

LENGTH OF TRAIL SECTION:

2.3 MILES

LEVEL OF DIFFICULTY:

EASY TO MODERATE

SLOPES NOT EXCEEDING 5%

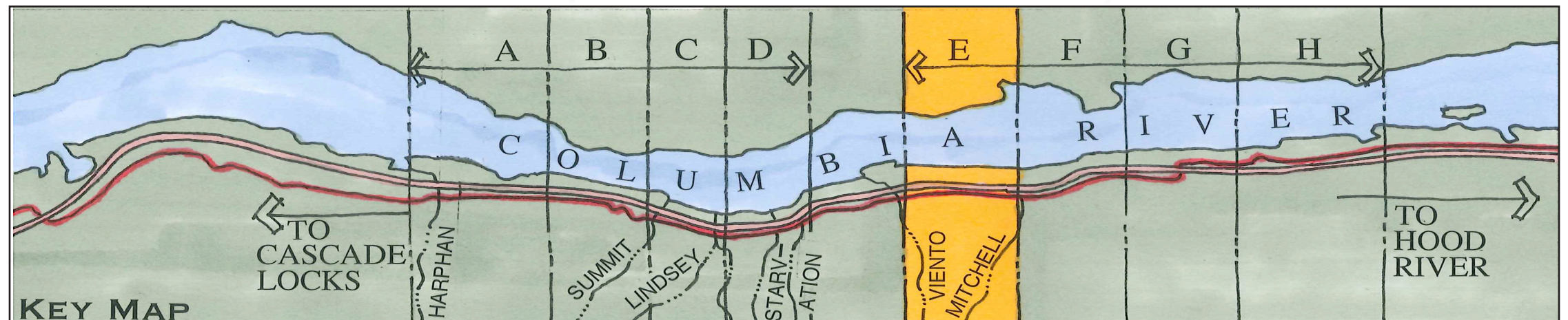
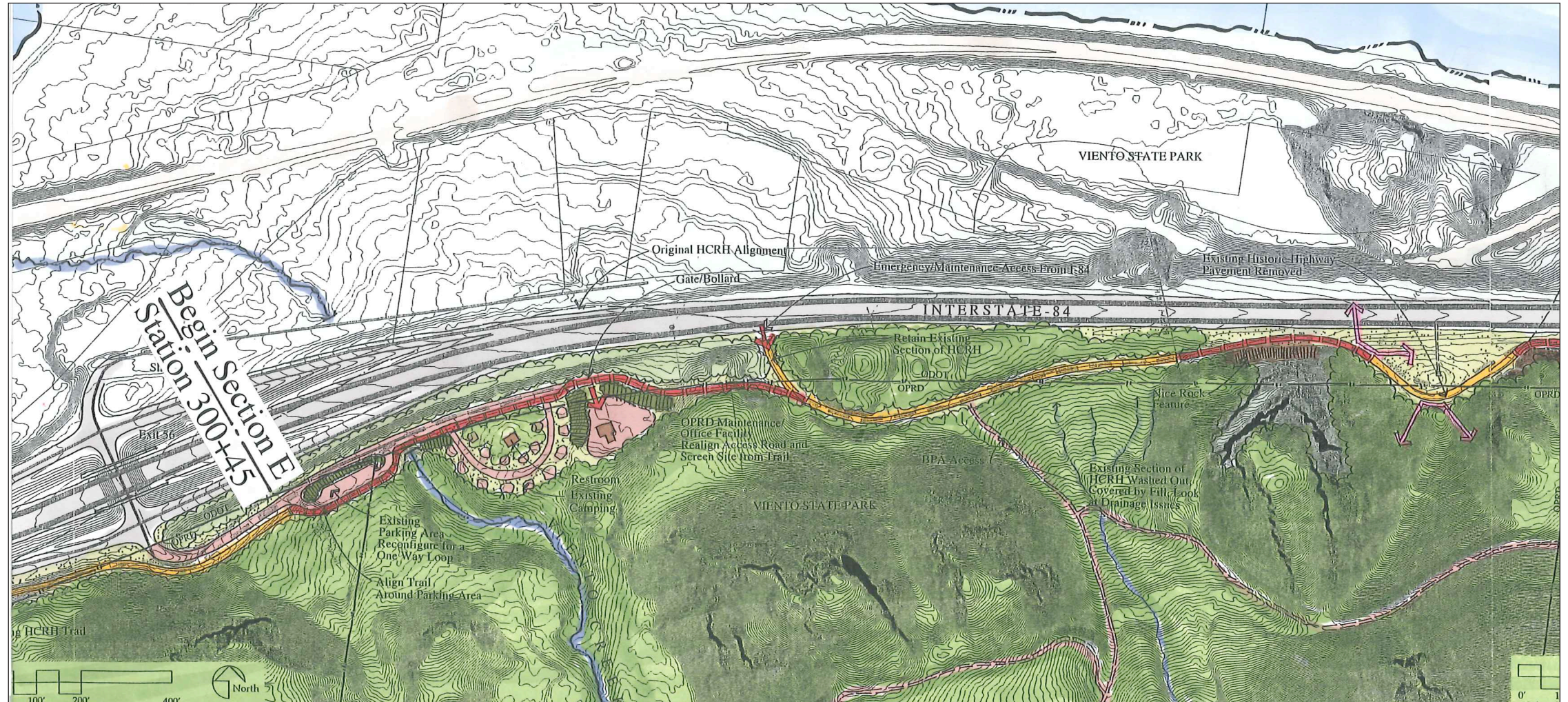
DESCRIPTION:

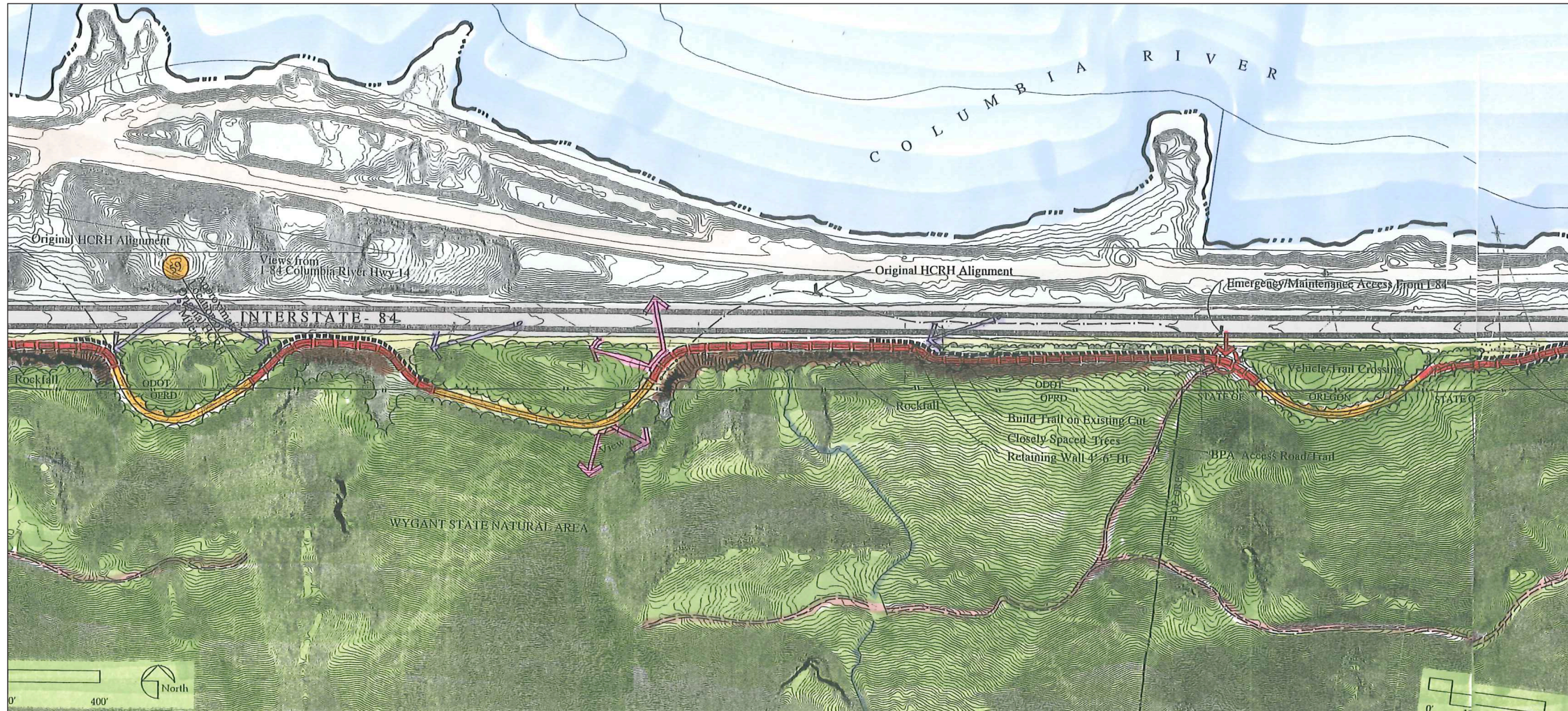
A one mile restored section of Historic Highway State Trail connects from Starvation Creek to Viento.

- **Station 300+45 – 310+33:** The new Trail would continue at the end of the existing section of State Trail and run alongside an existing parking area of the Starvation Creek Trailhead. The parking area would be reconfigured for better vehicular, bike, and pedestrian circulation. The Trail then crosses Viento Creek over the existing culvert alongside the vehicular drive and then past the existing OPRD tent campground and the OPRD Maintenance Office and Shop Yard.
- **Section 310+33 – 325+00:** Leaving the OPRD Shop Yard, the Trail goes over an existing hill. The Trail will cut down through the hill to provide a 5% grade and connect to a level section of existing Historic Highway. The existing section of Historic Highway is also a shared access for the BPA. This existing section of Historic Highway ends at a rock cut and the Trail continues along the face of the cut alongside I-84.

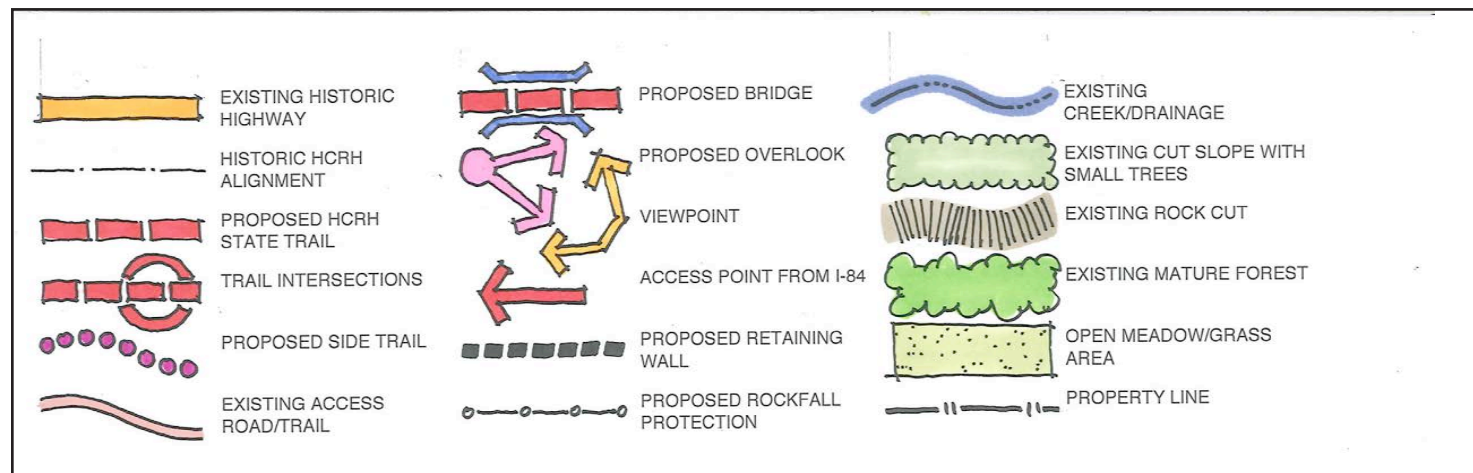


Viento Trailhead.





• **Section 325+00 – 367+00:** This section of Trail has four existing sections of Historic Highway that form a series of “oxbows” where the construction of I-84 cut off the north section of the original curves. The new Trail section will run alongside I-84, connecting these existing oxbows of the Historic Highway together. The rock cuts along I-84 in this section present some significant rockfall challenges. The existing sections of Historic Highway are in good condition, and are all elevated above I-84, providing both visual and sound separation from I-84. The Trail aligns with I-84 and progresses along the base of an existing rock outcropping before rejoining the historic alignment with viewpoints to the Columbia River and surrounding scenery.



Existing section of the Historic Highway.



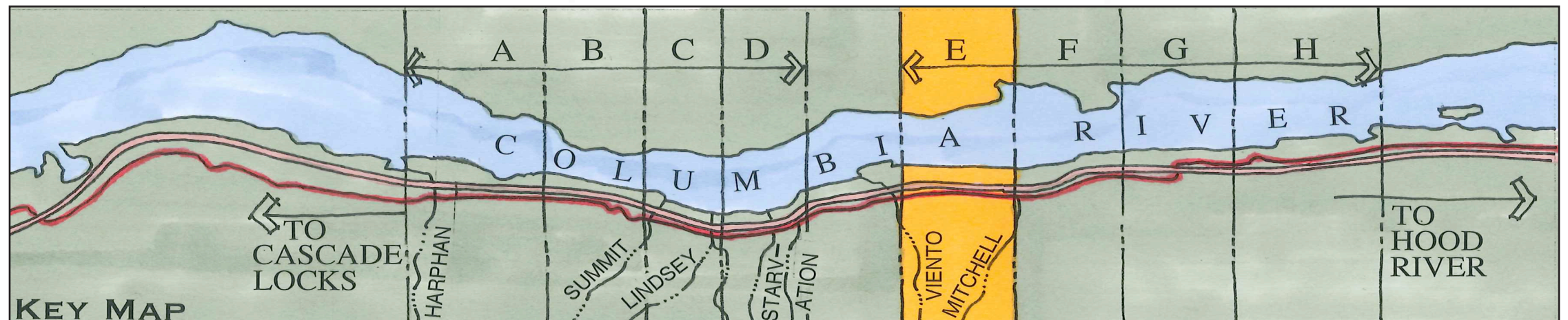
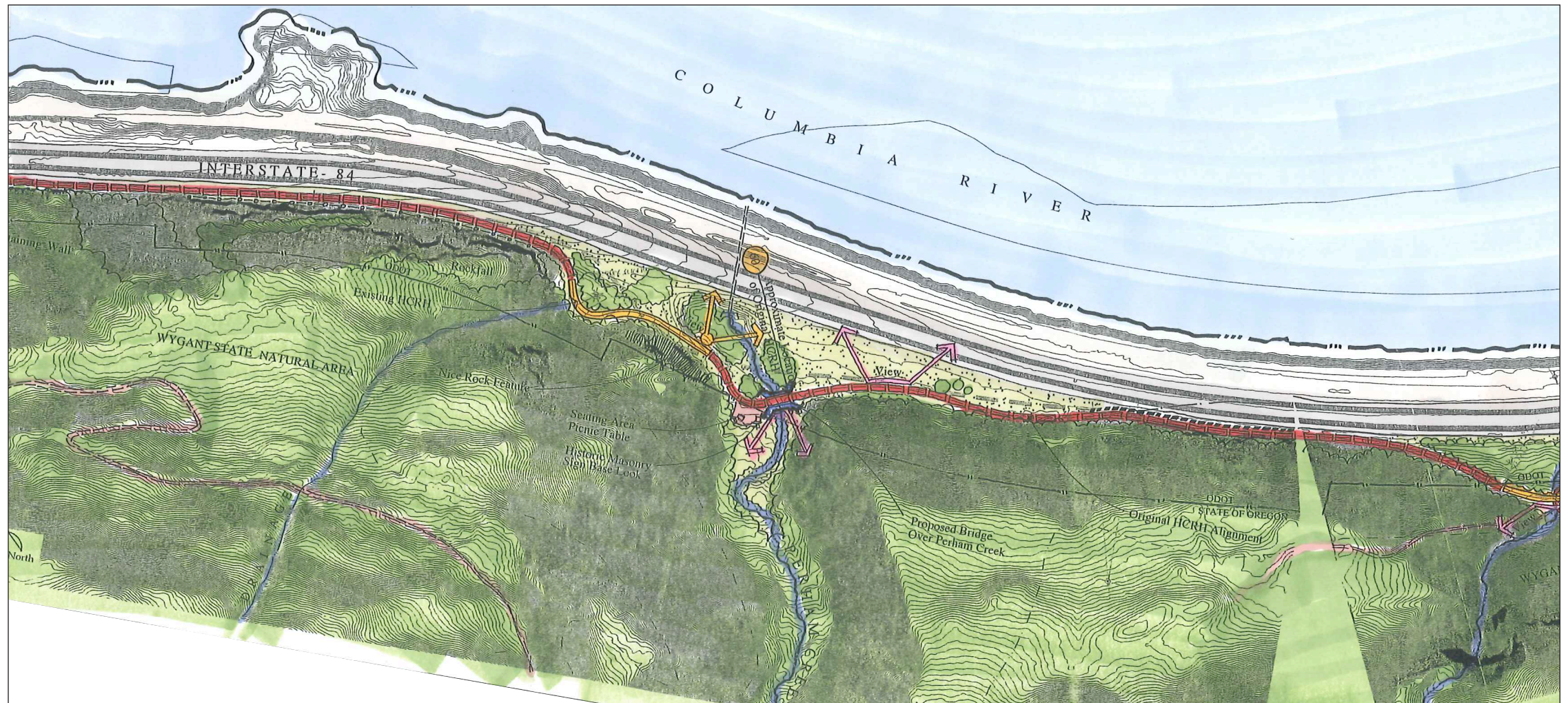
Rockfall along I-84.



