Libbytown Traffic Circulation and Streetscape Study
Traffic Analysis, Phase II

Sustainability and Transportation Committee
February 27, 2019
Libbytown Traffic Analysis, Phase II

Source: Google Maps
Libbytown Traffic Analysis, Phase II

Timeline/How We Got Here/Some Context:
Connecting Libbytown, 2009
• Bicycle and Pedestrian Improvements from Parkside to I-295 Vicinity
Libbytown Traffic Circulation & Streetscape Study, 2013
• Traffic Circulation – 1-Way/2-Way Analysis
• “Redundant Ramps”
• Sidewalk & Streetscape Conditions/Ped. Safety
• Bicycling Conditions/Safety
Bayside to PTC Pathway – On Hold by MaineDOT

Neighborhood Changes Since 2013 Report:
Sidewalk/ADA/Pedestrian Crossings – EDA Project
Pedestrian Scale-lighting under RR Bridge - CDBG
Added Bicycle Lane on Congress Street
Added Parking on Congress Street
Fore River Parkway Pathway Link – EDA Project
Frederic Street Crossing of FR Parkway – CDBG

3- Lane St. John Street w Bike Lanes – 2019/DD
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Libbytown Traffic Circulation and Streetscape Study Area:

Google Basemap; Data source: MaineDOT.

CRF (Critical Rate Factor) is the rate of crashes that occur relative to similar locations (type of street and traffic volumes) - for example, a CRF of 4.19 (like for the road segment from St John to Marston on Park Ave) represents a 319% higher crash rate than expected for similar locations statewide.) Red squares are intersection HCLs, red lines are road segment HCLs.
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New Analysis Assumptions:
Thompson’s Point Full Build-out/Traffic Permitted Level (same as in 2013 report)
New Maine Medical Center Parking Garage on St. John St (approx. 2450 spaces)
Removal of Valley Street at Congress Street Traffic Signal (does not meet warrants)
I-295 Interstate Ramps on Congress Street & Park Avenue Remain in the Traffic Network
Traffic Analysis Year: 2027 (+0.5% growth)
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Existing Configuration C1-P1

Traffic Volumes AM PM
2027
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Congress 1-way/Park 2-way C1-P2

Traffic Volumes AM PM
2027
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Congress 2-way/Park 2-way
C2-P2

Traffic Volumes AM PM
2027
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## Table 5: Multimodal Evaluation Summary

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Pedestrian Network</th>
<th>Bicycle Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Build</td>
<td>No additional pedestrian crossings; double threat crossings on Park and Congress remain in place</td>
<td>Potential for bicycle network with contraflow bike lane</td>
</tr>
<tr>
<td>C1P2</td>
<td>No additional pedestrian crossings; double threat crossings on Park and Congress remain in place; though volume on Congress is lower and speeds on Park will be reduced due to 2-way traffic</td>
<td>Park Ave cannot accommodate separated bicycle facilities through the railroad bridge due to inadequate width available</td>
</tr>
<tr>
<td>C2P2</td>
<td>Additional safe crossing for pedestrians at Congress/Park intersection</td>
<td>Bicycle facilities can be provided on Park Ave as planned for Bayside Trail extension to Transportation Center (Connecting Libbytown)</td>
</tr>
</tbody>
</table>

## Table 7: Speed and Safety Evaluation

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Speed/Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Build</td>
<td>Higher speeds and ability to pass maintained</td>
</tr>
<tr>
<td>C1P2</td>
<td>Lower speeds on Park Ave due to narrower width and oncoming traffic; but ability to pass on westbound Park maintained</td>
</tr>
<tr>
<td>C2P2</td>
<td>Lower speeds on both Congress and Park due to friction created by two-way operations; no passing on Park and Congress reduces speeds and improves safety</td>
</tr>
</tbody>
</table>

## Table 8: Community Impacts Evaluation

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Accessibility</th>
<th>Emergency Access Impacts</th>
<th>Resiliency Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Build</td>
<td>Poor accessibility and inconvenient circulation is not addressed by this alternative</td>
<td>Access to Maine Medical from I-295 Exit 12 remains hindered by at-grade railroad crossings.</td>
<td>With Park Ave the only westbound route in the study area, flooding will more frequently affect circulation.</td>
</tr>
<tr>
<td>C1P2</td>
<td>Accessibility is improved along Park Ave in this alternative, but not along Congress St</td>
<td>Park Avenue provides an access route to Maine Medical that is not subject to railroad crossings.</td>
<td>With Park Ave the only westbound route in the study area, flooding will more frequently affect circulation.</td>
</tr>
<tr>
<td>C2P2</td>
<td>Accessibility is improved along both Park Ave and Congress St in this alternative</td>
<td>Park Avenue provides an access route to Maine Medical that is not subject to railroad crossings.</td>
<td>Congress provides two-way travel, and an alternative to Park Ave when it is closed due to flooding.</td>
</tr>
</tbody>
</table>
## Conclusions

The following table summarizes the above analysis results for each performance measure:

<table>
<thead>
<tr>
<th>Measure</th>
<th>No Build</th>
<th>C1P2</th>
<th>C2P2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Service</td>
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<tr>
<td>Pedestrian</td>
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<td></td>
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<tr>
<td>Bicycle</td>
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<td>Efficiency</td>
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<td>Speed Management</td>
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<tr>
<td>Economic Activity</td>
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<tr>
<td>Public Safety Access</td>
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</tbody>
</table>

Red = worst | white = median | green = best
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Park Avenue (from 2013 Report)

Existing

Proposed

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Congress Street (from 2013 Report)

**Existing**

**Proposed**

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