



- Welcome & Introductions
- Street Grid Revisions (Harvard University)
- Pedestrian and Bicycle Facilities
  - Regional Context
  - Proposed Pedestrian and Bicycle Connections
  - Complete Streets Review
- Soldier's Field Road Outbound Ramp to River Street





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# Proposed Project Pedestrian/Bicycle Facilities



### **Goals:**

- Provide connectivity between neighborhoods, transit, and existing bicycle facilities.
- Increase bicycle use in accordance with the Separated Bike Planning and Design Guide, Healthy Transportation Policy Directive and Boston Complete Streets.
- Design for consistency with the characteristics of bordering, connecting bicycle networks.
- Design for comparable Level of Service to all travel modes within the project in accordance with Complete Streets principles.



## Pedestrian & Bicycle Connections in the Project Area



#### Goals:

- Address existing deficiencies:
  - ADA non-compliant
  - Difficult for cyclists
  - Pedestrian/bicycle/driver conflicts
- Strengthen neighborhood connections
  - Allston Village to Lower Allston
  - Pratt Street/Ashford Street/Malvern Street to Cambridge Street
  - All of Allston to the Charles River
- Open new bicycle and pedestrian connections to enhance mode choice for people of all ages and abilities



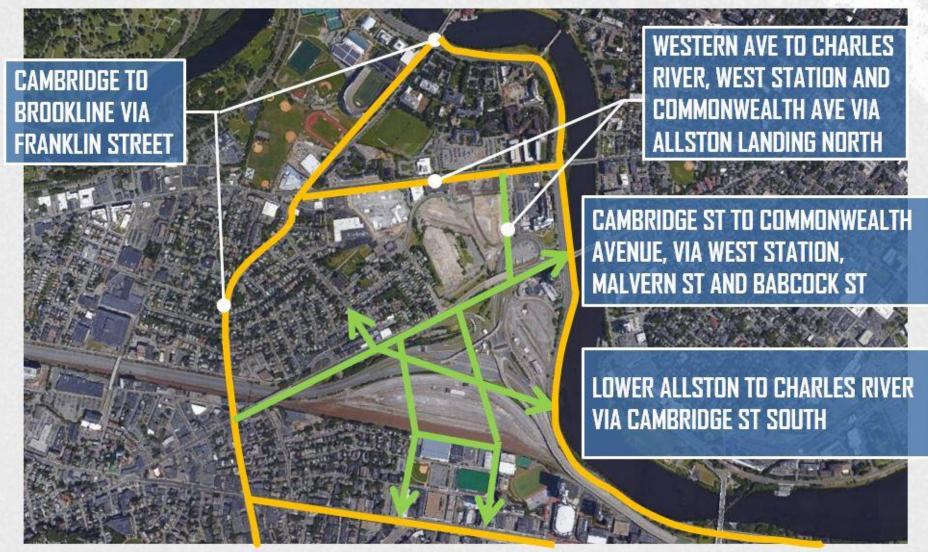


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## Opening New Connections for Cyclists and Pedestrians









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  - Proposed Pedestrian and Bicycle Connections



