



WSDOT's ***Main Street Highways Initiative***

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Transportation and Livable Communities
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State Highways as Main Streets

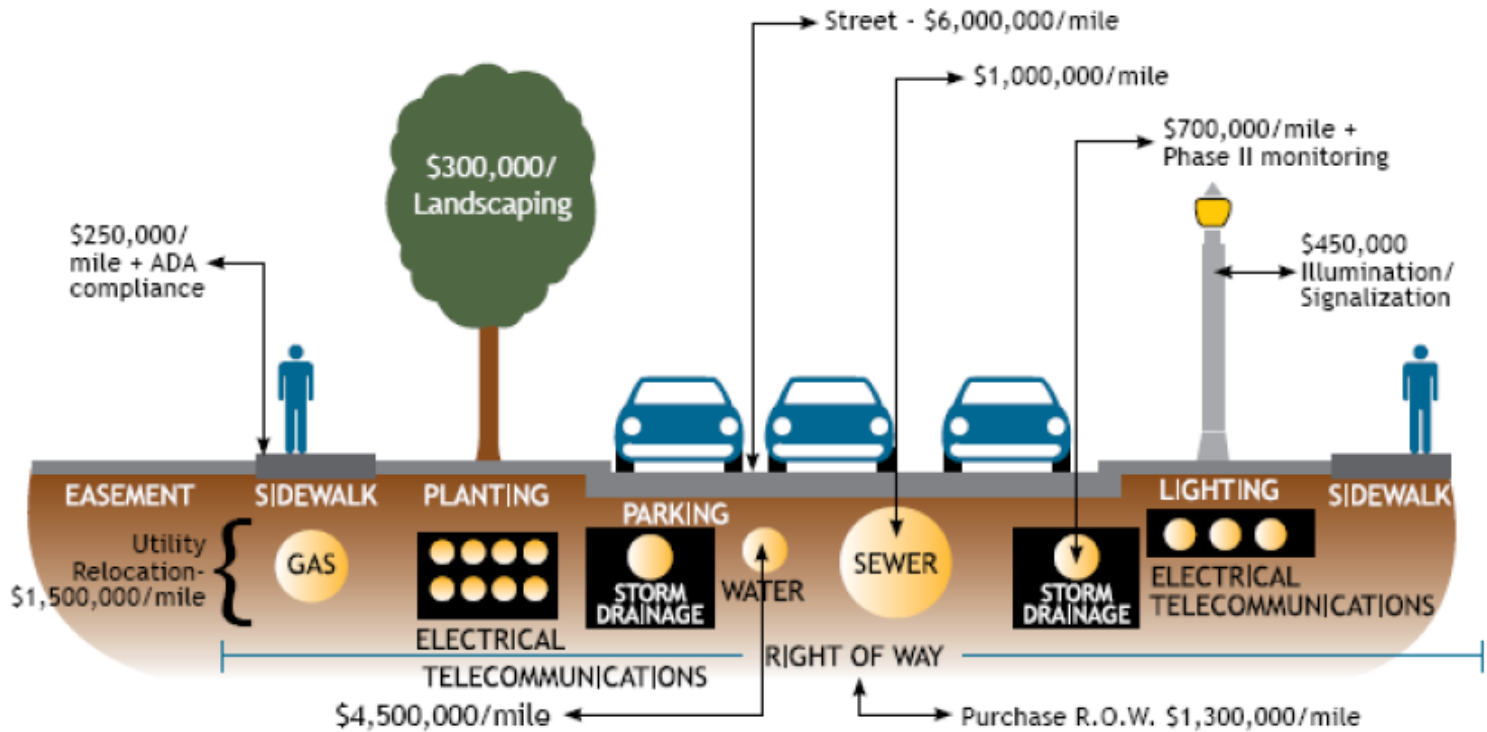


Typical “Complete Street” Costs

(Actual 2008 bid specs = \$15.7 Million per mile)

Typical City Infrastructure Costs Today

City streets are more than pavement.



