

**General Notes:**  
 Dead Load: Concrete at 150<sup>#</sup> per cu. ft. + 15<sup>#</sup> per sq. ft. for future wearing surface  
 Live Load: 2 15 ton Trucks with 26% impact on girders and 30% on slab.  
 All concrete to be Class 'A' (1-2-4 Mix)  
 All exposed corners except as noted to be chamfered  $\frac{3}{4}$ "  
 Reinforcing Steel: Allowable tensile stress 16,000<sup>#</sup> per sq. in. All steel to be square deformed bars. Square twisted bars not to be considered deformed.  
 All dimensions relating to reinforcement are to centers of bars

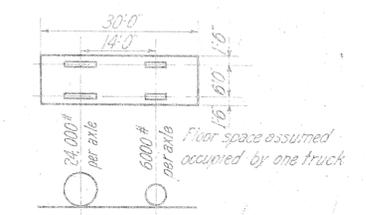
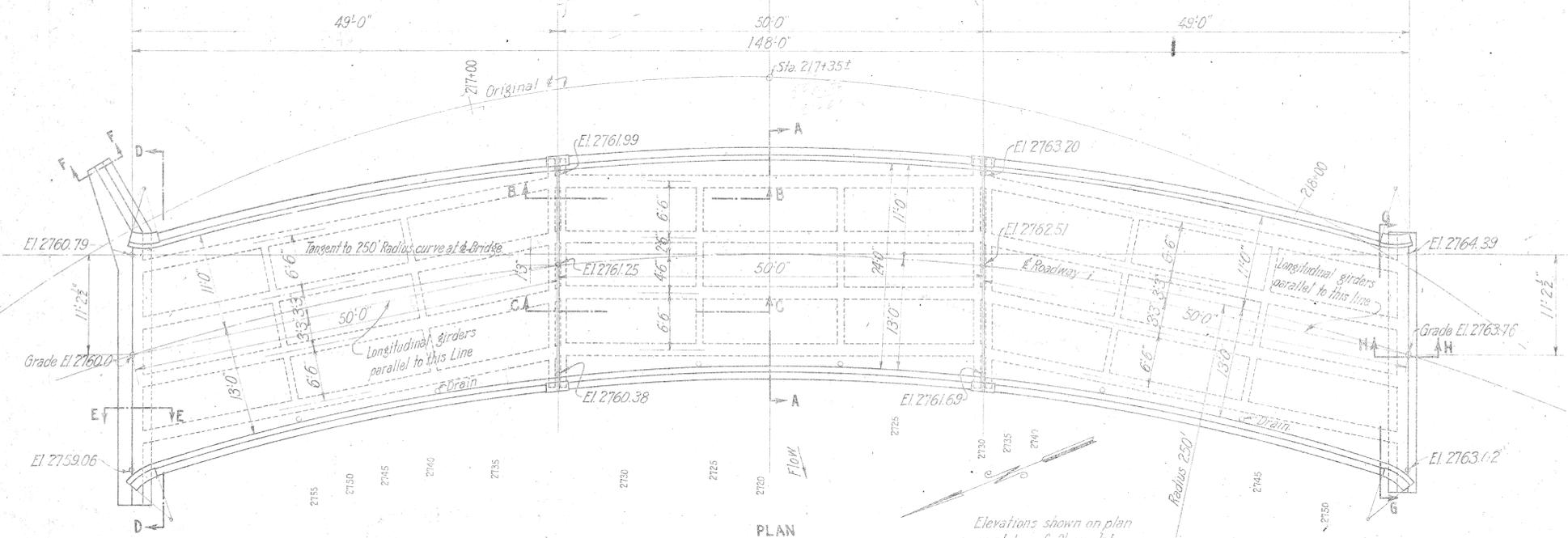


DIAGRAM OF 15 TON TRUCK



**Estimate of Quantities:**  
 Concrete Class 'A' 397 cu. yds  
 Reinforcing Steel 72,200<sup>#</sup>  
 Expansion Rockers 6,100<sup>#</sup>

WAIALE  
 BRIDGE # 371006  
 FAS 377

U.S. DEPARTMENT OF AGRICULTURE  
 BUREAU OF PUBLIC ROADS SAN FRANCISCO, CALIFORNIA

BRIDGE NO. 2 - STATION 217±

HAWAII F.A.P. 5B

SCALE 1" = 1'-0"

