

OMIK: 8-27

STRAUSS TRUNNION BASCULE BRIDGE  
-PATENTED-  
OVER

CATARAQUI RIVER  
KINGSTON HARBOR IMPROVEMENTS  
FOR

DEPT. OF PUBLIC WORKS

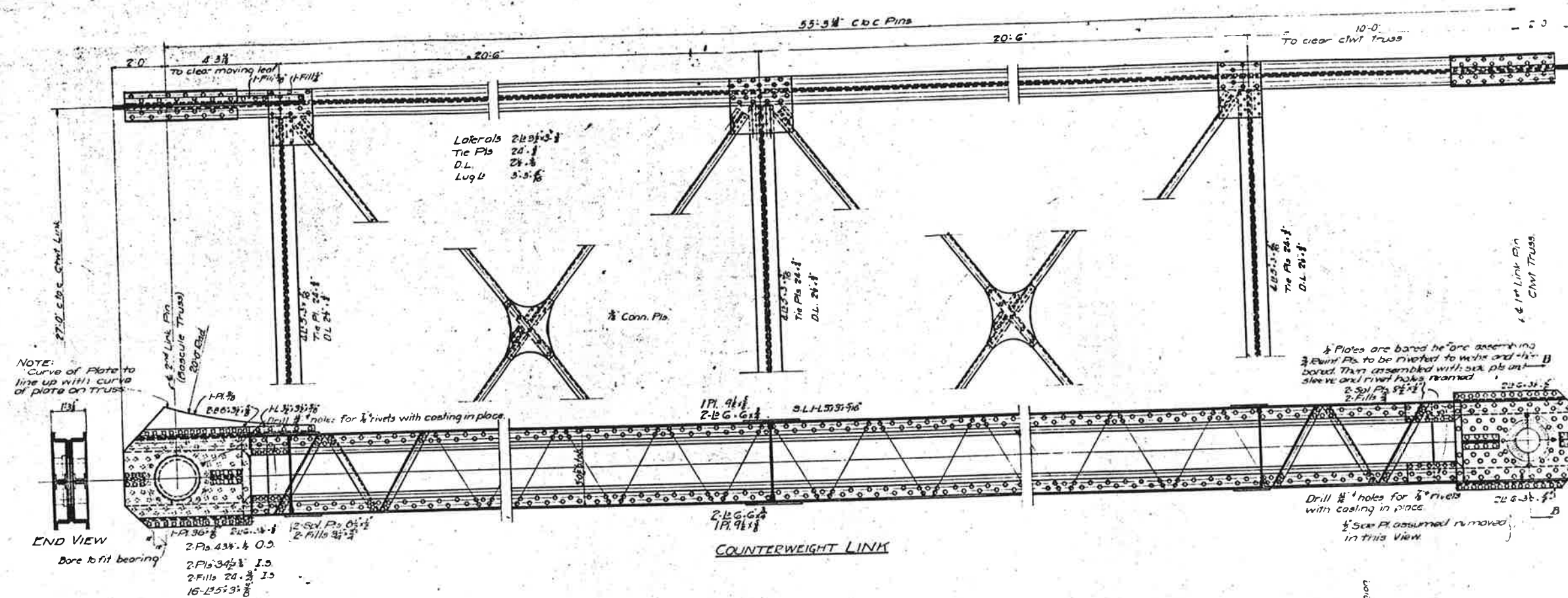
DRAWN BY H.C.M.  
TRACED BY H.F.D.  
CHECKED BY W.L.E. 4/4  
REVISED  
CTWT. TRUSS-UPPER PART

THE STE. JOH.  
BASCULE BRIDGE CO  
CHICAGO

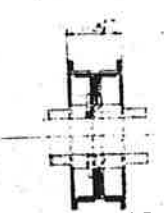
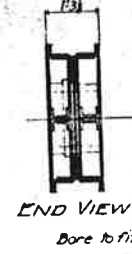
SCALE 3/8" = 1'  
GEN. FILE 573

SHEET NO. 11

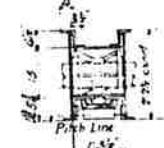
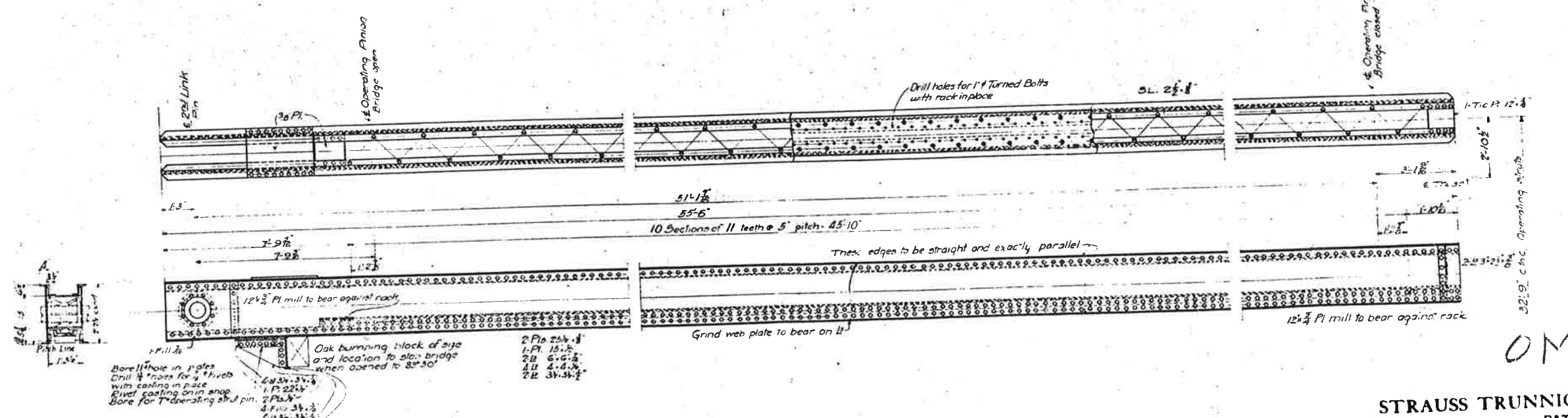
**GENERAL NOTES:**  
Material and workmanship as per specifications  
Rivets 3/4 diam.  
Open Holes 1/8 diam  
Specifications: see sheet #2  
For lower part of Cant. Truss see sheet No. 12



NOTE:  
 Curve of Plate to  
 line up with curve  
 of plate on truss



2 PA 4 1/2 x 10  
 2 PA 3 1/2 x 8 1/2  
 2 PA 2 1/2 x 6 1/2  
 16 L 3 1/2 x 3 1/2  
 1 PA 3 1/2 x 10



Bore 1 1/2\"/>
 Drill 1/2\"/>
 Rivet coating on a snap  
 Bore for T-Operating strut pin

2 Pls 2 1/2 x 1 1/2  
 1 Pl 1 1/2 x 1 1/2  
 2 L 6 x 6 x 3/4  
 4 L 4 x 4 x 3/4  
 2 L 3 1/2 x 3 1/2 x 3/4

OPERATING STRUT

GENERAL Notes  
 Material and workmanship as per specifications  
 Specifications see Sheet #2  
 Rivets 3/4\"/>

OMK 18-27

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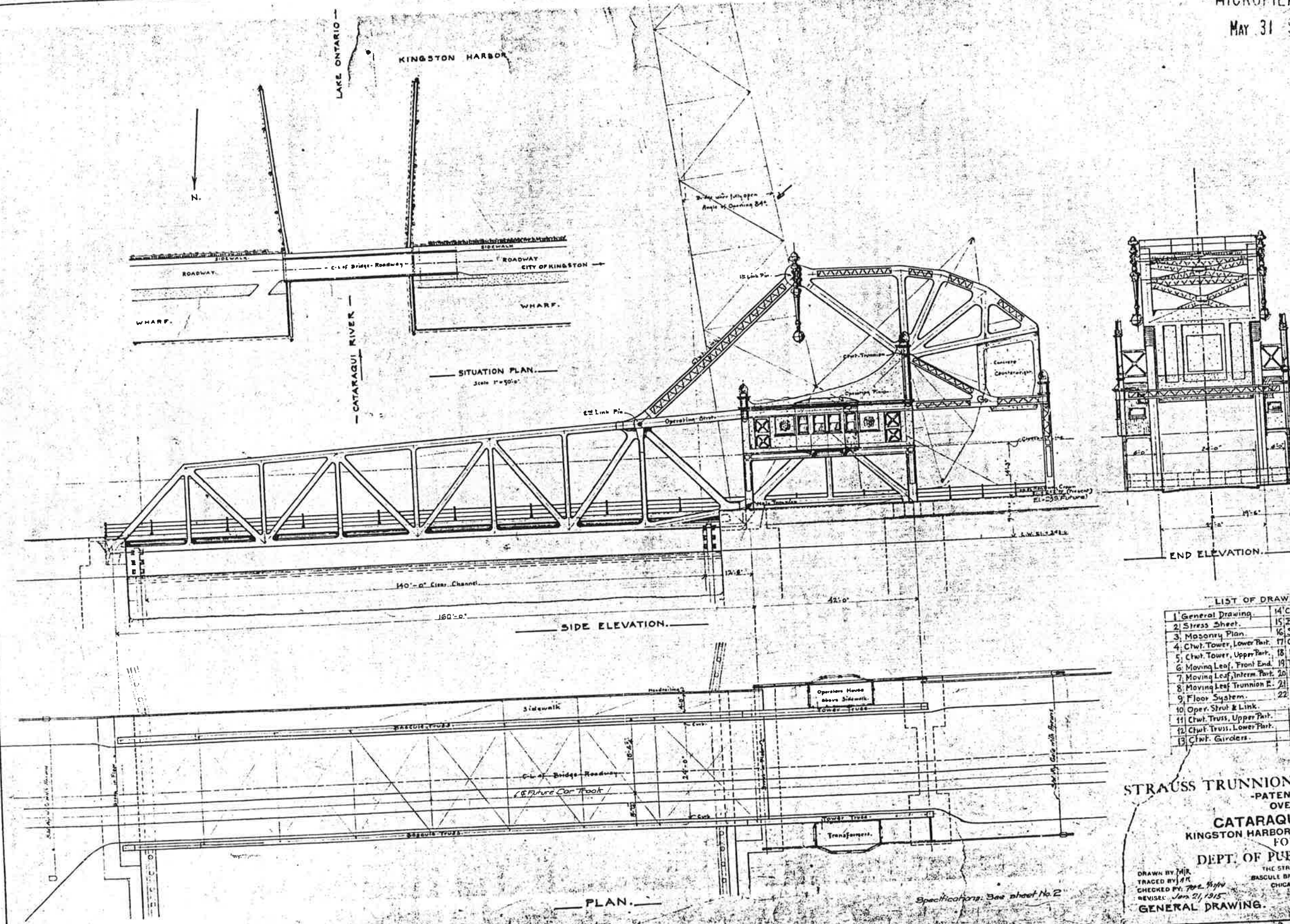
DRAWN BY: D. P.  
 TRACED BY: S.L.  
 CHECKED BY: H. A. G. / J. W. G.  
 REVISED

