BEND RAILROAD DEPOT
(Oregon Trunk Railway Passenger Station)
1160 NE Division Street
(At the foot of Kearney Street)
Bend
Deschutes County
Oregon

HABS No. OR-169

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDINGS SURVEY
Columbia Cascade Support Office
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HISTORIC AMERICAN BUILDINGS SURVEY

OREGON TRUNK RAILWAY PASSENGER STATION (BEND RAILROAD DEPOT)

HABS No. OR-169

Location: 1160 N. E. Division Street at the foot of Kearney Street Bend, Deschutes County, Oregon. Mapped on the USGS Bend Quadrangle, UTM zone 10, E. 635.680, N. 4879.850

Dates of Construction: 1912

Present Owner: Oregon Department of Transportation

Present Occupants: Burlington Northern Railroad, Inc.

Present Use: Railroad administrative offices and storage

Significance: The Oregon Trunk Railway Passenger Station (The Bend Depot) is significant to the development of Bend and the Central Oregon region. At the time of its completion in 1911, the Oregon Trunk Railway initiated rail service to Central Oregon, regarded as the largest remaining portion of the United States not served by rail. James J. Hill owned the railroad and developed the town of Bend. John F. Stevens and Ralph Budd, engineers of national prominence, were responsible for the design and construction of the railroad, including the Bend Depot. The Bend passenger station is one of two confirmed examples of Oregon railroad buildings made of tuff, a locally significant building material.

Report Prepared By: The Bend Depot will be affected by highway development during the next few years. The buildings on the site are scheduled to be moved by 1999. This documentation was prepared by Ward Tonsfeldt, under contract to CH2M HILL Engineering, Rosalind Keeney, Cultural Resources Specialist for the Oregon Department of Transportation Environmental Section, and edited by Leslie Schwab, HABS/HAER Specialist for the Oregon Department of Transportation Environmental Section.

Date: July 1999

NOTE: See field notes for figures called out in the following text.

I. PHYSICAL CONTEXT

Bend Depot

The Bend Depot has a primary context within the town of Bend, Oregon, and a secondary context as a station point on the Oregon Trunk Railway.

The Bend Depot is on the Oregon Trunk Railway originally built on the eastern boundary of Bend. The first structures on the site included the Oregon Trunk passenger station (1912), a large freight warehouse (1912), three freight sheds (1912), a section house (1912), a water tank (1912), a privy (1911), a tool shed (1911), a bunkhouse (1911) and a set of four sidings (n.d.). Extant structures at the present time include the Oregon Trunk Railway passenger station (1912), the American Railway Express Company building (c.1922), and the sidings. There is one non-contributing feature on the depot site, which is a storage shed heavily modified in recent years (see figs. 2 and 3).

In its current configuration, the Bend Depot Site is an irregular rectangle approximately 450' x 150' with a total area of 67,500 square feet. Other railroad features in Bend include junction points for the mill and industrial spurs, a rail yard and locomotive service area, and sidings associated with specific industries. The Bend Depot is located on the north end of the original Oregon Trunk property and is significantly smaller than the rail yard, siding complex, and service areas in the town (see fig. 5).

At the time of its construction in 1912, the Bend Depot was located on the eastern edge of town about ½ mile from the main streets. Since that time, the town has expanded eastward, so that the site is now adjacent to the main part of town. An analysis of Sanborn Fire maps from 1913-1928 shows that the area surrounding the depot was little affected by the Depot's development. A frame "Depot Hotel" was built c. 1913 but does not remain after 1920. The nearest accommodations for travelers were located toward the center of town. Among these was Bend's major hotel, the Pilot Butte Inn, a popular resort for visitors. A frame warehouse immediately to the west of the depot does not appear on maps until the 1930s. The balance of the neighborhood included modest residences to the west of the depot and some industrial buildings to the east.

In its secondary context, that of the Oregon Trunk Railway as a linear historic resource, the Bend Depot occupies a prominent physical place as the largest and most complex depot on the line that marked the end of the railroad from 1911 until 1926.

Ralph Budd, Chief Engineer of the Oregon Trunk, approached the question of depots along the railroad in a highly systematic way. The company had stock plans for four sizes of frame passenger stations, as well as bunkhouses, tool sheds, and other structures on the sites. More important stations were given larger passenger stations and more amenities, and the two most important stations--Bend and Redmond--had the option of masonry passenger stations built

to special plans. Budd's Final Report on building the Oregon Trunk lists the following depot components:

Stations on the Oregon Trunk

Station	Dimensions	Complete	Water Tank	Cottage	Bunkhouse	Tool shed
Kloan	18 x 68	6-28-11	yes	yes	yes	yes
Sinamox	18 x 68	7-27-11	no	yes	yes	yes
Sherar	18 x 68	6-30-11	no	yes	yes	yes
Maupin	18 x 68	5-17-11	no	yes	yes	yes
N. Junction	18 x 68	9-16-11	no	no	no	no
Jersey	36 x 60	6-30-11	yes	yes	yes	yes
S. Junction	18 x 68	8-31-11	no	yes	yes	yes
Mecca	36 x 60	6-30-11	yes	yes	yes	yes
Madras	30 x 115	5-3-11	no	yes	yes	yes
Metolius	30 x 115	5-10-11	yes	yes	yes	yes
Culver	30 x 115	6-30-11	no	yes	yes	yes
Opal City	36 x 60	6-30-11	yes	yes	yes	yes
Hillman	36 x 60	12-30-11	no	yes	yes	yes
Redmond	30 x 93	[1912]	yes	yes	yes	yes
Deschutes	36 x 60	11-30-11	yes	yes	yes	yes
Bend	30 x 93	[1912]	yes	yes	yes	yes

Source: Ralph Budd, "Final Report on Construction"

With their full complement of amenities and special masonry passenger stations, the Bend and Redmond depots rated highest in the hierarchy of Oregon Trunk installations.

