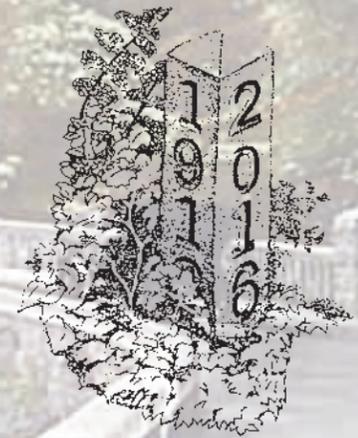


SOSA & Friends  
Historic Columbia River Highway  
Mile Post 2016 Reconnection Projects  
CROSS Exhibit No. 8.18 C

# *The* HISTORIC COLUMBIA RIVER HIGHWAY

**World class adventure from Portland to The Dalles**  
*Reconnecting the Historic Highway as a trail*

**Mile Post 2016**  
Reconnection Projects



*Presented by*

*Friends of the Historic Columbia River Highway*  
&  
*Historic Columbia River Highway Advisory Committee*

**MARCH 2009**

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*Dry Canyon Creek Bridge on the Historic  
Columbia River Highway, c. 1920s.*

This report provides a reconnaissance level review and analysis of twelve Historic Columbia River Highway Reconnection Projects. Additional planning, safety, environmental, and other studies as well as additional engineering will be required prior to construction.

## Acknowledgements

The Historic Columbia River Highway Advisory Committee and the Friends of the Historic Columbia River Highway have jointly spearheaded an effort to restore and reconnect the Historic Columbia River Highway (HCRH).

The Friend's vision is to restore and preserve the existing drivable portions of the historic highway to their splendid 1920s appearance and to link drivable sections with pedestrian and bicycle accessible connections, thus creating a continuous route through the Columbia River Gorge.

The Oregon Legislature created the Historic Columbia River Highway Advisory Committee in 1987. The Advisory Committee reviews and makes recommendations to the Oregon Department of Transportation (ODOT) and Oregon Parks and Recreation Department (OPRD). Membership on the committee includes representatives from those two agencies plus the State Historic Preservation Office and Travel Oregon. Private members include three representatives appointed by the Governor (one each from Multnomah, Hood River and Wasco Counties) and one appointed by each of the three counties in the Gorge.



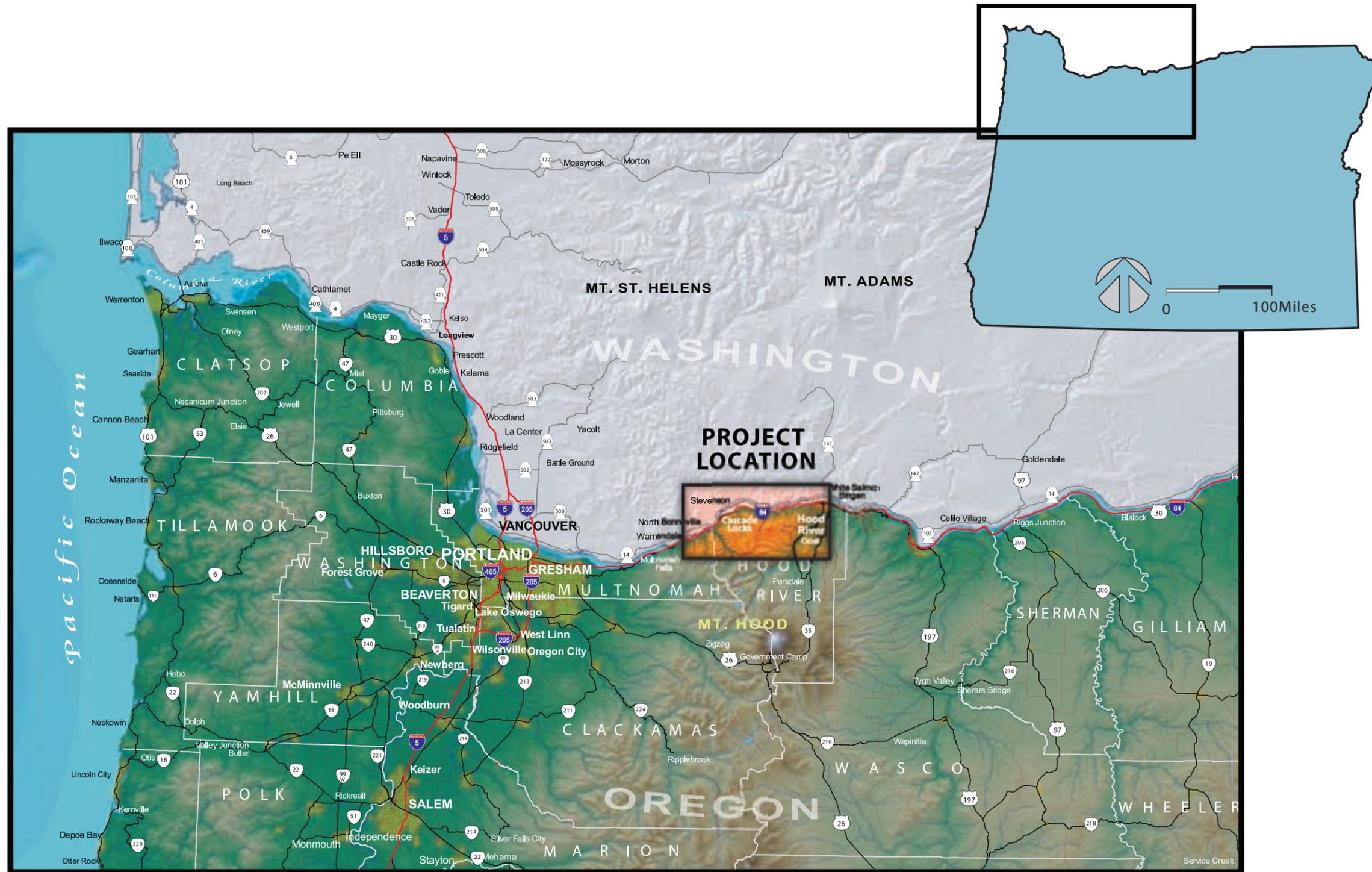
### In coordination with

*Oregon Department of Transportation  
Oregon Parks and Recreation Department  
Travel Oregon  
USDA Forest Service, Columbia River Gorge National Scenic Area  
Western Federal Lands Highway Division, FHWA*

### A special thanks for the generous technical assistance provided by the following

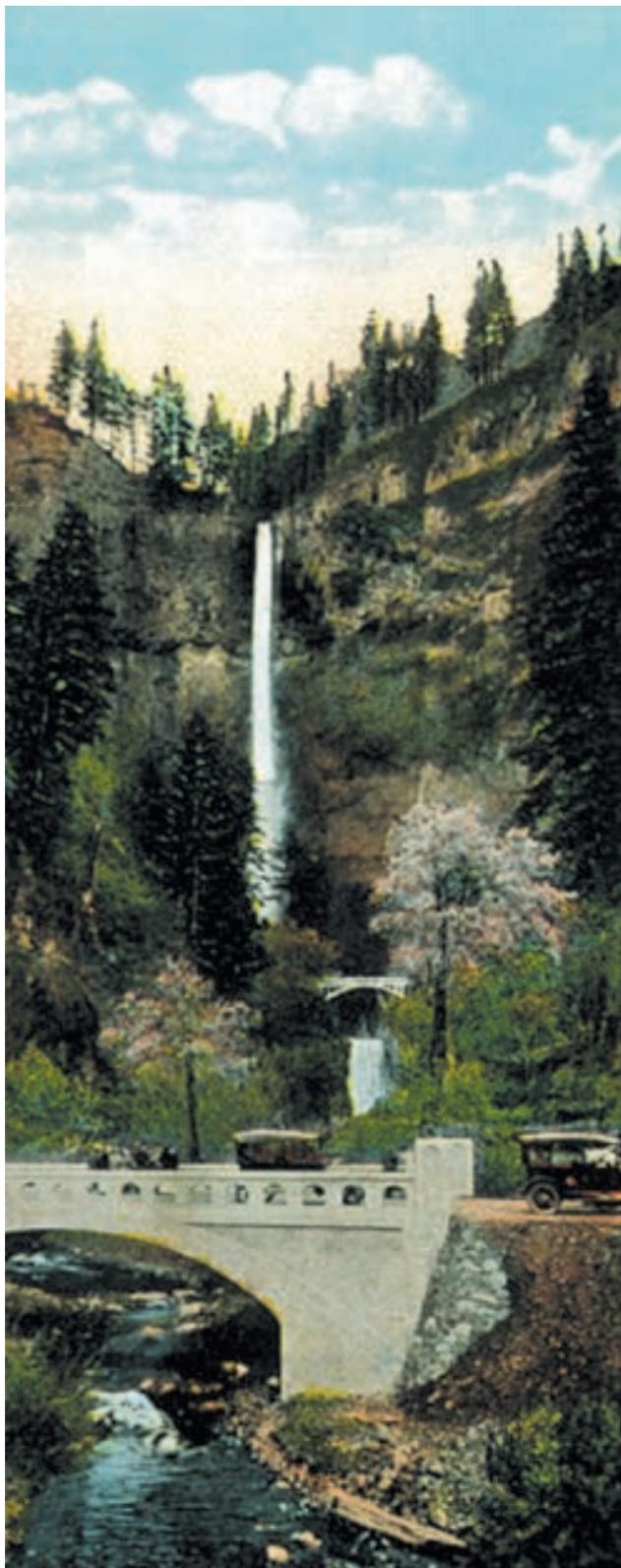
CH2M Hill	OTAK
Cfm	Parametrix
GRI	Quatrefoil
HDR	Walker Macy
Maxwell, P.R.	W&H Pacific