THE STRAUSS  
 BASCULE BRIDGE CO.  
 CHICAGO

SHEET # 2  
 DATE: 12-2-20  
 PLAN NO. 573

COUNTERWEIGHT LINK & OPERATING STRUT

MICROFILMED  
MAY 31 50



LIST OF DRAWINGS

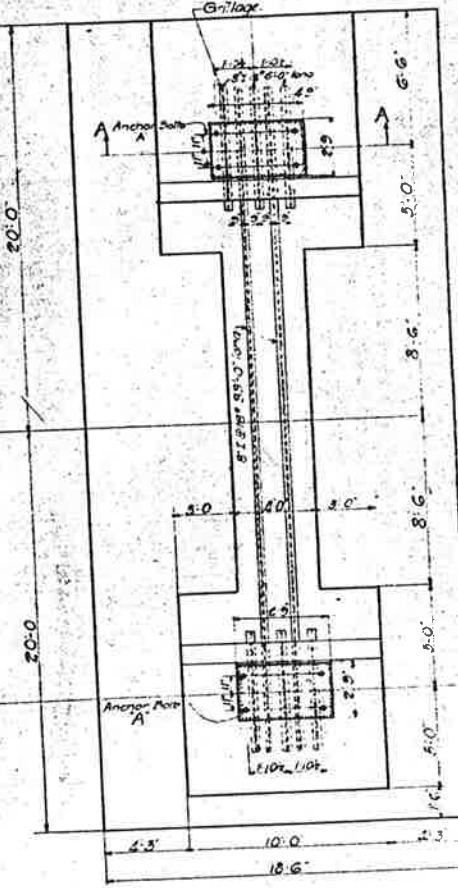
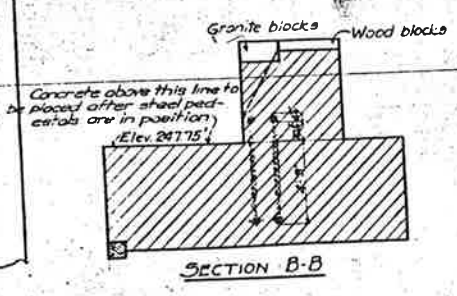
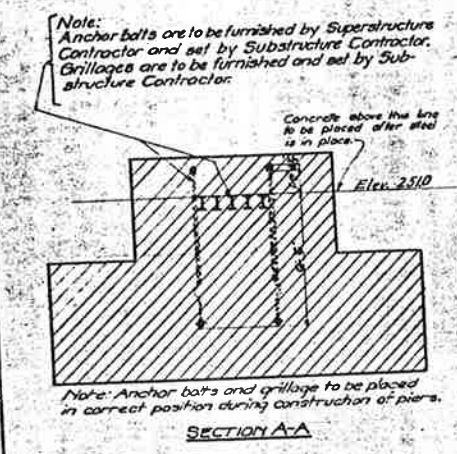
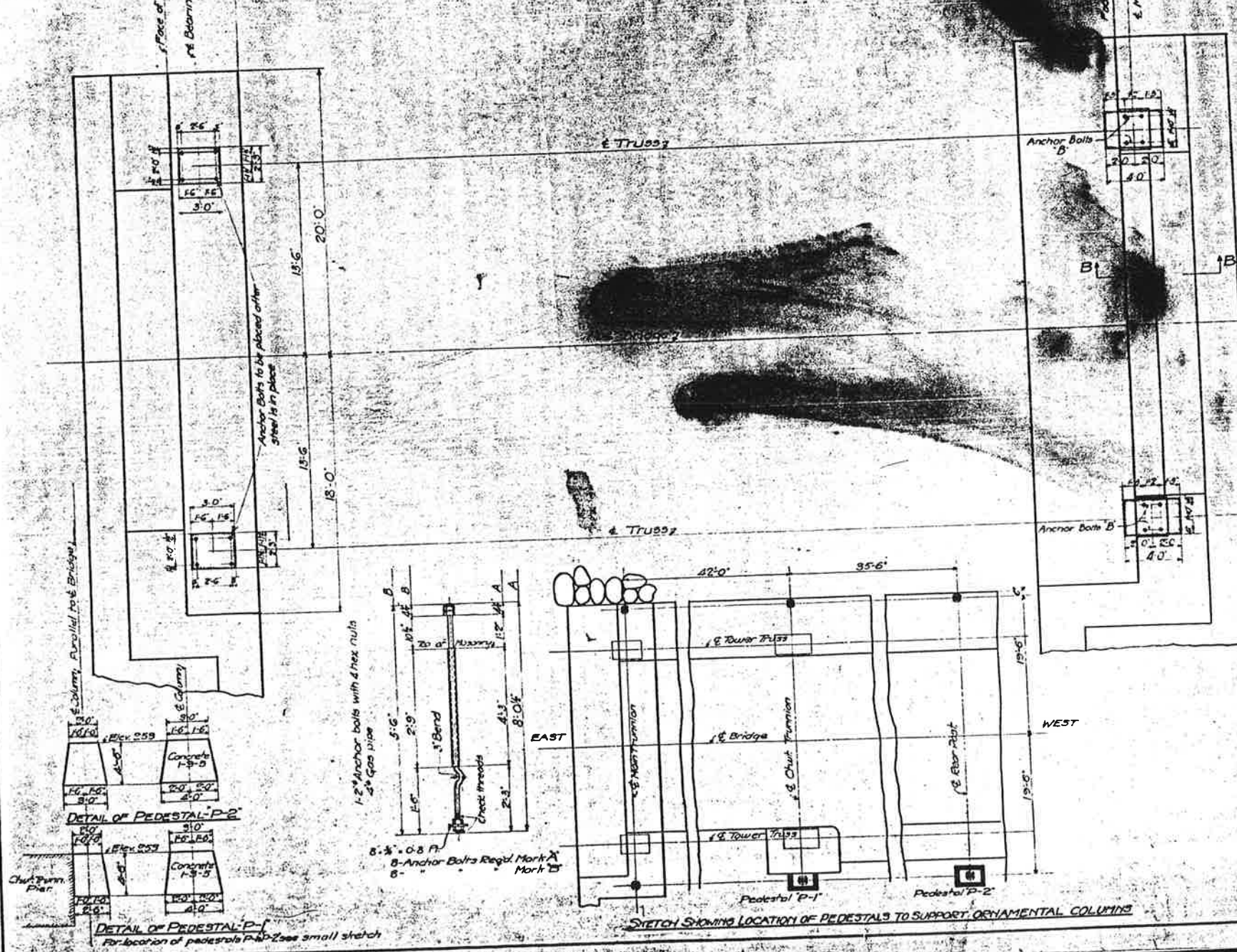
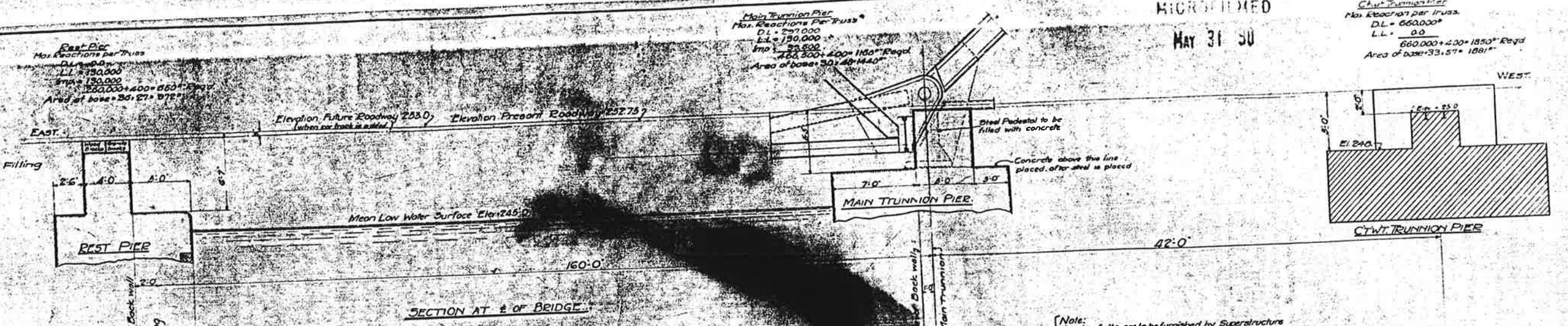
1. General Drawing	14. Concrete Counterweight
2. Stress Sheet	15. Bridge Deck
3. Masonry Plan	16. Stairways & Hand-Rails
4. Chut. Tower, Lower Part	17. Operating Machinery
5. Chut. Tower, Upper Part	18. Machinery Details
6. Moving Leaf, Front End	19. Trunnion & Bearings
7. Moving Leaf, Interim Part	20. End Lock & Buffer
8. Moving Leaf, Trunnion E.	21. Electrical Equipment
9. Floor System	22. Operators House
10. Oper. Strut & Link	
11. Chut. Truss, Upper Part	
12. Chut. Truss, Lower Part	
13. Chut. Girders	

STRAUSS TRUNNION BASCULE BRIDGE  
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FOR  
DEPT. OF PUBLIC WORKS  
THE STRAUSS  
BASCULE BRIDGE CO.  
CHICAGO  
DRAWN BY J.H.R.  
CHECKED BY J.H.R.  
REVISED Jan 21, 1915  
GENERAL DRAWING  
SCALE  
DATE  
NO. 1  
SHEET NO. 1

Specifications: See sheet No. 2

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CH. Trunnion Pier  
Max. Reaction per Truss  
D.L. = 660,000  
L.L. = 0.0  
660,000 + 400 = 1,060,000  
Area of base = 33.57 x 188.1



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**STRAUSS TRUNNION BASCULE BRIDGE**  
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**DEPT. OF PUBLIC WORKS**

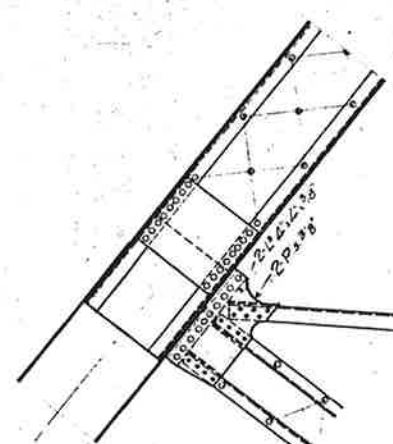
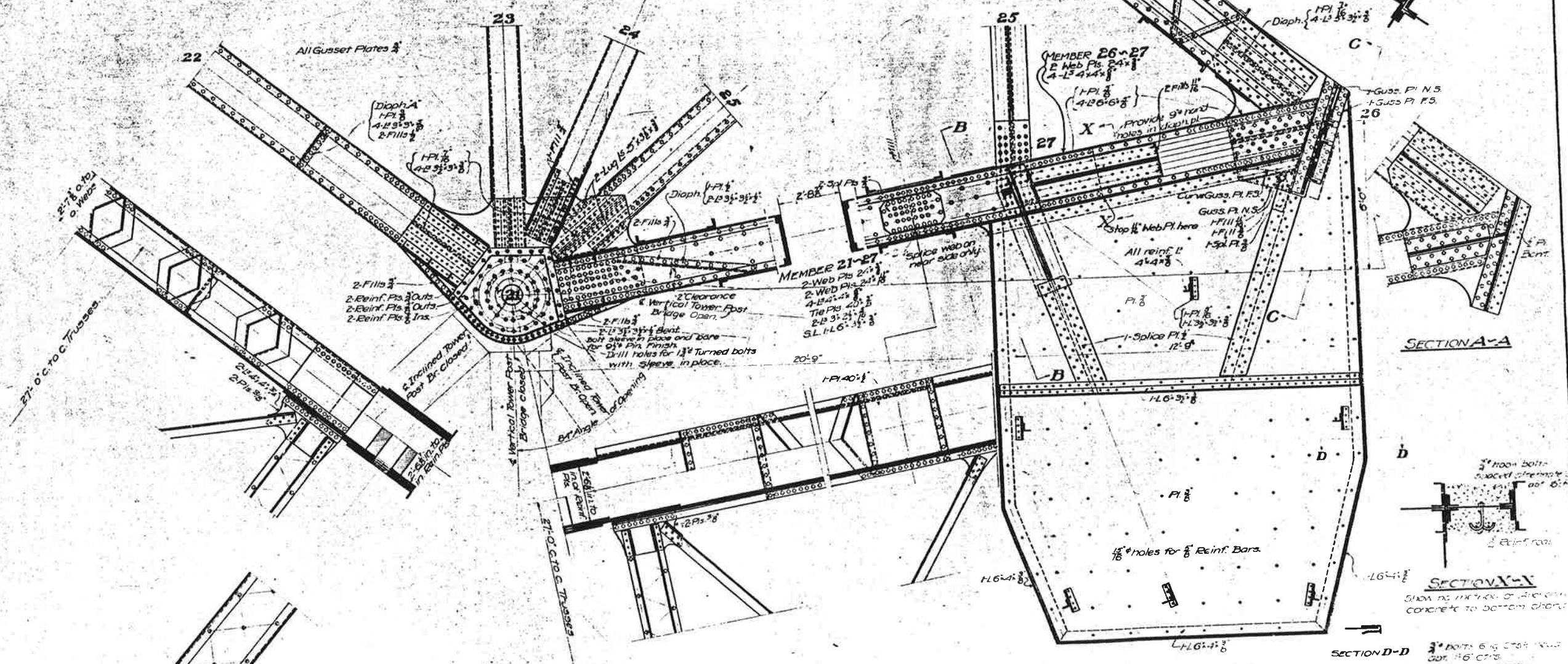
General Notes:  
Material and workmanship as per specifications; see sheet #2  
MASONRY PLAN

DRAWN BY F.L.D.  
TRACED BY AL  
CHECKED BY J. H. H. / J. H. H.  
REVISED  
THE STRAUSS  
BASCULE BRIDGE CO  
CHICAGO  
SCALE 1/4" = 1'-0"  
DATE 11-2-22  
GEN. FILE 573  
SHEET NO. 3



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NOTE:  
For Section C-C and Section B-B  
See Girders E and D on sheet No. 13



INSIDE ELEVATION

GENERAL NOTES:  
Material and Workmanship: as per specifications.  
Rivets: 3/8 diam.  
Open Holes: 1/8 diam.  
Specifications: see sheet #2.  
For upper part of Counterweight Truss see sheet No. 11.

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STRAUSS TRUNNION BASCULE BRIDGE  
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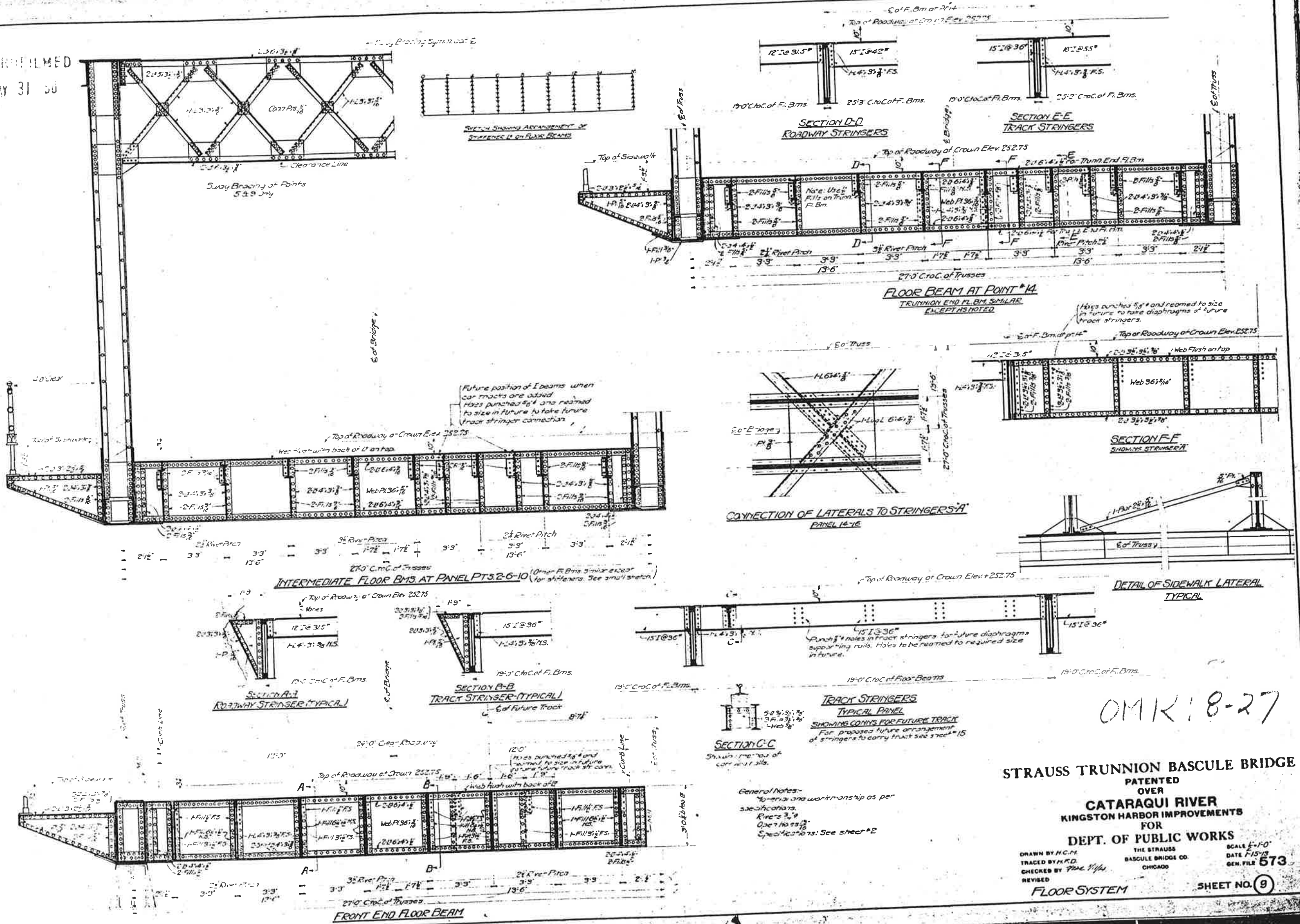
DRAWN BY H.C.M.  
TRACED BY H.C.J.  
CHECKED BY H.C.J.  
REVISED  
THE STRAUSS  
BASCULE BRIDGE CO  
CHICAGO  
DATE 2-2-27  
GEN. FILE 573  
SHEET NO. 12

