MULTNOMAH COUNTY, OREGON

PLANS

FOR

BURNSIDE BRIDGE

OVER THE WILLAMETTE RIVER

AT

PORTLAND, ORE.

DESIGN NO. 2

CHANNEL SPAN

STRAUSS DOUBLE-LEAF TRUNNION BASCULE

SIDE SPANS

2 STEEL TRUSS SPANS

HEDRICK AND KREMERS

CONSULTING ENGINEERS

MADISON BUILDING

PORTLAND, OREGON.

1924

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

IRA G. HEDRICK
MEM. A.S.C.E

ROBERT E. KREMERS
MEM. A.A.E.

BURNSIDE BRIDGE

BOARD OF COUNTY COMMISSIONERS OF MULTNOMAH COUNTY, ORE.

1924

Charles S. Rudeen, Chairman
Dow V. Walker, Commissioner
John H. Rankin, Commissioner

HEDRICK & KREMERS

CONSULTING ENGINEERS

PORTLAND, OREGON

DESIGN No. 2

DRAWINGS BY THE PACIFIC BRIDGE COMPANY.

Reinforcing top of Pier 1 ..... PB
Sterling-Bascule Piers ..... 10 PB
Details - Piers 2 & 3 ..... 12 PB-1
Details of Pit Deck 12 PB-2
Floor Slab on Bascule Span ..... 13 PB
Steel Frame - Operator's House 59 PB-1
Details Operator's Porch 59 PB-2
Details Operator's House 59 PB-3
Spiral Stairs - Operators House 78 PB-4

DRAWINGS BY GUSTAV LIEBENTHAL.

Details of Bascule Piers L-62
Reinforcing Details Pier 4 Pylon L-67
Stairway - Span 33 ..... L-56
Sway Bracing - Plate Girder Spans L-58
General Elevation Spans 28 to 34 ..... L-62
General Details Pier 4 Pylon L-64
Details of Bascule Pier L-65
Elevation, Elevator L-66
Street Railway Tracks L-67
Details of Track Expansion Joint L-68
Approach Piers ..... L-69 to L-74 inclusive
Fourth West Abutment Walls L-75
Deck over West Fixed Spans L-76
Deck over West Fixed Spans L-77

INDEX

Index Sheet T-1
General Elevation & Plan T-2
Elevation & Plan of Old Bridge 3
Details of Old Piers 4
Boring Record 5
Retaining Wall, West Approach 6
Footings & Columns, East & West Approches 7
West Abutment T-8
West Abutment Tower T-9
Base Channel Pier T-10
Truss Seat & Ctwt Clearance T-11
General Plans, Bascule Piers 12
Deck Bascule Piers 13
Walls Bascule Piers 14
Operator's House Support 15
East Abutment T-16
East Abutment Tower T-17
Footings, Plate Girder Spans 18
Retaining Wall, East Approach 19
Spans 1, 13 Stringers First Street Crossing 20
Framing Plan Bent 5-19, Floor Beams Spans 1-13 21
Stringers, Span 12 22
Stairway, Span 12 23
Stringers, Spans 14 & 15 24
Floor Beams, Spans 14 & 15 25
Span 16 26
Span 17 27
Girders, Spans 18, 19 28
Stringers & Floor Beams, Spans 18 & 19 29
Stress Diagram & General Dimensions, 268' Deck Truss T-30
Top Chord, 268' Deck Truss T-31
Bottom Chord, 268' Deck Truss T-32
Floor Beams & Top Laterals, 268' Deck Truss T-33
Special Floor Beam, Bascule End, 268' Deck Truss T-34
Bottom Laterals & Sway Bracing, Bascule End 268' Deck Truss T-35
Bottom Laterals & Sway Bracing, Shore End 268' Deck Truss T-36
Main Web Members T-37
Main Web Members T-38
Shoes & Pedestals T-39
72' Plate Girder Span 40
70'-2½ Plate Girder Span 41
102'-7½ Plate Girder Span 42
Plate Girders Span 26 43
Plate Girders Span 27 44
Details of Concrete Encasement 45
Columns 21 to 23, 25 & 27 B 46
Columns 24, 26 & 27 A 47
Column 28 48
Details, Expansion Joint Col. 22 & 24 49
Details, Expansion Joint Col. 26 50
Floor Beams, Span 26 51
Framing Plan, Concrete Spans 28 to 34 Inclusive 52
Stringers, Plate Girder Spans 53
Details, Spans 28 29 30 31 32 34 54
Details, Span 33 55
Stairway, East Approach 56
Miscellaneous Details 57
Sway Bracing, Plate Girder Span 58
Architectural Elevation of Towers 59
Architectural Details of Towers 60
Architectural Details, Miscellaneous ..... 61 & 62

BASCULE SPAN

General Drawing S-1
Stress Sheet S-2
Masonry Plan S-3
Grillages & Anchor Bolts S-4
Trunnion Posts & Live Load Supports S-5
Bracing Between Trunnion Posts S-6
Girders Over Pit S-7
Machinery Beams & Bracing Between L.L. Supports S-8
Bascule Truss, Front End S-9
Bascule Truss, Intermediate S-10
Bascule Truss, Trunnion End S-11
Floorbeams S-12
Floorbeams S-13
Stringers & Top Laterals S-14
Bottom Laterals S-15
Ctwt. Frame & Ctwt Link S-16
Concrete Ctwt. S-17
Floor Deck & Concrete Slab S-18
Break in Floor Castings S-19
Rail Castings, LL. Support, Castings & Handrail S-20
Center Lock, Platform & Floor Details S-21
Machinery House S-22
Stairways, Ladders & Platforms S-23
Trolley Posts S-24
Main Trunnions & Bearings S-25
Ctwt Trunnions & Bearings S-26
Operating Machinery, Elevation S-27
Operating Machinery, Plan S-28
Operating Rack & Equalizer S-29
Machinery Bed & Bearings S-30
Center Lock, Elevation S-31
Center Lock, Plan S-32
Air Buffer Details S-33
Roadway Gates Layout S-34
Roadway Gates Details S-35
Lights & Signals S-36

INDEX

CONSTRUCTION CHANGES SHOWN IN RED.

WORKING STRESSES

	Concrete, 1-2-4 Mix	Steel
Floor Slabs, Cross Girders, Cantilevers, Girders, etc.	650#□"	16,000#□"
Beams continuous over Supports	815 #□"	20,000#□"
Arch Rings Case 1: Not including Temperature & Wind	600#□"	16,000#□"
Arch Rings Case 2: Including " " " "	800#□"	20,000#□"
Bond for Steel in Concrete	100#□"	
Flexural Stress for all conditions not including Wind	650#□"	
Flexural Stress for all conditions Including Wind	800#□"	
Columns Direct Compression	450#□"	
	Structural Steel	
Tension, net Section	16,000#□"	
Compression in Cols & other Compression Members, Fixed Ends	16,000 - 70 L/r	

WILLIAM D. SMITH
PRINCIPAL ASS'T ENGINEER

CONSTANTS

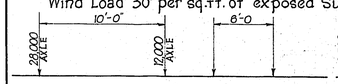
Modulus of Elasticity, Steel,	30,000,000
" " " Concrete 1-2-4	2,000,000
" " " " 1-1-2	3,000,000
Variation in Temperature	± 30° F
Coefficient of Expansion	.0000055

LOADINGS

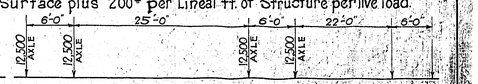
Main Girders and Columns Steel Approach Roadway 100# per sq.ft. outside of Space occupied by Street Cars. Sidewalk 50# per sq.ft.

(1) For Arch Spans & Bascule Trusses (2) 268' Steel Spans & Bascule Trusses. 1900# per Lineal foot per track for Street Cars & 80# per sq.ft. in Roadway not occupied by Street Cars. Sidewalks 50# per sq.ft.

Wind Load 30# per sq.ft. of exposed Surface plus 200# per Lineal ft. of Structure per live load.



40,000# Truck



100,000# Street Car, One Rail

LLOYD G. FROST,
CHIEF DRAFTSMAN

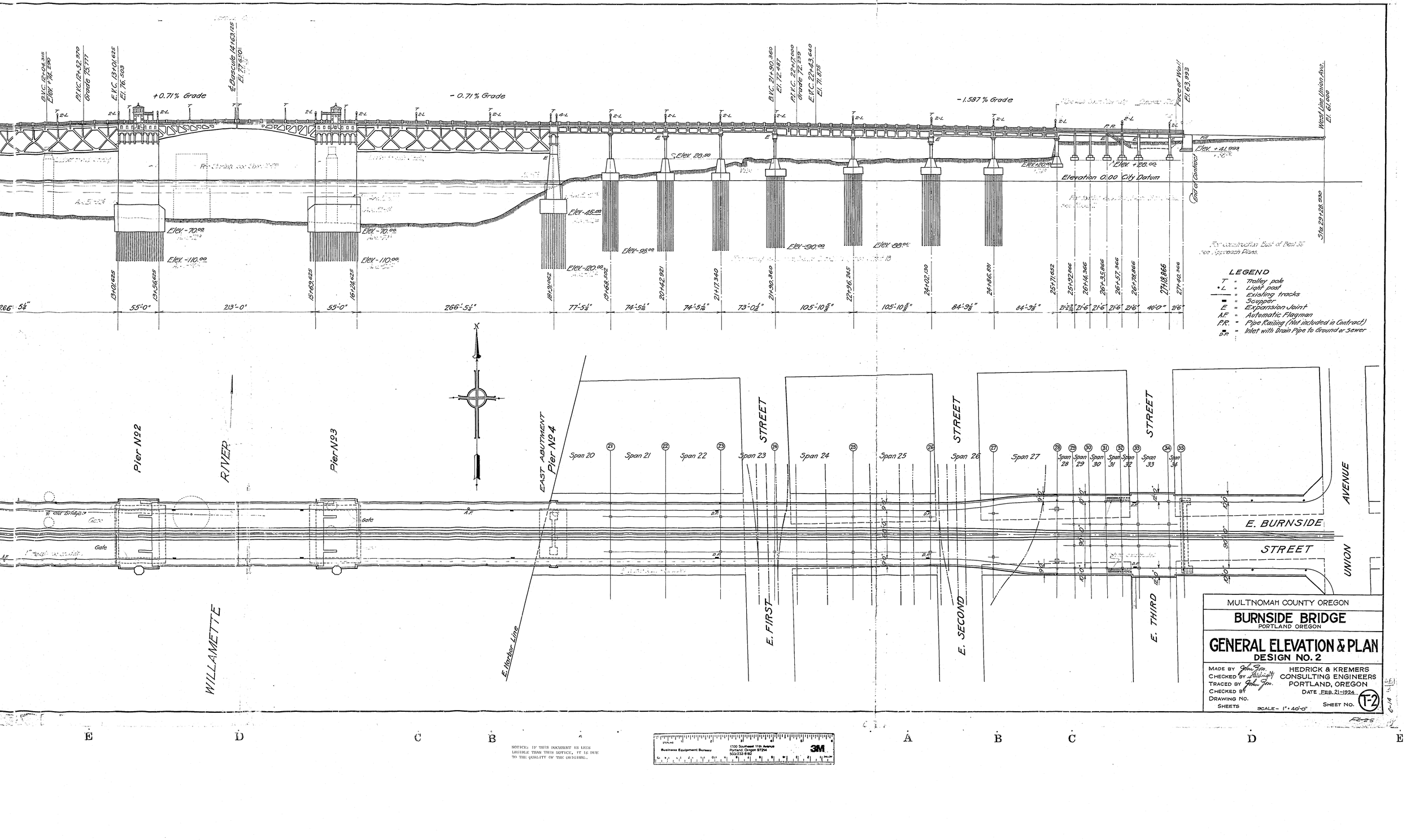
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-8182
3M

East Line Third Street
Sta. 0+03.200
Elev. 32.000
+2.94% Grade
East line Second Street
Elev. 38.174
Fill
Elev. +22.422
Sta. 2+63.200
Beginning of Contract
Face of Wall 4+33.001
El. 44.672
+3.84% Grade
Elev. +20.00
Elevation 0.00 City Datum
Elev. +9.00
Elev. +7.00
Elev. +5.00
Elev. -30.00
Elev. -90.00
Elev. -38.00
Elev. -25.00
Elev. -80.00
B.V.C. 12+04.315
Elev. +42.230
P.V.C. 12+52.970
Grade 38.777
E.V.C. 13+01.625
El. 76.303
+0.71% Grade
℄ Bascule 14+63.125
El. 77.6501
- 0.71% Gra
Elev. -70.00
Elev. -110.00
4'-93.901
4+55.096
4+77.869
5+00.382
5+23.175
5+45.960
5+68.749
5+91.526
6+14.310
6+37.093
6+59.877
6+82.661
7+06.636
7+77.479
7+83.941
8+08.604
8+42.000
9+10.000
9+72.000
10+35.687
10+42.000 ~ Harbor Line
22'-0⅝" 22'-9⅜" 22'-6⅝" 22'-9⅜" 7 equal spaces - 159'-5⅜"
24'-0⅞" 22'-9⅜" 40'-0⅜" 40'-0⅜" 38'-4¼" 62'-0" 62'-0" 64'-2¼" 266'-5¼"
13+01.625
13+56.625
55'-0"
213'-0"
15+63.625
16+21.625
55'-0"
266'-5¼"
STREET
STREET
STREET
STREET
BURNSIDE
THIRD
SECOND
FIRST
FRONT
Span 1
Span 2
Span 3
Span 4
Span 5
Span 6
Span 7
Span 8
Span 9
Span 10
Span 11
Span 12
Span 13
Span 14
Span 15
Span 16
Span 17
Span 18
Span 19
Pier No 1
WEST ABUTMENT
Pier No 2
RIVER
Pier No 3
W. Harbor Line
WILLAMETTE
Gate
A.F.
E
D
C
B
A
B
C
D
E

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE, IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southwest 11th Avenue
Portland, Oregon 97214
503/233 8182
3M



MULTNOMAH COUNTY OREGON

BURNSIDE BRIDGE

PORTLAND OREGON

GENERAL ELEVATION & PLAN

DESIGN NO. 2

MADE BY John Joo.
CHECKED BY J.A. Wright
TRACED BY John Joo.
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON

DATE FEB. 21-1924

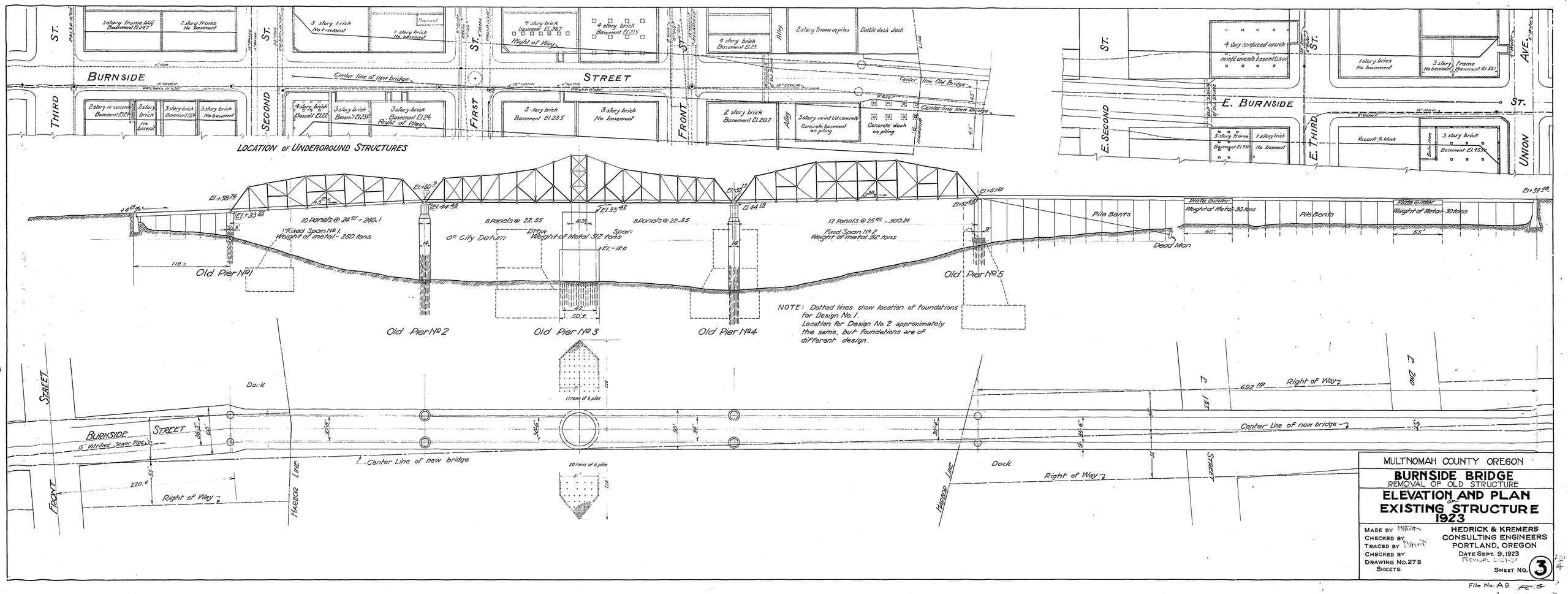
SCALE - 1" = 40'-0"

SHEET NO. T-2

E D C B A B C D E

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE, IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southwest 11th Avenue
Portland, Oregon 97204
503/233 6182
3M



MULTNOMAH COUNTY OREGON

BURNSIDE BRIDGE
REMOVAL OF OLD STRUCTURE

ELEVATION AND PLAN OF EXISTING STRUCTURE 1923

MADE BY
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO. 27 B
SHEETS

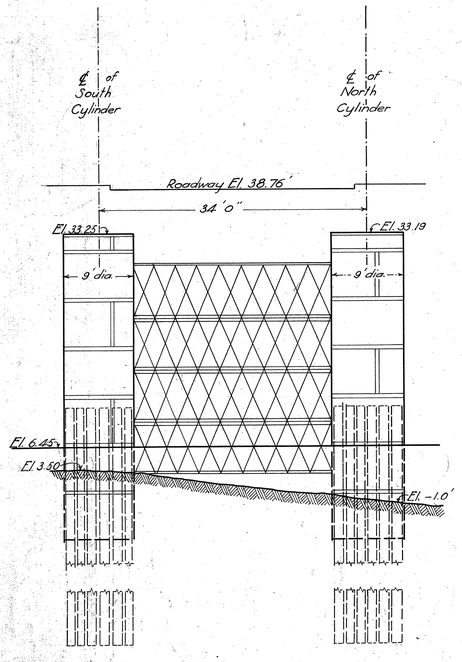
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE SEPT. 9, 1923
REVISED 6-21-24
SHEET NO. 3

File No. A 9

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE, IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233 8182
3M

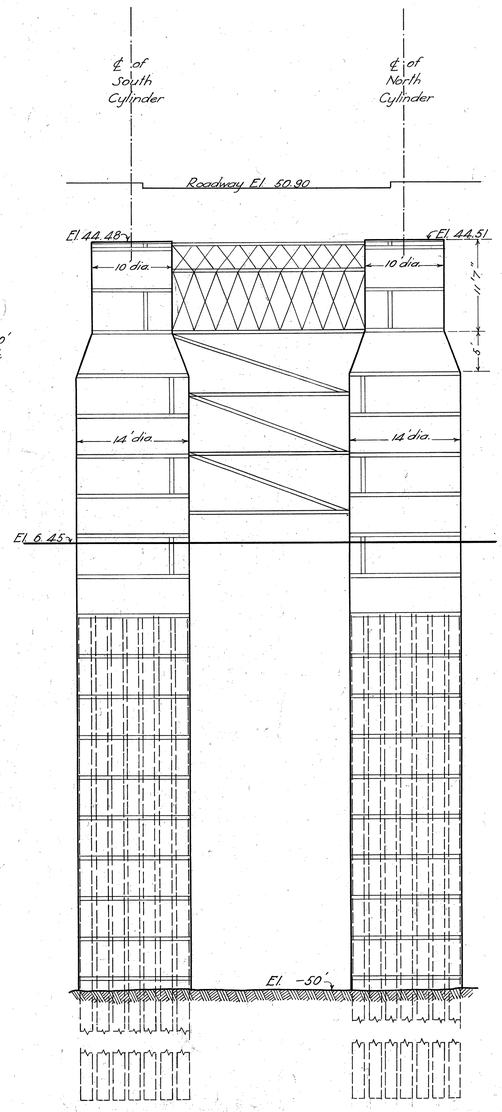
REVISED



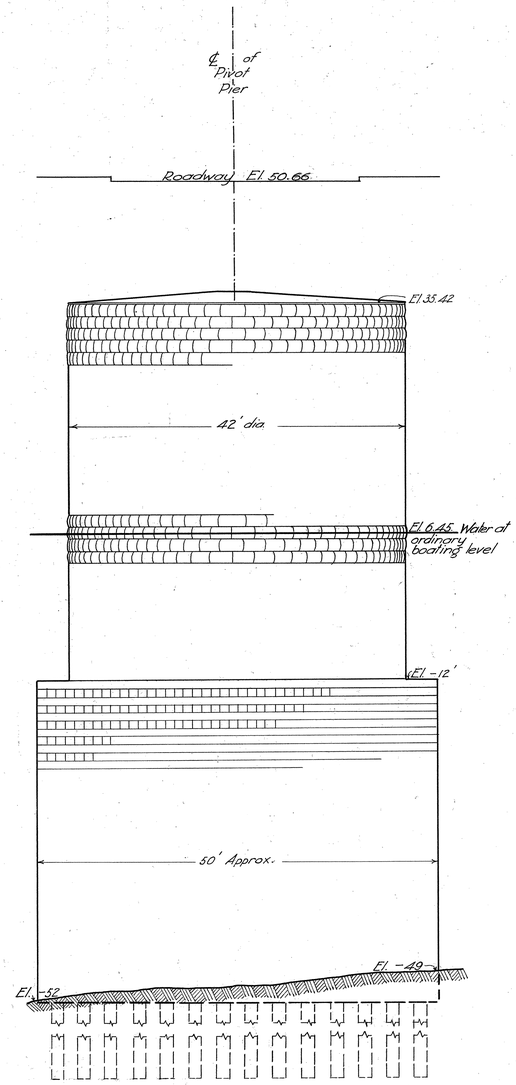
PIER Nº1

EXTREME WESTERN PIER

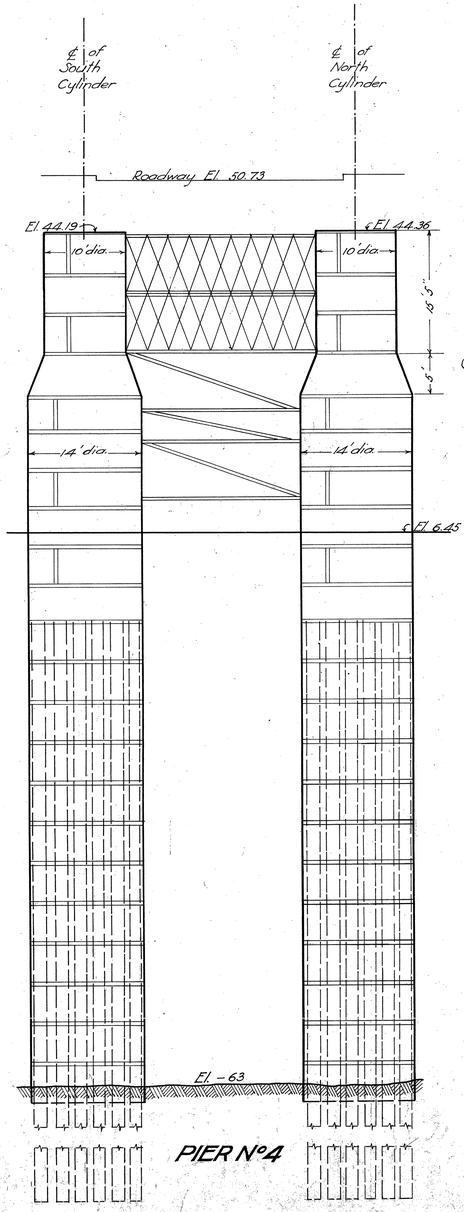
NOTE: All elevations are referred to the Datum Plane of the City of Portland



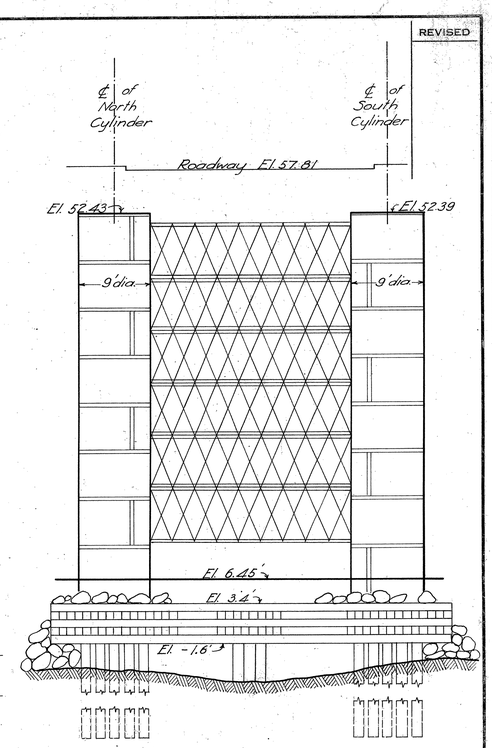
PIER Nº2



PIER Nº3



PIER Nº4



PIER Nº5

EXTREME EASTERN PIER

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS OF OLD PIERS

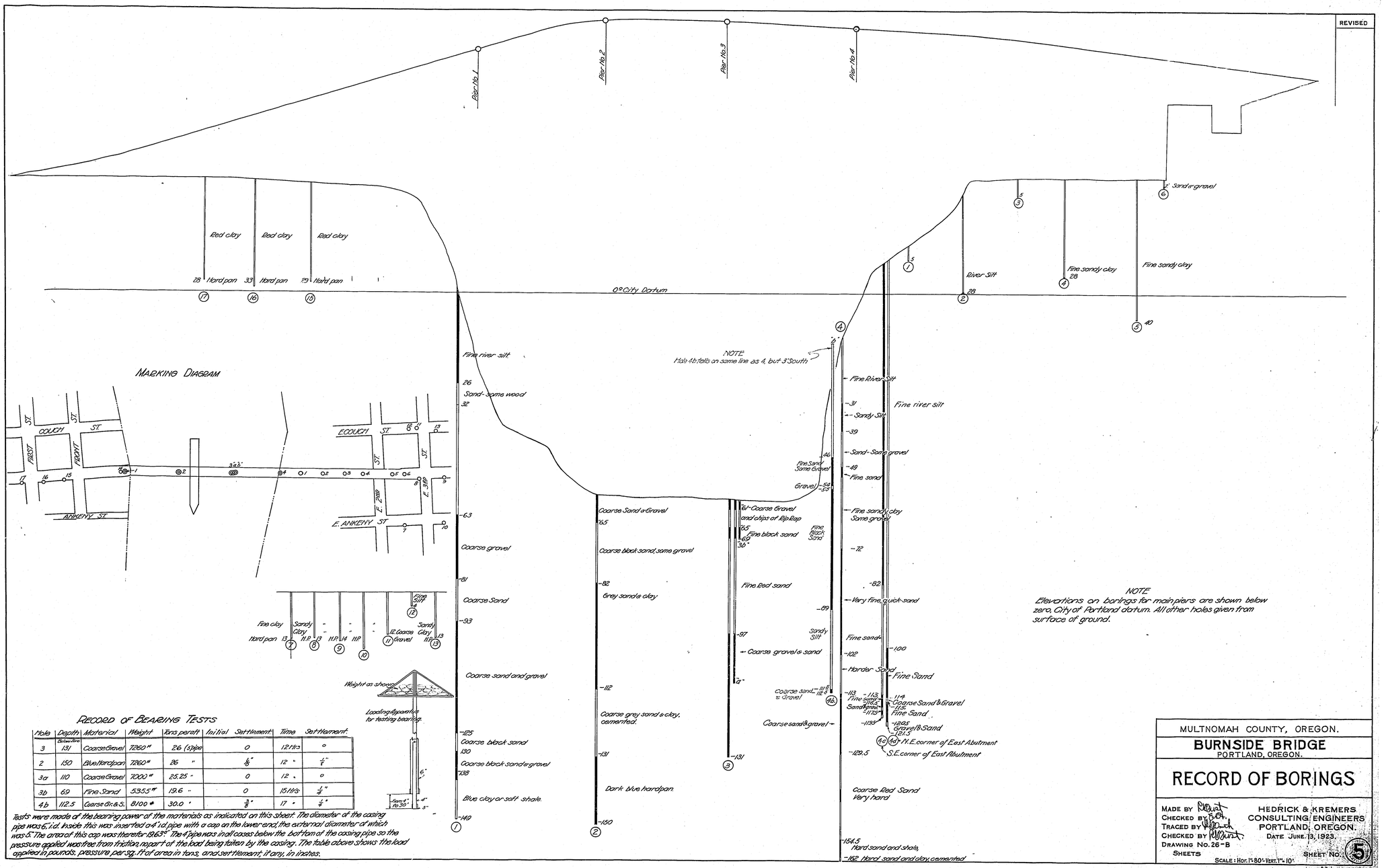
MADE BY R. Loomby
CHECKED BY H. Frost
TRACED BY R. Loomby
CHECKED BY H. Frost
DRAWING NO. 38-B
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE SEPT. 12, 1923

Scale 1" = 1'-0"

SHEET NO. 4

REVISED



MARKING DIAGRAM

RECORD OF BEARING TESTS

Hole	Depth Below Datum	Material	Weight	Tons per sq.ft.	Initial	Settlement	Time	Set Hement
3	131	Coarse Gravel	7260 #	26 (Stiffer		0	12 hrs	0
2	150	Blue Hardpan	7260 #	26 "		1/8"	12 "	1/4"
3a	110	Coarse Gravel	7000 #	25.25 "		0	12 "	0
3b	69	Fine Sand	5355 #	19.6 "		0	15 hrs	1/4"
4b	112.5	Coarse Gr. & S.	8100 #	30.0 "		3/8"	17 "	1/4"

Tests were made of the bearing power of the materials as indicated on this sheet. The diameter of the casing pipe was 6" i.d. Inside this was inserted a 4" i.d. pipe with a cap on the lower end, the external diameter of which was 5". The area of this cap was therefor 19.63". The 4" pipe was in all cases below the bottom of the casing pipe so the pressure applied was free from friction, report of the load being taken by the casing. The table above shows the load applied in pounds, pressure per sq. ft of area in tons, and set Hement, if any, in inches.

NOTE
Elevations on borings for main piers are shown below zero, City of Portland datum. All other holes given from surface of ground.

MULTNOMAH COUNTY, OREGON.

BURNSIDE BRIDGE
PORTLAND, OREGON.

RECORD OF BORINGS

MADE BY
CHECKED BY
TRACED BY
CHECKED BY
DRAWING No. 26-B
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON.

DATE JUNE 13, 1923.

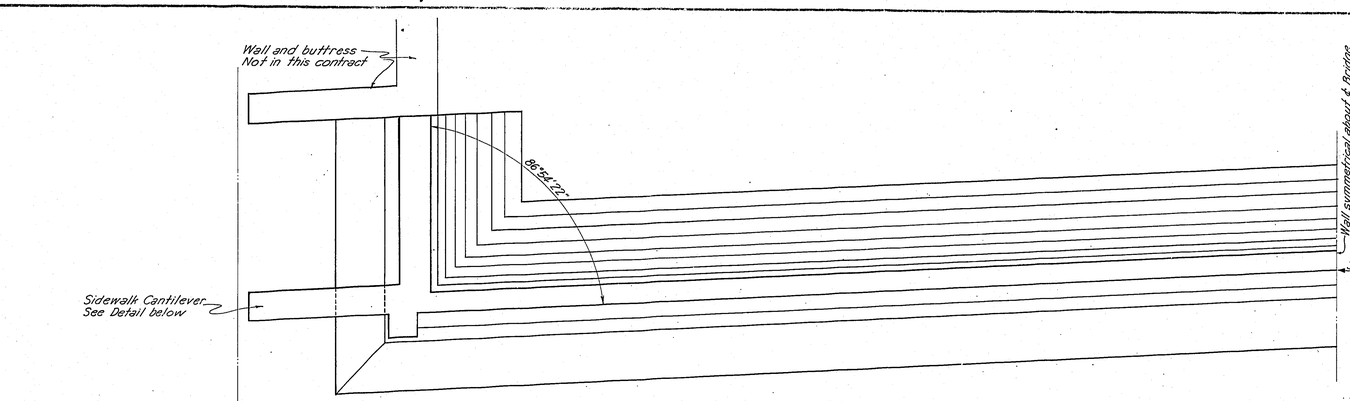
SHEET No. 5

SCALE: HOR. 1"=80'-VERT. 1"=10'

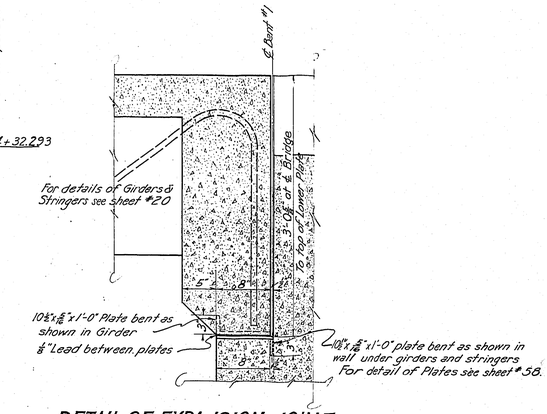
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-1802
3M

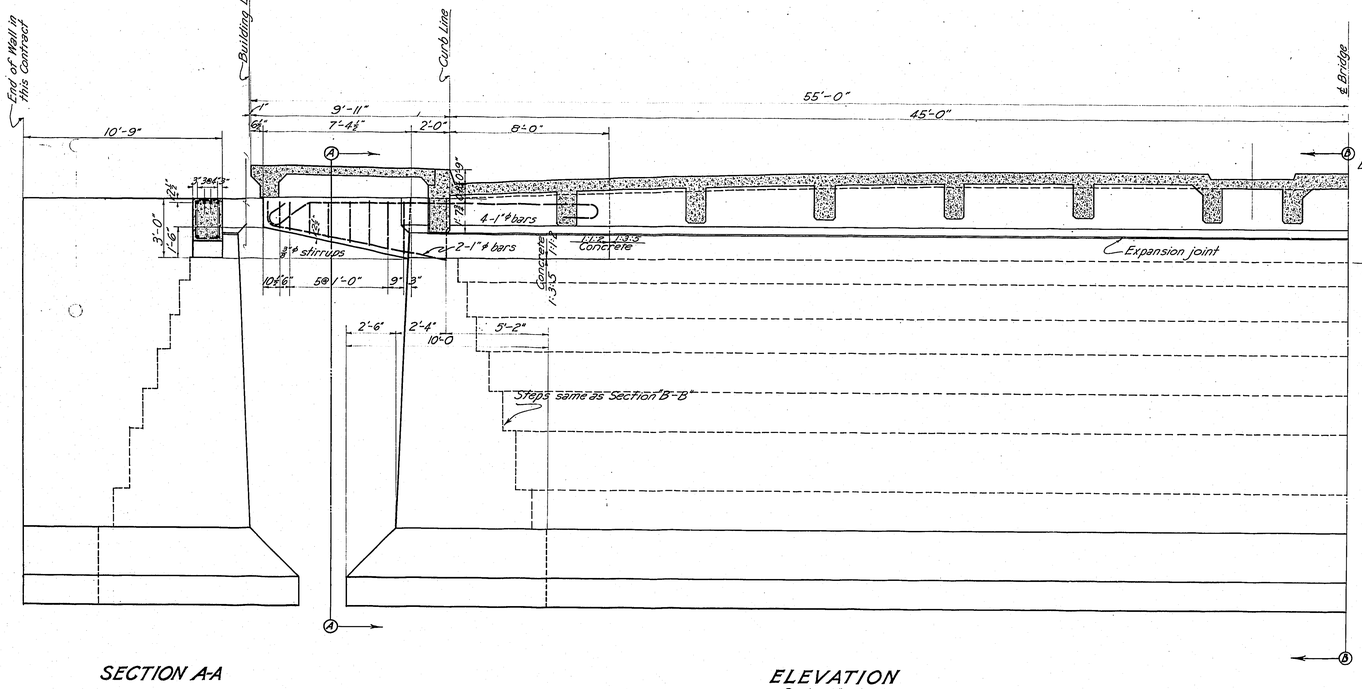
REVISED



PLAN

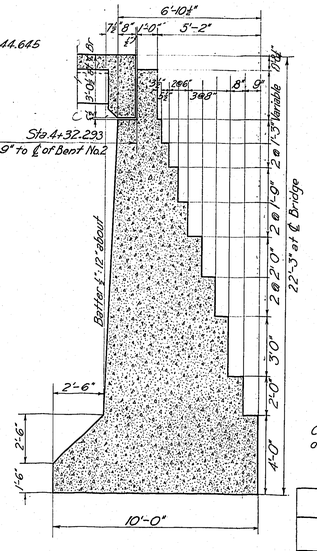


DETAIL OF EXPANSION JOINT
Scale 1½" = 1'-0"



SECTION A-A

ELEVATION
Scale - ⅜" = 1'-0"
All dimensions at Right Angles to ℄ Bridge



SECTION B-B

Concrete 1:3:5 Except Where Reinforced 1:1:2 as shown

VOID - SEE SHEET L-75

MULTNOMAH COUNTY ~ OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF RETAINING WALL, WEST APPROACH

MADE BY
CHECKED BY W.D. Smith
TRACED BY Edward C. Hedgin
CHECKED BY W.D. Smith
DRAWING NO.
61 SHEETS

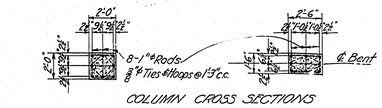
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 12, 1924
SHEET NO. 6
SCALE ⅜"=1'-0"

AB

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

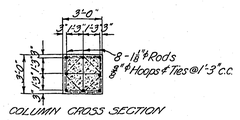
Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/232-8182
3M

REVISED

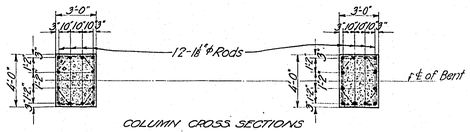


COLUMN CROSS SECTIONS

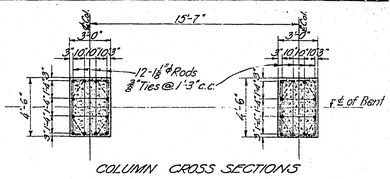
BENTS 2, 5 TO 13, & 29-32 INC. BENTS 3-4 ONLY



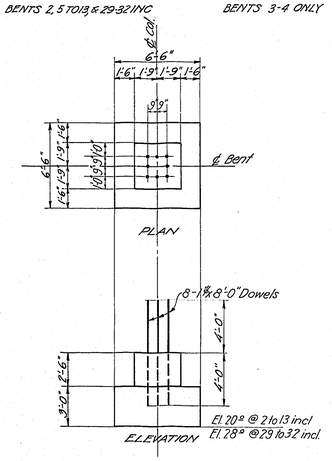
COLUMN CROSS SECTION



COLUMN CROSS SECTIONS



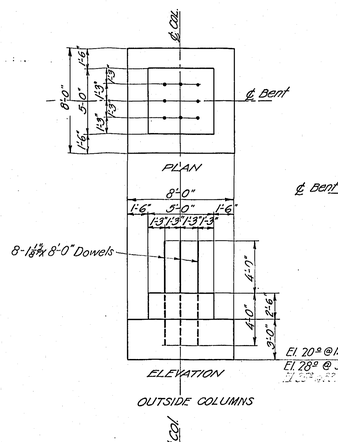
COLUMN CROSS SECTIONS



PLAN

ELEVATION

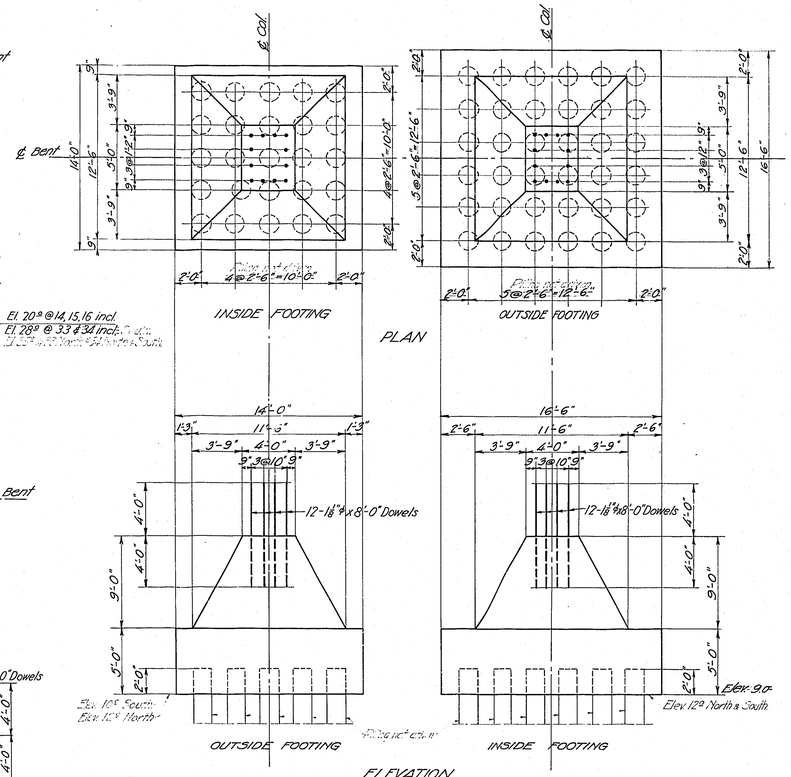
OUTSIDE COLUMN FOOTING



PLAN

ELEVATION

OUTSIDE COLUMNS



INSIDE FOOTING

OUTSIDE FOOTING

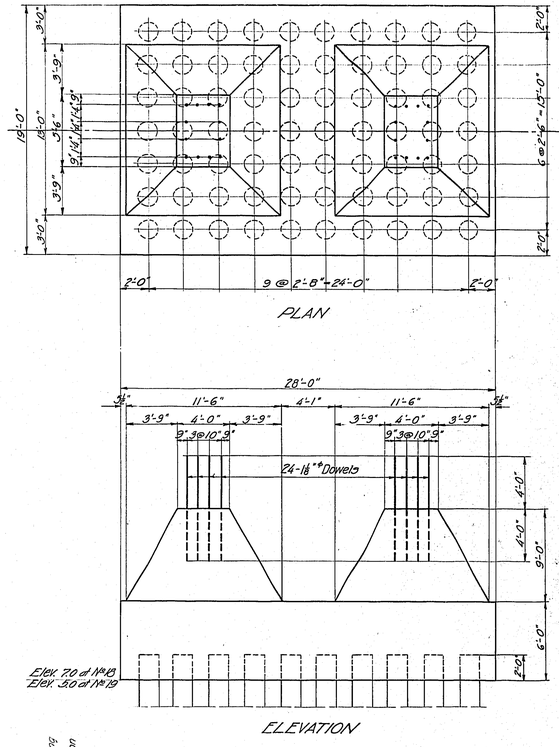
PLAN

OUTSIDE FOOTING

INSIDE FOOTING

ELEVATION

BENT 17

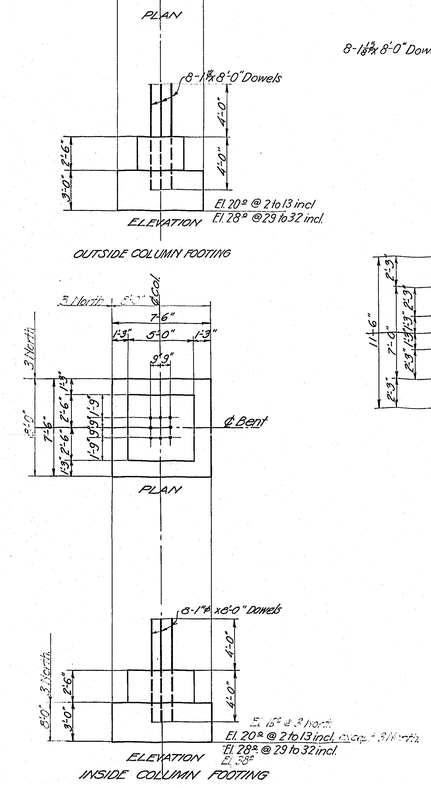


PLAN

ELEVATION

BENTS 18-19

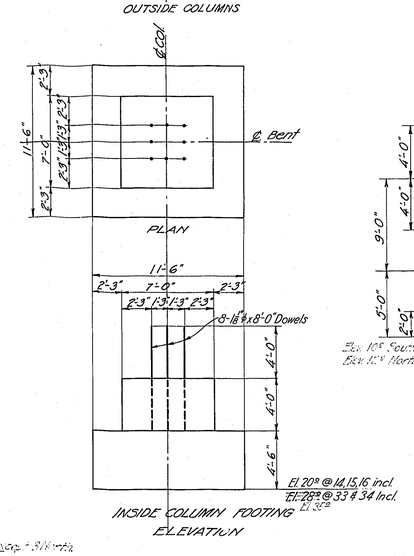
For Pile details see "Pile Record"



PLAN

ELEVATION

INSIDE COLUMN FOOTING



PLAN

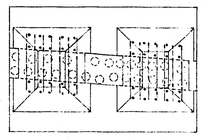
ELEVATION

INSIDE COLUMN FOOTING

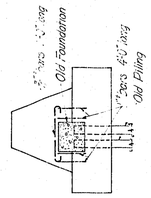
BENTS 14, 15, 16, 33, 34

BENTS 2-13, 29-32 INC

NOTE :- For arrangement of dowels, see column cross section.



REINFORCING - SOUTH FOOTING BENT 19.



All Concrete 1-3-5

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

FOOTINGS & COLUMNS
CONCRETE APPROACHES

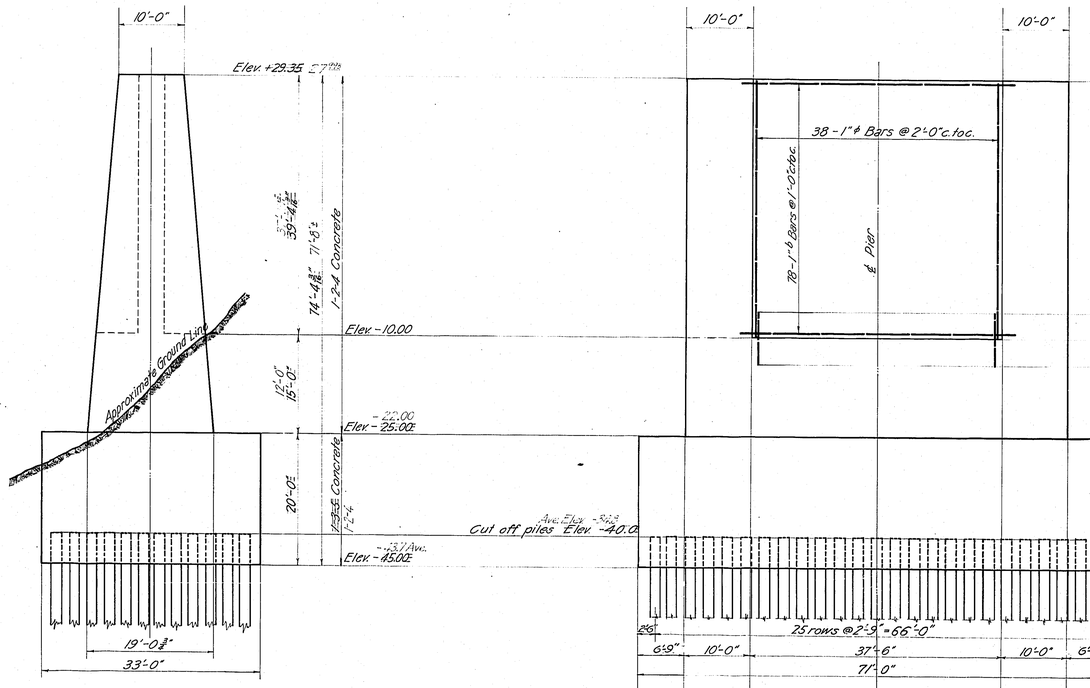
MADE BY Ed Quigley — HEDRICK & KREMERS
CHECKED BY [illegible] — CONSULTING ENGINEERS
TRACED BY N. W. Rouse — PORTLAND, OREGON
CHECKED BY [illegible] — DATE FEB 20 1974
DRAWING No. — SHEET No. 7
61 SHEETS — SCALE - ¼" = 1'-0"

A151

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

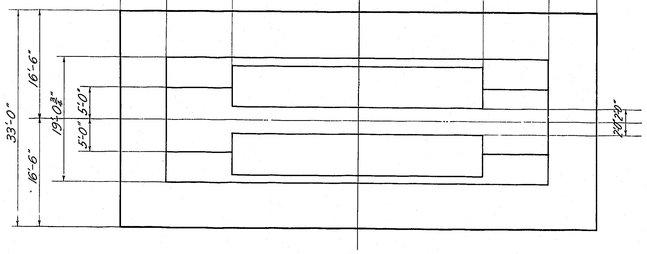
Business Equipment Bureau 1700 Southeast 11th Avenue Portland, Oregon 97214 503/233-6682 3M

REVISED



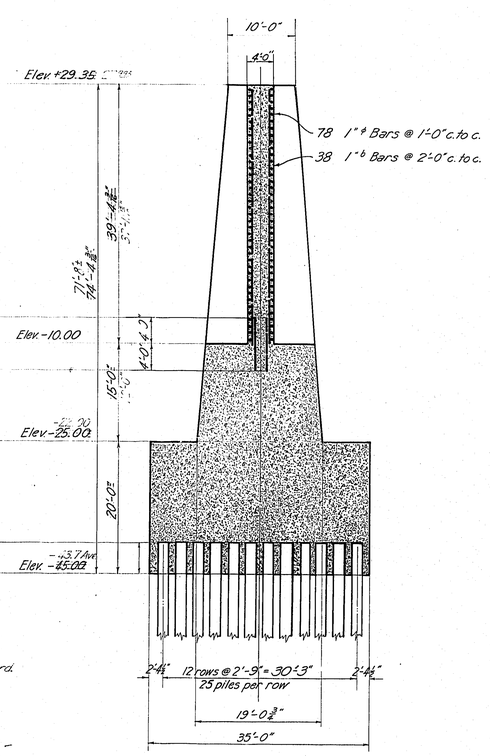
SIDE ELEVATION

END ELEVATION



PLAN

Pile ℄
Number driven = 276
Ave. Elev point = -42.3
See Pile Record.



SECTION THROUGH CENTER

MULTNOMAH COUNTY — OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF

WEST ABUTMENT

MADE BY R. Kingsbury
CHECKED BY D. Shrock
TRACED BY Clayton
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS,
PORTLAND, OREGON
DATE

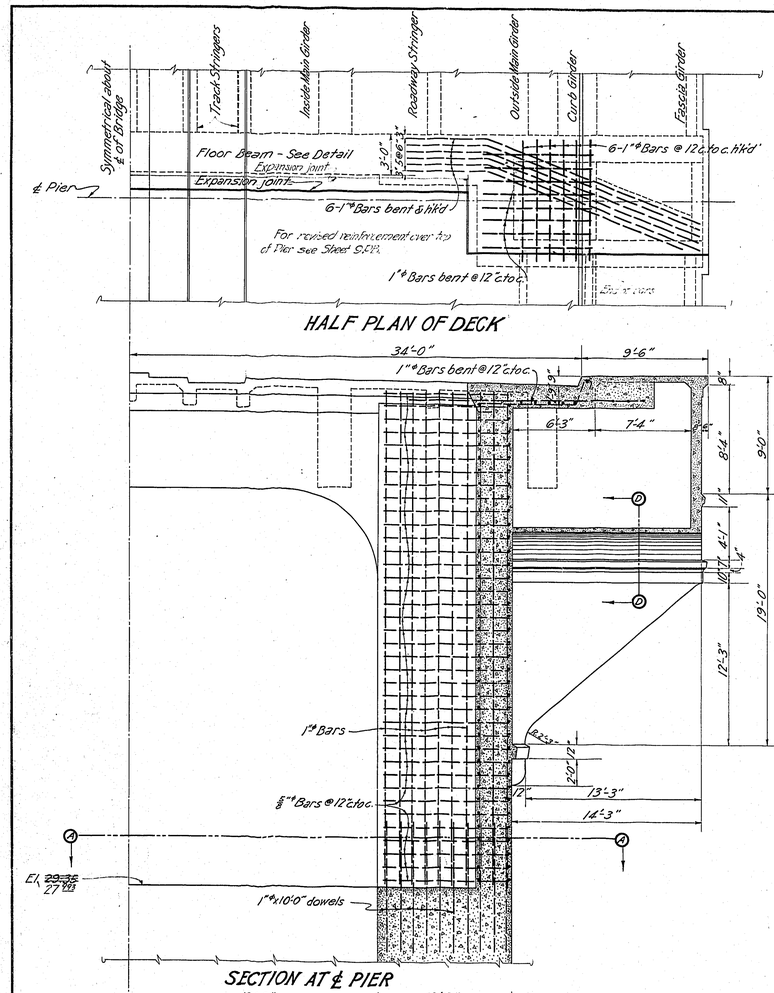
SHEET NO. T8

AB

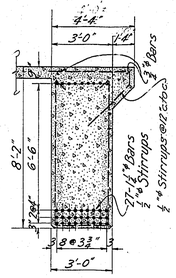
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6032
3M

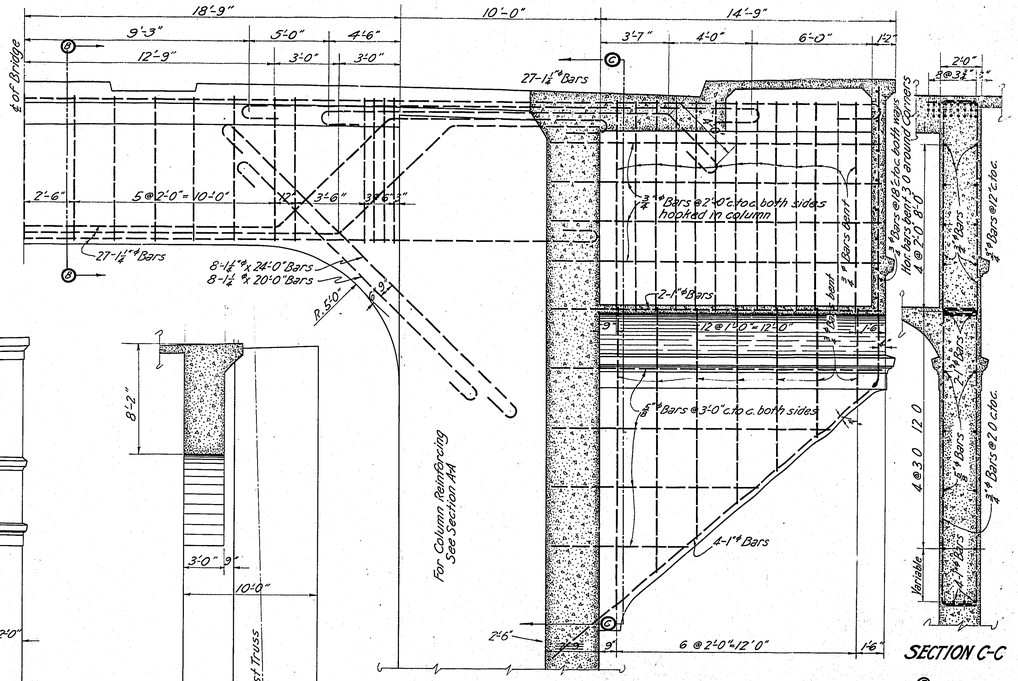
REVISED



HALF PLAN OF DECK

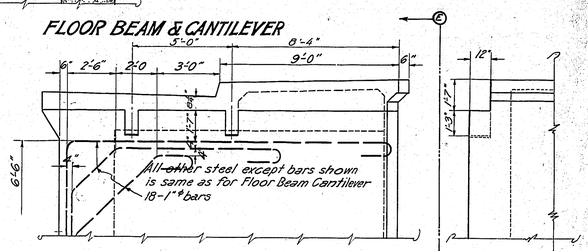


SECTION B-B



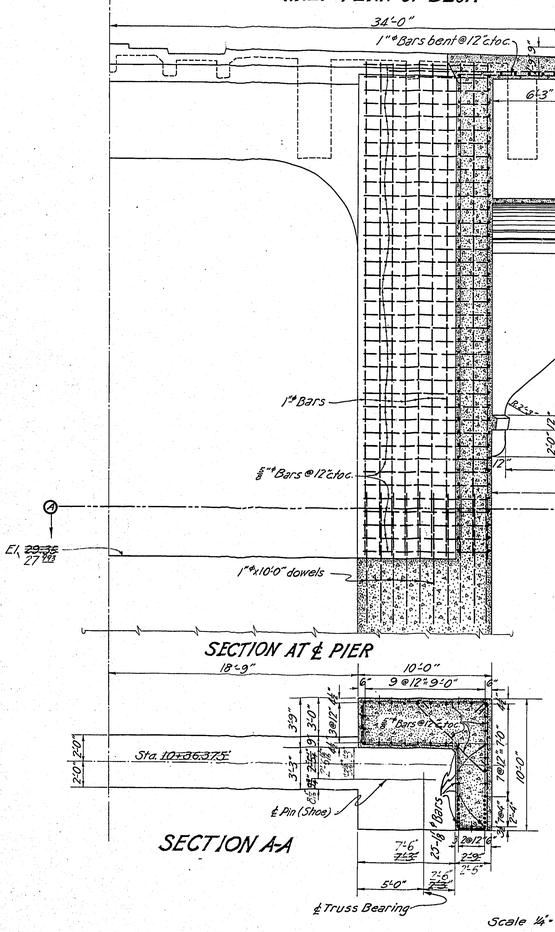
FLOOR BEAM & CANTILEVER

SECTION C-C

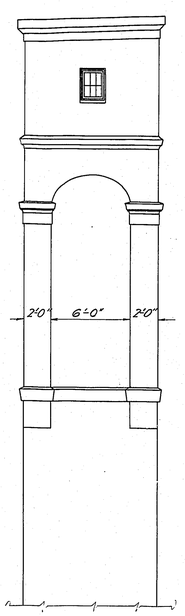


TOP OF CANTILEVER ON TRUSS SIDE
Scale ⅜"-1'-0"

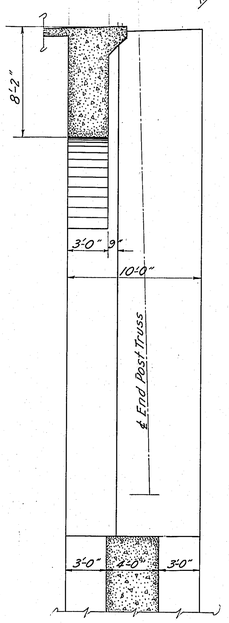
SECTION E-E



SECTION AT ℄ PIER



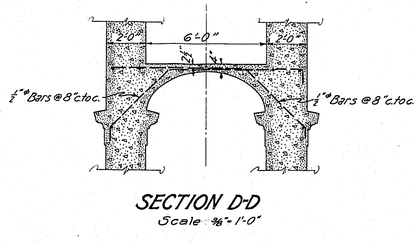
ELEVATION



SECTION AT ℄ BRIDGE
Scale ¼"-1'-0"

SECTION A-A

Scale ¼"-1'-0"



SECTION D-D
Scale ⅜"-1'-0"

Concrete in roadway slabs & beams 1:1:2
Other Concrete 1-2-4.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS
- OF -

WEST ABUTMENT - TOWER COLUMNS

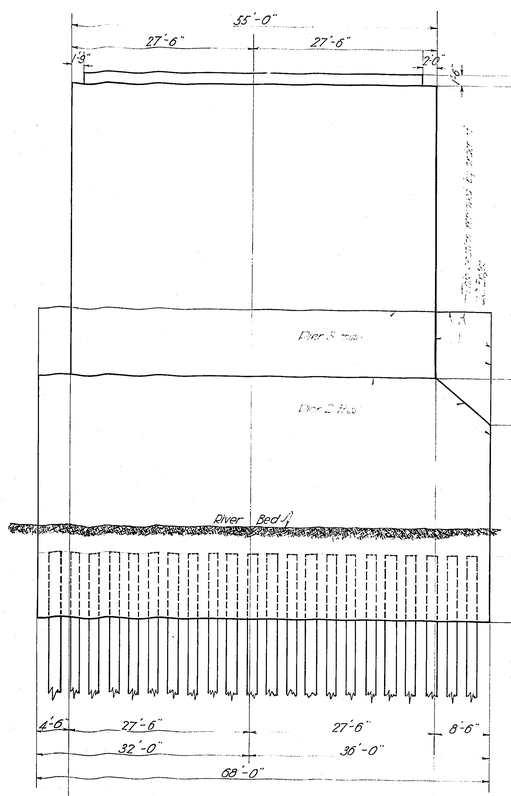
MADE BY [illegible] HEDRICK & KREMERS
CHECKED BY [illegible] CONSULTING ENGINEERS
TRACED BY [illegible] PORTLAND, OREGON
CHECKED BY [illegible] DATE Feb. 16, 1924.
DRAWING NO. 61 SHEETS Scale As Shown SHEET NO. T 9

FBI 10

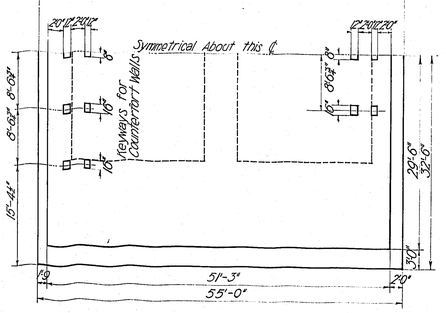
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/231-6162
3M

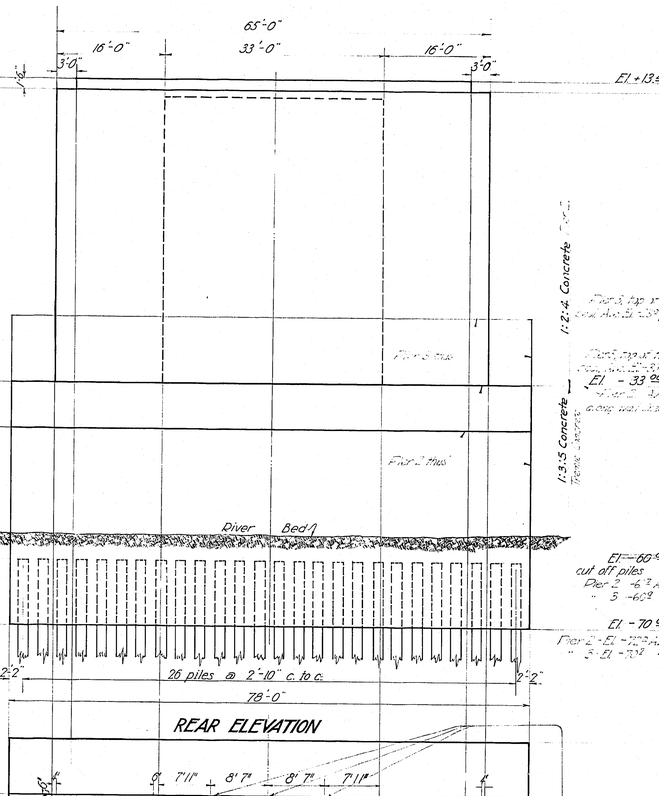
REVISED



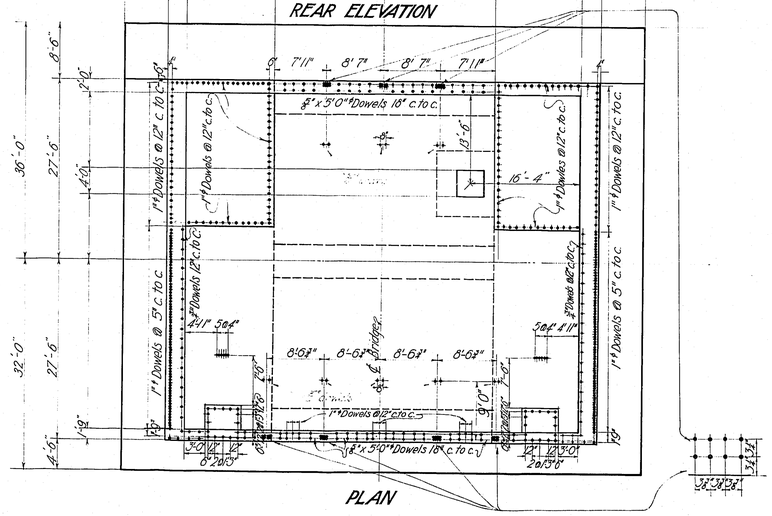
SIDE ELEVATION



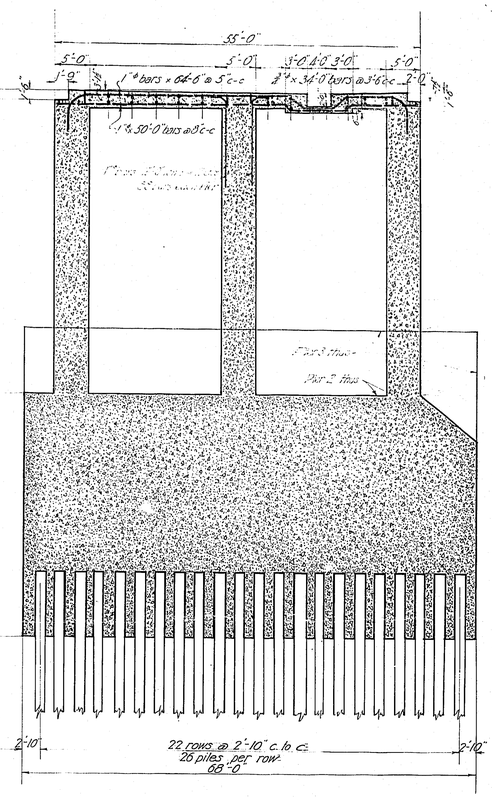
TOP OF FLOOR SLAB



REAR ELEVATION



PLAN



SECTION THROUGH SUMP

Piling:-
For former information regarding piling see "As Erected"

For details of Sterling see Sheet 10 of 13 and Pile Record

MULTNOMAH COUNTY — OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF BASE CHANNEL PIERS

MADE BY R.J. Kennedy
CHECKED BY W.W.K.
TRACED BY E.H. Hodgson
CHECKED BY H.B. Smith

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON

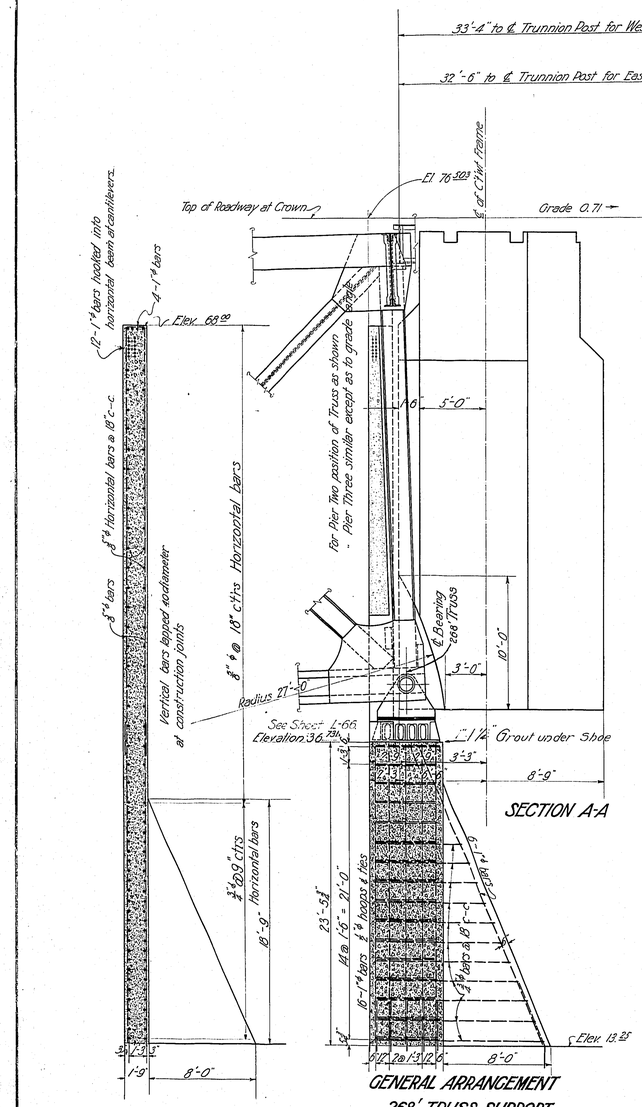
DATE
DRAWING NO.
SHEETS
SHEET NO. T10
SCALE 1/4"=1'-0"

AB1

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland Oregon 97214
503/233-3182
3M

REVISED



MULTNOMAH COUNTY — OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS

TRUSS SEAT, C'TWT CLEARANCE

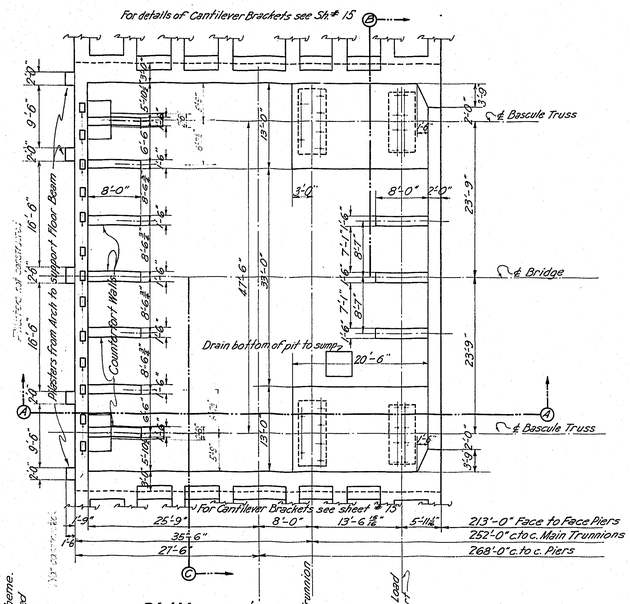
BASCULE PIER

MADE BY	HEDRICK & KREMERS
CHECKED BY	CONSULTING ENGINEERS
TRACED BY	PORTLAND, OREGON
CHECKED BY	DATE FEB. 16TH 1924
DRAWING No. 118-B	
61 SHEETS	SCALE: 1'-1'-0" SHEET No. T 10

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

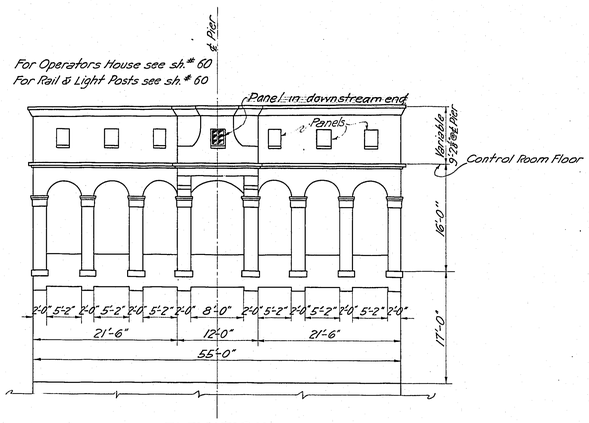
STEINS Business Equipment Bureau 1700 Southeast 11th Avenue Portland, Oregon 97214 503/233-6182 3M

REVISED



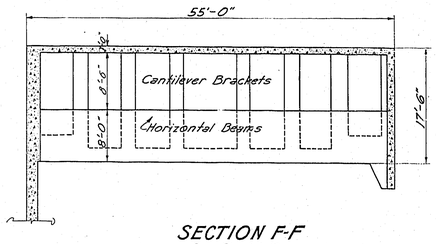
PLAN

Pier 2- Pier 3 opposite hand.



