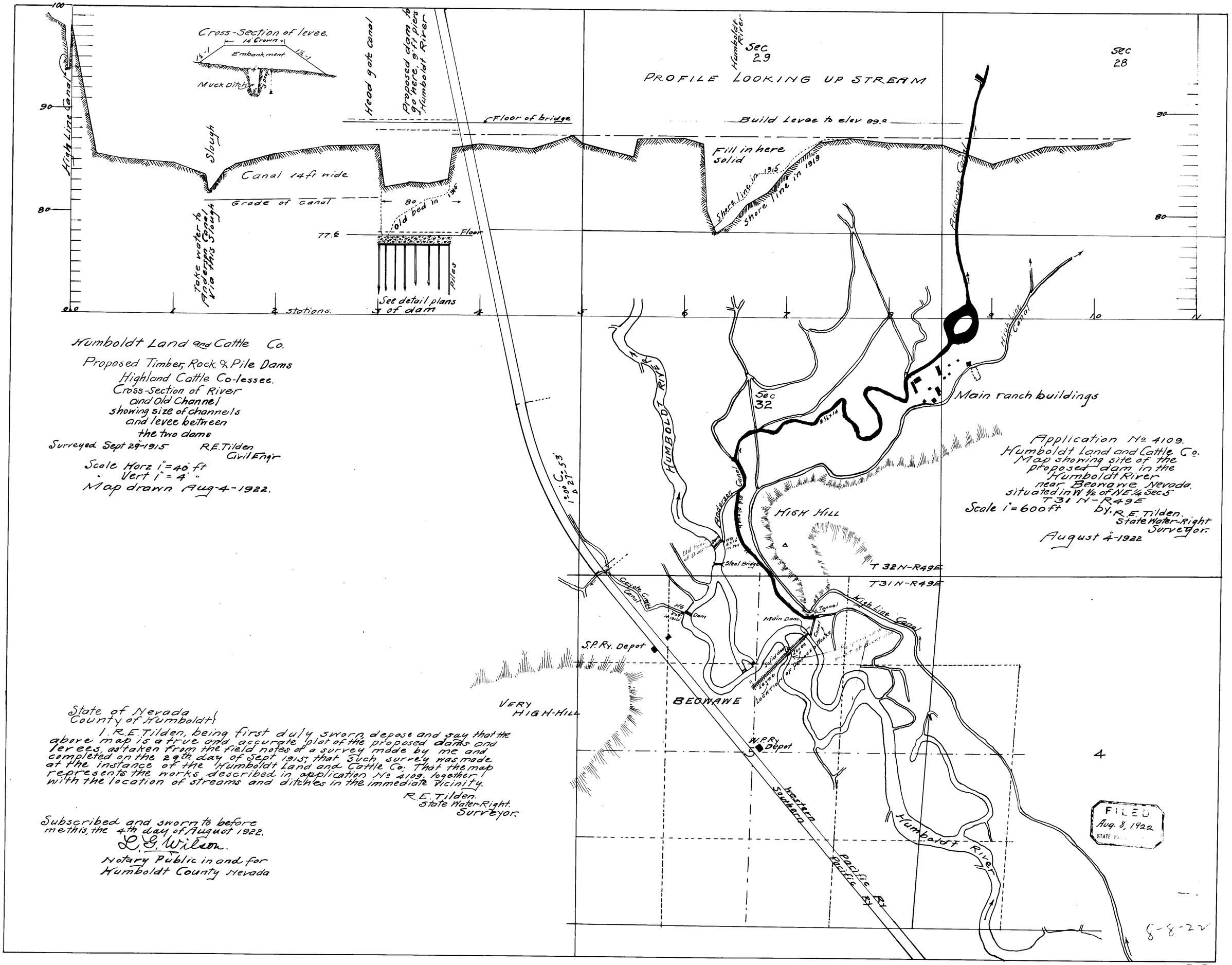


Humboldt Land and Cattle Co.

Proposed Timber, Rock & Pile Dams
Highland Cattle Co-lessee.
Cross-section of River
and Old Channel
showing size of channels
and levee between
the two dams

Surveyed Sept 29-1915 R.E. Tilden
Civil Engr

Scale Horz 1" = 40 ft
" Vert 1" = 4 "
Map drawn Aug-4-1922.