*At left: The Historic Columbia River Highway design workshop participants, October 18, 2007, at Mitchell Point.*



 Historic Columbia River Highway State Trail  
Vicinity Map





## Executive Summary

*“On the part of Lancaster, the highway is a religion, a work of art to be given the devotion of a lifetime.” Mark Woodruff, Oregonian, January 1, 1916*

Columbia River Highway history is a tale of visionaries, civic leaders, skilled engineers, and talented artisans. In 1913, Multnomah County hired Samuel Lancaster to survey and design 20 miles of highway from Chanticleer Point, now Portland Women’s Forum State Scenic Viewpoint, to the Hood River County line. On paper, Lancaster’s design seems a bit dry, though it was quite revolutionary at the time: “a maximum 5 percent grade, minimum 200-foot turning radius on curves, and average of 24-foot roadway with its 18-foot macadam paved surface with 3-foot gravel shoulders.” The result of Lancaster’s design is truly marvelous. The highway traverses the Columbia River Gorge, providing scenic vistas and access to many waterfalls along the way.

Unfortunately, the construction of Interstate 84 severed or removed sections of the Historic Columbia River Highway at many locations along the route. In 1987, the Oregon Legislature recognized the loss of this historic resource and directed the Oregon Department of Transportation to develop a plan to preserve, restore, and maintain extant portions of the historic highway, and to reconnect missing segments with a State Trail allowing recreationists on foot and bicycles to enjoy a reasonable approximation of the original historic highway.

To reconnect extant portions of the historic highway we must follow Lancaster’s original vision. We must think like Lancaster and build a beautiful trail through rugged country, taking advantage of the Gorge’s wild beauty. Upon its completion, the Historic Columbia River Highway State Trail will provide a unique regional route, connecting local communities and encouraging bicyclists, joggers and walkers to park their vehicles and enjoy a truly magnificent regional setting.

In 2005, Cycle Oregon rode through the Gorge. This ride highlighted the need for a new way through the Gorge as the over 2,000 bicyclists were forced to use the shoulder of Interstate 84 between Hood River and Wyeth, then again west of Bonneville to Warrendale. Following that event, Congressman Peter DeFazio requested a personal tour of the highway. After spending five hours along the highway with Jonathan Nicholas from the Oregonian, Jerry Norquist from Cycle Oregon and Jeanette Kloos, the Scenic Area Coordinator for Oregon Department of Transportation, the congressman saw the highway’s great potential for a connecting trail. He then requested that ODOT and the other involved parties look for less expensive alternatives to complete the trail through the Gorge.

Reconnection of the Historic Columbia River Highway State Trail will positively impact individuals and improve the livability of the communities along its route by providing recreation opportunities and health and fitness benefits. It will also positively influence local economies within the Gorge. Across Oregon, trails are stimulating tourism and recreation related spending. Trail users and vacationers will provide direct economic benefits to hotels, restaurants and other business from increased tourist activity and spending on durable goods such as bikes and soft goods such as gasoline, food, and drinks. This, in turn, will revitalize businesses, create jobs, and increase public revenue. As Sam Hill once envisioned, “We will cash in year after year on our crop of scenic beauty without depleting it in any way.”

Since 1987, eleven miles of the State Trail have been completed. Of the original 73 miles of historic highway, one can still access 61 miles either by car on the drivable portions or by foot or bike on the State Trail sections. Approximately 12 miles of State Trail await construction, completing this world class recreational route between Portland and The Dalles. Our challenge is to complete the remaining twelve miles of State Trail in time for the 100th Anniversary of the Historic Columbia River Highway in 2016.

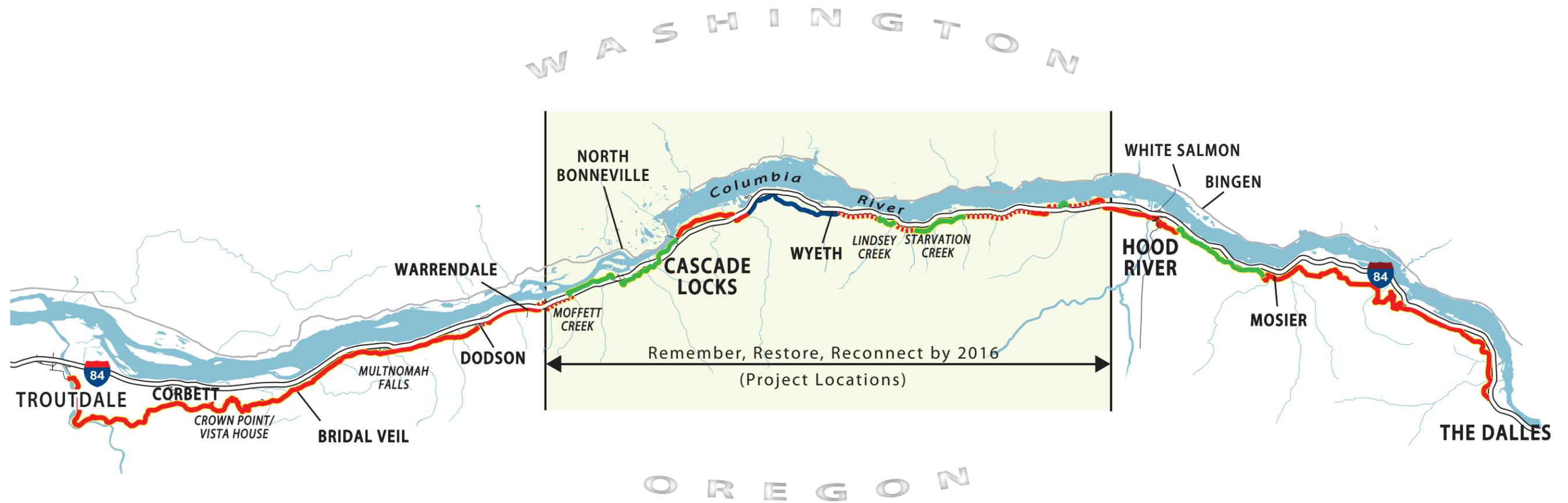
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*Photograph on the left: A hand painted glass slide of Multnomah Falls, c. 1920s*

# The HISTORIC COLUMBIA RIVER HIGHWAY

## LEGEND

- HISTORIC COLUMBIA RIVER HIGHWAY (MOTOR VEHICLE TRAFFIC)
- - - FUTURE HISTORIC COLUMBIA RIVER HIGHWAY STATE TRAIL (FOR BIKING AND HIKING)
- HISTORIC COLUMBIA RIVER HIGHWAY STATE TRAIL (RESTORED FOR BIKING AND HIKING)
- CONNECTING COUNTY ROAD (HERMAN CREEK ROAD)



 Historic Columbia River Highway State Trail  
Project Locations Map



## The Reconnection Projects

Approximately 12 miles of Historic Columbia River Highway State Trail remain to be reconnected through the Columbia River Gorge. This plan divides the remaining 12 miles into 12 distinct projects. The projects are described from west to east. Each segment includes a brief project description, site photos, aerial diagram illustrating proposed trail alignment with primary construction elements, and a summary project cost estimate. Cost estimates are based on preliminary conceptual designs and not final engineering documents. These estimates assume construction in 2010, and include a substantial contingency.