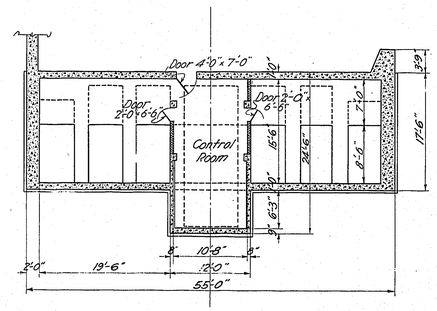
ELEVATION

Upstream End



SECTION F-F

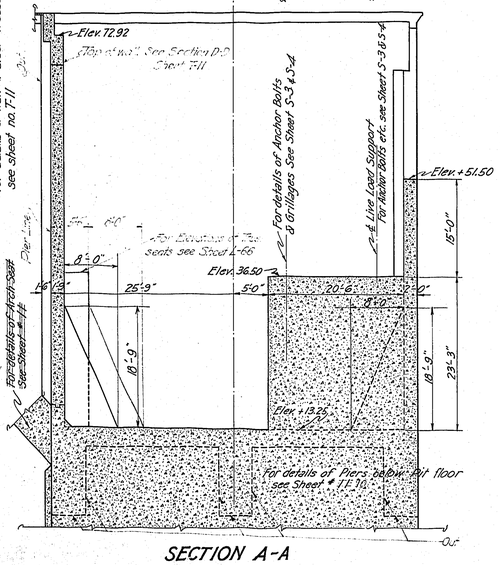
See Sheet L-12



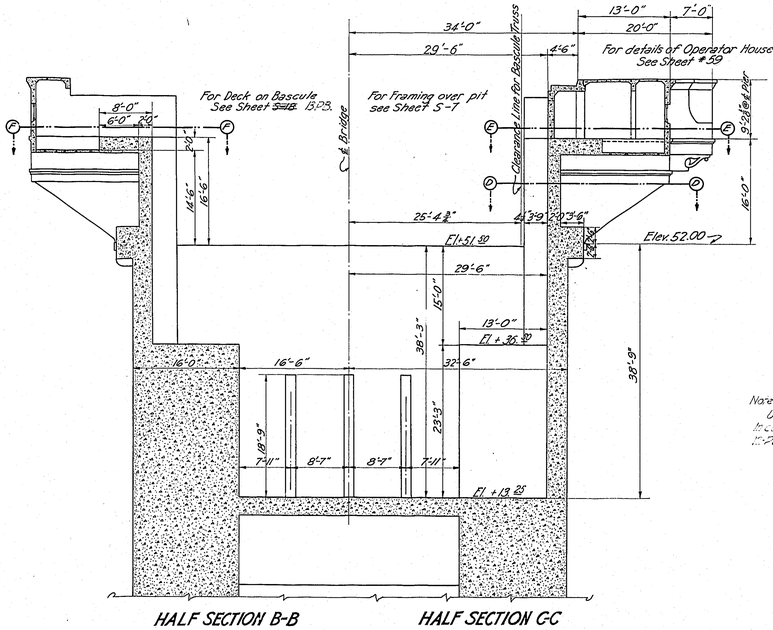
SECTION E-E

See Sheet L-12.

NOTE: This well as shown is for concrete arch scheme. For details of well if steel trusses are used see sheet no. T-11

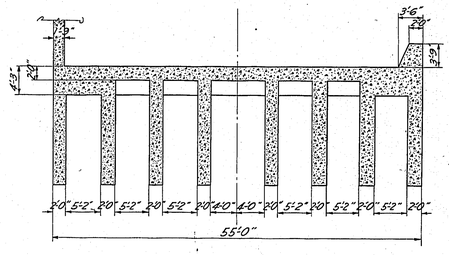


SECTION A-A



HALF SECTION B-B HALF SECTION C-C

Note:- Use this sheet with sheet L-12 & T.E.B. In case of cantilever cut as sheets L-11 & T.E.9.



SECTION D-D Concrete in floor slabs and beams at roadway elevation to be 1:1:2 Other Concrete 1:2:4

DESIGN No. 1

MULTNOMAH COUNTY — OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS OF

BASCULE PIERS, GENERAL PLANS

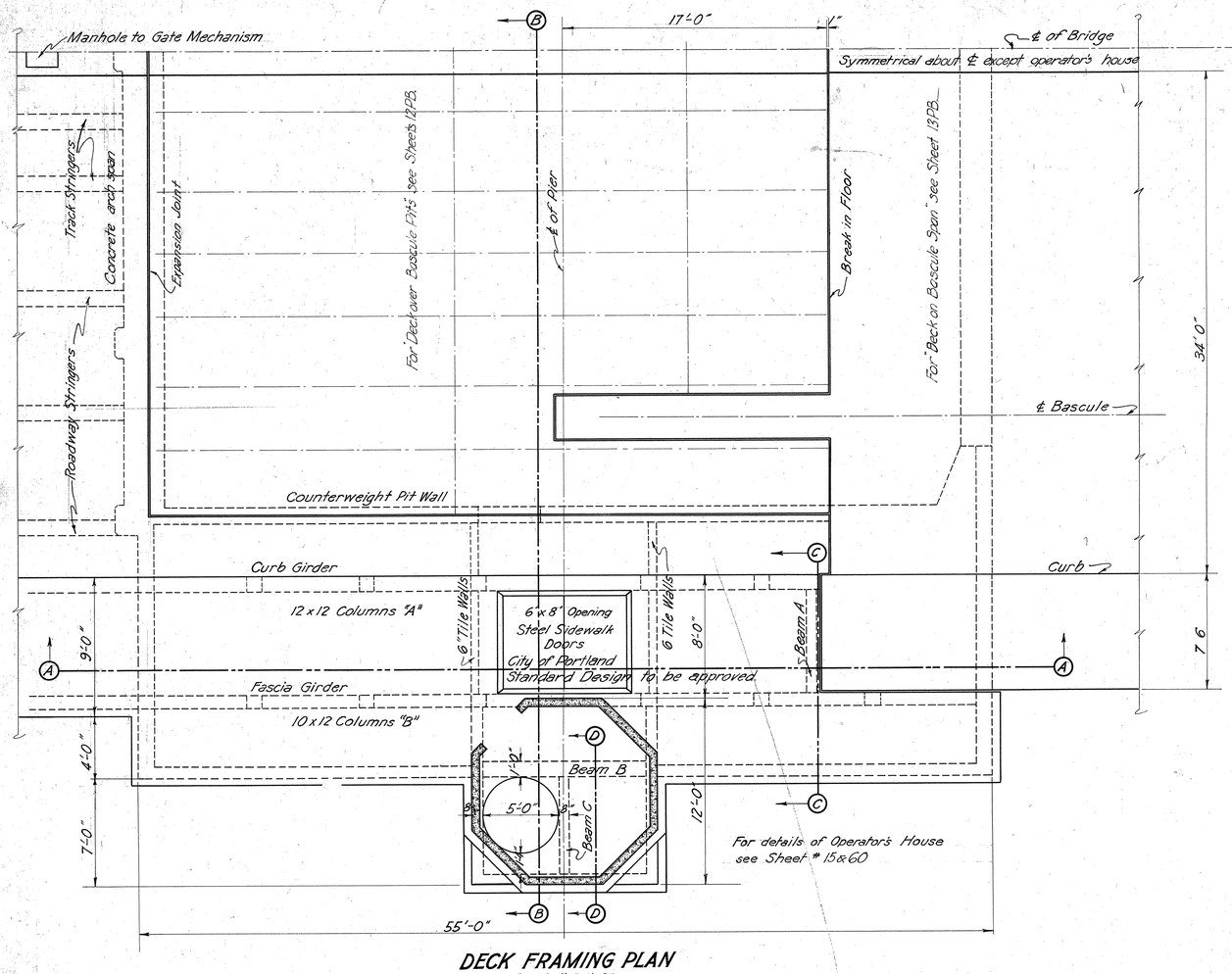
MADE BY
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE Feb. 12, 1924
SCALE 1" = 1'-0"
SHEET NO. 12

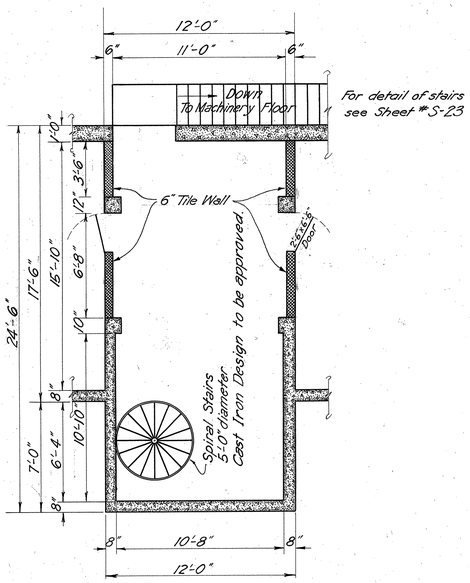
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau 1700 Southeast 11th Avenue Portland Oregon 97214 503/238-1822 3M

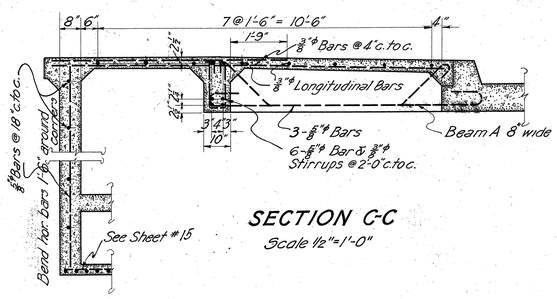
REVISED



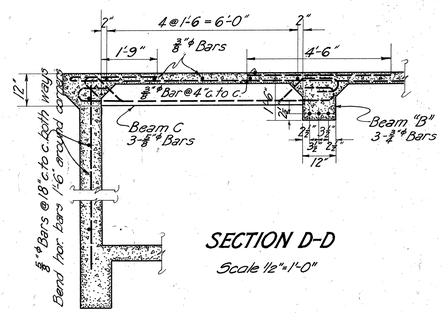
DECK FRAMING PLAN
Scale 1/4"=1'-0"



CONTROL ROOM
Scale 1/4"=1'-0"

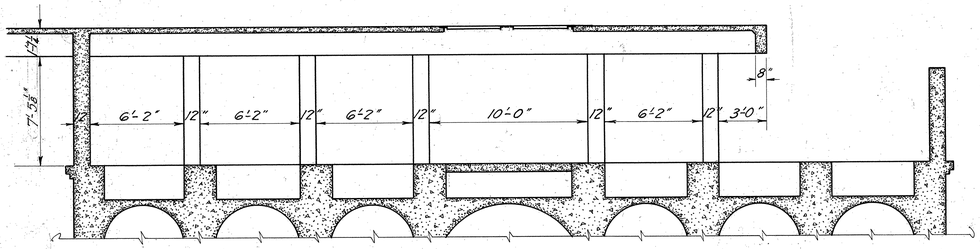


SECTION C-C
Scale 1/2"=1'-0"

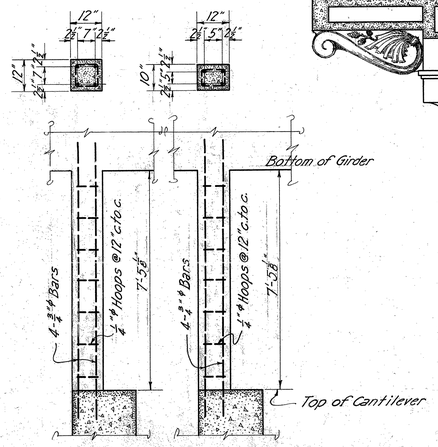


SECTION D-D
Scale 1/2"=1'-0"

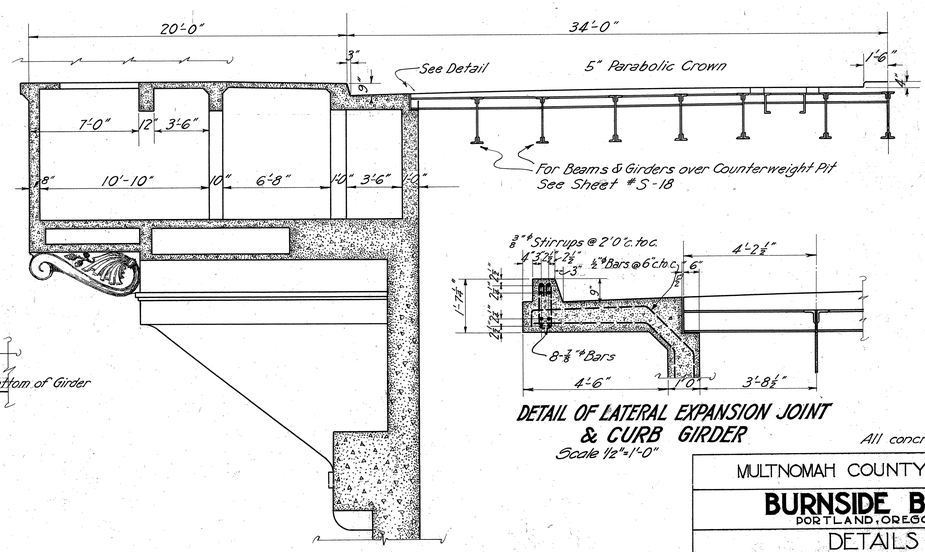
Use this sheet with sheets L-12 & L-76. In case of conflict sheets L-12 & L-76 govern.



SECTION A-A
Scale 1/4"=1'-0"



COLUMN A COLUMN B
Scale 1/2"=1'-0"



SECTION B-B
Scale 1/4"=1'-0"

NOTE: This sheet shows West Pier. - Opposite hand for East Pier.

DETAIL OF LATERAL EXPANSION JOINT & CURB GIRDER
Scale 1/2"=1'-0"

All concrete 1:1:2

MULTNOMAH COUNTY ~ OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF
DECK, BASCULE PIERS

MADE BY
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO.
61 SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 12, 1924

SHEET NO. 13

A&I

REVISED

Spandrel Beams

Elevation 72.2'
For location of Anchor bolts & plates see sheet # S-3

Elevation 68.2'
(Control Room Floor)

12-1"ϕ bars see sheet #15

8-1⅛"ϕ bars

8-1⅛"ϕ bars
⅜"ϕ Hoops & Ties @18" c.to.c.

⅜"ϕ bars @ 18" Ctrs. Horizontal

2-¾"ϕ bars

⅜"ϕ bars @ 18" c.to.c.

⅜"ϕ bars @ 9" Ctrs. Horizontal

⅜"ϕ bars @ 18" c.to.c.

⅜"ϕ bars @ 9" c.to.c.

This detail for use with Concrete Arch spans. For detail used see Sheet #11 and Sheet #12.

℄ of Arch Rib

℄ of Bridge

5-1"ϕ bars

½"ϕ Stirrups

½"ϕ Stirrups

5-1"ϕ bars

5-1"ϕ Bars

SECTION D-D

For General Arr. Angles to Arch, see dwg.

For Transition and Counterfort see Sheet #11 and Sheet #12.

Transition omitted for Splice and hooks used.

Elev. 51.2'
6-1⅛"ϕ bars upset & turnbuckles at splice hooked at ends.
See sheet #15
10-⅞"ϕ bars
½"ϕ Hoops 3'0" c.to.c.

⅜"ϕ bars @ 18" c.to.c.

⅜"ϕ bars @ 18" c.to.c.

Horizontal Bars ⅜"ϕ @ 18" c.to.c.

⅜"ϕ bars @ 18" c.to.c.

Horizontal Bars ⅜"ϕ @ 9" c.to.c.

8-1⅛"ϕ bars

2-¾"ϕ bars

⅜"ϕ bars @ 18" c.to.c.

Dowels

1¼"ϕ 8'0" dowels

⅜"ϕ @ 5'0" dowels

SECTION C-C

⅜"ϕ bars @ 9" c.to.c. Both ways

⅜"ϕ Stirrups @ 3'0" c.to.c.

1"ϕ bars @ 5" c.to.c. and 1"ϕ bars @ 12" c.to.c. for portion in Trunnion Pier.

1¼"ϕ x 6'0" dowels

1"ϕ x 8'0" dowels

SECTION A-A

HORIZONTAL SECTION

SECTION B-B

⅜"ϕ Stirrups @ 3'0" ctrs.

1⅛"ϕ Bars @ 12" ctrs.
6" Below I Beam grillage

1"ϕ bars 12" c.to.c.

⅜"ϕ bars @ 18" c.to.c.

1⅛"ϕ Bars @ 1'6" ctrs.
6" Below I Beam grillage

1"ϕ bars @ 12" c.to.c.

⅜"ϕ bars @ 18" c.to.c.

For Anchor bolts & grillage location see sheet #S3

Note:- All Horizontal Bars in walls to be bent 20 diameters around corners.

Concrete 1:2:4

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS OF

WALLS, BASCULE PIER

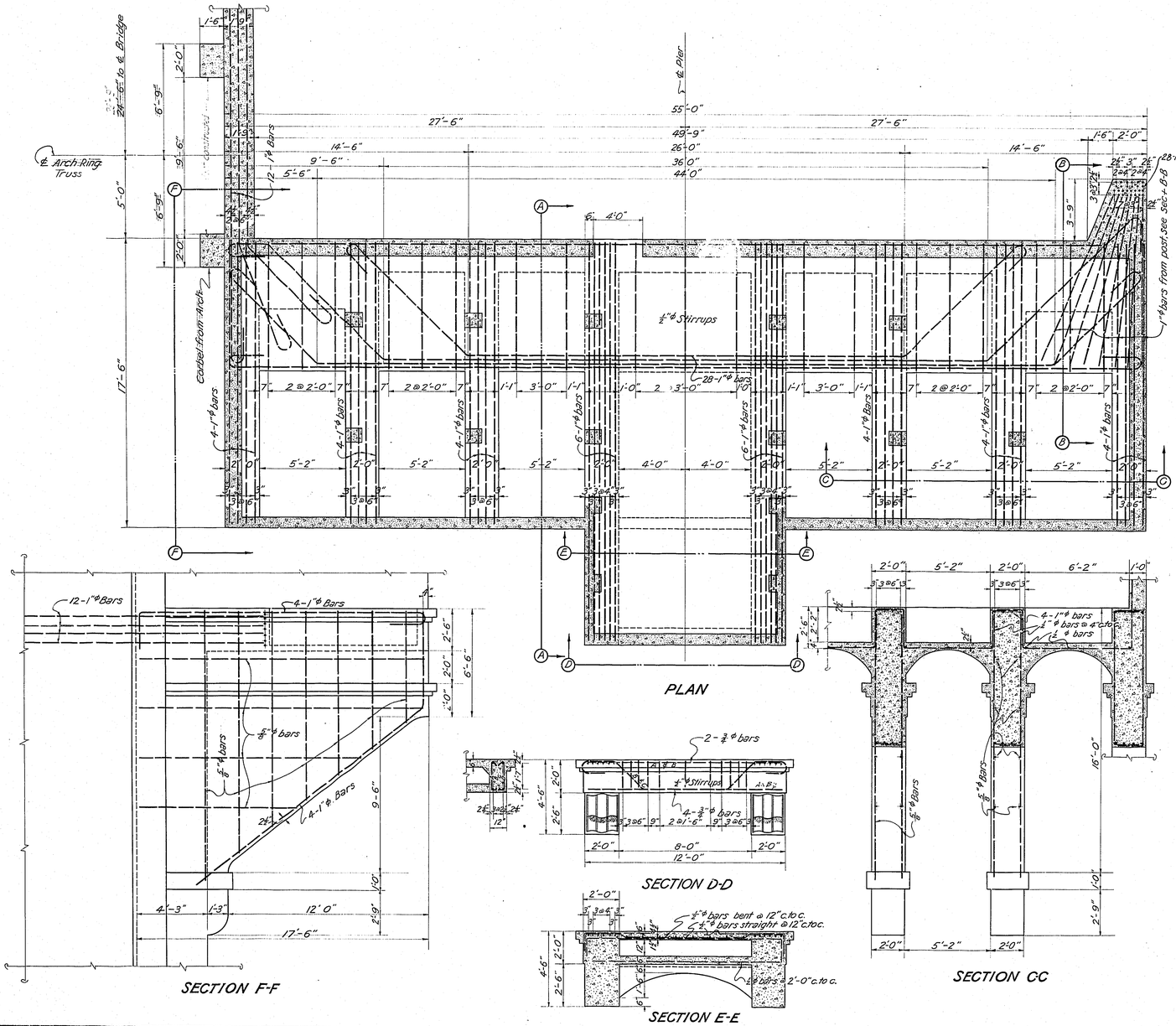
MADE BY A.M. Hedrick — HEDRICK & KREMERS
CHECKED BY [illegible] — CONSULTING ENGINEERS
TRACED BY A.D. Wright — PORTLAND, OREGON
CHECKED BY [illegible] — DATE FEB. 21, 1924
DRAWING NO. 61 SHEETS — Scale: ¼"-1'-0" — SHEET NO. 14

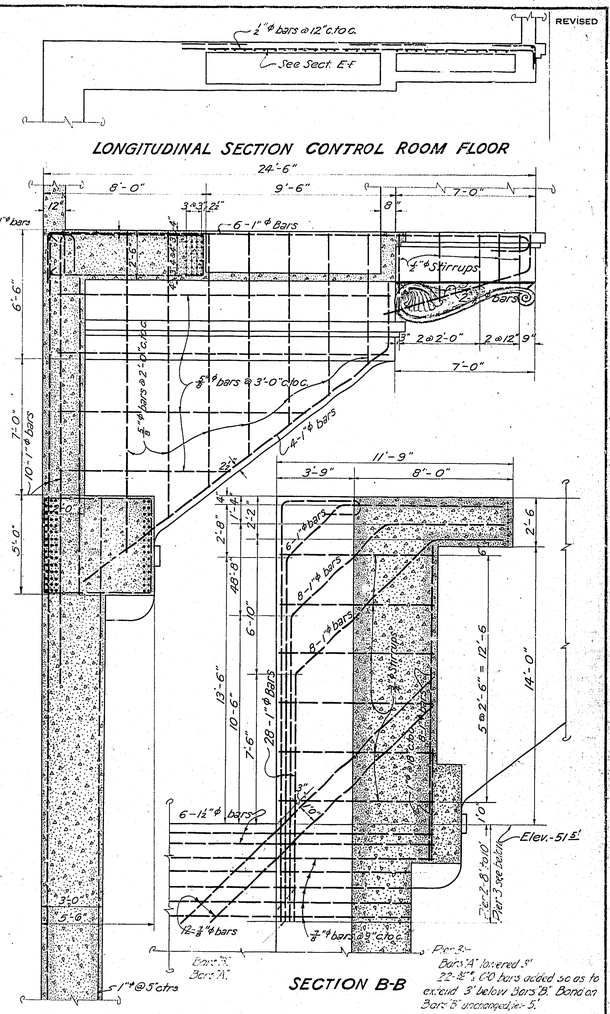
AB 1

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau 1700 Southwest 11th Avenue Portland, Oregon 97214 503/233-6882 3M

REVISED





Pier 3 –
Bars 'A' lowered 5"
22-⅞" ϕ bars added so as to extend 3' below bars 'B' and on Bars 'B' unchanged, i.e. 5'.

1:2:4 Concrete except 1:1:2 in roadway slabs & beams

Use this sheet with Sheet L-12. In case of conflict Sheet L-12 governs.

MULTNOMAH COUNTY – OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF OPERATOR'S HOUSE SUPPORT

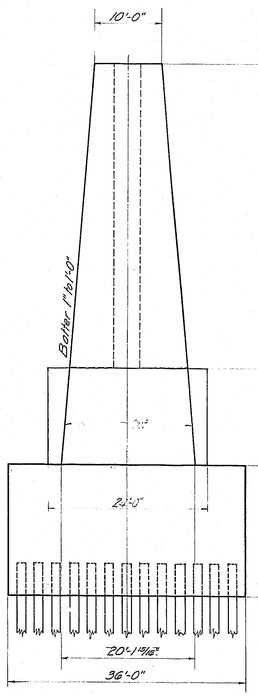
MADE BY K. M. Hendricks
CHECKED BY [illegible]
TRACED BY M. Marian
CHECKED BY M. Ward
DRAWING NO. 61 SHEETS
SCALE - ⅜" = 1'-0"

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 20, '24
SHEET NO. 15

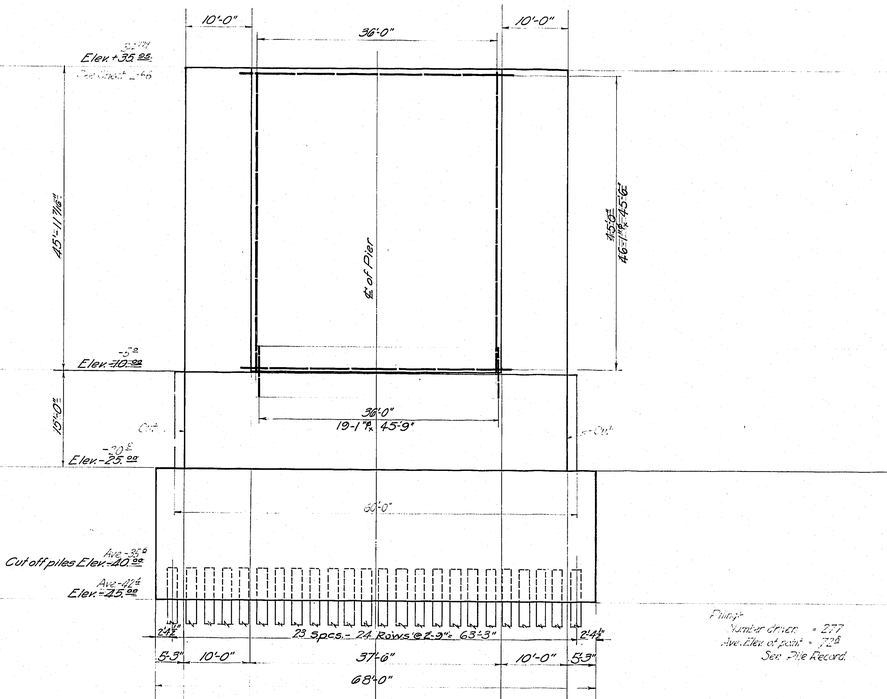
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-9182
3M

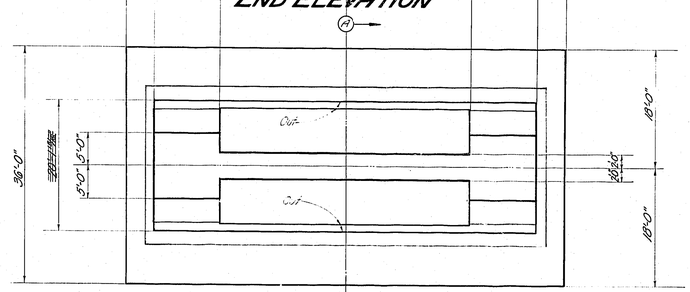
REVISED



SIDE ELEVATION

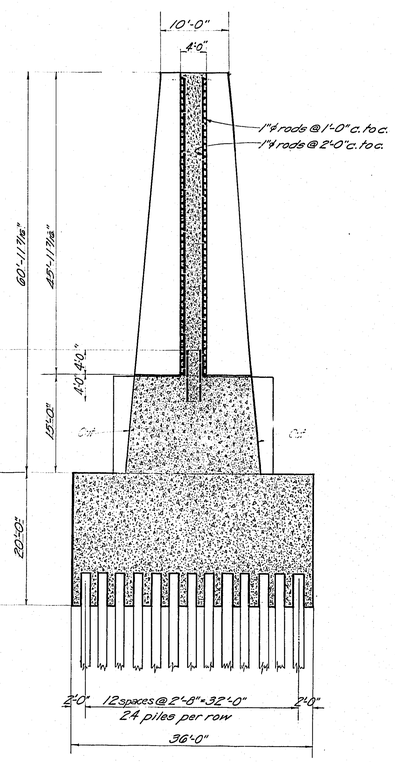


END ELEVATION



PLAN

Piling
Number Driven = 277
Ave. Elev. of point = 7.78
See Pile Record.



SECTION A-A

MULTNOMAH COUNTY — OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS OF EAST ABUTMENT

MADE BY R. Crosby
CHECKED BY [illegible]
TRACED BY [illegible]
CHECKED BY [illegible]
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 14, 1924.

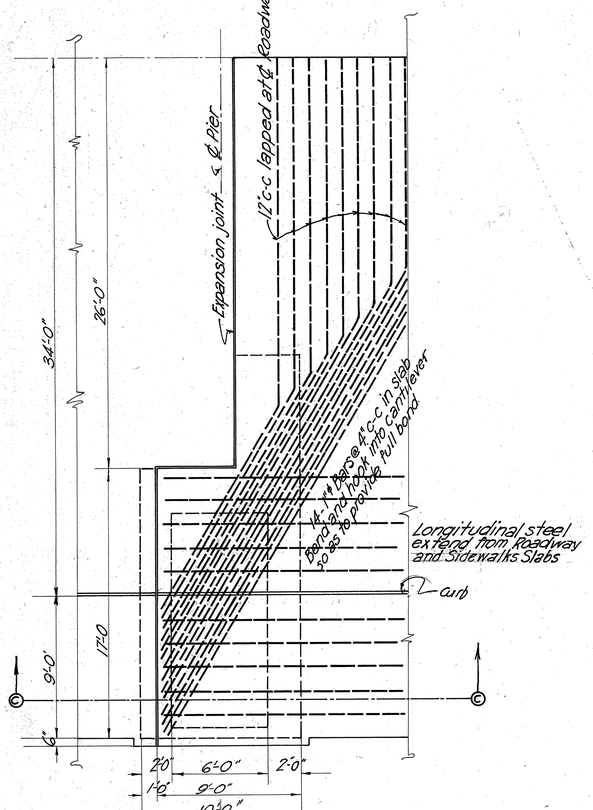
SHEET NO. T16

A-81
177
FL 25

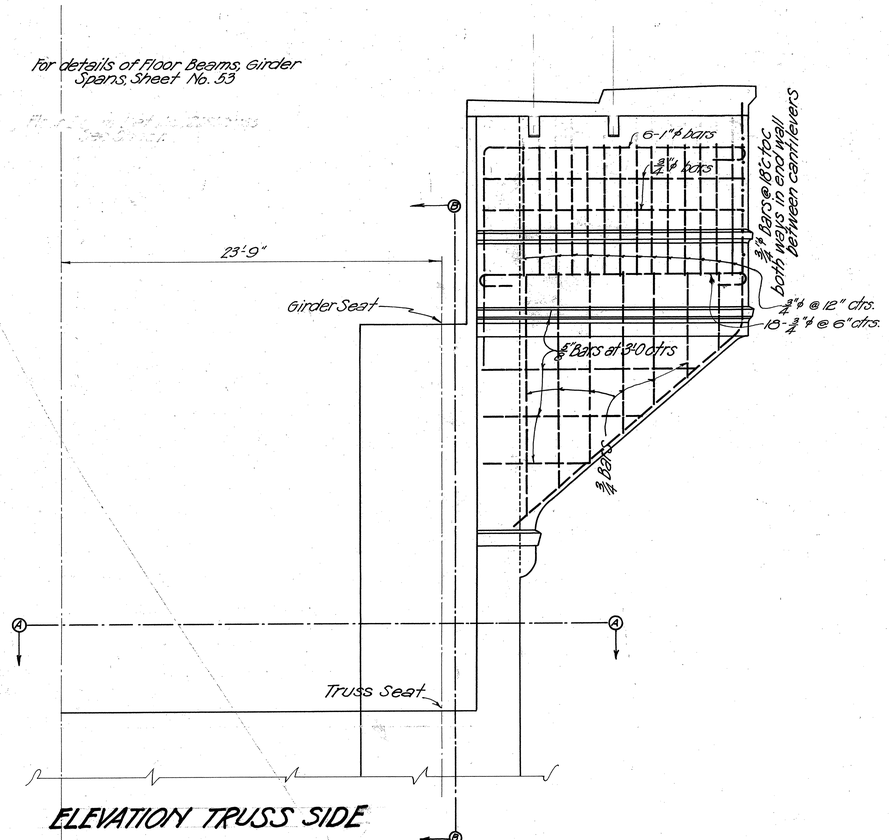
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6682
3M

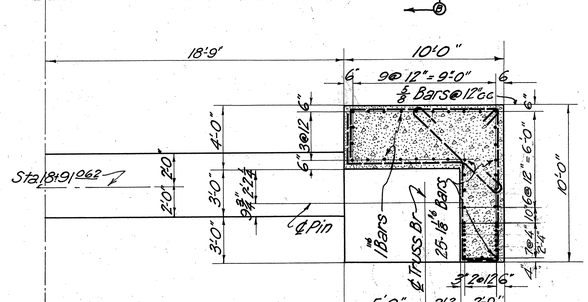
REVISED



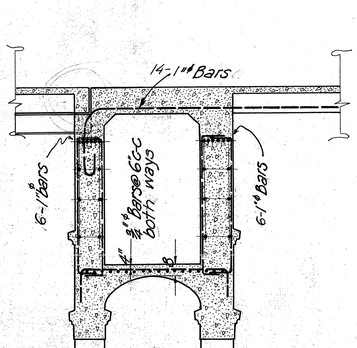
PLAN OF DECK



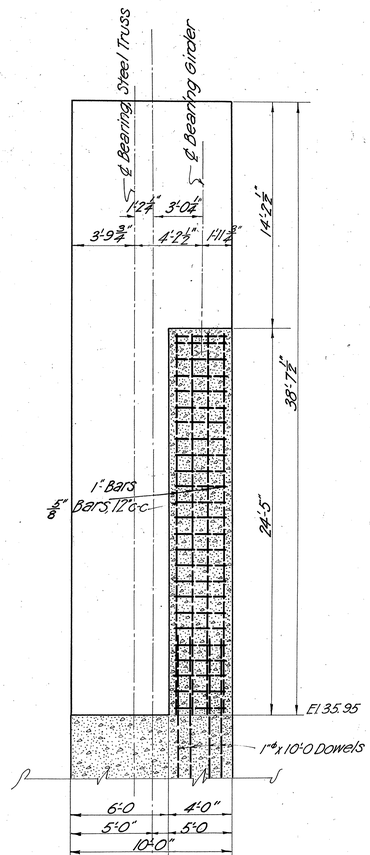
ELEVATION TRUSS SIDE



SECTION AA



SECTION CC



SECTION B-B

VOID - SEE SHEETS L-17 & L-64.

All horizontal bars in walls to be bent around corners - 20 diameters.

All concrete 1:2:4 except roadway slabs & beams which are to be 1:1:2

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS

OF

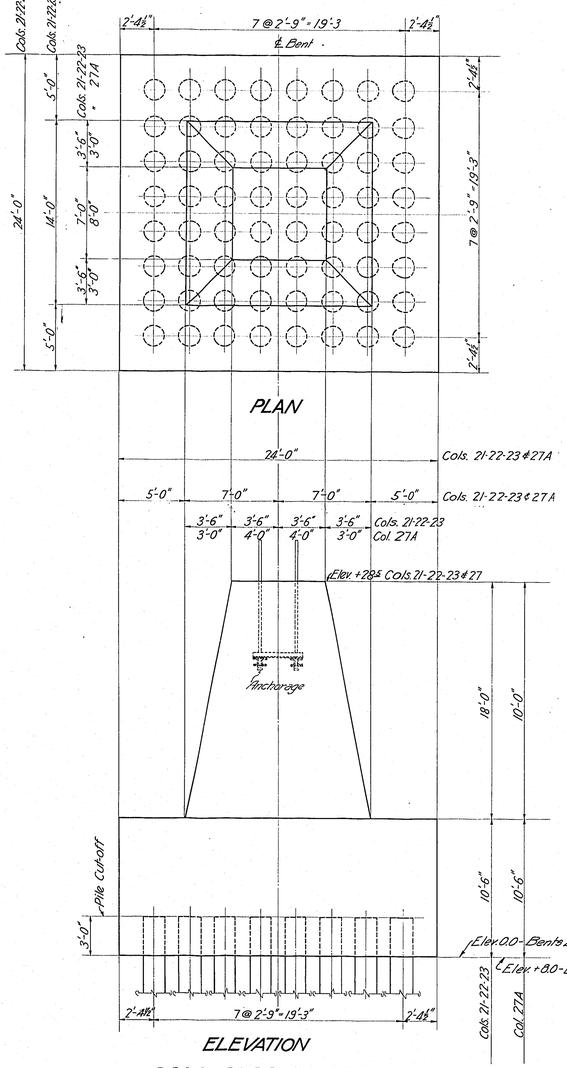
EAST ABUT. TOWER, - STEEL TRUSS

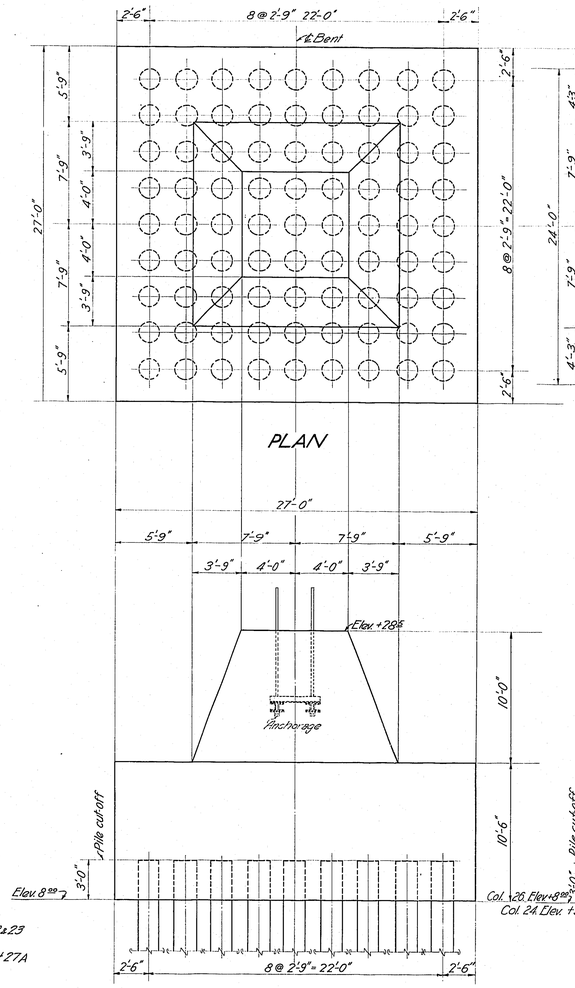
MADE BY
CHECKED BY W.D. Smith
TRACED BY
CHECKED BY W.D. Smith
DRAWING NO.
SHEETS

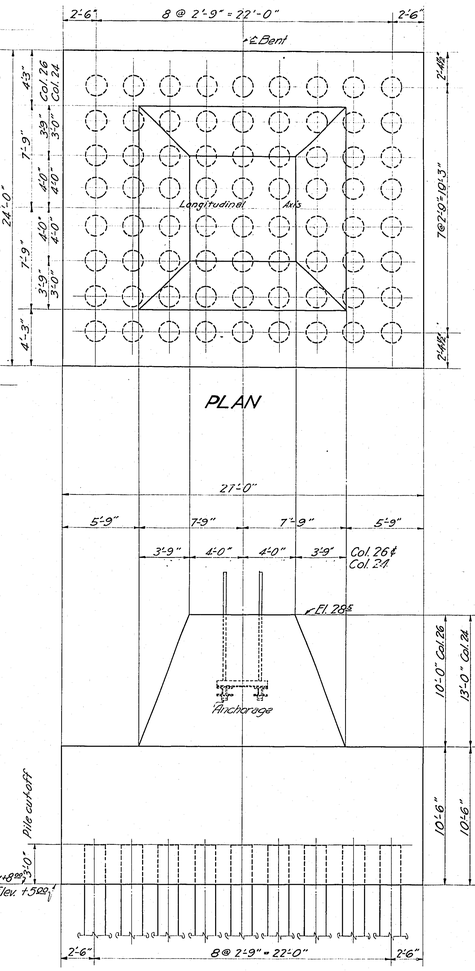
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 21, 1924.
SCALE-1"=1'0"
SHEET NO. T17

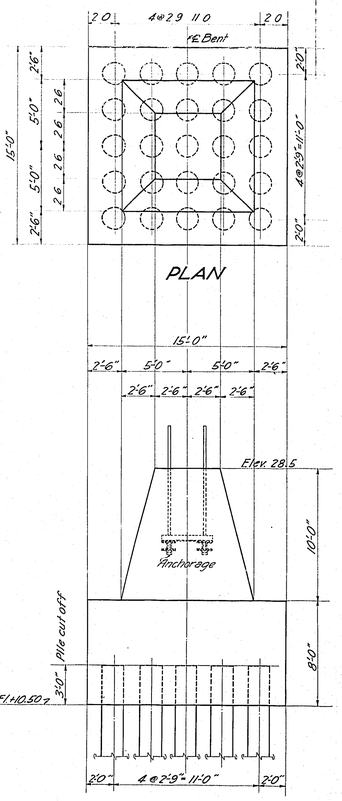
ABJ 12-25

REVISED









For details of piling see "File Record"

For Footings elevations see Sheet 16a.

Concrete 1:3:5 except as shown.

General Notes:-
All piles are to be accurately spaced as indicated, and cut off to horizontal plane at correct elevation.
All anchorages and anchor bolts for columns - are to be set in exact position and held at top - by means of rigid wooden template.

Note: Elevations of all piers show sides parallel to longitudinal axis.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS OF

COLUMN FOOTINGS, PLATE GIRDER SPANS

MADE BY BBWright
CHECKED BY
TRACED BY HHHansen
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 18, 1924.

Scale ¼" = 1'-0"

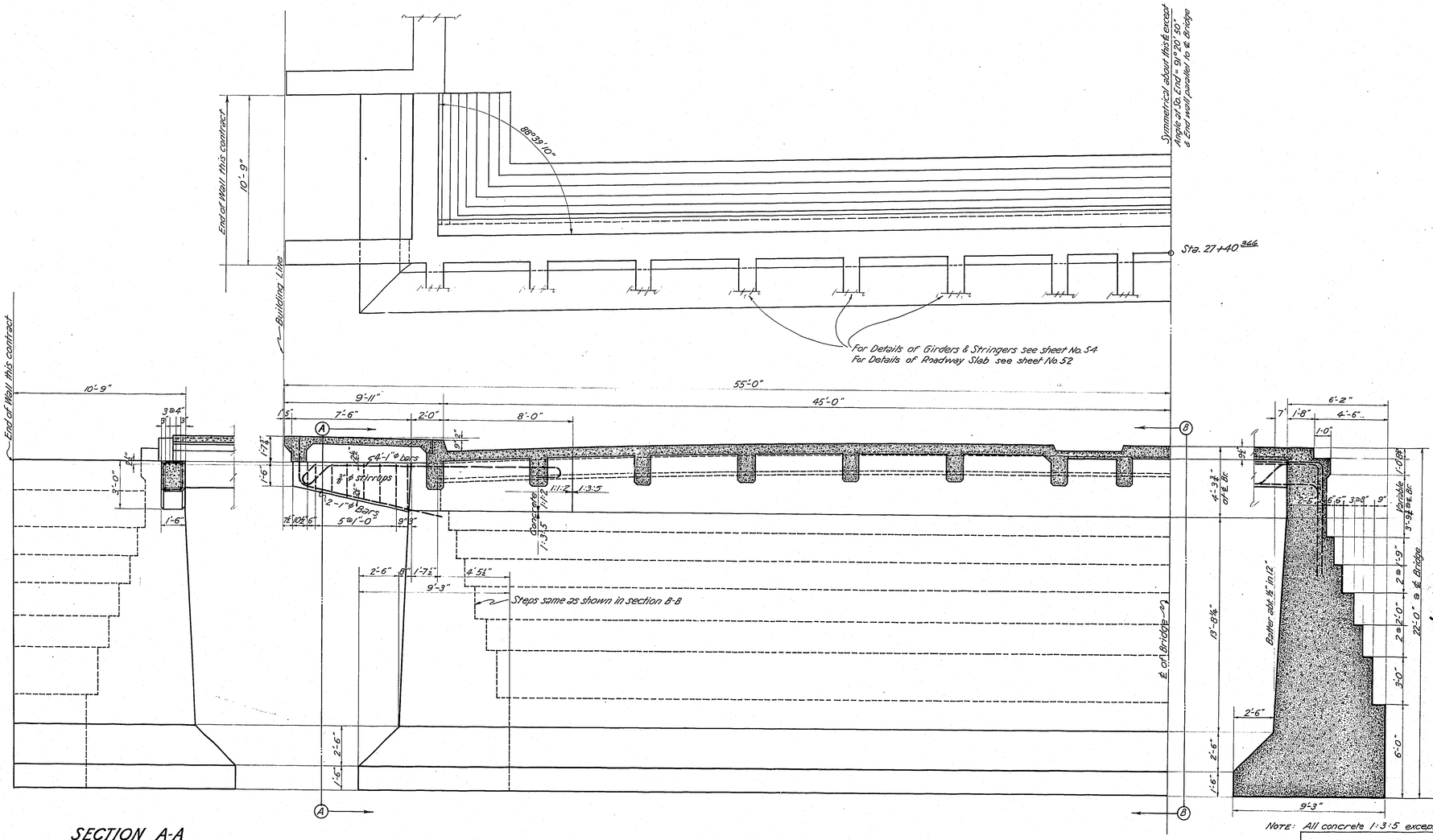
SHEET NO. 18

A81 F-25

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-5182
3M

REVISED



SECTION A-A

ELEVATION
SCALE ⅜" = 1'-0"
All dimensions are at right angles to ℄ Bridge

SECTION B-B

NOTE: All concrete 1:3:5 except as shown.

VOID - SEE SHEET L-75.

MULTNOMAH COUNTY - OREGON:

BURNSIDE BRIDGE
PORTLAND OREGON

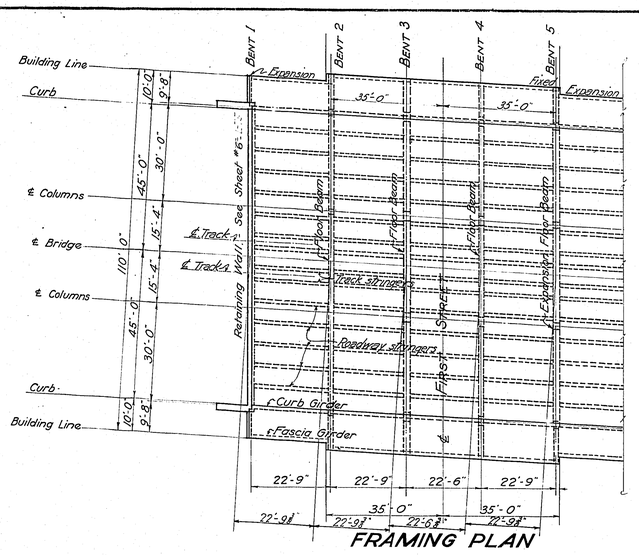
RETAINING WALL, EAST APPROACH

MADE BY John Zorn. HEDRICK & KREMERS
CHECKED BY [illegible] CONSULTING ENGINEERS
TRACED BY Samuel C. Hedges PORTLAND, OREGON
CHECKED BY [illegible] DATE Feb. 16, 1924
DRAWING NO.
61 SHEETS SCALE: ⅜" = 1'-0" SHEET NO. 19

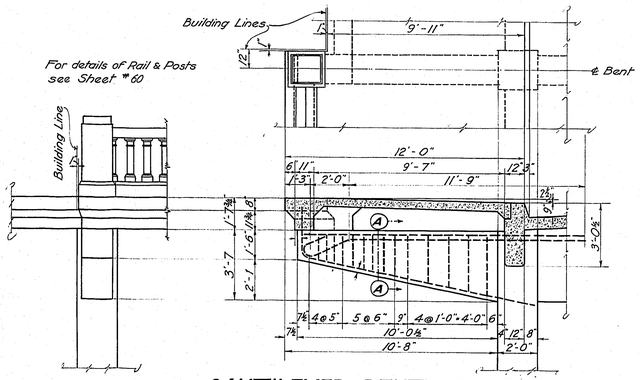
AB
TD

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

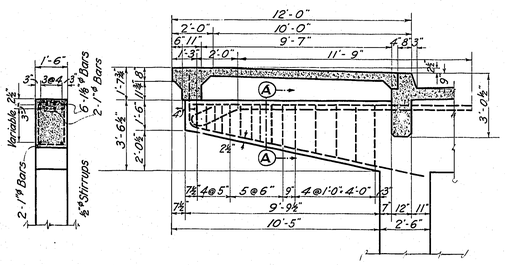
Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6182
3M



FRAMING PLAN

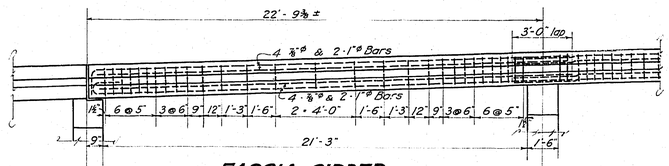


CANTILEVER BENTS 2 & 5

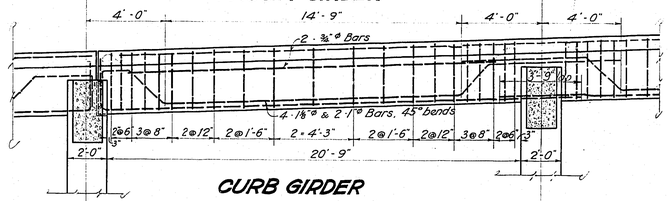


SECTION A-A

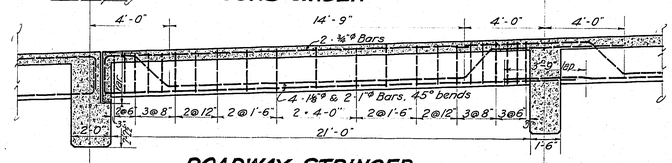
CANTILEVER - BENTS 3 & 4



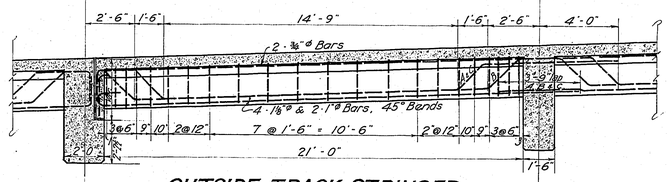
FASCIA GIRDER



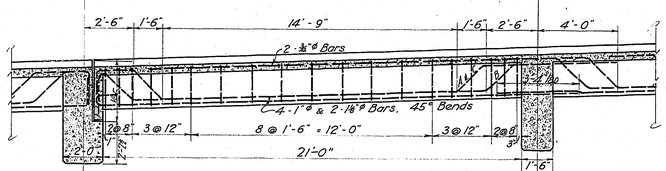
CURB GIRDER



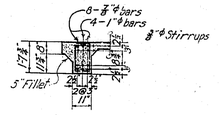
ROADWAY STRINGER

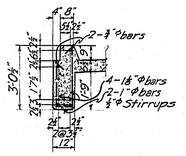


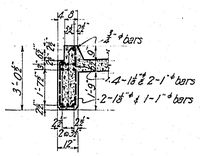
OUTSIDE TRACK STRINGER



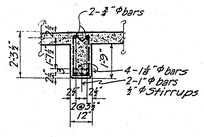
INSIDE TRACK STRINGER

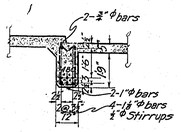


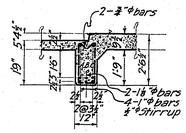




SECTION AT SUPPORT







Note:- The above details are typical for all spans from 1 to 11 and span 13. Actual length center to center of floor beams is shown on Framing Plan. Variations in length to be made at center of Span.
For Framing Plan.- Bents 5 to 19 see Sheet #21 For Span 12 see Sheet #22
For Floor Beams.- Spans 1 to 13 see Sheet #21

All concrete 1:1:2

REVISED

MULTNOMAH COUNTY — OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF
SPANS 1-13, STRINGERS
FIRST ST. CROSSING

MADE BY [illegible]
CHECKED BY [illegible]
TRACED BY [illegible]
CHECKED BY [illegible]
DRAWING NO.
61 SHEETS

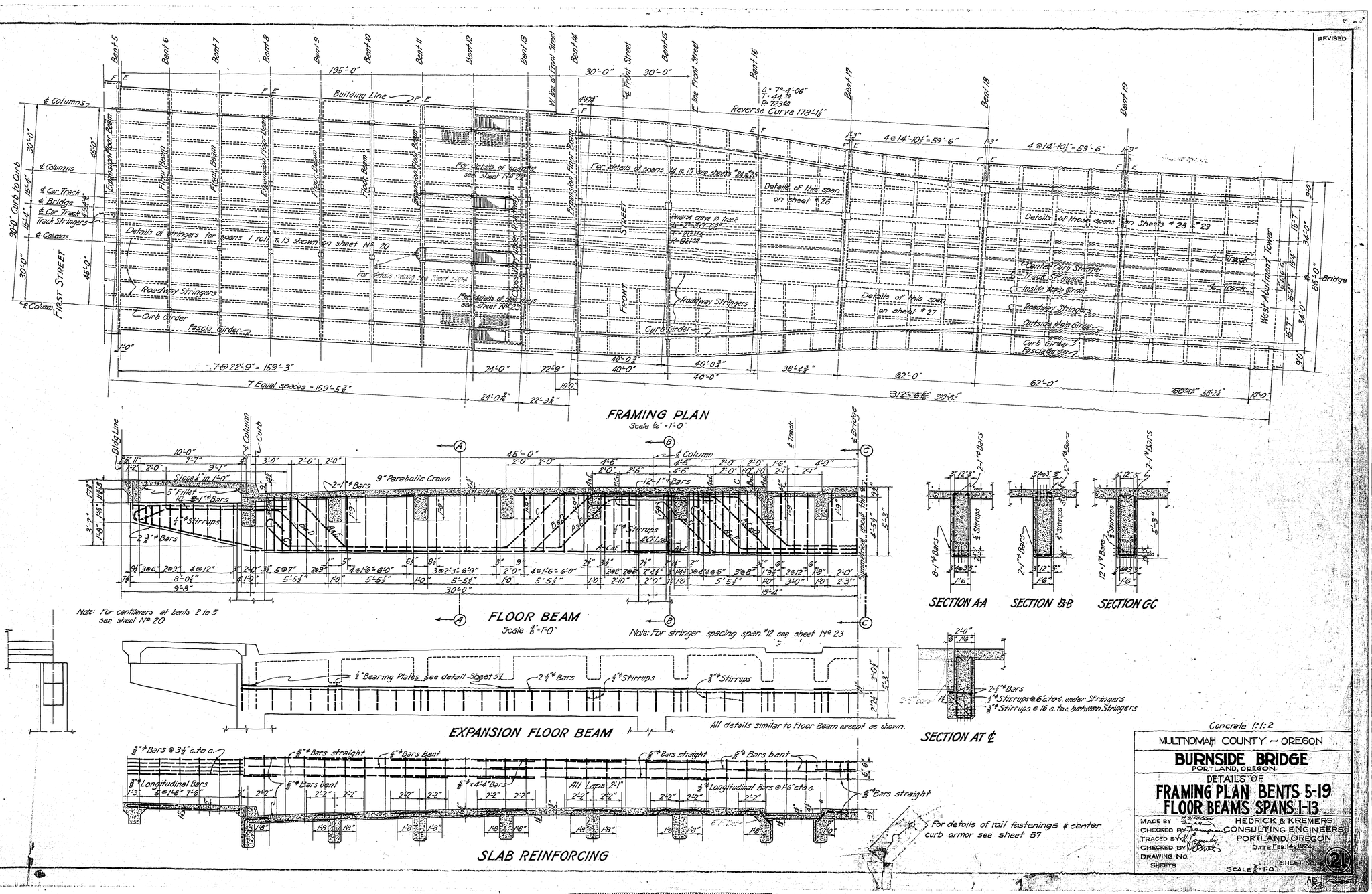
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE 2-20-[illegible]
SHEET NO. 20
SCALE: 3"=1'-0"

AB 2

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6482
3M

REVISED



FRAMING PLAN
Scale 1/16" = 1'-0"

FLOOR BEAM
Scale ⅜"=1'-0"

Note: For cantilevers at bents 2 to 5 see sheet No 20

Note: For stringer spacing span #12 see sheet No 23

EXPANSION FLOOR BEAM

All details similar to Floor Beam except as shown.