Plus ongoing maintenance, preservation and operating costs.

Highway Maintenance Responsibilities in Cities

(Managed access highways*)

Cities under 22,500	City Responsibility - Operational (consistent with state laws) <ul style="list-style-type: none"> ✓ Street Illumination ✓ Cleaning-streets, catch basins, snow plowing, etc. ✓ Existing Stormwater facilities ✓ Traffic and parking enforcement 	State Responsibility – Structural Integrity <ul style="list-style-type: none"> ✓ Roadway surface and shoulders ✓ Traffic Control Signals ✓ Slope stability ✓ State has snow plowing authority when necessary ✓ Route markers, directional signs
Cities over 22,500	City Responsibility (consistent with state laws) <ul style="list-style-type: none"> ✓ <u>Same responsibilities as above, plus</u> ✓ Slope stability ✓ Traffic Control Signals 	State Responsibility** <ul style="list-style-type: none"> ✓ Roadway surface and shoulders ✓ State has snow plowing authority when necessary ✓ Route markers, directional signs

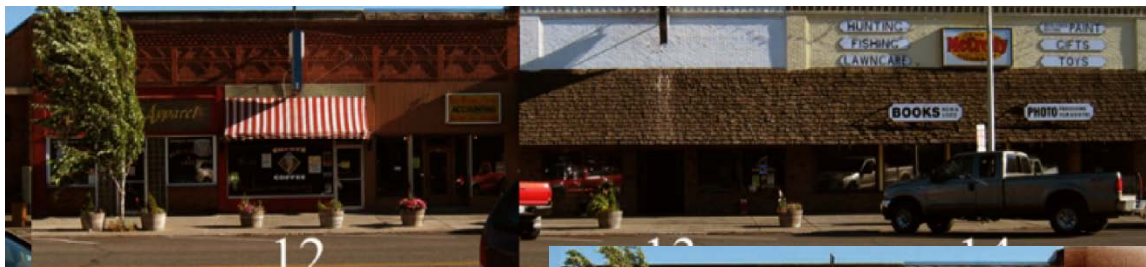
*WSDOT performs all of the above maintenance activities on Limited Access Highways (i.e. I-5, I-90, I-405, I-82, etc.)

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

State Highways as Main Streets: A Study of Community Design and Visioning

The Issues

- State Highways in Washington often serve as ‘main streets’ providing local access as well as regional mobility
- Design affects community livability and safety: these roads among the highest rates of pedestrian and traffic collisions in the state.
- Late stage design changes in projects on these highways have increased costs and delayed projects.



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

Variables	Units of Measure
State Route within City Limits	Y, N
Highway of Statewide Significance	Y, N
National Highway System	Y, N
State Access Control Classification	Y, N
Federal Functional Classification	Principal arterials, Minor arterial streets, Collector streets, Local streets
Design Speed	MPH
Posted Speed	MPH
Year of Incorporation	Year
Freight Classification	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
Collision History	Number of collisions involving bicyclists and pedestrians