When the western most segment, Warrendale to Moffett Creek, is reconnected, a bicyclist can ride from Troutdale to Cascade Locks and beyond. Reconnecting this 1.6 miles trail will allow for a 34 mile scenic bike ride between Troutdale and Cascade Locks following along 26 miles of the drivable historic highway and 6.5 miles on the State Trail.

Ten project segments are concentrated between Interstate 84's Wyeth interchange (I-84 / Milepost 51) and the West Hood River interchange (I-84 / Milepost 62). Along this section, a number of short segments of the abandoned historic highway still exist. Wherever possible, the historic highway is integrated into the State Trail alignment. These old highway segments will not be open to motor vehicles. Upon completion cyclists, and hikers will experience first hand the amazing road work accomplished by visionaries of an earlier era.



## Proposed Historic Columbia River Highway State Trail Reconnection Projects Estimated 2010 Costs

No.	Segment	Length (in feet)	Project Cost
1.	Warrendale to Moffett Creek	8,500	\$ 5,896,044
1A.	Eagle Creek Viaduct - East	450	\$ 2,471,000
2.	Wyeth to Shellrock Mountain	6,200	\$ 2,650,725
3.	Shellrock Mountain Crossing	3,350	\$ 8,656,956
4.	Shellrock Mountain to Lindsey Creek	6,700	\$ 2,767,149
5.	Lindsey Creek to Starvation Creek	6,800	\$ 3,767,148
6.	Viento to Perham Creek	9,000	\$ 6,129,932
7.	Perham Creek to Mitchell Point West	5,300	\$ 3,831,597
8.	Mitchell Point Tunnel	1,300	\$ 12,536,370
9.	Mitchell Point East to Baumann Property	5,800	\$ 218,295
10.	Baumann Property to Ruthton Point	4,000	\$ 2,856,546
11.	Ruthton Point to Ruthton Park	3,500	\$ 7,839,909
<b>TOTALS</b>		<b>60,900*</b>	<b>\$ 59,621,671</b>
*11.53 Miles			

*Project costs are estimated based on 2010 construction and include "hard" construction, "soft" costs (e.g., design fees, permits, technical studies, approvals, legal, survey), and a construction contingency.*

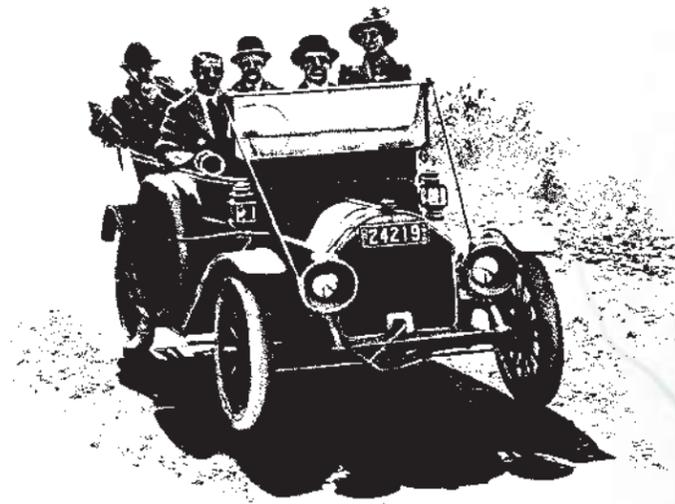
*At Left: Cycling on the Historic Columbia River Highway State Trail.*