II. HISTORICAL CONTEXT

Central Oregon in 1900

At the turn of the century, when local railroad service had become an established part of the economics and culture of most rural communities in the United States, Central Oregon was perhaps the largest geographical area left without railroads. In 1905, one source remarked that Lakeview, Oregon, "enjoyed the distinction of being the farthest from a railroad of any county seat in the United States" (Shaver, *et al.*, 1905). For George Palmer Putnam, scion of the New York publishing family and owner of Bend's first newspaper, Central Oregon in the first decade of the 20th century was a "railless land...the largest territory in the United States without transportation" (Putnam, 1915).

Oregon's interior counties, including Deschutes, Jefferson, Klamath, Lake, Harney, Grant, Wheeler, and Crook, encompassed an area of nearly 36,000 square miles, equivalent to the state of Indiana. To the west, across the Cascade Mountains, the Southern Pacific Railroad ran through the Willamette Valley. To the north, the Union Pacific Railroad and the Northern Pacific Railroad served the Columbia Gorge. East of the Blue Mountains, the Union Pacific ran through the Grande Ronde valley and the Snake River drainage. In Central Oregon, however, the daunting topography, slender resources, and a sparse population did little to encourage rail construction (see fig. 1).

In the first years of the 20th century, the picture began to change. The one solid resource of Central Oregon was ponderosa pine timber. By the 1890s the white pine forests of the Great Lake states were expended, and the southern states' pine forests were fully developed and reaching their peak production. Future pine lumber for the woodworking industries would have to come from the "ponderosa belt" of Central Oregon and Washington, and northern California. One account noted that Central Oregon held "the greatest body of standing pine timber now existing in America" and estimated the total volume at 45.6 billion board feet (*The Timberman*, Jan. 1910). If we assume that pine for remanufacturing constituted 10% of the total U.S. lumber consumption at the time, then Central Oregon's pine resources represented 15 years supply.

Taking note of the obvious, pine producers from the Great Lakes states and the South began to acquire Central Oregon ponderosa timberlands. Among those in the vanguard were such national figures as Frederick Weyerhaeuser, James J. Hill, and Robert A. Long. Through purchase or option, Weyerhaeuser and Hill controlled 1,500,000 acres of Central Oregon timberland (Hidy *et al.*, 1963). When Weyerhaeuser and Hill's confederates from Minneapolis were counted, the acreage rose to nearly 2,500,000 (US Bureau of Corporations, 1914). Without railroads, however, the timber could not be manufactured into lumber and sold in the national market.

As owner of the Great Northern and Northern Pacific railroads, Minnesota financier James J. Hill was well-positioned to build a branch line from his Northern Pacific line south into Central Oregon. This move would create additional traffic for his rail system and put his Oregon real estate on the market.

James J. Hill had a competitor in Central Oregon railroads and property in E.H. Harriman. Harriman controlled the Union Pacific Railway and the Southern Pacific Railway. When Harriman acquired the Southern Pacific in 1901, part of the package was the Oregon and California Railroad Company grant lands. This immense body of land covered 3,728,000 acres in southwestern and south Central Oregon, including Klamath County (O'Callahan, 1960). Harriman visited the area and liking it decided to build a lodge on Upper Klamath Lake, where he spent several summers (Kennan, 1922; Klamath Falls Evening Herald, Aug. 20, 1908).

Railroads to Central Oregon, 1900-1912

By 1900, railroad builders had approached Central Oregon from all points of the compass. The first serious attempt to reach the area came from the west in the late 1880s. The Oregon Pacific Railway, under the leadership of Thomas Egenton Hogg, built a line east from Corvallis up the North Fork of the Sanitam River to Idanha. Hogg then began building east from Idanha across the Cascades. In 1889, with most of the route graded and some rail in place, Hogg's creditors forced the Oregon Pacific into receivership and the line was abandoned. From the north, the Columbia Southern Railroad had built a line from Biggs on the Union Pacific, down the Deschutes Plateau 70 miles to Shaniko. A parallel line, the Great Southern, was built in 1904 from The Dalles south into Wasco County for 40 miles. Neither of these two railroads could negotiate the terrain that led to the Deschutes Valley, however, so they remained dead-end routes.

At the southern border of the state, the narrow-gauge Nevada-California-Oregon Railway reached Lakeview in 1912. This provided service to Lake County, but because narrow-gauge equipment was incompatible with broad-gauge equipment, the railroad had little utility in transcontinental commerce. For this reason, plans to extend the NCO to other Central Oregon towns died and this railroad became another dead-end.

From the Union Pacific line east of the Blue Mountains, the Sumpter Valley Railroad, another narrow-gauge line, built west across the mountains to the John Day Valley in 1905. Here again, the impracticality of narrow gauge equipment and the daunting Central Oregon terrain stopped further development.

In Klamath County, on Central Oregon's southern border, E.H. Harriman and others built the California and Northwestern in 1909. This line was a branch of Harriman's Southern Pacific extending from Weed, California, to Klamath Falls. Harriman and some associates from San Francisco were heavy investors in Klamath County industry and commerce. Among their holdings were the California and Northwestern Railway, the Klamath Development Company,

two lumber companies, a large hotel, and their extensive timberlands (*American Lumberman*, Aug 24, 1912).

Harriman and the Southern Pacific investors wanted to reach into Central Oregon, but they also wanted to control the region by connecting through to their other railroads-- the Southern Pacific line in the Willamette Valley and the Union Pacific in the Columbia Gorge. This triple connection would dominate the Central Oregon market and assure that all cargoes originating in Central Oregon would enter the interstate market on a Harriman railroad. Better than this, it would also prevent Harriman's rival, James J. Hill, from extending his Northern Pacific line south into California through Central Oregon (Martin, 1976).

The conflict between Hill and Harriman was not confined to Central Oregon, of course. The two great financiers locked horns over the purchase of the Chicago, Burlington, and Quincy Railway in 1901, and on other matters as well (Martin, 1976).