AUGUST 1929

Sheet 1 of 3 Sheets

RG. 163A

Plan No.	Pocket No.	Folder No.	Plan No.
6	15	3	

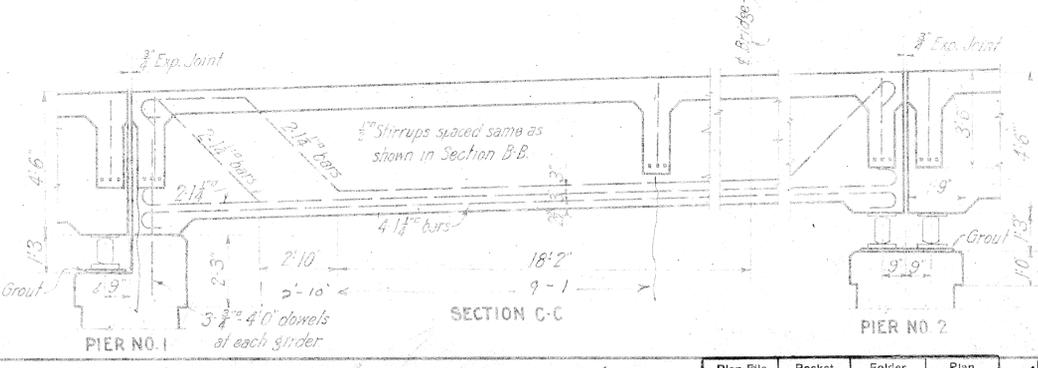
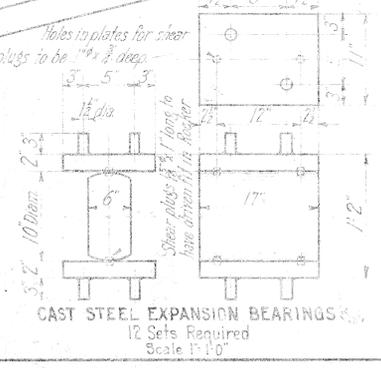
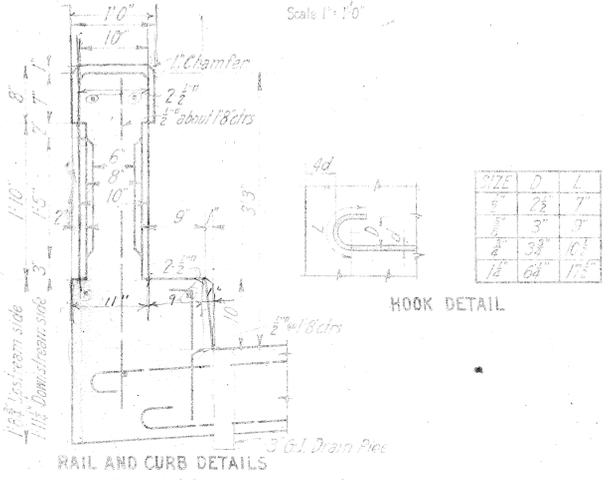
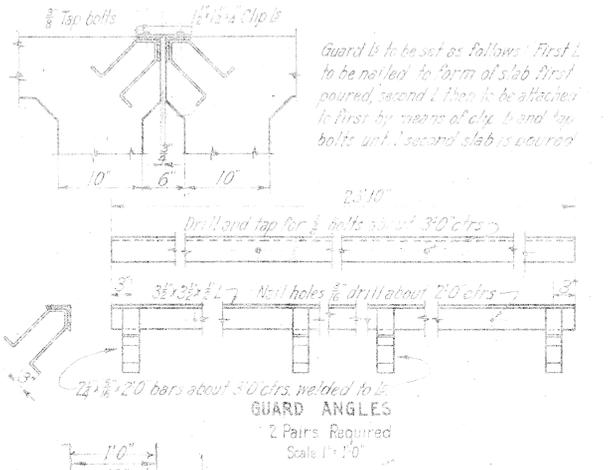
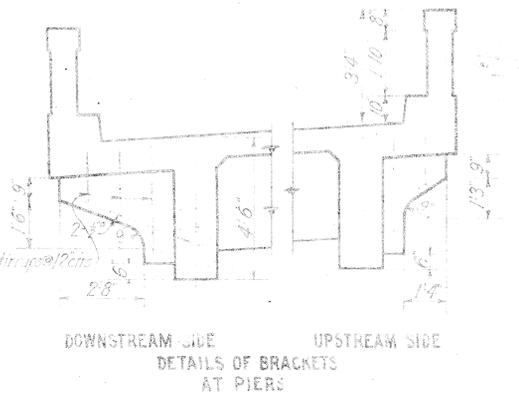
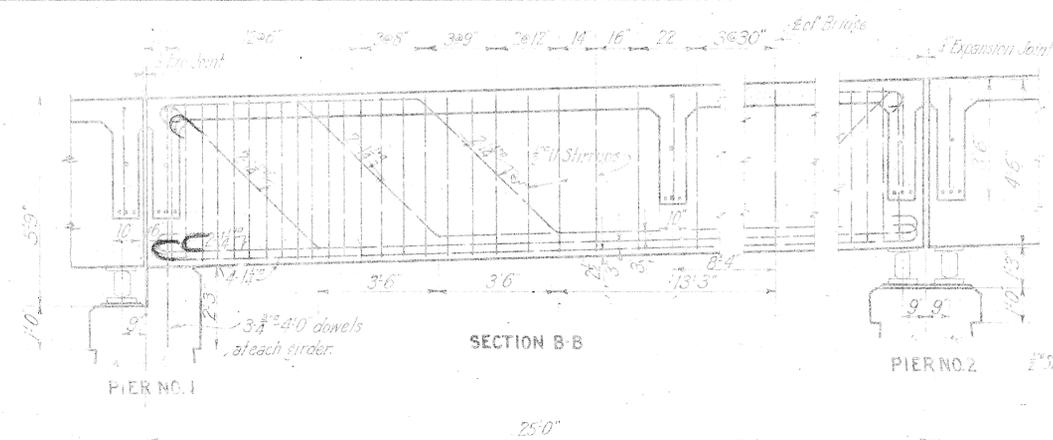
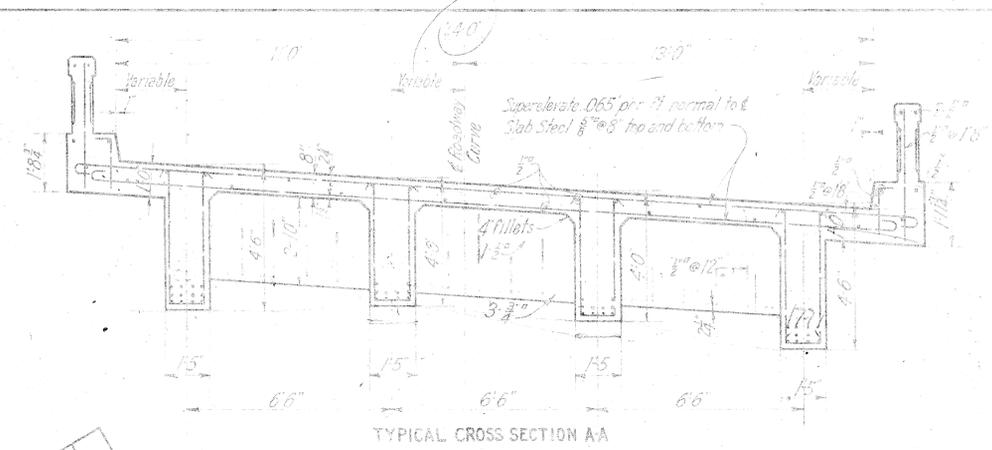
**4081.36**

**Stresses:**  
 $f_c = 2000$   
 $f_y = 32,000$   
 $n = 15$   
 $w = 150 \frac{#}{ft^2}$

Concrete  
 Inventory - 0.335c  
 Operating - 0.451c

Rebar  
 0.504c  
 0.754c

DESIGNED BY: [Signature]  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]



DESIGNED BY  
DRAWN BY  
CHECKED BY  
DATE AUG. 1929

DEPARTMENT OF AGRICULTURE  
BUREAU OF PUBLIC ROADS  
SAN FRANCISCO, CALIFORNIA

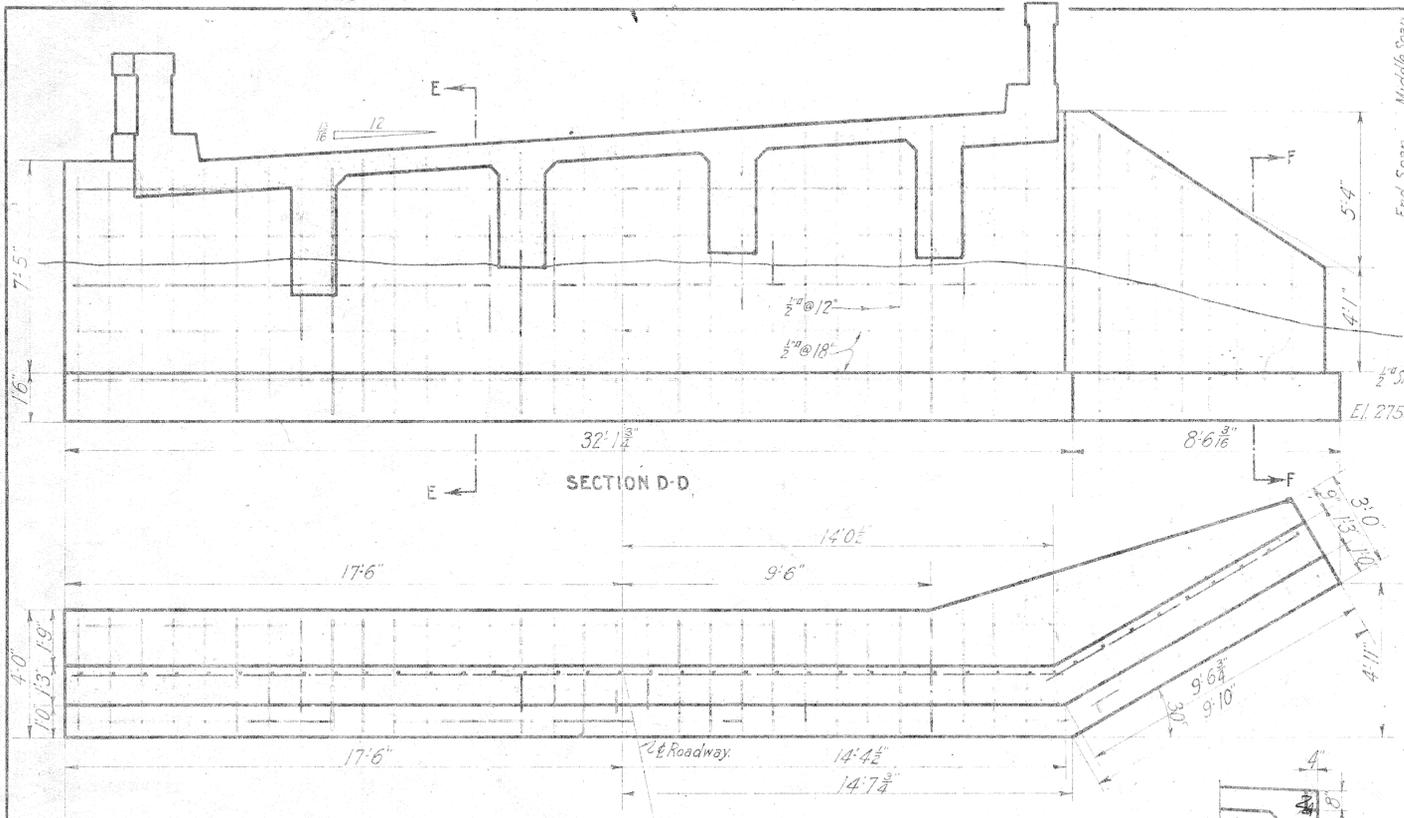
BRIDGE NO. 2 - STATION 217±  
HAWAII E.A.P. 5B

