

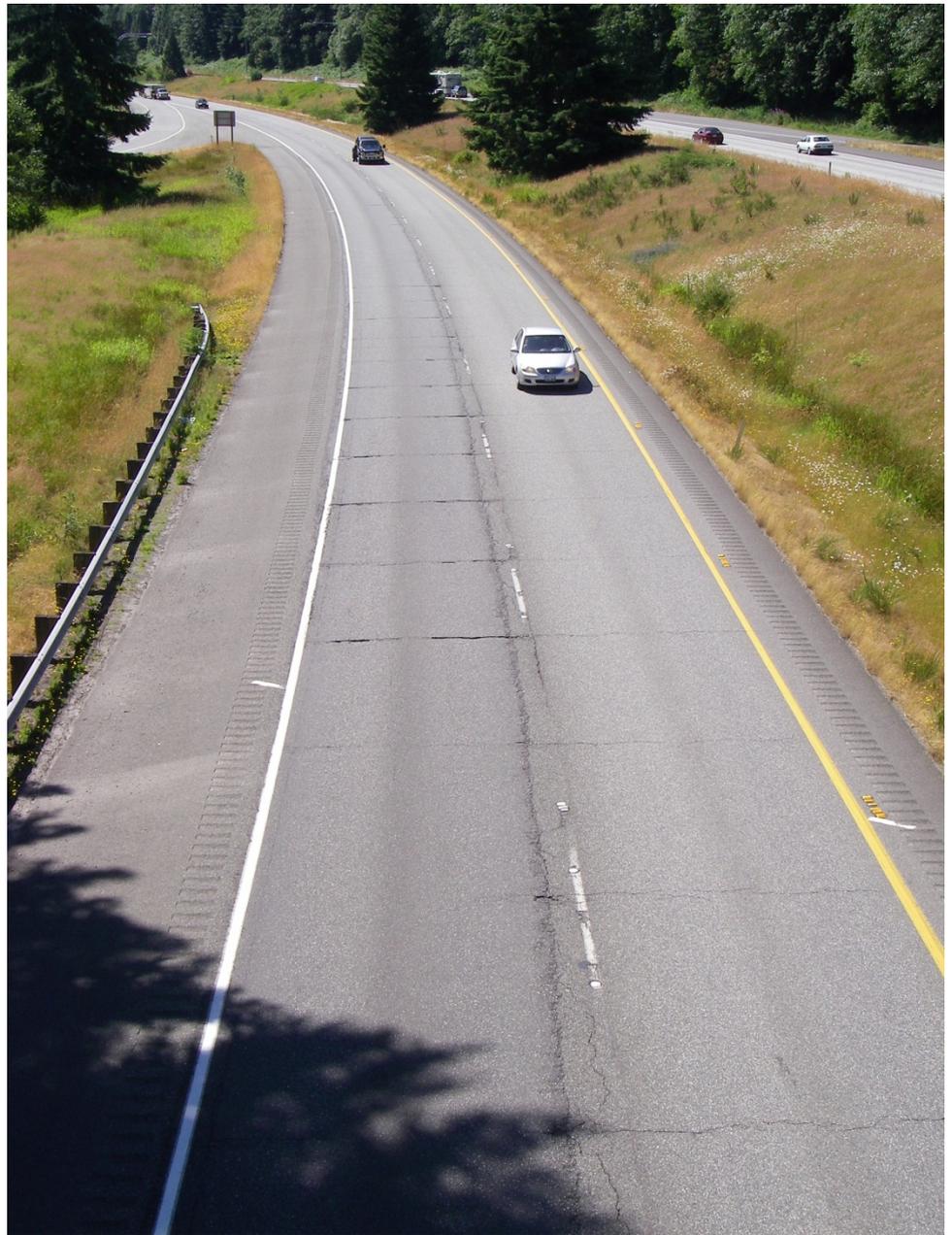
How Easy can it Get? WSDOT's Early Implementation Efforts Using Project R-23