SECTION A-A

SECTION X-X

SECTION D-D  
3" bolts 6' long  
Typical detail for anchoring  
corner angle to concrete

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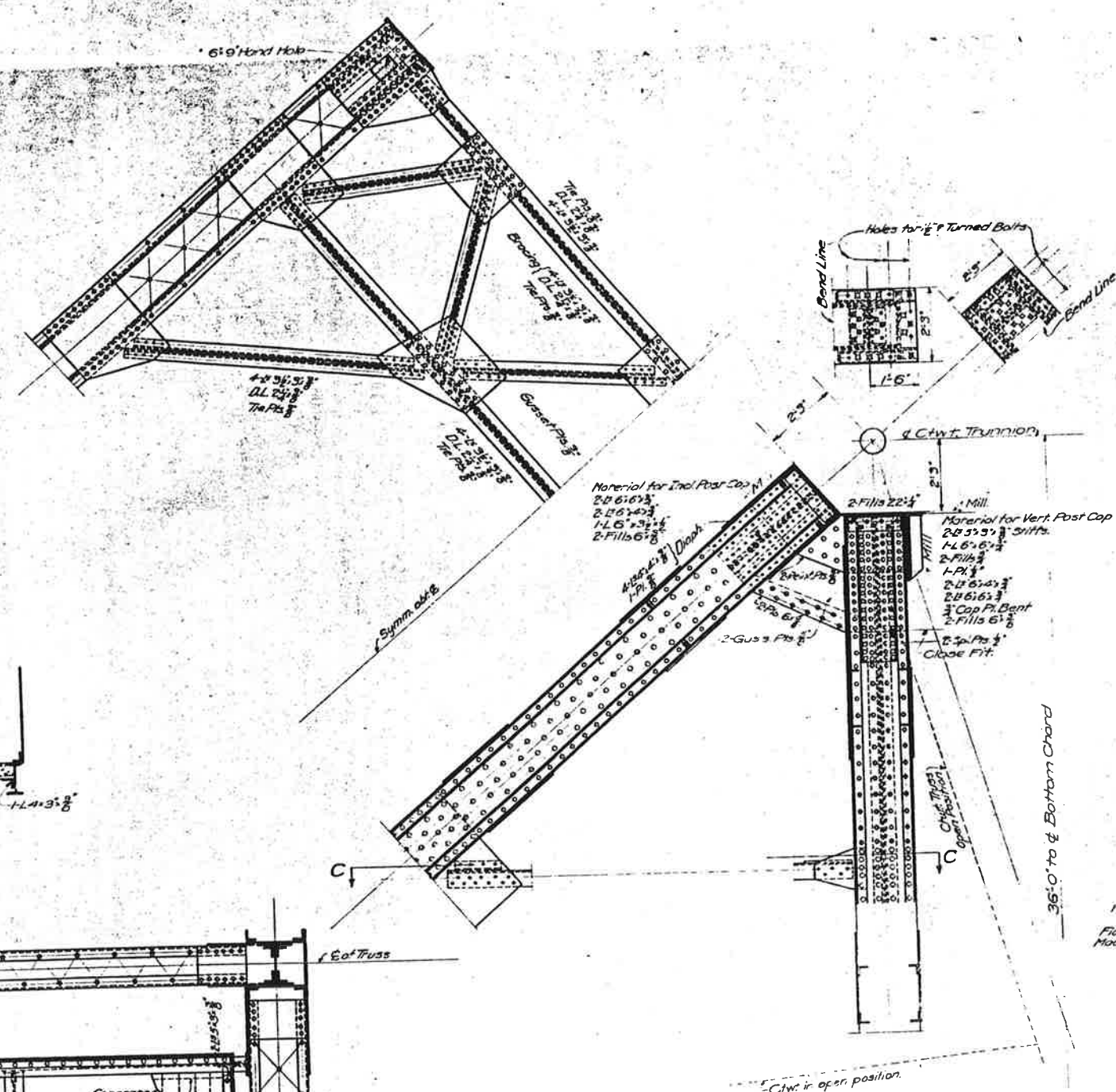
OMK: 8-27

**TRACK STRINGERS TYPICAL PANEL**  
SHOWING COINGS FOR FUTURE TRACK  
FOR PROPOSED FUTURE ARRANGEMENT  
OF STRINGERS TO CARRY TRACK SEE SHEET #15

General Notes:  
Materials and workmanship as per  
specifications.  
Rivet 3/8"  
Openings 1/2"  
Specifications: See sheet #2

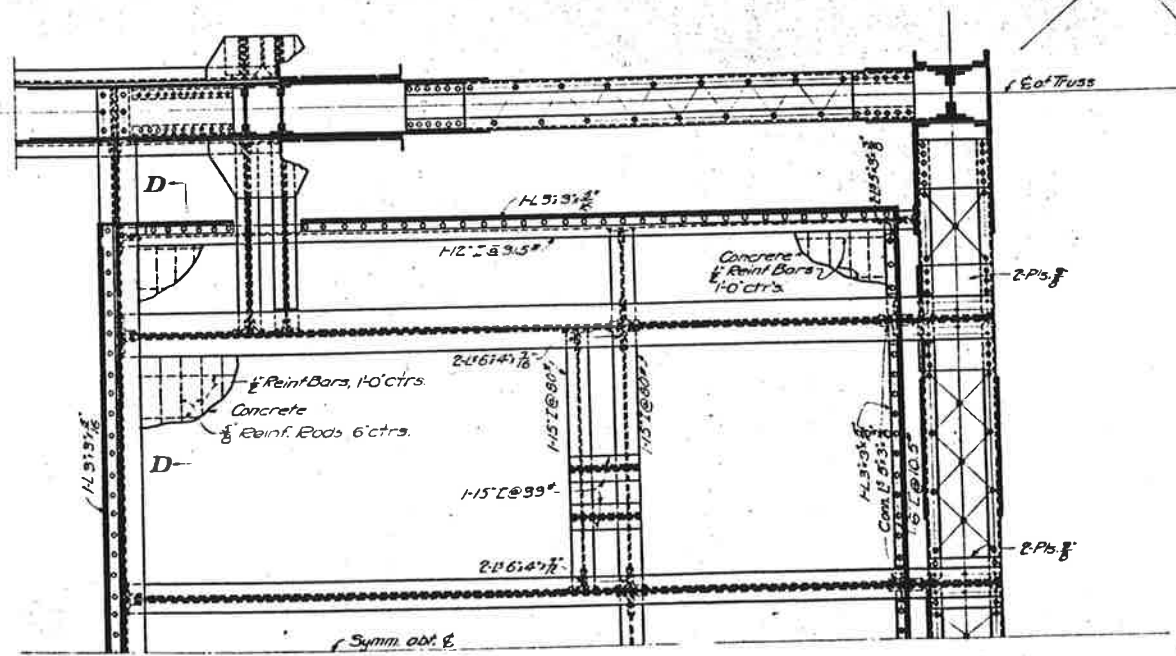
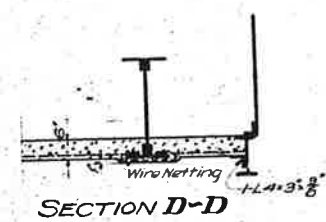
**STRAUSS TRUNNION BASCULE BRIDGE**  
PATENTED  
OVER  
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KINGSTON HARBOR IMPROVEMENTS  
FOR  
DEPT. OF PUBLIC WORKS  
THE STRAUSS  
BASCULE BRIDGE CO.  
CHICAGO  
SCALE 1/4"=1'-0"  
DATE 5/15/19  
GEN. FILE 573  
FLOOR SYSTEM  
SHEET NO. 9

HIGHWAY  
MAY 31 1914

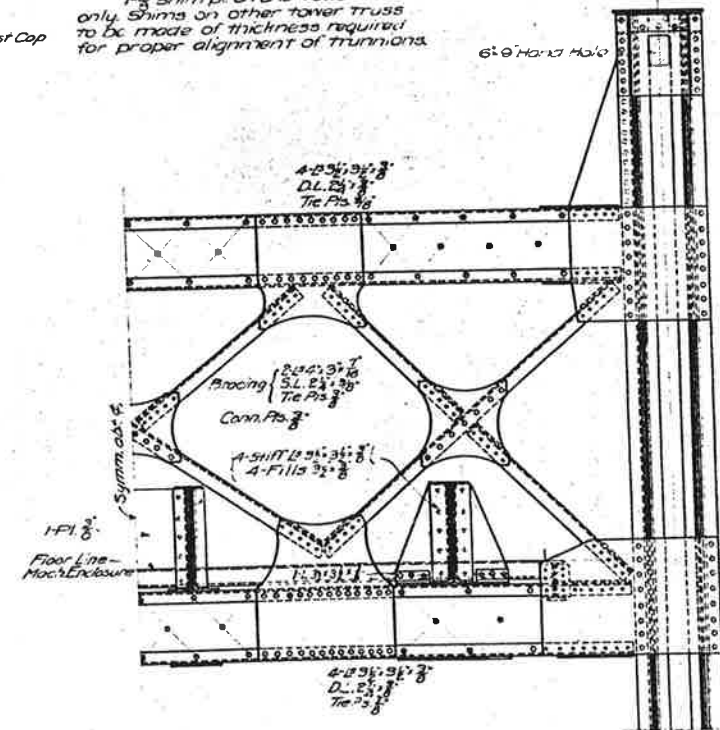


NOTE: Holes in shim pls and cap pls. to be drilled in the field to match bearings after accurately set and aligned

NOTE: 1/2" shim pl on one tower truss only. Shims on other tower truss to be made of thickness required for proper alignment of trunnions.



INSIDE ELEVATION.  
For detail of CWT Tower lower part see sheet 2.



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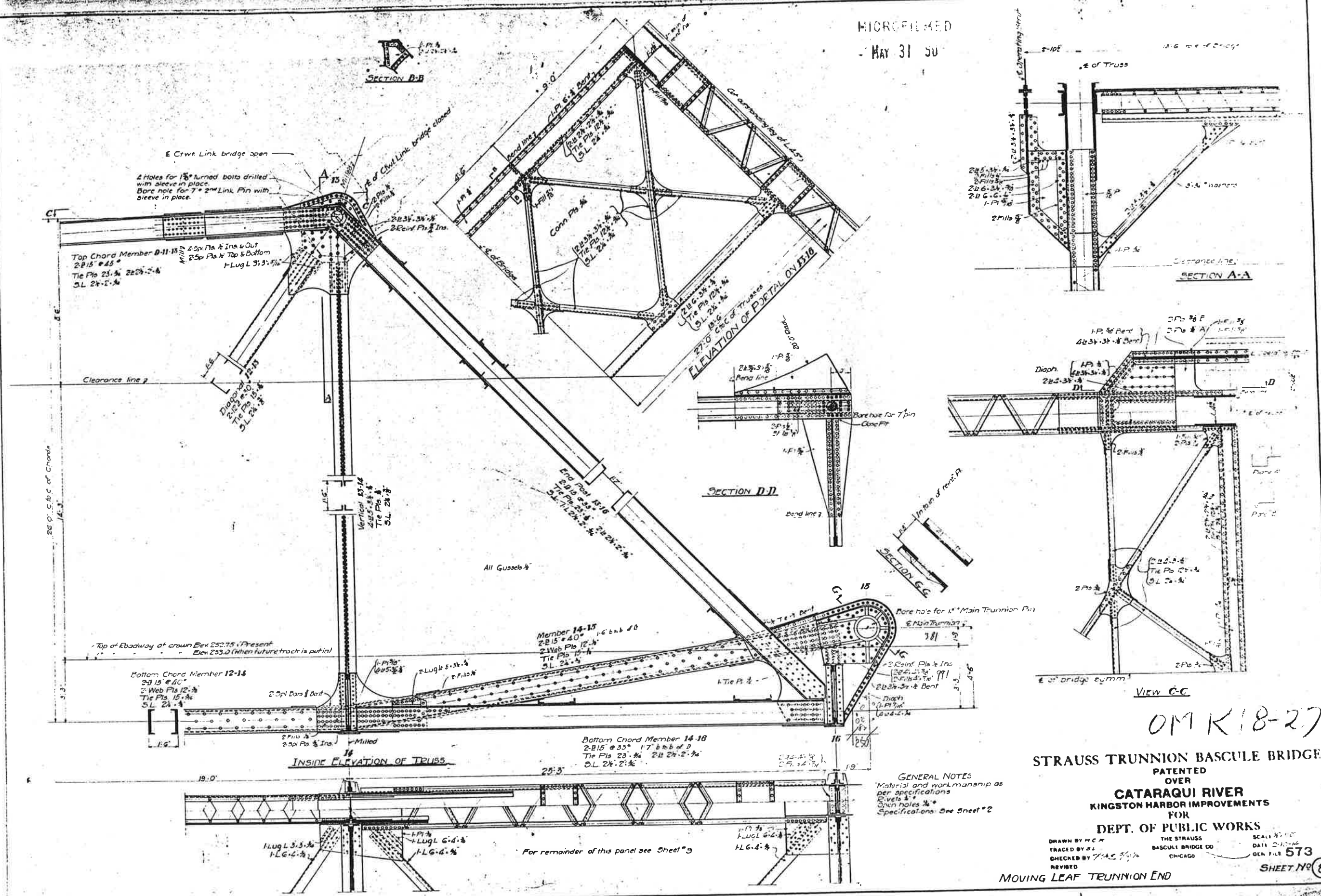
General Notes  
Material and workmanship as per specifications.  
Specifications: see sheet 2  
Rivet 3/4"  
Open Holes 1/2" except as noted.

