



# Dudley Square Complete Streets Design Project

Public Meeting #3

May 2, 2013

6:00pm – 8:00pm

Dudley Branch Library

65 Warren St., Boston, MA



# Agenda

- Welcome and Introductions
- Study Overview
- Recap of First Public Meeting
- Complete Streets Overview
- Review of Concept Design Alternatives
- Small Group Discussions
- Report Back
- Wrap-Up and Next Steps

6:00-6:35 (includes Q&A)

6:35-7:20

7:20-7:45



# Meeting “Ground Rules”

- Keep Time in Mind
- Be Respectful of Your Neighbors
- Listen to the Moderator
- Focus on Design Issues
- Use the Parking Lot
- Success is a Shared Responsibility





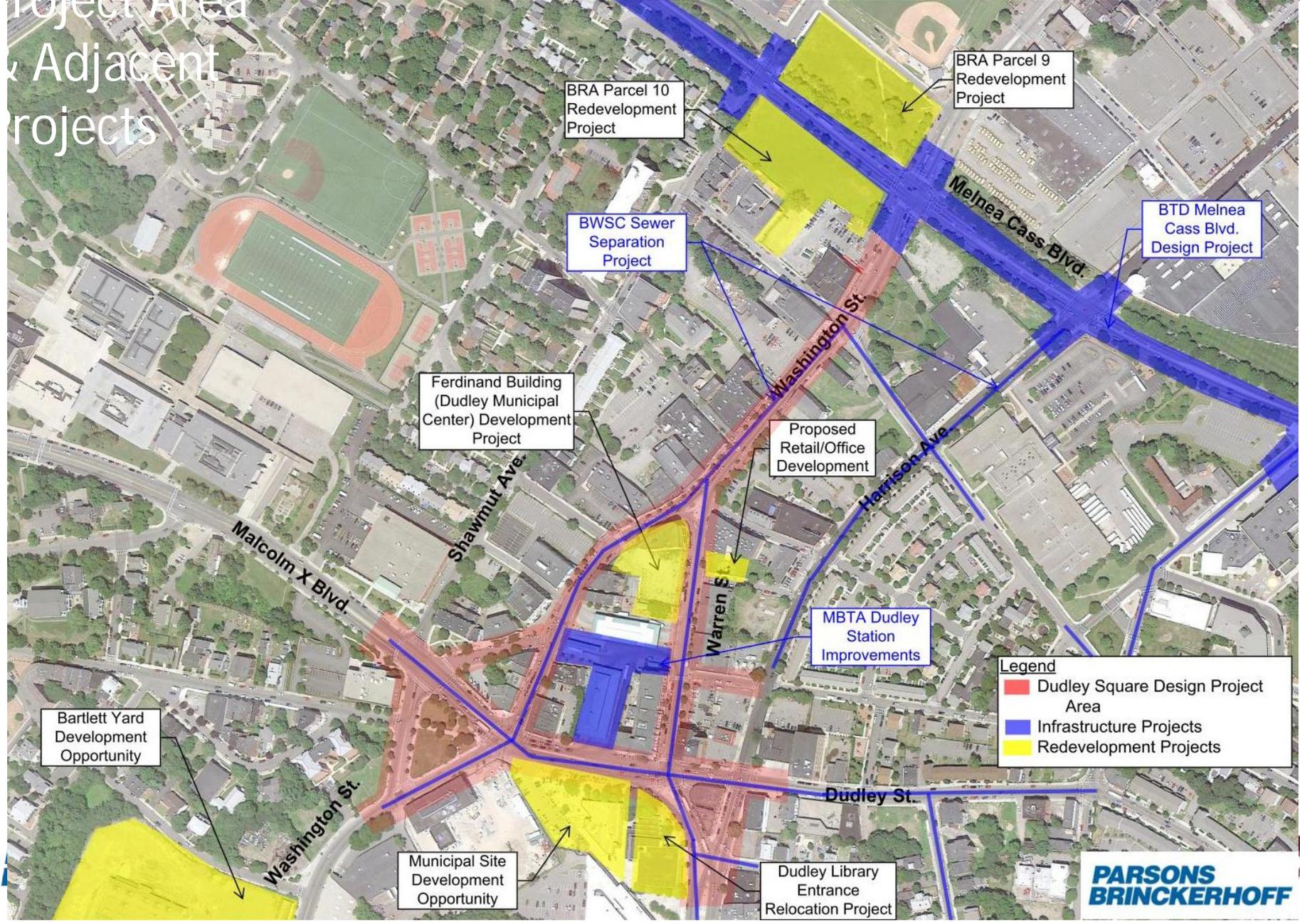
# Dudley Square Complete Streets Design Project

- Recognize the history of the square
- Build on foundation of work done to date
- Coordinate with ongoing and future projects
- Develop solutions that address identified transportation problems
- Integrate Boston Complete Streets guidelines
- Design for improvements that will get built



# Dudley Square Complete Streets Design Project

## Project Area & Adjacent Projects





# Project Team



**BOSTON  
TRANSPORTATION  
DEPARTMENT**





# Building on a Strong Foundation

- Dudley Square Transportation and Air Quality Study (Nov '01)
- Dudley Square Vision Initiative Transportation Action Plan (Dec '09)
- Madison Park Development Corporation Neighborhood Walk & Bike Audits (May '12)
- Nuestra Comunidad Work
  - Placemaking in the Warren Street Corridor (June '12)
  - Complete Streets Workshop with EPA (Aug '12)
- Roxbury/Dorchester/Mattapan Transit Needs Study (Sept '12)
- MBTA Projects
  - Key Routes Study on #15, #23, and #28 buses
  - MBTA Dudley Station Improvements
- CTPS Dudley Bus Station Circulation Analysis



# Outreach is Ongoing



○ Meeting #1: Intro/Problem ID/History

● Meeting #2: Alternatives – Part 1

● Meeting #3: Alternatives – Part 2

● Meeting #4: Design Development

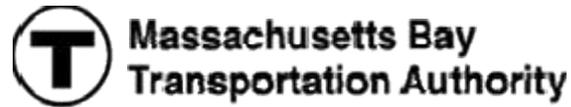
Ongoing Coordination



# Coordination with Other Projects



Boston Water and  
Sewer Commission



Massachusetts Bay  
Transportation Authority



**MELNEA CASS  
BOULEVARD  
DESIGN PROJECT**

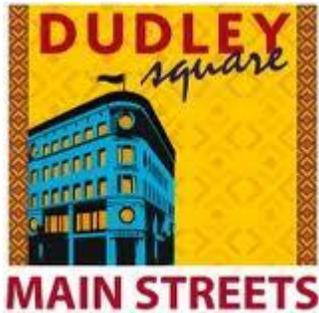


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# Coordination with Stakeholders



**BOYS & GIRLS CLUBS  
OF BOSTON**



**The Black Ministerial Alliance of Greater Boston, Inc.**



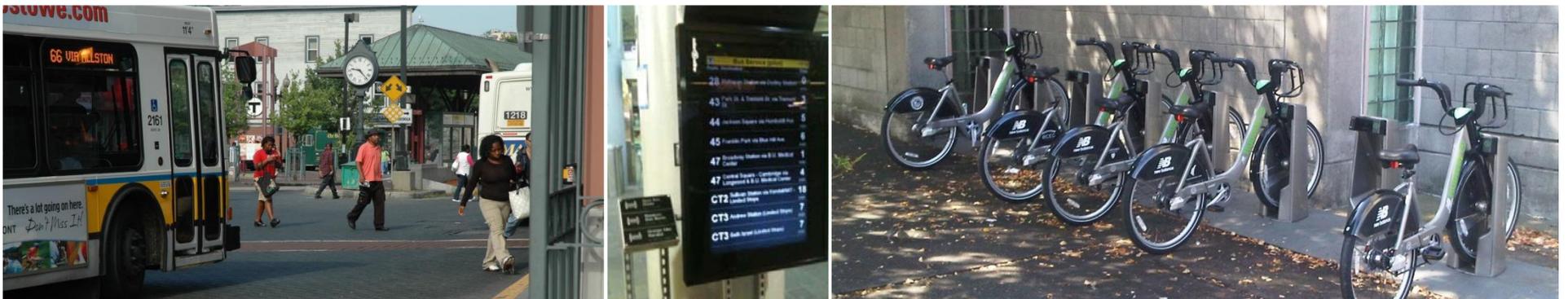
**PARSONS  
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# Complete Streets Principles

