



Northern Pacific Railway Company.  
Engineering Department Records.

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# N. P. RY. CO.

OFFICE OF CHIEF ENGINEER.

FILE NO. 1520.

SUBJECT:

Contract with American Bridge Co.,  
covering bridge over White River,  
Seattle Line.

Dated: Mch, 16th, 1905.

See S. D. 781.

*Boat*  
*1338*

Contract dated, March 16th, 1905,  
with  
American Bridge Company for bridge over  
White River, Seattle Line.

---

794318 lbs. @ \$3.18 =	\$25259.31
Eye bar test,	182.51
	<u>\$25441.82</u>

March 18th, 1906.

# White River Xing

Sept 2 - 61660 ✓

5- 75660 ✓

6 107850 ✓

8 88098 ✓

16 85800 ✓

419068 @ 3.18 = 13,326.36

6810 Eye bar tests @ 3.18 = 21656

Scrap value @ \$10 / ton

34.05-

182.51

Aug 24

40780 ✓

25

41380 ✓

30

56220 ✓

31

236.870 ✓

375250 @ 3.18 = 11,932.95-

vouchered Nov 1805-

p. A 14105-

13,326.36

182.51

11,932.95-

\$ 25,441.82

419068  
6810  
375250  
801128  
68104  
79431

# Northern Pacific Railway Company

Tacoma, Wash., Sept. 23rd, 1905.

Mr. E. J. Pearson,

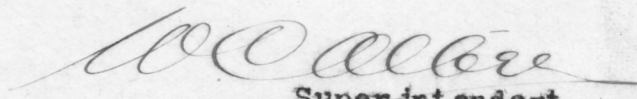
Chief Engineer,

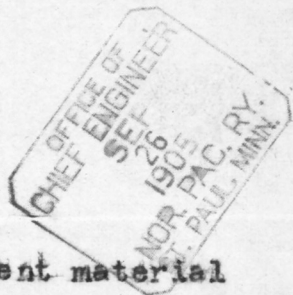
St. Paul, Minn.

Dear Sir:-

I have your favor of September 19th, of shipment material  
White River Bridge, is received. Am glad to get the information.

Yours truly,

  
Superintendent.





Detroit

Aug 31

5

A9837

Northern Pacific R.R.

Same of R.E. Gant best Eng. Bridge

O.M. C.P. L. N.P.

NP 55164-68525

Earle

Thomas Wash

Opa to Chgo

4th

2 Top Chords	U, U 3 R	77000	
2 "	U, U 3 L	29400	
2 "Floor" Beams	D 3 4	14820	
1 "	" 2	12270	133490
1 "	E 3 1		
<hr/>			
NP 23581-55406			
4 Bottom Chords	L2 L2 R2	62130	
2 Top	U 3 U 3	25500	
4 Collision Struts	M2 L1	6170	
2 Diagonals	M 3 L 3	4230	
2 "	U 3 M 3	5350	103380
Total weight			<hr/> 236870

Seattle Line Crossing } White River

| Mr. Priest |

Do not understand  
above billing - we have no  
one named R.E. Gant in  
our employ - should be billed  
care Subl. W.C. Albee

E Pearson

Copy to book &amp; Albee

10 oct 05

9/14

NOR PAC. RY.  
SEP  
5  
1905  
PURCHASING AGENT.

SUPERIOR BOND

BOND



3697

Detroit

Aug 30

5

A9837

Northern Pacific RR

Same of N C Albee

P M - CR 2 - N C

NP 60052

Earle

Moum Wash  
Op to Chgo  
3rd.

2	Interior posts	U <sub>2</sub> L <sub>2</sub> R <sub>2</sub>	25400
2	"	U <sub>2</sub> L <sub>2</sub> R <sub>2</sub>	
2	Naugen	U <sub>1</sub> L <sub>1</sub> R <sub>1</sub>	23370
2	"	U <sub>1</sub> L <sub>1</sub> R <sub>1</sub>	
2	Top Lateral	L <sub>2</sub>	650
2	"	" 3	640
3	"	" 5	970
3	"	" 6	990
2	Bottom	B <sub>2</sub> 3	730
2	"	" 2	890
2	"	" 6	650
2	"	" 5	770
2	"	" 8	410
2	"	" 9	360
1	"	" 11	190
1	"	" 12	200
			<hr/>
			56220 ✓.

copy Carl  
" Albee

Sept-12.

NOR. PAC. RY.  
SEP  
1905  
PURCHASING AGENT.

SUPERB BOND

ND



3605

Detroit

A9837

Aug 25

Northern Pacific RR

Same c/o. McAllee

2572 PM-CP &amp; 2 NP

NP 67065

Prepaid to  
Chicago

Thomas Wash

2nd

3 Stringer S4

15290

2 " " 3

10790

2 " " 2

10200

1 " " 1

5100

41380 ✓

Seattle Line Crossing of White River

1 copy Coat

" " Albee Sept-12

R. M.

BOND  
BOND  
BOND

3681

Detroit

Aug 37

Aug 24

5

Northern Pacific R.R.

Same of M. C. Albee

2572 P.M. - C.B. 2 - N.P.

Thomas Nash

N.P. 60081

to Prepaid  
to Chicago

1st

H. King

\$ 2

20420

3

"

" 3

15270

1

"

" 4

5090

40780 ✓

Seattle Line Crossing of White River

1 copy Cook

1 " Albee

OK

Sept 13



## SHIPPING STATEMENT.

No. 3718

SHEET No. 1 of 2.

## AMERICAN BRIDGE COMPANY

OF NEW YORK

PLANT.

CUSTOMER'S No.

1905 ORDER No. 49837

CHARGE TO

SHIPPED TO

VIA

CAR NOS.

FREIGHT

SHEET MADE OUT BY

SHEET CHECKED BY

SHIPMENT

No. Pcs.	DESCRIPTION.	MARK.	WEIGHT.	
3 Stringers S1				
1 " "3			255.20	
1 " "4				
2 Bottom Laterals BL1			1310	
2 " "4			1320	
2 " "7			710	
1 " "10			370	
2 Top "1			1370	
3 " "4			2090	
84 Stringers " "2			5510	38200
4 " 66902				
4 " "0			7540	
2 Roller Beds			4500	
2 " "Nuts			6120	
8 Stringers Brackets			2940	
4 Pins 15.0" x 2' 10 3/8 "1			800	
4 " 8.0" x 3' 0 3/8 "0			2100	
4 " 8.0" x 3' 7 3/4 "2			2500	
4 " 8.0" x 3' 6 7/8 "3			2460	
4 " 8.0" x 3' 1 1/2" 261			2150	
4 " 7 1/2" x 2' 9 1/4 "2			1700	
4 " " x 2' 7 7/8" "3			1620	
2 Jigged End Bolts			7730	
4 Sheets Lead 60 1/4" x 1/4 x 3' 10 1/4" 1 Box			1220	
2 Bldg 16 Anchors Bolts 1 1/2" x 2' 4"			252	
232 track " 7/8 x 1' 2 3/4			753	
234 washers for same			175	
1 Long Pilot nut for 8" Pin				
1 Short " " 8" "				
1 Driving Nut " 8" "				
1 Long Pilot " " 7 1/2" "				
1 Driving " " 7 1/2" "				
1 Short Pilot " " 5.0" "				
1 Driving " " 5.0" "				
Total to Sheet #2			44900	
Final Shipment.				

## SHIPPING STATEMENT.

No. 3718SHEET No. 2 of 2AMERICAN BRIDGE COMPANY  
OF NEW YORKDetroit

PLANT.

CUSTOMER'S No. \_\_\_\_\_

190 5 ORDER No. 49834CHARGE TO Western Pacific R.R.SHIPPED TO Wm. J. N. C. AlbeeVIA Ex. Co. L-30 Thomas NashCAR Nos. 2 FREIGHT Per 1. + 1.00SHEET MADE OUT BY Bark SHEET CHECKED BY \_\_\_\_\_ SHIPMENT By final

No. Pcs.	DESCRIPTION.	MARK.	WEIGHT.
<u>475</u>	<u>id from chest #1</u>		<u>44900 382.00</u>
<u>364</u>	<u>7/8 x 3 3/8 Box #1</u>		<u>386</u>
<u>63</u>	" x 3 1/4		
<u>48</u>	" x 3 3/8	" #2	<u>372</u>
<u>481</u>	" x 2 3/4		
<u>58</u>	" x 2 1/2	" #3	<u>376</u>
<u>278</u>	" x 4 1/8		
<u>250</u>	" x 3 3/4	" #4	<u>436</u>
<u>278</u>	" x 3 7/8		
<u>115</u>	" x 2 5/8	" #5	<u>393</u>
<u>100</u>	" x 2 7/8		
<u>268</u>	" x 4 1/2	" #6	<u>432</u>
<u>250</u>	" x 2 3/8		
<u>600</u>	" x 2 3/8	" #7	<u>385</u>
<u>510</u>	" x 2 7/8	" #8	<u>347</u>
<u>1350</u>	" x 3 1/2	9-10-11	<u>1155</u>
<u>158</u>	" x 2 3/8		<u>152</u>
<u>52</u>	" x 3 1/2		
<u>40</u>	<u>Box #12</u>		<u>102</u>
<u>80</u>	<u>Box #12</u>		<u>62</u>
<u>8</u>	<u>Box #12</u>		<u>32</u>
<u>192</u>	<u>Box #12</u>		<u>274</u>
<u>192</u>	<u>Box #12</u>		<u>94</u>
	<u>Total</u>		<u>44898</u>
			<u>38200 88098</u>

Seatch Line Crossing of White RiverCompleted Shipping StatementFinal Shipment.1 copy Card  
1 " AlbeeOct 11-05OK



EBB.

# SUPERIOR BRIDGE COMPANY

SHIPPING STATEMENT

8699

SHEET No. 1

Ambridge

PLANT

CUSTOMER'S No.

ORDER No.

A9837

1905

PLANT No.

CHARGE TO

Northern Pacific Ry.

SHIPPED TO

Do

% W. C. Albee

ROUTE

P.O. % C. Br Q to St Paul % No. Pac.

Thomas Wash

No.

N.P. 55393

CAR No.

FREIGHT

Prepaid to Chicago 1st of fin.

SHIP

No. Pcs

DESCRIPTION

MARK

WEIGHT

16 Eye Bars	5x17/8	39-6 3/32	U1L2	85800 ✓
24 "	8x15/8	25-8 1/2	L2L3	
5 "	"	"	L3L3	
4 "	8x1 1/2	"	L3L3	
4 "	8x1 1/8	"	L3L3	
56 Pcs	Total for car			X 85800

## Test Bars

1 Test Bar	8x17/8	39-6 3/32	U1L2	2150
1 "	8x15/8	25-8 1/2	L2L3	1280
1 "	"	"	L3L3	1280
1 "	8x1 1/2	"	L3L3	1150
1 "	8x1 1/8	"	L3L3	890
Total				6810
				X 92610

White River Bridge

Boat Oil

FINAL AND COMPLETE SHIPMENT  
FOR THIS ORDER WILL BE  
REPORTED BY Debit PLANT.

Please note that 6810 lbs. is test material not shipped.  
Specifications in regard to payment for this may be different than  
for remainder.

F.E. Washburn.

1 copy to Albee

Sept 28 05

# AMERICAN BOND COMPANY

3718  
2

Chicago

CUSTOMER'S NO.

5 AUG 1907 49837

Sept 7  
Northern Pacific Ry  
Same of Mr. Albee  
J.M. O'Brien - M.P.  
NO 66402  
Car.

Thomas Wash  
Ogd to Chgo  
8x final

Bolt find from sheet #1				43979	38200
475	Rivets	7/8	x 3 3/8	386	
364	"	"	x 3 1/4		
63	"	"	x 3 3/8	372	
48	"	"	x 2 3/4		
481	"	"	x 2 1/2	376	
58	"	"	x 4 1/8		
278	"	"	x 3 3/4	436	
250	"	"	x 3		
278	"	"	x 3 5/8		
115	"	"	x 2 5/8	393	
100	"	"	x 2 7/8		
268	"	"	x 4 1/2	432	
250	"	"	x 2 3/8		
600	"	"	x 2 3/8	385	
510	"	"	x 2 7/8	347	
1350	"	"	x 3 1/2	1155	
158	"	"	x 2 3/8		
52	"	"	x 3 1/2	152	
40	"	3/4	x 17 1/2	102	
80	Washers	3/8	x 3 0	62	
8	Burned Bolts	1 1/4	x 5 1/2	32	
192	"	5/16	x 3 1/8	274	
192	Washers	3/4	x 2 1/2	94	4897
Total					87177

First Shipment.

1 copy Corvet  
1 copy Albee Sept 13



3718  
1 2

Detroit  
Sept 7  
Northern Pacific Ry  
Sams of H C Albre  
O M. L. B. L. N. P.  
No 16060  
B. r. l.

5  
A9837  
Thomas Wash.  
Spd to Chgo  
8 x final

3	Chungers	S <sub>1</sub>		
1	"	"	3	
1	"	"	4	
2	Bottom Lateral	B L <sub>1</sub>		
2	"	"	4	
2	"	"	7	
1	"	"	10	
2	Sub	"	L <sub>1</sub>	
3	"	"	4	
84	Chungers	"	S <sub>2</sub>	
				25520
				1310
				1320
				710
				370
				1370
				2090
				5510
				38200

No 16690 2

4	Linco				7540
2	Roller Beds				4500
2	Nests				6120
8	Springer Brackets				2940
4	Pins	50" x 2' 10 3/8"	L <sub>1</sub>		800
4	"	80 x 3' 0 3/8"	" 0		2100
4	"	80 x 3' 7 3/4"	" 2		2500
4	"	80 x 3' 6 5/8"	" 3		2460
4	"	80 x 3' 1 1/4"	U <sub>1</sub>		2150
4	"	7 1/2 x 2' 9 1/4"	U <sub>2</sub>		1700
4	"	x 2' 7 7/8"	U <sub>3</sub>		1620
2	Fixed End Bolster				7730
4	Sheet of Lead (1 Box)	60 1/4 x 1/4 x 3' 10 1/4			299
2	Reble 16 Anchor Bolts	1 1/2 x 2' 4"			252
232	Rock	7/8 x 1' 2 3/4			753
234	Washer for same				1.75
1	Long pilot nut for 8" Pin				
1	Short "	" 8"			
1	Driving nut	" 8"			
1	Long Pilot "	" 7 1/2"			
1	Driving "	" 7 1/2"			
1	Short Pilot "	" 50"			
1	Driving nut	" 50"			
Total to Sub # 2					340

43979



3716

Detroit

Aug 37

Sept 6  
Northern Pacific Ry

5

Same of W. C. Albee

O M. CB &amp; L. MO

NO 68856

Add to  
ChicagoThomas Wash  
7th

4 Diagonals U 2 L 3

2 Portals P 1

42530

NO 68686

8950 51480

2 Floor Beams S 3 B 3

29410

1 "

"

2

14630

1 Ends "

"

E 7 B 1

12330 56370

Total

x 107850

1 copy Coas  
1 " Albee Sept 13

3714

A9837

Detroit  
 Sept 5  
 Northern Pacific Ry  
 Saml of H C Albee  
 Pm Cr L. M

Thomas Frank

NO 68873

Opato Chicago 6th

2	End post L. O. H. 1	Rd.	31150	
2	R Interior Post	U 3 L 3	8740	39890

N. P. 20727  
 3 Cringers S 4  
 2 " " 1  
 2 " " 3

Total

35770

35770

+ 75660

1 copy Coat  
 1 " Albee Sept 13 Not OK

3709

Detroit

A9837

Sept 2

5

Northern Pacific R.R.

