

Columbia River Highway Project

## Columbia River Highway

Options for Conservation and Reuse

Diane Ochi Columbia River Highway Project

Cascade Locks, Oregon

1981

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### Preface

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In the summer of 1981 a team of landscape architects, architects and historians came together in Cascade Locks, Oregon to study the historic and recreational resources of the Columbia River Highway. The Columbia River Highway Project was initiated and funded by a group of local, state and federal agencies, and directed by the Cultural Programs Division of the National Park Service, Pacific Northwest Region.

The project study area encompassed 83 miles of the 1916 highway between Troutdale, 16 miles east of Portland, and The Dalles. The team researched the highway's history, inventoried the resources remaining along its route and developed strategies for their conservation and reuse.

This report has two goals. First, by summarizing the highway's history and current condition the report should increase recognition of the highway's significance and value for future use. Second, it presents a program of improvements which should help today's highway better serve the needs of its users in the communities along its route and in the region. The team hopes that the many people interested in the highway's future will find it a useful tool in their planning for continued public enjoyment of the Columbia River Highway. Other publications prepared by the Columbia River Highway Project are:

Columbia River Highway Guide for Maintenance Columbia River Highway Inventory Columbia River Highway Driving Tour Vista House Historic Structure Report

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# Introduction





Crown Point and the Columbia River Gorge from Chanticleer Point. [Mile 9.6]



Columbia River Highway

The Columbia River Gorge is no place for timid minds. Lewis and Clark were there in 1805 and with them came a new way of life, a new kind of civilization to this awesome place. A century later, Henry Ford brought out his first Model "T" and another revolution in life in the Gorge commenced. This publication deals with a landmark in that second revolution, the coming of the automobile to the Pacific Northwest, the advent of the Automotive Age with its new needs and new perspectives. No less daring than the early explorers, the man who designed and engineered the Columbia River Highway, Samuel C. Lancaster, spoke often of the "magnitude of my task and the splendid opportunity it presented."

What Lancaster and the other supporters of the highway wanted was nothing less than a careful balance of landscape values and automotive needs. Humbled as we all are by the majesty of this giant slash through the heart of the Cascades, he sought to "have sense enough to do the thing in the right way." In the process, he left for those who come after a remarkable record of our early aspirations as an automotive culture. The Columbia River Highway was so carefully integrated with the landscape that it became a work of art in itself. Climbing the cliffs and skirting the river edge, the highway set engineering standards on its time and for almost fifty years it brought the motoring public into a close association with the beauty and drama of the Columbia River Gorge.

The new world heralded by the Columbia Highway was a dynamic one: change began as soon as the road was completed. Towns acquired auto courts, service stations and inns; estates appeared in the newly accessible highlands. The Gorge became Portland's backyard playground as thousands of acres were set aside for recreation and scenic protection along the route. At the same time, the automobile changed from an open, largely recreational vehicle, to an enclosed utility vehicle, and with that came a change in the perception of just what the Columbia Scenic Highway was good for. To Lancaster, in 1916, it meant a roadway artfully constrained by the twists and turns of the landscape; but to the commuter of the 1930s those same twists and turns had become obstacles to be straightened out or leveled. Speed and efficiency came to be more valued in automotive travel than closeness to nature. The scenic roadway was reworked, replaced, and finally fragmented.

During the early spring of 1981 the Columbia River Highway Project Steering Committee assembled a group of Federal, state, and local agencies and individuals to see what might be done to recognize and possibly reclaim this grand old lady of the early auto age. Recognizing the highway as an historic resource of potentially national significance, the committee examined the highway as a technical and civic achievement of its time. Working under the early and determined leadership of Richard Ross,

the committee recognized the highway as-a successful balance of environmental sensitivity and imaginative engineering as well as a valuable record of the cultural forces that shaped, and continue to shape, our cultural landscape. As a member of that Steering Committee I proposed a study team to spend the summer documenting precisely what was left of the highway and exploring options for reuse, case studies of how our own culture could again find utility and enjoyment in the creation of an earlier era. In the summer of 1981, thanks to the commitment and imagination of that Steering Committee, a team of landscape architects, architects, and historians assembled in an office in Cascade Locks to begin a summer-long study of the historic and recreational resources of the Columbia River Highway. The project encompassed 83 miles of road from Troutdale to The Dalles. The team researched the history of the highway's construction as well as the important history of its use from 1916 to 1981. Every two-mile section of the original road was examined and evaluated; every historic structure that was part of the highway or associated with it was documented; every opportunity for conservation and reuse studied. Ideas came from the Steering Committee, from several public meetings held on both sides of the river, and from people who cared and took the time to come by the office. Working with that team was a remarkable professional experience. The depth and vigor of commitment and perception remain strong images even a year and a half later.

This report has two goals. First, by summarizing the history and current condition of the highway it affords recognition of its significance and integrity. Second, it presents a program of possible improvements; opportunities to preserve its unique values and to capitalize on its remaining recreational, scenic, and historic resources. The first two chapters set the highway in its environmental and historic context. The third discusses the condition of the highway corridor today, as well as major issues that will affect the road in the future. The final -- and most important -- chapter presents our studies of various kinds of opportunities to improve use and enjoyment of the Columbia River Highway in years to come.

Following in the footsteps of Sam Lancaster and Portland's early civic leaders, and working in the grandeur of the Columbia River Gorge left little room for pretension among the project staff. Columbia River Highway: Options For Construction and Reuse is the final report of the project; a summary of twelve weeks of examination, evaluation, and hard work. We hope, like Samuel Lancaster, we had "sense enough to do the thing in the right way."

#### T. Allan Comp, Ph.D.

Regional Historian and Chief Cultural Resources Division National Park Service 2001 Sixth Avenue, Rm. 1920 Seattle, Washington 98121

# Environment



Few landscapes compare to the one that the Columbia River Highway traverses and reveals. The Columbia River Gorge is the only near sealevel waterway cutting through the fiery volcanic mountains of the Cascade Range. Dividing Oregon from Washington, it runs 75 miles east from the mouth of the Sandy River, east of Portland, to the arid inland plateau near the city of The Dalles. The dramatic basalt cliffs of the Oregon side rise an average of 1500 to 3000 feet above the mile-wide river; the average width of the gorge from wall to wall is 3 miles.

#### Geology

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The Columbia River Gorge formed only seconds ago in geologic time. Twenty million years ago, the river carved through layer after layer of basalt as lava flows repeatedly forced the river to change course. Later, the Cascade Range uplifted in a great arch beginning at the Sandy River near Troutdale, reaching a summit at 4000 feet above Cascade Locks and then dropping off toward Hood River. The rising mountains and the falling speeded the Columbia sea and strengthened it as it cut a gorge down through the mountains. During the Ice Age, dams of ice and debris created huge inland lakes of glacial melt covering what is now Spokane, Washington and Missoula, Montana. Periodically these dams broke, sending catastrophic floods of a scale unknown today across Idaho, eastern Oregon and

About 13,000 years ago the flood Washington. waters of the last and possibly greatest of these roared through the gorge at depths to 1000 feet, stripping the eastern part of the gorge of topsoil and scouring out channelled basalt areas called scablands near The Dalles. The flood left behind hanging valleys, turning mountain streams into cascading waterfalls. Steepened and undercut by the flood, the gorge walls began to crumble into the river, forming huge talus slopes, and landslides of as much as 14 square miles.<sup>1</sup> Both the talus slopes and the landslide areas continue to move slowly into the river from either shore, making large areas adjacent to the river geologically unstable.

#### Hydrology

The Columbia River carries a volume of water second only to the Mississippi, draining an area of 259,000 square miles in Oregon, Washington, Idaho, Montana and British Columbia. The first major hydroelectric project on this part of the river was completed at Bonneville in 1938; The Dalles Dam was completed in 1956. The river level at Portland averages 25 feet above sea level, at Bonneville Dam 72 feet and at The Dalles 160 feet above sea level.

Eleven streams enter the river from the south shore, all of them carving out short, steep and



Uregon white oak, near Rowena.

narrow canyons. At or near the mouths of most of these canyons are high waterfalls, where streams fall out of the "hanging valleys" left behind by the catastrophic floods. There are twenty-five mapped waterfalls, eleven of which can be seen from either the freeway or the scenic highway.

#### Climate

As the Cascade Range rose, it raised a barrier to the eastward movement of moist ocean air. Today The Dalles, at the east end of the gorge, averages only 14 inches of rainfall annually, while the Portland Airport west of the gorge collects 42 inches annually. Near the middle of the gorge, at Wind River and Bull Run, rainfall reaches between 100 and 150 inches, but drops off rapidly to 29 inches at Hood River.

#### Vegetation

This "rain shadow" effect causes a striking and rapid transition in vegetation from the moist western slope of the Cascades to the dry plateau in the east. Travelling from west to east one passes through three major vegetative types. First is dense coniferous forest of secondgrowth Douglas fir (Pseudotsuga menziesii), western red cedar, western hemlock, vine maple, bigleaf maple and alder. Near Hood River is a broad transition zone where Douglas fir forest mixes with the more arid forest of yellow pine and Oregon white oak. The third vegetative type is sparse, arid forest of Oregon white oak (Quercus garryana) and yellow pine (Pinus ponderosa) mixed with grasslands.

Because it is a near sea-level slash through a mountain range with nearby peaks such as Mount Hood reaching over 10,000 feet, the gorge has a vertical gradient of environmental conditions as well. The river seldom freezes, while the forested plateaus just above the river receive snow each year. In the steep side canyons are protected microclimates that further damp. expand the variety of habitats available for plant and animal life. As a result, the gorge supports a unique flora of over 800 species. plants grow nowhere but in the gorge; 58 are considered rare or endangered. The environmental diversity here allows southern species and northern species to mingle at the outer edges of their normal ranges.<sup>30</sup> There are two sites now protected for their botanical value along the Columbia River Highway. Oneonta Gorge is a Forest Service botanical area where rare species of fern have been collected. Rowena Plateau, rich in wildflowers, is now protected by the Nature Conservancy as Tom McCall Preserve.





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Old Seufert Road in The Dalles, 1920. The road was paved the next year as part of the Columbia River Highway. (OUS #64921)



Highway enthusiasts with John Beall's 1913 Oldsmobile. On left: Rufus
Holman, John B. Yeon, Sam Hill, Sam Lancaster. Behind car: T.B. Wilcox, Judge Winters, Edgar Piper. On right: John Beall, Julius Meier,
H.L. Pittock. (OHS #8381)

## Planning

When highway engineer Samuel Lancaster first viewed the Columbia River Gorge, it had already long been recognized as a natural route through the Cascades. Native peoples from the coast and the inland plateau met each year at Celilo Falls east of The Dalles to fish and trade; Lewis and Clark observed their gathering in 1805 as they boarded canoes for their own exploration of the gorge. The first roads in the gorge were portages built to carry settlers bound for the Willamette Valley around the impassable Cascades of the Columbia. Later, portage railways powered by early locomotives such as the Oregon Pony replaced the roads; by 1896 railroads snaked along both sides of the gorge and the canal locks let steamers navigate the river as far as The Dalles. Still, the only road between Portland and Hood River was a narrow, winding dirt track.

At the turn of the century roads in most parts of rural Oregon were at best dilapidated wagon paths. Driving through the state on these poor roads was inconvenient and dangerous, particularly in the climate of the Pacific Northwest. Auto trips of fifty miles were newspaper items, for paved roads ran barely twenty-five miles in any direction even from Portland.8,10 Only farmers interested in better access to markets the state's few auto owners supported and efforts to improve roads. The railroad was still the most efficient way to travel any great distance.

Henry Ford altered this national dependence on railroads with the development of the Model T in 1908. By refining the techniques of the assembly line, Ford was able to produce an auto affordable by a large spectrum of the population.<sup>32</sup> This achievement strengthened the movement around the country for better local roads.

Calls for an improved road through the Columbia Gorge began in 1909, but made little progress until railroad attorney Samuel Hill brought his promotional flair and enthusiasm for the "good roads" movement to Portland. In February 1913 he chartered a train to bring the entire Oregon State Legislature for a weekend at Maryhill, his estate near Goldendale; the legislators established the Oregon State Highway Department later that month.

A number of Portland's civic leaders joined Sam Hill's campaign for a Columbia Gorge route. Millionaire lumberman and hotel owner Simon Benson had already financed state construction of a demonstration road around Shellrock Mountain, which had been considered a permanent barrier to roadbuilding in the gorge. Benson and his son Amos used their position in the Portland business community to persuade landowners to donate rights of way for the highway. Benson himself bought over three hundred acres of land around Wahkeena and Multnomah Falls to turn over to the city of Portland as a park. Rufus Holman, later a U.S. Senator, became a good roads supporter



Rounding Tooth Rock near Eagle Creek. In 1908 Sam Hill showed Sam Lancaster the stone-walled terraces of the Rhine Valley and declared, "You are going to see something like that on the Columbia some day!" "Not in my lifetime," Lancaster thought to himself. (OHS #53640)

and chairman of the Multnomah County Commission. Julius Meier, later governor, was president of the influential Columbia Highway Association. C.S. (Sam) Jackson of the <u>Oregon Journal</u> and H.L. Pittock of the <u>Oregonian</u> boosted the project in print and with contributions.

These men, and the many others who joined the effort, all agreed that the gorge highway would both strengthen Portland's commercial ties to the Inland Empire and enhance the city's image. Locked in a struggle with Seattle for supremacy in the Northwest, the Portland boosters expected to attract population, tourism and commerce with a backyard playground among waterfalls and public parks. The promoters realized that "such a highway would be a great drawing card for the city as well as the entire Northwest," wrote Thomas Murphy in his 1917 book <u>Oregon the Picturesque</u>.<sup>15</sup> As Sam Hill put it, "We will cash in, year after year, on our crop of scenic beauty, without depleting it in any way."<sup>8</sup>

On August 27, 1913 the Multnomah County Commission met with highway promoters at Chanticleer Inn and voted to hire Samuel C. Lancaster as supervising engineer for construction of the Columbia River Highway through Multnomah County. Sam Lancaster was already respected as one of the country's experts in the new field of highway engineering. He had designed a model road system in Madison County, Tennessee, toured the country promoting the good roads movement, and advised road engineers in California before meeting Sam Hill in 1906. Hill brought Lancaster to Seattle to work on the city's scenic parkway project, then in 1908 took him to Europe for the First International Road Congress. It was while they were touring near Bingen in the Rhine Valley that Hill pointed to the stonewalled terraces and told Lancaster, "You are going to see something like that on the Columbia some day!"<sup>14</sup>



Portland businessmen volunteered for road gangs building the highway. 25 April 1914. (OHS #38744)

## Construction

Standing here I realized the magnitude of my task and the splendid opportunity presented. Instinctively there came a prayer for strong men, and that we might have sense enough to do the thing in the right way... so as not to mar what God had put there... In that [gorge] to the east were hidden waterfalls and mountain crags, dark wooded, fern-clad coves, and all else that a wise creater [sic] chose to make for the pleasure and enjoyment of the children of men.

Samuel C. Lancaster, 1915<sup>8</sup>

In Sam Lancaster the highway builders had found an engineer with a rare blend of technical skill and romantic appreciation of nature. Deeply religious, his philosophy coincided with that of John Muir and other preservationists who revered the wilderness as God's unspoiled work.<sup>10</sup> Lancaster knew and admired Stephen Mather, the first director of the National Park Service, and agreed with him that wild and natural scenery should be made accessible for public enjoyment. It was widely believed by civic-minded reformers of the time that natural surroundings could help heal some of the ills of urban life. Crowded city dwellers needed access to the "wilderness" for their social and spiritual health; as Lancaster described it, in the Columbia Gorge "tired men and women with their little children may enjoy the beauty of nature's art gallery and recreate themselves."<sup>13</sup>

Lancaster and the Multnomah County engineers laid out the highway route between the Sandy River and the county line, east of Bonneville, in September 1913. Dangling from the cliffs with ropes and standing waist-deep in ferns, Lancaster aimed "to find the beauty spots, or those points where the most beautiful things along the line might be seen to the best advantage, and if possible to locate the road in such a way as to reach them."<sup>8</sup>

Construction began the following month and continued for two years. Millionaire lumberman and realtor John B. Yeon volunteered to supervise construction as County Roadmaster, assisted by Amos Benson. C. Lester Horn recalls that Yeon wore out "two automobiles and dozens of tires" on the job.<sup>10</sup> Other volunteers from Portland formed weekend road crews to speed the effort. Local pride and responsibility for the project were so great that the county declined state funds when they became available in 1917, telling the highway department to spend the money on construction in less-developed counties.<sup>8</sup>

While Multnomah County proceeded on its section of the Columbia River Highway in the west, the Oregon State Highway Department assumed much of the construction responsibility in Hood River



Highway engineer Sam Lancaster (behind driver) at Shepperd's Dell on the Columbia River Highway. (OHS #36322)

and Wasco counties to the east. In October 1913 the county court at Hood River urged the highway department to make an initial survey to coordinate its building effort with Multnomah County's.

The state survey crew worked through the winter of 1913-14, losing only one day to bad weather when the snow was too heavy to clear from the telescope for a sighting. Construction of the highway between Cascade Locks and Hood River, mostly following the route of the old wagon road, began in 1914 after Simon Benson purchased the entire \$75,000 bond issue voted to fund the project.<sup>25</sup>

On July 6, 1915 the Columbia River Highway officially opened from Portland to Hood River. A month later the continuation of the route west from Portland to Astoria and the sea was open as well. In 1915 and 1916, after a quick campaign by highway supporters passed a \$1,250,000 county bond, the highway was surfaced with asphaltic Warrenite, making it the first major paved road in the Northwest. From 1916 to 1920 highway construction proceeded in sections east from Hood River to The Dalles, delayed by a rightof-way problem with the railroad between Hood River and Mosier.<sup>27a</sup> The highway eventually ran inland away from the riverbank alignment of the railroad, becoming the most expensive road work yet undertaken because of the need to build the Mosier Twin Tunnels.<sup>27b</sup> When the last pavement

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was finally laid in The Dalles in 1922, the Columbia River Highway opened an era of gracious and convenient auto travel through the gorge.