While Harriman was the first to reach into Central Oregon, his plans to extend his California and Northwestern Railroad north from Klamath Falls were thwarted by the Interstate Commerce Commission. Invoking the Sherman Anti-trust Act, federal regulators began to scrutinize connections between the Union Pacific and Southern Pacific as early as 1908 (Austin and Dill, 1987).

With Harriman blocked from the south, it became apparent that the only remaining railroad route to the pine country would be a passage up the Deschutes Canyon from the Columbia River. Since Hill's Northern Lines ran through the Columbia Gorge on the Washington side of the river and Harriman's Union Pacific ran on the Oregon side of the river, Hill and Harriman once again found themselves rather evenly matched.

Whoever built a railroad up the Deschutes Canyon would find no easy task. The gradient was gentle enough, but the rocky passage through the canyon would require careful engineering and several major bridges. In the 1854-55 survey of Pacific Coast railroad routes, Henry Larcom Abbott had declared the route impassible. The Deschutes Valley, he found was "separated from the rest of the world by almost impassible barriers, and nature seems to have guaranteed it forever to the wandering savage and the lonely seeker after the wild and sublime" (Abbot, 1857).

In 1906, W. F. Nelson, a Seattle railroad builder, had incorporated the Oregon Trunk Railway and planned a route from the Columbia River to Madras, Oregon. Because of the Seattle connection, local speculation held that Hill was somehow "behind" the Oregon Trunk (Due and Juris, 1968). Nelson's plans were blocked by the General Land Office, however, because projected dams on the Deschutes would raise the level of the river over the railroad right-of-way. This complicated matters. In 1907, the Oregon Trunk secured permission from the Bureau of Reclamation to build a higher elevation line up the canyon. This route would be significantly more expensive, however. Ironically, one of Nelson's Seattle associates in the Oregon Trunk

was R.A. Ballinger, who became Secretary of the Interior in 1909 (Gaertner, 1990). Not surprisingly, Ballinger was able to expedite approval from the agencies of the Interior Department who were frustrating the railroad plans.

Meanwhile Harriman's Union Pacific associates were also busy in 1906, incorporating the Des Chutes Railroad Company as a branch of their Columbia Gorge line. Crews were said to be surveying their own route up the canyon in 1907. But like the Oregon Trunk, the Des Chutes railroad project languished through 1907 and 1908 as the Bureau of Reclamation considered conflicting uses between railroads and dams. Besides, from Harriman's perspective, the southern route into Central Oregon through the Klamath Country was preferable since it would be less expensive to build and would generate additional traffic through the Klamath Basin. Harriman could reach Bend much more quickly by building north from Klamath Falls than by building south from the Columbia.

Then, perhaps because the Interstate Commerce Commission squelched Harriman's plans for extending the southern route in 1908, both sides became motivated to build the Deschutes Canyon route. In 1909, Hill bought the Oregon Trunk from Nelson's successors and assigned his best engineer, the legendary John F. Stevens, to design a route to Bend. In the spring of 1909 the Bureau of Reclamation approved both railroads' plans. By the late summer of 1909, crews from Hill's Oregon Trunk and Harriman's Des Chutes Railroad began the work of building two parallel railroads up the Deschutes Canyon on opposite sides of the river.

Significant Engineers Associated with the Bend Passenger Station

John Frank Stevens

When he began work on the Oregon Trunk, John F. Stevens (1853-1943) was widely known as America's best railroad civil engineer. By the end of his career, thirteen years later, that appraisal was extended beyond the U.S. and beyond railroad work. Stevens' largest projects were the Great Northern Railroad, the Panama Canal, and his work on the Russian railroad system.

Stevens was born in Maine and educated at Maine State Normal School, which offered no formal training in engineering. He learned to survey, however, and found his first professional position as a surveyor for the city of Minneapolis in 1873. He switched to railroad work in Texas two years later, then became a "location engineer" on railroad construction projects in New Mexico, British Columbia, and Minnesota. At the age of 33, with his apprenticeship behind him, Stevens supervised the construction of the Duluth, South Shore, and Atlantic Railway across Michigan's Upper Peninsula (Stevens, 1935).

James J. Hill recognized Stevens' talents in 1890 and hired him as a location engineer for the Great Northern. In "locating" or designing the route of the Great Northern, Stevens

demonstrated his uncanny sense of space and form. A location engineer's job is to create the route of the railroad through the terrain. Working on foot in the wilderness, frequently alone, Stevens discovered Marias Pass across the Rockies and Stevens Pass across the Cascades.

Stevens was able to translate the tortuous mountain country of Montana, Idaho, and Washington into the continuum of straight lines and flat planes that a main line railroad must follow if it is to succeed. As a result of Stevens' work, the Great Northern was built on a shorter route and at lower elevations than any other east-west transcontinental railroad. This engineering success permitted the railroad to operate longer trains at higher speeds than the competing lines. Hill, for his part, was able to translate this technological advantage into a financial advantage for the Great Northern.

By 1895 Stevens was Chief Engineer for the Great Northern, and in 1903 he was Chief Engineer for the Chicago, Rock Island, and Pacific. Then, in 1905, Hill and President Theodore Roosevelt persuaded Stevens to take over as engineer on the Panama Canal project, which was hopelessly mired in mud, heat, disease, and politics (McCullough, 1977).

Stevens reorganized the dispirited canal workforce and set into motion the efforts at sanitation that would eventually mitigate the disease problem--which included dysentery, pneumonia, and malaria as well as the dreaded yellow fever. Stevens also lobbied the American government to re-consider the design of the canal itself, changing the old French idea of a sea-level canal into one with locks and a fresh-water lake at its center. Finally, with this crucial decision in hand, Stevens set about coordinating the construction of the canal, the locks, the dam on the Chagres river, and the railroad system that would move the millions of yards of earth. In David McCullough's analysis, "The Panama Canal was among other things one of the greatest of all triumphs in American railroad engineering."

