

Eastern Region Update

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Acting Regional Administrator
Eastern Region

Washington State Transportation Commission
September 16, 2013

Pavement Preservation

EASTERN REGION P1 Program- HMA, PCCP & BST Routes

Current Programmed Projects & Due Year Backlog

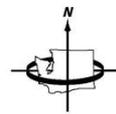
**Programmed
P1 Projects
Thru 2015**

(HMA Conversion →)

**P1 Needs
Ending 2015**

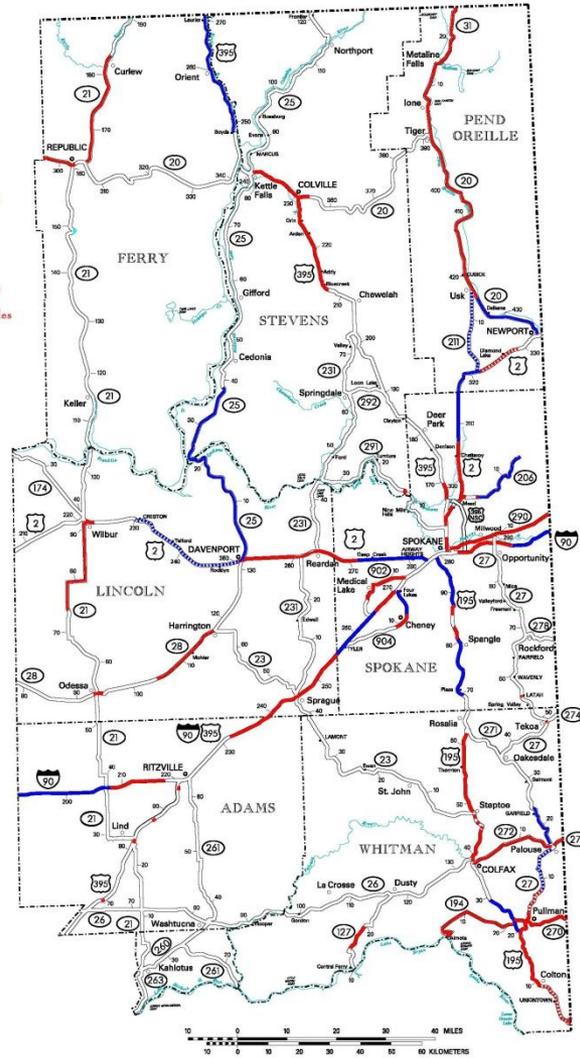
(HMA Conversion →)

HMA, PCCP-410 Lane Miles
BST-416 Lane Miles



Legend

-  INTERSTATE ROUTE
-  U.S. ROUTE
-  STATE ROUTE



WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
GEOGRAPHIC SERVICES/CARTOGRAPHY
AUGUST 1994

2013 WSPMS FILES UNITS HMA & PCCP
Prepared BY: C314 Road cycle
10-20-2013 HDL (Lin. Plan) and investigated
10-20-2013 J.A.B.

Pavement Preservation Team



- Program Management, in partnership with the Materials Lab, requested that Maintenance enter into a pavement preservation program to extend the life of deteriorating “due” and “past due” pavements.
- This program relies on the ability of Maintenance forces to perform targeted pavement repair on “due” pavements to extend their life with P1 funds.
- The extended life of these pavements yield a significant interim cost savings by delaying capital expenditures while providing adequate roadway performance.

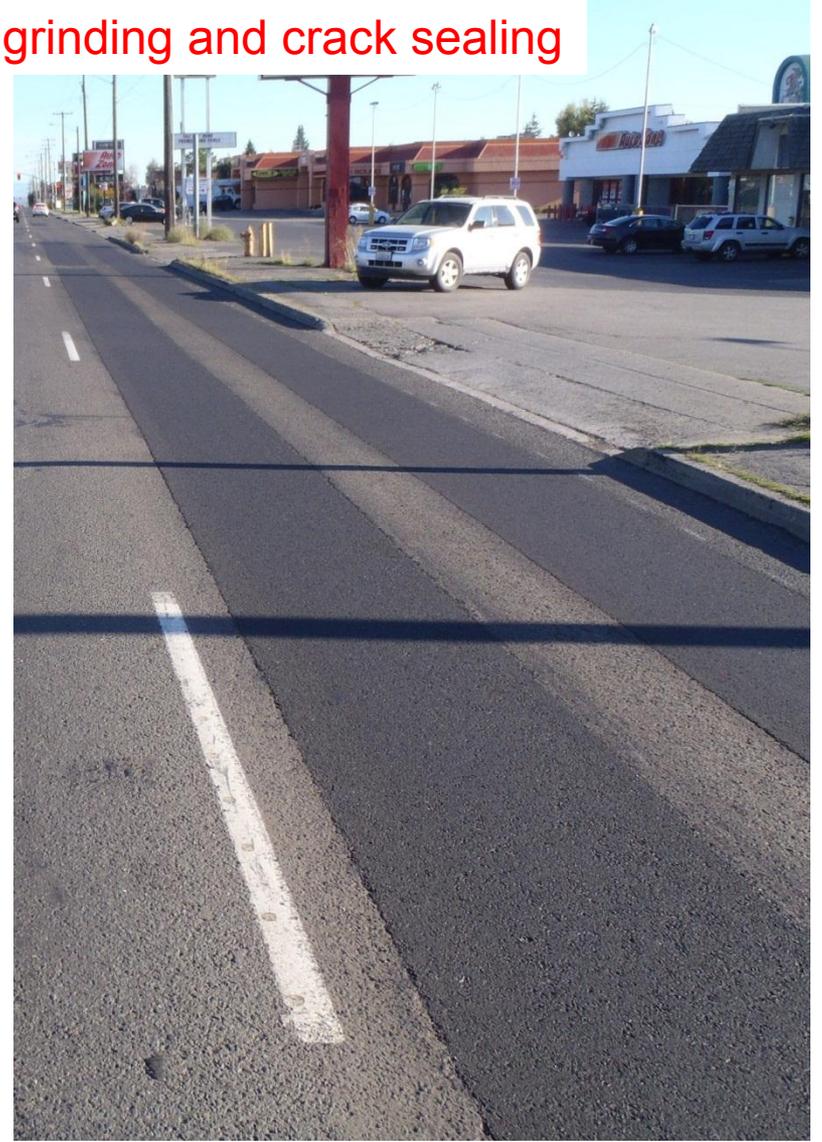
Deferred Pavement Cost Savings

- \$899k spent to date on strategic repairs
- Repairs have allowed deferral of \$55M in repairs
- Projects extended 2 Years (minimum)
- Of the deferred costs, it is anticipated that up to 25% could be reinvested into current preservation needs, increasing the state's ability to provide needed pavement maintenance.