Harrison's Auto Camp on the Columbia River Highway offered "Eats and Cabins" to auto tourists. (OHS #38747)

### Life of the highway

The great rock wall, which has always stood between the "Inland Empire" and the sea, has been pierced by this Highway, and men may now enjoy a healthful ride in the open country through this natural park.

Samuel C. Lancaster, 1915<sup>13</sup>

During its active thirty year life roughly from 1920 to 1950 the highway served two distinct and somewhat incompatible functions. The first was as a commercial route, a transportation artery between the Willamette Valley and eastern Oregon. The highway was conceived as one of the state's major "trunk roads", whose "branch roads" would lead to outlying areas and connect to the transcontinental Lincoln Highway. As early as 1917 an editorial in the <u>Oregon Journal</u> described the highway as primarily a commercial route to the state's interior.

Several factors lay behind the calls for a commercial highway. First, World War I had demonstrated the reliability and utility of the motor truck for long-distance hauling. Second, there was hope that an alternate land route would break the railroad monopoly in the area. Last, truck routes seemed an efficient solution to the problem of bringing food to market at a time when the rail system was severely overworked nationwide. The highway's alternate role was that of a scenic route opening up the recreational opportunities of the gorge. Highway supporters early saw the need to preserve the gorge's on landscape for public enjoyment, and acquired acres of parkland for the city of Portland along the western end of the route. In 1915 the U.S. Forest Service set aside 14,000 acres between Warrendale and Viento as a recreation area and built its first campground next to the highway at Eagle Creek. The opening of the Mount Hood Loop in the 1920s reinforced the image of the route as a scenic boulevard for Portlanders. The result of this recreational function of the highway was that large areas of the natural landscape it displayed were protected from development almost from its inception.

The combined commercial and recreational traffic on the highway affected development in the gorge as well. As its promoters expected, the highway brought a flood of tourists to the gorge and towns boomed with the tourist trade. Establishments such as the Rapids in Cascade Locks, the Waukoma Hotel in Hood River and the Black and White Restaurant in The Dalles contracted with the Oregon Motor Association to act as "official stations" for tourists.<sup>20</sup> Other hotels and restaurants such as the Falls Villa at Latourell, Forrest Hall in Bridal Veil and Simon Bensons's Columbia Gorge Hotel in Hood River served chicken or salmon dinners and "dainty lunches" Various roadhouses and taverns to travellers.<sup>2</sup>



In 1916 Dorothy Jacobson commissioned Portland architect Morris Whitehouse to design her summer estate at Coopey Falls. [Mile 16.0]

dotting the highway provided entertainment and locally distilled spirits during Prohibition.

Auto camps were another option for the highway traveller. In the 1910s vacationers were taking to the roads like gypsies; thousands of middleclass families found auto touring an escape from railroad schedules and stuffy Victorian hotels. Sleeping on the ground by their Model Ts and dining out of tin cans warmed on the radiator, they described their tingling sense of selfreliance and closeness to nature as "Thoreau at 29 cents a gallon."<sup>2</sup>

Hoping to capture the tourist dollar, towns such as Hood River and Cascade Locks designated free municipal campgrounds near the town center where motorists could pitch a tent for the night. Amos Benson, son of the highway financier, said,

> The state should be plastered with campsites like a Christmas package is plastered with stamps. There cannot be too many of them. Every town having a site has that much more of a trading advantage over the town without one.

The free auto camps proved so popular that towns were later forced to charge fees to discourage vagabonds and freeloaders. With the fee system, private entrepreneurs entered the market. They steadily provided more and more amenities such as cabins, kitchenettes and carports as motorists shifted away from self-reliant tent-camping to more convenient, comfortable, home-like accommodations. Camping had become divorced from motor touring. Auto camps became auto courts, eventually evolving into the roadside motel.<sup>2</sup>

Gas stations and garages sprang up in every town to care for the early vehicles, which sometimes had to change tires several times on the trip through the gorge. In Hood River and The Dalles auto dealerships opened to supply machines for driving on the new highway.

Wealthier vacationers found that with access on the new highway they could have summer homes in the gorge. Julius Meier and his relative Edward Ehrman built estates in Corbett soon after the road opened, as did Dorothy Jacobson at Coopey Falls. Several of these homes were designed by prominent Portland architects such as A. E. Doyle and Morris Whitehouse.

While the gorge provided both a beautiful and commercially vital route through the mountains, it could also harbor harsh weather conditions that made motor travel difficult and even dangerous. Snow and ice were frequent at higher elevations, and fog created problems at night in the area around Crown Point. The ever-present winds of the gorge inspired innumerable stories about cloth tops being blown off of autos at



Below Crown Point, winter 1921. Severe storms covered parts of the highway with snow and ice for over two months. (OHS #38748)

Crown Point. In addition to the weather, the geology of the gorge created hazards. Frequent landslides often blocked traffic completely and in some places rocks fell continuously from the cliffs onto the roadway below.

As the form of the automobile changed in the late twenties, the roadway itself also began to hinder travel. By 1929, 90 percent of automobiles being made had an enclosed body. Only ten years before, 90 percent had been open cars with cloth coverings.<sup>32</sup> Cars in the late twenties were faster, better built and over six times more numerous. In the ten-year period from 1916 to 1926 the number of passenger cars on the road in Oregon increased from 33,917 to 215,832.

With the auto's changing shape and increased numbers came a new attitude toward their use. More and more motorists saw cars as a means of transporting themselves from point to point as quickly and efficiently as possible. Although motorists still used their machines to enjoy the beauty and recreational opportunities of the gorge, there was growing emphasis, especially from commercial interests, on being able to move through the area quickly. From this viewpoint, the narrowness and curves of the scenic highway soon became obvious obstacles. As years went by, people began to see the highway as an inconvenient and even dangerous route. Although its scenic attraction went undisputed, the highway's serviceability was often questioned. Public sentiment as early as 1928 had begun to favor another option which would eventually change the whole form and character of Sam Lancaster's highway.



Shellrock Mountain's sliding talus slopes have always threatened roads through the gorge. (OHS #G15835)

### Replacement

A water level grade, high speed alignment, and freedom from storm interference, are the chief objectives not now existing which have prompted the inclusion of this route in the state highway program.

Pacific Northwest Regional Planning Commission, 1934<sup>28</sup>

In 1931, a new generation of highway enthusiasts sought Sam Lancaster's opinion on widening and straightening his scenic highway. These leading citizens from Hood River and The Dalles were the vanguard of a movement to build an alternate route along the river, a water-grade freeway. Lancaster expressed concern over the expense of such a project, and more important, over the environmental scars such alteration would leave on the gorge's scenery.<sup>27c</sup> Lancaster eventually reconciled himself to the need to accommodate modern vehicles. He also hoped that an alternative route would take commercial traffic off the highway and allow its leisurely and natural character to return.

With the acceptance of the water-grade freeway by almost everyone, a new dispute developed between the state highway department and a group of men concerned with the aesthetic impact of the new road. This became known as the battle of the "straight" and "curved" road advocates.

Sam Lancaster and John B. Yeon, members of the latter group, proposed a fairly straight road which still flowed with the natural contours of the land. Yeon charged that the survey already done by the highway department was a series of long straight lines connected with short curves, producing a zig-zag effect. It was described as a "tangent road". The highway department responded that the commercial carriers wanted a straight highway, and chief engineer R. H. Baldock further rationalized that the straight line, too, could be aesthetically pleasing.<sup>27d</sup>

In 1935, the time seemed right for construction of the new freeway. Funds from federal relief programs and the availability of an idle work strong reasons for considering force were immediate construction. Also, the Corps of Engineers planned to dredge a ship channel from Vancouver to their unfinished dam at Bonneville and the silt would provide convenient fill material for the road. However, aside from construction of the Tooth Rock tunnel near Eagle Creek in 1936, little work was actually done. The major holdup on construction of the watergrade freeway appears to have been lack of funding; in April a year later, the Oregonian reported that construction of the water-grade begin "...as fast as would funds are available."27e In 1941, proposals to finance the new freeway urged that the federal government provide 75 cents and the state 25 cents of every construction dollar.<sup>19d</sup>



The five-windowed "Tunnel of Many Vistas" through Mitchell Point looked out, Sam Lancaster noted, "over the mile-wide Columbia to the lofty mountains, surpassing in beauty the German Rhine." (OHS #37733)

Through the years of delays in funding, support for the new freeway remained strong. After a meeting in 1941, the county courts and civic leaders of Multnomah, Hood River and Wasco counties formed the Columbia River Highway Association to promote the watergrade route. During World War II, the defense plants at Hermiston and Pendleton provided further impetus for the building of a "military highway."

While the commercial advantages of the new freeway dominated discussion, there was also concern for enjoyment of the gorge scenery. Proponents of the new road argued that it would provide a better view of the river and expose new waterfalls unseen from the old highway. The new route would also give travellers a broader perspective on both sides of the gorge. The old road, these freeway enthusiasts claimed, was like driving through a tunnel and one literally could not see the forest for the trees. The more extreme critics began to term the route an "old goat trail."<sup>27f</sup>

Grading of the new freeway from Troutdale to Dodson did not begin until 1948.<sup>27g</sup> On August 20, 1949 Governor McKay dedicated the first section of the new Columbia River Highway with great ceremony; a new age of auto transportation was coming to the gorge.<sup>12</sup> As construction of the new freeway proceeded east through the gorge, it was apparent that the new road did reflect some of the values that Yeon and Lancaster had voiced fifteen years before. The new Columbia River Highway was not Baldock's tangent road; the "curved road" advocates had won.

> The present Columbia River Highway should be kept intact for future use undisturbed by the location of the new route, except where no reasonable alternative exists. No section of the present road should be obliterated, which cannot be relocated so as to link the remaining segments.

Pacific Northwest Regional Planning Commission, 1934<sup>28</sup>

The new freeway reached The Dalles in 1954, bringing direct and convenient travel to the gorge much as the old road had done 34 years earlier. That year, state highway engineer Baldock reported that the new freeway had most affected the old on stretches where the rightof-way was too narrow to accommodate both; much of the middle 26 miles of the scenic highway between Dodson and Hood River had been destroyed. The McCord Creek Bridge, summer estates near Moffett Creek and a home built by Sam Hill at Bonneville were razed. The celebrated fivewindowed tunnel through Mitchell Point designed by John A. Elliot was blocked up and later undercut by the freeway expansion. Only on the short stretch between Cascade Locks and Herman

Creek was the old road left undisturbed. Everywhere else, small winding fragments of the highway were cut off on either side of the straightened freeway, to be abandoned or converted to local frontage.

East of Hood River the old highway was spared by its location in the cliffs far above the watergrade. However, slides and rockfalls at the Mosier Twin Tunnels were a continuing hazard. The road between Hood River and Mosier was closed and the twin tunnels filled with rock. Baldock finished by noting that the western 27 miles of the scenic highway between Troutdale and Dodson, as well as the eastern 15 miles from Mosier to The Dalles, were well-maintained by the highway department for scenic driving.<sup>23</sup>

The water-grade freeway begun in 1949 made the first major alterations in the Columbia River Highway; the next step came in 1956 with construction of the interstate highway. Begun only 2 years after completion of the water-grade, the interstate highway widened the water-grade and transformed it into a super expressway. By limiting access to on and off ramps, the interstate bypassed many of the communities that had prospered alongside the old highway.

Loss of direct highway access had varying effects on the communities along the route. Many thought that Hood River and The Dalles, which had prospered from scenic highway traffic, would collapse when the freeway bypassed their town centers in the early 1950s. Instead, Hood River and The Dalles had large enough populations and wide enough economic bases to survive the bypass. Business downtown actually picked up as the freeway relieved the main streets of traffic congestion and improved their pedestrian atmosphere.

Smaller towns such as Mosier and Rowena, though, were greatly altered. The new expressway siphoned off vital economic trade of both travellers and residents, who were now able to shop in the larger stores of Hood River and The Dalles. All along the highway filling stations, roadside cafes, motels and garages closed and were converted to homes, restaurants and work space for local residents.

The new freeway affected the scenic highway's recreation sites as well. One of the route's noted features was its string of state park waysides used as picnic spots, overlooks and scenic open space. When construction of the watergrade and interstate freeways cut off access to some of these parks near Bonneville, Cascade Locks, Wyeth and the Mosier Twin Tunnels, the were converted wavsides to right-of-way, returned to the counties or simply kept as undeveloped land by the state.<sup>24</sup> Sheridan Wayside, Lang Forest Wayside and Hood River-Mosier Wayside are now only names on old maps and picnic tables overgrown on nearly-forgotten parts of the old highway.

# Current Conditions




Moffett Creek Bridge was the longest flat arch bridge in the United States when completed in 1915.' Today it is abandoned, bypassed by two later freeway bridges. [Mile 26.7]



# **Current Conditions**

Its beautiful waterfalls, wonderful rock formations, tunnels, cliffs, retaining walls and artistic bridges all tend to make this delightful thoroughfare America's most noted example of man's intelligent development of nature's creation.

Cornelius Vanderbilt Jr., 1920<sup>17</sup>

The finished Columbia River Highway was Sam Lancaster's triumph as both engineer and conservationist. The 83 miles of highway between Troutdale and The Dalles were built to the highest standards of the time, with 24-foot roadway, minimum curve radii of 100 feet and maximum grades of 5 percent. Its twenty-six bridges and viaducts were strong yet light and graceful, each designed to complement its particular setting. Features such as the fivewindowed tunnel through Mitchell Point, the overlooks at Crown Point and Rowena Crest, scenic waysides and native stone walls let the highway blend with its environment and be, as Lancaster intended, "a frame to the beautiful picture which He created."13

Today 60 miles of the Columbia River Highway remain in public use, only 36 of them still recognized as "scenic highway." 7 miles are closed or cut off and 16 have been destroyed. Eighteen of its celebrated bridges and viaducts are in use today, with one more, the Hood River Bridge, scheduled for demolition in summer 1982. Yet the highway's resources include more than asphalt and stonework. Along its edges are parklands set aside for weekend visitors, and homes and businesses built by those who drove the highway every day. It is this interaction of the highway with the landscape of the gorge and the lives of the area's residents that gives it much of the scenic, recreational and historic significance we appreciate today.

The highway is now divided into three general segments that fall between Troutdale, Warrendale, Hood River and The Dalles. Each of these segments has a different set of characteristics of use, condition, landscape and settlement that will affect its future use or reuse. The following sections analyze the current condition of the three segments, based on information gathered in the Columbia River Highway Inventory of July-August 1981.<sup>6</sup> The last section of this chapter discusses issues encountered during the study that need to be considered in planning for future highway use. Throughout the next chapters, highway mile numbers are measured eastbound from Troutdale exit 17 off of I-84.

# INTACT HIGHWAY MILEAGE

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| Highway segment         | Public<br>road | Limited<br>access | Abandoned | Total              | Original |
|-------------------------|----------------|-------------------|-----------|--------------------|----------|
|                         |                |                   |           | . t <sub>e</sub> š |          |
| Troutdale - Warrendale  | 27.2           | 0.0               | 0.0       | 27.2               | 27.2     |
| Warrendale - Hood River | 5.3            | 0.6               | 3.6       | 9.5                | 25.9     |
| Hood River - The Dalles | 27.0           | 2.6               | 0.0       | 29.6               | 29.9     |
| Total                   | 59.5           | 3.2               | 3.6       | 66.3               | 83.0     |

# INTACT HIGHWAY STRUCTURES (BRIDGES AND VIADUCTS)

| Highway segment         | Public<br>road | Limited<br>access | Abandoned | Total | Original |
|-------------------------|----------------|-------------------|-----------|-------|----------|
|                         |                |                   |           | 15    |          |
| Troutdale - Warrendale  | 13             | 0                 | 0         | 13    | 13       |
| Warrendale - Hood River | 2              | 0                 | 4         | 6     | 9        |
| Hood River - The Dalles | 3              | 0                 | 1         | 4     | 4        |
|                         |                |                   |           |       |          |
| Total                   | 18             | 0                 | 5         | 23    | 26       |

4



The bridge across Latourell Creek was sited for the best view of 250-foot Latourell Falls, now part of Guy Talbot State Park. [Mile 12.8]

# Troutdale — Warrendale

The 27 miles of winding, forested road running east from Troutdale to Warrendale are at present the most widely known and driven segment of the Columbia River Highway. It is close to Portland both geographically and historically, having been built through massive civic effort by Multnomah County in 1913-1915. This is a portion of the road built by Sam Lancaster and John B. Yeon, with help from volunteer road gangs of Portland businessmen. The western portion of the highway was the most popular as a scenic drive from Portland, and its landscape forms the dominant public image of the Columbia River Highway.

### Condition and Use

The highway begins in the Sandy River valley at Troutdale, 16 miles east of Portland. The traditional gateway to the highway is the Sandy River Bridge just east of Troutdale; the road parallels the forested east bank of the Sandy River for 3.8 miles, passing the other entrance to the highway at the Stark Street or Upper Sandy River Bridge. The highway then turns north and climbs almost 800 feet to the bluffs above the Columbia Gorge, continuing past berry fields and pastures to come up on the rim of the gorge at 8.2 miles, near the town of Corbett. Skirting the rim to Crown Point, it then winds down through the Figure Eight Loops and along the densely forested face of the gorge for 8

miles, reaching river level just before Multnomah Falls. The highway continues along the foot of the bluffs for 6 miles to Warrendale, where it is first severed by I-84. The entire length of this segment is driveable and maintained by the State Highway Division.

Troutdale-Warrendale segment has the The greatest concentration of bridges, viaducts, stone guardrails, guardstones and retaining walls remaining on the highway. All but one of its eleven original bridges and two viaducts are still in use. Stone guardrails and retaining walls appear in five 2-mile units of the high-Although most of this stonework appears way. sound, it shows the effects of over 60 years of weathering and vehicle impact with loss of mortar, spalling and cracking.