# Pedestrian and Bicycle Connection Locations







## Franklin Street Ped/Bike Connection







# Proposed Franklin Street Ped/Bike Connection

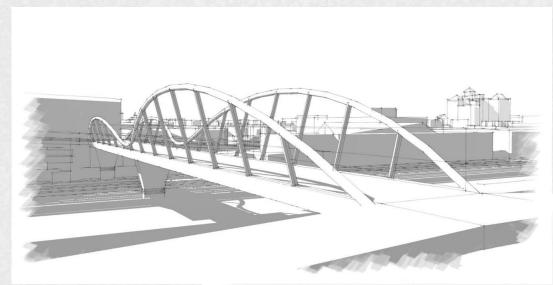






# Franklin Street Bridge – Possible Bridge Types





**Steel Arch** 



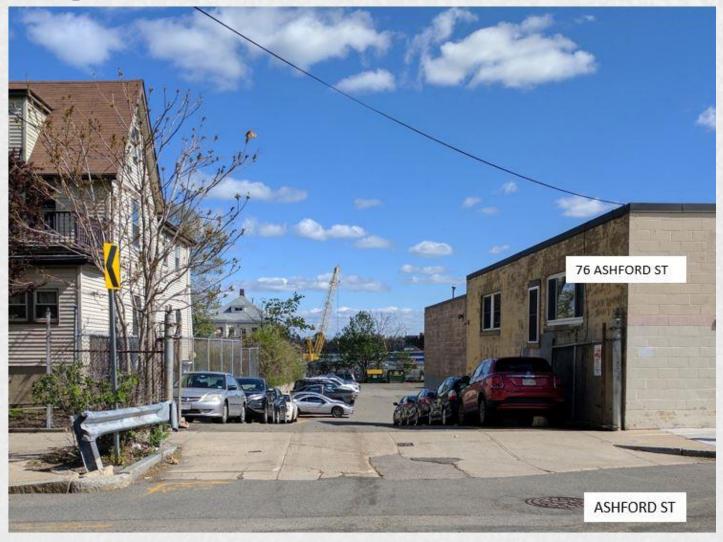


**Cable Stay** 

# **Existing Malvern Street**

(View looking north towards West Station from Ashford Street)







## Proposed Malvern Street Ped/Bike Connection

INTERSTATE 90
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INTERCHANGE

(View looking north towards West Station from Ashford Street)





# **Existing Babcock Street**

(View looking north towards West Station from Ashford Street)







# Proposed Babcock Street Ped/Bike Connection

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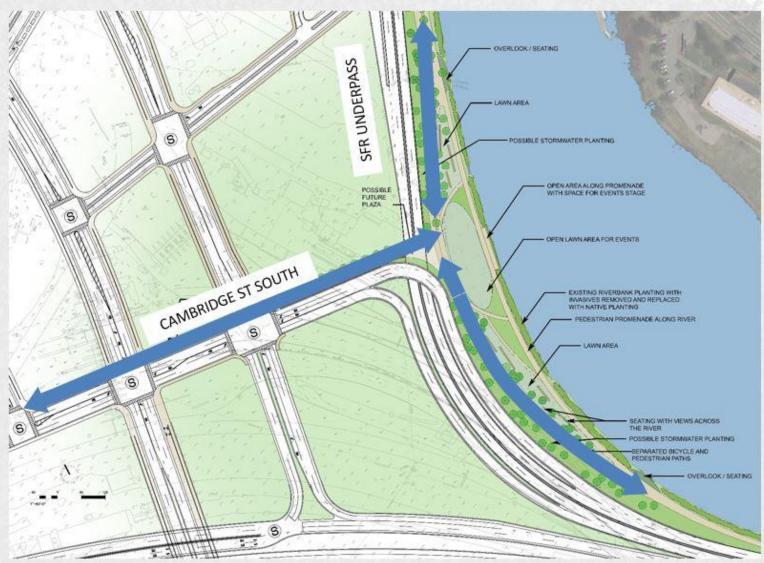
(View looking north towards West Station from Babcock)





# Cambridge Street South Connection to PDW Path

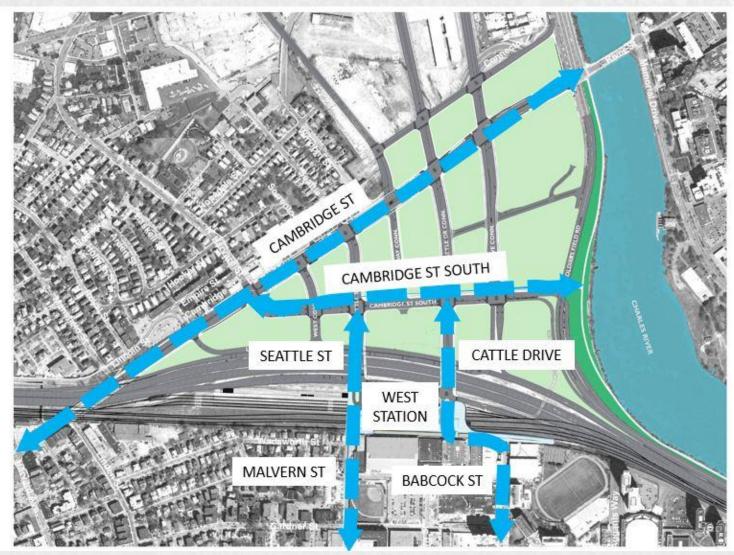






# Pedestrian and Bike Connections to PDW Path (Outside Throat Area)









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# MassDOT Separated Bike Lane Planning & Design Guide