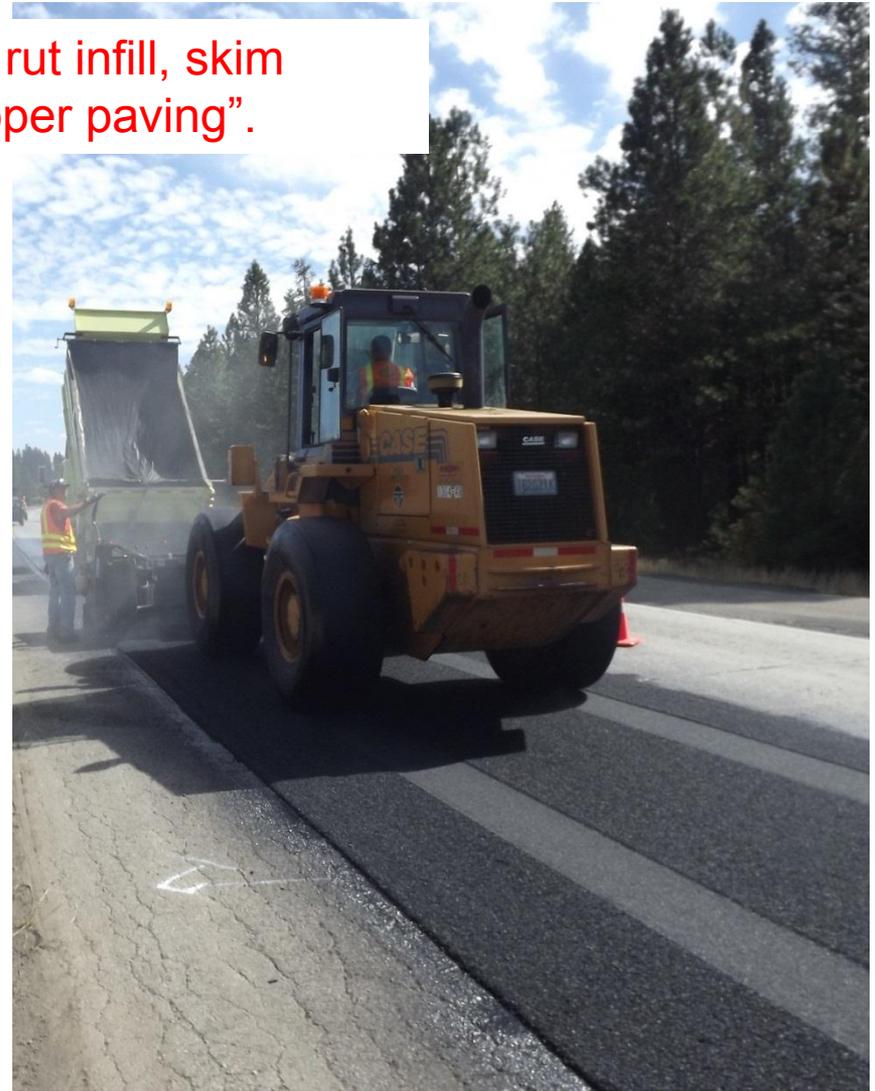
Problem – How to hold together
“due” and “past due” pavement?



Interim Solution – wheel path grinding and crack sealing



Interim Solution – rut infill, skim patching, and “topper paving”.



How are the repairs and overall route holding up?

Repairs are holding well. Route condition depends on how bad the surrounding asphalt is.

July 2011 - SR290 Sullivan to Idaho State Line – 20 Lane Miles.

Patches, sealant, route holding

\$ to date = \$184,368 for 20 lane miles. \$9,218/lane mile



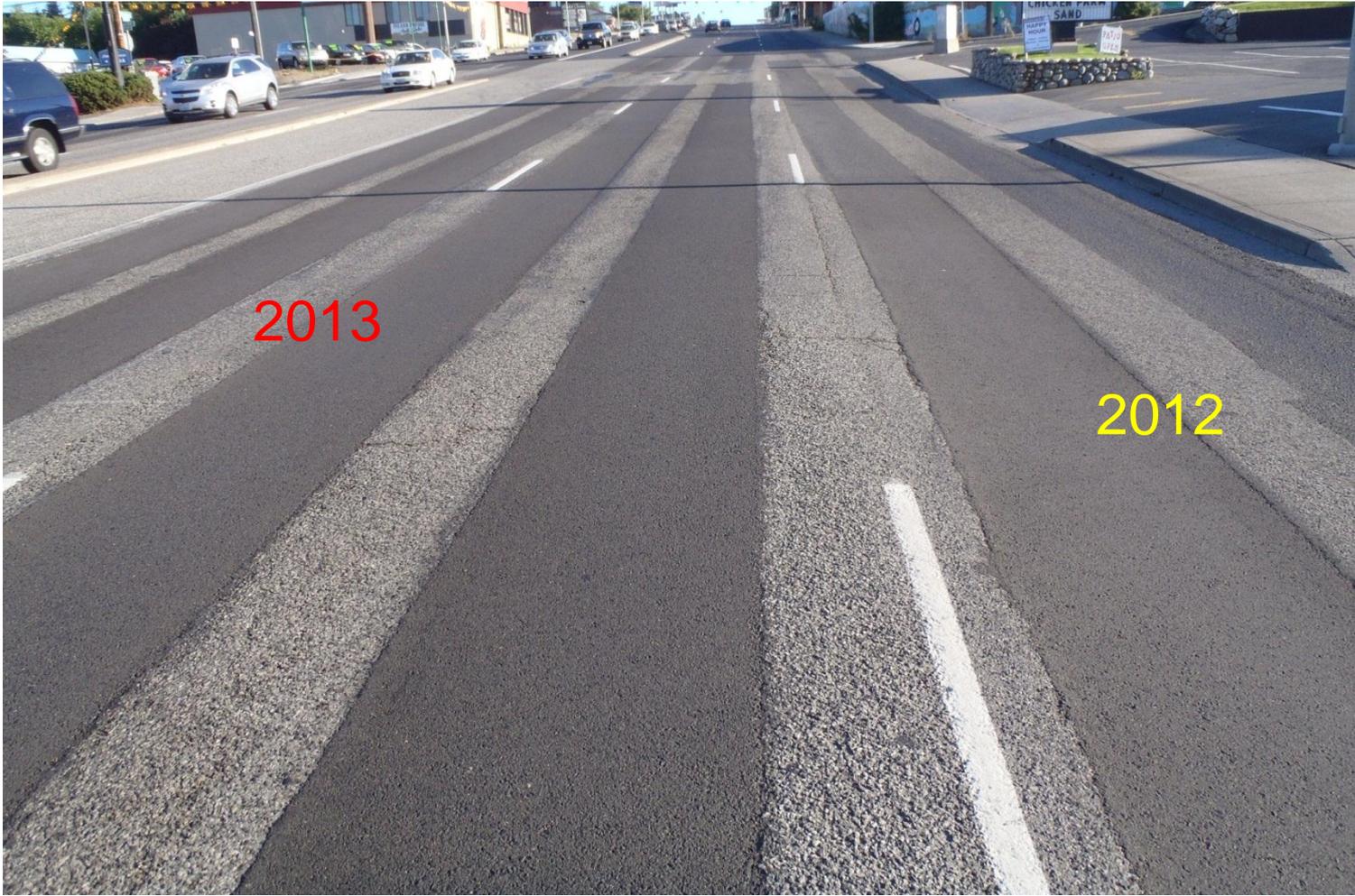
July 2011 SR290 Sullivan to Idaho State Line – 20 Lane Miles.
Slow deterioration of surrounding pavement.



