## COMPTROLLER'S COPY

## NORTHERN PACIFIC RAILWAY COMPANY AUTHORITY FOR EXPENDITURE

ENGINEERING DEPT. No.

YEAR	1929.

SUPERINTENDENT'S NO.

Telegraph

DEPT. No. 10.

A. F. E. NO

tito

Fargo

No

Main Line DIV.

DISTRICT STATE Minn.

VAL. SEC. No. 13-Mim.

AUTHORITY IS REQUESTED FOR A NET EXPENDITURE OF \$ 28,165.

Accounting distribution as follows: (Distribution to be made in General Office.) Net Operating

4,329. Cost of property retired .... Value of salvage

4,329.

Original Cost Adjustment Incidental costs -

16,146.

, 20, 745

Total to Operating Expenses Total to Profit and Loss

Made in

To Material and Supplies

To Bills for Collection versus Western Union Telegraph Company

Net charge to investment account-Additions and Betterments.

Total of distribution

. 38,537.

Budget reference: In Budget, Item No. 304.

Class of Works No. 13.

Joint facility contract reference:

Not Joint.

The location is - - - on this company's property. Id policy fully his for his hold half

BETWEEN 3 MILES WEST OF LAKE PARK AND DILWORTH, MINN . (DIVN . OFFICE)

HEAVY REPAIRS & RECONSTRUCTION OF TELEGRAPH LINE.

Title and

Present

This joint Northern Pacific-Western Union pole line has been repaired from time to time as follows:

Between Hawley and Dilworth it was reconstructed in 1894.

Between 3 miles west of Lake Park and Glyndon the line has been reconstructed in patches during the years 1904, 1907, 1909 and 1915. The poles used are classified partly as "B" and partly as "G" Eastern Cedar poles. The necessity for this piecemeal reconstruction arose as a consequence of severe sleet and windstorms which occurred in years mentioned above.

(Continued on Page 1.)

Accounting to concentrate in you omigo of Superintendent of Telegraph.

npany force under charge of Superintendent of Telegraph

dene Signature and Title: Superintendent of Telegraph. Date Dec. 31,

APPROVED:

General Superintendent.

Asst. Chief Engr. or Engr. Maint.of Way

General Manager

19 28.

Mech. Supt., Supt. Telgh. or Signal Engr.

Chief Engineer

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For Comptrolic

Date of Final JAN 24 1929 Asproval

COMPTROLLER'S RECORD OF NOTICE OF APPROVAL AND OF COMPLETION

Form No. 1345 issued...

Between Glyndon and Dilworth the line was given storm repairs in replacements.

After these various pieces of storm repair work were completed, the pole line spacing averaged 50 poles per mile.

Between Lake Park and Hawley the line was reconstructed in 1920, using Class "A" Eastern Cedar brush-treated poles, spaced 50 per were erected at this time. This work was also necessitated by reason of a heavy sleet storm.

In 1923 the entire section between 3 miles west of Lake Park and Dilworth was given heavy repairs, at which time certain partial replacements of defective poles were made with class "A" butt-tank-treated Western Cedar poles.

Between Lake Park and Hawley the line carries from 28 to 29 wires, attached on 10-ft. crossarms.

Between Hawley and Glyndon the line carries 28 wires on crossarms and 1 wire on a pole bracket.

Between Glyndon and Dilworth the line carries 33 to 35 wires on crossarms.

The Railway Company's automatic signal arm and wires are located in the fifth gain all the way between Lake Park and Dilworth.

A recent inspection of this pole line shows that 45% of the poles are defective and should be replaced by new ones. Many of the anchor logs are rotted out and require replacement; also a large number of crossarms need replacement.

## Proposed

It is planned to give this line repairs by doing the following major items of work:

Replace all defective poles with 25-ft. butt-tanktreated Western Cedar poles for the body of the line; longer poles to be used for grading and clearance.

Between Glyndon and Dilworth cable pole, where the body of the line consists of 30-ft. poles, defective poles will be reset, provided a clearance of 10 ft. can be obtained for the wires on the 5th arm.

Pole spacing will be maintained substantially as at present, curves will be arranged on the corner and tangent plan and a clearance will be provided for 5 crossarms.

Between Hawley and Dilworth "H" pole fixtures will be installed so as to replace about every fifth one of the existing storm-guyed poles, i.e. about 1 mile spart.

There are several jogs in the line between Hawley and Glyndon (especially between M.P.'s 244 and 248) that will be

The iron wires through the Dilworth yards are badly rusted and will be replaced by No.9 B'S gage copper wire between Mile Post 2 plus 30 poles and the Dilworth office cable pole, distance about 3900 ft.

Crossarms will be replaced or re-used as follows: Section 3 miles west of Lake Park to Glyndon: East of Hawley: Re-use all arms that are found to be in good condition. Between Hawley and Glyndon: All new poles will be fitted with new 10-ft. 10-pin crosserms in the first, second, third and fourth gains; the signal arms to be placed in the 5th and re-used as far as practicable. The crossarms in the second and third gains will be left on poles that are not replaced and the arms will be rebored for A new 10-ft. 10-pin crossarm will be attached in the fourth gain. Section between Glyndon & Dilworth Office Cable Pole; New 10-ft. 10-pin crossarms will be attached on all new poles placed in the line, except that where the 10-ft. 10-pin arms in the fourth gain are found in good condition, they will be re-used. On the old poles left in the line, the existing 10-ft. arms in the second, third and fourth gains will be left in place. The arms in the second gain will be rebored for 10 pins where found necessary. All of the 6-pin crossarms will be removed from the third gain and will be replaced by 10-ft.10-pin arms. The following changes will be made in the anchors: by 5/8" x 7' anchors and new creosoted anchor logs will be used in connection with these changes. All of the present anchor logs fastened to the 8-ft. anchor rods will be replaced by new creosoted anchor logs. 6000-1b. guy strand will be used for all necessary replacements of guy wire. Wires. The wires will be transferred and re-arranged to correspond to the arrangement between Staples and Hawley with a view of placing the wires so as to obtain the maximum use of our circuits. ··· 2 ···

Summarized, the following major items of work will be done:

623 Poles to replace 19 "H" fixtures to set 15 6-ft. anchors to set 7-ft. anchors to set 265 245 6000-1b. guys to attach 15 4000-1b. guys to attach 172 Anchor logs to replace Lightning rods to attach 56 2230 Single arms to attach 184 Double arms to attach 45 Poles to reset 182 Poles to straighten 46 Poles to move 32 Poles to set deeper Guys to pull 266 Arms to rebore 552 Arms to transfer 171 Spans of brush to cut 43 Spans of trees to cut 805 Miles of slack to pull Miles of wire to transfer 805 1200 Joints to solder 400 Joints to remove 32 Miles of iron wire to replace with No.9 copper wire

Any other necessary repair work will be done during the progress of this proposed work.

The work will be done under the terms of the General Agreement between the Northern Pacific and the Western Union, dated September 11, 1926.

A summary of the estimated expense is attached and forms part of this AFE.