When Stevens left Panama in 1907 he was very much a national figure. He returned to work for Hill, and began designing the Oregon Trunk. He then became President of the Oregon Trunk Railway in 1909 and later President of the Spokane, Portland, and Seattle after the Oregon Trunk was completed in 1911. In 1917, he was sent to Russia by President Wilson as head of a commission to advise the Russian government. He worked in Russia until his retirement in 1922.

Ralph Budd

Ralph Budd (1879-1962) was Stevens' close associate and the second Chief Engineer of the Oregon Trunk. Budd's career was more conventional than Stevens', beginning with an engineering degree from Highland Park College in Des Moines, Iowa. He first worked as a draftsman for the Chicago Great Western Railway, and then in 1903, as a division engineer on the construction of the Chicago, Rock Island, and Pacific line from St. Louis to Kansas City (Overton, 1955).

Budd reported to Stevens on the Rock Island Railway, and the two apparently worked well together. Their talents and temperaments seem to have been well matched. Stevens was the archetypal surveyor--a rugged outdoors man, blunt, visionary, and more than a little mercurial. Budd, the draftsman, was perhaps more detail oriented, and possessed a calm and mild-mannered demeanor notably lacking in Stevens.

When Stevens went to Panama, he asked Budd to accompany him as railroad engineer for the project. After 1906, when Roosevelt had been persuaded to build a canal with locks, the relative importance of railroad operations in Panama abruptly changed. With the sea-level canal plan, spoils from the canal would have been moved by dredging. The new plan would require another means to move the spoils, however. Only a state-of-the-art railroad system could move the immense volume of earth from the canal excavations to the earth-fill dam on the Chagres River or to a dumping ground. The Panama Railroad, such as it was, dated back to the California gold rush and was barely adequate to bring supplies to the construction camps. Worse, it was built on ground that would soon be inundated by the lake that would form behind Gatun Dam.

Budd's first task in Panama was to double track the old Panama Railroad and bring it into the 20th century. His second task was to design and build a new railroad on higher ground that would meet the requirements of moving earth and supplying materials for the canal construction (Martin, 1988). He succeeded admirably at both tasks. After Stevens left Panama in 1907, Budd remained until 1909, when Stevens lured him to Oregon.

Ralph Budd signed on as construction engineer for the Oregon Trunk, with Stevens in the position of Chief Engineer. Soon, Budd became Chief Engineer, and Stevens became President. As Chief Engineer, Budd supervised construction of the railroad from the Columbia River to Bend, the portion designed by Stevens. In the summer of 1909, however, before construction was well started, Budd assumed the task of designing a route south from Bend into California.

Despite his advancing years and his official retirement in 1907, James J. Hill was still in charge of the Hill railroads and he had grandiose plans for the Oregon Trunk. He reportedly told this to Budd in very clear terms: "This is not a railroad that is being built up on to the plateau of Central Oregon to stop there. It is the Oregon Trunk" (Overton, 1955). Hill's point was that in railroad terminology the word *trunk* refers to a main line rather than a branch line. Budd got the message and set to work surveying a route from Bend to Klamath Falls, and then on to Beiber and Keddie, California, where the Oregon Trunk would join the main line of the Western Pacific. This extension of the Oregon Trunk was completed in 1931.

Hill also wanted to bring a transcontinental extension of the Burlington west from Wyoming across Idaho and eastern Oregon, through Bend to Portland. Covering the "vast reaches of central and southeastern Oregon in and on virtually every sort of conveyance," Budd personally surveyed most of the Oregon portions of this unlikely route, which was never built (Overton 1955).

After bringing the Oregon Trunk to Bend in 1911, Budd continued as Chief Engineer for the Spokane, Portland, and Seattle, the parent of the Oregon Trunk within the Hill system. Later, he worked directly with Hill as his assistant until Hill's death in 1916. Finally, at age 40, Ralph Budd assumed the presidency of the Great Northern Railway in 1919.

Budd's subsequent work for the Hill lines put him in the presidency of the Chicago, Burlington, and Quincy. As president of this large and profitable railroad, he influenced the direction of American railroads through the Depression and the World War II period. Among his many accomplishments was pioneering the use of diesel-electric locomotives.

Building the Oregon Trunk, 1909-1911

During the winter and spring of 1909, John F. Stevens located the route of the Oregon Trunk from the Columbia River to Bend. He then personally contacted ranchers along the right-of-way, and purchased their properties for the railroad. Legend has it that Stevens disguised himself as a sportsman interested in fishing on the Deschutes and used the name John F. Sampson (Due and Juris, 1968). Stevens then purchased the stock of the Oregon Trunk in a clandestine transaction conducted "about midnight in the rain under a tree in a public park in Portland" (Stevens, 1935).

Stevens contracted with Porter Brothers Construction Co. of Seattle for the construction from the Columbia to Madras, and with Henry and McFee, also of Seattle, for construction from Madras to Bend (Railway and Engineering Review, March 18, 1911). The rival Des Chutes Railroad mobilized its forces under the command of Chief Engineer George W. Boschke. Boschke brought in the Twohy Brothers Construction Co. of Portland for the grading and track work.

