Complete Streets in Washington – Development & Implementation

Paula Reeves
Manager, Community Design
WSDOT’s Highways & Local Programs Division

New Partners for Smart Growth Conference
San Diego, CA
February 2, 2012
How is implementation going in WA?

• Restructuring procedures to accommodate all users
• Developing new policies and guides (planning, design, construction and maintenance)
• Offering workshops and other trainings
• Instituting better ways to measure performance
• Developing a funding mechanism(s)
Milestones in State Policy

• WSDOT Livable Communities Policy, 2000
• CSS Executive Order, 2003
• Gray Notebook – measuring performance, 2003
• Design Guidance and Training, 2005
  – Understanding Flexibility in Transportation, Washington
• State Funding for Pedestrian & Bicycle Safety, 2005
• AASHTO Environmental Excellence Award, 2006
  – Best Organizational Integration of Context Sensitive Design
• State Bicycle and Pedestrian Plan adopted, 2008
• Complete Streets Bill (ESHB 1071) passed, 2011
Recent Milestones in Federal Policy

• Federal Highway Administration Issues Livable Communities Policy, June 2009

• USDOT Policy on Biking and Walking, March 2010

• 2010 FHWA applies Livable Communities criteria to all discretionary grant programs:
  --Provide more transportation choices.
  --Promote equitable, affordable housing.
  --Enhance economic competitiveness.
  --Support existing communities.
  --Coordinate policies and leverage investment.
  --Value communities and neighborhoods.
Designing Streets for Everyone
Typical “Complete Street” Elements

Typical City Infrastructure Costs Today
City streets are more than pavement.

- Street: $6,000,000/mile
- $1,000,000/mile
- $700,000/mile + Phase II monitoring
- $450,000 Illumination/Signalization
- $300,000 Landscaping

- $250,000/mile + ADA compliance
- Utility Relocation: $1,500,000/mile
- Gas
- Electrical
- Storm Drainage
- Water
- Sewer
- Right of Way

Plus ongoing maintenance, preservation and operating costs.

Source: Association of Washington Cities
Highway Maintenance Responsibilities in Cities
(Managed access highways*)

<table>
<thead>
<tr>
<th>Cities under 22,500</th>
<th>City Responsibility - Operational (consistent with state laws)</th>
<th>State Responsibility – Structural Integrity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Street Illumination</td>
<td>Roadway surface and shoulders</td>
</tr>
<tr>
<td></td>
<td>Cleaning-streets, catch basins, snow plowing, etc.</td>
<td>Traffic Control Signals</td>
</tr>
<tr>
<td></td>
<td>Existing Stormwater facilities</td>
<td>Slope stability</td>
</tr>
<tr>
<td></td>
<td>Traffic and parking enforcement</td>
<td>State has snow plowing authority when necessary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Route markers, directional signs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cities over 22,500</th>
<th>City Responsibility (consistent with state laws)</th>
<th>State Responsibility**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Same responsibilities as above, plus</strong></td>
<td>Roadway surface and shoulders</td>
</tr>
<tr>
<td></td>
<td>Slope stability</td>
<td>State has snow plowing authority when necessary</td>
</tr>
<tr>
<td></td>
<td>Traffic Control Signals</td>
<td>Route markers, directional signs</td>
</tr>
</tbody>
</table>

*WSDOT performs all of the above maintenance activities on Limited Access Highways (i.e. I-5, I-90, I-405, I-82, etc.)

**State Highway Improvements are typically a partnership between cities and the state

Source: Association of Washington Cities
State Highways as Main Streets: A Study of Community Design and Visioning

The Issues

• City streets operate as state highways
• Design affects community livability and safety
• Scope, schedule and budget changes on these streets/highways

Two visions of a street in Goldendale
The Need

• Help local agencies improve funding opportunities
• Explore new methods for collaboration and problem solving when state highways serve as local main streets
• Determine successful approaches to meet the federal requirements for visioning set forth in SAFETEA-LU
• Translate context sensitive design guidance into practice
• Support staff and organizational development by connecting the architecture profession and transportation engineering
Anticipated Outcomes

• Develop more cost effective transportation projects
  • Ensure fewer scope and schedule changes
  • Revitalize vs. mitigate transportation impacts to communities

• Identify partnerships opportunities and resources
  • Transportation, historic preservation, environmental, economic development, utilities, etc.