Sam of N.C. Albee

O.M. - C.B. &amp; L. N.O.

Thomson Wash

NO 68420

Ogd to Chgo

5th

2 End paste L. U. 1

31160

31160

NO 68359

4 Top Struts T.S. 1

10660

2 Diagonals U. 3 L. 3

11130

2 Interior Posts U. 3 L. 3 Rod

8710 30500

Total weight

51660 ✓

1 copy Coar  
1 " Albee Sept 13



RALPH MODJESKI

CIVIL ENGINEER

MONADNOCK BUILDING

CHICAGO

## WEEKLY SHOP INSPECTION REPORT

EASTERN ASSOCIATES  
HILDRETH & CO.  
NEW YORK PHILADELPHIA  
PITTSBURGHReport No. 1For Week Ending Aug. 19th1905

At the Shops of

A. B. Co. - Detroit, Mich.

On

White River Double Track Bridge #12

For

N. P. Ry.Contract 9837DESIGNS, ESTIMATES AND SUPERINTENDENCE OF STONE  
CONCRETE, METAL AND TIMBER STRUCTURESRAILROAD AND  
HIGHWAY BRIDGESEXAMINATIONS AND REPORTS ON OLD STRUCTURES,  
MILL, SHOP AND FIELD INSPECTION

DESIGNATION OF PARTS	NUMBER OF PIECES						SHIPMENTS				WEIGHT IN POUNDS
	MARK	REQUIRED	FINISHED THIS WEEK	TOTAL FINISHED	SHIPPED THIS WEEK	TOTAL SHIPPED	NO.	DATE	CARS		
									INITIAL	NUMBERS	
Bott. Chord	L <sub>0</sub> L <sub>2</sub> R	2	2	2							
" "	L <sub>0</sub> L <sub>0</sub> L	2	2	2							
Top "	U <sub>1</sub> U <sub>3</sub> R	2	2	2							
" "	" L	2	2	2							
" "	U <sub>3</sub> U <sub>3</sub>	2	2	2							
Coll. Strut	U <sub>0</sub> L <sub>1</sub>	4	4	4							
Hanger	U <sub>4</sub> L <sub>1</sub> R	2	2	2							
" "	" L	2	2	2							
Post	U <sub>2</sub> L <sub>2</sub> R	2	2	2							
" "	" L	2	2	2							
" "	U <sub>3</sub> L <sub>3</sub> R	2	2	2							
" "	" L	2	2	2							
Diagonals	U <sub>2</sub> L <sub>3</sub>	4	4	4							
" "	U <sub>3</sub> L <sub>3</sub>	2	2	2							
" "	U <sub>3</sub> M <sub>3</sub>	2	2	2							
" "	M <sub>3</sub> L <sub>3</sub>	2	2	2							
Portals	P <sub>1</sub>	2	2	2							
Top Struts	T <sub>5</sub> I	4	4	4							
End Post	L <sub>0</sub> U <sub>1</sub> R	2	2	2							
" "	" L	2	2	2							
Int. Floor Beams	F <sub>2</sub>	2	1	1							
" " "	F <sub>3</sub>	2									
" " "	F <sub>4</sub>	2									
End " "	F <sub>1</sub>	2									
Stringers	S <sub>1</sub>	6	6	6							
" "	S <sub>2</sub>	6	6	6							
" "	S <sub>3</sub>	8	8	8							
" "	S <sub>4</sub>	8	8	8							

ESTIMATED WEIGHT

Accepted Material Stamped

REMARKS:



TOTAL WEIGHT OF ABOVE

SHIPMENTS PREVIOUSLY REPORTED

TOTAL WEIGHT TO DATE

G. A. Washburn

Inspector.

RALPH MODJESKI

CIVIL ENGINEER

MONADNOCK BUILDING

CHICAGO

## WEEKLY SHOP INSPECTION REPORT

EASTERN ASSOCIATES  
HILDRETH & CO.  
NEW YORK PHILADELPHIA  
PITTSBURGHReport No. 1 (cont)For Week Ending Aug 19<sup>th</sup> 1905

At the Shops of

A. B. Co. - Detroit Plant

On

White River Double Track Bridge #12

For

N. P. Ry. - Contract #9837DESIGNS, ESTIMATES AND SUPERINTENDENCE OF STONE  
CONCRETE, METAL AND TIMBER STRUCTURESRAILROAD AND  
HIGHWAY BRIDGESEXAMINATIONS AND REPORTS ON OLD STRUCTURES,  
MILL, SHOP AND FIELD INSPECTION

## DESIGNATION OF PARTS

## NUMBER OF PIECES

## SHIPMENTS

WEIGHT  
IN  
POUNDSStr. Brackets  
Both Laterals

SB 8 8 8

BL1 2 2 2

BL2 2 2 2

BL3 2 2 2

BL4 2 2 2

BL5 2 2 2

BL6 2 2 2

BL7 2 2 2

BL8 2 2 2

BL9 2 2 2

BL10 1 1 1

BL11 1 1 1

BL12 1 1 1

Top

L1 2 2 2

L2 2 2 2

L3 2 2 2

L4 3 3 3

L5 3 3 3

L6 3 3 3

Stringer

SL 84 84 84

## ESTIMATED WEIGHT

Accepted Material Stamped

REMARKS:

Shop is now working on bearings.  
will finish floorbeams 8/23

## TOTAL WEIGHT OF ABOVE

SHIPMENTS PREVIOUSLY REPORTED

TOTAL WEIGHT TO DATE

R. E. Washburn

Inspector.



EgP  
75P<sub>2872</sub>

BoH. 1076107  
24. 1300642

8 8 8 8

at 11 and 12  
 1000 ft. - 1000 ft. - 1000 ft.  
 1000 ft. - 1000 ft. - 1000 ft.  
 1000 ft. - 1000 ft. - 1000 ft.

CMAA ENGINEERS

**RALPH MODJESKI**  
CIVIL ENGINEER  
MONADNOCK BUILDING  
CHICAGO

File #198



Chicago, Sept. 18th, 1905.

Mr. E. J. Pearson,

Chief Engineer N.P. Ry.

St. Paul, Minn.

Dear Sir:-

I wish to advise you that the White River Bridge material has now been shipped complete. The eyebars were shipped on the 16th from Ambridge on N.P. car #55393. The usual final report on inspection will follow later.

Yours truly,

*Ralph Modjeski*

R.M.

By *W. E. Angier*



1

OFFICE OF  
CHIEF ENGINEER  
SEP 19 1905  
NOR. PAC. RY.  
ST. PAUL, MINN.

St. Paul, Sept. 19, 1905.

Mr. E. J. Pearson,  
C. E., Building.

Dear Sir:

The American Bridge Co. write me as follows with reference to shipment of material for White River Bridge:

Everything has been shipped from our Detroit plant except the eyebars, which are to come from the East. We are advised by wire under date of sept. 14th, that if all the tests which are now being made on these eyebars are satisfactory, they will be shipped today. We will advise you further if there is any trouble on this score.

I am also just in receipt of the following letter dated Sept. 18th.

We are just in receipt of a telegram stating that the eyebars were shipped complete from Ambridge, Pa. on the 16th, N. P. car #55393 and that same is being traced.

Yours truly,

A-I

Purchasing Agent.



St. Paul, Sept. 19, 1905.

Mr. E. J. Pearson,  
C. E., Building.

Dear Sir:

The American bridge Co. write me as follows with reference to shipment of material for White River bridge:

Everything has been shipped from our Detroit plant except the eyebars, which are to come from the East. We are advised by wire under date of sept. 14th, that if all the tests which are now being made on these eyebars are satisfactory, they will be shipped today. We will advise you further if there is any trouble on this score.

I am also just in receipt of the following letter dated Sept. 18th.

We are just in receipt of a telegram stating that the eyebars were shipped complete from Ambridge, Pa. on the 16th, N. P. car #55393 and that same is being traced.

Yours truly,

A-I  
R. J. E.:

Purchasing Agent.

Copy for your information.

F. G. P.

Sept. 19, 1905.

Mr. A. R. Cook,

Act. Div. Eng'r., Tacoma, Wash.

Mr. W. C. Albee,

Sup't., Tacoma, Wash.

Dear Sirs:

Our shop inspector advises that the material for White River bridge has all been shipped from the bridge shops. The last shipment of eye-bars left Ambridge on the 16th instant.

We will try and hurry shipment forward as quickly as possible.

Yours truly,

Chief Engineer.

SJB-H.



Form 1380

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
212	HN P N										
				M.		M.			M.		

Tacoma, Sept 4th 1905

R.J. Elliott,

FROM

DATED

TO

2801

7.40 PM

Chief Engineers reqn 380 of May 13th re-inforcement bars for White River Bridge No 225 Must be hurried. When will they be shipped.

Understand they were to be shipped Aug. 4th.

516 P.M.

W.C.A.  
F. G. P.  
Shipped  
R. J. E.



RALPH MODJESKI  
CIVIL ENGINEER  
MONADNOCK BUILDING  
CHICAGO

File #198

chicago, sept. 11th, 1905.

Mr. E. J. Pearson,

Chief Engineer N.P. Ry.

St. Paul, Minn.

Dear Sir:-

Enclosed please find Weekly Shop Report on work at the Detroit Plant for the White River Bridge.

I wish to advise you that the work on the eyebars is progressing satisfactorily. The bars are all forged and are being annealed, and there are prospects of having them finished this week.

Very truly yours,

*Ralph Modjeski*

R.M.

RALPH MODJESKI

CIVIL ENGINEER

MONADNOCK BUILDING

CHICAGO

## WEEKLY SHOP INSPECTION REPORT

EASTERN ASSOCIATES  
HILDRETH & CO.  
NEW YORK PHILADELPHIA  
PITTSBURGHReport No. 2For Week Ending August 26<sup>th</sup> 1905At the Shops of A. B. Co. - Detroit PlantOn White River Double Track Thru Pin Span - 180'For N. P. Ry.DESIGNS, ESTIMATES AND SUPERINTENDENCE OF STONE  
CONCRETE, METAL AND TIMBER STRUCTURESRAILROAD AND  
HIGHWAY BRIDGESEXAMINATIONS AND REPORTS ON OLD STRUCTURES,  
MILL, SHOP AND FIELD INSPECTION

25821

DESIGNATION OF PARTS	NUMBER OF PIECES						SHIPMENTS				WEIGHT IN POUNDS
	MARK	REQUIRED	FINISHED THIS WEEK	TOTAL FINISHED	SHIPPED THIS WEEK	TOTAL SHIPPED	NO.	DATE	CARS		
									INITIAL	NUMBERS	
Floor Beams	F1	2	2	2							
" "	F2	2	1	2							
" "	F3	2	2	2							
" "	F4	2	2	2							
Exp. Shoes - C.S.		2	2	2							
Fix " "		2	2	2							
Roller Beds		2	2	2							
" Sets		2	2	2							
Fix End Bolsters		2	2	2							
Pins	L0	4	4	4							
"	L1	4	4	4							
"	L2	4	4	4							
"	L3	4	4	4							
"	U1	4	4	4							
"	U2	4	4	4							
"	U3	4	4	4							
Pilot Nuts		4	4	4							
Driving "		3	3	3							
Anchor Bolts		16	16	16							
Hook "		232	232	232							
Floor "		40	40	40							
Turned "		8	8	8							
Washers		80	80	80							
Field Rivets		100%	100%	100%				8/25	NP	67065	
Stringers	S2	6	0	6	6	6	1	8/24	NP	60081	30620
"	S3	8	0	8	5	5		"	"	"	26060
"	S4	8	0	8	4	4		"	"	"	20380
"	S1	6	0	6	1	1		8/25	"	67065	5100

ESTIMATED WEIGHT

Accepted Material Stamped

REMARKS:

second shipment of stringers  
made today.

TOTAL WEIGHT OF ABOVE

SHIPMENTS PREVIOUSLY REPORTED

TOTAL WEIGHT TO DATE

82160

00

82160

H. C. Washburn

Inspector.



RALPH MODJESKI

CIVIL ENGINEER

MONADNOCK BUILDING

CHICAGO

DESIGNS, ESTIMATES AND SUPERINTENDENCE OF STONE  
CONCRETE, METAL AND TIMBER STRUCTURESRAILROAD AND  
HIGHWAY BRIDGESEXAMINATIONS AND REPORTS ON OLD STRUCTURES,  
MILL, SHOP AND FIELD INSPECTION

## WEEKLY SHOP INSPECTION REPORT

EASTERN ASSOCIATES  
HILDRETH & CO.  
NEW YORK PHILADELPHIA  
PITTSBURGHReport No. 3For Week Ending Sept. 2 1905At the Shops of A. B. Co. - Detroit, Mich.On White River Bridge - Contract A9837For N. P. Ry.