Step 2 –

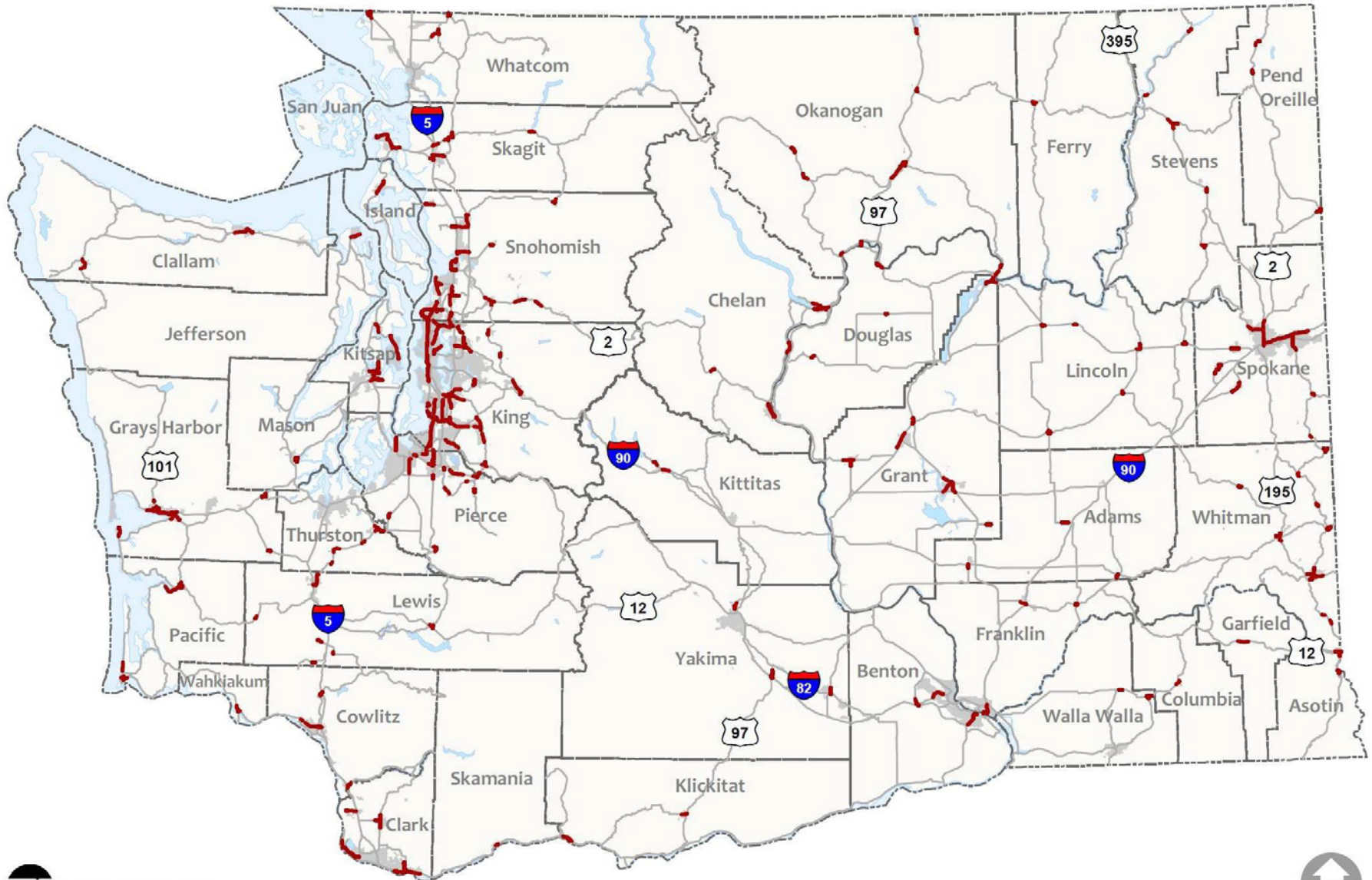
Defining Main Street Highways

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

Washington State Mainstreet Highways

DRAFT

— Mainstreet Highways City Limits



Case Studies: State Highways as Main Streets

Community Design Case Studies:

- Roslyn
- Morton
- Goldendale

Other cities participated

The image shows the cover of a report titled "State Highways as Main Streets: A Study of Community Design and Visioning". The cover is primarily green with white text. At the top, the title is written in a large, bold, sans-serif font. Below the title, the report number "WA-RD 733.1" is on the left, the authors "Jim Nicholls, William Payne, Claire Gear, Jessica Miller" are in the center, and the date "October 2009" is on the right. Below the green header, there are three smaller images: a map of Morton Washington with a red crosshair, a photograph of a wooden structure in Roslyn, WA, and a map of Goldendale with a red crosshair. At the bottom of the cover, the Washington State Department of Transportation logo is on the left, and the text "WSDOT Research Report" is on the right.