- **Section 367+00 – 383+00:** This is a long section of new Trail that runs along the edge of I-84 for 1600 feet. This section has the most significant rockfall and may require significant scaling and rockfall construction.
- **Section 383+00 – 391+00:** The Trail then turns south and connects to another section of Historic Highway in the Perham Creek area. A historic masonry sign base is located along this section of Trail very close to where a new bridge will cross Perham Creek. Once the Trail crosses Perham Creek, it follows its original alignment until it comes back along I-84.
- **Section 391+00 – 420+60:** The Trail continues east along I-84 for 1600 feet and then heads south to where it meets up with an existing section of Historic Highway. This section of Historic Highway is also the access trail for the Wygant Trail. This section ends at a new bridge crossing over Mitchell Creek.



Existing masonry sign base at Perham Creek.

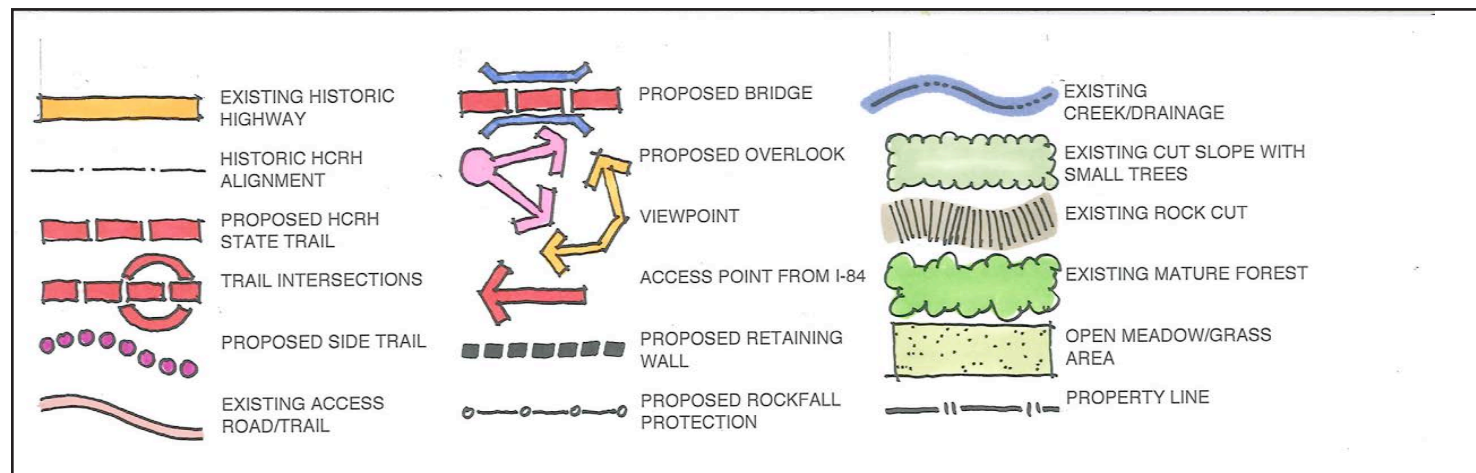




View to Wind Mountain along proposed Trail.

TRAIL SEGMENT HIGHLIGHTS:

- Viento Trailhead
- Tent campground with potential for hiker biker sites
- Several sections of existing HCRH
- Spur trail to overlook at rock outcropping
- Perham Creek picnic area
- Historic masonry sign base
- Scenic views to the Columbia River
- Mitchell Creek



Highwater over Historic Highway at Perham Creek.

DESIGN/PERMITTING ISSUES:

- Recreation Intensity Class 4 at trailhead
- Site visible from several Key Viewing Areas: I-84, Columbia River, Highway 14
- Creek setbacks/salmon habitat
- Limited site area, constrained by existing topography, creek, and roads
- Privacy and safety for campground and OPRD facility

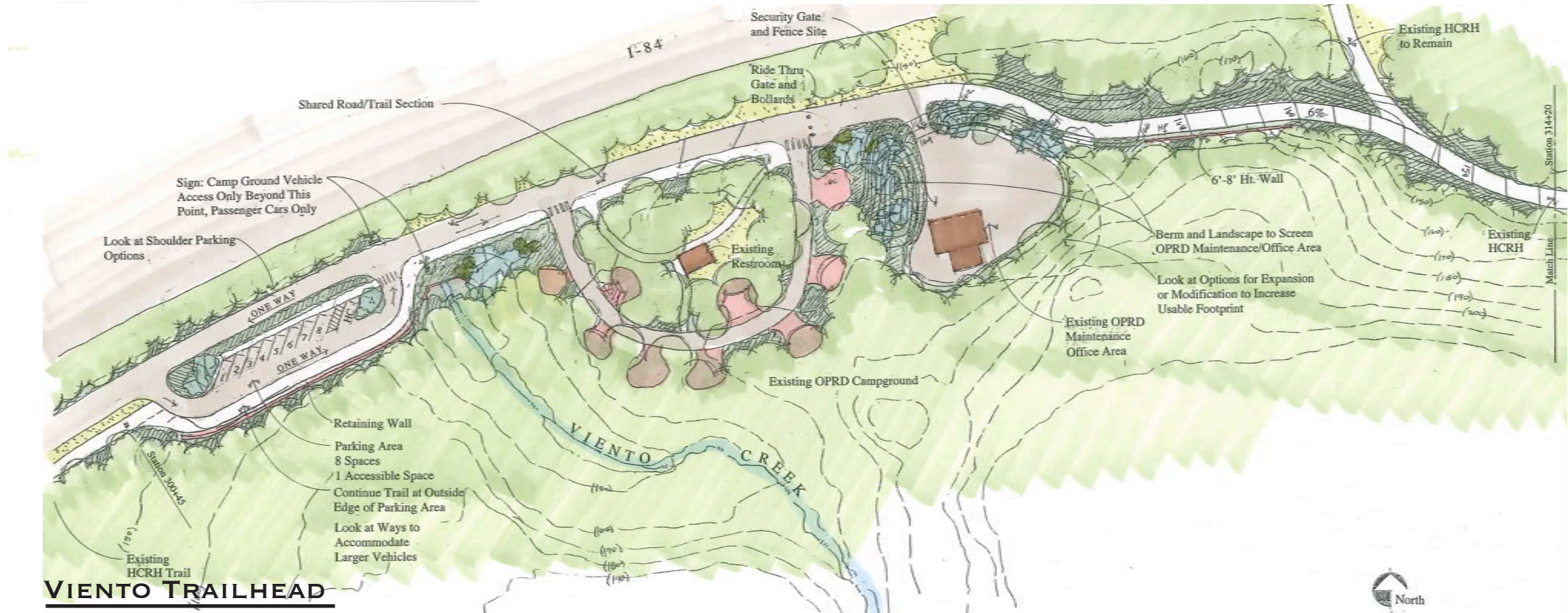


VIENTO CREEK TRAILHEAD DESCRIPTION:

- Existing 18 parking spaces
- Existing OPRD campground
- Existing restroom at campground
- Existing OPRD maintenance and office facility
- Viento Creek passes through site

TRAILHEAD AMENITIES:

- Reconfigure parking area to provide for better traffic flow and turn around
- Reconfigure existing OPRD maintenance and office facility
- Improve trail access through the site
- Provide trail information and directional signage



Entrance road to Viento with new State Trail alongside.



Existing conditions along I-84.

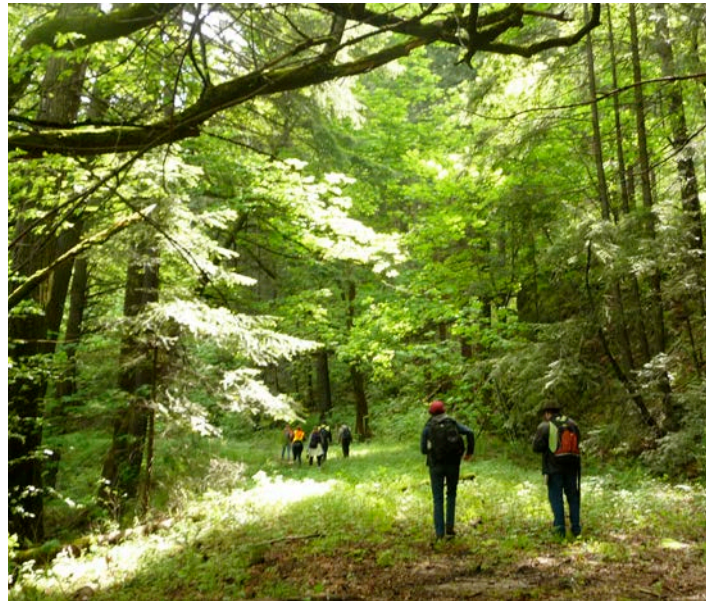


OPRD Maintenance Facility at Viento.



OPRD maintenance area with existing access road to the east.





Existing Historic Highway near Perham Creek.



PERHAM CREEK
BRIDGE PERSPECTIVE



Existing riparian edge at Perham Creek.



PERHAM CREEK DETAIL PLAN

SEGMENT E COSTS:

Site Preparation	\$47,000.00
Grading and Drainage	\$168,000.00
Wall Construction	\$801,000.00
Bridge at Perham Creek	\$200,000.00
Bridge at Mitchell Creek	\$180,000.00
Rock Fall Protection	\$1,205,000.00
Trail Construction	\$549,000.00
Misc. Trail Improvements	\$185,000.00
Landscape Improvements	\$348,000.00
Subtotal	\$3,683,000.00
Engineering & Permits (20%)	\$737,000.00
Construction Engineering (15%)	\$552,000.00
Contingency	\$994,000.00
Project Costs (2010)	\$5,964,000.00
Project Costs (2014)	\$7,038,000.00

VIENTO TRAILHEAD:

Site Preparation	\$32,000.00
Grading and Drainage	\$8,000.00
Wall Construction	\$57,000.00
Paving	\$69,000.00
Misc. Improvements	\$21,000.00
Landscape Improvements	\$32,000.00
Subtotal	\$219,000.00
Engineering & Permits (20%)	\$44,000.00
Construction Engineering (15%)	\$33,000.00
Contingency	\$59,000.00
Project Costs (2010)	\$278,000.00
Project Costs (2014)	\$328,000.00

ISSUES FOR FURTHER STUDY:

- Potential for second Trail Host Site located at Viento Trailhead
- Rockfall mitigation strategies
- Conflicts with BPA Access Road(s)
- Historic resources at Perham Creek, including historic alignment of the Historic Highway and evidence of past park facilities
- Determine the extent of wetland/riparian areas at Perham Creek
- Opportunities for side trails to explore unique geologic features located along the Trail



LENGTH OF TRAIL SECTION:

.7 MILES

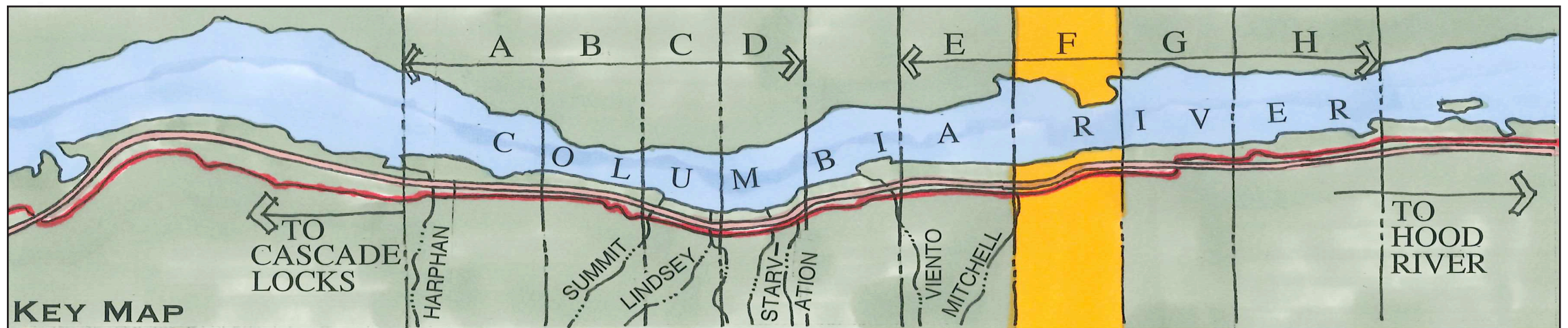
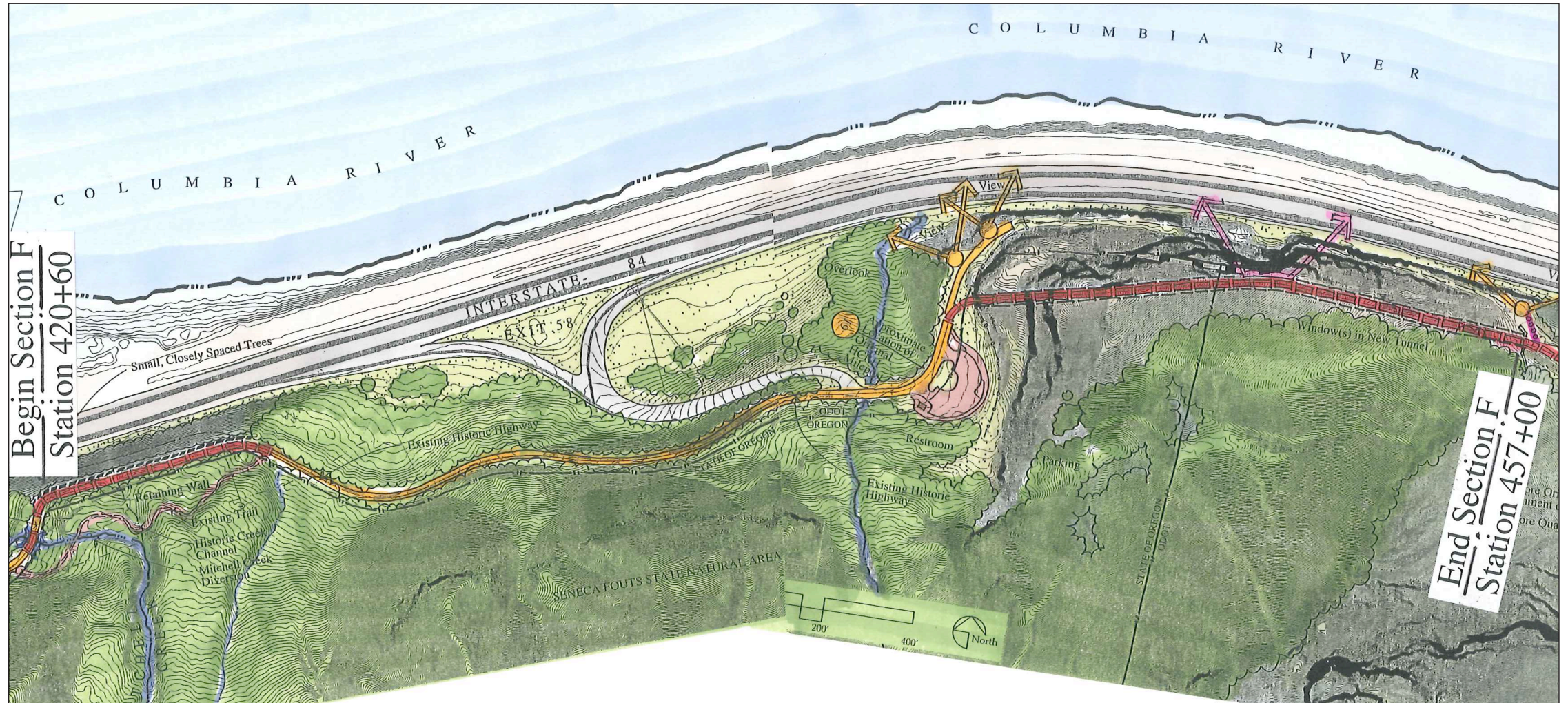
LEVEL OF DIFFICULTY:

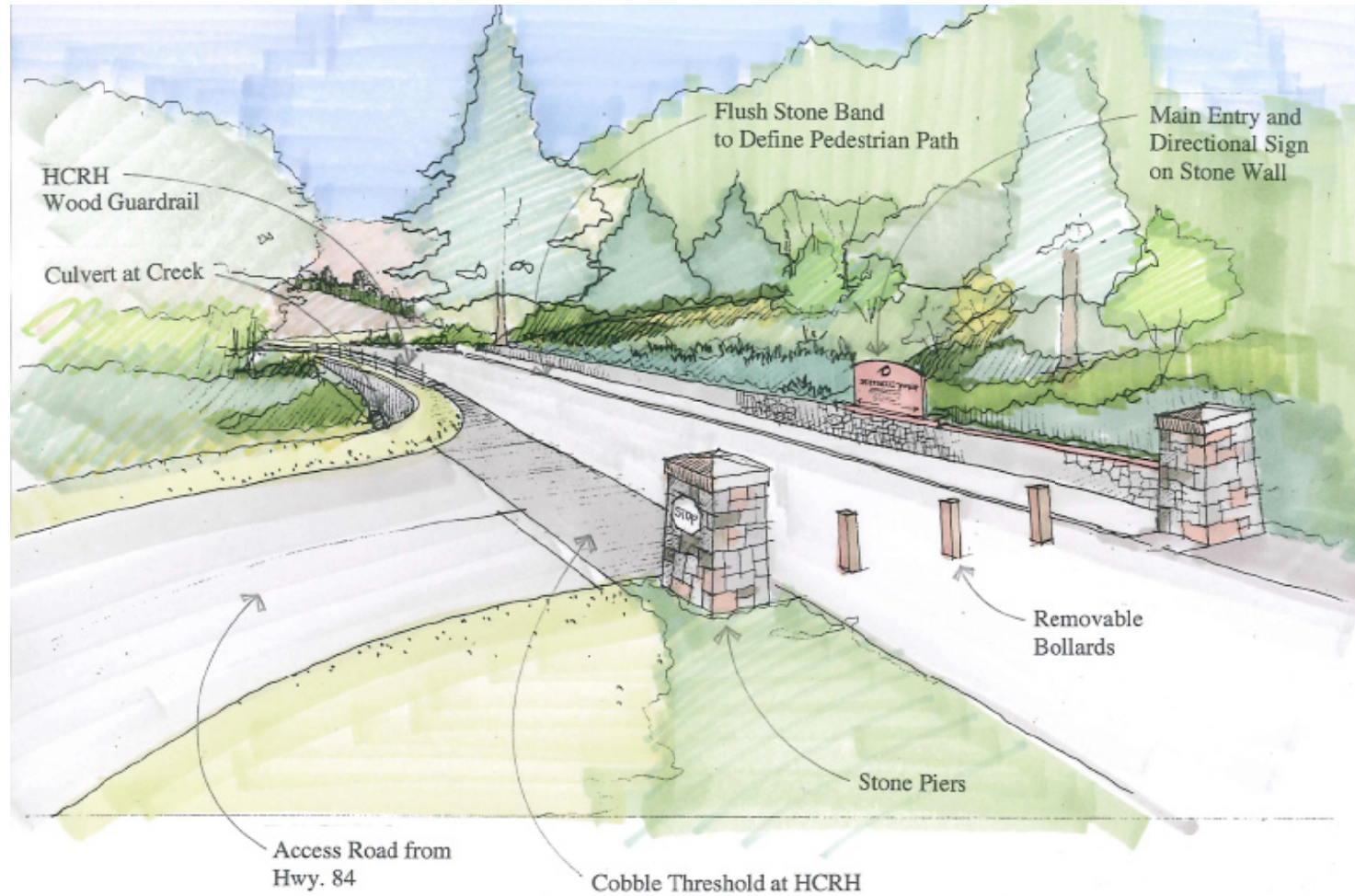
EASY TO MODERATE

SLOPES NOT EXCEEDING 5%

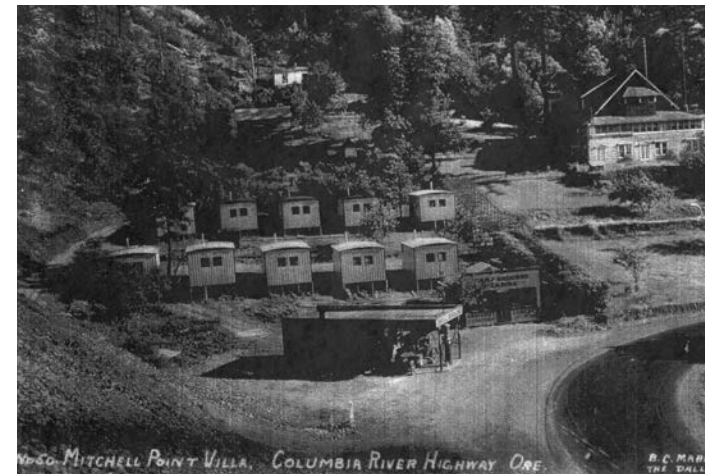
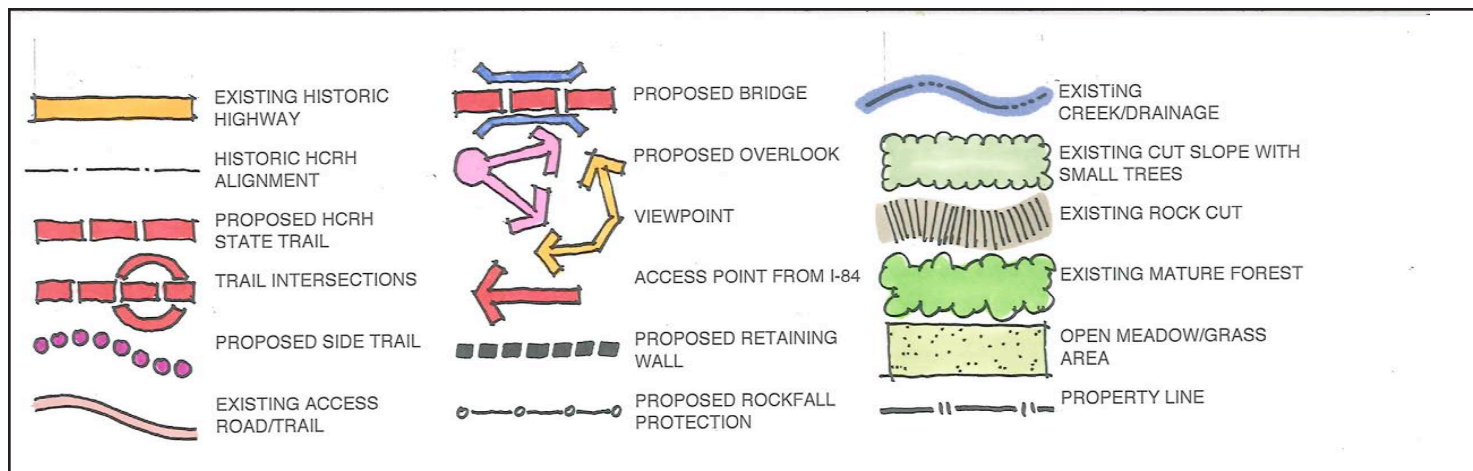
DESCRIPTION:

- **Section 420+60 – 526+50:** The section starts at the new bridge crossing Mitchell Creek. In this area, Mitchell Creek was diverted into a new channel when I-84 was constructed. The new channel cut through the Historic Highway, leaving a small piece of intact road on the north side of the creek. A new bridge is proposed to cross Mitchell Creek and reconnect the Historic Highway. A new section of trail will traverse the top of a cut slope created during the construction of I-84. Along this section of trail, the historic Mitchell Creek Channel is visible.
- **Section 526+50 – 444+44:** The next portion of the Trail follows an existing section of Historic Highway passing I-84 Exit 58 and running through the Mitchell Point West Trailhead. This section of trail also provides access to the Wygant Trail. New overlooks are proposed north of the parking area to allow better access to viewing the original alignment of the Historic Highway. The existing Historic Highway alignment will be preserved through this area and will be better defined by the redesigned parking area.
- **Section 444+44 – 457+00:** A new 1200 foot tunnel will recreate the passage through Mitchell Point. The tunnel will feature windows carved through its side, at the location of the former viaduct, to allow views of the Columbia River and recall the original Mitchell Point Tunnel, "Tunnel of Many Vistas" that had five windows carved in its side. This Section ends at the East Portal of the Tunnel.





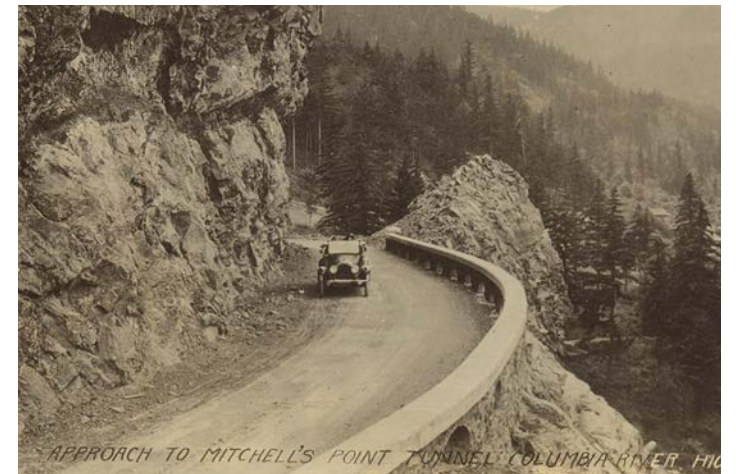
MITCHELL POINT TRAILHEAD APPROACH



Mitchell Point in the 1940s consisted of the Little Boy Ranch, a gas station and tourist court.



Development at Mitchell Point in the 1950s included a four unit motel.



West approach to historic Mitchell Point Tunnel.

TRAIL SEGMENT HIGHLIGHTS:

- 1,200 foot tunnel
- Viewpoints at Mitchell Point West
- Viewpoint at center of viaduct
- Viewpoint at Mitchell Point East
- Quarry floor restoration area
- Peregrine Falcon habitat

DESIGN/PERMITTING ISSUES:

- Recreation Intensity Class 2
- Site visible from several Key Viewing Areas: I-84, Columbia River, Highway 14
- Mitchell Point potential Native American sacred site
- Limited site area, constrained by existing topography, creek and roads
- Conflict with vehicular and bike/hike users
- Allow for future expanded use if RIC is changed
- Restore alignment of HCRH, possible location of historic milepost



Existing Historic Highway at Wygant Trailhead.

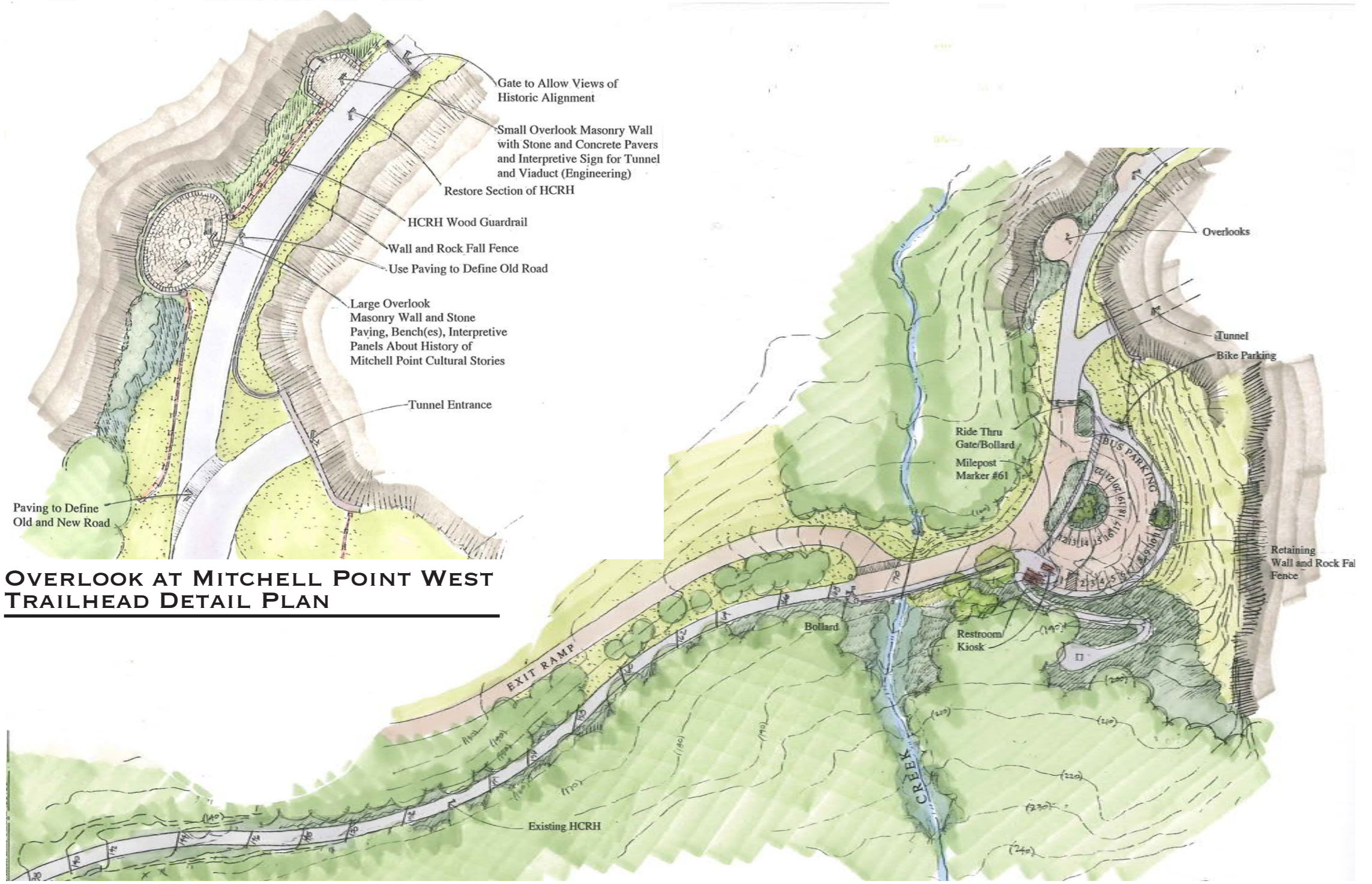


MITCHELL POINT WEST TRAILHEAD DESCRIPTION:

- Existing large asphalt parking area
- No definition of existing HCRH
- Existing overlook with interpretive sign
- Chain link fences to protect visitors from fall
- Existing rockfall into existing parking area
- Existing restroom
- Site has various remnants of past commercial development
- Invasive species and remnant ornamental landscape plantings

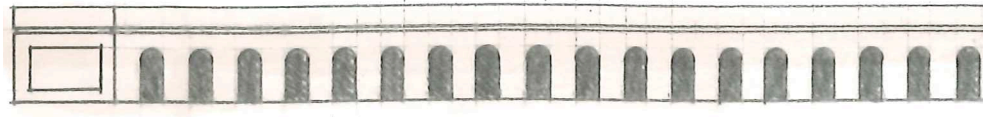
TRAILHEAD AMENITIES:

- New Tunnel through Mitchell Point
- Reconfigure parking area to provide for better traffic flow and turnaround
- Maximum 25 car parking area at existing parking area
- Provide bike and hike trip staging area
- New overlooks with interpretive signage
- Improve trail access through the site
- Provide trail information, directional signage



OVERLOOK AT MITCHELL POINT WEST TRAILHEAD DETAIL PLAN

MITCHELL POINT WEST TRAILHEAD DETAIL PLAN





Historic view of Mitchell Point from the Columbia River.



West side of Mitchell Point Tunnel after it closed.



Existing view of Mitchell Point Trailhead.



TUNNEL/OVERLOOK PERSPECTIVE



West side of Mitchell Point Tunnel, view from viaduct.