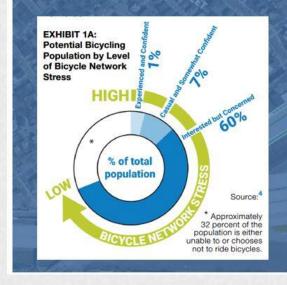


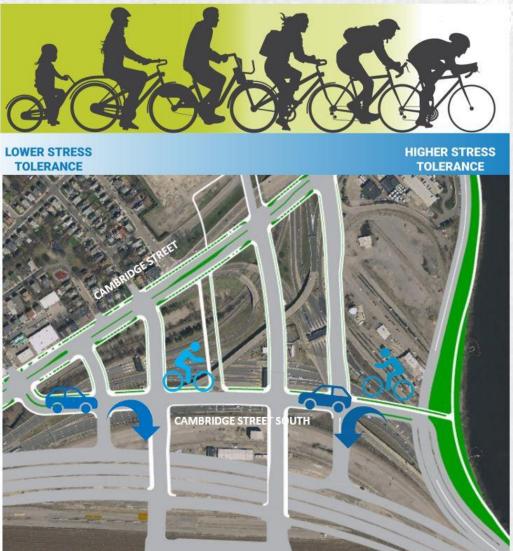


## Pedestrian and Bicycle Network - Guidelines



- Lower Stress Network
- Separated Bike Lanes
- ADA Pedestrian Paths
- Ped/Bike Signals
- Reduced Ped/Bike Delay
  - Concurrent Movements
- Adaptive Traffic Signals





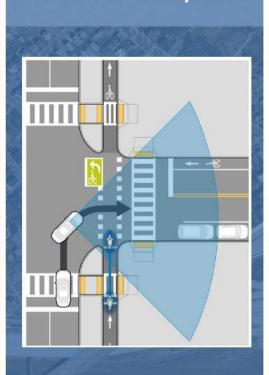


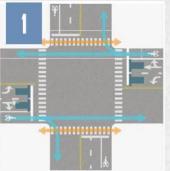
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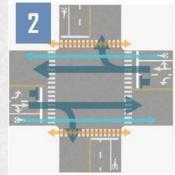
# Pedestrian and Bicycle Network - Signal Operations



- 1. Leading Ped/Bike Interval
- 2. Concurrent Thru/RT vehicles
- 3. Protected Only LTs











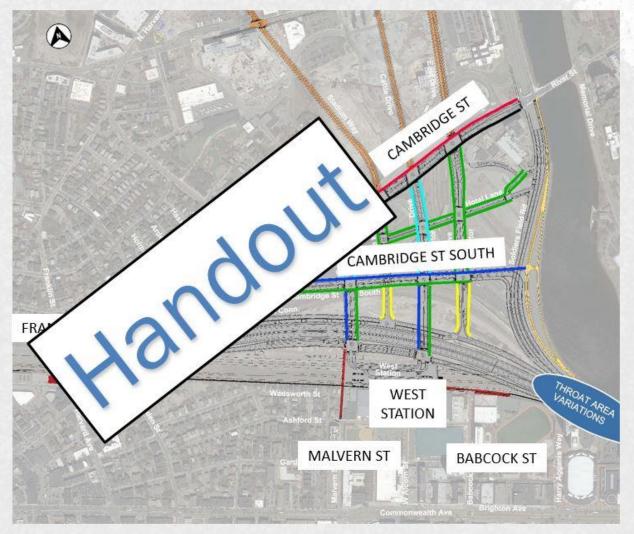


# Pedestrian and Bicycle Facilities



#### **LEGEND Proposed Roadway Proposed Pedestrian Bridges** Proposed Roadway (By Others) One-Way Separated Bike Lanes Without Parking (6' Buffer) One-Way Separated Bike Lanes With Parking (6' Buffer) One-Way Separated Bike Lanes (1' Buffer) Two-Way Separated Bike Lanes (Buffer Varies) On-Street Bike Lane with 8' Sidewalk No Ped and Bike Access (5' Shoulders) Dr. Paul Dudley White Path (Widened to 12' min. and separated

pedestrian and bicycles within open space)





