

Washington, D.C., July 28, 1922.

Honorable C. F. Staples,
Acting Director, Bureau of Valuation,
Interstate Commerce Commission,
Washington, D.C.

Dear Sir:-

I herewith transmit the report of the engineering section upon the
Minnesota and International Railway Company.

Very respectfully,

Howard M. Jones
Supervising Engineer.

INTERSTATE COMMERCE COMMISSION

BUREAU OF VALUATION

-oOo-

ENGINEERING REPORT

upon the

MINNESOTA and INTERNATIONAL RAILWAY COMPANY

Including its leased line the

BIG FORK and NORTHERN RAILWAY COMPANY

showing

COST OF REPRODUCTION NEW

and

COST OF REPRODUCTION LESS DEPRECIATION

Inventory as of June 30, 1917.

Prices as of June 30, 1914.

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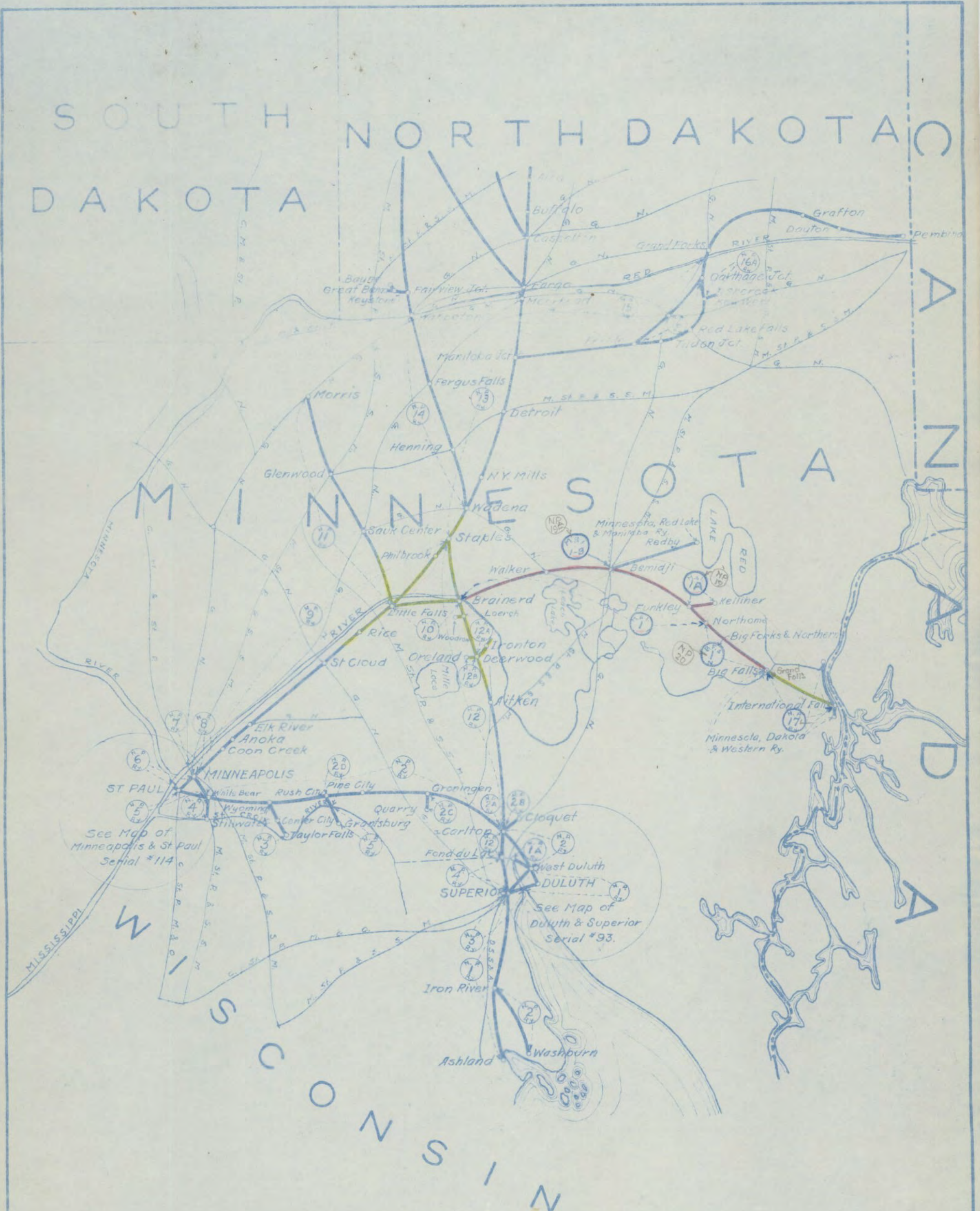
VOLUME 1 of 1

