Western Avenue at Leo M. Birmingham Parkway and Arsenal Street Intersection & Corridor Improvements

Presented by
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Agenda

- Project Study Area
- Site History
- Existing Site Conditions
  - Accommodations
  - Operations
- Guiding Design Principals
- Concept Design Alternatives
Study and Project Development Timeline

- Planning & Concept Development
  - Mt Vernon Company funded study & concept development
  - Design coordination with BPDA, DCR, MassDOT, & BTD
  - Presentation to Area Elected Officials

- Public Input Gathering at Public Meeting

- Determine Funding

- Initiate Projects and Continued Public Engagement

- Short Term Design and Construction

- Long Term Project Development Process
Regional Planning | Design | Construction Efforts Links

- **Arsenal Street Corridor Study**
  - [https://www.massdot.state.ma.us/planning/Main/CurrentStudies/ArsenalStreetCorridorStudy.aspx](https://www.massdot.state.ma.us/planning/Main/CurrentStudies/ArsenalStreetCorridorStudy.aspx)

- **Charles River Basin Ped. & Bike Study for Pathways & Bridges**
  - [https://www.massdot.state.ma.us/Portals/26/docs/bikePedRpt_fall11.pdf](https://www.massdot.state.ma.us/Portals/26/docs/bikePedRpt_fall11.pdf)

- **Mount Auburn Corridor Study**
  - [https://www.mass.gov/service-details/mount-auburn-street-corridor-study](https://www.mass.gov/service-details/mount-auburn-street-corridor-study)

- **Allston Brighton Interchange Improvement Project**
  - [http://www.massdot.state.ma.us/highway/HighlightedProjects/AllstonI90InterchangeImprovementProject.aspx](http://www.massdot.state.ma.us/highway/HighlightedProjects/AllstonI90InterchangeImprovementProject.aspx)

- **Greenough Boulevard Road Diet**
### Development Projects

<table>
<thead>
<tr>
<th>Project Status</th>
<th>Estimated Total Sq Ft</th>
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<tbody>
<tr>
<td>Permitted/Under Construction</td>
<td>994,600 Sq Ft</td>
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<tr>
<td>Approved</td>
<td>304,500 Sq Ft</td>
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<tr>
<td>Under Review</td>
<td>33,000 Sq Ft</td>
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<tr>
<td>Letter of Intent</td>
<td>1,761,500 Sq Ft</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>3,093,600 Sq Ft</strong></td>
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**Western Avenue/Birmingham Parkway Transportation Study**
Coordination within the Study Area

- Multimodal Network Improvements
- Available Capacity for Trip Diversion Analysis
- Safety Considerations for Diverted Trips
- Transit Operation
- Consistency of Transportation Facilities
- Changes to Multimodal Volumes
  - Impacts to safety
  - Impacts to access
Analysis Scope

- **Short Term and Long Term Improvements**
  - **Short Term** – Low cost Safety & Complete Streets Improvements
    - Implemented in one construction season
    - *Estimated Cost $500K*
  - **Long Term** – Safety & Complete Streets Improvements
    - Funded via the Transportation Improvement Program
    - *Estimated Cost $5.0M*
Site History - 1909
Site History - 1946

Source: mapjunction.com
Site History - 2016

Source: mapjunction.com
Study Area Existing & Proposed Bicycle Facilities
Existing Condition Bicycle Level of Traffic Stress
Crash Diagrams Western Avenue @ Arsenal Street
Guiding Design Principles

- Simplify and improve access for all modes
- Provide access to riverfront & Paul D. White Bike Path
- Integrate the Intersection and Leo M. Birmingham Pkwy with Bicycle & Pedestrian Network
- Maintain Public Transit operations
- Limit cut through movements
- Reclaim useable public and green space
Short-term Concept Plans
Design Concepts: Short-Term Improvements
Short-Term Improvements:
Arsenal / Western / Leo M. Birmingham Intersection

- **EASTBOUND**
  - 6' SIDEWALK
  - 6' BIKE LANE
  - (2) 11' TRAVEL LANES

- **WESTBOUND**
  - (2) 11' TRAVEL LANES
  - 5' BIKE LANE

- **PROPOSED BIKE RAMP AND BIKE BOX**
- **NEW PEDESTRIAN CROSSING**
- **ADDED PEDESTRIAN CROSSING AND PEDESTRIAN REFUGE ISLAND**
- **CLOSURE**
- **RAISED BIKE LANE**
- **REMOVAL OF SLIP LANE**
- **PROTECTED CORNER**
- **530 WESTERN AVE**
- **WAVERLY ST**
- **ARSENAL ST**

Not to scale.
Short-Term Improvements: Western Avenue

- **Western Avenue**
  - **Not to scale.**
  - **Soldiers Field Rd On-Ramp**
  - **Soldiers Field Rd**
  - **Removal of Slip Lane**

