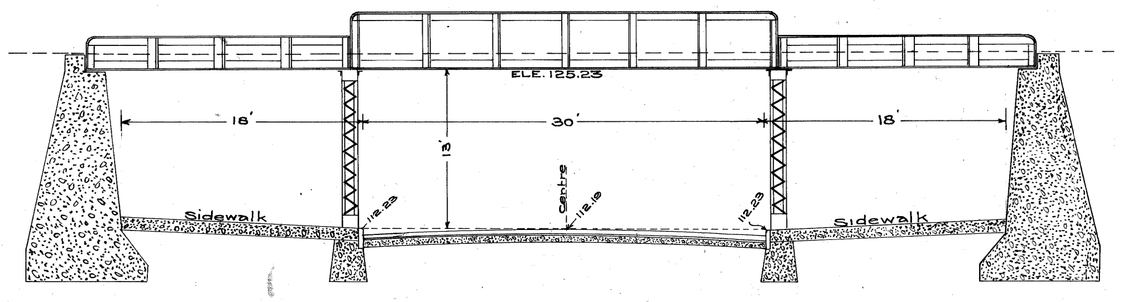
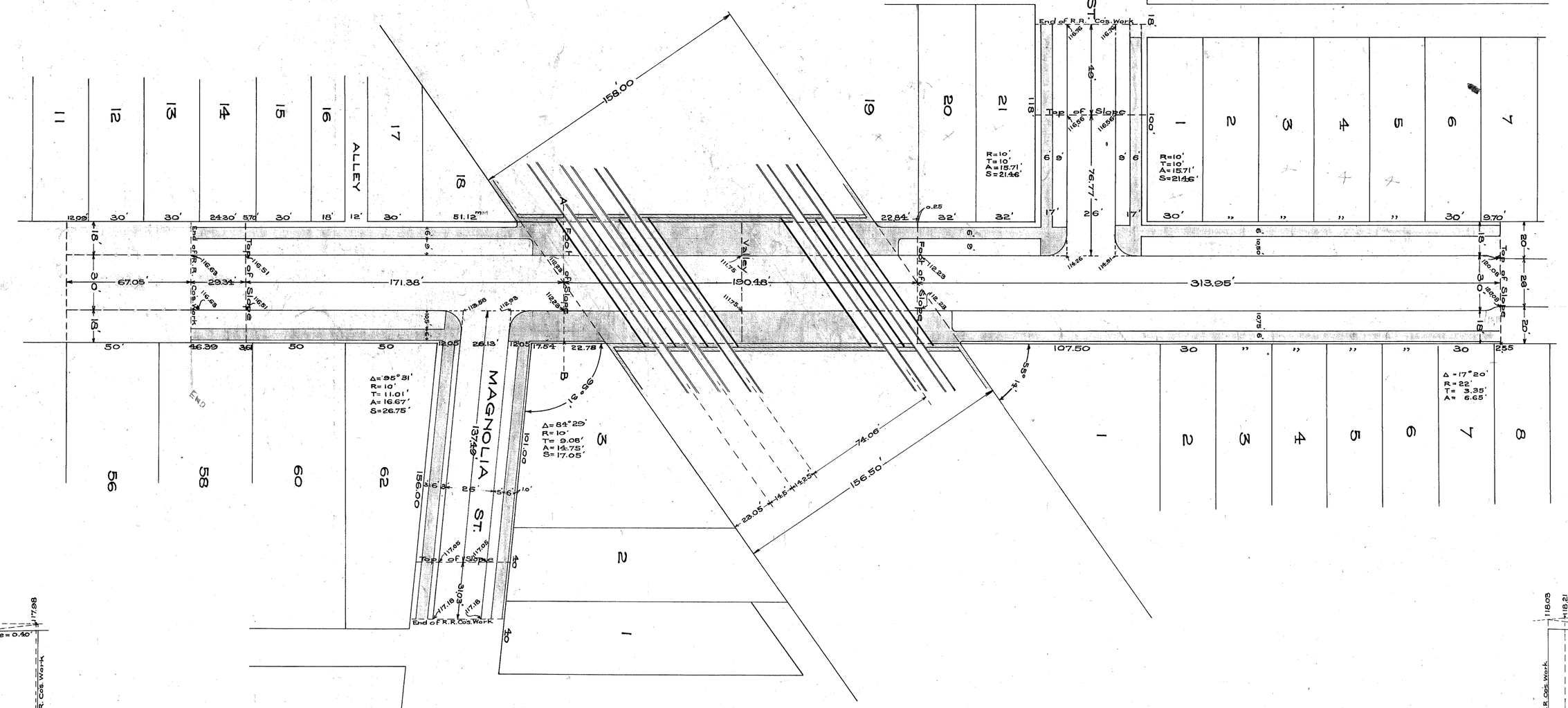
PROPOSED SUBWAY IN
VINEWOOD AVENUE
UNDER D. & B.C., L.S.&M.S.& G.T. R'WYS.

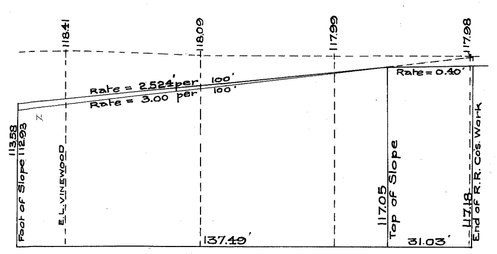


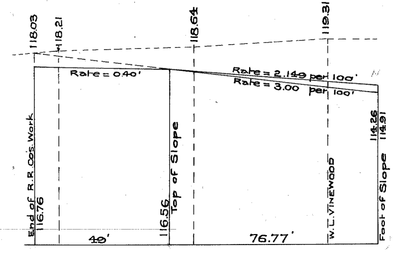
SECTION AT A-B
Scale, one inch = 8 Feet.

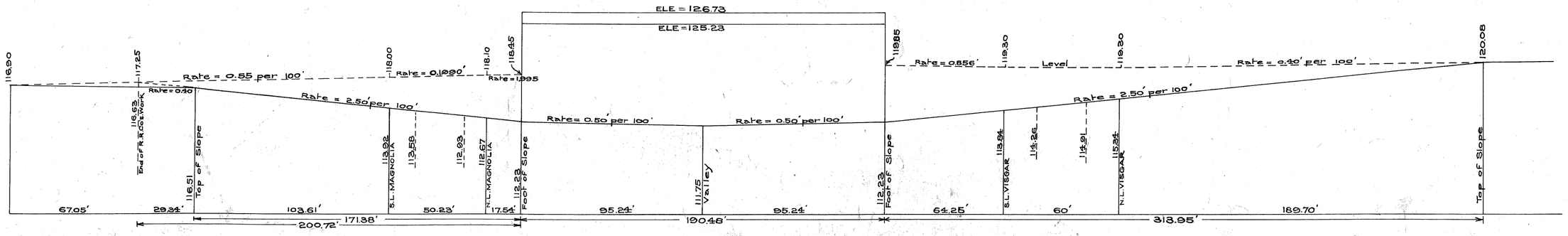
O.K.

Approved:
City Engineer
Chief Engineer





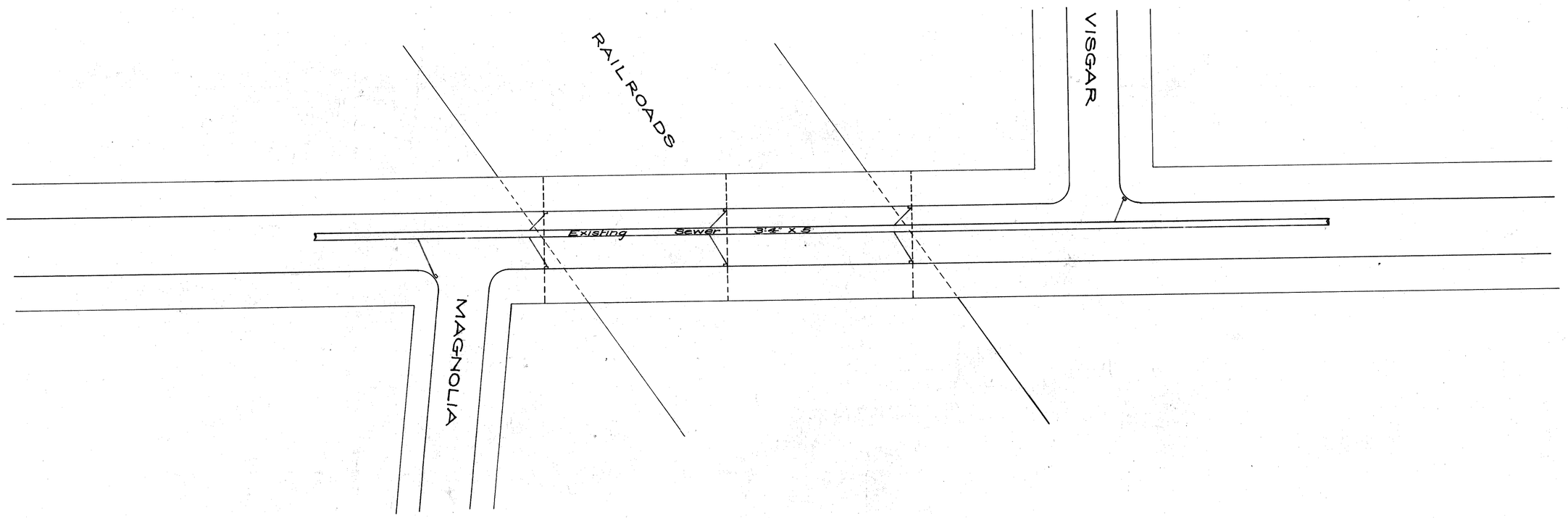


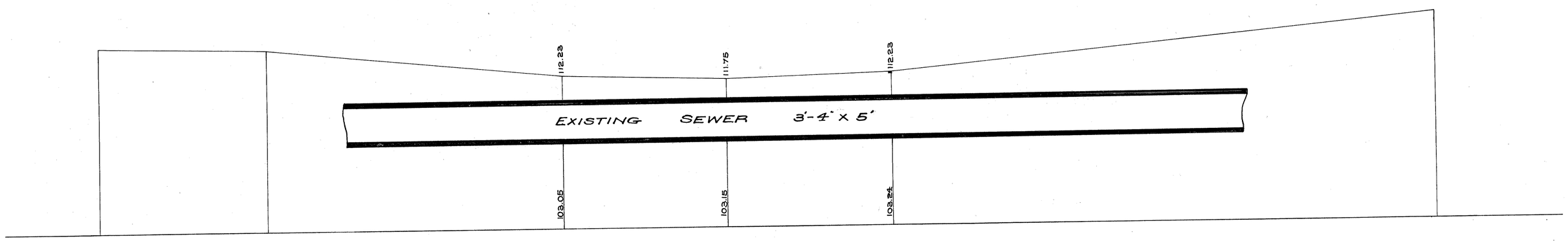


Drawn by J.W.Reid. Feb. 14, 1908

File XU 26-1

DRAINAGE PLAN
FOR
VINEWOOD AVENUE SUBWAY
NORTH OF MICHIGAN AVE





VINEWOOD AVE.

Hor. Scale, One Inch = 40 Feet
Ver. " " " = 10 "

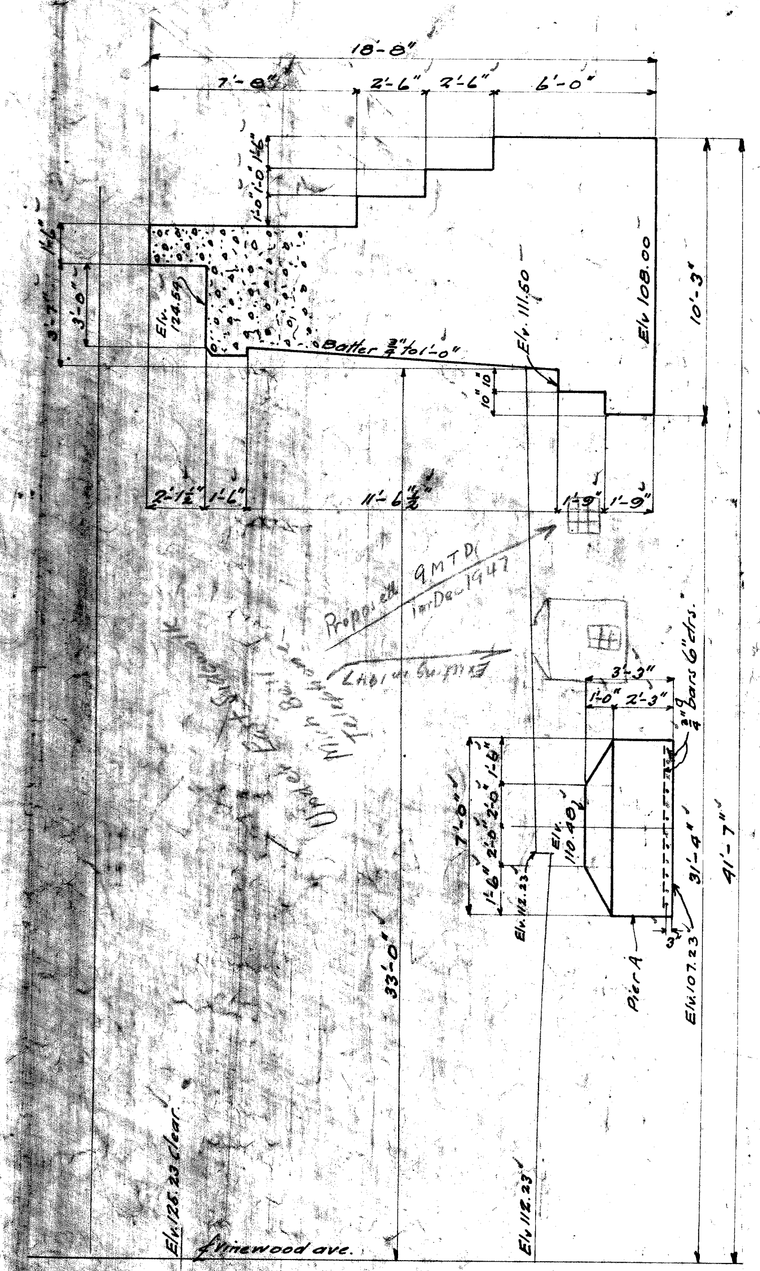
City Engineer's Office.—
Drawn by J.W. Reid, Nov. 4, 1908.—