## DESIGNATION OF PARTS

## NUMBER OF PIECES

## SHIPMENTS

WEIGHT  
IN  
POUNDS

DESIGNATION OF PARTS	MARK	REQUIRED	FINISHED THIS WEEK	TOTAL FINISHED	SHIPPED THIS WEEK	TOTAL SHIPPED	NO.	DATE	CARS		
									INITIAL	NUMBERS	
Int. Posts	U <sub>2</sub> L <sub>2</sub> R	2	0	2	2	2		8/30	NP	60052	12700
" "	" L	2	0	2	2	2		"	"	"	12700
Hangers	U <sub>1</sub> L <sub>1</sub> R	2	0	2	2	2		"	"	"	11685
" "	" L	2	0	2	2	2		"	"	"	11685
Top Laterals	L <sub>2</sub>	2	0	2	2	2		"	"	"	650
" "	L <sub>3</sub>	2	0	2	2	2		"	"	"	640
" "	L <sub>5</sub>	3	0	3	3	3		"	"	"	970
" "	L <sub>6</sub>	3	0	3	3	3		"	"	"	990
Bot. "	B <sub>1</sub> L <sub>3</sub>	2	0	2	2	2		"	"	"	730
" "	" 2	2	0	2	2	2		"	"	"	890
" "	" 6	2	0	2	2	2		"	"	"	650
" "	" 5	2	0	2	2	2		"	"	"	770
" "	" 8	2	0	2	2	2		"	"	"	410
" "	" 9	2	0	2	2	2		"	"	"	360
" "	" 11	1	0	1	1	1		"	"	"	190
" "	" 12	1	0	1	1	1		"	"	"	200
Top Chords	U <sub>1</sub> U <sub>3</sub> R	2	0	2	2	2		8/31	+ "	55164	38500
" "	" L	2	0	2	2	2		"	+ "	68525	38500
Bot. "	L <sub>0</sub> L <sub>2</sub> R	2	0	2	2	2		"	+ "	523581	31065
" "	" L	2	0	1	2	2		"	+ "	55406	31065
Top "	U <sub>3</sub> U <sub>3</sub>	2	0	2	2	2		"	"	"	25500
Coll. Struts	M <sub>0</sub> L <sub>1</sub>	4	0	4	4	4		"	"	"	6170
Diagonals	M <sub>3</sub> L <sub>3</sub>	2	0	2	2	2		"	"	"	4230
"	U <sub>3</sub> M <sub>3</sub>	2	0	2	2	2		"	"	"	5350
Floor Beams	EF <sub>1</sub>	2	0	2	1	1		8/30	NP	60052	12270
" "	IF <sub>2</sub>	2	0	2	1	1		"	"	"	14820
" "	IF <sub>4</sub>	2	0	2	2	2		"	"	"	29400

ESTIMATED WEIGHT

Accepted Material Stamped

REMARKS:

TOTAL WEIGHT OF ABOVE

SHIPMENTS PREVIOUSLY REPORTED

TOTAL WEIGHT TO DATE

293090<sup>#</sup>

82160

375250<sup>#</sup>

F. C. Washburn Inspector.

RALPH MODJESKI

CIVIL ENGINEER

MONADNOCK BUILDING

CHICAGO

## WEEKLY SHOP INSPECTION REPORT

EASTERN ASSOCIATES  
HILDRETH & CO.  
NEW YORK PHILADELPHIA  
PITTSBURGHReport No. 4For Week Ending Sept 9<sup>th</sup> 1905At the Shops of A.B. Co. - Detroit PlantOn White River Bridge - A 9837For M.P. Ry.DESIGNS, ESTIMATES AND SUPERINTENDENCE OF STONE  
CONCRETE, METAL AND TIMBER STRUCTURESRAILROAD AND  
HIGHWAY BRIDGESEXAMINATIONS AND REPORTS ON OLD STRUCTURES,  
MILL, SHOP AND FIELD INSPECTION

33331

DESIGNATION OF PARTS	NUMBER OF PIECES						SHIPMENTS				WEIGHT IN POUNDS
	MARK	REQUIRED	FINISHED THIS WEEK	TOTAL FINISHED	SHIPPED THIS WEEK	TOTAL SHIPPED	NO.	DATE	CARS		
									INITIAL	NUMBERS	
End Posts	LoU <sub>1</sub> L	2	0	2	2	2		9/2	NP	68420	62310
" "	LoU <sub>1</sub> R	2	0	2	2	2		9/5	"	68873	
Int. "	U <sub>3</sub> L <sub>3</sub> R	2	0	2	2	2		9/2	"	68359	17450
" "	" L	2	0	2	2	2		9/5	"	68873	
Diagonals	U <sub>3</sub> L <sub>3</sub>	2	0	2	2	2		9/2	"	68359	11130
"	U <sub>2</sub> L <sub>3</sub>	4	0	4	4	4		9/6	"	68856	42530
Top Struts	TS1	4	0	4	4	4		9/2	"	68359	10660
Portals	P1	2	0	2	2	2		9/6	"	68856	8950
Floor Beams	FB3	2	0	2	2	2		"	"	68686	29410
" "	" 2	2	0	2	1	2		"	"	"	14630
End " "	EF1	2	0	2	1	2		"	"	"	12330
Stringers	SA	8	0	8	3	7		9/5	"	20727	35770
"	SI	6	0	6	2	3		"	"	"	
"	S3	8	0	8	2	7		"	"	"	

ESTIMATED WEIGHT

TOTAL WEIGHT OF ABOVE

245170

SHIPMENTS PREVIOUSLY REPORTED

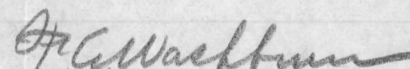
375250

TOTAL WEIGHT TO DATE

620420\*

Accepted Material Stamped

REMARKS:

 Inspector.



RALPH MODJESKI

CIVIL ENGINEER

MONADNOCK BUILDING

CHICAGO

## WEEKLY SHOP INSPECTION REPORT

EASTERN ASSOCIATES  
HILDRETH & CO.  
NEW YORK PHILADELPHIA  
PITTSBURGH

Report No. \_\_\_\_\_

For Week Ending Sept 16 1905At the Shops of A.B. Co. Detroit, MichOn White River Bridge - Contract 9837For N.P.Ry.DESIGNS, ESTIMATES AND SUPERINTENDENCE OF STONE  
CONCRETE, METAL AND TIMBER STRUCTURESRAILROAD AND  
HIGHWAY BRIDGESEXAMINATIONS AND REPORTS ON OLD STRUCTURES,  
MILL, SHOP AND FIELD INSPECTION

## DESIGNATION OF PARTS

## NUMBER OF PIECES

## SHIPMENTS

WEIGHT  
IN  
POUNDS

MARK	REQUIRED	FINISHED THIS WEEK	TOTAL FINISHED	SHIPPED THIS WEEK	TOTAL SHIPPED	NO.	DATE	CARS		
								INITIAL	NUMBERS	
Stringers	S1	6	0	6	3	6	9/7	NP	66060	} 25520
"	S3	8	0	1	1	8	"	"	"	
"	S4	8	0	1	1	8	"	"	"	
Str. Laterals	SL	84	0	84	84	84	"	"	"	5510
Bott. "	BL1	2	0	2	2	2	"	"	"	1310
" "	"4	2	0	2	2	2	"	"	"	1320
" "	"7	2	0	2	2	2	"	"	"	710
" "	"10	1	0	1	1	1	"	"	"	370
Top "	L1	2	0	2	2	2	"	"	"	1370
" "	L4	3	0	3	3	3	"	"	"	2090
Str. Brackets	SB	8	0	8	8	8	"	"	66902	2940
C.S. Shoes		4	0	4	4	4	"	"	"	7540
Roller Beds	RB	2	0	2	2	2	"	"	"	4500
" Nests	RN	2	0	2	2	2	"	"	"	6120
C.I. Bolsters		2	0	2	2	2	"	"	"	7730
Sheet Lead		4	0	4	4	4	"	"	"	299
Pins	L1	4	0	4	4	4	"	"	"	800
"	L0	4	0	4	4	4	"	"	"	2100
"	L2	4	0	4	4	4	"	"	"	2500
"	L3	4	0	4	4	4	"	"	"	2460
"	U1	4	0	4	4	4	"	"	"	2150
"	U2	4	0	4	4	4	"	"	"	1700
"	U3	4	0	4	4	4	"	"	"	1620
Pilot Nuts		4	0	4	4	4	"	"	"	} 3340
Driving "		3	0	3	3	3	"	"	"	
Anchor Bolts		16	0	16	16	16	"	"	"	2252
Hook "		232	0	232	232	232	"	"	"	7753
Washers		232	0	234	234	234	"	"	"	1175

ESTIMATED WEIGHT

Can't find

TOTAL WEIGHT OF ABOVE

82179

Accepted Material Stamped



SHIPMENTS PREVIOUSLY REPORTED

TOTAL WEIGHT TO DATE

REMARKS:

Inspector.



RALPH MODJESKI

CIVIL ENGINEER

MONADNOCK BUILDING

CHICAGO

## WEEKLY SHOP INSPECTION REPORT

EASTERN ASSOCIATES  
HILDRETH & CO.  
NEW YORK PHILADELPHIA  
PITTSBURGH

Report No. \_\_\_\_\_

For Week Ending

sept. 16<sup>th</sup> 1905At the Shops of A.B. Co. Detroit, Mich.On White River Bridge - Cont. #9837For N.P.Ry.DESIGNS, ESTIMATES AND SUPERINTENDENCE OF STONE  
CONCRETE, METAL AND TIMBER STRUCTURESRAILROAD AND  
HIGHWAY BRIDGESEXAMINATIONS AND REPORTS ON OLD STRUCTURES,  
MILL, SHOP AND FIELD INSPECTION

## DESIGNATION OF PARTS

## NUMBER OF PIECES

## SHIPMENTS

WEIGHT  
IN  
POUNDS

MARK

REQUIRED

FINISHED  
THIS WEEKTOTAL  
FINISHEDSHIPPED  
THIS WEEKTOTAL  
SHIPPED

NO.

DATE

## CARS

INITIAL

NUMBERS

Bröt found  
Field Rivets  
Floor Bolts  
Washers  
Turn Bolts  
" "  
Washers

100%

0

100%

100%

100%

9/7

NP

66902

82179

4434

40

0

40

40

40

"

"

"

102

80

0

80

80

80

"

"

"

62

8

0

8

8

8

"

"

"

32

192

0

192

192

192

"

"

"

274

"

0

"

"

"

"

"

"

94

ESTIMATED WEIGHT

Accepted Material Stamped



REMARKS:

Contract shipped complete today.  
Last shipment of eye bars from Ambidge today. Of E. Washburn Inspector.

TOTAL WEIGHT OF ABOVE

SHIPMENTS PREVIOUSLY REPORTED

TOTAL WEIGHT TO DATE

87177

620420

707,597#

RALPH MODJESKI

CIVIL ENGINEER

MONADNOCK BUILDING

CHICAGO

## WEEKLY SHOP INSPECTION REPORT

EASTERN ASSOCIATES  
HILDRETH & CO.  
NEW YORK PHILADELPHIA  
PITTSBURGH

Report No. \_\_\_\_\_

For Week Ending Sept. 23rd 1905At the Shops of Ambridge Plant, A.B.Co.On White River Bridge, N.P. Ry. - Cont. #9837For N.P. Ry.DESIGNS, ESTIMATES AND SUPERINTENDENCE OF STONE  
CONCRETE, METAL AND TIMBER STRUCTURESRAILROAD AND  
HIGHWAY BRIDGESEXAMINATIONS AND REPORTS ON OLD STRUCTURES,  
MILL, SHOP AND FIELD INSPECTION

43331

## DESIGNATION OF PARTS

## NUMBER OF PIECES

## SHIPMENTS

WEIGHT  
IN  
POUNDS

MARK

REQUIRED

FINISHED  
THIS WEEKTOTAL  
FINISHEDSHIPPED  
THIS WEEKTOTAL  
SHIPPED

NO.

DATE

## CARS

INITIAL

NUMBERS

Eye bars

U1L2 16 16 16 16 16

" "

L2L3 24 24 24 24 24

" "

L3L3 8 8 8 8 8

" "

" 4 4 4 4 4

" "

" 4 4 4 4 4

9/16

NP

55393

85800

Eye bar Tests

6810

ESTIMATED WEIGHT total for Bridge - 803,042\*

Accepted Material Stamped

REMARKS:

Contract shipped complete from Detroit - Ambridge Plants.  
Above 6810\* not part of structure. ←  
See Invoice 9/16

TOTAL WEIGHT OF ABOVE

92610

SHIPMENTS PREVIOUSLY REPORTED

707597

TOTAL WEIGHT TO DATE

800,207\*

H. E. Washburn Inspector.



## Northern Pacific Railway Company.

1520

Tacoma, Wash., Dec. 28, 1905.

B-2490

Mr. W. L. Darling,  
Chief Engineer,  
St. Paul, Minn.

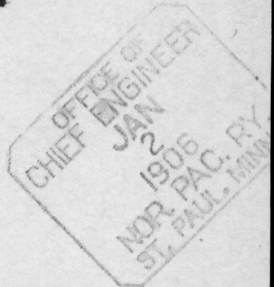
Dear Sir:-

Replying to your letter of the 23rd instant. I wrote you December 19th relative to shop defects in vertical posts shipped from Detroit plant for the White river bridge on the Seattle line, which letter, I presume, you have received ere this.

Yours truly,

N E H  
GAR

*AR. Look*  
Division Engineer.



f

1520

December 26, 1905.

Mr. Ralph Modjeski,

Monadnock Building,

Chicago, Ill.

Dear Sir:

Referring to your favor of September 13th to Mr. Pearson relative to the vertical posts shipped from Detroit plant for the White River bridge.

I have had our Division Engineer look them over. He thinks it will be very difficult to do a smooth job in the field to remedy the defects, and also very expensive.

The web plate projects by the angle a trifle, but does not look bad enough to require chipping off.

As the strength is not affected by the defects I think we will leave them as they are.

Yours truly,

Chief Engineer.

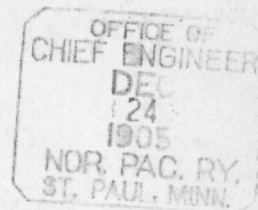
SJB-H.



*at***Northern Pacific Railway Company**

Tacoma, Wash., December 19, 1905.

B 2490



Mr. W. L. Darling,  
Chief Engineer,  
St. Paul, Minn.

Dear Sir:

Referring to Mr. Pearson's letter of November 21st in regard to defects in vertical posts for new 180' double track span at White River, Seattle Line. I have had the posts examined and concur in Mr. Albee's recommendation to you in his letter of November 16th. It would be very difficult to do a smooth job to remedy this defect in the field, also very expensive. I think it better to leave the posts as they are.

Yours truly,

A handwritten signature in cursive script, appearing to read "C. R. Looker".

Division Engineer.

H-G

St. Paul, Minn., December 23, 1905.

Mr. A. R. Cook,

Division Engineer,

Tacoma, Wash.

Dear Sir:

See my letter of November 21st relative to shop defects in the vertical posts shipped from Detroit plant for the White River bridge on the Seattle line.

Please give me a prompt reply to this so that the matter can be disposed of.

Yours truly,

Chief Engineer.

SJB-H.



*Nov*

St. Paul, Nov. 21, 1905.

Mr. A. R. Cook,

Division Engineer,

Tacoma, Wash.

Dear Sir:

Referring to my letter of September 15th, addressed to yourself and Superintendent Albee relative to defects in vertical posts for the White River bridge.

Under date of November 16th Superintendent Albee advises that the web plate projects by the angles a trifle, but does not look bad enough to require chipping off.

Do you concur in Mr. Albee's recommendation?

Yours truly,

Chief Engineer.

SJB-H.

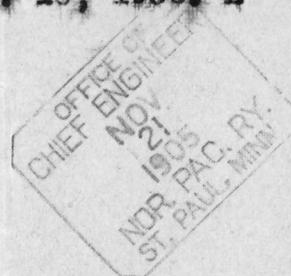
*Reply  
any reply  
this*

*ppb*

*sgob no 228  
12/22*

# Northern Pacific Railway Company

Tacoma, wash., Nov. 16, 1905. L



Mr. E. J. Pearson,  
Chief Engineer,  
St. Paul, Minn.