LEGEND

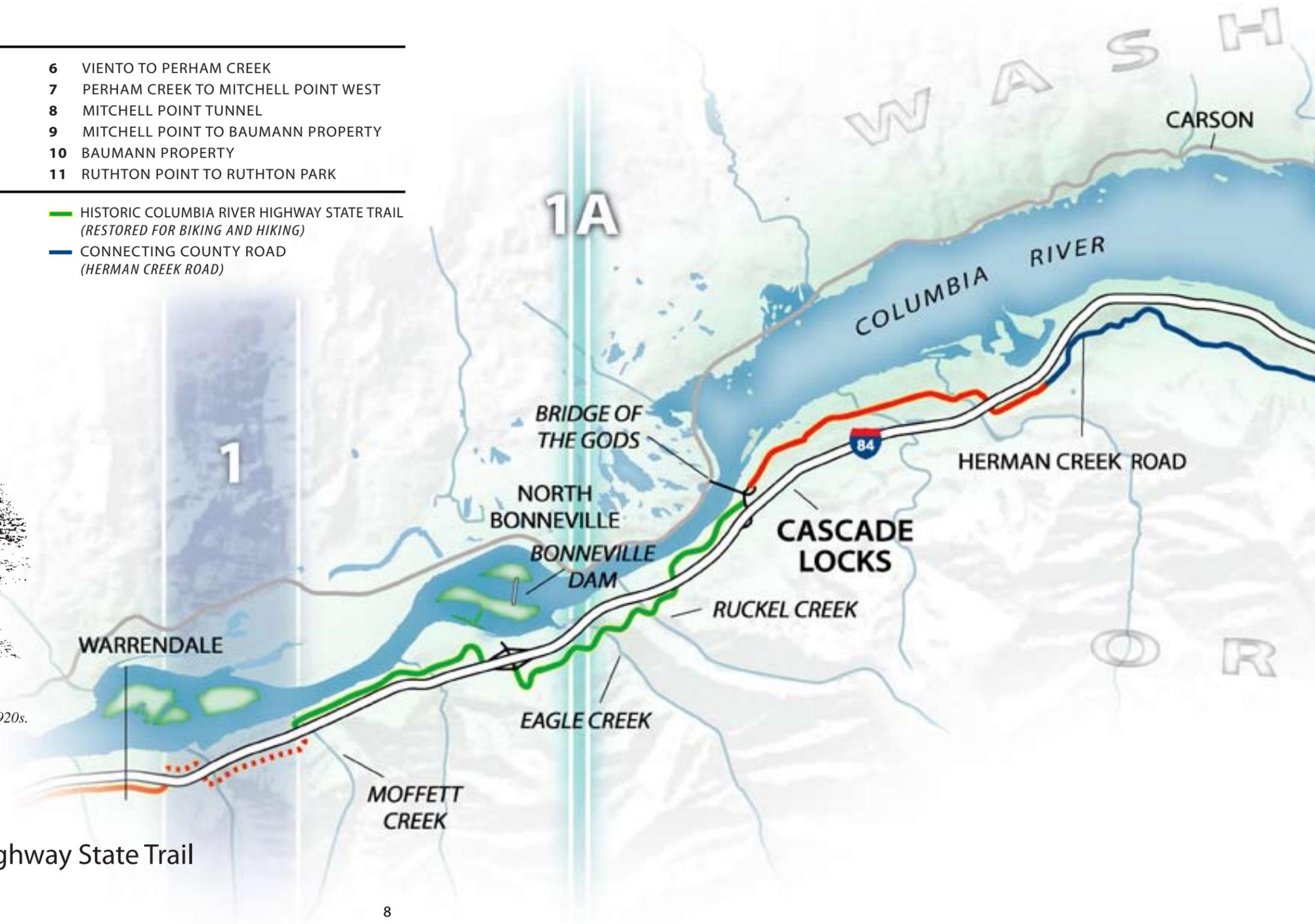
LOCATE PROJECT SEGMENTS

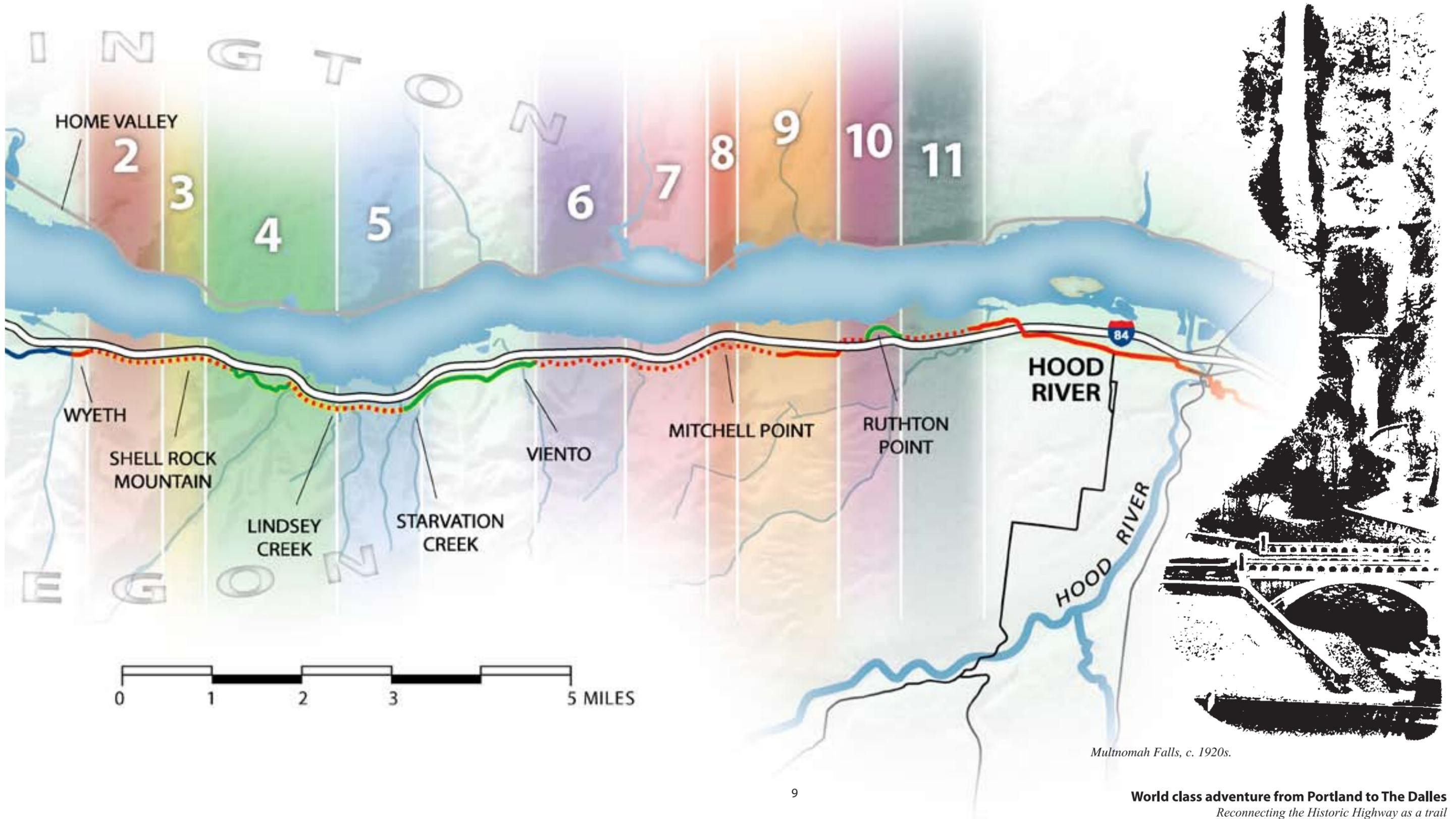
- |                                      |                                       |
|--------------------------------------|---------------------------------------|
| 1 WARRENDALE TO MOFFETT              | 6 VIENTO TO PERHAM CREEK              |
| 1A EAGLE CREEK VIADUCT - EAST        | 7 PERHAM CREEK TO MITCHELL POINT WEST |
| 2 WYETH TO SHELL ROCK MOUNTAIN       | 8 MITCHELL POINT TUNNEL               |
| 3 SHELLROCK MOUNTAIN                 | 9 MITCHELL POINT TO BAUMANN PROPERTY  |
| 4 SHELLROCK MOUNTAIN TO LINSEY CREEK | 10 BAUMANN PROPERTY                   |
| 5 LINSEY CREEK TO STARVATION CREEK   | 11 RUTHTON POINT TO RUTHTON PARK      |

- |   |  |
|---|--|
|  HISTORIC COLUMBIA RIVER HIGHWAY (MOTOR VEHICLE TRAFFIC) |  HISTORIC COLUMBIA RIVER HIGHWAY STATE TRAIL (RESTORED FOR BIKING AND HIKING) |
|  FUTURE HISTORIC COLUMBIA RIVER HIGHWAY STATE TRAIL      |  CONNECTING COUNTY ROAD (HERMAN CREEK ROAD)                                   |



Touring the Historic Columbia River Highway, c. 1920s.







## Segment 6 – Viento State Park to Perham Creek

The Viento State Park to Perham Creek alignment begins east of the Starvation Creek Trailhead to the Viento State Park segment of the HCRH State Trail. It will meander through the forest just east of the OPRD maintenance shop at Viento State Park. Fill is required along some sections to maintain a 5 percent grade. The trail joins the old highway where it follows along the south edge of the freeway (Photo 6A). Then it ramps up to join the old highway again, where the trail will transition back down to freeway elevation. It then passes a very high rock cut and rockfall hazard area (Photo 6C). The current cost estimate reflects extensive rock excavation in this area to maintain the existing fall out area and provide adequate rockfall protection for both Interstate 84 and the trail. When performing this type of work it is also important to meet visual quality objectives of the National Scenic Area. From this point east, the trail diverts from the Highway along the old roadbed to the banks of Perham Creek in segment 7.

### Trail Segment Highlights:

- Major rockfall excavation required west of Perham Creek.
- Links historic highway sections.
- Provides parking, staging and trailhead for east and west HCRH State Trail access.



**Photo 6A:** Trail alignment follows old pavement east of Viento State Park.

**Photo 6B:** Geography and geology forces trail to parallel I-84. In this case, rock fall protection is required to protect the trail from falling rocks.

**Photo 6C:** This photo demonstrates some of the difficult challenges along the proposed alignment. A comprehensive rock fall system, which may include catchments and rock meshing is necessary here and along several other sections to protect trail users.

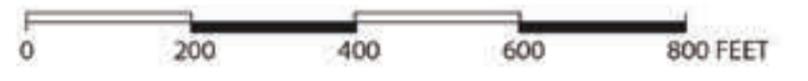


## Segment 6 – Preliminary Cost Estimate

Station	Item	Cost
0+00 to 10+50	Trail (3"AC x 12' wide, 10"C.R.Base x 16' wide)	32,000
0+00 to 79+00	Landscape Enhancement (Allowance)	100,000
7+00 to 10+00	Cut Thru Rock Knoll	134,000
10+50 to 21+00	Historic Highway Cleanup -1	52,000
21+00 to 26+00	Rockfall Protection -1	210,000
21+00 to 32+50	Trail (3"AC x 12' wide, 10"C.R.Base x 16' wide)	34,500
29+50 to 32+50	Rockfall Protection -2	126,000
32+50 to 38+00	Historic Highway Cleanup -2	28,000
38+00 to 40+00	Rockfall Protection -3	84,000
38+00 to 40+00	Trail (3"AC x 12' wide, 10"C.R.Base x 16' wide)	6,000
38+00 to 40+00	Adjust Grades to 8% Max	12,000
38+00 to 40+00	MSE Wall	88,000
40+00 to 43+00	Historic Highway Cleanup -3	15,000
43+00 to 46+00	Adjust Grades to 8% Max	18,000
43+00 to 57+50	Trail (3"AC x 12' wide, 10"C.R.Base x 16' wide)	44,000
46+50 to 56+50	Rockfall Protection -4	210,000
50+50 to 57+50	Side Slope Construction - (Cut and Fill)	420,000
57+50 to 62+50	Historic Highway Cleanup -4	25,000
62+00 to 79+00	Trail (3"AC x 12' wide, 10"C.R.Base x 16' wide)	51,000
62+50 to 65+00	Side Slope Construction -2 (Cut and Fill)	126,000
65+00 to 70+00	Cut w/Jersey Barrier w/ Railing to 54" High	28,000
70+00 to 79+00	Major Rockfall Excavation/Protection	\$ 1,105,000

Raw Construction	2,948,500
Engineering & Permits (20%)	589,700
Construction Engineering (15%)	442,275
<b>Sub Total</b>	<b>3,980,475</b>
Contingency @ 40%	1,592,190
<b>Estimated Project Cost (2008)</b>	<b>5,572,665</b>
Estimated Inflation (2008-10)	557,267
<b>Project Cost Estimate (2010)</b>	<b>\$ 6,129,932</b>

**Please Note:** Not all stations shown in the Preliminary Cost Estimate tables are shown on the segment Feasibility Maps.