SLAB REINFORCING

SECTION AA SECTION BB SECTION GG

SECTION AT ℄

Concrete 1:1:2

For details of rail fastenings & center curb armor see sheet 57

MULTNOMAH COUNTY ~ OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF

FRAMING PLAN BENTS 5-19
FLOOR BEAMS SPANS 1-13

MADE BY
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 14, 1924

SCALE 1" = 1'-0"

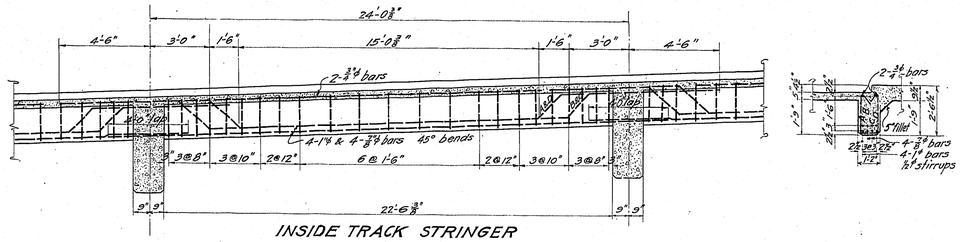
SHEET NO. 21

AB

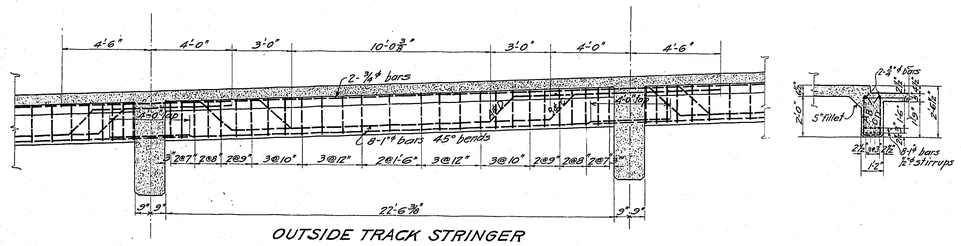
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southwest 11th Avenue
Portland, Oregon 97214
503/223-5912
3M

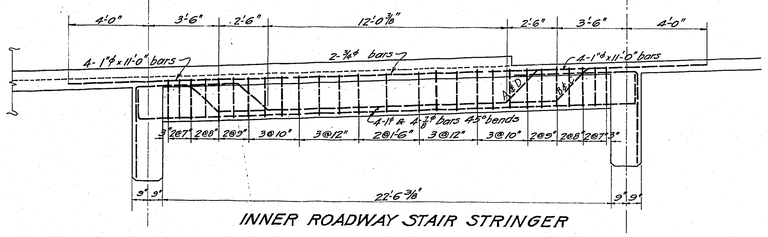
REVISED



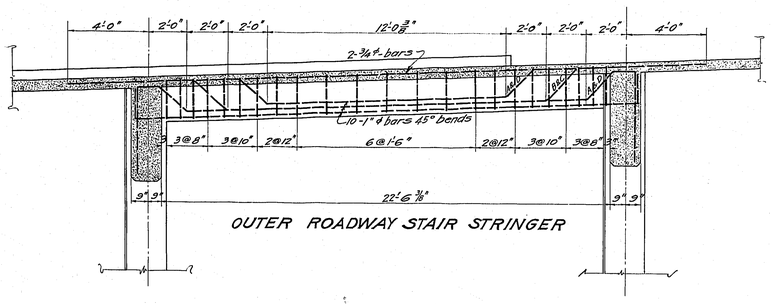
INSIDE TRACK STRINGER



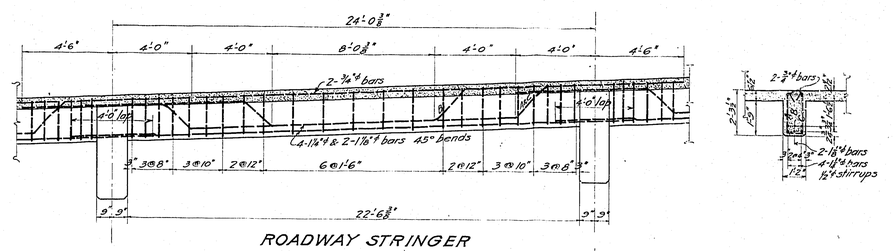
OUTSIDE TRACK STRINGER



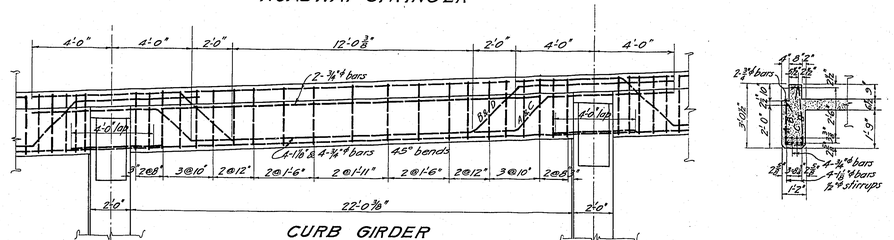
INNER ROADWAY STAIR STRINGER



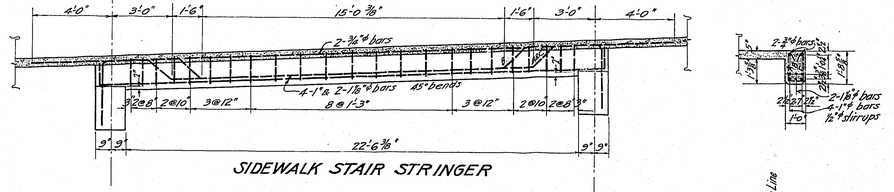
OUTER ROADWAY STAIR STRINGER



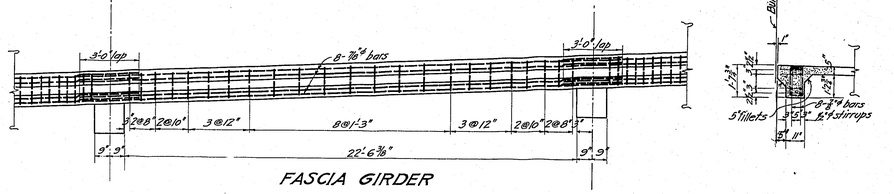
ROADWAY STRINGER



CURB GIRDER



SIDEWALK STAIR STRINGER



FASCIA GIRDER

All Concrete 1-1-2

MULT NOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS OF

SPAN 12

MADE BY ABWright
CHECKED BY [illegible]
TRACED BY ABWright
CHECKED BY [illegible]
DRAWING NO. 61 SHEETS
Scale: 1/8"=1'-0"

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE Feb 20 1924

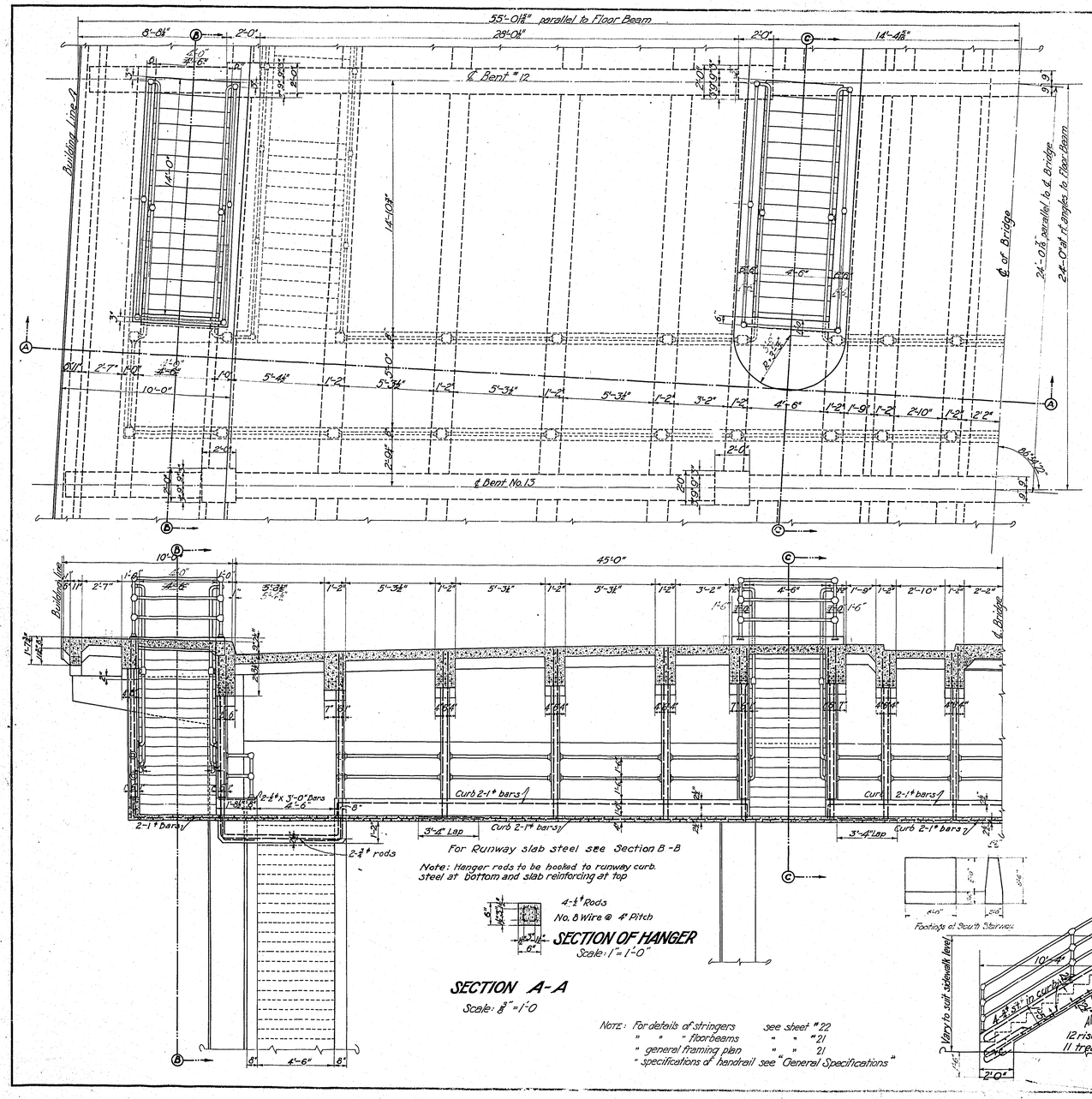
SHEET NO. 22

ABI 23

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau 1700 Southeast 11th Avenue Portland Oregon 97214 503/233-6483 3M

REVISED



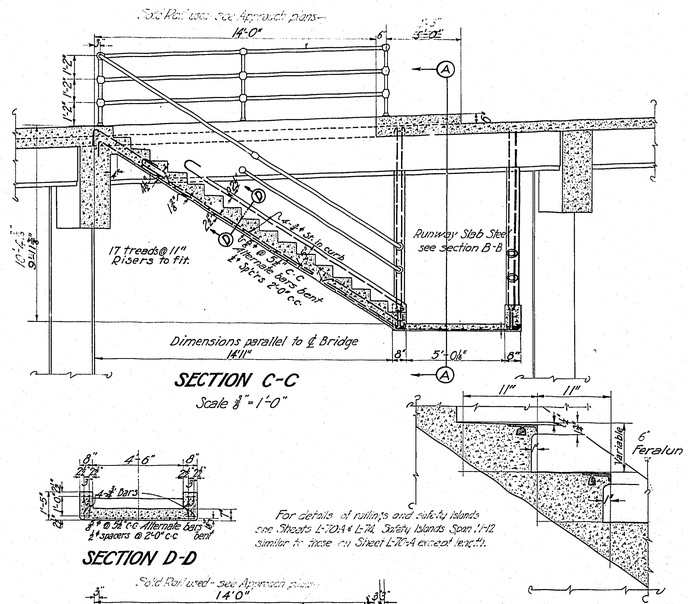
SECTION A-A

Scale: 3/8" = 1'-0"

SECTION OF HANGER

Scale: 1" = 1'-0"

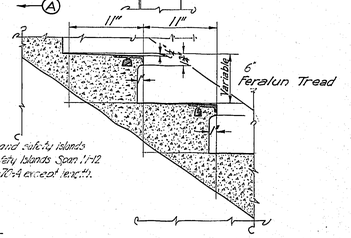
NOTE: For details of stringers see sheet "22
" " " floorbeams " " "21
" general framing plan " " 21
" specifications of handrail see "General Specifications"



SECTION C-C

Scale 3/8" = 1'-0"

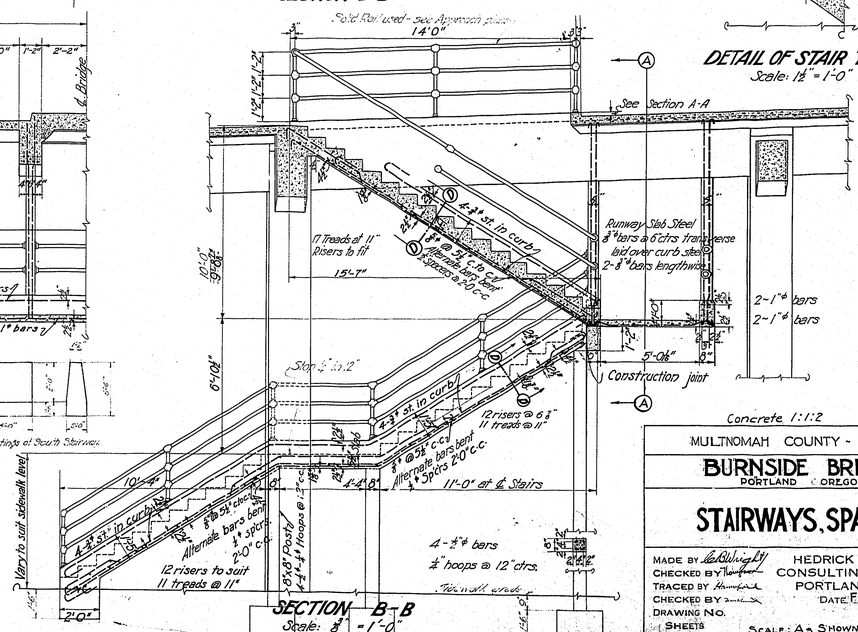
SECTION D-D



For details of railings and safety islands see Sheets L-70A4 L-71, Safety Islands Span 1-12 similar to those on Sheet L-70-A except length.

DETAIL OF STAIR TREAD

Scale: 1 1/2" = 1'-0"



SECTION B-B

Scale: 3/8" = 1'-0"

MULTNOMAH COUNTY - OREGON

BURNSIDE BRIDGE

PORTLAND OREGON

STAIRWAYS, SPAN 12

MADE BY L.S.Wright
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 18, 1924

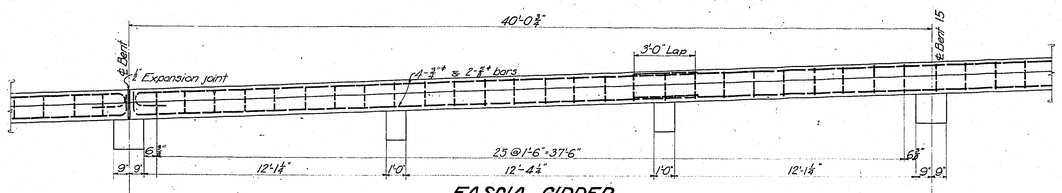
SCALE: AS SHOWN

SHEET NO. 23

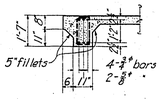
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

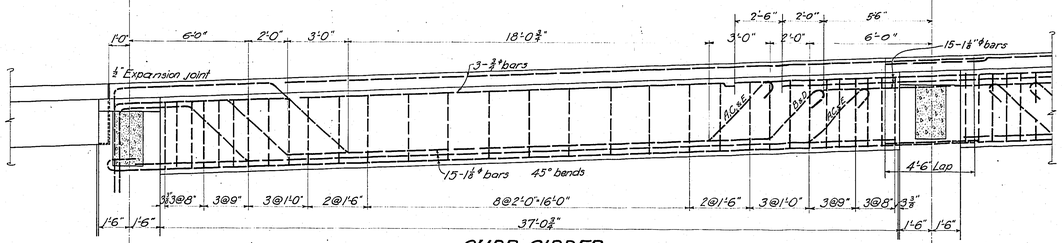
Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/232-8452
3M

REVISED

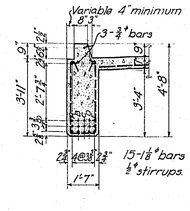


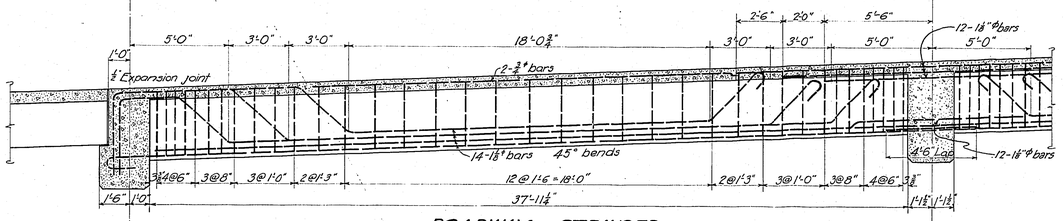
FASCIA GIRDER



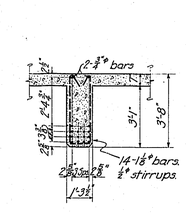


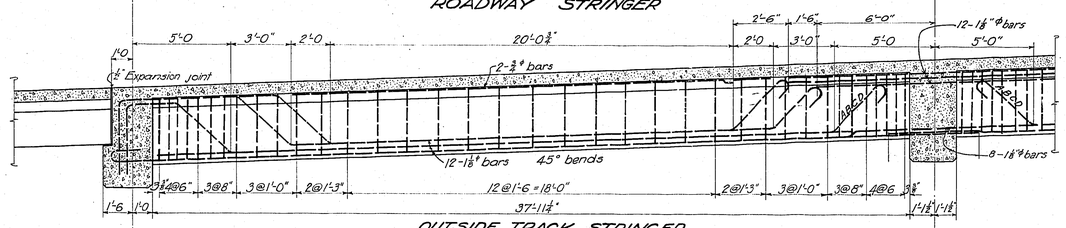
CURB GIRDER



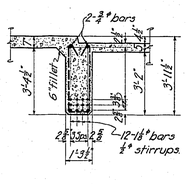


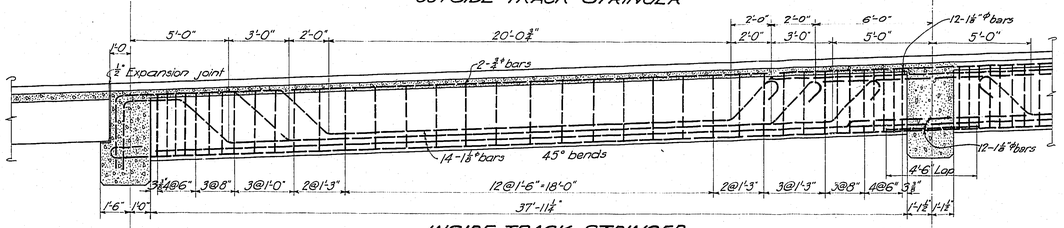
ROADWAY STRINGER





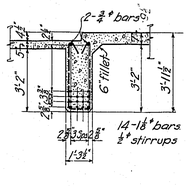
OUTSIDE TRACK STRINGER





INSIDE TRACK STRINGER

Stringers Symmetrical about ℄ Bent 15



All dimensions parallel to ℄ Bridge

For Floor Beams see Sheet #25
For General Framing Plan see Sheet #21
For details of rail fastenings and center curb armor see sheet 57.

Concrete 1:1:2

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS OF

STRINGERS SPANS 14, 15

MADE BY E.L. Wright
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE Feb. 18, 1924

SCALE- 3/8" = 1'-0"

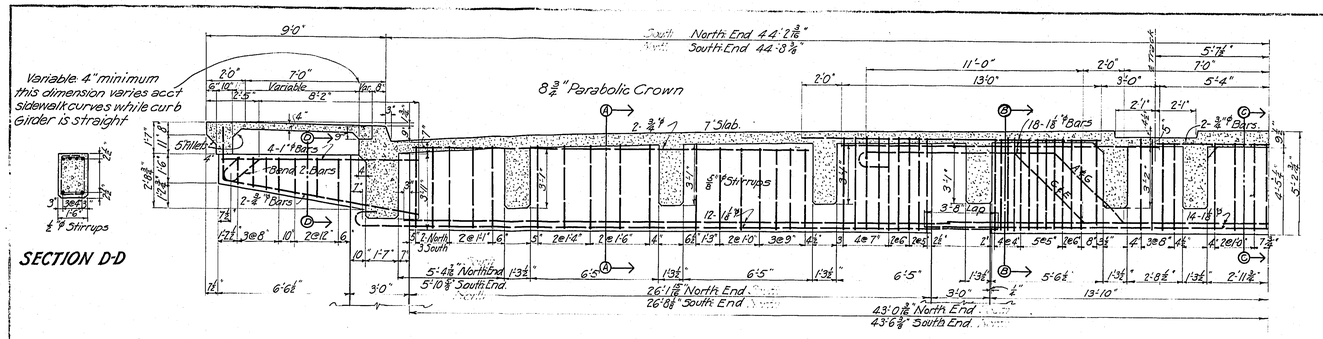
SHEET NO. 24

AB 1
25

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-5182
3M

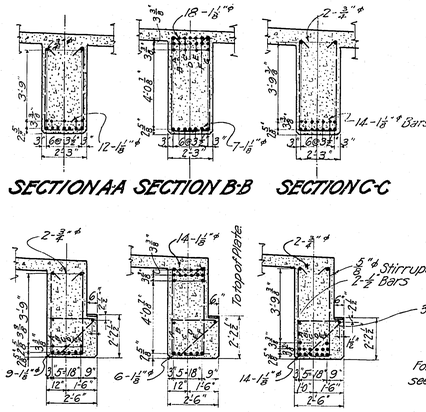
REVISED



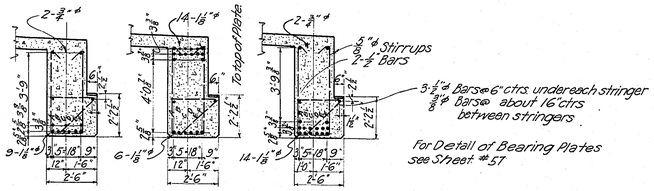
SECTION D-D

FLOOR BEAM BENT 15

Dimensions on ℄ of Floor Beam



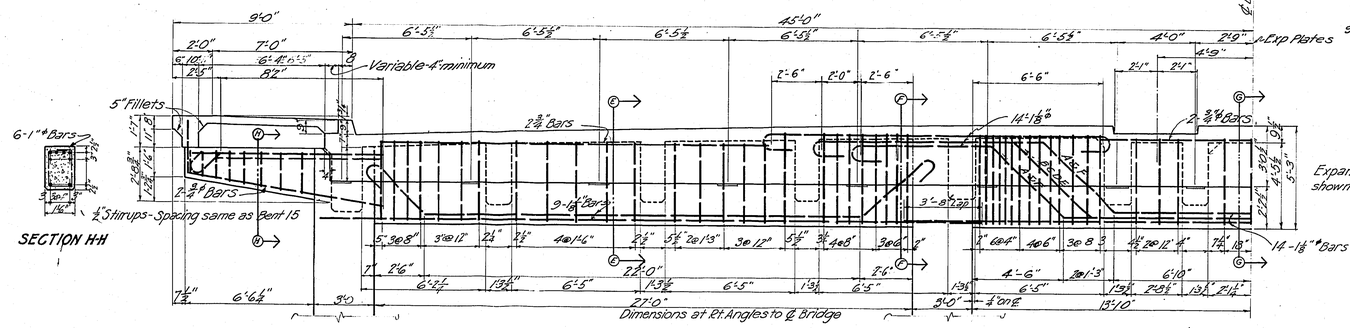
SECTION A-A SECTION B-B SECTION C-C



For Detail of Bearing Plates see Sheet # 57

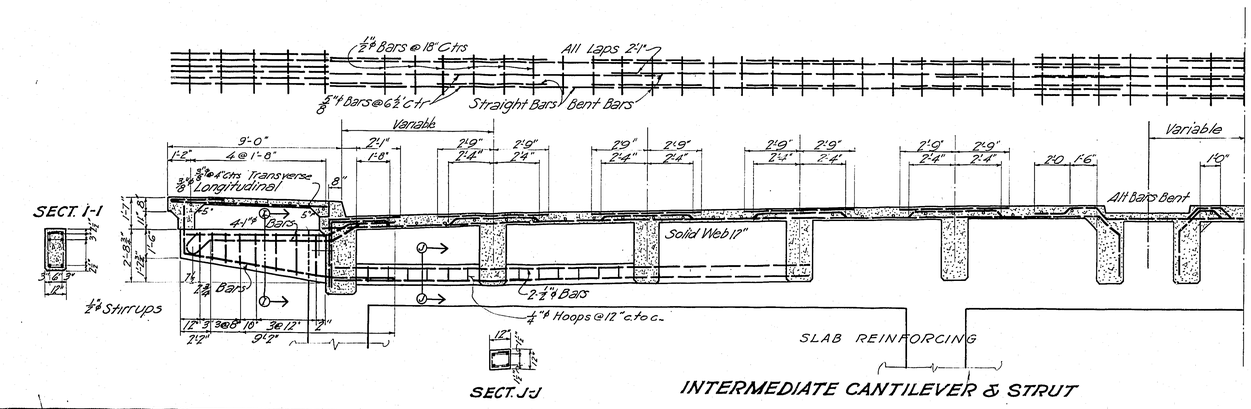
E-E F-F G-G

All Stirrups ⅝" ϕ



SECTION H-H

FLOOR BEAM. BENT 14



SECT. I-I

SECT. J-J

INTERMEDIATE CANTILEVER & STRUT

For details of stringers see sheet 24.
For details of rail fastenings and curb armor see sheet 57.

Concrete 1:1:2

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS OF

FLOOR BEAMS, SPANS 14, 15

MADE BY [illegible]
CHECKED BY [illegible]
TRACED BY [illegible]
CHECKED BY [illegible]
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 21, 1924

Scale ⅜" = 1'-0"

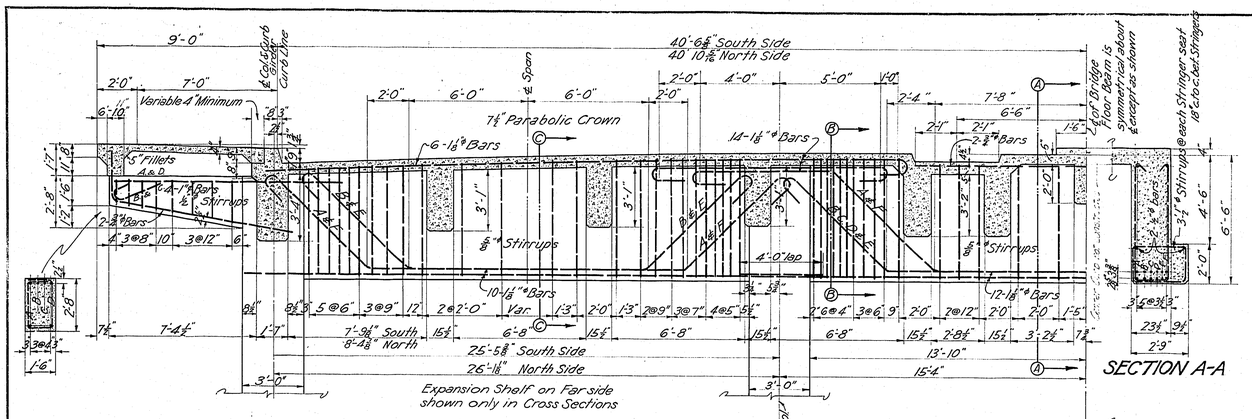
SHEET NO. 25

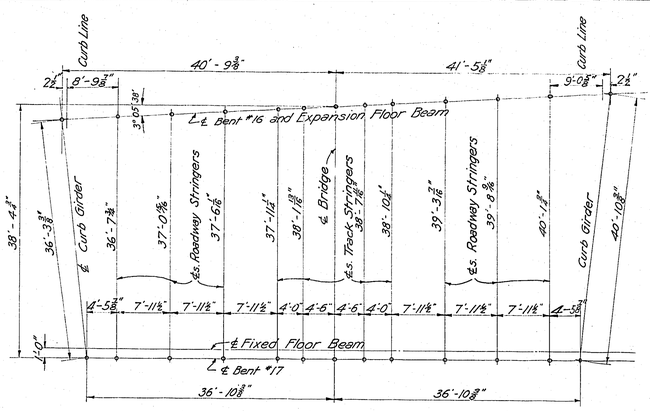
F625 APL 4.0

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southwest 11th Avenue
Portland, Oregon 97214
503/233-5182
3M

REVISED

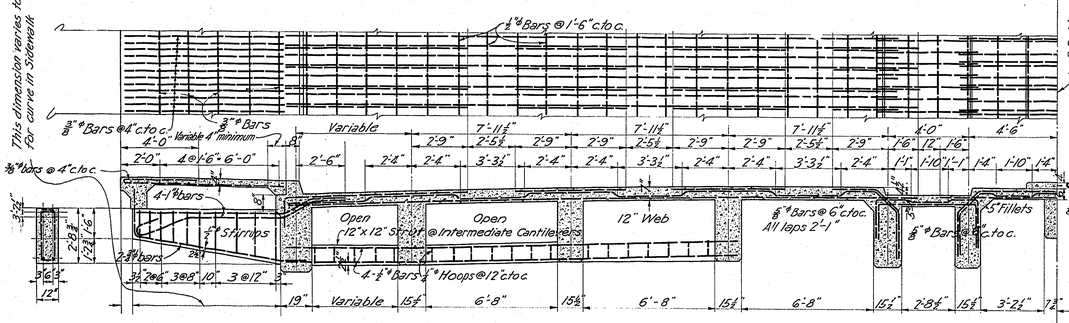




FRAMING DIAGRAM SPAN 16

FLOOR BEAM, BENT 16

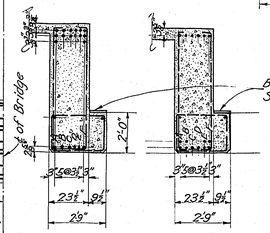
All dimensions shown are measured perpendicular to ℄ Bridge



INTERMEDIATE CANTILEVER

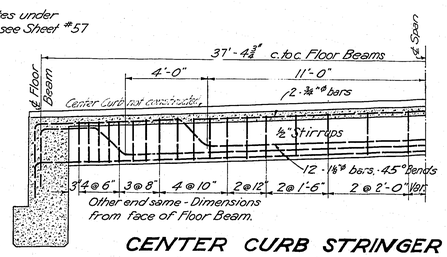
Spacing on ℄ Curb Girder - South side 2@11'-9"#1 of 11'-9⅜"
North side 2@13'-3"#1@13'-4⅜"

SLAB REINFORCING

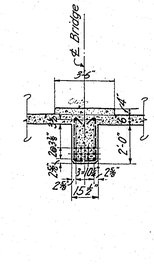


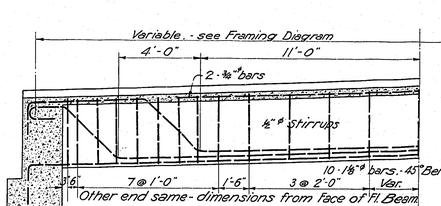
SECTION B-B SECTION C-C

Center Curb not constructed

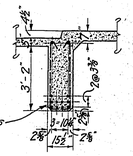


CENTER CURB STRINGER

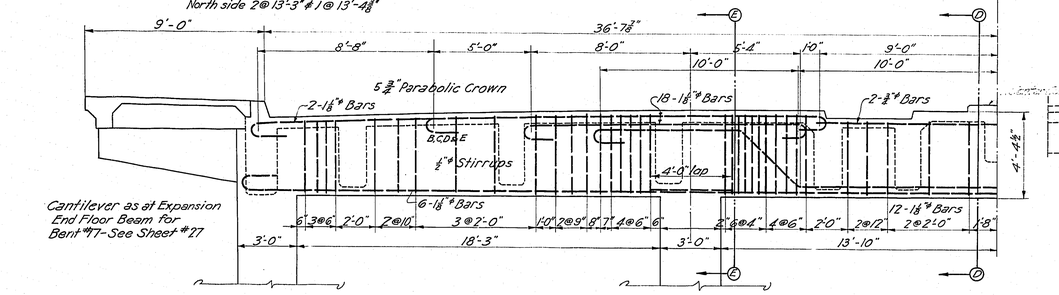




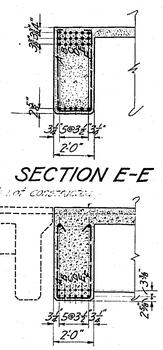
INSIDE TRACK STRINGER



For reinforcing of Typical Outside Track Stringers, Roadway Stringers and Curb see details for Span 33. - Sheet #
Fascia Girder same as for Spans 15 & 16 except Girder here is curved to follow edge of sidewalk. Spans variable - lengths given for Intermediate Cantilevers on this sheet.
For General Framing Plan see Sheet #21



FIXED FLOOR BEAM, BENT 17



MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF
SPAN 16

MADE BY W. E. Wheeler
CHECKED BY
TRACED BY E.J. Hannaford
CHECKED BY
DRAWING No.
SHEETS

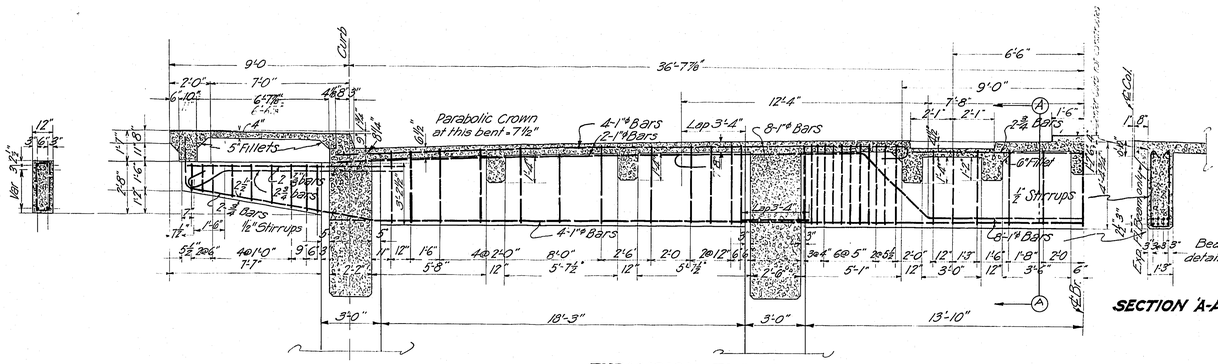
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE
SCALE ⅜" = 1'-0"
SHEET No. 26

AB 27 C-26

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

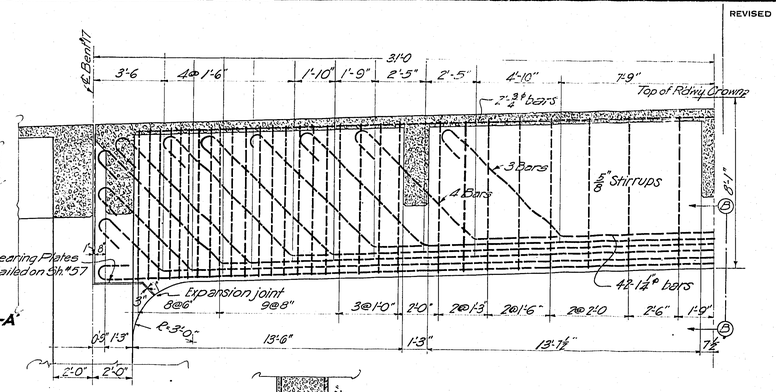
Business Equipment Bureau 1700 Southeast 11th Avenue Portland, Oregon 97214 503/233-6482 3M

REVISED

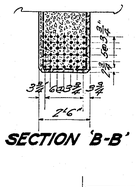


EXPANSION END FLOOR BEAM, BENT 17

Intermediate Floor Beam same except variable outer span and crown.
Fixed End Floor Beam same as Spans #18 and 19
See sheet #29

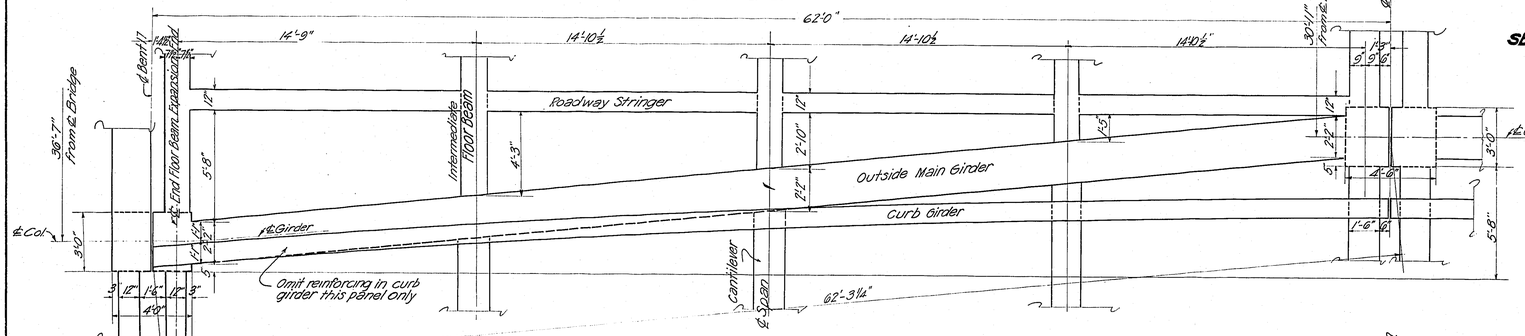


SECTION 'A-A'



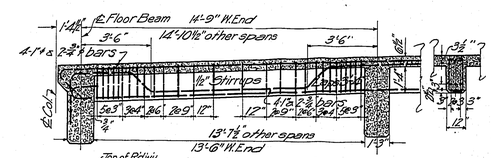
SECTION 'B-B'

INSIDE MAIN GIRDER



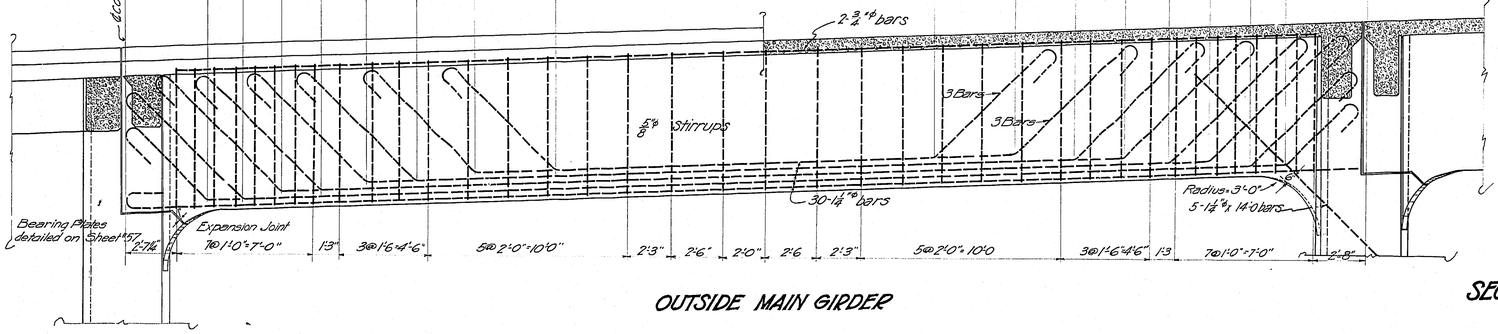
FRAMING PLAN OUTSIDE MAIN GIRDER

TYPICAL CANTILEVER, INTERMEDIATE FLOOR BEAM

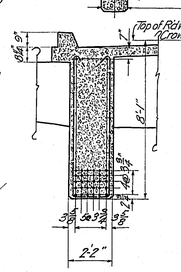


ROADWAY STRINGER

Fascia, Curb, Track & center curb stringers and slab reinforcing same as shown for Spans 18 & 19
See Sheet 119 ~~#25~~



OUTSIDE MAIN GIRDER



SECTION AT ℄ SPAN

Note:- For General Framing Plan see Sheet #21

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS OF

SPAN 17

MADE BY W. J. Hedrick
CHECKED BY [illegible]
TRACED BY [illegible]
CHECKED BY [illegible]
DRAWING NO.
SHEETS

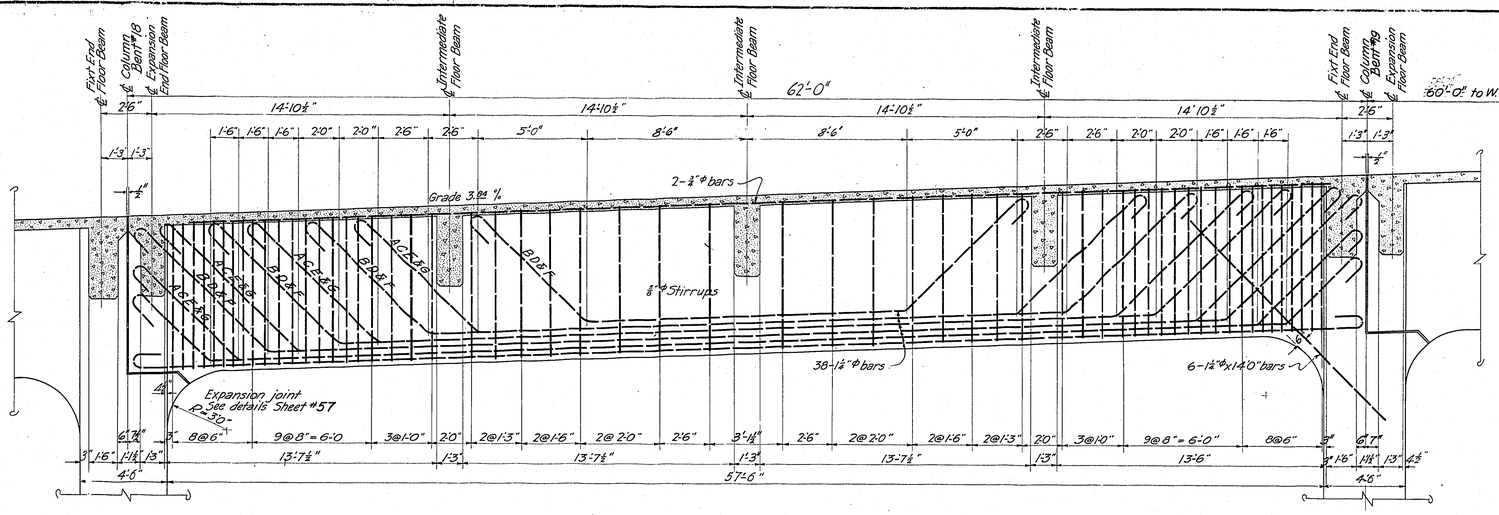
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE Feb 20, 1924

SHEET NO. 27

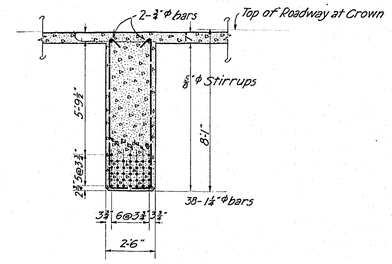
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

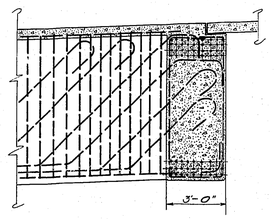
Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6182
3M

REVISED

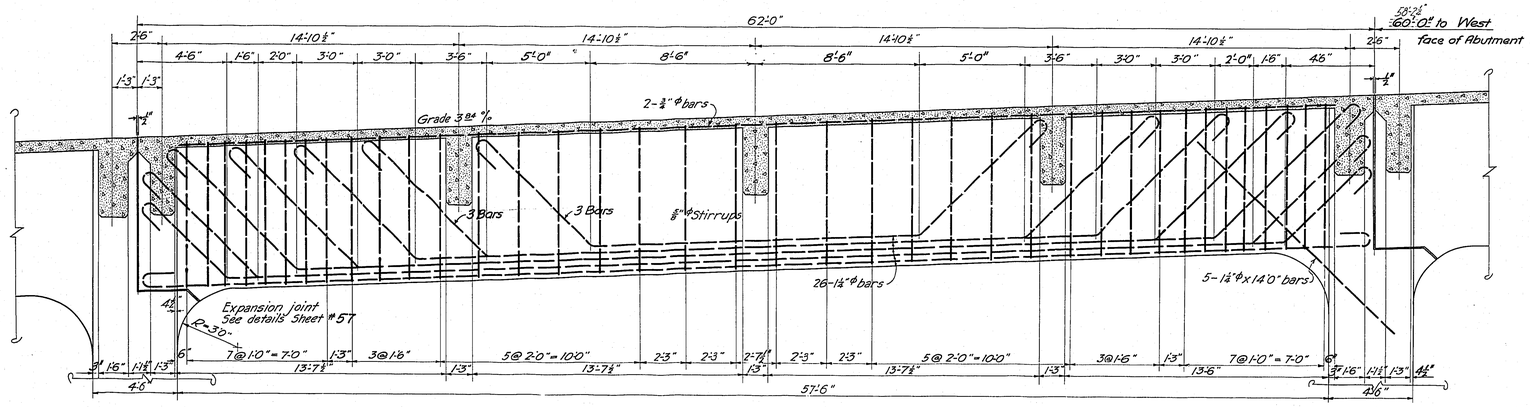


INSIDE MAIN GIRDER

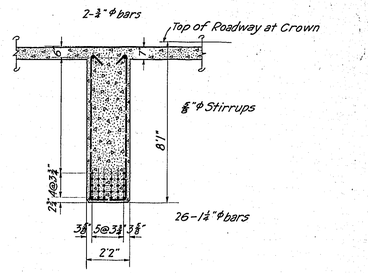




TYPICAL CONNECTION AT TOWER



OUTSIDE MAIN GIRDER



Concrete 1:1:2

Note - For Stringers and Floor Beams see sheet #28.
For General Framing Plan see sheet #21.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF
GIRDERS SPANS 18 & 19

MADE BY Kai Rasmussen
CHECKED BY Livingston
TRACED BY H.H. Morrison
CHECKED BY
DRAWING NO.
SHEETS

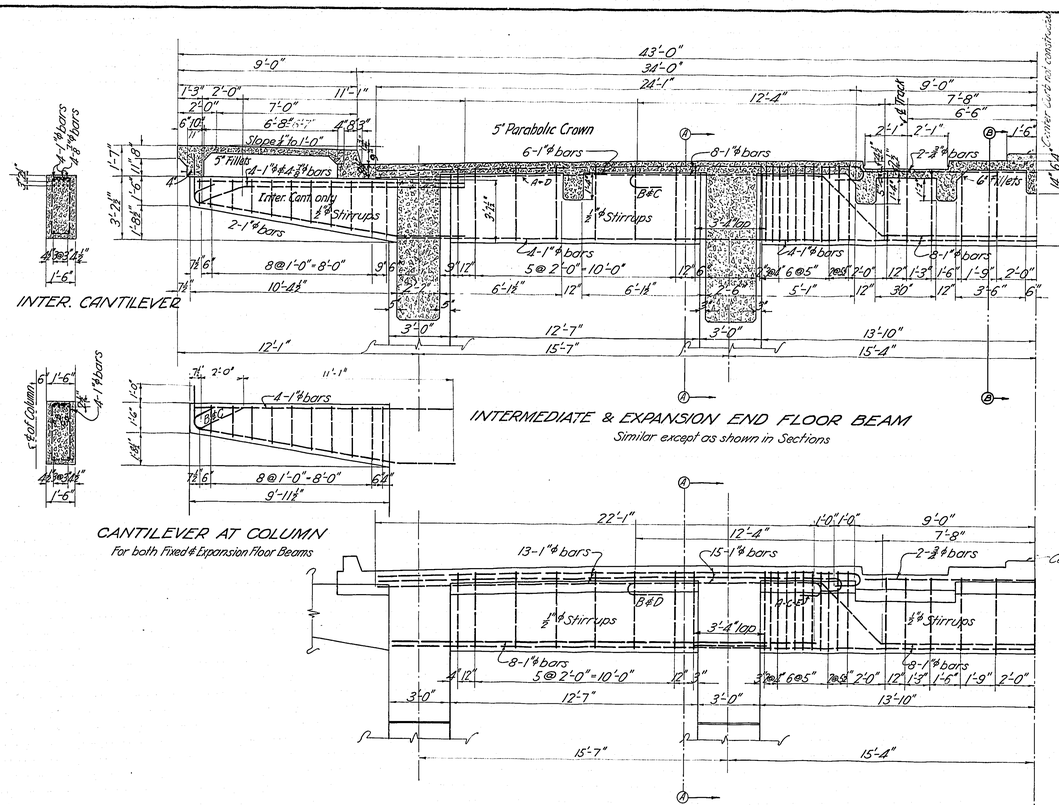
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE
SHEET NO. 25

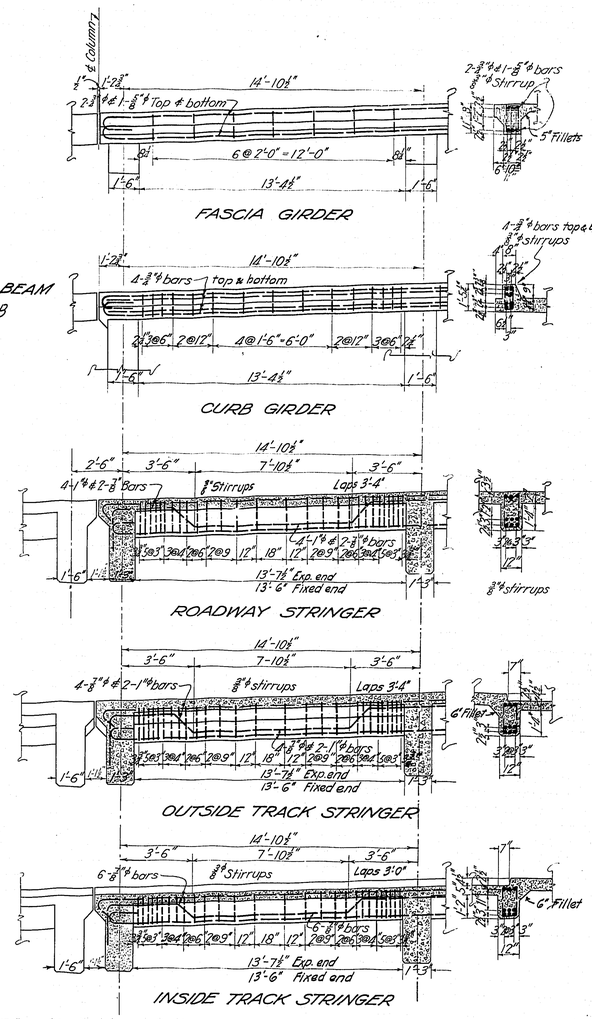
AE 10

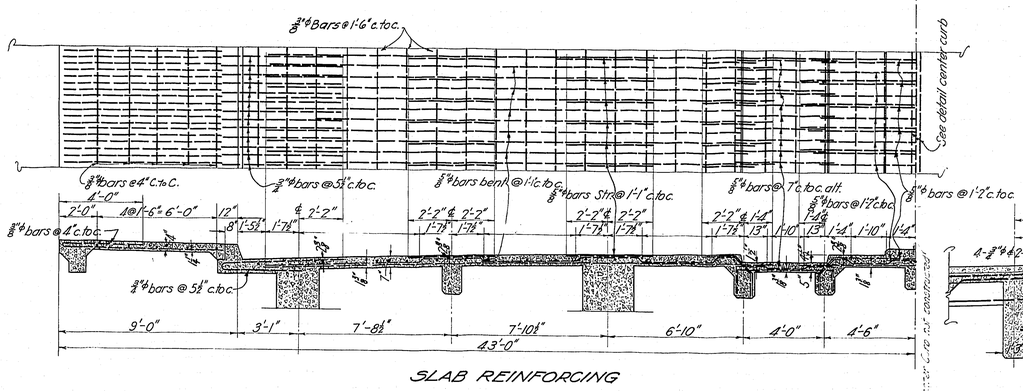
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/232-8182
3M

REVISED







Note · For General Framing Plan see Sheet #21
For details of Track see sheet #57

Concrete 1:1:2.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF SPANS 18 & 19

MADE BY H. W. Kremers
CHECKED BY
TRACED BY H. Kremers
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE Feb. 20, 1924

Scale ½" = 1'-0"

SHEET NO. 29

ABL FILES

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/231-9162
3M

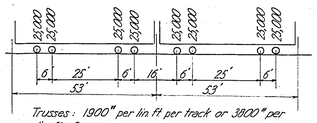
REVISED

DEAD LOAD

Actual weight of materials :–
For Trusses 15,000 "per lin ft. of span.

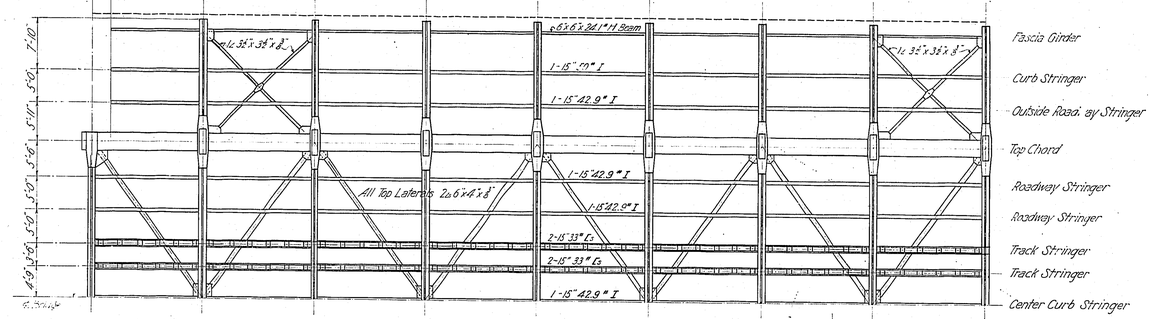
LIVE LOADS

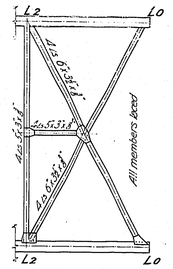
Floor system :–
Sidewalks. 80 " per square foot of walk
Roadway: 20 ton trucks
Street Railway: Solid line of cars as shown below on both tracks



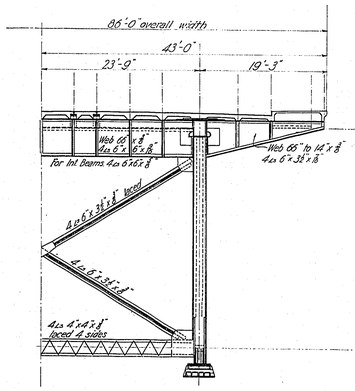
Trusses : 1900" per lin ft. per track or 3800" per lin. ft. of span
80" per sq. foot of roadway outside of space occupied by street cars
50" per sq. foot on sidewalks
Total 8320" per lin foot of span

Cantilever Bracing on Bascule end in panel U1 – U2

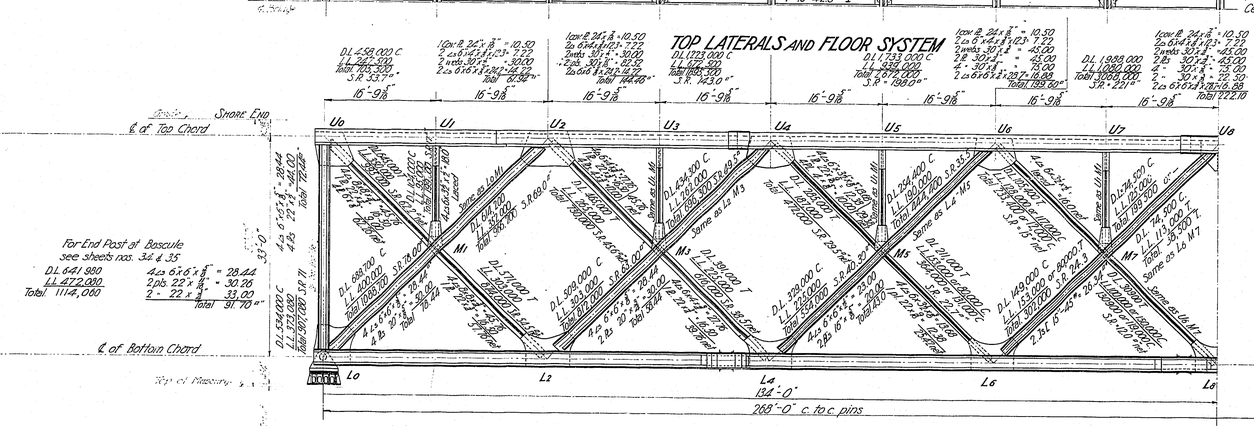




BOTTOM LATERALS
End Panel, Bascule End



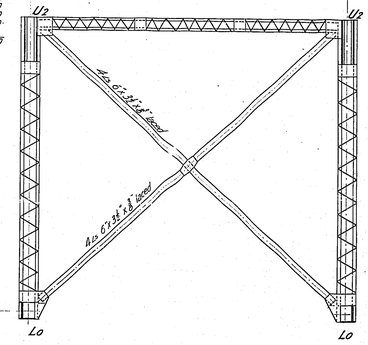
SWAY BRACING, SHORE END



For End Post at Bascule see sheets nos. 34 & 35

D.L. 641 980
L.L. 472 080
Total 1114, 060

TOP LATERALS AND FLOOR SYSTEM



SWAY BRACING, BASCULE END
IN PLANE U2 – L0

ELEVATION

D.L. 488, 000 T
L.L. 284 000
Total 772, 000 S.R. 48.2#"

D.L. 1254, 000 T
L.L. 709, 000
Total 1,963, 000 S.R. 122.8#"

D.L. 1764, 000 T
L.L. 975, 000
Total 2, 739, 000 S.R. 171.3#"

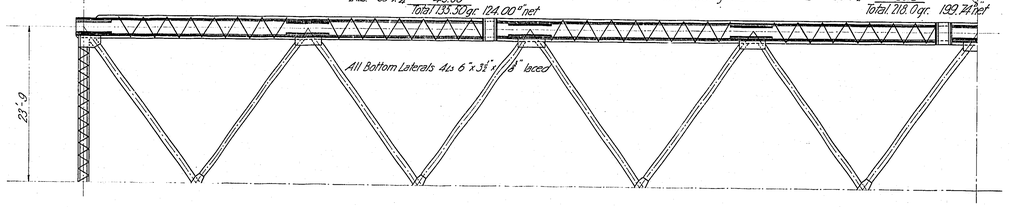
D.L. 2020, 000 T
L.L. 1116, 000
Total 3136, 000 S.R. 196#"

4 L 6"x6"x⅞"x19.6" = 23.0
2 Pl. 30"x⅞" = 33.75
Total 56.75 gr. 30.51#" net

4 L 6"x6"x⅞"x19.6" = 23.0
2 Pl. 30"x⅞" = 33.75
2 Pl. 30"x⅜" = 33.75
2 L. 30"x⅞" = 45.00
Total 135.50 gr. 124.00#" net

4 L 6"x6"x⅞"x19.6" = 23.0
8 Pl. 30"x 18" = 165.0
Total 188.0 gr. 173#" net

4 L 6"x6"x⅞"x19.6" = 23.0
6 Pl. 30"x⅛" = 165.0
2 - 30"x⅝" = 30.0
Total 218. 0 gr. 199.74#" net



BOTTOM LATERALS

General Notes

All metal medium steel unless otherwise noted.
Anchor bolts of soft steel and fixed ends
Rivets soft steel and ⅞" diam. except when noted.
Rivet holes punched ⅛" smaller and reamed to ⅛" greater diam. than the rivet, except in I beam stringers and stringer bracing, where holes may be punched full size.
Ends of floor beams and cantilevers to be faced, and reamed to cast iron template
All abutting ends of compression members to be faced to even bearing
Sheared edges of all plates except stay plates, lateral plates and lacing bars, to be faced
Corners of outstanding legs of lacing ∠s are to be sheared off

For Truss details see American Bridge Co. shop plans, Order "5550.

MULTNOMAH COUNTY – OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

STRESS DIAGRAM & GENERAL DIMENSIONS 268' DECK TRUSS

MADE BY R. L. Crosby
CHECKED BY [illegible]
TRACED BY R. L. Crosby Jr.
CHECKED BY [illegible]
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 5TH 1924

SCALE ⅛" = 1'-0"

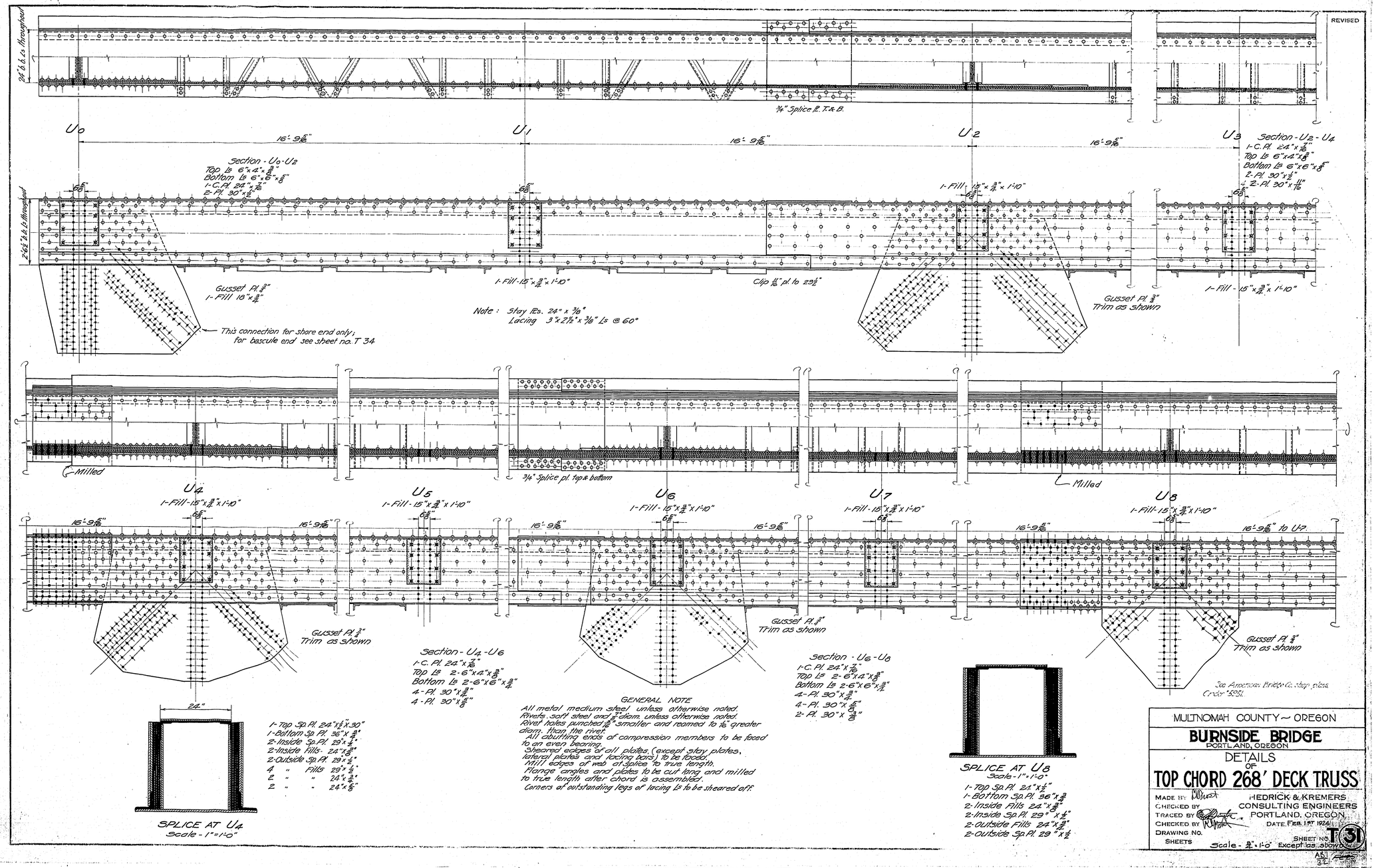
SHEET NO. T30

ABJ 51

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland Oregon 97214
503/233-5182
3M

REVISED



GENERAL NOTE

All metal medium steel unless otherwise noted.
Rivets soft steel and 3/4" diam. unless otherwise noted.
Rivet holes punched 3/16" smaller and reamed to 1/16" greater diam. than the rivet.
All abutting ends of compression members to be faced to an even bearing.
Sheared edges of all plates, (except stay plates, lateral plates and lacing bars) to be planed.
Mill edges of web splice to true length.
Flange angles and plates to be cut long and milled to true length after chord is assembled.
Corners of outstanding legs of lacing Ls to be sheared off.

