Freight Master Plan
Overview

- Freight network
  - Purpose
  - Criteria
  - Address Advisory Committee comments

- Safety issues and bottlenecks

- Performance measures
Purpose of freight network

• Define freight corridors

• Help direct freight investments

• Develop associated design guidelines
# Refresher: Freight network criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Limited Access Facility</th>
<th>Major Truck Street</th>
<th>Minor Truck Street</th>
<th>First/Last Mile Connectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional Purpose</td>
<td>Long Distance Trips</td>
<td>Through Trips</td>
<td>To/From</td>
<td>Industrial Trips</td>
</tr>
<tr>
<td>Supports Freight-Generating Land Uses</td>
<td>Primary connections between industrial centers and the rest of the region</td>
<td>Main connections between industrial land use (Manufacturing Industrial Centers and intermodal terminals)</td>
<td>Provides connections between urban villages; commercial distribution network</td>
<td>Access to industrial uses</td>
</tr>
<tr>
<td>Roadway Classification</td>
<td>Highway</td>
<td>Minor arterial or higher</td>
<td>Minor arterial or higher</td>
<td>Minor arterial or lower</td>
</tr>
<tr>
<td>Truck Volume</td>
<td>All Volumes</td>
<td>500+ trucks per day</td>
<td>500+ trucks per day</td>
<td>250+ trucks per day</td>
</tr>
</tbody>
</table>
Address comments on draft network

• Comments fell into 2 categories
  – Changes to proposed network designation
  – Segment additions to the network

• See handout
Assess network performance

• Identify safety issues and bottlenecks

• Used to define future freight improvement locations
Step 1: Identify safety issues

• Reviewed 5-years of truck collision data

• Focused on locations with fatalities and 6 or more truck collisions
Step 2: Identify bottlenecks

- Bottleneck areas were identified and stratified based on future 2035 truck volumes and general congestion levels

<table>
<thead>
<tr>
<th>Truck volumes (per day)</th>
<th>Low &lt;1000</th>
<th>Medium 1000-1999</th>
<th>High 2000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congestion (volume to capacity ratio)</td>
<td>Low (From 0.90 to 1.05)</td>
<td>Medium (From 1.05 to 1.20)</td>
<td>High (1.20+)</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>Medium-high</td>
</tr>
<tr>
<td>Medium</td>
<td>Medium</td>
<td>Medium-high</td>
<td>High</td>
</tr>
<tr>
<td>High</td>
<td>Medium-high</td>
<td>High</td>
<td>Severe (Very High)</td>
</tr>
</tbody>
</table>
Step 3: Map it!

- Severe (Very High)
  - Fremont Bridge
  - S Spokane Street
  - West Seattle Bridge
  - First Ave S Bridge

- High
  - Aurora Ave N
  - Ballard Bridge (to NW Market)

- Medium-High
  - Lake City Way NE
  - N 85th St
  - N 46th St
  - Montlake Blvd NE
  - Montlake Bridge
  - Aurora Ave N (south of ship canal)
  - E Marginal Way
  - 1st Ave S
  - 4th Ave S
  - Airport Way S
  - 16th Ave S
  - 15th Ave NW (Market to Holman Rd)
Performance Measures

• Evaluate freight system performance over time

• To be effective, measures need to:
  – Be meaningful to stakeholders
  – Assess progress towards desired outcomes
  – Be feasible with anticipated data and resources

• Considered federal, state, and best practices guidance
## Potential performance measures

<table>
<thead>
<tr>
<th>Category</th>
<th>Goal</th>
<th>Potential Performance Measures</th>
</tr>
</thead>
</table>
| Safety            | Improve safety and the predictable movement of goods and people.     | • Truck collision rates  
                    |                                                                    | • Collision history                                                  |
| Mobility          | Reliably connect manufacturing/industrial centers and business      | • Volumes and vehicle classifications  
                    | districts with the local, state, and international freight          | • Speed  
                    | networks                                                         | • Travel time  
                    |                                                                | • Buffer index (cost of congestion)  
                    |                                                                | • Truck load zone count                                                      |
| Economy           | Provide a freight network that supports a growing economy for        | • Buffer index (cost of congestion)                                  |
                    | Seattle and the region                                               |                                                                    |
| State of Good     | Maintain and improve the freight transportation network to ensure    | • System constraints  
                    | Repair              | safe and efficient operations.                                     |   
                    |                                                                    |   
                    |                                                                |   | Weight and height restrictions  
                    |                                                                |   | Signal, ITS  
                    |                                                                |   | Pavement rating on truck freight network                                                                 |
| Equity            | Benefit residents and businesses of Seattle through equity in freight | • Investment in freight projects (including mitigation)  
                    | investments and improve the health of communities impacted by      | • Tree canopy  
                    | freight movement                                                   | • Noise complaints                                                      |
| Environment       | Improve freight operations in Seattle and the region by making       | • Congestion/delay- from speed and travel time  
                    | goods movement more efficient and reducing its environmental        | • Companies participating in EPA SmartWay program  
                    | footprint                                                        | • Citywide air quality                                                   |
Next steps

- Refine draft network map
- Public outreach
- Design guidelines
- Refine performance measures
- Identify improvements
- Develop implementation strategy
- Development of draft plan
- Release public review of draft plan
Questions?

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http://www.seattle.gov/transportation/freight_fmp.htm

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