

NORTHERN PACIFIC RAILWAY

STATE OF WASHINGTON - VALUATION SECTION 9

WOODINVILLE TO SUMAS

PRE-INVENTORY INFORMATION

GENERAL OUTLINE AND HISTORY OF THE WORK

This is a single track line extending from Woodinville to Sumas, a point on the Boundary line between Canada and the United States.

That portion lying between Woodinville and Snohomish, was partially constructed by the Seattle and West Coast Railway Company in years 1887 and 1888; have no record of manner in which was built, whether by Company forces or by contract. This part of the line was purchased in year 1888 by the Seattle, Lake Shore and Eastern Railway Company and its construction was completed and line was placed in operation the same year.

That portion of the line between Snohomish and Sumas was constructed by the Seattle, Lake Shore and Eastern Railway Company in years 1888, 1889, 1894 and 1891. Was built by contract as evidenced by the copies of several final estimates vouchers in favor of subcontractor, which are filed with the inventory, but thus far copies of these subcontracts or of the general contract have not been found, nor has a complete set of subcontractors final estimates, the final estimate of the general contractor or the extra work bills of either.

A great deal of work on this line has been done by Company forces since the completion of the first construction period, filling temporary bridges, widening cuts and fills, raising sage, placing additional ballast, placing additional bank protection, continuing work of clearing and grubbing, improving alignment and other kindred work.

Some important changes of line have been made; one of these occurred between Sedro Woolley and Wickersham and one between McMurray and Montborne.

On the Sedro Woolley-Wickersham line, change the general work of grading and building bridges and culverts was done by Caughren & Hollicon of Spokane, under their contract of March 17, 1913. A copy of this contract and list of extra work bills incurred under same on grading account, is attached to the inventory. On this work, severe difficulties in the way of sinking embankments and sliding out of the work, greatly increasing the quantities to be handled to provide an adequate roadbed and causing a large amount of additional expense which is carried nearly on extra work bills and partly on Company pay rolls. Letter from A. R. Cook, Principal Assistant Engineer, of October 28, 1914, O. E. File 3989, mentions, "sink hole in swamp stations 4980-5010".....experienced "trouble with

sliding fills stations 4510-4684"..... fill station 4980-5010 over ran 143 1/2 amount of settlement and shrinkage"..... "fill station 5035-5060 over ran 100%" Letter from A. R. Cook of March 24, 1914, Chief Engineer file 3989, says... "We are experiencing some trouble in large cut stations 4790-4780, amount of water which is seeping on the top of the hard pan", this caused additional mats. Report of inspection by Chief Engineer W. L. Darling of February 25, 1914, O. E. File 3989, "... Station 3848 to 3848, Cedar Swamp which was very bad and had to be taken out 2 to 4 feet below grade and backfilled with gravel"..... "Station 4850 has stratum running nearly all the way through it, looks like black sand and Cook and Taylor (Company Engineers) both say it had to be benched and shot. It drilled very hard and should be classified as solid rock" Letter from A. R. Cook of November 18, 1913, O. E. File 3989, "Work of excavating culvert at station 4725. The culvert at this point was wrecked by sloughing and sliding of fill"..... "going to the slide displacing the culvert, the creek was dammed and water running over the filled material soon converted the grade into mud, this resulting in a very expensive matter" This slide also blocked a channel change. A pile bulkhead was driven here at the time to help hold the fill.

The tracklaying and surfacing and ballasting on the Sedro Woolley-Wickersham line change was done by Porter Bros. Grant Smith & Company, of Portland, Oregon, under their contract of April 17, 1914, considerable bankwidening was also done under their contract. A copy of this contract and list of extra work bills incurred under same on grading account are attached to the inventory. The Railway Company also did some sag raising with its own forces at this time.

The grading, bridging and laying of culvert pipe on the McMurray-Montborne change of line was done by Caughren & Hollicon of Spokane, under their contract of March 17, 1913; a copy of which together with list of extra work bills incurred under same on grading account is attached to the inventory. The tracklaying and surfacing, and ballasting on this line change was done by Company forces.