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INTERSTATE COMMERCE COMMISSION
 BUREAU OF VALUATION
 PACIFIC DISTRICT



MAP SHOWING THE
 Minnesota and International Railway

Scale 1 inch = 34 miles (approx.) June 30 191

EXPLANATORY TEXTMINNESOTA and INTERNATIONAL RAILWAY COMPANYI. DESCRIPTION OF ROAD.

The Minnesota and International Railway Company was incorporated under the laws of the state of Minnesota, July 17, 1900.

Since its incorporation the company has constructed, acquired by purchase and lease several small railroads which comprise the present system.

The carrier's railroad is single track, standard gauge, steam operated and is located within the state of Minnesota.

(a) Wholly Owned and Used:

The property owned by this carrier extends from West Brainerd to Northome and from Funkley to Kelliher.

(b) Used but Not Owned:

The company operates exclusively under lease the property of the Big Forks and Northern Railway Company extending from Northome to Grand Falls.

(c) Jointly Owned and Used:

At Bemidji the company jointly owns and uses with the Minneapolis, St. Paul & Sault Ste Marie Railway Company the station facilities and tracks.

In addition to the property mentioned in the foregoing the carrier has trackage rights over the Northern Pacific Railway from Brainerd to West Brainerd a distance of 0.65 miles.

2. MILEAGE AND VALUATION SECTIONS.

<u>MINNESOTA and INTERNATIONAL RAILWAY COMPANY - WHOLLY OWNED AND USED</u>					
Val. Sec.	From	To	1st Main Track	Yard Tracks & Sidings	All Tracks
1-1A Minn.	West Brainerd	Northome	146.003	39.981	185.984
				* .137	* .137
	Total Wholly Owned and Used		146.003	39.981	185.984
				* .137	* .137

JOINTLY OWNED AND USED:

50% by the Minnesota and International Railway Company and 50% by the Minneapolis, St. Paul & Sault Ste Marie Railway Company.

1B Minn.	At Bemidji	0.191	0.281	0.472
	Total Jointly Owned and Used	\$ 0.191	\$ 0.281	\$ 0.472

MINNESOTA and INTERNATIONAL RAILWAY COMPANY - USED EXCLUSIVELY UNDER LEASE:
OWNER - Big Forks and Northern Railway Company

1 Minn.	Northome	Grand Falls	31.611	7.095	38.706
	Total Used Exclusively Under Lease		31.611	7.095	38.706
	Grand Total Wholly Owned and Used and		177.614	47.076	224.690
	Used under lease by the Minnesota and		\$ 0.191	\$ 0.281	\$ 0.472
	International Railway Company			* .137	* .137

Jointly owned or jointly leased property reported separately by valuation sections.

* In addition to jointly owned property reported separately by valuation sections, certain jointly owned tracks are shown with the mileage and units of property undivided, the cost being divided on the assembly sheets and carried into the cost columns as property wholly owned and used. Such property is contained in valuation section 1, 1A Minn.

3. TERMINI.

The principal freight and passenger terminals and the basis upon which they are used are shown in the following table.