By mid-summer of 1909, the Hill forces were working on the west bank of the river, and the Harriman forces were grading on the east bank, with advance parties from both lines claiming strategic points in the canyon. Materials and supplies for the two railroads swamped the local wagon roads, and the Columbia Southern and Great Southern railroads enjoyed their last profitable months. In the rival construction camps, feelings ran high. Dynamiting, sabotage, and occasional brawls punctuated the long summer and fall. George Palmer Putnam covered the scene for the wire services:

> At one point the Hill forces established a camp reached only by a trail winding down from above, its only access through a ranch. Forthwith the Harriman people bought the ranch, and "no trespassing" signs, backed by the armed sons of Italy, cut off the communications of the enemy below. (Putnam, 1915)

By the end of the year, the silliness of the Deschutes Canyon War was apparent to even

the most partisan participants. E.H. Harriman had died in the fall of 1909, so Hill and Robert S. Lovett, who succeeded Harriman, worked out an agreement for joint operation in May of 1910. Both railroads would use the Oregon Trunk line from North Junction to South Junction (10.4 miles) and from Metolius to Bend (42.6 miles). Both railroads would also use the 24 miles of Des Chutes Railroad track from South Junction to Metolius (Oregon Trunk Railway Articles of Incorporation). With the drama gone, the railroad building proceeded smoothly enough.

The Oregon Trunk was a difficult and expensive railroad to build. Reports of the cost vary from twelve to twenty-five million, with the latter figure more probable. The accounting confusion is no doubt due to the fact that the railroad was built as two railroads, both of which were financed by their parent companies. In 1953, the Oregon Trunk's debt to its parent, the Spokane, Portland, and Seattle, was $26,139,229.19 (Oregon Trunk Railway Articles of Incorporation). This sum represents more than the construction costs, but it confirms the level of funding that the Oregon Trunk required. The route to Bend was a successful one, however, with 0.4% grades on most of the line, and maximum grade of 1.3%. Curves were kept within 6 degrees/100'. Total mileage, Columbia River to Bend, was 157 miles.

Chronology of Building the Oregon Trunk

August, 1909	Hill buys the Oregon Trunk
September, 1909	Construction starts at Wishram
May 17, 1910	Contract with Des Chutes RR
June 1, 1910	Madras to Bend grading starts
July 1, 1910	Bridge across Columbia R. starts
March, 1911	Passenger service to Madras
April 1, 1911	Track to Crooked R. completed
June 14, 1911	Crooked R. Bridge completed
Nov. 1, 1911	Passenger service to Bend

Source: Ralph Budd's Final Report on Construction

Relationship of Bend Depot to the Development of Bend and Central Oregon

During the settlement period, 1910-1920, the railroad was the most significant social force in the growing town of Bend. In 1903, A.M. Drake, a fast-talking promoter, arrived from St. Paul, Minnesota, and purchased land along the Deschutes from a local rancher. Drake platted the town of Bend in 1904, and then sold out and moved on. James J. Hill and his associates eventually purchased the town site, the irrigation company, and much of the surrounding land. Their vision of "Oregon's Spokane" created the new town of Bend as surely as the first settlers had created the first community there twenty years before. The depot site and the passenger station, the end of the line, was the symbol of the powerful economic forces that had built Bend. It was also the only tangible connection with the outside world.

On Railroad Day, October 5, 1911, the Bend depot site was the focal point of two days' festivities. James J. Hill, who would drive the traditional golden spike that officially finished the railroad, was the featured speaker.

For James J. Hill and his business associates, Railroad Day in Bend marked a milestone on a long and expensive investment program in the Pacific Northwest. Hill's investments in Central Oregon included railroads, land companies, and development schemes. Hill literally owned Bend. Based in Seattle's Empire Building (also owned by Hill), his Bend Company and Bend Park Company owned all the real estate in Drake's development and were actively selling lots for commercial or residential use.

The Oregon Trunk would soon take pine lumber out of Bend, and eventually move California-bound cargoes through Bend, but for the present, the railroad's most significant contribution to the local economy would be to bring newcomers to Central Oregon.

Bend and the surrounding Central Oregon country was not well suited for agricultural settlement, however. The altitude of 3500' meant a short growing season with frosts to be expected in every month of the year, including July and August. The Jeffersonian ideal of the self-supporting diversified farm was never really an option for Central Oregon settlers. The best chance for success lay in cattle or sheep ranching, which required a significant initial investment and operating funds beyond most immigrants' means.

In 1915 two lumber firms from Minneapolis (Shevlin-Hixon and Brooks-Scanlon) built large mills in Bend, and the economic basis of the town began to shift. Logging and lumber manufacturing provided jobs for disappointed settlers and a much surer opportunity than farming the dusty sagebrush plains. Hastily-erected communities in the desert east of Bend were emptied as the economy surged through the 1920s.

In 1926, the Oregon Trunk built south to Chemult, where it joined its old rival, the Southern Pacific, for joint trackage into Klamath Falls. In 1931, the Oregon Trunk extended into California to join the Western Pacific and become for the first time the true "trunk line" that James J. Hill envisioned.

III. HISTORY OF THE BEND DEPOT SITE

Planning the Depot

Each of the depots on the Oregon Trunk followed a basic plan of providing services to passengers, freight shippers, and train crews. Accordingly, the depots consisted of a passenger station and railroad office (however modest), a freight warehouse or shed, and some accommodations for railroad personnel. Beyond these mundane requirements, the depots and especially the passenger stations were expected to make an architectural statement about the railroad and the town (Vaughan and Ferraday, 1974; Culp, 1972)

In the case of the Bend passenger station, both the railroad and the town were eager to have a building that would inspire confidence and pride. Ralph Budd's final report on building the Oregon Trunk notes that the distinctive stone depots in Bend and Redmond were built "as a result of local cooperation."

> Near Bend there is a stone quarry which furnishes a pinkish colored tufaceous rock which is used more or less exclusively in that locality, and in order to have permanent depots in Bend and Redmond, each town had quarried and delivered to the depot site enough of this rock to erect a passenger station, providing the same floor space as the 30' x 115' standard depot, exclusive of the freight room. At each of these towns there is a separate frame freight house. (Ralph Budd, 1912)

The account in the *Bend Bulletin* made it clear that the idea of a stone depot came from the Oregon Trunk, and that the railroad offered to provide plans and construction services for the passenger station if the town would provide the stone. The Bend Commercial Club agreed to provide 225 perch (24.75 cubic feet/perch) of the stone and to deliver it to the depot site. Total cost was $1.00/perch for the material and $0.50/perch for the haulage for a total cost of $337.50 (*Bend Bulletin*, Sept. 13, 1911). The source of the tuff was the Dan Merrich quarry (see fig. 22).