Dear Sir:-

Referring to your letter of September 15th addressed to Mr. A. R. Cook and the undersigned referring to defects in vertical posts shipped from Detroit plant for White River bridge. The web plate projects by the angles a trifle, but does not look bad enough to require chipping off.

Yours truly,

Superintendent.

A R C



1520

St. Paul, Minn., Sept., 15th., 1905.

SJB-W.

Mr. A. R. Cook,  
Acting Division Engineer, Tacoma, Wash.,

Mr. W. C. Albee,  
Superintendent, Tacoma, Wash.,

Dear Sirs:-

I hand you herewith copy of Mr. Modjeski's letter of Sept. 13th., referring to some defects in vertical posts shipped from Detroit plant for the White River Bridge. If the posts look bad enough to have this work done, as mentioned by Mr. Modjeski, I wish you would please arrange accordingly, and bill against the Bridge Co.

Yours truly,

Chief Engineer.

enc.



Form 1286

1520

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
1520	Ma	a	R	5:20							
				M.							

FROM Lacome TO E. Pearson  
DATED Oct 22 AT On line Car 5, St Paul

New double track the bridge across White River  
at Kent necessarily closing four feet today.

Wca

~~Another dangerous  
place closed  
up~~





Form 1386

1520

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM At Trout Creek, Oct. 20, 1905.

TO W.C.ALBEE,

DATED

AT

TACOMA.

Pls let me know promptly when new truss White River near Kent is  
swung .

E. J. PEARSON.

EJP-M

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	R. FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
1001	Am	MT	Am	12:10 a.m.	Oct 17						
FROM <u>Lacoma</u>						TO <u>St Paul</u>					
DATED <u>Oct 16</u>						AT <u>St Paul</u>					

All material for bridge 23 White river Seattle  
line rec'd. Old span removed. Erection of new span  
will be commenced tomorrow weather fair.

Coak

Attch  
SMB





Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM

TO Cook

DATED

October 10th., 1905.

AT

Tacoma, Wash

Solomon 9th., I am sending you and Mr. Albee to-day invoice of material for White River Bridge on cars mentioned in your message.

E.J. Pearson.

REG. W.

**TELEGRAM.**

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NUMBER	Rec'd FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
	315; HN; N; HN;			_____M.		_____M.			_____M.		

FROM Tacoma Oct 9.

TO Pearson

DATED

AT

St Paul.

Sup't Albee has received following cars of material for white river bridge for which no invoice received either by him or myself. Cars 68525, 55164, 23581, 55406. Please reply as to invoices for these four cars.

Cook.

7:52p







Form 1386

1520

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

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NUMBER	FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM St. Paul, Oct. 6, 1905.

TO A. R. Cook,

DATED

AT Tacoma, Wash.

Car 55393 being last shipment of bridge material White River, passed  
Ellensburg yesterday and should arrive at destination today.

E. J. Pearson,

SJB-H.



1520

## TELEGRAM.

**TELEGRAM.** All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM St. Paul Sept. 30, 1905.

TO A. R. Cook, Tacoma, Wash.

**DATED**

45

W. C. Albee, ■■■■■■

See my letter Sept. 20th, material for White River bridge, Seattle Line.

Those 8 cars not arrived at destination were on Sept. 28th enroute as follows:

20727 at Missoula; 68856 and 68686 at Helena; 66902 and 66060 at Spokane.

The last shipment of eyebars in car 55393 left St. Paul, morning of Sept. 29th.

Please make all preparations for quick erection and also for re-erection of the dismantled span at Nisqually River if conditions permit.

SJB-H.

E. J. Pearson.



1520

**TELEGRAM.** All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for sending and receiving operators, call of parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.		COPY	M.		

**TO**

45

Tacoma, Wash.

E. J. Pearson.

SJB-H.



Form 1386

1520

**TELEGRAM.**

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM \_\_\_\_\_ TO \_\_\_\_\_

DATED \_\_\_\_\_ AT \_\_\_\_\_

Date of arrival dest -

Sept 13

last record  
of train still  
in month

60081-

67065

60052

68420

68359

68873

20727

68856

68686

66902

66060

1

21

26

27

26

Missoula

9/21

Helena

"

"

"

Spokane

"

"

"







Form 1386

**TELEGRAM.**

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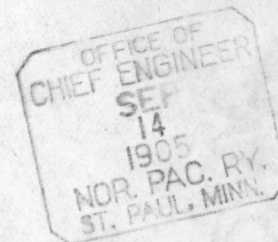
NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER

FROM \_\_\_\_\_ TO \_\_\_\_\_

DATED \_\_\_\_\_ AT *Dart* \_\_\_\_\_*PCC* *21557 -* *Sept 19**Rur* *2406* *" "**NP* *55479 -* *" 22**55478* *Helena 9/22*

**RALPH MODJESKI**  
CIVIL ENGINEER  
MONADNOCK BUILDING  
CHICAGO

File #198



Chicago, Sept. 13th, 1905.

Mr. E. J. Pearson,

Chief Engineer N.P. Ry.

St. Paul, Minn.

Dear Sir:-

Referring to vertical posts shipped from Detroit Plant for the White River Bridge, some of these posts have been shipped under protest from my inspector, Mr. Washburn. It appears that the web plates have been laid out in such manner as to make the web project beyond the angles on one side of the post resulting in an unsatisfactory appearance of these members. The projection is apparently from 5/16" to 3/8". I requested Mr. Washburn to have these projections chipped off neatly in the shop and he gave instructions accordingly. Instead of this the posts were shipped under the plea that our requirement was unreasonable. Will you kindly have your engineer look them over in the field and if necessary have these webs chipped flush with the back of the angles and the expense charged to the Bridge Company. If, however, in his opinion the posts do not look bad enough to have this work done, they might be allowed to go into the bridge as they are, as their strength is not affected by the defect mentioned.

Very truly yours,

A handwritten signature in cursive script, reading "Ralph Modjeski".

R.M.



# Northern Pacific Railway Company.

Office of the Chief Engineer.

E. J. PEARSON,  
CHIEF ENGINEER.

St. Paul, Minn. Sept. 20, 1905.

Mr. I. B. Richards,

Superintendent Car Service.

Dear Sir:

The following cars have been shipped from Detroit with material for the White River bridge on the Seattle line, routed via P. M. - C. B. & Q. and N. P. to W. C. Albee, Thomas, Washington:

Aug. 24th	N. P.	60081	Bq 9	Aug. 31st	N. P.	55164	cons 17
" 25th	" "	67065	" "	" 31st	" "	68525	St Paul = 11
" 30th	" "	60052	with town	" 31st	" "	23581	St Paul 8
Sept. 2nd	" "	68420	St Paul 12	" 31st	" "	55406	St Paul 12
" 2nd	" "	68259	" "				
" 5th	" "	68873	not recd.				
Memo 28th	" "	20727	St Paul 19				
Helm ✓	" "	68856	not recd.				
" " "	" "	68686	" "				
Sprink " "	" "	66902	St Paul 18				
" " "	" "	66060	St Paul 16				

*Am your man*  
*Aug 9/05*

It is of greatest importance to have these cars rushed through to destination. Will you please arrange accordingly. I will also be glad if you will let me know where they are at present and the probable date of their arrival at destination.

Yours truly,

*E. J. Pearson*  
Chief Engineer.

SJB-H.

Copy to Mr. A. R. Cook  
" " " W. C. Albee

1520

Sept. 20, 1905.

Mr. I. B. Richards,

Superintendent Car Service.

Dear Sir:

The following cars have been shipped from Detroit with material for the White River bridge on the Seattle line, routed via P. M. - C. B. & Q. and N. P. to W. C. Albee, Thomas, Washington:

Aug. 24th	N. P. 60081	Aug. 31st	N. P. 55164
" 25th	" " 67065	" 31st	" " 68525
" 30th	" " 60052	" 31st	" " 23581
		" 31st	" " 55406
Sept. 2nd	" " 68420		
" 2nd	" " 68359		55393
" 5th	" " 68873		
" 5th	" " 20727 ✕		
" 6th	" " 68856 ✕		
" 6th	" " 68686 ✕		
" 7th	" " 66902 ✕		
" 7th	" " 66060 ✕		

It is of greatest importance to have these cars rushed through to destination. Will you please arrange accordingly. I will also be glad if you will let me know where they are at present and the probable date of their arrival at destination.

Yours truly,

SJB-H.

Chief Engineer.

Copy to Mr. A. R. Cook  
" " " W. C. Albee



# Northern Pacific Railway Company

Tacoma, Wash., Sept. 19th, 1905.

Mr. E. J. Pearson,  
Chief Engineer,  
St. Paul, Minnesota.



Dear Sir:-

Your favor of September 15th, referring to defects in vertical posts shipped from Detroit plant for the White River Bridge, is received.

Yours truly,

*W. C. McAllister*  
Superintendent.



X

1520

St. Paul, Minn., Sept., 12th., 1905.

SJB-W.

Mr. A. R. Cook,  
Acting Division Engineer, Tacoma, Wash.,

Mr. W. C. Albee,  
Superintendent, Tacoma, Wash.,

Dear Sirs:-

Our Inspector, Mr. Modjeski, advises under date of Sept., 11th., that the work on eye bars for the White River Bridge is progressing satisfactorily. The bars are all forged and are being annealed, and there are prospects of having them finished this week. The balance of the material, except a few stringers, has all been shipped. Material for Bridge #45, Black River has all been completed. Final shipment was made on Sept. 11th.

Yours truly,

Chief Engineer.

1520

St. Paul, Minn., Sept., 11th., 1905.

SJB.W.

Mr. A. R. Cook,

Acting Division Engineer, Tacoma, Wash.,

Dear Sir:-

Our shop inspector advises that the rods and turn buckles for Bridge 225, on the Buckley Line, were shipped from the shops of the McClintic-Marshall Construction Co., on August 28th., in P. McK car 29306.

Yours truly,

Chief Engineer.



RALPH MODJESKI  
CIVIL ENGINEER  
MONA NOCK BUILDING  
CHICAGO

# WEEKLY SHOP INSPECTION REPORT

EASTERN ASSOCIATES  
HILDRETH & CO.  
NEW YORK PHILADELPHIA  
PITTSBURGH

Report No. 1<sup>st</sup> and fiscal For Week Ending Sept. 2<sup>nd</sup> 1905

At the Shops of Mc Plentie Marshall Co.

On Repair Job.  
For Bridge # 225 Buckley Wash.

DESIGNS, ESTIMATES AND SUPERINTENDENCE OF STONE,  
CONCRETE, METAL AND TIMBER STRUCTURES

RAILROAD AND  
HIGHWAY BRIDGES

EXAMINATION AND REPORTS ON OLD STRUCTURES  
MILL, SHOP AND FIELD INSPECTION

## DESIGNATION OF PARTS

## NUMBER OF PIECES

## SHIPMENTS

## WEIGHT IN POUNDS

MARK	REQUIRED	FINISHED THIS WEEK	TOTAL FINISHED	SHIPPED THIS WEEK	TOTAL SHIPPED	No.	DATE	CARS	
								INITIAL	NUMBERS

Rods	16				16	1	8-28	P. Met.	19306	2672
Turn buckles.	16				16					

Estimated Weight  
Accepted Material Stamped

Remarks:

TOTAL WEIGHT OF ABOVE

SHIPMENTS PREVIOUSLY REPORTED

TOTAL WEIGHT TO DATE

2672

2672

Rob. Fairhurst Jr. Inspector





Form 1886

**TELEGRAM.**

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NUMBER	Rece From	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM

TO

Cook

DATED

Sept., 8th., 1905.

AT

Tacoma, Wash

COPY

Solomon 8th., reinforcement bars were shipped from Pittsburg, August 28th. Am having cars traced and hurried.

E. J. Pearson.

REG. W.



Form 1386

**TELEGRAM.**

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVED
				M.		M.			M.		

FROM

TO

Cook

DATED

AT

Tacoma, Wash

Sept., 8th., 1905.

Solomon 7th., reinforcement bars for bridge 225, White River, Buckley line were shipped from Pittsburg in P. McK car 29306.

E.J. Pearson

REG.w.



Form 1386

**TELEGRAM.**

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				M.		M.			M.		

FROM

TO Albee.

DATED

Sept., 8th., 1905.

AT Tacoma, Wash

COPY

Reinforcement bars for Bridge 225, White River, Buckley Line were shipped from  
Pittsburg August 28th., in P. McK. car 29306.

E.J.Pearson.

REG.W.



**TELEGRAM.**

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				_____M.		_____M.			_____M.		

5 BY G. FO

FROM

TO

DATED

Tacoma Sept 8th, 1905-9th

AT

E J Pearson, St Pal.

Browsing ~~Brexxxxg~~. Your wire does not give date reinforcement bars shipped from Pittsburg.

A R Cook 131AM

*In*

# Northern Pacific Railway Company

Mr. J. B. Richards:

P. McK. car 29306 from Pittsburg, August 28th., with reinforcement bars for bridge 225, White River, Buckley Line. Superintendent advises traffic is badly congested on account of inability to use this bridge for west bound trains until same is reinforced. Will you please have this car with above material hurried all possible to destination.

E. J. Pearson.

REG.W.

Sept., 8th., 1905.



Form 1380

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
190	HN	KF	N								
				M.		M.			M.		

FROM

Tacoma, Sept 7th 1905

TO

Pearson,

DATED

AT

Will bars which McLintic Marshall construction Co. are to furnish for Bridge 225 White River Buckley Line be furnished Will it be safe to use call "W" Power over this Bridge at very slow speed.

Cook.

424 P.M.



Memo.

Sept. 6, '05.

F. G. P.

Referring to requisition 2801 covering reinforcement bars for bridge 225, White River, Buckley Line, Supt. advises traffic is badly congested on account of inability to use this bridge for west bound trains. Please arrange to have requisition filled as promptly as possible and advise present status.

R. J. E.

W-r.



## Northern Pacific Railway Company

St. Paul, Minn., Sept., 5th., 1905.

REG. W.

Mr. R. J. Elliott.

Referring to E.D. 380, dated May 13th., covering reinforcement bars for bridge 225, White River, Buckley Line. Supt. advises these have not yet been received. As traffic is badly congested on account of inability to use this bridge for west bound trains, will you please arrange to have requisition filled as soon as possible, advising present status.

E. J. Pearson.

RE

*See to par 9/5*



St. Paul, Minn., Sept., 5th., 1905.

REG. W.

Mr. R. J. Elliott.

Referring to E.D. 380, dated May 13th., covering reinforcement bars for bridge 225, White River, Buckley Line. Supt. advises these have not yet been received. As traffic is badly congested on account of inability to use this bridge for west bound trains, will you please arrange to have requisition filled as soon as possible, advising present status.

