%</td>
<td>65%</td>
</tr>
</tbody>
</table>

City drive alone mode share goal for residents
City drive alone mode share goal for workers

## How does River Street Compare?

### Average mode share in the City

<table>
<thead>
<tr>
<th></th>
<th>Cambridge Residents</th>
<th>Cambridge Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cars and Trucks</td>
<td>30%</td>
<td>65%</td>
</tr>
<tr>
<td>Transit</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td>Pedestrians</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>5%</td>
</tr>
</tbody>
</table>

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CURBSIDE USE

- Parking spaces in the River Street neighborhood are heavily used (71%-91%) throughout the day and overnight.
- Parking spaces directly on River Street reached 94% occupied at 8:00 PM.

Flexible Toolbox for Curbside Uses

<table>
<thead>
<tr>
<th>Function</th>
<th>Desired Outcome</th>
<th>Examples of Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access for convenience</td>
<td>Goods and services reach their customers</td>
<td>Commercial vehicle loading, truck loading</td>
</tr>
<tr>
<td>Access for People</td>
<td>Arrivals, transfers between modes</td>
<td>Bus stops, bike parking, curb bumpouts, pick up/drop off, short-term parking, taxi zones</td>
</tr>
<tr>
<td>Activation</td>
<td>Offers vibrant social spaces</td>
<td>Food truck parking, seating, planters and shrubbery, public art, street fairs</td>
</tr>
<tr>
<td>Greening</td>
<td>Enhances aesthetics and environmental health</td>
<td>Plantings, rain gardens, bio-swales, green infrastructure</td>
</tr>
<tr>
<td>Mobility</td>
<td>Moves People &amp; Goods</td>
<td>Sidewalks, bus lanes, bike lanes, travel lanes, parking lanes</td>
</tr>
<tr>
<td>Storage (less than 24-hour)</td>
<td>Provides storage for vehicles and equipment</td>
<td>Bus layover, private vehicle parking, reserved spaces (police, gov't., etc), construction needs</td>
</tr>
</tbody>
</table>

Unregulated Spaces are heavily occupied all day, peaking at noon and in the evening.

13 metered spaces are over 90% full at 6PM and 8PM.
MULTIMODAL SAFETY

Approach to Putnam Ave.
Vehicle Types, Weekday

Hourly Vehicle Speeds, Weekday

- 0-14 mph
- 15-24 mph
- 25-34 mph
- 35+ mph

Just past Pleasant St.
Vehicle Types, Weekday

Hourly Vehicle Speeds, Weekday

- 0-14 mph
- 15-24 mph
- 25-34 mph
- 35+ mph

Bicycle crash rate on River Street between 2014 and 2018

Crashes at High-Crash Intersections by Type, 2014-2018

- Rear-End
- Angle
- Sideswipe
- Bike/Ped
- Other

Legend

Source: MassDOT & Cambridge Police Department

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**TRANSPORTATION CONDITIONS**

**Buses**

Bus routes on River Street carry almost 3,000 riders per day through Central Square. Most people are getting on and off the bus in Central Square or on other parts of the route.

More people use bus routes on River Street in the morning peak, traveling towards Central Square.

Street segments recorded with the most bus delay and reliability issues in the Cambridge

**Bikes**

People have varying levels of tolerance for traffic stress created by volume, speed, proximity of adjacent traffic and on-street parking.

This can be measured as a “Bicycle Level of Comfort” (BLC)

- An all-ages and ability network has BLC of 1 or 2
- Facilities with BLC 1 or 2 are generally safest
- River Street is currently BLC 3 or worse

River Street is currently a BLC 3 and 4, well below the City’s goal

Like River Street, the image to the left shows a narrow bike lane that leaves the biker exposed to on-coming traffic. This type of facility represents a BLC 3 based on traffic volume, vehicle speeds and the number of travel lanes.

**Traffic**

**Average & Maximum Queues**

Based on field measurements of vehicle queues

**Pedestrians**

**Exclusive vs Concurrent**

- Exclusive pedestrian phase: all vehicular traffic is stopped and all pedestrian movements are allowed
- Concurrent pedestrian phase: pedestrians share the space with vehicular traffic

Exclusive phases are generally adopted to be safer, while concurrent phases typically result in less delay for pedestrians and vehicles

The ends of the River Street corridor present the most challenges for every mode of transportation:

- Bus riders experience the most delay
- Bicyclists have the lowest level of comfort
- Drivers wait in the longest queues and congestion
- Pedestrians cross against the most traffic creating higher chances for conflict

9,640 vehicles per day
10.8% (986) heavy vehicles
69% % speed: 26 mph
8,076 vehicles per day
8.4% (136) heavy vehicles
93% % speed: 30 mph

9% correctly speed law (Industry standard) representing a vehicle speed where the majority of drivers travel at or below

10 minutes of travel time

60% correctly speed law (Industry standard) representing a vehicle speed where the majority of drivers travel at or below

9% correctly speed law (Industry standard) representing a vehicle speed where the majority of drivers travel at or below

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