At the Railroad Day ceremony, William Hanley of Burns, Oregon, laid the cornerstone of the passenger station (*Bend Bulletin*, Sept. 13, 1911). Hanley had been a tireless promoter of Central Oregon whom Hill credited with first arousing his interest in the region.

Design of the Bend Passenger Station

The design of the passenger station built at Bend and its twin at Redmond incorporates many of the common elements of small town railroad station design. These include a rectangular footprint, a hipped roof with overhanging eaves, a central telegrapher's bay, a *porte cochere*, and exposed structural elements including rafter tails, beams, and brackets (Keeney, 1994). Any and all of these elements could be found on other passenger stations built in the West during the decades around the turn of the century (Grant, 1988; Edmondson, 1977). The specific

combination of masonry construction and the *porte cochere* design, however, is limited to four examples among Oregon's passenger stations, according to architectural historian Rosalind Keeney (1994). These are the Oregon Trunk stations in Bend and Redmond, and the Southern Pacific stations in Corvallis and in Albany. The two SP stations were built in c.1910 of cast stone blocks manufactured in Corvallis. The Albany station is still in use as a passenger station, but the Corvallis station has been moved twice and is currently used as a restaurant.

The plans for the Bend passenger station were prepared on a set of six sheets dated September 21, 1911 and signed by Ralph Budd as Chief Engineer. The draftsman left the initials "Drawn by C.E.B." on the plans. These initials appear on custom plans for other passenger stations within the S.P.& S. System, including the North Portland station, and the stations at Moscow, Idaho, and Colfax, Washington. The same initials appear on designs for service structures ranging from warehouses to privies on the Oregon Trunk. Significantly, however, the initials do not appear on the standard designs for Oregon Trunk structures. Documents from the S.P. & S. archives do not reveal the identity of "C.E.B." unfortunately.

The contractor who built the depot structures was the Kerrick Construction Company of Minneapolis. This firm was active from 1902 until about 1921 according to the Minneapolis City Directories. Kerrick presumably had contracts with Hill railroads other than the Oregon Trunk during that period, but no records from the firm have been archived. The mysterious "C.E.B." could have been employed by the contractor, but again, we have no means of establishing his or her identity.

The plans for the Bend passenger station show a much more complex and ambitious structure than the standard Oregon Trunk 30' x 115' station. The Bend station has a 5" wide stone belt course that is set 4" proud of the surrounding masonry at a height of 42". This feature echoes a wooden molding on the stock plans and can be found on most Oregon trunk buildings. Below the belt course, the masonry flares out to the sill it rests upon. Over the windows and doors are large stone lintels, and the 8" x 12" bracket beam on the end under the *porte cochere* is set in a striking fashion on an 18" x 60" stone lintel (see fig. 8).

Framing details of the Bend station reflect the Craftsman style and Gustav Stickley's dictum that the building should reveal its structural elements. The common rafters are 4" x 12" timbers with exposed tails extending beyond the eave line. Hip rafters are 8" x 14" timbers, and the exposed roof beam is a 12" x 16" timber with a key splice at the center. Although remodelings have covered these framing details on the interior of the building, they remain visible under the *porte cochere*. Framing on the stock station building offers none of these details and has the interior ceiling and the eaves closed.

The windows on the Bend passenger station were originally 20-over-1 double hung. Over the doors, 10-light transoms had mullions the same size as those in the windows. The stock station had 4-over-4 double hung windows and 3-light transoms over the doors. The Bend

station was fitted with two corbeled brick chimneys for the heating stoves. The roof was designed for Spanish tile, but early photos of the building show a shingle roof. Newspaper accounts indicate that the tile roof to be too expensive. Total cost of the passenger station and its furnishings was $9,290.00

In general, although the Bend passenger station used design elements common to other railroad stations of the period, the design of the Bend station is distinctive for the Oregon Trunk and departs in major ways from the Oregon Trunk stock designs. This design however, was typical of small town stations on the Rock Island Line between St. Louis and Kansas City. The masonry structures with a hip roof, a *porte cochere*, and a Spanish tile roof stations built in 1910-1915 on the Missouri Pacific in Arkadelphia, Monticello, and Prescott, Arkansas, bear a striking resemblance to the Bend station. (*Bulletin of the Railroad Station Historical Society*, Jan., 1995), where John Stevens and Ralph Budd both worked early in their careers.

Tuff Construction

Perhaps the most unusual aspect of the Bend and Redmond passenger stations is their construction from volcanic tuff. This indigenous stone has been widely used in Central and Eastern Oregon for commercial and institutional buildings. On the basis of present survey work throughout Oregon, it appears that the Bend and Redmond passenger stations are the only railroad structures in Oregon built of tuff. Since tuff is a significant material in eastern Oregon, Washington, and Idaho, and contributes to a distinctive regional building technology in those areas, the Oregon Trunk tuff passenger stations are noteworthy.

Tuff was formed by the consolidation of volcanic debris, especially volcanic ash. In most places the tuff was deposited directly during volcanic events, but in some places, the consolidation may have occurred after the materials were transported by wind or water (Hart, 1974). This varied origin accounts for tuff deposits found in areas of recent volcanism on the east slope of the Cascades, in much older volcanic regions in the Blue Mountains, and in Marion County west of the Cascades. The material is generally described as light and soft, with a smooth texture, but with inclusions of other materials including obsidian. When the tuff is removed from the quarry it is soft enough to cut with steel blades; upon exposure to air, however, it loses moisture and begins to harden. The color of tuff varies from black or pink in Deschutes County to tan or cream in Grant, Baker, and Wallowa Counties.