# Intersection Design Variables



- Volumes
  - Widths of separated bike lanes and sidewalks
  - Number of lanes
- User Delay
  - Minimize delay for all users
- Design Speed
  - Sight distance and geometric design
- Bike Lane Operation
  - One-way separated bike lanes are similar to normal vehicle which simplifies intersection operations
- Bus Stops
  - Availability of ROW and stopping location
- Terrain
  - Sight lines and approach speeds

## On-Street Parking

- Increases separation
- Increases frequency of peds crossing bike lanes
- Potential to reduce sight distances

#### Land Use

 Separated bike lanes easier to implement in locations of higher density land use with less driveways

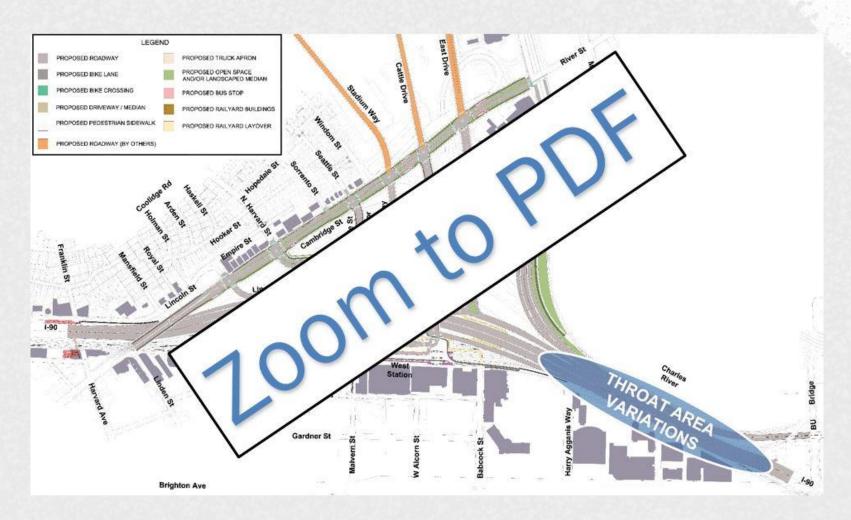
#### Street Buffer

- Affects bicyclist comfort and impacts geometric design options at intersections
- Available Right-of-Way
  - Creates constraints on geometric design and bike lane, sidewalk and buffer widths
- Type of Project
  - Reconstruction/Retrofit