August 2012 - US2 I90 to the "Y" Patched many locations in 2012; additional areas in 2013 to fix defects not present in 2012. Patches and sealant holding well but rapid deterioration of surrounding pavement. \$ to date = \$346,579 for approximately 40 lane miles. \$8700/lane mile



August 2012 patches on US2/I90 to the “Y”



2012 Rut infill patches on US2 holding up well. No grind, just tack, fill & roll



2012 Deep base grind and full width overlay on SR902 holding up well.



Strategic P1 Maintenance Plan - Eastern Region

State Route	BSRMP	ESRMP	Project Lane Miles	WSPMS Due Year	Title	Maint. Treatment	P1 Maint. Cost	ER Priority
395	212.67	222.92	12.62	2013	Immel Rd to Arden	CS, PDPR	\$5,142	1
395	230.90	241.93	24.92	2016	Colville to Columbia River	CS	\$26,272	2
290	10.35	18.38	20.36	2013	Sullivan Rd to Idaho State Line	CS, PDPR	\$184,368	3
							\$215,782	
2	291.21	295.55	20.98	2015	Francis to Farwell Rd	CS, PDPR	\$103,247	1
902	3.85	12.36	17.02	2015	Medical Lake to I-90	CS	\$37,756	2
291	13.2	13.7	1.00	2016	Suncrest vic	CS, PDPR	\$22,423	3
2	297.00	306.05	36.20	2015	Deer Rd to Westwood Rd	CS, PDPR	\$142,524	4
290	3.36	10.35	27.96	2013	Mission Avenue to Sullivan Road	CS, PDPR	\$66,963	5
							\$372,931	
2	286.87	289.19	19.12	2012	I90 to Euclid	CS, PDPR	\$207,544*	1
2	263.45	271.02	15.10	2012	Reardan to Espanola	CS, PDPR	\$47,179	2
90	239.11	255.29	64.64	2014	Adams Co Line to Spokane Co Line	CS, PDPR	\$137,147	3
2	291.21	295.55	20.98	2015	Francis to Farwell Rd	CS, PDPR	\$35,788	4
206	2.43	15.39	25.86	2018	Bruce Road to Mt Spokane State Prk	CS, PDPR	\$30,177	5
290	3.36	10.35	27.96	2013	Mission Avenue to Sullivan Road	CS, PDPR	\$60,016	6
							\$310,307**	

285.78

Blue = 2011 Red = 2012 Green = 2013

\$899,020

**Thru Aug 29th 2013

PDPR - Partial Depth Pavement Repair
 Washington State
 Department of Transportation
 CS - Crack Seal

* Completed with RA and M Funds/Not counted in P total

\$586,000 11-13
 \$700,000 13-15 Biennial Funding

P1 Maintenance Plan Cost vs. Program Cost

State Route	Title	WSPMS Due Year	Construction Year	Gained Deferral of full project	P1 Maint. Cost to date	Programmed Contract Cost
395	Immel Rd to Arden	2013	Earliest 2017-2019	4 to 6 yrs. +?	\$5,142	\$3,400,000
395	Colville to Columbia River	2016	Earliest 2017-2019	1 to 3 yrs. +?	\$26,272	\$4,000,000
290	Sullivan Rd to Idaho State Line	2013	Earliest 2015-2017	2 to 4 yrs. +?	\$184,368	\$3,300,000
					\$215,782	\$10,700,000
2	Francis to Division Wye	2015	2017	2 yrs.	\$103,247	\$2,504,217
902	Medical Lake to I-90	2015	Earliest 2017-2019	2 to 4 yrs. +?	\$37,756	\$4,000,000
291	Stevens County Line to Suncrest	2016	Earliest 2017-2019	1 to 3 yrs. +?	\$22,423	\$1,100,000
2	Deer Rd to Westwood Rd***	2015	Earliest 2017-2019	2 to 4 yrs. +?	\$142,524	\$6,200,000
290	Mission Avenue to Sullivan Road	2013	2017	4 yrs.	\$66,963	\$4,461,333
					\$372,931	\$18,265,550
2	I90 to Euclid	2012	2014	2 yrs.	\$207,544*	\$3,824,199
2	Reardan to Espanola	2012	2016	4 yrs.	\$47,179	\$2,156,821
90	Adams Co Line to Spokane Co Line	2014	2016	2 yrs.	\$137,147	\$12,765,749
2	Francis to Division Wye	2015	2017	2 yrs.	\$35,788	\$2,504,217
206	Bruce Road to Mt Spokane State Prk	2018	Earliest 2015-2017	-1 yr.	\$30,177	\$1,300,000
290	Mission Avenue to Sullivan Road	2013	2017	4 yrs.	\$60,016	\$4,461,333
					\$310,307**	\$27,012,319