SEGMENT F COSTS:

Site Preparation	\$9,000.00
Grading and Drainage	\$41,000.00
Wall Construction	\$91,000.00
Trail Construction	\$140,000.00
Rock Fall Protection	\$200,000.00
Tunnel	\$6,180,000.00
Landscape Improvements	\$170,000.00
Subtotal	\$6,841,000.00
Engineering & Permits (20%)	\$1,368,000.00
Construction Engineering (15%)	\$1,026,000.00
Contingency	\$1,847,000.00
Project Costs (2010)	\$11,082,000.00
Project Costs (2014)	\$13,077,000.00

MITCHELL POINT WEST TRAILHEAD:

Site Preparation	\$96,000.00
Grading and Drainage	\$31,000.00
Wall Construction	\$78,000.00
Paving	\$120,000.00
Rock Fall Protection	\$200,000.00
Misc. Trail Improvements	\$68,000.00
Landscape Improvements	\$27,000.00
Subtotal	\$665,000.00
Engineering & Permits (20%)	\$133,000.00
Construction Engineering (15%)	\$100,000.00
Contingency	\$179,000.00
Project Costs (2010)	\$1,077,000.00
Project Costs (2014)	\$1,270,000.00

ISSUES FOR FURTHER STUDY:

- Affects of Tunnel Construction on Mitchell Point
- Consultation with Native American Tribes on impacts to this significant and culturally important landmark
- Effect on Peregrine Falcon Habitat
- Rockfall issues at the Trailhead.
- Additional archeological investigation of HCRH resources that may exist at the Trailhead location
- Potential location of a Trail Host Site at Mitchell Point West Trailhead



LENGTH OF TRAIL SECTION:

1.7 MILES

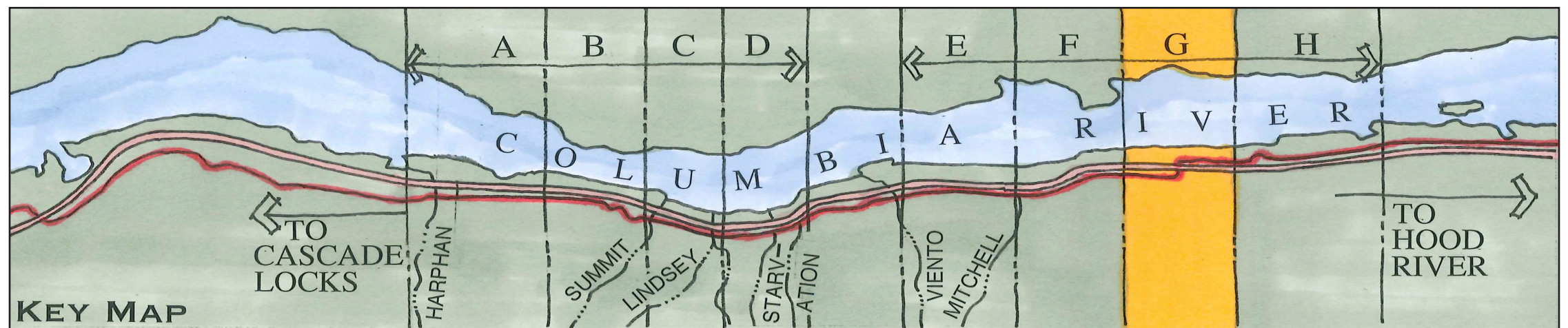
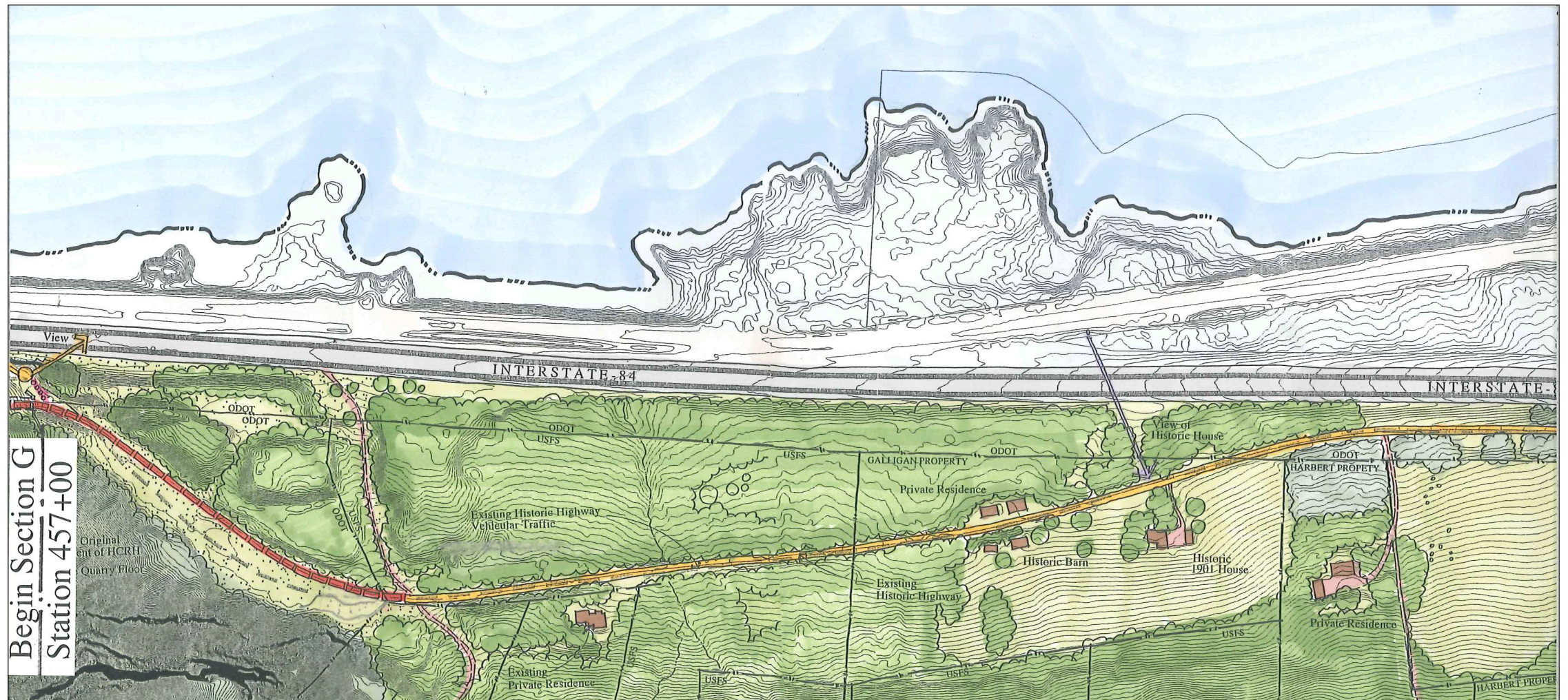
LEVEL OF DIFFICULTY:

EASY TO MODERATE

SLOPES NOT EXCEEDING 5%

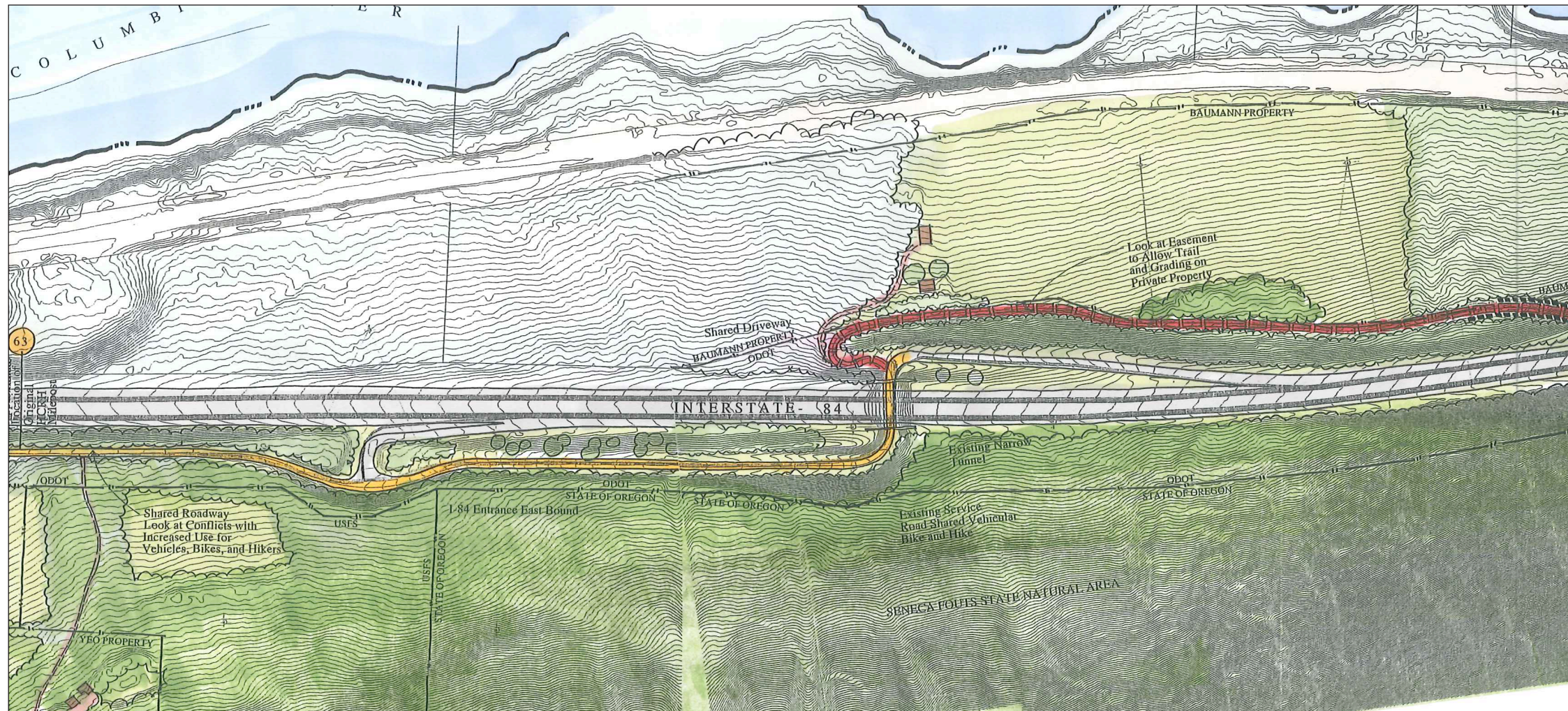
DESCRIPTION:

- **Section 457+00 – 466+00:** The Trail follows the original Historic Highway alignment through the existing quarry area. The quarry will be restored as part of the trail project. Overlooks north of the new tunnel entrance will provide a vantage point to view the original location of the Mitchell Point Tunnel. A vehicular turnaround will be located at the eastern end of the quarry site and will provide an end to the drivable section of Historic Highway that extends east of this site.
- **Section 466+00 – 515+00:** The Trail continues on the existing drivable section of Historic Highway and then follows the existing frontage road alongside I-84. The road/trail serves several private residences including a historic home dating to 1908. An east bound entrance ramp to I-84 is located along this section.
- **Section 515+00 – 546+00:** An existing narrow tunnel crossing underneath I-84 provides access north of the freeway. Due to the narrow width, the tunnel will need to be signalized to provide safe



East side of Mitchell Point Tunnel.





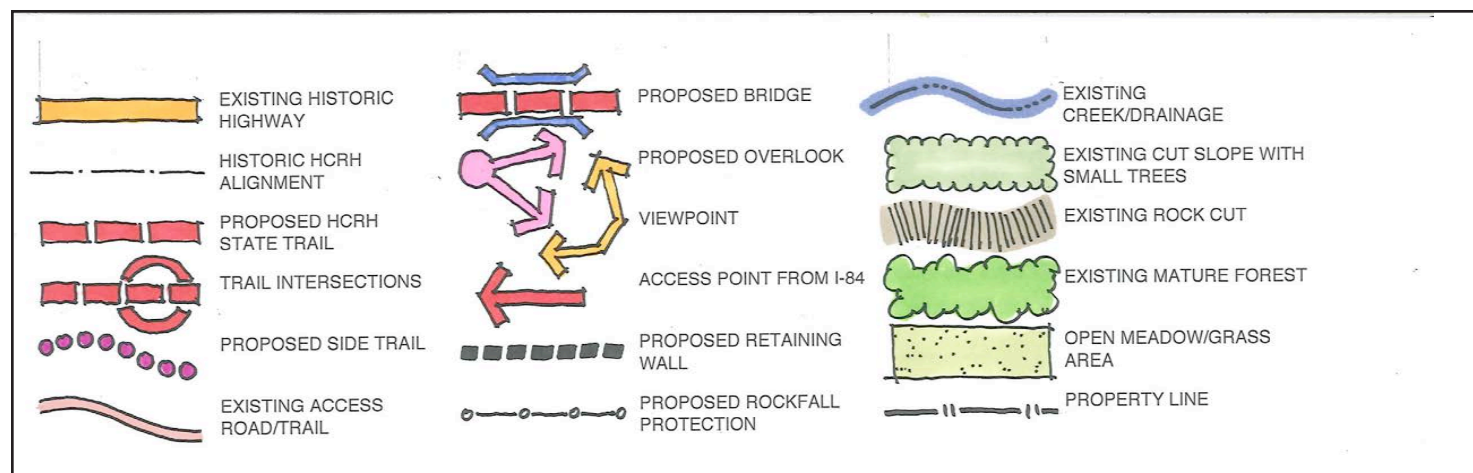
passage for vehicles, bikes and pedestrians. Beyond the tunnel crossing, the proposed trail alignment runs along the north side of I-84, straddling the ODOT right of way and neighboring private property. The Trail then heads uphill and runs adjacent to I-84. The Trail requires retaining walls to navigate between the highway and an extremely steep slope. The section of trail ends at the existing section of Historic Highway at Ruthton Point.

TRAIL SEGMENT HIGHLIGHTS:

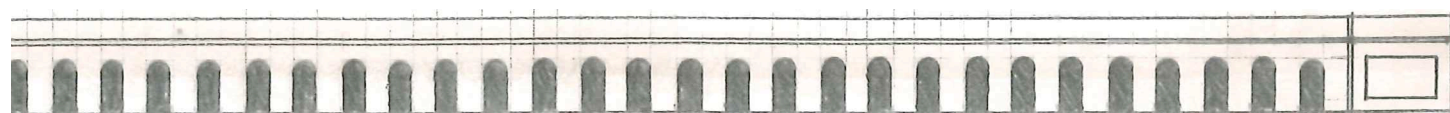
- Overlooks at the East Side of Mitchell Point that allow views of the historic tunnel alignment
- Restoration of ODOT quarry on the east side of Mitchell Point
- Historic Home and Barn
- Drivable section of the Historic Highway
- Scenic views from Ruthton Point

DESIGN/PERMITTING ISSUES:

- Recreation Intensity Class 2 at trailhead
- Site visible from several Key Viewing Areas: I-84, Columbia River, Highway 14
- Mitchell Point is potentially a Native American sacred site
- Limited site area, constrained by existing topography, creek and roads
- Conflict with vehicles and cyclists/pedestrians, particularly the tunnel under I-84
- Peregrine Falcon nesting site
- Restore alignment of Historic Highway east of Mitchell Point



Existing tunnel under I-84.



MITCHELL POINT EAST TRAILHEAD DESCRIPTION:

- Old gravel/rock quarry
- No existing trailhead development
- Remnants of HCRH at historic tunnel location
- Drivable section of the HCRH ends at this site
- Invasive species and remnant ornamental landscape plantings

TRAILHEAD AMENITIES:

- New tunnel through Mitchell Point
- Provide bike and hike trip staging area
- New overlooks with interpretive signage
- Improve trail access through the site
- Provide trail information, directional signage



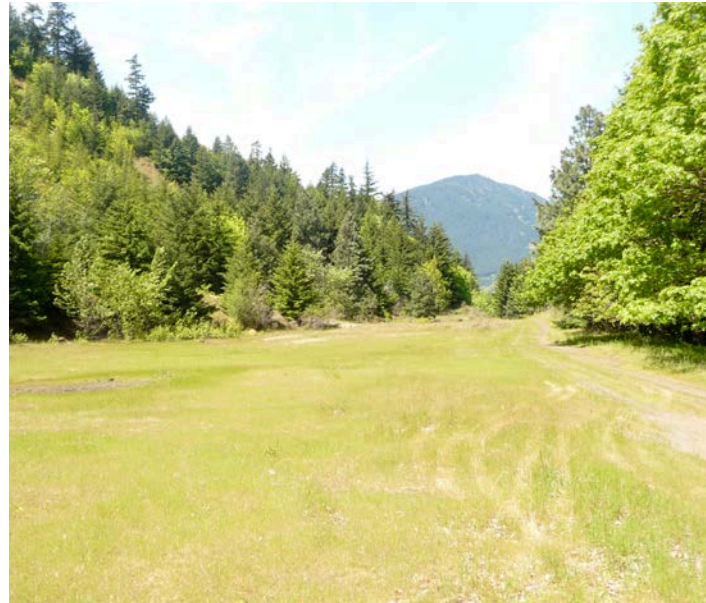
• Potential for 25 car parking area. However, no parking lot is identified in the State Trail Plan at this time. Additional study will be necessary prior to siting a parking lot at this location. This study will need to assess access to and from Interstate 84, concerns of the private property owners (vandalism, trespass, and fire), and potential conflicts with pedestrian and bicycle traffic.

MITCHELL POINT EAST TRAILHEAD DETAIL PLAN



Existing conditions of quarry floor east of Mitchell Point.





Existing quarry - east side of Mitchell Point.



"Locke's Highway Place" built in 1908.



Existing historic pavement east of Mitchell Point.