The timber growth encountered on original construction of this line was very heavy and of the type peculiar to the country west of the Cascade Mountains in the State of Washington; large trees prevailed and the undergrowth was extremely thick and heavy. This luxuriant growth made the work of clearing and grubbing very difficult and expensive. The disposal of the debris was slow and costly, the long rainy seasons made arduous work of the burning of the green timber. The work of clearing and grubbing on this line has been continued by the Company with its own forces up to the present time.

The grading of this line was more than ordinarily difficult. The country is rough and broken, traversed by numerous gullies and streams, which severely handicapped the transportation of supplies and equipment. Virgin forest covered the entire country and extensive work was necessary to clear and prepare roads.

The material encountered in constructing the roadbed was in many places hard to handle. The surface of the ground over the greater part of the line is underlaid with a material, light gray in color, the classification of which varies from hard pan, coarse gravel, loose rock, to solid rock, depending upon the degree

in which it is found in its natural state. As was proven on the Pedro Woolley-Mokereham and McMurray-Montborne line, changes it was necessary to drill and shoot before could be handled by steam shovels. In borrow pits in the vicinity of the cuts where this cemented material is found, the same material is found at no great depth below the original ground surface. The borrow pits generally were covered with stumps. The borrow pits lying in the lower ground along the line are wet. At crossing of the water courses, the low lands are inclined to be swampy and below high water, on original construction no borrow pits were made at such places but timber bridges were placed and later filled by train haul. A great deal of train haul has occurred on this line.

This line for long stretches rests upon low lying swampy land where muskeg is found and crosses many individual pieces of soft ground and a large amount of subsidence in these general and special places has been found. The general subsidence of the roadbed will be developed by appropriate tests, in addition to special subsidence noted above, at the time of Government inventory.

The ballast on this line is composed of gravel and some cinders. The gravel coming from pits, the location of which is shown on blue print map accompanying the inventory. The cinders came from the terminals noted on inventory sheets.

Copies of all the final estimate vouchers which can be found concerning roadbed work are attached to the inventory with lists of extra work bills incurred by the several contractors on such account. These lists of extra work bills do not pretend to be a complete statement of all the extra cost or in any sense a partial statement of original cost but merely enumerate some of the extra costs incidental to construction which have been found readily available.

The re-inforced concrete culvert pipe in service on this line was manufactured in the Northern Pacific Railway Company's plant at Auburn, Washington.

Attached to the inventory, in the list of abandoned property, will be found a brief abstract of changes to "Anacortes Improvements". Anacortes is a port on Puget Sound about one west of Pedro Woolley. On August 2, 1890 an agreement was entered into between the Seattle and Northern Railway Company and the Northern Pacific Railroad Company (copy of which is attached to the inventory AS Doc No. R R 346) whereby the Northern Pacific agreed to run trains daily from Seattle to Anacortes and the Northern Pacific further agreed

to construct a dock and station in Anacortes. Under this agreement a depot, wharf, warehouse, repair shed and spur was built by the Northern Pacific Railroad Company, part of the work being done by King and Dickinson, Contractors, under their contract of September 28, 1890, copy of which and final estimate relating to same are included in the inventory. Some work was also done by other forces. The abstract of changes above referred to amounts to \$35,486.02. Operation of the Northern Pacific trains to Anacortes was commenced but was discontinued upon its appearing that such train service could only be conducted at a material loss to the Railroad Company (report of Chief Engineer to General Manager of Dec. 22-1894, C.E. File 82). After discontinuance of train service the buildings and improvements were not maintained (some of the improvements were dismantled and removed) and it is now impossible to inventory on the ground. The information obtained on this subject was found in the Chief Engineer's correspondence file 82: Assistant Secretary's R.R. Document 348. Chief Engineer memo vault boxes 290-101-133 and 583. Maps and profiles showing lay out of work are in the Drafting Room files as follows: 92-32, an original hard copy map and a blue print; 617-8 a hard copy of progress profile; 363-33, two maps tracings; blue prints of the tracings are filed with the inventory and the original records are forwarded to the Field Engineer for his inspection.

A list of items in abandoned roadbed is included in the inventory and itemized separately.