See American Bridge Co. shop plans Order 5551.

MULTNOMAH COUNTY ~ OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF TOP CHORD 268' DECK TRUSS

MADE BY [illegible]
CHECKED BY
TRACED BY [illegible]
CHECKED BY [illegible]
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE Feb. 1ST 1924

SHEET NO. T 31

Scale - 3/4"-1'-0" Except as shown

AS 32

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-9162
3M

REVISED

Note: Countersink Rivets under Conn. Pls for Sway bracing.

5"x5"x 7/16" L

20½"x 7/8"x 4'-9" Conn. Pl.

7/8" Tie R. Ls 3"x2½"x 7/16"

7/8" Tie R. Ls 3"x2½"x 7/8"

3/4" Tie R. Top & Bottom Ls 3"x2½"x 7/16"

Flats 1"x 1/2" Countersunk Rivets

L0

L2

NOTE: This detail for Shore end only For panel adjacent to Bascule see sheet No T-3 & 8-35

3/4" Gusset R. Trim as shown

SECTION L0-L2
4 Ls 6"x6"x 1/2"
2 Rs 30"x 9/16"

Lacing Top and Bottom 60° Ls 3"x 2½"x 7/16"

3/4" Gusset R. Trim as shown

SECTION L2-L4
4 Ls 6"x6"x 1/2"
2 Rs 30"x 7/16"
2 Rs 30"x 5/16"
2 Rs 30"x 3/16"

3/4 R. In and Outside
16" R. Outside
3/4" Gusset R.
16"

33'-6"

Trim Rs 30"x 9/16" to 17"x 9/16"
Trim Rs 30"x 7/16" to 28"x 7/16"
2 Fills 5 7/16"x 1/16"

33'-6"

20½"x 7/8"x 4'-9" Conn. Pl.

7/8" Tie R. Ls 3"x2½"x 7/16"

7/8" Tie R. T. & B.

7/8" Tie R. Ls 3"x2½"x 7/16"

7/8" Tie R. Ls 3"x2½"x 7/16"

3/4" Tie R. Top & Bottom Ls 3"x2½"x 7/16"

7/8" Tie R. Ls 3"x2½"x 7/16"

7/8" Tie R. Ls 3"x2½"x 7/16"

7/8" Tie R. Top & Bottom Ls 3"x2½"x 7/16"

7/8" Tie R. Ls 3"x2½"x 7/16"

7/8" Tie R. Ls 3"x2½"x 7/16"

33'-6"

33'-6"

33'-6"

33'-6"

L4

L6

L8

SECTION L2-L4
4 Ls 6"x6"x 1/2"
2 Rs 30"x 7/16"
2 Rs 30"x 5/16"
2 Rs 30"x 3/16"

SECTION L4-L6
4 Ls 6"x6"x 1/2"
8 Rs 30"x 11/16"

Lacing Top and Bottom 60° Ls 3"x 2½"x 7/16"

SECTION L6-L8
4 Ls 6"x6"x 1/2"
8 Rs 30"x 11/16"
2 Rs 30"x 1/2"

3/4" Gusset R. Trim as shown

1 R. 7/16"x 30" Inside
1 R. 7/16"x 30" "
1 R. 1/2"x 30" "
7/16"x 28" Outside
1 R. 9/16"x 28" "
1 R. 1/2"x 17" "
1/2"x 5 7/16" Filler
7/16"x 28" Filler
1/2"x 17" Filler
This Splice 1" Rivets

3/4" Gusset R. Trim as shown

2 Fills 5 7/16"x 1/2"
1 Fill 17"x 1/2"
1 Spl. R. 28"x 1/2"
Trim Rs 30"x 1/2" to 17"x 1/2"

This Splice 1" Rivets
1 R. 7/16"x 30" Inside

3/4" Gusset R. Trim as shown

1 R. 7/16"x 28" Outside
1 R. 1/2"x 17" "

2'-0" b.to b. Rs Throughout

2'-6" b.to b. Ls

SPLICE AT L4
4 R. 7/16"x 30" Inside
2 R. 7/16"x 30" "
2 R. 1/2"x 17" Outside
2 R. 7/16"x 28" "
4 R. 7/16"x 28" " Filler
4 R. 1/2"x 5 7/16" "
2 R. 7/16"x 28" " "
2 R. 1/2"x 17" " "
4 R. 2'-6"x 7/16"x 3'-5 1/2" Cover R. T. & B.

SCALE 1"=1'-0"

2'-0" b.to b. Rs

2'-6" b.to b. Ls

SPLICE AT L8
2 R. 7/16"x 30" Inside
2 R. 1/2"x 17" Outside
2 R. 7/16"x 28" "

SCALE 1"=1'-0"

See American Bridge Co. Shop plans, Order "1995".

NOTE:
All metal medium steel unless otherwise noted.
Rivets soft steel and 7/8" dia. " " "
Rivet holes punched 1/16" smaller and reamed to 1/16" greater diam. than the rivet.
Corners of outstanding legs of lacing Ls are to be sheared off.
Sheared edges of all plates except Stay plates, lateral plates and lacing bars, to be faced.

MULTNOMAH COUNTY ~ OREGON

BURNSIDE BRIDGE
PORTLAND OREGON

DETAILS OF BOTTOM CHORD 268' DECK TRUSS

MADE BY John Jos
CHECKED BY H. L. Allen
TRACED BY John Jos
CHECKED BY H. L. Allen
DRAWING NO.
SHEETS

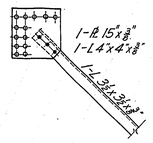
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE: FEB. 16 TH 1924
SCALE: 1"=1'-0" EXCEPT AS NOTED
SHEET NO. T32

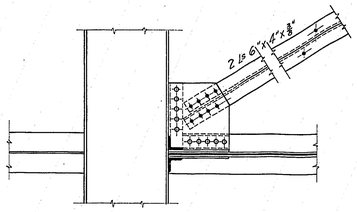
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Unisys Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/230-5482

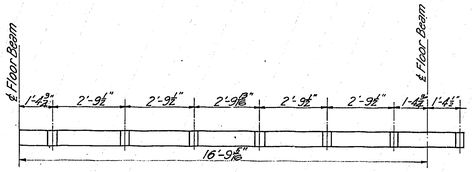
3M

REVISED
Stiel Paint
9-21-54





INTERMEDIATE CONNECTION



MARKING DIAGRAM FOR RAIL CHAIRS

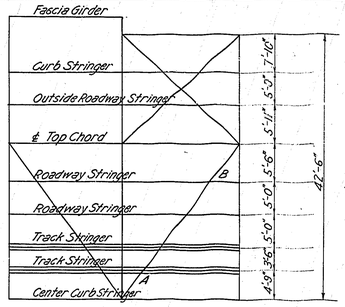
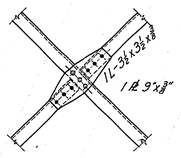
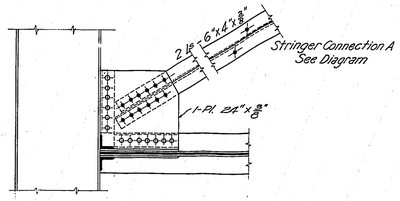


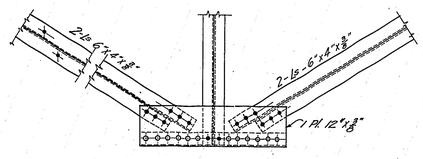
DIAGRAM OF STRINGER CONNECTION
To Top Laterals



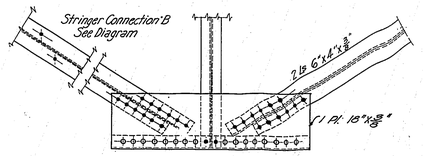
CANTILEVER BRACING
At Points U_1 - U_2 - Shore End
U_1 - U_2 - Bascule End
U_7 - U_8 - Center



END PANEL CONNECTION

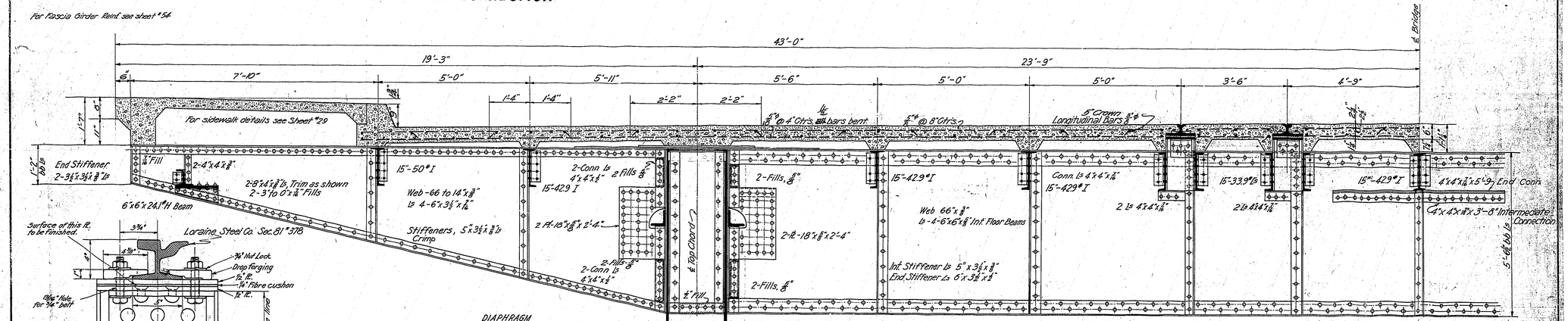


INTERMEDIATE CONNECTION



END PANEL CONNECTION

For Fascia Girder Paint see sheet *54

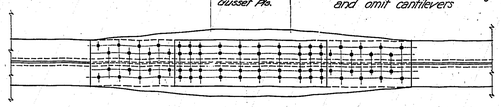


TYPICAL RAIL CHAIR

DIAPHRAGM
1-PL - ⅜" Milled - 2 Edges to drive Fit
2-Ls 6"x3½"x⅜" Ground to Drive Fit Both Ends.
4-Ls 6"x3½"x⅝"

24" Out to Out of Gusset Pls.

INTERMEDIATE FLOOR BEAM
End Floor Beam same except Flange angles 6"x6"x⅝" and omit cantilevers



CANTILEVER SPLICE
1-14"x½"x3'-9" Pl
1-18"to14"x½"x7'-9" Pl

All rivets ⅞" dia. unless otherwise noted.

NOTE - For length of stringers on cantilever panel U_0-U_1 shore end, see sheet T-30.

For Structural Steel Details see American Bridge Co. Shop plans, Order *1961

For details of Concrete Deck see Sheets T-36 & T-37

MULTNOMAH COUNTY OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

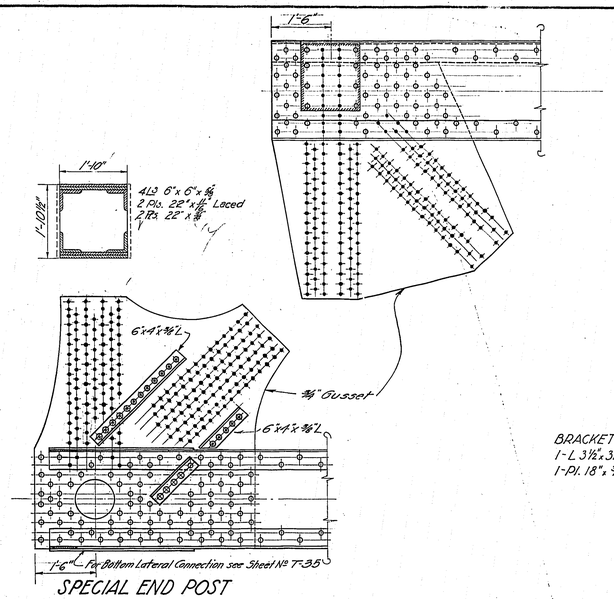
DETAILS
- OF -
FLOOR BEAMS & TOP LATERALS

MADE BY D.Stiel
CHECKED BY A.W. Rees
TRACED BY D.Wright
CHECKED BY D.Stiel
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE 1-20-54
SHEET NO. T-35
Scale 3"=1'-0"

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

REVISED



SPECIAL END POST

BASCULE END

Scale ¾"= 1'-0"

GENERAL NOTES:

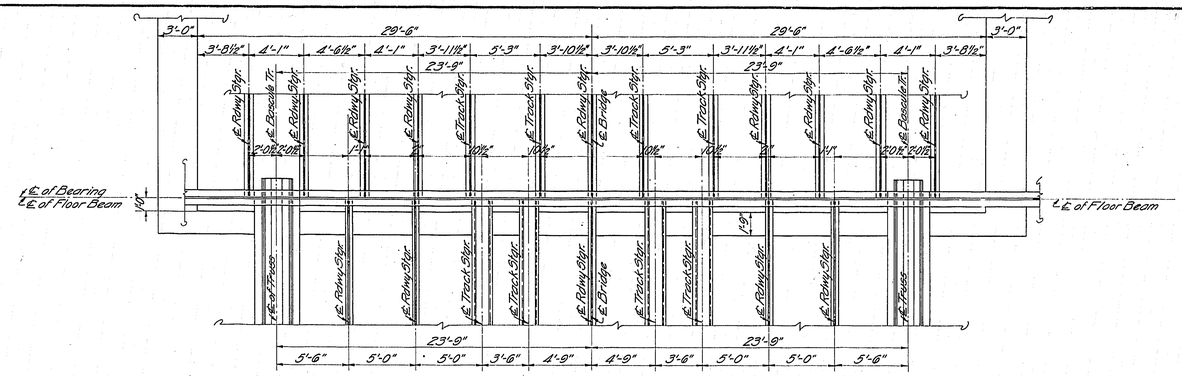
All metal medium steel unless otherwise noted.
Rivets soft steel and ⅞" diam. except when noted.
Rivet holes punched ¾" smaller and reamed to ⅛" greater diam. than the rivet, except in I beam stringers and stringer bracing, where holes may be punched full size.
Ends of floor beams and cantilevers to be faced, and reamed to cast iron template.
Mill ends of all stiffener Ls for bearing on flange
Sheared edges of all plates except shoy plates, lateral plates and lacing bars, to be faced.

Note:- Stringers from cantilever to carry through to concrete cantilever. For details of bearing see Sheet No. T.11

Cantilever bracing on truss to be in next panel U1-U2

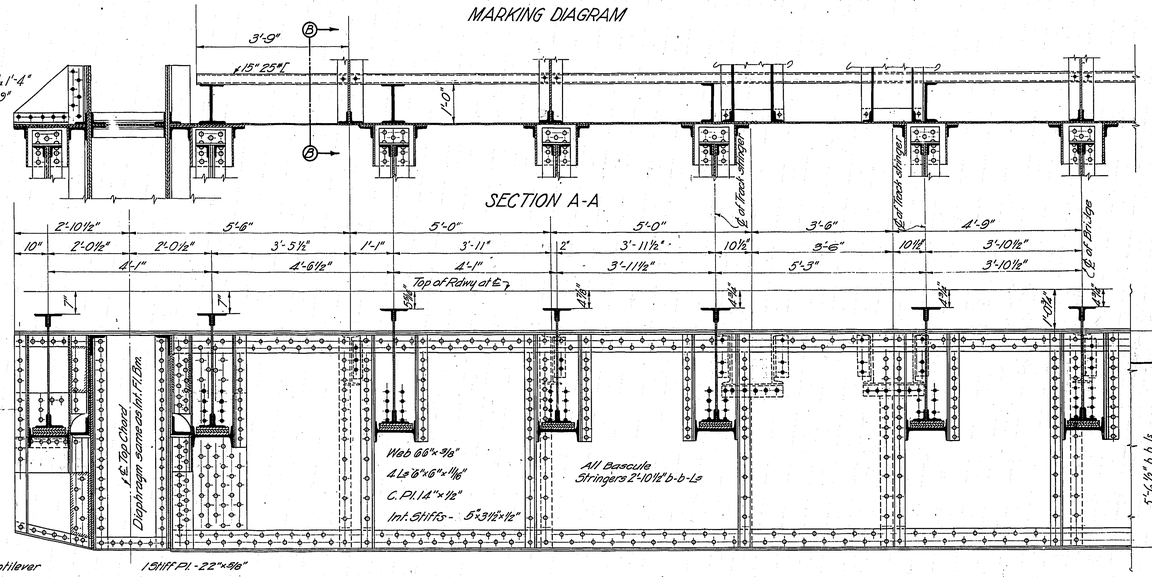
SECTION B-B

DIAPHRAGM ON WEB BEHIND STRINGERS



MARKING DIAGRAM

BRACKET
1-L 3½", 3½", ⅜", 1'-4"
1-Pl. 18", ⅜", 1'-9"



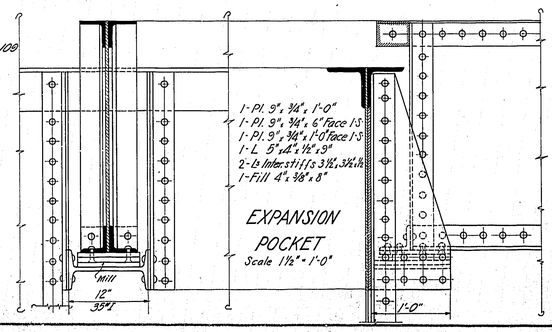
SECTION A-A

Conn. on Cantilever same

1 Stiff. Pl. - 22"x ⅝"

1 L -6 "x6"x½" End Stiffs
1-6"x15.3" Ship Channel, C-109
2 Ls-6 "x6"x½"

1 L - 5"x 5 "x½"
1 L -3½"x3½"x½"
2 Pl-3½" to 12"x ⅜"



EXPANSION POCKET

Scale 1½" = 1'-0"

Note:
This detail typical for all expansion pockets except those adjacent to top chord. Stringer connections on far side of beam same as intermediate except as shown.

See Shop plans American Bridge Co. Order 4598

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS

SPECIAL FLOOR BEAM BASCULE END

268' DECK TRUSS.

Made by	Short
Checked by	
Traced by	D. Wright
Checked by	
Drawing No.	
Sheets	Scales 1"=1'-0"

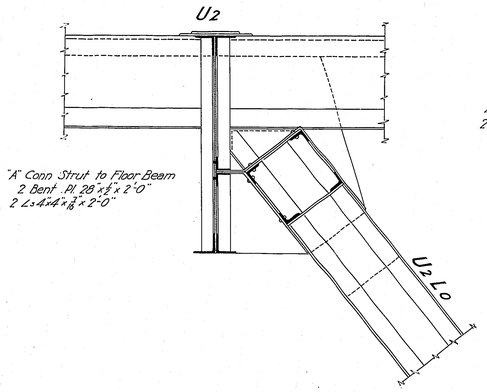
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
Date Feb 18, 1924
Sheet No. T 34

AB 35

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-0182
3M

REVISED

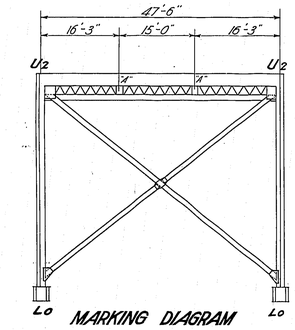


"A" Conn. Strut to Floor Beam
2 Bent Pl. 28"x⅞"x 2'-0"
2 L's 4"x4"x⅞"x 2'-0"

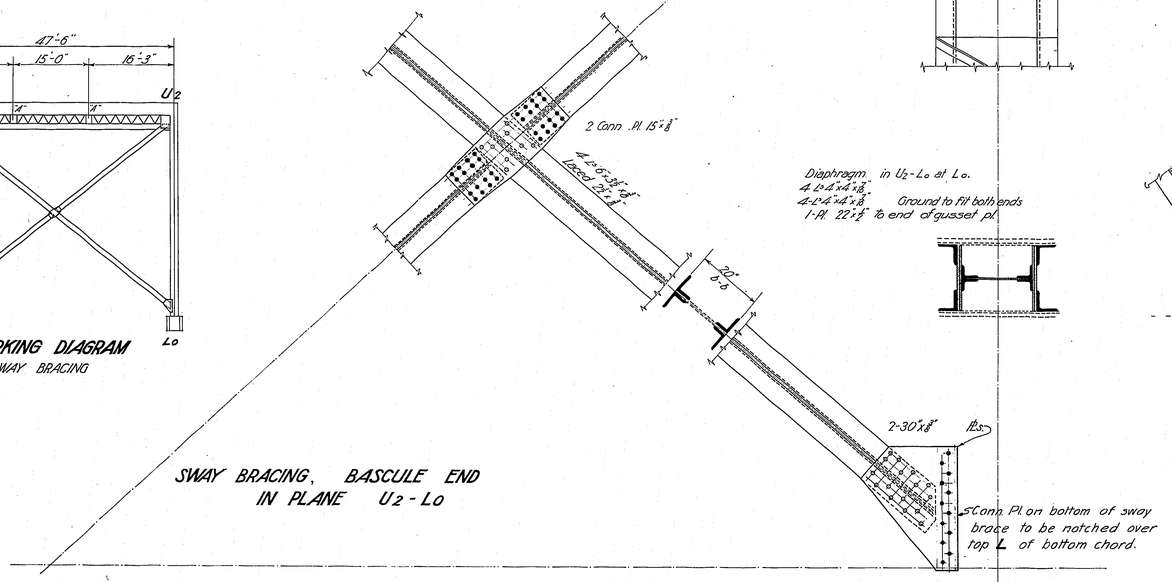
Diaphragm in U2-Lo at U2
4 L's 4"x4"x⅞"
1-Pl-22"x⅞" to end of gusset pl.
4 L's 4"x4"x⅞" Ground to fit both ends
4-Fills - 4"x⅞"

4 L's-4"x4"x⅞"
2 2"x⅞" Lacing bars

2 Conn. St. Pl. 28"x⅞"



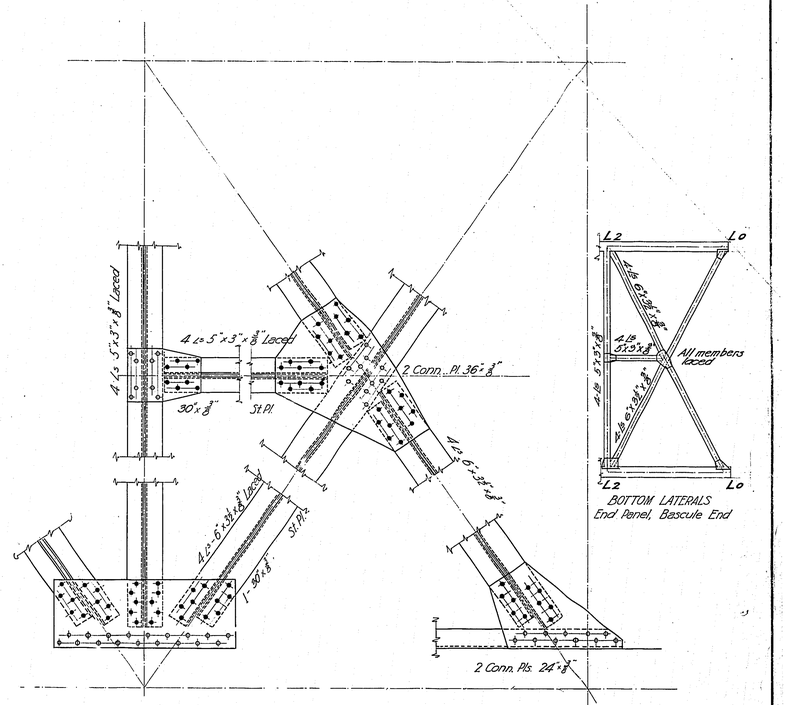
MARKING DIAGRAM
SWAY BRACING



SWAY BRACING, BASCULE END
IN PLANE U2 - Lo

Diaphragm in U2 - Lo at Lo.
4 L's 4"x4"x⅞"
4-L's 4"x4"x⅞" Ground to fit both ends
1-Pl. 22"x⅞" to end of gusset pl.

Diaphragm in bottom chord at Lo
4 L's 4"x4"x⅞"
4 L's 4"x4"x⅞"
1 Pl. 22"x⅞"x 4'-8" to end of gusset pl.



2 Conn. Pls & St. Pls. 22"x⅞"

BOTTOM LATERALS, END PANEL
BASCULE END

BOTTOM LATERALS
End Panel, Bascule End

See Shop Prints, American Bridge Co. Order "1991"

MULTNOMAH COUNTY — OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS
BOTTOM LATERALS & SWAY BRACING
BASCULE END

MADE BY C.D.Hurst
CHECKED BY
TRACED BY R.Cooney
CHECKED BY C.D.Hurst
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE JAN 29TH 1924

SCALE: 1" - 1'-0"

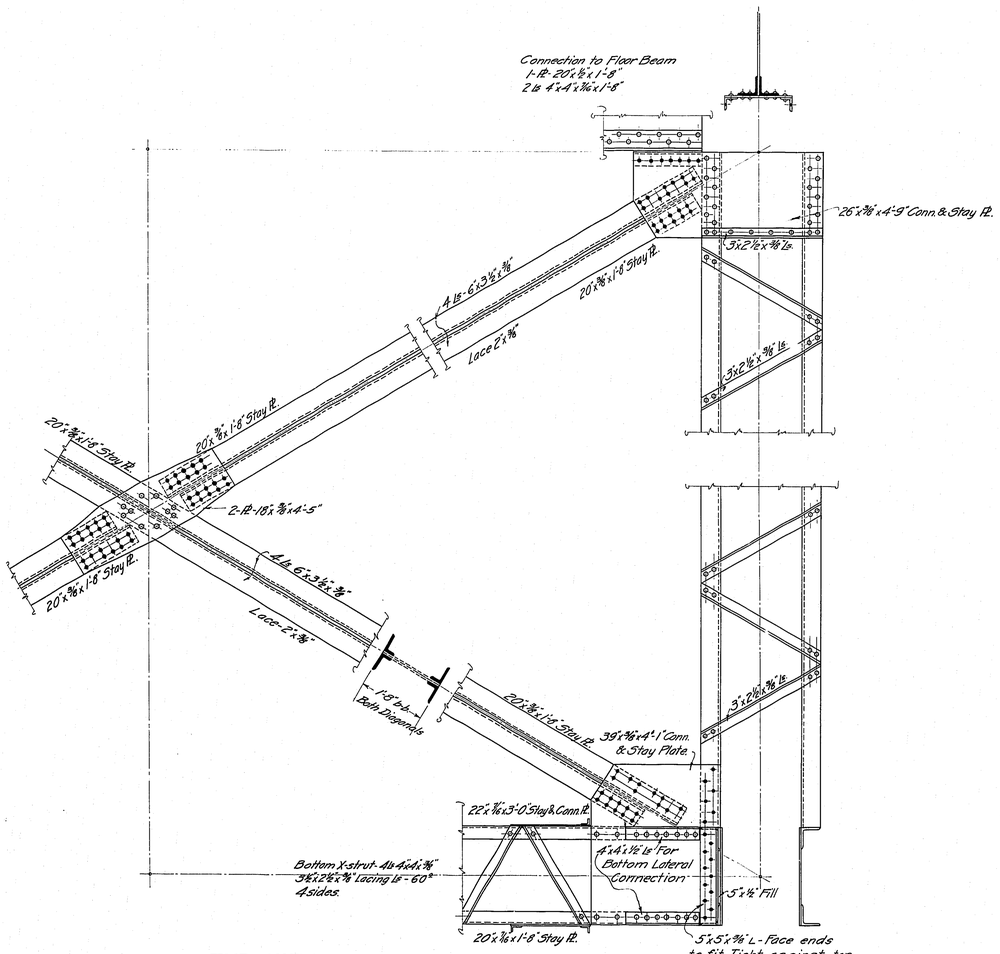
SHEET NO. T35

ABT
36 PAGES

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

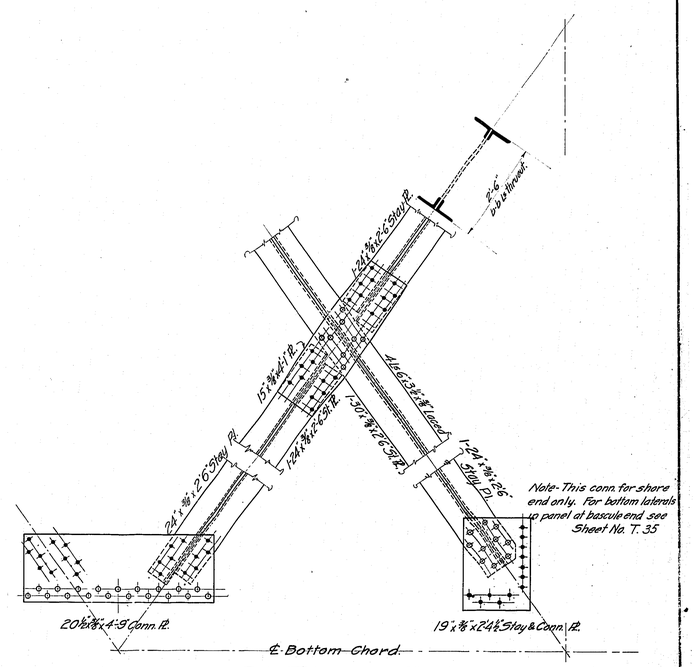


REVISED



END SWAY BRACING
SHORE END.

NOTE: This detail for shore end only for sway bracing at bascule end see Sheet No. T. 35



BOTTOM LATERALS

See Shop Plans, American Bridge Co. Order 3391

All rivets ⅞" dia. unless otherwise noted.

MULTNOMAH COUNTY — OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS

SWAY BRACING & BOTTOM LATERALS
SHORE END

MADE BY R.W.Shrout
CHECKED BY
TRACED BY J.S.McVicker
CHECKED BY L.D.Grant
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE Jan. 27, 1924

Scale 3/4" = 1'-0"

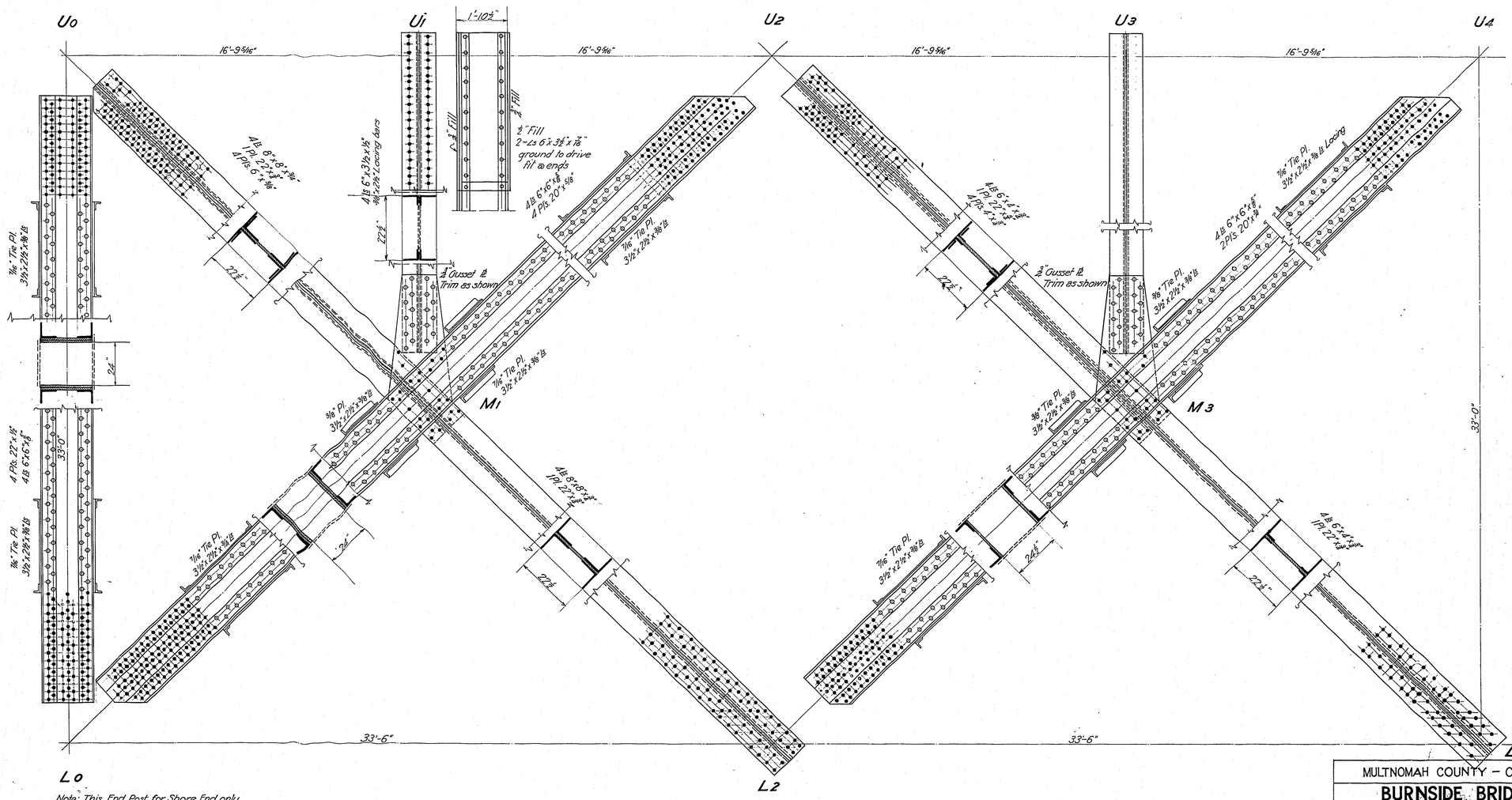
SHEET NO. T36

AB 37

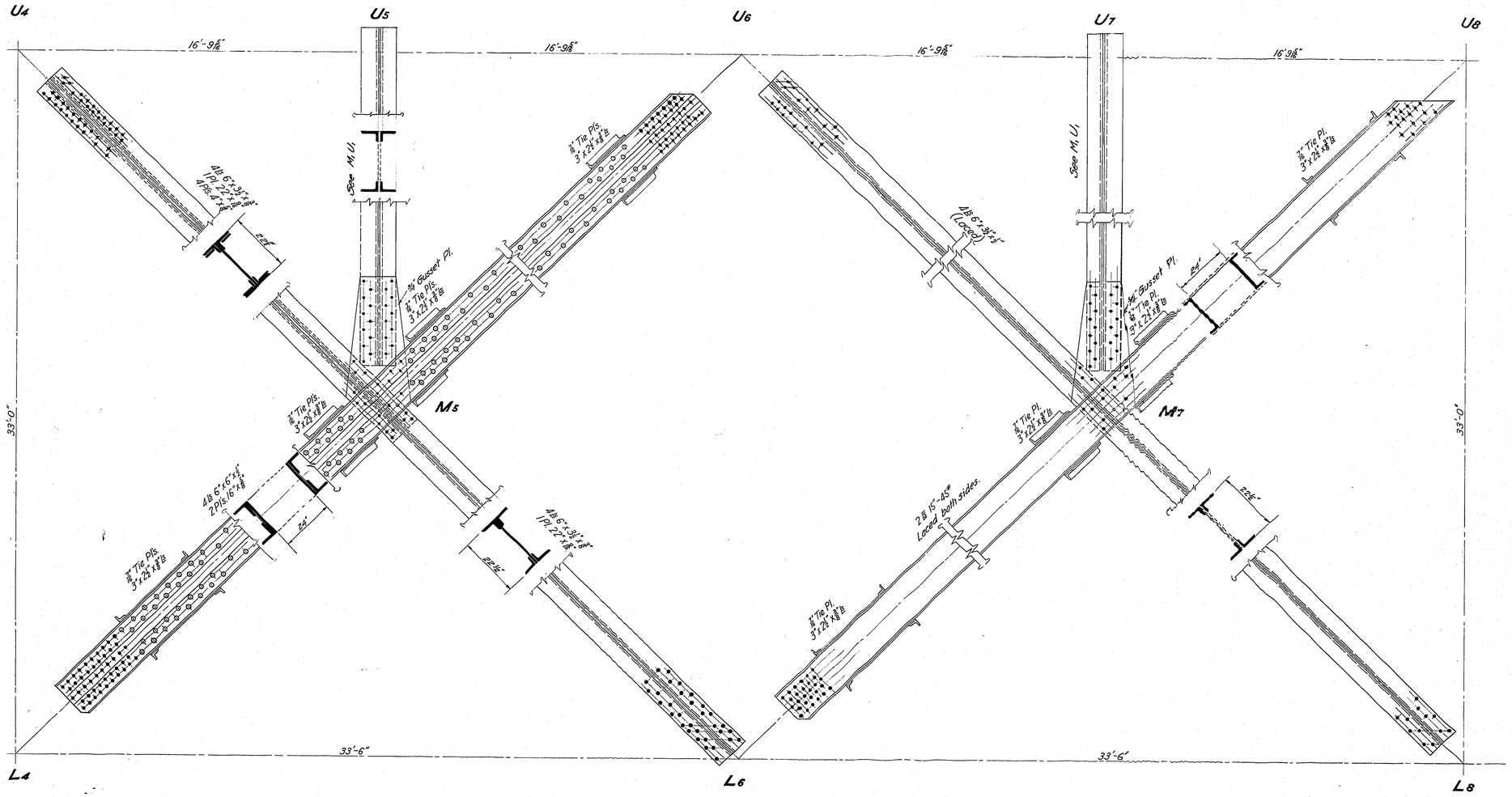
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6182
3M

REVISED


U0
Ui
U2
U3
U4
16'-9 5/16"
1'-10½"
½" Fill
2-Ls 6"x3½"x 7/16" ground to drive fill to ends
4 Bs 6"x6"x 5/8" 4 Pls. 20"x 5/8"
4 Bs 6"x6"x 5/8" 2 Pls. 20"x 5/8"
4 Bs 6"x 6"x 5/8" 1 Pl. 22"x 5/8" 4 Pls. 2"x 5/8"
4 Bs 6"x 6"x 5/8" 4 Pls. 22"x 5/8"
4 Bs 6"x 6"x 5/8" 1 Pl. 22

REVISED



See shop plans, American Bridge Co. Order #5351.

MULTNOMAH COUNTY — OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF MAIN WEB MEMBERS

MADE BY
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE: FEB. 16TH 1924

SCALE: ¾" = 1'-0"

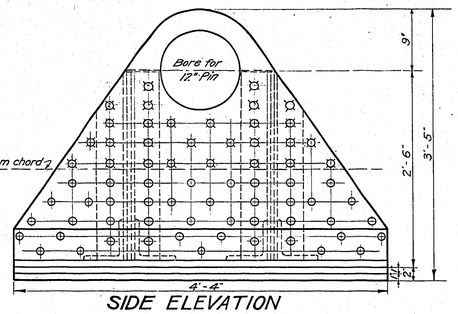
SHEET NO. T 38

APP. 29

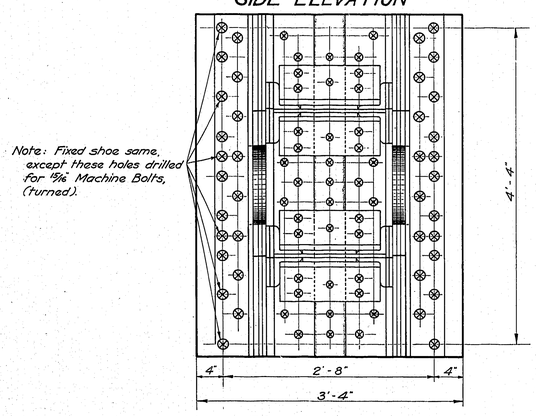
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6182
3M

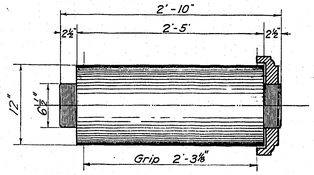
REVISED



SIDE ELEVATION

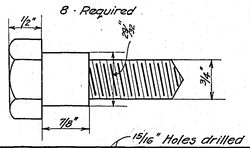


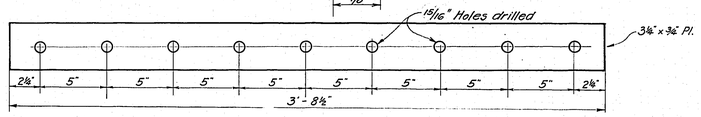
PLAN OF SHOE

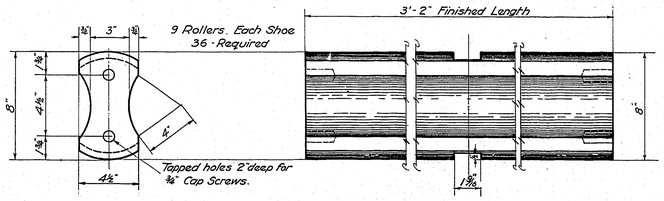


FORGED STEEL PIN

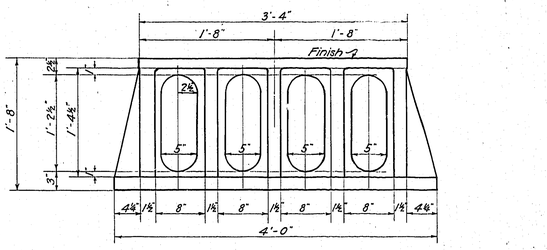
3/4" CAP SCREW
144 Required
Natural Scale



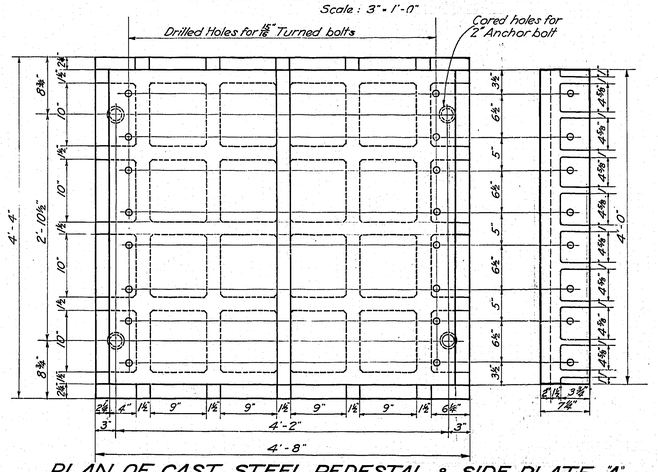




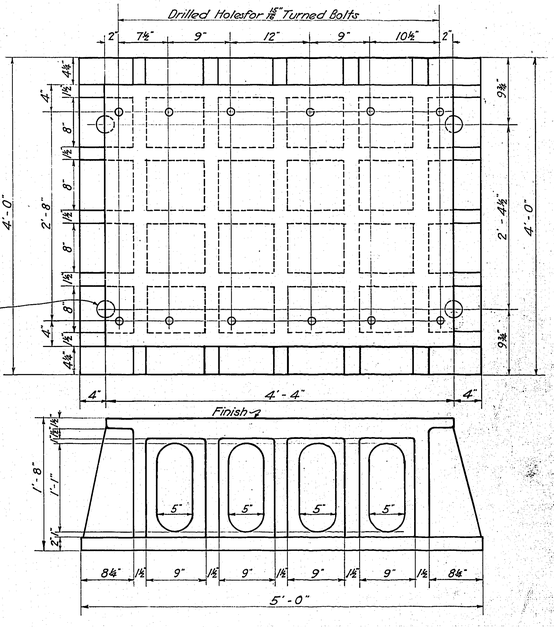
SEGMENTAL ROLLER & END PLATE
Scale: 3"-1'-0"



FRONT ELEVATION
SHOE & PEDESTAL
4 Required



PLAN OF CAST STEEL PEDESTAL & SIDE PLATE "A"
4 Required



CAST STEEL PEDESTAL, FIXED SHOE
4 Required

NOTE: All Rivets ⅞"

See shop plans, American Bridge Co. Order "6951

MULTNOMAH COUNTY, - OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS
- OF -
SHOES & PEDESTALS, 268' DECK TRUSS

MADE BY [illegible]
CHECKED BY John Goo
TRACED BY [illegible]
CHECKED BY [illegible]
DRAWING NO.
SHEETS

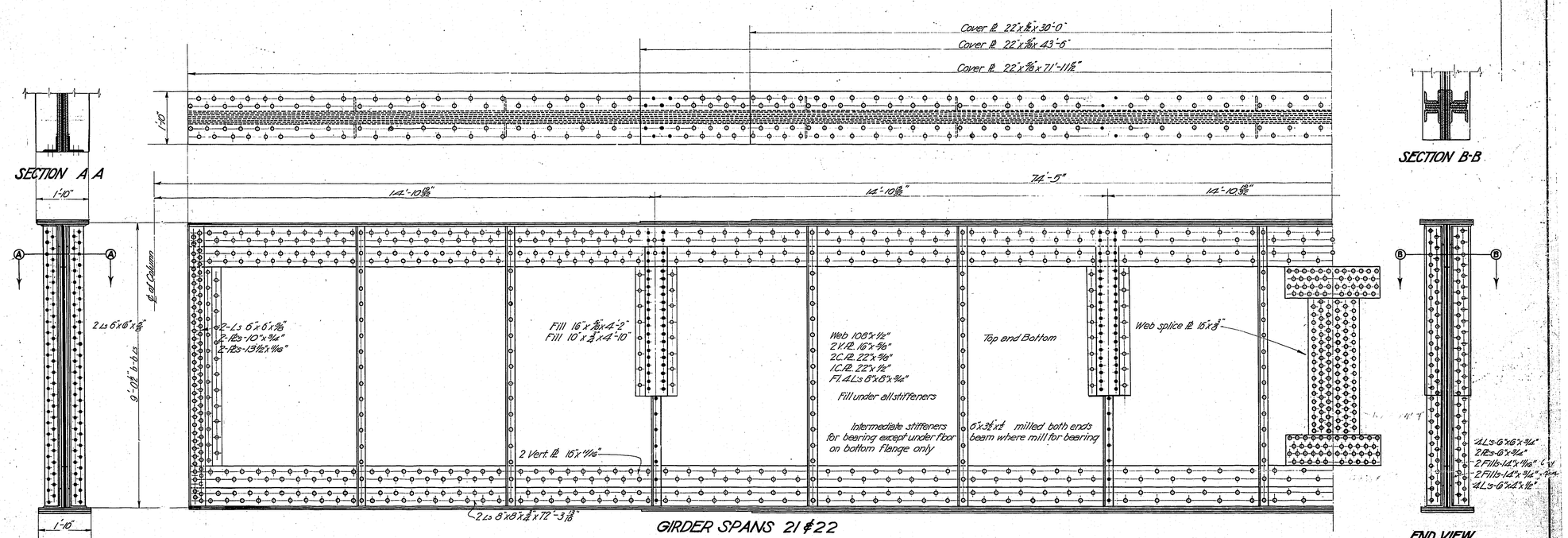
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE 1-29-24
SHEET NO. T 39
Scale 1" = 1" except as shown

AD1

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau 1700 Southeast 11th Avenue Portland, Oregon 97214 503/233-6182 3M

REVISED



See shop plans, American Bridge Co. Order "5982"

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS OF

72'-2" GIRDER

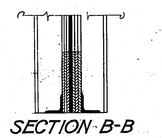
MADE BY [illegible] HEDRICK & KREMERS
CHECKED BY CONSULTING ENGINEERS
TRACED BY R. Crowley PORTLAND, OREGON
CHECKED BY
DRAWING NO.
SHEETS SCALE 1"=1'-0" DATE Feb. 18 1924 SHEET NO. 40

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

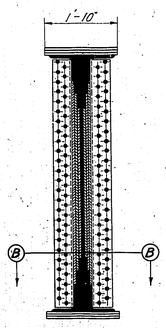
Business Equipment Bureau 1700 Southwest 11th Avenue Portland, Oregon 97214 503/223-5484

3M

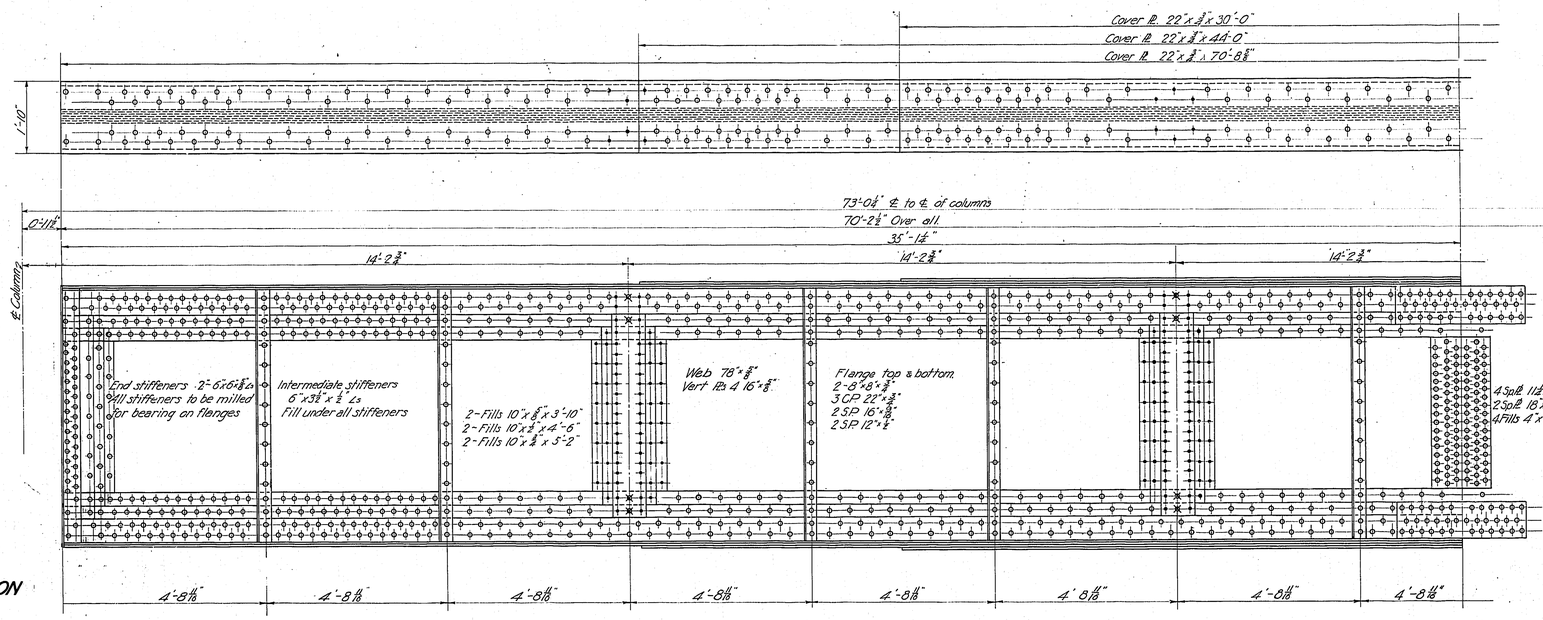
REVISED



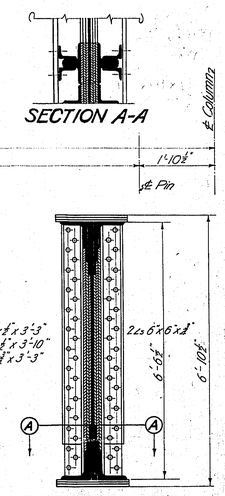
SECTION B-B



FIXED END
COLUMN CONNECTION



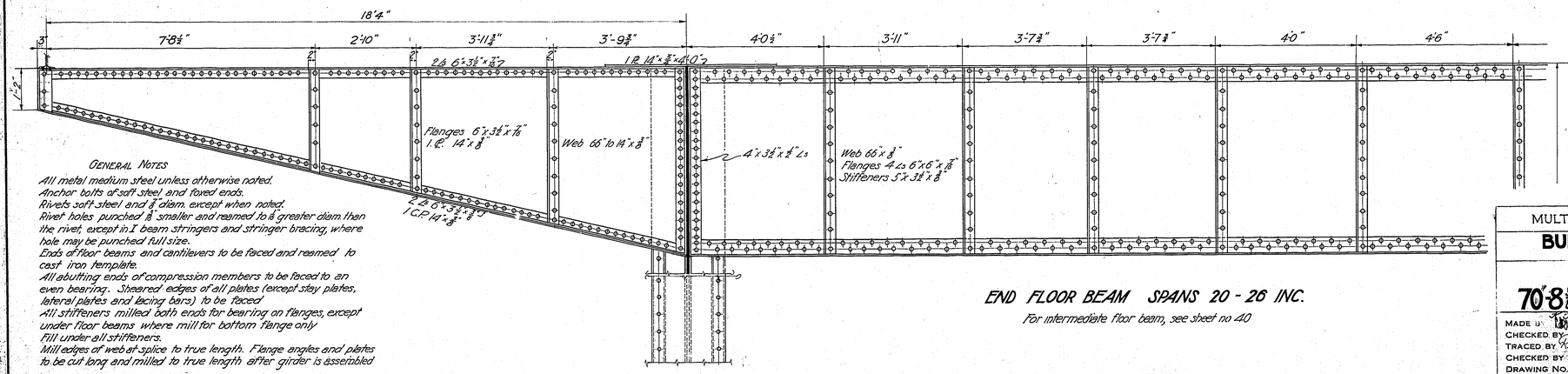
GIRDER, SPAN 23



SECTION A-A

EXPANSION END
For details of shoe & connection
see sheet no. 49

Note: Make 2 Girders Right. Mark G. 23 R.
" " Left " G. 23 L.



END FLOOR BEAM SPANS 20 - 26 INC.
For intermediate floor beam, see sheet no 40

See shop plan, American
Bridge Co. Order "6592"

GENERAL NOTES

All metal medium steel unless otherwise noted.
Anchor bolts of soft steel and fixed ends.
Rivets soft steel and ⅞ diam. except when noted.
Rivet holes punched ⅛" smaller and reamed to a greater diam. than the rivet, except in I beam stringers and stringer bracing, where hole may be punched full size.
Ends of floor beams and cantilevers to be faced and reamed to cast iron template.
All abutting ends of compression members to be faced to an even bearing. Sheared edges of all plates (except stay plates, lateral plates and lacing bars) to be faced.
All stiffeners milled both ends for bearing on flanges, except under floor beams where mill for bottom flange only.
Fill under all stiffeners.
Mill edges of web at splice to true length. Flange angles and plates to be cut long and milled to true length after girder is assembled.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS
OF
70'-8⅝" PLATE GIRDER

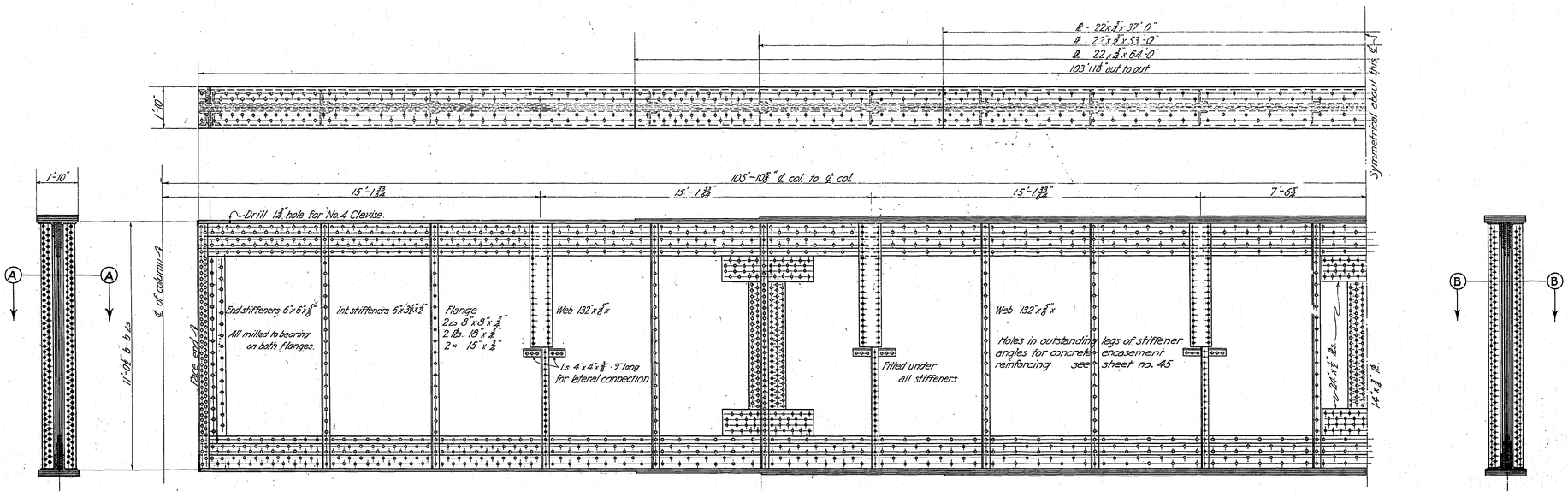
MADE BY
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 18TH 1924
SCALE ⅜"=1'-0"
SHEET NO. 41

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1100 Southeast 11th Avenue
Portland, Oregon 97214
503/233-3182
3M

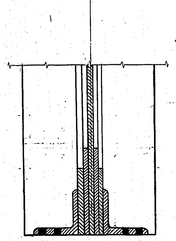
REVISED



FIXED END

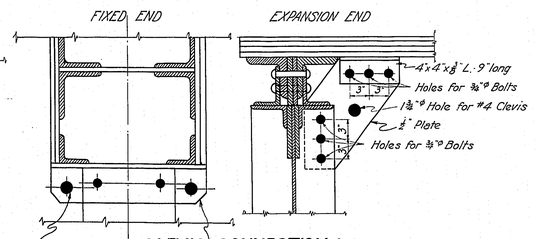
GIRDER SPANS 24 & 25

FIXED END



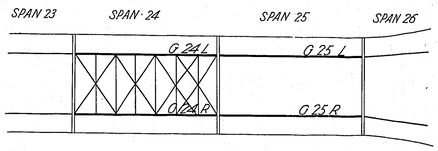
SECTION A-A

Scale: 1½"=1'-0"



CLEVIS CONNECTION (For Lateral Bracing during erection)

Scale: 1½"=1'-0"



MARKING DIAGRAM

GENERAL NOTES

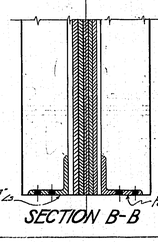
All metal medium steel unless otherwise noted
Anchor bolts of soft steel and forged ends
Rivets, soft steel and 3/4" diam. except when noted.
Rivet holes punched 1/8" smaller and reamed to 1/16" greater diam. than the rivet, except in I beam stringers and stringer bracing, where hole may be punched full size
Ends of floor beams and cantilevers to be faced and reamed to cast iron template.

Sheared edges of all plates (except stay plates, lateral plates and lacing bars) to be planed
All stiffeners milled both ends for bearing on flanges, except under floor beams where mill for bottom flange only.
Fill under all stiffeners
Mill edges of web at splice to true length
Flange angles and plates to be cut long and milled to true length after girder is assembled
Floor beam same as for spans 20-21-22 see sheet No 40

Make 2 Girders Right Mark G.24.R - G.25.R.
" " " Left " G.24.L - G.25.L.

See shop plans American Bridge Co. Order 1986

FIXED END



SECTION B-B

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS OF

102'7½" PLATE GIRDER

MADE BY Roll Drucker
CHECKED BY
TRACED BY Rudy Ellyson
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE: FEB. 9TH 1924

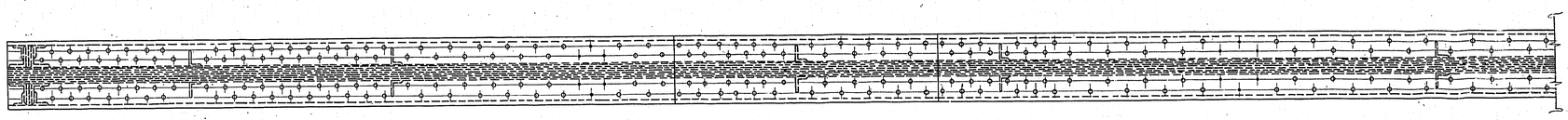
SCALE 1"=1'-0" EXCEPT AS NOTED

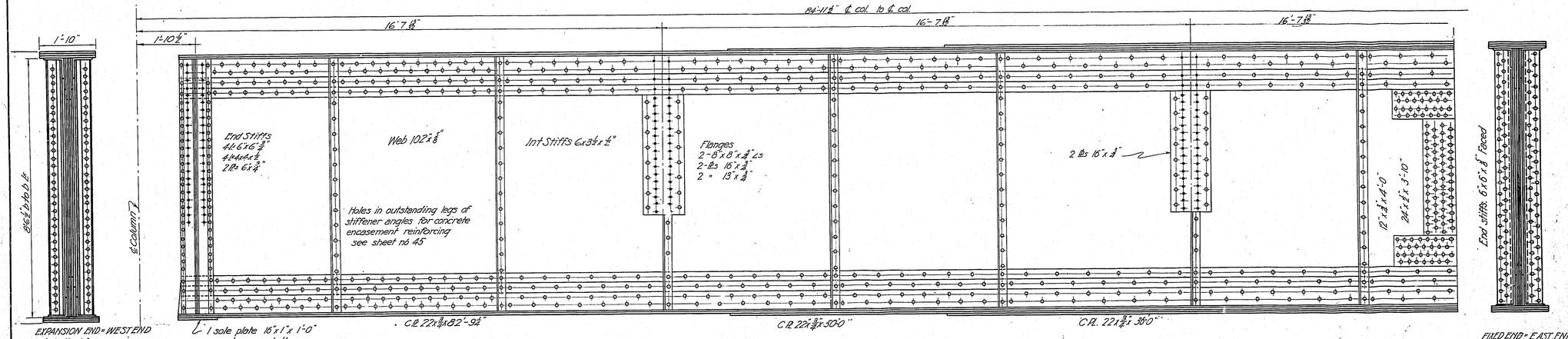
SHEET NO. 42

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southwest 11th Avenue
Portland, Oregon 97214
503/233-8867
3M

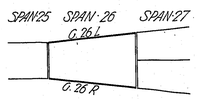
REVISED





Make one Lt. Mark G.26.R
Make one Lt. Mark G.26.Lt.

GIRDER SPAN 26

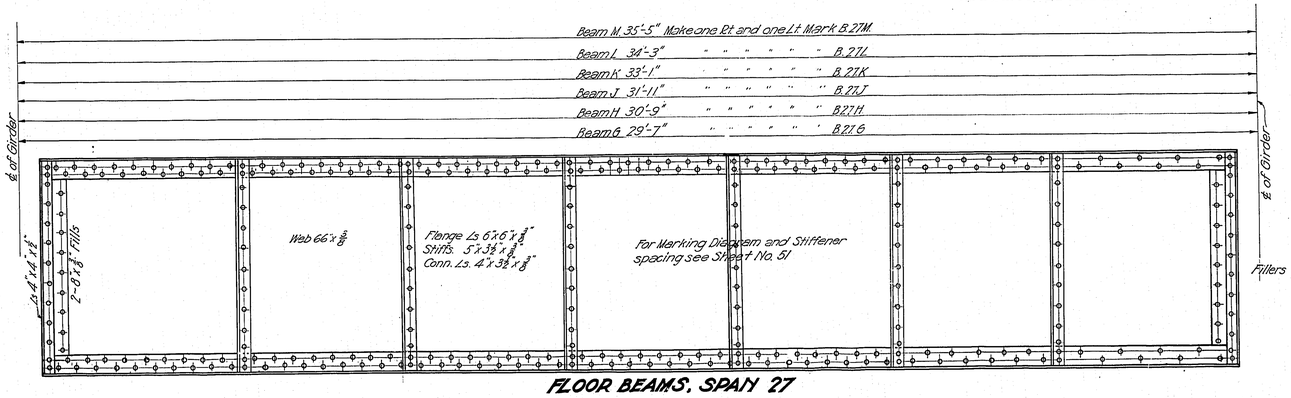


MARKING DIAGRAM

GENERAL NOTES

All metal medium steel unless otherwise noted.
Anchor bolts of soft steel and fixed ends
Rivets, soft steel and ⅞" diam. except when noted
Rivet holes punched ⅛" smaller and reamed to ⅛" greater diam. than the rivet, except in I beam stringers and stringer bracing, where holes may be punched full size
Ends of floor beams and cantilevers to be faced and reamed to cast iron template.
Sheared edges of all plates (except stay plates, lateral plates and lacing bars) to be faced.
All stiffeners milled both ends for bearing on flanges except under floor beams, where mill for bottom flange only
Fill under all stiffeners
Mill edges of web at splice to true length
Flange angles and plates to be cut long and milled to true length after girder is assembled
Floor beams same as for spans 20-21-22 see sheet no. 46

For Note. For detail of clevis connection for lateral sway bracing during erection see sheet no. 42



Cantilever same as for Span 26

FLOOR BEAMS. SPAN 27

See shop plans, American Bridge Co. Order 5992.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS

83'6 PLATE GIRDER

MADE BY K.H.Zucker
CHECKED BY E.G.H. & J.L.
TRACED BY
CHECKED BY K.H.Z.
DRAWING No.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE: FEB. 20, 1924

1"=1'-0"

SHEET NO. 43

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

STERLING Business Equipment Bureau 1200 Southwest 11th Avenue Portland, Oregon 97214 503/233-8682 3M

REVISED

84'-9⅛" ℄ – ℄ Bearing

10⅝"

16'-11⅛"

Note: Rivet spacing in cover PLs same as for Outside Girder

16'-11⅛"

8'-5⅞"

42'-4⅛"

8"

℄ Pier

End of Girder

East End-Fixed end same as for Outside Girder except as noted

Face

8'-0⅛" b.-b. PLs

℄ Column

2-6"x6"x⅞" Ls

Flanges:
2 Pls 8"x8"x¾"
2 Pls. —— 16"x¾"
Top and bottom

Int. Stiffeners 6"x3½"x½" Ls

2 PLs-16"x¾"

Web 102"x½"

Holes in outstanding legs of stiffener angles for concrete encasement reinforcing see Sheet No. 45

2 PLs-16"x¾"

12"x⅜"x1'-0"Sp. PL

24"x½"x3'-10" Sp. PL

1 ℄ 22"x⅜"x84'-3⅜"

1 ℄ 22"x⅜"x 32'-0"

1 ℄ 22"x⅜"x 38'-0"

INSIDE GIRDER

(LAKE I (ONE) GIRDER MARK G.27.B

1 ℄ 22"x⅜"x84'-6"

1 ℄ 22"x⅜"x 50'-0"

1-℄ 22"x⅜"x 35'-0"

℄ Symetrical abt this ℄ except for End Details

End Stiffs
4 L's-6"x6"x⅜"
2 Pls-6"x⅜" Inside Girder.