SCALE 1" = 10' AUGUST 1929

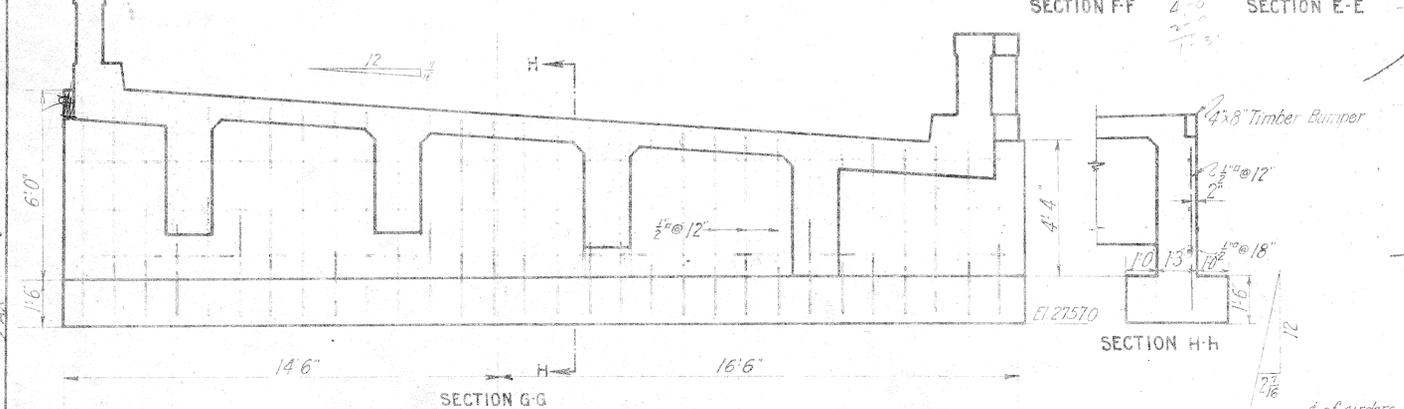
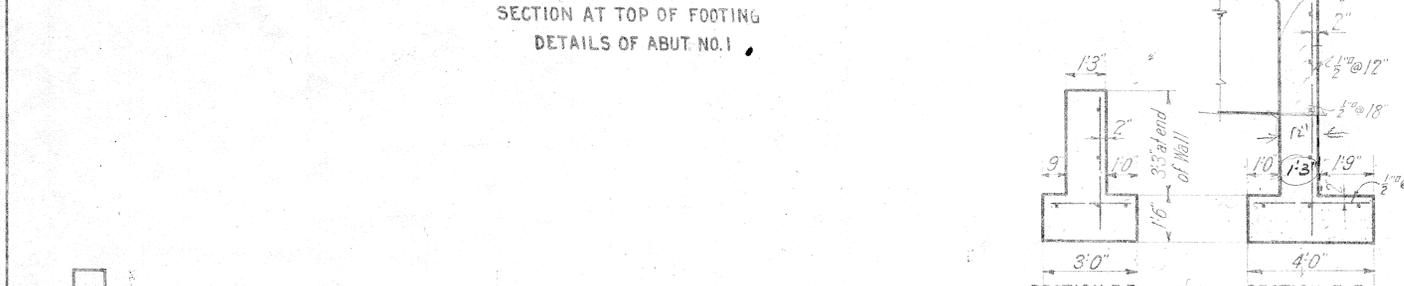
Plan No.	Sheet No.	Folder No.	Plan No.
6	15	3	

4081.37

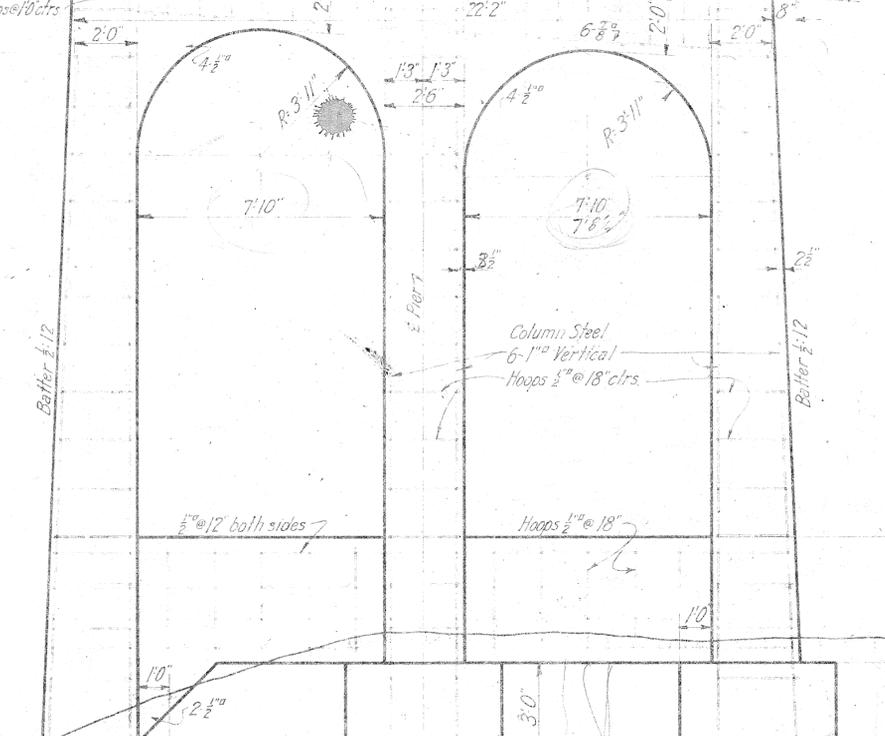
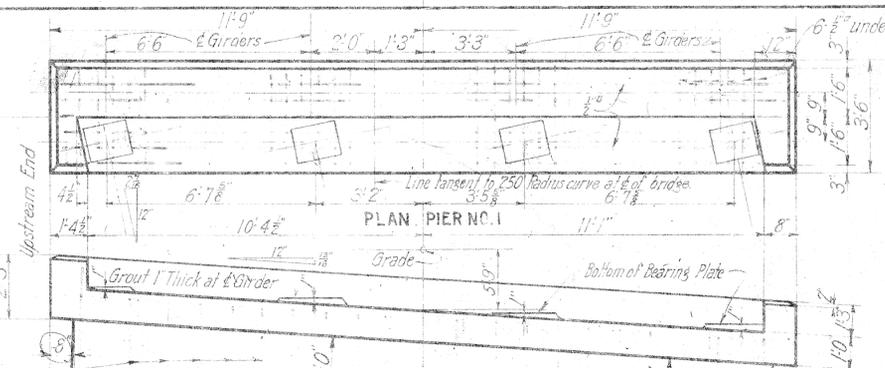
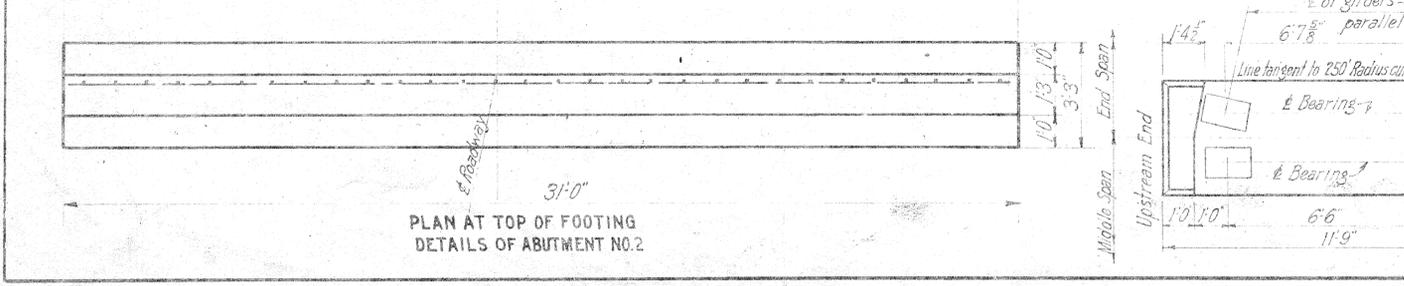
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HAW.	HAW.	5-B	1929	38	86