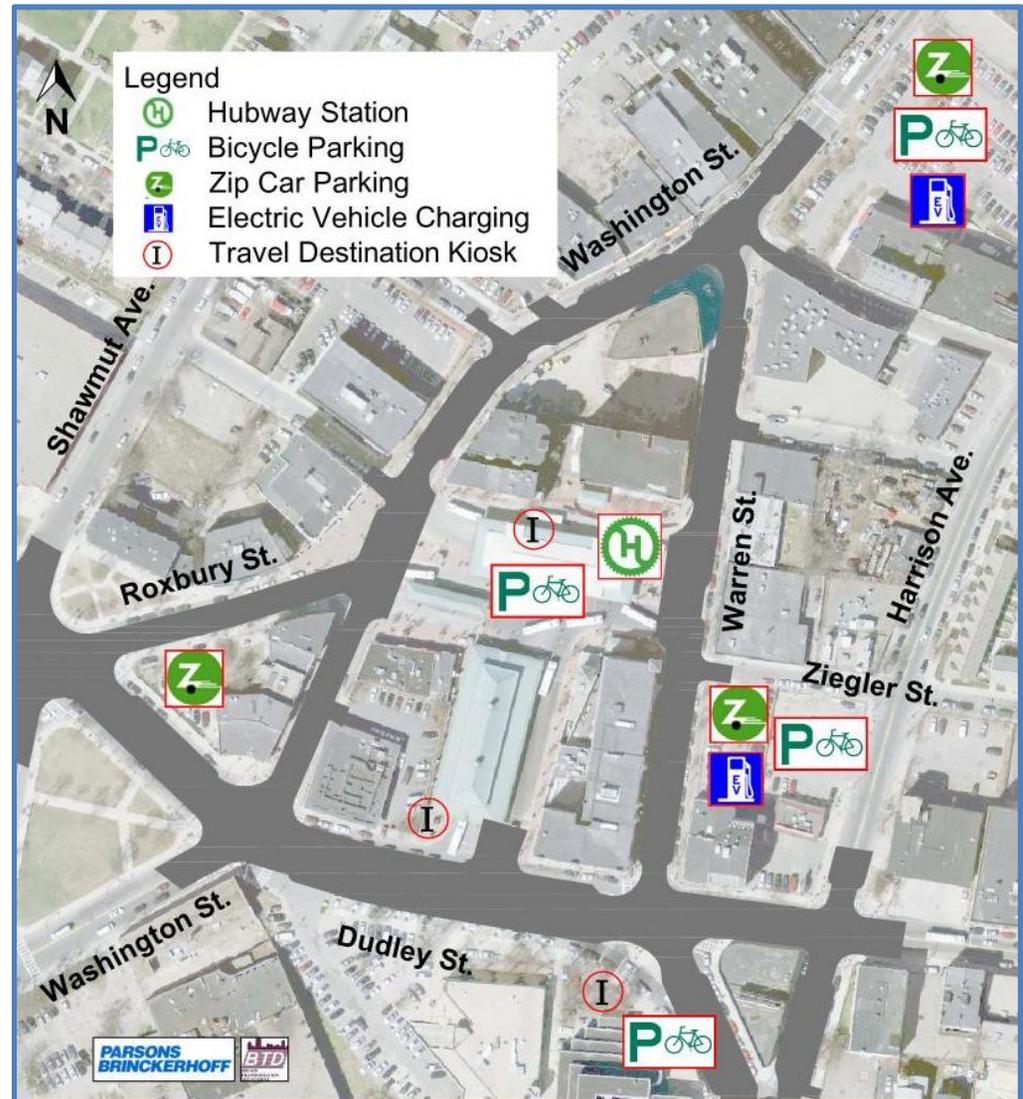
- Multimodal
  - Safe, comfortable, and accessible to all users (pedestrians, bicyclists, transit users, motorists)
- Green
  - Reduce energy use, sustainable and low-maintenance
- Smart
  - Use technology to improve efficiency and provide travelers real time information





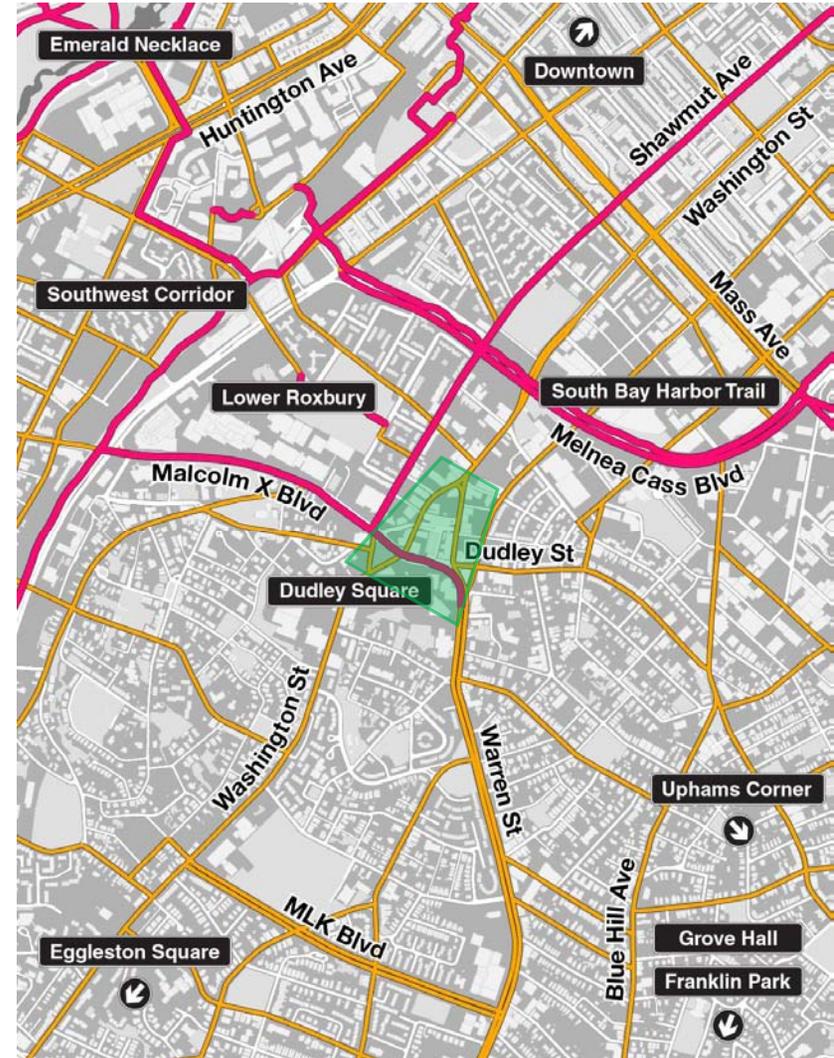
# Multi-Modal/ Alternative Vehicle Accommodations

- Hubway Station
- Bicycle Parking
- Zip Car Parking
- Electric Vehicle Charging Station
- Travel Destination Kiosks





# Bike Network Overview





# Public Meeting #1 Recap

140 Ideas :

- Collected from 1<sup>st</sup> Public Meeting
- Collected from 9 Previous Studies

## Initial Screening:

- Within or without the scope of this project
- Already implemented (e.g., lower emissions buses)

| DUDLEY SQUARE COMPLETE STREETS DESIGN PROJECT<br>COMPILATION OF IDEAS/RECOMMENDATIONS FROM PREVIOUS STUDIES AND 10/22/12 PUBLIC MEETING   |                  |                           |                             |   |                            |
|---|------------------|---------------------------|-----------------------------|---|----------------------------|
|   |                  |                           |                             | Addressed Differently in Concept Design |                            |
|   |                  |                           |                             | Outside Scope                           |                            |
|   |                  |                           |                             | Not Included in Concept Design          |                            |
|   |                  |                           |                             | Will be Considered in Design            |                            |
| Recommendation  | Area             | Type of Improvement       | Alt 1- Existing Circulation | Alt 2- Bus Circulation                  | Alt 3- Maximum Circulation |
| Move Hubway back next to station  | Dudley Station   | Bicycle Accommodation     | ✓                           | ✓                                       | ✓                          |
| Provide free transfers from Ruggles Station to Dudley Station   | Dudley Station   | Bus Circulation           |                             |   |                            |
| Crosswalks from both ends of Silver Line berth at Dudley Station at Washington and Warren Street  | Dudley Station   | Pedestrian Accommodations | ✓                           | ✓                                       | ✓                          |
| Improve pedestrian access from Dudley Station to Ferdinand Site (make connection clear)   | Dudley Station   | Pedestrian Accommodations |                             |   |                            |
| Expanded use of bus transit priority for transit vehicles to/from Dudley Station  | Dudley Station   | Traffic                   |                             |   |                            |
| Bicycle accommodations on Malcolm X (Protected Path)  | Dudley/Malcolm X | Bicycle Accommodation     | X                           | ✓                                       | ✓                          |
| Cycle Track on Malcolm X Blvd on the school side  | Dudley/Malcolm X | Bicycle Accommodation     | X                           | ✓                                       | ✓                          |
| Provide 5-foot bike lanes in both directions on Dudley Street between Shawmut Avenue and Warren Street and on Warren Street southbound to St. James Street; install "sharrows" on Dudley Street between Warren Street and Harrison Avenue | Dudley/Malcolm X | Bicycle Accommodation     | X                           | ✓                                       | ✓                          |
| Have 28/etc stop on the south side of Dudley St in front of old Police Station  | Dudley/Malcolm X | Bus Circulation           | X                           | ✓                                       | ✓                          |
| Expand Dudley Station across Dudley Street with a raised crosswalk across Dudley Street to reduce circuitous bus  | Dudley/Malcolm X | Bus Circulation           | X                           | ✓                                       | ✓                          |
| Lengthen stop at Dudley St & Shawmut Ave by relocating rear sign and add pavement marking   | Dudley/Malcolm X | Bus Circulation           | ✓                           | ✓                                       | ✓                          |
| Relocate bus stop on Dudley St between Harrison Ave and Warren  | Dudley/Malcolm X | Bus Circulation           | ✓                           | ✓                                       | ✓                          |
| Add a signal on Dudley Street at the Dudley Station busway exit to allow buses to turn left out of the station  | Dudley/Malcolm X | Bus Circulation           | X                           | ✓                                       | ✓                          |
| There is a lot of room in front of Old Police Station; determine appropriate use of ROW   | Dudley/Malcolm X | Cross-Section             | ✓                           | ✓                                       | ✓                          |
| Downsize Malcolm X Blvd to appear to have a "school zone" design speed  | Dudley/Malcolm X | Cross-Section             | X                           | ✓                                       | ✓                          |
| Road Diet on Malcolm X Blvd /Dudley St  | Dudley/Malcolm X | Cross-Section             | X                           | ✓                                       | ✓                          |
| Island in front of Urban League needs realignment   | Dudley/Malcolm X | Cross-Section             | ✓                           | ✓                                       | ✓                          |
| Maintain existing four-lane cross-section on Dudley St, but eliminate median island and add exclusive left turn lane to reduce pedestrian crossing distance   | Dudley/Malcolm X | Cross-Section             | X                           | X                                       | ✓                          |