Application No 4109.
Humboldt Land and Cattle Co.
Map showing site of the
proposed dam in the
Humboldt River
near Beowawe Nevada.
situated in W ½ of NE ¼ Sec 5
T 31 N - R 49 E
Scale 1" = 600 ft by. R.E. Tilden.
State Water-Right
Surveyor.
August 4-1922

State of Nevada
County of Humboldt}

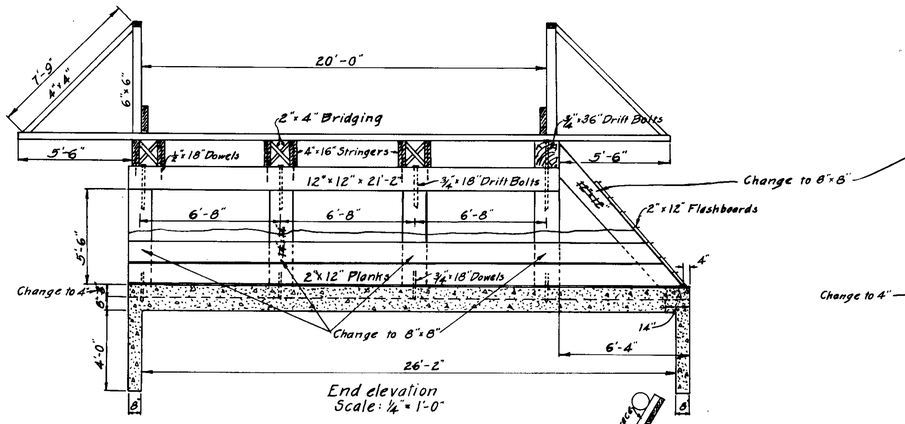
I. R.E. Tilden, being first duly sworn depose and say that the above map is a true and accurate plat of the proposed dams and levees, as taken from the field notes of a survey made by me and completed on the 29th day of Sept 1915; that such survey was made at the instance of the Humboldt Land and Cattle Co. That the map represents the works described in application No 4109, together with the location of streams and ditches in the immediate vicinity.

R.E. Tilden.
State Water-Right.
Surveyor.

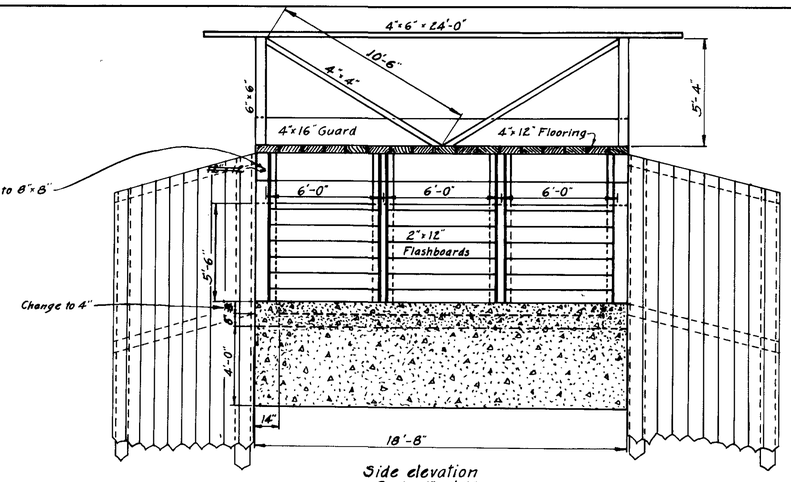
Subscribed and sworn to before me this, the 4th day of August 1922.

L. G. Wilson.
Notary Public in and for
Humboldt County Nevada

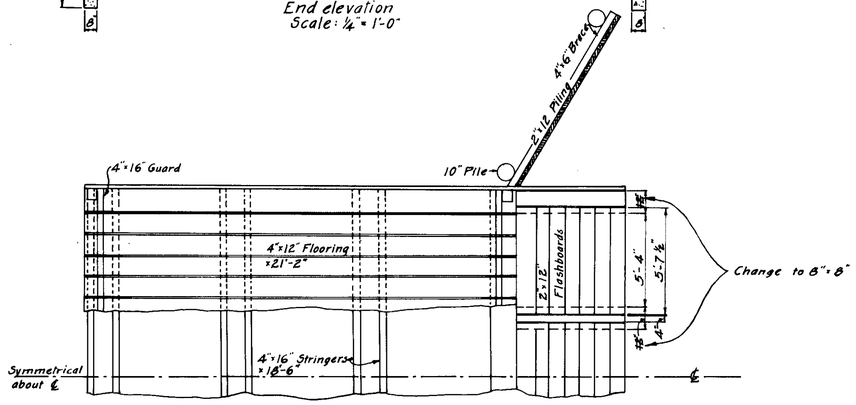
4109



End elevation
Scale: 1/4" = 1'-0"