In most applications east of the Cascades, tuff has proved to be a sturdy and enduring building stone. In a dry climate it does not absorb moisture and consequently is not subject to spalling. Nor is it adversely affected by freeze-and-thaw cycles. On the Bend and Redmond passenger stations, however, there is some spalling on foundation courses. This may in part have resulted from salts used to thaw ice on the platform. Hart (1974) reports that tuff cracks under stress when used in large buildings, and that it is unsuitable for chimneys. In Bend there is no evidence of this cracking on extant buildings, including the passenger station, and tuff chimneys

are still in use on many residences. During the historic period, especially the years between 1910 and 1920, tuff received a certain amount of adverse publicity, but much of this may be attributable to the efforts of local brick yards to discredit the rival product (Houser, 1995)

The use of tuff east of the Cascades dates from the mining period in the 1860s and 1870s, when miners familiar with stonework entered the area and began building. The oldest documented tuff building in Oregon is the Kam Wah Chung building in John Day (c.1865). This town and the neighboring town of Canyon City were among the first gold camps in the Blue Mountains. The Kam Wah Chung building was built of huge blocks of tuff measuring more than 3' on each side. The material was evidently quarried nearby, for it bears the clear marks of tooling done while it was still soft.

In 1914, the Oregon Bureau of Mines and Geology reported on the mineral resources of Oregon and included a discussion of Baker County tuff quarries and building practices. A similar report in Washington, published in 1901, mentions "tufa" as a promising volcanic product (Shellenbarger, 1985). The U.S. Geological Survey report of 1913 mentions seven active tuff quarries in southeastern Idaho (Hart, 1974). Since the 1920s, the use of tuff and other stone as a structural material has declined throughout the region. Some houses in Bend were build with tuff elements as late as the 1950s, however. Along with the harder black basaltic fieldstone, tuff remains in use as a decorative material in Central Oregon.

Tuff construction in Bend in 1911 was enjoying an efflorescence which continued through the decade and lasted until the 1920s. Landmark buildings of tuff include the Wright Hotel (1912), Reid School (1914), the Tucker Building (1919), the West Building (1911), the First Presbyterian Church (1912), and other commercial buildings on Wall and Bond Streets. Residences built of tuff at this time, including the French House (1913) and the Weist homestead (1912). When the Craftsman style became popular in Bend during the 1920s, rusticated tuff ashlar was widely used for foundation, porch, and chimney stonework. The survival of these elements, as well as complete tuff buildings, testifies to the durability of this material.

Examples of Tuff Construction in Central and Eastern Oregon

County	Town	Buildings	Dates	Notes
Baker	Baker City	Jett Bldg. City Hall St. Francis Ch. Pythias Castle Rodgers Hotel I.O.O.F. Rand Bldg. Courthouse Carnegie Libr. Hospital	1901 1903 1905-8 1907 1907 1907 1908 1909 1909 1912	Many other commercial buildings in Baker City are built of tuff. The Jett Co. was an early tuff contractor.
Deschutes	Bend Redmond	Ore.Trunk Station Wright Hotel Reid School Tucker Bldg. Bean Bldg Ore.Trunk Station Irvin Store	1912 1912 1914 1919 1912 1912 1912	Additional commercial and residential structures of tuff. Tuff foundations are common on houses built in the 1920s.
Crook	Prineville	1st Nat. Bank Crook Co. Bank Courthouse	1905 1911 1909	Stone resembles tuff but may be other material
Grant	John Day Canyon City Prairie City	Kam Wah Chung Fraternal Lodge J.D. Johnson Bldg. I.O.O.F. Grant Co. Merc.	c.1865 1899 1902 c.1902 c.1902	Oldest recorded Canyon City rebuilt of tuff after fire of 1898
Harney	Burns	Brown Bldg. Harney Co.	1886 <1914	Extensive tuff construction in

		Bank Burns Fire Hall	1902	central core
Malheur	Vale	Reinhart House 1st Bank of Vale Courthouse	1873 1901 1902	
Wallowa	Enterprise	Courthouse		Other commercial and public buildings as well

Sources: Luckey, 1990; *Illustrated History of Baker, Grant, Malheur, and Harney Counties*, 1905; Clark, 1985; *Illustrated History of Union and Wallowa Counties,* 1902; Hart, 1975; Shaver, 1905; Good, 1944; Hamrick, 1987; Shellenbarger,1984; Houser, 1995. Oregon SHPO files; Deschutes County Planning Dept. Files.

IV. PHYSICAL DESCRIPTION OF THE BEND DEPOT

Exterior Description of the Bend Passenger Station

The Oregon Trunk Railway Passenger Station is a rectangular single story masonry building measuring 30 by 93 feet which includes a porte cochere; the actual size of the enclosed building is 30 by 73.5 feet. The passenger station is oriented with its long axis parallel to the rails, which run north and south, and has the traditional telegrapher's bay on the track side (east). The bay projects five feet from the main volume of the building and is fourteen-feet five-inches in length. The name BEND is carved in stone in large capital letters above the bay windows.

The entire building, including the porte cochere, is topped by a hipped roof with extended overhanging eaves that are supported by large Craftsman style brackets. Two corbelled brick chimneys pierce the roof on the north and south ends of the building.

Typical windows are seven feet by fort-two inches and originally had twenty panes over one. They are double hung, have a large stone lintel above the window, a stone sill below, and are located four feet above the foundation. In 1988, the top ten panes of window glass were replaced by four vertical wooden boards. The four windows in the bay are seven feet by twenty-eight inches. There are two forty-eight by forty-four inch windows located in the office area on the west elevation. A small six foot by two feet six inch window is the only opening on the north elevation. Originally the north window had sixteen small panes of glass, but they were covered by vertical boards in 1988.