\$899,020

\$55,977,869

Blue = 2011 Red = 2012 Green = 2013

* Completed with RA and M Funds/Not counted in P total

** Thru August 29th 2013

A portion of this project from Deer Road to Colbert may be contracted in 2014

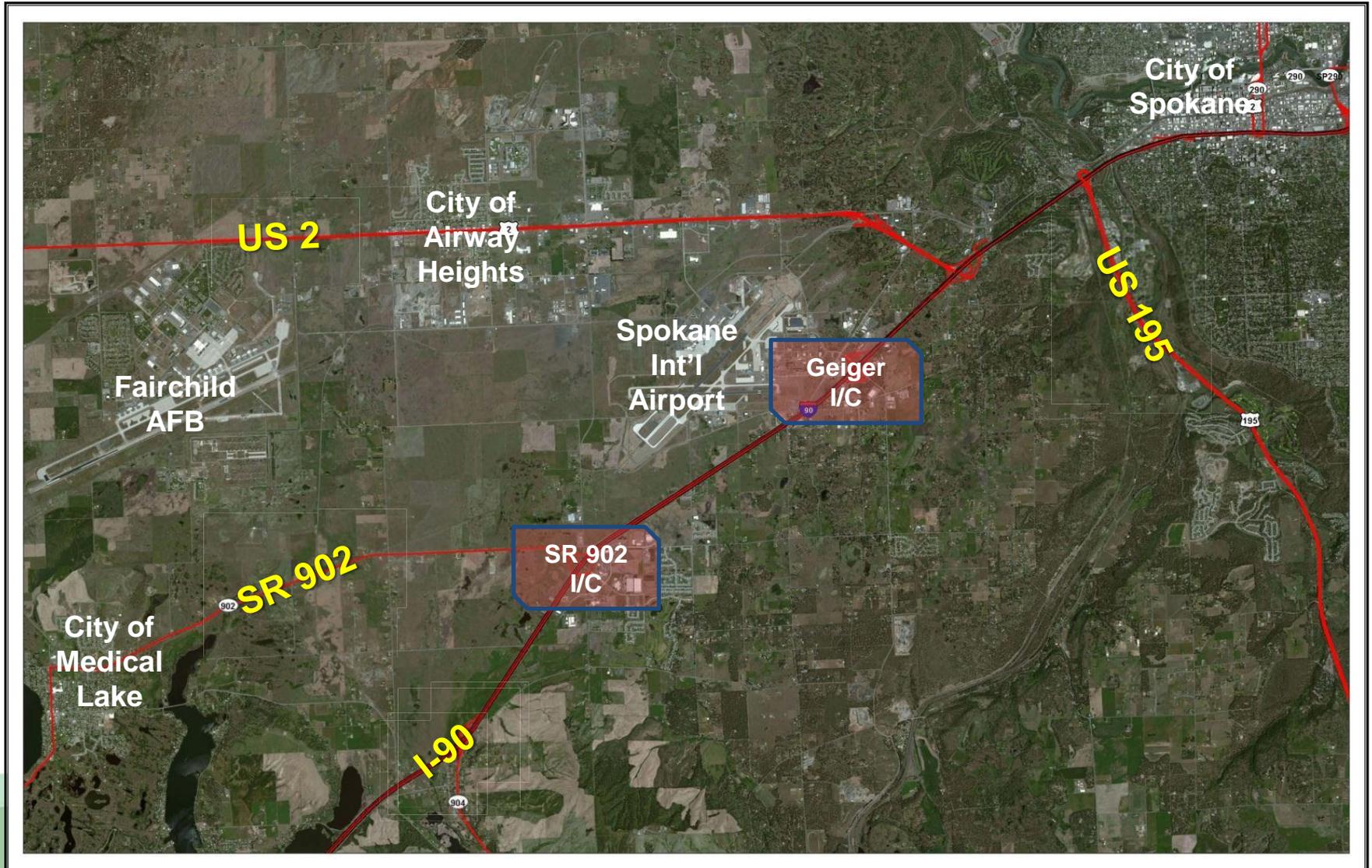
\$586,000 11-13 Biennial Funding
\$700,000 13-15

INTERSTATE 90 CORRIDOR



I-90/SR 902 I/C
& I-90/Geiger I/C

Vicinity Map



Project Purpose and Need

Increased development and future potential development = Increased traffic demand at SR 902 and Geiger Interchanges:

- In the last decade, the number and size of commercial and retail establishments has increased in the area.
- Development of Spokane International Airport, Fairchild AFB, Spokane and Kalispel tribal land.
- Significant vacant available industrial land in the area is prime for future development.
- Spokane Aerospace Initiative for Recruitment (AIR) West Site – potential of 1.7 million square feet of manufacturing, warehouse, and administration facilities.
- The Level of Service of these two interchanges will continue to deteriorate with increased delay times (SRTC West Plains – Spokane International Airport Transportation Study, May 5, 2011).

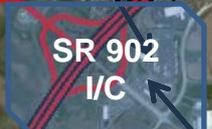
Proposed Spokane Tribal Casino



Northern Quest Proposed Expansion



Recent/Future Development



Geiger I/C – 2040 PM Peak Traffic

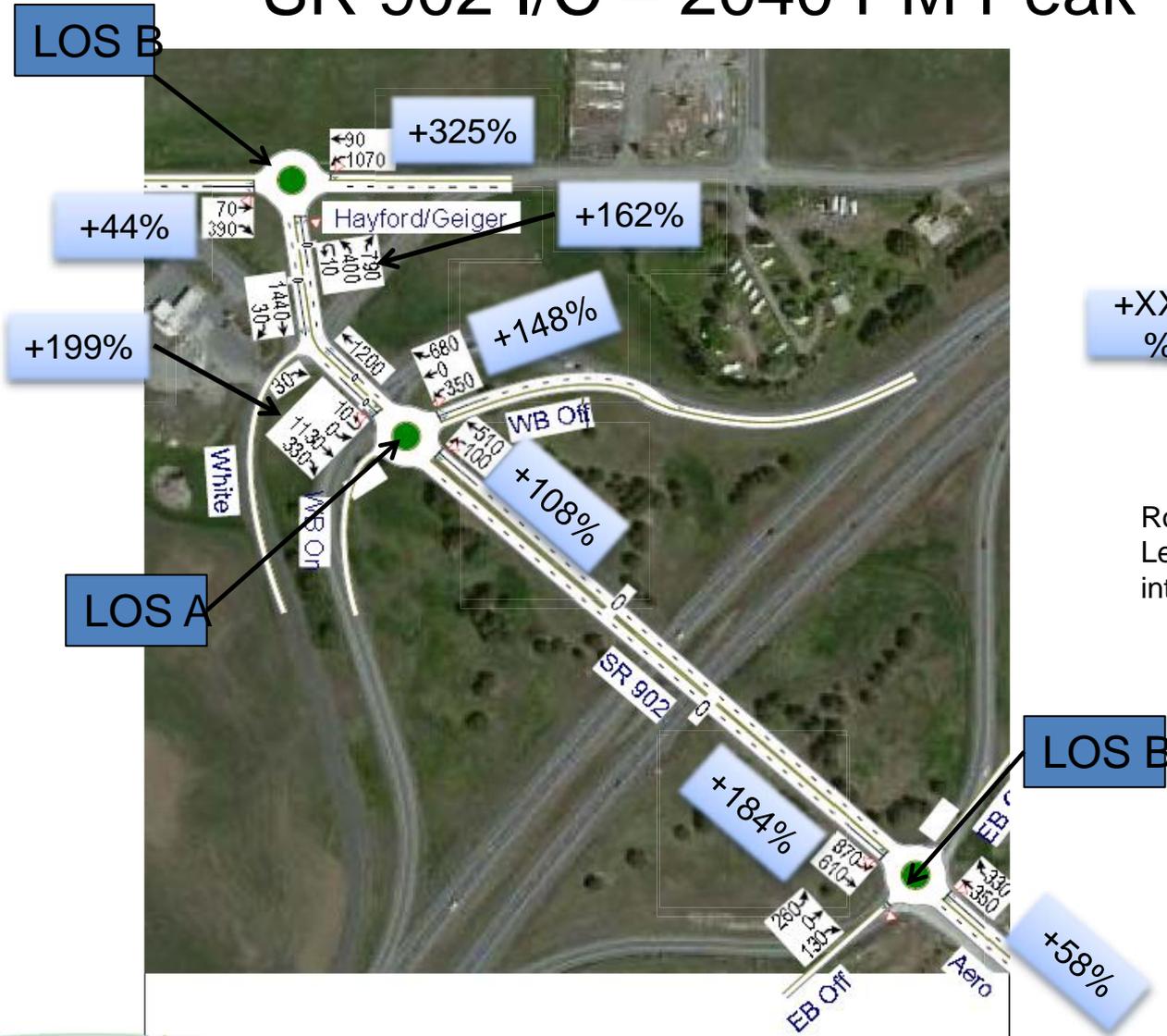
LOS B

LOS B



+XXX % = % Increase from the year 2012 to 2040

SR 902 I/C – 2040 PM Peak Traffic



+XXX %

= % Increase from the year 2012 to 2040

Roundabouts provide an acceptable Level of Service (LOS) at the intersections

I-90/Geiger Interchange



Estimated Cost:

Preliminary Engineering = \$600 K

Right of Way = \$300 K

Construction = \$6.7 M

Total = \$7.6 M

Summary of Improvements

- New roundabout at westbound ramp terminal on north side of I-90.
- New roundabout at Geiger Blvd. and Grove Rd. intersection.
- Improve westbound off-ramp to current design standards.



I-90/SR 902 Interchange

Existing



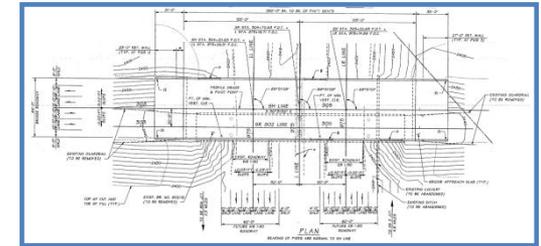
Estimated Cost:

Preliminary Engineering = \$1.9 M

Right of Way = \$1.5 M

Construction = \$19 M

Total = \$22.4 M



Proposed



Summary of Improvements

- New roundabouts at both ramp terminals.
- New roundabout at Geiger Blvd. intersection.
- New 4 Lane Bridge over I-90
- SR 902/Geiger roundabout accommodates Geiger realignment for 3rd runway at Spokane International Airport.

Current Status

- January 2013 - VE Study Held to Develop SR 902 Interchange Alternatives
- February 2013 - Alternative Selected for Further Design Refinement
- Feb. 2013 to June 2013 – Updated Traffic Modeling for Selected Design, Developed Preliminary Interchange Design, Preliminary Bridge Plans, and Design Visualization
- August 2013 to Current – Complete Preliminary Interchange Designs for SR 902 and Geiger, Identify Preliminary Right of Way Needs, and Refine Cost Estimate

INTERSTATE 90 CORRIDOR



I-90 Spokane to Idaho Stateline

- **Improve Mainline Capacity**
 - Increase to 6 lanes now
 - Accommodate 8 lanes in the Future
 - PCCP Pavement
- **Improve Access Connections**
- **Establish R/W Footprint for 8 lanes**
- **Recent progress**
 - Sullivan Rd to Barker Rd – Additional Lanes
 - 6 Traffic Lanes from Sullivan Rd to Barker Interchange (8 PCCP Lanes) completed in 2012



Development Plan

- Current Focus
 - Roundabout at Mission/Harvard/WB I-90 Off Ramp (U/C)
 - Barker I/C Improvement Approved R/W plans to Idaho Stateline
 - Interchange Justification Report in progress
- Long Term Focus (2014 to 2016)
 - Liberty Lake Access Improvements
 - Mainline I-90 Widening to Liberty Lake (Harvard Rd)
 - Acquire R/W to Idaho Stateline

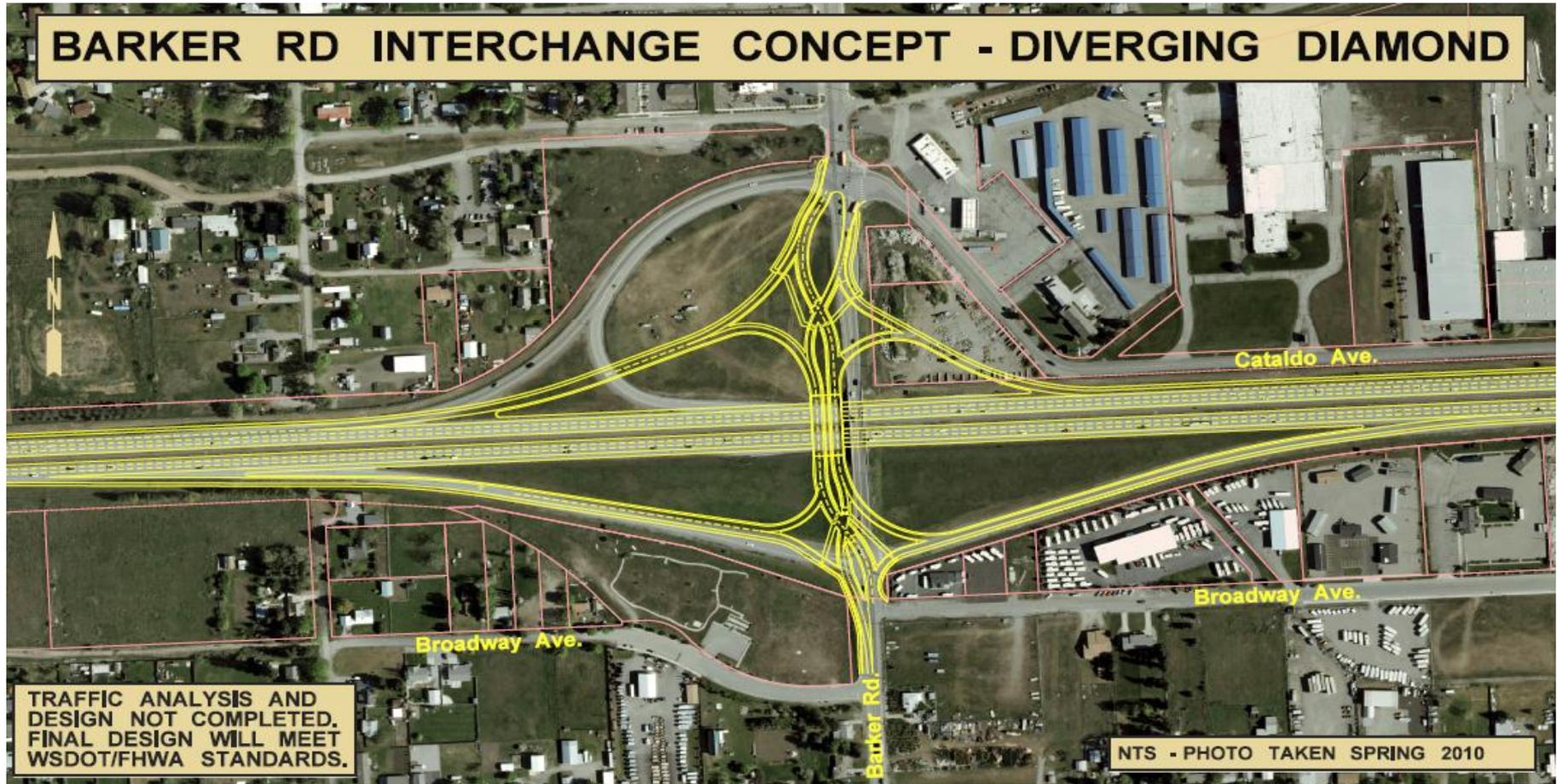
Roundabout Mission/Harvard/I-90

- Partnering with Liberty Lake
- Under construction



Improve Access – Barker Road I/C

- Diverging Diamond I/C (Preferred Option)