Side elevation
Scale: 1/4" = 1'-0"



Plan
Scale: 1/4" = 1'-0"

Bill of Material for Head-gate

Timber

Description	No.	Dimensions	F.B.M.	Total F.B.M.
Stringers	6	4"x16"x 20'-0"	640	
Flooring	17	4"x12"x 22'-0"	1496	
"	2	4"x12"x 32'-0"	256	
Cap	2	12"x12"x 22'-0"	528	
Sill	1	14"x16"x 20'-0"	373	
Posts	8	8"x8"x 6'-0"	256	
"	4	8"x8"x 10'-0"	213	
Flashboards	7	2"x12"x 18'-0"	252	
Planks	2	2"x12"x 22'-0"	88	
Guard	2	4"x16"x 20'-0"	213	
Braces	2	4"x6"x 24'-0"	96	
"	4	4"x4"x 12'-0"	64	
"	4	4"x4"x 8'-0"	43	
Posts	4	6"x6"x 6'-0"	72	
Bridging	4	2"x4"x 12'-0"	32	
Planks	4	2"x12"x 28'-0"	224	
"	4	2"x12"x 26'-0"	208	
Sheet Piling	20	2"x12"x 14'-0"	560	
Braces	4	4"x6"x 10'-0"	80	5694
Piles	4	10" Diam. x 16' long		
Planks	6	2"x12"x 24'-0"	288	5982

Miscellaneous

Concrete - 12 cu. yds.
12 Dowels - 1/2"x18"
12 Dowels - 3/4"x18"
6 Drift Bolts - 3/4"x18"
2" " " - 3/4"x36"
42 Hooks for raising flashboards
6# 10^2 Nails
40# 7" Floor Spikes
7# 20^2 Nails
5# 60^2 Nails

Application No. 4109

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HUMBOLDT LAND & CATTLE CO.
Plans for Head Gate to
Outlet Canal near proposed new Dam.
Scales as noted R.E. Tilden
Jan. 1923. Engr. for Co.
Sheet No 3 of 3 sheets.

4109

Bill of Material to accompany Sheet Nº 1
for Combination Dam.

TIMBER

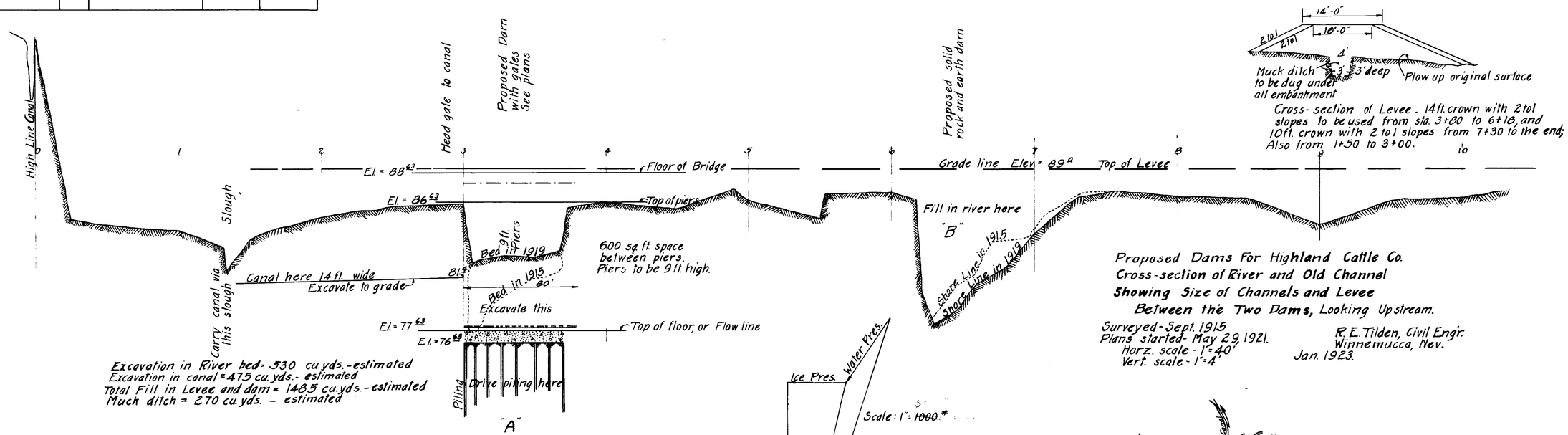
Description	No.	Dimensions	F.B.M.	Total F.B.M.
Stringers	40	2"×12"×12'-0"	960	
"	8	2"×12"×18'-0"	288	
Flooring	79	3"×12"×16'-0"	3792	
Posts	14	10"×10"×10'-0"	1167	
"	14	10"×10"×12'-0"	1400	
"	14	10"×10"×6'-0"	700	
Caps	14	10"×10"×16'-0"	1867	
Flashboards	169	3"×12"×6'-0"	3042	
Bridging	11	2"×4"×12'-0"	88	
Braces	42	2"×6"×10'-0"	420	
"	14	2"×6"×8'-0"	112	
Sheet Piling	308	2"×12"×14'-0"	8624	22460
Piles	48	10" Diam. × 15'-0"		