Location	Basis of use		Remarks
	Freight	Passenger	
Bainerd, Minn.	Rental	Rental	Northern Pacific Ry. owns terminals
Northome, "	Ownership	Ownership	
Kelliher, "	"	"	

4. CONNECTIONS WITH OTHER ROADS.

The principal connections with other carriers for the interchange of business are as follows:

Location	Carrier
Bainerd, Minn.	Northern Pacific Railway Company
Bemidji, Minn.	Great Northern Railway Company
"	Minneapolis, Red Lake & Manitoba Railway Company
"	Minneapolis, St. Paul & Sault Ste Marie Railway Company
Grand Falls, Minn.	Big Fork and International Falls Railway Company

5. CHARACTERISTICS OF COUNTRY.

(a) Topography

The region traversed by the road is generally flat crossed by low ridges and contains numerous lakes and swamps. The entire system lies in the lake region of northern Minnesota.

(b) Geology

The geology of the surface strata varies from a clay soil to sand, the excavations contained boulders of glacial origin and in a few places granite ledges.

(c) Climate.

The mean annual temperature is 45 degrees Fahrenheit, ranging from an average of 12 degrees in winter to 72 degrees in summer. The mean annual precipitation is 26 inches.

(d) Development Farm

The country traversed available for farming consists of cut over timber land and is not developed agriculturally to any great extent.

(e) Development - Industrial

The industries of the country consists of lumbering and products of the forest.

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Revised Aug. 31, 1923.

6. ROAD.Account 3 - Grading.

The grading is light averaging 19,000 cubic yards per mile and contains a small percentage of loose and solid rock.

Account 6 - Bridges, Trestles and Culverts.

There are no bridges on the road unusual in design or construction. Metal spans and girders over the larger waterways and pile and timber trestles or masonry culverts for the smaller streams constitute in general the types of structures under this account.

Account 8 - Ties.

The ties are mostly cedar or other softwood and average 3,000 per mile of main track.

Account 9 - Rail.

Approximately 30% of the main line is laid with New 72# Open Hearth steel, the remainder of the road is laid with Relay rail varying in weight from 56# to 66#.

Account 11 - Ballast.

Gravel from local pits and engine cinders are the prevailing materials used for ballast. Gravel was substituted for cinders, gravel being obtainable from nearby pits. This applies to all cinders except 1089 cu.yds. in Val. Sec. 1 & 1a - Minn.

Account 13 - Right of Way Fence.

About 70% of the carrier's right of way is fenced, barbed wire being the type used.

Account 15 - Crossings and Signs.

The highways crossing the carrier's tracks are generally at grade. There are a few overgrade crossings of timber trestles.

Account 16 - Station and Office Buildings.

The carrier's station buildings are of frame construction and conventional types except the jointly owned station building at Bemidji, Minnesota, which is constructed of brick.

Account 17 - Roadway Buildings.

The property under this account consists of frame structures having a variety of shapes and sizes.

Account 18 - Water Stations.

Water stations are elevated pine tanks of 50,000 gallon capacity on timber towers. The water is obtained principally from pumping plants owned by the carrier.

Account 19 - Fuel Stations.

The most important item under this account is the mechanical type coaling station 250 ton capacity located at Bemidji.

Account 20 - Shops and Enginehouses.

The shops of this carrier are located at Bemidji and are not extensive.

Account 26 - Telegraph and Telephone Lines.

With the exception of a small amount of joint property the carrier owns and uses exclusively the telegraph and telephone lines.

Account 27 - Signals and Interlockers.

The carrier owns jointly with the Minneapolis, St. Paul & Sault Ste Marie Railway the interlocker at Bemidji, Minn.

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Revised Aug. 31, 1923.

7. EQUIPMENT.

The carrier owns and uses twenty-five (25) steam locomotives, five hundred and twenty-eight (528) freight train cars, thirteen (13) passenger train cars and seventeen (17) units of work equipment of which the tools and equipment on wrecking car are considered as one unit. Part of the above equipment was purchased secondhand. On equipment purchased secondhand, the cost of reproduction new herein is its secondhand reproduction cost. The cost of reproduction less depreciation for such equipment was computed by applying a condition percent of the property in its second cycle of use to its secondhand cost.

8. ENGINEERING AND GENERAL EXPENDITURES.

Engineering has been estimated at 4 percent upon the Road Accounts 3 to 47, inclusive.