East of the junction with Larch Mountain Road, approximately 1 mile west of Crown Point, is the most serious area of slippage on the highway. A 50-yard section of road is sinking at the rate of about 6 inches per year, as the hillside below it settles to its angle of repose. Continued sliding could force closure of this section and cut off access to Crown Point from the west. Road closure in this area would severely limit use of probably the most popular and picturesque segment of the highway.

Tourist traffic is high on this well-known scenic drive. Average daily traffic (ADT) in



Walkway to the falls on Young's Creek, Shepperd's Dell. George Shepperd, a farmer, donated this park to Multnomah County in 1915 as a memorial to his wife. [Mile 14.2] 1978 was 546 east of Crown Point, peaking in July at 894 vehicles. On summer weekends the highway can become extremely congested with slow-moving sightseers and recreational vehicles.

### Landscape

Vegetation on this segment of the highway is typical of the west slope of the Cascades. Coniferous forest is dominated by second growth Douglas fir, bigleaf maple and alder; riparian areas in the steep side canyons include alder, maple and ferns. Flatter lands along the blufftops and the valley floor have been cleared for pastureland and fields, mostly berries and truck crops.

The 14 miles of highway between Crown Point and Warrendale, past nine high waterfalls set into the densely forested cliffs of the gorge, largely gave the Columbia River Highway its reputation among visitors as a garden parkway. Pedestrian pathways and auto turnouts at Latourell, Shepperd's Dell, Wahkeena, Multnomah, Oneonta, Horsetail and Elowah Falls allow close viewing. Seven state parks and four Forest Service recreation sites are built around the scenic attractions along the highway. Most of these were established in the 1920s and 1930s to preserve the highway scenery, and many were gifts to the city, state or county from prominent Portlanders.

Both of the major tourist attractions on the highway are located on this segment, at Multnomah Falls and Crown Point (Vista House). Multnomah Falls is the most popular tourist destination in the gorge, with over 2 million visitors per year. The 620-foot double falls is a natural scenic attraction, with walkways down to the lower pool and up to the Benson Bridge across the upper pool. The Forest Service has improved the site with an interpretive shelter and pedestrian plaza, and is negotiating to bury overhead wires. Vista House on Crown Point was completed in 1918 as an observatory, rest stop and monument to the pioneers; it is still the most popular overlook on the highway.

The extensive uplands trail system was begun in this area soon after completion of the highway, and reaches down to most recreation sites along the scenic route. However, both State Parks and the Forest Service have given high priority to development of a trail through the gorge at a lower elevation, making more loop hikes possible and eventually connecting to Portland's loop trail system. The State Parks <u>Mest Columbia</u> <u>Gorge State Parks Master Plan</u><sup>26</sup> <u>proposes con-</u> struction of this "low level" trail to connect the small state parks arrayed along the scenic highway.



The Bucher barn in Dodson is one of the few 19th-century barns remaining in the gorge. [Mile 23.5]

#### Communities

On the site of Troutdale, pioneers rafting through the Columbia Gorge once disembarked to continue into the Willamette Valley by land. The town was platted in 1891 next to the Oregon Washington Railroad and Navigation Company (OWR&N) railroad tracks; its name came from trout ponds kept by early resident Captain John His son's 1900 home, the Harlow House, Harlow. and the 1880s train depot are two of the town's earliest remaining structures.<sup>4</sup> The Union Meat Company was a major industry in town until 1923. By 1914 autos could use the highway through Troutdale and filling stations, auto camps and garages boosted the town's economy. The highway also made possible heavy involvement in vegetable truck farming in the 1920s and 1930s. After bypass by the water-level freeway in the 1950s Troutdale declined; in 1970 its population was 1,661.

By 1980 Troutdale's population had grown dramatically to 5,908, making it the largest town in this segment. Only 16 miles from Portland, a number of its residents are commuters. Recreation also contributes to the economy via business from users of Troutdale City Park, Dabney State Park and Lewis and Clark State Park, popular day-use spots on the Sandy River.

Springdale, Corbett, Bridal Veil, Coopey Falls, Dodson and Warrendale are small rural centers, primarily residential in character. They have small-scale commercial facilities serving local residents and motorists.

Springdale and Corbett, both settled in the 1880s, originally subsisted on farming and timbering for cordwood. When the Columbia River Highway made the area easily accessible, wealthy Portlanders built summer homes designed by architects such as A.E. Doyle near Corbett on high promontories overlooking the gorge. Corbett is now headquarters for the U.S. Forest Service Columbia Gorge Ranger District. Both Springdale and Corbett still provide roadside commercial services for the large number of motorists who continue to tour this section of the Columbia River Highway.

The settlement of <u>Bridal Veil</u> has always been centered around its lumber mill powered by the waterfall on nearby Bridal Veil Creek. The mill originally finished rough lumber flumed two miles down the bluffs from the Palmer logging camp; today it produces cedar fence material.

The Columbia River fishing industry supported <u>Dodson</u> and <u>Warrendale</u> until the mid-1930s, when the two local canneries closed and Bonneville Dam construction temporarily took over as the major local activity. Town businesses struggled to survive the loss of workers after completion of the dam in 1938; then in 1950 the water-level freeway cut off the scenic highway just west of



On 8 June 1916, President Wilson dedicated the Columbia River Highway by pushing a button in the White House that electrically unfurled a flag atop Crown Point. Vista House, the highway's "finishing touch," was completed two years later. [Mile 10.4]

Dodson. Dodson's vacant gas station, motel and restaurant testify to the powerful effect of the freeway bypass on the town's life.

# Historic Structures

The Columbia River Highway inventory found forty-four historic buildings associated with the highway in and around the communities between Troutdale and Warrendale. Approximately twenty-five of these were commercial buildings that probably depended heavily on highway travellers for business; the remainder included eleven residences and five public/institutional or agricultural/industrial buildings. Today changes in use of these buildings reflect the changes in auto travel in the 40 to 60 years since they were built.

None of the five original auto courts and only three of ten gas station/garages on this segment are still in operation. With Portland only 45 at most, on the interstate minutes away, travellers no longer need to stop for gas and Three of the auto courts are lodging here. vacant and two converted to long-term rentals. The gas stations have been converted to a range of new uses, including residences, workshops and Buildings more closely tied to local offices. communities such as residences, some stores and restaurants, agricultural/industrial and public buildings have experienced fewer changes in use.

In rapidly-growing Troutdale, residential use of highway-associated buildings has almost tripled while declining elsewhere in the segment. Among these residential conversions is the Portland Auto Club's 1913 clubhouse near the Stark Street Bridge, where members stopped for picnics before a drive on the highway.

Two landmark buildings identified with the highway occur on this segment. Vista House was constructed in 1916-1918 at Crown Point as a monument to the pioneers, an observatory and rest stop on the highway. The three-level octagonal sandstone-faced structure was designed by Edgar M. Lazarus, a Portland architect. It is a National Historic Landmark, and is presently managed jointly by the Forest Service and its owner, the Oregon State Parks and Recreation Division. In 1981 the souvenir concession at Vista House was terminated and a joint Forest Service/State Parks information table opened. The building is open only when staffed in the summer months.

Multnomah Falls Lodge, also listed on the National Register of Historic Places, was a lodge and restaurant built in 1925 by the city of Portland. Designed by A.E. Doyle in the regional "Cascadian" style, its magnificent location at the base of Multnomah Falls has always made it a popular stop for travellers. The building presently houses a restaurant, snack bar, gift shop and restrooms. A Forest



The U.S. Forest has made improvements to the pedestrian plaza and restored the previously altered windows in the lodge facade. We congratulate them on these fine efforts which unfortunately not shown in this photograph. (Mile 18.8)

Service interpretive shelter is adjacent. The Forest Service is undertaking a program of improvements including restoration of altered portions of the facade.

Other properties listed on state historic surveys are the Ehrman residence (Crestview Camp) and the J.L. Meier estate (Menucha) in Corbett. County surveys list the Harlow House in Troutdale and Forrest Hall, a former restaurant in Bridal Veil.



MILE 0.0 City of Troutdale.

- 0.6 Gas station. Building reuse study.
- 0.8 Lewis and Clark State Park.
- **3.3** Upper Sandy River (Auto Club) Bridge. 2mile section of highway across bridge on Stark Street.
- 3.7 Dabney State Park.
- 4.6 Town of Springdale.
- 7.2 Town of Corbett.
- **9.2** Chanticleer Lookout. Portland Women's Forum State Park.
- 10.4 Vista House. Crown Point State Park.
- 11.4 Figure 8 Loops.
- **12.5** Latourell Falls. Guy W. Talbot and George Joseph State Parks.
- 12.8 Town of Latourell (below highway).
- **13.9** Shepperd's Dell. Shepperd's Dell State Park.
- 15.1 Bridal Veil Falls State Park.

- 15.3 Town of Bridal Veil.
- 16.0 Town of Coopey Falls (East Bridal Veil).
- **18.2** Wahkeena Falls (US Forest Service). Benson State Park.
- 18.8 Multnomah Falls (US Forest Service).
- **21.0** Oneonta Gorge (US Forest Service).
- 21.4 Horsetail Falls (US Forest Service).
- 21.9 Ainsworth State Park.
- 23.4 Town of Dodson.
- 23.6 McLoughlin State Park.
- 24.3 Town of Warrendale.
- 25.2 Elowah Falls. John B. Yeon State Park.

Troutdale — Warrendale



West approach to Mitchell Point and access to Wygant State Park. [Mile 47.3]

East of Warrendale, at mile 25.2, the interstate freeway has replaced the old road and only disjointed fragments of the Columbia River Highway remain for the next 26 miles. This segment was built by Multnomah County as far as the county line east of Eagle Creek, then taken over by the State Highway Division to Hood River. The original alignment of the highway took the only practical route between the cliffs and the riverbank; during construction of the watergrade freeway there was no choice but to follow the same general alignment. Much as a river picking up speed leaves behind its meanders as oxbows, the water-grade freeway cut off oxbows of the old highway on either of its sides.

### Condition and Use

There are eighteen fragments of highway between Warrendale and the west end of Hood River, thirteen abandoned and five used as frontage and local roads. The five still in use total 6.0 miles and occur at Eagle Creek, Cascade Locks (Wa-Na-Pa Street and Forest Lane), Wyeth, east of Mitchell Point and northwest of Hood River. Wa-Na-Pa Street in Cascade Locks is the only main street.

The thirteen abandoned fragments total 3.6 miles. West of Cascade Locks, near Ruckel Creek, two fragments are being used as part of the low-level Forest Service trail through the

# Warrendale — Hood River

gorge. Two more have potential as trails, and one as a scenic rest stop off the freeway. These are examined in more detail in the Opportunities section. The remaining fragments are generally short, isolated and lend themselves less easily to reuse.

Two bridges are still in use over Eagle Creek and Gorton Creek; the Moffett, Tanner and Ruckel Creek bridges are intact but unused by autos. The original bridges over McCord Creek and Herman Creek are gone, as are the viaduct and windowed tunnel at Mitchell Point. At Bonneville the 224-foot long Tooth Rock viaduct can still be seen on the hillside above I-84.

#### Landscape

This segment displays a vegetative transition due to the rain shadow of the Cascade Range. The summit of the Cascades is near Eagle Creek at mile 29. Land east of the summit receives less rainfall than the windward slope. By Mitchell Point, at mile 48, there is a perceptible amount of Oregon white oak and yellow pine in the predominant Douglas fir forest, and by Hood River the dominant vegetation is a drier, more open mixture of Douglas fir forest, Oregon white oak and yellow pine.

The major geologic landmarks of this segment are Wind Mountain in Washington and Shellrock Moun-



The Ruckel Creek Bridge is now part of the Forest Service's low-level gorge trail. [Mile 30.0] []

tain in Oregon. Facing each other across the river, the "Twin Sentinels" east of Cascade Locks are an intrusive stock carved in two by the Columbia.<sup>1</sup> Their huge barren talus slopes have always threatened roads skirting their bases.

Mount Hood National Forest extends along much of the south side of the highway between Warrendale and Viento, making it the largest land use in the segment. One of the major functions on this part of the Forest, the Columbia Gorge Ranger District, is recreation. The Forest Service maintains an extensive trail system in the uplands and is working on the low-level trail through the gorge. The Pacific Crest Trail enters Oregon at Cascade Locks and can be reached from a new trailhead at the Bridge of the Gods. The Eagle Creek Trail is one of the most popular hikes in the gorge, passing six waterfalls in its 14 miles. Forest Service developed overnight campgrounds in the gorge are located at Eagle Creek (one of the first in the national forest system, built just after completion of the highway) and Wyeth (to be completed in 1982).

There are six state parks in this segment, but only Starvation Creek and Viento have development more than trails. Starvation Creek has a picnic area and highway rest stop; Viento has an overnight campground and picnic area. Additional areas of state park land at mile 31, mile 37 and mile 43 (Sheridan Wayside, Lang Forest and Lindsey Creek) were cut off by I-84 and are now inaccessible. The other major recreational attractions in this recreation-oriented segment are Bonneville Dam and Locks, with a five-story visitor center, the state fish hatchery at Bonneville and Cascade Locks Marine Park. Backpacking, camping and fishing are all popular activities.

## Communities

The fragmented central section of the highway through only one community, Cascade passes Locks. Situated where an immense landslide, the "Bridge of the Gods," blocked the river around A.D. 1260, the town began as the point where goods and people travelling the river had to portage around the treacherous Cascades of the Columbia. The town boomed in the 1880s with federal construction of canal locks to bypass the rapids, and with construction of the OWR&N line along the Oregon side of the gorge. The Wind River Lumber Company also attracted workers and their families to the area at this time. The newcomers stimulated quick development of stores, hotels and saloons.

With completion of the Columbia River Highway in 1915, Cascade Locks had a good roadway to Portland and Hood River. Except for a few gas stations and garages, the town itself was not



.

Eagle Creek is the site of one of the first campgrounds in the National Forest system. 14-mile Eagle Creek Trail draws crowds of hikers during the summer season. [Mile 29.4]

greatly altered by the highway. In 1926, completion of the Bridge of the Gods span across the Columbia offered motorists a connection to Washington's Evergreen Highway.

That same year, the lumber mill closed and Cascade Locks' growth halted until construction of Bonneville Dam began in 1934. Dam workers swelled the population from 250 to 1500, stimulating construction of camps for transient workers and other development that made the Depression years among the most active in the town's history. In 1936 the Forest Service built its Columbia Gorge Ranger Station on the highway at the east edge of town. With the dam completed in 1938, workers deserted Cascade Locks and the Cascades of the Columbia were drowned by the rising dam pool. The town's commercial center on Wa-Na-Pa Street was bypassed in the 1960s by I-84.

Between 1970 and 1980 Cascade Locks grew 46 percent, to a population of 838. The city acts as a minor retail trade center for the area and as a highway service center for I-84. In spite of its small size, Cascade Locks recently has experienced significant development. It is notable as the smallest community in the country to receive an urban renewal grant. This money was used to develop a small center with motel, restaurant, bank and retail space. The Port of Cascade Locks also has been successful in attracting several small-scale industrial developments to the area.

Cascade Locks contains a variety of housing types including single-family, multi-family and mobile homes. From 1970 to 1977 there were a total of eighty-five housing units constructed inside the city limits, about evenly split between single-family and multi-family units. Vacancy rates are extremely low and housing choices are tight.

The employed labor force of the community is approximately 373 people. It is estimated that 22 percent of those employed are engaged in tourism-related jobs.

There are a variety of recreational attractions within Cascade Locks. The port maintains a riverfront park at the site of the old locks which includes a municipal museum, a visitor center and a pleasure boat marina. A tour boat of the Columbia River leaves from the park and features excursion connections with Amtrak. The area also is the beginning of a number of hiking trails maintained by the Forest Service, which recently completed a trailhead for the Pacific Crest Trail at the Bridge of the Gods. A privately-owned campground off of Forest Lane provides overnight camping.

### Historic Structures

The forces that fragmented the Columbia River Highway between Warrendale and Hood River took their toll on the communities along the route as Summer homes at Moffett Creek were razed well. for the water-grade freeway; development at the town of Bonneville disappeared during construction of the interstate freeway. The Corps of Engineers is presently disassembling a parklike employee housing subdivision built in the 1930s, since employees can now commute from other towns in the gorge. East of Cascade Locks the town of Wyeth, which once planned an amusement park next to the highway, died by 1950 with the railroad plant that was its livelihood. tie Steep topography and the large amount of public land have also limited development. For example, Cascade Locks' attempts to expand its economic base with industry have faced the constraint of scarce buildable land.

Only eleven historic structures were inventoried between Warrendale and Hood River. Eight were commercial buildings, two were public (Cascade Locks City Hall and the former Forest Service Ranger Station) and one residential. Five of the commercial buildings have changed in use; one store is a residence, two auto courts and a hotel/tavern are longer-term rental units, and one building, a restaurant/gas station known in the 1930s for its nickel hamburgers, is vacant. The most prominent architectural feature on this segment is the Columbia Gorge Hotel, on the western outskirts of Hood River. Designed by Morris Whitehouse and built in 1921 by Simon Benson, the hotel on the bluffs overlooking the Columbia only operated until 1929. After a string of other uses including a rest home, the hotel was rehabilitated extensively and reopened as a hotel in 1978. The building is listed on the National Register of Historic Places. No other highway-associated buildings on this segment have previously been included on national, state or local historic surveys.



MILE 25.2 (Elowah Falls. John B. Yeon State Park).

- 26.7 Moffett Creek fragment. 0.1 mile, abandoned. Moffett Creek Bridge.
- 27.8 Tanner Creek fragment. 0.05 mile, abandoned. Tanner Creek Bridge.
- **27.9** Visitor Center, Bonneville Dam and Locks (US Army Corps of Engineers).
- 28.5 Tooth Rock fragment. 0.5 mile, abandoned. Tooth Rock Viaduct. Highway reuse study.
- **29.2** Eagle Creek fragment. 0.4 mile, access road. Eagle Creek Bridge.
- **29.7** Eagle Creek Camp and Eagle Creek Trail (US Forest Service).
- **30.0** Ruckel Creek fragment. 0.5 mile, abandoned and used as part of low-level gorge trail. Ruckel Creek Bridge.
- 32.7 Town of Cascade Locks.
- **32.7** Wa-Na-Pa Street and Forest Lane. 3.9 miles, local streets and frontage road.
- **39.9** Wyeth fragment. 0.3 mile, local road. Gorton Creek Bridge.
- **40.0** Wyeth Campground (US Forest Service).