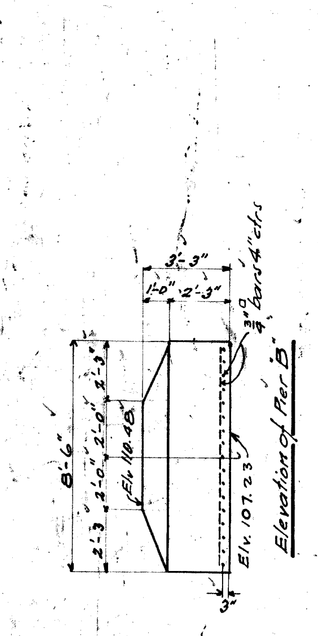
Notes:

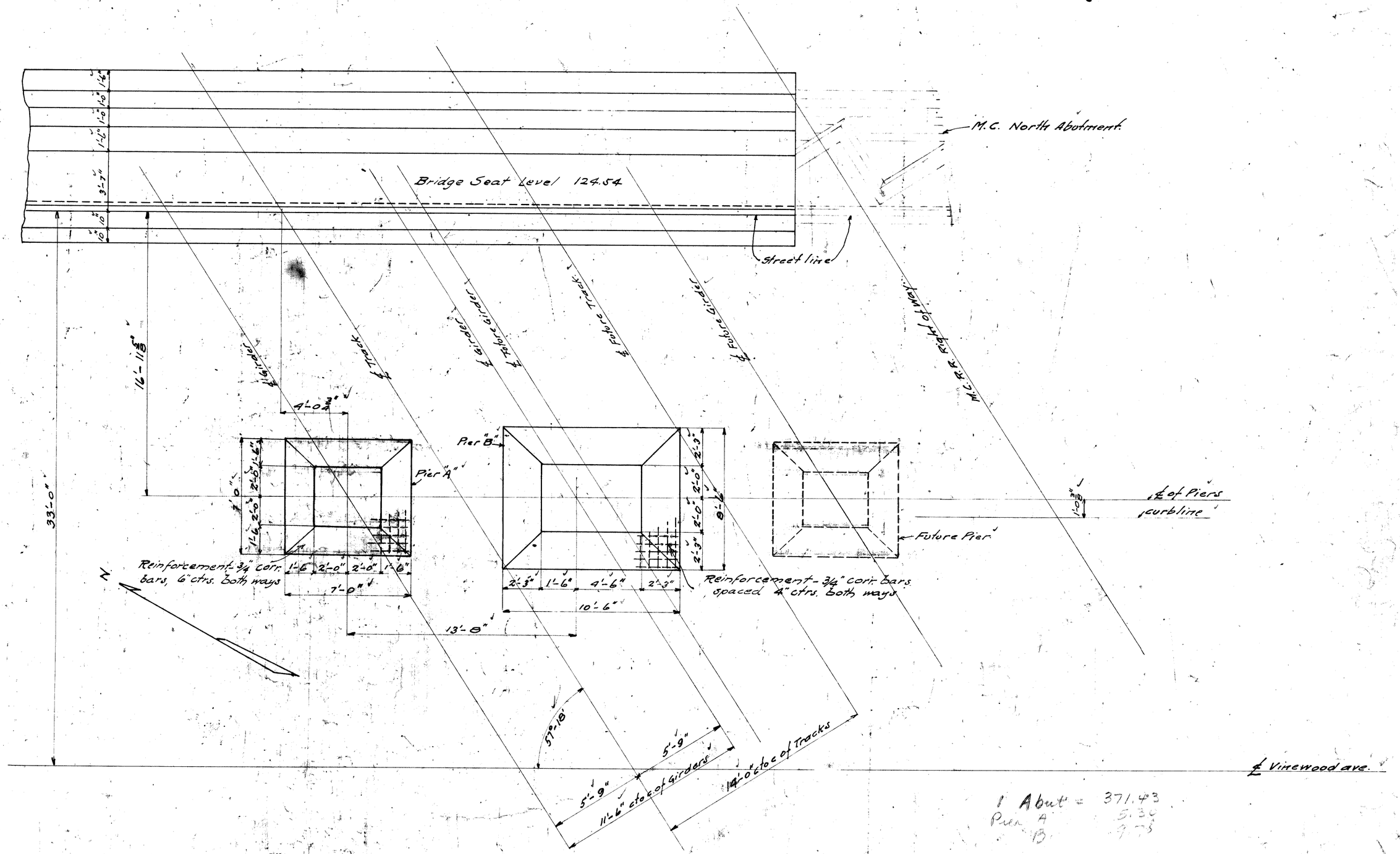
Concrete Mixture 1-2½-5

Chamfer all exposed edges

Exposed surfaces to have a dense hard and smooth finish. Non-Exposed surfaces to be free from a honeycombed appearance.







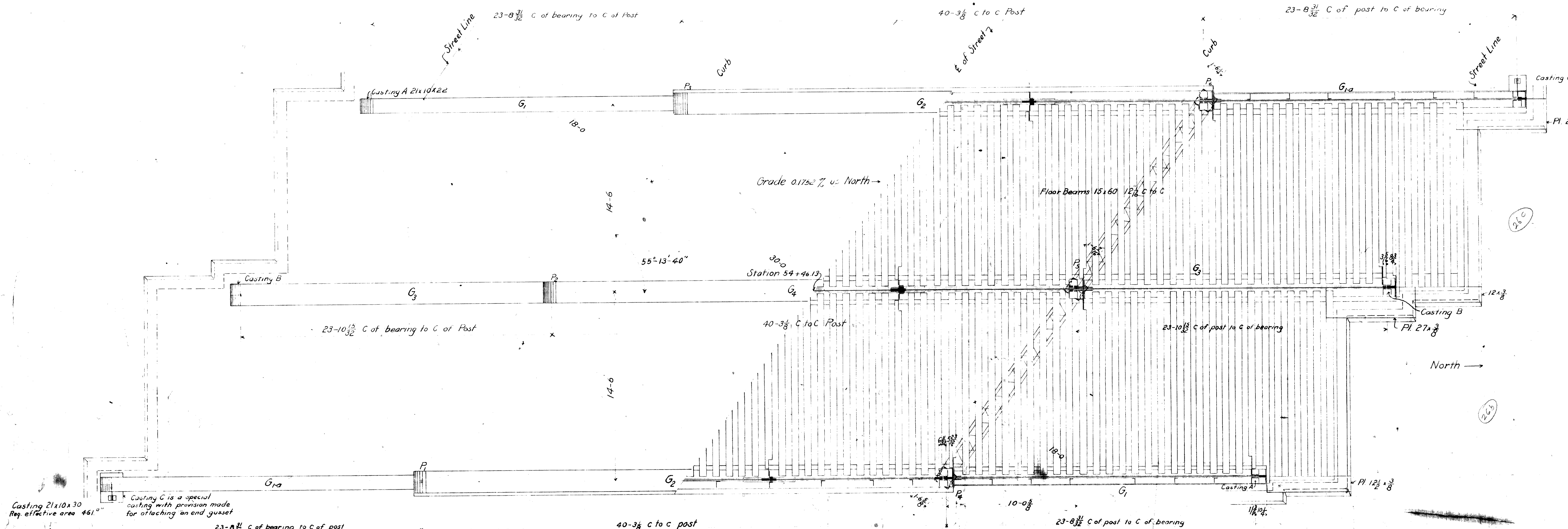
Plan of Abutment & Piers on North side of Vinewood ave.

South side Abutment & Piers of same construction and on same elevations

Revised 9-16-08, 9-21-08		
L.S & M.S. Ry.	Bridge Dep't.	S. Rockwell, C.E.
Bridge No. Detroit Branch. over Vinewood ave. Detroit, Mich. Masonry Plan. sheet 1 of 1.		
Scale ¼"=1'-0"	Aug.-11-08.	Dram. No. B2612

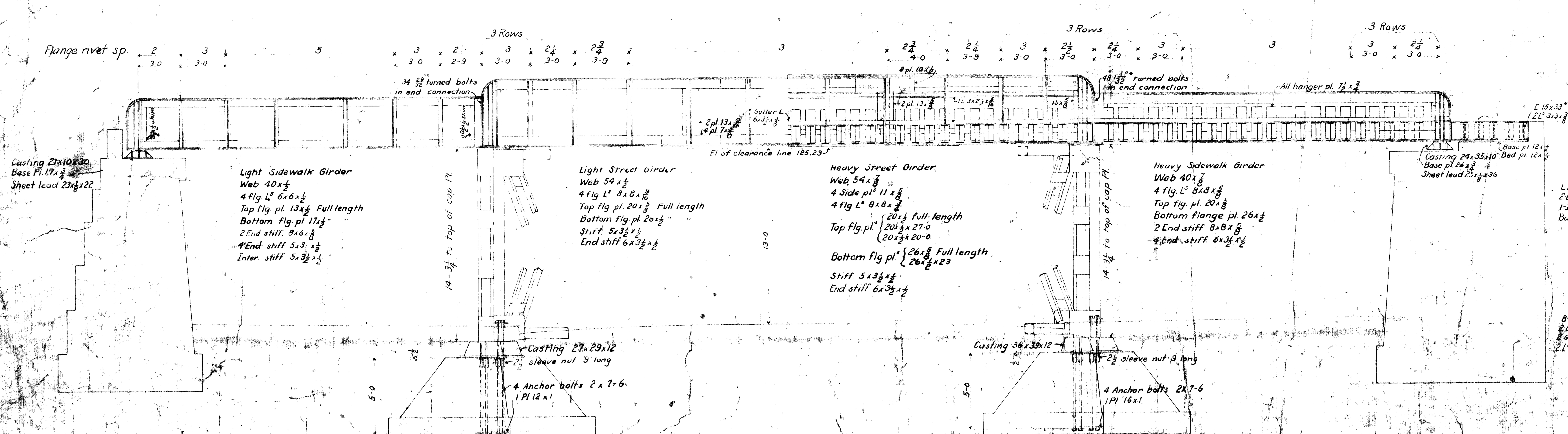
℄ Abut = 371.43
Pier A 5.36
B 7.73

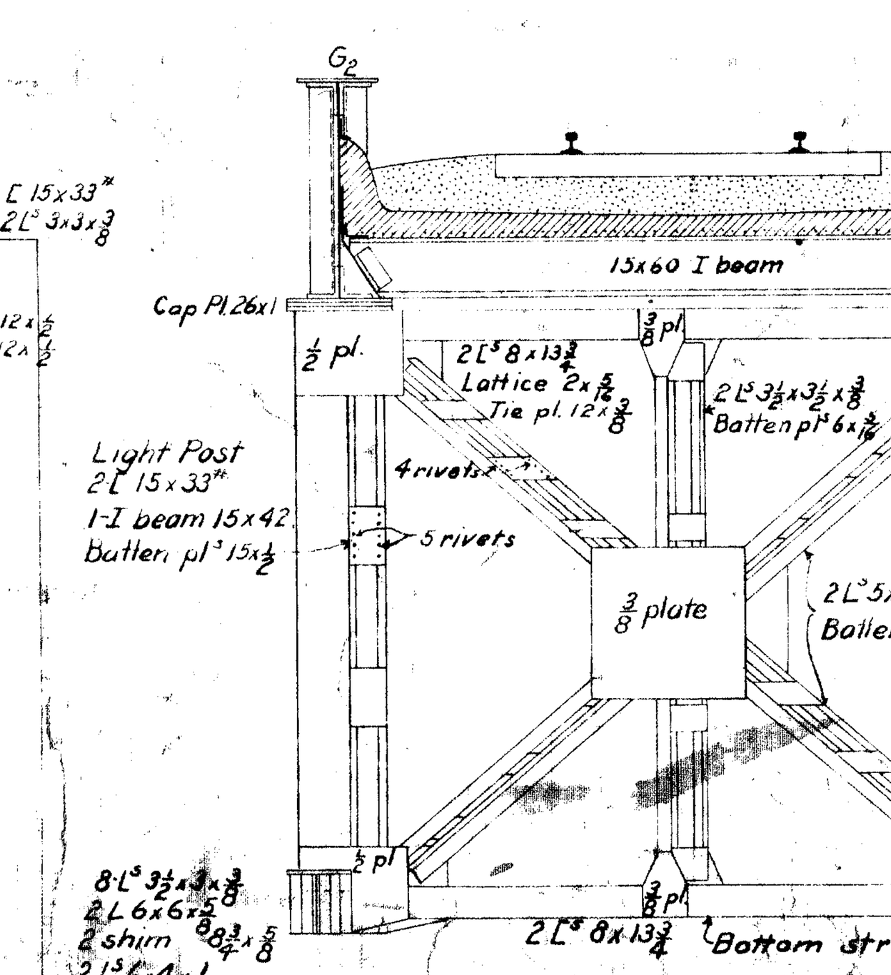
Br. 1336 Det. Br. #4
File XII-25-2



All material steel M.C.R.R. 1904 Specifications.
Plates less than 36" wide to have rolled edges.
Plane sheared edges and ends of all web and web splice plates 1/4".
Fit end stiffening L^s and shims at the bottom.
Fit all stiffening L^s at the top.
Drill holes in material more than 3/4 thick.
Rivets in flanges of 8" [^s 5/8. Punch holes 11/16"°
Other rivets 7/8.
Punch holes for rivets in lower flange L^s and plates, lower 1/3 of web and web splice plates 11/16"° and ream to 7/8" before assembling, in material 3/4" thick and less.
Drill holes for rivets in lower flange L^s and plates, lower 1/3 of web and web splice plates 7/8"° in material more than 3/4" thick.
Punch other holes for 7/8" rivets 13/16"° except in stiff L^s, fillers, bracing + batten Pl^s which can be punched 1/16 larger than rivets.
Ream all holes for 7/8" rivets to 15/16"° after assembling.
Ream holes for field connections, except in the horizontal leg of side L^s and in top flg. of floor-beams, to an iron template.
All casting to be steel, plane top and bottom. Casting to be annealed.
Plane base plates and cap plates top and bottom.
Plane posts top and bottom.
Plane connection of girders.
Ends of Floor beams to be either sawed or planed to bevel.
Bolt all loose material for shipment.
Punch holes for 1 1/32" turned bolts 1"° and ream to 1 1/16"° to an iron template.