STEEL

Description	No.	Dimensions
Angles at joints C & G	56	6"×6"×3/4"×18"
Angles at joints E & F	56	5"×5"×3/4"×12"
Angles A-C	28	3 1/2"×3 1/2"×1/2"×13'-10 3/4"
Angles A-G	28	8"×3 1/2"×5/16"×14'7"
Angles B-E	28	3 1/2"×3 1/2"×1/4"×7'-3"
Angles D-F	28	3 1/2"×3 1/2"×1/4"×5'-4 1/2"
Clips in joint D	28	5"×3"×5/16"×3"
Clips in joint A	28	5"×3"×5/16"×3"
" " " (Pedestal for cap)	28	5"×4"×3/8"×8"
Bent plate at B	14	13"×13 3/8"×3/4"×10"
Gussets at B (Cut diagonally)	28	11"×11"×5/16"

MISCELLANEOUS

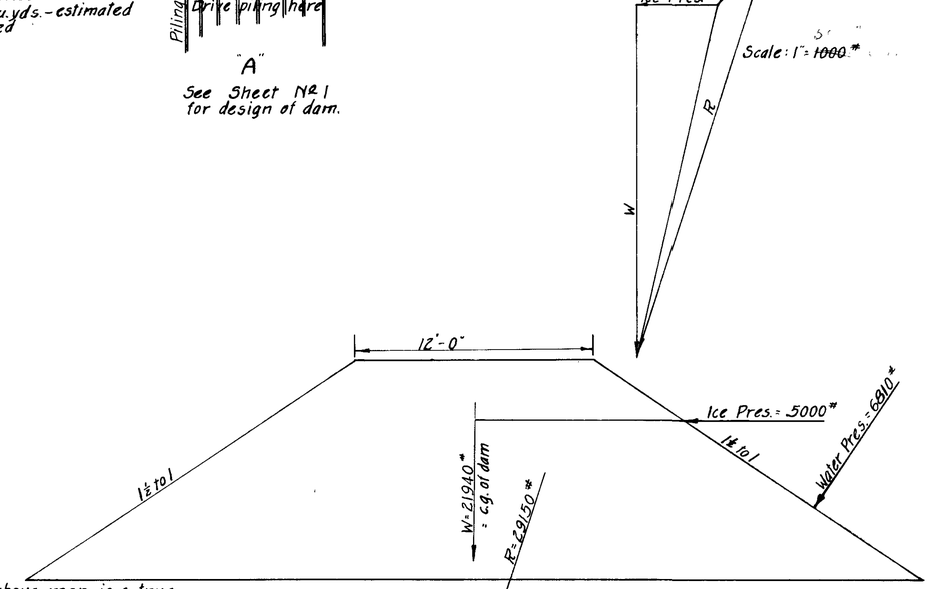
Description	No.	Dimensions
Dowels	28	3/4"×20"
"	42	3/4"×18"
"	112	1/2"×18"
Stud Bolt	14	3/4"×7 1/2"
Bolts	28	3/4"×12"
Rivets	364	7/8" 280@2 1/8", 280@3 1/8" 364@4 1/2"
"	70	3/4" 28@2 1/4", 42@3 1/4"
"	644	5/8" 42@1 3/4", 28@2 1/8" 168@2 3/4", 366@3 1/4"
10ᵈ Nails	10#	
60ᵈ Nails	90#	
Concrete in Footing		89³ Cu. Yds.
20ᵈ Nails	12#	
338 Hooks for Flashboards	338	

