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Engineering Department Records.

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N. P. RY. CO.

OFFICE OF

Chief Engineer

FILE NO.

5000

SUBJECT:

Auburn, Wash.

Cotton storage
warehouses.

Saint Paul, December 6th, 1917.

HES-0

Mr. George T. Slade,
First Vice President.

Dear Sir:-

Your letter of November 20th requesting estimated cost of cotton storage warehouses was delivered in my office December 3rd and was the first information I had that you wanted these figures.

I wired Mr. Perkins regarding same, suggesting locations south of the ice house and north of the Trager overhead bridge at Auburn. He advises that they think these locations are the best available. I am attaching #677-29
12-6-17 print of the station plat on which we have indicated in red a proposed location and trackage arrangement for ten houses 50 x 270' each. Each house will hold 2500 bales of cotton, or 50 cars loaded with 50 bales each, which we understand has heretofore been the standard load. Figuring on 500 lbs. of cotton to a bale at 15¢ per lb. the value of the contents of one of these houses when full would be \$187500.00, which it seems to me is about all we should put in one house account of fire risk.

To get fire protection it will be necessary to run a 6 inch pipe line from the main near the water tank past the entire string of houses, a distance of nearly one mile.

We have figured the cheapest possible construction for the houses, single plank floor on blocking to level of

car floor, drop siding, and 3-ply tarred paper roof, sliding doors on 45 ft. centers. On this basis the approximate estimated cost of the construction is as follows:

10 houses at \$5350.00 each	\$53500.00
Fire protection,	6000.00
8000 ft. of trackage	16480.00
8 turnouts,	1650.00
Total--	<u>\$77630.00</u>

The above estimated cost of the buildings is practically 40¢ per square foot.

Mr. Perkins wires me that Mr. E. J. Rounds of Seattle offers to put up the buildings on the basis of 35¢ per square foot on a plan of his own making calling for houses 40' x 800'. The smaller size buildings which it would be necessary to build would cost 2 or 3 cents more per square foot, or 38¢ per square foot against our estimate of 40¢.

It is probable that the plan proposed by Mr. Rounds would require some modifications to meet the requirements, and I think our estimate is as low as it would be safe to use in considering this proposition.

Yours truly,

encl



Telegram—Be Brief

Time Filed

M.

176 byf

Tacoma Dec 4-17

H E Stevens

StPaul

Browsing Cotton bales 2 ft by 3 ft by 5 ft weigh five to six hundred pounds fifty to fifty five bales per car generally loaded in car on end one tier high and piled in warehouse to height of eight or nine feet either four or five flat or one tier on end and two flat Was also figuring here on cost five hundred cars storage in same locations you mention Figured on building in units 300 by 40 ft holding 45 cars each separation account fire risk Presume you understand have to arrange to keep each car separate so that any car can be loaded out as called for Can construct buildings about 35 cents per square foot not including tracks Grading fire protection or Electric wiring Approximate cost 500 cars storage including above items sixty thousand dollars Have offer from Rounds to put up buildings at 35 cents per square foot on plan he submitted which should be satisfactory except he figured on buildings 800 by 40 ft Smaller size buildings probably cost about two cents per square ft more Think Auburn best location as destination may be Seattle or Tacoma

215 pm

300' x 40' x 35¢ = 4200 [¢] L M Perkins
 500 Cars @ 93.33 = 46666 ^{93.33} /pr Car

OFFICE OF
CHIEF ENGINEER
DEC
4
1917
NOR. PAC. RY.
ST. PAUL, MINN.



Form 198b

Telegram—Be Brief

Time Filed

M.

St. Paul, December 4, 1917. HES-0

L. M. Perkins

Tacoma, Wash.

What is size and weight of bale of cotton How many bales in a car and how many bales high can they pile cotton in a car and also in warehouse. Am making rough approximate estimate of cost of 500 car warehouse in two units Consider putting one of these just south of Auburn ice house and the other just north of Trager bridge. Have you or Mr Blanchard any better locations to suggest in either Auburn or Seattle

H. E. Stevens.

11 a.m.



1

200 45
5

750000

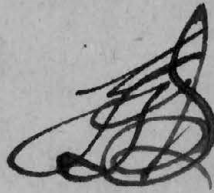
Telephone - Po Brief



St. Paul, November 20, 1917.

Mr. H. E. Stevens:

Will you please ask Mr. Cook to confer with Mr. Blanchard and have them together submit a rough estimate of the cost of building on property which we already own, either at Auburn or in the vicinity of Seattle, a warehouse of the cheapest possible construction consistent with serving the purpose for which it is built, of a size sufficient to accommodate 500 carloads of cotton?



SWB
Pls furnish approx. cost
12/3

1

CHIEF OFFICE OF
ENGINEER
DEC
1917
NOR. PAC. RY.
ST. PAUL MINN.