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KINGSTON HARBOR IMPROVEMENTS  
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DRAWN BY H.D.  
TRACED BY H.P.D.  
CHECKED BY J.L. 1/11/14  
REVISED  
THE STRAUSS  
BASCULE BRIDGE CO.  
CHICAGO  
SCALE 1/4"=1'-0"  
DATE 7-13-14  
GEN. FILE 573  
CWT. TOWER-UPPER PART SHEET NO. 5

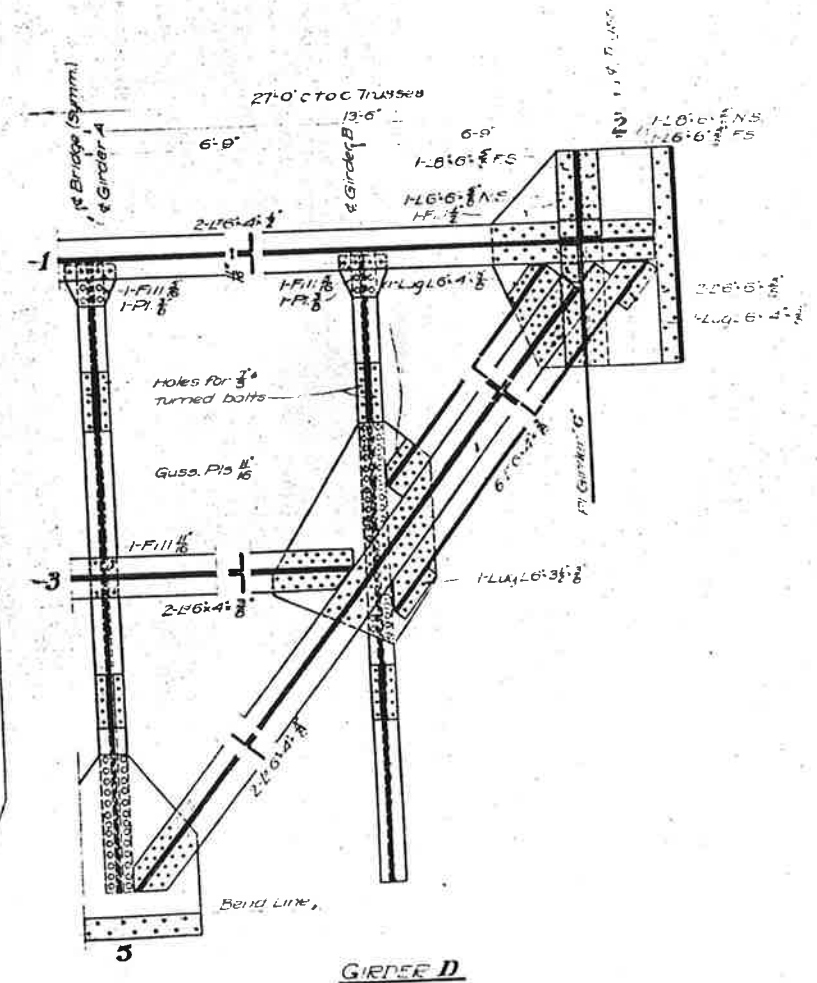
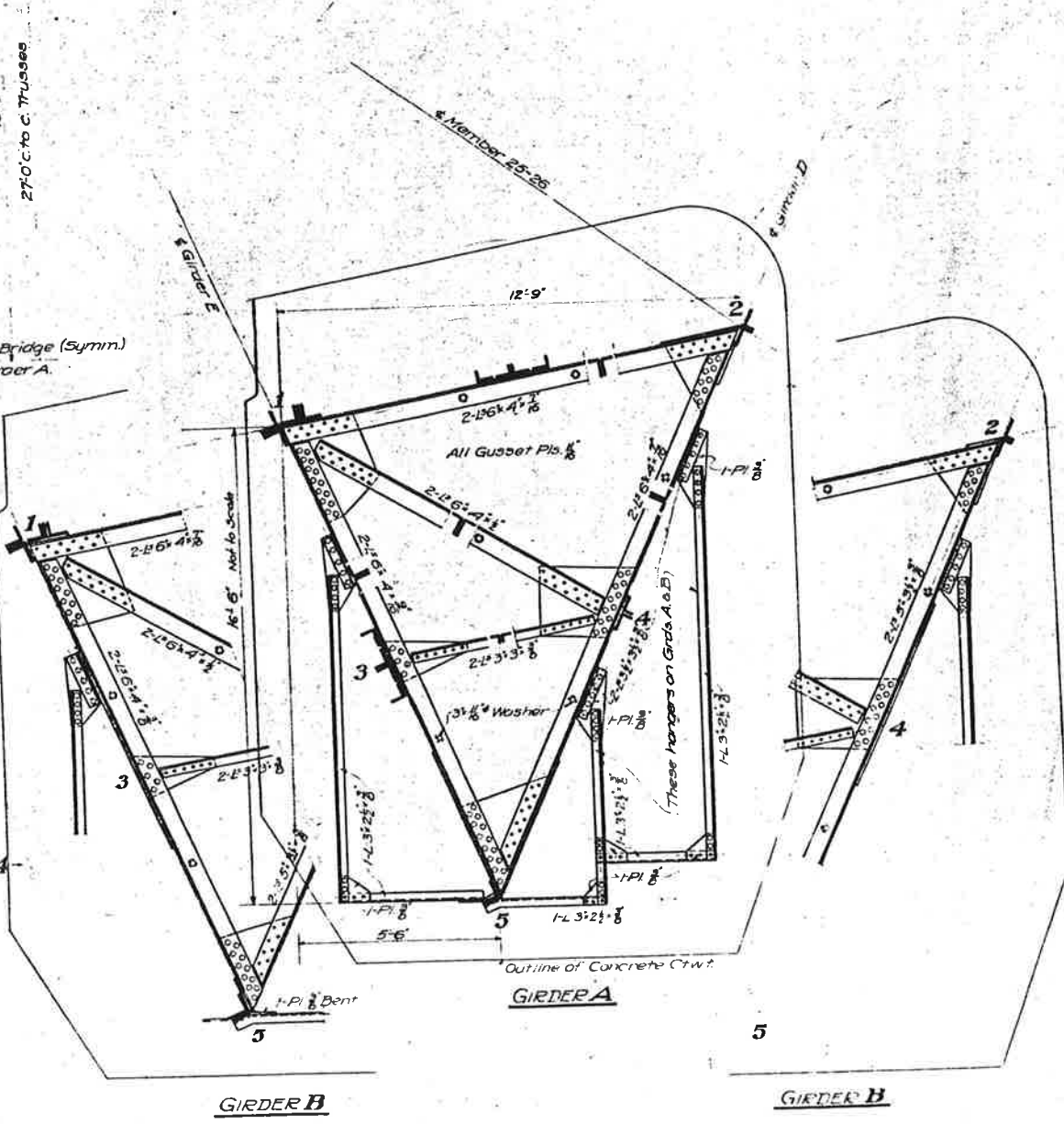
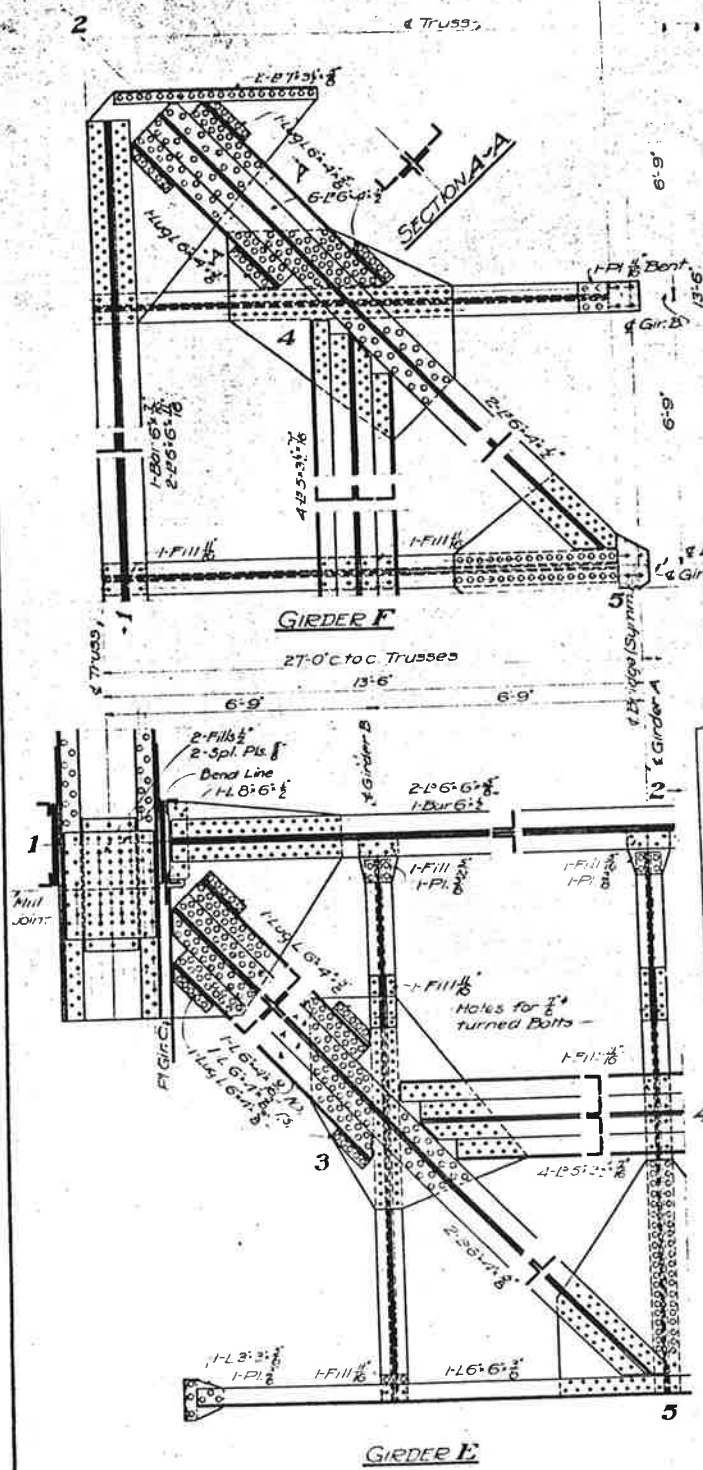


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MAY 31 50



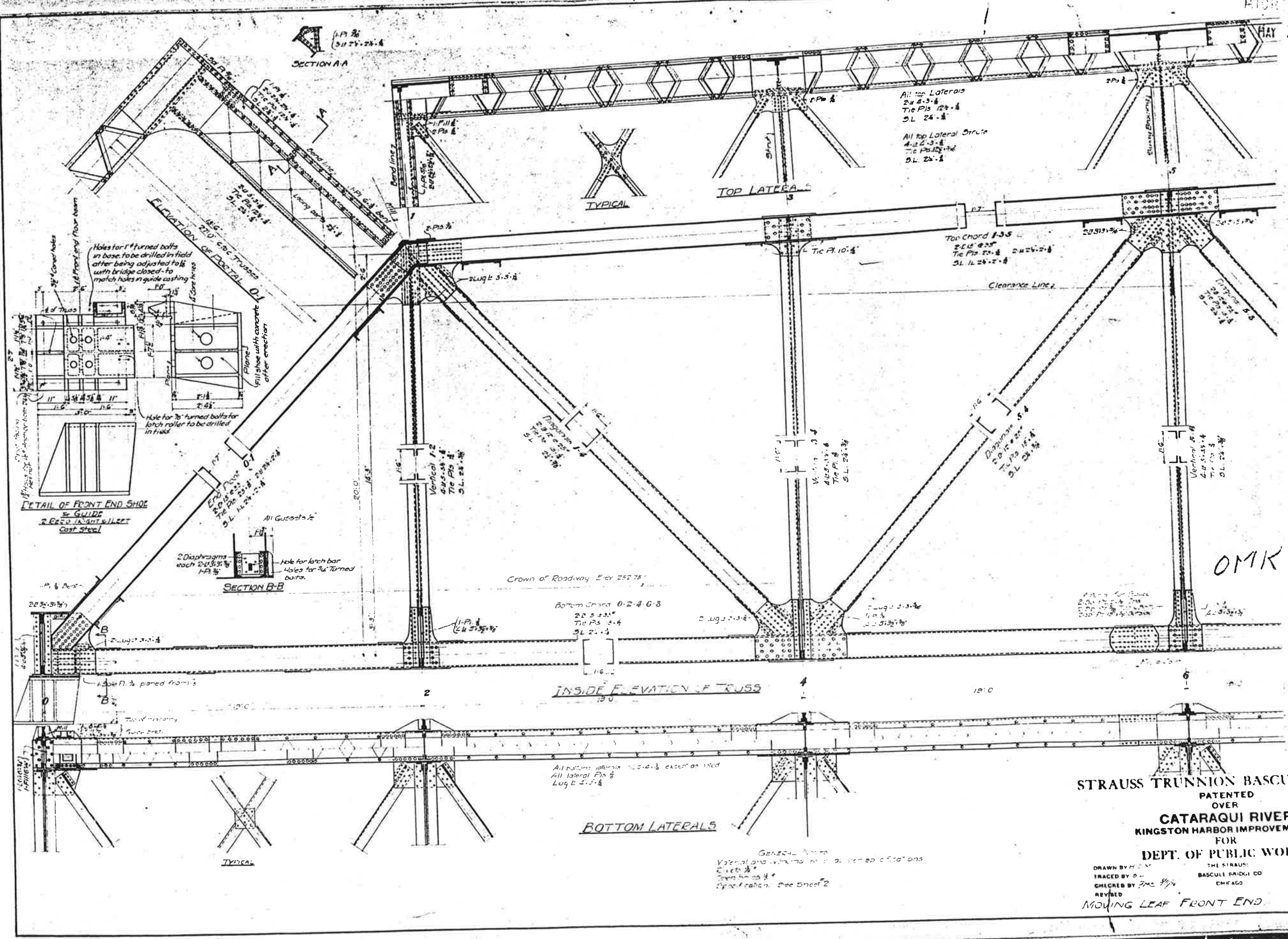
GENERAL NOTES  
 Weights and Material as  
 per specifications  
 Rivets 3/4" diam.  
 Bolt holes 1/2" diam.  
 Gusset plates see sheet N.E. 2.