E. J. Pearson.

R



Form 1386

**TELEGRAM.**

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NUMBER	RECEIVED FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVED
				M.		M.					

FROM  
DATED

Sept. 5th., 1905.

TO Pearson  
AT Spokane, Wash.,

Following from Albee: "Referring to reinforcement bridge 225 east of Buckley by placing rods for which your office made reqn about three months ago. Matl not yet received. It is not safe to operate W power over this bridge at slow speed pending reinforcement. Traffic badly congested account inability to use Buckley line for west bound trains. Note by Tanner in statistical data says bridge good for W power with speed limited to 6 miles. Have taken matter delay of material up with Supply Agent.

R. E. Gemmell.

W.



Form 1386

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				_____M.		_____M.			_____M.		

FROM

TO

DATED

AT

36.WR.W.KI  
Tacoma, Sept 4  
T.J.Pearson, St.Paul.

// Referring to Re inforcement bridge 225 east of Buckley by placing rods for which your office made reqn about three months ago. Matl not yet recd Is it not safe to operate W Power over this Bridge at Slow speed pending reinforcement. Traffic badly congested account inability to use buckly line for west bound trains. //

Albee  
1148P

*R.L.B. Better repeat to Mr Pearson also adding that note by Tanner in Statistical data says bridge good for W Power with speed limited to 6 miles  
9/5 - J.D.K.*





Form 1388

**TELEGRAM.**

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NUMBER	REC'D FROM	SENDER	RECEIVER	TIME-REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
1087	HN	ON	A	M.		M.			M.		

FROM

Tacoma, Sept. 4th, 1905. TO

F W Gilbert,

DATED

AT

ST. PAUL.

The use of W power is provided on the Buckley line pending reinforcement of White River bridge No 225. Four steel bars for re-inforcing countrs were ordered by Chief Engineer May 13th. not yet received although understand promise was made that they would be shipped Aug. 4th. Can anything be done to hurry? It causes serious congestion between Auburn and Palmer Jct. having to run all west bound Tacoma freights Via Auburn instead of Buckley line to Meeker.

Albee 4139 p.m.

Northern Pacific R'y. Co.  
ST. PAUL, MINN.

SEP 7 1905

Northern Pacific R'y. Co.  
ST. PAUL, MINN.

ST. PAUL, MINN.

Mr. Galt  
Please  
return  
papers

3-7-8

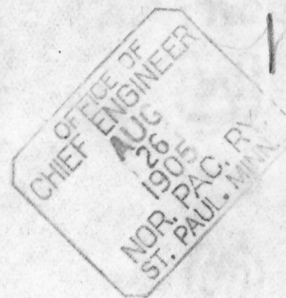
9/6

SEP 20 1997

TOBY WILL OT A

RALPH MODJESKI  
CIVIL ENGINEER  
MONADNOCK BUILDING  
CHICAGO

File #198



Chicago, August 25th, 1905.

Mr. E. J. Pearson,

Chief Engineer N.P.Ry.

St. Paul, Minn.

Dear Sir:-

Regarding the shipments of the steel work for the White River Bridge the situation is, as follows:

The riveted work will all be ready to ship by the end of this month.

Regarding the eyebars I had some difficulty in getting the American Bridge company to agree to ship them before the 15th of Sept. Mr. Angier was at Ambridge yesterday and received a promise from the American bridge co. to ship them not later than Sept. 5th.

Yours truly,

R.M.

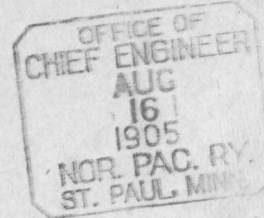


✓



1520

St. Paul, Aug. 15, 1905.



Mr. E. J. Pearson,  
C. H., Building.

Dear Sir:

The American Bridge Co. write me as follows relative to the White River Bridge.

All material is practically manufactured and now being shipped from Detroit, with the exception of the eyebars, which come from the East. It is the latter that is giving us all the trouble, and we are in receipt of a letter this morning from the East, in which they state on account of the strike of six weeks in their eyabar plant, everything is badly congested and all promises put behind. They do not see their way clear to manufacture and ship these eyebars before Sept. 1st to Sept. 15th, but promise to do everything they possibly can to anticipate this delivery. I have just taken the matter up with Mr. Modjeski and find that he is going to investigate the matter personally and see if the combined efforts of everybody concerned will not hurry these bars along.

I will keep after them and endeavor to get the best possible delivery.

Yours truly,

*J. G. Rust*  
Purchasing Agent.

A-I

7

1520

St. Paul, Minn., Aug. 14, 1905.

Mr. A.R. Cook,

Acting Division Engineer,

Tacoma, Wash.

Dear Sir:

Pursuant to your letter of the 4th instant I am sending you herewith two copies of erection plan of the new double track 180' span for bridge No. 23, White River on the Seattle Line.

Yours truly,

Chief Engineer.

SJB-H.

Enc.

+

1520

# American Bridge Company

DETROIT PLANT.



MAX J. L. TOWLER,  
MANAGER.

*Detroit, Mich.* Aug. 12, 1905.

Mr. E. J. Pearson, Chief Engineer,  
Northern Pacific Ry. Co.,  
St. Paul, Minn.

Dear Sir;-

Complying with a request from Mr. Reichmann, we are sending you under separate cover to-day, three prints of the erection diagram for your White River Bridge, our contract A-9837.

Yours truly,

WHP/C  
Copy to  
Albert Reichmann.

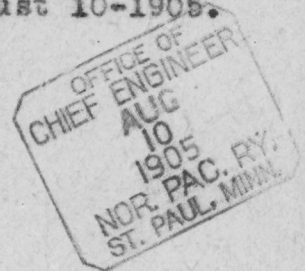
AMERICAN BRIDGE COMPANY.  
DETROIT PLANT

By *A. H. Pease*  
ENGINEER.



1520

August 10-1905.



American bridge Co.,

Mr. C. A. Hasbrouck, Ass't. to V.P.,

Chicago, Ill.

Dear Sir:-

I have your telegram of yesterday reading as follows:-

"It looks as if we were not going to be able to ship your eye bars white river before September 1st to 15th. Will wire you more fully tomorrow morning."

This is a great disappointment to us as you already know the material is most urgently needed. I hope everything possible will be done to hurry it along, so that it can be shipped before September 1st.

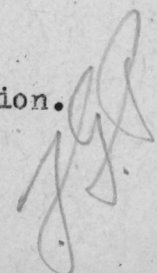
Yours truly,

Purchasing Agent.

FGP-D

✓ E. J. P.

Copy for your information.



1520  
St. Paul, Aug. 10, 1905.

Mr. E. J. Pearson,  
C. E., Building.

Dear Sir:

Referring to the attached:

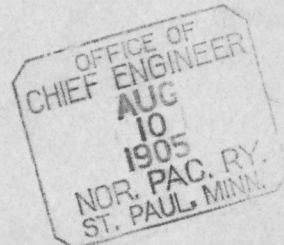
I wrote you on July 28th regarding bridge over White River;  
Aug. 3rd regarding bridge over Black River and am writing you today  
relative to bridge over Stuck River. I will keep after the bridge  
builders and see that the earliest possible delivery of these bridges  
is made.

Yours truly,

*J. H. Orest*  
Purchasing Agent.

A-I

Enc.



1520

St. Paul, Aug. 10, 1905.

Mr. E. J. Pearson,  
C. E., Building.

Dear Sir:

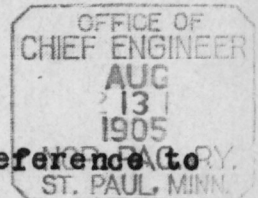
In reply to your letter of the 9th inst. with reference to material for the 180' double track span for White River, which is to be furnished by the American Bridge Co. On taking this matter up with them, they wire me as follows:

Material for White River span practically finished, with the exception of eye bars. Have instructed our Detroit plant to commence shipping and complete as soon as possible. Will advise you later in regard to eyebars.

Yours truly,

*J. G. Rust*  
Purchasing Agent.

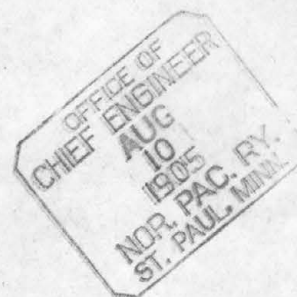
A-I





RALPH MODJESKI  
CIVIL ENGINEER  
MONADNOCK BUILDING  
CHICAGO

File #181



Chicago, August 10th, 1905.

Mr. E. J. Pearson,

Chief Engineer N.P.Ry.

St. Paul, Minn.

Dear sir:-

As per your letter of the 9th inst. I have requested Mr. Albert Reichmann, Resdt. Engr. American Bridge Co. to send three sets prints of erection plans White River bridge.

I have also sent you to-day by Northern Pacific Express prints from R-10, 1549, 1550 and 1551, Columbia River bridge.

Yours truly,

*Ralph Modjeski*

R.M.

By e

Aug. 9, 1905.

Mr. Ralph Modjeski,

Monadnock Building,

Chicago, Ill.

Dear Sir:

Will you kindly send me three sets prints of erection plans of new double track 180' span for White River on the Seattle Line.

Yours truly,

Chief Engineer.

SJB-H.

St. Paul, Minn., Aug. 9, 1905.

Mr. F. G. Prest,

Purchasing Agent.

Dear Sir:

In your letter of July 28th you advised that the American Bridge Company expected to deliver material for the 180' double track span for White River on August 5th, excepting eye-bars which would probably be forwarded by August 15th.

I beg to advise you that so far we have not been advised that shipments have commenced, and from the weekly inspection reports it appears that very little work has been done in the shop. I have already advised you as to necessity of having this material delivered promptly.

Will you kindly take the matter up again with the Bridge Company.

Yours truly,

Chief Engineer.

SJB-H.



# Northern Pacific Railway Company

Tacoma, Wash., August 4, 1905

B 2490

Mr. E. J. Pearson,

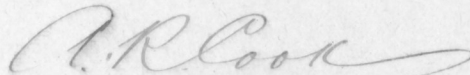
Chief Engineer,

St. Paul, Minn.

Dear Sir:

Will you please procure and send me as promptly as possible erection plans of the new double track 180 ft. span for bridge 23, White River, Seattle Line.

Yours truly,



Acting Division Engineer.

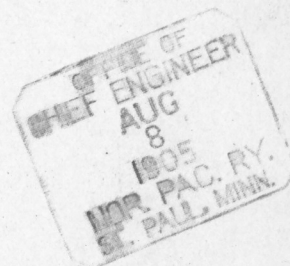
H-G

1520

# Northern Pacific Railway Company

Tacoma, Wash., August 3, 1905.

B 2490



Mr. E. J. Pearson,

Chief Engineer,

St. Paul, Minn.

Dear Sir:

I have received your letter of the 29th ult. enclosing copy of the Purchasing Agent's letter of July 28th relative to delivery of material for 180 ft. double track span for bridge over the White River,, Seattle Line.

Yours truly,

Acting Division Engineer.

H-G



Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
46 By				7:23							

FROM Tacoma 7/ TO Bratager  
DATED Bq AT St Paul

Please advise Mr Cook and myself latest in regard to probable delivery steel for each of the Bridges on battle line and push delivery to utmost some old structures out, others supported on false work and it is absolutely impracticable to hold falsework after Nov 1st

E Pearson

Mr. Prest:

Please note. This refers to the White, Black and Stuck River bridge material on the Seattle Line. Will you please do what you can to push delivery.

S. J. Bratager 7/31/05.



St. Paul, Minn., July 29, 1905.

Mr. A.R. Cook,

Acting Division Engineer,

Tacoma, Wash.

Dear Sir:

For your information I hand you herewith a copy of Purchasing Agent's letter of July 28th relative to delivery of material for the 180' double track span for bridge over White River.

Yours truly,

Chief Engineer.

SJB-H.

Enc.

1520  
St. Paul, July 28, 1905.

Mr. H. J. Pearson,  
C. E., Building.

Dear Sir:

The American Bridge Co. write me as follows under date of  
July 24th:

Replying to your letter of the 22nd inst. in reference to the progress we are making with the 180 ft. double track span for bridge over White River, would say that we expect to make delivery in the time mentioned in our letter to you dated July 14th. If it is possible to get it out sooner, we will do so.

In their letter of July 14th they promised shipment of the material by Aug. 1st, except eye bars, which would probably go forward Aug. 15th.

Yours truly,

*J. H. Pratt*  
Purchasing Agent.

A-I



Form 1350

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				M.		M.			M.		

FROM St. Paul, Minn.,  
DATED July 19, 1905.

TO E. J. Pearson,  
AT Care car 5 on Line West.

Your wire 18th. American Bridge Company has advised Purchasing Agent that they expect to get all of the material for the 180 foot span, White River bridge, shipped by August 5th except eyebars which will probably go forward August 15th. With this time delivery it should be practicable to get old span in at Nesqually this fall.

S. J. Bratager.

SJB-H.



1520  
COPY

EJP

On Washington Central Railway, July 19, 1905.

Mr. B.E. Palmer,

Mr. W. C. Albee,

Mr. A. R. Cook,

Mr. S. J. Bratager;

Probable delivery of new bridge for White River on  
Seattle Line as per Mr. Bratager's message of the 19th following:

"Your wire 18th. Amercian Bridge Company has advised Purchasing  
Agent that they expect to get all the material for the 180 ft. span  
White River bridge shipped by August 5th, except eye bars which will  
probably go forward August 15th. With this time delivery it should  
be practicable to get old span in at Nisqually this fall."

The best plan seems to be to put this new bridge up in  
place of the present single track span which is not heavy enough  
for Class "W" engines and light for the "Q's" and "Y's", transfer  
the old span which is ample for anything now in sight on the Second  
District or Branches to the Nisqually crossing on the Olympia line,  
erecting on timber foundations. Timber foundations are proposed  
because the grade, alignment, etc. of the Olympia Line may be tempor-  
ary.

Improvement requisition should be made covering the  
improvement at the Nisqually, which Mr. Bratager will please handle.

E.J. Pearson.

1520

Mr. J. B. Richards:

On September 16th there was shipped from Ambridge on N. P. car 55393 eye-bars for White River bridge on the Seattle line. If you have not been requested by Mr. Prest to trace this shipment, will you please do so both east and west of St. Paul. I would be glad to have you notify me upon its arrival at St. Paul.

E. J. Pearson.

SJB-H. 9/19/05.

*Yokinday morning's done*

*Left St Paul  
morning Sept 24<sup>th</sup>*

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
331	HN.N.	BO.	740P	_____M.	_____	_____M.			_____M.		

FROM Tacoma, July 18, 1905.

TO

S.J. Bratager,

DATED

AT

St. Paul.

What is latest as to time delivery new bridge white River and is it going to be practicable to get old span in at Nisqually in time.

E.J. Pearson.



Saint Paul, Minn. July 18-1905.