- **Western Ave**
  - **Westbound 11' Travel Lane 3' Bike Lane**
  - **Eastbound 11' Travel Lane 7' Parking 3' Buffer 5' Bike Lane**

- **Mackin St**
  - **Existing Bus Stop at Western Ave and Mackin St**
Short-Term Improvements: Leo M Birmingham Parkway Option 1

- **Southbound**: (2) 11' travel lanes
- **Leo M Birmingham PKWY**:
  - Proposed 8' floating bus stop with 8' 2-way cycle track with raised bike crossing
  - Northbound:
    - 4' buffer
    - (2) 11' travel lanes
    - 8' parking
    - 3' buffer
    - 8' two-way cycle track
- **Market St**: Proposed bike signals
- **Lincoln St**
- **Central St**
- **Lotrop St**: Raised bike lane
- **Soldiers Field Rd**

*Not to scale.*
Long-Term Concept Plans
Long-Term Improvements Option 1: Arsenal / Western / Leo M. Birmingham Intersection

WESTBOUND/EASTBOUND
(2) 11' SHARED VEHICLE/BIKE TRAVEL LANE

SOUTHBOUND
6' SIDEWALK
4' BUFFER
8' SEPARATED BIKE LANE
3' BUFFER
(3) 11' TRAVEL LANES
13'-23' MEDIAN

NORTHBOUND
11' TURN LANE
(2) 11' TRAVEL LANES
2' BUFFER
8' SEPARATED BIKE LANE
5' BUFFER
8' SIDEWALK

NEW PED/BIKE CROSSING
550 WESTERN AVE
WESTERN AVE
Long-Term Improvements Option 2:
Arsenal / Western / Leo M. Birmingham Intersection

WESTBOUND/EASTBOUND
(2) 11' TRAVEL LANE/SHARED BIKE LANES
10' SHARED USE PATCH ON BOTH SIDES

SOUTHBOUND
6' SIDEWALK
3' BUFFER
6.5' SEPARATED BIKE LANE
3' BUFFER
(2) 11' TRAVEL LANE

NORTHBOUND
(3) 11' TRAVEL LANES
6.5' BUFFER
8' SEPARATED BIKE LANE
20'-30' GREEN SPACE
10' SIDEWALK

ARSENAL ST
DR. PAUL DUBLEY WHITE BIKE PATH
SOLDIERS FIELD RD ON RAMPS
SOLDIERS FIELD RD
LEO M. BIRMINGHAM PKWY
WESTERN AVE
NEW PED/BIKE CROSSING
530 WESTERN AVE
EASTBOUND
8' FLOATING BUS STOP
Long Term Improvements Option 1: Western Avenue
Long-Term Improvements Option 2: Western Avenue

- **Removal of Slip Lane**
- **Eastbound 8’ Floating Bus Stop**
- **Westbound/Eastbound 11’ Lanes**
- **5’ Bike Lanes**
- **5’-10’ Sidewalks**
Long-Term Improvements Option 1: Leo M. Birmingham Parkway

- **Southbound**
  - 6' Sidewalk
  - 4' Buffer
  - 8' Separated Bike Lane
  - (2) 11' Travel Lanes
  - 22' Median

- **Northbound**
  - (2) 11' Travel Lanes
  - 8' Bike Lane
  - 10' Sidewalk

**8' Bus Stop & Bus Lane**

**Consolidated Ramp**

**Leo M Birmingham Pkwy**

**Not to scale.**

**Engineers + Planners**
Long-Term Improvements Option 2:
Leo M. Birmingham Parkway

Southbound
- 6' Sidewalk
- 5' Buffer
- 6.5' Separated Bike Lane
- 3' Buffer
- 11' Turn Lane
- (2) 11' Travel Lanes

Northbound
- (2) 11' Travel Lanes
- 5' Buffer
- 6.5' Separated Bike Lane
- 6' Sidewalk

SOUTHBOUND
- 6' Sidewalk
- 3' Buffer
- 6.5' Separated Bike Lane
- 3' Buffer
- (2) 11' Travel Lanes

NORTHBOUND
- (3) 11' Travel Lanes
- 6.5' Buffer
- 8' Separated Bike Lane
- 20'-30' Green Space
- 10' Sidewalk K

Not to scale.
Project Area Vehicle Routing

Soldier's Field Rd Outbound On-Ramp
Removed p.m. Peak Hour

A: Low
B: Medium-Low
C: Medium
D: Medium-High
E: High
F: High

- No-Build
- Build
- Build-Mitigated
- Traffic Volumes Rerouted

* Volumes/Platoons Fluctuate by Day, Delay May be Worse

Not to scale.
Questions? / Comments?

http://www.bostonplans.org/planning/planning-initiatives/westernave