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DRAWN BY H.C.A. THE STRAUSS  
 TRACED BY H.C.A. BASCULE BRIDGE CO.  
 CHECKED BY T.M.L. PHOENIX  
 REVISED  
 COUNTERWEIGHT GIRDERS SHEET NO. 573



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STRAUSS TRUNNION BASCULE BRIDGE  
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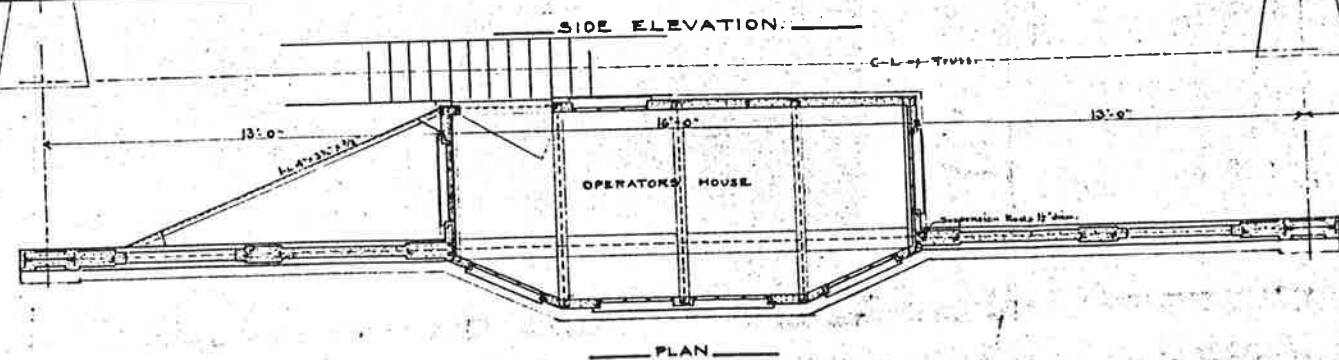
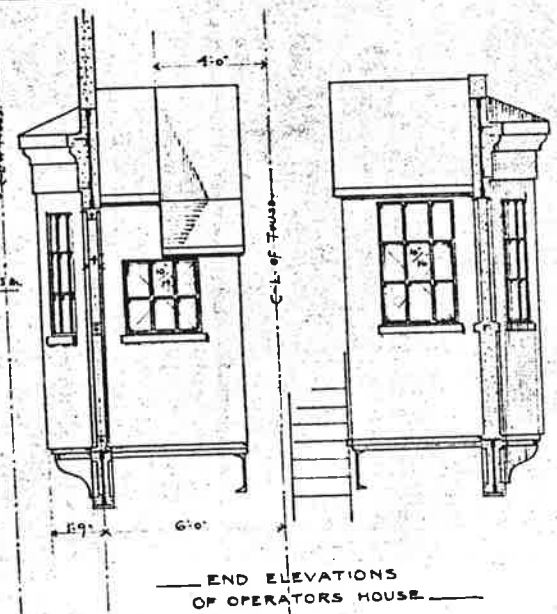
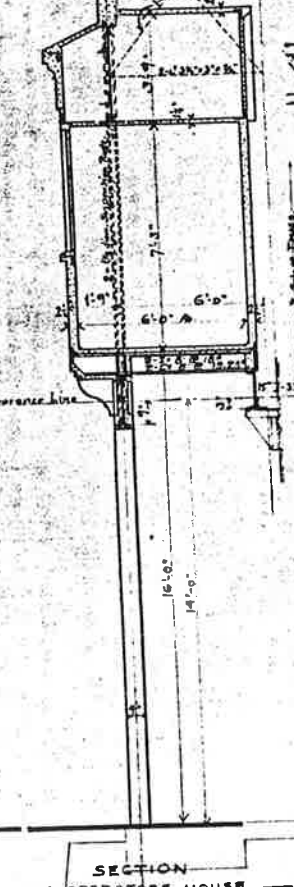
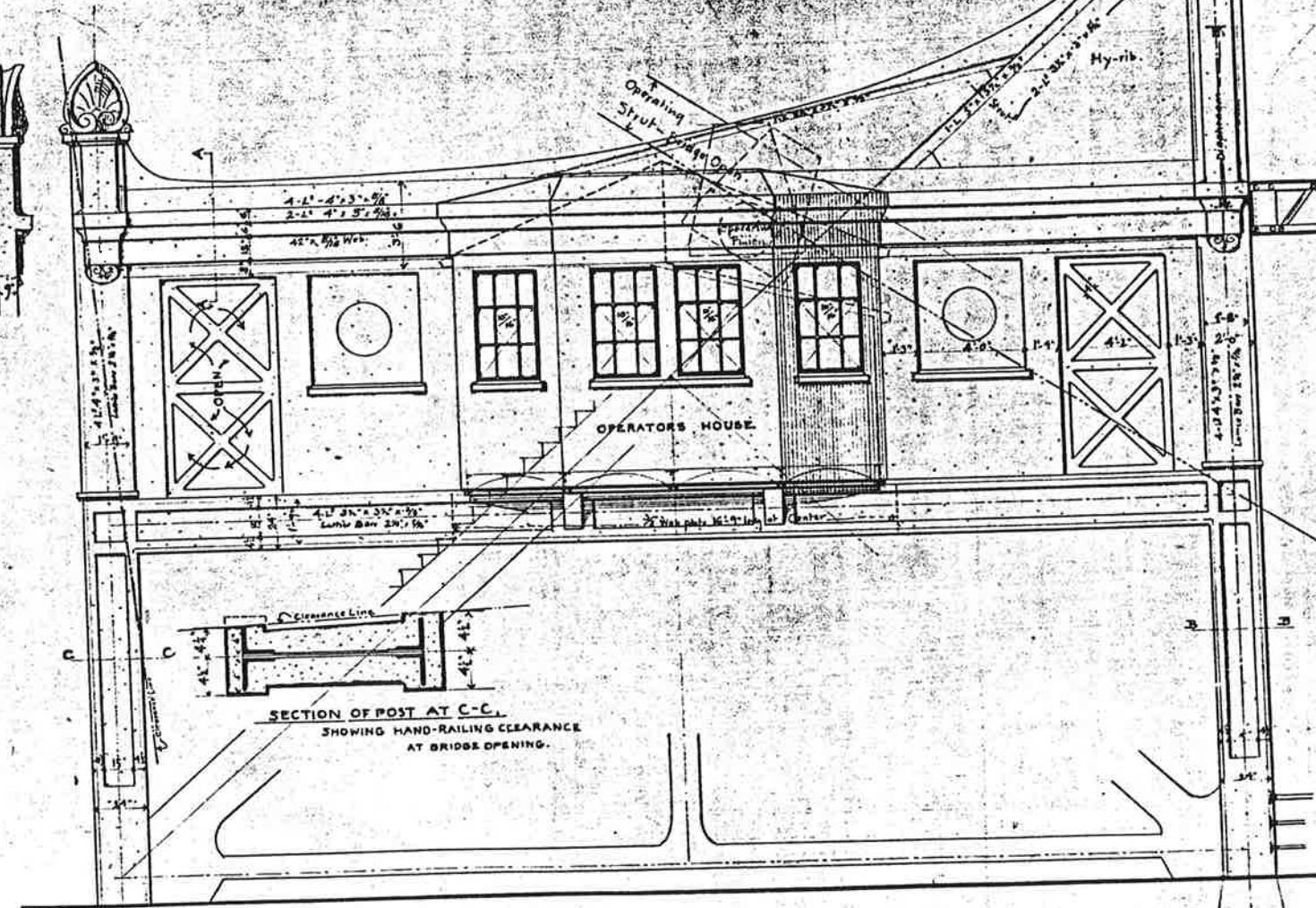
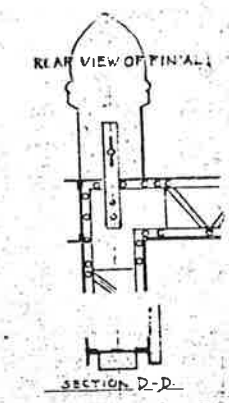
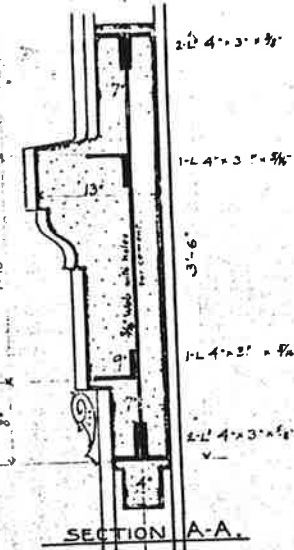
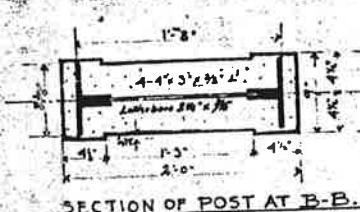
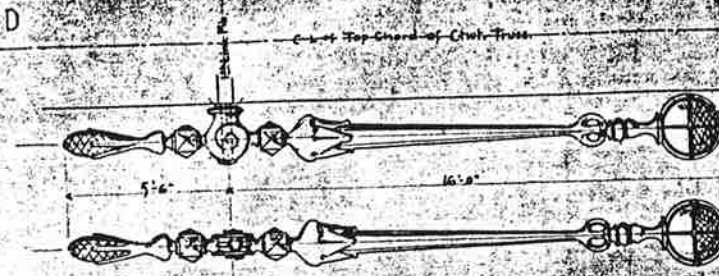
THE STRAUSS  
 BASCULE BRIDGE CO  
 CHICAGO

SCALE 1" = 10'-0"  
 DATE  
 GEN. FILE 573

DRAWN BY H. C. W.  
 TRACED BY S. J.  
 CHECKED BY J. M. W.  
 REVISED  
 MOVING LEAF FRONT END

GENERAL NOTE  
 Vertical and horizontal dimensions are given in feet and inches  
 unless otherwise specified  
 Specifications see sheet 2

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MAY 31 JU



Provide holes in web plates for concrete connection.  
All parts of the concrete structure: walls, roofs and floors - between the steel framework, to be filled with hy-rib infilling, securely fastened to the structural steel.  
Concrete to consist of portland cement, sand and fine crushed stone in parts of 1:3:5, well mixed and cement plastering of portland cement and sand in proportion of 1:2.  
Palmetto finials, panels and brackets to be cast in cement.  
Pendulum lamps of cast iron.  
Windows and doors to be wrought steel - Fenestra or equal - Movable panes crossed off on drawing with light lines.

OMK. 8-27

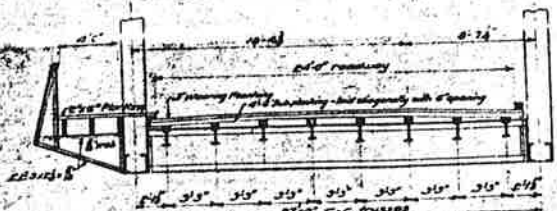
STRAUSS TRUNNION BASCULE BRIDGE  
-PATENTED-  
OVER  
CATARAQUI RIVER  
KINGSTON HARBOR IMPROVEMENTS  
FOR  
DEPT. OF PUBLIC WORKS

OPERATORS HOUSE  
AND ORNAMENTAL DETAILS

DRAWN BY [Signature]  
TRACED BY [Signature]  
CHECKED BY [Signature]  
REVISED [Signature]  
THE STRAUSS  
BASCULE B'G CO  
CHICAGO  
SHEET NO. 22  
573

MICROFILMED

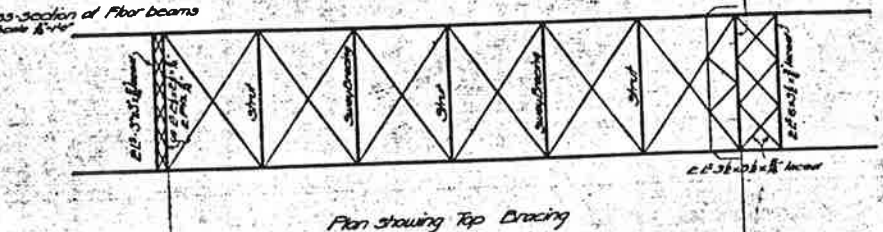
MAY 31 50



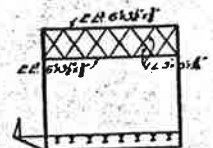
Typical Cross-section of Floor Beams

Structural joints  
8'0" Panel 3-3'14" joints  
2'5" Panel 4-4'14" joints

All Top Lateral: 2E 4x3 1/2, local  
All Struts: 4E 4x3 1/2, local

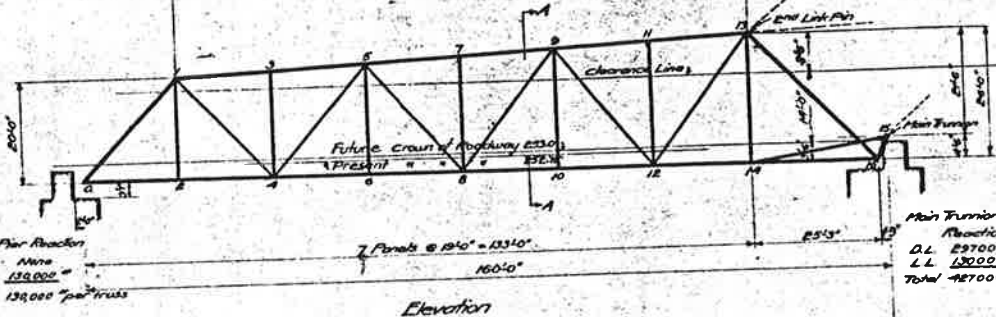


Plan showing Top Dracing



Section A-A

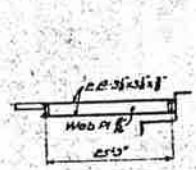
Roof Floor Reaction  
D.L. None  
L.L. 130,000  
Total 130,000 per truss