Project Plan

- Improvements From Barker to Harvard Divided into 3 sizeable projects:
 - Barker Road Diverging I/C including Mainline Improvements
 - Mainline Improvements – East of Barker to East of Harvard
 - Henry/Harvard Road I/C - Addition/Improvements
- Total dollars – Approximately \$85 million
- Develop smaller/fundable sub-project where feasible
 - Roundabout at Mission/Harvard/I-90 WB off Ramp (Under const.)
 - City Street Improvements Cataldo/Boone at Barker

US 195 CORRIDOR





Cheney-Spokane Interchange

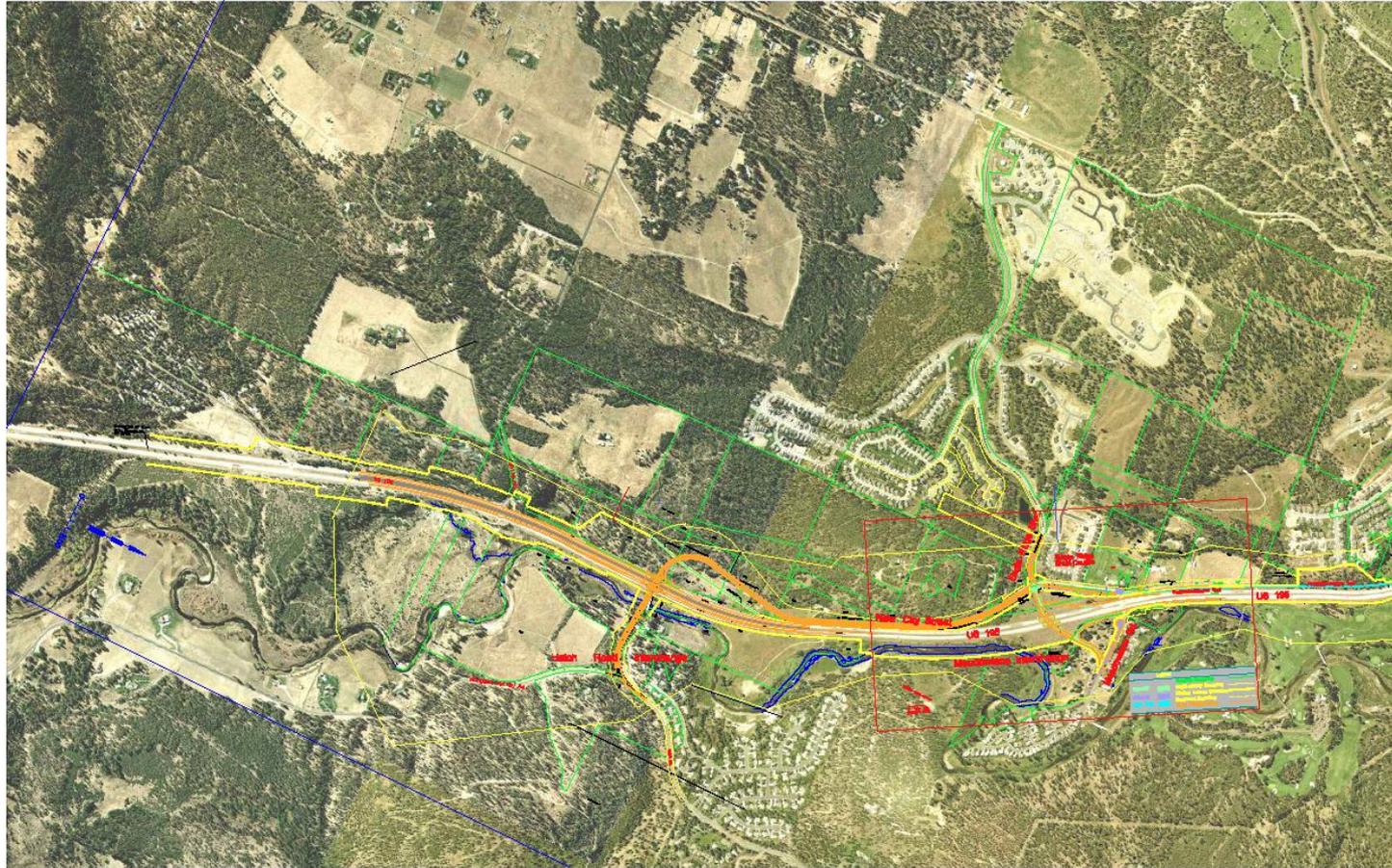
Current Project – Expected Completion June 2014

How did we get here?