**Pavement Renewal Webinar
September 29, 2015**

**Jeff Uhlmeyer, State Pavement Engineer
Washington State Department Transportation**

I-5 Joe Leary Slough to Nulle Road

MP 231.79 to MP 243.39









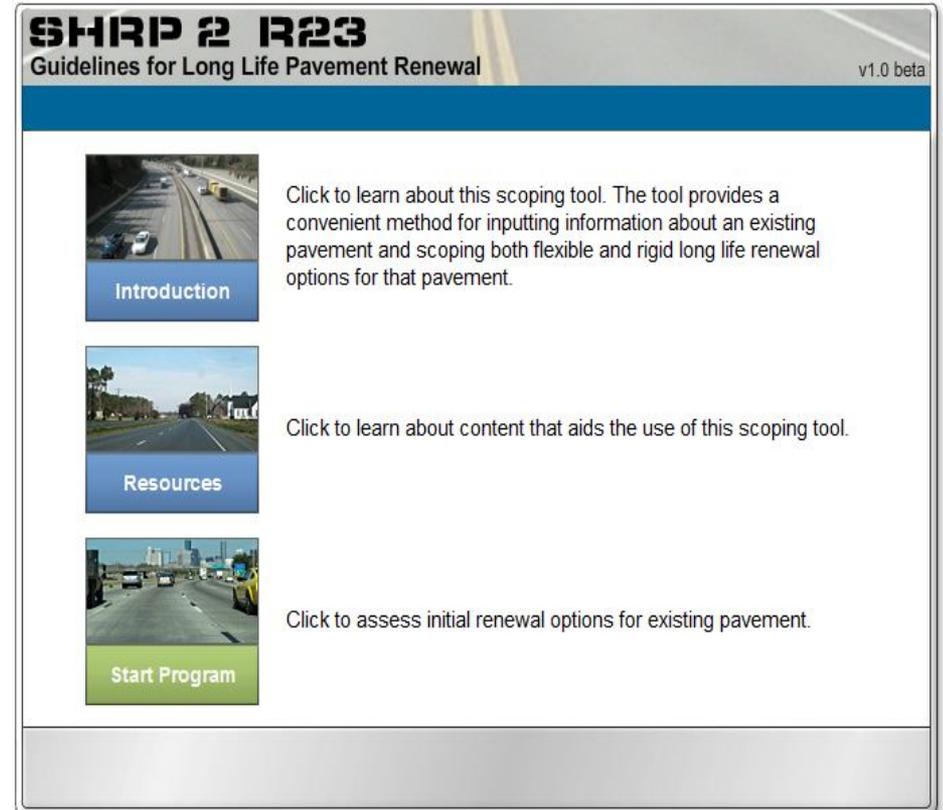
I-5 Project Requirements

- Spend money fast - get the project to contract within four months
- Fix the problem – provide long life cost effective solution
- Keep the project within the \$25 million dollar budget
- Identify practices and techniques to reconstruct the pavement
- Provide a pavement design on the fly – an immediate pavement solution was needed to meet the project schedule
- Provide technical documents for contract specifications
- Convince the Region WSDOT was making the right choice – over come WSDOT's CSOL inexperience

R-23 - Repave

(Interactive Program)

- A user-friendly means of walking through the decision making process (multiple tables)
- A user-friendly means of navigating a large amount of information (required to produce long-life pavements)



SHRP 2 R23
Guidelines for Long Life Pavement Renewal v1.0 beta

Introduction
Click to learn about this scoping tool. The tool provides a convenient method for inputting information about an existing pavement and scoping both flexible and rigid long life renewal options for that pavement.

Resources
Click to learn about content that aids the use of this scoping tool.