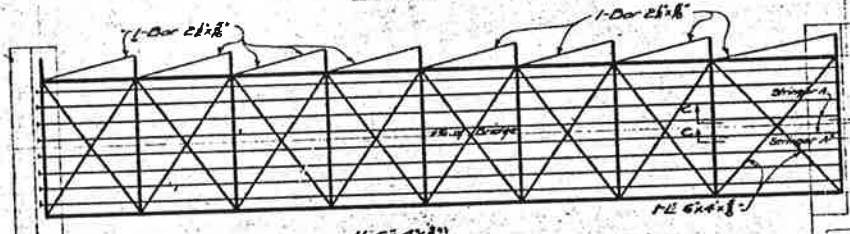
Elevation

Main Trussing Reaction  
D.L. 237,000  
L.L. 130,000  
Total 467,000 per truss

Section B-B



Section C-C showing Stringers A



Plan showing Floor System

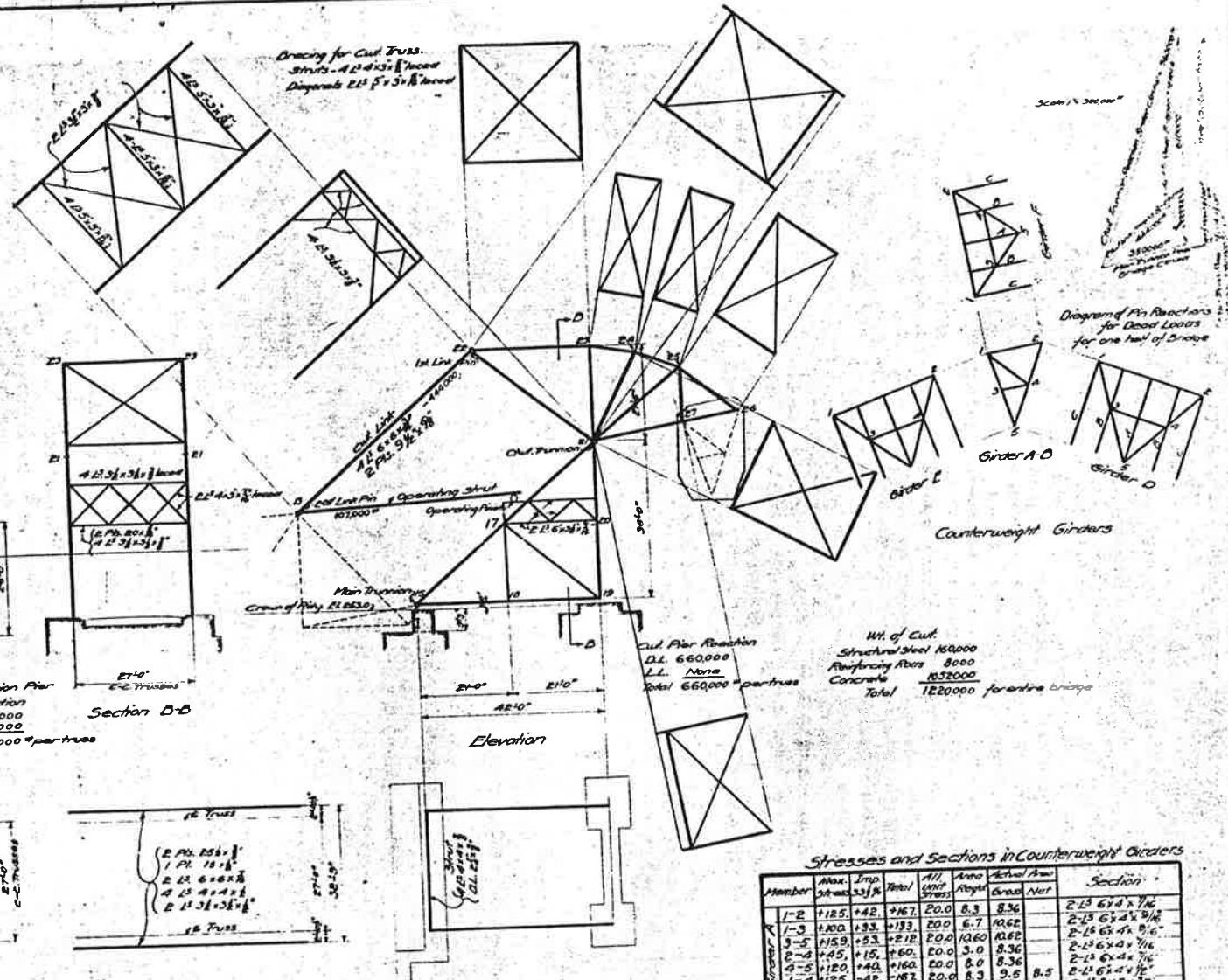
Stresses and Sections in Bascule Truss

Table with columns for Member, D.L., Curt., Imp., Total, Allow. Stress, Area, and Section. Includes sub-tables for 'Case I Bridge Closed' and 'Case II Bridge Moving'.

Stresses and Sections in Tower Truss

Table with columns for Member, D.L., Curt., Imp., Total, Allow. Stress, Area, and Section.

\* Wind stresses considered in determining this section.



Drawing for Cut Truss  
Struts: 4E 4x3 1/2 Floor  
Diagonals: 2E 5x3 1/2 Floor

Diagram of Pin Reactions for one half of Bridge

Counterweight Girders

Wt. of Cut  
Structural Steel 85,000  
Reinforcing Bars 8,000  
Concrete 83,000  
Total 182,000 per truss

Operating Strut

Stresses and Sections in Counterweight Truss

Table with columns for Member, Max. Stress, Imp., Total, Allow. Stress, Area, and Section.

Stresses and Sections in Floor System

Table with columns for Member, Moment in 1000 ft. lbs., Shear in 1000 lbs., and Section.

\* See note on detail drawing of Floor Di.

+ Denotes Compression  
- Denotes Tension  
All stresses are given in 1000 lbs.  
All unit stresses are given in 100 lbs per sq. in.

Gen'l. Note:  
Dead Loads: Actual weight  
Live Load: 180' on sidewalk and roadway  
2400' on two sides of each and one  
on electric car, as per diagram B  
in Specifications.  
Specifications: Dominion Govt. Spec's 1908  
as supplemented by the Strauss Bascule  
Bridge Co. Spec's for this Bridge  
Angle of opening 84° 0'

Stresses and Sections in Counterweight Girders

Table with columns for Member, Max. Stress, Imp., Total, Allow. Stress, Area, and Section.

OMK: 8-27

STRAUSS TRUNNION BASCULE BRIDGE

PATENTED OVER CATARAQUI RIVER KINGSTON HARBOR IMPROVEMENTS FOR DEPT. OF PUBLIC WORKS

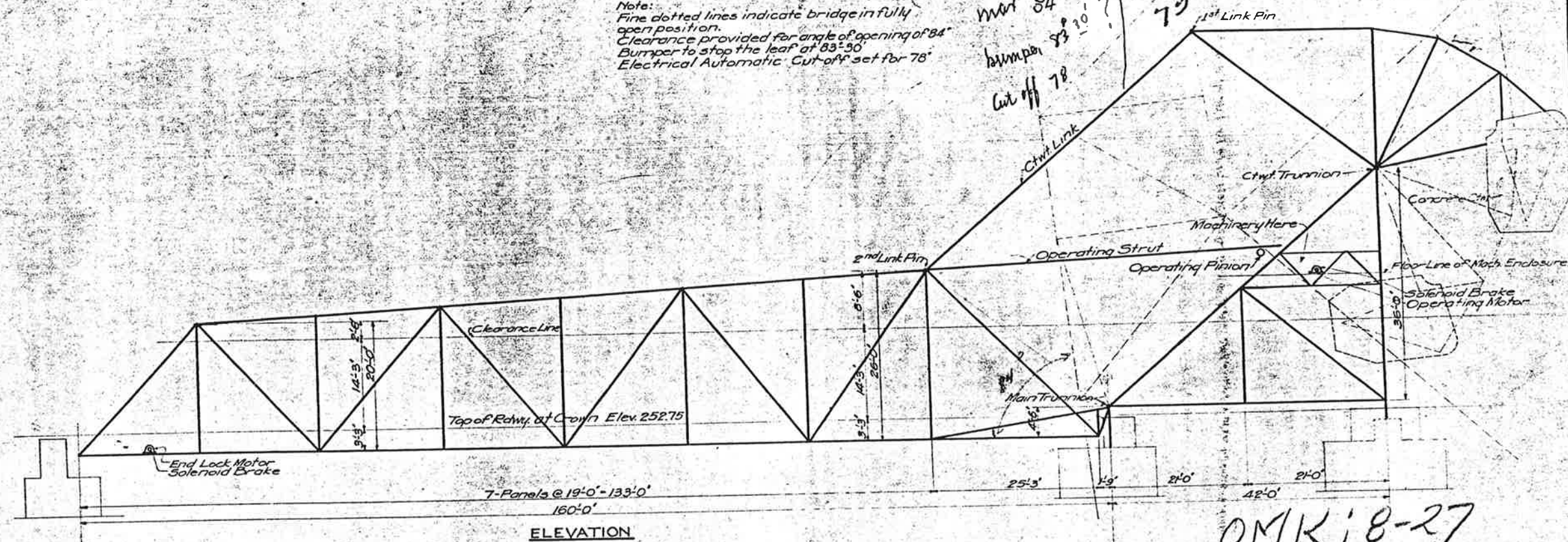
DRAWN BY C.M.R. TRACED BY C.C. CHECKED BY T.M.E. REVISED BY C.C. SHEET NO. 573

STRESS SHEET



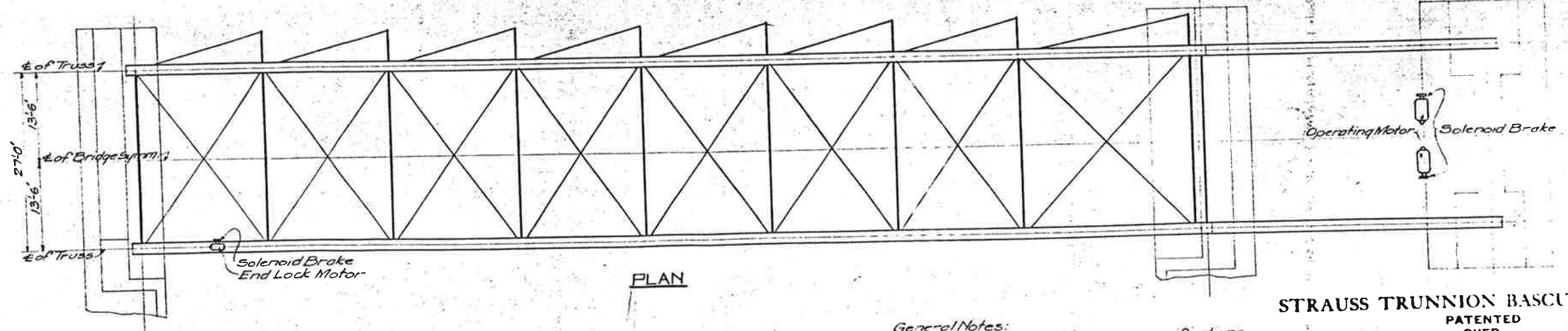
Note:  
 Fine dotted lines indicate bridge in fully open position.  
 Clearance provided for angle of opening of 84°  
 Bumper to stop the leaf at 83°30'  
 Electrical Automatic Cut-off set for 78°