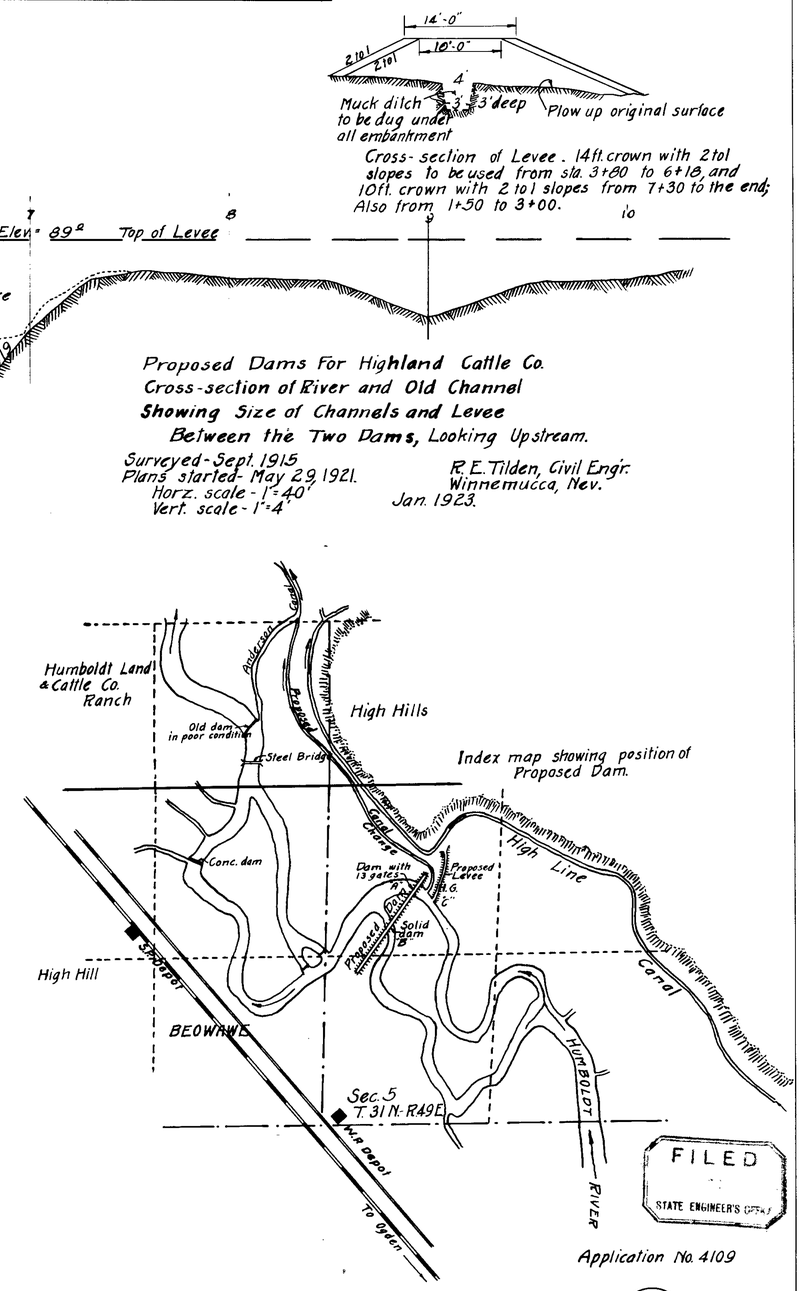


Proposed Dams For Highland Cattle Co.
Cross-section of River and Old Channel
Showing Size of Channels and Levee
Between the Two Dams, Looking Upstream.

Surveyed - Sept. 1915
Plans started - May 29, 1921.
Horz. scale - 1" = 40'
Vert. scale - 1" = 4'

R. E. Tilden, Civil Engr.
Winnemucca, Nev.
Jan. 1923.





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STATE ENGINEER'S OFFICE

Application No. 4109

Sheet Nº 2
3 Sheets in all.

STATE OF NEVADA }
County of Humboldt } ss

I, R. E. Tilden, being first duly sworn, deposes and says that the above map is a true and accurate plan of the proposed dams to be built by the Humboldt Land and Cattle Company, as taken from the field notes of a survey made by me, completed on the 29th day of September, 1915.

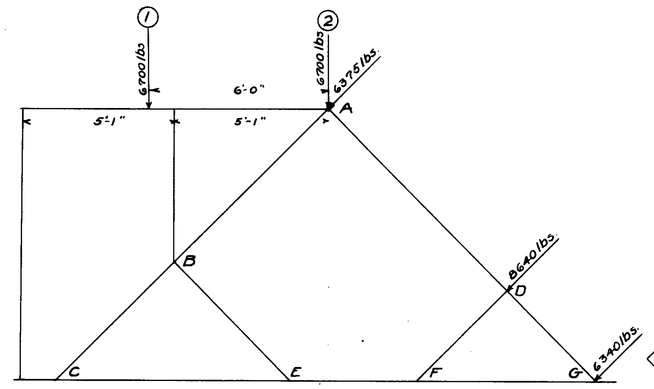
That the map and survey were made at the instance of the Humboldt Land and Cattle Company owner of said lands, and that it truly represents the proposed dams to be built.