# Public Meeting #2 Recap

16 Evaluation Matrices Completed:

- Improvements Noted with Alt 2 and Alt 3

Comments/Recaps from Breakout Groups

|                          | Alternative 1    |                                  |               | Alternative 2    |                                  |               | Alternative 3    |                                  |               |
|--------------------------|------------------|----------------------------------|---------------|------------------|----------------------------------|---------------|------------------|----------------------------------|---------------|
|                          | Disagree<br>(-1) | Neither Agree or Disagree<br>(0) | Agree<br>(+1) | Disagree<br>(-1) | Neither Agree or Disagree<br>(0) | Agree<br>(+1) | Disagree<br>(-1) | Neither Agree or Disagree<br>(0) | Agree<br>(+1) |
| Improves Pedestrian      | 7                | 3                                | 4             | 2                | 2                                | 10            | 2                | 4                                | 8             |
| Improves Bicycle         | 11               | 2                                | 2             | 1                | 4                                | 10            | 2                | 4                                | 9             |
| Improves Vehicle         | 6                | 5                                | 3             | 3                | 3                                | 8             | 3                | 3                                | 8             |
| Improves Bus Circulation | 8                | 3                                | 4             | 1                | 3                                | 11            | 2                | 3                                | 8             |
| Benefits to Businesses   | 7                | 5                                | 1             | 3                | 6                                | 6             | 3                | 5                                | 7             |
| TOTAL                    | 39               | 18                               | 14            | 10               | 18                               | 45            | 12               | 19                               | 40            |
| WEIGHTED SCORE           | -25              |                                  |               | +35              |                                  |               | +28              |                                  |               |



# Recurring Themes from Public Comments

- Reduce Circuitous Bus and Vehicular Circulation
- Improve Bicycle Accommodation (Bicycle Facilities, Parking, Amenities)
- Determine Appropriate Use of width of Dudley Street
- Shrink/Improve Intersections to Reduce Pedestrian Crossing Distance/Time
- Add/Improve Crosswalks
- Improve Street Trees and Lighting to Make Public Spaces Inviting
- Improve Signal Timing & Coordination

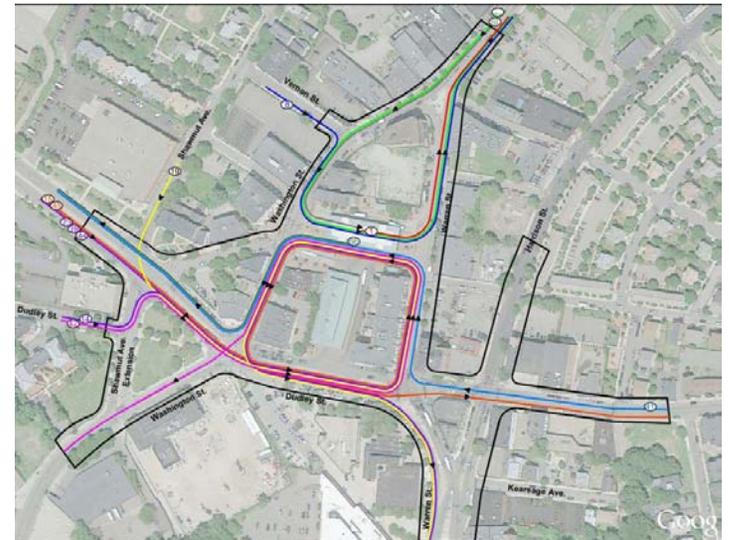


# From Ideas to a Plan: Start with the Big Picture

*Opportunity to Rethink Dudley Square!*

Start with the “big picture” -  
Overview existing of circulation deficiencies:

- General Traffic: Through Traffic Detoured
- Bus Circulation: Circuitous Routing
- Bikes: Minimal Accommodations
- Pedestrians: Difficulty Crossing Streets





# Concept Design Alternatives

## *Opportunity to Rethink Traffic Circulation*

- Input from previous studies
- Input from Public Meeting #1 & #2 (Oct. 22, 2012 and March 11, 2013)
- Input from MBTA/MassDOT/CTPS on bus circulation improvements
- Input from traffic analysis
- Application of Complete Streets Principals



# Concept Design Alternatives

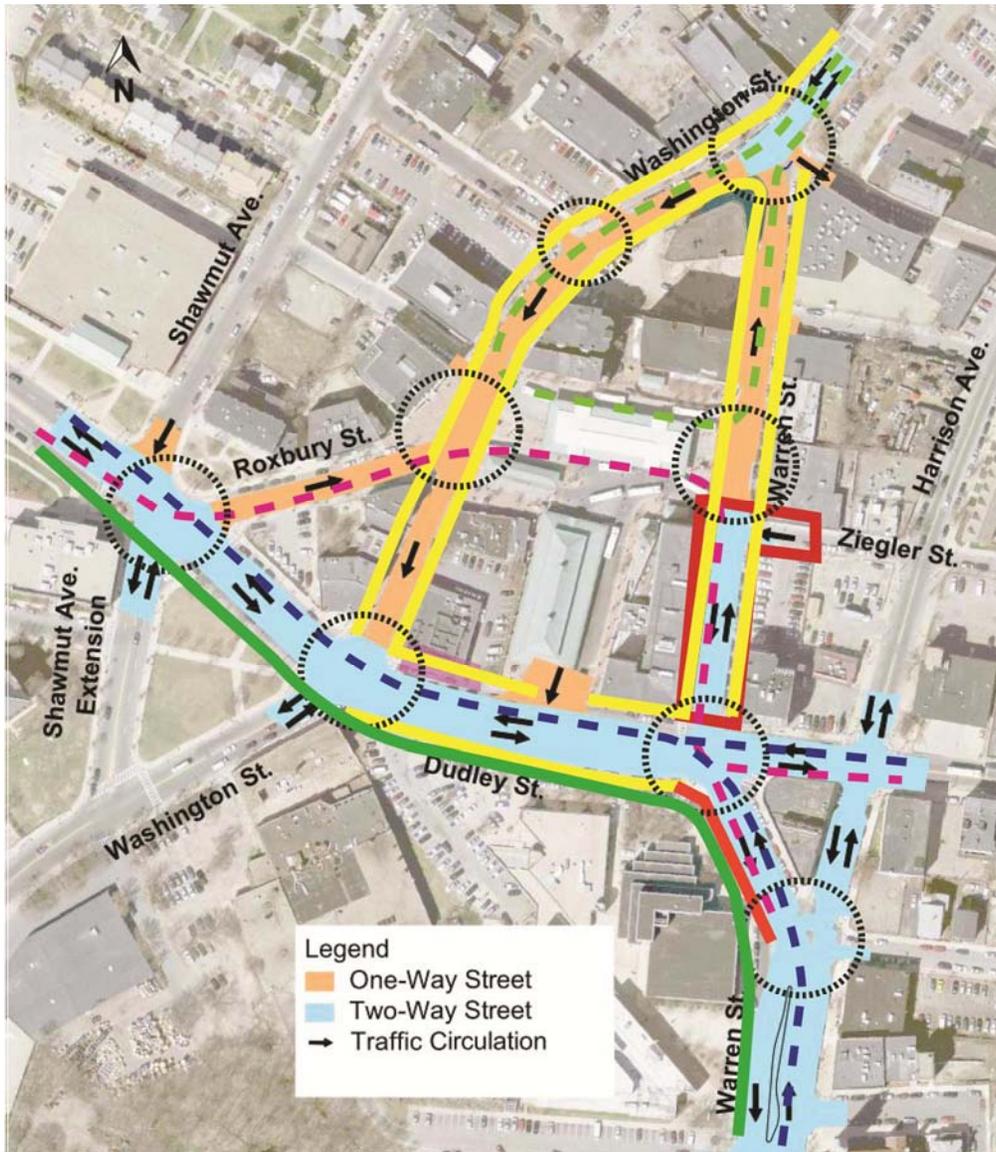
## *Opportunities to Rethink Traffic Circulation*

- ~~Alternative 1 - Existing Circulation~~
- Alternative 2- Improved Bus Circulation
- Alternative 3- Maximum Circulation Improvements