84'-11⅝" ℄ – ℄ Bearing

11¾"

16'-11⅝"

16'-11⅝"

8'-5⅝"

42'-5¾"

8"

16'-1¼" See ℄ Pier on bottom

8'-0⅛" b.-b. PLs

℄ Column

Face

2-6"x6"x⅞" Ls

Int. Stiffeners 6"x3½"x½"

Flanges:
2-Ls 8"x8"x¾"
2-Pls. 12"x½"
2-Pls 16"x⅞"
Top and bottom

Web 102"x⅜"

2 PLs-16"x¾"

Holes in outstanding legs of stiffener angles for concrete encasement reinforcing see Sheet No. 45

2 PLs-16"x¾"

24"x½"x3'-10" S.P. PL

12"x⅜"x1'-0" Sp. PL

End Stiffs
4 L's-6"x6"x⅜"
4 PLs-6"x½"

COLUMN CONN WEST END

1⅜" Skew

GENERAL NOTES

All metal medium steel unless otherwise noted.
Rivets soft steel and ⅞" diam. except when noted.
Rivet holes punched ⅛" smaller and reamed to ⅛" greater diam. than the rivet, except in I beam stringers and stringer bracing, where hole may be punched full size.
Ends of floor beams and cantilevers to be faced and reamed to cast iron template.
Sheared edges of all plates (except stay plates, lateral plates and lacing bars) to be faced.
All stiffeners milled at both ends for bearing on flanges, except under floor beams where mill for bottom flange only.
Mill under all stiffeners.
Mill edges of web at splice to true length.
Flange angles and plates to be cut long and milled to true length after girder is assembled.

OUTSIDE GIRDER BENT 27

MAKE 2 (TWO) GIRDERS, 1 RT. 1 LT.
MARK G. 27. A.

DIAGRAM SHOWING SWAY BRACING FOR ERECTION
For details of connection see sheet No. 42

For detail of shoe and connection at East End. See sheet No. 43

G27A Rt.
G27B
G27A Lt.
SPAN 26 SPAN 27 SPAN 28

MARKING DIAGRAM

See shop book American Bridge Co. Order 3832.

EAST END

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND OREGON

DETAILS OF

PLATE GIRDERS SPAN 27

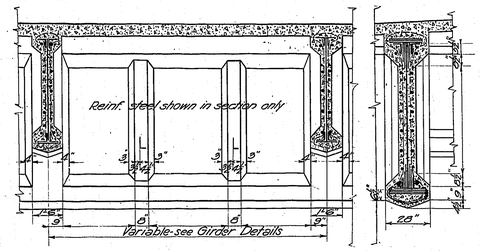
MADE BY [illegible] HEDRICK & KREMER'S
CHECKED BY [illegible] CONSULTING ENGINEERS
TRACED BY [illegible] PORTLAND, OREGON.
CHECKED BY [illegible] DATE Feb. 28, 1924
DRAWING NO.
SHEETS SCALE - 3"=1'-0" SHEET NO. 44

A81 [illegible]

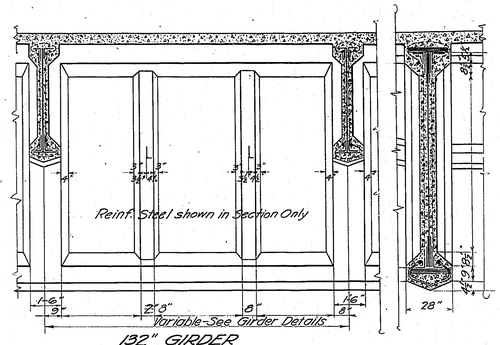
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6682
3M

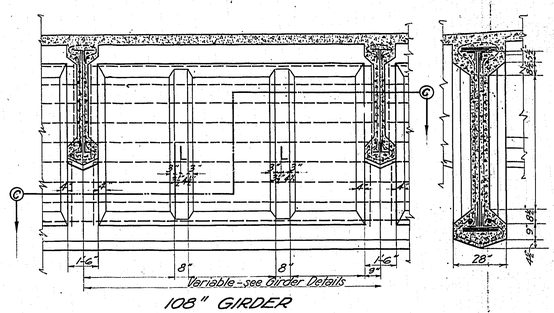
REVISED



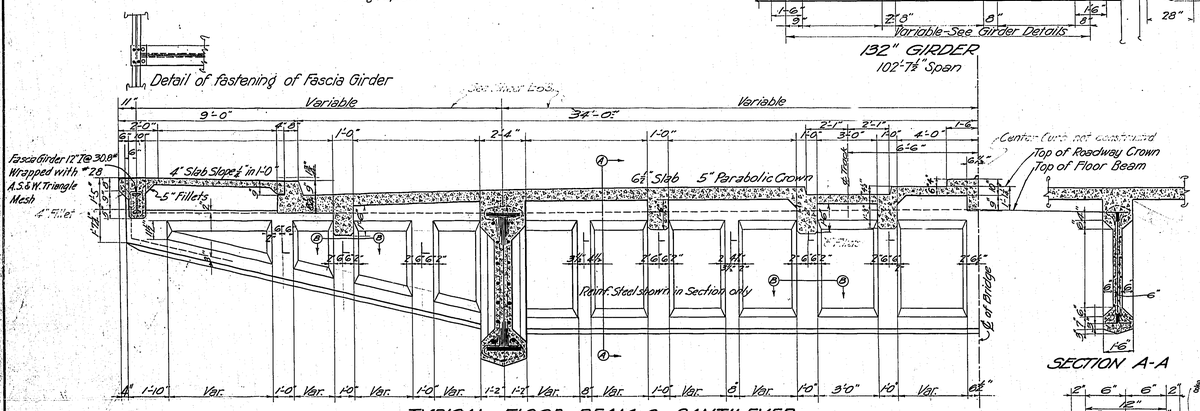
78" GIRDER
70'-8½" Span



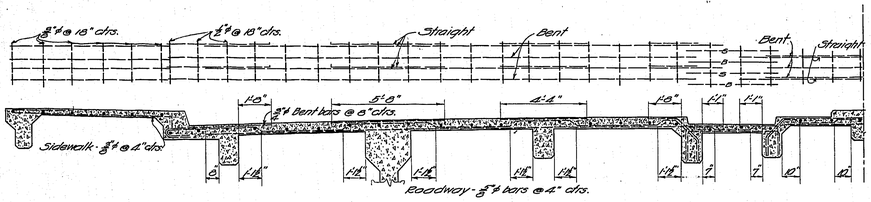
132" GIRDER
102'-7½" Span



108" GIRDER
72'-3", 83'-6" & 89'-6" Spans

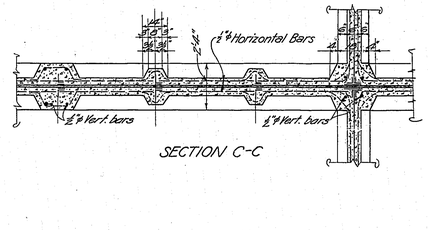


TYPICAL FLOOR BEAM & CANTILEVER



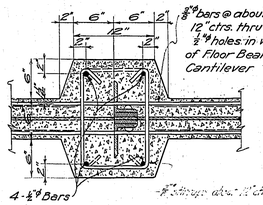
SLAB REINFORCING

For Details of Stringers see Sheet No. 53
For Framing Plan of Stringers see Sheet No. 31-L-68



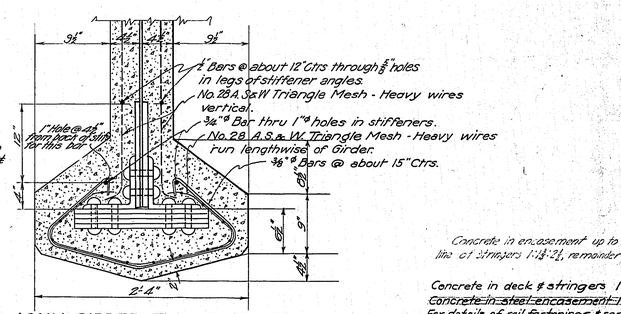
SECTION C-C

SECTION A-A



SECTION B-B

This detail under stringers only. At intermediate stiffeners use mesh wrapped around leg of angle and wired to ½" lengthwise bars.



MAIN GIRDER FLANGE REINFORCING
Scale - 1½" = 1'0"

Floor beam reinforcing similar but without ⅜"ϕ bars bent around.

Concrete in encasement up to bottom line of stringers 1:1:2½, remainder 1:2.

Concrete in deck & stringers 1:1:2
~~Concrete in steel encasement 1:2:4.~~
For details of rail fastenings & center curb armor see sheet 57.

Expansion joint Encasement Sheet #53
Column and sway bracing encasement shown on Sheet #53
All reinforcing steel for steel encasement is plain round bars, not deformed bars.

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
PORTLAND OREGON
DETAILS OF
CONCRETE ENCASEMENT

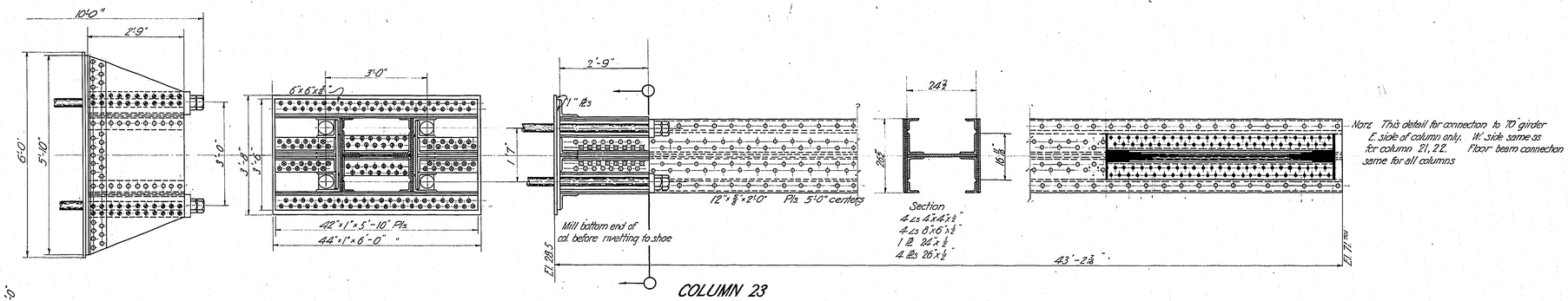
MADE BY R.W.D.
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB 20 1924
SHEET NO. 45

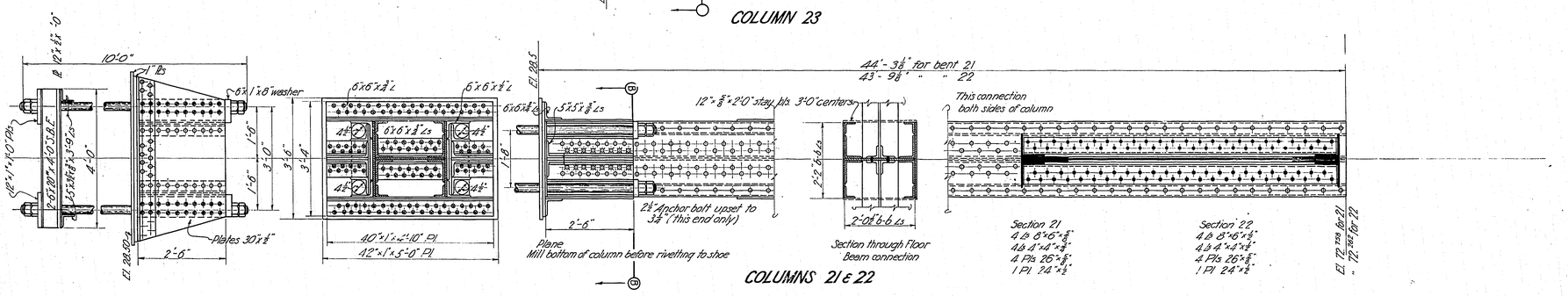
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-8182
3M

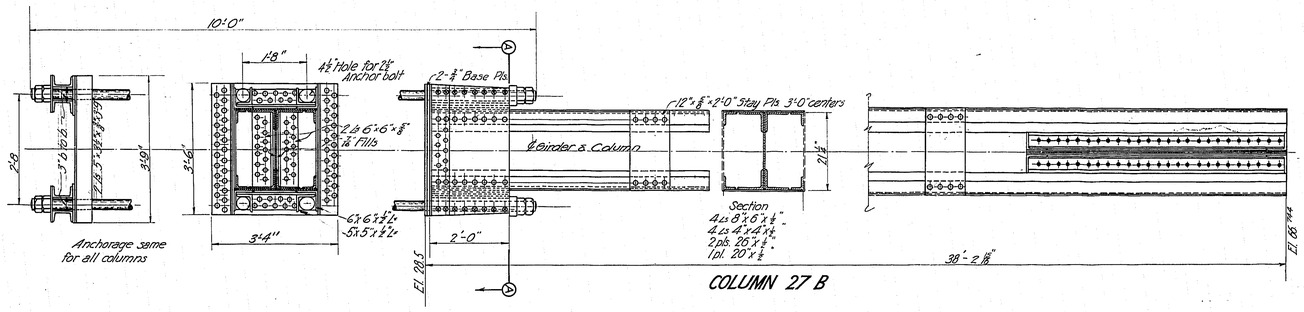
REVISED



COLUMN 23



COLUMNS 21 & 22



COLUMN 27 B

See Shop Plans, American Bridge Co. Order 15952.

MULTNOMAH COUNTY OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

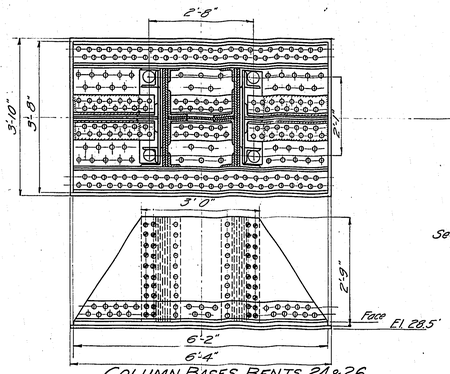
DETAILS
- OF -
COLUMNS 21 22 23 & 27 B

MADE BY WDavis
CHECKED BY
TRACED BY BB Hilscher
CHECKED BY
DRAWING NO.
SHEETS
SCALE 1" = 1'-0"

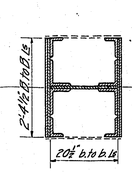
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 20TH 1924
SHEET NO. 46

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

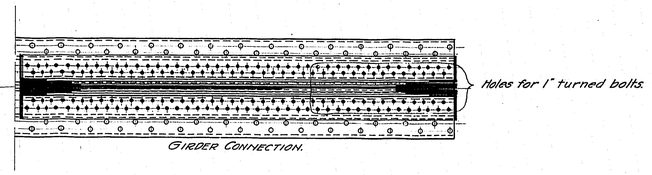
REVISED



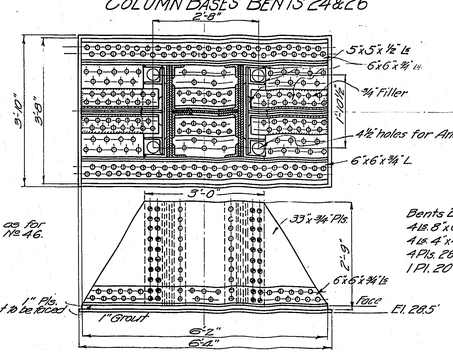
COLUMN BASES BENTS 24&26



Section Bent 26 same as 24.



COLUMN 26

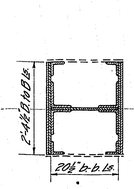


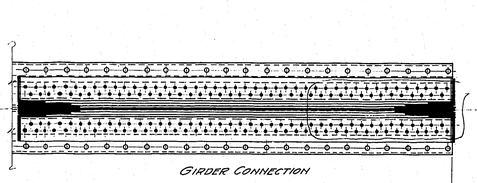
NOTE:- Anchorage same as for Bents 20-23, See Sheet No. 46.

Sections

Bents 24 & 26	Bent 25
4 Pls. 8"x 6"x 5/16"	4 Pls. 8"x 6"x 5/16"
4 Pls. 4"x 4"x 5/16"	4 Pls. 4"x 4"x 5/16"
4 Pls. 28"x 5/16"	4 Pls. 28"x 5/16"
1 Pl. 20"x 5/16"	1 Pl. 20"x 5/16"

COLUMN BASE BENT 25.
Same as for 24 & 26.





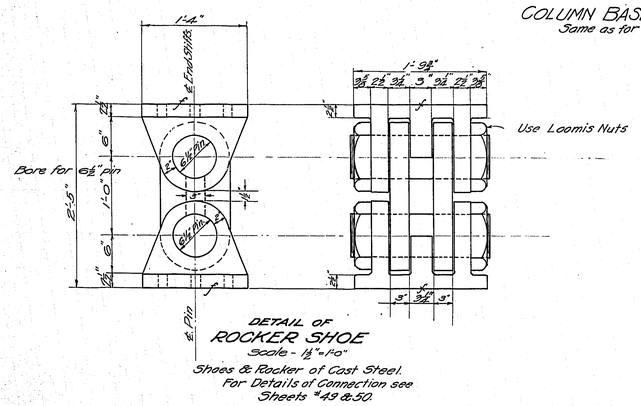
NOTE: Use 1" turned bolts for upper third of all end connections for main girders.

To bottom of Base, Column 24 - 42'-8 5/16"
To bottom of Base, Column 25 - 41'-3 9/16"
To bottom of Base, Column 26 - 39'-7 1/16"

COLUMN 24 & 25

Bent 24 - Elev. 71.083'
Bent 25 - Elev. 63.769'
Bent 26 - Elev. 68.089'

NOTE:- All Anchor bolts 2½"ϕ Upset to 2 Hexagonal Nuts each end.



DETAIL OF
ROCKER SHOE
Scale - 1½" = 1'-0"

Shoes & Rocker of Cast Steel.
For Details of Connection see Sheets #49 & 50.

GENERAL NOTES:-
Use 1" turned bolts for upper third of all connections of main girders to columns.
All rivets in base plates to be countersunk on bottom.
The bases of all columns to be milled before riveting on base plates.
All anchor bolts to be set in true position, top to be rigidly held in wooden templates.

See Shop Plans, American Bridge Co. Order #5952.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF COLUMNS 24, 25 & 26

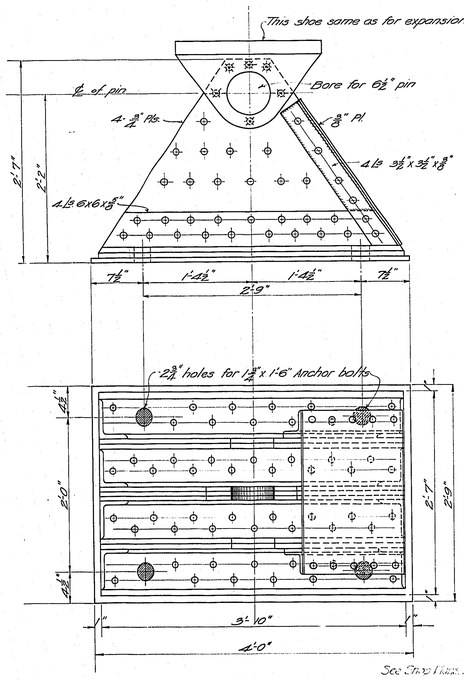
MADE BY Pfaart
CHECKED BY
TRACED BY E.D. Hilsher
CHECKED BY
DRAWING NO.
SHEETS

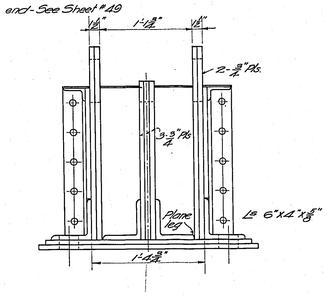
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 19, 1924
SHEET NO. 47

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southwest 11th Avenue
Portland, Oregon 97214
503/223-6402
3M

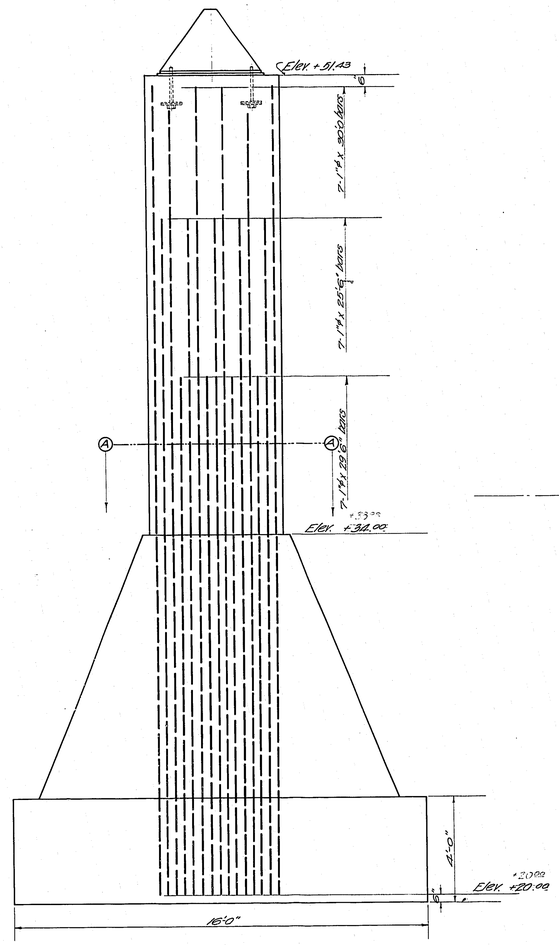
REVISED



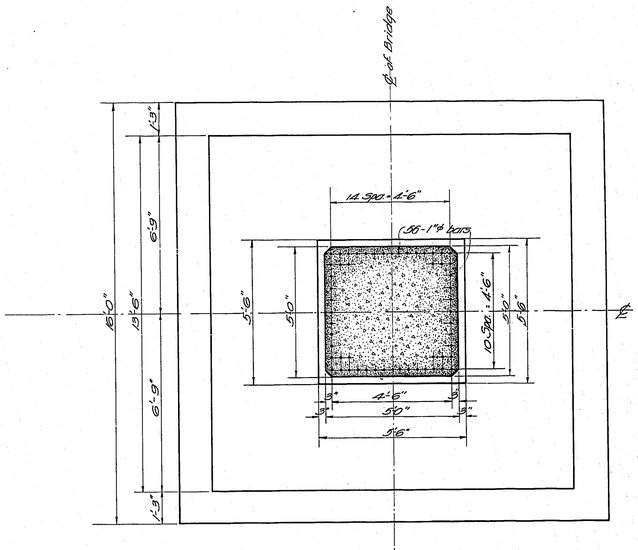


See Shop Plan Detail No. 1 of Sheet No. 48

FIXED SHOE - COL. 28 3-Required
Scale - ½" = 1'-0"



ELEVATION ON TRANSVERSE AXIS
Scale - ½" = 1'-0"



SECTION A-A
Scale ½" = 1'-0"

Concrete 1:2:4

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS
- OF -
BENT NO. 28

MADE BY Grant
CHECKED BY
TRACED BY Schlueter
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE Feb. 20-24

SHEET NO. 48

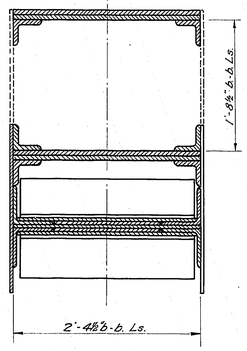
SCALE AS SHOWN

Rec'd 12

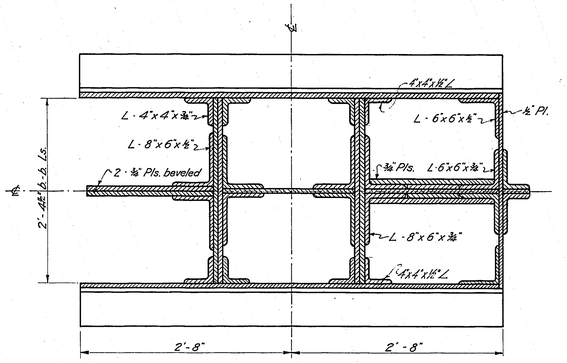
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6682
3M

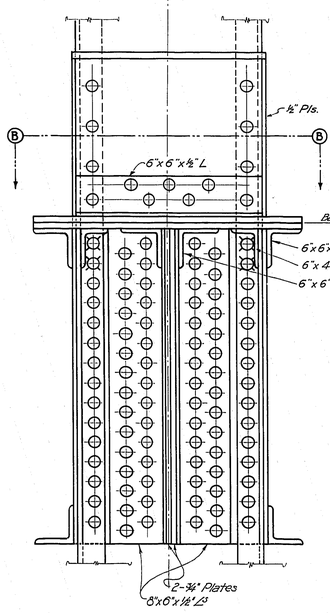
REVISED

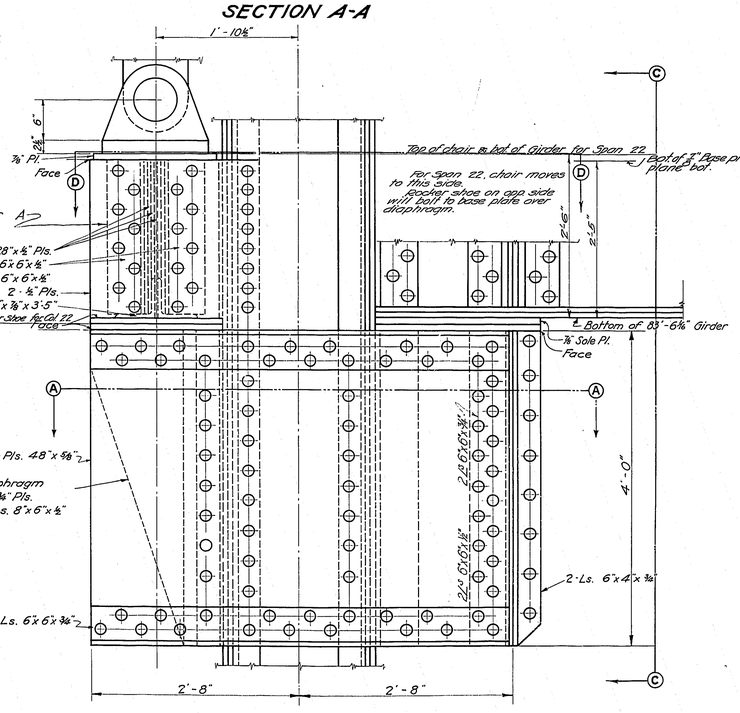


SECTION B-B



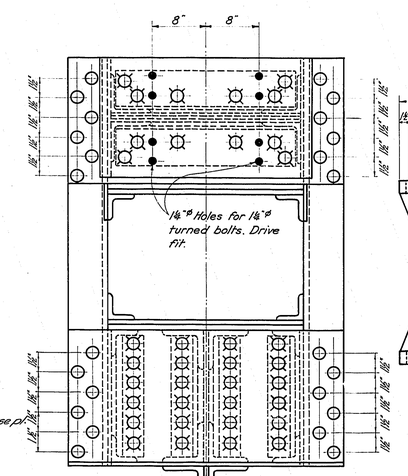
SECTION A-A



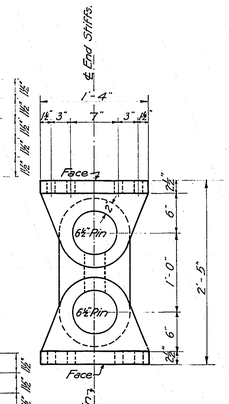


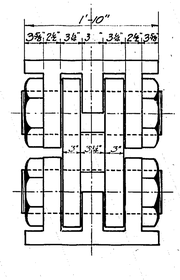
ELEVATIONS COL. 24

For Columns Bent 22 use same detail with chair "A" on east side and expansion rocker on west side of columns.



PLAN ON D-D

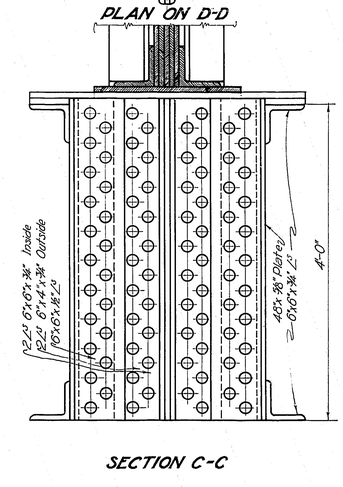




ROCKER SHOE

6 Required Complete

5 additional castings for top shoes



SECTION C-C

Note: All rivets 1" Diam in Details Shown Here.

See Shop Plans, American Bridge Co. Order "3082"

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS

- OF -

EXPANSION JOINT, BENT 22-24

MADE BY W.D.Grant
CHECKED BY
TRACED BY H.Danby
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 20, 1924

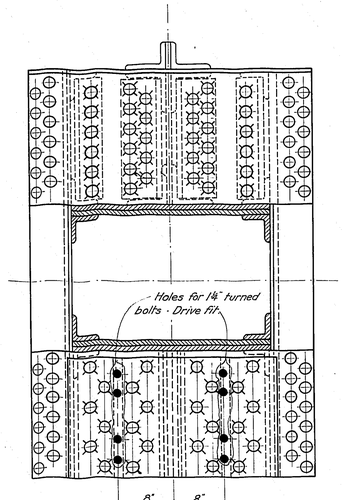
Scale 1½"=1'-0"

SHEET NO. 49

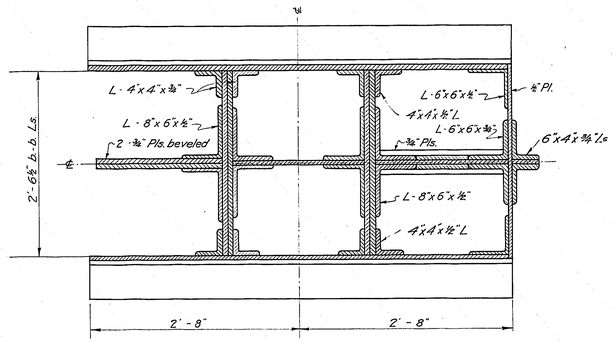
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-5482
3M

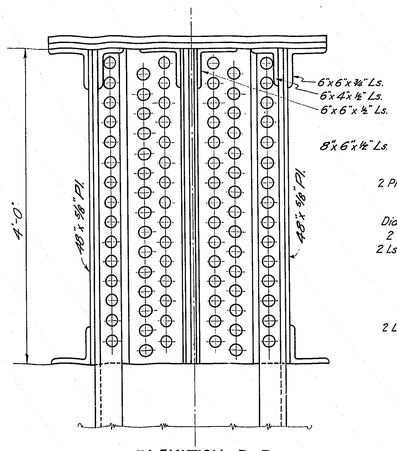
REVISED



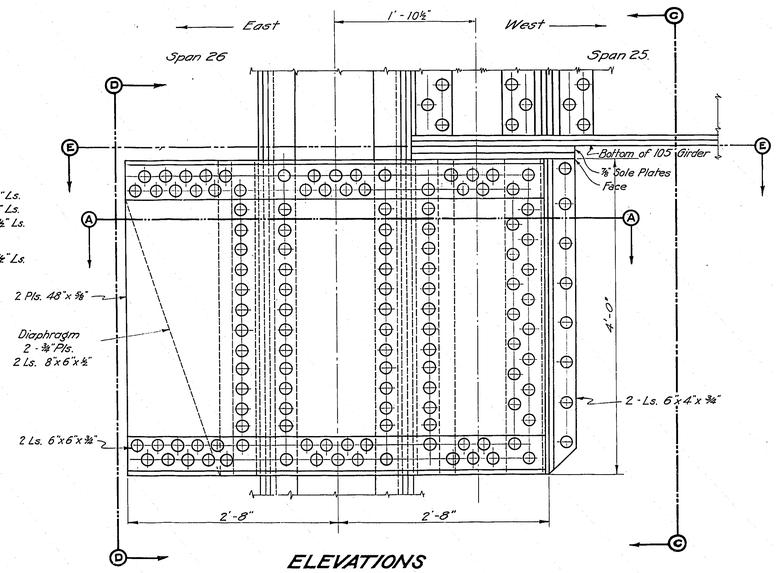
PLAN E-E



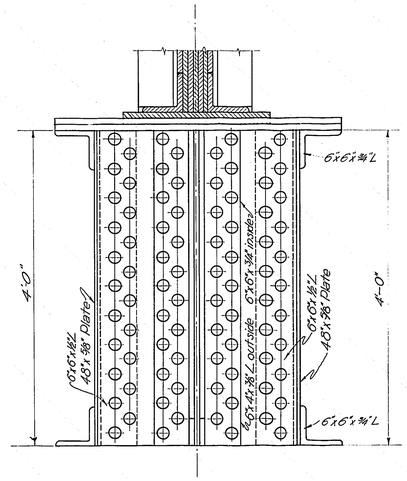
SECTION A-A
COLUMN BENT 26



ELEVATION D-D



ELEVATIONS
COLUMN BENT 26.



SECTION C-C

Note: All rivets in expansion brackets to be 1" diameter.
For detail of Rocker Shoe see Sheet #49

See Shop Plans, American Bridge Co. Order 12172

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS
- OF -
EXPANSION JOINT, BENT 26

MADE BY W.H.Fred
CHECKED BY
TRACED BY D. Wright
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE Feb. 19, 1924

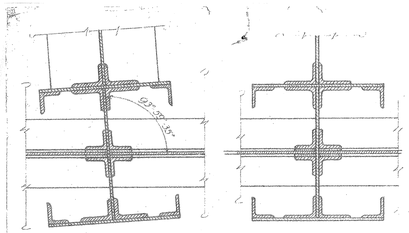
Scale 1½"=1'-0"

SHEET NO. 50

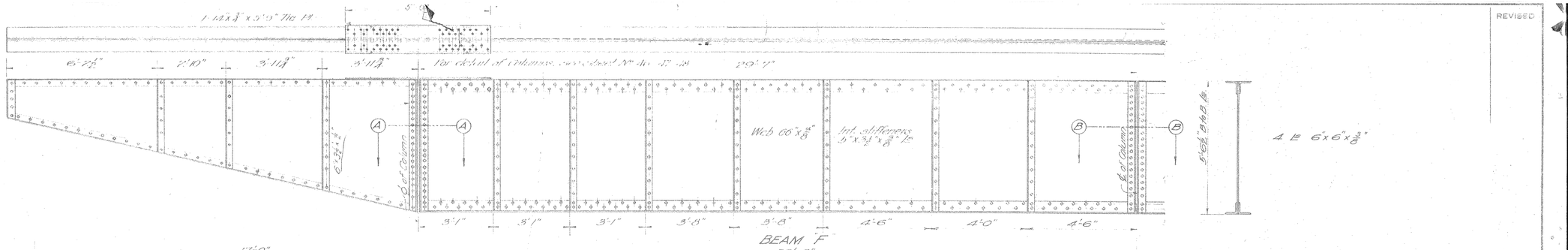
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

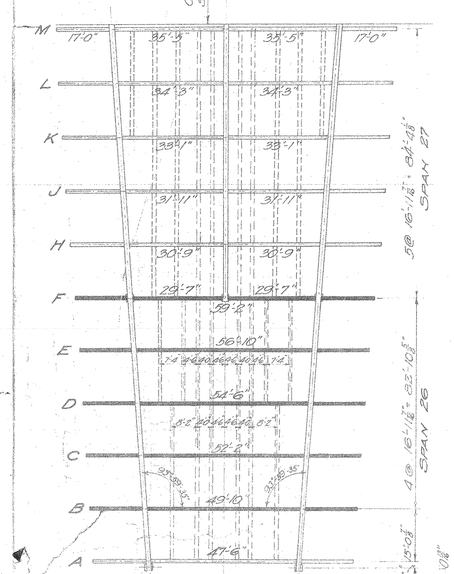
Business Equipment Bureau
1100 Southwest 11th Avenue
Portland, Oregon 97214
503/226-6182
3M

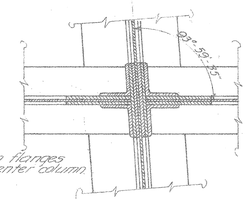
REVISED



CONNECTION OF FLOOR BEAMS TO COLUMNS







SECTION C-C
CONNECTION OF FLOOR BEAMS TO GIRDER

Note: for detail of clevis connection & lateral sway bracing during erection see sheet No 42

ABI 52

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

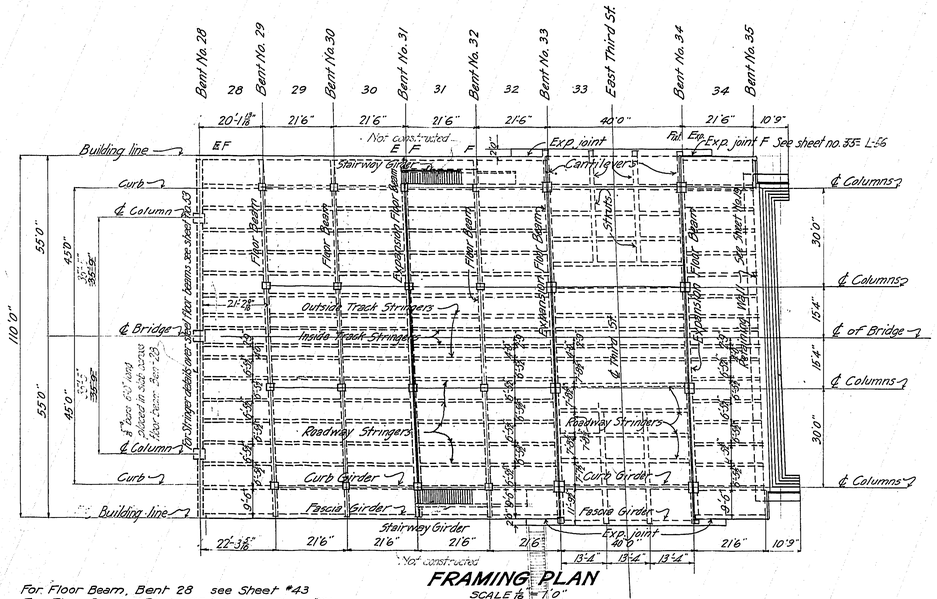
DETAILS - OF -

FLOOR BEAMS, SPAN 26

MADE BY BOH
CHECKED BY W.
TRACED BY B.F.H.
CHECKED BY W.
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 20-24
SHEET NO. 51
SCALE ½"= 1'-0" EXCEPT AS SHOWN

REVISED

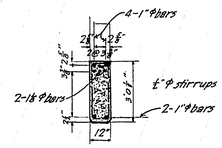


FRAMING PLAN

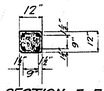
SCALE 1/16" = 1'0"

For Floor Beam, Bent 28 see Sheet #43
For Floor Beams, Bents 29-32 see Sheet #21
For Stringers, Spans 28-32 & 34 see Sheet #54
For Stringers, Span 33 see Sheet #55
For Stairway Details see Sheet #56= L-56

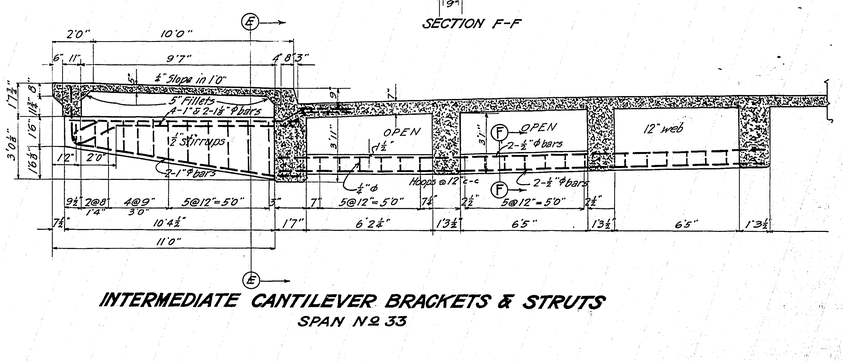
For details of retaining wall, Bent 35, see sheet no.39= L-75
For details of slab reinforcing Span 33 see sheet no.55



SECTION E-E

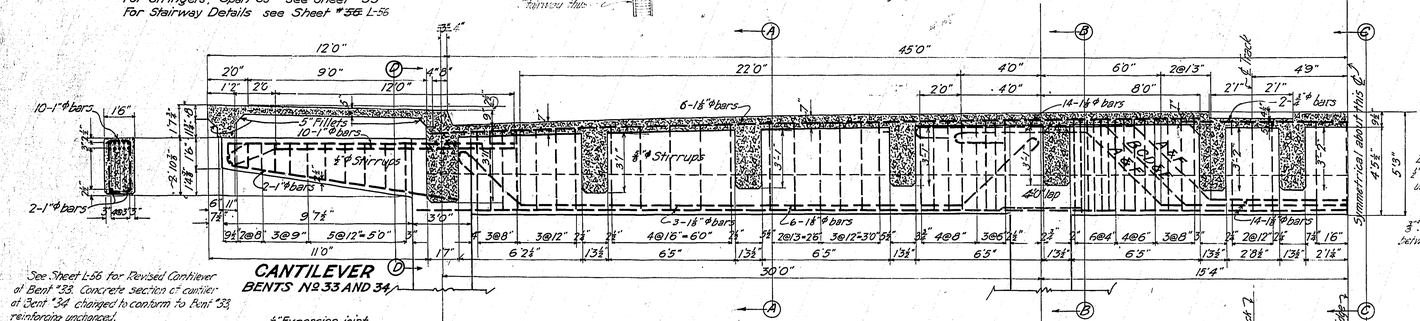


SECTION F-F



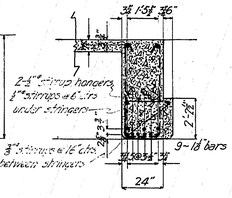
INTERMEDIATE CANTILEVER BRACKETS & STRUTS

SPAN No. 33

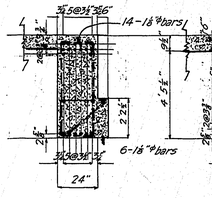


See Sheet L-56 for Revised Cantilever at Bent "33. Concrete section of cantilever at Bent "34 changed to conform to Bent "33 reinforcing unchanged.

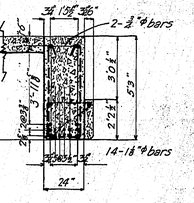
CANTILEVER BENTS No. 33 AND 34



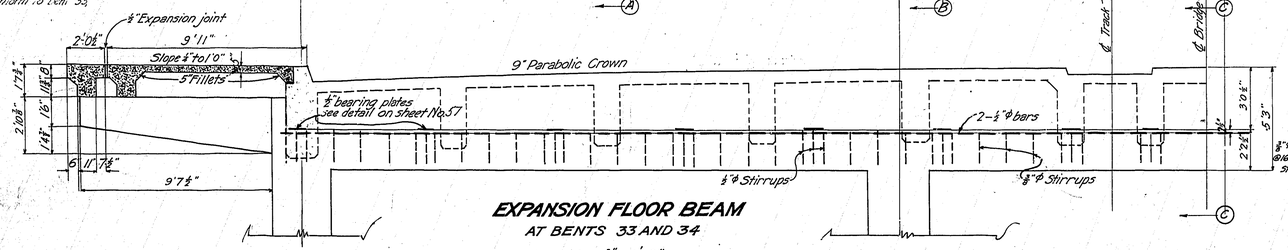
SECTION A-A



SECTION B-B

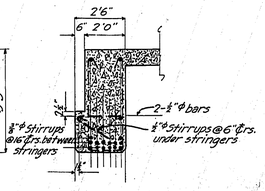


SECTION C-C



EXPANSION FLOOR BEAM AT BENTS 33 AND 34

Scale: ⅜" = 1'-0"



SECTION C-C

For details of rail fastening & center curb armor see sheet 57
Concrete 1:1:2.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS OF

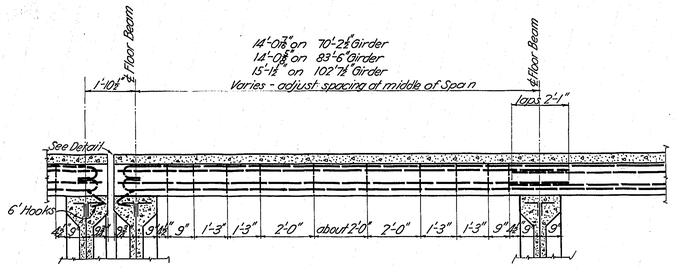
FRAMING PLAN SPANS 28-34

MADE BY [illegible] EDRICK & KREMERS
CHECKED BY [illegible] CONSULTING ENGINEERS
TRACED BY: OK PORTLAND, OREGON
CHECKED BY [illegible] DATE: FEB 19TH 1932
DRAWING NO.
SHEETS SCALES: AS SHOWN SHEET NO. 52

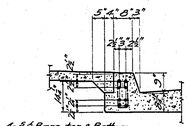
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

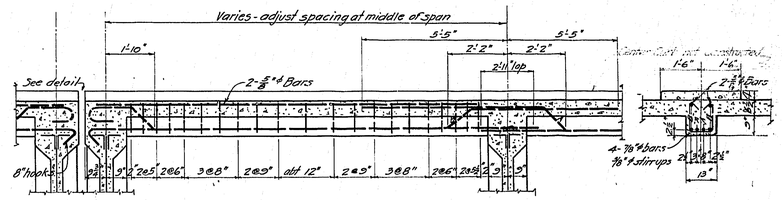
Business Equipment Bureau
1700 Southwest 11th Avenue
Portland, Oregon 97214
503/232-6482
3M

REVISED

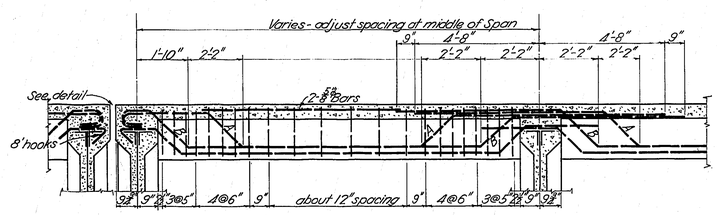


CURB GIRDER
Scale 1/2"=1'-0"

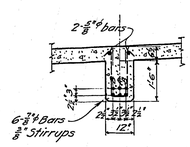


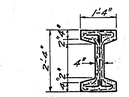


CENTER GIRDER
Scale 1/2"=1'-0"



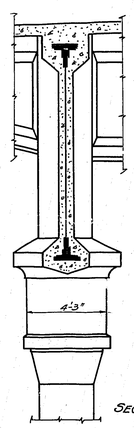
TYPICAL ROADWAY STRINGER
Scale 1/2"=1'-0"



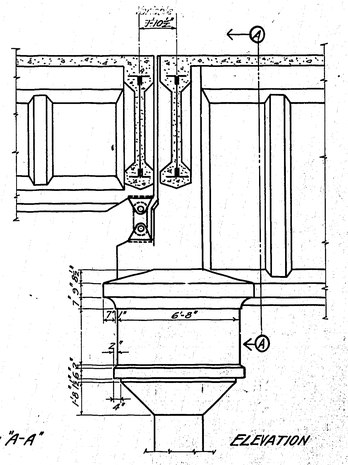


Style #28 A.S.&W.
Triangle Mesh
Wired to Lacing Bars

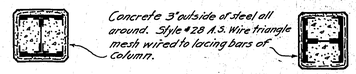
TYPICAL SWAY BRACING ENCASEMENT
Scale 1/2"=1'-0"



SECTION "A-A"

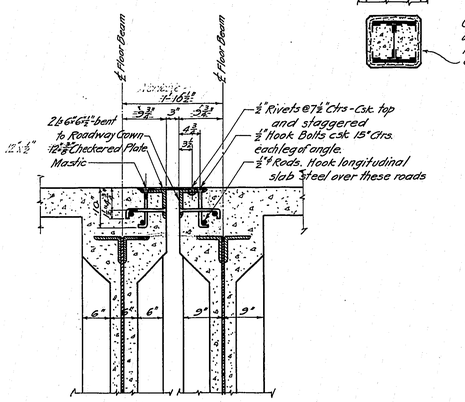


ELEVATION

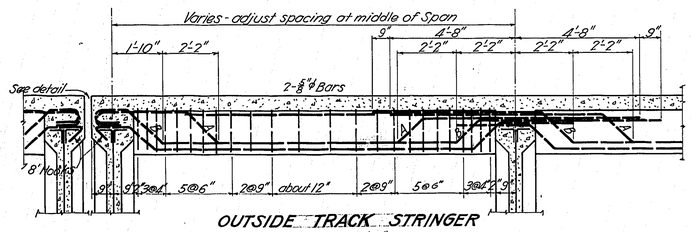


Dimensions given for Bent #24 - other Bents similar - same thickness of encasement.

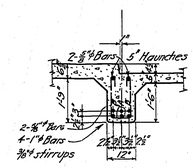
DETAIL OF EXPANSION JOINT ENCASEMENT
Scale 3/8"=1'-0"

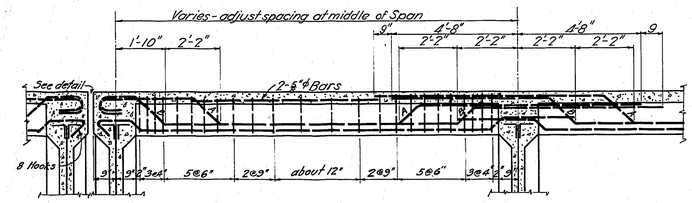


DETAIL OF EXPANSION JOINT
Scale 1"=1'-0"

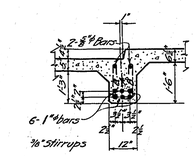


OUTSIDE TRACK STRINGER
Scale 1/2"=1'-0"





INSIDE TRACK STRINGER
Scale 1/2"=1'-0"



Note: Details are typical for 70'-2 1/2" - 83'-6" - and 102'-7 1/2" girder spans.
Adjust spacing at middle of stringer spans.
For 16'-9" spans see sheet #31.

Concrete below stringer bottoms 1:1 1/2:2 1/2, above stringer bottoms 1:1:2.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS OF

STRINGERS PLATE GIRDER SPANS

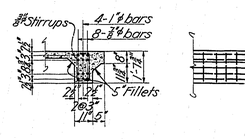
MADE BY
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 20 1924
SHEET NO. 53
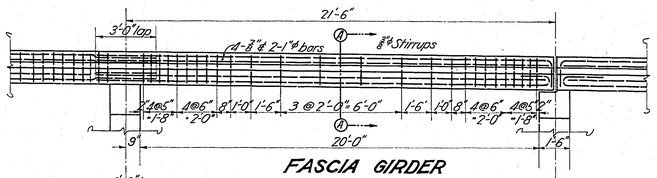
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6182
3M

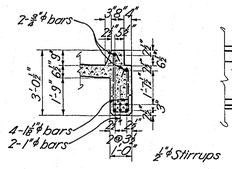
REVISED



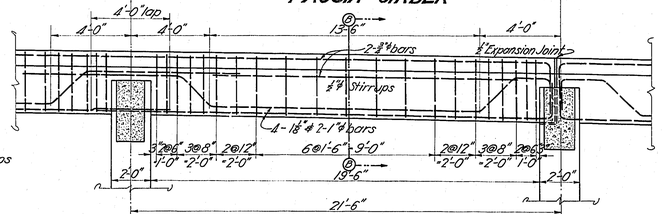
SECTION A-A



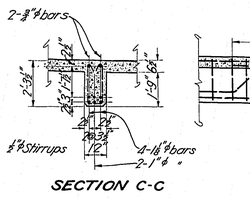
FASCIA GIRDER



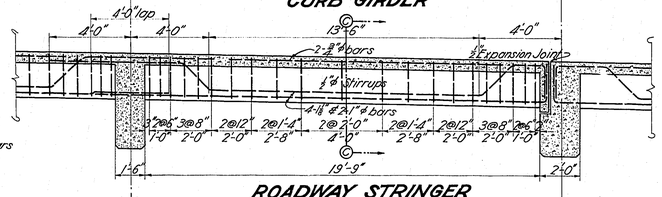
SECTION B-B



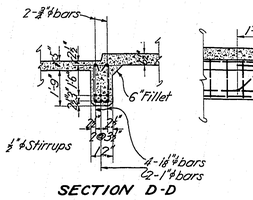
CURB GIRDER



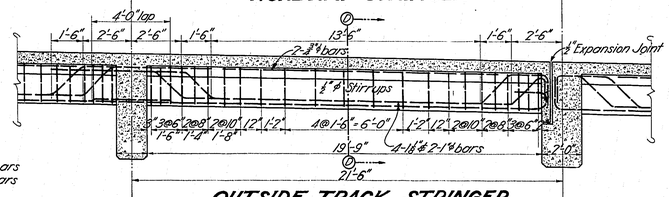
SECTION C-C



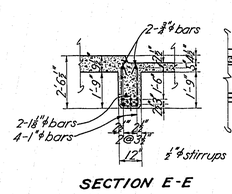
ROADWAY STRINGER



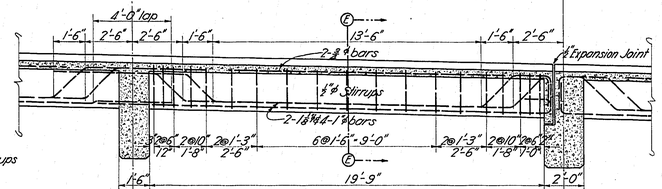
SECTION D-D



OUTSIDE TRACK STRINGER



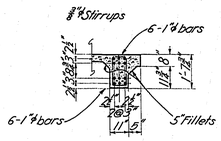
SECTION E-E



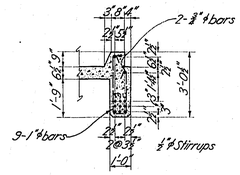
INSIDE TRACK STRINGER

All bends are 45°

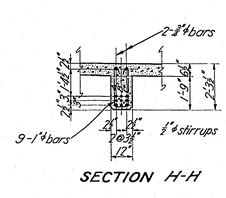
NOTE: The above details are typical for Spans No. 28-32. Actual lengths for Span No. 28, are as shown on framing plan, Sheet No. 52. For Span 16 the lengths of girders are variable. For exact lengths see Sheet No. 26. Use same general arrangement and size of steel as above.
For Floor Beams see Sheet No. 21.
For Framing Plan see Sheet No. 52.



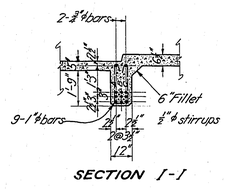
SECTION F-F



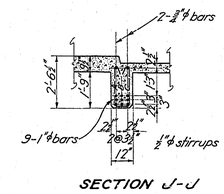
SECTION G-G



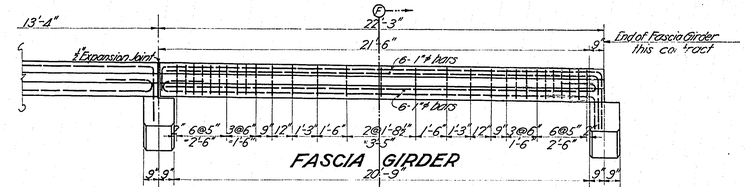
SECTION H-H



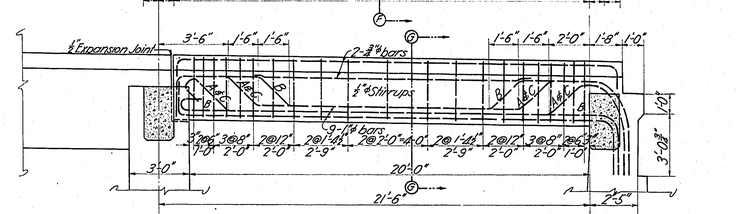
SECTION I-I



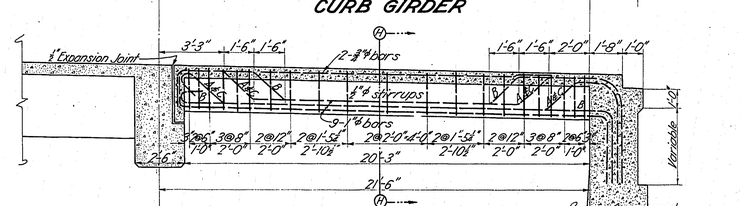
SECTION J-J



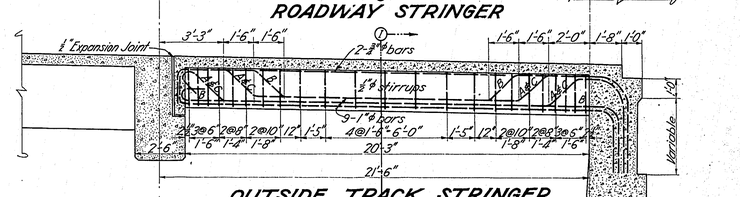
FASCIA GIRDER



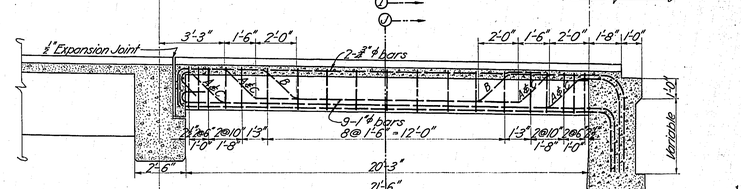
CURB GIRDER



ROADWAY STRINGER



OUTSIDE TRACK STRINGER



INSIDE TRACK STRINGER

Concrete 1:1:2

NOTE: The above details are for Span No. 34.
For Floor Beam see Sheet No. 52.
For Retaining Wall see Sheet No. 39. L-75
For Framing Plan see Sheet No. 52.

MULTNOMAH COUNTY OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON.