- **42.0** Shellrock Mountain fragment. 0.5 mile, abandoned.
- **43.6** Cabin Creek fragment. 0.7 mile, abandoned.
- **44.1** Starvation Creek Falls. Starvation Creek State Park.
- **44.1** Starvation Creek Viento fragment. 0.8 mile, abandoned. Highway reuse study.
- 44.9 Viento State Park.
- **47.3** Mitchell Point west fragment. 0.3 mile, access road and abandoned.
- 47.3 Wygant State Park.
- **48.1** Mitchell Point east fragment. 0.6 mile, access road. Partially closed by residents.
- **49.7** Ruthton Point fragment. 0.1 mile, abandoned. Highway reuse study.
- **51.1** Westcliff Drive fragment, west Hood River. 0.7 mile, frontage road.

25.9 miles original highway

9.5 miles intact: 5.3 miles public 0.6 miles non-public 3.6 miles abandoned

Warrendale — Hood River



Inspiration Point, on the closed highway between Hood River and the Mosier Twin Tunnels. [Mile 56.1]

For 30 miles from Hood River east to The Dalles, the Columbia River Highway remains largely intact in the bluffs south of the freeway. But while the route above the river spared it from destruction by the water-grade, constant rockfalls in the rugged cliffs forced closure of the Mosier Twin Tunnels in the early 1950s. Filling of the tunnels severed the highway between Hood River and Mosier, and created 2.6 miles of deadend road that are now closed to the public.

#### Condition and Use

This segment of the highway begins on the west edge of Hood River as Cascade Street, descends into central Hood River and runs through the business district as Oak Street. It then crosses the Hood River Bridge, passes the intersection with State Route 35 (the Mount Hood loop road) and winds up out of the Hood River Valley. 2.9 miles east of the Highway 35 junction the highway is closed by a Hood River County gate; a key checked out by the sheriff gives access to the next 1.9 miles to the west portal of the twin tunnels. To reach the east portal of the tunnels, 0.3 mile away, you must backtrack to Hood River, take the freeway 5 miles east to Mosier, and backtrack 1.4 miles. 0.7 mile of the highway west of Mosier is also gated by residents who consider the road private property.

# Hood River — The Dalles

Between Mosier and Rowena the highway is known as the U.S. 30 "Scenic Loop". This 9-mile stretch climbs through orchards to scoured, windswept Rowena Plateau and Rowena Crest Overlook, elevation 718 feet. It then descends through the Rowena Loops to come up parallel with I-84 at Rowena, mile 69. Continuing along the face of the rocky cliffs above the freeway another 6 miles, it arrives on West Second Street in The Dalles. The old route followed Second Street (now one-way westbound) through city center. The highway finally deadends near The Dalles Dam on the eastern edge of town at the Seufert Viaduct, mile 81.

The condition of driveable, public parts of this segment is generally good. In the drier climate of the east there is less leaching of mortar from rock walls and spalling of concrete, severe problems in the west. Falling rock below Rowena Crest has broken off portions of stone guardrail on the Rowena Loops, and the road shoulder further east is extremely narrow due to slippage and crumbling rock.

There were originally only four bridges on this arid segment, and three of them remain in use at Hood River, Mosier Creek and Dry Canyon Creek (Rowena Dell). The Seufert Viaduct bridging Fifteenmile Creek is now abandoned.

The 1918 Hood River Bridge, the longest bridge on the highway at 420 feet, was determined



inadequate for present traffic needs by the state highway division in 1979. With completion of a replacement span in 1982 it will no longer be needed for highway purposes and is scheduled for demolition. Local groups are interested in saving the bridge, since it has excellent potential for continued use as a bicycle and pedestrian route. However, some agency must come forward to take over legal responsibility for the bridge once it is abandoned by the highway division.

The 9-mile "scenic loop" is the most varied and visually striking section of the highway still in use east of the Troutdale-Warrendale segment. It receives substantially less tourist traffic than the longer and better-known western segment. For example, in 1978 average daily traffic (ADT) at Crown Point was 546; the 1979 ADT at the Mosier city limits was 290 cars, and 220 just west of Rowena.

### Landscape

East of the Hood River valley the vegetative changes in the rain shadow of the Cascades become quite obvious; Oregon white oak and yel-

Rowena Crest and the Rowena Loops, from the east. Floodwaters stripped the crest of topsoil at the end of the Ice Age. [Mile 66.3] low pine dominate and dense undergrowth gives way to annual grasses. The Bretz flood at the end of the Ice Age scoured away most of the topsoil below 1000 feet in the gorge, leaving rocky slopes that support only scrub and grasses. East of Mosier extensive cherry orchards line the highway, in sharp contrast to the rugged, sparse native vegetation. Rows of Lombardy poplar windbreaks punctuate the landscape, protecting the fruit trees from the constant east winds of the gorge.

In many ways the scenic highway between Mosier and The Dalles echoes the alignment of the Troutdale-Warrendale segment, climbing to a high circular overlook and then looping downward along the cliff face. However, the landscape of the route contrasts sharply with the lush, moist and green landscape between Troutdale and Warrendale. The highway bridges dry canyons rather than waterfalls; homes are set among twisted oaks and rangeland rather than fir and green pastures; Rowena Crest looks out over soilless, scoured slopes rather than dense forest.

Compared to the western segment, there is relatively little park development on the scenic highway between Hood River and The Dalles. Although Rowena Crest Overlook is part of Mayer State Park, all the facilities in this park are concentrated along the riverbank below. Memaloose Overlook is part of Memaloose State Park, another recreation site on the river featuring a campground. Neither of the overlooks has any development or interpretation; Memaloose Overlook lacks even a sign. The remaining state park in this segment is Koberg Beach Wayside, incorporating portions of former Hood River-Mosier State Wayside, a park cut off by closure of the Mosier Twin Tunnels.

Most of the land bordering the Hood River - The Dalles segment is in private hands. Residential development has a rural character with homes scattered far apart and well back from the highway. Subdivision of trailer and home sites is taking place in Rowena Dell.

### Communities

The eastern segment of the scenic highway includes its largest cities, Hood River and The Dalles. In the 22 miles between them are two small communities, Mosier and Rowena.

The first non-native settler came to the confluence of the Hood and Columbia rivers in 1854; 30 years later seventeen families lived in the Hood River valley. With the coming of the railroad in 1884 lumber mills, ranches and farms proliferated. Hood River farmers brought in Japanese laborers to plant their orchards; in 1900 the first shipment of famous Hood River apples arrived in New York.



The Hood River Bridge, demolished in 1982, was the longest span on the highway. [Mile 53.1]

In 1916 the Columbia River Highway reached Hood River running through the already established commercial core on Oak Street. By 1919 the city had 8,000 residents. Portland hotelman Simon Benson built the Columbia Gorge Hotel on the west edge of town in 1921 as the major hotel on the highway. Tourist traffic increased further in the 1920s when State Route 35 created a loop drive through Portland, Hood River and past Mount Hood.

Although six gas stations and numerous restaurants opened to serve Hood River's influx of tourists, on the whole the scenic highway brought too much traffic and too little business to Oak Street. 80 percent of motorists stopped only to buy gas. The congested streets drove shoppers away; when in the early 1950s the freeway bypassed Oak Street, business actually picked up with the improved pedestrian environment.

In 1980 the population of Hood River was 4,329, an increase of 8.5 percent from 1970. Both the city and Hood River County are expected to continue to grow; the county population increased 20.1 percent between 1970 and 1980 and is expected to reach 18,800 by the year 2000. Hood River serves as the administrative and service center for the Hood River valley, a major fruit producing and processing area. The city also relies on industry and light manufacturing. Its industrial park includes industries such as Jantzen, Nicholls Boat Works, and Hood River Distillers. Recreation and tourism also are important segments of the economy. Camping and fishing attract summertime tourists while yearround skiing at nearby Mount Hood also draws visitors to the area. Other attractions include industrial tours, boating facilities, and a county museum. Motels and restaurants provide support services.

In spite of the city's position as a retail trade center, studies have shown that a significant amount of retail trade leaks from the Hood River area, largely to The Dalles. The downtown businesses in Hood River must offer a greater mix of goods and services to compete in the retail trade area. Another economic problem is the seasonal nature of many of the local industries which leads to high unemployment during large portions of the year.

The mill town of <u>Mosier's</u> first apple orchard was planted in 1898; in the first 20 years of this century large-scale apple production made Mosier boom. In 1919 a fire destroyed many of the commercial buildings on Main Street, a blow from which the town never really recovered. That same year, a ribbon- cutting ceremony opening the eastern section of the Columbia River Highway was held at Mark Mayer's estate, Mayerdale, 2 miles east of town.



In 1913 wealthy former Bostonian Mark Mayer built his summer estate, Mayerdale, east of Mosier. He later donated land to form Mayer State Park along the highway and provided a springwater fountain for thirsty travellers. [Mile 62.1]

Mosier's garages, gas stations, grocery stores and motel all prospered from highway travel. However, without the wider economic base of larger towns such as Hood River and The Dalles, many businesses in Mosier collapsed after bypass by the freeway. Motorists found little reason to stop and even local residents began to shop in Hood River and The Dalles.

Between 1970 and 1980 Mosier grew by 56.7 percent, to 340 people. With most of its employed residents working outside the community, Mosier today is a bedroom community and minor highway service center and rest stop. Its commercial facilities include a gas station, a small drive-in restaurant and a grocery store. In 1977 a survey of residents indicated that they favored commercial development as long as the basic town lifestyle was maintained. The Mosier comprehensive land use plan suggests that the town encourage new business and undertake a plan to attract small manufacturing.

Although <u>Rowena</u>, 6 miles west of The Dalles, was once promoted as an agricultural area, by 1918 lack of water and constant winds made the claims fade. The coming of the highway in 1919 saved Rowena; in the 1950s the freeway bypassed the town and it lapsed into being a strictly residential community. There is increasing development in this area by workers who commute to The Dalles. The area of <u>The Dalles</u> has a rich prehistory and history. Excavations just east of The Dalles have shown that native americans lived along the shore of the Columbia for at least 10,000 years, catching salmon migrating upstream through the Five-Mile Rapids. The fishing grounds attracted native groups from both the coast and the inland plateau, who met each year at Celilo Falls to fish and trade.

At this long stretch where the river ran through narrow, rocky channels, Lewis and Clark embarked on canoes to continue their exploration westward through the Cascades. In 1814 Gabriel Franchere described the narrows as "les dalles," or the "flagstone gutters." The Hudson's Bay Company established a trading post at The Dalles in 1821; the first European settlement was a Methodist mission begun 17 years later. The Oregon Trail ended at The Dalles for several years, and in 1854 Fort Dalles was built on the hillside to the south to protect the settlement. In 1855 the remaining native americans were removed to the Warm Springs Indian Reservation.

Through the rest of the 19th century, The Dalles developed as a commercial center focused on the fishing, canning and mining industries. The railroad brought further development, and the area expanded again when the Columbia River Highway connected to West Second Street in The Dalles in 1920. In 1956, the lake behind The Dalles Dam submerged the Long Narrows, Celilo Falls and the ancient fishing grounds.



Dry Canyon Creek Bridge above Rowena Dell. Spring wildflower displays on Rowena Plateau nearby are protected by a Nature Conservancy preserve. [Nile 66.1]

Today The Dalles is the largest city in the proiect area with a 1980 population of 10,820. Between 1950 and 1970 the area's population fluctuated due to large-scale public works projects such as The Dalles Dam and the interstate With completion of these projects in freeway. the 1960s, the number of residents declined Between 1970 and 1980 the city grew slightly. 3.8 percent. Current economic trends indicate that the city will continue to increase in population. The Dalles does experience an outmigration of young adults between the ages of 20 and 49. As a result, the proportion of elderly residents has increased and the city's median age (35.8) is several years older than the state of Oregon's.

Like the population, the economy of The Dalles has gone through changes due to the construction projects completed in the 1960s. As the projects phased out, the city has had to make a transition to a manufacturing and service econ-Situated in the midst of a profitable omy. agricultural area, it is a growing center for retail goods and services for a four-county region. Both the recently completed Cascade Square shopping center and the downtown central business district serve this function. The downtown area, with a number of older and historic structures, offers some opportunities for revitalization. Reuse or more intensive use and improvement of buildings in the downtown can increase its attractiveness and competitive

position relative to new shopping facilities. Industrial development is also expected to occur in The Dalles although Dallesport, across the river in Washington, will likely experience the bulk of that development due to land availability.

The Dalles has a housing shortage due to population growth and lack of new construction. This has resulted in the conversion of single-family to multi-family residences and an increase in the number of mobile homes. Utilization of older housing stock, as well as new construction, could help alleviate the housing problem. Surveys show that 79 percent of the city's housing stock is over 20 years old. The tight housing market already has encouraged the rehabilitation of existing units, a process that can be expected to continue in the future. A decrease in the average family size also has implications for the housing market in The Dalles. Development of one and two-bedroom units for low to medium income persons should be encouraged.

Visitor attractions in The Dalles include the Fort Dalles Museum, St. Peters Church and the 1854 Wasco County Courthouse. A self-guided walking tour of the city and a tour of The Dalles Dam are available. In addition, the city has numerous motels and restaurants that are readily accessible from the freeway.



Spring Grove Auto Park on Cascade Street, Hood River. Tent campers probably gathered around the natural spring on this site before the cabins were built in 1925. It is now a mobile home park. [Mile 52.3]
#### Historic structures

The eastern segment of the highway passes through the two largest communities on the route, Hood River and The Dalles. When the highway arrived in these already wellestablished commercial centers, main street businesses adapted to serve the new needs of automobiles and their drivers. As a result, half of the forty-eight highway-associated buildings inventoried are in the main street commercial districts of Hood River and The Dalles. Eleven predate the highway. All but one are still used as commercial space today.

Among the more typical highway-associated structures are eight auto courts and eight gas station/garages. Four residences were inventoried, five public/institutional and three agricultural/industrial buildings.

As with the Troutdale - Warrendale segment, the most noticeable trend in conversions is toward increased rental residential use. Because of the tight housing market in The Dalles most, if not all, auto courts are motels in name only; they now house a majority of long-term renters. The Stonehedge Inn (Wildwood Acres) is the only one of the four residences that has changed in use, through conversion into a restaurant. Overall, the number of buildings used for residential purposes has increased from four to eleven. Only four of the forty-eight buildings inventoried are vacant.

Two of eight original gas station/garages are still operating. Their range of new uses includes one residential, one <sup>+</sup> commercial, two agricultural/industrial and two vacant.

The only structures previously included in any historic surveys are older commercial buildings in downtown Hood River and The Dalles. These include the Butler and First Interstate banks in Hood River and the French & Company Bank, Wingate & Williams building, Gordon's and the Skibbe Hotel in The Dalles. In addition, a block of commercial buildings at 106-116 Oak Street in Hood River are in a county historic survey.



- MILE 51.1 (Westcliff Drive fragment, west Hood , River).
  - **51.1** City of Hood River.
  - 52.5 Cascade and Oak Streets. 1.9 miles, downtown Hood River.
  - 53.1 Hood River Bridge.

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- 53.4 Junction State Route 35 to Mount Hood.
- 53.5 Loops. 2.9 miles, access road to quarries.
- **56.3** Mosier Twin Tunnels fragment. 1.9 miles, closed by Hood River County gate. <u>Highway</u> reuse study.
- **56.4** Koberg Beach Wayside State Park (below highway).
- 58.3 West portal of filled Mosier Twin Tunnels.
- **59.2** East approach to Mosier Twin Tunnels. 0.7 mile, closed by residents.
- 60.0 Town of Mosier.
- 62.6 Memaloose Overlook. Memaloose State Park.
- 66.0 Rowena Dell.
- 66.3 Rowena Crest Overlook. Mayer State Park.

- 67.1 Rowena Loops.
- 69.3 Town of Rowena.
- 75.0 City of The Dalles.
- 77.2 The Dalles Auto Court. Building reuse study.
- 77.3 Second Street. Downtown The Dalles.
- 81.0 Seufert Viaduct fragment. 0.4 mile, deadend road.
  - 29.9 miles original highway 29.6 miles intact: 27.0 miles public 2.6 miles non-public 0.0 miles abandoned

## Hood River — The Dalles



Dry Canyon Creek Bridge, near Rowena Crest. [Mile 66.1]

## Issues

The analysis of current conditions along the Columbia River Highway raises a number of issues that will shape plans for future highway use. Following is a brief description of each issue; in the next chapter some issues are discussed further as they relate to specific opportunities for improved recognition, conservation and reuse.

#### Lack of Identity

Many people would be surprised that as many as 60 miles of the Columbia River Highway are still in public use. To most people, the highway consists of 27 miles between Troutdale and Warrendale; fewer know the 15-mile section from Mosier to The Dalles. The remaining 18 driveable miles are spread between Warrendale and Mosier, mostly as city streets and frontage roads.

There are three reasons for confusion about the highway's present identity and extent. First, those who might drive the highway have little background information on the route they are taking, and no way of knowing why it was built, where it went or how it was used. There is nothing to contradict the widespread impression that the highway simply ends at Dodson, where tourist traffic turns back to Portland on I-84.

Second, the two major driveable sections of highway on the west and east are separated by 35 miles and the summit of the Cascade Range. The arid, brown eastern section has little to connect it with the western scenic highway which passes, for example, densely forested Multnomah Falls. The 15 miles in the east are not even called the Columbia River Highway--signs on I-84 indicate only a 9-mile "U.S. 30 Scenic Loop." Stone guardrails are the only clue that both sections were once continuous.