Thickness of Base Pl^s on Girders
At P1 3/4 — At P4 1 19/32
At P2 31/32 — At P5 1 13/16
At P3 1 3/16 — At P6 2 1/32
Base Pl^s to be beveled to fit grade.
Post all the same length





M.C.R.R. Bay City Div.
Bridge 2 91/100 Vinewood Ave.
GENERAL DRAWING
Scale 1/4 = 1'
June 1908
Approved [signature]
Bridge Engineer
File XU-26-4
D.1.

Bill of Deformed Bars ½"

270 - 25'-6" Long.
160 - 14'-6" Long.
16 - 15'-0" Long.
16 - 15'-6" Long.

2250 sq. feet Sand and Mastic } For Waterproofing use Barrett Felt and Pitch.
5860 sq. feet 2 Ply Felt
68 cu. yds. Concrete in floor
7806# Total weight of Bars

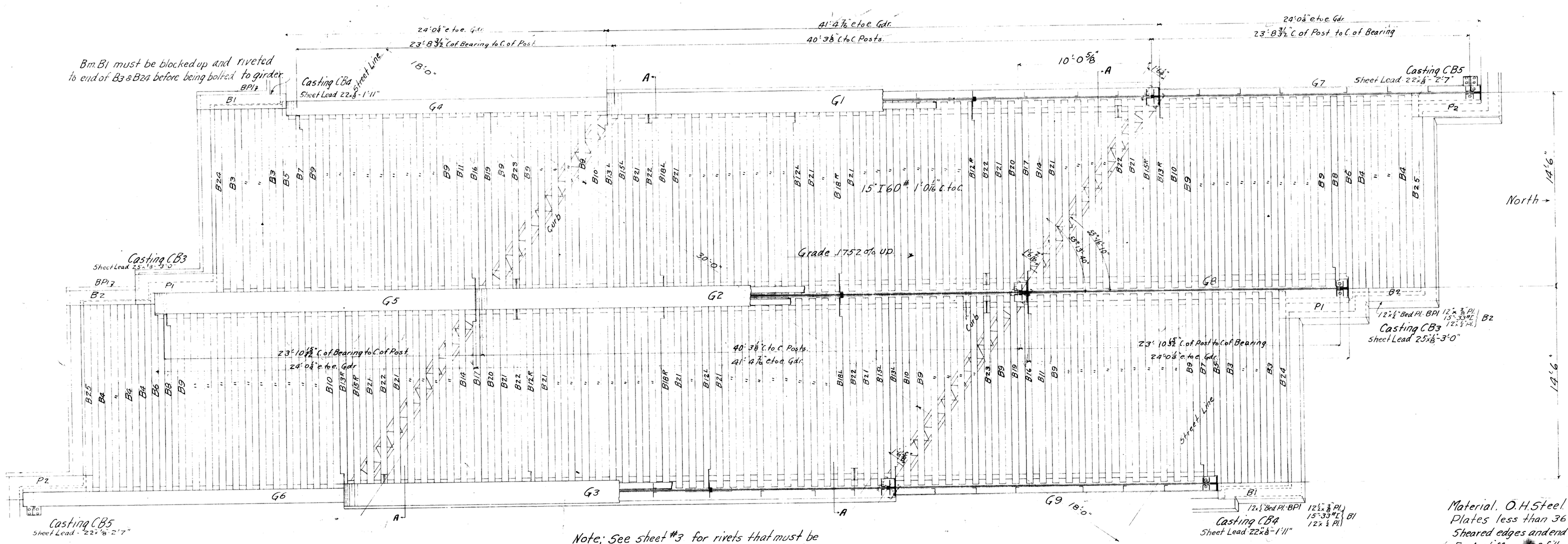
Approved: H. Ibsen
Bridge Engineer.

M.C.R.R. Bay City Div.
Bridge 2⁹/₁ Vinewood Ave.
Concrete Floor

Scales {¾" = 1'-0", ¼" = 1'-0"}
Ch. 11-10-08.
Nov. 1908

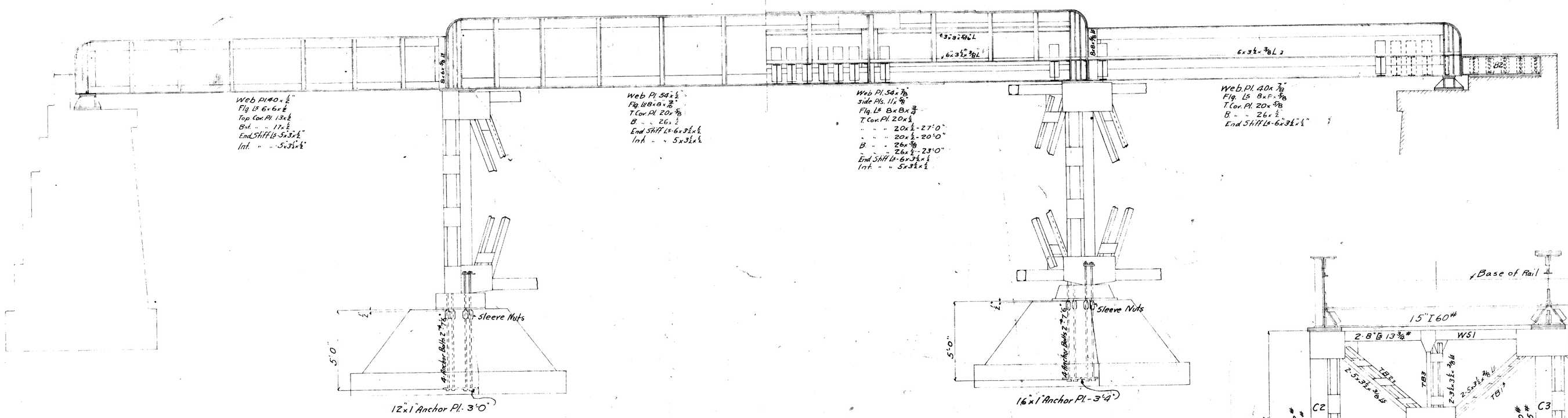
File XU 26-5

D3



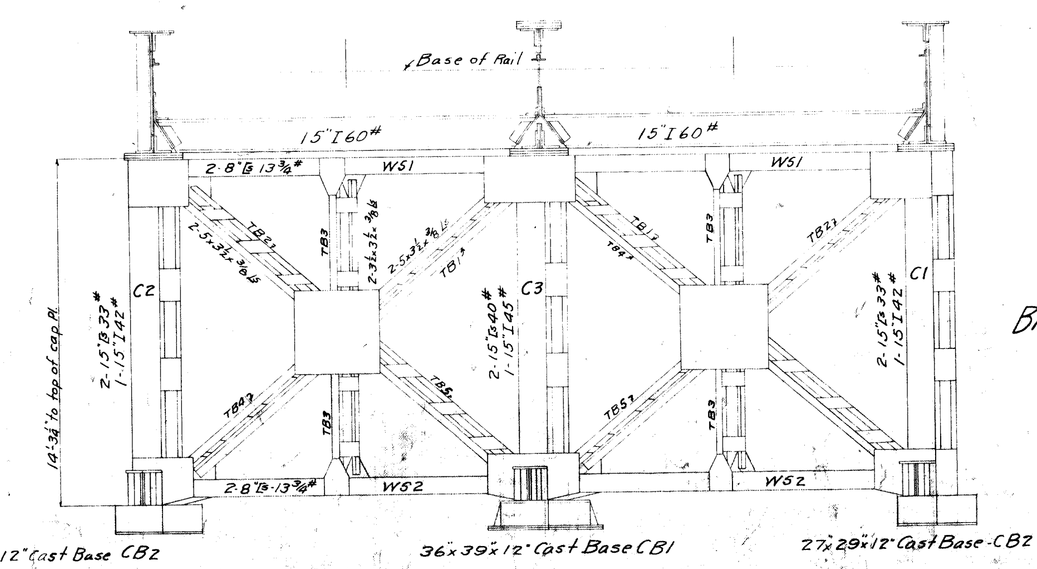
List of Drawings	
No.	Description
1	Diagram
2	Castings
3	Posts
4	Bracing
5	Beams
6	"
7	Girders G1 & 3
8	Girder G2
9	Girders G5 & 8
10	" G4 & 9
11	" G6 & 7

Material. O.H. Steel (M.C.R.R. 1904 Specifications)
Plates less than 36" wide to have rolled edges.
Sheared edges and end of web & web splice pls to be planed ¼"
End stiffener ∠s & fills fitted at bottom, - all stiffener ∠s fitted at top.
Rivets ⅞" except in flanges of 8"∠s which are ⅝"
Holes in material more than ⅜" thick to be drilled.
Castings to be steel. Plane top & bottom.
Paint, where used, 1 coat pure linseed oil.
Parts inaccessible after erection 2 coats of following mixture, - 64 lbs. dry red lead, 12½ lbs. graphite paste & 3¼ gals. raw linseed oil without dryer.



Elevation of exterior Girders.

Section showing interior Girders.



27"x29"x12" Cast Base CB2

36"x39"x12" Cast Base CB1

27"x29"x12" Cast Base CB2

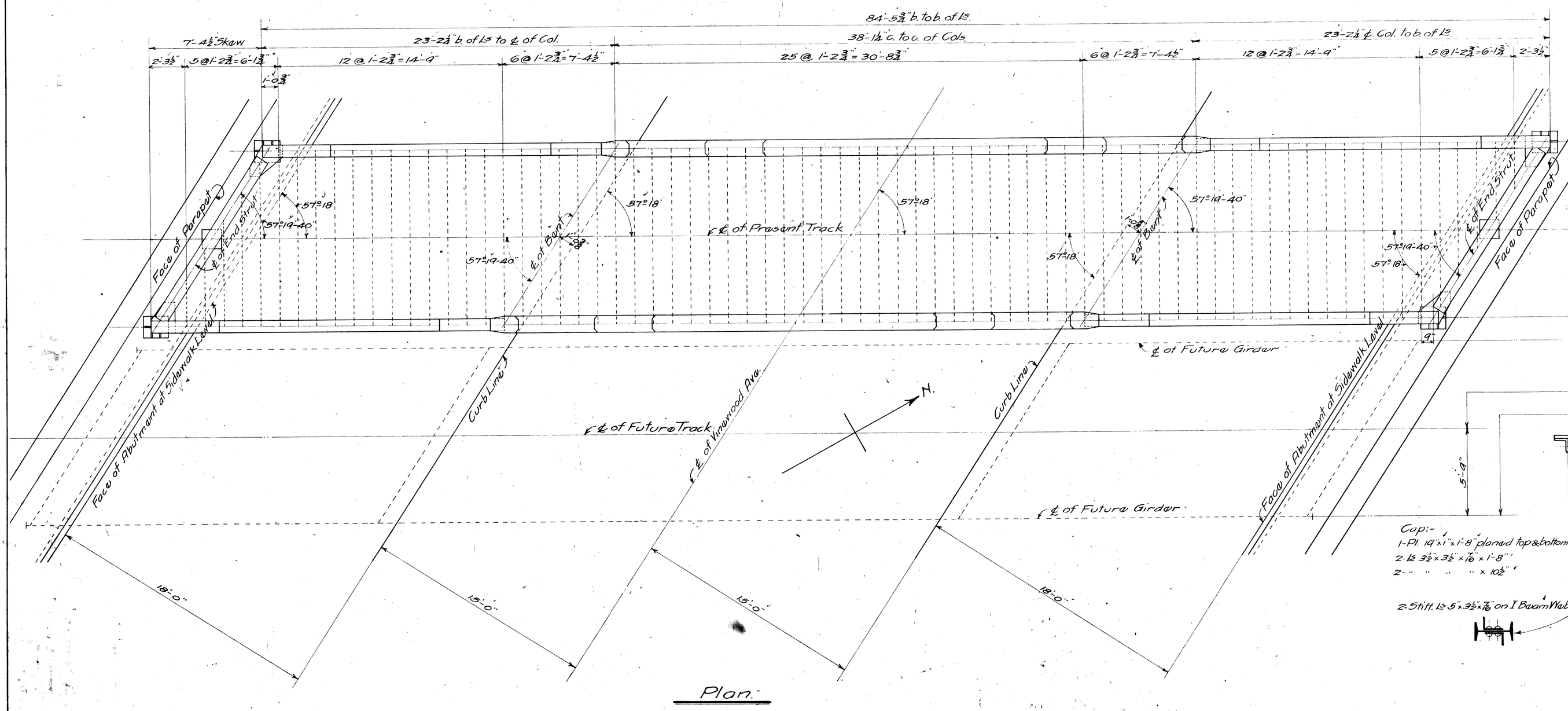
Section AA - (Both bents the same)