DETAILS OF

STRINGERS, SPANS 28-32, 34

MADE BY H. G. Ebert Jr.
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON.
DATE Feb. 19 1924

Scale ⅜" = 1'-0"

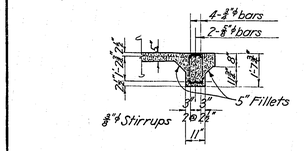
SHEET NO. 54

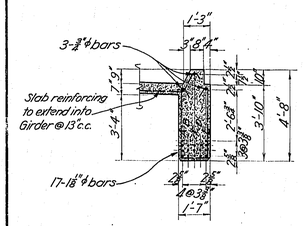
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

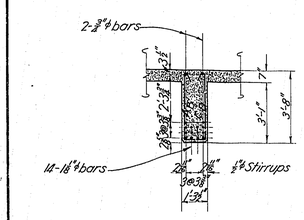
Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6102

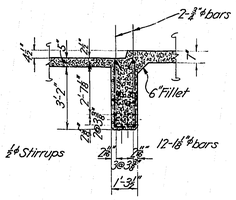
3M

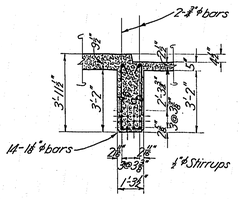
REVISED

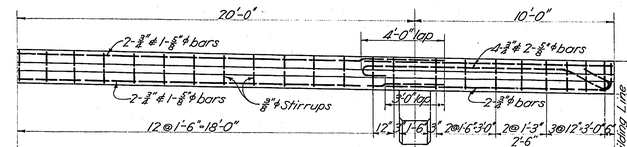


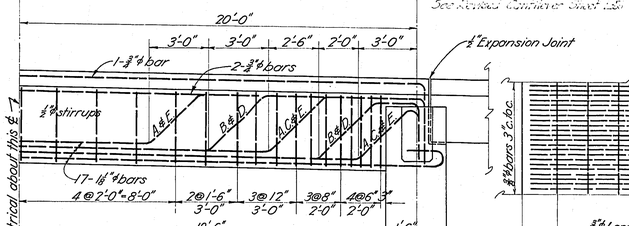


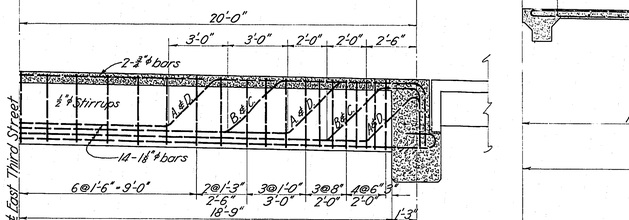


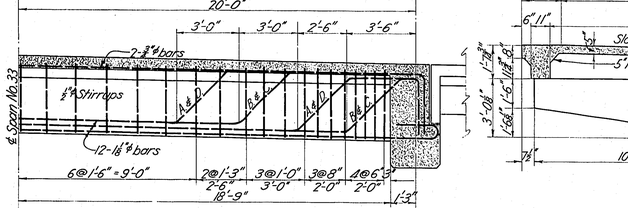


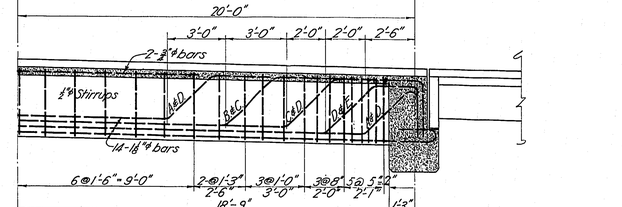


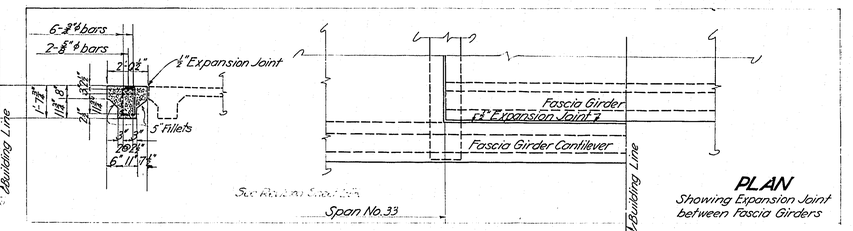


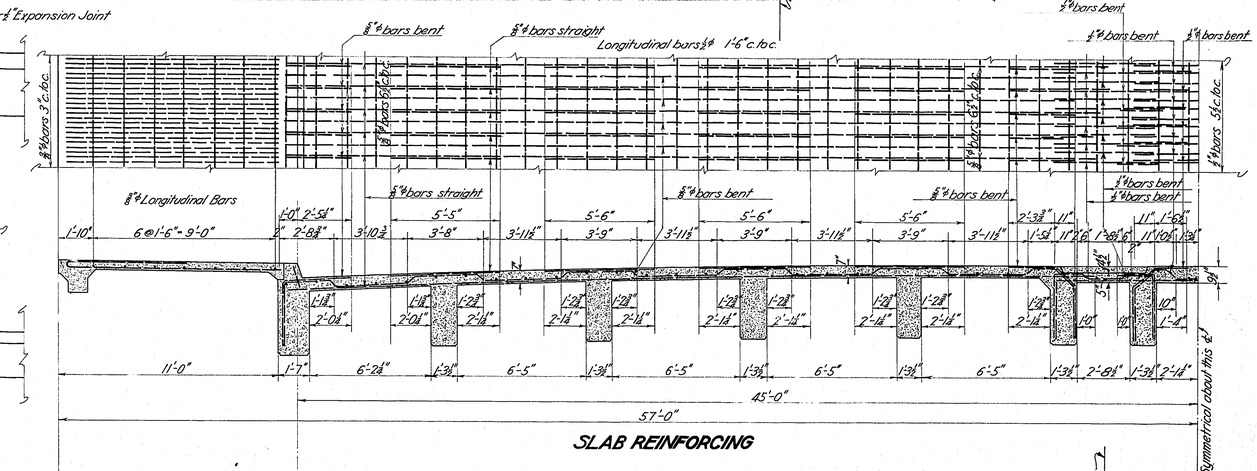


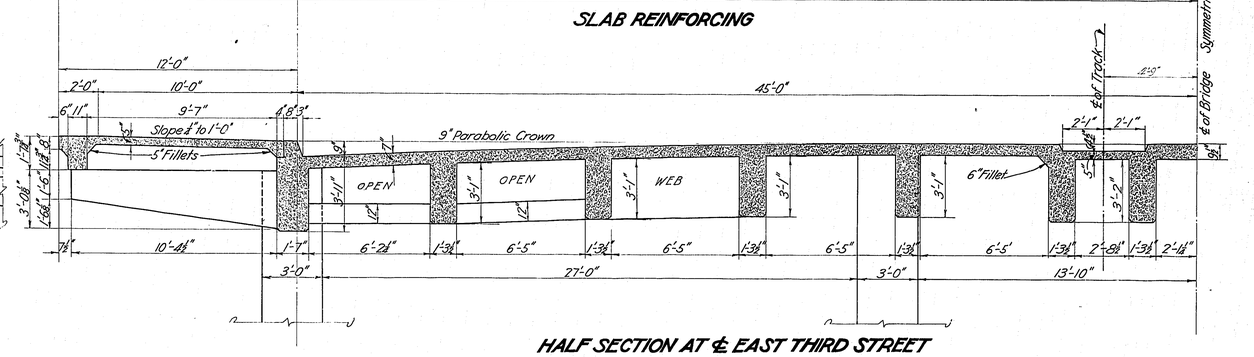












NOTE: The above details are for 40 Foot Span over East Third Street Span No. 33
For Framing Plan see Sheet No. 52
For Floor Beams and other details see Sheet No. 52
For Stairway see Sheet No. 56

For details of rail fastenings & center curb armor see sheet 57.
Concrete 1:1:2.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS
- OF -
SPAN 33

MADE BY H.J. Hedrick
CHECKED BY Geo. Kremers
TRACED BY E. Hennessy
CHECKED BY L. Strupl
DRAWING NO. SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 20, 1924

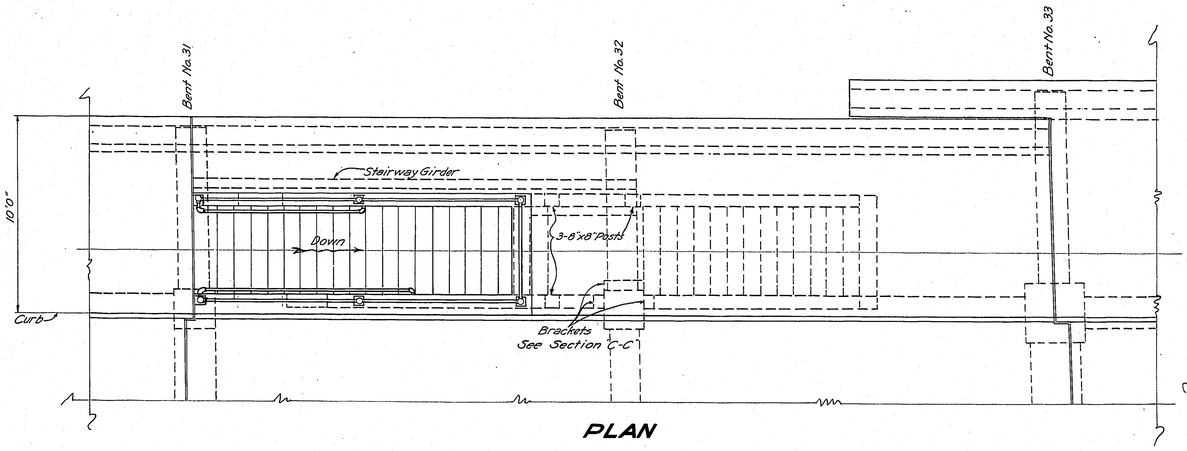
SCALE: ⅜" = 1'-0"

SHEET NO. 55

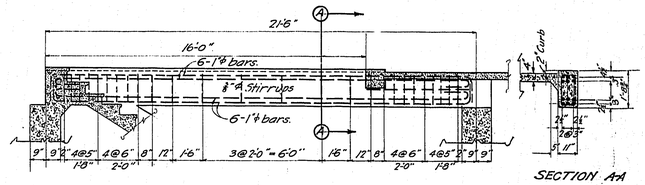
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau 1700 Southwest 11th Avenue Portland, Oregon 97214 503/233-6162 3M

REVISED

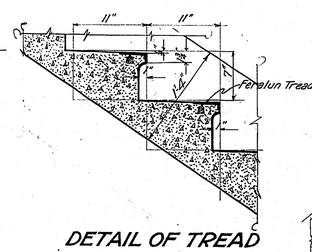


PLAN

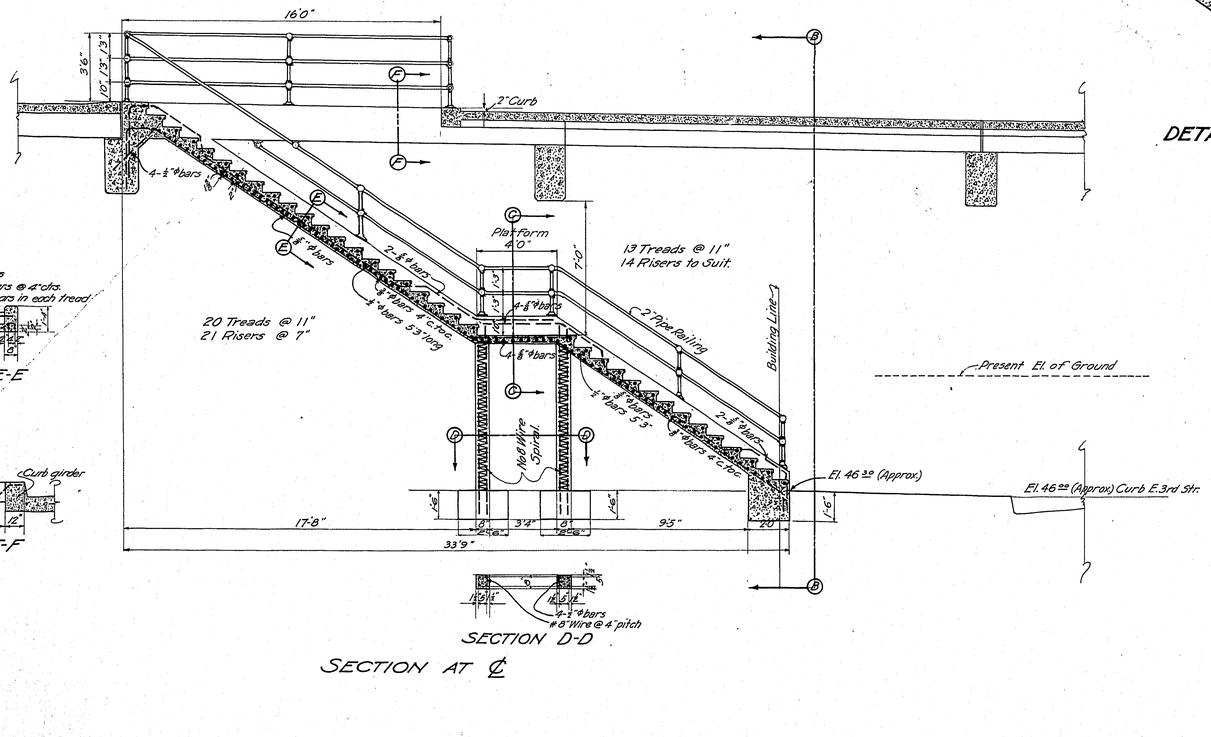


STAIRWAY GIRDER

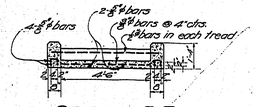
SECTION AA



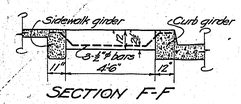
DETAIL OF TREAD
Scale 1½"=10"



SECTION AT ℄

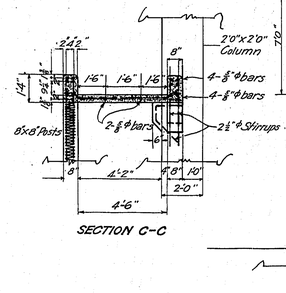


SECTION E-E

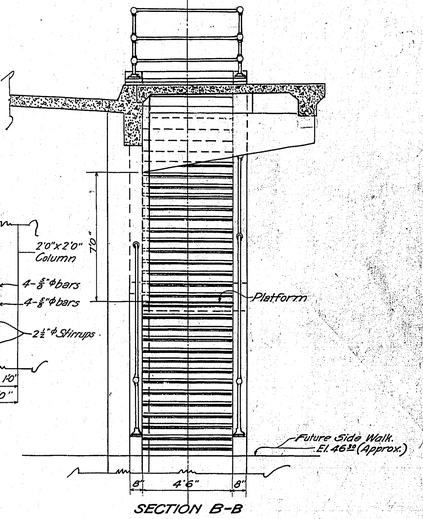


SECTION F-F

SECTION D-D



SECTION C-C



SECTION B-B

VOID-SEE SHEET L-56.

Concrete 1:2:4.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND OREGON

DETAILS OF

STAIRWAY SPAN 32

MADE BY John Geo. HEDRICK & KREMERS
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO.
SHEETS
DATE
SCALE ⅜"=1'-0" EXCEPT AS SHOWN

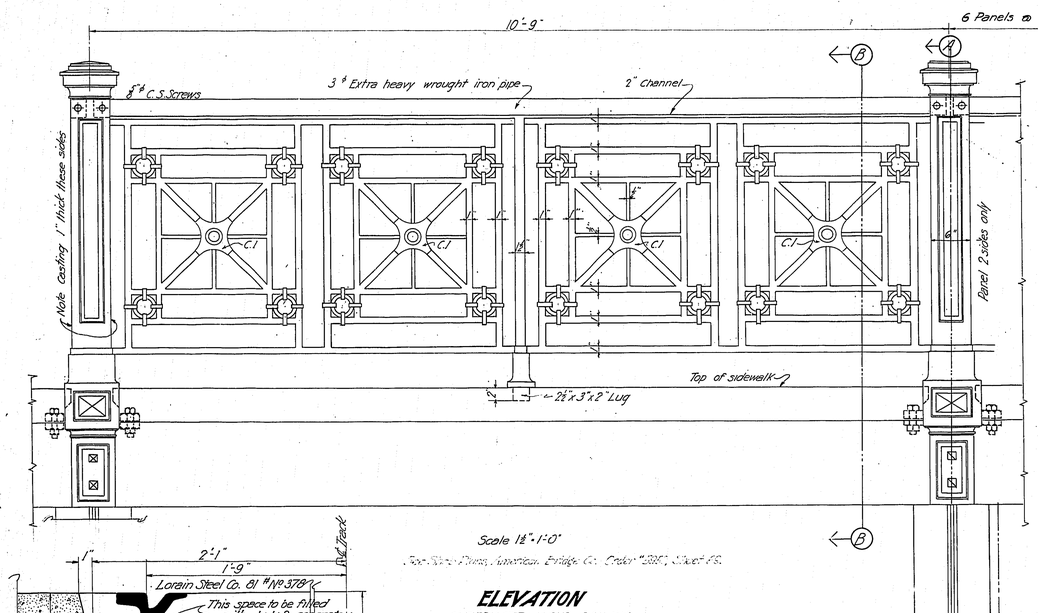
CONSULTING ENGINEERS
PORTLAND, OREGON

L-55

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau 1700 Southwest 11th Avenue Portland, Oregon 97201 503/223-6482 3M

REVISED

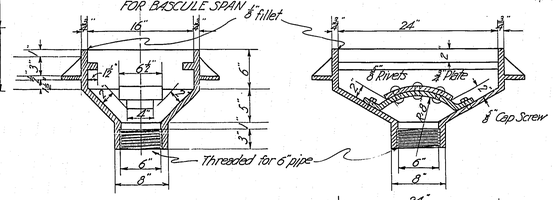


Scale 1½" = 1'-0"

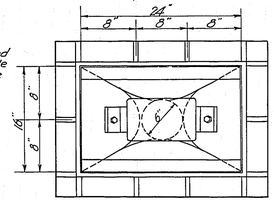
Type Steel Panel, American Bridge Co. Order "3305", Sheet #5.

ELEVATION

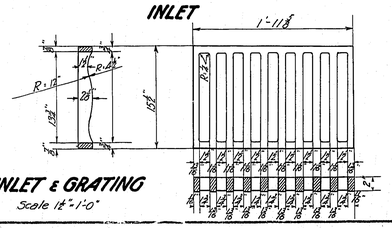
ALTERNATE HAND RAILING FOR BASCULE SPAN



Grating and frame machined to true bearing. This inlet & grating to be used only where connection is made to city sewers. For others use cast iron inlet.

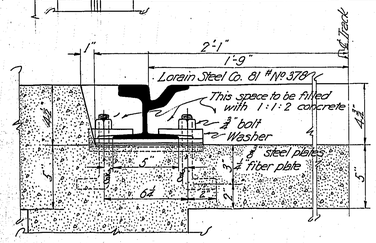


INLET



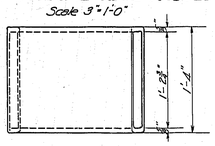
INLET & GRATING

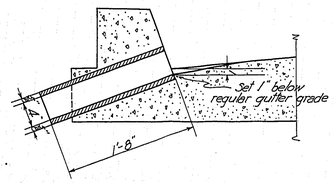
Scale 1½" = 1'-0"



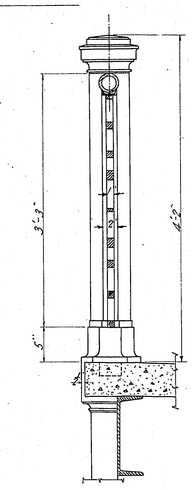
TYPICAL RAIL FASTENING

Scale 3" = 1'-0"

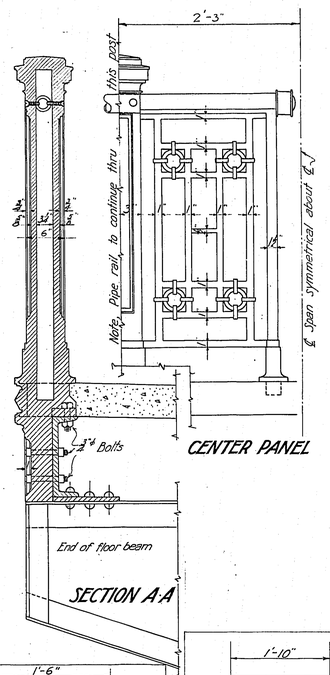




CAST IRON INLET

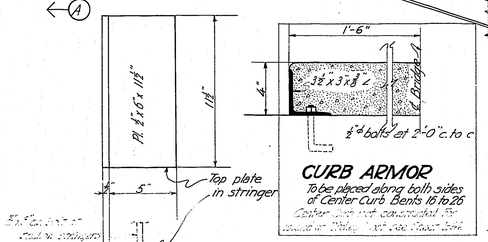


SECTION B·B



CENTER PANEL

SECTION A·A



TYPICAL DETAIL BEARING PLATES

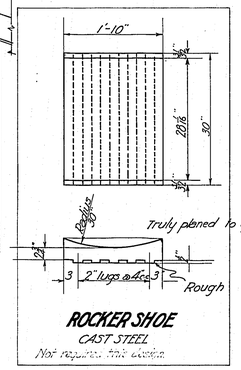
For use under stringers at expansion joints

Scale 3" = 1'-0"

CURB ARMOR

To be placed along both sides of Center Curb Bents 16 to 26

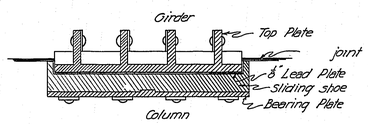
Center curb not continued for Bascule Span



ROCKER SHOE

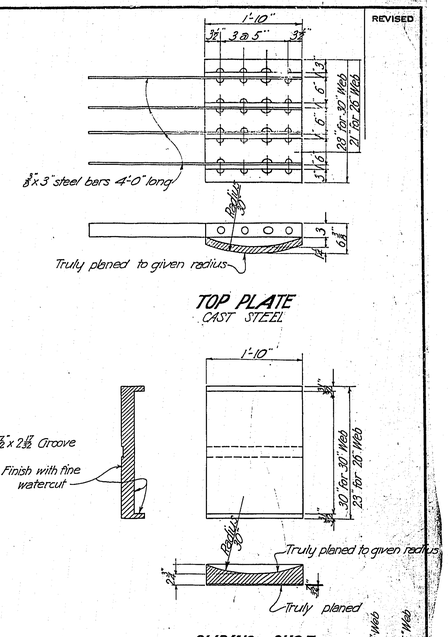
CAST STEEL

Not required this section



ARRANGEMENT

Scale 1½" = 1'-0"

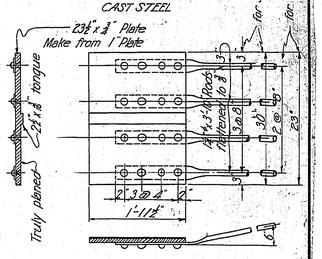


TOP PLATE

CAST STEEL

SLIDING SHOE

CAST STEEL



BEARING PLATE

STEEL

DETAILS of EXPANSION & ROCKER BEARINGS

Scale 1" = 1'-0"

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

MISCELLANEOUS DETAILS

MADE BY DREW
CHECKED BY [illegible]
TRACED BY [illegible]
CHECKED BY [illegible]
DRAWING NO.
SHEETS Scale as noted

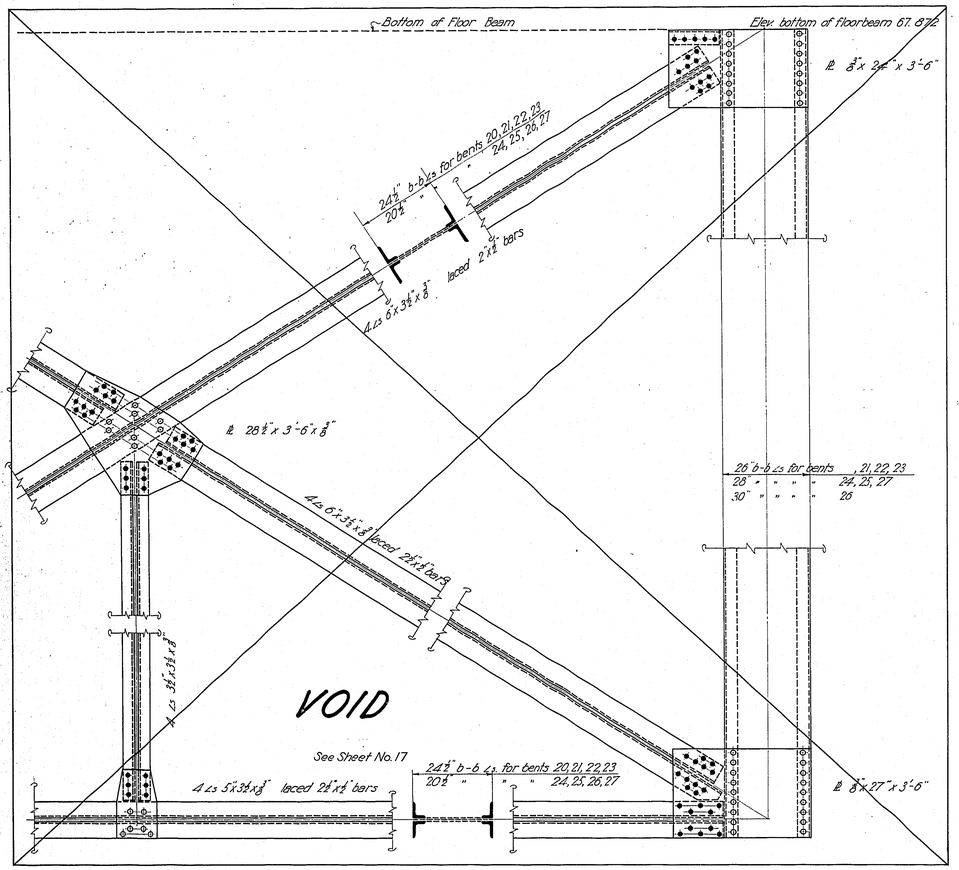
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 21, 1921
SHEET NO. 57

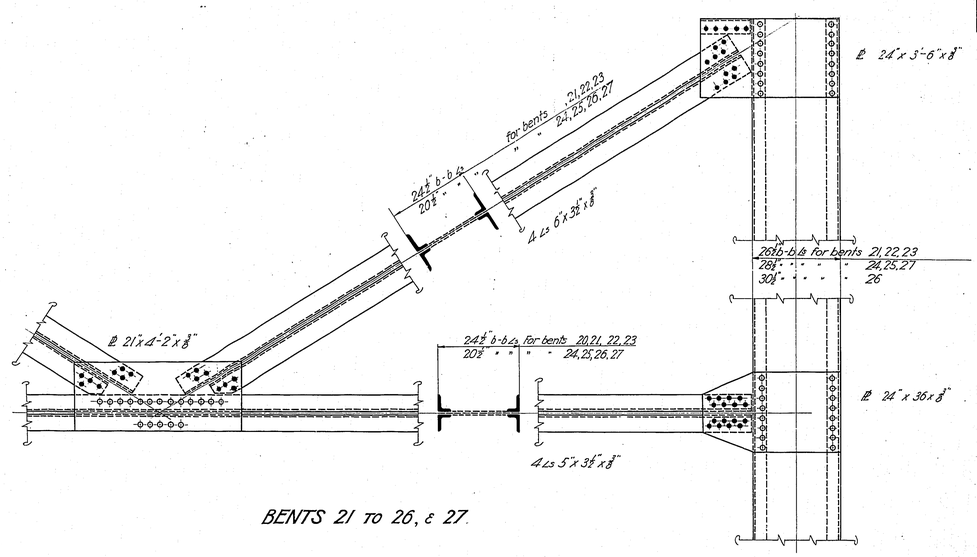
AB 53

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

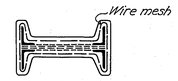
Business Equipment Bureau 1700 Southeast 11th Avenue Portland, Oregon 97214 503/233-0182 3M

REVISED
2-25-24





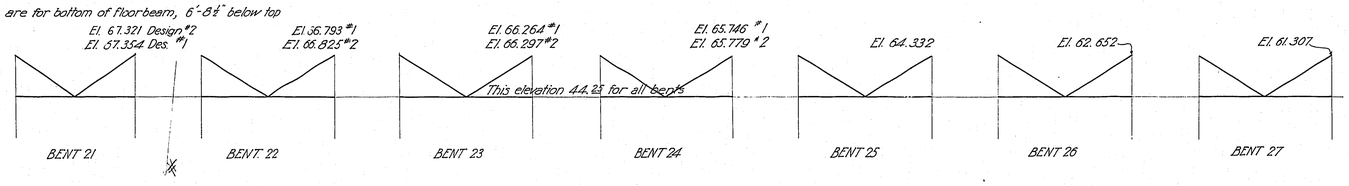
BENTS 21 TO 26, & 27.



Encase all members of sway bracing in concrete as above

VOID-SEE SHEET L-58

NOTE: These elevations are for bottom of floor-beam, 6'-8½" below top of roadway at crown



All Concrete-Encasement-1-2-4

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF

SWAY BRACING PLATE GIRDER SPANS

MADE BY R. Crowley.
CHECKED BY W. Priest
TRACED BY H. Marian
CHECKED BY W. Priest.
DRAWING NO.
61 SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB 20TH 1924

Scale: ¾"-1'-0"

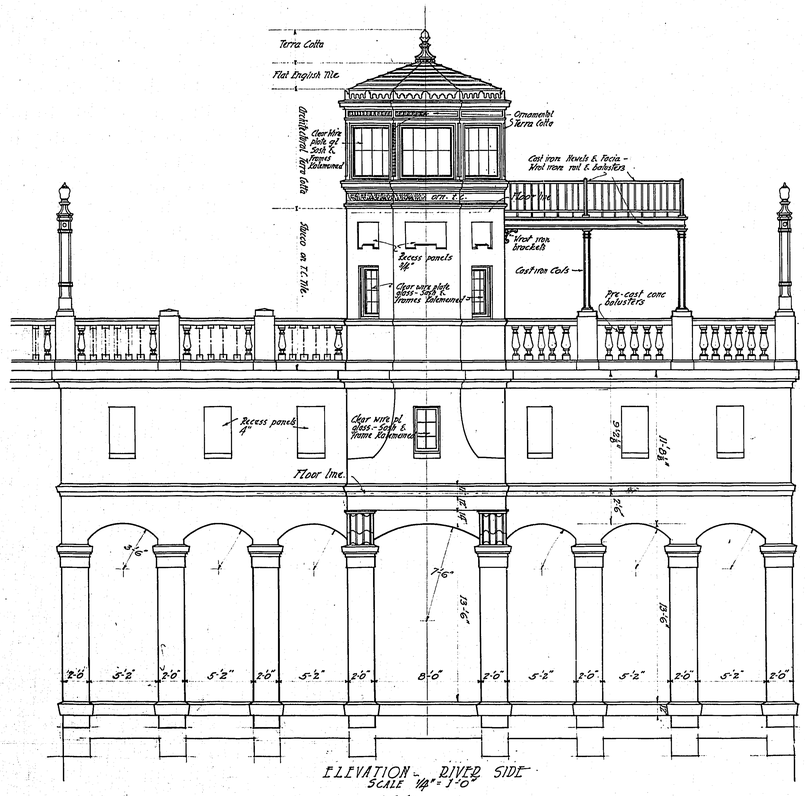
SHEET NO. 58

AB 59

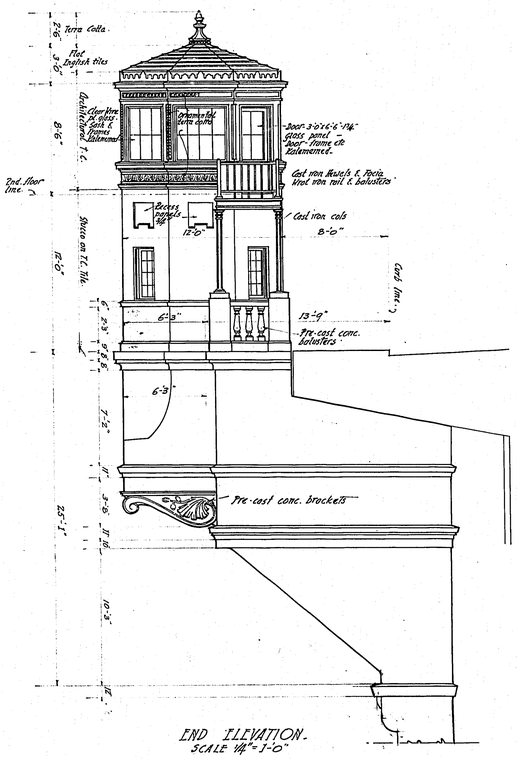
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 15th Avenue
Portland, Oregon 97214
503/232-8182
3M

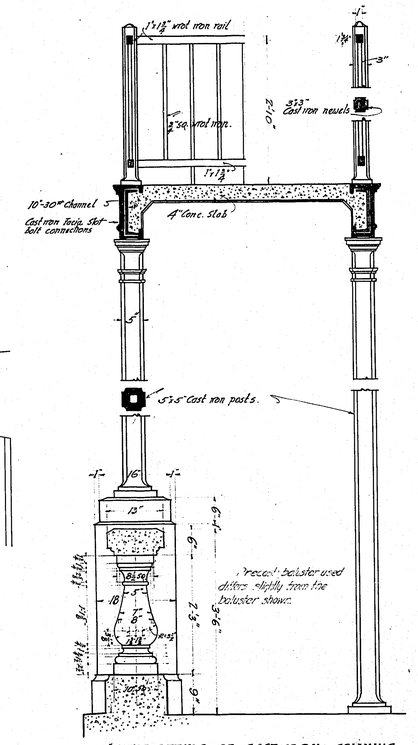
REVISED



ELEVATION - RIVER SIDE
SCALE 1/4" = 1'-0"



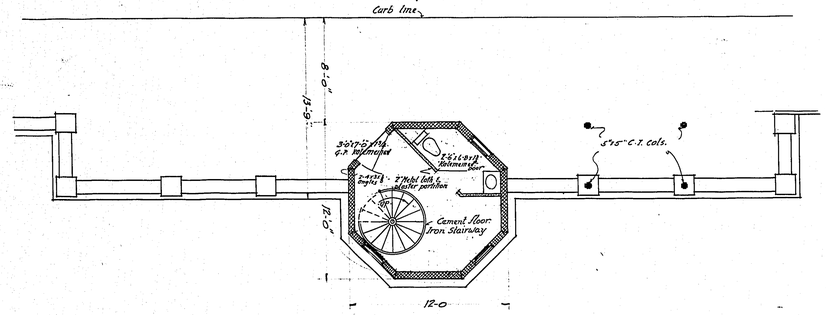
END ELEVATION.
SCALE 1/4" = 1'-0"



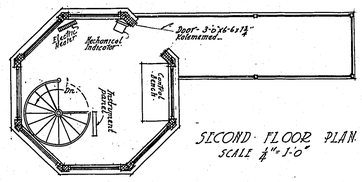
1" SCALE DETAILS OF CAST IRON COLUMNS - NEWEL POSTS - FACIA AND WROT IRON RAIL - OBSERVATION PLATFORM OPERATOR'S HOUSE.

See Sheet 55PB2

For complete details of Operator's House see Sheets 55PB1, 55PB2, 55PB3, 55PB4 and print of terra cotta by the Northern Clay Co.



FLOOR PLAN AT SIDEWALK LEVEL
SCALE 1/4" = 1'-0"



SECOND FLOOR PLAN
SCALE 1/4" = 1'-0"

HOUGHTALING AND DOUGAN, ARCHITECTS

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF MAIN RIVER PIERS

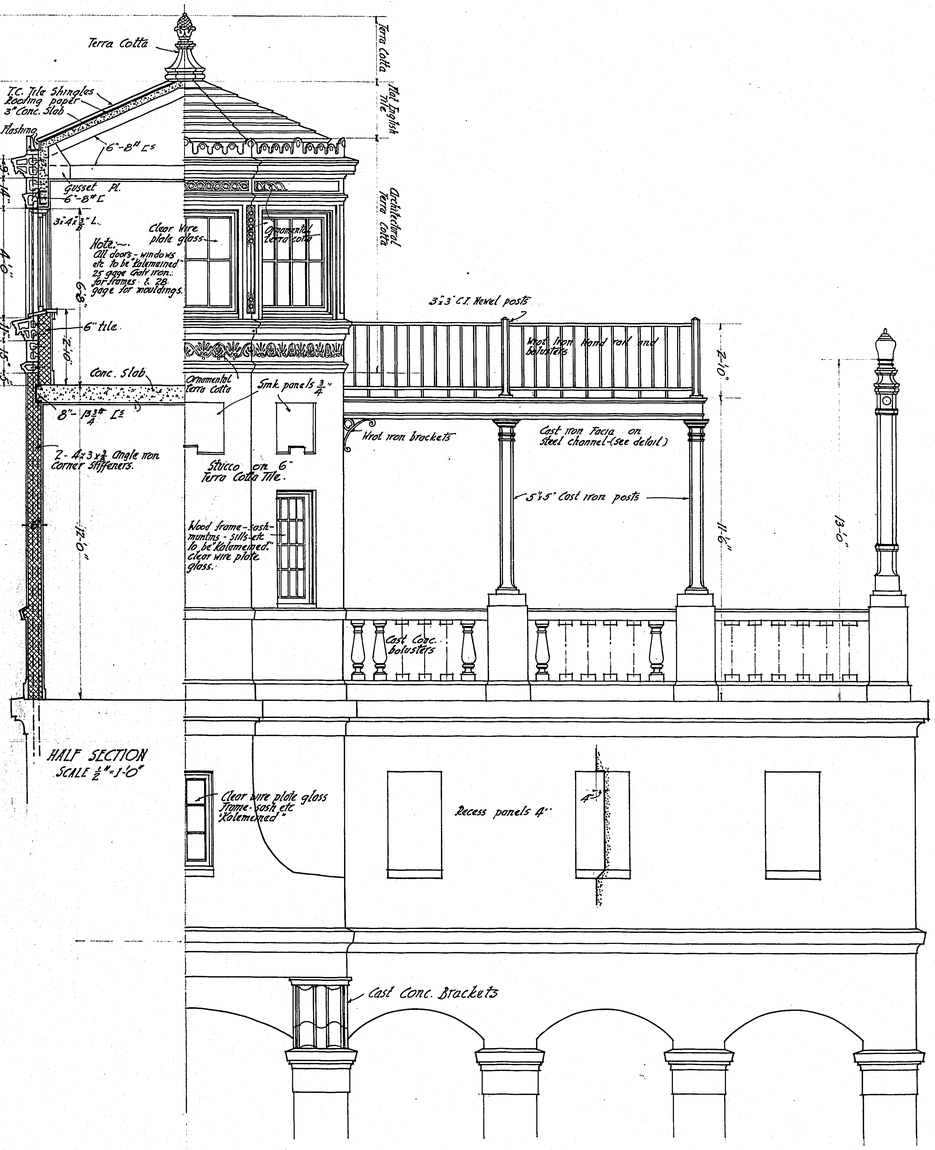
MADE BY	HEDRICK & KREMERS
CHECKED BY	CONSULTING ENGINEERS
TRACED BY	PORTLAND, OREGON
CHECKED BY	DATE FEB. 21, 1924
DRAWING NO.	
SHEETS	SHEET NO. 59

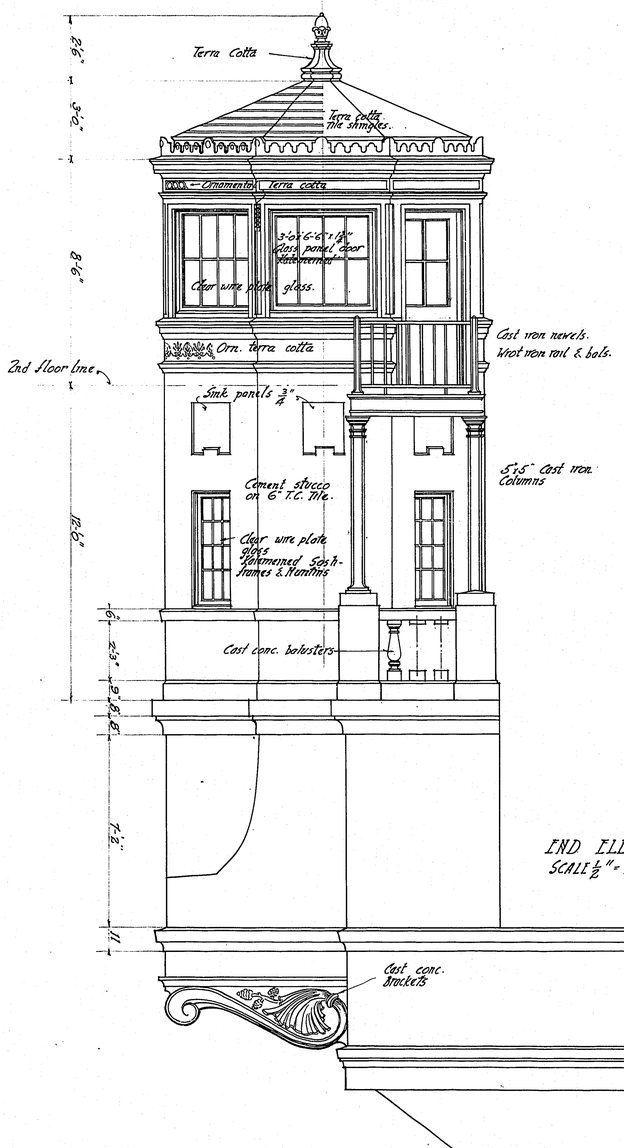
API 69

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-5681
3M

REVISED





This sheet of general character only. For details of Operator's House as constructed, see Sheets 59PB-1, 59PB-2, 59PB-3 59PB-4 and print of Terra cotta by the Northern Clay Co.

HOUGHTALING AND DOUGAN. ARCHITECTS.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

DETAILS
- OF -
TOP MAIN RIVER PIERS

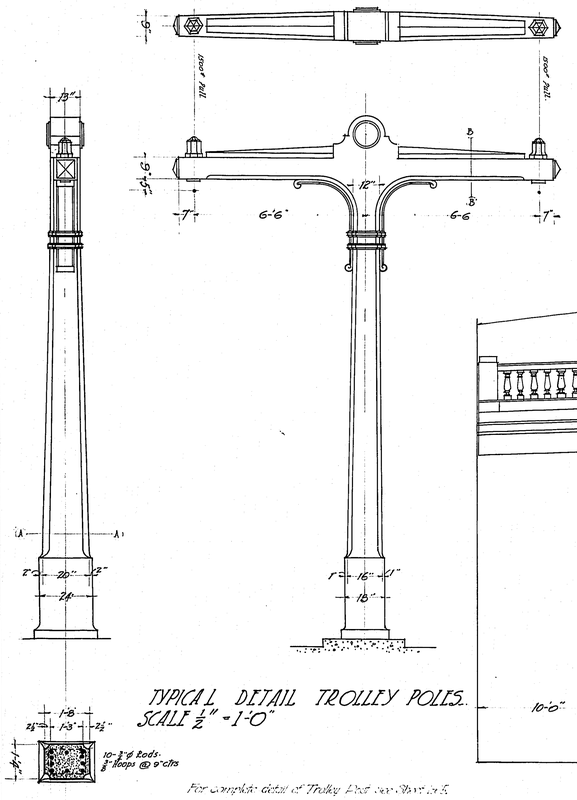
MADE BY
CHECKED BY
TRACED BY
CHECKED BY
DRAWING No.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE FEB. 21, 1924

SHEET NO. 60

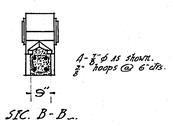
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

REVISED



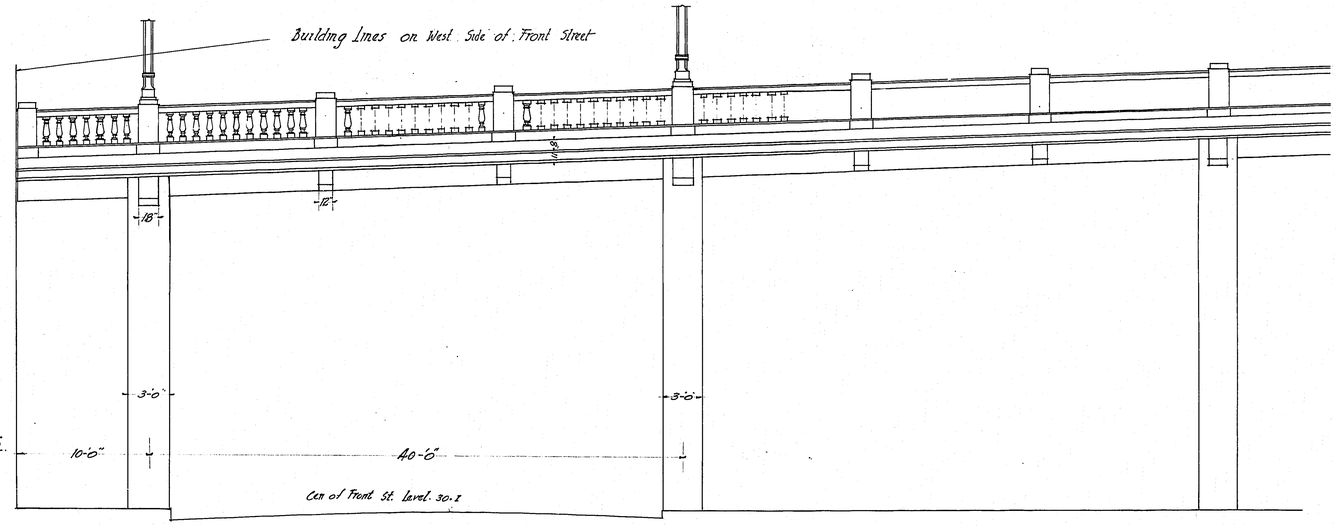
SECTION A-A

TYPICAL DETAIL TROLLEY POLES.
SCALE ½" = 1'-0"



SEC. B-B.

For complete detail of Trolley Pole see Sheet No 5



ELEVATION OF FRONT STREET CROSSING.
SCALE 1" = 1'-0"

HOUGHTALING AND DOUGAN - ARCHITECTS.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS
- OF -
TROLLEY POLE & RAIL

MADE BY
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO.
SHEETS

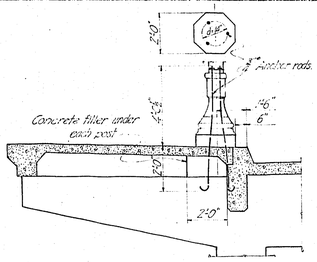
HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE

SHEET NO. 61

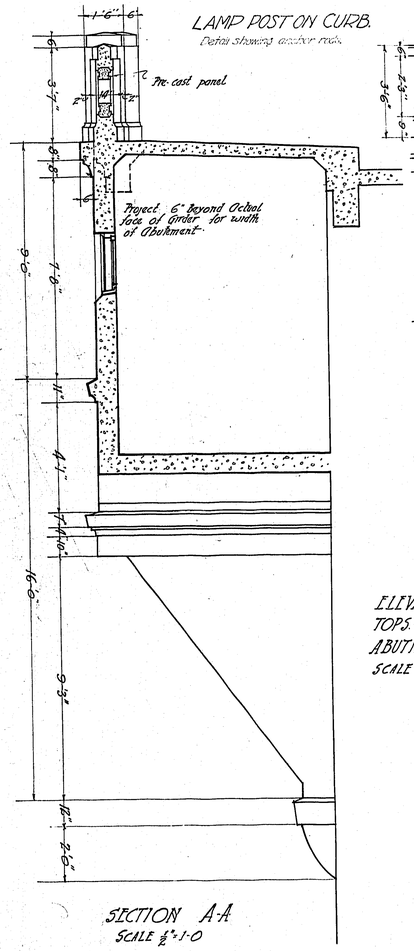
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6182
3M

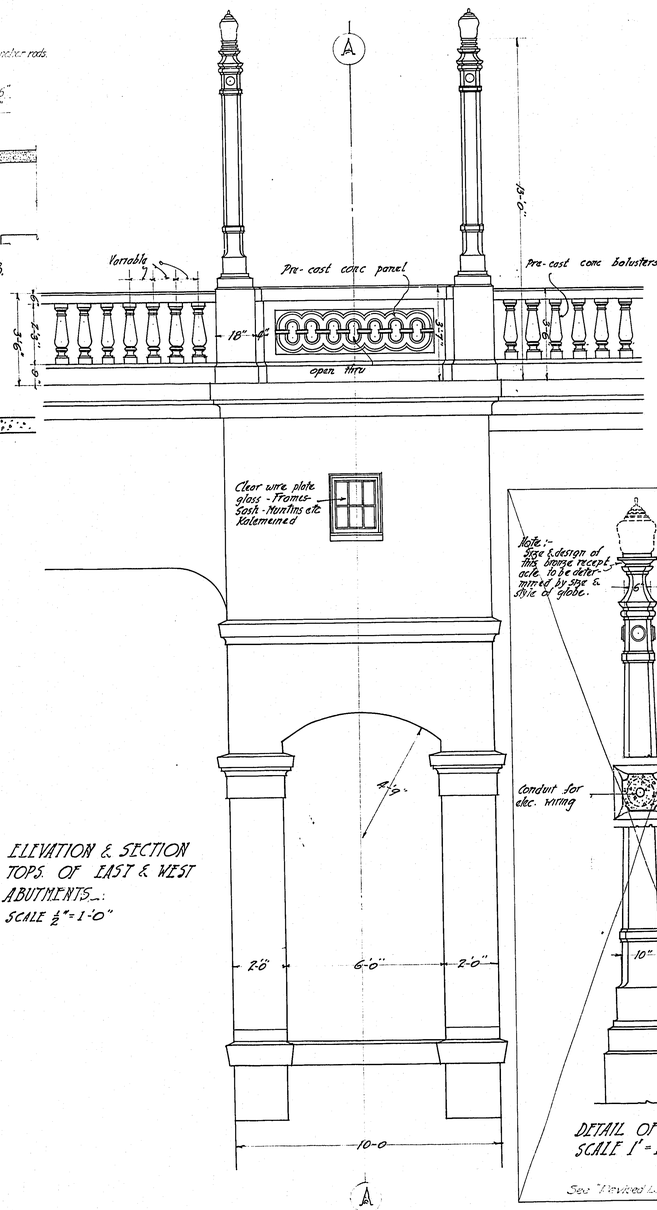
REVISED



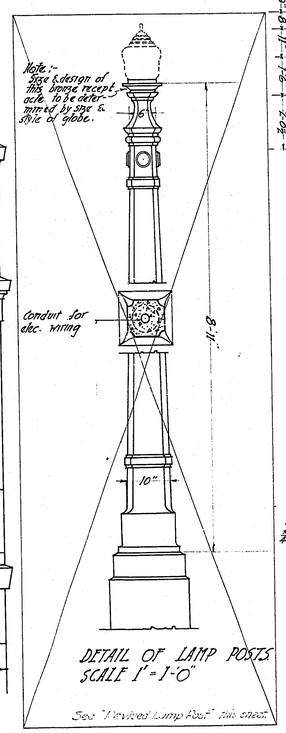
LAMP POST ON CURB.
Detail showing anchor rods.



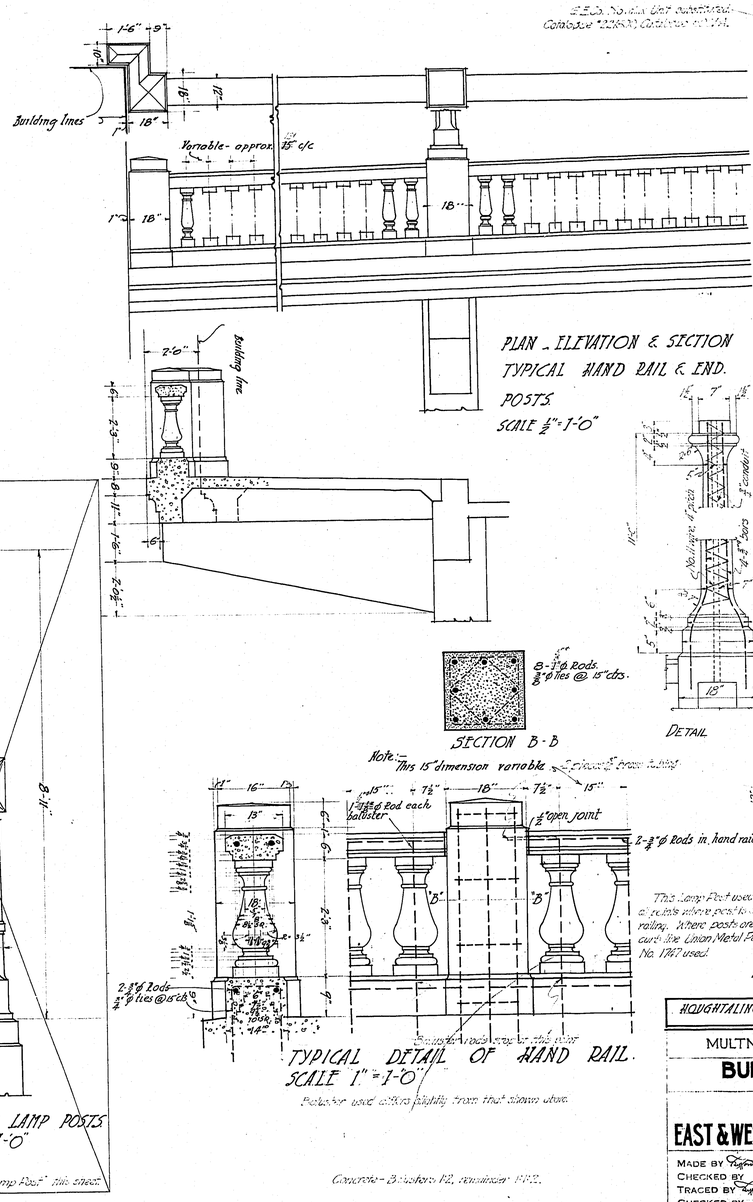
SECTION A-A
SCALE ½"=1'-0"



ELEVATION & SECTION
TOPS OF EAST & WEST
ABUTMENTS.
SCALE ½"=1'-0"



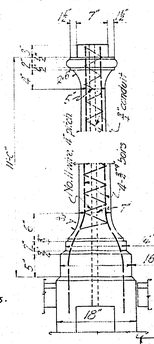
DETAIL OF LAMP POSTS
SCALE 1"=1'-0"
See "Revised Lamp Post" this sheet.



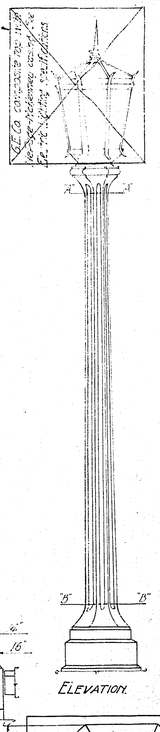
PLAN - ELEVATION & SECTION
TYPICAL HAND RAIL & END.
POSTS.
SCALE ½"=1'-0"

SECTION B-B

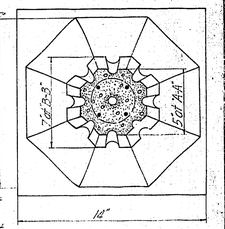
TYPICAL DETAIL OF HAND RAIL.
SCALE 1"=1'-0"
Balusters used differs slightly from that shown above.



DETAIL



ELEVATION.



SECTION.

This Lamp Post used at all points where post is on railing. Where posts are at curb line Union Metal Post No. 1767 used.

REVISED LAMP POST

HOUGHTALING AND DOUGAN - ARCHITECTS.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS
OF
EAST & WEST ABUTMENT TOP & HAND RAIL

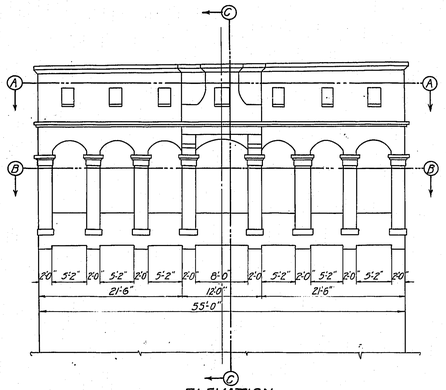
MADE BY
CHECKED BY
TRACED BY
CHECKED BY
DRAWING NO.
SHEETS

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON
DATE

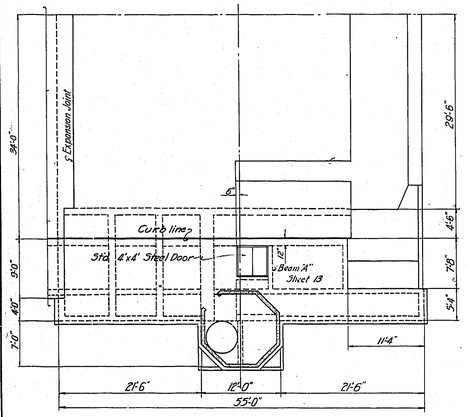
SHEET NO. 62

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

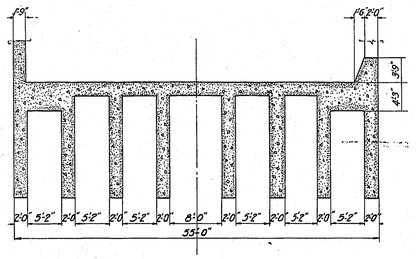
Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-5662
3M



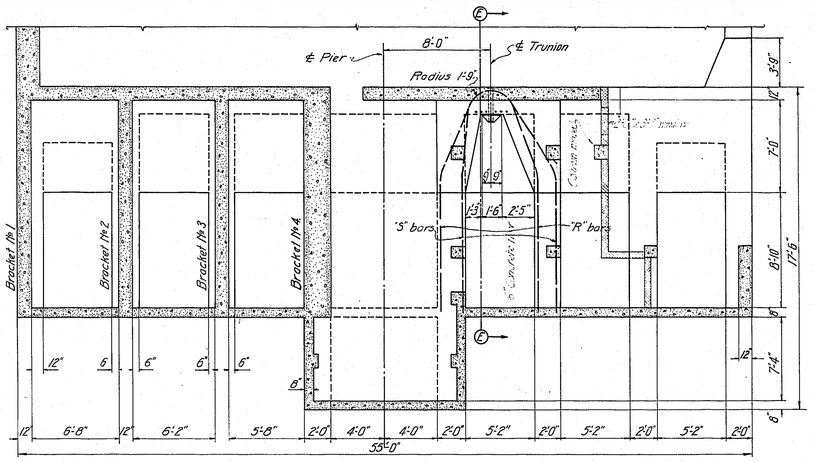
ELEVATION
Scale 8"=1'-0"



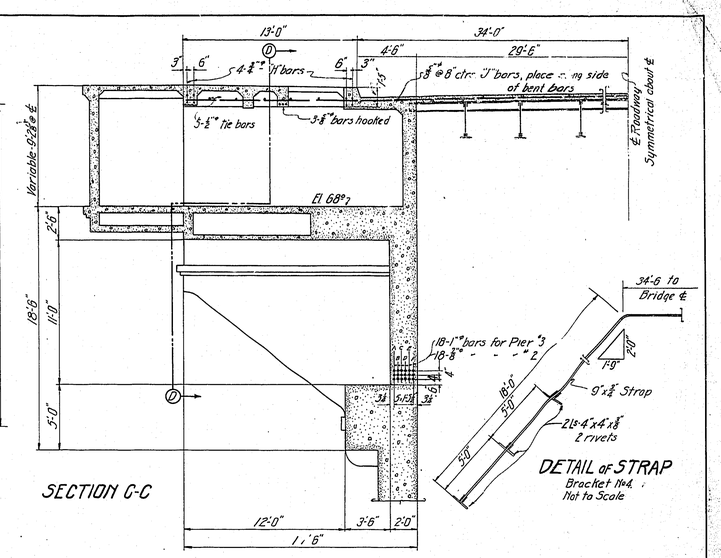
PLAN
Scale 8"=1'-0"



SECTION B-B
Scale 8"=1'-0"

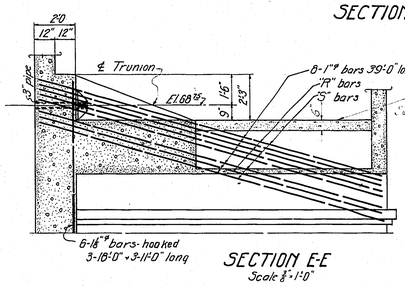


SECTION A-A

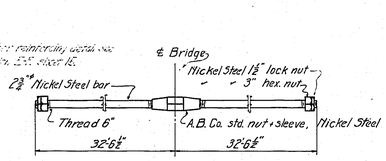


SECTION C-C

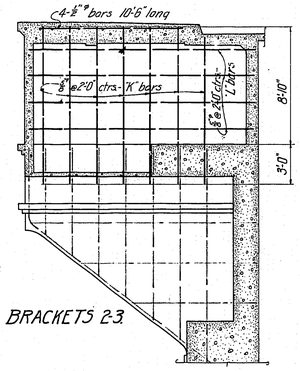
DETAIL of STRAP
Bracket No.4.
Not to Scale



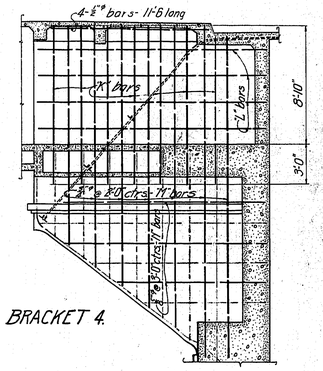
SECTION E-E
Scale 8"=1'-0"



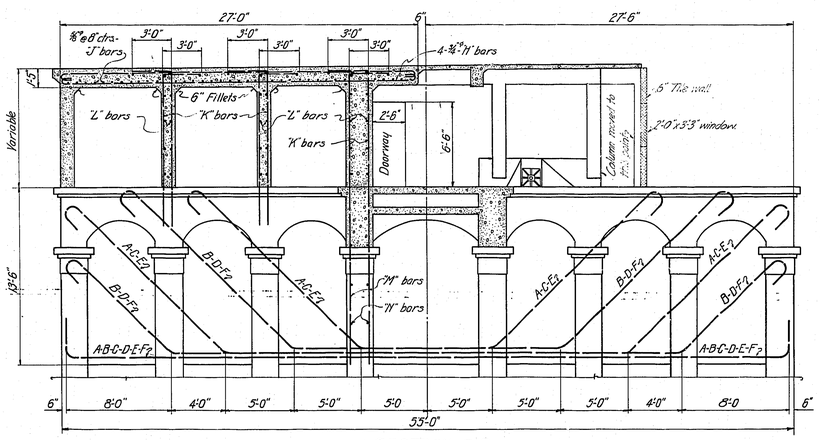
DETAIL of TIE BAR
Not to Scale



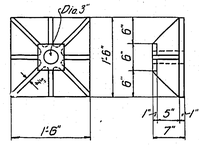
BRACKETS 2-3



BRACKET 4.



SECTION D-D



DETAIL of CASTING
Scale 1"=1'-0"

Use this sheet and sheet L-P8 with sheets L-P3, L-P5 and L-P6. In case of conflict the sheet and sheet L-P8 govern.
For detail of stairway at North end of Piers see sheet L-P-A.

MULTNOMAH COUNTY - OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON.

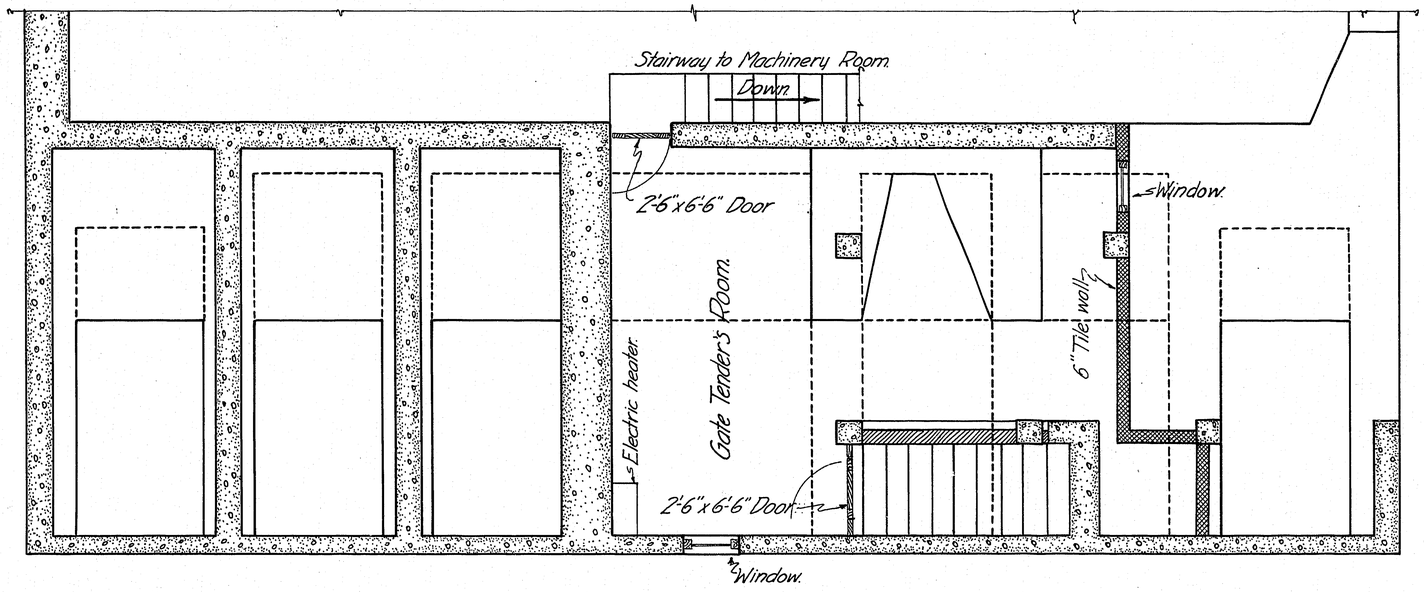
DETAILS OF BASCULE PIERS

MADE BY R.W.R.
CHECKED BY
TRACED BY R.W.R.
CHECKED BY
DRAWING No. G.L. 189 B.

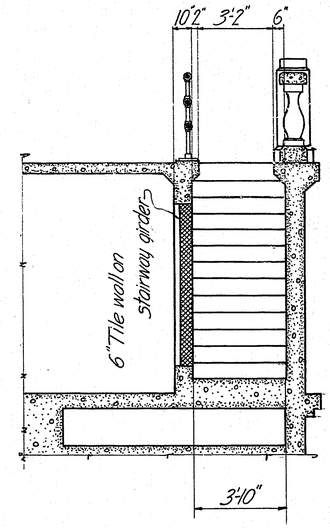
GUSTAV LINDENTHAL
CONSULTING ENGINEER
NEW YORK - PORTLAND, ORE.
DATE. 12-3-25.
SHEET No. L-12
SCALES 1"=1'-0" EXCEPT AS NOTED
PORTLAND OFFICE

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

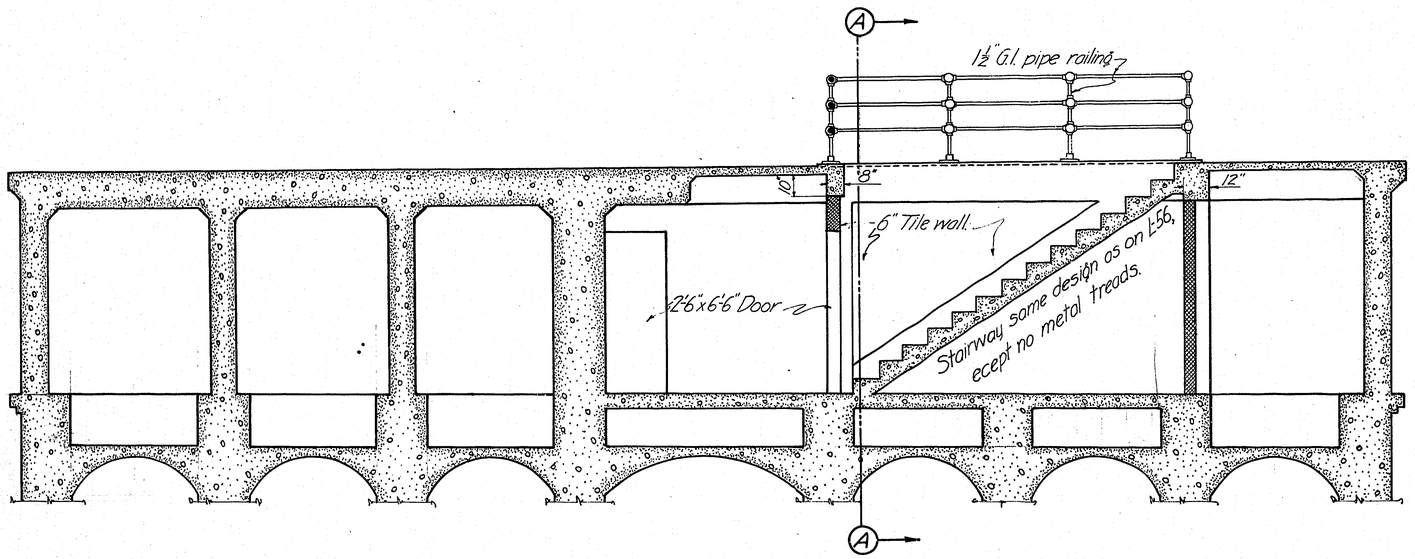
Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-8152
3M



PLAN IN SECTION.