HCRH Reconnection Strategy  
 Segment 6  
 Viento to Perham Creek



### Segment 7 – Perham Creek to Mitchell Point West

This alignment continues along the old highway for 750 feet then crosses Perham Creek (Photo 7A). Then the trail is constrained by travel lanes and a very active rockfall area (Photo 7C). Cost estimates are based on extensive rock excavation in order to safely construct the trail through this area. (Note: This is one of the larger, more expensive challenges facing the HCRH State Trail reconnection). After the rockfall section, the trail rejoins paved and unpaved portions of the old highway alignment to Mitchell Point (Lausmann State Park) (Photo 7D). The east trail section requires some rockfall protection and a new bridge over Mitchell Creek.

#### Trail Segment Highlights:

- Great interpretive potential at Perham Creek (original Civilian Conservation Corps sign column in place) (Photo 7B).
- Major rockfall excavation required east of Perham Creek.
- Old pavement evident west of Mitchell Point.
- Mitchell Point provides an excellent trail head.

**Photo 7A:** Old pavement leads into Perham Creek Area.

**Photo 7B:** At Perham Creek, an old stone park sign column, typical to the Civilian Conservation Corps era, sits alone in the forest. At one time, Perham Creek was a popular wayside.

**Photo 7C:** Rock excavation is the recommended approach along this constrained section, with little room between I-84 and active slope for a trail.

**Photo 7D:** Original Warrenite, patented asphalt, is still present under a layer of leaves. Here the trail heads toward Mitchell Point along the old roadbed.

**Photo 7E:** View west from Mitchell Point overlook towards I-84 and the Columbia River.

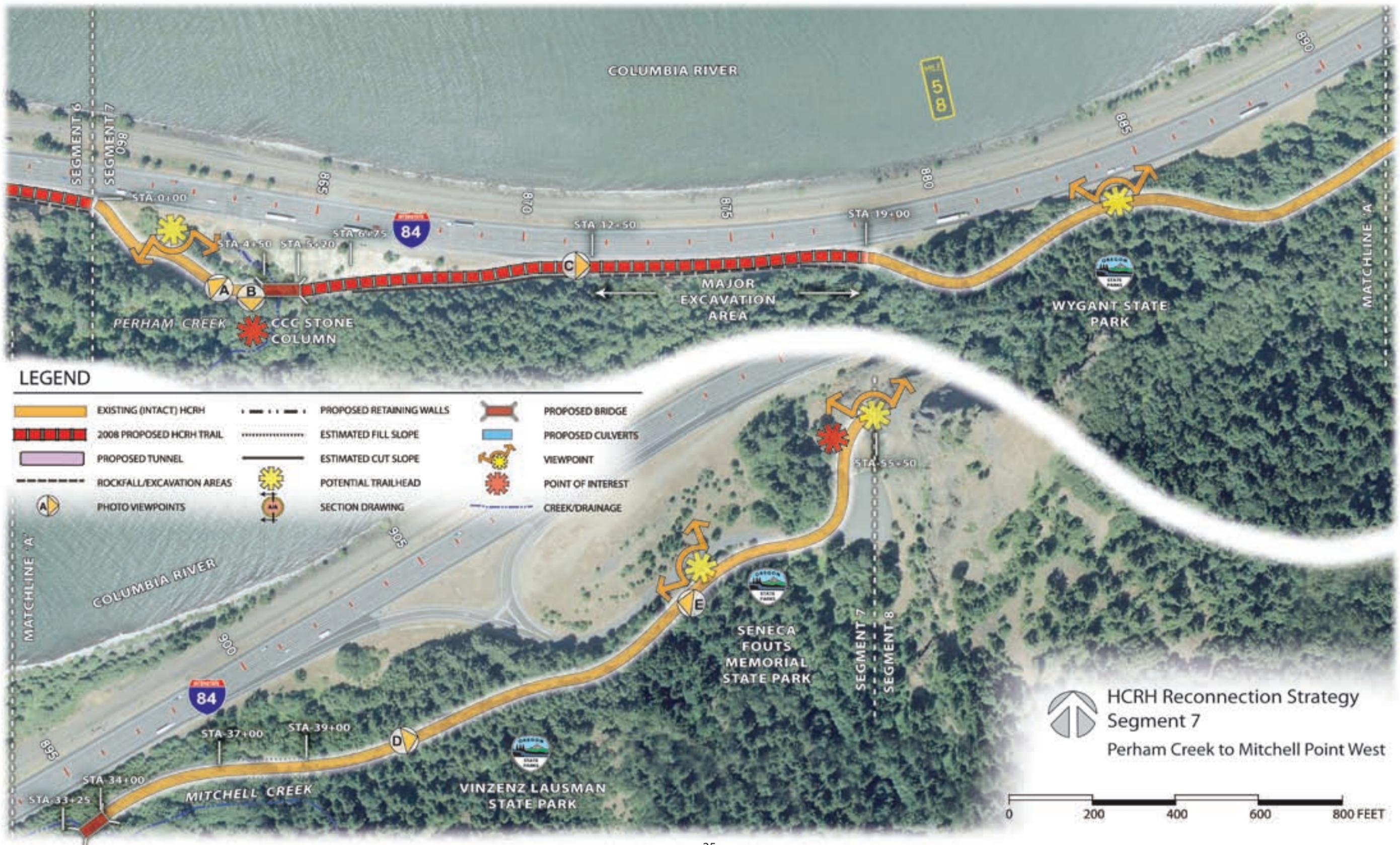
### Segment 7 – Preliminary Cost Estimate

Station	Item	Cost
0+00 to 4+50	Historic Highway Cleanup- 1	\$ 23,000
4+50 to 5+20	Perham Creek Bridge (16' wide x 70' long)	235,000
4+50 to 19+00	Trail (3"AC x 12' wide, 10"C.R.Base x 16' wide)	44,000
4+50 to 19+00	Clear & Grub	4,000
4+50 to 19+00	Landscape Enhancement	36,000
6+75 to 12+50	Side Slope Construction -1 (Fill)	70,000
12+50 to 19+00	Rockfall Protection	764,000
19+00 to 55+50	Historic Road Clean Up	208,000
33+25 to 34+00	Mitchell Creek Bridge (16' wide x 75' long)	235,000
33+75 to 39+00	Side Slope Construction -2 (Cut and Fill Former Drainage way)	224,000

Raw Construction	1,843,000
Engineering & Permits (20%)	368,600
Construction Engineering (15%)	276,450
Sub Total	2,488,050
Contingency @ 40%	995,220
Estimated Project Cost (2008)	3,483,270
Estimated Inflation (2008-10)	348,327
<b>Project Cost Estimate (2010)</b>	<b>\$ 3,831,597</b>

*Please Note: Not all stations shown in the Preliminary Cost Estimate tables are shown on the segment Feasibility Maps.*







8A

## Segment 8 – Mitchell Point Tunnel

At this location, a tunnel originally connected the two intact historic highway segments on either side of Mitchell Point. The “Tunnel of Many Vistas” was 390 feet long and had five adits, or “windows,” with magnificent views of the scenic Columbia River. The tunnel was 18 feet wide and 19 feet high at the crown. A viaduct was used to access the tunnel’s west portal, and a cut into the hillside accessed the west end of this span. The state closed the old highway route through the Mitchell Point Tunnel in 1953 because of increased vehicle size and rockfall hazards. The tunnel and much of the approach route to the west, including the viaduct, were removed when the state removed the hillside to make room for full build-out of Interstate 84. The only remnants of the tunnel are narrow ledges at the west and east approaches. These benched areas are located about 200 feet above Interstate 84 and currently used as rockfall catchment areas in conjunction with other catchments adjacent to Interstate 84 below.