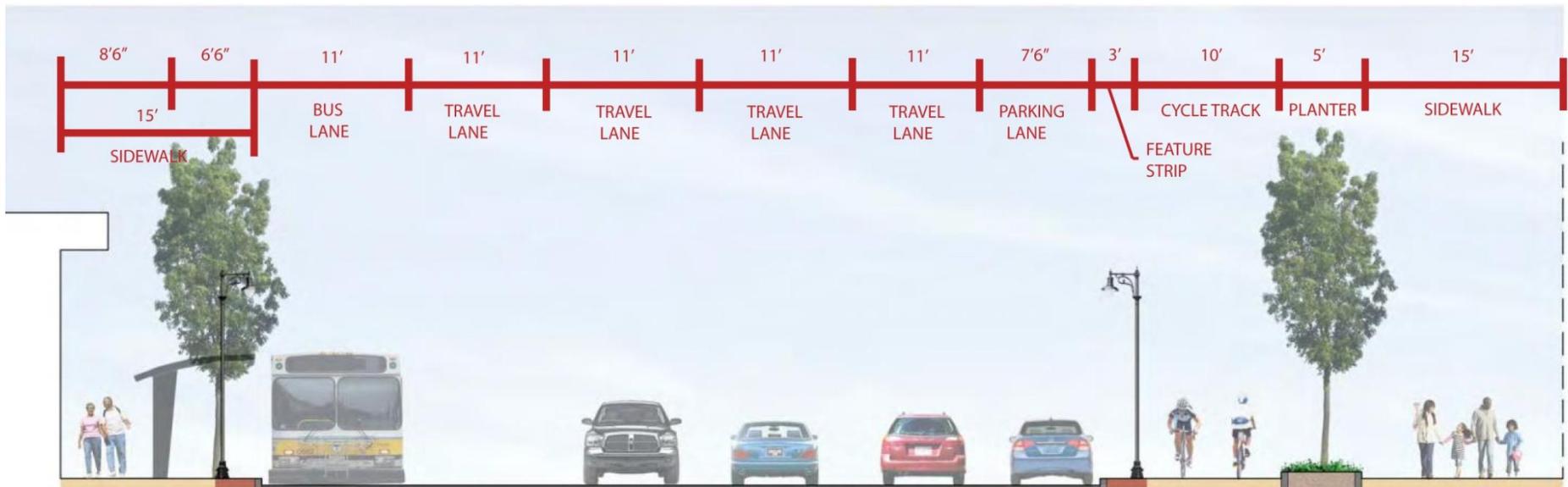
## Alternative 2



- Convert one block of Warren to 2-Way
- Modify Bus Circulation
- Upgrade Sidewalks
- Reduce Crossing Distances with Bump-Outs
- Add Cycle Track



# Dudley Street with Cycle Track



- Four Travel Lanes with On-Street Parking
- Bus Stop on Street (In Front of Bank of America)
- Cycle Track and Wide Sidewalks



# Dudley Street Existing





# Dudley Street Proposed





# Two-Way Warren Block Rendering





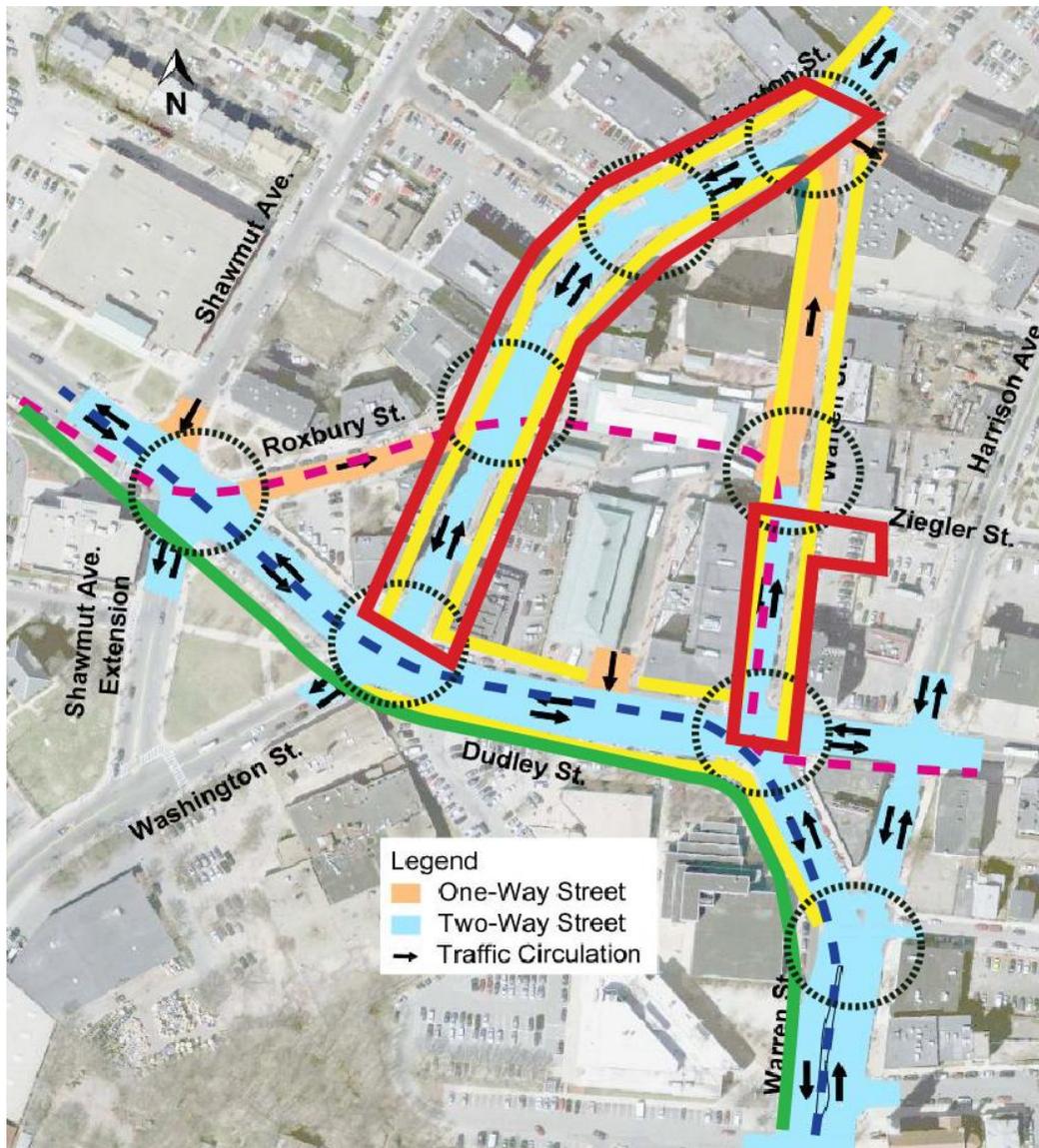
# Two-Way Warren Block Rendering

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## Alternative 3



### Alt 2 Enhancements:

- Convert one block of Warren to 2-Way
- Modify Bus Circulation
- Upgrade Sidewalks
- Reduce Crossing Distances with Bump-Outs
- Add Cycle Track
- **Two-Way Washington St.**