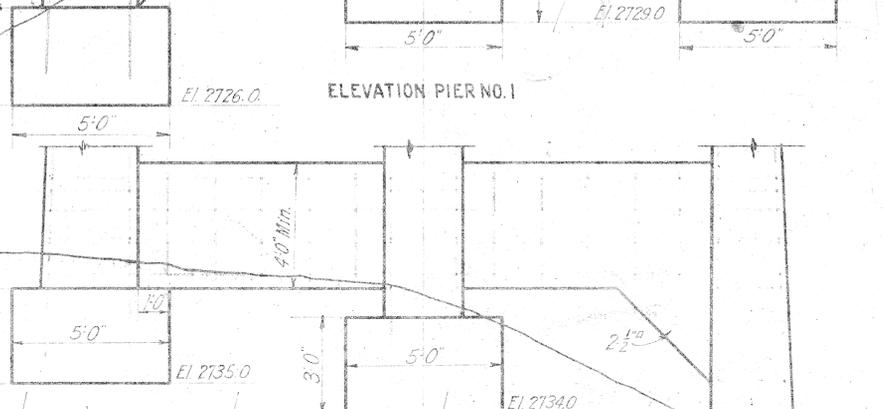
SECTION AT TOP OF FOOTING  
DETAILS OF ABUT. NO. 1



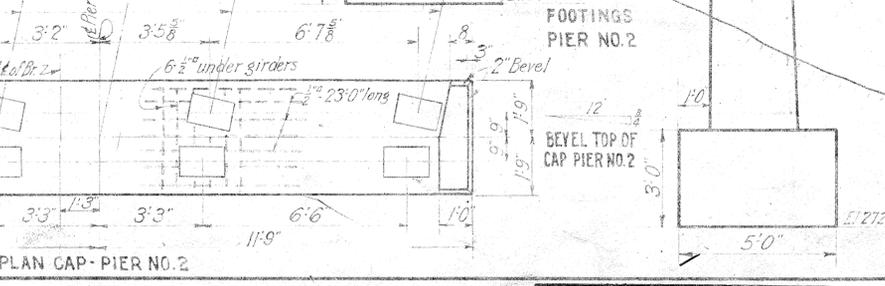
PLAN AT TOP OF FOOTING  
DETAILS OF ABUTMENT NO. 2



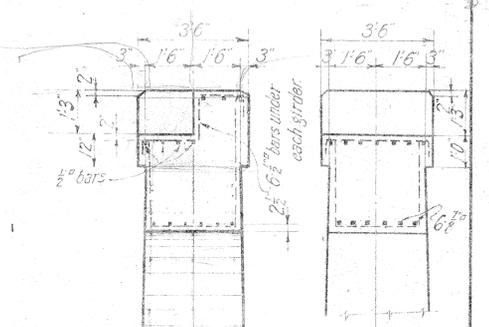
ELEVATION PIER NO. 1



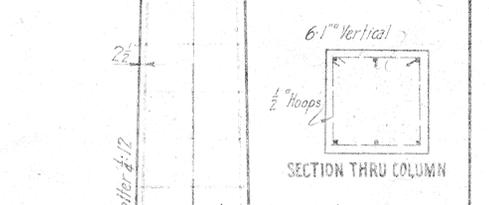
FOOTINGS PIER NO. 2



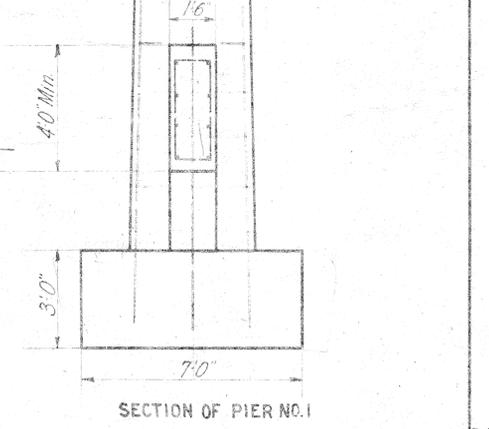
BEVEL TOP OF CAP PIER NO. 2



SECTION PIER NO. 2



SECTION THRU COLUMN



SECTION OF PIER NO. 1

U. S. DEPARTMENT OF AGRICULTURE  
BUREAU OF PUBLIC ROADS  
SAN FRANCISCO, CALIFORNIA  
BRIDGE NO. 2 STATION 217+  
HAWAII F.A.P. 5B  
AUGUST 1929

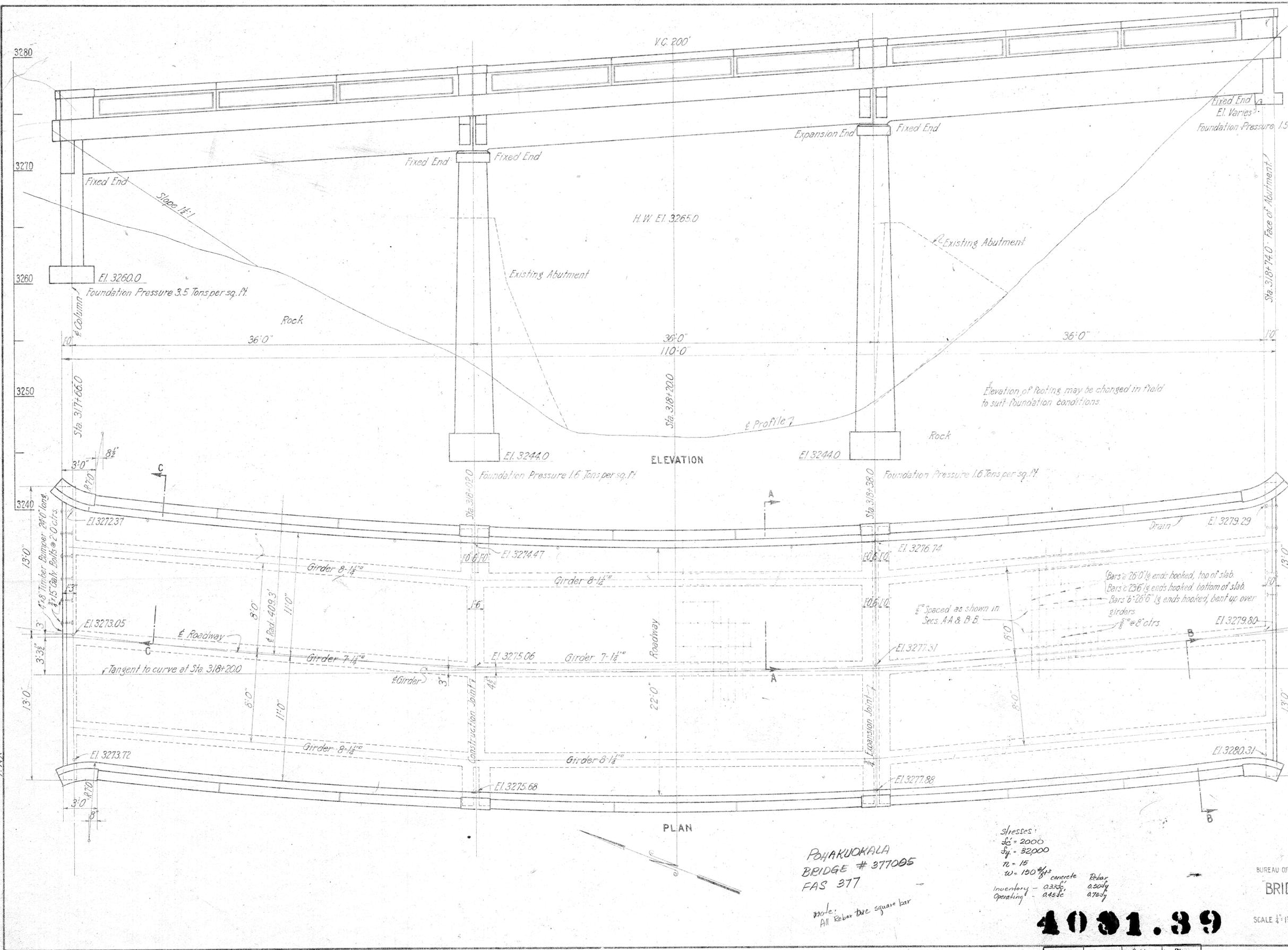
SCALE: 1/4" = 1'-0"

Sheet 3 of 3 Sheets  
RG-163C

DESIGNED BY: S. C. ...  
DRAWN BY: ...  
CHECKED BY: ...