# Complete Streets Conceptual Layout Preferred Interchange Alternative 3K





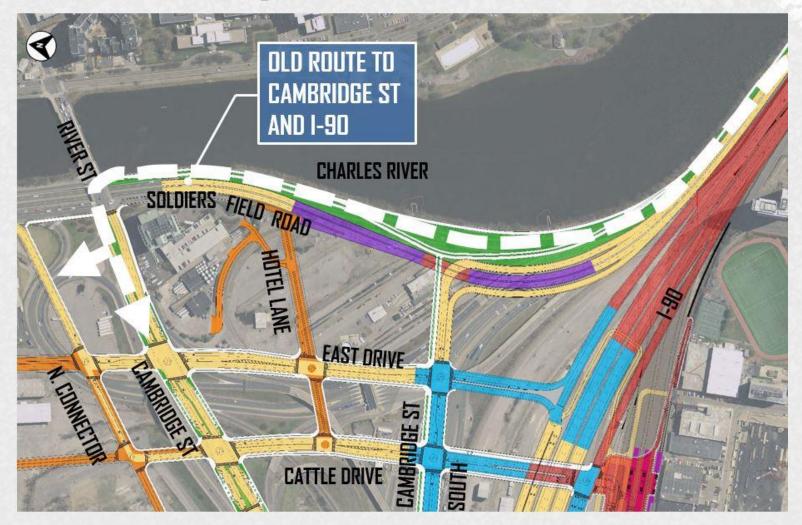




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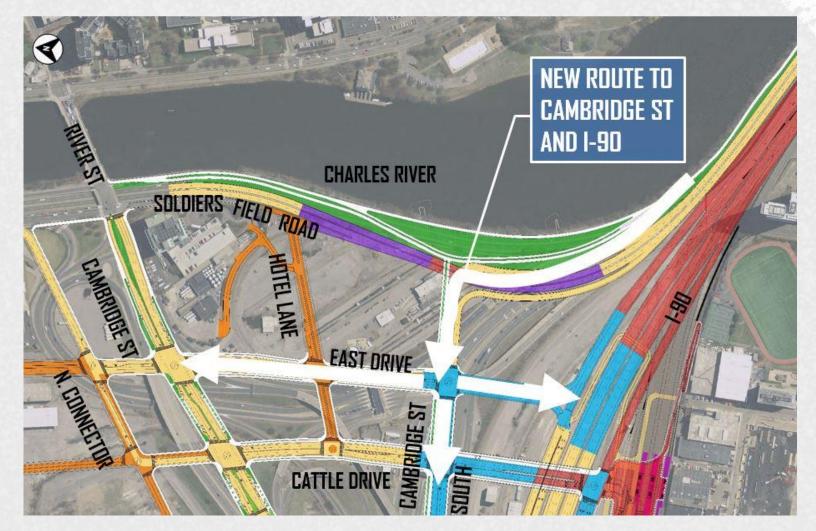