SEGMENT G COSTS:

Site Preparation	\$34,000.00
Grading and Drainage	\$120,000.00
Wall Construction	\$696,000.00
Quarry Reclamation	\$175,000.00
Trail Construction	\$239,000.00
Misc. Trail Improvements	\$274,000.00
Landscape Improvements	\$174,000.00
Subtotal	\$1,685,000.00
Engineering & Permits (20%)	\$337,000.00
Construction Engineering (15%)	\$253,000.00
Contingency	\$455,069.00
Project Costs (2010)	\$2,730,000.00
Project Costs (2014)	\$3,222,000.00

ISSUES FOR FURTHER STUDY:

- Impacts to Peregrine Falcon Habitat at the east side of Mitchell Point
- Traffic and parking study to determine level of service needed at this trailhead
- Engineering Options for Trail along I-84
- Ability to maintain trail along I-84, gravel removal after winter storms
- Trail alignment at Bauman Property, options for easements or land purchase
- Conflicts with private property from increased trail use
- Existing narrow tunnel crossing at I-84
- Addition of west bound highway on ramp at Bauman Property
- Potential location of a Trail Host Site at Mitchell Point West Trailhead
- Landscaping to mitigate invasive plants and grasses



View at proposed overlook at east side of Mitchell Point.



View looking toward location of historic tunnel at Mitchell Point.



Existing residence adjacent to the Historic Highway alignment.



LENGTH OF TRAIL SECTION:

1 MILE

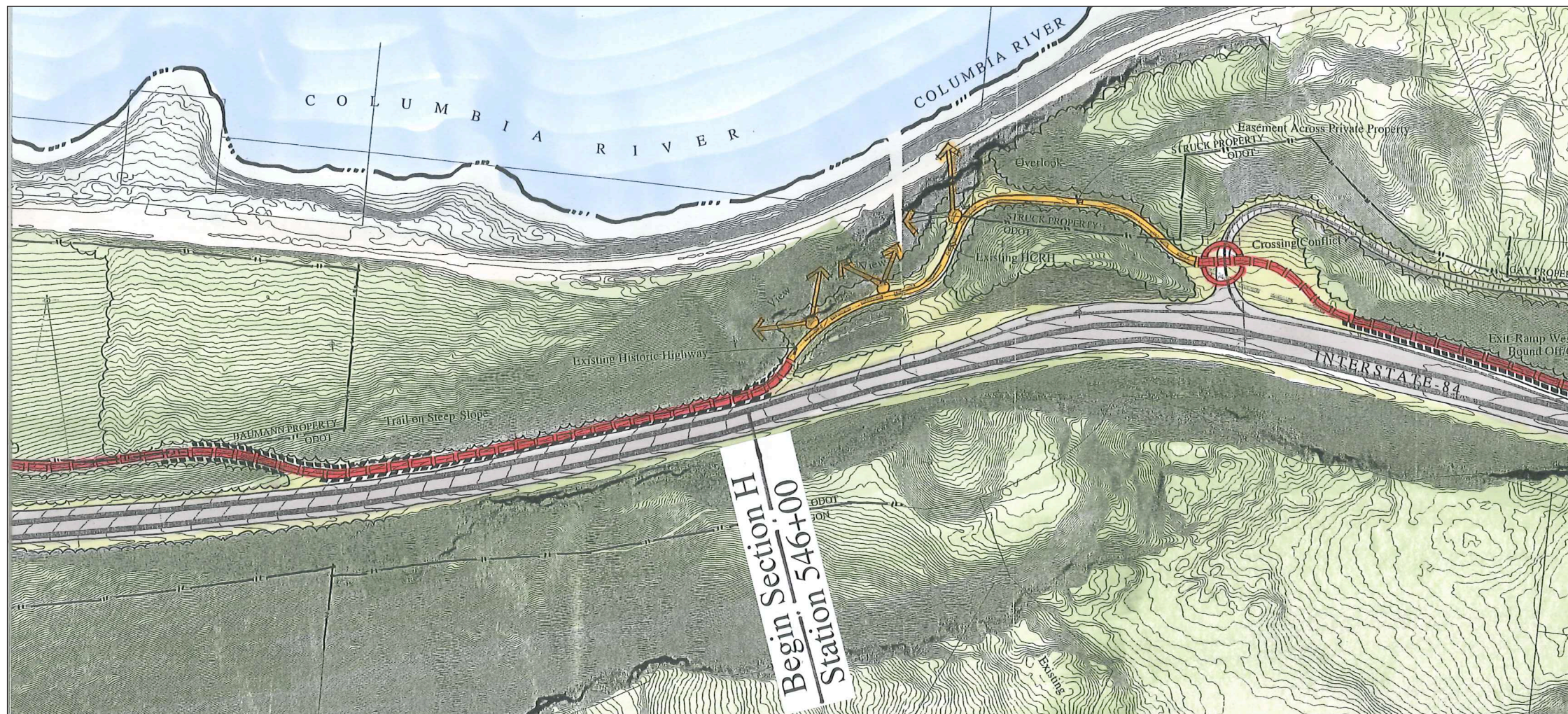
LEVEL OF DIFFICULTY:

EASY TO MODERATE

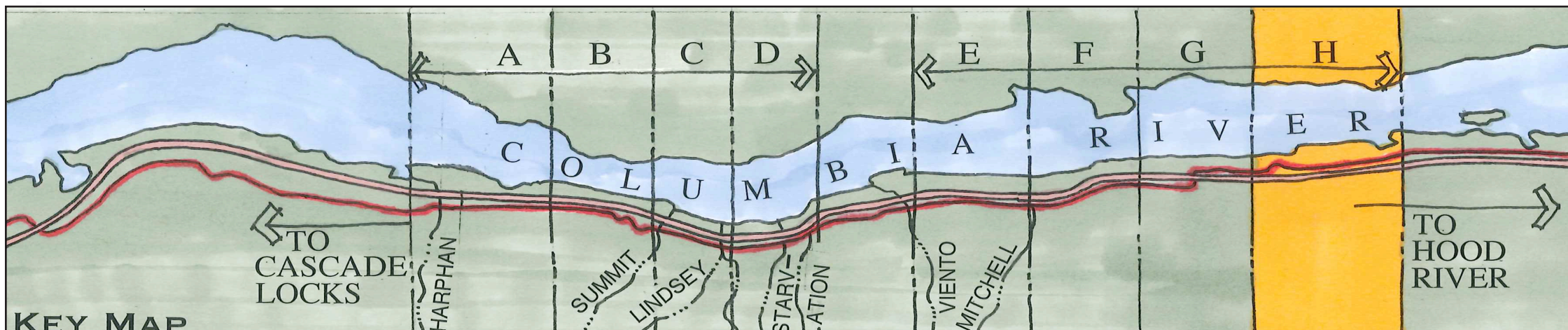
SLOPES NOT EXCEEDING 5%

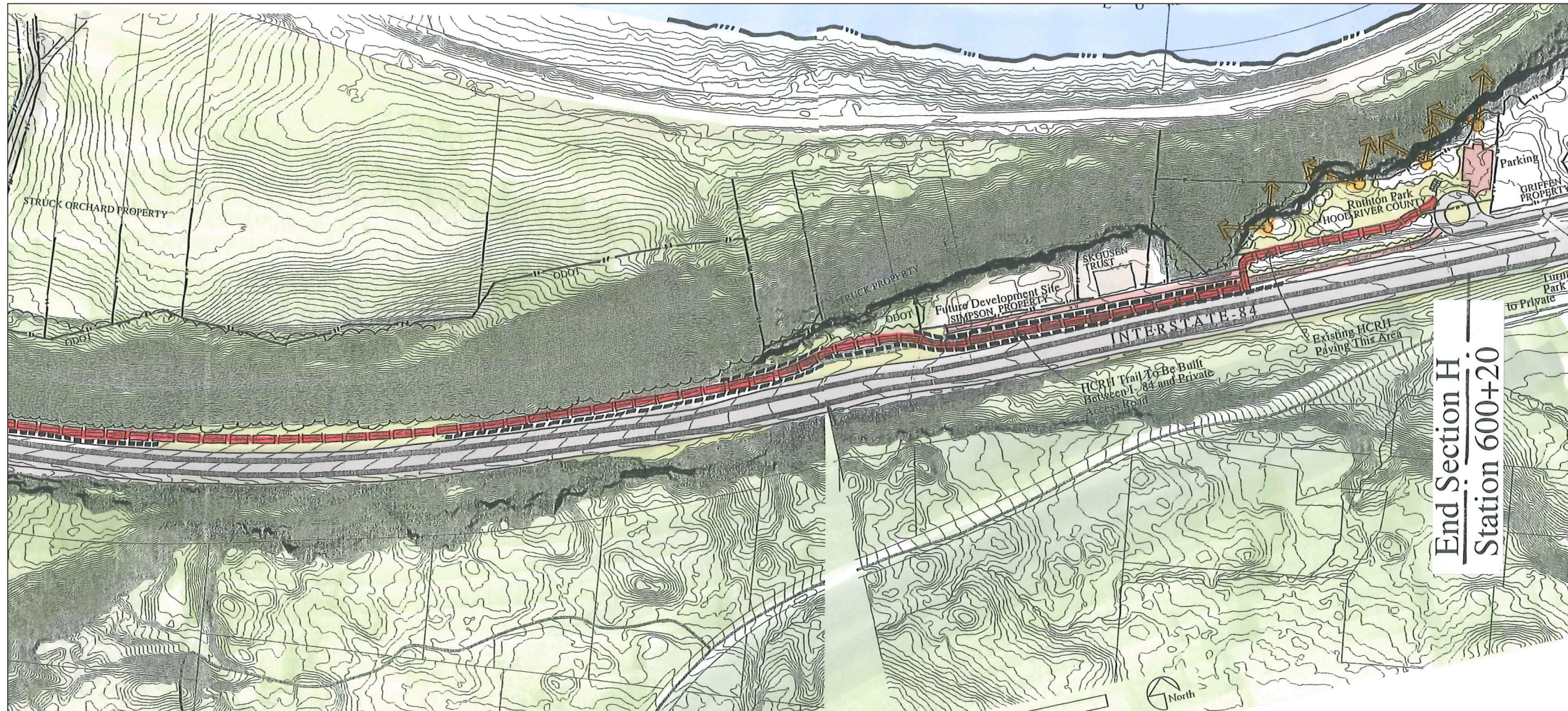
DESCRIPTION:

- **Section 546+00 – 585+00:** The Trail continues around Ruthton Point until it reaches road crossing at the I-84 west bound exit ramp. From this point, the Trail again parallels I-84; then the Trail requires retaining walls to navigate between the highway and extremely steep slopes.
- **Section 585+00 – 600+20:** This section of trail is located between I-84 and several private parcels. The Trail will be located between retaining walls that support the Trail above I-84 and the vehicular access that serves the private parcels. This section of road is the extension of Westcliff Drive. The trail then crosses Westcliff Drive and runs through Ruthton Park. A portion of this section of trail would be located on an existing section of Historic Highway. The Trail then ends at a new turnaround at the east end of Ruthton Park. The bicycle and pedestrian trail would then



Existing Highway viaduct section at Ruthton Point.





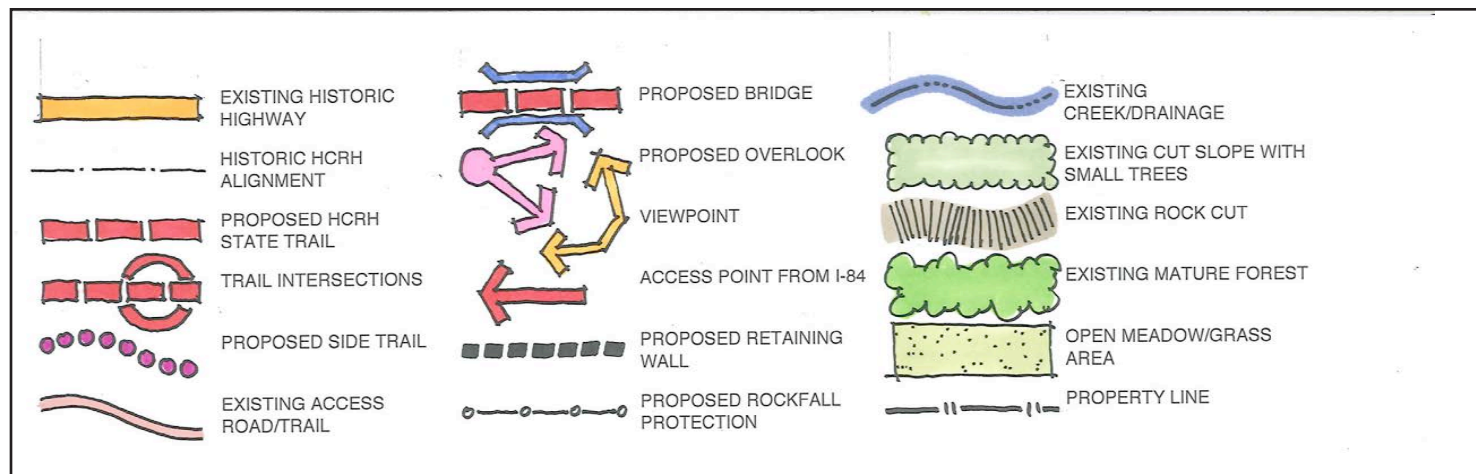
continue east of Ruthton Park along Westcliff Drive before crossing the freeway at Exit 62 where it would continue into Hood River along the original route of the Historic Highway.

TRAIL SEGMENT HIGHLIGHTS:

- Scenic views from Ruthton Park
- Historic Ruthton Point Overlook and Viaduct
- Future connection to other recreational resources

DESIGN/PERMITTING ISSUES:

- Site located in the urban area
- Limited site area, constrained by existing topography, creek and roads
- Conflict between vehicles and cyclist/pedestrians
- Small section of Historic Highway located in Park
- Potential for future land acquisition to expand Park area
- Work with Hood River County on management of the Park as a staging area for the State Trail
- Maintain access to private irrigation valves located adjacent to I-84, provide access gates as required



Existing conditions at I-84 west of Ruthton Point.

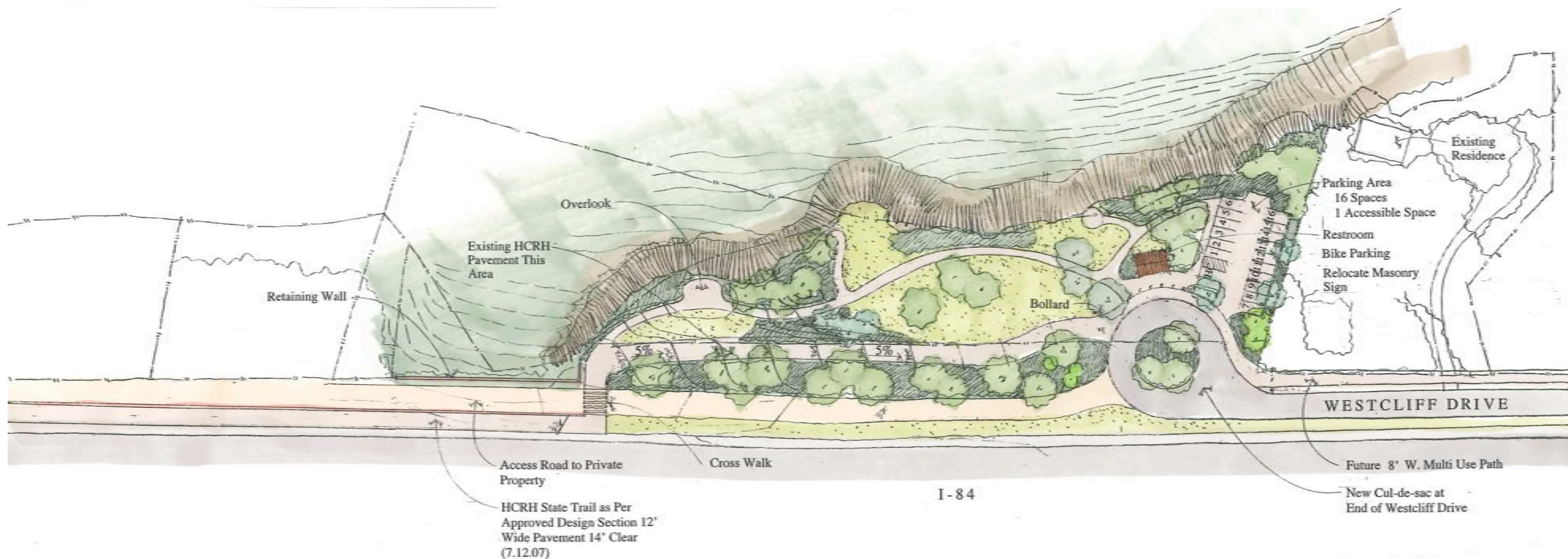


RUTHTON PARK TRAILHEAD DESCRIPTION:

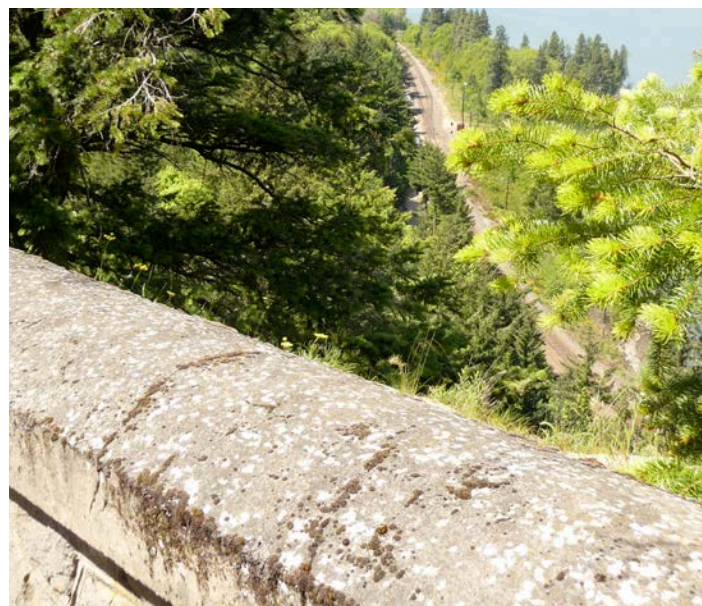
- Existing County Park
- Existing parking area
- Great views of the Columbia River
- Picnic areas

TRAILHEAD AMENITIES:

- Reconfigure parking area to provide for better traffic flow and turnaround
- Provide bike and hike trip staging area
- New overlooks with interpretive signage
- Improve trail access through the site
- Provide trail information, directional signage



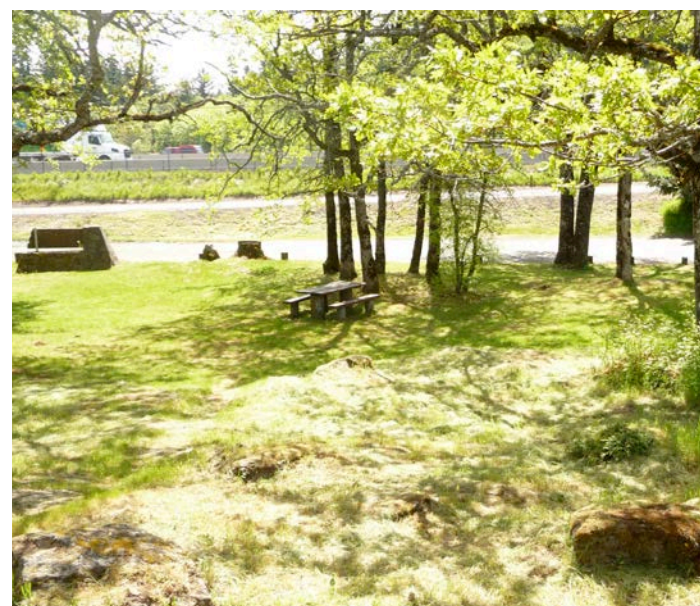
RUTHTON PARK TRAILHEAD DETAIL PLAN



View at Ruthnton Point.



Existing Historic Highway at Ruthnton Point.



Ruthnton Park.

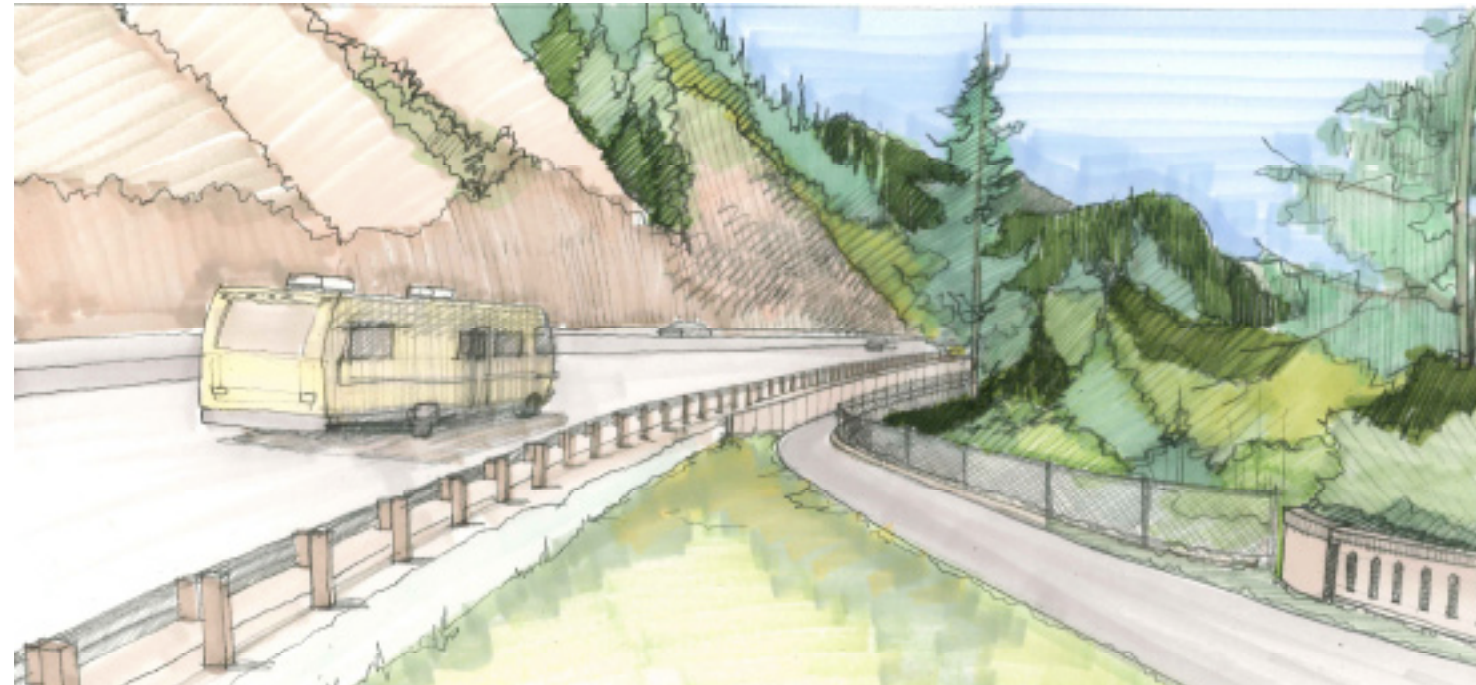


Entrance to Ruthnton Park.





View of Columbia River at Ruthton Point.



RUTHTON POINT TRAIL PERSPECTIVE



Restored Milepost 63 at Ruthton Point.



Existing Historic Highway alignment at Ruthton Point.



View from Ruthton Park.

SEGMENT H COSTS:

Site Preparation	\$21,000.00
Grading and Drainage	\$105,000.00
Wall Construction	\$2,096,000.00
Trail Construction	\$285,000.00
Misc. Trail Improvements	\$171,000.00
Landscape Improvements	\$125,000.00
Subtotal	\$2,803,000.00
Engineering & Permits (20%)	\$561,000.00
Construction Engineering (15%)	\$420,000.00
Contingency	\$757,000.00
Project Costs (2010)	\$4,541,000.00
Project Costs (2014)	\$5,359,000.00

TRAILHEAD AREA:

Site Preparation	\$13,000.00
Grading and Drainage	\$20,000.00
Paving	\$88,000.00
Restroom	\$80,000.00
Misc. Improvements	\$58,000.00
Landscape Improvements	\$41,000.00
Subtotal	\$300,000.00
Engineering & Permits (20%)	\$60,000.00
Construction Engineering (15%)	\$45,000.00
Contingency	\$81,000.00
Project Costs (2010)	\$484,000.00
Project Costs (2014)	\$571,000.00

ISSUES FOR FURTHER STUDY:

- Bike/Pedestrian connection along Westcliff, east of the Park
- Engineering options for Trail along I-84
- Investigate methods to maintain trail along I-84, gravel removal after winter storms
- Address conflicts with private property from increased trail use
- Future development and management of Ruthton Park
- Oak tree preservation plan for Ruthton Park, adjust design to preserve existing trees
- Study of how the bicycles and pedestrians will share Westcliff Drive with vehicles



DESIGN APPROACH:

The design team developed several design guidelines for the work of this project. These provided a basic structure for the decision making as we looked at the design of the Trail.

- Respect historic alignment
- Use as much of the existing Historic Highway as possible
- Direct people to the “Beauty Spots”
- Minimize site disturbance - “lay lightly on the land”
- Minimize trail slopes over 5%
- Avoid straight lines
- Respond to the existing topographic features
- Minimize trail sections adjacent to Interstate 84

DESIGN PROCESS:

The recently completed LIDAR survey work and GIS data gathered by ODOT provided the planning team with detailed topography to determine the most viable route for the Trail. The survey information also allowed the team to undertake extensive fieldwork to pinpoint on the ground where the alignment will be and to fine tune that layout with information on actual field conditions. This refined alignment will allow the Trail to be field staked. Additional on the ground survey work can document existing trees, walls, old building foundations, edges of roads, etc. not captured by the LIDAR survey to allow further refinements of the alignment as the project moves into future phases of design work.

We conducted a site analysis phase to help identify possible trailhead areas and potential expansions to existing OPRD facilities along the trail alignment. The analysis also looked at how existing topography, vegetation, and cultural resources would affect the trail design. The “Beauty Spots” were also identified as part of this process.

AGENCY COORDINATION

Individual Meetings were held with OPRD, ODOT, and USFS to review individual agencies’ particular design and management concerns. The underlining issue shared between all agencies was the need to develop agreements for the design, construction, and management of the State Trail. Negotiations for these agreements between agencies should start immediately so they can be in place as funding becomes available for implementation of the plan.

PUBLIC INVOLVEMENT

- Two public open houses (Hood River and Portland)
- Presentation at the Historic Columbia River Highway Advisory Committee

ENVIRONMENTAL CONSTRAINTS ANALYSIS

A Preliminary Environmental Constraints Analysis was completed for the trail alignment; no fatal flaws were found in the design. The Environmental Constraints Analysis did identify several issues that will need to be addressed as the project moves forward.

- Cultural resources to be identified, documented, and addressed in the final design
- Existing streams with known salmon habitat
- Potential endangered species issues
- Several areas where wetland determinations need to be done



REQUIRED SMA SCENIC STANDARDS		
LANDSCAPE SETTING	LAND USE DESIGNATION	SCENIC STANDARD
Coniferous Woodland, Oak-Pine Woodland	Forest (National Forest Lands), Open Space	Not Visually Evident
River Bottomlands	Open Space	Not Visually Evident
Gorge Walls, Canyonlands, Wildlands	Forest, Agriculture, Public Recreation, Open Space	Not Visually Evident
Coniferous Woodland, Oak-Pine Woodland	Forest, Agriculture, Residential, Public Recreation	Visually Subordinate
Residential	Residential	Visually Subordinate
Pastoral	Forest, Agriculture, Public Recreation, Open Space	Visually Subordinate
River Bottomlands	Forest, Agriculture, Public Recreation	Visually Subordinate

COLUMBIA RIVER GORGE NATIONAL SCENIC AREA MANAGEMENT PLAN ANALYSIS

“Provide for the restoration and connection of the remaining segments of the Historic Columbia River highway in keeping with its National Register status.” Special Management Area Goal 4.

The CRGNSA Management Plan lists the completion of the Historic Columbia River Highway State Trail as one of its major goals, allowing development of the State Trail as a reconnection of the Historic Columbia River Highway. But the goal of completion of the Historic Highway State Trail does not eliminate

the need to comply with the other provisions of the Management Plan.

The entire 11 mile Historic Highway State Trail Plan was developed using the Columbia River Gorge National Scenic Area Management Plan as a guide and decision-making tool. The CRGNSA is divided into two management types; the General Management Area (GMA) and the Special Management Area (SMA), which is typically more restrictive. Both management areas protect scenic resources from designated “Key Viewing Areas.” Within each management area are different land use designations. The land use designation and ownership determines the scenic standard which must be met. All development in

GMA land use designations and some SMA land use designations must meet the “Visually Subordinate” scenic standard. Development in some SMA land use designations must meet the more restrictive “Not Visually Evident” scenic standard.

The project study area is primarily located in the SMA with a 1/2 mile section at the east end of the study area located in the GMA. The proposed trail alignment falls within several land use designations including SMA Forest, SMA Open Space and SMA Public Recreation and GMA Large-Scale Agriculture.

The SMA Scenic Standards matrix outlines what scenic standard applies within SMA land use designations.

In addition to land use designations, there are also landscape settings which determine the overall character of that landscape and provide guidance for new development to be consistent with that character. The Trail falls within several landscape settings including Coniferous Woodlands, River Bottom and Pastoral.

The CRGNSA Management Plan also identifies limits on recreational activities as defined by the Recreation Intensity Classification (RIC). RIC determines the types of recreational activities and the intensity of activities that are allowed at any particular location. RIC’s primary impacts on the HCRH State Trail Plan are at the Trailhead locations, where RIC determines how many parking spaces are allowed and what types of amenities can be provided. Each of the proposed trailheads within the plan address the current RIC and are designed within the existing limits.

The CRGNSA Management Plan guided several areas of the trail design:

- The recreation intensity classes affected the types of facilities and the numbers of vehicles that could be

accommodated at the various trailheads. Proposed trailheads are designed to be consistent with these guidelines

- The relationship of the proposed Trail to Key Viewing Areas will affect the final design of the Trail and trail elements such as walls and other structures
- The plan requires various setbacks and relationships to riparian areas and other important natural features and habitat areas
- Protection and Enhancement of Cultural Resources
- Protection and Enhancement of Natural Resources

Large portions of the 11 mile Trail will be visible from one or more Key Viewing Areas (KVA’s). These include the Columbia River, Interstate 84, Highway 14, and the Historic Columbia River Highway. Due to the challenging topography the proposed trail will involve numerous walls, bridges, and other structures, increasing the visibility of the proposed trail from these KVA’s.

Design Guidelines for trail sections visible from KVA’s:

- Walls located within the I-84 ROW will be constructed to the design standards in compliance with I-84 Corridor Design Guidelines as used at the Warrendale section of I-84
- Proposed structures, such as walls, should be non-reflective and use dark earth tones
- New trails and structures should be screened from KVA’s (using existing topography or existing vegetation as a first option followed by use of berms and finally, vegetation)



STATION	TRAIL SEGMENT	PROJECT COST
0+00 - 64+00	Section A Wyeth Trailhead to Shellrock Mountain	\$3,555,672.00
64+00 - 105+00	Section B Shellrock Mountain to Summit Creek	\$5,428,848.00
105+00 - 168+00	Section C Summit Creek to Lindsey Creek	\$5,967,633.00
168+00 - 235+35	Section D Lindsey Creek to Starvation Creek	\$5,074,648.00
300+45 - 420+60	Section E Viento to Mitchell Creek	\$8,372,923.00
420+60 - 457+00	Section F Mitchell Creek to Mitchell Point East	\$14,346,998.00
457+00 - 546+00	Section G Mitchell Point East to Ruthton Point	\$3,221,887.00
546+00 - 600+20	Section H Ruthton Point to Ruthton Park	\$5,929,497.00
Trail Construction Total (2014 costs)		\$51,898,106.00

Parking Area	17,200	S.F.	\$5.50	\$94,600.00
Misc. Paving	3,000	S.F.	\$8.50	\$25,500.00
Trail Paving (12' wide, multi-use)	200	L.F.	\$42.00	\$8,400.00
Day Use Trail (6'-0" wide)	400	L.F.	\$30.00	\$12,000.00
Stripping (allowance)				\$3,500.00
Signage (allowance)				\$25,000.00
Landscape	6,000	S.Y.	\$22.50	\$135,000.00
Bollards	2	EA.	\$800.00	\$1,600.00
Curbs	400	L.F.	\$15.00	\$6,000.00
Tire Stops	25	EA.	\$150.00	\$3,750.00
Picnic tables	2	EA.	\$1,500.00	\$3,000.00
Benches	2	EA.	\$1,200.00	\$2,400.00
Bike Rack				\$1,800.00
Kiosk				\$15,000.00
Restroom (vault style)				\$80,000.00
R.V. Space with Full Hook Ups				\$65,000.00
Subtotal				\$524,750.00

SECTION A WYETH TRAILHEAD TO SHELLROCK MOUNTAIN
STATION 0+00 - 64+00 6400 L.F.