R. E. Tilden
Surveyor

Subscribed and sworn to before me, this 16th day of January, 1923.

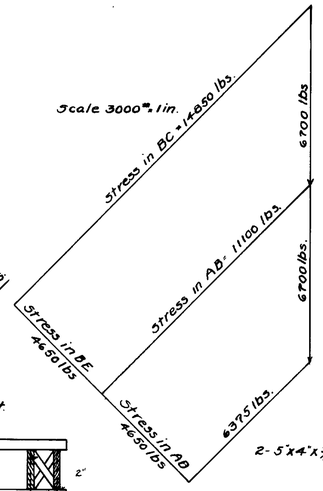
L. B. Campbell
Notary Public, in and for Humboldt County, Nevada.

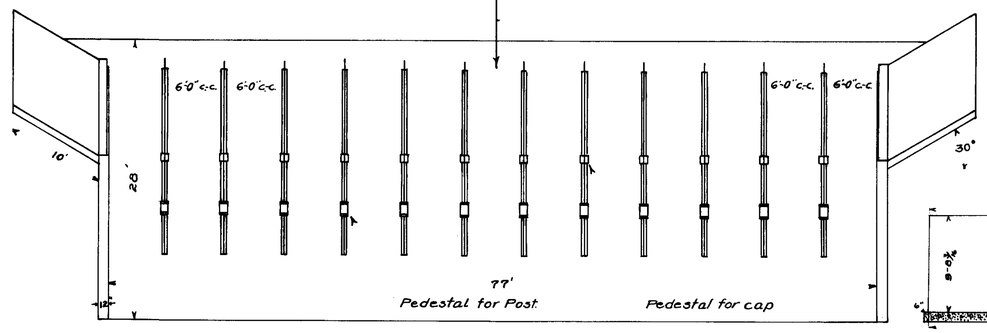
4109



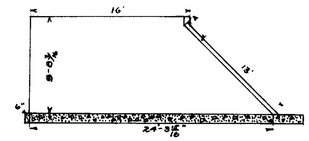
STRESS AND LOAD DIAGRAMS.

Note: All of Live Load 1 assumed to be transferred to point B.
Live Load = 1 Ten Ton Caterpillar Tractor, ⅔ of Load on rear treads, distributed over 6'. 30% added to Live Load stresses for Impact.

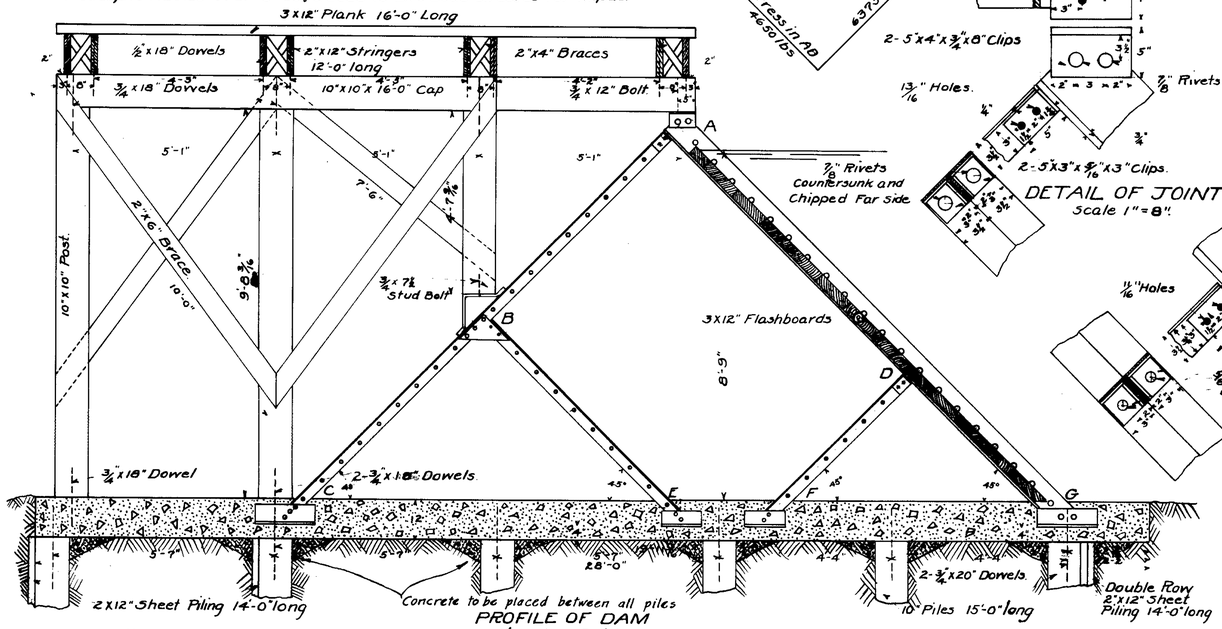




PLAN OF DAM
Bridge Not Shown.
Scale 1" = 8ft.