UOL  
 80  
 83  
 75  
 Max 84°  
 bumper 83°30'  
 cut off 78°



ELEVATION

OMK:8-27



PLAN

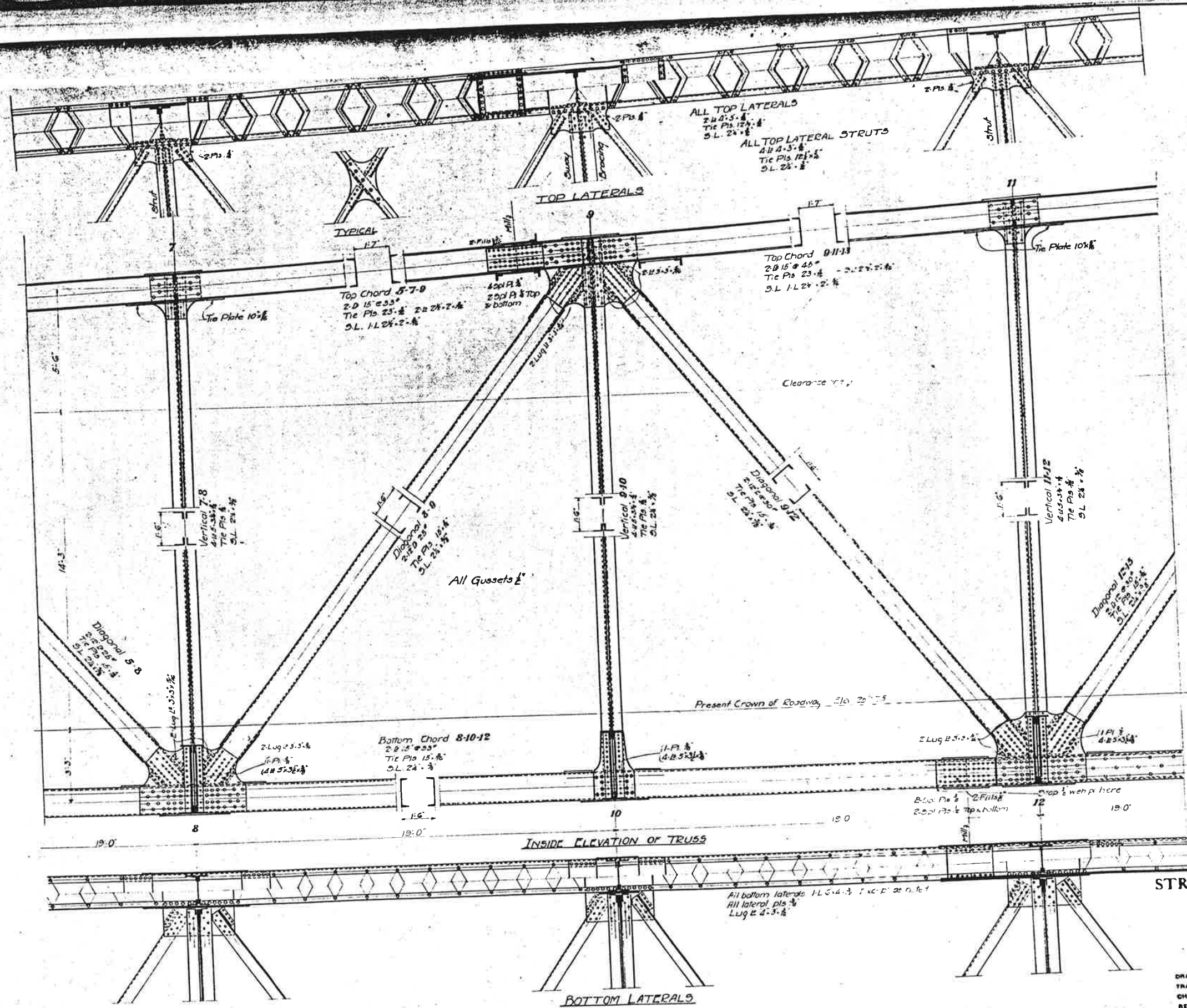
General Notes:  
 Material & Workmanship: as per specifications.  
 Specifications: See Sheet #2.  
 For description of Electrical Equipment see specifications.

STRAUSS TRUNNION BASCULE BRIDGE  
 PATENTED  
 OVER  
 CATARAQUI RIVER  
 KINGSTON HARBOR IMPROVEMENTS  
 FOR  
 DEPT. OF PUBLIC WORKS

DRAWN BY HCN  
 TRACED BY J.E. 4/41  
 CHECKED BY J.E. 4/41  
 REVISED  
 THE STRAUSS  
 BASCULE BRIDGE CO  
 CHICAGO  
 SCALE 2 1/2" = 1'-0"  
 DATE 10/11/1911  
 GEN. FILE 573

DIAGRAM OF ELECTRICAL EQUIPMENT. SHEET NO. 21

HIGHER LIVED  
MAY 31 190



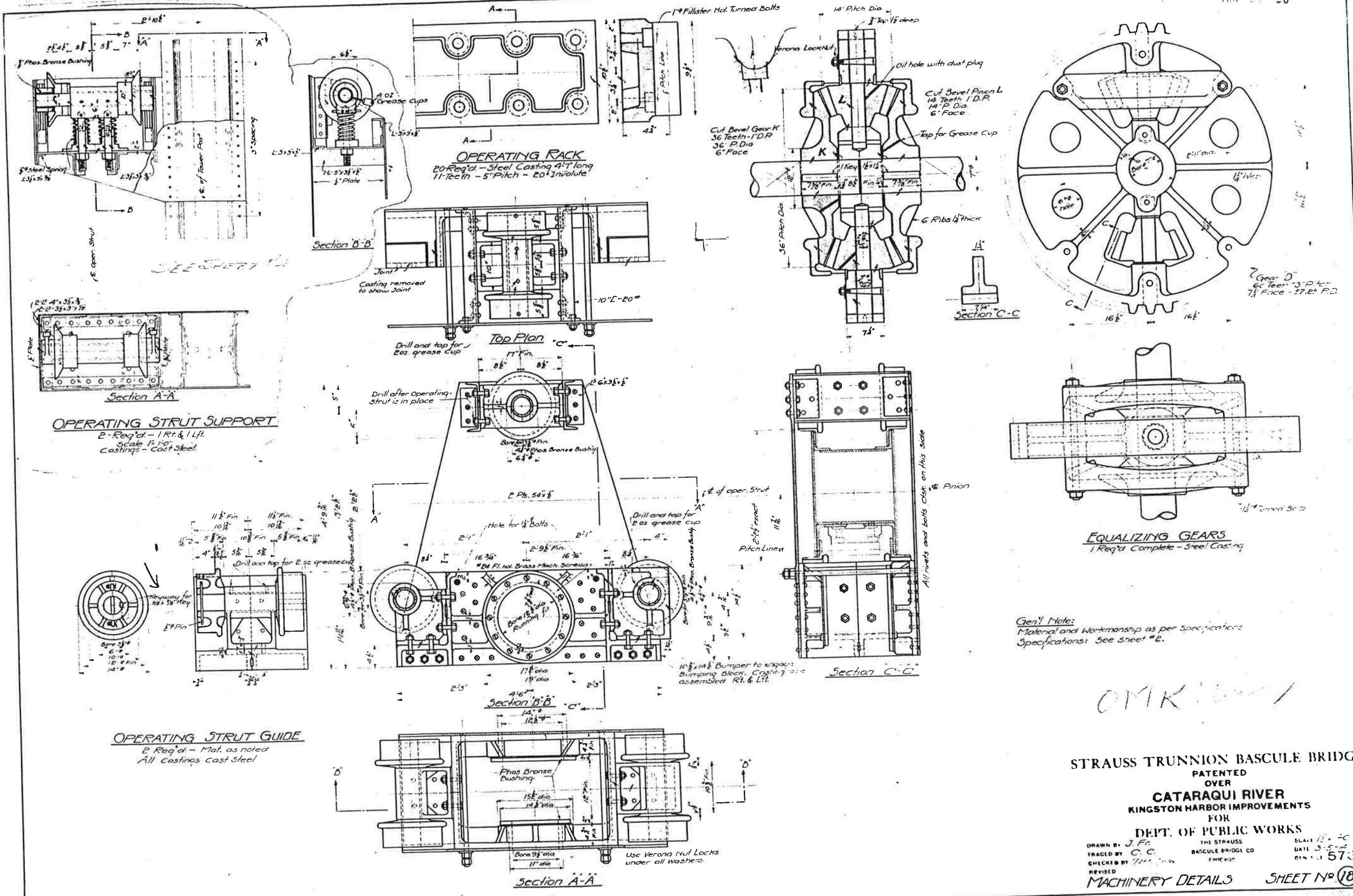
GENERAL NOTES  
Material and workmanship as per specifications  
Rivets #  
Open holes #  
Specifications see sheet #2  
For Moving Leaf Trunion End See sheet #8  
" " " Front End " " #6.

Bottom Chord 12-14  
2x15" x 20"  
2x15" x 15"  
Tie Pls 15" x 4"  
2x2" x 3/4"

[ ] OMK 18-27

STRAUSS TRUNNION BASCULE BRIDGE  
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CATARAQUI RIVER  
KINGSTON HARBOR IMPROVEMENTS  
FOR  
DEPT. OF PUBLIC WORKS  
THE STRAUSS  
BASCULE BRIDGE CO  
CHICAGO  
DRAWN BY H.C.M.  
TRACED BY J.L.  
CHECKED BY J.P.L. J.P.H.  
REVISED  
SCALE 1" = 10'  
DATE 1-15-19  
GEN FILE 573  
MOVING LEAF INTER. PART SHEET NO. 7





OMK: [Signature]

**STRAUSS TRUNNION BASCULE BRIDGE**  
 PATENTED  
 OVER  
**CATARAQUI RIVER**  
 KINGSTON HARBOR IMPROVEMENTS  
 FOR  
 DEPT. OF PUBLIC WORKS

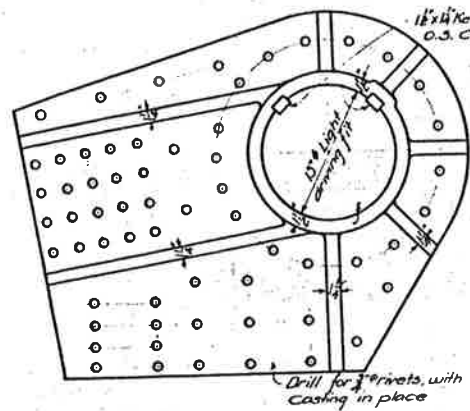
DRAWN BY J. F. [Signature]  
 TRACED BY C. C. [Signature]  
 CHECKED BY [Signature]  
 REVISED

THE STRAUSS  
 BASCULE BRIDGE CO  
 CHICAGO

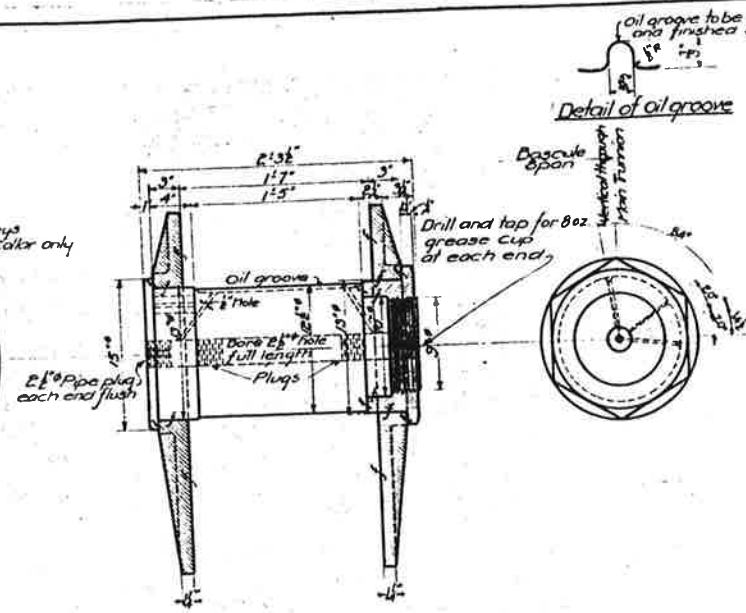
SLAY 18. 20  
 DATE 3-5-00  
 573

**MACHINERY DETAILS** SHEET No. 18

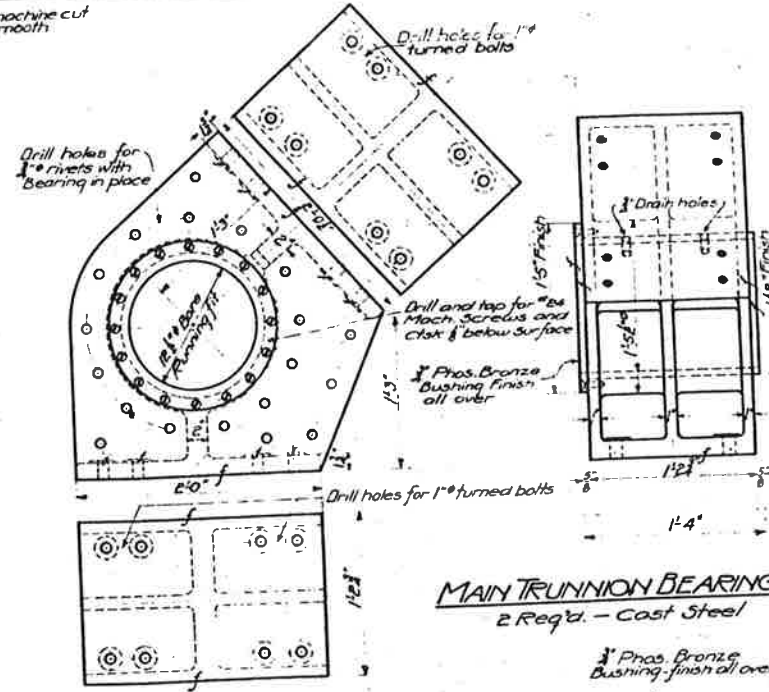
MAY 31 1914



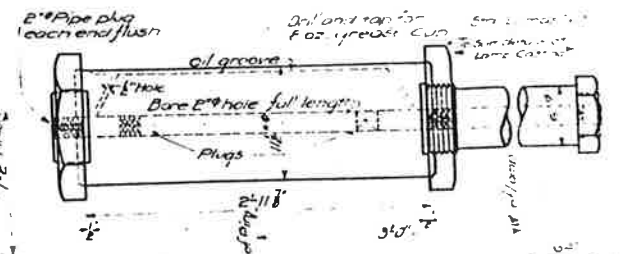
**MAIN TRUNNION COLLAR**  
2 Pairs Req'd. - Cast Steel



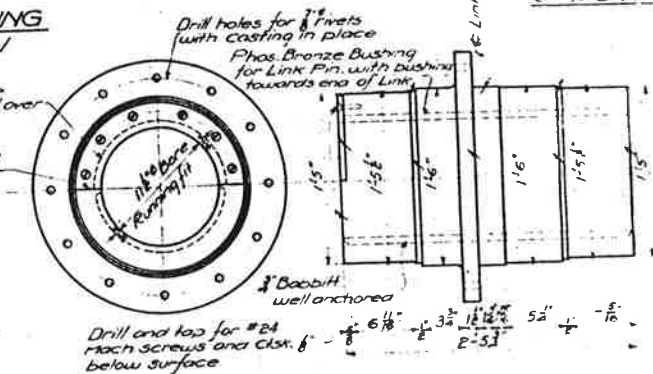
**MAIN TRUNNION PIN**  
2 Req'd. - Forged Steel - Finish all over