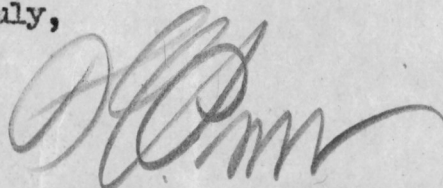
Mr. E. J. Pearson,  
Chief Engineer.

Dear Sir:-

Referring to your letter of July 11th relative to 180 foot span for White River Bridge. The American Bridge Company writes me as follows:-

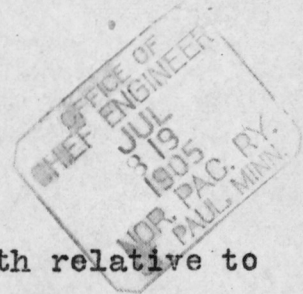
"Replying to your letter of the 12th inst. referring to the contract for the 180 foot span for White River Bridge, we note that you desire prompt delivery of this material and in reply would advise that we have been doing everything we possibly could to get the material for the bridge. We have been delayed somewhat in getting the plans, which is one of the reasons of our not being able to get this work out on time. We do, however, expect to get all of the material shipped to you by August 5th, except the eyebars, which will probably go forward August 15th."

Yours truly,



Purchasing Agent.

FGP-D



1520  
Mr. Gilbert:

Referring to notation on Mr. Albee's telegram of the 14th instant relative to work on bridge No. 23, Seattle Line.

The contract provides that material for the new superstructure should be delivered at the shops on or before August 1st.

The Purchasing Agent has been advised of the necessity of prompt delivery of this material to enable us to erect <sup>the bridge</sup> ~~it~~ before the high water season. I do not think it is safe, however, to take down the present span until we are reasonably sure of delivery of material in time.

E J Pearson.

SJB-H 7/15/05.

Enc.

St. Paul, Minn., July 11, 1905.

Mr. F. G. Prest,

Purchasing Agent.

Dear Sir:

Contract with the American Bridge Company provides for delivery of material for the 180 foot span for White River bridge on August 1st. It is of the utmost importance that we secure prompt delivery of this span in order to be able to erect it before the flood season in fall.

The present span is to be re-erected over the Nisqually River on the Olympia Branch. The re-erection work will require considerable time after the span is released and must also be completed before the flood season.

Please advise if the American Bridge Company will be able to ship this material on the time specified in contract. If not, what can be done to secure prompt delivery.

Yours truly,

Chief Engineer.

SJB-H.



1520

St. Paul, Minn., May 11, 1905.

Mr. A. R. Cook,

Acting Division Engineer,

Tacoma, Wash.

Dear Sir:

Following is a list of ties required for White River bridge, 180' double track pin span:

298 cross ties - 9 x 11' x 12'

44 guard rails - 6 x 8 x 18'

Please arrange with the superintendent for the requisition of this material, so that it will be on hand at the time of erection.

Yours truly,

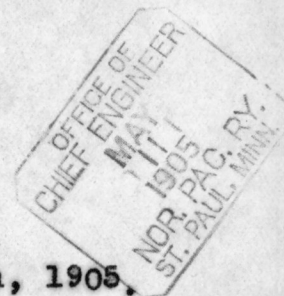
Chief Engineer.

SJB-H.

See file # 345  
Wodgeskie letter May 10-1905

RALPH MODJESKI  
CIVIL ENGINEER  
MONADNOCK BUILDING  
CHICAGO

File #181



chicago, May 10th, 1905.

Mr. E. J. Pearson,

Chief Engineer Northern Pacific RY.,

St. Paul, Minn.

Dear Sir:-

I have your letter of May 6th inquiring as to progress on the 180' span over White River for Seattle Line. The material has all been ordered long ago from preliminary plans and sketches, and the general plan showing all details has been turned over to the American Bridge company yesterday. The details of stringers have been in the American Bridge Company's hands for five days.

Yours truly,

*Ralph Modjeski*

R.M.



EJP-M

May 6th, 1905.

Mr. Ralph Modjeski, Civil Engineer,  
Monadnock Block,  
Chicago, Ill.

Dear Sir:

Will you kindly advise progress on the 180 foot double track truss over White River for Seattle Line? I understand there is some delay on this work by the Bridge Company for plans.

Yours truly,

Copy to Mr. Bratager. ✓

Chief Engineer.



st. Paul, Minn. April 24-1905.

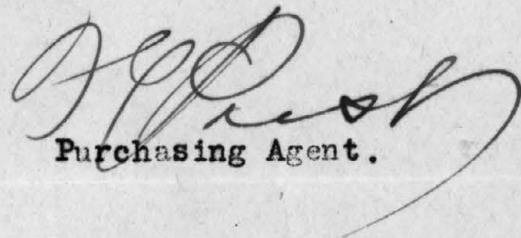
Mr. E. J. Pearson,

Chief Engineer.

Dear Sir:-

The American Bridge Company has signed contract covering the bridge over White River. I understand that you already have copy of it. Delivery is to be completed by August 1st.

Yours truly,

A handwritten signature in dark ink, appearing to read "J. J. Rush", is written over the typed name "Purchasing Agent." The signature is fluid and cursive, with a large loop at the end.

FGP-D

St. Paul, Minn., April 4, 1905.

Mr. F. G. Prest,

Purchasing Agent.

Dear Sir:

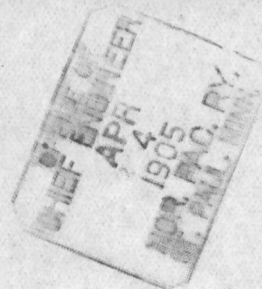
Referring to your letter of March 30th relative to the 180 foot double track bridge for Seattle Line across White River. Mr. Modjeski advised under date of April 3d that all material has been ordered for the bridge except vertical posts and portals. He also advises that all information will be ready by April 5th, so that material can be ordered for the balance of the structure.

Yours truly,

Chief Engineer.

SJB-H.

RALPH. MODJESKI  
CIVIL ENGINEER,  
MONADOCK BUILDING,  
CHICAGO.



File #181

Chicago, April 3, 1905.

Mr. E. J. Pearson,

Chief Engineer Northern Pacific Ry.

St. Paul, Minn.

Dear Sir:-

Answering your letter of March 31st regarding the plans for 180' double track through span for Seattle Line, White River crossing, all material has been ordered except vertical posts and portals. All information will be ready by April 5th so that material can be ordered for the balance of the structure. The plans are progressing well and are practically all penciled out. The material ordered so far has been billed from sketches and strain sheet.

Very truly yours,

R.M.



March 31, 1905.

Mr. Ralph Modjeski,

Monadnock Building,

Chicago, Ill.

Dear Sir:

The American Bridge Company have advised our Purchasing Agent that they will make delivery in four and one half months after receipt of sufficient data from you for ordering material of the 180 foot double track crossing for the Seattle Line across White River.

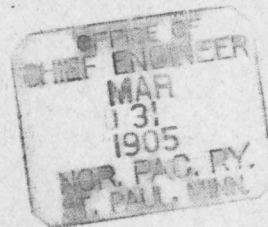
Will you kindly advise if the necessary data have been furnished them. If not, when do you expect to be able to let them have it.

Yours truly,

Chief Engineer.

SJB-EH.

St. Paul, Minn. March 30-1905



Mr. E. J. Pearson,  
Chief Engineer.

Dear Sir:-

Referring to your letter of March 11th, relative to 180 foot double track crossing for Seattle Line across White River.

The American Bridge Company write me that they will make delivery in 4-1/2 months after receipt of sufficient data from Mr. Modjeski for ordering the material, and that they will anticipate the date as much as possible.

They stated that they expected to get the necessary data from Mr. Modjeski by the early part of this week, and it is possible that he has furnished it. I think, however, it would be a good idea to take the matter up with him unless you know that the necessary information has already been furnished them.

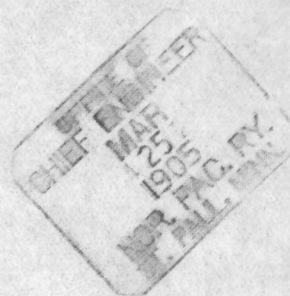
Yours truly,

Purchasing Agent.

FGP-D

RALPH MODJESKI  
CIVIL ENGINEER,  
MONADNOCK BUILDING,  
CHICAGO.

File #181



Chicago, March 24th, 1905.

Mr. E. J. Pearson,

Chief Engineer Northern Pacific Ry.

St. Paul, Minn.

Dear Sir:-

Enclosed please find plans of masonry for white River bridge. These are sent to you as requested by your telegram of March 23rd.

Very truly yours,

E. H. R.

*Ralph Modjeski*  
By E. H. R.



**THE WESTERN UNION TELEGRAPH COMPANY.**

INCORPORATED

**23,000 OFFICES IN AMERICA. CABLE SERVICE TO ALL THE WORLD.****ROBERT C. CLOWRY, President and General Manager.**

Receiver's No.

Time Filed

Check

**COPY.**

Frank #5044

**SEND** the following message subject to the terms  
on back hereof, which are hereby agreed to.

St. Paul, Minn., March 23, 1905.

Ralph Modjeski,  
Monadnock Building,  
Chicago, Ill.

Please return by first mail blue prints foundation plans bridge No. 23,  
White River, Seattle Line, sent you January 26th. Require these for making detail  
plans double track structure.

E J Pearson.

SJB-EH.

## **ALL MESSAGES TAKEN BY THIS COMPANY ARE SUBJECT TO THE FOLLOWING TERMS:**

To guard against mistakes or delays, the sender of a message should order it REPEATED; that is, telegraphed back to the originating office for comparison. For this, one-half the regular rate is charged in addition. It is agreed between the sender of the following message and this Company, that said Company shall not be liable for mistakes or delays in the transmission or delivery, or for non-delivery of any UNREPEATED message, beyond the amount received for sending the same; nor for mistakes or delays in the transmission or delivery, or for non-delivery of any REPEATED message, beyond fifty times the sum received for sending the same, unless specially insured, nor in any case for delays arising from unavoidable interruption in the working of its lines, or for errors in cipher or obscure messages. And this Company is hereby made the agent of the sender, without liability, to forward any message over the lines of any other Company when necessary to reach its destination.

Correctness in the transmission of a message to any point on the lines of this Company can be INSURED by contract in writing, stating agreed amount of risk, and payment of premium thereon, at the following rates, in addition to the usual charge for repeated messages, viz, one per cent. for any distance not exceeding 1,000 miles, and two per cent. for any greater distance. No employee of the Company is authorized to vary the foregoing.

No responsibility regarding messages attaches to this Company until the same are presented and accepted at one of its transmitting offices; and if a message is sent to such office by one of the Company's messengers, he acts for that purpose as the agent of the sender.

Messages will be delivered free within the established free delivery limits of the terminal office. For delivery at a greater distance, a special charge will be made to cover the cost of such delivery.

The Company will not be liable for damages or statutory penalties in any case where the claim is not presented in writing within sixty days after the message is filed with the Company for transmission.

**ROBERT C. CLOWRY, President and General Manager.**



Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and those for parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance. After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessarily long, operators are required to attach a copy to Form 233, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVER
				_____M.		_____M.					

**COPY**

FROM St. Paul, Minn.,

TO A R Cook,

DATED March 23, 1905.

AT Tacoma, Wash.

Please send first mail blue prints foundations plans for bridge No. 23

across White River, Seattle Line.

E J Pearson.

SJB-EH.



St. Paul, Minn., March 22nd, 1905.

REG-H

Mr. F. G. Prest,

Purchasing Agent.

Dear Sir:

Referring to your letter of March 16th: As requested, I have prepared contract with the American Bridge Company for the 180' double track truss over White River on the Seattle Line, dating same March 16th and leaving the date of delivery blank, and beg to enclose herewith two contracts with specifications attached and two without specifications.

Contract should be checked in your office as to price and approved by the Legal Department as to form as usual.

Yours truly,

Chief Engineer.

Enc.

*Original sent  
to RFP on line  
3/17.*  
*RFP  
Pls. have contract  
prepared as requested  
by Mr. Prest  
3/17 JFB*

St. Paul, Minn., March 16, 1905.

Mr. E. J. Pearson,  
Chief Engineer.

Dear Sir:

I have arranged with the American Bridge Company for the 180 foot double track truss over White River on Seattle Line at \$3.18 per hundred pounds, f. o. b. Chicago; that is, we have exercised the option in our contract covering the Missouri and Columbia River Bridges.

I have explained to them that it is necessary that we have early delivery on this bridge and have asked them to make special effort to hurry it.

Mr. Hasbrouck will write, advising us very soon, what delivery they can make. Of course, if we find later that they cannot make delivery that would be satisfactory, we could cancel the order and buy it elsewhere. I think however, that they will be able to make us as quick delivery as anyone.

The McClintic-Marshall Construction Company quoted \$3.28 delivered at Chicago, but finally reduced their price to \$3.25, and stated that was as low as they could go.

The King Bridge Company quoted \$3.22 delivered at Chicago, and the Wisconsin Bridge Company \$3.26.

Therefore, I think the price is probably about as low as we could get it and our option would have expired if we had not placed the order today.

Will you please outline the contract leaving the time of delivery blank, dating the contract March 16th.

Yours truly,

(Signed) F. G. Prest,

Purchasing Agent.



RALPH MODJESKI  
CIVIL ENGINEER,  
MONADNOCK BUILDING,  
CHICAGO.

File # 181

Chicago, March 13, 1905.

Mr. E. J. Pearson,

Chief Engineer Northern Pacific Ry.

St. Paul, Minn.

Dear Sir:-

Enclosed please find sketch showing bearings of 180' span  
for White River Bridge.

Also please find enclosed inspection reports on Bismarck bridge  
material; Columbia River bridge material and McClintic-Marshall inspection  
Co.