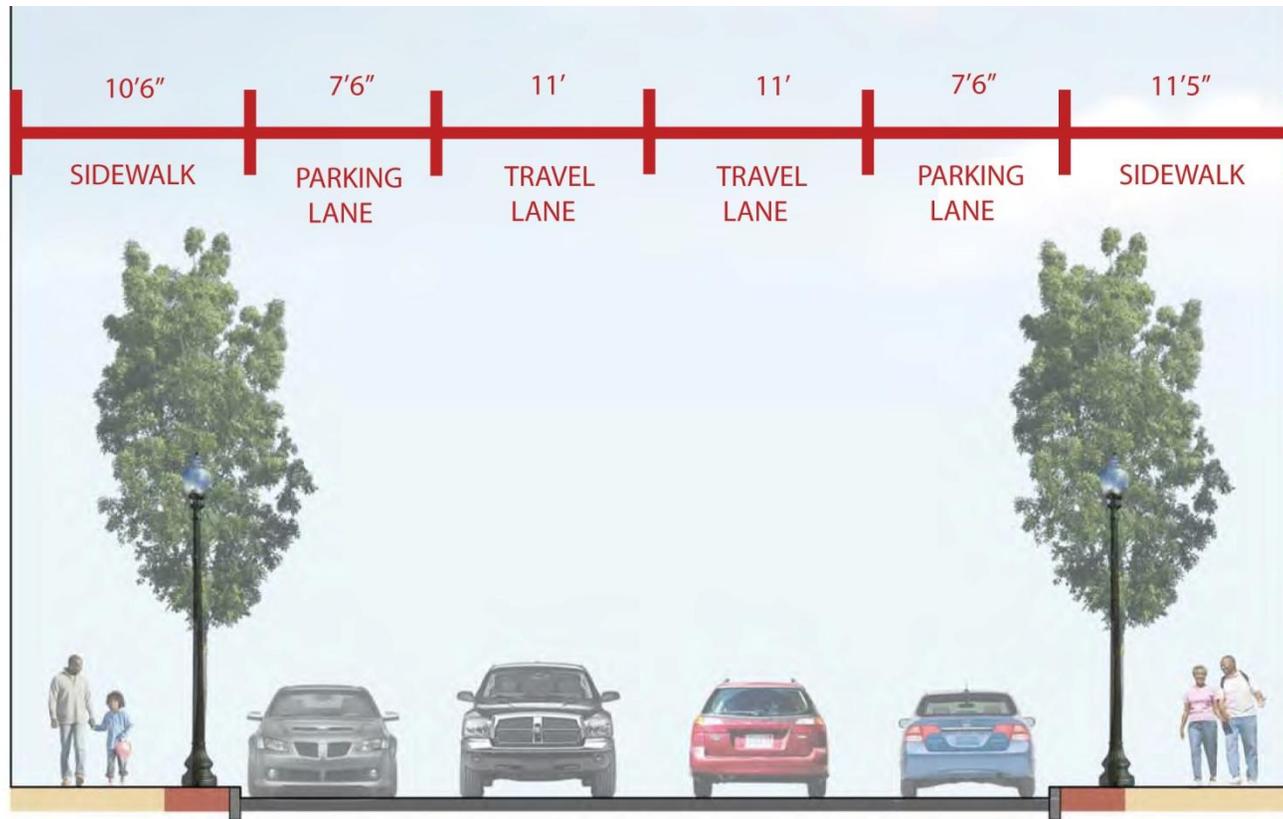


# Washington Street Existing





# Two-Way Washington Street



- Two Travel Lanes with On-Street Parking



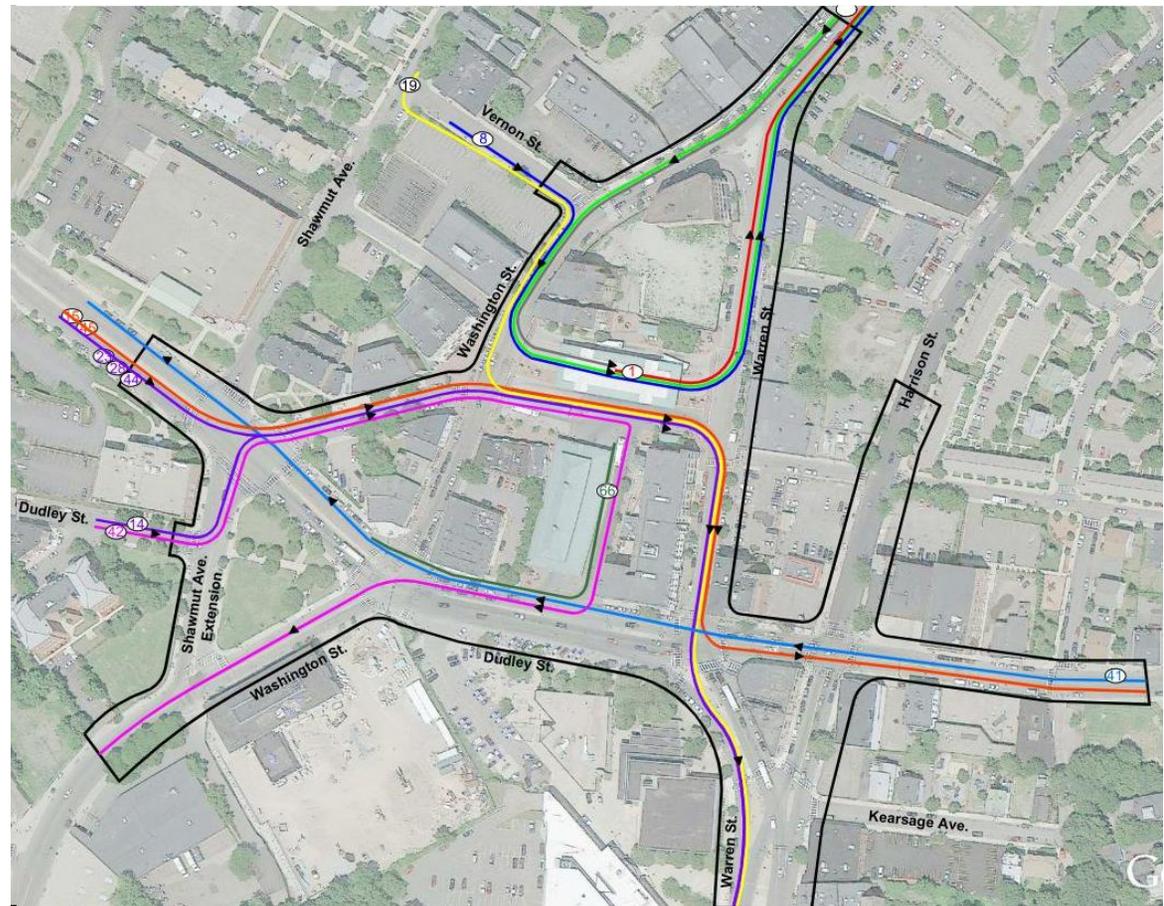
# Comparison of Alternatives

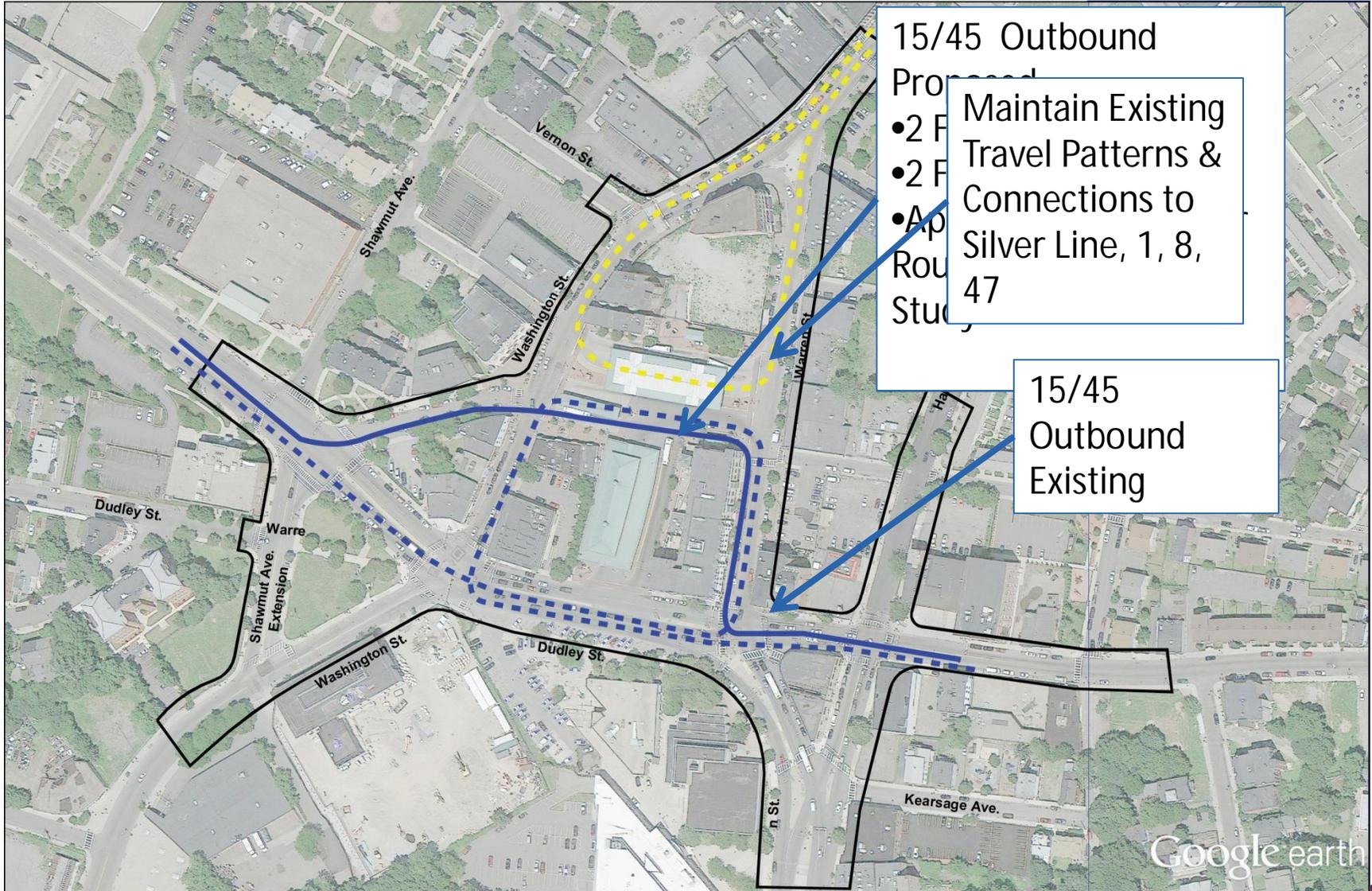
- Bus Circulation
- Traffic Analysis
- On-Street Parking
- Pedestrian Accommodations
- Bicycle Accommodations
- Streetscape Improvements



# Existing Circuitous Bus Routing

- Outbound buses circling the square
  - Routes 15, 23, 28, 44, 45
- Delays at intersections
- Air quality impacts
- Save > 180 Bus Miles a Day









# Traffic Operations

## Analysis

- New traffic counts in Fall 2012
- Traffic model (SYNCHRO) obtained from City
- Observations by Design Team & Public Comments