SECTION AT A-A.



SECTION THRU STAIRWAY.

BURNSIDE BRIDGE
PLAN OF
ROOM AND STAIRWAY
NORTH END-PIERS 2 & 3

DATE - 12-30-25
SCALE - 1"=1'-0"
DRAWING No. 195-B

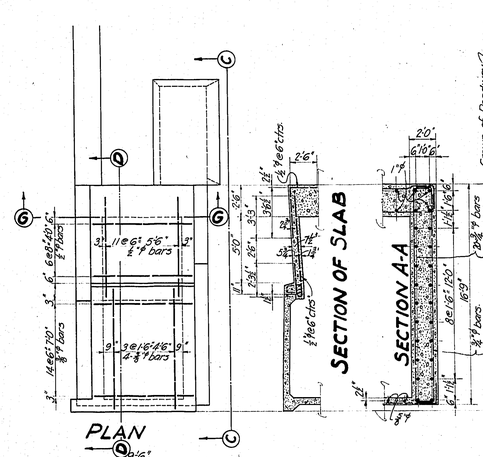
GUSTAV. LINDENTHAL
CONSULTING ENGINEER
SHEET No. L-12A.

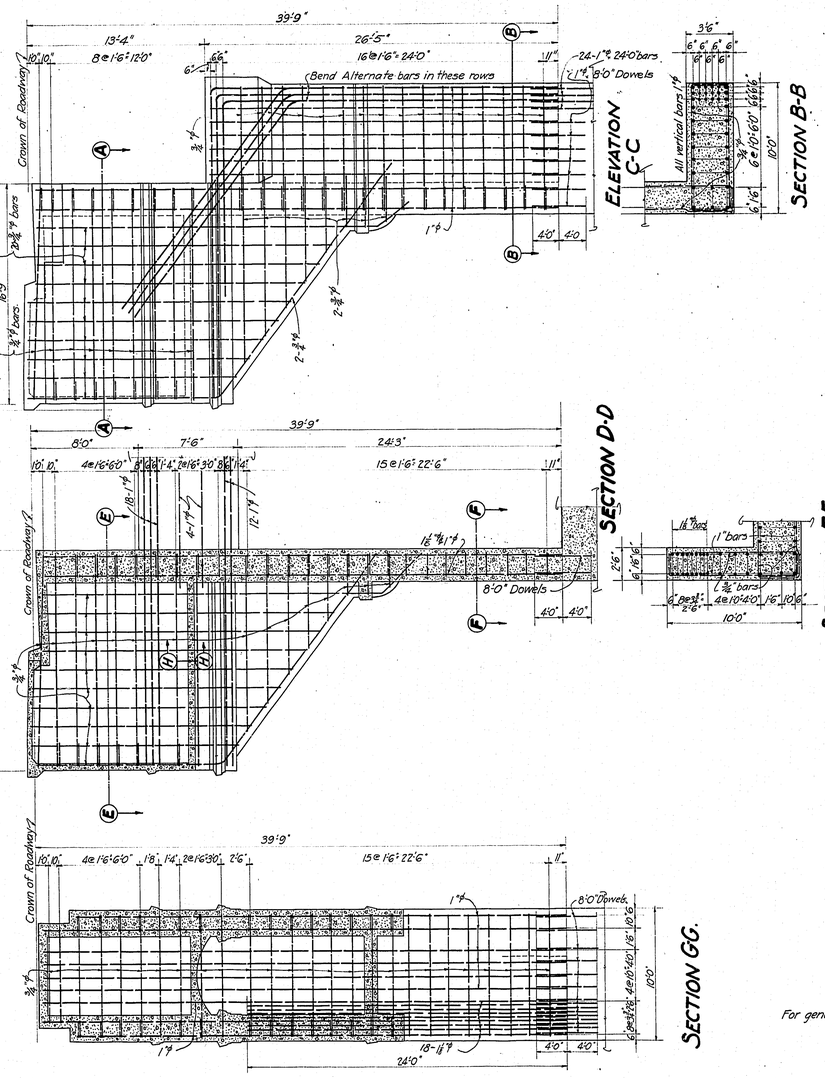
AB
65

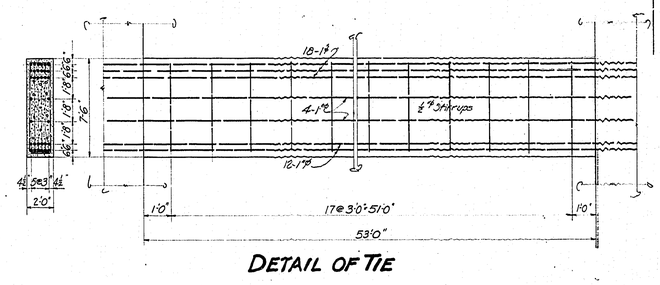
FL-25

NOTICE: IF THIS DOCUMENT IS LESS

REVISED







For general details of Pier 4 see drwg. L-64.

This drawing supersedes sheet T-11

MULTNOMAH COUNTY - OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

REINFORCING DETAILS PIER 4 PYLON

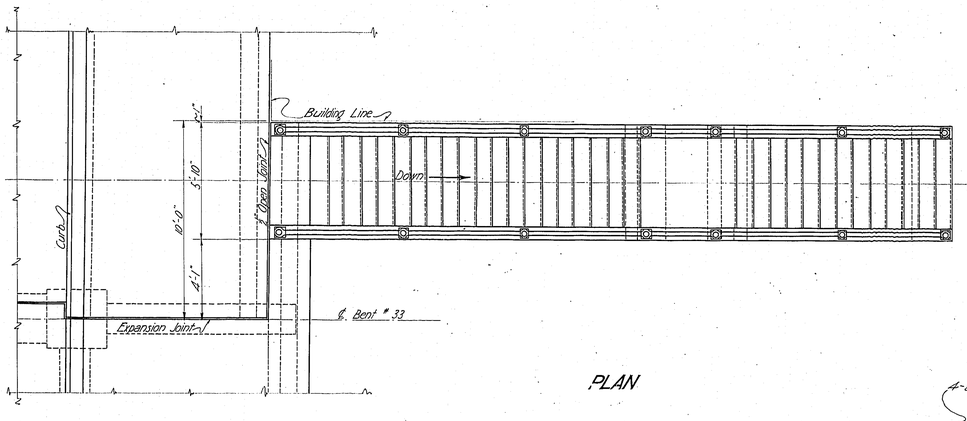
MADE BY RDS
CHECKED BY DAH
TRACED BY RDS
CHECKED BY MJH
DRAWING NO. C-L 130-B
SHEETS

GUSTAV LINDENTHAL
CONSULTING ENGINEER
PORTLAND, OREGON
DATE OCT. 27 1923
SHEET NO. L-17
SCALE 1"=10'

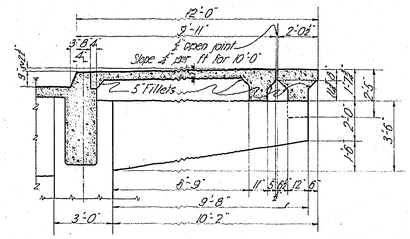
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

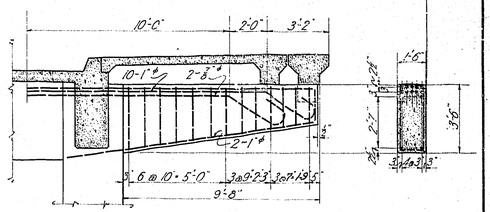
Business Equipment Bureau
1700 Southeast 11th Avenue
Portland Oregon 97214
503/233-8182
3M

REVISED

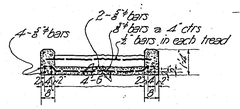


PLAN

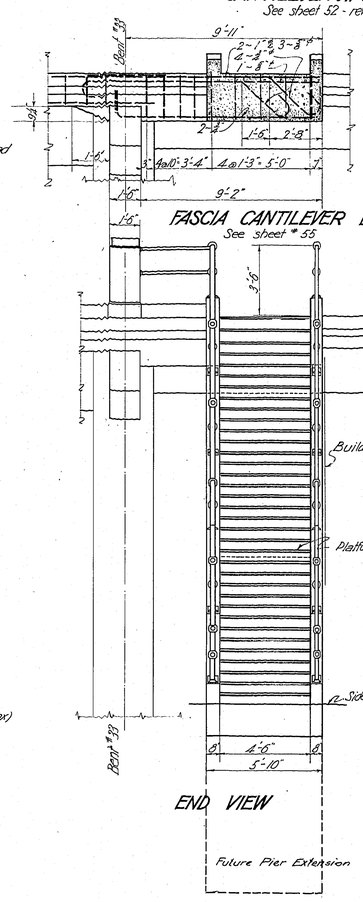




CANTILEVER AT BENT 33
See sheet 52 - revised



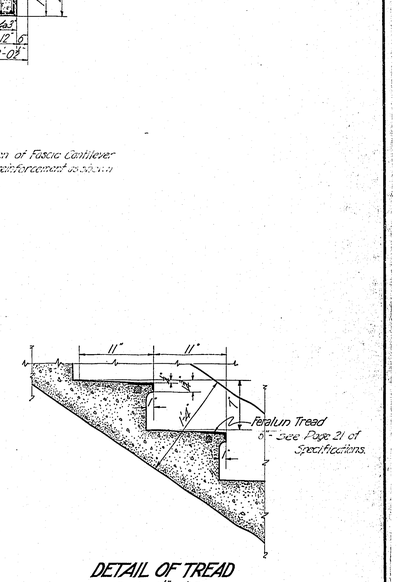
SECTION A A



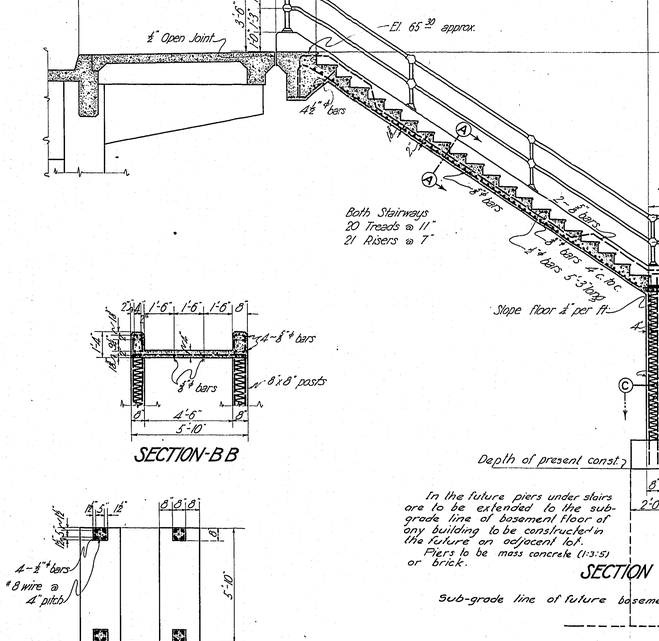
FASCIA CANTILEVER BENT 33
See sheet # 55

Bent #33
Concrete section of Fascia Cantilever similar to Bent 33, reinforcement as shown on Sheet 55.

END VIEW

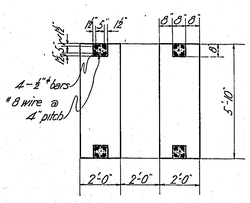


DETAIL OF TREAD
Scale: 12" = 1'-0"



SECTION ON CENTER LINE

SECTION-B B



SECTION-C C

3/13/29 Pier Ext. shown

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND OREGON

DETAILS OF

STAIRWAY SPAN 32

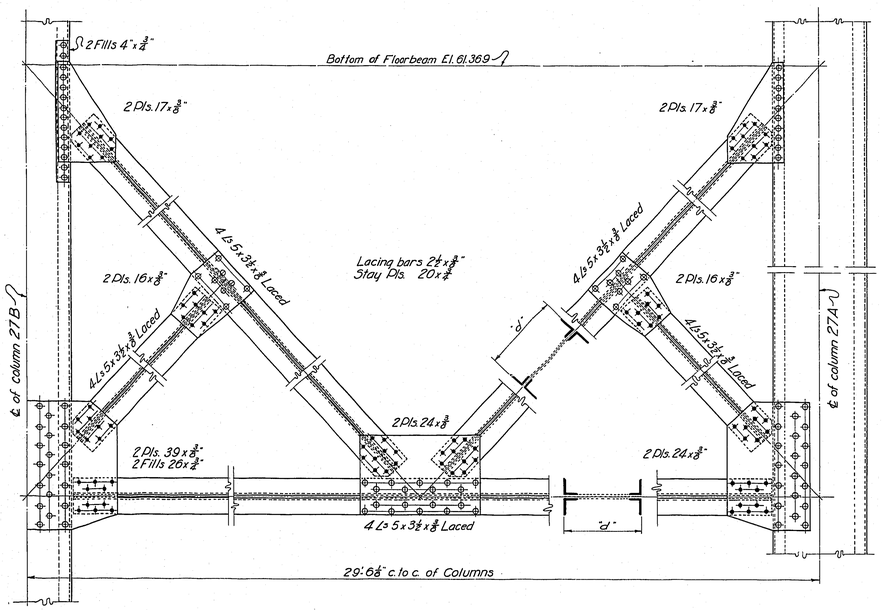
MADE BY H. W. Olsen
CHECKED BY
TRACED BY R. L. Crosby
CHECKED BY
DRAWING No.
SHEETS

GUSTAV LINDENTHAL
CONSULTING ENGINEER
NEW YORK - PORTLAND, ORE.
DATE JAN. 17TH 1925
SHEET No. L 56
PORTLAND OFFICE
SCALE 3/8" = 1'-0" EXCEPT AS SHOWN

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6682
3M

REVISED



BENT 27

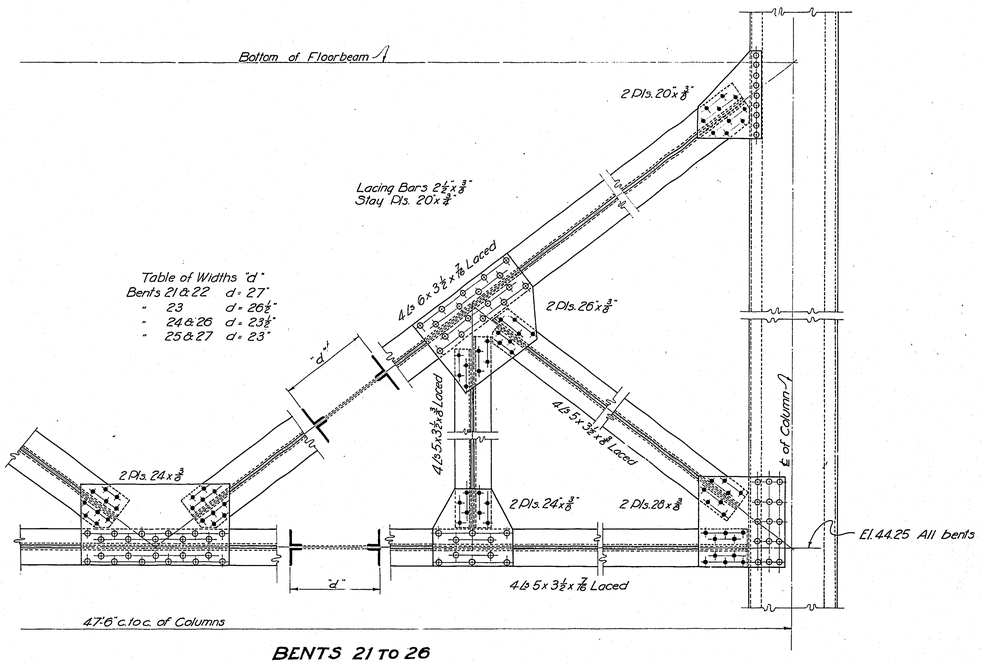
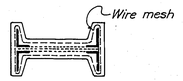


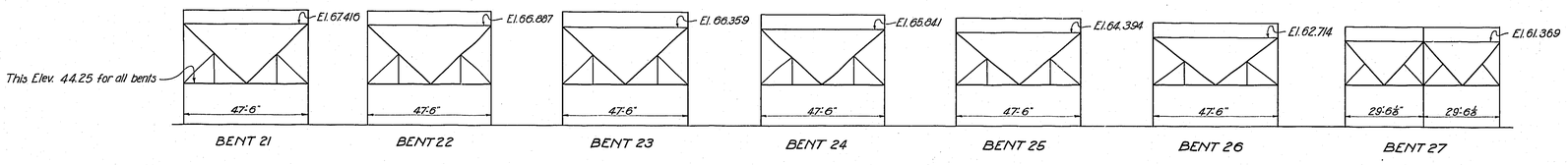
Table of Widths "d"
Bents 21 & 22 d = 27"
" 23 d = 26½"
" 24 & 26 d = 23½"
" 25 & 27 d = 23"

BENTS 21 TO 26



Encase all members of sway bracing in concrete as above.

NOTE - These elevations are for bottom of floorbeam, 6'-7⅜" below roadway grade.



See Shop Plans American Bridge Co. Order "5952."

All Concrete Encasement 1:2:4 Mix

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF

SWAY BRACING PLATE GIRDER SPANS

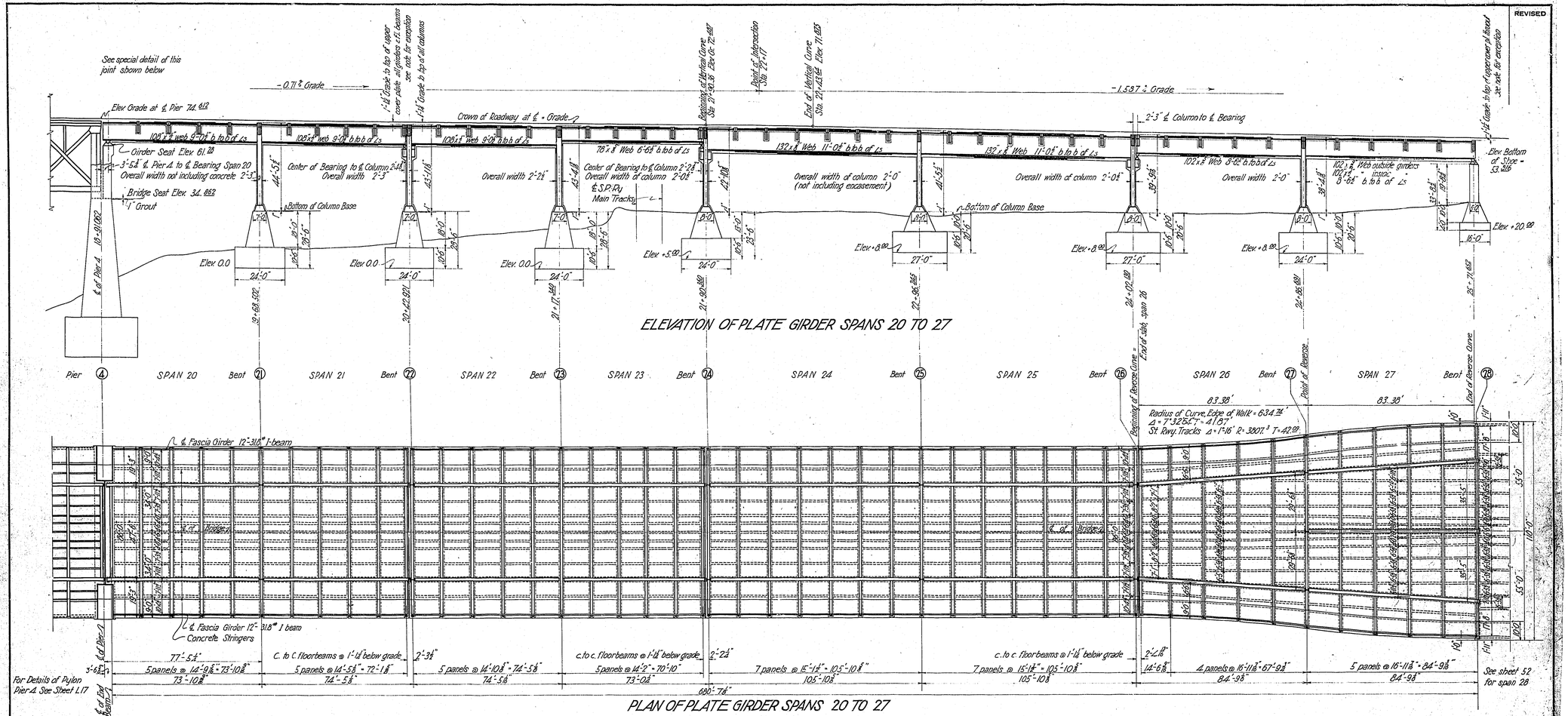
MADE BY K. H. Jacke GUSTAV LINDENTHAL
CHECKED BY CONSULTING ENGINEER
TRACED BY K. H. Jacke PORTLAND, OREGON
CHECKED BY DATE Aug. 16, 1924
DRAWING NO.
61 SHEETS Scale ¾"=1'-0" SHEET NO. L 58

AB 58 R2-26

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

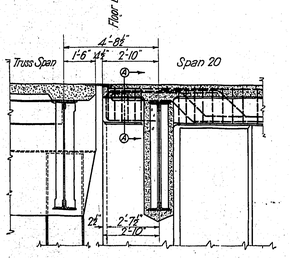
Business Equipment Bureau 1700 Southeast 11th Avenue Portland, Oregon 97214 503/233-6182 3M

REVISED

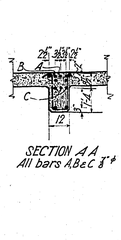


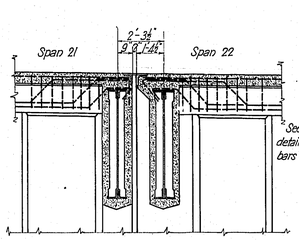
ELEVATION OF PLATE GIRDER SPANS 20 TO 27

PLAN OF PLATE GIRDER SPANS 20 TO 27

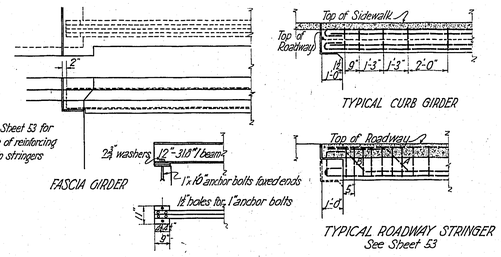


DETAIL OF ROADWAY STRINGER AT PIER 4
Scale: ⅜" = 1'-0"





DETAIL OF EXPANSION JOINT BENT 22
Scale ⅜" = 1'-0"



TYPICAL DETAILS AT PIER 4
Scale ⅜" = 1'-0"

GENERAL NOTES
See sheet L 6A for details of Pylon Pier 4 and for bearing of stringers there.
See " 52 & 54 for details of span 28. The longitudinal bars in stringers will be run into stringers of steel girder span, when these are adjacent, otherwise they will hook over the steel floorbeam M
See sheet 45 for concrete encasement of girders and floorbeams
" " 45 " reinforcing in deck slab for spans 20 to 27 inclusive
" " 53 " stringer reinforcing for spans 20 to 27 inclusive
" " L58 " bents 21 to 27 inclusive and encasement of bracing
" " 53 " detail of expansion joint in deck of girder spans and at Pier 4
" " 18 " piling in column footings bents 21 to 27 inclusive

CONSTRUCTION NOTES
The depth below grade of top cover plate of all girders and floorbeams will be 1'-1¾ except for two floor beams of span 24 under vertical curve
All concrete in deck and stringers 1:1:2
" " " encasement 1:2:4
Place 1" grout before setting column bearings or shoes

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

PLAN & ELEVATION SPANS 20 TO 27

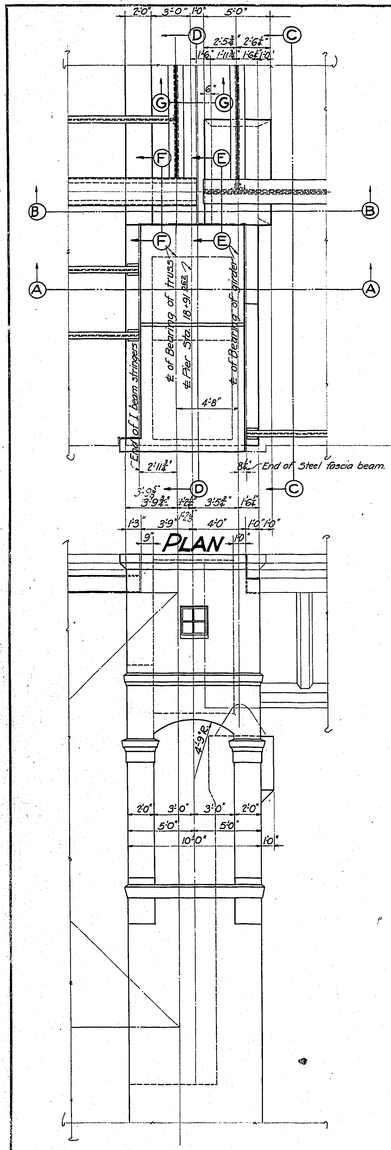
MADE BY K.M. Jacobs — GUSTAV LINDENTHAL, CONSULTING ENGINEER
CHECKED BY
TRACED BY D. Coventry — PORTLAND, OREGON
CHECKED BY
DRAWING NO. G.L. 132 - B — DATE Oct. 16th 1924
64 SHEETS — SHEET NO. L 63
SCALE 20' = 1" EXCEPT AS NOTED

AB

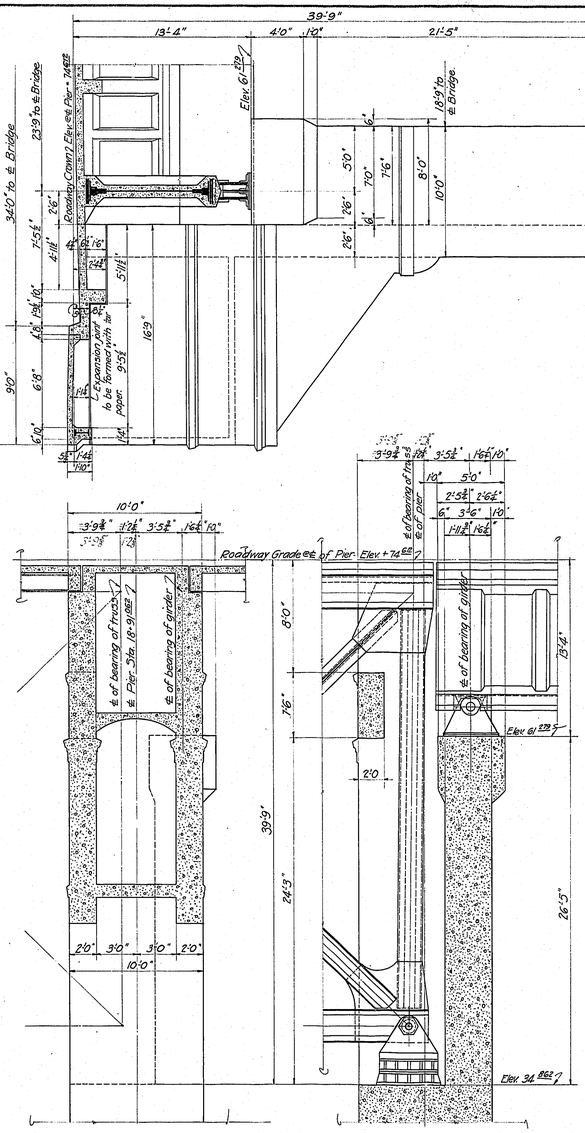
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southwest 11th Avenue
Portland, Oregon 97214
503/233-6162
3M

REVISED

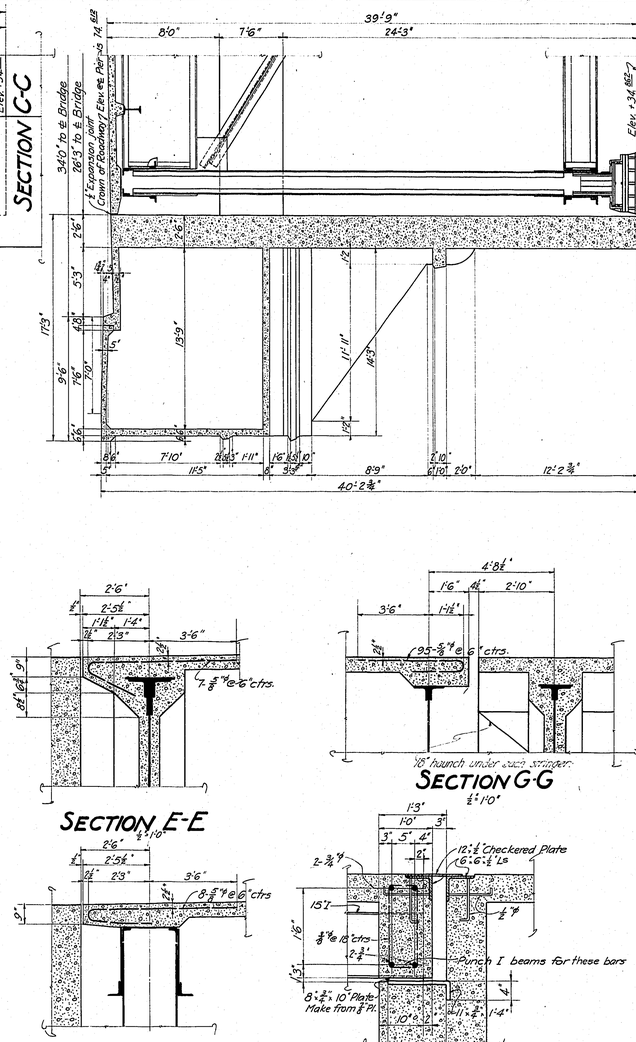


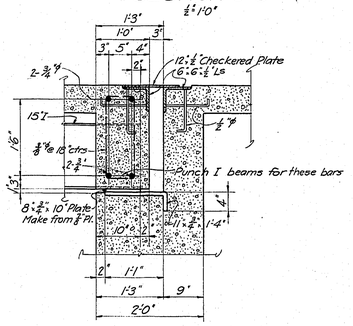
ELEVATION



SECTION A-A

SECTION B-B





For reinforcing of Pier 4 see sheet L-17
For details of bearing plate of steel fascia beam on Pier 4 see sheet L-63.
For details of cantilever ends of concrete stringers span 20 see sheet L-63.
For details of roadway expansion plate see sheet 53.

MULTNOMAH COUNTY - OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON

GENERAL DETAILS PIER 4 PYLON

MADE BY W.P.C.
CHECKED BY W.H.W.
TRACED BY W.P.C.
CHECKED BY W.H.W.
DRAWING NO. O.L. 131 B
SHEETS

GUSTAV LINDENTHAL
CONSULTING ENGINEER
PORTLAND, OREGON
DATE OCT. 27TH 1924

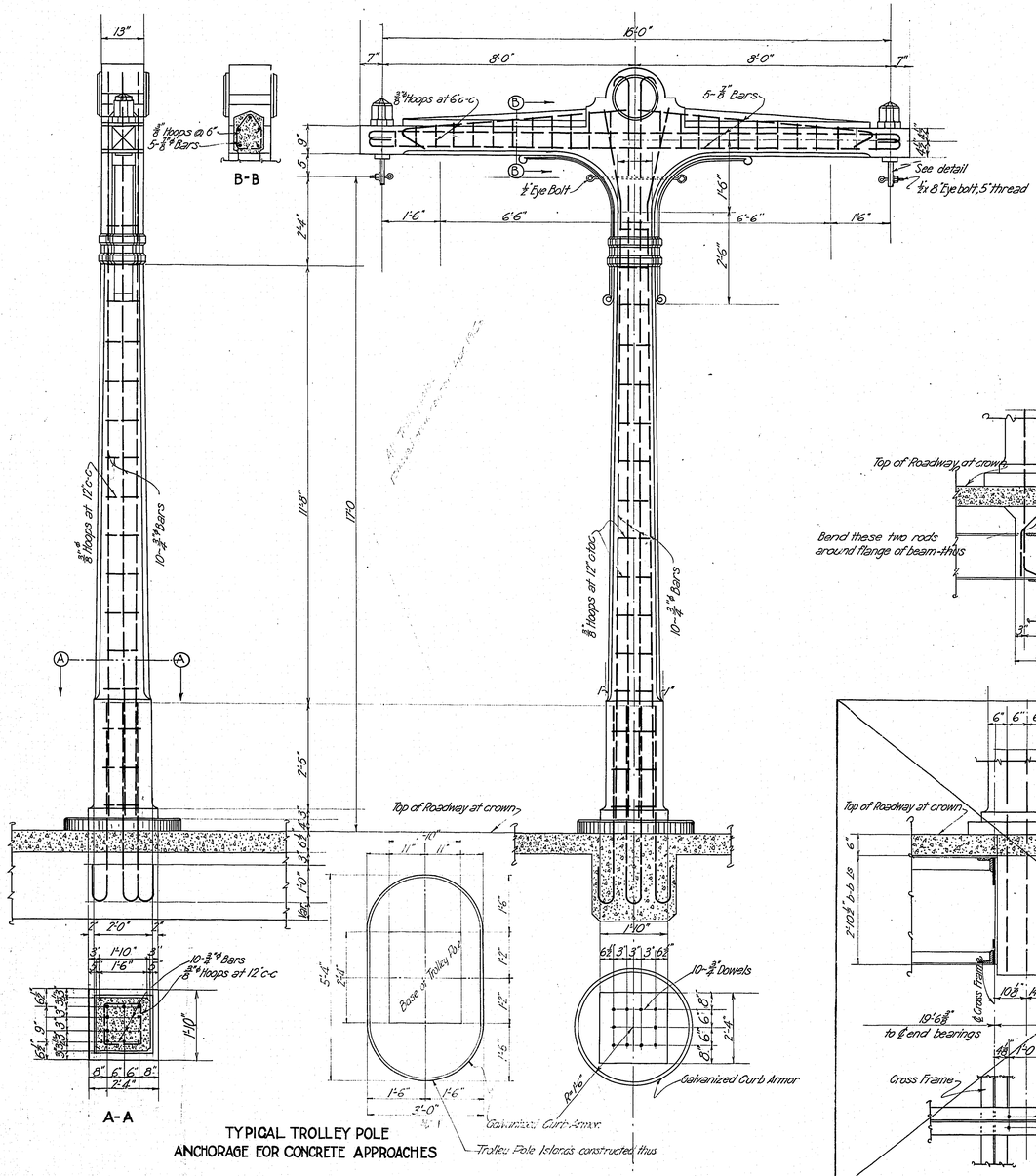
SHEET NO. L64

SCALE 1/2" TO 1'0" EXCEPT AS NOTED.

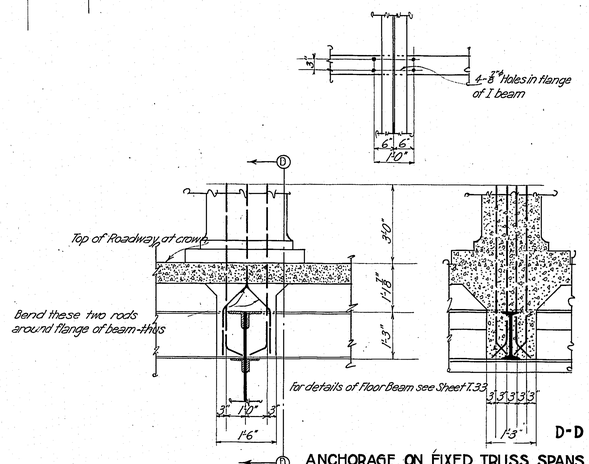
NOTICE: IF THIS DOCUMENT IS LESS
LEGIBLE THAN THIS NOTICE IT IS
DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland Oregon 97214
503/233-6182
3M

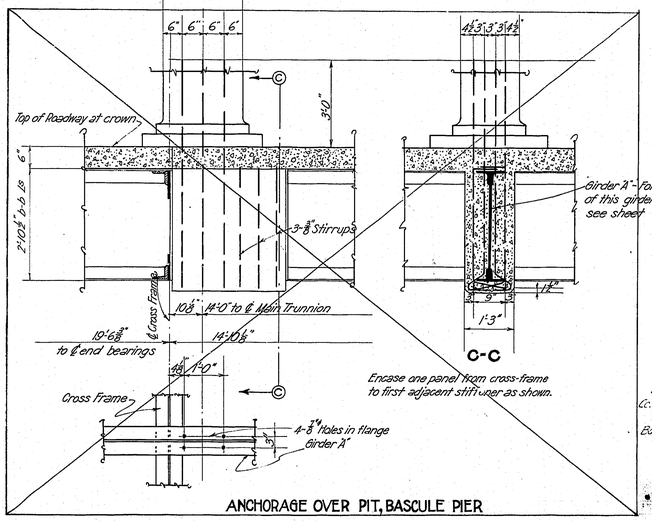
REVISED



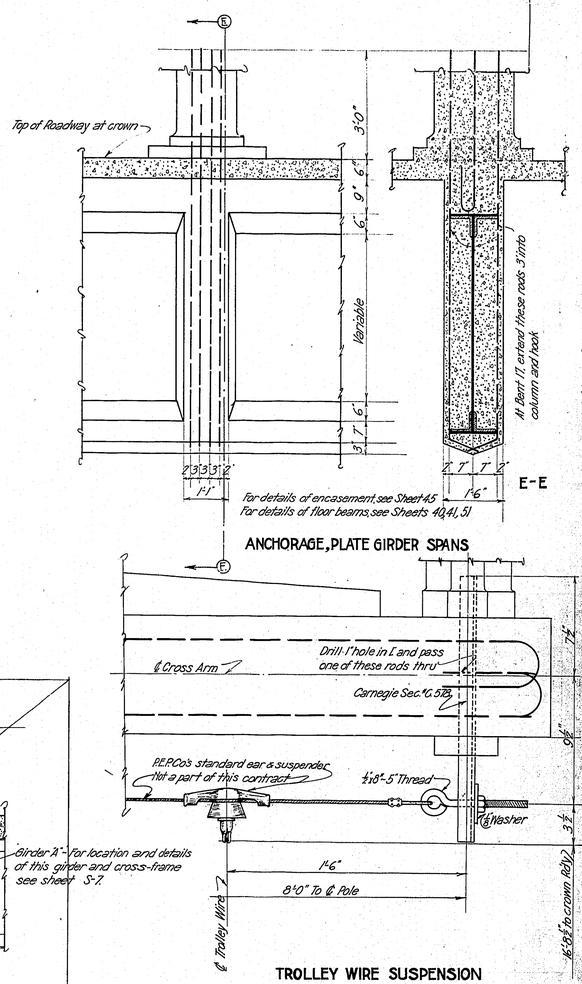
TYPICAL TROLLEY POLE
ANCHORAGE FOR CONCRETE APPROACHES



ANCHORAGE ON FIXED TRUSS SPANS



ANCHORAGE OVER PIT, BASCULE PIER



ANCHORAGE, PLATE GIRDER SPANS

TROLLEY WIRE SUSPENSION

See Shop Plans, American Bridge Co. Year 1930, Sheet "77"
For Structural Steel posts on Bascule see Shop Plans.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

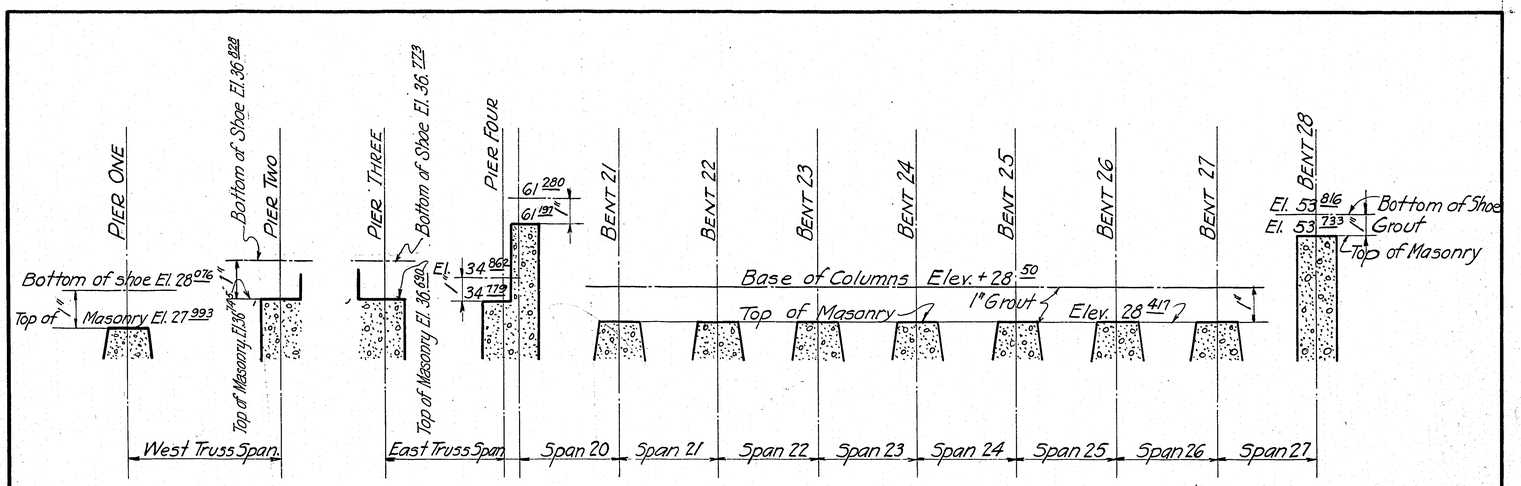
DETAILS OF
TROLLEY POLE

MADE BY
CHECKED BY
TRACED BY
CHECKED BY
DRAWING No. G.L. 129 B.
SHEETS

GUSTAV LINDENTHAL
CONSULTING ENGINEER
PORTLAND, OREGON
DATE Oct. 24, 1924
SHEET No. 165

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6682
3M



MULTNOMAH COUNTY - OREGON

BURNSIDE BRIDGE

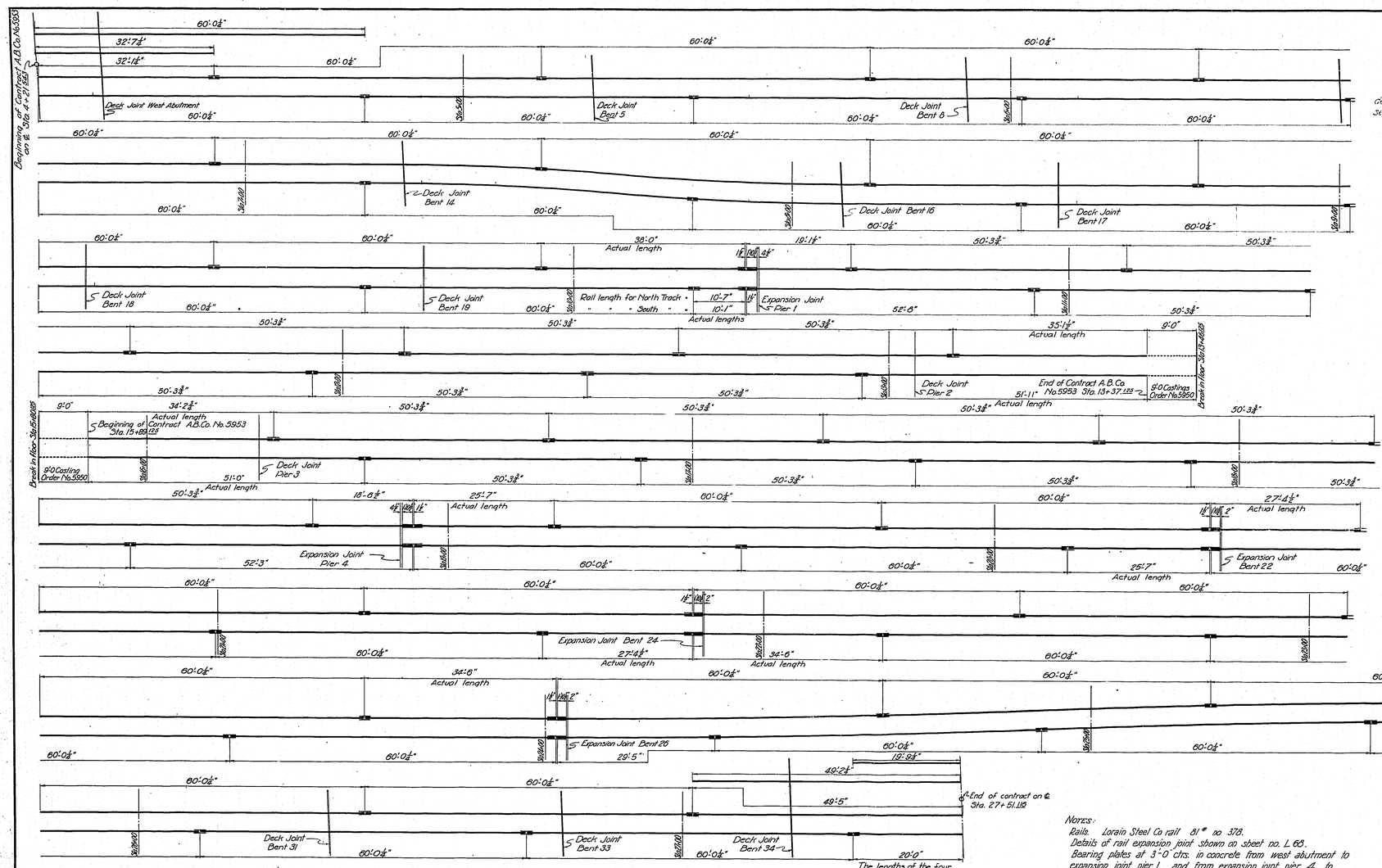
MASONRY ELEVATIONS

MADE BY W.D. Smith — GUSTAV LINDENTHAL
CHECKED BY — CONSULTING ENGINEER
TRACED BY W.D. Smith — NEW YORK - PORTLAND - ORE
CHECKED BY K.M. Dicke — Oct. 31 - 1924
DRAWING NO. G.L. 133-B. — SHEET NO. L66

NOTICE: IF THIS DOCUMENT IS LESS
LEGIBLE THAN THIS NOTICE IT IS
DUE TO THE QUALITY OF THE ORIGINAL.

STERLING
Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6182
3M

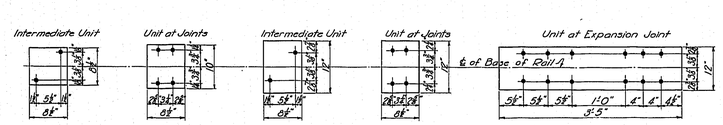
REVISED



Rail expansion joints constructed at each Girder Joint Spans 1 to 9 inclusive. For detail see Sheet L-65A.

The lengths of the four rails given immediately above are actual lengths.

Notes:
Rails. Lorain Steel Co rail 81# no 378.
Details of rail expansion joint shown on sheet no. L 68.
Bearing plates at 3'-0 ctrs. in concrete from west abutment to expansion joint pier 1, and from expansion joint pier 4 to east abutment.
Steel chairs used on both truss spans.
Spacing of chairs on truss spans as shown on sheet T 33.
Except where noted dimension given is rail length plus ¼ inch.
South track detailed. North track same except for curves and end rails shown.
Rails on bascule detailed on American Bridge Company sheet E1 for order No.5950.

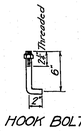


BEARING PLATES ON CONCRETE
Each unit consists of 2-⅜" steel plates separated by 1-⅛" fiber plate and of ⅞" ø hook bolts set in the slab deck. Use Carnegie rail clips No.108 shown on Pg.75 of the 1923 Pocket Companion for intermediate units & special clips at joints.

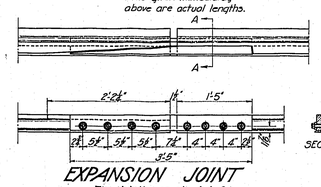
PLATES AT CHAIRS
Each unit consists of 2-⅜" steel plates separated by 1-½" fibre plate, of one chair, and of ⅞" ø bolts for rail. Use Carnegie clips No.108 for intermediate units and special clips shown on A.B.Co. sheet D7 at joints.

PLATES AT EXPANSION JOINTS
Each unit consists of 2-⅜" steel plates separated by 1-½" fiber plate and of ⅞" ø hook bolts. Use Carnegie Clips No.108 modified by shortening the clip as shown and punching a ⅞" ø hole.

½" shorter



HOOK BOLT
To be set in concrete slab to template so that 2" projects above bearing plates.



EXPANSION JOINT
For details see sheet L 68

MULTNOMAH COUNTY ~ OREGON

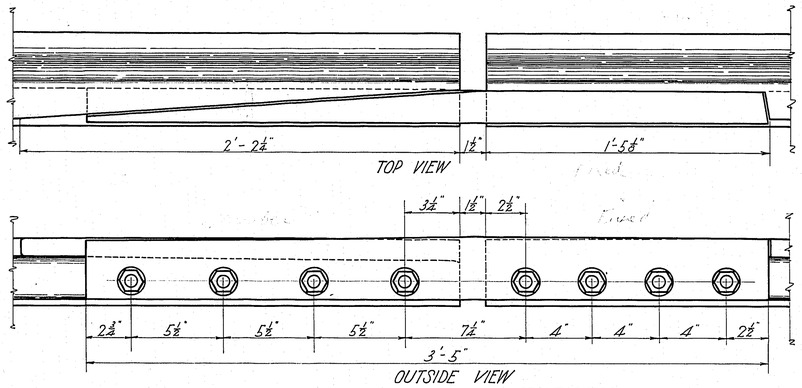
BURNSIDE BRIDGE
PORTLAND, OREGON

LAYOUT OF STREET RAILWAY TRACKS

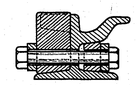
MADE BY K.W. Dieke — GUSTAV LINDENTHAL, CONSULTING ENGINEER
CHECKED BY
TRACED BY K.W. Dieke — NEW YORK - PORTLAND, ORE.
CHECKED BY
DRAWING NO. G-L-134-B — DATE: Nov. 11th 1924
SHEETS — SHEET NO. L-67
PORTLAND OFFICE

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

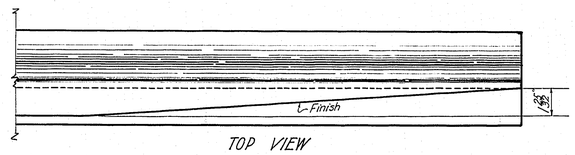
Business Equipment Bureau
1700 Southeast 11th Avenue
Portland Oregon 97214
503/233-6182
3M



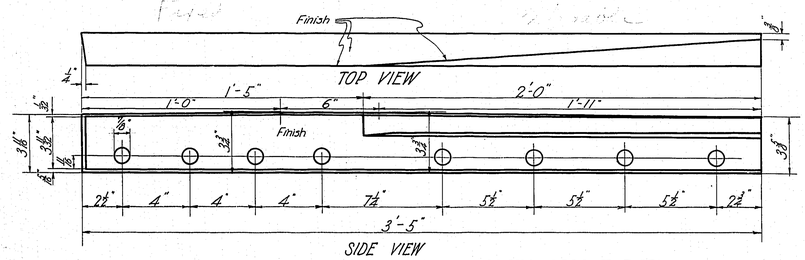
ASSEMBLY

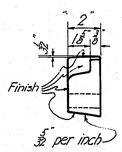


SECTION OF JOINT

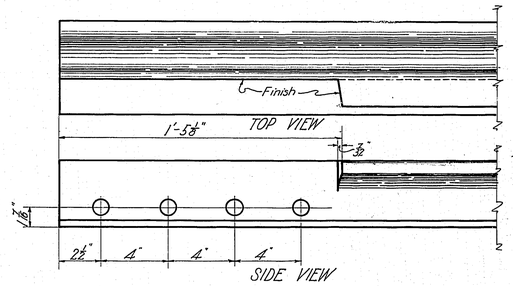


MOVABLE RAIL

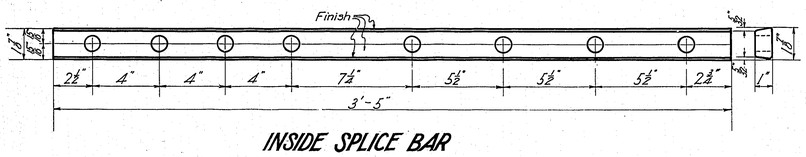




MAIN SPLICE BAR



FIXED RAIL



INSIDE SPLICE BAR

NOTE :
Material - Manganese steel castings same as at end of bascule and finished as shown.
⅜" ϕ Holes for ¾" track bolts
⅜" ϕ slotted holes for expansion
Cut and grind rails to dimensions shown
See sheet L 67 for layout showing number of joints, location and rails affected
See sheet L 67 for bearing plates and rail clips.

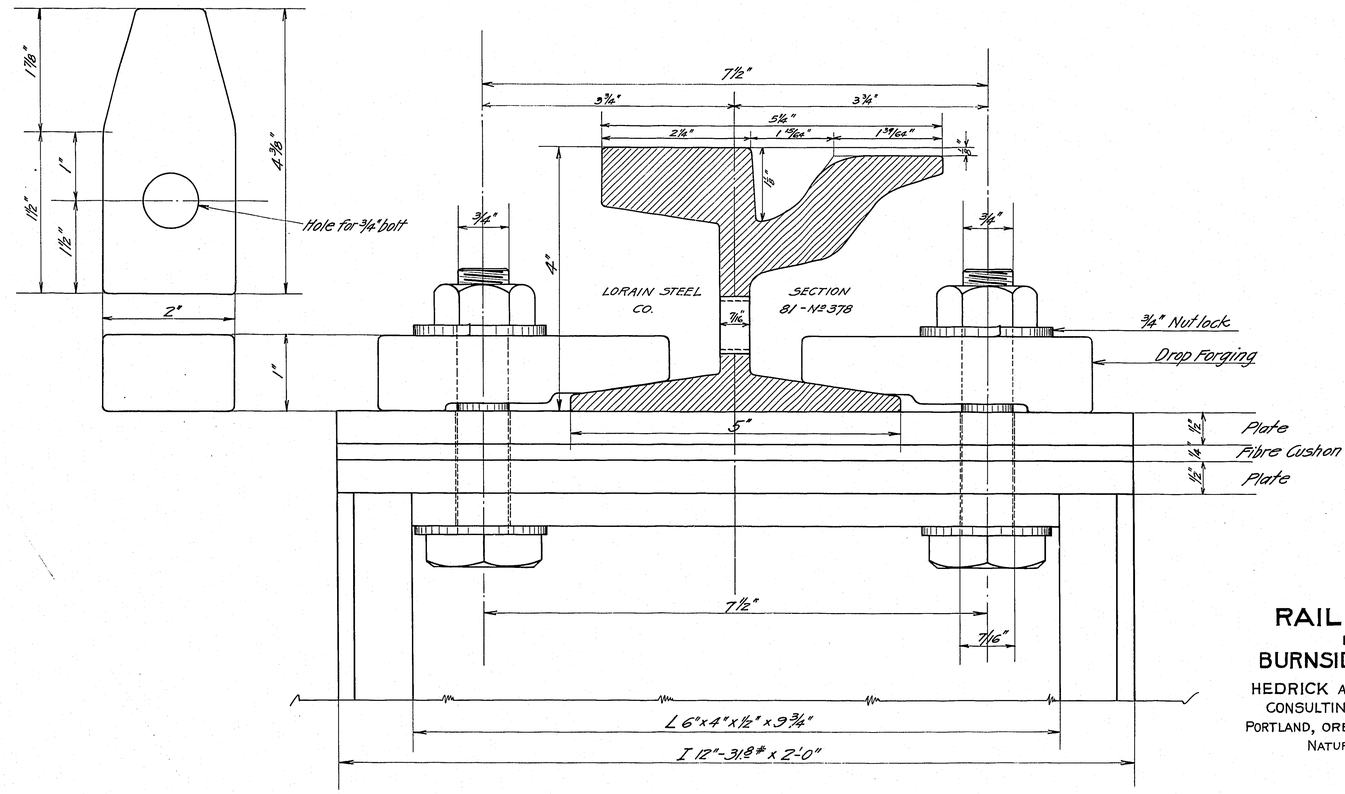
MULTNOMAH COUNTY OREGON
BURNSIDE BRIDGE
DETAIL OF TRACK EXPANSION JOINT

MADE BY K.H. Birks GUSTAV LINDENTHAL
CHECKED BY CONSULTING ENGINEER
TRACED BY R Coventry NEW YORK - PORTLAND ORE.
CHECKED BY NOV. 11TH 1924
DRAWING NO. G.L. 135 B SHEET NO. L 68

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.



Rail Chair & Section Burnside Bridge B15



RAIL CHAIR
FOR
BURNSIDE BRIDGE

HEDRICK AND KREMERS
CONSULTING ENGINEERS
PORTLAND, ORE., FEB. 8TH 1924
NATURAL SCALE
J.Z.

File No. B15 L68a
AB 7/5 PE-26

NOTICE: IF THIS DOCUMENT IS LESS
LEGIBLE THAN THIS NOTICE IT IS
DUE TO THE QUALITY OF THE ORIGINAL.



MULTNOMAH COUNTY, OREGON

PLANS

FOR

COMPLETING APPROACHES

TO

BURNSIDE BRIDGE

OVER THE WILLAMETTE RIVER

AT

PORTLAND, ORE.

GUSTAV LINDENTHAL

CONSULTING ENGINEER

NEW YORK, N.Y. & PORTLAND, ORE

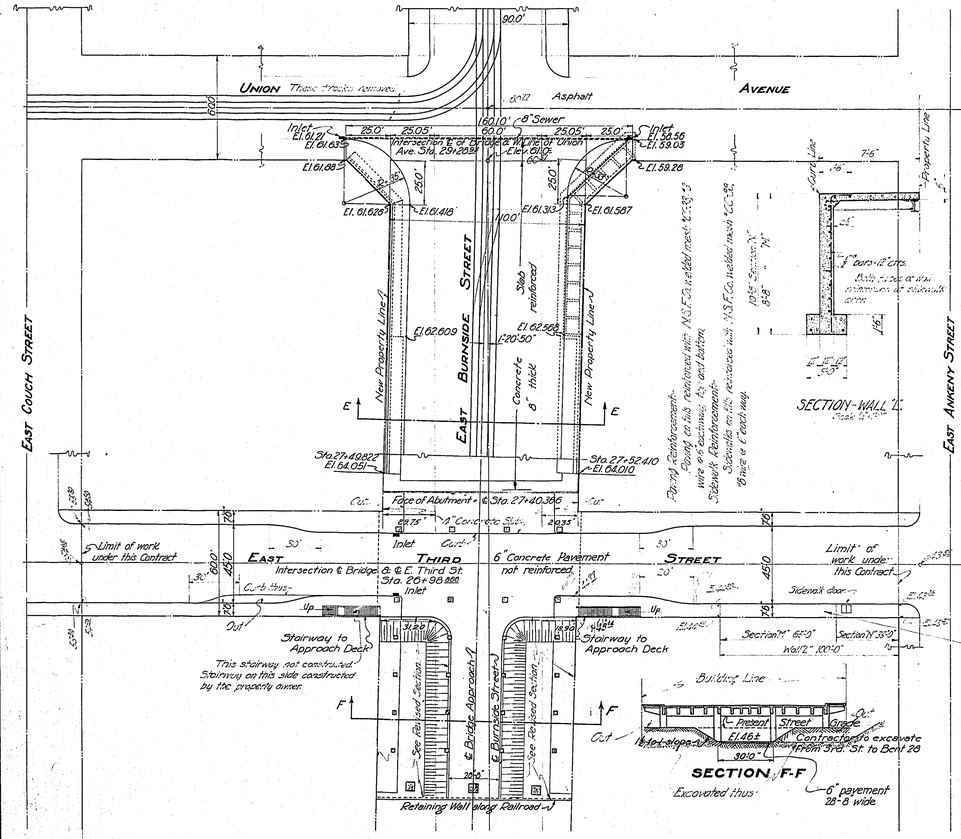
1925

L 68a

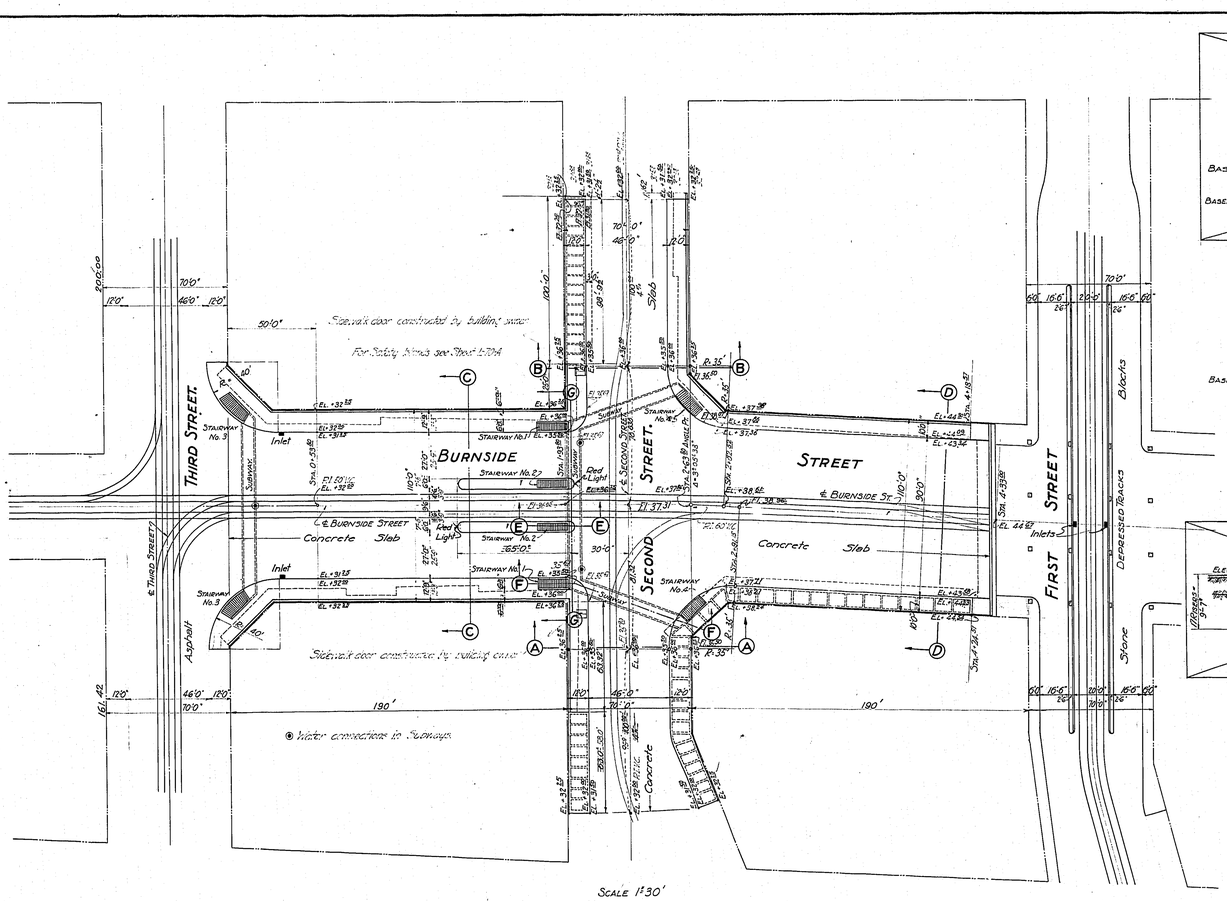
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

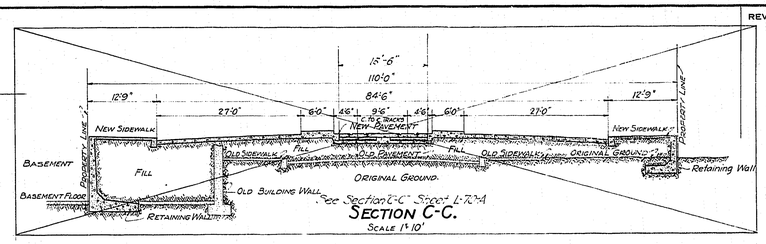
Business Equipment Bureau 1700 Southeast 11th Avenue Portland, Oregon 97214 503/233-6182 3M

REVISED

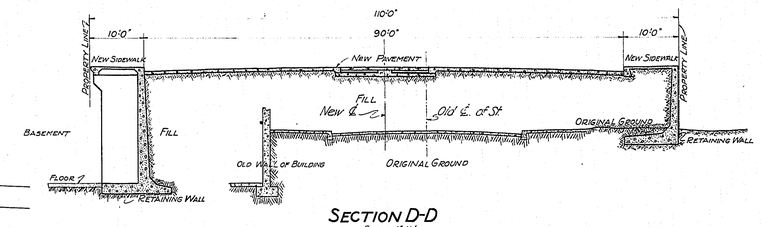

UNION Avenue
Asphalt
160.10' - 8" Sewer
Inlet El. 61.72 El. 61.63
Intersection ℄ of Burnside & Union Ave. Sta. 29+28.81
Elev. 61.10
El. 56.56 El. 59.03
El. 61.68
El. 59.26
El. 61.629
El. 61.418
El. 61.313
El. 61.567
100'
EAST BURNSIDE STREET
New Property Line
Concrete 8" thick
36#/ reinforced
℄ 62.609
El. 62.568
120.50'
Sta. 27+49.822 El. 64.051
Sta. 27+52.410 El. 64.010
Face of Abutment ℄ Sta. 27+40.306
Curb
Concrete Slab
Limit of work under this Contract
EAST THIRD STREET
Intersection ℄ Bridge & ℄ E. Third St. Sta. 26+98.866
6" Concrete Pavement not reinforced
Limit of work under this Contract
Inlet
Curb Hwy.
Up
Out
Stairway to Approach Deck
This stairway not constructed. Stairway on this side constructed by the property owner.
See Retained Section
℄ Bridge Approach
℄ Burnside Street
Retaining Wall along Railroad
Sidewalk door
Section "F" 66'-0"
Section "N" 85'-9"
Wall "Z" 100'-0"
Building Line
Present Street Grade
El. 46± Elev. slope
Contractor to excavate from 3rd. St. to Bent 28
30'-0"
SECTION F-F
Excavated thus
6" pavement 28'-8 wide
EAST COUCH STREET
EAST ANKENY STREET
Property Line
Curb Line
7'-6"
16"
Batter 3" in 9"
Bars 12" ctrs.
Bars 18" ctrs.
Bars 24" ctrs.
Bars 36" ctrs.
Bars 48" ctrs.
Bars 72" ctrs.
Bars 96" ctrs.
Bars 120" ctrs.
Bars 144" ctrs.
Bars 168" ctrs.
Bars 192" ctrs.
Bars 216" ctrs.
Bars 240" ctrs.
Bars 264" ctrs.
Bars 288" ctrs.
Bars 312" ctrs.
Bars 336" ctrs.
Bars

REVISED

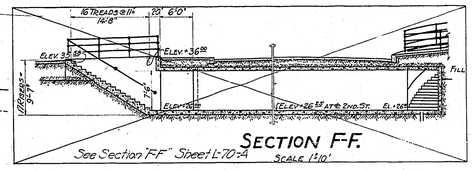




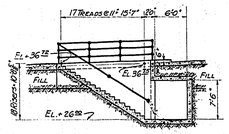
SECTION C-C.
SCALE 1"=10'



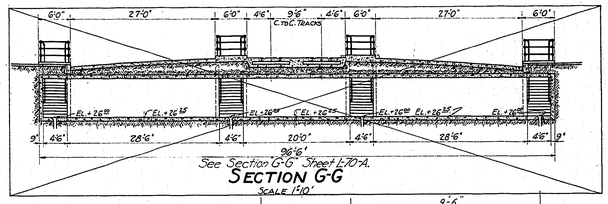
SECTION D-D
SCALE 1"=10'



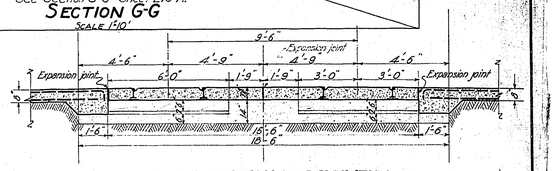
SECTION F-F.
SCALE 1"=10'



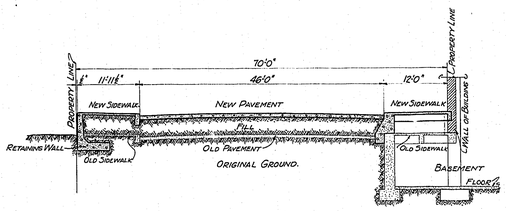
SECTION E-E.
SCALE 1"=10'



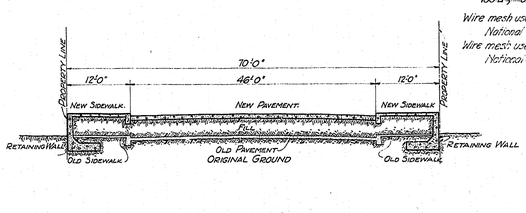
SECTION G-G
SCALE 1"=10'



CROSS-SECTION OF PAVEMENT
Scale: 1/8"=1'0"



SECTION A-A
SCALE 1"=10'



SECTION B-B.
SCALE 1"=10'

New pavement on Burnside St. and Second St. to be 1:2:4 mix, and reinforced top and bottom with triangle mesh ~~153 - 65 lbs per 100 sq. yds~~ or equivalent, except between tracks as shown herewith:

Wire mesh used in Pavings-
National Steel Fabric Co. "CC-88 welded mesh, "8 wire @ 6" each way.
Wire mesh used in Sidewalk Slabs-
National Steel Fabric Co. "CC-88 welded mesh, "8 wire @ 9" each way.