Plan No.	Sheet No.	Folder No.	Plan No.
6	15	3	4081.38

4081.38



General Notes:  
 Dead Load - Concrete at 150# per cu. ft. + 15# per sq. ft. for future wearing surface  
 Live Load - 2-15 Ton Trucks with 30% impact  
 All concrete to be Class A (1-2-4 Mix)  
 All exposed corners except as noted to be chamfered 3/8"  
 Reinforcing Steel: Allowable tensile stress 16,000# per sq. in. All steel to be square deformed bars. Square twisted bars not to be considered deformed.  
 All dimensions relating to reinforcement are to centers of bars.

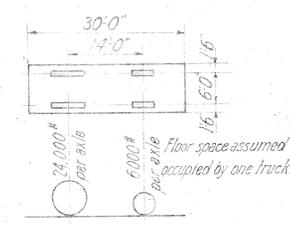


DIAGRAM OF 1-15 TON TRUCK

Estimate of Quantities  
 Concrete 257 cu. yds.  
 Reinforcing Steel 35,000#  
 Bronze Expansion Plates 280#

Pohakuokala

U.S. DEPARTMENT OF AGRICULTURE  
 BUREAU OF PUBLIC ROADS SAN FRANCISCO, CALIFORNIA

BRIDGE NO. 4 - STATION 318+20  
 HAWAII F.A.P. 5B

SCALE 1/4" = 1'-0" AUGUST 1929

Sheet 1 of 2 Sheets

R.G. 164-A

Stresses:  
 S<sub>c</sub> = 2000  
 S<sub>t</sub> = 32000  
 n = 15  
 w = 150 #/cu. ft. concrete  
 Inventory - 0.23 cu. ft. Rebar  
 Operating - 0.45 cu. ft. Rebar

POHAUKOKALA  
 BRIDGE # 377005  
 FAS 377

Note:  
 All Rebar are square bar

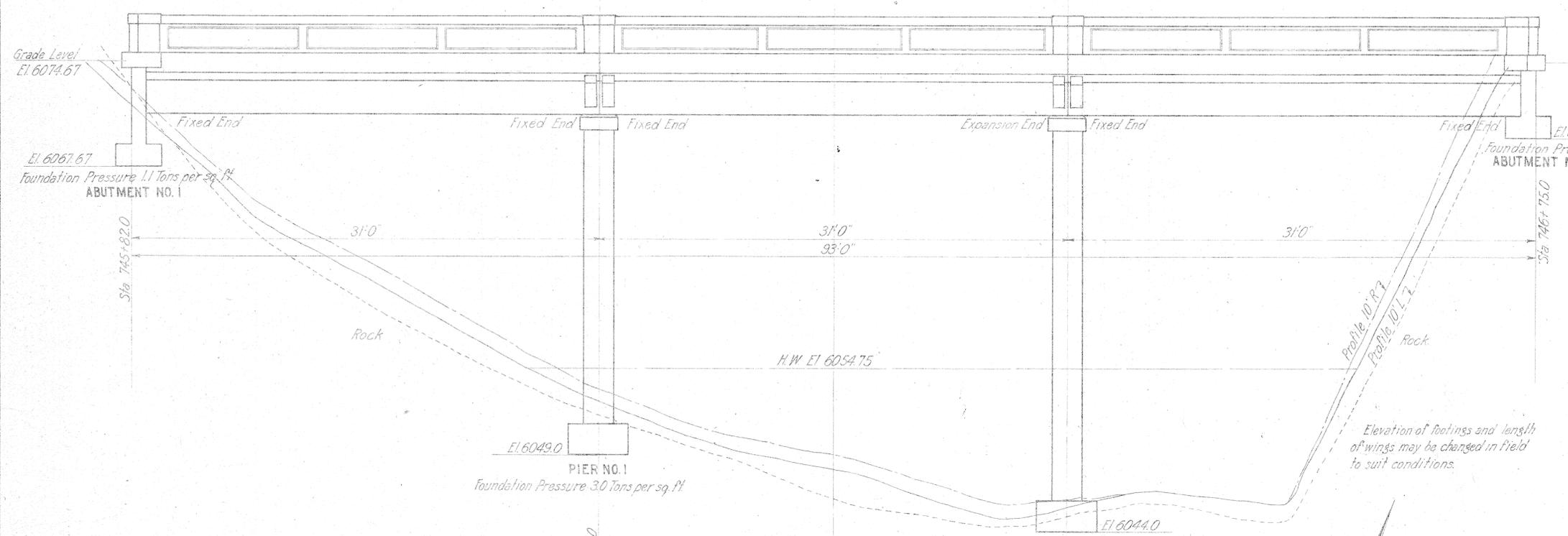
**4081.39**

Plan File No.	Pocket No.	Folder No.	Plan No.
6	15	3	

4081.39

DESIGNED BY: [Signature]  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]





ELEVATION

General Notes:  
 Dead Load: Concrete 150# per cu ft  
 Surfacing 120# per cu ft  
 Live Load: 1-15 Ton Truck with 30% impact  
 All concrete to be Class 'A' (1:2:4 Mix)  
 All exposed corners except as noted to be chamfered 3/8"  
 Reinforcing Steel: Allowable tensile stress 16,000# per sq. in.  
 All steel to be square deformed bars. Square twisted bars not to be considered deformed.  
 All dimensions relating to reinforcement are to centers of bars.

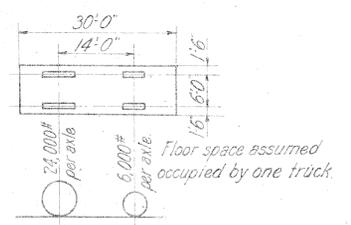
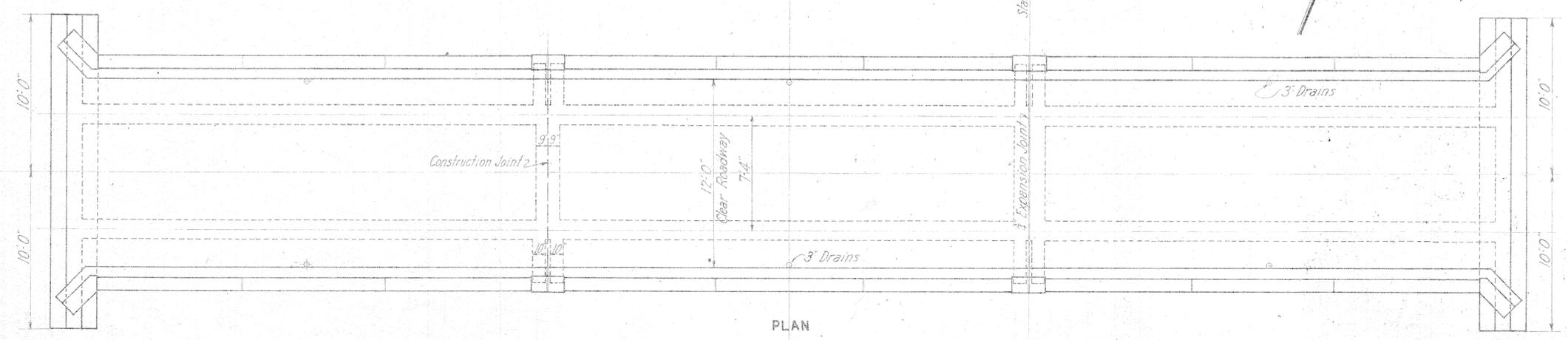