General Expenditures, Accounts 71 to 77, exclusive of Account 76, has been estimated at 1-1/2 percent upon Road Accounts 1 to 47, exclusive of Account 2, Land.

Interest During Construction, Account 76, has been estimated at the rate of 6 percent per annum for one-half the construction period plus 3 months upon Road Accounts 1 to 47, exclusive of Account 2, Land, and upon General Expenditures, Accounts 71 to 77, exclusive of Account 76, and for 3 months upon Equipment Accounts 51 to 58 inclusive.

9. INVENTORY OF PHYSICAL PROPERTY.

Tests to develop subsidence of embankment have been made at various places on the system and in the preparation of this report the following amounts have been allowed.

Minnesota & International Ry., Valuation Section 1, 1A Minn.	842428 cu.yds.
Big Fork & Northern Ry. " " 1 Minn.	38056 "

10. GENERAL INFORMATION.

Joint property of sufficient significance to require special treatment is inventoried and reported as a separate valuation section or sub-section, and the details of the property and the ownership all appear in that connection. There are, however, instances of joint property which are not of sufficient importance to justify the creation of a separate valuation section. In such cases the property is described as a separate item upon the assembly sheets and the interest of the carrier under valuation is carried into the columns, Cost of Reproduction New and Cost of Reproduction New Less Depreciation and is subsequently treated as property wholly owned.

The following carriers are interested in one or more such parcels of property as they appear on the assembly sheets.

Great Northern Railway Company

Minneapolis, St. Paul and Sault Ste Marie Railway Company

(a) Grading.

Grading has been computed upon the one-way basis, with 500 ft. free haul.

(b) Shrinkage.

10% has been added to ballast for shrinkage.

(c) Waste.

The following percentages of actual quantities have been added for waste:

Spikes	3 per cent
Bolts	1 " "
Angle Bars	2 " "
Nut Locks	2 " "

(a) Salvage

Salvage and scrap values are as follows:

Locomotive, metal parts of freight and passenger train cars	\$10.00 Net ton
Rail relay	25.00 Gross ton
Rail scrap	11.00 " "
Rail joints relay	1.10 Cwt.
Switch material and track fastenings except spikes	0.45 "

MATERIAL YARD EXPENSE

Rail	0.50 per gross ton
Other Track Material	0.50 " net "
Cross ties	0.03 each
Switch and Bridge ties	1.00 per M.B.M.

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GRAND SUMMARY

MINNESOTA AND INTERNATIONAL RAILWAY COMPANY

Summary of Costs of Common Carrier Property Owned or Used,
exclusive of Account 2 - Land

	Main Track Miles	All Track Miles	Reproduction Cost New	Cost Less Depreciation	Ratio Repro- duction Cost Less Depre- ciation to Reproduction Cost New
Wholly owned and used	146.003	185.984	4,232,293	3,400,103	80
Jointly owned and used:					
50% by Minnesota and International Railway Co. and 50% by Minneapolis, St. Paul and Sault Ste. Marie Ry. Co.	0.191	0.472	14,072	12,802	91
Minnesota and International Railway Co's. portion			7,036	6,401	91
Wholly used but not owned:					
Leased from Big Fork and Northern Railway Company	51.611	38.706	551,643	446,131	81
Grand total owned	197.804	224.862	4,246,365	3,412,904	80
Grand total used	249.415	263.568	4,798,008	3,859,035	80

* Mileage covering certain jointly owned and used tracks on wholly owned and used valuation sections. Cost figures include carrier's portion only of the joint property but mileage is undivided.

** Jointly owned and used mileage for which a separate valuation section was established.

*** Wholly owned and used mileage only. Money totals include cost figures for wholly owned or used property.

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E. V. Form No. 593
 Owner **Minnesota & International Railway Company**
 Operating Company: **do.**
 Division State **Minnesota**
 Valuation Section No. **All**
 From **West Brainerd** to **Northome**
146.003 Miles Main Line **185.984** Miles All Tracks **0.137** "joint"

INTERSTATE COMMERCE COMMISSION
 BUREAU OF VALUATION

SUMMARY SHEET

WHOLLY OWNED AND USED

Date of Inventory as of **June 30**, 19 **17**
 Date Compiled **July 24**, 19 **22**
 Compiled by **V.W.B.**

Correct *Lawrence H. Wood*
 Report **Report** Engineer.
 Approved *Carl B. Smith*
 Supervising Engineer.