Yours truly,

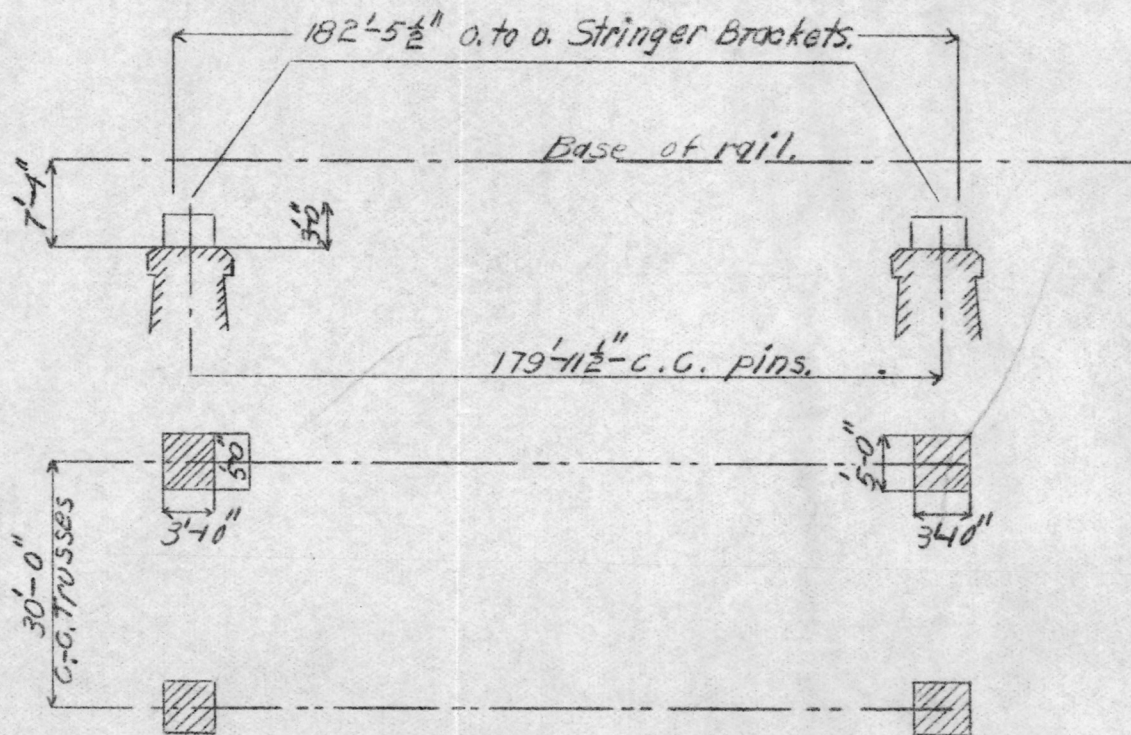
*Ralph Modjeski*

By E. H. R.

E. H. R.



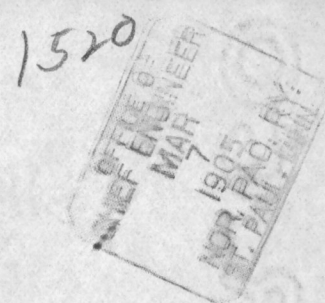
RALPH MODJESKI  
CIVIL ENGINEER,  
MONADNOCK BUILDING,  
CHICAGO.



180'-0" D.T. Span  
White River Bridge  
Seattle Line.

RALPH MODJESKI  
CIVIL ENGINEER,  
MONADNOCK BUILDING,  
CHICAGO.

File #181



Chicago, March 6th, 1905.

Mr. E. J. Pearson,

Chief Engineer N.P.Ry.

St. Paul, Minn.

Dear Sir:-

Below please find information desired for the 180 ft. span,  
White River bridge. Distance from base of rail, clearance line of  
structure 5' 6 1/8".

Base of rail to masonry 7' 4".

Hoping this is sufficient for you to design the substructure  
by, I remain,

very truly yours,

*Ralph Modjeski*

By \_\_\_\_\_

E.H.R.



COPY.

EJP-M

February 15th, 1905.

Mr. Ralph Modjeski, Civil Engineer,  
Monadnock Block,  
Chicago, Ill.

Dear Sir:

Replying to yours of the 13th, File #181, double track  
180 foot truss for White River:

If you find the two truss structure more economical, think  
it more desirable, and it will be O. K. to go ahead accordingly, sub-  
ject to the maintenance of present grade line of base of rail and  
proper under clearance.

Please let me know what the distance will be from base of  
rail to bottom clearance line of structure.

As soon as data is ready, from which I can design founda-  
tions for this and the Black River work, desire to do so.

Yours truly,

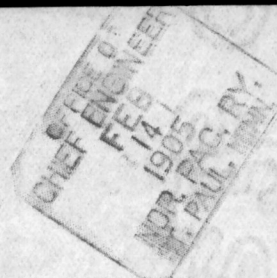
Copy to Mr. Bratager. ✓

Chief Engineer.



RALPH MODJESKI  
CIVIL ENGINEER,  
MONADNOCK BUILDING,  
CHICAGO.

File #181



Chicago, Feb. 13th, 1905.

Mr. E. J. Pearson,

Chief Engineer N.P.Ry.

St. Paul, Minn.

Dear Sir:-

Regarding the 180 ft. double track span for White River Bridge, considering the matter carefully I believe it would be better to build the double track span with two trusses only instead of with three, for the following reasons:

With two trusses the tracks could be placed 13' centers and the piers made narrower in the direction measured at right angles to the bridge by 3' 6", saving that much in masonry. In this case trusses would be 30' center to center while if a third middle truss is used the outside trusses would have to be placed 33' 6" center to center. In either case one truss has to be designed so that the standard plans are not entirely applicable, except as to floor system. The extra work on plans therefore would not amount to very much but on the other hand, I believe a two truss span would weigh less than a three truss span. The advantages therefore of saving in masonry, saving in weight of span and dispensing with the necessity of spreading the tracks are sufficient reasons for adopting the two truss span and I recommend that this be done, unless you have some reasons for acting otherwise. Kindly advise me as to your decision in this matter.

Yours very truly,

*Ralph Modjeski*

R.M.

RALPH MODJESKI  
CIVIL ENGINEER,  
MONADNACK BUILDING,  
CHICAGO.

File #181



Chicago, Feb. 1st, 1905.

Mr. E. J. Pearson,

Chief Engineer N.P. Ry.

St. Paul, Minn.

Dear Sir:-

I received your letter of January 28th regarding plans for the White River bridge, Seattle Line. After considering the matter further I am of your opinion that an entirely new structure would be better and more economical as long as the old spans can be used somewhere else. If parts of the old spans were used in the new bridge it would be only a small percentage and therefore the economy if any would be insignificant, while, on the other hand, it would spoil the old spans which then could not be used anywhere else. Consequently I have started on the design of an entirely new structure.

very truly yours,

R.M.



~~308~~

COPY

EJP-M

January 28, 1905.

Mr. Ralph Modjeski, Civil Engineer,  
Monadnock Building,  
Chicago, Ill.

Dear Sir:

Yours of the 27th, File #181, White River bridge for Seattle Line.

My impression is that the present bridge is so light that consideration of reinforcing is out of the question, and consequently it will be both desirable and economical to entirely replace. If your conclusion is the same, will figure on entire new design.

In regard to the use of some material from the present truss in the new one, think the present span will cut down to about 125 feet, and with some reinforcing of the floor give good service on a branch line where there are more or less requirements for such spans. Unless you see a way to make more money by using material from the old span in the new structure, will figure on ultimate disposition of the present structure for some other location as suggested.

If the material from the old structure can be used up now to good advantage by using part of it in the new structure that will avoid having second-hand material on hand, that consequently would then be desirable.

Yours truly,

Chief Engineer.



RALPH MODJESKI  
CIVIL ENGINEER,  
MONROE BLOCK BUILDING,  
CHICAGO.

File #181



Chicago, January 27th, 1905.

Mr. E. J. Pearson,

Chief Engineer Northern Pacific Ry.

St. Paul, Minn.

Dear Sir:-

I acknowledge receipt of yours of January 25th together with blueprints showing present bridge at the Seattle Line crossing of White River. I understand you desire an entirely new structure and that you do not wish to consider the using of any part of the present span. Unless I hear from you to the contrary I will go ahead on the basis of an entirely new span.

Very truly yours,

A handwritten signature in cursive script, reading "Ralph Modjeski".

R.M.

Mr. Bratager:

Additional to message of the 20th to Mr. Modjeski understand that we want him to furnish plans for 180' through double track truss for White River. Want to furnish him information from which this can be designed as soon as possible. Think you will find recent request on Croswell for data. Kindly handle the matter, and hurry it along into shape where I can take up with Mr. Modjeski. We better make the small scale general plans and foundation plans just as soon as we can so that we can get all this work underway early.

E.J.P. 1/24/05.

*Relly*  
*Pls let me have this*

*sgp attached*  
*1/25/05*

*Plans sent to Modjeski*  
*with letter of 1/26*  
*sgp*



Form 1386

**TELEGRAM.**

All Railway Messages must be written in ink on these blanks, which must not be used for other purposes, and the parties on trains (except trainmen) enclosed in sealed envelopes. The exact time sent, time received, personal signal of sending and receiving operators, call of sending office and name of receiving station must be entered in proper spaces in every instance.

After transmitting telegrams which in their judgment would have served the Company's interest as well if sent by train mail, or which appear unnecessary long, operators are required to attach a copy to Form 238, and forward same to Superintendent of Telegraph.

NUMBER	REC'D FROM	SENDER	RECEIVER	TIME REC'D	DATE REC'D	TIME FILED	NUMBER	SENT TO	TIME SENT	SENDER	RECEIVED
				_____M.	_____M.						

FROM St. Paul, Jan. 12, 1905.

TO T. H. Croswell,

DATED

AT

Tacoma.

For use in designing new steel double track superstructure for Black and White Rivers on Seattle Line, send sketch showing present crossings and particularly clearance between underside of same and high water with information as to how much, if any, bottom lines of the new structure can be lowered from the existing to secure greater depth of double track floor system. Give this information by wire in advance so that designing will not be delayed.

E. J. Pearson.

EJP-M



THIS AGREEMENT, Made the 16th day of March A. D. 1905, between the AMERICAN BRIDGE COMPANY, a corporation, party of the first part, and the NORTH-ERN PACIFIC RAILWAY COMPANY, a corporation, party of the second part,

WITNESSETH:

The party of the first part in consideration of the agreements herein by the party of the second part agrees to make and deliver in the most thorough, workmanlike and substantial manner, to the satisfaction and approval of the Chief Engineer of the party of the second part, within the time hereinafter limited and according to specifications hereto annexed, and the plans prepared therefor in the office of the Chief Engineer, which are made part of this contract, all steel structural work ~~work~~ required for one 180' double track pin connected through truss span for bridge over White River, Seattle Line.

The work to be commenced immediately and all material shall be delivered on or before the First day of August 1905.

Imperfect and insufficient work or material shall be immediately remedied when pointed out and shall be made good and sufficient by the party of the first part, and any omission by the Inspector of the party of the second part to disapprove of or reject any work or material shall not be deemed an acceptance of such work or material. No extra work or material is to be allowed or paid for excepting only in performance of a previous order in writing of the said inspector, and claims for extra work or material must be presented to the Inspector for allowance at the close of the month in which the same shall have been done or furnished, to be included in the estimate for that month, otherwise shall be deemed absolutely waived by the party of the first part and the party of the second part shall not be required to pay for the same.

To prevent disputes and misunderstandings in relation to the stipulations and provisions contained in this agreement, or the true intent and meaning thereof, and for the speedy settlement for such as may occur, the Chief Engineer of the party of the second part shall be, and he hereby is, constituted the umpire to decide all such questions and matters; he shall also decide the amount and quantity, character and kind of work and materials performed and furnished by the party of the first part, including all extra work and material; and his decision shall be final and shall be binding on the parties.

The party of the second part agrees to pay to the party of the first part on the full completion by it of all things embraced in this contract the



following:

For all labor and material necessary in the construction of the above referred to 180' double track pin connected through truss span, the sum of Three Dollars and Eighteen Cents (\$3.18) per One-hundred (100) pounds, net shipping weight of metal in the finished superstructure.

The above price includes all anchor bolts, floor bolts, sheet lead, machine-fit bolts, field rivets, required to complete the superstructure in the field, and all painting specified to be done previous to shipment and is for delivery f.o.b. cars belonging to the Northern Pacific Railway Company, at Chicago, Illinois.

No allowance will be made for material used in loading, but the material will be returned to the party of the first part, if desired, without charge for transportation over the lines of the Northern Pacific Railway Company.

The weight upon which payment for metal in the finished structure will be based in the net shipping weight as certified to by the Railway Company's Shop Inspector.

The time for delivery of material is understood to mean the time of delivery of finished material loaded on cars at the bridge works ready for shipment. The delivery shall be made in such order as to permit the continuous prosecution of the work of erection.

FOR EXTRA WORK done by the party of the first part under written orders of the Inspector, for which prices are not named herein, there shall be paid the actual cost to the first party of such work and ten (10) per cent additional for use of tools, superintendence and profit, provided such cost shall not exceed the reasonable market value.

Payments for accepted material delivered on board cars during any calendar month shall be made by the party of the second part on or about the twentieth (20th) day of the next succeeding month.

If the party of the first part shall at any time omit to perform any agreement herein contained on its part to be performed, the party of the second part shall have the right to cancel and annul this contract; in which event the party of the first part shall have no claim or demand whatever for damages or for compensation.

The party of the first part will pay for all labor, services and material used in or about the work as and when payments are made by the party of the second part, to the party of the first part; and should it at any time fail so to do, the party of the second part at its option is authorized to retain such amounts



of money as the Chief Engineer above mentioned or the Inspector in charge of the work may deem sufficient to secure the second party against loss. And before final settlement is made the first party agrees that it will produce satisfactory evidence that all of the structure herein mentioned and all other property of the Railway Company are free and clear from all liability for liens of every kind.

If there be any stoppage of the work, or if its progress be materially delayed by reason of any act or neglect of any of the Inspectors, Agents or Employees of the party of the second part, the time for completing the work as limited in this contract shall be extended for a period equal to the time of such stoppage or delay; and the party of the first part shall have no further or other claim therefor, or for anything arising therefrom or caused thereby. The party of the first part must make its claim for such extension in writing to the said Inspector at the time of the stoppage or delay, stating the occasion and nature thereof; and the party of the first part failing so to do, its right or claim to such extension shall be deemed waived.

When in the opinion of the said Chief Engineer the work shall have been completely performed and finished, he shall certify the fact in writing with a final estimate of the work done and a statement of the amount due and unpaid therefor; and the party of the second part shall within thirty (30) days thereafter pay to the party of the first part the full amount due it.

It is understood that where the word "Inspector" occurs in this contract, or in the specifications hereto attached, it refers to and means the inspector of the party of the second part in charge for the time being of the work.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed by their respective officers thereto duly authorized, on the day first above named, in duplicate originals.

Witnesses as to

\_\_\_\_\_

Witnesses as to Second Party

\_\_\_\_\_

\_\_\_\_\_

AMERICAN BRIDGE COMPANY

By \_\_\_\_\_

NORTHERN PACIFIC RAILWAY COMPANY

By \_\_\_\_\_



# Chief Engineer's Copy.

THIS AGREEMENT, Made the 16th day of March A. D. 1905, between the AMERICAN BRIDGE COMPANY, a corporation, party of the first part, and the NORTH-PACIFIC RAILWAY COMPANY, a corporation, party of the second part,

## WITNESSETH:

The above price includes all anchor bolts, floor bolts, chest lead, machine-bolts, field rivets, required to complete the superstructure in the field, and all painting specified to be done previous to shipment and is for delivery f.o.b. workmanlike and substantial manner, to the satisfaction and approval of the Chief Engineer of the party of the second part, within the time hereinafter limited and according to specifications hereto annexed, and the plans prepared therefor in the office of the Chief Engineer, which are made part of this contract, all steel structural work ~~xxx~~ required for one 180' double track pin connected through truss span for bridge over White River, Seattle Line.