DIAGRAM OF 1-15 TON TRUCK

Estimate of Quantities:  
 Concrete 118 Cu. Yds.  
 Reinforcing Steel 17,500#  
 Bronze Expansion Plates 130#



PLAN

DESIGNED BY: [Signature]  
 DATE: July 1929  
 DRAWN BY: [Signature]  
 TRACED BY: [Signature]  
 CHECKED BY: [Signature]

Note:  
 All rebar are square bar

Stresses:  
 $f'_c = 2000$   
 $f_y = 33,000$   
 $n = 15$   
 $w = 150 \text{ #/ft}^3$

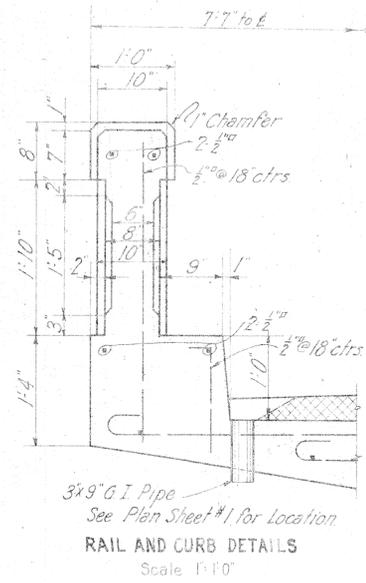
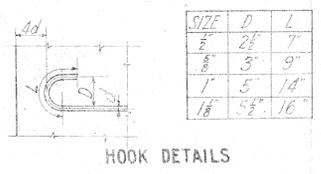
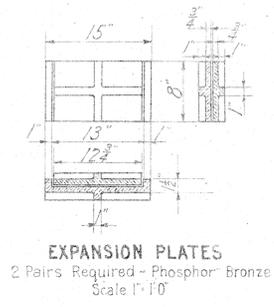
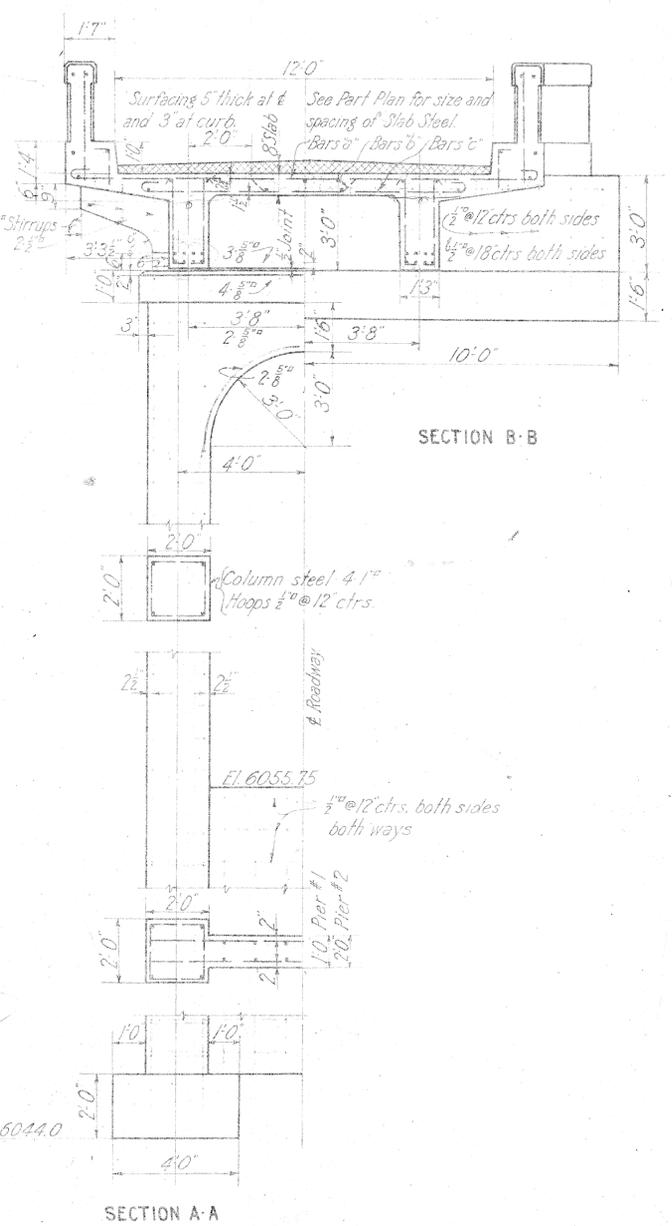
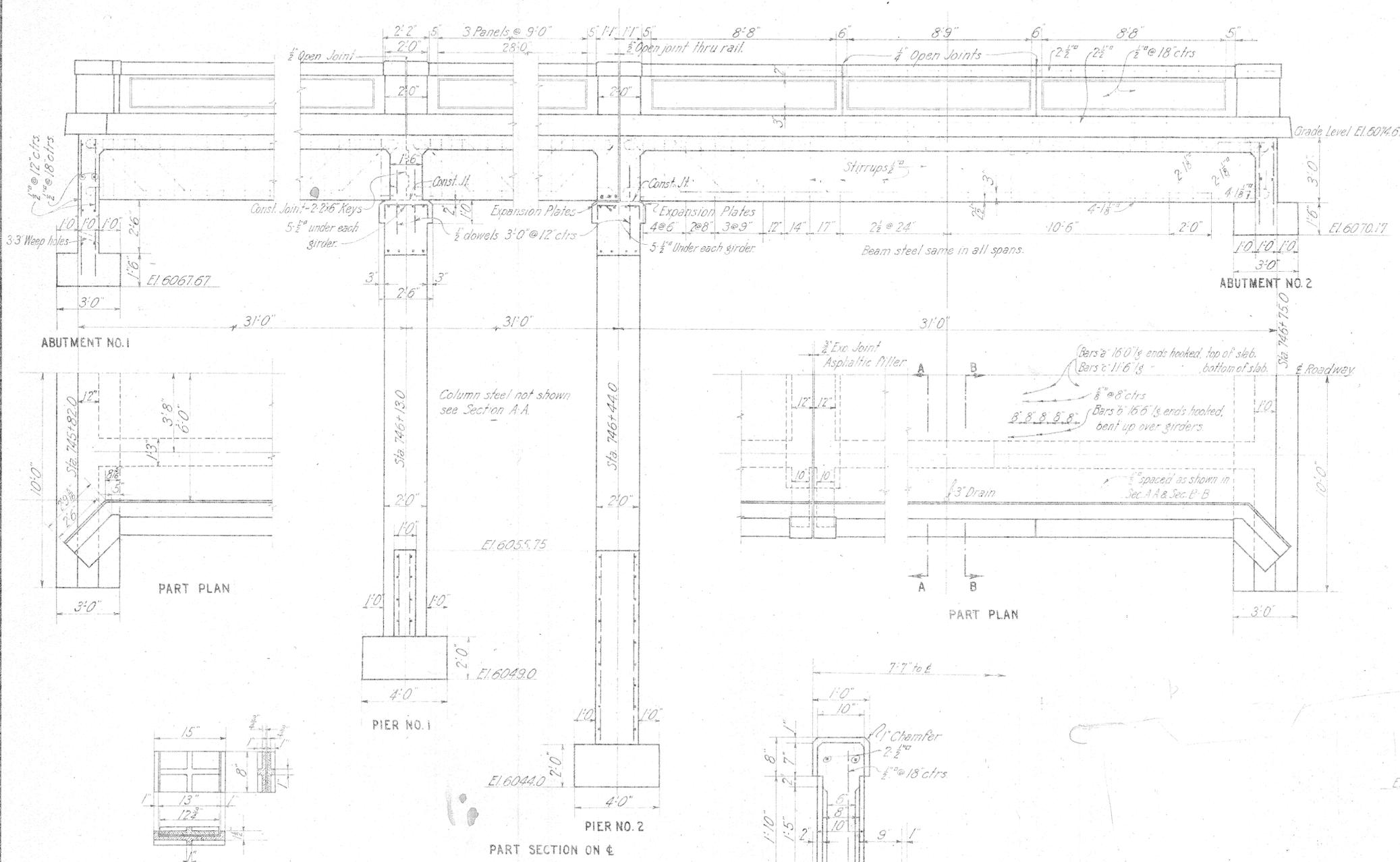
Inventory	Concrete	Rebar
	0.33 $f'_c$	0.50 $f_y$
Operating	0.46 $f'_c$	0.75 $f_y$

