Lafayette Street Improvements Project
Harbor Street to Washington and Dow Streets

Public Information Meeting

Salem, Massachusetts
October 19, 2010
Project Area
• State Funding
  – Public Works Economic Development Grant, (PWED) - $1,000,000
  – Construction must be completed by June, 2012

• Local Funding
  – Community Development Block Grant - $100,000
• **Background**
  - Intersections identified in Central Transportation Planning Staff (CTPS) 2005 Improvement Study
St Joseph’s Church Redevelopment

Mixed-Use with Neighborhood Commercial Summary

A. New 4-Story Building
   - 51 Units (6 - 1BR, 38 - 2BR, 7 - 3BR)
   - 4,360 SF Ground Floor Commercial

B. Existing 3-Story School Adaptive Reuse
   - 17 Units

C. Existing 3-Story Rectory Adaptive Reuse
   - 8 Units

TOTAL
   - 76 Units
   - 4,360 SF Commercial
   - 121 Parking Spaces
Existing Conditions - Roadway

- **Lafayette St (Route 1A/114)**
  - Two lane Principal Arterial
  - Left turn lane onto Washington St
  - Left turns prohibited onto Dow St
  - 30 MPH posted speed limit
  - Parking permitted along both sides
  - Bus Stops on both sides

- **Washington St (Route 114)**
  - Two lane roadway, intersects Lafayette St at sharp angle
  - Parking permitted along both sides
  - Only right turns onto Lafayette St permitted

- **Harbor Street**
  - Two lane roadway between Washington St and Lafayette St
  - East leg is one way toward Lafayette Street
  - Parking permitted along both sides
  - All three roadways form perimeter around park
Existing Conditions - Traffic Operations

- **Average Daily Traffic (ADT) along Lafayette Street is:**
  - 14,000 vehicles per day north of Washington Street
  - 28,000 vehicles per day south of Washington Street

- **Washington Street Intersection**
  - Stop sign control for Washington Street approach
  - Wide intersection, not well defined
  - Location of pedestrian signals (3) creates confusion
  - Only right turns onto Lafayette Street permitted; illegal movements have been observed
  - Inadequate signing and pavement markings
Existing Conditions - Traffic Operations (Cont.)

- **Harbor Street Intersection**
  - Stop sign control for Harbor Street approaches
  - High delays on Harbor Street during peak periods
  - Difficult for pedestrians to cross Lafayette Street due to heavy traffic
Existing Conditions - Safety

• **Washington Street Intersection**
  - 4 accidents per year
  - Parking to close to traffic control devices (stop sign, pedestrian signals)

• **Harbor Street Intersection**
  - 8 accidents per year
  - 3 accidents involving pedestrians
  - Crash rate is more than double the statewide average
  - Location is listed in latest “Top 1000 High Crash Locations Report” published by the DOT
  - Vehicles parked close to intersection obstruct driver and pedestrian views
**Level of Service (LOS):** Measure of the operational conditions or effectiveness of a roadway facility

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hr</th>
<th>PM Peak Hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington Street</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Harbor Street</td>
<td>F</td>
<td>F</td>
</tr>
</tbody>
</table>
Project Goals

- Improve safety and driver expectation
- Reduce traffic delay, improve LOS
- Improve pedestrian mobility
- Increase vehicle access
- Minimize impacts to on street parking
- Improve aesthetic character of project area
Alternative 1 – Multilane Washington Street (Original Design)
Alternatives Reviewed

1. Multi-lane Washington Street approach
2. Single lane Washington Street approach (All movements allowed)
3. Single lane Washington Street approach (Only right turns allowed)
4. One-way circulation around park
5. Widening Washington Street
Alternative 2 – Single Lane (All Movements)

Single lane approach, *all movements allowed*
Alternative 3 – Single Lane (Right Turn Only)

Single lane approach, right turn only
Alternative 4 – One-Way Circulation
Alternative 5 – Widening Washington Street
Safety

- Each alternative improves safety for all users
- Traffic signals regulate vehicle movements and provide dedicated pedestrian crossing phase
- Bumps out shorten crosswalks and provide better line of sight
## LOS (Future Traffic Volumes)

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Alt 1</th>
<th>Alt 2</th>
<th>Alt 3</th>
<th>Alt 4</th>
<th>Alt 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak Hr</td>
<td>PM Peak Hr</td>
<td>AM Peak Hr</td>
<td>PM Peak Hr</td>
<td>AM Peak Hr</td>
</tr>
<tr>
<td>Washington Street</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>F</td>
<td>D</td>
</tr>
<tr>
<td>Harbor Street</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>B</td>
</tr>
</tbody>
</table>
Pedestrian Mobility

• Countdown pedestrian signals, bump outs

Access

• Alternatives 1, 2 and 5 provide full access; Alternative 4 limits access to Washington Street; Alternative 2 limits access from Washington Street
Parking

- Legal vs. Illegal Parking Spaces
- Spaces Eliminated

<p>| Spaces Eliminated |</p>
<table>
<thead>
<tr>
<th>Alt 1</th>
<th>Alt 2</th>
<th>Alt 3</th>
<th>Alt 4</th>
<th>Alt 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>legal</td>
<td>illegal</td>
<td>legal</td>
<td>illegal</td>
<td>legal</td>
</tr>
<tr>
<td>13</td>
<td>13</td>
<td>5</td>
<td>12</td>
<td>5</td>
</tr>
</tbody>
</table>
Aesthetics

- Ornamental equipment will be installed (traffic signals, lighting)
- Imprint crosswalks
- Narrowing the Washington Street intersection increases the effective area of the park
- Alternative 5 removes trees from park side of Washington Street
Ornamental Traffic Signals

- Traffic Signals to Match Street Lights
- Photo of Signals Currently Installed On North Street
Ornamental Period Lighting

- Salem Standard Street Lights
- Traffic Signals to Match
Next Steps

- Finalize Design
- Present final plans at follow up public meeting; scheduled for March 2011
- Construction scheduled to begin summer 2011