Approximate Estimate of Cost of 50' x 70' Cotton Ware House at Auburn, Wash

- with 1 intermediate post -

Labor material other

Trusses, joists, posts, roof girders, rafters, studs, plates and braces.					
54000 FBM @ lab 9. ⁰⁰ , mat 20. ⁰⁰	486	00	1080	00	1566 00
Floor planks 29000 FBM @ lab 6. ⁰⁰ , mat 20. ⁰⁰	174	00	580	00	754 00
Roof board 17000 FBM N=1/2" @ 10. ⁰⁰ , mat 19. ⁰⁰	170	00	153	90	323 00
Siding 14000 FBM N=3" clear @ lab 10. ⁰⁰ , mat 14. ⁰⁰	140	00	336	00	476 00
Siding doors and frames	18	00	72	00	90 00
Hardware and nails			250	00	250 00
Roofing 144 squares @ lab 1. ⁰⁰ , mat 3. ⁰⁰	144	00	432	00	576 00
Painting 1450 sq. yds. @ lab 12¢, mat 6¢	174	00	87	00	261 00
Labor on footings	200	00			200 00
Electric wiring	75	00	125	00	200 00
	1581	00	3115	00	4696 00
Contractors profit 10%	\$ 158	10	311	50	469 60
	1739	10	3426	50	5165 60
10% of labor for engineering & incidentals	173	91			173 91
Estimated cost	\$ 1913	01	3426	50	5339 51
(39.8¢ per sq. ft.)					
10 buildings as per above	19130	10	34265	00	53395 10
Fire protection as per estimate.	2274	80	3778	50	6053 30
	21404	90	38043	50	59448 40
8030 ft of track and 8 turnouts					18201 16
			Total estimate	\$ 78649	56

St. Paul Minn Dec. 5th 1917

Approximate Estimate of Cost of 50 ft x 270 ft Frame
Gutter Store House

with 2 intermediate posts Labor Material Total.

Timber Floor planks and finishing material 30000 Plank @ Lab 6 ⁰⁰ mat 20 ⁰⁰	180	600	780
Roof boards 18000 Plank @ Lab 10 ⁰⁰ mat 19 ⁰⁰	180	342	522
Siding 18000 Plank @ Lab 10 ⁰⁰ mat 24 ⁰⁰	180	432	612
Tramming timbers 5000 Plank @ Lab 9 ⁰⁰ mat 20 ⁰⁰	450	1000	1450
Painting 1500 gals @ Lab 10 ⁰⁰ mat 8 ⁰⁰	150	120	270
Roofing 144 ^{gals} gals @ Lab 1 ⁰⁰ mat 3 ⁰⁰	144	432	576
Hardware and nails		260	260
Millwork	30	60	90
Electric light and wiring	100	100	200
Labor laying and bridge timbers	200		200
	1614	3346	4960
Contractors profit 10%	16140	33460	49600
	177540	368060	545600
Eng. and incidentals 10% of Lab.	17754		17754
Total estimated cost	195294	368060	563354
(41.7 c/sq ft)			
For 10 buildings	1952940	3680600	5633540
Fire protection	227480	377850	605330
	2180420	4058450	6238870
8030 ft of track and 8 turnouts			1820116
Total estimate			8058986

Approximate Estimate of Cost of Fire Protection for Cotton Ware Houses at Auburn.

Labour materials Total

5000 lin. ft. of 6" wood water 86" pressure main & trees @ lab 30¢, mat 45¢	1500 00	2250 00	3750 00
16 per. 4" C.I. fire hydrants @ lab 10¢, mat 60¢	160 00	960 00	1120 00
500 lin. ft. of 4" wood water connection to hydrants @ lab 40¢, mat 35¢	200 00	175 00	375 00
Valves & boxes	20 00	50	70 00
	1880 00	3435 00	5315 00
Contractors profit 10%	188 00	343 50	531 50
	2068 00	3778 50	5846 50
10% of labor for engineering & incidentals	206 80		206 80
Total estimated cost \$	2274 80	3778 50	6053 30

1 mile of yard track laid with 85 lb 2nd class rail

Ties 2600	@ 35¢	910 00
Rails 85 lb, 2 nd class	134 tons @ 25¢	3350 00
Angle bars 85 lb, 2 nd class	16000 lbs @ 2.06¢	329 60
Trackbolts 85 lbs	10 Keys @ 9¢	90 00
Spikes	40 Keys @ 6¢	240 00
Tracklaying and Surfacing	1 mile @ 20¢/ft	1056 00
Handling Material 330 tons @ 1¢		330 00
		<u>6305 60</u>

Assuming grading at an average fill of
3 feet = 12000 cu yds for mile - Material haul @ 3¢ 3600 00

Ingraving & Incidental 10% 9905 60
Total exclusive of transportation \$10896 16 = \$2.06 per ft.
Add for transportation
147 tons @ 13¢ 1911 00
Total including Transportation \$12807 16

One #9 turnout laid with 85 lb steel = 2.43 per ft.

1 Switch stand	10 00
1 Connecting rod	2 00
1 #9 rigid Fwy, 2 nd class	30 00
1 Split Switch 2 nd class	63 00
1 pair of plain ground rail	14 00
1 Set Switch ties 2880 Pbm @ 12¢	34 56
Putting in one turnout	35 00
	<u>188 56</u>

Ingr & Incidental 10% 18 86
\$207 42

Trackers

2830
2060
150 5040 ft
1810
4180
2990 "

Estimate of tracks to serve the 10 proposed
Cotton Warehouses at Auburn.

Total trackers 8030 ft @ 2.06 = \$16541.80
8 turnouts @ 207.42 1659.36
\$18201.16

December 5-1916.

5000