**POHAKUOKALA**  
 BRIDGE # 318001  
 FAS 37B  
 STRUCTURE UPDENSED IN 1970  
**4081.40A**

Pohakuokala  
 U.S. DEPARTMENT OF AGRICULTURE  
 BUREAU OF PUBLIC ROADS SAN FRANCISCO, CALIFORNIA  
 BRIDGE NO. 5 - STATION 746+28  
 HAWAII F.A.P. 5B  
 SCALE 1/4" = 1'-0"  
 AUGUST 1929  
 Sheet 1 of 2 Sheets  
**RG. 165A**

Plan File No. 6	Pocket No. 15	Folder No. 3	Plan No.
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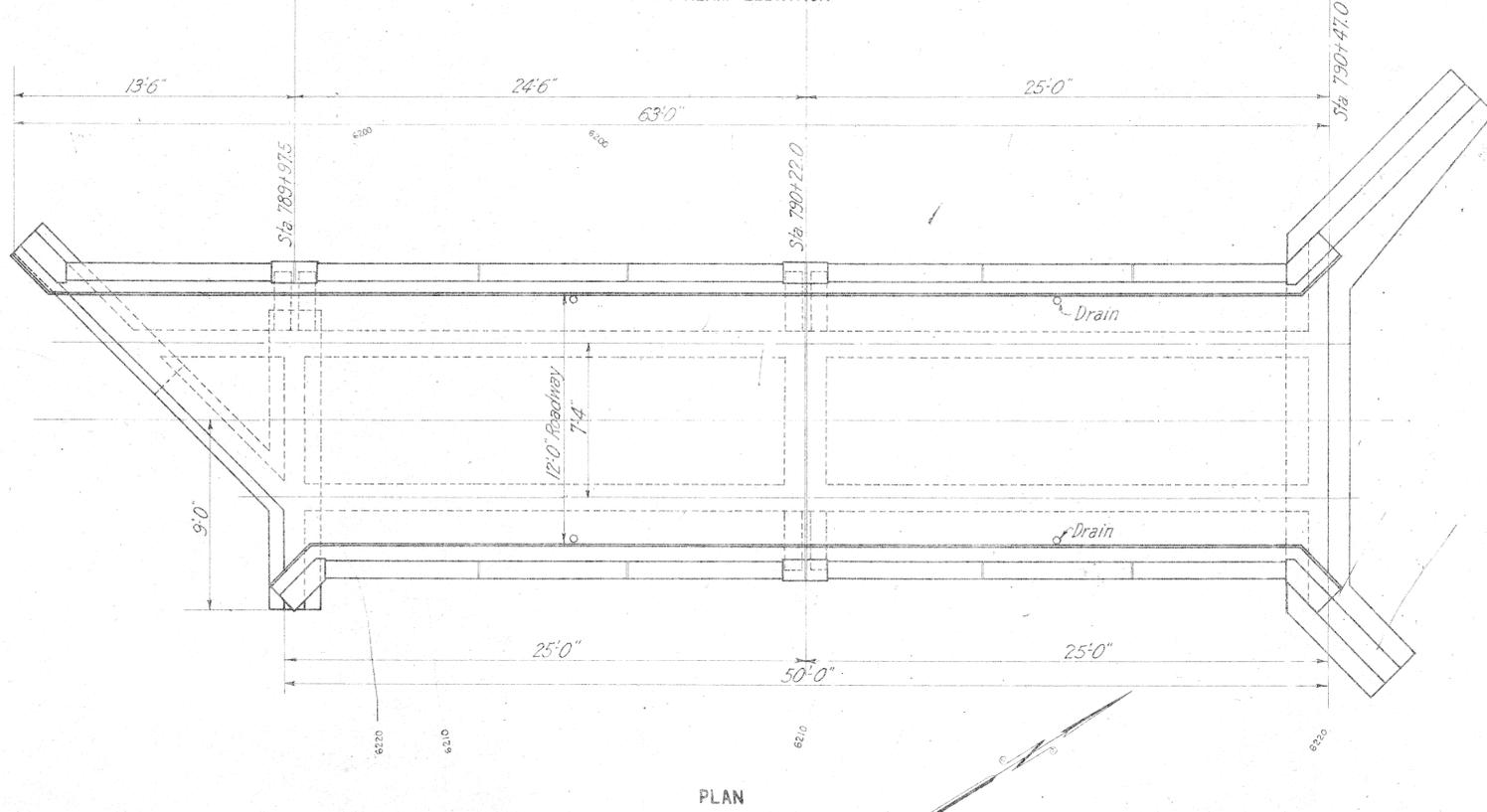
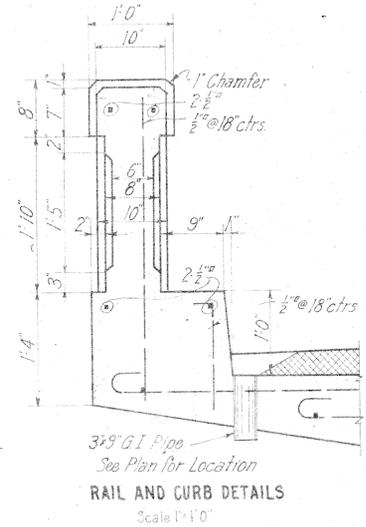
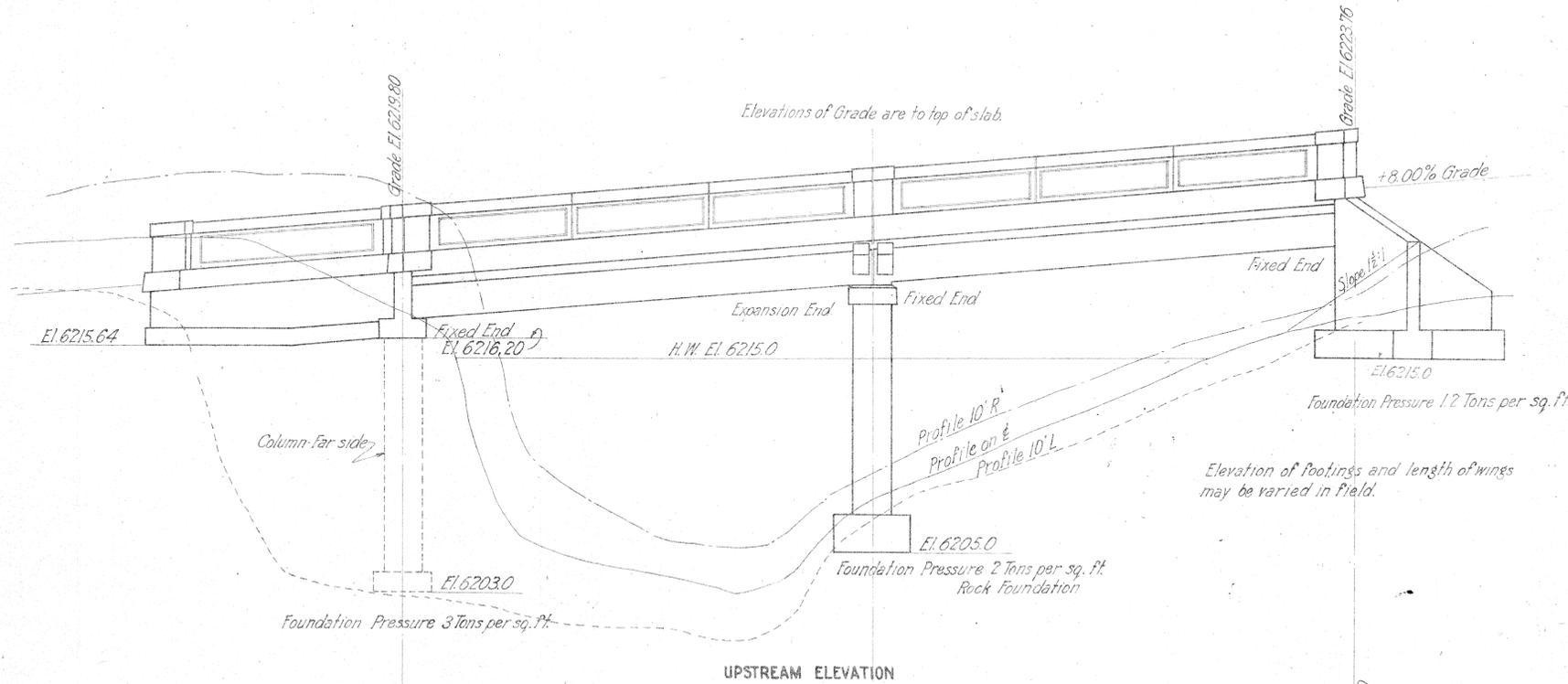
4081.40A