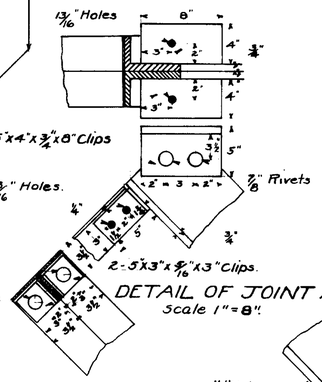


END WALL OF DAM
Scale 1" = 8ft

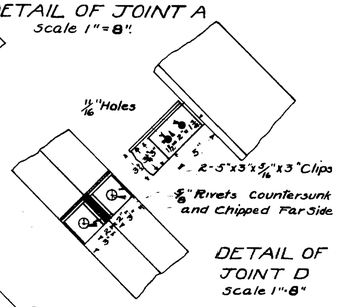


Use 1:2½:5 mix concrete in tooling

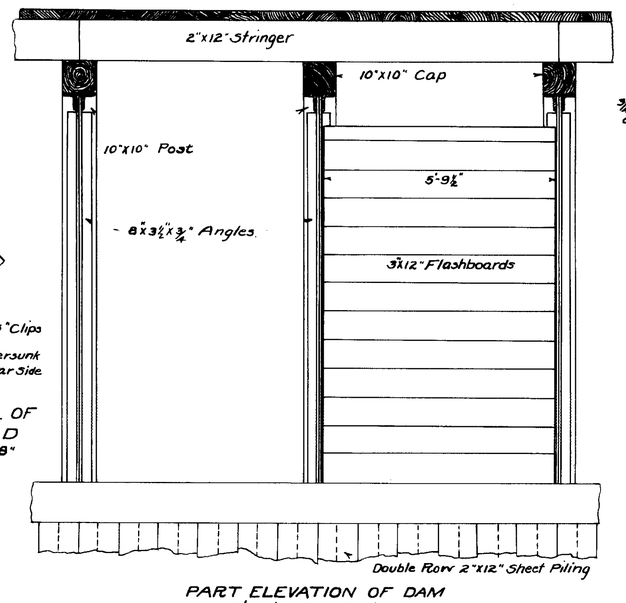
PROFILE OF DAM
Showing Bridge.
Scale 1" = 2ft.



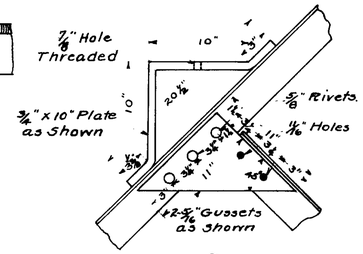
DETAIL OF JOINT A
Scale 1" = 8".

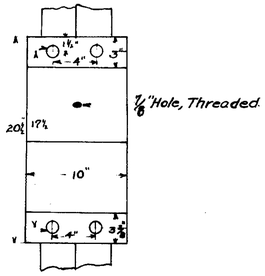


DETAIL OF JOINT D
Scale 1" = 8"

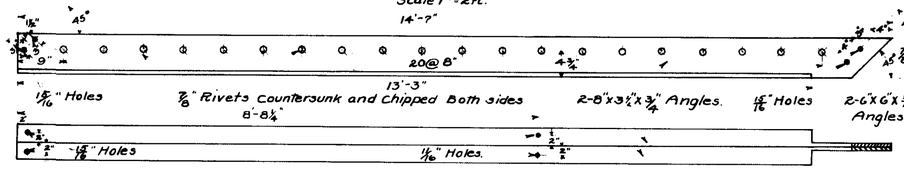


PART ELEVATION OF DAM
Showing Part of Bridge
Scale 1" = 2ft.