M.C.R.R. Bay City Div.
Bridge 721 Vinewood Ave. Detroit, Mich.
Diagram
Scale ¼" = 1'-0"

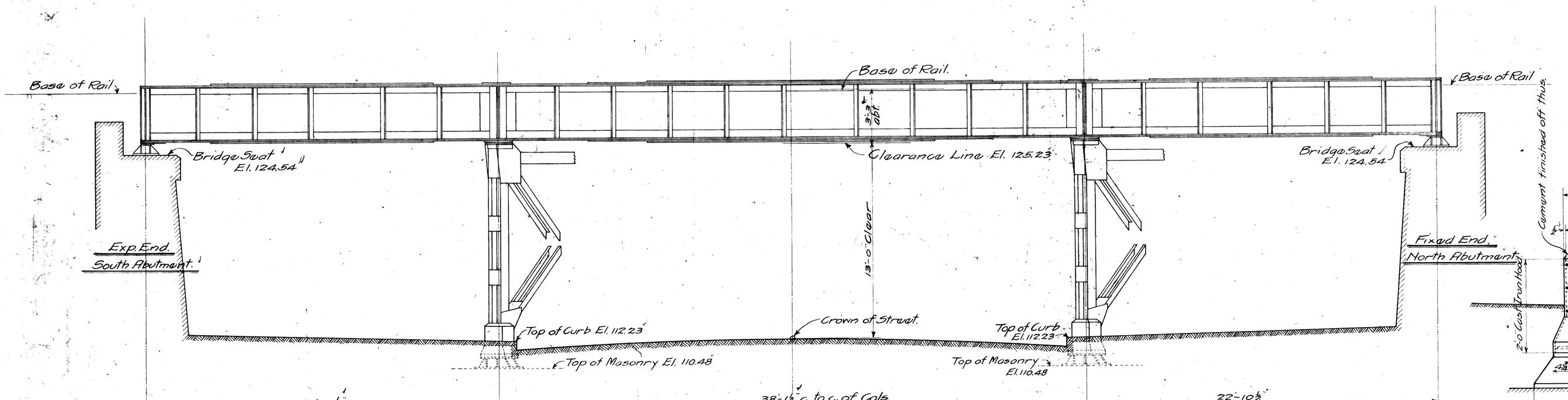
DRAWING
AMERICAN BRIDGE COMPANY.
ORDER ASSIGNED TO Detroit PLANT.
WORK FABRICATED AT " PLANT.
MADE AT Det. IN CHARGE OF Henry
DRAW. MADE BY J.V.P. DATE 9-19-08
DRAW. CHECKED BY DATE
ORDER NO. B8669 SHEET NO. 1

File XU 26-6

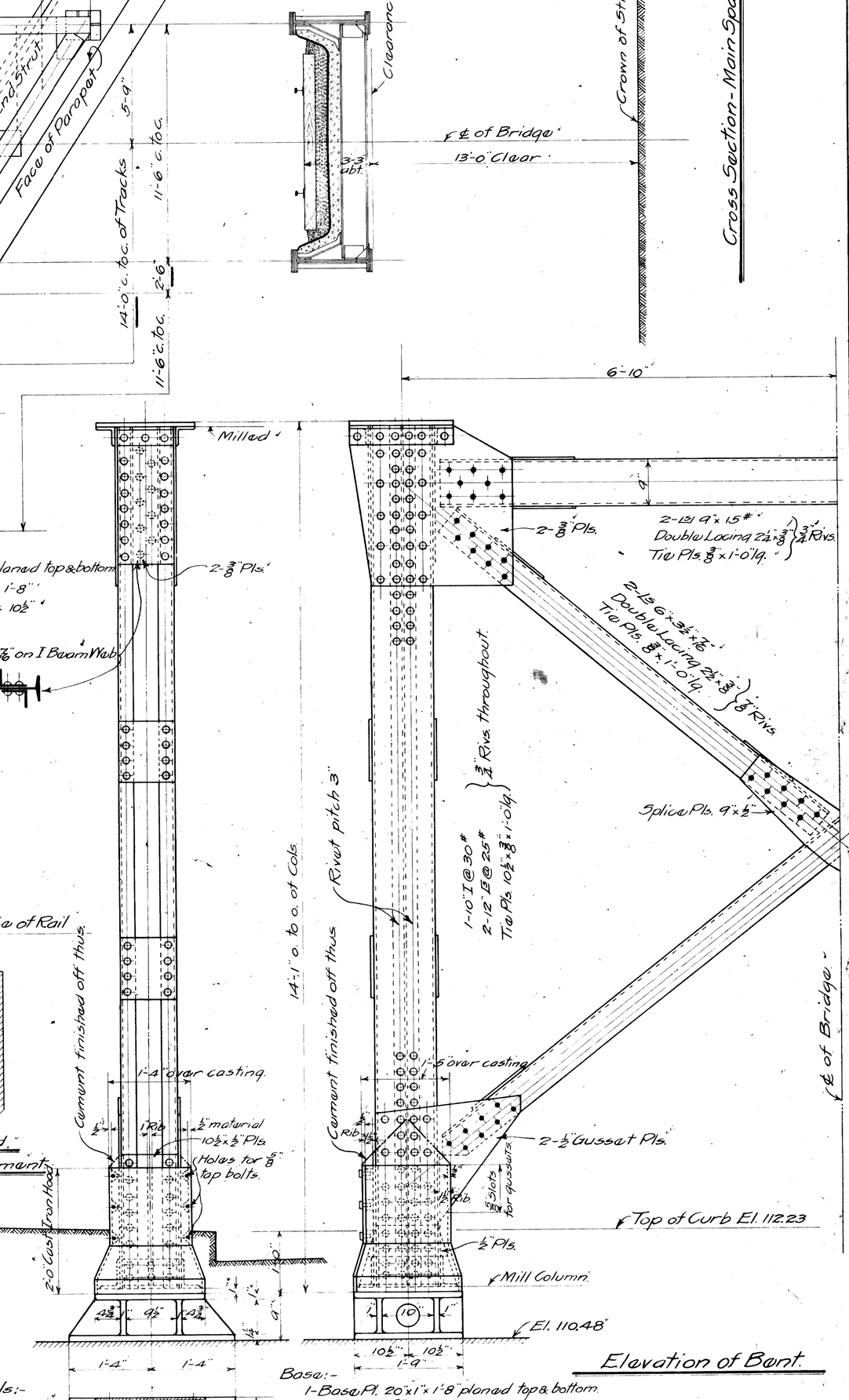

Sketch showing how ½ Sq. Bars 10'-0" long are to be laid in floor.
11'-6"
5'-9"
5'-9"
4'-3"
4'-3"
½ Bars 2'3 lg. 1'-0 c. to c.
1½ Waterproofing
Base of Rail
Light Gird.
Heavy Gird.
½ Bars 30-0 lg.
6" Concrete
7" Concrete
Section Thru Girds at ℄ of Vinewood Ave.
Concrete to be built flush with top of end stiff on Gird.
23'-2¼"
These bars must extend to end of slab as shown.
Two layers of Tar paper
½ Bars 30'-0" lg.
1½ Waterproofing (Sarco)
½ Bars 10'-0
½ Bars 30-0 lg. 6 c. to c.
℄ of Col.
19'-0⅝" C. of Col. to C. of Gird.
91'-1½" C. to C.
Section on ℄ of Track "AA"
Material Order
37-cu.yds. concrete. 1:2:4 Mixture.
58 Bbls. cement
16-cu.yds sand.
32- " - " stone.
weight
105-½ Sq. Bars-30'-0" long.-- 2677#
cut from-29-30'-0" long
87- " - " - " 10'-0" " 740#
35- " - " - " 6'-0" " 178
cut from-18-24'-0" lg.
180 " - " - " 2'-3" - " 343#
Total-3938.#
2-17-09
Lap all bars at least 40 times their least dia. Place transverse bars parallel to abut's. and longitudinal bars parallel to tracks.
Bars to be corrugated
1175 Sq. ft of Sarco 1½" thick.
End Elevation Showing Wing Walls on Parapet Wall.
Tar Joint
Br. Seat
North.
℄ of Vinewood Ave.
57°18'
℄ of Gird.
℄ of Track.
91'-1⅛" C. to C. of Concrete.
Bill of Material for Wing Walls on Parapet Walls.
2½-cu.yds. concrete 1:3:6 mix.
12-sacks cement
1¼-cu.yd. sand.
2½-cu.yds. stone.
General Plan. Scale ⅛"=1'-0"
Revised 2/23/09
L.S. + M.S. Ry. Bridge Dept. S. Rockwell C.E.
Bridge No. Detroit Branch.
Over Vinewood Ave.
Detroit Michigan.
Concrete Slab.
Sh. 1 of 1.
Scale ¼"=1'-0". Jan. 21-1909. Draw. No. B-2770-R.
Revised, Aug. 12, 1912.
File XU 26337 Det. Br. #1



Plan.



Elevation.



Elevation of Bent.

General Notes:-

L.S.&M.S. Co's General Specifications of 1904 except as noted below.
The following material shall be sub-punched or sub-drilled and reamed to size while assembled:- All material composing Girder Flanges, End Stiffeners and Web Plates where other reamed material is attached. Also Column Shafts where I Beams and Channels connect directly to each other.
Sub-drill all material over ¾" thick except Bracing and minor details.
Field Connections to be reamed to template as per specifications.
Rivets: ⅞" dia. except as noted.
Loading: Coopers Class E 40.
60,000# Axle Load for floor.
Impact percentage = $I = \frac{V^2}{30L+V^2}$ where { V = velocity in mi. per hr. = 90. L = loaded length in ft.

Track Notes:-

Alignment - Tangent.
Grade - Vertical Curve.
Skew { Track to Street 57°-18'
" " Steelwork 57°-19'-40"
Bridge to be built level, grade to be made up in ballast.