ALSTON INTERCHANGE



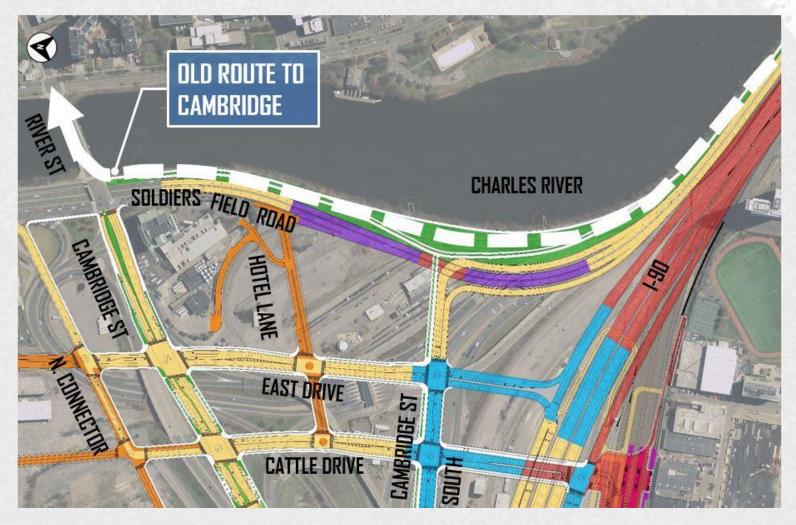


ALLSTON INTERCHANGE



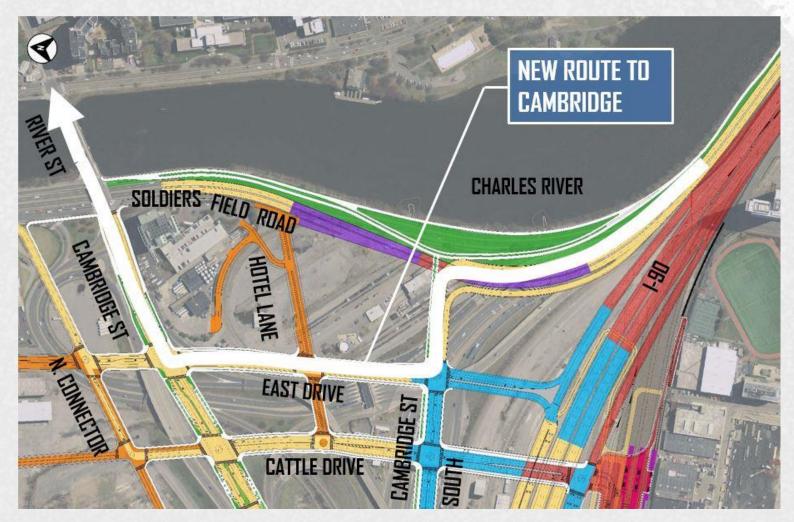


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INTERCHANGE





ALLSTON INTERCHANGE





# SFR Outbound Ramp to River Street - Traffic



## **Full Ramp Removal:**

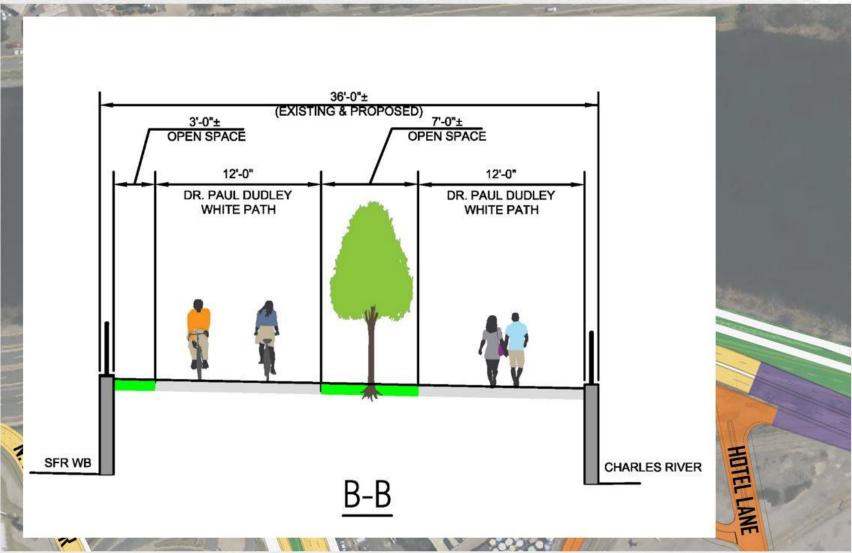
- Allows 16' PDW path and 18' Open Space
  - Benefit to path users (~2000 daily)
- Affected vehicles using ramp (% of total intersection volume)
  - AM Peak 336 cars removed (11%)
  - PM Peak 724 cars removed (20%)
- New route to River Street
  - 800 ft longer, +3 signals
  - Delay similar to current Peak Hour
- Safety
  - No car/bike/ped conflicts

#### **Partial Ramp:**

- Allows 12' PDW path
- TH/RT Cars Remain
- Affected vehicles using ramp (% of ramp volume)
  - AM Peak (336 cars)
    191 left turning cars removed (57%)
    58 thru cars remain (17%)
    87 right turning cars remain (26%)
  - PM Peak (724 cars)
    519 left turning cars removed (72%)
    54 thru cars remain (7%)
    151 right turning cars remain (21%)
- Safety
  - Car/bike/ped conflicts





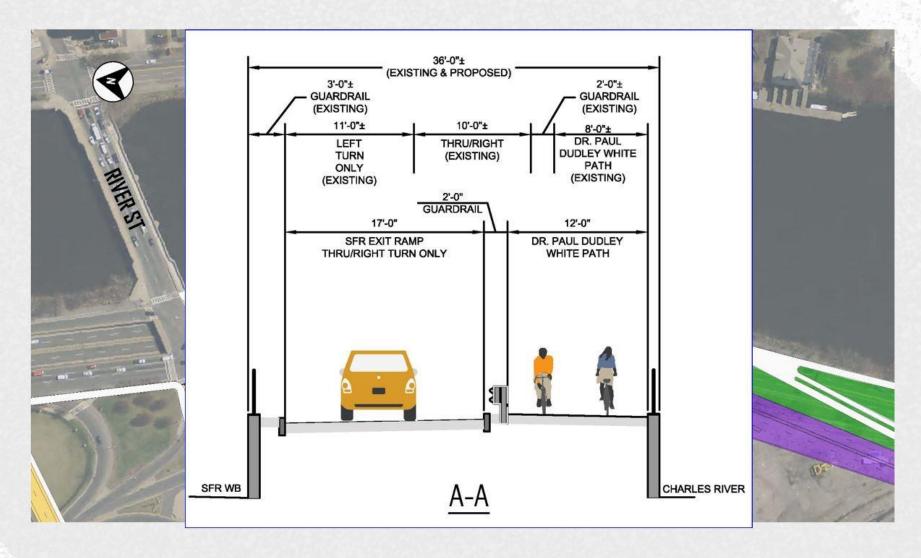




# SFR Outbound Ramp to River Street - Partial











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- Discussion