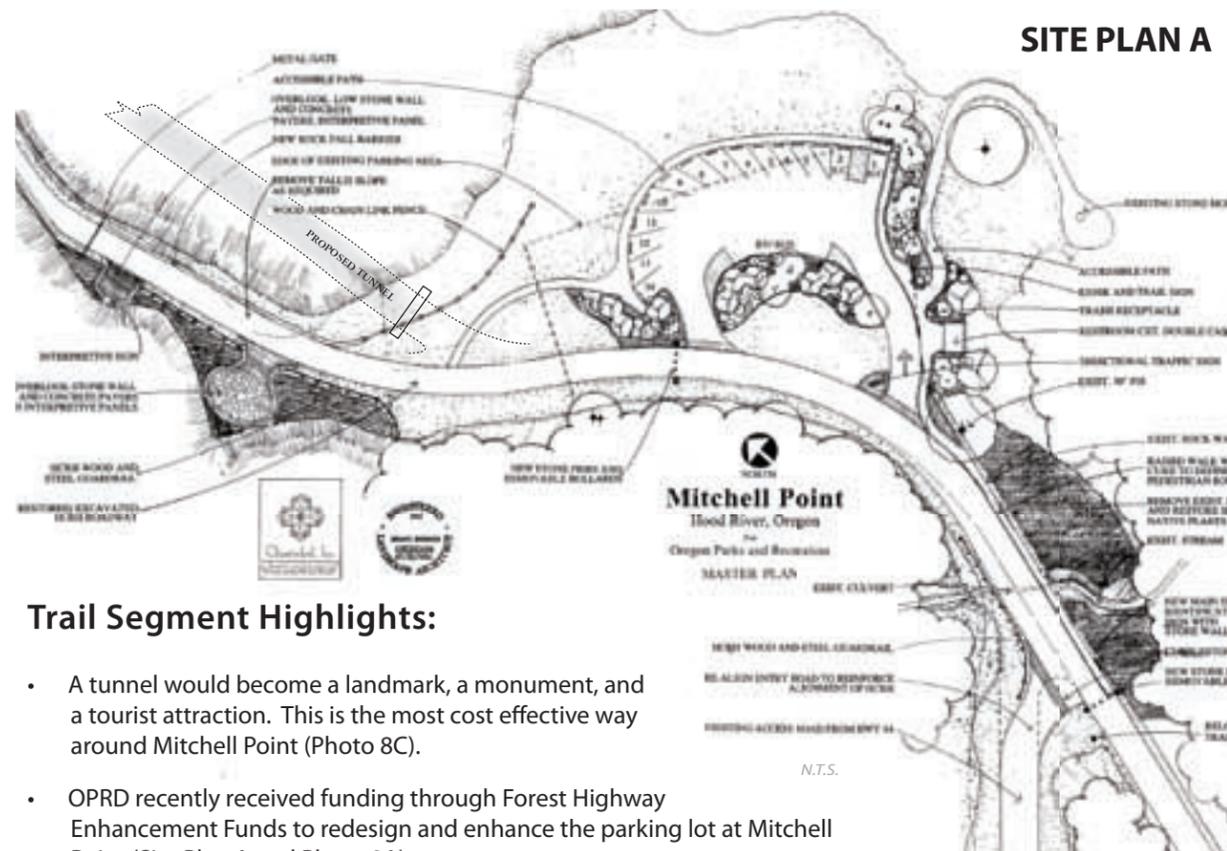
Reconstruction of Mitchell Point Tunnel would not only provide a way through Mitchell Point but also provide future trail users and visitors a unique way to experience the historic highway and Columbia River Gorge. In spring 2008, the Friends of the Historic Columbia River Highway contracted with GRI, geotechnical engineers, to prepare a geotechnical feasibility study for a new tunnel through Mitchell Point.

Their report envisions a tunnel that connects the two old highway segments east and west of Mitchell Point near the original grade of the historic highway. With a tunnel width and height of 18 feet and length of about 1,200 feet. Tunnel report includes three to five adits (windows) from the main tunnel to the cliff face to the north to provide viewing areas and allow for natural light. The west portal is located at the existing rock outcrop near the northeast corner of the parking area. The east portal requires a cut in soil and decomposed rock before tunneling can begin.

**Photo 8A :** Oregon Parks and Recreation Department recently received funding to enhance the parking lot and interpretive opportunities at Mitchell Point, a scenic, yet often overlooked wayside and State Park.

**Photo 8B :** View from the west side of Mitchell Point looking northwest at a striking view of the Columbia River Gorge.

**Photo 8C:** View from the east side of Mitchell Point looking northwest towards the Columbia River. Remnants of the historic highway are visible in the foreground.



### Trail Segment Highlights:

- A tunnel would become a landmark, a monument, and a tourist attraction. This is the most cost effective way around Mitchell Point (Photo 8C).
- OPRD recently received funding through Forest Highway Enhancement Funds to redesign and enhance the parking lot at Mitchell Point (Site Plan A and Photo 8A).
- Most visually subordinate of the all options to get around Mitchell Point.
- Site is accessible to eastbound I-84 motorists.
- Incredible Columbia River Gorge views (Photo 8B)



8B



8C

## Segment 8 – Preliminary Cost Estimate

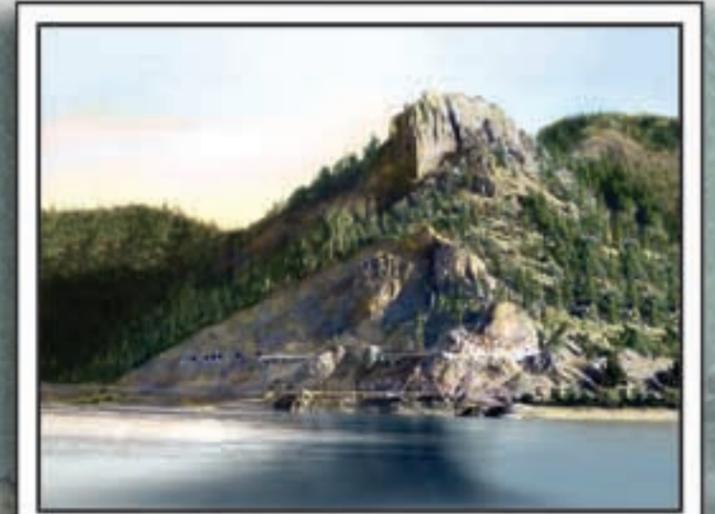
Station	Item	Cost
0+00 to 12+00	1200LF Tunnel with 3-5 Side Adits (Per GRI Geotechnical Evaluation)	\$ 5,654,000
0+00 to 12+00	Trail (3" AC x 12 wide, 10"CR Base X 16')	36,000
0+00 to 12+00	Lighting (Allowance)	150,000
0+00	West Portal (For Rockfall Protection)	90,000
N/A	Traffic Control on I-84 (Allowance)	100,000

Raw Construction	6,030,000
Engineering & Permits (20%)	1,206,000
Construction Engineering (15%)	904,500
<b>Sub Total</b>	<b>8,140,500</b>
Contingency @ 40%	3,256,200
<b>Estimated Project Cost (2008)</b>	<b>11,396,700</b>
Estimated Inflation (2008-10)	1,139,670
<b>Project Cost Estimate (2010)</b>	<b>\$ 12,536,370</b>

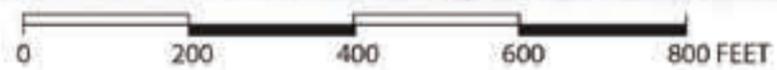
**Please Note:** Not all stations shown in the Preliminary Cost Estimate tables are shown on the segment Feasibility Maps.

**LEGEND**

	EXISTING (INTACT) HCRH		PROPOSED RETAINING WALLS		PROPOSED BRIDGE
	2008 PROPOSED HCRH TRAIL		ESTIMATED FILL SLOPE		PROPOSED CULVERTS
	PROPOSED TUNNEL		ESTIMATED CUT SLOPE		VIEWPOINT
	ROCKFALL/EXCAVATION AREAS		POTENTIAL TRAILHEAD		POINT OF INTEREST
	PHOTO VIEWPOINTS		SECTION DRAWING		CREEK/DRAINAGE



Looking south at a view of Mitchell Point and "The Tunnel of Many Vistas" from the Columbia River, c. 1920s.





## Segment 9 – Mitchell Point East to Baumann Property

Upon exiting the proposed Mitchell Point Tunnel the trail will access an open grassy area, a perfect place for a picnic at this former quarry. Limited improvements are required for this alignment (Photo 9A). The trail then follows along a paved portion of the old highway, currently used as a frontage road with few residential properties (Photo 9B).

### Trail Segment Highlights:

- Little improvement required. Trail users and motorists would share a slow speed, low traffic frontage road which provides access to a few residential properties.
- Trail south of Interstate 84.