R. and E. Account Number (1)	CLASSES (2)	ORIGINAL COST TO DATE (3)	COST OF REPRODUCTION		R. and E. Account Number (9)	REMARKS (7)
			New (4)	Less Depreciation (5)		
I. ROAD:						
1	Engineering		127,566	127,566	1	Includes the carrier's interest in certain joint property. See explanatory text, Paragraph 10. Also carrier's portion of the estimated costs of jointly owned tracks. Great Northern Ry. Co. 50% Minnesota & Int. Ry. Co. 50%
2	Land for transportation purposes,				2	
3	Grading		1,349,671	1,341,354	3	
4	Underground power tubes,				4	
5	Tunnels and subways,				5	
6	Bridges, trestles, and culverts,		129,297	91,906	6	
7	Elevated structures,				7	
8	Ties,		272,820	139,264	8	
9	Rails,		502,205	437,938	9	
10	Other track material,		125,291	91,813	10	
11	Ballast,		133,382	92,033	11	
12	Track laying and surfacing,		300,609	222,451	12	
13	Right-of-way fences,		25,202	12,603	13	
14	Snow and sand fences and snowsheds,		324	162	14	
15	Crossings and signs,		14,410	10,571	15	
16	Station and office buildings,		96,479	77,139	16	
17	Roadway buildings,		45,195	34,923	17	
18	Water stations,		33,964	26,761	18	
19	Fuel stations,		17,912	15,225	19	
20	Shops and engine houses,		62,873	54,590	20	
21	Grain elevators,				21	
22	Storage warehouses,				22	
23	Wharves and docks,				23	
24	Coal and ore wharves,				24	
25	Gas producing plants,				25	
26	Telegraph and telephone lines,		30,044	15,579	26	
27	Signals and interlockers,		4,634	3,704	27	
28	Power dams, canals, and pipe lines,				28	
29	Power plant buildings,		5,771	5,195	29	
30	Power substation buildings,				30	
31	Power transmission systems,		74	51	31	
32	Power distribution systems,		435	277	32	
33	Power line poles and fixtures,		243	129	33	
34	Underground conduits,				34	
35	Miscellaneous structures,		156	101	35	
36	Paving,				36	
37	Roadway machines,		16,254	10,738	37	
38	Roadway small tools,		2,960	1,480	38	
39	Assessments for public improvements,				39	
40	Revenues and operating expenses during const.,				40	
41	Cost of road purchased,				41	
42	Reconstruction of road purchased,				42	
43	Other expenditures—Road,				43	
44	Shop machinery,		13,525	9,755	44	
45	Power plant machinery,		5,421	2,727	45	
46	Power substation apparatus,				46	
47	Unapplied construction material and supplies,				47	
	Total, 1 to 47, inclusive,		5,316,717	2,825,033		
II. EQUIPMENT:						
51	Steam locomotives,		240,635	126,741	51	
52	Other locomotives,				52	
53	Freight-train cars,		335,968	171,458	53	
54	Passenger-train cars,		50,321	38,943	54	
55	Motor equipment of cars,				55	
56	Floating equipment,				56	
57	Work equipment,		27,103	18,653	57	
58	Miscellaneous equipment,				58	
	Total, 51 to 58, inclusive,		654,027	355,795		
III. GENERAL EXPENDITURES:						
71	Organization expenses,				71	
72	General officers and clerks,				72	
73	Law,				73	
74	Stationery and printing,				74	
75	Taxes,		49,751	42,288	75	
76	Other expenditures—General,				76	
77	Interest during construction,		211,798	176,987	77	
	Total, 71 to 77, inclusive,		261,549	219,275		
	Grand total, 1 to 77, inclusive,		4,232,293	3,400,103		
	Grand total—Other,					

Revised page prepared by direction of the Commission Nov. 20, 1929.