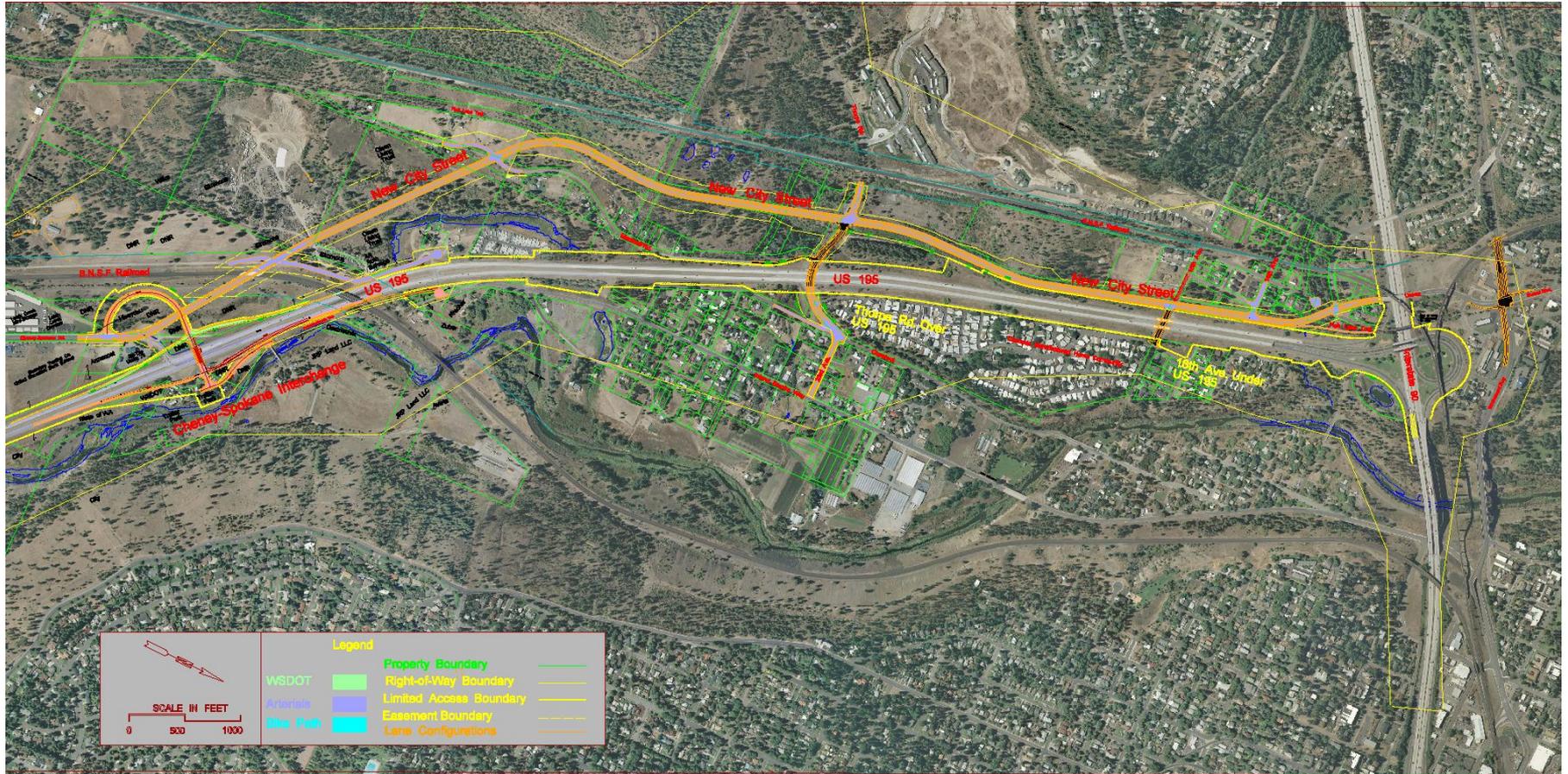
Where are we today?

Where are we going?

Hatch Rd and Meadowlane Interchanges



Thorpe Road



FUTURE US 395/NORTH SPOKANE CORRIDOR

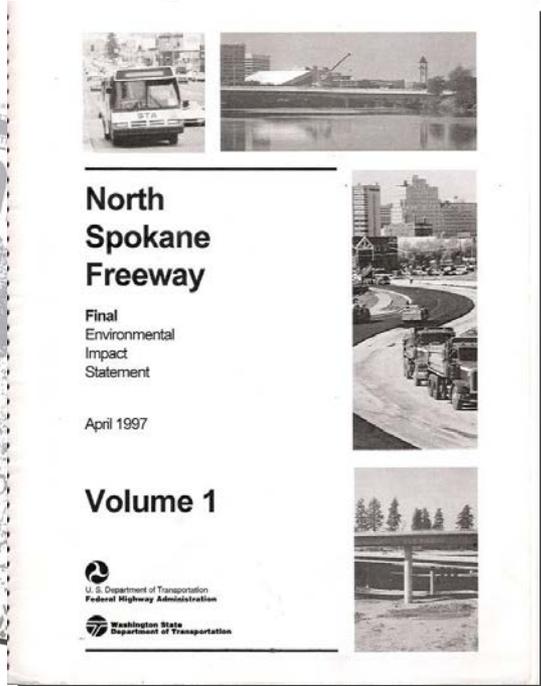
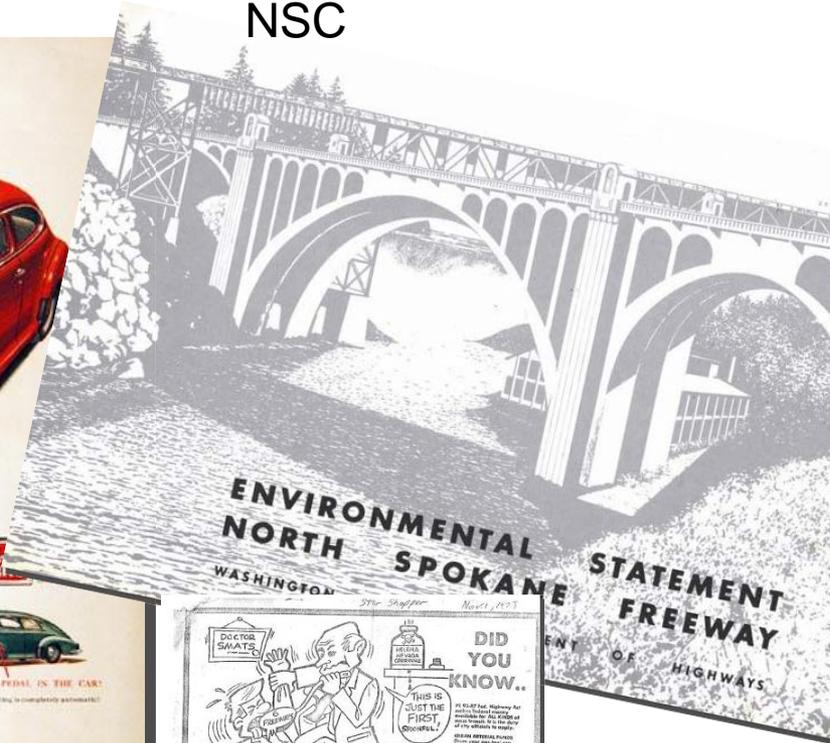
NORTH SPOKANE
US 395
CORRIDOR



Key Components

- Limited Access Freeway connecting from I-90 to US 395
- Freight/ Mobility
- Bikepath
- High Capacity R/W

Brief History of the NSC

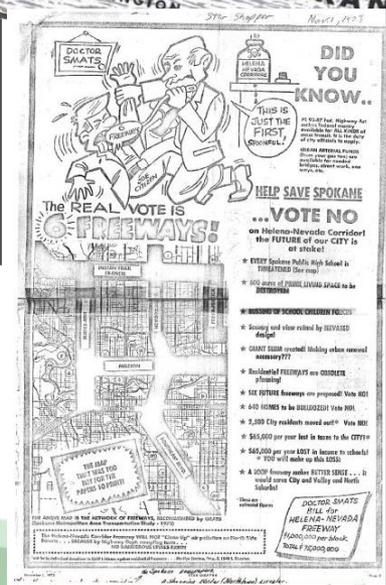


1950s
North/South Route put on hold for I-90 efforts
Estimated Cost ~ \$13 million