For East Approach see sheet L 69

Use this sheet with Sheet L-70-A.

NOTE: Street car tracks on First Street will not be depressed for the present. Therefore no work on First Street to be done under this contract except, if any, as "Extra Work"

MULTNOMAH COUNTY ~ OREGON.

BURNSIDE BRIDGE
PORTLAND, OREGON.

GENERAL PLAN. WEST APPROACH FILL.

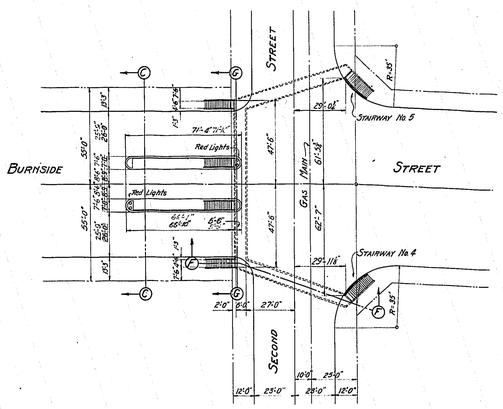
MADE BY [illegible]
CHECKED BY
TRACED BY [illegible]
CHECKED BY KHS
DRAWING NO. GL-138-B
SHEETS

GUSTAV LINDENTHAL
CONSULTING ENGINEER
NEW YORK - PORTLAND, ORE.
DATE 12-8-24
SHEET NO. L-10
SCALE: AS NOTED. PORTLAND OFFICE

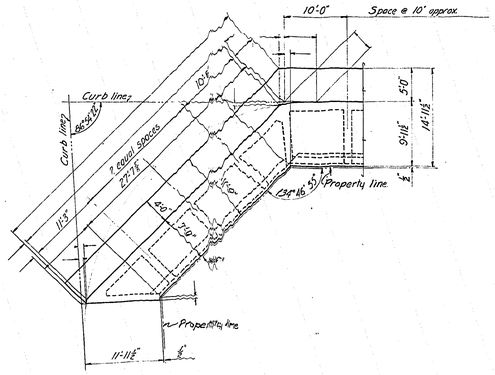
AB
7B

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

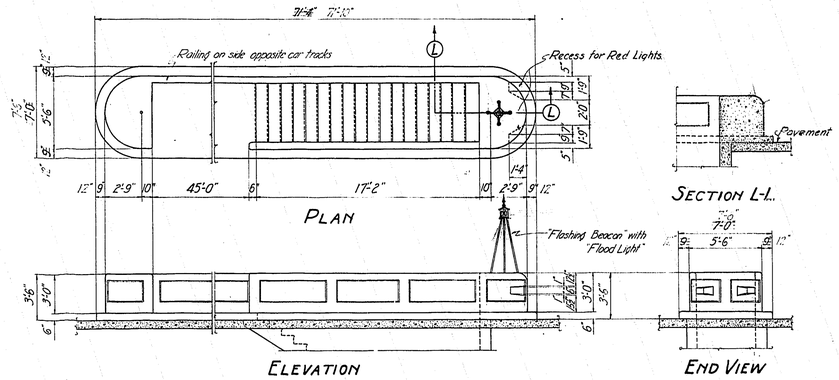
Business Equipment Bureau
1700 Southeast 11th Avenue
Portland Oregon 97214
503/233-0182
3M



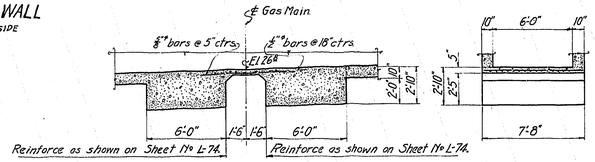
PLAN
SCALE 1"=30'



PLAN OF RETAINING WALL
S.E. CORNER 20TH AND BURNSIDE
SCALE: 1/8"=1'-0"

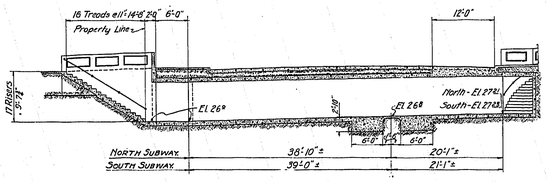


SAFETY ISLANDS.
SCALE ¼"=1'-0"

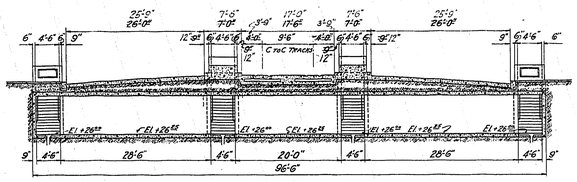


LONGITUDIONAL SECTION TRANSVERSE SECTION

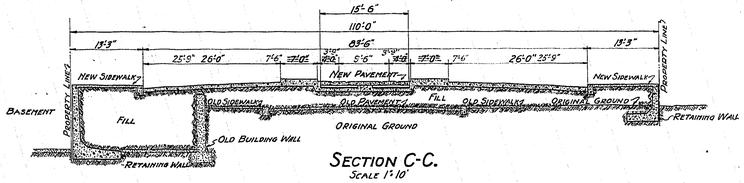
SUBWAY BASE SLAB AT GAS MAIN.
SCALE ¼"=1'-0"



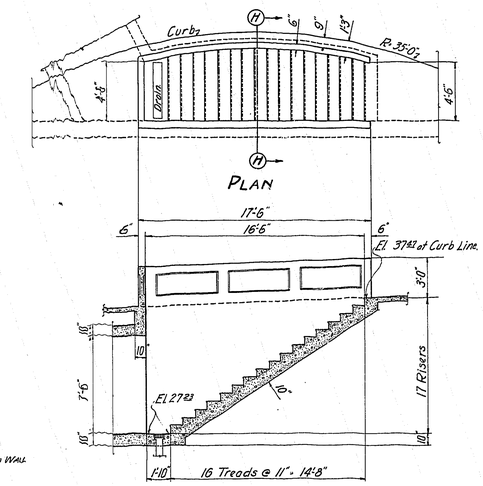
SECTION F-F
SCALE 1"=10'-0"



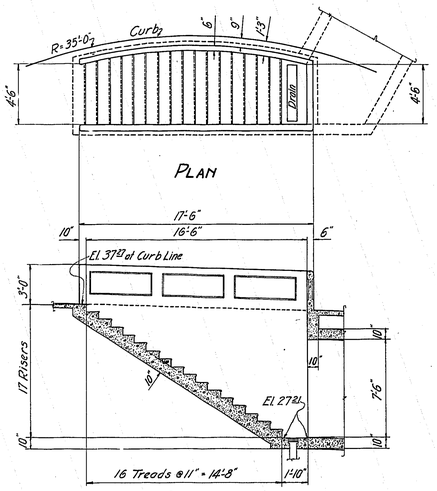
SECTION G-G.
SCALE 1"=10'



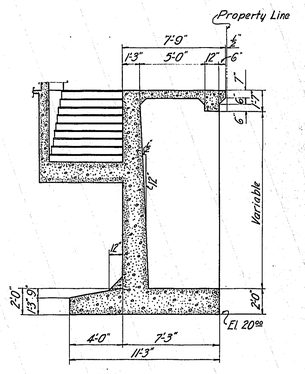
SECTION C-C.
SCALE 1"=10'



SECTION
STAIRWAY No 4.
Reinforce as shown on Sheet No L-74.
SCALE ¼"=1'-0"



SECTION
STAIRWAY No 5.
Reinforce as shown on Sheet No L-74.
SCALE ¼"=1'-0"



SECTION H-H.
SCALE ¼"=1'-0"
Reinforce as shown Section B-B Sheet No L 72.

Use with Sheets Nos L 70-L 72-L 74.

MULTNOMAH COUNTY - OREGON.

BURNSIDE BRIDGE
PORTLAND, OREGON.

REVISIONS
WEST APPROACH

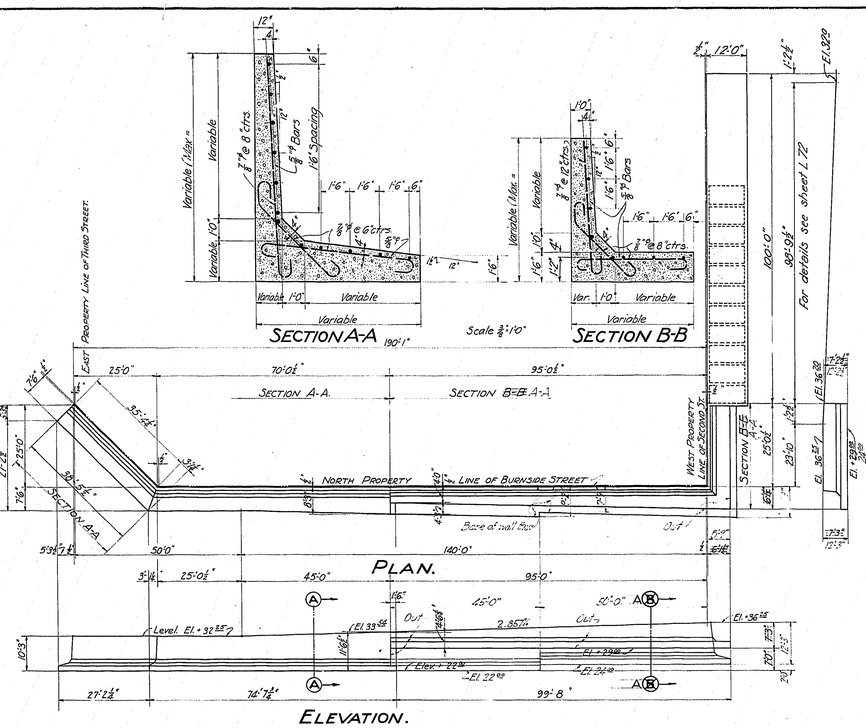
Made by H.W.R.	Gustav Lindenthal
Checked by	Consulting Engineer
Traced by H.W.R.	New York. Portland, Ore.
Checked by	Date - 12-28-25.
Drawing No GL-190-B	Sheet No. L 70-A
Scale: As Noted.	Portland, Oregon.

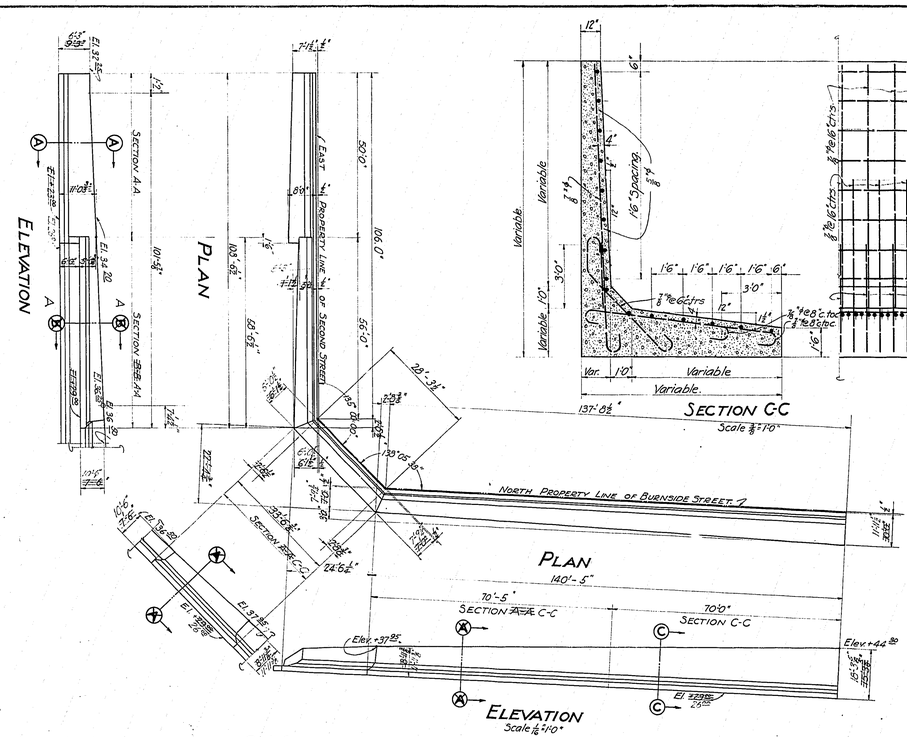
A61
-39

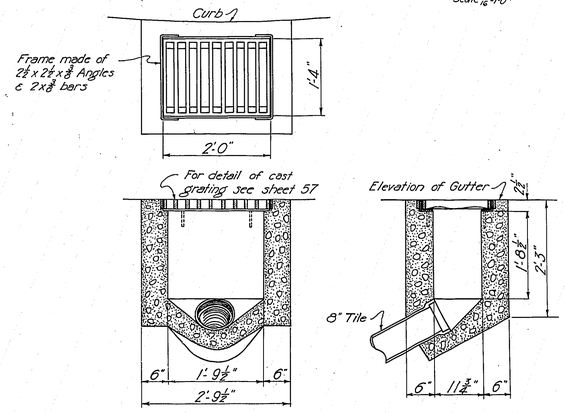
NOTICE: IF THIS DOCUMENT IS NOT LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau 1700 Southeast 11th Avenue Portland, Oregon 97214 503/233-4162 3M

REVISED







DETAIL OF INLET
Scale 1"=1'0"
1-2-4 Concrete

Concrete 1-2-4
For location see sheet L 70
For wall between 2nd & 3rd Streets on south side of Burnside see sheet L 72.

Note: References to sheets not belonging to this contract are to drawings for main contract, Burnside Bridge, on file with County Clerk.

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE
PORTLAND-OREGON.

RETAINING WALLS WEST APPROACH FILL

MADE BY	W.D.Smith
CHECKED BY	
TRACED BY	W.D.Smith
CHECKED BY	KHS
DRAWING NO.	GL-139-B
SHEETS	

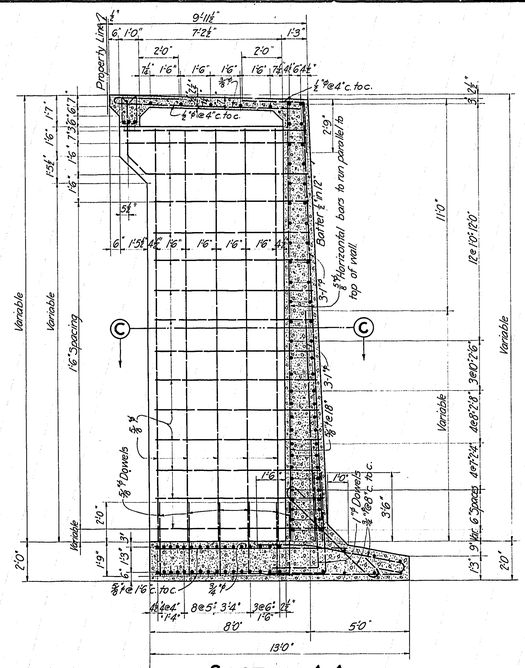
GUSTAV LINDENTHAL
CONSULTING ENGINEER
NEW YORK - PORTLAND, ORE.
DATE 12-8-24
SHEET NO. L-71
PORTLAND OFFICE
SCALE: AS NOTED.

ABT
80

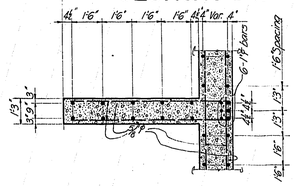
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau 1700 Southwest 11th Avenue Portland, Oregon 97214 503/223-5162 3M

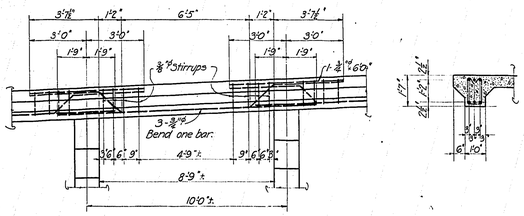
REVISED



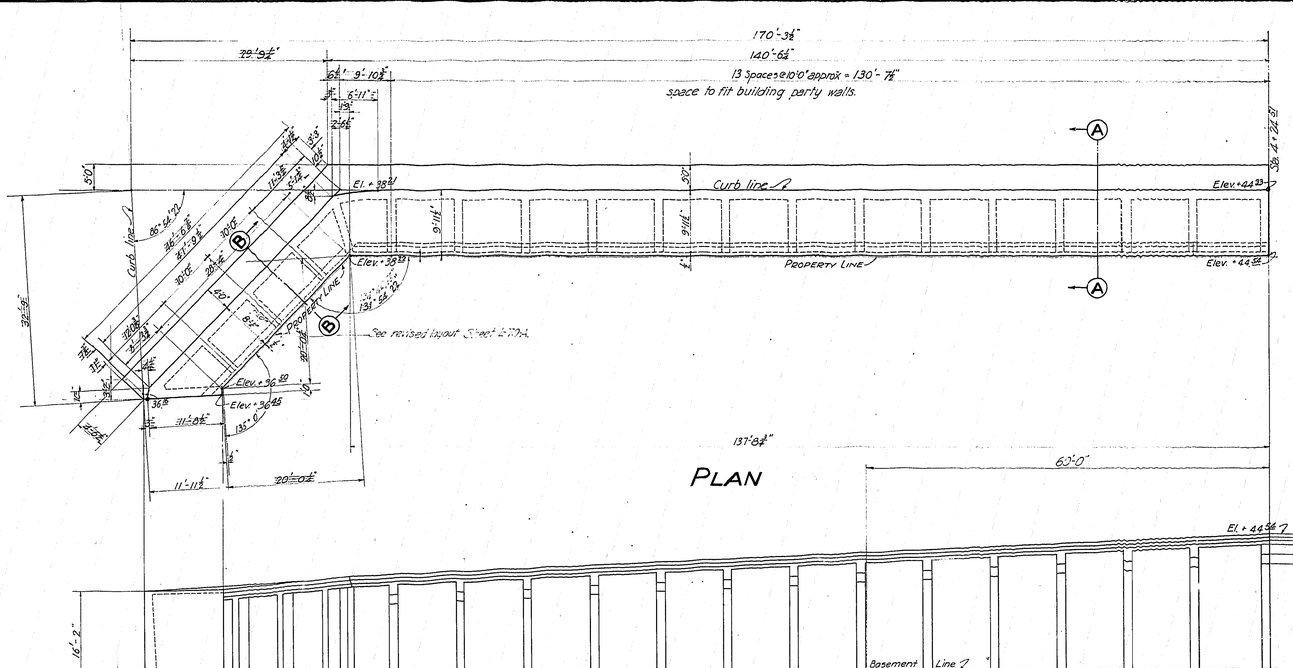
SECTION A-A.



SECTION C-C.
Scale 3/4"=1'0"

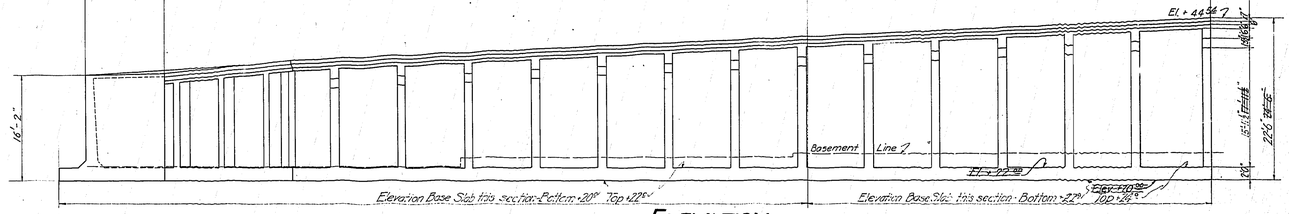


SIDEWALK BEAM.
Scale 3/4"=1'0"

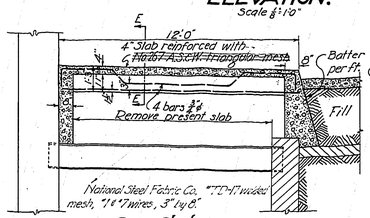


SECTION B-B.
Scale 3/4"=1'0"

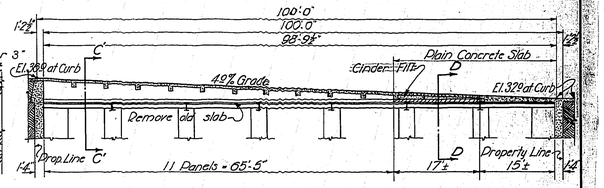
PLAN



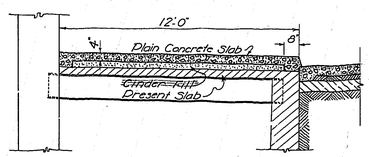
ELEVATION.
Scale 1/8"=1'0"



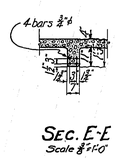
SEC. C-C'
Scale 3/4"=1'0"



LONGITUDINAL SECTION
Scale 1/8"=1'0"



SEC. D-D
Scale 3/4"=1'0"



SEC. E-E
Scale 3/4"=1'0"

For Location see general plan sheet L 70
for stairway " " " " L 74
Concrete mix 1:2:4

The above details are for the reconstruction of the walk on the west side of Second St. north of Burnside St. They will apply with slight modification to walks on both sides of Second St. south of Burnside St.

MULTNOMAH COUNTY - OREGON

BURNSIDE BRIDGE.
PORTLAND, OREGON.

WEST APPROACH BUTTRESS RETAINING WALL

MADE BY [illegible]
CHECKED BY
TRACED BY [illegible]
CHECKED BY KHS
DRAWING NO. GL-140-B
SHEETS

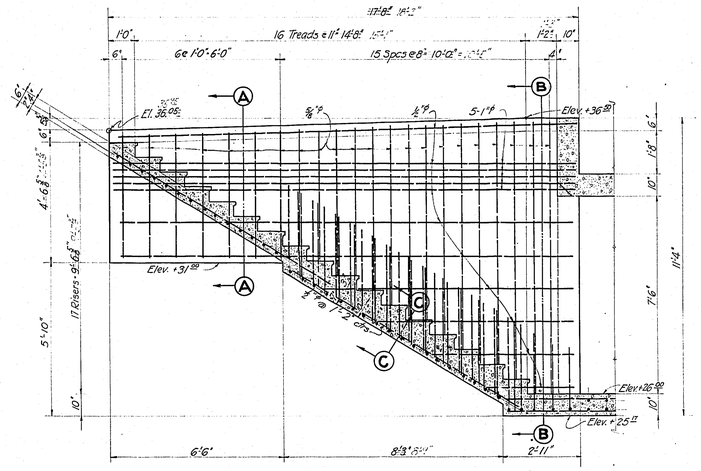
GUSTAV LINDENTHAL
CONSULTING ENGINEER
NEW YORK - PORTLAND, ORE.
DATE 12-8-24
SHEET NO. L-72
PORTLAND OFFICE
SCALE: AS NOTED

ABJ
BT

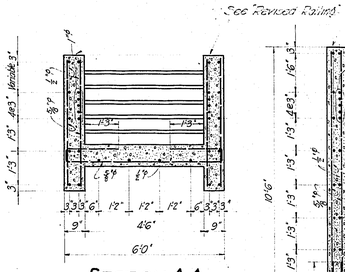
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau 1700 Southeast 11th Avenue Portland, Oregon 97214 503/233-0182 3M

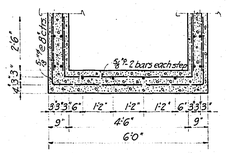
REVISED



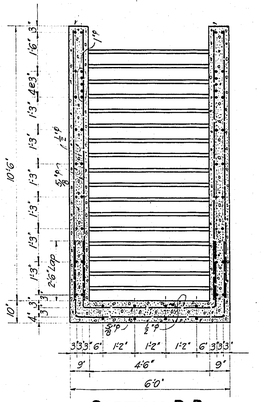
STAIRWAY No. 1



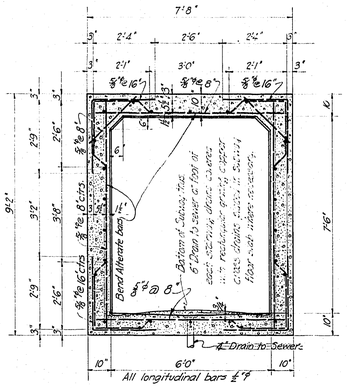
SECTION A-A.



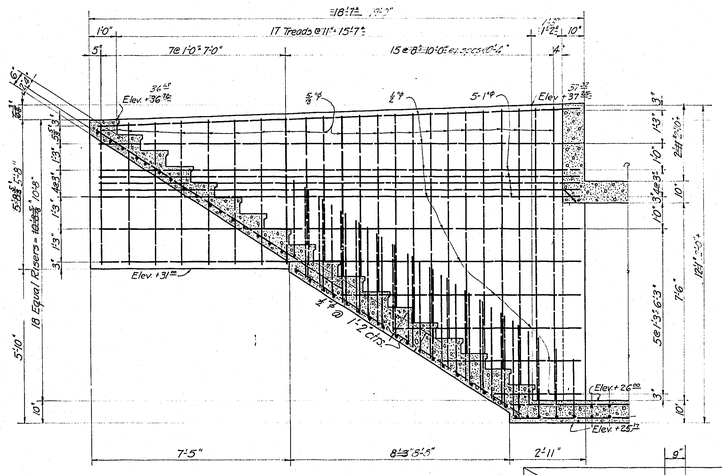
SECTION C-C.



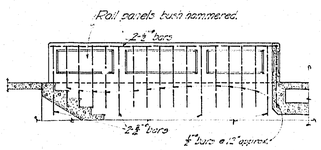
SECTION B-B.



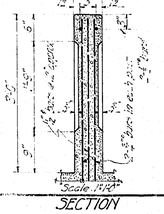
TYPICAL SECTION OF SUBWAY.



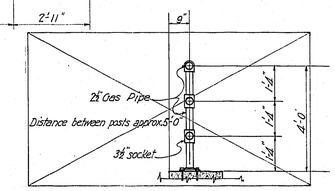
STAIRWAY NO. 2.
Sections similar to Stairway No. 1



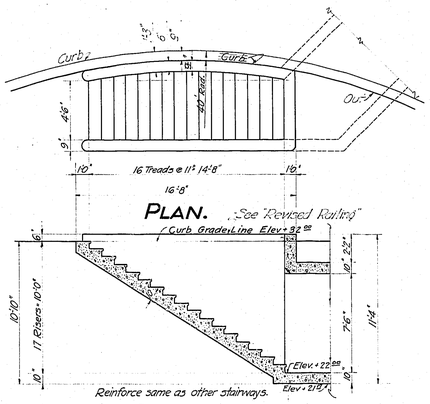
REVISED RAILING.



SECTION

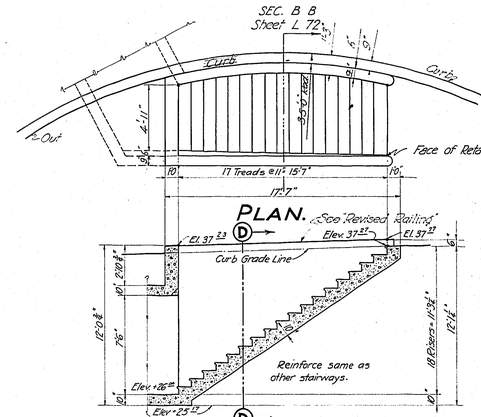


DETAIL OF RAILING
Scale ½" = 1'-0"



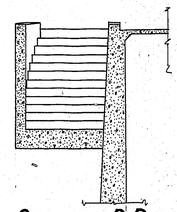
PLAN. "See Revised Railing"

SECTION.
STAIRWAY No. 3
Scale ½" = 1'0"
Stairway No. 2 similar to Stairway No. 3.



PLAN. "See Revised Railing"

SECTION
STAIRWAY No. 4
Scale ½"=1'0"



SECTION D D

Concrete 1 : 2 : 4
For retaining wall to be built in connection with stair wall see sheet L 72

MULTNOMAH COUNTY ~ OREGON

BURNSIDE BRIDGE.
PORTLAND, OREGON.

WEST APPROACH STAIRWAYS & SUBWAYS.

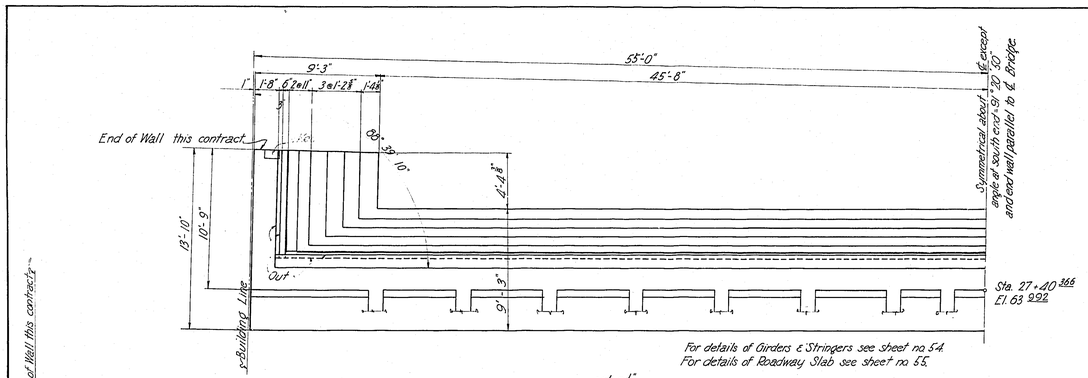
MADE BY W.D. Smith
CHECKED BY
TRACED BY W.D. Smith
CHECKED BY KHS
DRAWING NO. GL-142-B
SHEETS

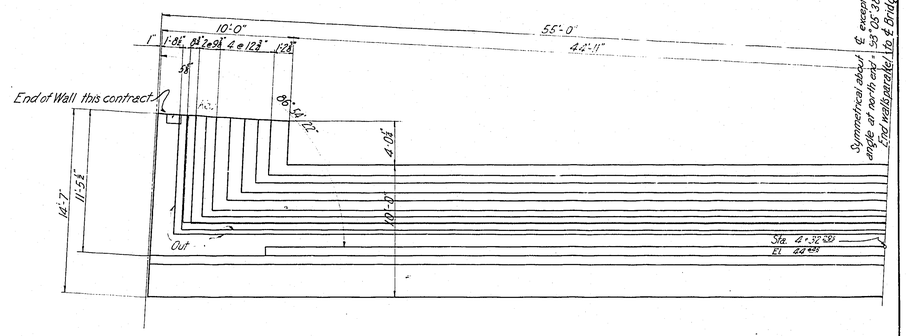
GUSTAV LINDENTHAL
CONSULTING ENGINEER
NEW YORK - PORTLAND, ORE.
DATE 12-6-24
SHEET NO. L-74
SCALE: ½"=1'0" UNLESS NOTED PORTLAND OFFICE

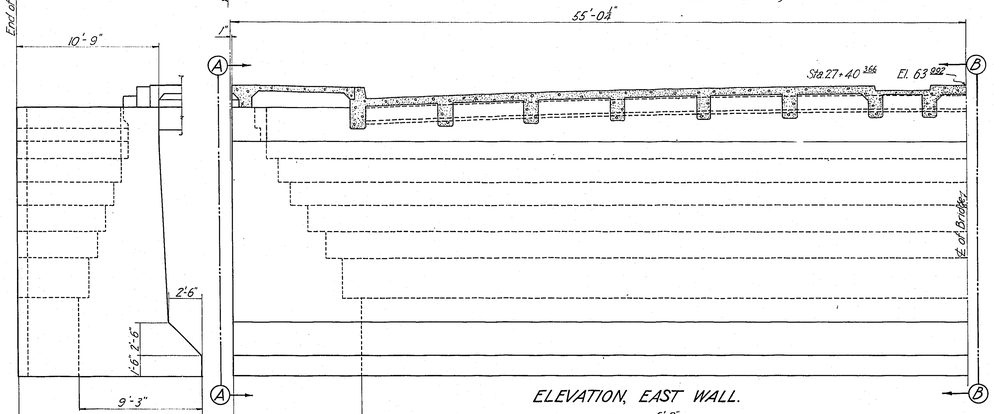
AB1
62

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

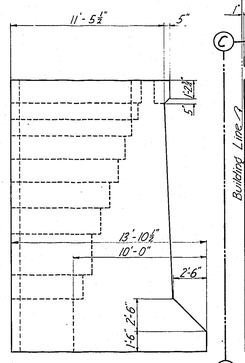
Business Equipment Bureau
1700 Southeast 11th Avenue
Portland Oregon 97214
503/233-6182
3M



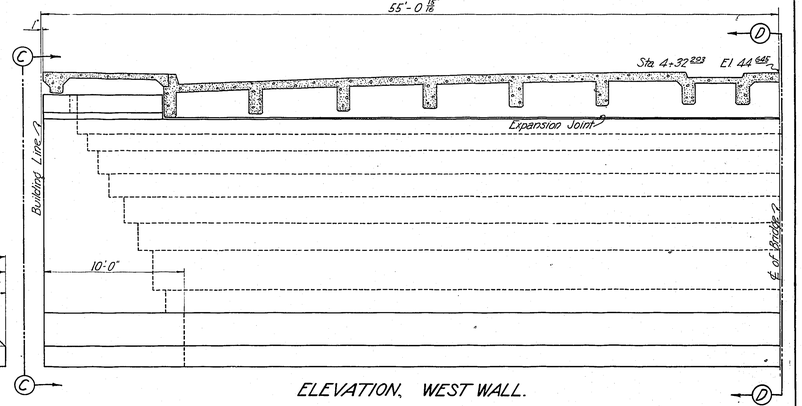




ELEVATION, EAST WALL.

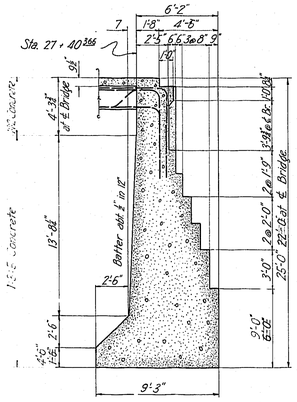


VIEW C-C.

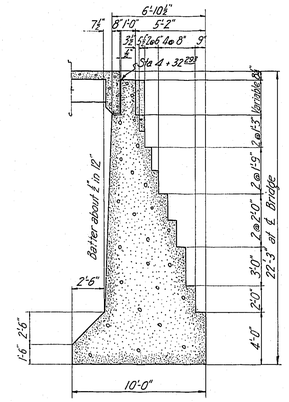


ELEVATION, WEST WALL.

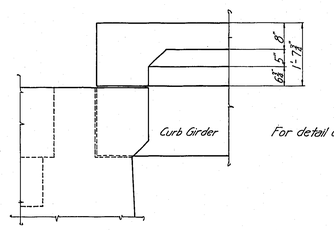
VIEW A-A



SECTION B-B.



SECTION D-D.



For detail of Expansion Joint see sheet 6.

VIEW ON C-C SHOWING POSITION OF FACIA GIRDER.

Scale ¾" = 1'-0"

All concrete 1:3:5

Construction Revisions Mar. 17th 1926 NWP

MULTNOMAH COUNTY, OREGON

BURNSIDE BRIDGE

PORTLAND, OREGON.

REVISED

EAST-WEST ABUTMENT WALLS

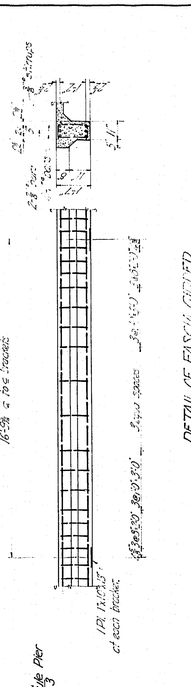
MADE BY	R.C.	GUSTAV LINDENTHAL CONSULTING ENGINEER
CHECKED BY	K.H.S.	
TRACED BY	R.	NEW YORK PORTLAND, ORE.
CHECKED BY		DATE - APRIL 29, 1925.
DRAWING NO. GL 185-B.		SHEET NO. L-75
Scale - ¾" = 1'-0"		PORTLAND OFFICE

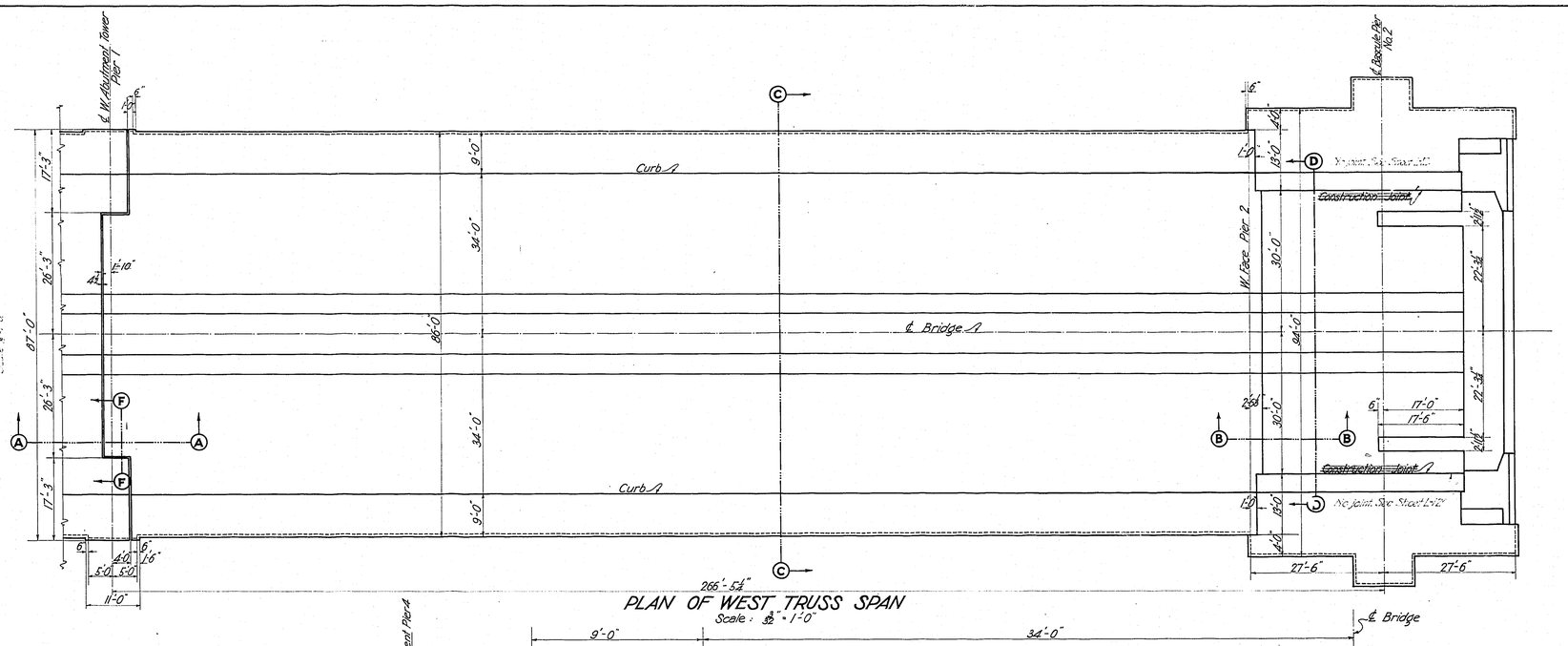
AEJ 8.3 L-24

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

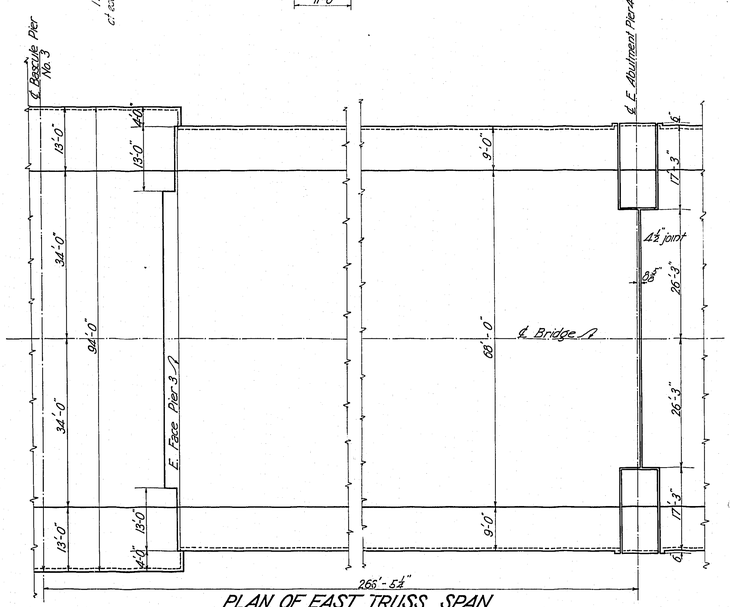
Business Equipment Bureau 1700 Southeast 11th Avenue Portland, Oregon 97214 503/233-5982 3M

REVISED
K·H·S 10/3/25

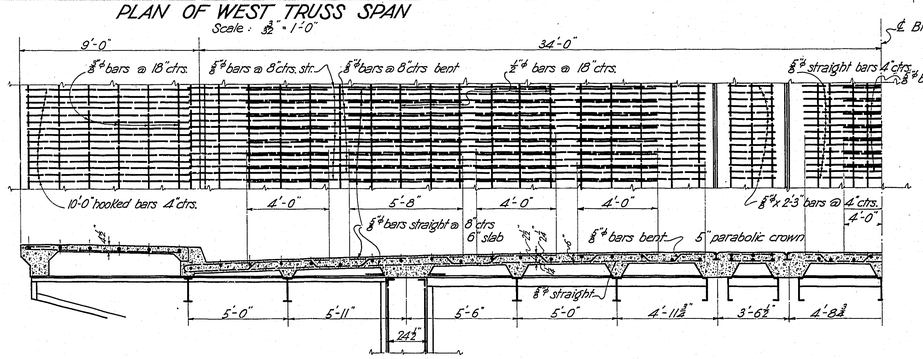




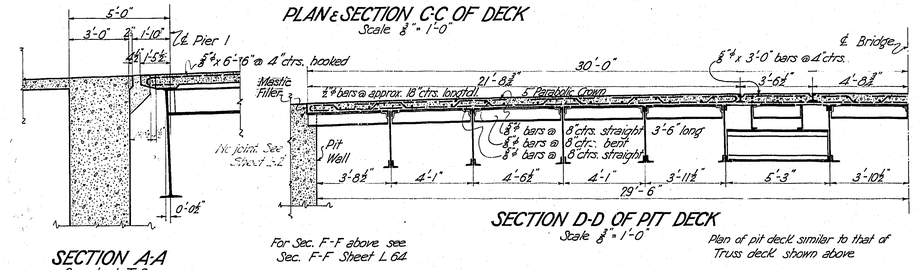
PLAN OF WEST TRUSS SPAN
Scale: 3/32" = 1'-0"



PLAN OF EAST TRUSS SPAN
Scale 3/32" = 1'-0"



PLAN & SECTION C-C OF DECK
Scale 3/8" = 1'-0"

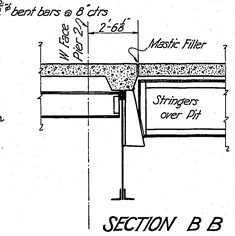


SECTION A-A
See sheet T 9

For Sec. F-F above see Sec. F-F Sheet L 64

SECTION D-D OF PIT DECK
Scale 3/8" = 1'-0"

Plan of pit deck similar to that of Truss deck shown above.



SECTION B B

For detail of sidewalks, gutter, and curb girder over Piers 2 & 3 see sheet 13

Use this sheet with sheets L-12 & L-76. In case of conflict sheets L-12 & L-76 govern.

Concrete H-S

MULTNOMAH COUNTY – OREGON

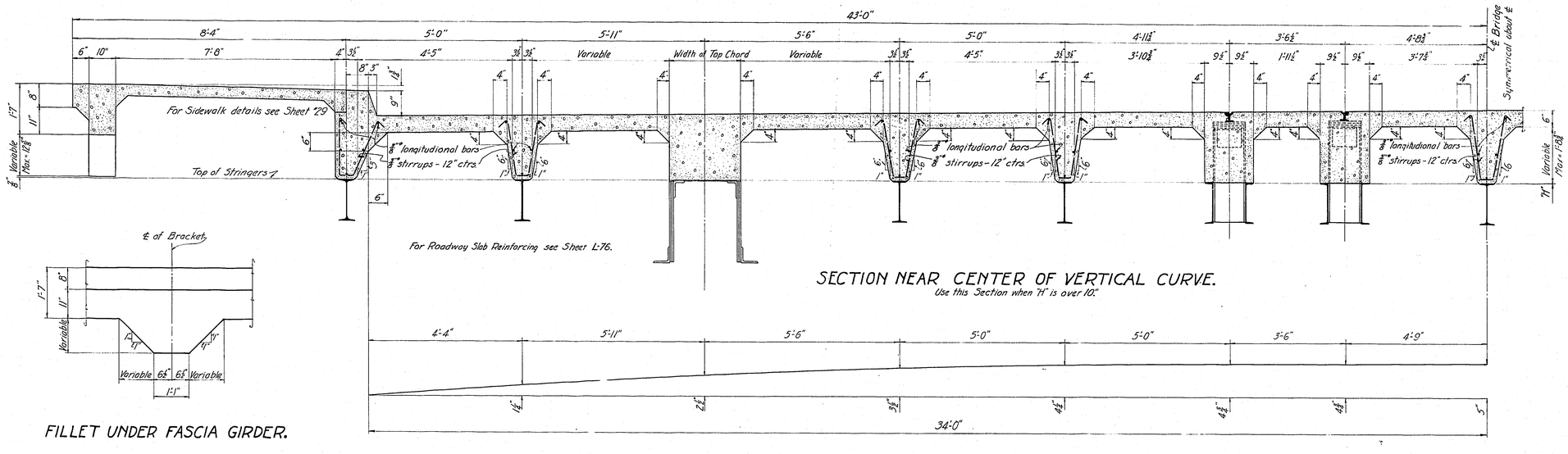
BURNSIDE BRIDGE
PORTLAND, OREGON

DETAILS OF DECK ON FIXED SPANS

MADE BY R.C.	GUSTAV LINDENTHAL
CHECKED BY K.H.S	CONSULTING ENGINEER
TRACED BY R.C.	NEW YORK - PORTLAND, ORE
CHECKED BY	DATE JULY 16TH 1925
DRAWING NO G.L. 187 B	SHEET NO. L 76
SHEETS	SCALES AS NOTED PORTLAND, OREGON

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

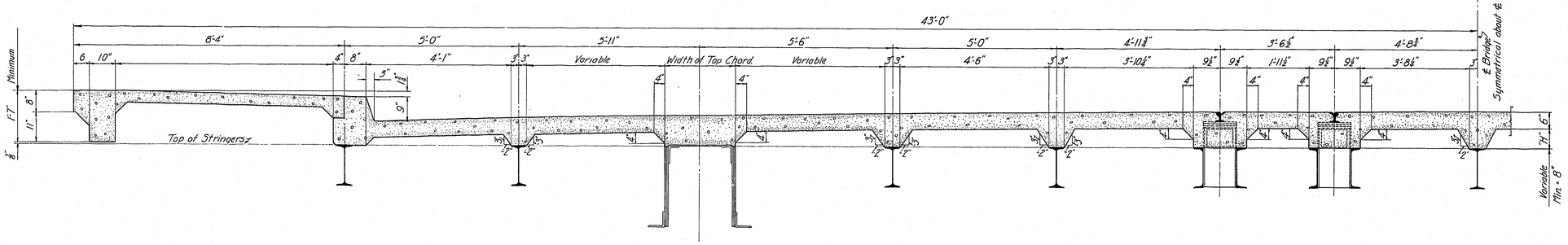
Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6161
3M



SECTION NEAR CENTER OF VERTICAL CURVE.
Use this Section when "H" is over 10".

FILLET UNDER FASCIA GIRDER.

CAMBER DIAGRAM.
Not to Scale.



SECTION NEAR END OF SPAN.
Use this Section when "H" is under 10."

For Slab Reinforcing see Sheet L-76
Concrete 1-1-2

MULTNOMAH COUNTY - OREGON

BURNSIDE BRIDGE
PORTLAND, OREGON

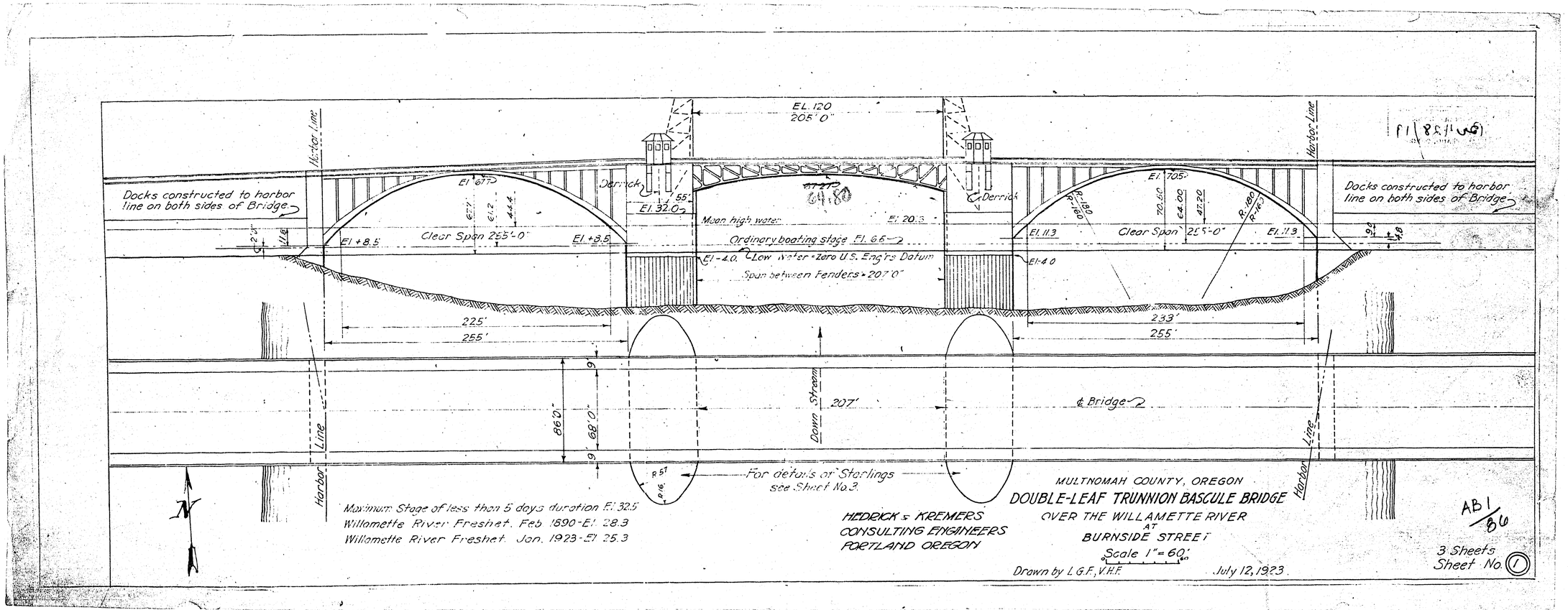
DETAILS OF DECK-WEST FIXED SPAN

MADE BY AMR
CHECKED BY
TRACED BY AMR
CHECKED BY
DRAWING NO G.L. 191 B.
SCALE-½" = 1'-0"

GUSTAV LINDENTHAL
CONSULTING ENGINEER
NEW YORK - PORTLAND, ORE.
DATE JAN. 6TH, 1926.
SHEET NO. L 77
PORTLAND, OREGON.

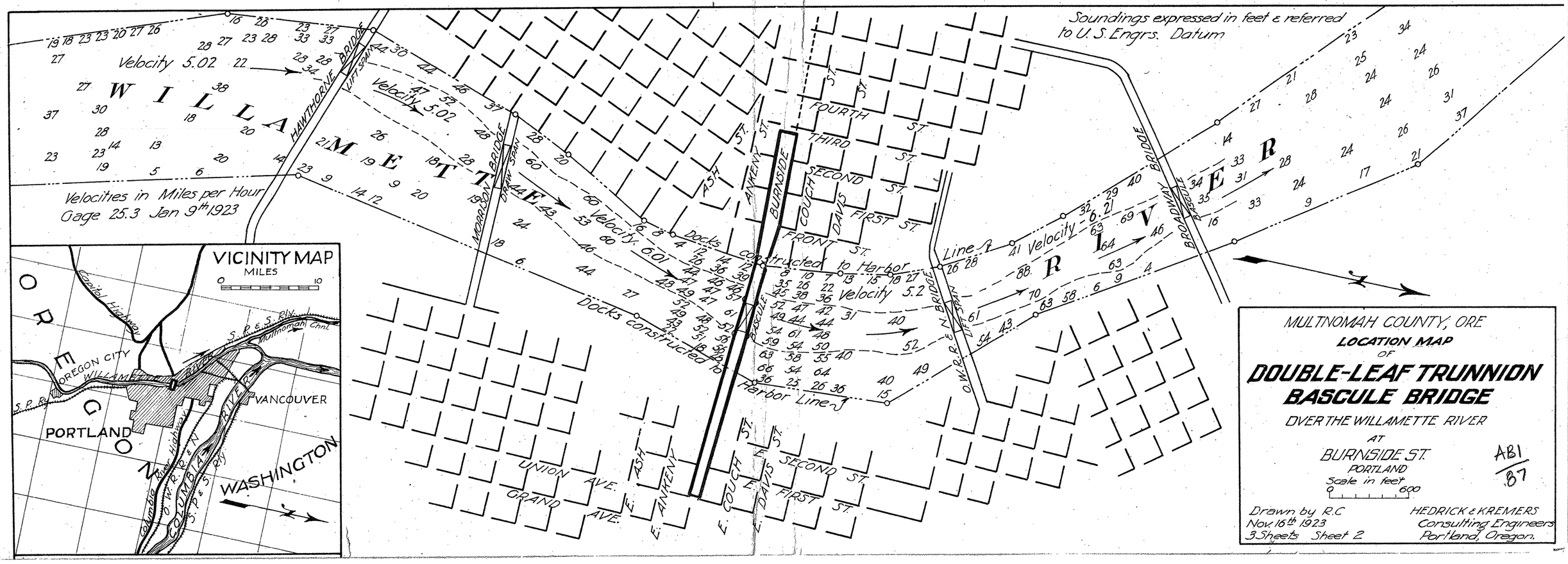
NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/234-0162
3M



NOTICE: IF THIS DOCUMENT IS LESS
LEGIBLE THAN THIS NOTICE IT IS
DUE TO THE QUALITY OF THE ORIGINAL.

STERLING Business Equipment Bureau
1700 Southeast 11th Avenue
Portland, Oregon 97214
503/233-6182
3M



MULTNOMAH COUNTY, ORE

LOCATION MAP

OF

DOUBLE-LEAF TRUNNION BASCULE BRIDGE

OVER THE WILLAMETTE RIVER

AT

BURNSIDE ST.

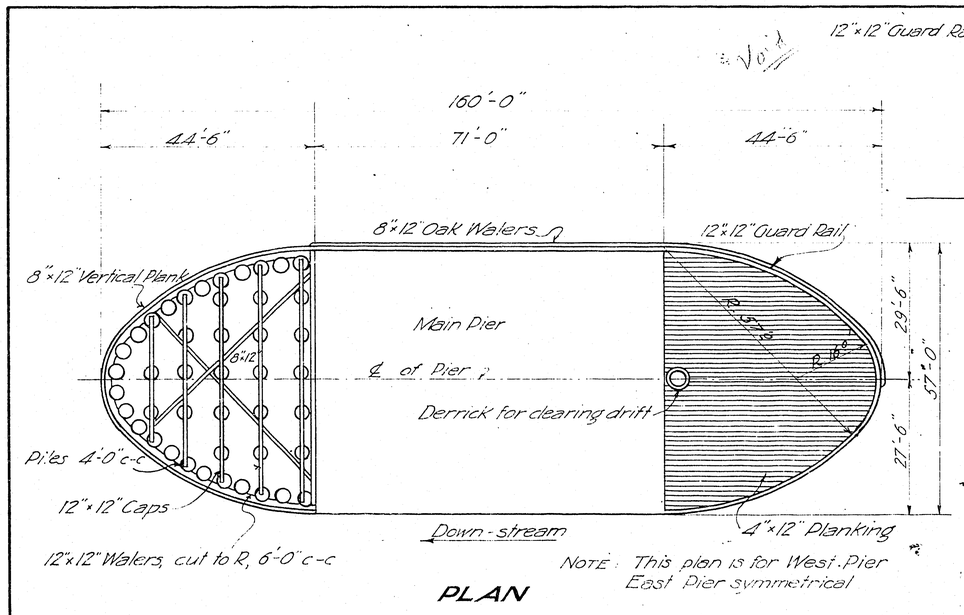
PORTLAND

Scale in feet 0 600

ABI / 87

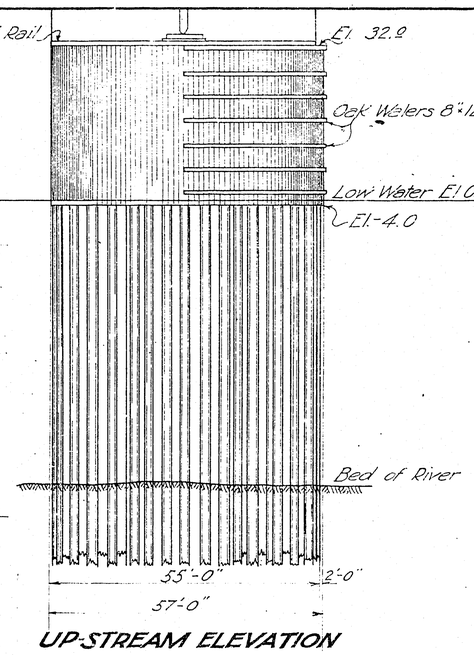
Drawn by R.C
Nov. 16th 1923
3 Sheets Sheet 2

HEDRICK & KREMERS
Consulting Engineers
Portland, Oregon.

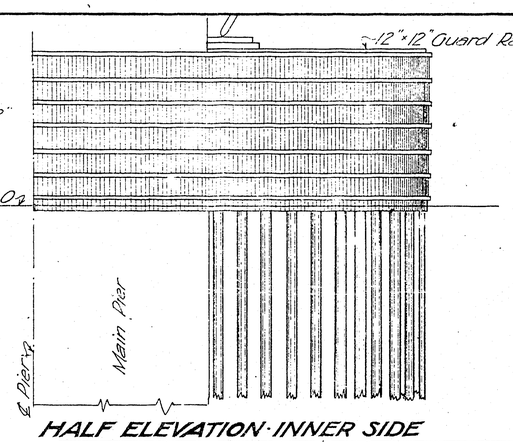


PLAN

NOTE: This plan is for West Pier
East Pier symmetrical



UP-STREAM ELEVATION



HALF ELEVATION · INNER SIDE

MULTNOMAH COUNTY, OREGON
BURNSIDE BRIDGE
DETAILS
OF
STARLINGS FOR MAIN RIVER PIERS
Scale in feet 0 10 20
AB1/88

Made by E R C
November 16th 1923
3 Sheets Sheet No 3

HEDRICK & KREMERS
CONSULTING ENGINEERS
PORTLAND, OREGON

NOTICE: IF THIS DOCUMENT IS LESS LEGIBLE THAN THIS NOTICE IT IS DUE TO THE QUALITY OF THE ORIGINAL.

STERLING Business Equipment Bureau 1700 Southeast 11th Avenue Portland, Oregon 97214 503/233-6182 3M