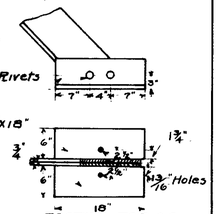




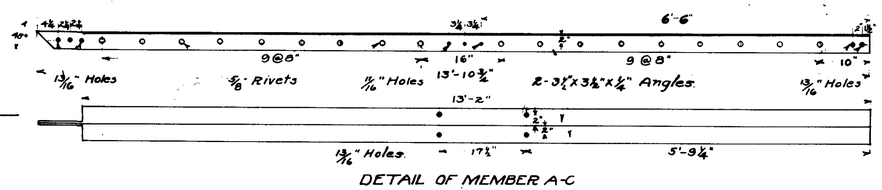
DETAIL OF JOINT B.
Showing Pedestal For Post.
Scale 1" = 8".



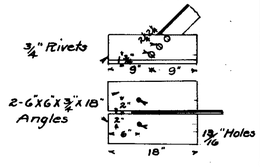
DETAIL OF MEMBER A-G
Scale 1" = 16"



FOOTING FOR A-G.
Scale 1" = 16"



DETAIL OF MEMBER A-C
Scale 1" = 16"



FOOTING FOR A-C
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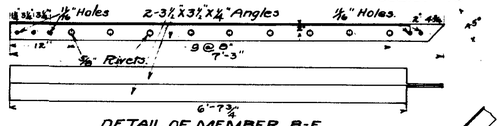
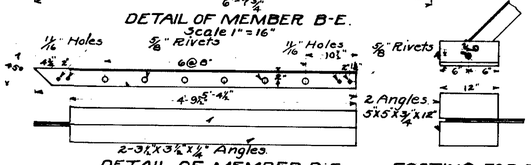
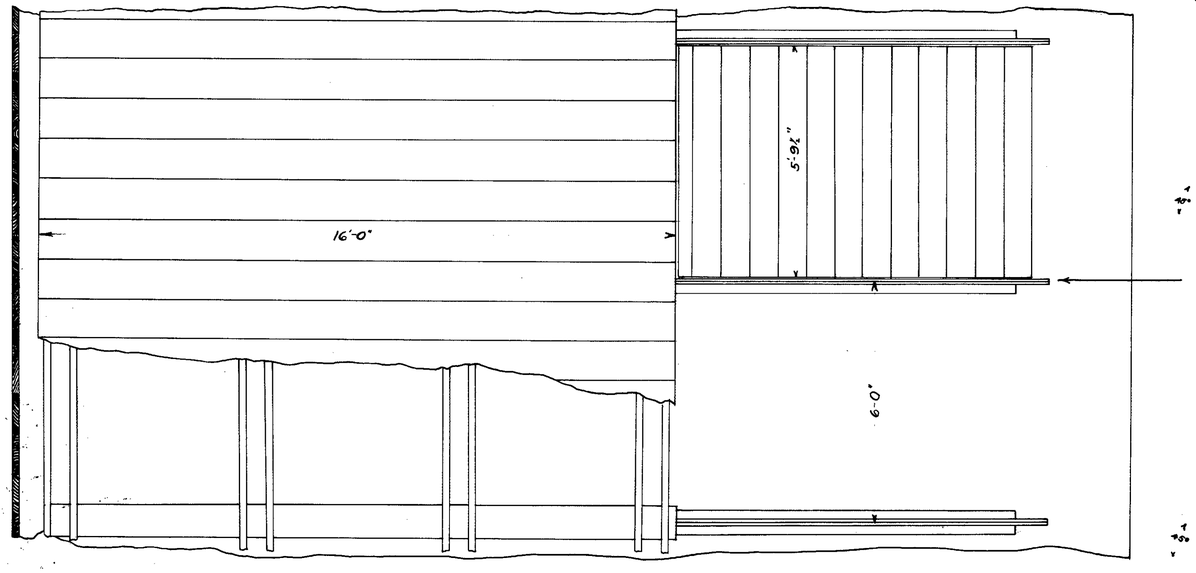


DETAIL OF MEMBER B-E.
Scale 1" = 16"



DETAIL OF MEMBER D-F
Scale 1" = 16"

FOOTING FOR B-E AND D-F.
Scale 1" = 16"



PART PLAN OF DAM AND BRIDGE
Scale 1" = 2ft.

HUMBOLDT LAND & CATTLE CO.
PLANS FOR PROPOSED
STEEL AND CONCRETE DAM
WITH TIMBER BRIDGE.
AS DESIGNED FOR H.L.&C.Co.
The HIGHLAND CATTLE CO.
Lessee

R.E. TILDEN
ENG'R.
WINNEMUCCA
NEVADA.

SCALES AS SHOWN.

JULY and AUG 1922.
JAN. 1923

FILED
JUL 27 1923
STATE ENGINEER'S OFFICE

Application No. 4109

Sheet No. 1 of 3 sheets

4109