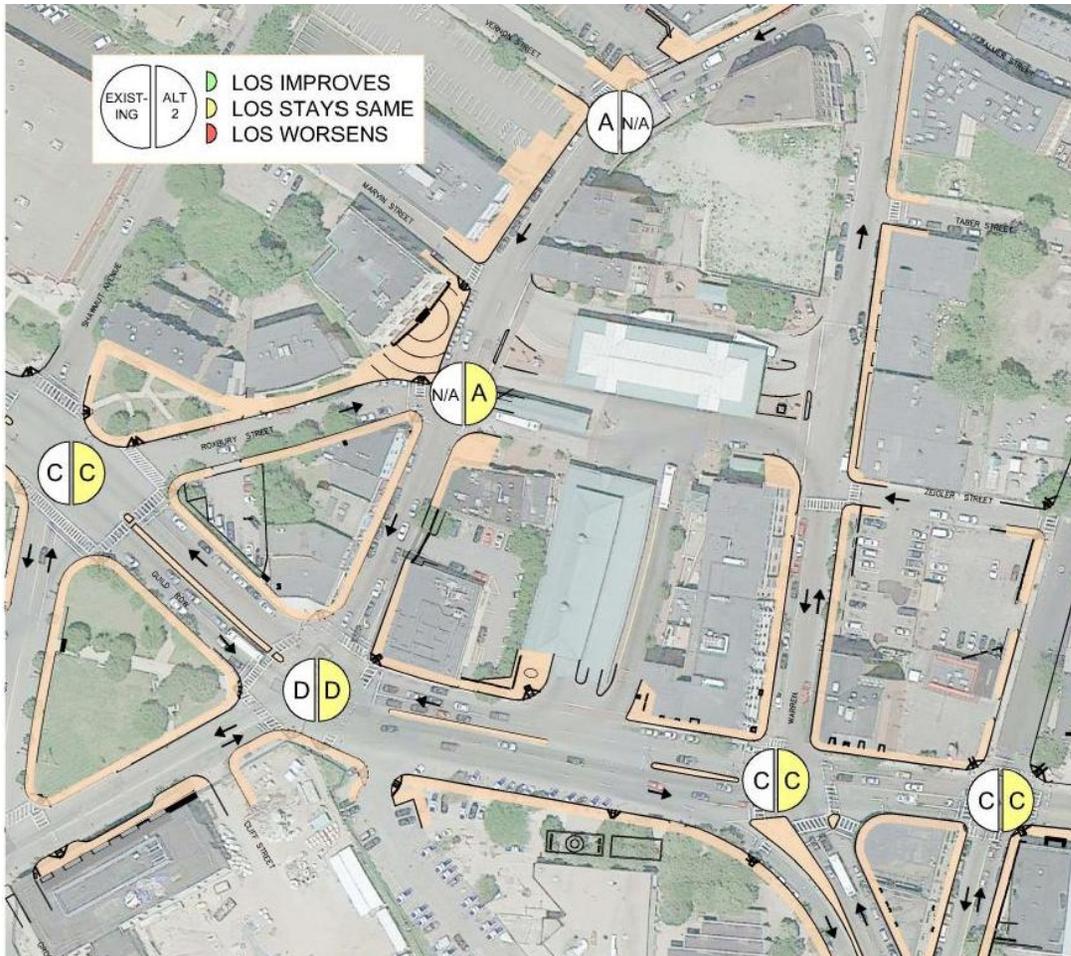
## Measures

- LOS- Delay at signalized intersections
- Volume/Capacity
- Queue Lengths





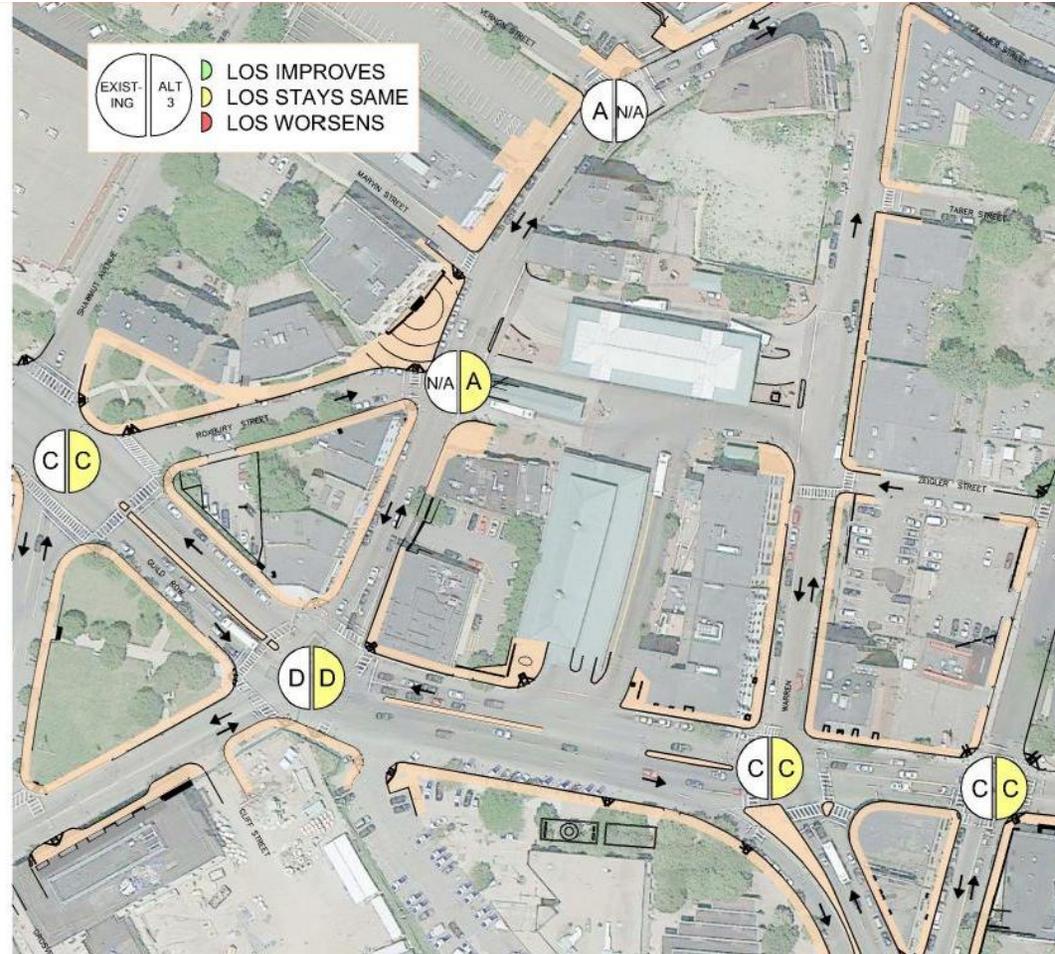
# Existing vs. Alt 2 PM Peak Traffic



- Similar to Existing traffic conditions
- Overall LOS remains the same
- Retains some capacity for future growth at all Intersections



# Existing vs. Alt 3 PM Peak Traffic

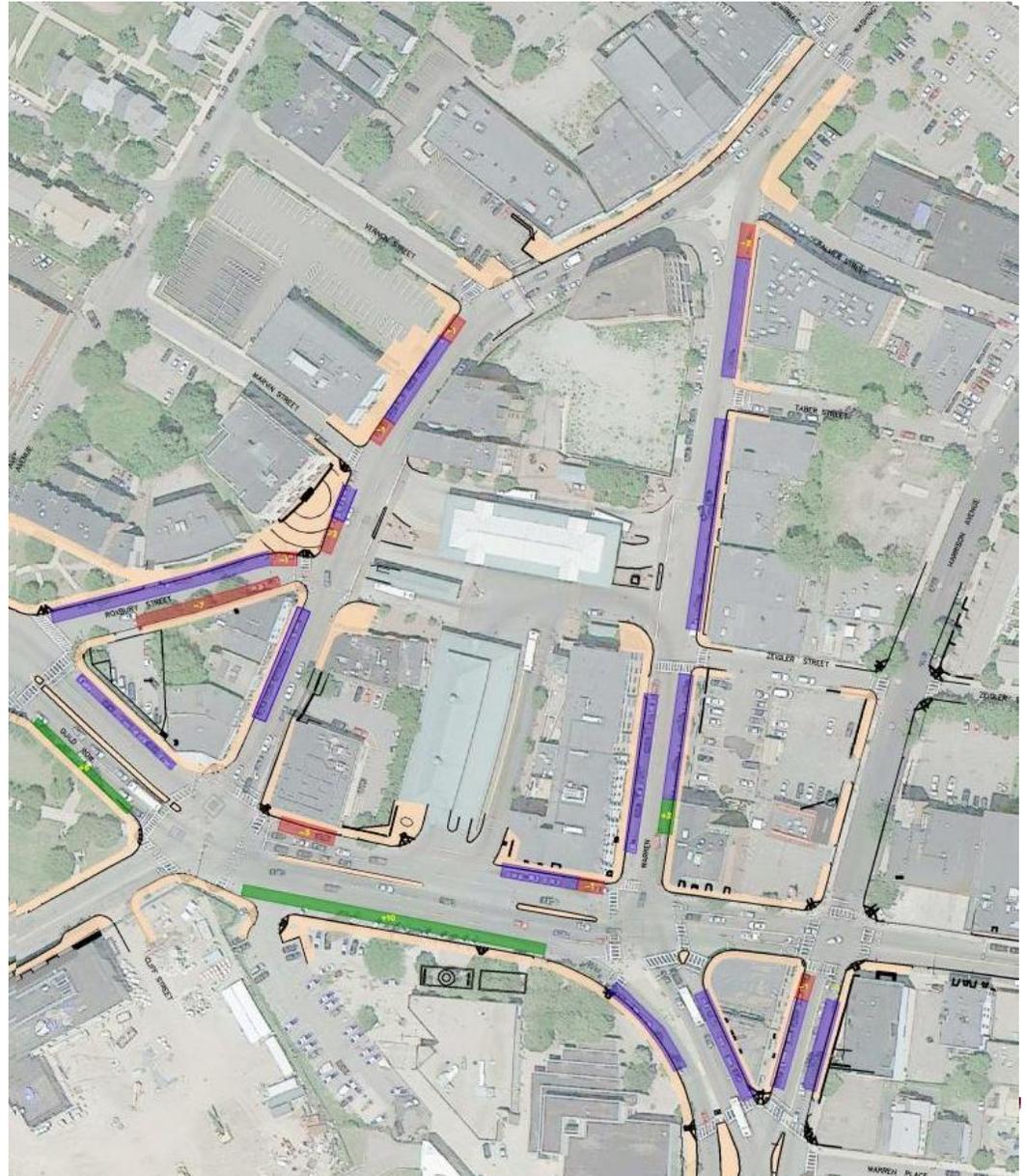


- Overall LOS remains the same
- Some increased congestion on Washington St
- Less traffic on Dudley St
- Washington St / Dudley St. intersection near capacity