1970s
Estimated Cost ~ \$56 million

1985 - 1988:
• Study complete and recommends
• Estimated Cost \$400 million

1997 FEIS Signed
2000 Ground broken





Finished So Far:

- 5.5 Miles Freeway with Traffic
- \$325 Million In Construction
- \$240 Million in Right of Way
- 3 Interchanges
- 28 Bridges
- 1 Railroad Tunnel
- Pedestrian/Bikepath

Design Focus

Context Sensitivity
and Aesthetic Design









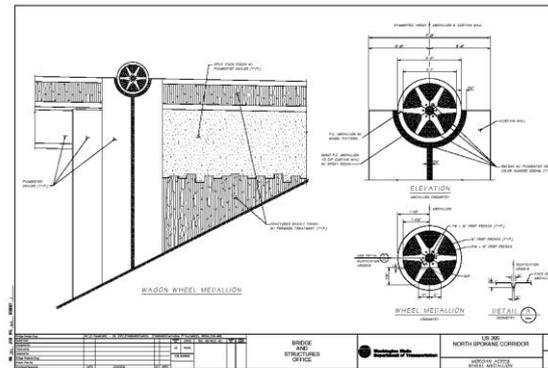
6/4/2012 inlet







Original Sketch

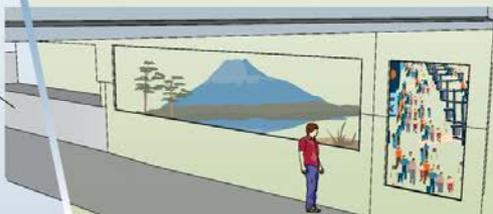
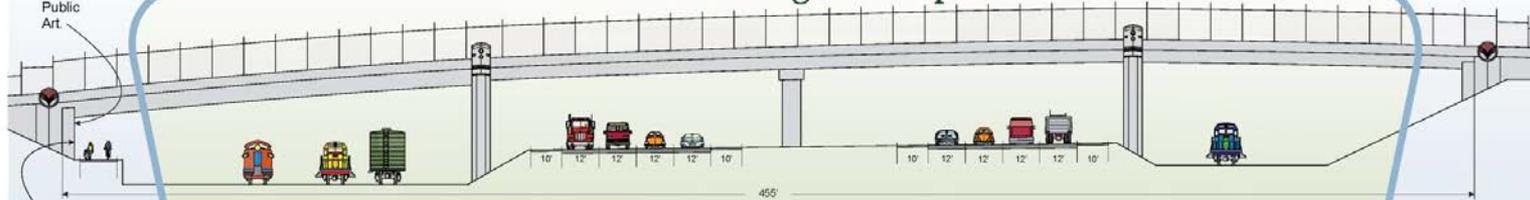


Engineer's Drawing

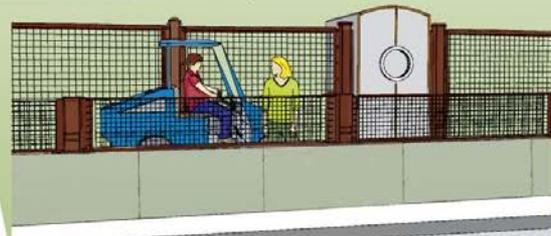
FRANCIS AVENUE BRIDGE

Aesthetic Design Concepts

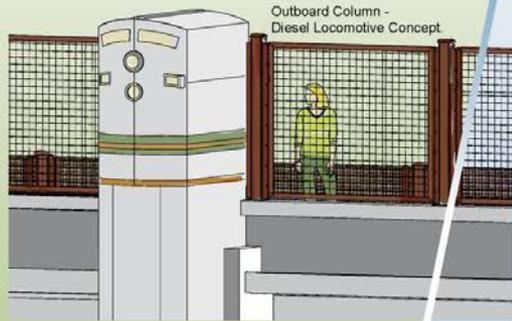
Bridge Abutment Wall Potential Location for Public Art



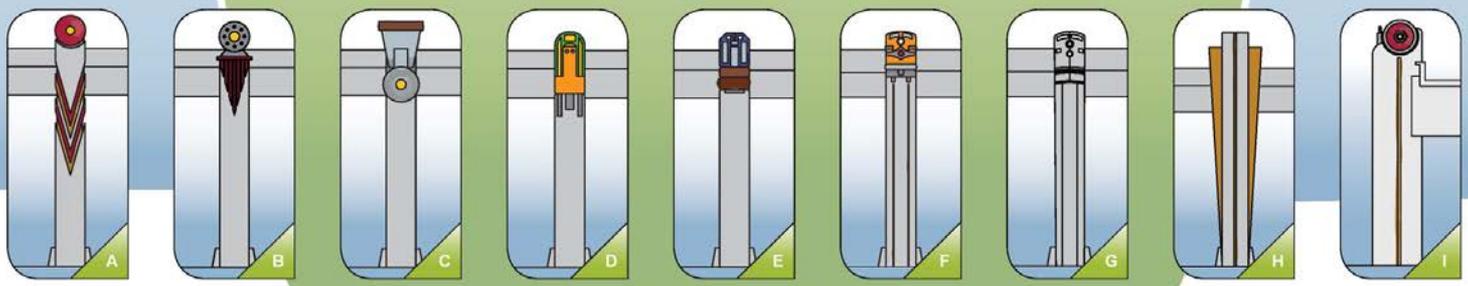
Potential Location for Public Art on the Bridge Abutment Wall Adjacent to the Pedestrian-Bike Path.



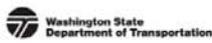
Backside of the Outboard Column - Potential Location for Public Art or Plaque.



Outboard Column - Diesel Locomotive Concept.



Other Outboard Column Design Concepts.



Preliminary Subject to Revision
August 1, 2011

Francis Avenue to the SR290/Trent Interchange

Multiple construction phases are needed to complete this section of the NSC. The first phase – the Francis Structure and Intersection Improvements, is currently under construction. This project is expected to reopen to traffic on the new structure in 2013.

In June 2012, WSDOT received a \$10 million federal TIGER grant to complete the second phase – the BNSF Railway Realignment and Trail Extension. This project will remove a choke point for continuation of the NSC south of Francis. Construction will start in 2013.

Remaining unfunded phases will include:

- Wellesley Interchange
- Bridges at Euclid and the Spokane River
- Completion of drivable link to Wellesley and SR290/Trent Interchange
- Additional railway realignment
- Extension of the Children of the Sun Pedestrian/Bicycle Trail



Next Area of Focus: Progress to SR 290/Trent

- Two railroad projects
- Wellesley Interchange
- Bridges at Euclid and Spokane River
- Viaduct section to Trent
- Extension of Bikepath
- Schedule Risk is Right of Way Purchasing
- Cost to Trent is \$420 Million



- R/W purchasing progressing
- Continue Efforts to develop Interim Connection to I-90