**State Highways as Main Streets:
A Study of Community Design
and Visioning**

WA-RD 733.1 Jim Nicholls
William Payne
Claire Gear
Jessica Miller October 2009

The UW Storefront Studio 2009
Morton Washington
Main Streets Enhancement Strategies

Roslyn, WA
storefront studio
spring 2009

Morton

GOLDENDALE

Washington State
Department of Transportation
Office of Research & Library Services

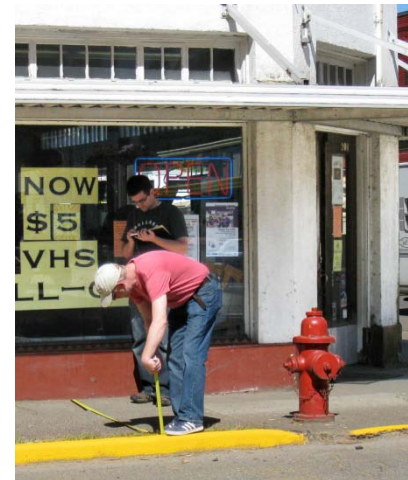
WSDOT Research Report

Case Studies: “Storefront Studios”

Storefront Studios -

- public open houses,
- exhibits and
- information exchanges

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





Findings

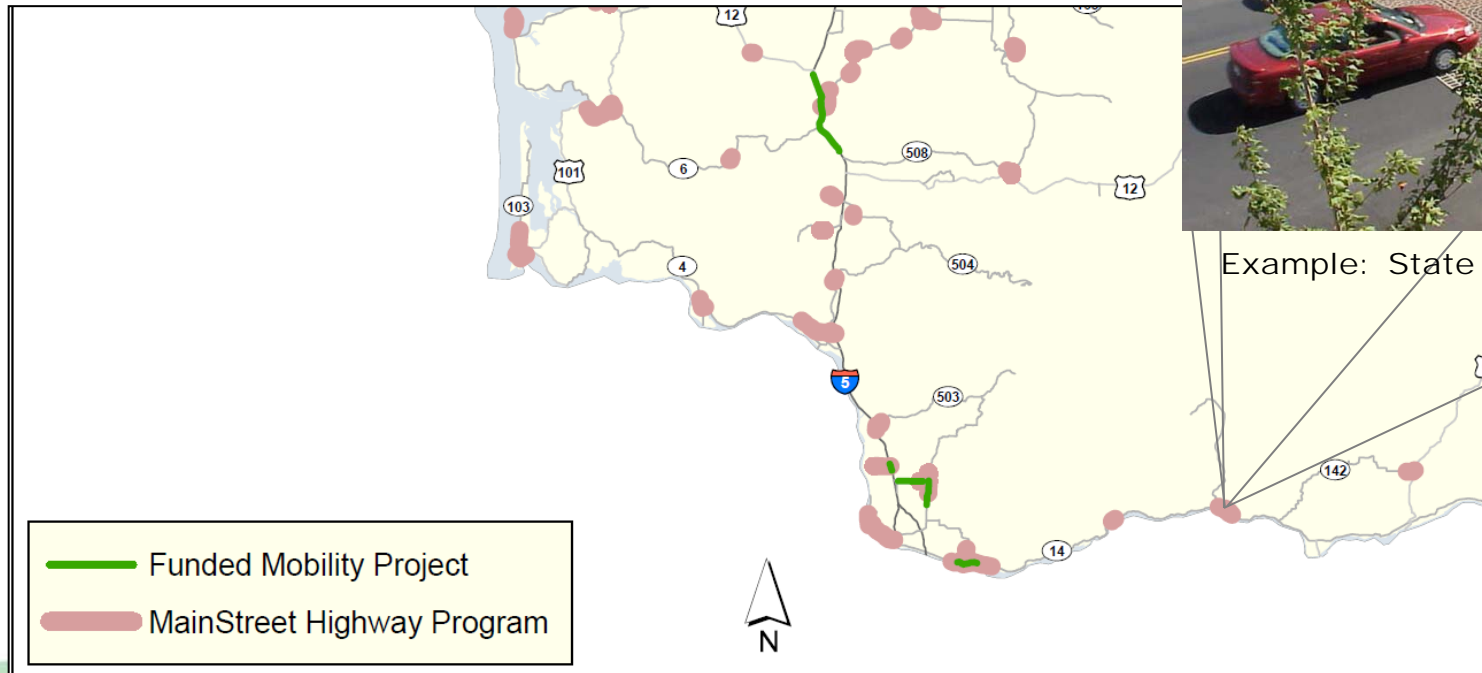
- Scope changes:
 - More common on Main Street Highways
 - 48% of all projects vs. 38% on other parts of the state system
- Retrospective review:
 - 40 projects or 20% of WSDOT's scope, schedule and budget changes could have directly benefited from additional community design
- Average estimated saving per project:
 - **Over \$9 million dollars or 30% of project cost**