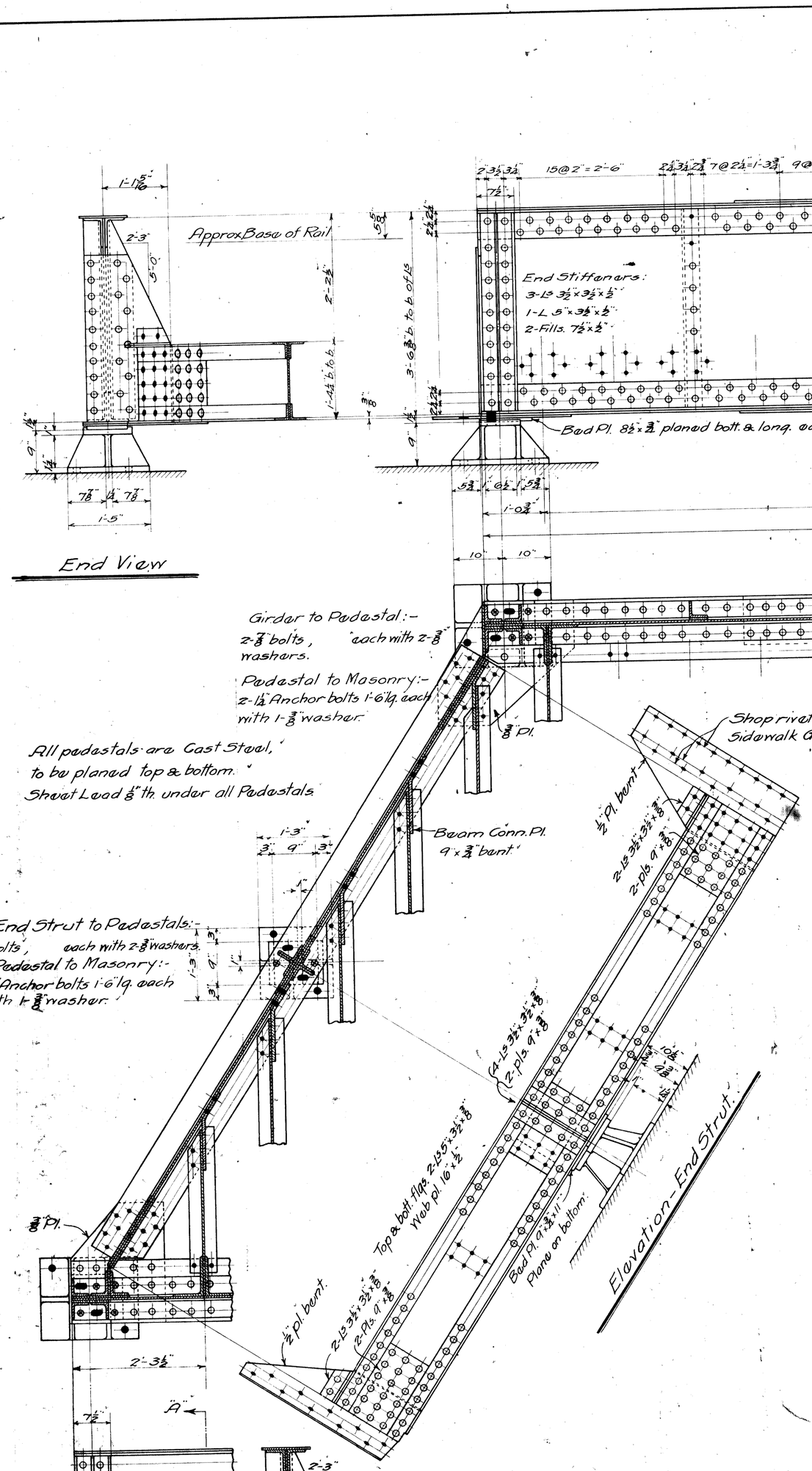
Paint Notes:-

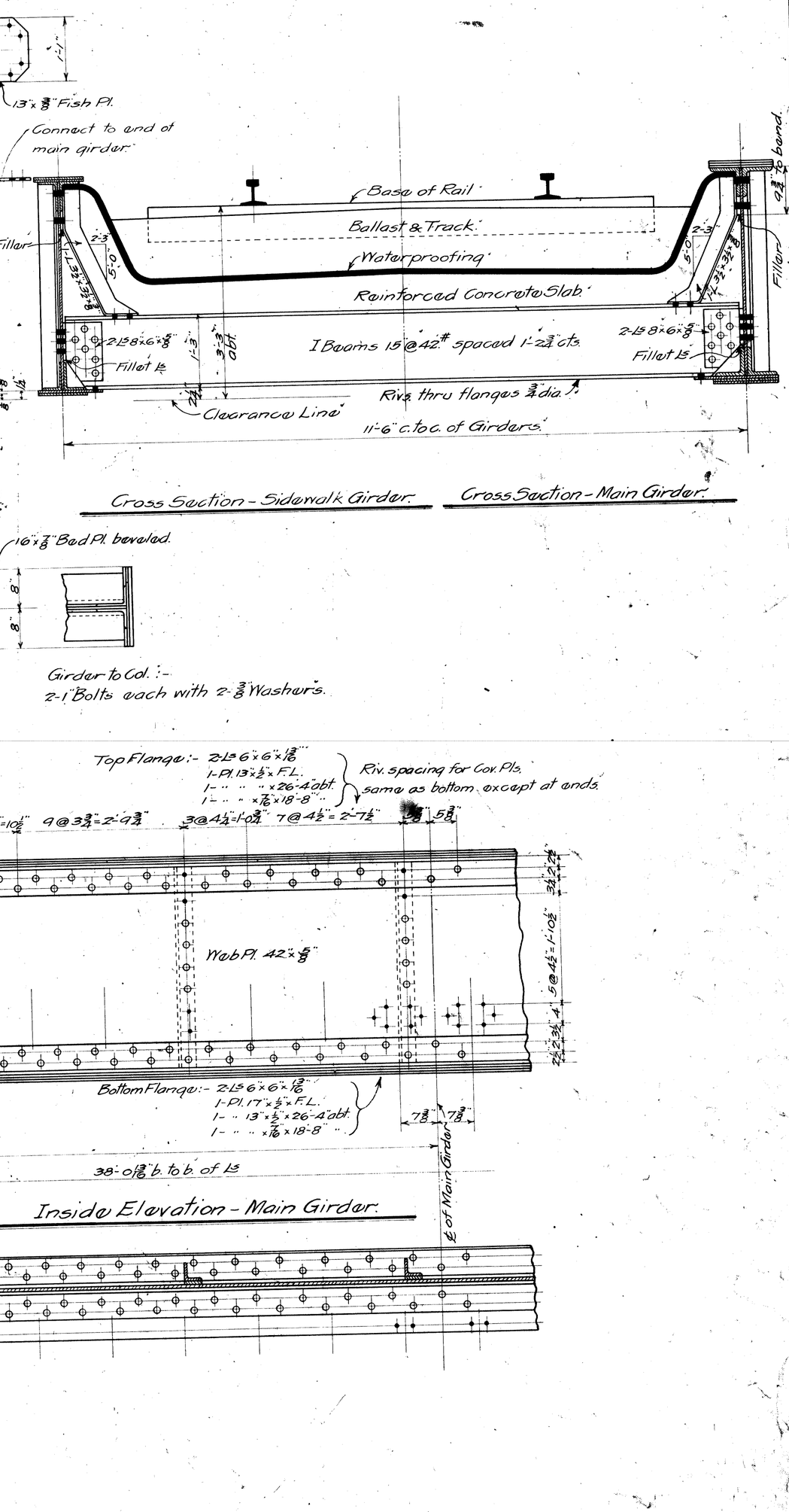
L.S.&M.S. 1904 Specifications except -
Paint for Shop Coat to be mixed in presence of Inspector and to be of the following proportions:-
¾ lb. of Lamp Black.
25 lb. of Red Lead.
1 gal. of Boiled Linseed Oil.

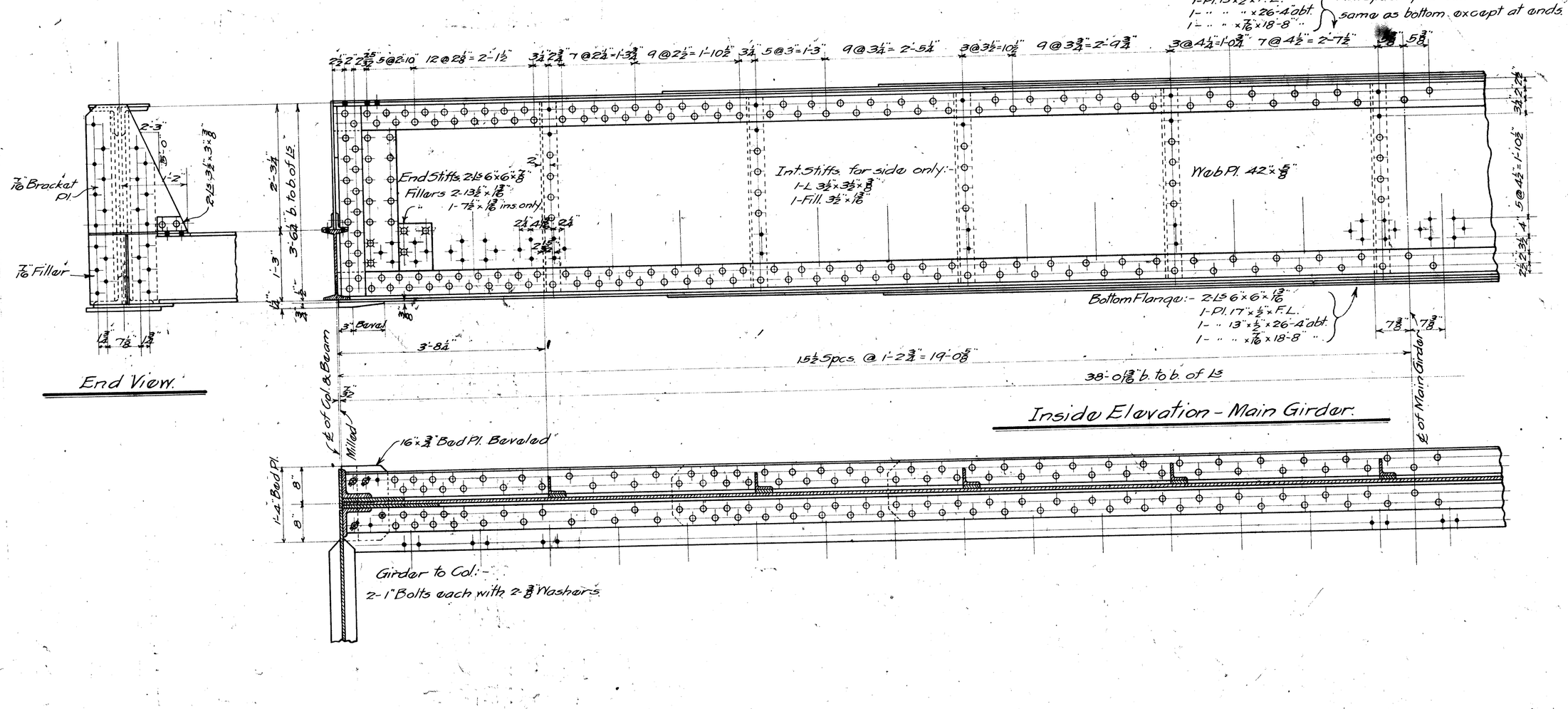
L.S.&M.S. Ry.	Bridge Dept.	S. Rockwell, C.E.
Bridge No.	Detroit Branch,	
Over Virginwood Avenue,		
Detroit, Michigan.		
Steelwork Plan.		
Sheet 1 of 2.		
Scale ½ & ¾ = 1'-0"	Date Aug 28, 08	Draw. No. B 2636

Br. 133 C. Det. Br. #2.

File XU 26-8







L.S. & M.S. Ry.	Bridge Dept.	S. Rockwell, C.E.

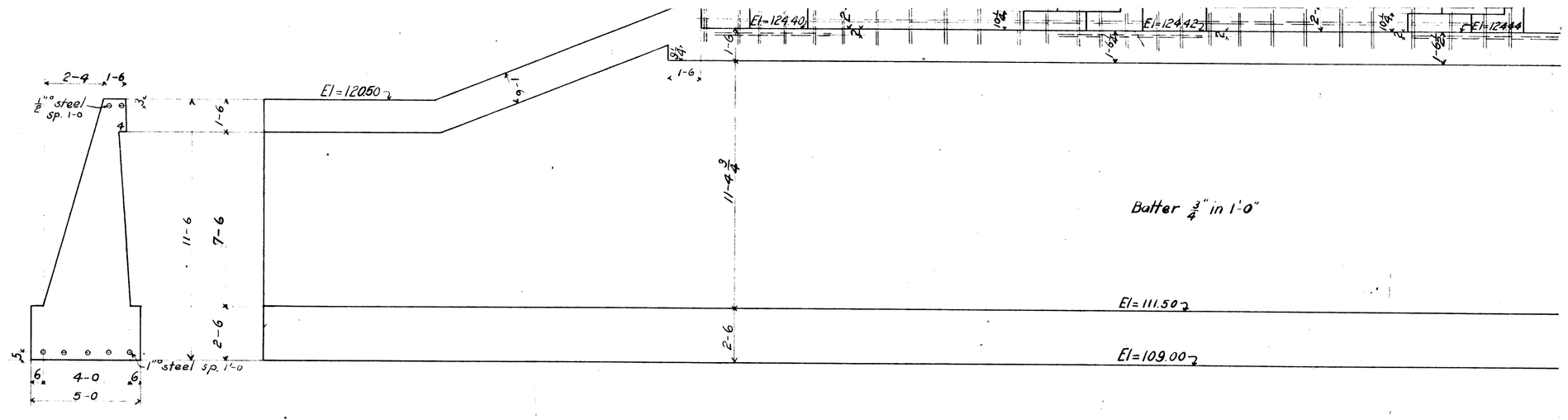
Bridge No. Detroit Branch
Over Virginwood Ave.
Detroit, Michigan.
Steelwork Plan.
Sheet 2 of 2.

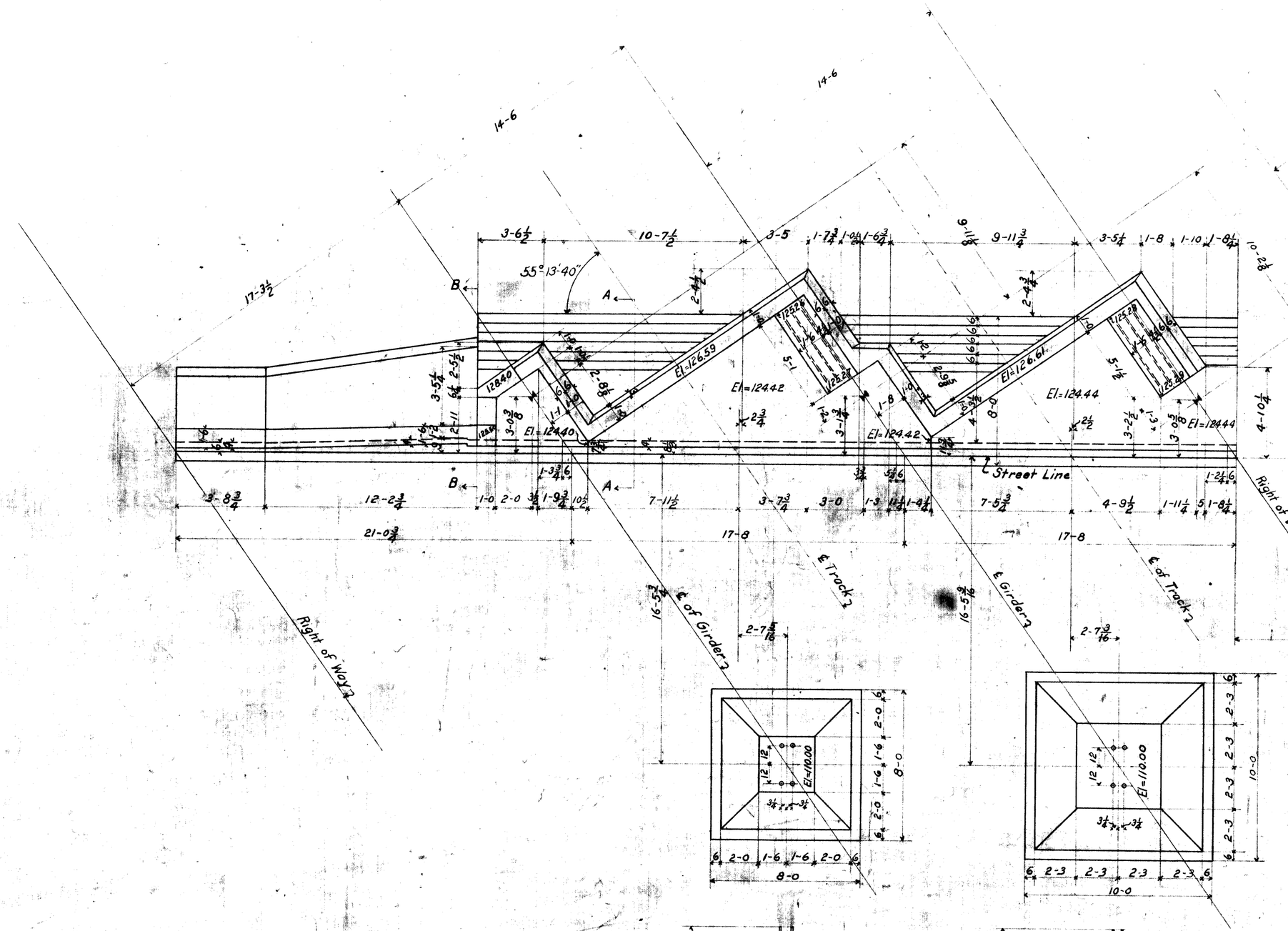
H.G. L.A.H.