DESIGNED BY: [Signature]  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]

U.S. DEPARTMENT OF AGRICULTURE  
 BUREAU OF PUBLIC ROADS SAN FRANCISCO, CALIFORNIA  
**BRIDGE NO. 5 - STATION 746+28**  
 HAWAII F.A.P. 5B  
 SCALE 3/8" = 1'-0" AUGUST 1929

**4081.40B**



General Notes:

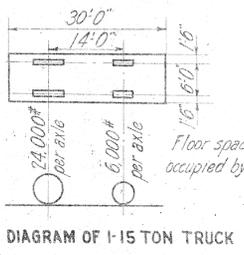
Dead Load: Concrete at 150# per cu ft  
Surfacing at 120# per cu ft

Live Load: 1-15 Ton Truck with 30% impact

Concrete: Allowable compression 650# per sq. in.  
All concrete to be Class "A" (1-2-4 Mix)  
All exposed corners except as noted to be chamfered.

Reinforcing Steel: Allowable tensile stress 16,000# per sq. in. All steel to be square deformed bars. Square twisted bars not to be considered deformed.

All dimensions relating to reinforcement are to centers of bars.



Estimate of Quantities:

Concrete Class "A" 72 cu. yds.

Reinforcing Steel 9200#

Expansion Plates 130#

WAIALE BRIDGE # 378002  
FAS 378  
STRUCTURE WIDENED IN 1970

U.S. DEPARTMENT OF AGRICULTURE  
BUREAU OF PUBLIC ROADS SAN FRANCISCO, CALIFORNIA

Waiale BRIDGE NO. 6 - STATION 790+22

HAWAII F.A.P. 5B

SCALE 1/2" = 1'0" AUGUST 1929

**4081.41**

Sheet 1 of 2 Sheets

R.G.166A

DESIGNED BY  
DRAWN BY  
CHECKED BY

Note: All rebar are square bar

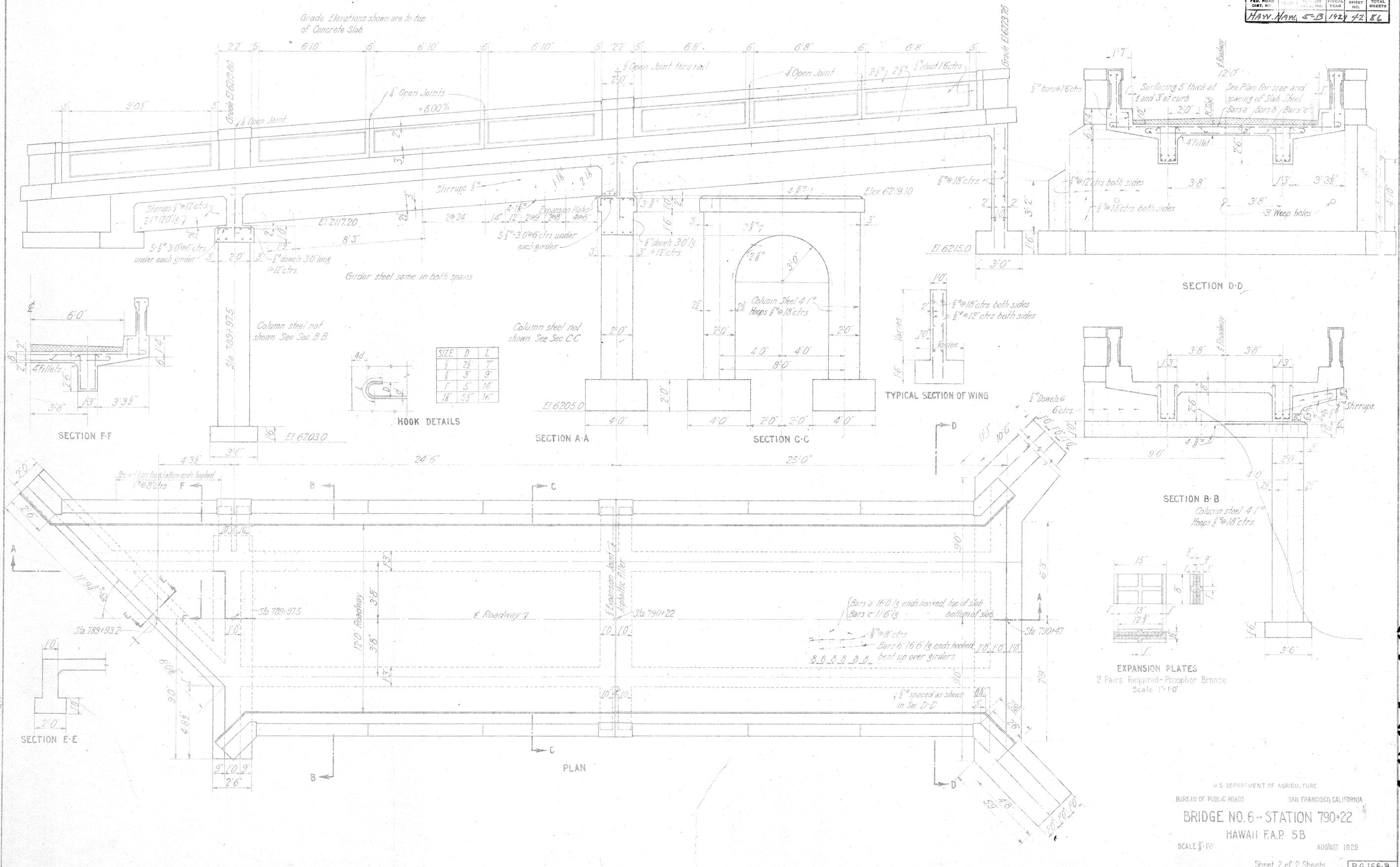
Stresses:  
S<sub>c</sub> = 2000  
S<sub>t</sub> = 32000  
n = 15  
w = 150 #/cu. ft.

Concrete Inventory - 0.3346, Rebar 0.5034  
Operating - 0.4616, 0.7664

Plan No.	Pocket No.	Folder No.	Plan No.
6	16	2	

4081.41

Grade Elevations shown are to top of Concrete Slab



SIZE	D	L
1/2"	2 1/2"	7"
3/8"	3"	9"
1"	5"	14"
1 1/8"	5 1/2"	16"

U.S. DEPARTMENT OF AGRICULTURE  
 BUREAU OF PUBLIC ROADS  
 SAN FRANCISCO, CALIFORNIA  
 BRIDGE NO. 6 - STATION 790+22  
 HAWAII F.A.P. 5B  
 SCALE 3/8" = 1'-0"  
 AUGUST 1929

4081.42