Research Implementation

New Complete Streets/Main Street Highways Program

(2010 Washington Legislation - HB 1071)

Retrofitting roadways that provide both local access and regional mobility

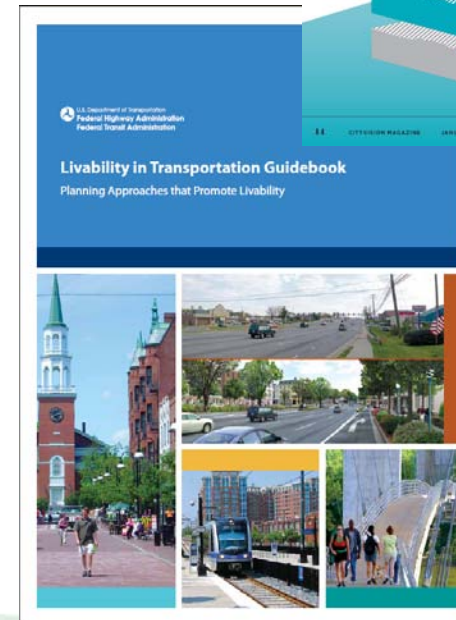
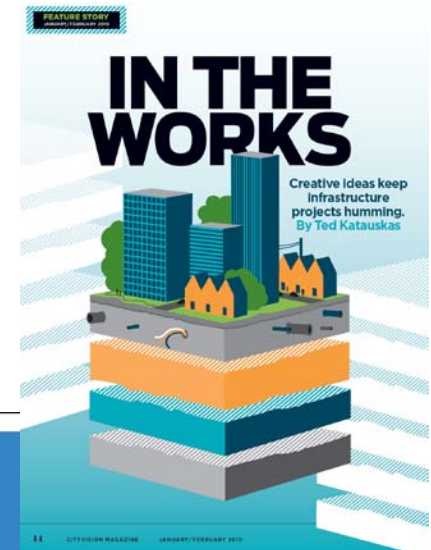


Example: State Route 14 - Bingen

Other Notable Outcomes

In addition to serving as the foundation for Washington's **2011 Complete Streets Law**...

- Highlighted in ***CityVision*** magazine, produced by Association of Washington Cities, Jan/Feb 2010
- Highlighted in the FHWA ***Livability in Transportation*** Report
- WSDOT research project approved to develop ***Washington Complete Streets Guidebook***



Community Implementation

Roslyn, WA

Immediately striped the bicycle lane through their community marking the famous Coal Mines Trail and connects the community to its past as well.