The last factor contributing to the highway's loss of identity is that in the 35-mile gap between Warrendale and Mosier the highway has virtually disappeared, absorbed into local road systems. Today parts of the highway are Eagle Creek's access road, Wa-Na-Pa Street, Forest Lane, Herman Creek Road, Mitchell Point. Westcliff Drive, Cascade Avenue, Oak Street, the "road to the range" and Rock Creek Road. Although these fragments are now strictly local. identifying them as the historic route of the highway could provide a reminder of the highway and a sense of continuity now completely lost between Warrendale and Mosier.

#### Deterioration

67 years after construction the damp, freezing weather, narrow roadway and heavy traffic have caused noticeable damage to much of the highway's stonework and concrete railings. The unique design and construction of these walls and railings makes them difficult to repair and maintain using typical methods of road maintenance. As a result some types of needed maintenance such as repointing of mortar have been largely ignored; other repairs that have been made are out of character with the highway's historic style and materials.

## Instability

The gorge is so geologically young that it is still quite unstable. On the walls of the gorge are large slide areas and constantly shifting talus slopes. Cracks indicate two major areas of slippage of the roadway, west of Crown Point and west of the Mosier Twin Tunnels. Rockfalls and slides are a hazard east of Rowena Crest and, again, west of the Mosier Twin Tunnels.

#### Underutilized Buildings

Replacement of the highway and changes in the speed and style of auto travel have left a number of highway-associated buildings vacant or underutilized. Because these buildings are only marginally suited for commercial uses now in demand, such as rental housing, many are not contributing as effectively as they might to the economic bases of the communities along the old highway.

#### Landscape Alterations

Two major developments since 1913 have permanently changed the landscape seen from the highway. First was Bonneville Dam, which in 1938 created a lake which inundated the Cascades of the Columbia as well as the locks at Cascade Locks, and caused the Bridge of the Gods to be

raised 45 feet. Landmarks once seen from the highway such as the "drowned forest" first described by Lewis and Clark and much of the american burial ground on Memaloose native Island are now hidden underwater. Construction of The Dalles Dam in 1956 drowned the other set of famed rapids, the Long Narrows and Celilo Falls just east of The Dalles. Powerlines from hydroelectric developments these now cut straight swaths across the forested gorge walls on either side of the river.

The other development was I-84, which can now be seen from many points along the highway. Its impact is greatest in the Warrendale - Hood River segment, where the highway is close to the same level as the freeway and often in its right-of-way. The impact is least in the Troutdale - Warrendale segment, where much of the highway is away from the freeway on the bluffs above the river, or screened from view by dense forest. Between Hood River and The Dalles the freeway is generally more visible because of the thinner vegetation, although the segment's high alignment is similar to that between Troutdale and Warrendale.

The highway feature probably most affected by the proximity of I-84 is Multnomah Falls. In front of the Multnomah Falls Lodge the freeway splits to provide a large parking area accessible from left exits east or westbound. Visitors can park in the middle of the freeway and walk underneath to the Columbia River Highway and the facilities at the falls. At night the parking lot is brightly lit with freeway lights; in the day the lot is a flat, bare island of cars with freeway traffic rushing by on either side. The net effect is an obvious intrusion on the historic environment of the nearby scenic highway, lodge and falls.

Because of limited buildable land and the large amount of parkland along the popular western segment of the highway, roadside development now generally has little adverse impact on the scenic quality of the highway. The State Parks Master Plan calls for annual trimming and selected tree removal to maintain views from overlooks and along the highway; there is no logging activity in the state parks or on Forest Service recreation lands.

In other areas along the highway without recreational traffic there are a number of fairly intrusive developments, the most common being quarries. Near the Mosier Twin Tunnels an old quarry is used as a fruit dump by local growers. On the outskirts of Cascade Locks, Hood River, and The Dalles, industrial development on scales varying from an aluminum plant to a lumber mill has occurred next to the highway. Trailer parks next to the highway often stand on land once used for auto camping. Newer residential development can be seen below the highway in Rowena Dell, on Rowena Plateau and in Rowena



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Benson Bridge across Multnomah Falls. [Mile 18.8] with trailers spread along the road through town. The scattered new homes on Rowena Plateau are particularly visible because of the flat topography and sparse tree cover.

On a larger scale, efforts to have Congress designate the Columbia River Gorge a National Scenic Area have recently generated great controversy in Oregon and Washington. The movement for a federally regulated scenic area is fueled by concern that development on the largely private Washington side of the gorge will reduce the quality of views seen from public parklands on the Oregon side.

Clearcuts are a clear feature of the Washington shore as seen from the Columbia River Highway. Residential development is also more widespread and visible than on the Oregon side because of the gentler terrain and less dense cover. There are predictions that Washington communities on the west end of the gorge such as Camas and Washougal will expand with completion of the new I-205 bridge across the Columbia east of Portland.

#### Recreation and Tourism

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Over 2 million visits are made to the Columbia River Gorge each year for recreation purposes. But in spite of the popularity indicated by these numbers, the tourist market could be strengthened. A basic problem for the gorge is its lack of a strong image as a tourist destination. A relatively small percentage of the many travellers who pass through the gorge pause long enough to learn something about its attractions. Those who do stop tend to concentrate at a small number of sites, causing congestion of some areas and underutilization of others.

Multnomah Falls, the most popular tourist destination in the gorge, has over 2 million visitors per year. Bradford Island Regional Visitor Center at Bonneville Dam receives 600,000 visitors per year; recreation facilities at The Dalles Dam include campgrounds, boating and day-use areas. There are eighteen state parks on the Oregon side of the gorge, sixteen with day-use facilities and three with overnight campgrounds. The Forest Service has seven recreation sites including two campgrounds and the extremely popular Eagle Creek Trail. Port authorities in communities along the river also operate tourist and recreation developments. Most notable is the Port of Cascade Locks' Columbia Sightseer tour boat, whose popularity has not only increased steadily over its five years in operation but seems to stimulate other activity in the area such as overnight stays and Projections for use of the new camping. sternwheeler boat scheduled to begin service in 1982 range from 74,492 to 92,100 users in its 5-month season.

Previous studies of the Columbia River Gorge indicate that it draws the highest percentage of visitors from a surrounding area 'defined by a one-hour driving time. This primary market area includes the Portland metropolitan area. This region's population of over 1 million is expected to grow to 1.8 million by the year 2000. Seattle, Tacoma, Olympia, Salem and Eugene are within a 5-hour drive of the gorge and add an additional 4 million to the regional population.

Although on an annual basis only about 40 percent of visitors to the gorge come from out of state, this group reaches a greater peak in the summer season. Only an estimated 11 percent of out-of-state visitors who pass through the gorge stay overnight, indicating a significant market not being tapped. The auto is the primary means of access to the gorge, and pleasure driving is a major recreational activity. Commercial bus lines and Amtrak, are used by a relatively small percentage of visitors.

Given the scenic and recreational qualities of the gorge and the volume of traffic that passes through the area each year, it appears that recreation and tourism are relatively undeveloped. The lack of developed destination points and support for them in the form of accommodations and restaurants are serious handicaps. Further, the interstate freeway is a high-speed channel discouraging visitors from stopping only 2 hours from Portland. In strengthening the recreation/tourism sector the aim should be to capitalize on this high traffic volume, not necessarily to draw upon a larger market. Visitors should be encouraged to stay longer and learn more about the area.

The potential for capturing more of the traffic that now passes through the gorge appears to be significant. In addition, since many visitors to the area come from the region, higher gasoline costs may actually increase visitation as travellers substitute closer-to-home day trips for longer ones. Both of these factors point to increased strength for the Columbia Gorge's recreation/tourist market.

# <u>Opportunities</u>



Beacon Rock seen from near Warrendale.



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The people of Portland and the gorge have always looked at the Columbia River Highway with a sense of pride and stewardship. Although in the 1950s and 1960s this feeling took second place to the drive for efficiency, recently many have looked again at the highway as a recreational and historic resource. Some have always regretted seeing the highway bypassed and abandoned. Others have rediscovered the highway and treasure the slow-paced, overgrown quality it has acquired and want to share it with others.

All those interested in the highway's future agree that with rising energy costs the Columbia Gorge will become an even more popular destination for close-to-home recreation. Greater public use of the scenic highway could bring economic benefits to local communities as well. With simple efforts to encourage recognition, conservation and reuse, the Columbia River Highway could make a major contribution to the quality of life of residents both in local communities and the region.



Memaloose Overlook gives a view of native American burial grounds on Memaloose Island. There is no sign to indicate its existence just off the highway. [Mile 62.6]

# Recognition

Completion of the interstate freeway cut off some tourist and travel-related business in virtually every highway community. While town economies reshuffled, travellers rushing by on the new freeway lost contact with the small towns, parklands and vistas along the old route. Better exposure of the remaining scenic highway as an alternative to the freeway could help the highway communities regain some of that segment of their economies lost with bypass by the freeway.

Spreading recognition of the highway is one of the major purposes of this book itself. The Columbia River Highway Project's signage program and driving tour are aimed specifically at recreating from the present fragments an understanding of the historic highway as a multifaceted resource that can be enjoyed by every traveller, Sunday driver, hiker and bicyclist passing through the gorge.

#### Signage Program

The Columbia River Highway was once marked by three unifying features. First and most important was its continuity; the highway was a single uninterrupted line tying together the string of settlements and parklands through the gorge. Second, repetition of distinctive design elements such as native stone walls, concrete balustrades, series of hairpin loops and circular overlooks gave the highway a visual consistency that served as a foil for the dramatic variation in the surrounding landscape. Last, sparse but consistent signage and milepost marking reminded the traveller that this was no ordinary county road, but a reknowned and prized part of the national road system.

Today all three of these features have been diminished to some degree by physical and administrative fragmentation of the highway. The highway is broken into two major driveable sections separated by 35 miles of fragments and interstate freeway. Because of this gap, the traveller seldom realizes that the "scenic loop" between Mosier and Rowena was once continuous with the "scenic highway" past Multnomah Falls and Vista House. In the less-used eastern segment there are very few signs due to predominantly private ownership. The extreme differences in landscape from the steppe grassland of the east to rain forest of the western segment make it even more difficult to see the connection between the two.



Administrative fragmentation is another cause of the highway's loss of identity. The highway has always been subject to management by different agencies, and over time the Forest Service, State Parks and the State Highway Division have become the three major managers of land on and around the highway. Each agency places signs along the road to meet its own standards and responsibilities, with little regard for the highway as a complete resource. As a result the highway is becoming cluttered with signs while still losing its identity, much like a person who changes names and appearances so often that no one remembers who he is. This problem is more serious on the western segment, where signs for Forest Service and State Parks recreation areas are intermixed and the road's narrowness and high use make a number of traffic signs necessary.

A signage program along the Columbia River Highway could alleviate these three interrelated problems of lack of continuity, lack of identity and sign clutter. The sense of continuity of the highway would be enhanced by using identifiable Columbia River Highway signs as trail markers on reused fragments of the highway. Coordination between the agencies involved in signing the highway would generate a consistent system of signs giving priority to identifying the highway over the responsible agency. Last, the program would cause reexamination of present signage, with elimination of redundant signs and addition of signs now lacking. The result would be increased public awareness of the many attractions of the highway that time and past attitudes may have reduced in importance.

#### Policies

The first step toward a coherent signage system on the Columbia River Highway would have to be agreement between the State Parks and Recreation Division, the State Highway Division, and the Forest Service to follow certain policies in placing signs in the highway right-of-way.Local public works departments and towns should be encouraged to adopt the policies as well in their own signage activities along the highway.

Agencies should agree to:

1. Evaluate all signs existing and proposed in the highway right-of-way and associated areas for usefulness, with the goal of eliminating those that are redundant and unnecessary. Clusters of signs should be simplified where possible, as they compete and reduce each other's effectiveness. Signs serving different purposes (traffic, information, identification) should he separated where possible. Signs that do not need to be read from the highway should be screened or placed so that they cannot



be seen from the road. The goal should be to have the absolute minimum of signs needed for safe driving and identification of the highway.

- 2. Develop a list of needed identification, information and interpretive signs and place them in priority. The list should include signs for: entries, special points, and highway identification. (This does not include signs which are strictly the responsibility of one agency, for example traffic signs and state park signs.)
- 3. Develop a consistent set of designs for signs that can be adapted to suit the various signage needs of all the agencies involved. The designs should in some way express the character and historic context of the highway. Identification with the highway should take precedence over identification with a particular agency.
- 4. Explore methods of creative financing of identification, information and interpretive signs using donations from the private sector and service organizations, memorials to individuals, and gift catalogs. Explore opportunities for donations of materials and volunteer labor for construction, placement and maintenance of the signs.

Suggested design guidelines

Sign design should emphasize clarity of information, simplicity of design, expressiveness of construction and materials, quality craftsmanship, ease of maintenance and long life. Mile markers, the only original highway signs remaining today, embody all of these characteristics and could be used as a model for certain types of signs.

> Materials: Natural regional materials and materials associated with highway construction should be used when possible; these include basalt stone, wood beams and posts and concrete with bush-hammered, exposed aggregate or acid-washed finish. Paint should be used with restraint.

> Forms: Arches, balustrades and stonework associated with the highway should be used as the basis for forms used in the signs if possible. The CCC style used in Forest Service construction is also appropriate and compatible, but care should be taken to avoid the impression that the highway itself was a product of the CCC era.

> Lettering: A particular style and method of lettering should be used consistently. Styles that are modern and "slick" should be avoided in favor of those somewhat reminiscent of the early part of the century. Emphasis should be placed on simplicity and legibility.



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1915 map from the Oregonian promoting the new Columbia River Highway. (OHS #62621)

#### Driving Tour

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Tourists in the 1920s and 1930s could choose from a wealth of published travel guides and tours of the Columbia River Highway and its many points of interest. Today's tourist has no comparable source of information, much less one giving an historic perspective on the highway. The driving tour of the Columbia River Highway was written to give travellers some insight into both the natural and the cultural landscape of the highway. The tour outlines the history of the highway, its communities and historic buildings, and gives a range of information on the scenic and recreational attractions along the It covers the entire highway between route. Troutdale and The Dalles to give a sense of the highway's former continuity, but can be broken into shorter loops suitable for an afternoon's The tour would be widely distributed at drive. spots along the route including local chambers of commerce and tourist information centers.



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Stonework at Memaloose Overlook. [Mile 62.6]

## Conservation

The Columbia River Highway has survived for 67 vears in a particularly demanding set of climatic and use conditions. Freeze and thaw, driving rain, ice storms, high runoff, baking sun and the constant gorge winds have weathered many highway structures to the point of instability. Highway users literally impact weakened guardrails and walls as they negotiate the highway's 100-foot radius curves in camper trailers, tour buses and trucks. Managers trying to weatherproof Vista House, the monument and observatory on Crown Point, have been making alterations to the historic structure since it opened in 1918. The result is a critical need for informed conservation and maintenance of the highway and its structures.

#### Guide for Maintenance

The highway's maintenance problems are most severe on the western third, where rainfall. tourist traffic and highway structures are all concentrated. The most urgent problems are deteriorating mortar in stonework and rusting steel reinforcement in concrete structures. Constant moisture has eaten away at mortar joints in nearly every piece of highway stonework. To prevent loss of stones and instability of the walls, these deteriorated joints need to be cleaned out and repointed. Moisture has also caused the steel reinforcement in many concrete balustrades and guardrail caps to rust and expand. This cracks the surrounding concrete and accelerates the process by letting in more moisture. Other essential maintenance includes construction and repair of retaining walls in eroding areas and periodic inspection and repair of vehicle damage.

The Columbia River Highway Guide for Maintenance is an illustrated handbook listing maintenance problems affecting the highway and offering technical specifications for appropriate repair techniques. It has been distributed to agencies responsible for the highway to guide them in maintaining both the highway's driveability and its historic character.



Vista House interior dome. Indian heads on the ends of the ribs symbolize the prehistoric inhabitants of the gorge. Paintings of pioneer days which hung below the windows have disappeared.

#### Vista House Historic Structure Report

Designed by Portland architect Edgar M. Lazarus to "recall the ancient and mystic Thor's Crown [for] which the point was originally named," Vista House on Crown Point is the major architectural landmark associated with the highway. It was proposed by Sam Lancaster in 1915 and built in 1916-1918 at a cost of nearly \$100,000. Since then it has served highway travellers as a comfort station, an observatory and memorial to the Oregon pioneers.

The imposing domed octagonal structure is elevated on a stone embankment in the middle of a loop in the highway. It is constructed of reinforced concrete faced with coursed sandstone, and once had a glazed tile roof. Restrooms and storage space are below ground level; a main floor and observation deck are above. The observation deck offers a 360-degree view of the gorge on clear days.

Vista House's location on top of Crown Point, elevation 734', has subjected it to severe climatic conditions including driving rains and winds over 100 miles per hour. Although it remains in sound condition overall and retains its basic form and structure, it has undergone a number of alterations, most of them efforts to deal with weather problems.

Vista House is now managed under joint agreement

by the Forest Service and the Oregon State Parks and Recreation Division. Recent removal of a concession operation has created the opportunity for these two agencies to reexamine their plans for the building's future. The Historic Structure Report for Vista House provides base information on the structure's condition, past alterations, dimensions and materials for use in this planning effort. The report will be a basis for developing guidelines, working drawings and specifications for maintenance and possible restoration of the monument in the future.



Wind Mountain, seen from a highway fragment near Shellrock Mountain. [Mile 42.0]

# Reuse of the highway

6.8 miles of the Columbia River Highway are now closed to public traffic, winding fragments of road known only to local residents, highway buffs and occasional hikers. Through years of disuse the forest has softened the road's edges; now moss and wildflowers cover swaths of asphalt and seedlings sprout from cracks in the pavement. Walking one of these fragments, looking out over remnants of stone guardrail to the quiet river where there were once rapids, is both a peaceful escape from the rushing freeway and a reminder of passing time and human works.