# Existing vs. Alt 2 On-Street Parking

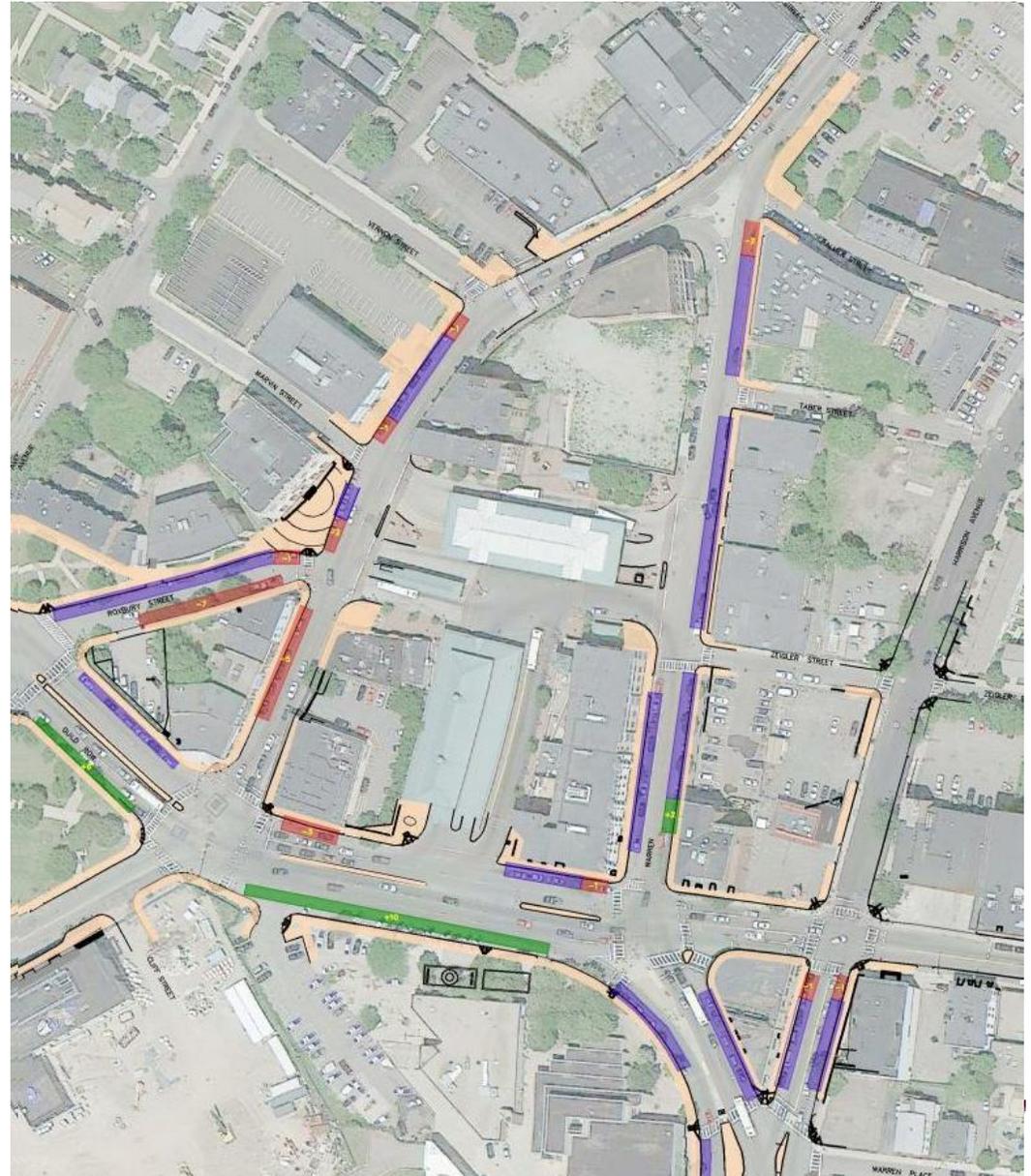
- On-Street Parking on:
  - Washington St
  - Warren St
  - Harrison St
  - Dudley St
- Net Loss of approx.  
1 Space





# Existing vs. Alt 3 On-Street Parking

- On-Street Parking on:
  - Washington St
  - Warren St
  - Harrison St
  - Dudley St
- Net Loss of approx.  
6 Space





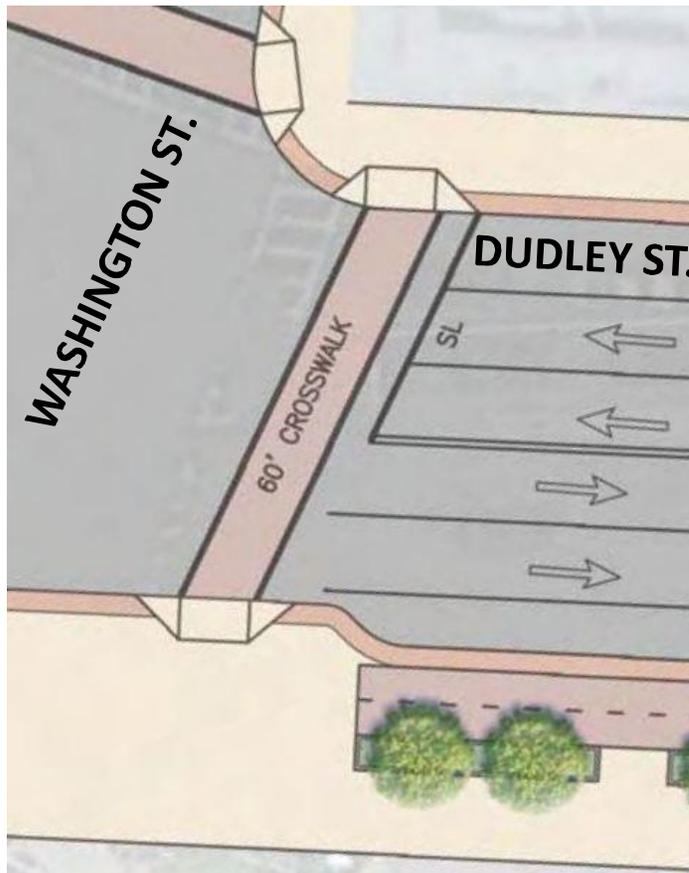
# Pedestrian Accommodations

- Reduced Crosswalk Distances
- ADA Enhancements for Sidewalks
- Improved Streetscape and Appearance





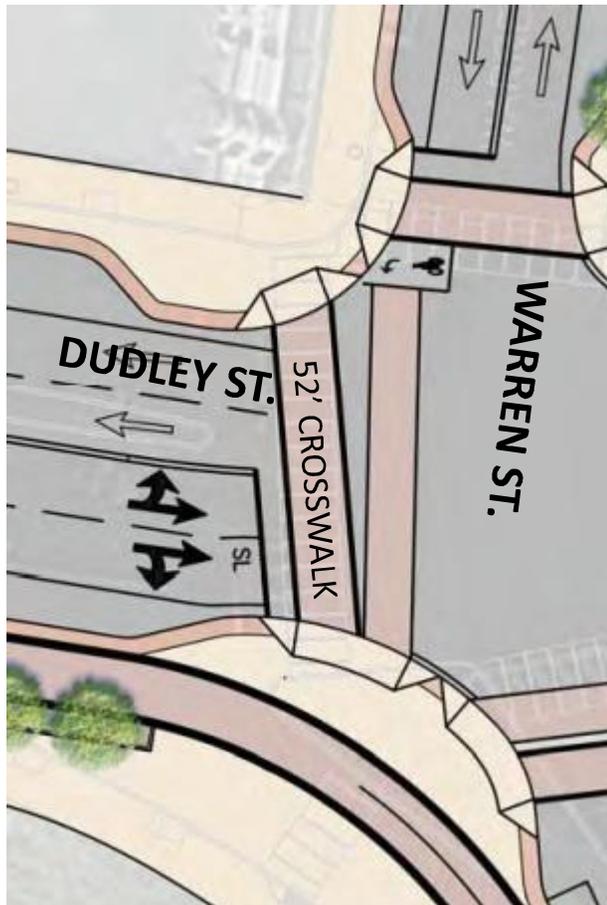
# Shortening Crosswalks



|                               | Washington St. & Dudley St. |       |       |
|-------------------------------|-----------------------------|-------|-------|
|                               | Existing                    | Alt 1 | Alt 2 |
| Crosswalk Length (ft)         | 85                          | 60    | 60    |
| Percent Shorter               | -                           | 29%   | 29%   |
| Crossing Time Reduction (sec) | -                           | 7-8   | 7-8   |



