Discussion of Updated Transportation Performance Measures

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Pedestrian Access and Mobility

1a. Functionality of Streetside for Pedestrian Activity
1b. Separation from Vehicular Traffic
1c. Pedestrian-Oriented Facilities or Improvements
1d. Walkable Network/Neighborhood Connections
1e. Pedestrian Crossings
1f. Vehicle/Pedestrian Conflicts at Driveways
1g. Universal Design
1h. Walkable Destinations
1i. Ease of Choice

Pedestrian Access and Mobility

1e. Pedestrian Crossings

<table>
<thead>
<tr>
<th>Description</th>
<th>Factors</th>
<th>Ability to Effect</th>
<th>Ability to Evaluate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of crossing Broadway</td>
<td>• Frequency, length, and quality of pedestrian crossings</td>
<td>• High</td>
<td>Moderate at this phase – several factors are directly related to cross section design, several are not</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Measurement</th>
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<tbody>
<tr>
<td>• Sufficient frequency for pedestrian phase (VISSIM analysis)</td>
<td>• Width and number of lanes (through and turn)</td>
</tr>
<tr>
<td>• Level of pedestrian comfort in medians</td>
<td>• Time needed to cross street</td>
</tr>
<tr>
<td>• Frequency of crossings</td>
<td>• Signal timing design</td>
</tr>
<tr>
<td>• Wait time for crossing signal (including time in median if two or more light cycles are required to cross)</td>
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</tr>
</tbody>
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Pedestrian Access and Mobility

1f. Vehicle/Pedestrian Conflicts at Driveways

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<tr>
<td>Conflicts between pedestrians and vehicles exist at driveways for site access, strongly related to R26</td>
<td>• Provision of level pedestrian crossings</td>
<td>• High</td>
<td>Moderate – some factors are directly related to cross section design, several are not</td>
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</tbody>
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<tr>
<td>• Roadside to accommodate level pedestrian crossings</td>
<td>• Proximity and number of parking lots</td>
</tr>
<tr>
<td>• Target speed and roadway design's support of speed management</td>
<td>• Proximity and number of bicycle parking/lockers</td>
</tr>
<tr>
<td>• Frequency and width of driveways</td>
<td>• Number of bus stops/transit stations</td>
</tr>
<tr>
<td>• Visibility (landscaping, site lines, signage)</td>
<td>• Number and type of comfort and safety features (lighting, seats, shade)</td>
</tr>
<tr>
<td></td>
<td>• Number of attractions/commercial uses</td>
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</table>

Pedestrian Access and Mobility

1h. Ease of Transition to Walking™

<table>
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<tbody>
<tr>
<td>The ability of users to become pedestrians</td>
<td>• Proximity to the site</td>
<td>• High</td>
<td>Not at this level of design</td>
</tr>
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<td>• Proximity and number of parking lots</td>
<td>• Proximity to the site</td>
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<td>• Proximity and number of bicycle parking/lockers</td>
<td>• Number and type of comfort and safety features (lighting, seats, shade)</td>
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<td>• Number of bus stops/transit stations</td>
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Discussion of Updated Transportation Performance Measures

Changes made to measures within:

1. Pedestrian Access and Mobility
2. Bicycle Access and Mobility
3. Vehicular Access and Mobility
Bicycle Access and Mobility

2a. Separation of Bikes and Arterial Traffic
2b. Bike Conflicts with Crossing Vehicles
2c. Vehicle/Bike Conflicts at Side Streets (combined into 2b)
2d. Pavement Condition
2e. Bike Facility Improvements
2f. Bike Network Connections
2g. Corridor Travel Time
2h. Bike Crossings

Bicycle Access and Mobility

2b. Bike Conflicts with Crossing Vehicles (note this includes the 2c perf. measure)

Description
• Vehicles cross bike lanes for a variety of reasons, the design and frequency of these crossings can effect bicyclist safety and comfort

Measurement
• Frequency and type of traffic crossing bike lanes
• Design details of crossing area

Factors
• Reducing number and length of crossing points
• Design details of crossing area

Ability to Effect
• High

Ability to Evaluate
• Moderate at current level of design (location of transit stops and use of local access lanes)
• Design does not include current details of site access or intersections

Bicycle Access and Mobility

2e. Bike Facility Improvements

Description
• Extent of bike racks, shade, drinking fountains, green pavement (bike boxes, etc.) and other features to serve bicyclists needs

Measurement
• % shade, number/frequency of design features
• Qualitative evaluation

Factors
• Increase in number of features
• Continuity of bike treatments through project area

Ability to Effect
• Minimal at the cross section and alignment level, beyond provision of enough area in streetside to allow for facilities. Evaluation of space is generally covered by measures 1a and 1b.

Ability to Evaluate
• Moderate at this level of design
• Design does not currently include this level of design, but lower cost cross section concepts may allow more budget to be spent on bike facilities

Bicycle Access and Mobility

2a. Separation of Bikes and Arterial Traffic

Description
• Greater separation is a factor related to bicyclist safety and comfort, and therefore likely bicycle use of Broadway

Measurement
• Relationship of proposed separation compared to ITS Walkable Thoroughfare Manual recommendation of 6 feet

Factors
• Bike lane is a legal bike lane (as opposed to a “striped shoulder”)• Combination of bike lane and buffer (painted line or other) width
• Buffer other than painted line
• Location of transit stops (street side or median)

Ability to Effect
• High

Ability to Evaluate
• High for cross section and location of transit stops
• Low for intersections (crossings of bike lane for right turns)

Vehicular Access and Mobility

4a. Movement of Through Traffic
4b. Intersection Delay – Overall Intersection Performance
4c. Intersection Delay – Worst Movement
4d. Accident Potential
4e. Lane Continuity
4f. Persons per Vehicle or Person Trips
4g. Access Management to Adjacent Uses
### Vehicular Access and Mobility

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<tr>
<td>• Multi-modal measures allowing evaluations on a per person basis</td>
<td>• Convert vehicle, transit, and bicycle trips to person trips for the corridor</td>
<td>• Number of traffic lanes</td>
<td>• High</td>
<td>• Not viable at current level of design</td>
</tr>
<tr>
<td></td>
<td>• Use traffic model and VISSIM to assess different modal performance for:</td>
<td>• Signal design/timing</td>
<td></td>
<td>• Requires alignment and intersection design</td>
</tr>
<tr>
<td></td>
<td>• Corridor travel time</td>
<td>• Intersection design</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Average delay</td>
<td>• Access management</td>
<td></td>
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<tr>
<td></td>
<td>• Travel time reliability</td>
<td>• Transit service design</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Other measures as appropriate</td>
<td>• #2b Bike Conflicts with Crossing Vehicles</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Dedicated transit lanes, transit priority treatments at intersections, level boarding, off-vehicle ticketing, and other measures</td>
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