Three fragments of highway, all between Warrendale and Hood River, offer excellent opportunities for recreational reuse. At Ruthton Point a tiny crescent of highway just off the interstate could easily become a small rest stop and viewpoint. At Starvation Creek the highway conveniently connects two popular state parks, and at Tooth Rock a fragment of highway overlooking Bonneville Dam could make a scenic walk to Eagle These sites are by no means the only Creek. ones with reuse value; each was chosen for study because of its combination of prime location for recreational use, richness of historic, scenic and natural resources, and simplicity of needed development.

The Columbia River Highway Project also studied the potential for reopening a critical area of the highway, centering around the Mosier Twin Tunnels, to auto and bicycle traffic. The 0.3 miles of rubble-covered highway at the twin tunnels are the single break in 22 otherwise continuous miles of scenic highway between Hood River and The Dalles. Reopening this short but unstable stretch has the potential to provide an alternative to I-84 between these two largest cities on the highway, to stimulate economic activity in nearby towns such as Mosier, and to reopen a section of the old highway on the east that would equal in both length and scenic quality the more famous segment between Troutdale and Warrendale.



Tooth Rock Viaduct, Tooth Rock in center. The water-grade freeway now passes through a tunnel beneath the highway fragment. (OHS #58424) 0

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#### Tooth Rock

East of Tanner Creek the Columbia River Highway climbed to elevation 200' to wind around a sharp basalt outcrop known as Tooth Rock. On the other side lay the rustic Forest Service campground and trail at Eagle Creek. In 1936, as one of the first alterations in Lancaster's highway, the state highway department blasted a tunnel through the base of Tooth Rock to bypass the narrow road above. Today eastbound freeway traffic rushes through the stone-faced tunnel below an 0.5-mile long fragment of the highway that overlooks Bonneville Dam. With mosscovered stone and concrete work, the highway fragment at Tooth Rock provides a striking contrast with the hydroelectric development below. In itself it would be valuable as an interpretive walk and overlook trail; connected to Eagle Creek it would provide a needed link between two major recreation developments in the area.

#### Site Analysis

Tooth Rock lies between Tanner Creek and Eagle Creek, west of Cascade Locks at mile 28.5. It is near the eastern border of Multnomah County. The fragment is approximately 0.5 mile long.

Samuel Lancaster considered this area the summit of the Cascades, and once proposed that the Oregon Pony locomotive be placed on a rock opposite Tooth Rock to commemorate the pioneers' struggle through the mountains. In 1922 he bought seventy-two acres south of the highway here and built "Lancaster's," a rustic resort of tent cabins, nature trails and wooded retreats. The resort burned down and Lancaster had to sell the land, which eventually became Bonneville State Park. There are no plans to develop the park, which was acquired primarily for scenic protection. Present ownership is divided between the state, south of the highway, and the Union Pacific Railroad north of the highway.

On either end of the fragment are popular recreation sites. Across the freeway on the west are Bonneville Dam and Bonneville Fish Hatchery. the dam site the Corps of At Engineers operates five-story Bradford Island Regional Visitor Center, which has extensive displays on the history of the gorge but relatively little on the Columbia River Highway. An additional visitor center on the Washington shore is planned with completion of Bonneville Second Powerhouse. The Fish Hatchery is located in parklike grounds adjacent to a picnic area. East of the fragment is Eagle Creek, the oldest campground in Mount Hood National Forest and start of the most popular hike in the gorge, 14-mile Eagle Creek Trail.

The Tooth Rock fragment is reached by a dirt road leading east from the south side of Bonneville Dam exit 40, or from the right shoulder of I-84 0.6 mile further east. The first part of

the fragment parallels the freeway and climbs gradually on a fairly straight course. Although somewhat narrowed by overgrowth, the road is driveable as far as a concrete roadblock 1600 feet up the road. The fragment then begins to curve upward and emerges from enclosing forest as it approaches Tooth Rock, where the first length of stone guardrail appears. A 224-foot long viaduct skirts the west face of Tooth Rock, then there is another length of stone guardrail that is broken off where the road ends abruptly above the east end of Tooth Rock tunnel. A trail traverses the steep slope south of the freeway partway down to Eagle Creek; the trail ends at the top of a cut about 75 feet above the Eagle Creek access road.

Vegetation along this fragment is typical western Cascades coniferous forest of Douglas fir, western hemlock, bigleaf maple and alder. The highway is an almost completely enclosed corridor at lower elevations, opening further above where slopes are steep and rocky to allow views north across the river. Steep cuts made for the freeway have thinned the vegetation around Tooth Rock.

The landscape seen from around Tooth Rock has a high degree of variety and contrast. To the east the great landslide from Table Mountain pinches the Columbia down toward Cascade Locks; the silver Bridge of the Gods crosses the river in the distance. In the middleground to the north and west forested Bradford Island divides the river. Bonneville Dam dominates the view, its towers, lights and expanse of white concrete in sharp contrast to the subdued colors, detail and small scale of the old road.

Both location and highway features make the Tooth Rock fragment an excellent site for recreational reuse. In its present deadend condition the fragment could be an interesting and easily accessible viewpoint trail from the Bonneville Dam area. In addition to the views of the dam area and the "Bridge of the Gods" landslide area, the concrete viaduct and stone guardrail would be valuable displays pointing out the highway's innovative construction and European influences. With development of a quarter-mile long trail completing its connection with Eagle Creek, it would be an easy walk from the popular campgrounds to the dam and state fish hatchery. The two sites are now connected only by the interstate and a higherelevation trail.

#### Recommended Program

1. Provide a sign on the south side of the Bonneville Dam underpass under I-84 indicating the distance and direction to Eagle Creek via the Tooth Rock fragment. Also give distance and direction to the dam and fish hatchery on the north side of the freeway.



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- 2. Define one shoulder of the road under the freeway and railroad tracks as a walkway by painting stripes on the road. Post signs alerting drivers to watch for pedestrians.
- 3. Provide a sign near the Eagle Creek Bridge giving the distance and direction to Bonneville Dam/Fish Hatchery. Sign could also give information on the history of Eagle Creek and the highway.
- Remove existing concrete roadblock. Place bollards to bar auto traffic further west, just east of the widened shoulder on I-84 that is now used for access to the fragment. Bollards should be removable to allow emergency and maintenance access.
- 5. Replace existing wire mesh fencing at north side of highway fragment with dark-colored steel or wood fencing that does not intrude on views and blends with the surroundings. Fence should prevent rocks, people and other material from falling onto the freeway and railroad tracks below, especially at the end of the fragment above Tooth Rock Tunnel.
- 6. A further recommendation for development is completion of a trail from the end of the road fragment down to Eagle Creek Bridge area. Because the most obvious route would skirt a steep cut above the Eagle Creek

access road, the feasibility, safety and cost of this option would have to be determined in a more detailed field survey. An alternative would be connection of the fragment trail with the Wauna Viewpoint Trail #402, which ends at the mouth of Eagle Creek Canyon near the Eagle Creek trailhead. This would allow use of the fragment as part of the low-level gorge trail #400.

7. Although the highway fragment itself is suitable for handicapped and bicycle use, for complete accessibility the 0.6-mile dirt road on the west and the trail to Eagle Creek on the east would need grading and hard surfacing.



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Milemarker #58 near Starvation Creek on the abandoned Columbia River Highway. (Diana Ross)

#### Starvation Creek

The Starvation Creek fragment of the old Columbia River Highway parallels I-84 for approximately 0.8 mile, linking the Starvation Creek State Park picnic and rest stop area with Viento State Park, a popular campground near Viento Creek on the Columbia River. Generally following the 400-foot level, 200 feet above the freeway, the gently-curving fragment hugs a rocky ledge bordered by steep basalt escarpments on the south. On the north, enclosing fir and maple open intermittently to frame dramatic open views of Wind Mountain and the river. The road's scenic quality, excellent condition and potential to link recreation areas make it one of the most promising sites for reuse.

#### Site Analysis

Starvation Creek is located approximately midway between Cascade Locks and Hood River, at mile 44. Viento State Park is about 1 mile east. Starvation Creek was given its name after a train was snowbound here for four days in 1884, although no one starved.<sup>4</sup> Viento's name is derived from three railroad men, Villard, Endicott and Tolman. In the 1920s a restaurant and gas station stood next to the highway at Viento. The State of Oregon presently owns the fragment.

Starvation Creek State Park is accessible only eastbound on I-84. The rest area at Starvation

Creek is well-used and congenial; the CB radio club offers free coffee and lemonade to weary travellers. At one end of the circular parking lot is the restroom building and a monument commemorating Simon Benson's role in promoting construction of the Columbia River Highway (the plaque was moved from its original spot in Lindsey Creek State Park near Shellrock Mountain). Three paths lead from this point. One leads south past picnic tables to the foot of 186-foot Starvation Creek Falls, the easternmost of the high falls in the gorge. Another leads north to forested, secluded picnic grounds, and the third unmarked path leads to Viento State Park via the abandoned Columbia River Highway.

The east end of the fragment can be reached either east or westbound on I-84 from Viento State Park exit 56. While most of the development and activity at the park is located north of the freeway, south of the freeway is an ample parking area and Viento South picnic grounds. The south area is a short walking distance under the interstate to Viento campground.

The existing asphalt pavement of the fragment is in good condition for walking, biking and handicapped access. There are only three sections where the asphalt disappears. Between the restrooms at Starvation Creek and the old pavement is an 80-foot gravel path, and at the other end between Viento South parking area and the end of the highway is a barbed wire fence and a mostly



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Wind Mountain, looking west from between Starvation Creek and Viento State Park. (Diana Ross)
overgrown 400-foot gravel service road. These paths are fairly easy to walk, but difficult for bicycles, wheelchairs or those with impaired mobility. Last, a small landslide no more than 5 feet wide and a few feet deep blocks the highway about 800 feet east of Starvation Creek. Past clearing of landslide material has left a 4-foot berm along the north side of the fragment in this area. This low earth wall helps create a feeling of safety and enclosure on the steep hillside and provides a buffer against freeway noise.

Vegetation includes a lush coniferous mixture of Douglas fir, western hemlock and western red cedar, plus some deciduous trees such as bigleaf maple. Because of the rocky cliffs to the south, the vegetation is interspersed with some areas of talus and vertical colonnades of barren rock. This broken pattern provides a more sunny and dry environment than in typical rain forest, with fairly open views in several locations. Understory plants reflect the sunnier parts along the fragment and include scotch broom, vetch, and Oregon white oak.

Several important geologic features can be seen to great advantage along the fragment. Directly across the Columbia River lies Dog Mountain; downriver the "Twin Sentinels," Shellrock Mountain and Wind Mountain, dominate the landscape. Views are framed by vegetation on the western end of the fragment and from open to completely enclosed on the eastern end. Approaching Viento State Park, views become panoramic and the nearby freeway becomes highly audible and visible. Just before the pavement gives way to the gravel service road at Viento South, the fragment emerges into a pleasant meadow of grasses and wildflowers, where an original concrete milemarker still stands tucked away in the brush on the edge of the highway.

Since this portion of the old Columbia River Highway is under the jurisdiction of State Parks, and because popular recreation facilities already exist on both ends of the fragment, it offers an excellent opportunity for reuse as a trail and/or bike path connecting the two parks. In addition, the fragment could serve as a trail connector from Viento State Park to the Mount Defiance Trail.

#### Recommended Program

- Remove small landslide to a trail width of 6.5 feet. Stabilize slope to protect from further slides.
- 2. Regravel 400-foot road surface near Viento State Park end of fragment.
- Remove fencing at Viento State Park end of fragment. Replace with bollards to control vehicular traffic. Provide a barrier planting to replace barbed wire fencing.

- Provide a small buffer planting on the south side of restroom facilities at Starvation Creek State Park.
- 5. Provide buffer planting of Douglas fir and understory shrubs on the north side of the meadow near Viento State Park to reduce freeway impact and to enclose the space for informal picnics and wildflower enjoyment.
- 6. Provide an interpretive sign at the monument commemorating Simon Benson's contribution to the Columbia River Highway (located near Starvation Creek State Park parking lot) explaining the highway's significance and indicating that this fragment still exists as a trail.
- 7. Provide a directional sign at the intersection of the paths going to Starvation Creek picnic area, Starvation Creek Falls and Viento State Park.
- Provide an interpretive sign explaining views of Dog, Shellrock and Wind Mountains at an appropriate viewpoint along the fragment.

9. Provide a standard trail marker sign to indicate connection with Mount Defiance Trail near entrance to Viento State Park. For use of the fragment as a bicycle path, as well as for handicapped accessibility, the following additional improvements are recommended.

- Pave 80-foot gravel path at Starvation Creek State Park restroom area with asphalt to a width of 6.5 feet.
- Pave 400-foot gravel service road near Viento State Park with asphalt to a width of 6.5 feet.



STARVATION CREEK FRAGMENT





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Existing west entry to fragment at Starvation Creek State Park.



Starvation Creek proposal #7. Sign gives directions to falls, picnic area and Viento State Park via the old highway. (Diana Ross)



West end of the Ruthton Point fragment seen from I-84. (Randy Knox)

#### Ruthton Point

At Ruthton Point, 1 mile west of Hood River, a crescent of highway has been cut off on the river side of the interstate. Sheltered from wind and freeway noise by two cut hills, the Ruthton Point fragment looks out over a stone guardrail and simple concrete viaduct to the Columbia River 250 feet below. With minimal improvement this fragment could become a small scenic rest, an eddy off the rushing freeway evoking a time of slower travel and greater intimacy with the landscape.

#### Site Analysis

Ruthton Point is located west of Hood River at mile 49.7, north of I-84. The point was named in 1886 when Joseph W. Morton derived "Ruthton" from the name of his daughter Ruth Morton. The Columbia River Highway was built around this point in 1916. The fragment left after construction of the interstate is about 500 feet long, and is owned by George E. and James M. Struct of Hood River and the state highway division.

Access is from I-84 westbound only, using the exit marked "Service Road." The road goes directly past the east end of the fragment before it descends northeast to houses and orchards further out on the point. The old highway is on the same grade as the freeway, but separated on the south by halves of two hills cut away steeply by the freeway. About three-quarters of the asphalt road surface is crumbled and broken. A large portion in the center is piled with boulders and aggregate from freeway construction, making passage on foot difficult. On the west end of the fragment, visible from I-84, are a white concrete viaduct balustrade and stone guardrail. Both are broken and somewhat deteriorated. The guardrail is partially buried and was apparently broken by the weight of the rocks dumped on the roadbed.

Ruthton Point falls within the transition zone Douglas fir/bigleaf maple and yellow where pine/Oregon white oak vegetation types mix. Trees enclose only a small portion of the fragment's north side because the slope drops away sharply. The north-facing slopes below the highway have more dense vegetation. The cut slopes south of the fragment support only scrubby vegetation that is being undermined by erosion. The site has a northern aspect and is exposed to strong east-west winds typical of the Powerline towers are located on the gorge. eastern cut hillside; their cables traverse the roadway near the center of the fragment.

The highway fragment displays spectacular views, particularly from the western end near the viaduct and guardrail. The viewshed includes the point below, several miles up and down the



Stone guardrail and rubble-covered roadway at Ruthton Point. (Randy Knox)

gorge, the river and the Washington shore opposite. A unique feature visible across the river is the last operating lumber flume in the country, the 9-mile flume transporting logs from logging sites on the Little White Salmon River to Broughton Lumber Mill.

Existing freeway access, outstanding views overlooking the river and historic highway remains are the major assets of this fragment. As it is the only place with such a combination of qualities between Warrendale and Hood River, Ruthton Point is ideally suited for reuse as a freeway scenic rest stop. Emphasis could be placed on the scenic and historic interest of the site for travellers who would otherwise speed by without any knowledge of the highway; interpretation would help to create a sense of the former continuity of the highway and bridge the gap between the two remaining segments of the highway on the west and east. With its proximity to. Hood River, there would be little need for full rest stop facilities such as restrooms and shelters. Reuse of the fragment would require minimal improvement and could utilize materials already discarded on site.

#### Recommended Program

- Clear the roadbed of rock and aggregate. If possible, reuse the material in pavement and slope stabilization.
- 2. Grade the cut slopes into less severe, more natural-looking hill forms.

- 3. Plant the regraded slopes to better screen the center of the fragment from the freeway. Plant and place riprap selectively to prevent further erosion.
- Provide a small number of temporary parking spaces near the east end of the fragment closest to the freeway on/off lane.
- 5. Provide a path over the old highway surface from the parking area to the viaduct and guardrail area. Materials for pedestrian and auto traffic areas should be of a temporary nature and should attempt to use materials on site. Layered aggregate for walkways and precast porous paving blocks for traffic areas would be appropriate.
- Provide an interpretive sign near the viaduct and guardrail area giving historic information on the highway, keying out views and explaining features such as the log flume.
- 7. Restore or at least stabilize the viaduct and stone guardrail, in particular the guardrail cap.

The above program is for a minimum level of development. Improvements should be flexible and allow for expansion to meet possible future increases in use. Additional structures such as restrooms and shelters, if found necessary, could use an earth-sheltered concept and be integrated into the hill forms.





## RUTHTON POINT FRAGMENT

Recommended alternative 1 provides a minimum level of development, with vehicles limited to the east end and the highway fragment serving only foot traffic.

## **ALTERNATIVE 1**



## RUTHTON POINT FRAGMENT

ALTERNATIVE 2

Alternative 2 allows vehicles to drive half the length of the fragment and park between the two cut hills. A walkway continues down the west end of the fragment to viewpoints near the stone rail and viaduct.



## RUTHTON POINT FRAGMENT

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Alternative 3, the most intensive scheme, calls for one-way traffic on the fragment, reentering the freeway from between the cut hills. A walkway would parallel the traffic lane along the east end and continue to viewpoints on the west end.

### ALTERNATIVE 3



Inside the Mosier Twin Tunnels, looking out at the west approach. (OHS #14743)

#### Mosier Twin Tunnels

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Between Hood River and Mosier only a narrow strip of level ground comes between the foot of the cliffs and the river, and at the time of highway construction the OWR&N railroad tracks already took up this water-level route. Following a right-of-way dispute with the railroad, the Columbia River Highway was routed slightly inland along the cliffs. 500 feet above the river the highway ran into a sheer basalt outcrop. The twin tunnels carved through the outcrop, one 260 feet and the other 60 feet long, made this stretch of highway the most expensive yet undertaken.