Typical doors are eight by four feet. The original transoms were four by two feet and had ten panes of glass. The glass was replaced by vertical boards in 1988. An entry door into the original waiting room is centered on the south end and is protected by the elements by the porte cochere. Three doors access the interior on the west side allowing entry into the passenger waiting area (south end), the ticket office/telegraph office (middle), and the freight room. There are also three doors on the east (track side) elevation, one south of the telegrapher's bay, one north of the bay, and one into the freight room. The passenger area door and freight room door have been blocked and covered with vertical siding.

A five inch wide belt course projects out four inches from the body of the building, forty-three inches up from the base of the building. The floors are finished concrete slabs. The building is constructed of a soft local light tan stone (now darkened by age) called tuff.

Interior of the Bend Passenger Station

The original plans for the passenger station divided the interior into four major spaces. These were the men's waiting room, the women's waiting room, the office and telegrapher's bay, and the baggage room. When interior plumbing was installed in 1923, two existing five-feet x six-feet rooms immediately behind the central office became the rest rooms.
The original sources of heat were stoves in the two waiting rooms and the office; the baggage room was unheated and presumably unprotected from freezing temperatures. The original ticket counter was located at the rear of the office in the hallway between the two waiting rooms (see fig. 9).

Although we have no photographs of the original interior, the plans and the few remaining elements of interior finish work reveal some details of the interior design. The plans called for fourteen-foot two-inch plaster ceilings in the office, the baggage room, and the spaces that were to become rest rooms. In the two waiting rooms, the massive framing members designed to support a ceramic tile roof were exposed. The roof sheathing in the exposed areas was two-inch by six-inch side-match flooring. This was varnished. The twelve-inch by sixteen-inch fir roof beam and the four-inch by twelve-inch fir rafters were also varnished. The interior sides of the stone perimeter walls were firred and lathed, and then plastered. At the juncture of the walls and ceiling, the builders placed a six-inch fir cove molding that was varnished to match the ceiling and framing members. Matching varnished moldings surrounded the twenty-over-one double hung windows, and each window was capped with a cornice molding. Interior doors had four panels, and exterior doors had large central glass lights. Finally, all interior walls in the public spaces of the passenger station were wainscotted with one-inch by four-inch clear fir ceiling which was varnished to match the rest of the woodwork.

Alterations to the Passenger Station (1923-1958)

The Oregon Trunk Railway began to alter the Bend passenger station in 1923, just eleven years after its completion. The most significant alterations of the historic fabric are the extensive changes to the interior. These include the two sets of interior ceilings installed in the waiting rooms in 1942 and in 1958, and the complete remodeling of the interior in 1958 when the building was converted to offices.

Summary of Alterations

Date	Alteration	Cost
1923	Remove privies, install flush toilets indoors	$741.88
1928	Retire wooden platform, build concrete platform	$921.35
1942	Install interior ceilings	$249.00
1952	Install underground fuel tank	$499.20
1954	Remove wood heating stoves, install forced air heating system	$1758.90
1958 (end of passenger service)	Remodel station for offices	$4348.78

Source: Great Northern Railway station files

Description Conclusion

The Bend Depot site has changed considerably in its 84 years of use. The changes reflect the changing role of the railroad in meeting local transportation needs and technological changes that have had an impact on railroad operations. For example, when the successors to the Oregon Trunk changed from steam locomotives to diesel-electric locomotives during the early 1950s, the water tower and standpipe at the Bend Depot were removed. Since local freight is now shipped by truck, the freight warehouse and freight station have been demolished or converted to other uses.

In July of 1995, a surface survey of the depot site revealed little evidence of the previous (now demolished) structures. Even the freight warehouse, which once covered 12,480 square feet, left little evidence of its original location, which is now used as a cement unloading area. Similarly, the concrete foundation of the water tank is no longer extant on the surface of the site, even though its former location is quite apparent in historic photographs. By 1999, the site will be affected significantly by highway development. The passenger station and the freight station

will be removed, and the ground contours will be altered to accommodate a new highway. Construction work on the site may reveal more evidence of former structures.

The following table lists structures on the Bend Depot site as inventoried by the Interstate Commerce Commission valuation report. In addition, we have listed the American Railway Express Company building, which was not a part of the Oregon Trunk installation, although it is now owned by the Oregon Trunk's successor, the Burlington Northern.

All of the items on the inventory have been verified in historic photographs except two: the pipes and the stockyards. The pipes are presumably underground and originally used to supply water from the tank to the water column or standpipe at track side. Other piping on the site was no doubt used for water supply to the buildings, and some of this is still in use.

The stockyards listed on the inventory are a little perplexing, however. The Bend stockyard was a large facility for holding and loading livestock. It served a large local ranching industry. It was located at the south end of town two miles from the depot, as common sense would dictate, since the dust and odor of the stock yards would not be appealing to the traveling public or residents of the town. No stockyard is visible in historic photos, and Sanborn maps of the depot area show no stockyards. There was a livery stable located on the street across from the passenger station, but this was not likely related to the Oregon Trunk.

Structures Built on the Bend Depot Site

Structure	Size	Date	Disposition
Passenger station	30' x 93'	1912	To be moved by 1999
Warehouse	60' x 303'	1912	Demolished
Freight shed	11' x 38'	1912	Demolished
Freight shed	15' x 38'	1912	Demolished
Freight shed	10' x 38'	1912	Demolished
Platform	8016 sq.ft.	1912	Extant as modified
Highway trestle	30' x 269'	1912	Extant as modified
Stock yards	n.a.	1912	n.a.
Section House	24' x 30'	1912	Demolished
Bunk House	22' x 34'	1912	Demolished

Tool House	10' x 14'	1912	Extant as modified
Water tank	24' diameter, on 16' steel tower	1912	Removed
Water column	10"	1912	Removed
Railway Express building	30' x 60'	1922	To be moved by 1999
Pipe lines	n.a.	1912	Extant as modified

(Source: ICC Valuation Reports, Great Northern files)

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