• Ensure a measurable link between goals and transportation investments
  • Outcomes vs. throughput or volume to capacity ratio
  • Safety
The Research

1. System Analysis
2. Case Studies

Storefront Studio Program
University of Washington
College of Built Environments
Department of Architecture
## What’s a Main Street Highway?  
**Step 1: Screening**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Units of Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Route within City Limits</td>
<td>Y, N</td>
</tr>
<tr>
<td>Highway of Statewide Significance</td>
<td>Y, N</td>
</tr>
<tr>
<td>National Highway System</td>
<td>Y, N</td>
</tr>
<tr>
<td>State Access Control Classification</td>
<td>Y, N</td>
</tr>
<tr>
<td>Federal Functional Classification</td>
<td>Principal arterials, Minor arterial streets, Collector streets, Local streets</td>
</tr>
<tr>
<td>Design Speed</td>
<td>MPH</td>
</tr>
<tr>
<td>Posted Speed</td>
<td>MPH</td>
</tr>
<tr>
<td>Year of Incorporation</td>
<td>Year</td>
</tr>
<tr>
<td>Freight Classification</td>
<td>T-1 more than 10 million tons per year; T-2 4 million to 10 million tons per year; T-3 300,000 to 4 million tons per year; T-4 100,000 to 300,000 tons per year; T-5 at least 20,000 tons in 60 days</td>
</tr>
<tr>
<td>Collision History</td>
<td>Number of collisions involving bicyclists and pedestrians</td>
</tr>
</tbody>
</table>
# Step 2 – Defining Main Street Highways

<table>
<thead>
<tr>
<th>Variables</th>
<th>Units of Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of visible buildings that are commercial</td>
<td>Percentage (25%, 50%, 75%, 100%)</td>
</tr>
<tr>
<td>Proportion of street frontage with dead space</td>
<td>Percentage (25%, 50%, 75%, 100%)</td>
</tr>
<tr>
<td>Proportion of street frontage with parked cars</td>
<td>Percentage (25%, 50%, 75%, 100%)</td>
</tr>
<tr>
<td>Proportion of street frontage with tree canopy</td>
<td>Percentage (25%, 50%, 75%, 100%)</td>
</tr>
<tr>
<td>Number of travel lanes</td>
<td>Number both directions</td>
</tr>
<tr>
<td>Average travel lane width</td>
<td>Feet</td>
</tr>
<tr>
<td>Average shoulder width</td>
<td>Feet</td>
</tr>
<tr>
<td>Average median width</td>
<td>Feet</td>
</tr>
<tr>
<td>Average sidewalk width</td>
<td>Feet</td>
</tr>
<tr>
<td>Total curb to curb width</td>
<td>Feet</td>
</tr>
<tr>
<td>Total back of sidewalk to back of sidewalk width</td>
<td>Feet</td>
</tr>
<tr>
<td>Posted speed limit</td>
<td>MPH</td>
</tr>
<tr>
<td>Crosswalk spacing</td>
<td>Feet</td>
</tr>
<tr>
<td>Visible curb extensions (y, n)</td>
<td>Y,N</td>
</tr>
<tr>
<td>Average building setback</td>
<td>Feet</td>
</tr>
<tr>
<td>Average building height (stories)</td>
<td>Stories</td>
</tr>
<tr>
<td>Uniform building height (y, n))</td>
<td>Y,N</td>
</tr>
<tr>
<td>Number of pedestrians visible</td>
<td>Count</td>
</tr>
<tr>
<td>Average daily traffic</td>
<td>Volume</td>
</tr>
<tr>
<td>Visible bicycle lane</td>
<td>Y,N</td>
</tr>
<tr>
<td>Visible buildings that are historic</td>
<td>Y,N</td>
</tr>
</tbody>
</table>
Case Studies: Main Streets

Community Design Case Studies in several WA cities:

- Roslyn
- Morton
- Goldendale
Case Studies: “Storefront Studio” Workshops

Storefront Studios -
• public open houses,
• exhibits and
• *information exchange*

Through archival research, photographic documentation and digital collages before-and-after streetscapes are developed.
Findings

• Scope changes:
  -- More common on Main Street Highways
  -- 48% of all projects vs. 38% on other parts of the state system

• Retrospective review:
  -- 40 projects or 20% of WSDOT’s scope, schedule and budget changes could have directly benefited from additional community design

• Average estimated saving per project:
  -- Over $9 million dollars or 30% of project cost
Implementing the Research

• **New Funding Program – Main Streets/Complete Streets**
  (2011 Washington Legislation – ESHB 1071)

• **New Design Approach**
  (2012 Washington Legislation – HB 1700)
WSDOT Resources & Contacts…

WSDOT’s Complete Streets website
http://www.wsdot.wa.gov/LocalPrograms/Planning/MainStreets.htm

UW Storefront Studio website
http://www.storefrontstudio.org/

State Highways as Main Streets: A Study of Community Design and Visioning http://www.wsdot.wa.gov/Research/Reports/700/733.1.htm

Paula Reeves
Manager, Community Design Assistance
Reevesp@wsdot.wa.gov, 360-705-7258