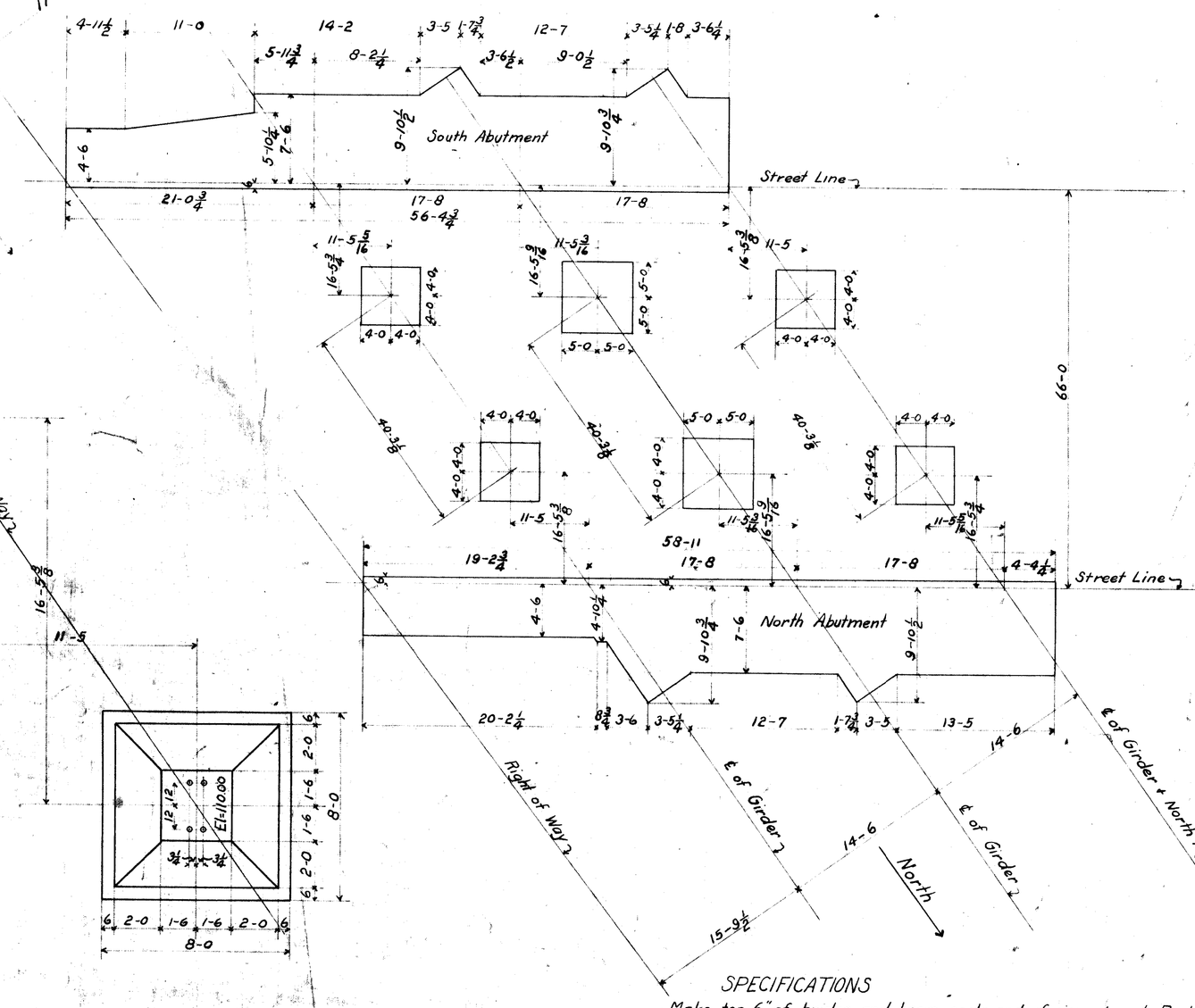
Scale ½" = 1'-0"	Date Aug. 24, 08.

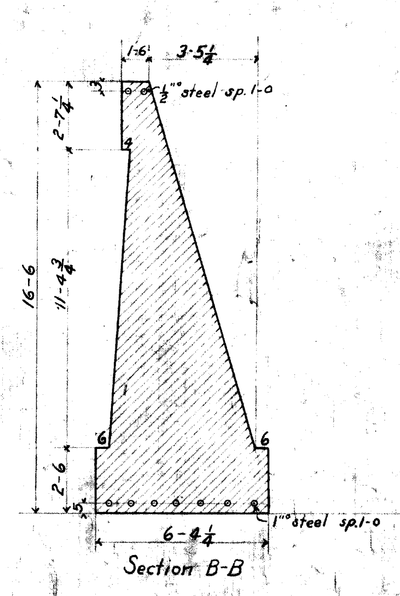
Drawing No. B-2636

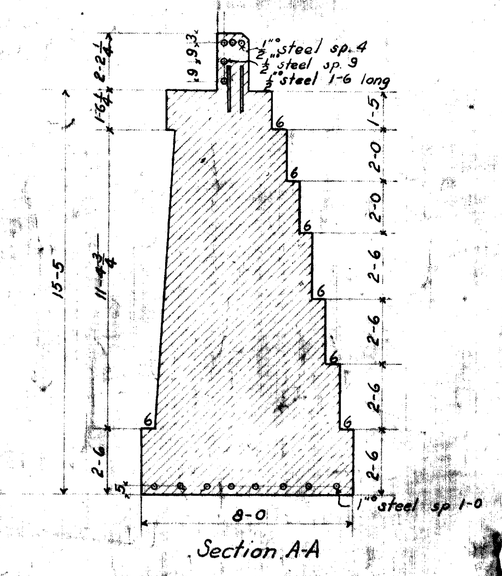
File XU 26-09 C Det. Br. #3

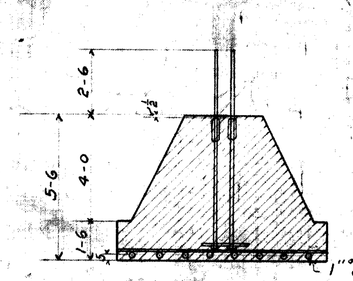


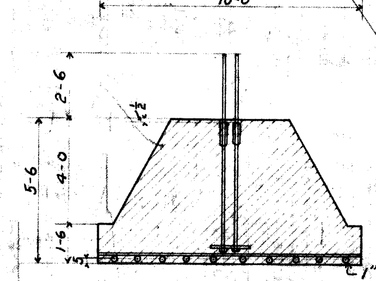












SPECIFICATIONS

Make top 6" of bridge and beam seats and of piers 1 part Portland cement 2 parts sand.

Make next 1-6 of bridge and beam seats and of piers, 1 part Portland cement, 2 parts sand, 3 parts broken stone.

Make rest of masonry 1 part Portland cement, 2½ parts sand, 4½ parts broken stone.

Face all exposed surfaces with ½ mortar.

CONTENTS

Abutment 188 cu. yds.

Piers 79 cu. yds.

Approved

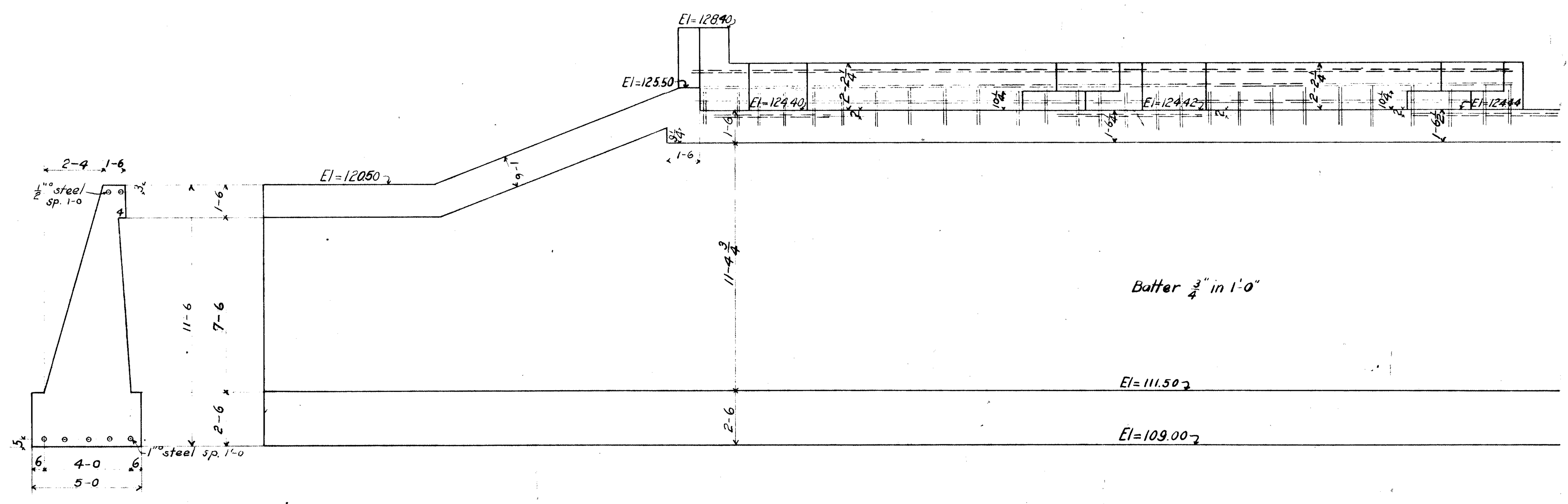
Bridge Engineer

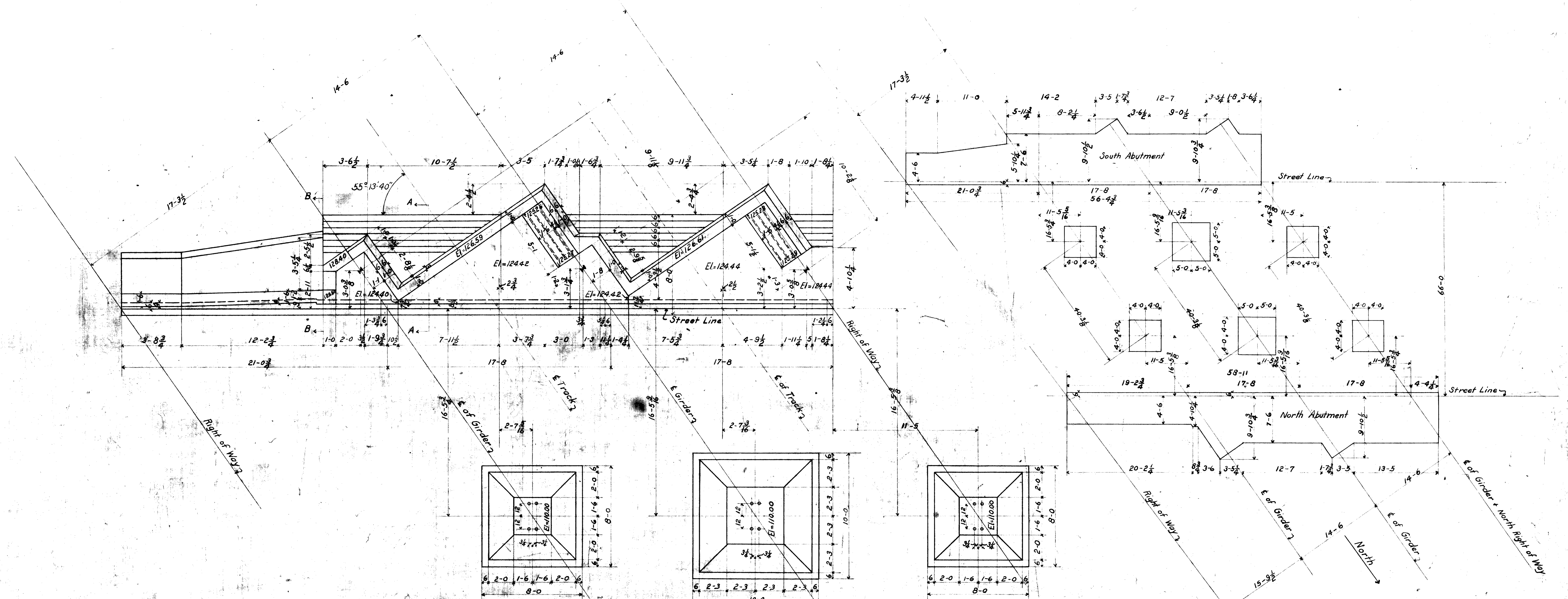
M.C.R.R. Bay City Div.