Morton, WA

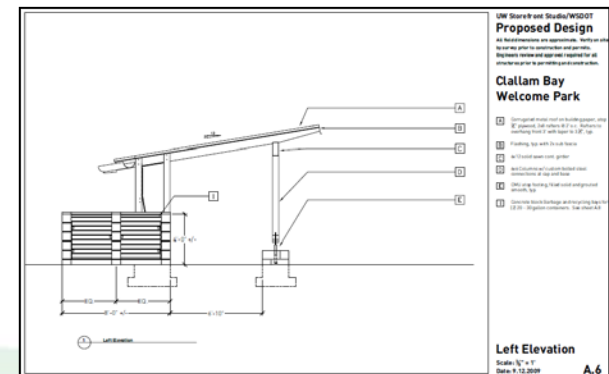
Developed a proposal with full community support, secured funding for and moved to construct a large Safe Routes to Schools project.

Concrete, WA

Moved a stymied Transportation Enhancement grant to completion with full community support immediately after the community design work.

Clallam Bay, WA

Is in the process of constructing the combined transit and community center developed through the community design workshop

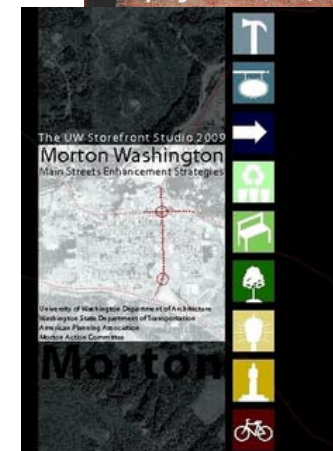
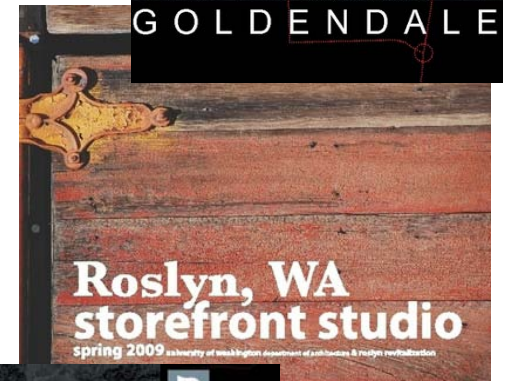
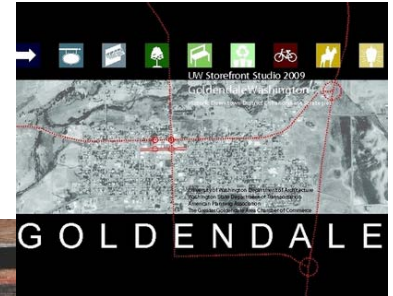


State Highways as Main Streets: A Study of Community Design and Visioning

In Summary:

By actively building consensus and addressing a range of both agency and community concerns, community design:

- Helped ensure traffic flow, livability, safety, & tourism
- Supports efficient project delivery with fewer changes – keeping delays and costs down
- Estimated to save \$9M per project





WSDOT Resources & Contacts...

State Highways as Main Streets: A Study of Community Design and Visioning Publications [Full Report](#) [Research Note](#)

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WSDOT's Community Planning & Development [Website](#)

Main Street Highways & Complete Streets [Website](#)

UW Storefront Studio

<http://www.storefrontstudio.org/>

WSDOT Research

Leni Oman

Director, Office of Research & Library Services

Omanl@wsdot.wa.gov, 360-705-7975



Project Schedule

Schedule: Start:10/01/07 End:10/31/09

- Fall Qtr '07 Contracts, Project Start-up
- Winter Qtr. '08 Community Selection, Web Launch
- Spring Qtr. '08 Database research
- Summer Qtr. '08 Corridor Fieldwork, Inventory
- Fall Qtr. '08 Preliminary Report
- Winter Qtr. '09 Research Analysis
- Spring Qtr. '09 Research Illustration
- Summer Qtr. '09 Fieldwork, Community Feedback
- Fall Qtr. '09 Final Report