Falling rock plagued this section from the time it was opened. When the tunnels became one-way to serve heavier traffic, cars were hit by falling rock while stopped at the west portal waiting for the light to change. In the early 1950s the talus slope beneath the west end of the road began to slide as well; the state highway department responded by closing the highway and rerouting traffic onto the nearly-complete water-grade freeway below.

Today 6.5 miles of intact but deadend highway hinge around the closed twin tunnels. West of this section is Hood River, the second largest community on the route. To the east is Mosier, a quiet town where the 18-mile scenic highway to Rowena and The Dalles resumes. If the tunnels were open, it would be possible to drive the scenic highway for a full 22 miles between Hood River and The Dalles.

The following analysis of reuse potential for the Mosier Twin Tunnels area is largely taken from a report prepared for the project in August 1981 by Tenneson Engineering Corporation of The Dalles. The full report is attached as Appendix B.

#### Site Analysis

The Mosier Twin Tunnels are in Wasco County, 1 mile east of the Hood River County line. Their approximate elevation is 500 feet.

The west end of the tunnels is reached by the road leading east from the junction of U.S. 30 and State Route 35 in Hood River. The first 2.9 miles of road are used primarily by trucks serving quarries and asphalt operations lining the route. At 2.9 miles a Hood River County gate closes the road. The key to the gate must be signed out from the Sheriff's office in Hood River.

In the 1.9 miles from the gate to the tunnel portal there are four rockslides on the roadway ranging in size from 50 to 1500 cubic yards. In addition, cracks in the roadway for about 75 feet, 0.1 mile west of the tunnel portal, indicate potentially hazardous slippage of the road



West portal of the Mosier Twin Tunnels, now filled with rubble. [Mile 58.3] itself. In front of the west portal rockslides and the highway division have placed over 2000 cubic yards of rubble over 735 feet of road. The rock face to the south of the portal is crumbling and loose, and continues to drop rock onto the roadway.

Access to the east side of the tunnels is along Rock Creek Road west of the town of Mosier. The first 0.7 mile is heavily used by residents and quarry operations. At 0.7 mile from the town the old highway branches off and is blocked by barricades put up by adjacent landowners. However, research turned up no record that the highway had been vacated since its closure. The closed section of highway pavement is in good condition for 0.7 mile from the first barrier to the east tunnel portal. Only one small slide of 400 cubic yards narrows the road.

The twin tunnels section itself is 430 feet long and completely filled with about 4500 cubic yards of sand and rubble. The sheer, crumbling cliffs make it impossible to go by foot from one side of the tunnels to the other.

Pullouts on both approaches to the tunnels provide excellent viewpoints. Views from this highway section are contained on the south by sheer rock bluffs and talus slopes. On the north there is generally a 180-degree view of the Columbia River 500 feet below. A striking feature across the river is the dramatic tilted layers of basalt making up the Bingen anticline. Both approaches have remaining lengths of the stone guardrail that helps give the highway its unique character. Parts of these walls have been broken by rockslides as well as vandalism. Vegetation along this section is a dry transitional mix of Douglas fir, yellow pine and Oregon white oak.

#### Recommended Program

The consultants concluded that there would be little problem in reusing the highway between Mosier and the east end of the tunnels. However, there are serious concerns about the stability of the west approach and the tunnels themselves. They advised that the following measures be included in further studies for reuse of the Mosier Twin Tunnels area.

- Rebuild the north tunnel wall and line the tunnels to increase their structural integrity. (Cost unknown - a preliminary estimate could be made by removing rubble 50-100 feet into the east end of the tunnels to assess their condition).
- 2. Remove rubble from the tunnel and approaches. (11,150 cu. yd. at \$2.50/cu. yd. = \$27,875).
- 3. Repair broken pavement. (700 tons asphalt pavement at \$50.00/ton = \$35,000).



Road down to Mosier from the east portal of the twin tunnels. This segment is closed by adjacent landowners. [Mile 58.5]

- Miscellaneous cleanup tree-trimming, filling cracks, etc. (\$25,000 including #5).
- Scale the west end cliff face of loose rock that could fall onto the roadway. (Cost included in #4).
- Assess the potential for slippage and methods of stabilizing the cracked road section on the west approach.
- Highway section should serve traffic only one-way eastbound because of the narrowness of the road and the availability of I-84 for reverse traffic.
- Highway should be open to autos and bicycles only - no truck traffic.
- 9. Existing turnouts should be paved and fenced for use as viewpoints.

#### Community Impacts

The impact of through traffic between Hood River and The Dalles on the old highway would be relatively small. The community most likely to benefit would be Mosier, population 340. It now has only three tourist-related businesses, a service station, hamburger stand and market. Estimating an average daily traffic of 150 to 200 vehicles, plus an unknown number of bicycles, at least an additional restaurant and possibly a gas station could be supported. Existing city public services have sufficient capacity to handle any of this expansion.



The Columbia Gorge Hotel in Hood River was built in 1921 by Simon Benson. From 1929 a string of different uses, including a rest home, occupied the building. After extensive rehabilitation the National Register structure reopened as a hotel in 1979.

Historic highway-associated buildings are а largely untapped economic and community resource of the Columbia River Highway. The most common type of reuse found by the highway structures inventory was residential, mostly single-family. Buildings such as the Portland Auto Club and Maxwell House restaurant have become comfortable homes, and larger estates such as the Meier, Ehrman and Jacobson properties have been taken over for non-profit institutional use. Commercial ventures are less common, and typified by projects such as restoration of the landmark Columbia Gorge Hotel and conversion of Wildwood Acres to the Stonehedge Inn restaurant. The majority of the everyday buildings that grew up with the highway have been only marginally useful to their owners since the end of the heyday of auto touring.

By default most auto courts have become cramped, makeshift transient apartments, poorly planned for long-term occupancy. Often standing on what was once considered the outskirts of town, they are now within an easy walk of downtown. Α number of filling stations are vacant or used for storage; although no longer on the main route of travel, they still offer good roadside locations and small, flexible commercial spaces. Project architects studied these common but useful buildings for their rehabilitation potential, using as examples a filling station in Troutdale and an auto court in The Dalles. Pro forma analyses of these two hypothetical reha-

# Reuse of highway buildings

bilitations illustrate the federal and state tax benefits for rehabilitation of historic buildings for commercial use; they are estimates, however, that do not accurately reflect the area market and fluctuation in interest rates. With the help of tax benefits, modest and functional buildings like these along the highway could once again make a positive contribution to the life and economy of their communities.

#### Troutdale Gas Station

#### Site Analysis

Just before the Sandy River Bridge in Troutdale is a white gas station built circa 1929, probably one of the oldest of its basic design on the highway. The square clapboard structure has a 620 square foot interior and a flat canopy extending out over the entrance. It is now used as a residence.

The gas station stands at the entrance to the scenic highway, next to Troutdale City Park on the Sandy River. The park attracts crowds of swimmers and sunbathers in the summer, and traffic to nearby river recreation sites such as Lewis and Clark and Dabney State Parks passes in front of the station on the highway.

#### Program

Prime location for auto and pedestrian recreational traffic gives the Troutdale gas station excellent potential for reuse as a small convenience store. No changes would be required on the building exterior; the minor interior remodeling needed could be completed easily within the Secretary's Standards for Rehabilitation. Eight parking spaces would be added next to the building. Pro forma Analysis

The pro forma analysis for the Troutdale Gas Station assumes a total development cost of \$25,362. The annual net income for this expenditure is \$4,665, however, with the cost of money estimated at 20%, the before tax cash flow is a minus \$49. Due to this loss and depreciation of the property, the total tax free income the first year is \$2,168. The total taxes saved at 48% is \$1,041 without the Investment Tax Credit (ITC). With the ITC, \$6,466 in taxes can be saved the first year. The ITC can be taken in the first year as illustrated, in the last three years, or over as many as the next 15 years.

| 620 gross sq. ft. at 35.00/sq. ft.<br>Total gross footage construction costs<br>Contractor's contingency at 0%<br>CONSTRUCTION COSTS | \$21,700<br>0<br> |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Architect and engineer fees at 5% of                                                                                                 |                   |
| construction cost                                                                                                                    | 1,085             |
| Insurance at 1%                                                                                                                      | 217               |
| Taxes at \$2.47/\$100 assessed value                                                                                                 |                   |
| of \$30,740                                                                                                                          | 190               |
| ) eveloper's overhead at 0%                                                                                                          | 0                 |
| NON-CONST UCTION COSTS                                                                                                               | 1,492             |
|                                                                                                                                      |                   |
| FINANCE (5% service charge, 20%                                                                                                      |                   |
| interest for 3 months)                                                                                                               | 2,170             |
| TOTAL D EVELOPMENT COSTS                                                                                                             | 25,362            |

| One shop of 620 sq. ft. at \$12.50/sq. ft. | 7,750                                   |
|--------------------------------------------|-----------------------------------------|
| Less vacancies at 0%                       | 0                                       |
| ANNUAL NET RENTS                           | 7,750                                   |
|                                            | -                                       |
| Less real estate taxes at \$2.47/\$100     |                                         |
| assessed value                             | 759                                     |
| Less operating expenses at 25% of gross    |                                         |
| rents                                      | 1,938                                   |
| Less management leasing, promotion at      | -,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| 5% of gross rents                          | 388                                     |
| ANNUAL NET INCOME                          | 4 665                                   |
|                                            | 4,005                                   |
| Capitalized at $11\% = $42,416$            |                                         |
| $V_{2}$                                    |                                         |
| Loan at $55\% = 525,529$                   |                                         |
| Less debt service (20% for 25 years,       |                                         |
| annual payment is 20.21% of loan)          | 4,715                                   |
| BEFORE TAX CASH FLOW                       | - 49                                    |

## TAX SAVINGS

| Before tax cash flow        | \$ -49 |
|-----------------------------|--------|
| Plus mortgage/amortization  | -49    |
| Less depreciation           | 2,119  |
| Taxable income              | -2,119 |
| Less taxes at 48%           | 0      |
| After tax cash flow         | -49    |
|                             |        |
| Additional income sheltered | 2,119  |
| Total tax-free income       | 2,168  |
| Total taxes saved at 48%    | 1,041  |
| Investment Tax Credit       |        |
| taken in one year           | 5,245  |
| -                           |        |
| TOTAL TAXES SAVED           | 6,466  |







The Dalles Auto Court's quiet setting is a short walk from downtown. With rehabilitation it could provide 36 600 sq.ft.apartments well-suited for elderly housing.

#### The Dalles Auto Court

#### Site Analysis

The Dalles Auto Court is typical of the twelve auto courts/motels remaining along the highway, and is a good model for the benefits of rehabil-Built in the late 1920s to cater to itation. the growing tourist traffic along the scenic highway, its 37 units are spread out among eight buildings grouped around courtyard areas. Set back against rock outcrops on the site, the buildings stand in the shade of mature trees. The one-story wood frame structures have wood siding and stepped parapet facades covering shed Units sit on individual concrete slabs roofs. separated by dirt-floored carports.

Like most of the auto courts along the old highway, The Dalles Auto Court no longer houses many overnight tourists. Because of the housing shortage in the region it has not gone vacant; rather, it now serves as semi-transient housing for local residents. The present units have extremely small living spaces. The carports are also tiny and bring noise and traffic into the common courtyards that conflicts with residential use. The auto court has an excellent central location near downtown The Dalles, yet because it adjoins city parkland and is enclosed in a stand of mature trees the development has a quiet and rural character.

#### Program

Given the shortage of housing in The Dalles, rehabilitation of the auto court into larger and more standard apartment or motel units seems appropriate. Small apartments in this quiet yet central setting would be ideal as housing for the elderly. Either apartment or motel use would follow the Secretary of the Interior's first standard, by providing a compatible use with a minimum of alteration to the building.

By converting carports into living space and a small porch, the 37 units of The Dalles Auto Court could be turned into 34 one-bedroom units of 600 square feet each. Porches added to the facade in place of the carports would maintain the original repeating rhythm of building and opening, complying with Standard #2. Construction costs are estimated at \$35.00 per square foot, for a total project cost of \$1,015,645.

#### Pro forma Analysis

The pro forma analysis for The Dalles Auto Court assumes a total development cost of \$1,015,645 for the apartments. The annual net income for this expenditure is \$81,742; however after the cost of money is subtracted, the before tax cash flow is only \$4,426. Due to this low figure and depreciation of the property, the total taxable income the first year is a negative \$55,923. The total tax-free income for the project before

the Investment Tax Credit (ITC) is \$60,349. Using the 25% ITC in the first year, \$244,952 in taxes can be saved. The ITC can be taken in the first year as illustrated, in the last three years, or over as many as the next 15 years.

| 20,400 gross sq. ft. at \$35.00/sq. ft.<br>Total gross footage construction costs<br>Contractor's contingency at 10%<br>CONSR UCTION COSTS | \$ 714,000<br>71,400<br>785,400 |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Architect and engineer fees at 10%                                                                                                         |                                 |
| of construction cost                                                                                                                       | 78,540                          |
| Insurance at 1%                                                                                                                            | 7,854                           |
| Taxes at \$2.18/\$100 assessed value                                                                                                       |                                 |
| of \$227,410                                                                                                                               | 2,479                           |
| Developer's overhead at 8%                                                                                                                 | 62,832                          |
| NON-CONSTRUCTION COSTS                                                                                                                     | 151,705                         |
|                                                                                                                                            |                                 |
| FINANCE (1% service charge, 18%                                                                                                            |                                 |
| interest for 6 months)                                                                                                                     | 78,450                          |
| TOTAL D EVELOPMENT COSTS                                                                                                                   | 1,015,645                       |
|                                                                                                                                            |                                 |
| 34 apartments of 600 sq. ft. each                                                                                                          |                                 |
| at \$250 per month                                                                                                                         | 102,000                         |
| Less vacancies at 5%                                                                                                                       | 5,100                           |
| ANNUAL NET R ENTS                                                                                                                          | 96,900                          |

| Less real estate taxes at \$2.18/\$100 |          |
|----------------------------------------|----------|
| assessed value                         | 4,958    |
| Less operating expenses at 5% of gross | -        |
| rents                                  | 5,100    |
| Less management, leasing, promotion    |          |
| at 5% of gross rents                   | 5,100    |
| ANNUAL NET INCOME                      | 81,742   |
|                                        |          |
| Capitalized at 10.5% = \$778,500       |          |
| Loan at 80% = \$622,800                |          |
| Less debt service (12% for 30 years,   |          |
| annual payment is 12.41% of loan)      | 77,317   |
| BEFORE TAX CASH FLOW                   | 4,426    |
| TAX SAVINGS                            |          |
|                                        |          |
| Before tax cash flow                   | 4,426    |
| Plus mortgage/amortization             | 2,281    |
| Less depreciation                      | 62,929   |
| Taxable income                         | ~ 55,923 |
| Less taxes at 48%                      | 0        |
| After tax cash flow                    | 4,426    |
|                                        |          |
| Additional income sheltered            | 55,923   |
| Total tax-free income                  | 60,349   |
| Total taxes saved at 48%               | 28,967   |
| Investment Tax Credit                  |          |
| taken in one year                      | 215,985  |
| TOTAL TAXES SAVED                      | 244,952  |





Building F illustrates the layout of the proposed 600 sq. ft. apartments. (Fletcher and Koval)

#### Tax Incentives for Rehabilitation

Tax benefits at both the state and federal levels encourage preservation of historic buildings associated with the highway. Current Oregon state law provides a 15-year freeze on a property's assessed valuation prior to rehabilitation. Federal tax incentives for the preservation and rehabilitation of historic structures were established by Section 2124 of the Tax Reform Act of 1976, and recently revised by the Economic Recovery Tax Act of 1981. These amendments to the federal income tax code are intended to:

- Stimulate preservation of historic commercial and income-producing structures by allowing favorable tax treatments for rehabilitation.
- Discourage destruction of historic buildings by reducing tax incentives for demolition of historic structures.

The new federal law provides a 25 percent investment tax credit for rehabilitation of historic commercial, industrial and rental residential buildings. The investment tax credit can be combined with a 15-year accelerated cost recovery period for the adjusted basis of the historic buildings. Historic buildings with certified rehabilitations receive additional tax savings because they do not have to reduce the basis of the building by the amount of the credit.

The key to qualifying for this tax credit is that buildings must be "substantially rehabilitated." "Substantially rehabilitated" projects meet these requirements:

- The property is a certified historic structure.
- 2. The work done is "certified rehabilitation."
- 3. The cost of certified rehabilitation exceeds either \$5,000 or the adjusted basis of the property, whichever is greater. (The adjusted basis is generally the owner's initial cost of the property plus the cost of prior improvements, less amounts previously taken as depreciation by the owner.)

Property owners can meet the first two requirements by applying to the Secretary of the Interior for a Historic Preservation Certification. Part 1 of the two-part application deals with the historic character of the structure. If a property is listed on the National Register of Historic Places, either individually or within a district, its owner may apply for certification. Some of the buildings in the Columbia River Highway Inventory are already listed on the National Register. Owners of buildings included in any National Historic Landmark nomination for a Columbia River Highway District would also be eligible to apply. Properties in National Register historic districts are certified as historic according to the Secretary of the Interior's Standards for Evaluation:

- 1. A structure contributing to the historic significance of a district is one which by location, design, setting, materials, work-manship, feeling and association adds to the district's sense of time and place and historical development.
- 2. A structure not contributing to the historic significance of a district is one which detracts from the district's sense of time and place and historical development, or one where the integrity of the original design or individual architectural features or spaces has been irretrievably lost.
- 3. Ordinarily structures built within the past fifty years shall not be considered eligible unless a strong justification concerning their historical or architectural merit is given or the historical attributes of the district are considered to be less than fifty years old.