STATION	ITEM	QTY.	UNIT	PRICE PER	TOTAL
Trail Construction					
0+00 - 9+50	Entry Road Rehab	950	L.F.	\$35.00	\$33,250.00
9+50 - 64+00	Site Preparation/Clearing	3	Acre	\$8,500.00	\$25,500.00
9+50 - 64+00	Drainage (allowance)				\$15,000.00
9+50 - 64+00	New Trail (paving, base rock)	5,450	L.F.	\$60.00	\$327,000.00
22+00 - 25+00	Grading (cut and fill)	2,000	C.Y.	\$12.00	\$24,000.00
30+50 - 32+00	Retaining Walls (uphill)(8'-10' ht.)	150	L.F.	\$450.00	\$67,500.00
31+50 - 33+90	Retaining Walls (downhill)(6'-8')	240	L.F.	\$300.00	\$72,000.00
33+90 - 37+00	Retaining Wall (downhill) (3' ht.)	310	L.F.	\$230.00	\$71,300.00
31+50 - 37+00	Railing	550	L.F.	\$65.00	\$35,750.00
38+50 - 46+00	Grading (cut and fill)	4,000	C.Y.	\$25.00	\$100,000.00
46+00 - 61+00	Sideslope Construction	1,500	L.F.	\$160.00	\$240,000.00
46+00 - 61+00	Railing	1,500	L.F.	\$50.00	\$75,000.00
62+50 - 64+00	Extend Bin Wall (10'-12')	150	L.F.	\$500.00	\$75,000.00
9+50 - 64+00	Landscape Enhancements	12,000	S.Y.	\$14.50	\$174,000.00
Subtotal					\$1,335,300.00
Trailhead Improvements					
	Site Preparation/Clearing				\$5,000.00
	Grading	600	C.Y.	\$12.00	\$7,200.00
	Drainage				\$30,000.00

SECTION B SHELLROCK MOUNTAIN CROSSING TO SUMMIT CREEK
STATION 64+00 - 105+00 4100 L.F.

STATION	ITEM	QTY.	UNIT	PRICE PER	TOTAL
Trail Construction					
64+00 - 105+00	Site Preparation/Clearing	3	Acre	\$8,500.00	\$21,250.00
64+00 - 105+00	Drainage (allowance)				\$15,000.00
64+00 - 90+25	New Trail (paving, base rock)	2,625	L.F.	\$60.00	\$157,500.00
64+00 - 76+00	Gabion Wall	1,200	L.F.	\$350.00	\$420,000.00
64+00 - 76+00	Grading/Fill	4,600	C.Y.	\$25.00	\$115,000.00

Raw Construction	\$1,860,050.00
Engineering & Permits (20%)	\$372,010.00
Construction Engineering (15%)	\$279,007.50
Subtotal	\$2,511,067.50
Contingency	\$502,213.50
Estimated Project Cost (2010 Dollars)	\$3,013,281.00
Estimated Project Cost (2014 Dollars)	\$3,555,671.58



64+00 - 76+00	Railing	1,200	L.F.	\$65.00	\$78,000.00	115+00 - 133+35	Existing HCRH Renovation	1,835	L.F.	\$20.00	\$36,700.00	
	Salvage Existing Rockfall Fence				\$150,000.00	118+30	Overlook					
64+00 - 90+25	Rockfall Protection	2,625	L.F.	\$500.00	\$1,312,500.00		Masonry Wall	60	L.F.	\$350.00	\$21,000.00	
84+25 - 85+50	Retaining Wall (10' ht.)	125	L.F.	\$650.00	\$81,250.00		Paving	400	S.F.	\$30.00	\$12,000.00	
84+25 - 85+50	Railing	125	L.F.	\$50.00	\$6,250.00		Bench	1	EA.	\$1,200.00	\$1,200.00	
90+25 - 103+00	Existing HCRH Renovation	1,275	L.F.	\$20.00	\$25,500.00	121+25	Overlook					
102+75	Viewpoint/Overlook						Trail to Overlook (6' wide)	240	L.F.	\$30.00	\$7,200.00	
	Masonry Wall	60	L.F.	\$350.00	\$21,000.00		Masonry Wall	60	L.F.	\$350.00	\$21,000.00	
	Masonry Paving	500	S.F.	\$30.00	\$15,000.00		Paving	460	S.F.	\$30.00	\$13,800.00	
	Bench	1	EA.	\$1,200.00	\$1,200.00		Bench	1	EA.	\$1,200.00	\$1,200.00	
	Interpretive Signage				\$40,000.00	133+35 - 166+25	New Trail (paving, base rock)	3,290	L.F.	\$60.00	\$197,400.00	
104+31 - 104+90	Bridge at Summit Creek				\$250,000.00	133+35 - 166+25	Grading (cut and fill)	15,000	C.Y.	\$12.00	\$180,000.00	
64+00 - 105+00	Landscape Enhancements	9,000	S.Y.	\$14.50	\$130,500.00	147+00 - 149+00	Retaining Wall (4' -6' ht.)	200	L.F.	\$240.00	\$48,000.00	
					Subtotal	150+00	Overlook					
							Masonry Wall	60	L.F.	\$3,500.00	\$210,000.00	
					Raw Construction		Trail to Overlook	260	L.F.	\$30.00	\$7,800.00	
					Engineering & Permits (20%)		Interpretive Signage				\$20,000.00	
					Construction Engineering (15%)		Fencing	200	L.F.	\$18.00	\$3,600.00	
					Subtotal		Bike parking	1	EA.	\$1,800.00	\$1,800.00	
							Bench				\$1,200.00	
					Contingency		Retaining Wall (4' -6' ht.)	325	L.F.	\$240.00	\$78,000.00	
							Bridge at Lindsey Creek				\$250,000.00	
					Estimated Project Cost (2010 Dollars)		New Trail (paving, base rock)	125	L.F.	\$60.00	\$7,500.00	
					\$4,600,719.00		Retaining Wall (4' -6' ht.)	125	L.F.	\$240.00	\$30,000.00	
					Estimated Project Cost (2014 Dollars)		Landscape Enhancements	16,600	S.Y.	\$14.50	\$240,700.00	
											Subtotal	\$3,121,800.00

SECTION C SUMMIT CREEK TO LINDSEY CREEK
STATION 105+00 - 168+00 6300 L.F.

STATION	ITEM	QTY.	UNIT	PRICE PER	TOTAL
	Trail Construction				
105+00 - 168+00	Site Preparation/Clearing	5	S.Y.	\$8,500.00	\$42,500.00
105+00 - 168+00	Drainage (allowance)				\$30,000.00
105+00 - 112+00	New Trail (paving, base rock)	700	L.F.	\$60.00	\$42,000.00
105+00 - 112+00	Fill	8,000	C.Y.	\$25.00	\$200,000.00
108+00 - 112+00	Retaining Wall (10' ht.+)	400	L.F.	\$650.00	\$260,000.00
107+00 - 112+00	Rock Fall Protection	500	L.F.	\$500.00	\$250,000.00
112+00 - 113+80	Viaduct	180	L.F.	\$5,000.00	\$900,000.00
113+80 - 115+00	New Trail (paving, base rock)	120	L.F.	\$60.00	\$7,200.00

Raw Construction	\$3,121,800.00
Engineering & Permits (20%)	\$624,360.00
Construction Engineering (15%)	\$468,270.00
Subtotal	\$4,214,430.00
Contingency	\$842,886.00
Estimated Project Cost (2010 Dollars)	\$5,057,316.00
Estimated Project Cost (2014 Dollars)	\$5,967,632.88



SECTION D LINDSEY CREEK TO STARVATION CREEK

STATION 168+00 - 235+35 6735 L.F.

STATION	ITEM	QTY.	UNIT	PRICE PER	TOTAL
Trail Construction					
168+00 - 235+35	Site Preparation/Clearing	6	Acre	\$8,500.00	\$51,000.00
168+00 - 235+35	Drainage (allowance)				\$30,000.00
168+00 - 216+00	New Trail (paving, base rock)	4,800	L.F.	\$60.00	\$288,000.00
170+00 - 190+00	Retaining Wall (3' ht.)	2,000	L.F.	\$240.00	\$480,000.00
170+00 - 190+00	Railing	2,000	L.F.	\$65.00	\$130,000.00
170+00 - 174+50	Rockfall Protection	450	L.F.	\$500.00	\$225,000.00
193+67 - 194+00	Bridge at Warren Creek				\$250,000.00
201+00	Overlook at Warren Creek Falls				
	Masonry Wall	50	L.F.	\$350.00	\$17,500.00
	Paving	340	S.F.	\$30.00	\$10,200.00
	Bench	1	EA.	\$1,200.00	\$1,200.00
	Interpretive Signage				\$10,000.00
201+00 - 216+00	Grading (cut and fill)	1,800	C.Y.	\$25.00	\$45,000.00
216+00 - 224+50	Existing HCRH Renovation	850	L.F.	\$20.00	\$17,000.00
217+50	Overlook at Cabin Creek Waterfall				
	Masonry Wall	40	L.F.	\$350.00	\$14,000.00
	Paving	260	S.F.	\$30.00	\$7,800.00
	Bench	1	EA.	\$1,200.00	\$1,200.00
	Interpretive Signage				\$10,000.00
224+50 - 235+35	New Trail (paving, base rock)	1,085	L.F.	\$60.00	\$65,100.00
227+00 - 231+60	Wall at Exist. Berm (3' ht.)	460	L.F.	\$240.00	\$110,400.00
227+00 - 231+60	Rock Fall Fence at Existing Berm	460	L.F.	\$500.00	\$230,000.00
232+00 - 234+00	Retaining Wall at Parking Area	200	L.F.	\$360.00	\$72,000.00
232+00 - 234+00	Railing	200	L.F.	\$65.00	\$13,000.00
232+00 - 234+00	Rock Fall Fence at Parking	200	L.F.	\$500.00	\$100,000.00
168+00 - 235+35	Landscape Enhancements	18,000	S.F.	\$14.50	\$261,000.00
	Subtotal				\$2,439,400.00
Trailhead Improvements					
	Site Preparation	1,400	S.F.	\$4.50	\$6,300.00
	Grading (fill)	500	C.Y.	\$25.00	\$12,500.00
	Drainage (allowance)				\$5,000.00
	Saw Cut Paving	400	L.F.	\$3.00	\$1,200.00

Demo/Remove Existing Paving	1,800	S.F.	\$5.00	\$9,000.00
Retaining Wall	280	L.F.	\$350.00	\$98,000.00
Curbing	160	L.F.	\$15.00	\$2,400.00
Paving (paving and subgrade)	4,000	S.F.	\$6.50	\$26,000.00
Fencing	160	L.F.	\$50.00	\$8,000.00
Striping				\$3,500.00
Signage				\$20,000.00
Landscape	1,600	S.Y.	\$14.60	\$23,360.00
			Subtotal	\$215,260.00

Raw Construction	\$2,654,660.00
Engineering & Permits (20%)	\$530,932.00
Construction Engineering (15%)	\$398,199.00
Subtotal	\$3,583,791.00

Contingency \$716,758.20

Estimated Project Cost (2010 Dollars) \$4,300,549.20

Estimated Project Cost (2014 Dollars) \$5,074,648.06

SECTION E VIENTO TO MITCHELL CREEK

STATION 300+45 - 420+60 12,015 L.F.

SECTION	ITEM	QTY.	UNIT	PRICE PER	TOTAL
Trail Construction					
300+45 - 420+60	Site Preparation/Clearing	6	Acre	\$8,500.00	\$46,750.00
300+45 - 420+60	Drainage (allowance)				\$30,000.00
300+45 - 313+25	New Trail (paving, base rock)	1,280	L.F.	\$60.00	\$76,800.00
307+25	Gate	1	EA.	\$5,000.00	\$5,000.00
310+00 - 313+00	Grading (cut)	400	C.Y.	\$25.00	\$10,000.00
313+25 - 320+00	Existing HCRH Renovation	675	L.F.	\$15.00	\$10,125.00
320+00 - 326+50	New Trail (paving, base rock)	650	L.F.	\$60.00	\$39,000.00
320+00 - 326+50	Retaining Wall	650	L.F.	\$240.00	\$156,000.00
320+00 - 326+50	Railing	650	L.F.	\$65.00	\$42,250.00
326+50 - 330+00	Existing HCRH Renovation	350	L.F.	\$15.00	\$5,250.00
330+00 - 334+60	New Trail (paving, base rock)	460	L.F.	\$60.00	\$27,600.00



330+00 - 334+60	Rock Fall	460	L.F.	\$500.00	\$230,000.00
334+60 - 338+50	Existing HCRH Renovation	390	L.F.	\$15.00	\$5,850.00
338+50 - 343+00	New Trail (paving, base rock)	450	L.F.	\$35.00	\$15,750.00
338+50 - 343+00	Retaining Wall	450	L.F.	\$360.00	\$162,000.00
338+50 - 343+00	Railing	450	L.F.	\$65.00	\$29,250.00
338+50 - 343+00	Rock Fall Protection	450	L.F.	\$500.00	\$225,000.00
343+00 - 348+50	Existing HCRH Renovation	500	L.F.	\$15.00	\$7,500.00
348+50 - 362+00	New Trail (paving, base rock)	1,350	L.F.	\$60.00	\$81,000.00
352+00 - 354+00	Rock Fall Protection	200	L.F.	\$500.00	\$100,000.00
354+00 - 362+00	Grading	2,000	C.Y.	\$25.00	\$50,000.00
354+00 - 362+00	Retaining Wall	800	L.F.	\$340.00	\$272,000.00
354+00 - 362+00	Railing	800	L.F.	\$50.00	\$40,000.00
362+00 - 366+25	Existing HCRH Renovation	425	L.F.	\$20.00	\$8,500.00
366+25 - 384+00	New Trail (paving, base rock)	1,775	L.F.	\$60.00	\$106,500.00
366+25 - 372+00	Grading	1,500	C.Y.	\$25.00	\$37,500.00
370+00 - 371+25	Retaining Wall	125	L.F.	\$340.00	\$42,500.00
370+00 - 371+25	Railing	125	L.F.	\$65.00	\$8,125.00
372+00 - 385+00	Rock Fall	1,300	L.F.	\$500.00	\$650,000.00
384+00 - 388+50	Existing HCRH Renovation	450	L.F.	\$20.00	\$9,000.00
388+50 - 390+20	New Trail (paving, base rock)	170	L.F.	\$60.00	\$10,200.00
389+80	Interpretive Area at Masonry Sign				\$15,000.00
390+20 - 390+80	Bridge at Perham Creek				\$200,000.00
390+80 - 412+50	New Trail (paving, base rock)	2,170	L.F.	\$60.00	\$130,200.00
398+00 - 407+00	Grading	1,600	C.Y.	\$25.00	\$40,000.00
398+00 - 405+00	Retaining Wall	700	L.F.	\$240.00	\$168,000.00
398+00 - 405+00	Railing	700	L.F.	\$65.00	\$45,500.00
412+50 - 420+20	Existing HCRH Renovation	770	L.F.	\$20.00	\$15,400.00
420+20 - 420+60	New Bridge at Mitchell Creek				\$180,000.00
300+45 - 420+60	Landscape Enhancement	24,000	S.Y.	\$14.50	\$348,000.00
				Subtotal	\$3,681,550.00
Viento Trailhead Improvements					
	Site Preparation	2,500	S.F.	\$4.50	\$11,250.00
	Drainage				\$5,000.00
	Saw Cut	200	L.F.	\$3.00	\$600.00
	Demolition	4,000	S.F.	\$5.00	\$20,000.00
	Retaining Wall (4'-6' ht.)	220	L.F.	\$260.00	\$57,200.00
	Railing	220	L.F.	\$50.00	\$11,000.00
	Grading	250	C.Y.	\$12.00	\$3,000.00

Paving (paving and subgrade)	9,200	S.F.	\$6.50	\$59,800.00
Misc Paving	900	S.F.	\$10.50	\$9,450.00
Striping				\$2,400.00
Signage				\$8,000.00
Landscape	1,400	S.Y.	\$22.50	\$31,500.00
			Subtotal	\$219,200.00

Improvements at State Park Campground and Shop/Office Site

Site Preparation	2,000	S.F.	\$4.50	\$9,000.00
Drainage				\$4,500.00
Saw Cut	120	L.F.	\$3.00	\$360.00
Demolition	2,800	S.F.	\$5.00	\$14,000.00
Grading	800	C.Y.	\$12.00	\$9,600.00
Paving (paving and subgrade)	2,000	S.F.	\$6.50	\$13,000.00
Misc Paving	1,800	S.F.	\$10.50	\$18,900.00
Fencing (automatic gate)	450	L.F.	\$40.00	\$18,000.00
Gate at Shop Area				\$12,000.00
Bollards	4	EA.	\$800.00	\$3,200.00
R.V. Space with Full Hook Ups				\$65,000.00
Landscape	21,500	S.Y.	\$14.50	\$311,750.00
			Subtotal	\$479,310.00

Raw Construction	\$4,380,060.00
Engineering & Permits (20%)	\$876,012.00
Construction Engineering (15%)	\$657,009.00
Subtotal	\$5,913,081.00