The work to be commenced immediately and all material shall be delivered on or before the First day of August 1905.

Imperfect and insufficient work or material shall be immediately remedied when pointed out and shall be made good and sufficient by the party of the first part, and any omission by the Inspector of the party of the second part to disapprove of or reject any work or material shall not be deemed an acceptance of such work or material. No extra work or material is to be allowed or paid for excepting only in performance of a previous order in writing of the said inspector, and claims for extra work or material must be presented to the Inspector for allowance at the close of the month in which the same shall have been done or furnished, to be included in the estimate for that month, otherwise shall be deemed absolutely waived by the party of the first part and the party of the second part shall not be required to pay for the same.

To prevent disputes and misunderstandings in relation to the stipulations and provisions contained in this agreement, or the true intent and meaning thereof, and for the speedy settlement for such as may occur, the Chief Engineer of the party of the second part shall be, and he hereby is, constituted the umpire to decide all such questions and matters; he shall also decide the amount and quantity, character and kind of work and materials performed and furnished by the party of the first part, including all extra work and material; and his decision shall be final and shall be binding on the parties.

The party of the second part agrees to pay to the party of the first part on the full completion by it of all things embraced in this contract the

NORTHERN PACIFIC RAILWAY COMPANY.

SPECIFICATIONS  
for  
STEEL SUPERSTRUCTURE OF BRIDGES.

ENGINEERING DEPARTMENT

MARCH 1ST, 1904.

A-Plans.

1. General plans showing all details will be furnished by the Railway Company, but the contractor shall make such detailed shop plans as are necessary for the proper performance of the work in the shop and submit them to the Chief Engineer for approval before beginning shop work. Such plans shall be in strict accordance with the plans furnished by the Railroad Company.

2. All plans prepared by the contractor shall measure 22 inches between upper and lower border lines. They shall preferably measure 33 inches between the side border lines, this dimension being considered as a minimum. A margin one inch shall be provided outside of the border line on all sides of each sheet, except the left hand side where a margin of three inches shall be provided for binding. A title shall be placed in the lower right hand corner of each sheet similar to the one on the general standard plans. The execution on these plans shall be neat, distinct and workmanlike. The tracings will become the property of the Railway Company after the contract is completed.

3. The contractor is solely responsible for the correctness of shop plans furnished by himself or the Railway Company in regard to errors in fittings and length.

4. All plans sent to the Chief Engineer for approval may be retained by him for examination for a period of ten (10) days, counting from the date of receipt of the last plan of each set. If retained longer than ten (10) days, the contractor will be allowed a corresponding extension of time.

5. Three complete sets of prints of the approved shop plans shall be furnished to the Railway Company free of charge. After approval of the shop plans by the Chief Engineer, no changes whatever will be made on them without the written consent of the same. The decision of the Chief Engineer shall control in the interpretation of plans and specifications during the execution of the work thereunder.

6. If changes suggested by the contractor involve the use of devices, mechanisms or methods of manufacture which are patented, it is understood that the



contractor assumes all liability for the use of such patents and will pay all claims against the Railway Company on this account.

#### B-Material.

The various parts of the structure shall be of such material as designated on the plans. When not so designated they shall be of medium steel.

#### WROUGHT IRON.

1. All wrought iron must be double refined, tough, ductile, fibrous and of uniform quality and must be thoroughly welded in rolling.
2. The finished product shall be perfect in all parts and free from irregularities and surface imperfections of any kind.
3. Variation in cross-section of rolled material of more than  $2\frac{1}{2}$  per cent from that shown on plan may be cause for rejection.
4. For determination of tensile strength, limit of elasticity and ductility, test pieces not less than  $\frac{1}{2}$  inch thick with a minimum area of cross section of  $\frac{1}{2}$  square inch, shall be cut from full-sized bar and planed or turned true for a length of at least nine inches for measurement of elongation.

The tests shall show results not less than given in the following table:

Ultimate strength per square inch in lbs.	48,000 lbs.
Elastic limit,	26,000 lbs.
Elongation in 8 inches	19 per cent

5. All bars, plates and shapes which are to be bent hot in the manufacture, must in addition to the above requirement be capable in a working heat of bending sharply to a right angle without sign of fracture.
6. When specimens are nicked on one side and bent by a blow from a sledge, the fracture must be nearly all fibrous.

#### WROUGHT STEEL.

7. All steel shall be made by the Open Hearth Process, except where otherwise specified on plans, and no steel shall be made at works which have not been in successful operation for at least one year; but this provision will not be held to exclude new furnaces erected in connection with old works.
8. All steel shall be of uniform quality for each class; it shall be straight without buckles or kinks and free from injurious seams, flaws, cracks, laminations and other defects.
9. Acid open hearth steel shall not contain in the finished product more than .08 of one per cent of phosphorus, and the amount of sulphur shall not exceed .04 of one per cent.



10. Basic open hearth steel shall not contain in the finished product more than .04 on one per cent phosphorous, and the amount of sulphur shall not exceed .04 of one per cent.

11. The variation in cross section or weight of rolled material of more than  $2\frac{1}{2}$  per cent from that specified may be cause for rejection. This does not apply to wide sheared plates for which an allowance will be made in accordance with the specifications of the Association of American Steel Manufacturers for Structural Steel, revised February 6th, 1903.

12. The various grades shall be known as rivet steel, medium steel, and pin steel. Their physical properties shall be in accordance with the following table:

	Rivet Steel	Medium Steel
Ult. strength, lbs. per sq. in.	52,000 to 60,000	62,000 to 70,000
Elastic limit " " " "	not less than 30,000	not less than 37,000
Percentage elongation in 8 in.	26	22
Cold bending without rupture	180 deg. flat on itself	180 deg. to a diameter equal to thickness of piece tested.

13. Pin steel tested in specimens cut at a depth of one inch from surface of finished material shall fill the physical requirements of medium steel for ultimate strength, elastic limit and bending, but the required elongation shall be decreased 10 per cent.

14. The entire fracture shall be silky.

15. Pins over 4 inch diameter must be hammer forged.

16. Every finished piece of steel shall be distinctly stamped with the melt number stamped on the ends. Rivet and lacing steel and small pieces for thin plates and stiffeners may be shipped in bundles securely wired together with the melt number on a metal tag attached.

#### CAST IRON.

17. Except where chilled iron is specified, all castings shall be of tough gray iron free from cracks, cinder pockets, blow holes and other injurious defects. All castings will be true to pattern and of workmanlike finish.

18. Test bars one (1) inch square, loaded in the middle between supports 12 inches apart shall be capable of supporting a load of at least 2,500 pounds, and shall deflect at least 0.15 of an inch before rupture.

#### CAST STEEL.

19. Steel castings shall be made of medium steel. They shall be free from large or numerous blow holes, tough and uniform in quality, permitting of chipping and forcing without cracking. All steel castings shall be annealed. They



shall be true to pattern and of workmanlike finish.

20. At least two pieces of every melt shall have a coupon 12 inches long and 2 inches square attached for testing. Specimens prepared from these coupons shall have an ultimate tensile strength of between 65,000 to 75,000 pounds per square inch. They shall develop an elongation of 15 per cent in 2 inches including the fracture. The fracture shall be bright and clean and free from blow holes.

#### G-SHOP WORK.

1. All workmanship shall be first class in every particular.
2. All material must be carefully straightened before being laid out.
3. All laying out and punching shall be done so accurately that when pieces are assembled the holes will be truly opposite.
4. Drift pins shall only be used in bringing together the several parts forming a built member and must not be driven with such force as to destroy the metal about the hole.
5. For "punched work" the internal diameter of die used in punching shall not exceed the nominal diameter of the rivet by more than  $1/16$  of an inch.
6. In "reamed work" the internal diameter of the die used in punching shall be at least  $3/16$  inch less than the finished hole.
7. No punching will be allowed in material thicker than  $15/16$  of an inch.
8. All parts of the work shall be reamed unless specified on the drawing to the contrary.
9. In "reamed work" the rivet holes shall be reamed to a diameter  $1/16$  of an inch larger than the nominal diameter of the rivet.
10. The various parts shall be accurately assembled as for riveting and the holes enlarged with a twist drill leaving the finished hole perfectly smooth. At least  $1/16$  of an inch of metal shall be taken out in reaming.
11. During reaming the surfaces of the different pieces shall be held firmly together by sufficient number of bolts, not less than one bolt in every third hole.
12. All burrs and inequalities shall be removed before assembling the pieces of any riveted member, so that the surface may come in close contact.
13. All sharp or protruding edges of all rivet holes shall be removed and each reamed hole shall be filleted under each rivet head, the fillet to be approximately  $1/16$  of an inch measured on the surface of the metal cut by the filleting tool.



14. Gauging, caulking or re-cupping will not be tolerated on any part of the work.

15. Wherever several flange plates of equal width are superposed they shall be flush on edge when riveted up.

16. All stiffeners must have a driving fit.

17. The ends of stringers and floor beams shall be squared in a facer. The end angles must be so fitted that the facing does not reduce the thickness of the angles by more than  $1/8$  of their original thickness. The cut shall extend over the whole surface of the angles.

18. All field connections for floor beams and stringers shall be reamed through iron templates.

19. All truss members containing field joints shall be temporarily fitted together at the shop for reaming. Stiff chords shall be assembled in the shop for a length of not less than four panels. Trusses of lattice bridges shall be assembled in the shop complete.

20. Built members when finished must be true and free from twists, kinks, buckles and open joints between component pieces.

21. All abutting surfaces of compression members, except flanges of plate girders, where the joints are fully spliced, must be faced so as to come to an even bearing after the member is fully riveted up and they shall be in close contact throughout.

22. Rivets must be driven by direct acting power riveter whenever possible; they shall completely fill the holes, have full heads concentric with the holes and in close contact with the surface; heads of rivets of same diameter must be uniform. Counter sinking must be neatly done; counter sunk rivets must completely fill the holes.

23. All chipping shall be done in a neat and workmanlike manner without breaking out of metal.

24. When members are connected by bolts which are subject to shearing stresses, the holes must be reamed to a uniform diameter and the bolts turned to a driving fit.

25. Pin holes must be accurately bored at right angles to the axis of the member; a variation of length center to center of pin holes greater than  $1/32$  of an inch will not be allowed. Steel standards of same temperature as the member must be used to lay out distance between pin holes.



26. The heads of eye bars and enlarged ends of rods shall be made by upsetting or forging into shape. No welds will be allowed except to form the loops of iron laterals, counters or sway rods. Eye bars must be perfectly straight before boring. The pin holes must be concentric with the heads and with the body of the bar. All eye bars belonging to the same panel must be of exactly the same length center to center of pin holes. Eyes of laterals, sway rods and counters must be bored.

27. All pins, rollers, turntable wheels, etc. shall be accurately turned to a gauge and shall be perfectly smooth. To obtain this result the Inspector may require that a water cut be taken.

28. All pin holes shall be bored and a finishing cut shall always be taken. The diameter of pin holes shall not exceed that of the pin by more than  $1/50$  of an inch for pins of 8 inches in diameter or under and  $1/32$  of an inch for pins over 8 inches in diameter.

29. The Contractor shall furnish all the necessary pilot nuts, erection bolts and all field rivets including 20 per cent excess for erection of bridge. The Contractor shall credit the Railway Company with the weight of such pilot nuts and excess of field rivets at the contract price as may be returned to him after the erection work is completed.

30. In all cases where the whole or a portion of a piece of steel has been heated, the whole piece shall be annealed by a process acceptable to the Inspector.

31. All bends in steel must be made cold wherever possible. Whether such bends are made cold or by heating, the entire piece must be subsequently annealed.

32. Where metal is chipped or planed out of a plate or shape, all concave corners shall be rounded off to a radius of at least 2 inches unless distinctly shown otherwise on the plans.

33. All expansion bearings shall be fitted together complete in the shop.

#### D - INSPECTION AND TEST.

1. It is expressly understood that the inspection will not relieve the Contractor of the responsibility for imperfect work or material of any nature.

2. All facilities for inspection of material and workmanship shall be furnished by the Contractor. He shall furnish without charge the use of a testing machine of sufficient capacity and the services of an operator at all mills and foundries where material under these specifications is being manufactured; but



if that is impossible he shall arrange for testing at some other place satisfactory to the Railway Company's Inspector.

3. The inspection and testing of the material shall be made promptly on its being rolled and the quality determined before it leaves the rolling mill. The inspection of the shop work shall be made as it progresses, and at as early a period as the nature of the work permits.

4. Timely notice shall be given to the Inspector when the work is to be commenced on any part, enabling him to be present for inspection. The Inspector shall have access to all establishments where work for the Railway Company is in progress.

5. The Contractor shall furnish free of charge two test pieces, one for tensile test and one for bending test, representing every melt.

6. The Contractor must furnish the Inspector with opportunities to verify the weights of the finished material.

7. The acceptance of any material or finished members by the Inspector shall not prevent subsequent rejection of the same if found defective after delivery, and the Contractor shall replace the rejected material or member without extra compensation.

8. Full sized tests of eye bars may be ordered by the Chief Engineer. Eye bars tested to destruction shall break in the body and shall develop an ultimate strength of not less than 57,000 lbs. per square inch and elongation in 20 feet of not less than 12 per cent. The material used for the successful tests will be paid for by the Railway Company at the contract price, less scrap value.

9. If a test bar is too long for the machine, it shall be cut in two and both halves re-headed and tested without re-annealing, the two tests to count as one.

10. The selection of test bars shall be made from time to time, but not until all the bars which they represent have been manufactured and annealed.

11. The Inspector shall see that every precaution is taken to avoid rust, and material rusted by undue exposure shall not be accepted.

12. No material or finished work shall be shipped without inspection.

13. All parts shall be carefully loaded so as to avoid injury in transportation, and shall be at Contractor's risk until arrival at site of bridge, excepting damages for which the Railway Company transporting the material may be responsible. Large and heavy pieces must be loaded in a manner satisfactory to the Inspector and at the Contractor's expense.



14. The Contractor shall route the material as directed and shall make out requisition on the connecting line for Northern Pacific flat cars on which to load the material.

#### E - PAINTING.

1. All iron and steel work before leaving the shop shall be thoroughly cleaned from all loose scale, shavings, rust, filings, shriveled oil or paint, grease, dirt or any foreign matter by proper and effective means. All painting is to be done in dry weather or under cover.

2. All surfaces in contact shall before assembling receive one heavy coat consisting of red lead mixed with pure boiled <sup>linseed</sup> oil in proportions satisfactory to the Chief Engineer. All surfaces not accessible after erection shall receive two shop coats of the above paint.

3. All finished surfaces shall receive a heavy coat of white lead and tallow before leaving the shop.

4. All other surfaces shall receive a shop coat of pure boiled linseed oil.



1520