Once a building is certified as an historic structure, a property owner seeking the tax

credits must complete the second part of the Historic Preservation Certification Application, which deals with the quality of rehabilitation work done on the structure. Part 2 may be completed at any time during the course of the work, although owners are urged to seek approval on plans for proposed work before construction. The application must be signed by the property owner and submitted to the State Historic Preservation Office, where it is reviewed and forwarded with a recommendation to the National Park Service. Notice of approval of work is sent directly to the property owner.

The National Park Service evaluates the quality of rehabilitation work by the Secretary of the Interior's ten Standards for Rehabilitation. These standards are broadly worded to guide the rehabilitation of all historic buildings; their basic aim is to preserve the significant architectural and historic characteristics of a structure during rehabilitation. The Secretary's Standards for Rehabilitation are included in Appendix C.

Because the provisions of the Economic Recovery Tax Act are complex, owners should consult legal counsel, tax advisors or the local Internal Revenue Service office for help in determining potential tax benefits from rehabilitation. Historic Preservation Certification applications, additional information on the certification processes and guidelines for applying the Secretary of the Interior's Standards for Rehabilitation are available from:

Oregon State Historic Preservation Office 525 Trade Street, S.E. Salem, Oregon 97310

Or contact:

National Park Service U.S. Department of the Interior 2001 Sixth Avenue Seattle, Washington 98121


# Appendix

| # OF 2 MILE UNITS<br>W/ INVENTORIED<br>FEATURES                                                                                                                                       | COLUMBIA RIVER HIGHWAY PROJECT                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| SECTIONS                                                                                                                                                                              | Troutdale / Warrendale / Hood River Hood River / The Dailes                          |
| INUMBER OF UNITS                                                                                                                                                                      | 12121314151817181915015111213134. 12131415161718191101511213134 51617181911015121311 |
| FEATURES                                                                                                                                                                              |                                                                                      |
| Lolumoja River Highway<br>Lolumoja River Highway<br>Loterstate 54<br>Loterstate 54                                                                                                    |                                                                                      |
| CCN311132<br>Roadbed Intact Width 5<br>10<br>11-15<br>16-20                                                                                                                           |                                                                                      |
| Surface Intact 503                                                                                                                                                                    |                                                                                      |
| Surface Crumbled 252                                                                                                                                                                  |                                                                                      |
| Surface Cracked 55<br>50                                                                                                                                                              |                                                                                      |
| Associated Wood Guardrail                                                                                                                                                             |                                                                                      |
| Altered<br>Ruin<br>Stone Guardrail Good                                                                                                                                               |                                                                                      |
| Altered<br>Buin<br>Guardstones                                                                                                                                                        |                                                                                      |
| Retaining Walls                                                                                                                                                                       |                                                                                      |
| Ubservatories Ruin                                                                                                                                                                    |                                                                                      |
| Eridges and Viaducts<br>Good                                                                                                                                                          |                                                                                      |
| Monuments Goor                                                                                                                                                                        |                                                                                      |
| Milestones Good                                                                                                                                                                       |                                                                                      |
| Turnouts                                                                                                                                                                              |                                                                                      |
| Ruin                                                                                                                                                                                  |                                                                                      |
| ABLARIST LAND HISS<br>Orchard<br>Pastureland / Range<br>Lawn Lenter<br>Bend Porter<br>Bend Porter<br>Bend Commercial<br>Industrial<br>Recreational<br>Natural<br>Liceway Right-Of-Way |                                                                                      |
| VESETATIVE COVER                                                                                                                                                                      |                                                                                      |
| VISIA PESAIPLE<br>Foregroupe Jominant<br>Wistant Views Dominant                                                                                                                       |                                                                                      |

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### Appendix A

Columbia River Highway Inventory Summary

#### Appendix B

#### TECHNICAL PEPORT

Columbia River Highway Rehabilitation Project Inspection of Highway #30 Mosier to Nood River

#### INTRODUCTION

Tenneson Engineering Corporation was retained by the Columbia River Highway Rehabilitation Project to inspect the old highway from Mosier to Hood River, and specifically, the Mosier twin tunnels to determine the feasibility of reopening this section of the old highway. The project called for the determination of the feasibility and cost of rubble removal from the Mosier twin tunnels, determination of the danger of future rock fall of the tunnel approaches, and the apparent stability and condition of the roadbed. Finally, the firm was directed to develop a report on the social and economic impact on the three communities involved should the highway be reopened.

#### METHODOLOGY

Tenneson Engineering Corporation personnel were dispatched to visually inspect the roadbed and either side of the Mosier twin tunnels. The inspections occurred on the 25th and 26th of August, 1981. Additional traffic information was obtained from the Oregon State Highway Department and, a set of the old highway plans were obtained from the Wasco County Surveyor's Office. Further, the County's records were examined and the resident engineer, now retired, in charge of filling the tunnels was contacted.

#### INSPECTION OF OLD HIGHWAY #30 - MOSIER TO MOSIER TWIN TUNNELS

The inspection team consisted of Mr. Don Rohde, a registered professional engineer with over 20 years of experience, and Mr. Dan Meader, the firm's planning consultant. The following is their inspection report, analysis and recommendations. The inspection began inside the City of Nosier where some confusion developed concerning the right access to Old Highway #30. After one wrong turn, the correct access was found to be identified as Rock Creek Road which begins by running north from Main Street under the freeway access overpass and back around the City's wastewater treatment plant. This section of the road is in excellent condition and is traveled heavily by residents and others working in the gravel and rock industry. New signs would have to placed in Mosier to provide the proper guidance for location of the road. The old highway branches off approximately a mile from Nosier. The access to the highway is blocked by several large boulders. At this point the inspection team parked the vehicle and began on foot. There is a locked gate across the highway at this point and "No Trespassing" signs, apparently constructed by a private property owner.

The old highway is improved to a 16 foot width with small shoulders approximately two feet in width on each side. The roadbed is in surprisingly good condition. Very little would have to be done to re-use this section of the roadbed. There are horizontal cracks across the highway at semi-regular intervals. The cracks are approximately one inch wide. They would have to be cleaned out and refilled with suitable material to seal the cracks. Pavement measured at the cracks is approximately five inches thick. There are private property lines indicated by paint and by fences across two portions of the road. Subsequent research revealed no indication of any vacation of the road since its closure. It appears the property owners are in error in constructing the makeshift fences and gates across the roadway.

Approximately two-thirds of a 100 foot section of the rock guardrail has been smashed and pushed over the side of the bluff. There is one slide, just before the first viewpoint pull-off. This slide appears to have been blasted at some time in the past. It is approximately 75 feet long with an average 12 foot depth and 12 foot width. The roadbed is still passable for one lane in this section. It is estimated approximately 400 cubic yards of material would have to be removed to clear this area.

The tunnel entrance has been blocked by a large amount of rock material, from approximately 85 feet east of the tunnel to the tunnel entrance. The tunnel appears to have been completely filled with rock. Subsequent research indicates (as seen by Attachment No. 1) this apparently was done when the tunnel was closed. It is estimated approximately 1,000 cubic yards of material would have to be removed from the easterly tunnel entrance in order to clear the roadway to the actual tunnel entry.

Based on the inspection of the east side, it appears there would be no problems in reopening this section of the old highway. The pavement is uniformly 16 feet wide with 2 foot shoulders. The condition inside of the tunnel will remain unknown until the rock is removed. However, the attached report (attachment No. 1), written in 1954 by the then State Highway Engineer Baldock, would indicate some concerns for reopening the tunnel.

There is a pullout approximately 1/8th mile east of the tunnel which offers outstanding views. This should be considered a potential viewpoint, however, it would need extensive fencing to alleviate hazards to both users of the viewpoint and I-84 below.

There is some concern about the pavement. Not being used for so many years, it could have become extremely brittle. The use of heavy equipment to remove the rock could cause extensive damage to the pavement. Core camples could be taken for analysis. Approximately 1/3rd mile east of the tunnel there is a water cut which will need to be repaired. It is not a major repair, but a modification to the drainage pattern will also be necessary in order to alleviate this problem in the future. The east end of the tunnel is approximately 3,900 feet from the actively used portion of the Old Highway #30. Because of the blockage of the tunnel and the topography, it is impossible, even on foot to traverse from the east side of the tunnel to the west side to obtain access. It is necessary to go to Hood River via I-84 and enter from the Hood River side to reach the west end of the tunnel.

INSPECTION OF OLD HIGHWAY #30 - HOOD RIVER TO WEST END MOSIER TWIN TUNNELS

Old Highway #30 intersects with Highway #35 on the east side of the Hood River. This area is heavily traveled and a new bridge is being constructed to provide better access across Hood River to the City of Hood River. While the present City and County Comprehensive Plans have designated most of the developed lands as commercial or industrial, there are no undeveloped lands presently so designated.

The first three miles of the old highway are extensively developed with at least three rock quarrying, asphalt and concrete batching facilities. The highway has been relocated approximately a mile from Highway #35 to run through the middle of an extensive rock quarrying operation. There would be extreme congestion at this point should the highway be reopened.

Beyond the quarrying operations, there is a locked gate approximately three miles from Highway #35. The gate is placed by Hood River County to keep potential vandals out of the area. The key may be obtained from the Hood River County Sheriff's office and must be signed in and out. Approximately one-half mile beyond the gate, at the Hood River County Sheriff's firing range, the road is extremely rough and broken up. This section will require repair. There is extensive paint on the roadway beyond the firing range. It appears this is where the City and County Public Works Departments test their road painters. It will take some effort to remove this from the roadway. Again the highway is a 16 foot roadway with 2 foot shoulders. There is a small slide of approximately 50 yards of material to be removed at 3-3/4 miles from Highway #35. However, this is a potential slough area. It is a talus slope and will be a continuing problem. At approximately four miles there is a viewpoint providing outstanding views of the Columbia River Gorge. To the south is the borrow area which appears to be the source of the majority of the rock blocking the west tunnel entrance. This could be a potential park.

There is need for tree trimming along the road but this would be a minor project. About one-half mile west of the tunnel there is a water course and slide across the roadway approximately 160 feet in length. It is estimated 1,500 cubic yards of material would have to be removed. Approximately a quarter mile from the tunnel, there is another talus slide. Approximately 1,200 cubic yards of material would have to be removed. However, this talus slide continues below the roadway and material could simply be pushed over the side at this point. There is an excellent view at this location and the potential for a viewpoint. At approximately 1/8th mile west of the tunnel there is a very small slide which could be simply bladed over the side. However, at this point the road indicates some slippage. There are three to four inch cracks in the road, approximately one foot deep. The disjointment is approximately four inches. This cracking and disjoining of the roadway at this point appears to be in an area approximately 75 feet in length. This is potentially an extremely hazardous situation.

The entire west approach to the tunnel is a potential slide area. The rock material blocking the tunnel is approximately 50 feet long by 28-1/2 feet wide and 15 feet high. At the very entrance it is estimated there are 500 cubic yards of rock. However, leading to the tunnel, enormous amounts of rock have been placed, apparently both by man and by falling from the cliff face. The material begins 735 feet west of the tunnel entrance. It is estimated over 2,000 cubic yards of material would have to be removed. Due to the location of the railroad tracks directly below, this material would have to be hauled away from the site; it could not simply be pushed over the side. There are large boulders that appear to have broken off from the adjoining cliff. There is extensive water runoff in the adjoining cliff. The rock face of the cliff is extremely loose. The team was able to break large quantities of rock off the face by hand. This is extremely dangerous. There is one large boulder at the top of the bluff. It appears it could be quite readily dropped onto the roadway. The cliff face, at the minimum, would need an extensive scaling. The immediate west end approach would be the most hazardous area if the highway was reopened. The tunnel is approximately 430 feet in length. It is estimated that 4500 cubic yards of material has been placed within the tunnel.

#### ANALYSIS

There is no question the east end from Mosier to the tunnel blockage could readily be reopened and reused. The only problem that could occur is with the brittleness of the pavement. The heavy equipment used to remove the rock could cause break up of the pavement.

The west end of the roadway from Hood River to the tunnel blockage causes a great deal of concern. Because of the potential for slides, the road would have to be inspected and maintained on almost a daily basis. In the research, an article written by R.H. Baldock over 25 years ago was located. Mr. Baldock indicated concern for reopening the twin tunnels. The concern seems to be for the fear for collapse of the cliff due to the deteriorating wall on the north side tunnel.

Further, the team was able to contact the resident highway engineer responsible for filling the tunnel. Mr. J.S. Sawyer, now retired, was the engineer in charge of the project in the very early 60's in which the tunnels were filled. Mr. Sawyer indicated that layers of rock and sand were used to fill the entire tunnel. The primary purpose was to

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keep people out of the tunnel and to protect against further collapse of the structure. Mr. Sawyer indicated the decision was made to fill the tunnels after at least two people had been killed inside the tunnel and several others hurt from falling rock. Mr. Sawyer also indicated that the cliff and the tunnel are made up entirely of diced rock. This is highly susceptible to frosting action, and as such, highly unstable material. He indicated as long as it was open it would be a continuing problem and would need to be maintained almost on a daily basis.

#### RECOMMENDATIONS

Based on this, it would be our recommendation that the tunnels not be reopened without additional study and analysis. It may be feasible to rebuild the north wall and line the tunnels to provide sufficient structural integrity. It would be our recommendation this be considered a necessity in determining the potential costs for reopening. If the roadway were reopened, it would be our recommendation that the roadway be opened to autos and bicycles only. There should be absolutely no truck traffic.

One-way traffic from the west to the east should be instituted. The roadway is only 16 feet wide. It is impossible, or at least extremely costly to expand that width. One-way traffic would ease the flow of traffic through this area and provide more time for viewing the magnificent Columbia River Gorge. In addition, pullouts and viewpoints should be improved to allow tourists to stop.

#### COST ESTIMATES

| Rock and rubble removal - 11,150 cubic yards<br>@ \$2.50/cubic yard =                                                                | \$ | 27,875 |
|--------------------------------------------------------------------------------------------------------------------------------------|----|--------|
| Pavement repair of area covered with rubble<br>or already broken up - estimated at 700<br>tons of asphaltic concrete @ \$50.00/ton = | \$ | 35,000 |
| Miscellaneous clean up - including tree trimming<br>scaling of cliff face on west end, filling of<br>roadway cracks, etc lump sum    |    | 25,000 |

Tunnel Repair - Cost unknown.

If the project is to proceed, it is recommended that the 50 to 100 feet of the east end of the tunnel be opened first to view the inside rock condition. If this appears to be satisfactory, preliminary estimates for a liner could then be derived. In addition, the cliff face on the west end approach poses a long term problem. A suitable solution, i.e. fencing, must be determined. Finally, the disjointment of the readway at the west end must be studied further. This could be extremely hazardous.

#### COMMUNITY IMPACTS

This section of the highway provides some of the more magnificent views of the Columbia River Gorge, particularly in the Mosier area where geological formations on the Washington side of the river arc an excellent view. The Oregon State Highway Division was consulted for average daily traffic counts in the Rowena to Mosier section of the old highway. The latest counts are 1979 data and indicate approximately 290 per day at the city limits of Mosier, and approximately 220 per day just west or Rowena. It is therefore estimated approximately 250 cars a day travel this road. There is extensive residential development in the Rowena area which would account for some of the traffic. Traffic counts for Old Highway #30 in the Dodson-Crown Point area were not available. Therefore, it could be estimated the old highway, if reopened, would receive approximately 150 to 200 cars per day.

The impact on all three communities involved - Hood River, Mosier and The Dalles - would not be considered to be significant. Recause of current policies of Hood River County, there is no additional commercial lands available in the area of Old Highway #30. Further, there would not appear to be a need because of the extensive existing tourist development on the Columbia River waterfront. The City of The Dalles has additional commercial lands located at the west end of town. However, there are extensive tourist facilities currently available. It would not be anticipated that the additional traffic would generate the need for new facilities.

The area most likely to be impacted would be the City of Mosier, with a current population of 340. Additional vehicles through the town would probably generate at least an additional restaurant facility and perhaps an additional service station. The City currently has only three tourist related businesses - a service station, a small hamburger stand and a market which serves the entire community. It could be anticipated with the increased traffic, additional commercial facilities would be needed including perhaps an overnight tourist facility. The town has experienced a declining population in recent years and has the public services available to serve additional population.

#### Scenic lunnels on Gorge Koad Said Unsare

ATTACHMENT

NO. 1

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#### Appendix C

The Secretary of the Interior's Standards for Rehabilitation:

- 1. Every reasonable effort shall be made to provide a compatible use for a property which requires minimal alteration of the building, structure, or site and its environment, or to use a property for its originally intended purpose.
- 2. The distinguishing original qualities or character of a building, structure, or site and its environment shall not be destroyed. The removal or alteration of any historic material or distinctive architectural features should be avoided when possible.
- 3. All buildings, structures, and sites shall be recognized as products of their own time. Alterations that have no historical basis and which seek to create an earlier appearance shall be discouraged.
- 4. Changes that may have taken place in the course of time are evidence of the history and development of a building, structure, or site and its environment. These changes may have acquired significance in their own right, and this significance shall be recognized and respected.

- 5. Distinctive stylistic features or examples of skilled craftsmanship which characterize a building, structure, or site shall be treated with sensitivity.
- 6. Deteriorated architectural features shall be repaired rather than replaced, wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historic, physical or pictorial evidence rather than on conjectural designs or the availability of different architectural elements from other buildings or structures.
- 7. The surface cleaning of structures shall be undertaken with the gentlest means possible. Sandblasting and other cleaning methods that will damage the historic building materials shall not be undertaken.
- Every reasonable effort shall be made to protect and preserve archaeological resources affected by, or adjacent to, any project.
- 9. Contemporary design for alterations and additions to existing properties shall not

be discouraged when such alterations and additions do not destroy significant historical, architectural, or cultural material, and such design is compatible with the size, color, material, and character of the property, neighborhood, or environment.

10. Whenever possible, new additions or alterations to the structure shall be done in such a manner that if such additions or alterations were to be removed in the future, the essential form and integrity of the structure would be unimpaired.

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Fred Luscher (in wagon) and friends helping to build the Columbia River Highway. (OHS #62699)

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