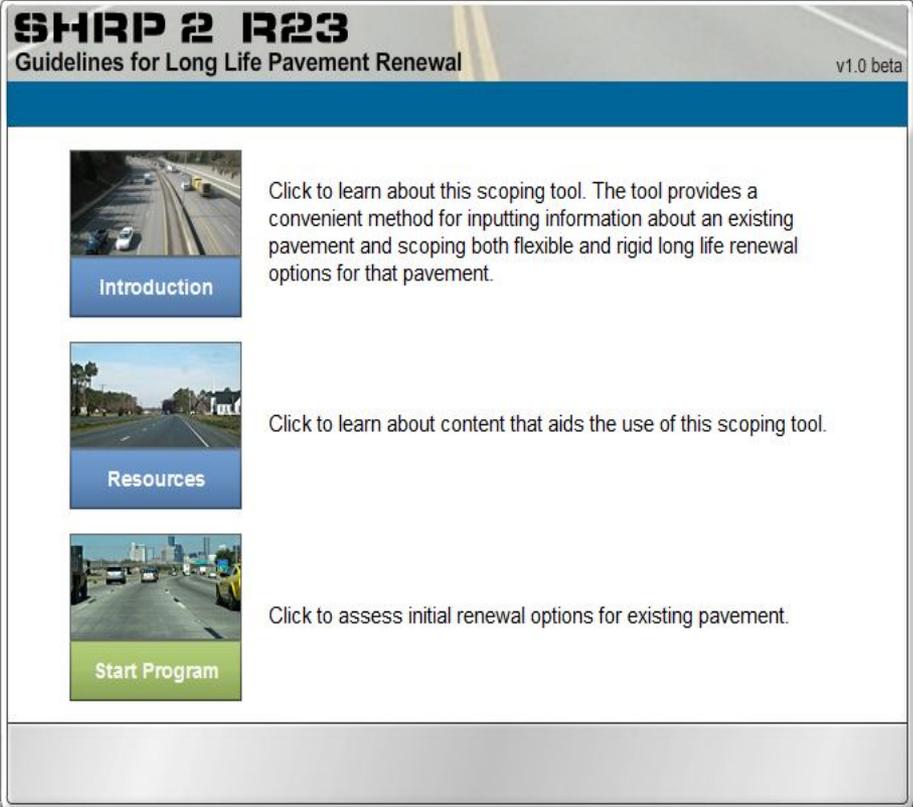
Start Program
Click to assess initial renewal options for existing pavement.

Repave Objectives

- Identify approaches for using existing pavements in-place for rapid renewal project (and achieve long life – 50 years).
- Determine advantages and disadvantages for each approach.
- Develop detailed criteria on when an existing pavement can be used in-place, with or without significant modification.
- Identify practices and techniques to construct these types of pavements in a rapid renewal environment.
- Determine the optimal way to integrate the renewal pavement with adjacent pavements and structures.

R23 - Guidelines for Long Life Pavement Renewal

- Decision Matrix and design tables
- Pavement Assessment Manual
- Best Renewal Practices
 - Rigid
 - Flexible
- Guide Specifications
- Traffic Considerations
- Life Cycle Cost Analysis
- Life Cycle Assessment
- Emerging Technology



SHRP 2 R23
Guidelines for Long Life Pavement Renewal v1.0 beta

Introduction
Click to learn about this scoping tool. The tool provides a convenient method for inputting information about an existing pavement and scoping both flexible and rigid long life renewal options for that pavement.

Resources
Click to learn about content that aids the use of this scoping tool.

Start Program
Click to assess initial renewal options for existing pavement.

I-5 Flexible and Rigid Results

- Flexible
 - Pulverize Pavement Structure in Place and place a 10.5 inch AC overlay
 - Crack and seat the existing concrete and place a 7.5 inch AC overlay
- Rigid
 - Unbonded 10.5 inch concrete overlay

Flexible and Rigid Agency Costs

Alternatives		CSOL (Base case)	HMA Rebuild	PCCP Rebuild
Initial Cost	\$1,000	19,006	23,403	30,027
Saving		0	4,397	11,021
	%	0	+23	+58

Traffic Consideration

Alternatives		CSOL (Base Case)	HMA Rebuild	PCCP Rebuild
Total	# of closure	46	81	115
Savings		0	+35	+69
		%	0	+75

Flexible and Rigid - User Costs

Alternatives		CSOL (Base case)	HMA Rebuild	PCCP Rebuild
User PV	\$1,000	4,120	5,701	7,166
Saving PV		0	1,581	3,046
	%	+0	+38	+74



Other Projects

- I-5 Federal Way SB - CSOL
- I-5 Federal Way NB - CSOL
- I-90 Cle Elum – Unbonded Concrete Overlay
- I-90 Spokane - HMA Widening

Contact Information:

Jeff Uhlmeyer

360-709-5485

uhlmej@wsdot.wa.gov