# Shortening Crosswalks



|                               | Warren St. & Dudley St. |       |       |
|-------------------------------|-------------------------|-------|-------|
|                               | Existing                | Alt 2 | Alt 3 |
| Crosswalk Length (ft)         | 70                      | 66    | 52    |
| Percent Shorter               | -                       | 6%    | 26%   |
| Crossing Time Reduction (sec) | -                       | 1-2   | 5-6   |



# Bicycle Accommodations

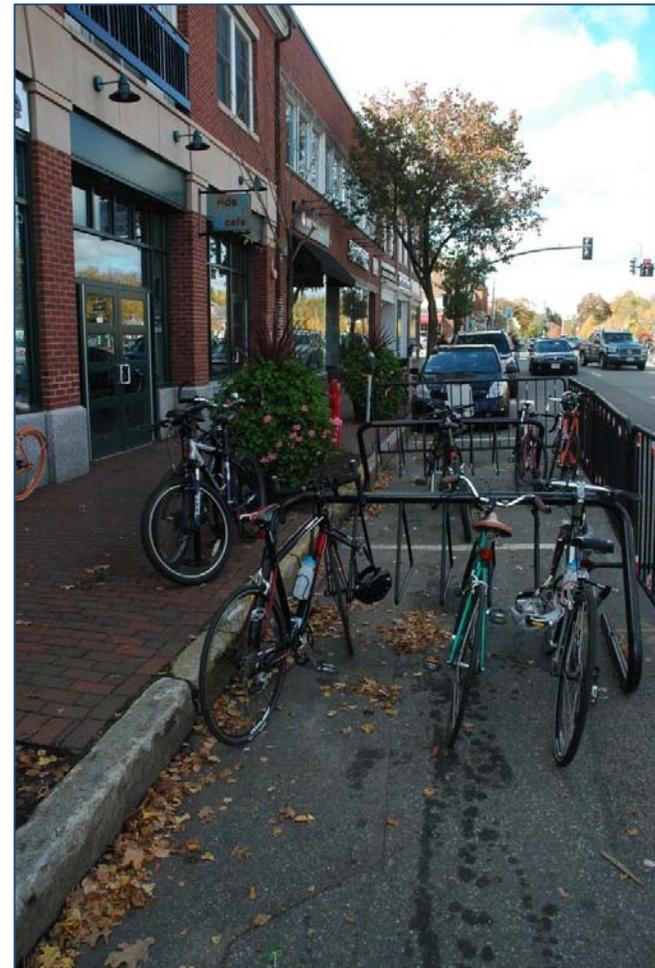
- Opportunity for High Quality Bicycle Facilities
  - Off-Street Cycle Track
  - Various Intersection Treatments





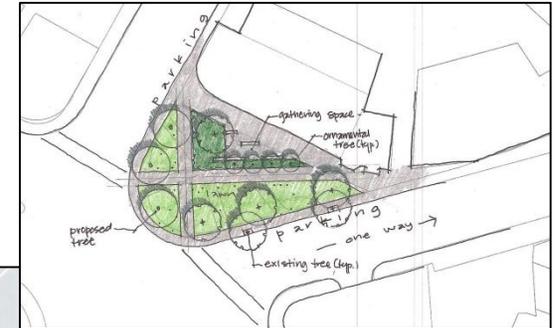
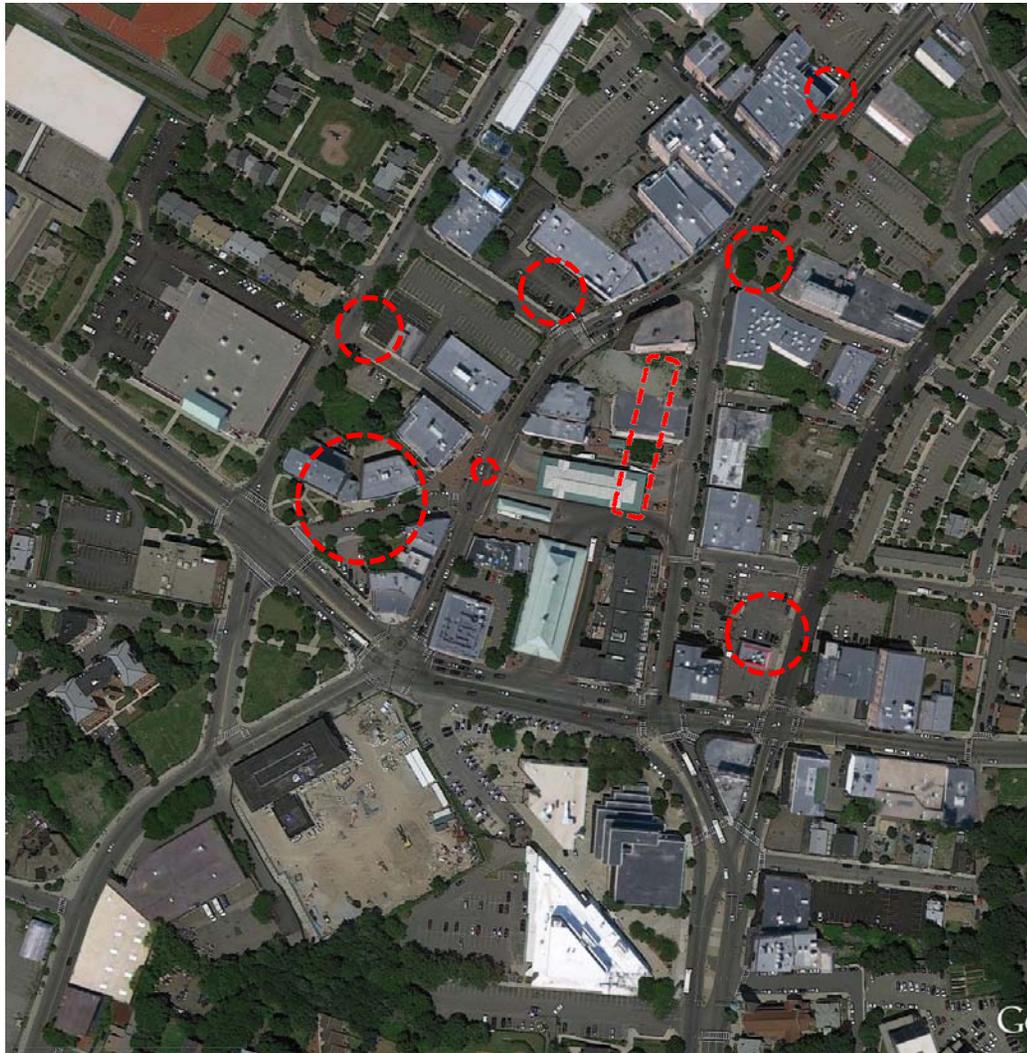
# Bicycle Parking

- On-Street Bicycle Parking
  - “Bike Corrals”
  - 10-20 Bicycles
- Bicycle Parking/Storage at Dudley Station





# Streetscape Improvements





# Alternatives Comparison

|                           | Alt 2   | Alt 3   |
|---------------------------|---|---|
| Bus Circulation           | <ul style="list-style-type: none"> <li>-180+ miles reduction in Bus Travel and Air Quality Improvements</li> <li>-Creates opportunity for Public/Pedestrian space at Transit Station</li> </ul> |   |
| Traffic Flow              | <ul style="list-style-type: none"> <li>-Base Year LOS Remains the same</li> <li>-Some capacity for future growth</li> </ul>   | <ul style="list-style-type: none"> <li>-Base Year LOS Remains the same</li> <li>-At capacity on Washington St.</li> <li>-More direct circulation</li> </ul>                               |
| Parking                   | -Loss of 1 on-street Parking Space  | -Loss of 6 on-street Parking Spaces   |
| Pedestrian Accommodations | <ul style="list-style-type: none"> <li>-Opportunities for shorter crosswalks and ADA improvements</li> <li>-Requires Wider Cross-Section on Dudley Street for LT Lane</li> </ul>                | <ul style="list-style-type: none"> <li>-Opportunities for shorter crosswalks and ADA improvements</li> <li>-Requires pedestrian crossings of two-way traffic on Washington St.</li> </ul> |
| Bicycle Accommodations    | Cycle Track, Bicycle Parking, On-Street Accommodations  |   |
| Streetscape               | Opportunities for Lighting, Trees, Other Amenities  |   |



# Break-Out Group Discussions

Purpose: Discuss Issues as seen from Stakeholder Perspectives

1. Count off
2. Move to your table
3. Moderator will describe what we are going to be talking about
4. Volunteer to take notes and report back
5. DISCUSS!!
6. Report back



# Group Discussions

Until 7:20pm



# Report Back





# Next Steps

- Compile Comments/Concerns from Community on Concept Alternatives
- Continue Coordination with Adjacent Projects
  - Ferdinand Building Design
- Finalize Preferred Design Alternative



# Future Outreach



○ Meeting #1: Intro/Problem ID/History

● Meeting #2: Alternatives – Part 1

● Meeting #3: Alternatives – Part 2

● Meeting #4: Design Development

Ongoing Coordination



# Contact

Boston Transportation Department

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