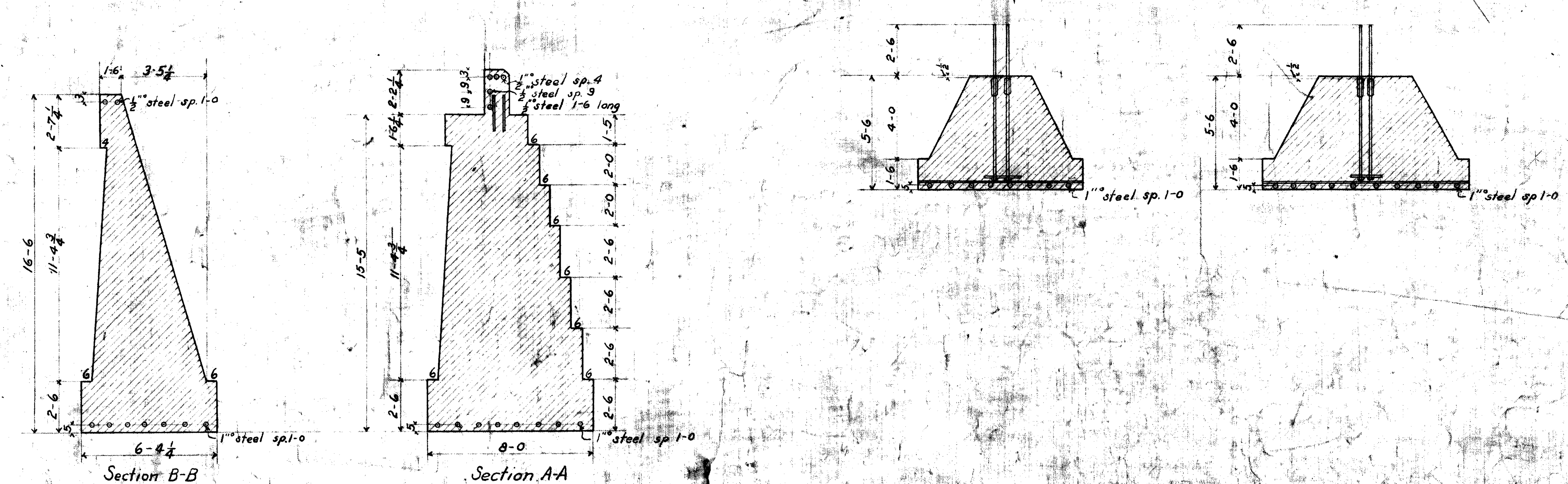
Bridge 2.91 Vinewood Ave

South Abutment and Piers

Scale ¼"=1' W. Ch. 7/25/08 July 1908







SPECIFICATIONS

Make top 6" of bridge and beam seats and of piers 1 part Portland cement 2 parts sand.

Make next 1-6 of bridge and beam seats and of piers, 1 part Portland cement, 2 parts sand, 3 parts broken stone.

Make rest of masonry 1 part Portland cement, 2½ parts sand, 4½ parts broken stone.

Face all exposed surfaces with 1½ mortar.

CONTENTS

Abutment 188 cu.yds.

Piers 79 cu.yds.

M.C.R.R. Bay City Div.

Bridge 2.91 Vinewood Ave.

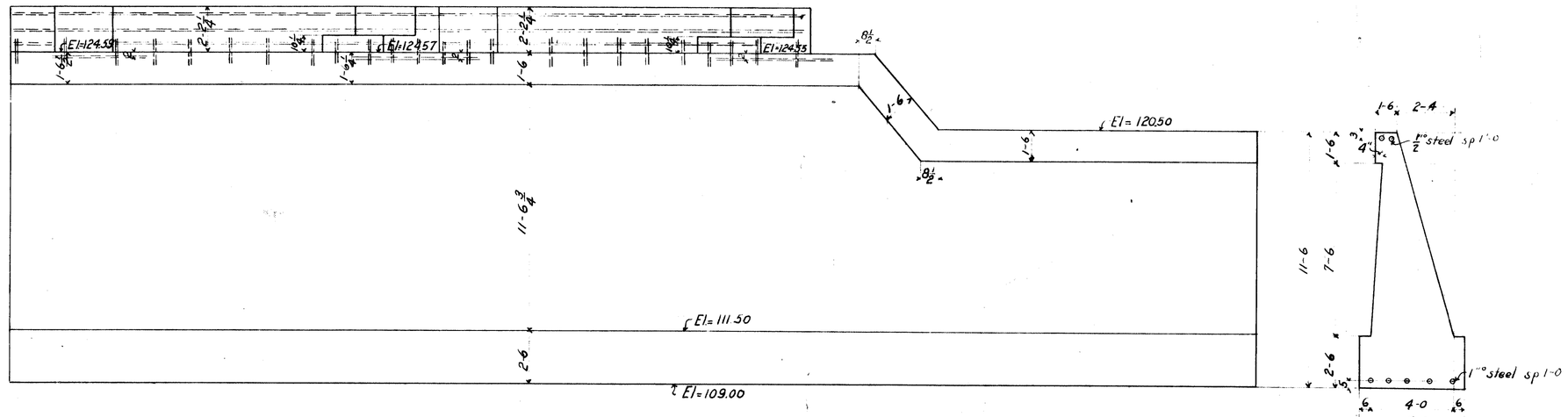
South Abutment and Piers

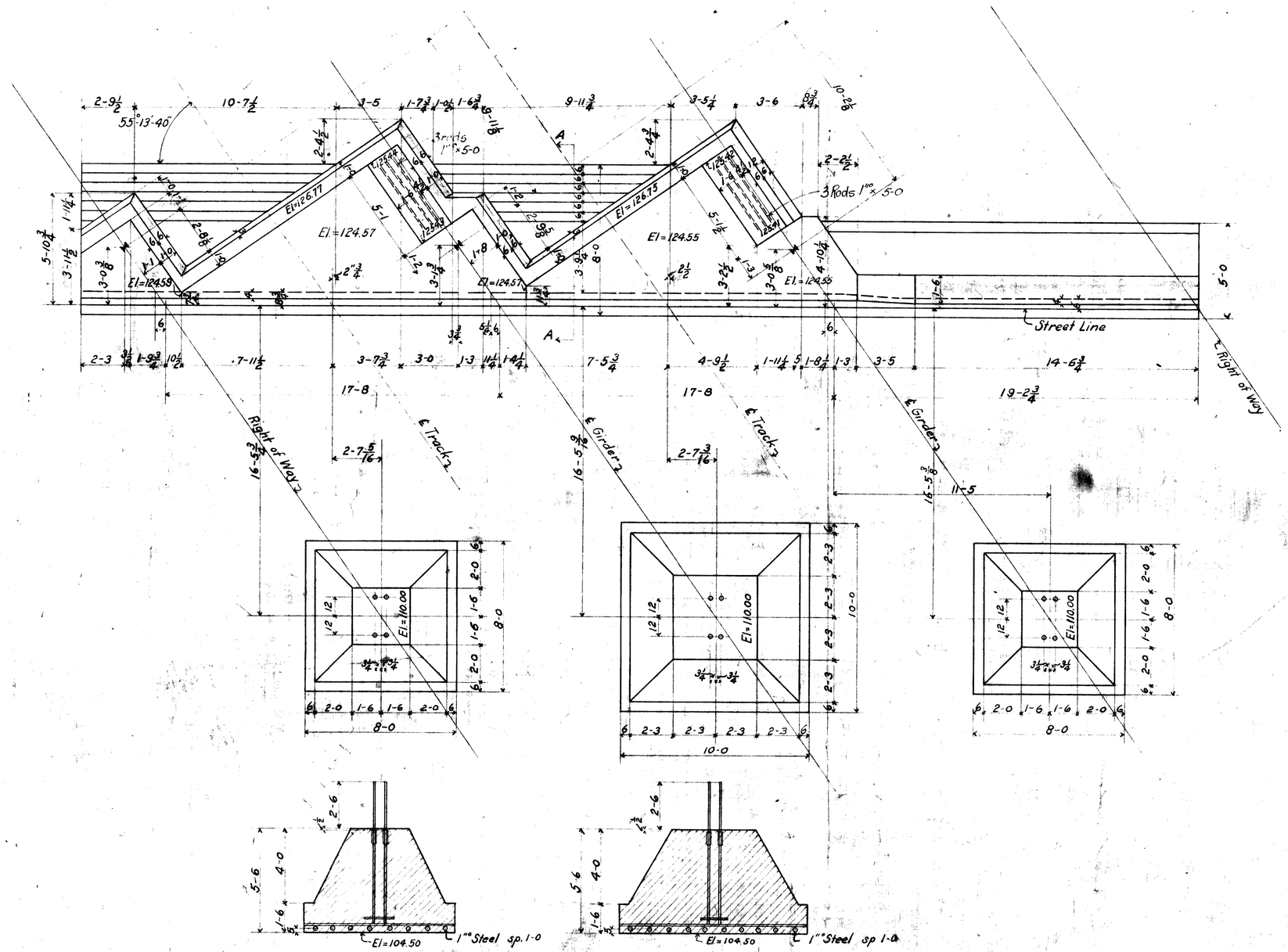
Scale 1/4"-1'

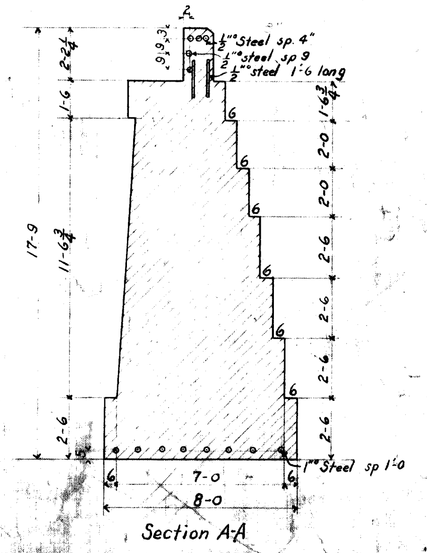
July 1908

Approved [signature] Bridge Engineer

File XU26-10







Section A-A

SPECIFICATIONS

Make top 6" of bridge and beam seats and of piers 1 part Portland Cement 2 parts sand.
Make next 1-6" of bridge and beam seats and of piers, 1 part Portland Cement 2 parts sand, 3 parts broken stone.
Make rest of masonry 1 part Portland Cement, 2½ parts sand, 4½ parts broken stone.
Face all exposed surfaces with ½ mortar.

CONTENTS

Abutment 183 cu.yds.
Piers 29 cu.yds.

M.C.R.R. Bay City Div.

Bridge 29½ Vinewood Ave.

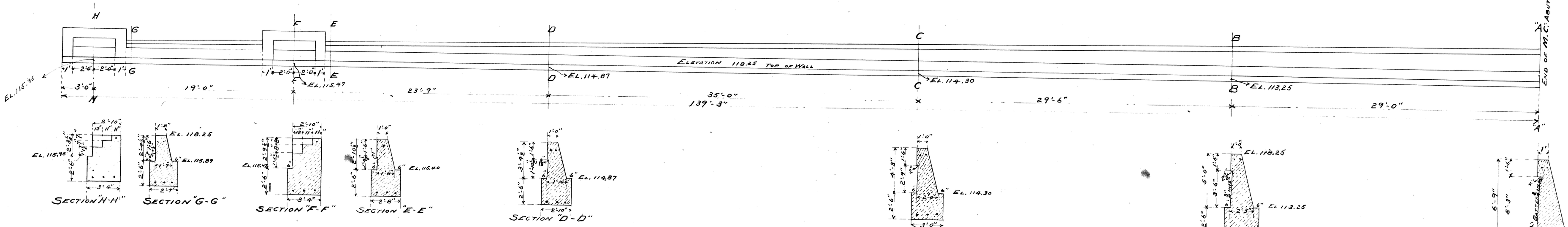
North Abutment and Piers.

Scale ¼"=1' July 1908.

Approved
Bridge Engineer.