Contingency \$1,182,616.20

Estimated Project Cost (2010 Dollars)	\$7,095,697.20
Estimated Project Cost (2014 Dollars)	\$8,372,922.70



SECTION	ITEM	QTY.	UNIT	PRICE PER	TOTAL
SECTION F MITCHELL CREEK TO MITCHELL POINT TUNNEL					
STATION	420+60 - 457+00	3,640 L.F.			
Trail Construction					
420+60 - 457+00	Site Preparation/Clearing	1	Acre	\$8,500.00	\$8,500.00
420+60 - 457+00	Drainage (allowance)				\$20,000.00
420+60 - 420+88	Existing HCRH Restoration	28	L.F.	\$20.00	\$560.00
420+88 - 426+50	New Trail (paving, base rock)	562	L.F.	\$60.00	\$33,720.00
420+88 - 426+50	Grading	850	C.Y.	\$25.00	\$21,250.00
421+50 - 425+00	Retaining Wall (4'-6' ht.)	350	L.F.	\$260.00	\$91,000.00
426+00 - 443+70	Existing HCRH Restoration	1,770	L.F.	\$20.00	\$35,400.00
443+70 - 444+44	New Trail (paving, base rock)	74	L.F.	\$60.00	\$4,440.00
444+44 - 457+00	Tunnel				\$6,000,000.00
	Paving Through Tunnel	1,256	L.F.	\$60.00	\$75,360.00
	Masonry Tunnel Portals	1,200	F.F.	\$150.00	\$180,000.00
	Rock Fall at West Portal	400	L.F.	\$500.00	\$200,000.00
420+60 - 457+00	Landscape Enhancement	4000	S.Y.	\$14.50	\$58,000.00
	Subtotal				\$6,728,230.00
Viewpoints at Mitchell Point West					
	Masonry Wall	140	L.F.	\$350.00	\$49,000.00
	Paving	860	S.F.	\$30.00	\$25,800.00
	Guardrail	160	L.F.	\$110.00	\$17,600.00
	Signage				\$20,000.00
	Subtotal				\$112,400.00
Trailhead Improvements					
	Site Preparation	15,000	S.F.	\$4.50	\$67,500.00
	Drainage				\$25,000.00
	Saw Cut	300	L.F.	\$160.00	\$48,000.00
	Demolition	5,000	S.F.	\$5.00	\$25,000.00
	Grading	500	C.Y.	\$12.00	\$6,000.00
	Retaining Wall	300	L.F.	\$260.00	\$78,000.00
	Rock fall fence	400	C.Y.	\$500.00	\$200,000.00
	Paving (paving and subgrade)	14,000	S.F.	\$6.50	\$91,000.00
	Misc Paving	2,800	S.F.	\$10.50	\$29,400.00
	Striping				\$3,200.00
	Signage				\$20,000.00

Landscape	1,200	S.Y.	\$22.50	\$27,000.00
Ride Through Gate				\$15,000.00
Bollards	3	EA.	\$800.00	\$2,400.00
Fencing	50	L.F.	\$50.00	\$2,500.00
Bike rack	1	EA.	\$1,800.00	\$1,800.00
Kiosk				\$15,000.00
Benches	4	EA.	\$1,200.00	\$4,800.00
Picnic tables	2	EA.	\$1,500.00	\$3,000.00
			Subtotal	\$664,600.00
			Raw Construction	\$7,505,230.00
			Engineering & Permits (20%)	\$1,501,046.00
			Construction Engineering (15%)	\$1,125,784.50
			Subtotal	\$10,132,060.50
			Contingency	\$2,026,412.10
			Estimated Project Cost (2010 Dollars)	\$12,158,472.60
			Estimated Project Cost (2014 Dollars)	\$14,346,997.67

SECTION	ITEM	QTY.	UNIT	PRICE PER	TOTAL
SECTION G EAST SIDE OF MITCHELL POINT TO RUTHTON POINT					
STATIONS	457+00 - 546+00	8900 L.F.			
Trail Construction					
457+00 - 546+00	Site Preparation/Clearing	4	Acre	\$8,500.00	\$34,000.00
457+00 - 546+00	Drainage (allowance)				\$20,000.00
457+00 - 466+40	New Trail (paving, base rock)	940	L.F.	\$60.00	\$56,400.00
457+00 - 466+40	Quarry Reclamation	50,000	S.F.	\$3.50	\$175,000.00
457+00	Overlook				
	Masonry Wall	60	L.F.	\$350.00	\$21,000.00
	Paving	360	S.F.	\$30.00	\$10,800.00
	Trail to Overlook	280	S.F.	\$10.50	\$2,940.00
	Bike Rack	1	EA.	\$1,800.00	\$1,800.00
	Interpretive Signage				\$15,000.00



466+40	Gate/Bollards				\$3,500.00	
466+40	Turnaround				\$15,000.00	
514+00 - 514+60	Ex. Tunnel Signalization				\$50,000.00	
516+00 - 546+00	New Trail (paving, base rock)	3,000	L.F.	\$60.00	\$180,000.00	
516+00 - 536+00	Grading	4,000	C.Y.	\$25.00	\$100,000.00	
519+00 - 525+00	Retaining Wall (4' ht.)	600	L.F.	\$260.00	\$156,000.00	
533+00 - 545+00	Retaining Wall (8'-10' ht.)	1,200	L.F.	\$450.00	\$540,000.00	
519+00 - 545+00	Railing	2,600	L.F.	\$50.00	\$130,000.00	
457+00 - 546+00	Landscape Enhancements	12,000	S.Y.	\$14.50	\$174,000.00	
				Subtotal	\$1,685,440.00	
				Raw Construction	\$1,685,440.00	
				Engineering & Permits (20%)	\$337,088.00	
				Construction Engineering (15%)	\$252,816.00	
				Subtotal	\$2,275,344.00	
				Contingency	\$455,068.80	
				Estimated Project Cost (2010 Dollars)	\$2,730,412.80	
				Estimated Project Cost (2014 Dollars)	\$3,221,887.10	

546+00 - 600+20	Landscape Enhancements	8,600	S.Y.	\$14.50	\$124,700.00	
				Subtotal	\$2,803,150.00	
	Parking Area Improvements					
	Site Preparation	2,800	S.F.	\$4.50	\$12,600.00	
	Drainage				\$15,000.00	
	Grading	400	C.Y.	\$12.00	\$4,800.00	
	Paving (paving and subgrade)	5,400	S.F.	\$6.50	\$35,100.00	
	Cul-de-sac Paving	7,200	S.F.	\$6.50	\$46,800.00	
	Misc. Paving	600	S.F.	\$10.50	\$6,300.00	
	Paths (4'-6' wide)	600	L.F.	\$30.00	\$18,000.00	
	Striping				\$2,400.00	
	Signage				\$10,000.00	
	Landscape	1,800	S.Y.	\$22.50	\$40,500.00	
	Bollards	9	EA.	\$600.00	\$5,400.00	
	Kiosk				\$15,000.00	
	Restroom (vault toilet)				\$80,000.00	
	Bike rack	1	EA.	\$1,800.00	\$1,800.00	
	Relocate Masonry sign				\$5,000.00	
				Subtotal	\$298,700.00	

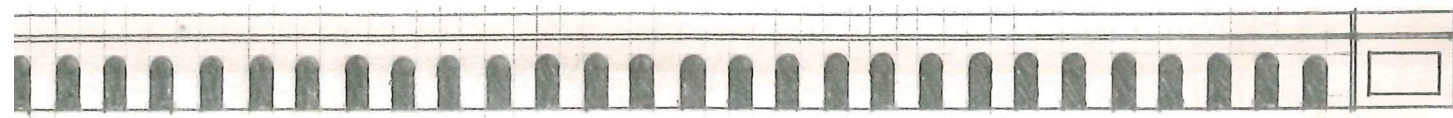
Raw Construction	\$3,101,850.00
Engineering & Permits (20%)	\$620,370.00
Construction Engineering (15%)	\$465,277.50
Subtotal	\$4,187,497.50

SECTION H RUTHTON POINT TO RUTHTON PARK, HOOD RIVER
SECTION 546+00 - 600+20 5420 L.F.

SECTION	ITEM	QTY.	UNIT	PRICE PER	TOTAL
	Trail Construction				
546+00 - 600+20	Site Preparation/Clearing	3	acre	\$8,500.00	\$21,250.00
546+00 - 600+20	Drainage (allowance)				\$35,000.00
546+00 - 556+00	Historic Road Rehab	1,000	L.F.	\$20.00	\$20,000.00
556+00 - 600+20	New Trail (paving, base rock)	4,420	L.F.	\$60.00	\$265,200.00
561+00 - 589+00	Grading	2,800	L.F.	\$25.00	\$70,000.00
561+00 - 571+00	Retaining Wall	1,000	L.F.	\$800.00	\$800,000.00
577+50 - 586+50	Retaining Wall	900	L.F.	\$800.00	\$720,000.00
588+00 - 595+20	Retaining Wall	720	L.F.	\$800.00	\$576,000.00
561+00 - 595+20	Railings	3,420	L.F.	\$50.00	\$171,000.00

Contingency \$837,499.50

Estimated Project Cost (2010 Dollars)	\$5,024,997.00
Estimated Project Cost (2014 Dollars)	\$5,929,496.46



ISSUES FOR FURTHER STUDY AND CONSIDERATION AND NEXT STEPS:

**COLUMBIA GORGE MANAGEMENT UNIT
MASTER PLAN UPDATE**

OPRD has recognized the need to update the 1993 Columbia Gorge District Master Plan. The Master Plan could address the following elements or these elements could be addressed in separate planning efforts in partnership with ODOT, USFS and OPRD.

- Development Proposals
- Identify bike camping location
- Identify locations for host sites along the Trail
- Recreational Demand
- Metrics for use
- Day use fees
- Share parking with nearby facilities
- Interpretive Plan
- Incorporate findings from the 2009 Oral History Project
- Sign/Wayfinding Plan
- Signing system and consistent system of mapping will help visitors understand and enjoy the Trail
- Maintenance and Management Plan
- Work with the Cultural Landscape Inventory and Cultural Landscape Report to determine appropriate maintenance activities for the contributing features
- Develop a linear referencing system that could be incorporated in the OPRD “Hub” system
- Revisit the Memorandum of Agreement with ODOT regarding maintenance responsibilities
- Identify appropriate locations for additional host sites

PARK MANAGEMENT PLAN

A Natural Resource Management Plan is needed for the State Trail. Listed below are elements identified during the development of the Historic Columbia River Highway State Trail that should be addressed as part of this larger planning effort. This may or may not be part of the OPRD Master Planning effort. As part of this effort, a Natural Resource Management Plan could include the following areas of emphasis:

- Forest Management Plan
 - Many areas of the forest along the Trail are in poor condition
 - The ODOT Right of Way and adjacent public lands have a history of non-management
 - Cut and fill slopes from the construction of I-84 were allowed to re-grow with no subsequent stand management so the slopes are overgrown with small, closely spaced Douglas fir trees, a closed canopy and no significant understory
 - Many areas present a potential fire danger because of closely spaced canopies with lots of dead and dying trees
 - Recent tree clearings adjacent to I-84 near Shellrock Mountain have left “dead” forest edges
 - Lack of understory provides potential for erosion and/or landslide
 - View shed management, restore historic views, maintain current views
- Invasive Species Management Plan
 - New clearing for trail construction could open up large areas to invasive species

- Identify and map invasive species for improved management
- Develop a comprehensive native plant restoration plan
- Ecosystem Plan
 - Habitat plan for terrestrial and aquatic species
 - Identify opportunities for habitat restoration/creation
 - Identify mitigation opportunities for riparian disturbance
 - Coordinate closely with USFW, ODFW, and USFS biologists
 - Map buffers and propose modifications to buffers in coordination with permitting agencies
 - Monitor habitats to determine potential impacts
- Recreational Demand
 - Metrics for use
 - Day use fees
 - Share parking with nearby facilities
- Interpretive Plan
 - Incorporate findings from the 2009 Oral History Project
- Sign/Wayfinding Plan
 - Signing system and consistent system of mapping will help visitors understand and enjoy the Trail
- Maintenance and Management Plan
 - Revisit the MOA between ODOT and OPRD regarding maintenance responsibilities
- Work with CLI and CLR to determine appropriate maintenance activities for the contributing features
- Develop a linear referencing system that could be incorporated in the OPRD “Hub” system
- Identify appropriate locations for additional host sites

COLUMBIA RIVER GORGE NATIONAL SCENIC AREA ACCESS AND RECREATIONAL DEMAND STUDY

During the development of the HCRH State Trail Plan, the Historic Columbia River Highway Advisory Committee recognized that the parking areas associated with the trailheads proposed in this plan will never meet the demand during peak periods. Crowding can negatively affect the scenic and natural resources for which the Gorge is so precious, and the visitors’ experience. The Columbia River Gorge National Scenic Area Management Plan dictates the recreation intensities for the parking areas associated with recreation sites.

The trailheads proposed in the HCRH State Trail Plan, with the exception of Ruthton Park, (within the UGA of the City of Hood River) are limited by the Recreation Intensity Class (RIC) designated by the CRGNSA Management Plan. Wyeth, Viento, Mitchell Point West and Mitchell Point East are in RIC Class 2 and are limited to a maximum of 25 vehicle parking spaces. Starvation Creek is located in RIC Class 4 and would be limited to 100 vehicle parking spaces, but due to site limitation can only be expanded to 40 vehicle parking spaces.

As a result of constraints on parking, a comprehensive plan that looks at alternative modes of access is required in the future. During discussion, it was realized that this issue is not isolated to the HCRH State Trail but is a larger issue affecting the entirety of Columbia River Gorge National Scenic Area.

Ideas to be explored in this larger planning study include the following:

- System-wide use of recreational facilities within the Gorge
- Staging areas within the urban areas for trips to the Gorge via bike or shuttle



- Investigate how this research relates to the Gorge Indicators Project
- Need for shuttle bus with park and ride areas.
- Metrics – current and proposed recreational use numbers
- Transportation system impacts – will the added development cause queuing onto the freeway ramps?
- Consider the use of technology to assess crowding and demand – variable message signs with the available parking, spots similar to what is found at airport garages
- Consider the use of an online reservation system for more popular destinations
- Use cameras with online video feeds to allow the public to make informed decisions
- Use of parking fees to discourage peak period use
- Historic vehicle use of the Trail

COMPREHENSIVE NATIONAL SCENIC AREA PERMIT

Prior to trail funding it would be helpful to have a better understanding of the scenic, natural, cultural and recreation resources and potential impacts. ODOT is encouraged to work with Hood River County to address early on, as many of the issues related to permitting as possible. This exercise would be helpful as it would inform designers and engineers of important elements that need to be addressed in the Preliminary Engineering Phase. Additionally, this work will make each of the projects increasingly ready for construction upon funding.

Key elements of the planning effort include:

Visual Resource Assessment:

- Identify Key Viewing Areas in relationship to the Trail
- New trail development shall be visually subordinate or not visually evident
- Propose treatments to walls and bridge structures that are in keeping with the design intent of the Historic Highway while respecting the intent of the National Scenic Area Management Plan
- Refer to the HCRH Trail Guidelines

Biological Evaluation

ODOT staff should coordinate with USFS, ODFW and USFW biologists. The biological evaluation should address impacts to habitat buffers and appropriate mitigation strategies. This would follow the standard ODOT outline for a No Effect memo.

Cultural Resource Report

- A cultural resource inventory and report will be required for each NSA permit. ODOT

could commission a study of the cultural resources prior to the NSA submittal to help inform design of the Trail

- This would include a pedestrian survey of the Area of Potential Impact and probing if necessary
- This work should be coordinated with the USFS archaeologist and SHPO
- This information could be included in a future No Effect memo and Section 106 compliance report

Cultural Landscape Report (CLR)

- In 2009 ODOT prepared the Cultural Landscape Inventory. A Cultural Landscape Report will provide management and maintenance direction. It is recommended that ODOT develop a CLR to help guide design and maintenance activities along the Trail. SHPO and OPRD should be consulted during the development of the CLR

Rockfall Mitigation Strategy

- Rockfall is a major issue along the Trail. It is important to develop strategies that meet the NSA standards and address safety. A closer look at what type of strategies need to be implemented prior to trail construction will help the rockfall protection implementation measure comply with NSA standards

Determination of Property Ownership, Boundary and Easement Issues

- ODOT should work with OPRD and USFS to determine property ownership, and easement status for the Trail alignment
- Negotiate agreements between OPRD, ODOT and USFS to guide the design, construction and management of the State Trail





The HISTORIC COLUMBIA RIVER HIGHWAY

STATE TRAIL PLAN - WYETH TO HOOD RIVER

PREPARED FOR:

OREGON PARKS AND RECREATION DEPARTMENT
OREGON DEPARTMENT OF TRANSPORTATION

PREPARED BY:

QUATREFOIL, INC.
PORTLAND, OREGON

WINTER 2010