## Segment 9 – Preliminary Cost Estimate

Station	Item	Cost
0+00 to 10+00	Trail (3"AC x 12'wide, 10"C.R.Base x 16' wide)	\$ 30,000
0+00 to 10+00	Landscape Enhancement (Allowance)	75,000
10+00 to 58+00	Existing Paved Road - No Work	\$ 0

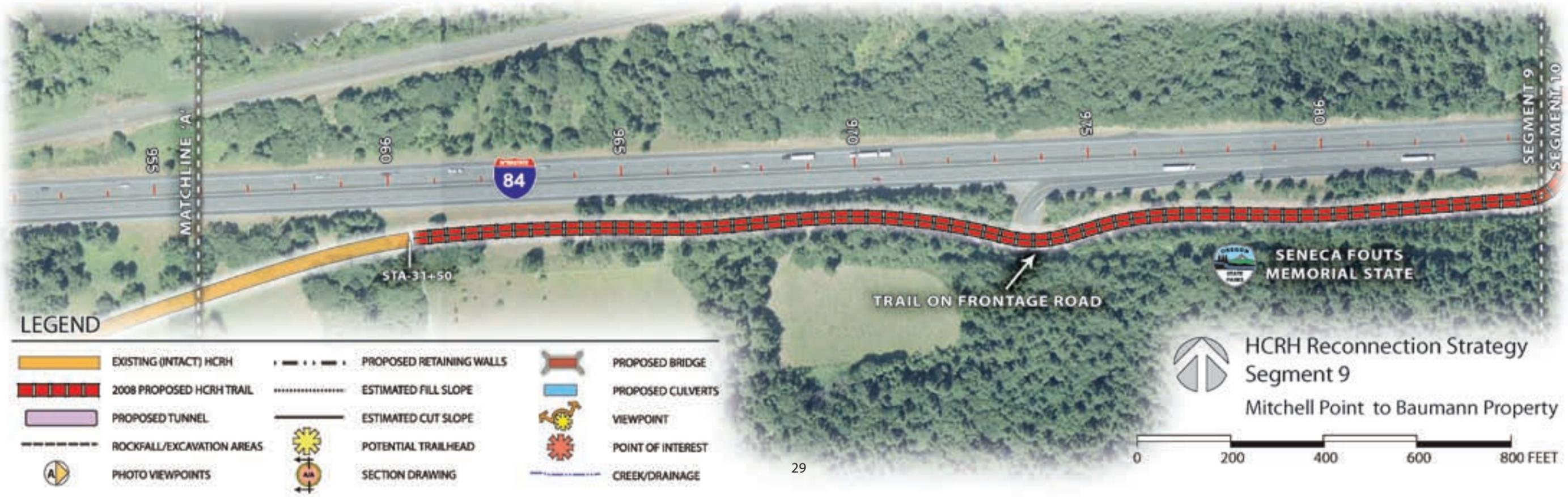
*Please Note: Not all stations shown in the Preliminary Cost Estimate tables are shown on the segment Feasibility Maps.*

Raw Construction	105,000
Engineering & Permits (20%)	21,000
Construction Engineering (15%)	15,750
Sub Total	141,750
Contingency @ 40%	56,700
Estimated Project Cost (2008)	198,450
Estimated Inflation (2008-10)	19,845
<b>Project Cost Estimate (2010)</b>	<b>\$ 218,295</b>



*Photo 9A: A Scenic trail section following the old road alignment adjacent to an abandoned ODOT quarry east of Mitchell Point.*

*Photo 9B: Here the old highway serves as a frontage road (low traffic) along I-84 just west of Hood River.*





10A



10C

## Segment 10 – Baumann Property to Ruthton Point

The existing road crosses under Interstate 84 to the north side of Interstate 84 (Photo 10A). Here the Columbia River Environmental Foundation, a 501c(3) organization, recently purchased a parcel known locally as the Baumann Property. The Columbia River Environmental Foundation is working towards the eventual transfer of the Baumann property to Oregon Parks and Recreation Department or some other public entity. From this property, trail users may access the Columbia River or continue east towards Hood River. This site will also be a popular destination for sail boarders and other non-motorized river users.

At the east end of the Baumann Property the trail requires an extensive wall system to traverse the steep slopes adjacent to Interstate 84's north shoulder (Photo 10C). After consulting with geotechnical experts it appears a soil nail retaining wall is the preferred construction type.

### Trail Segment Highlights:

- Baumann Property will provide access to the Columbia River. The only other Columbia River access along the Historic Highway State Trail is at Viento State Park.
- Beautiful river views
- Great destination opportunity with development of the Baumann Property as a park.

*Photo 10 A:* A view of the existing I-84 under-crossing which will become part of the trail system.

*Photo 10B:* View north from I-84 across the Baumann property.

*Photo 10C:* East view towards Ruthton Point along west bound I-84.



10B

## Segment 10 – Preliminary Cost Estimate

Station	Item	Cost
0+00 to 2+50	Existing Paved Road- No Work	\$ 0
0+00 to 32+00	Landscape Enhancement	64,000
2+50 to 32+00	Trail (3"AC x 12' wide, 10"C.R.Base x 16' wide)	89,000
3+00 to 21+00	Side Slope Construction (Fill)	316,000
21+00 to 26+00	Trail on Bench	148,000
26+00 to 32+00	Soil Nail Wall	757,000

Raw Construction 1,374,000

Engineering & Permits (20%) 274,800

Construction Engineering (15%) 206,100

Sub Total 1,854,900

Contingency @ 40% 741,960

Estimated Project Cost (2008) 2,596,860

Estimated Inflation (2008-10) 259,686

**Project Cost Estimate (2010) \$ 2,856,546**

*Please Note:* Not all stations shown in the Preliminary Cost Estimate tables are shown on the segment Feasibility Maps.



**LEGEND**

	EXISTING (INTACT) HCRH		PROPOSED RETAINING WALLS		PROPOSED BRIDGE
	2008 PROPOSED HCRH TRAIL		ESTIMATED FILL SLOPE		PROPOSED CULVERTS
	PROPOSED TUNNEL		ESTIMATED CUT SLOPE		VIEWPOINT
	ROCKFALL/EXCAVATION AREAS		POTENTIAL TRAILHEAD		POINT OF INTEREST
	PHOTO VIEWPOINTS		SECTION DRAWING		CREEK/DRAINAGE

HCRH Reconnection Strategy  
Segment 10  
Baumann Property to Ruthnton Point





11A



11B

Photo 11A: Graceful rock-work adorns the Ruthton Point old road section.

Photo 11B: Spectacular Columbia River Gorge view from Ruthton Park.

Photo 11C: Ruthton Park will become an important trail access point within the City of Hood River serving as the terminus or gateway to the Historic Columbia River Highway State Trail.

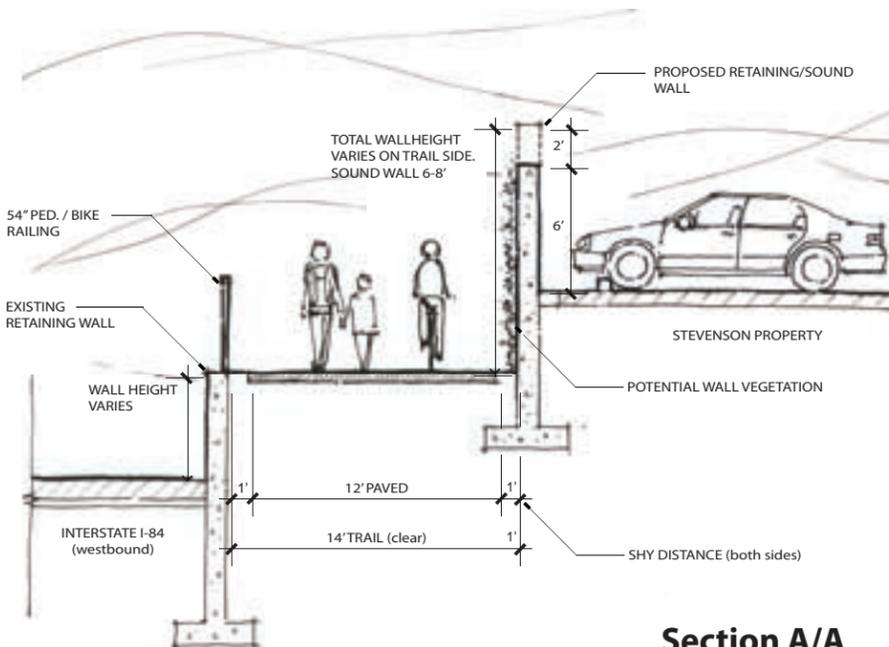
Section A/A (Segment II): Trail section in front of the future Westcliff Condos (site of the Meredith Motel); proposed trail between I-84 and combination sound/retaining wall.