Ch. Engineer

File XU 26-11 C.2



SECTION "H-H"

SECTION "G-G"

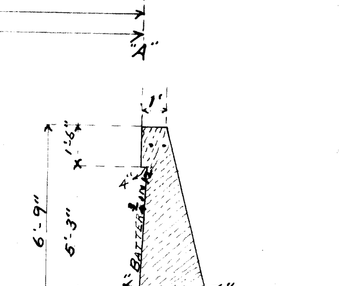
SECTION "F-F"

SECTION "E-E"

SECTION "D-D"

SECTION "C-C"

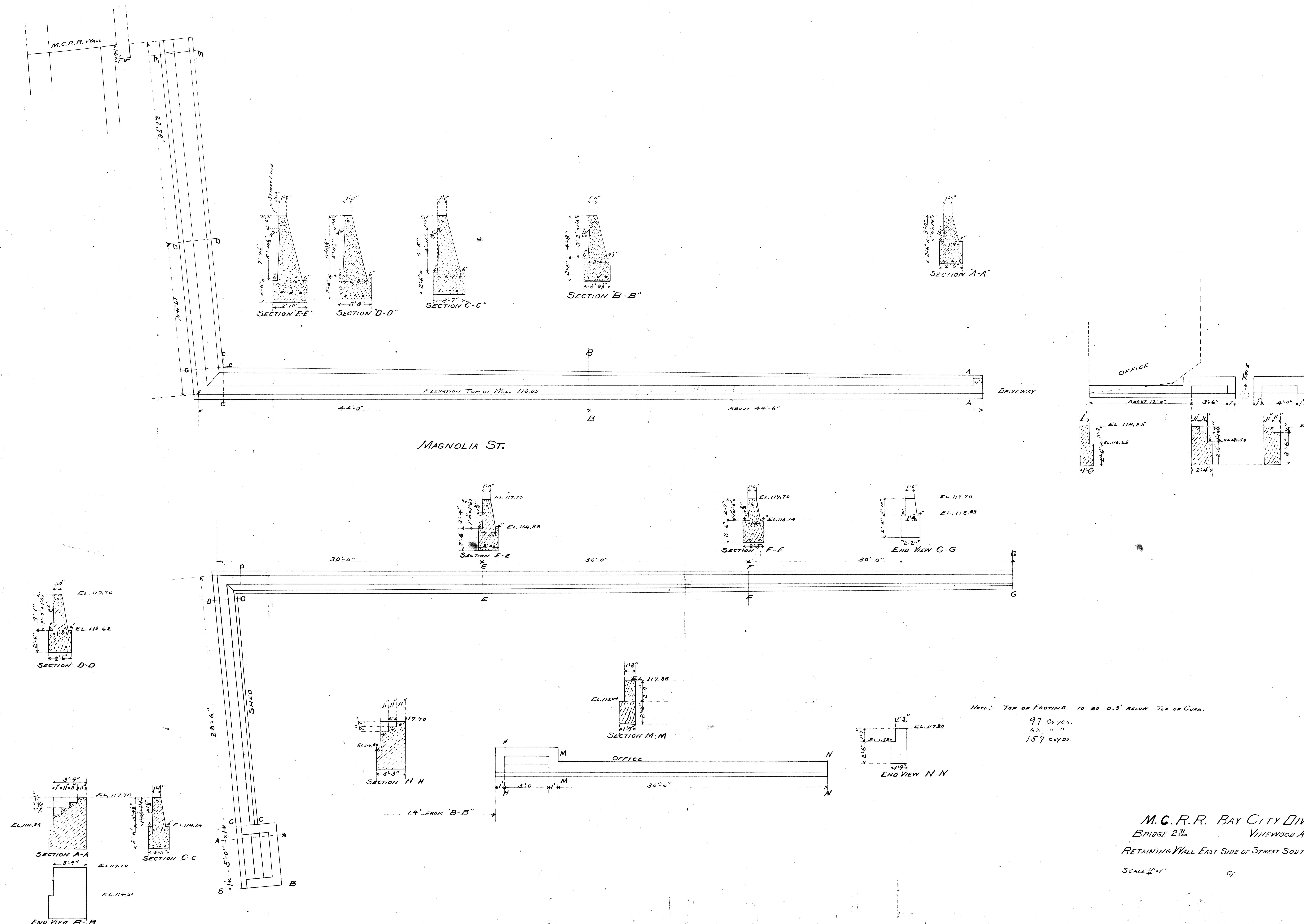
SECTION "B-B"



SECTION "A-A"

Pinewood Creek South Approach
West side Street

File XU 26-12 C.3.

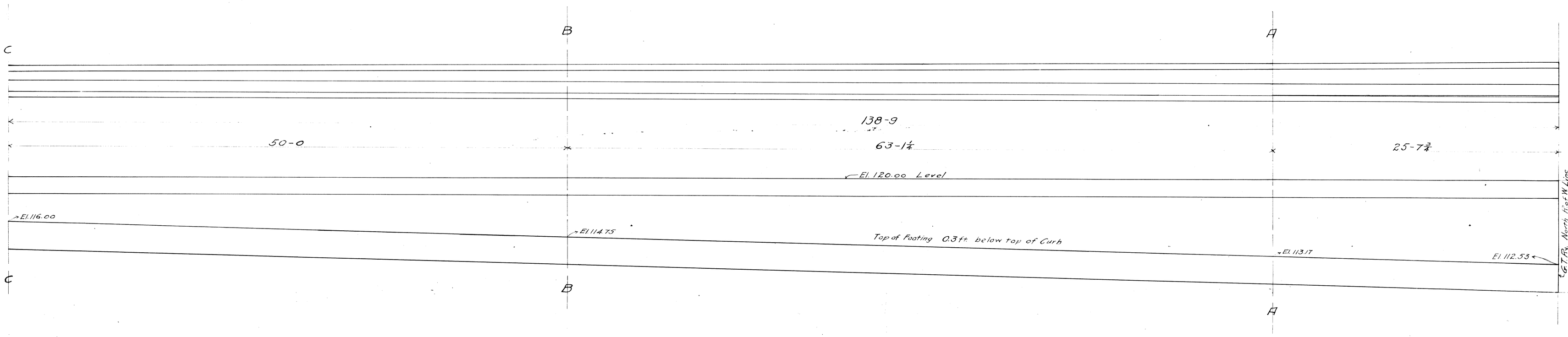

M.C.R.R. Wall
Section "E-E"
Section "D-D"
Section "C-C"
Section "B-B"
Section "A-A"
Street Line
Elevation Top of Wall 118.85
Driveway
44'-0"
About 44'-6"
22.78'
17.44'
Magnolia St.
Office
Tree
About 12'-0"
El. 118.25
El. 116.25
El. 116.58
Section E-E
Section F-F
End View G-G
El. 117.70
El. 114.38
El. 115.14
El. 115.89
30'-0"
Section D-D
El. 118.62
Shed
28'-6"
Section H-H
Section M-M
El. 117.38
End View N-N
Office
30'-6"
14' from "B-B"
Section A-A
Section C-C
El. 114.34
End View B-B
El. 114.51

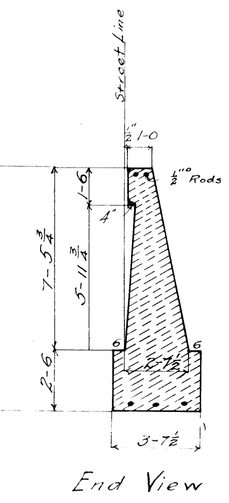
Note:- Top of Footing to be 0.8' below Top of Curb.

97 Cu. yds.
62 " "
159 Cu. yds.

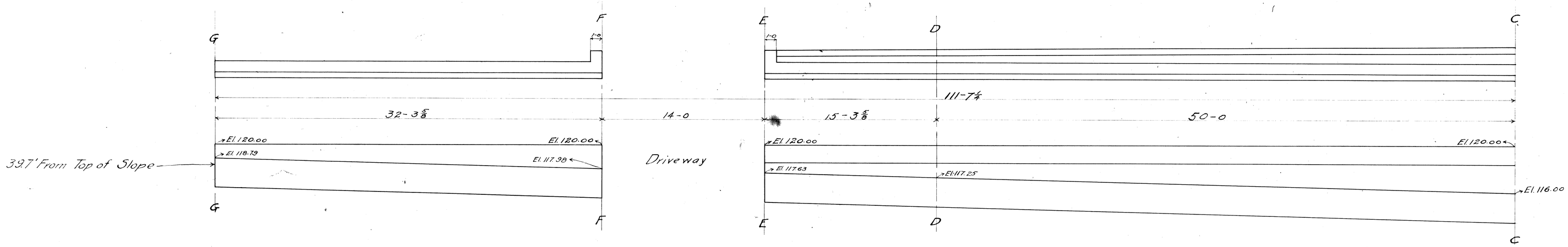
M.C.R.R. Bay City Div.
Bridge 2¾₀ Vinewood Ave
Retaining Wall East Side of Street South of R.R.
Scale ¼"=1' G.T. Sept 1908

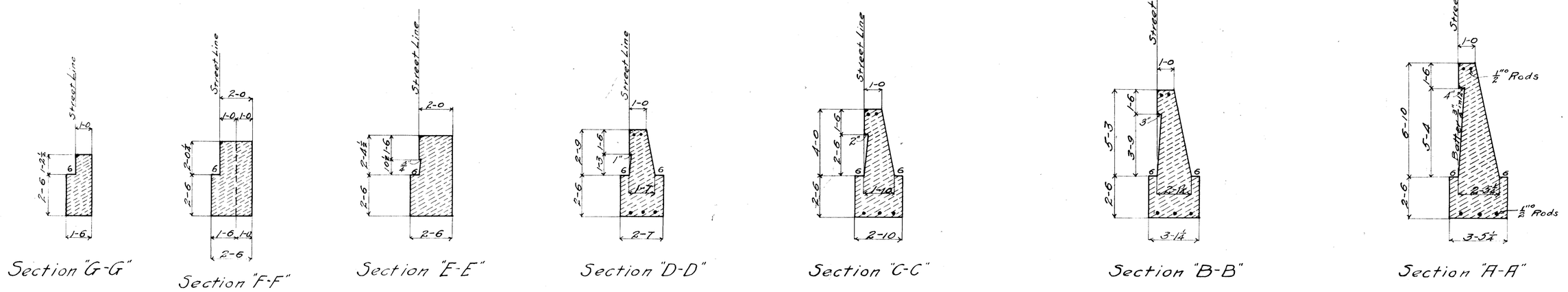
XII 26-13 C4





End View





Make Concrete:- 1 part of Portland Cement, 2 parts sand, and 3 parts of crushed stone.

Contents = 120.3 cu. yds.

Approved:-

Bridge Engineer.

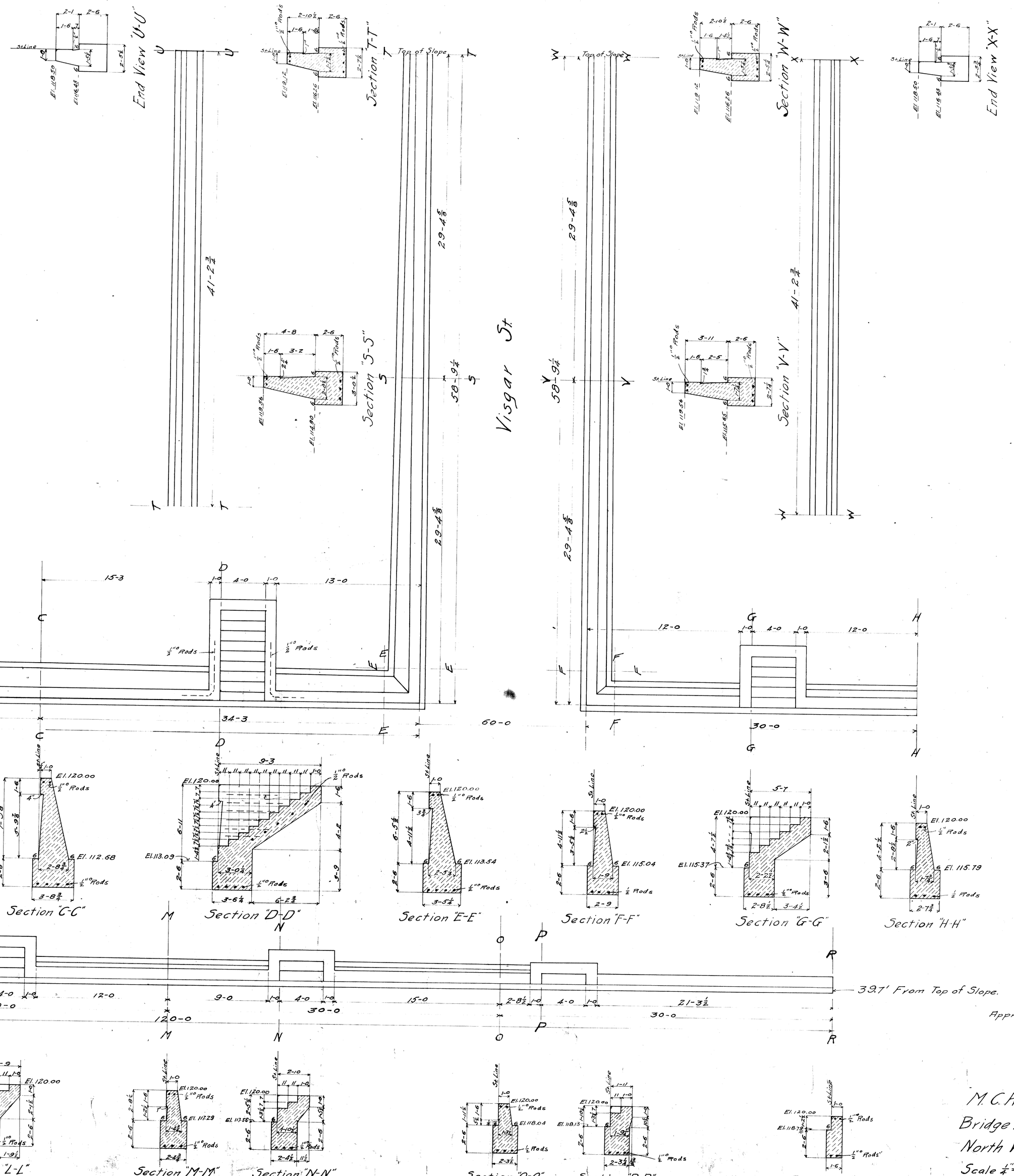
M.C.R.R. Bay City Div.
Bridge No. 2.91 Vinewood Ave.
North East Retaining wall.
Scale ¼"=1-0 Oct 1908

File XU 26-14 C.5

Make Concrete:- 1 part Portland Cement, 2 parts sand, and 3 parts broken stone.

Note:- Top of Footing 0.3' below Top of Curb on Vinewood Ave.

Contents:- South of Visgar St. = 118.0 cu.yds.
North " " " = 93.0 cu.yds.
Total 211.0 cu.yds.



Approved

Bridge Engineer

M.C.R.R. Bay City Div.
Bridge No. 291 Vinewood Ave.
North West Retainingwalls.
Scale 1/4"-1-0 Oct. 1908.

File XU 26-15 C.6.