## Segment 11 – Ruthton Point to Ruthton Park, Hood River

This section starts with Ruthton Point, an intact section of the old highway offering spectacular views to the Gorge (Photo 11A). In the early 1990s, ODOT restored the historic viaduct, walls and railings. From Ruthton Point east, the trail traverses steep slopes adjacent to Interstate 84. A soil nail retaining wall is the preferred construction method except in one steep section, where a viaduct is required. The trail then follows the shoulder using soil nail walls and parallels Interstate 84 to the west end of Westcliff Drive. Here ODOT is working with a private developer and Hood River County to incorporate the trail into future redevelopment of this property (Section A/A). The trail is placed on an existing retaining wall above Interstate 84. Then it crosses over Westcliff Drive and into Ruthton Park (Photo 11C). Here, during the site reconnaissance for this study, we discovered a short but intact section of historic pavement. The trail follows the old route through to the parking lot at Ruthton Park. ODOT is working with Hood River County to develop plans to improve Ruthton Park as a HCRH trailhead. From Ruthton Park, hikers and bicyclists can access the city of Hood River by way of Westcliff Drive.

### Trail Segment Highlights:

- Ruthton Point provides spectacularly breathtaking views of the Gorge.
- Ruthton Point showcases the work of artisans.
- Old sections of pavement exist in Ruthton Park.



Section A/A



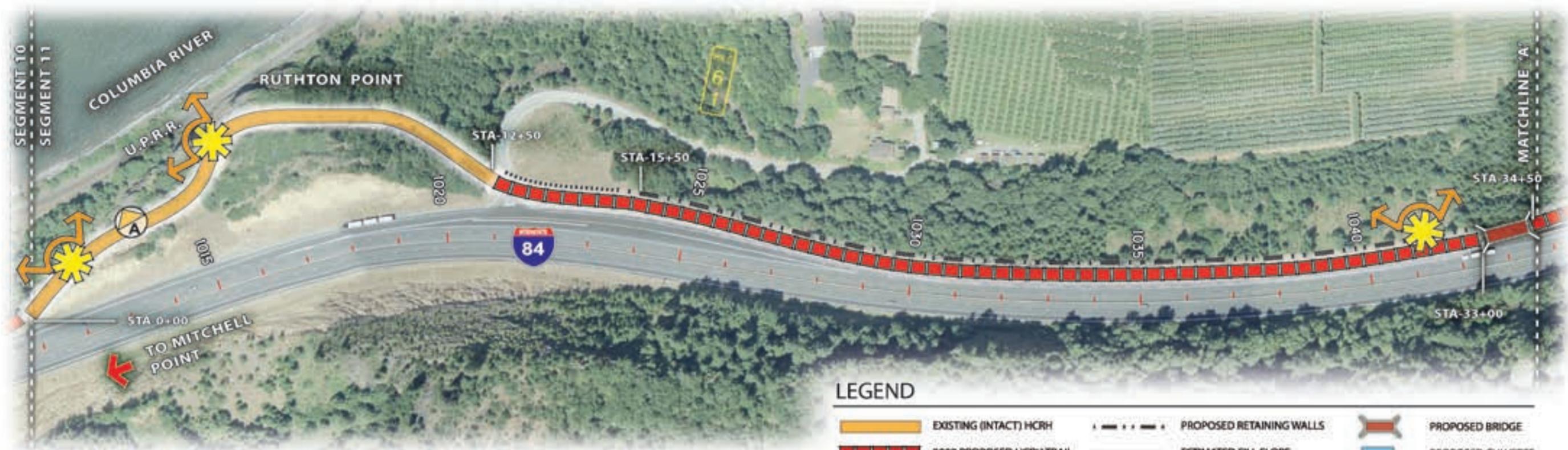
11C

## Segment 11 – Preliminary Cost Estimate

Station	Item	Cost
0+00 to 12+50	Historic Highway Cleanup- 1	\$ 63,000
0+00 to 53+00	Landscape Enhancement	106,000
12+50 to 15+50	Side Slope Construction (Fill)	37,000
12+50 to 47+00	Trail (3"AC x 12' wide, 10"C.R.Base x 16' wide)	104,000
15+50 to 33+00	Soil Nail Wall	2,338,000
33+00 to 34+50	Viaduct	491,000
34+50 to 39+00	MSE Retaining Wall	203,000
39+00 to 45+00	On Top Of Existing Concrete Wall	30,000
45+00 to 46+50	New Concrete Retaining Wall	112,000
47+00 to 49+00	Historic Highway Cleanup- 2	10,000
49+00 to 53+00	Trail (3"AC x 12' wide, 10"C.R.Base x 16' wide)	12,000
49+00 to 53+00	Clear & Grub (Allowance)	15,000
49+00 to 53+00	Park Connection / Park Improvements	\$ 250,000

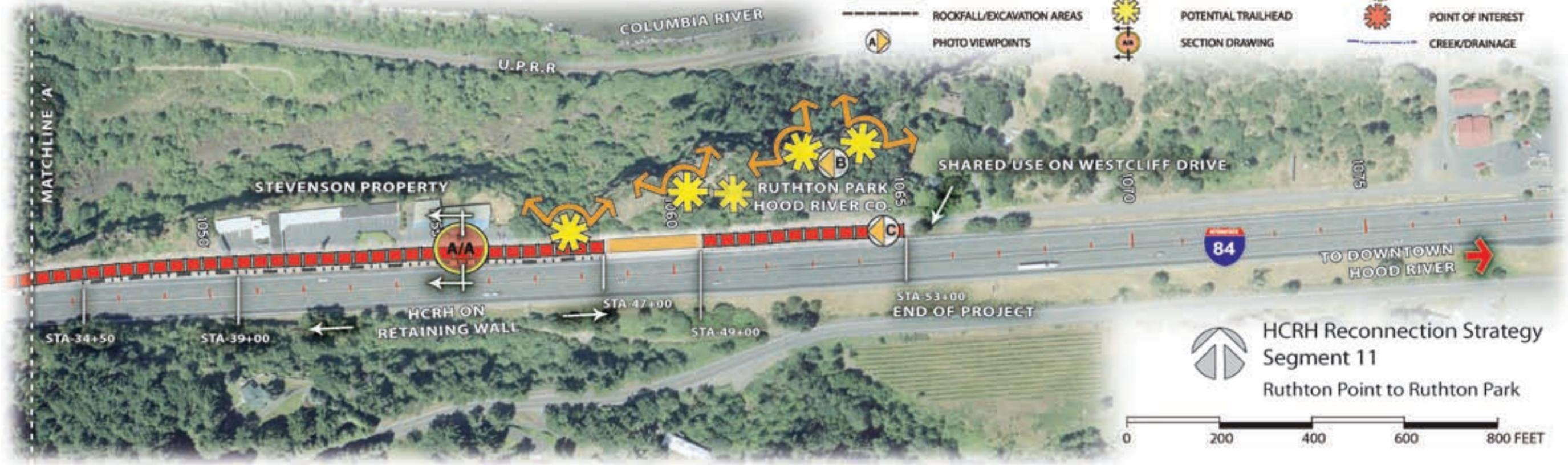
Raw Construction	3,771,000
Engineering & Permits (20%)	754,200
Construction Engineering (15%)	565,650
Sub Total	5,090,850
Contingency @ 40%	2,036,340
Estimated Project Cost (2008)	7,127,190
Estimated Inflation (2008-10)	712,719
<b>Project Cost Estimate (2010)</b>	<b>\$ 7,839,909</b>

Please Note: Not all stations shown in the Preliminary Cost Estimate tables are shown on the segment Feasibility Maps.



**LEGEND**

- |  |                           |  |                          |  |                   |
|--|---------------------------|--|--------------------------|--|-------------------|
|  | EXISTING (INTACT) HCRH    |  | PROPOSED RETAINING WALLS |  | PROPOSED BRIDGE   |
|  | 2008 PROPOSED HCRH TRAIL  |  | ESTIMATED FILL SLOPE     |  | PROPOSED CULVERTS |
|  | PROPOSED TUNNEL           |  | ESTIMATED CUT SLOPE      |  | VIEWPOINT         |
|  | ROCKFALL/EXCAVATION AREAS |  | POTENTIAL TRAILHEAD      |  | POINT OF INTEREST |
|  | PHOTO VIEWPOINTS          |  | SECTION DRAWING          |  | CREEK/DRAINAGE    |



HCRH Reconnection Strategy  
Segment 11  
Ruthton Point to Ruthton Park