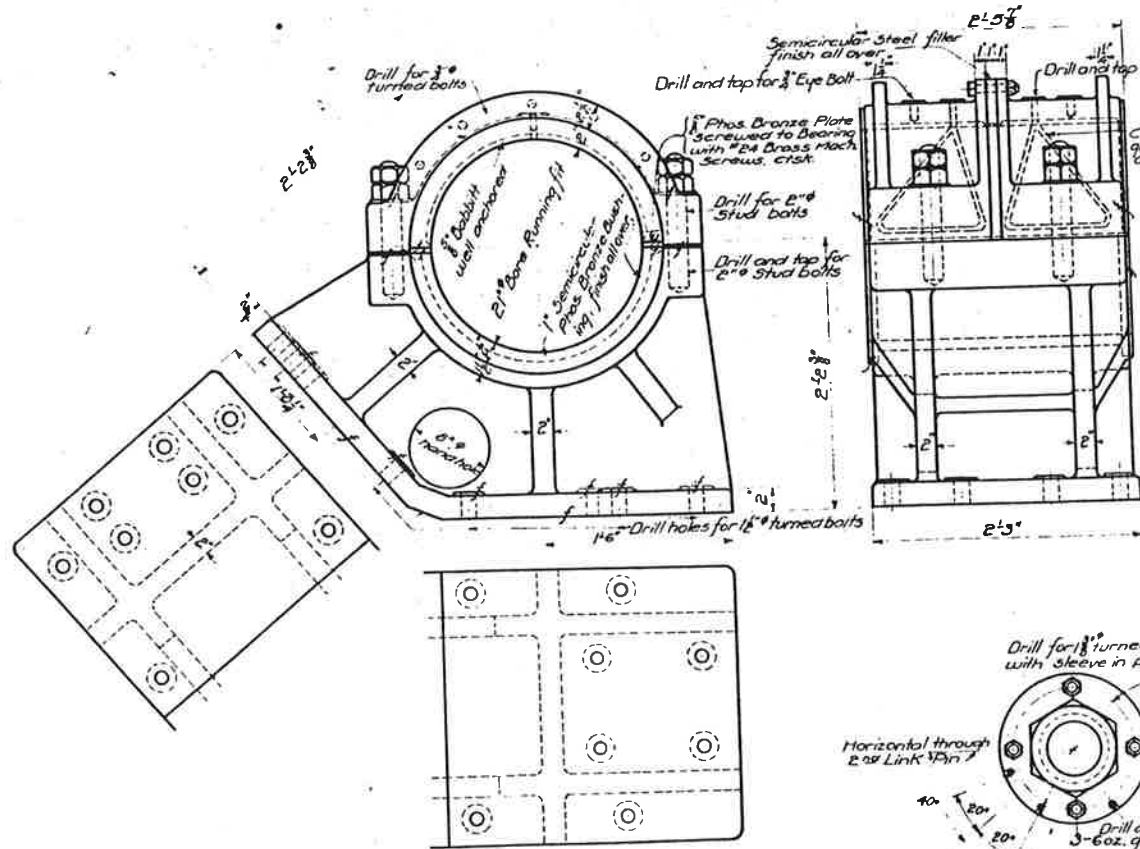
**MAIN TRUNNION BEARING**  
2 Req'd. - Cast Steel



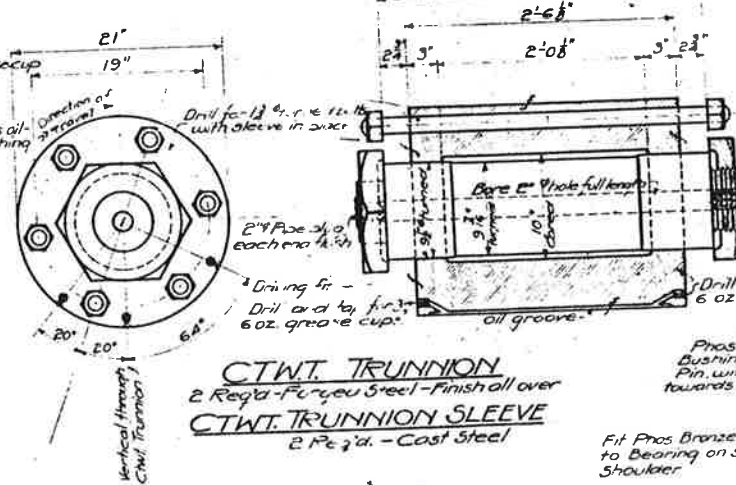
**1ST LINK PIN**  
2 Req'd. - Forged Steel - Finish all over



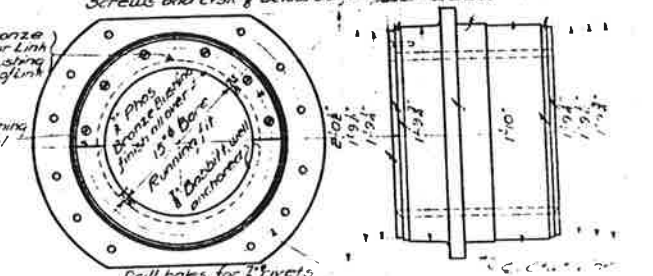
**1ST LINK PIN COLLAR BEARING**  
2 Req'd. - Cast Steel - Shop riveted to Link



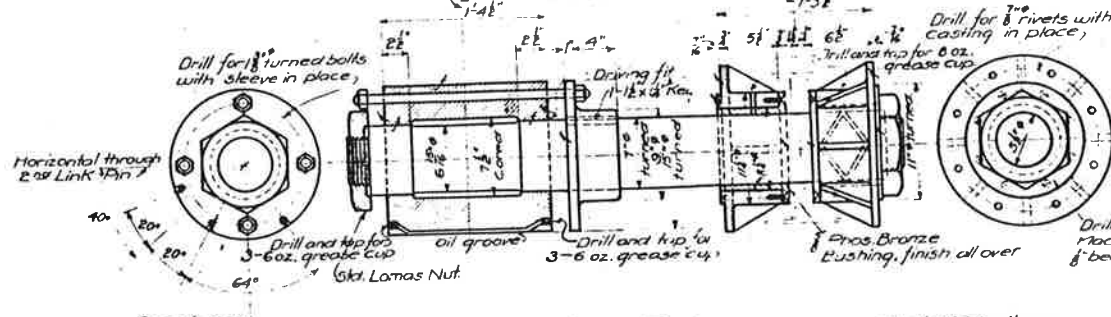
**CTWT. TRUNNION BEARING**  
2 Req'd. - Cast Steel



**CTWT. TRUNNION SLEEVE**  
2 Req'd. - Cast Steel



**2ND LINK PIN COLLAR BEARING**  
2 Req'd. - Cast Steel



**2ND LINK PIN SLEEVE** 2 Req'd. - Forged Steel - Finish all over  
**2ND LINK PIN** 2 Req'd. - Forged Steel - Finish all over  
**OPERATING STRUT COLLARS** 4 Req'd. - Cast Steel

OMK: 8-21

**STRAUSS TRUNNION BASCULE BRIDGE**

PATENTED OVER  
**CATARAQUI RIVER**  
KINGSTON HARBOUR IMPROVEMENTS  
FOR

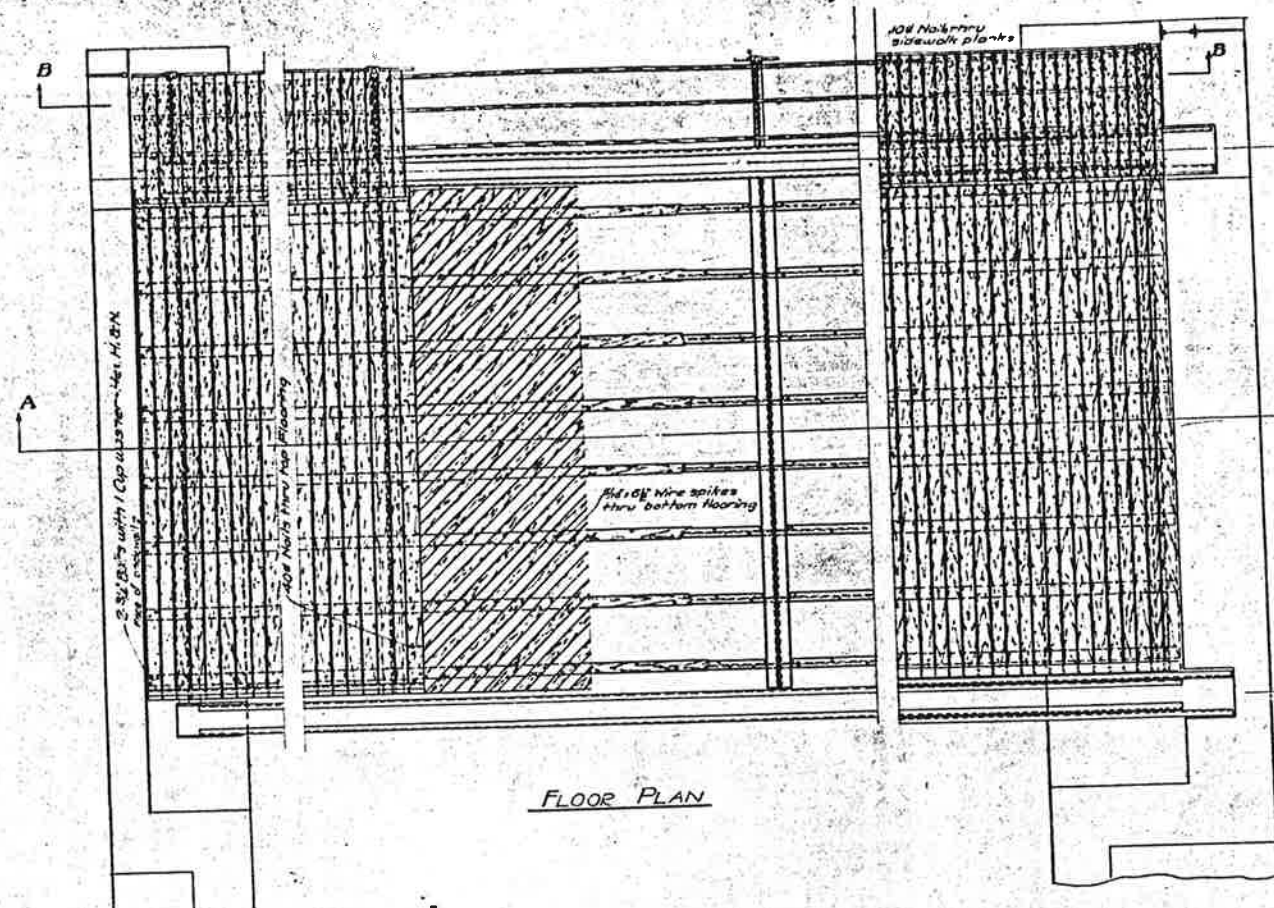
DEPT. OF PUBLIC WORKS

DRAWN BY OMT & CC THE STRAUSS BASCULE BRIDGE CO. SCALE 1/2" = 1'-0"  
TRACED BY C.C. DATE 2-6-14  
CHECKED BY S.H. CHICAGO GEN. FILE 573  
REVISED

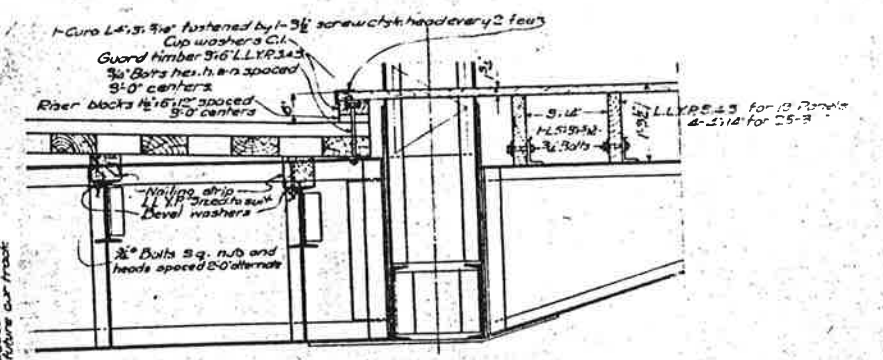
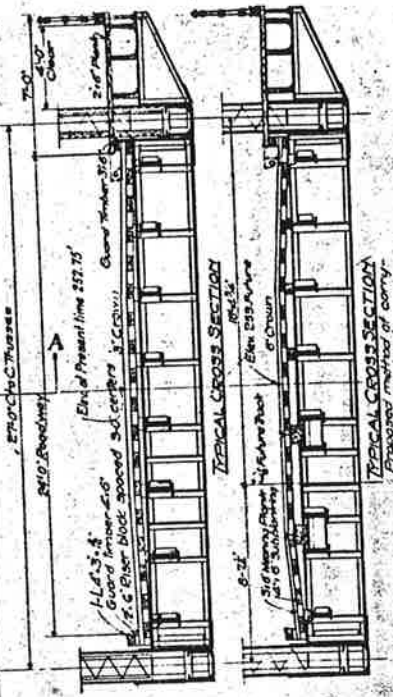
**TRUNNIONS PINS AND BEARINGS**

B. R. 3-4-29

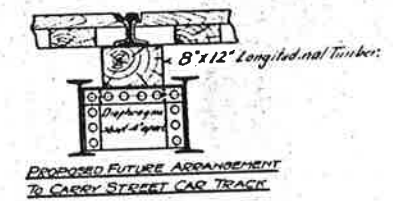
MICROFILMED  
MAY 31 50



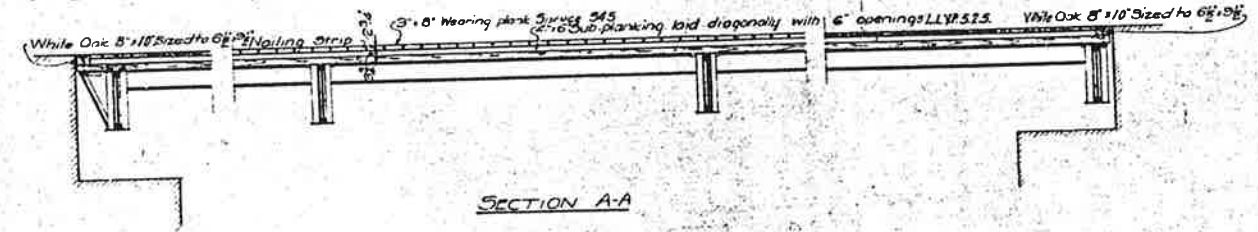
FLOOR PLAN



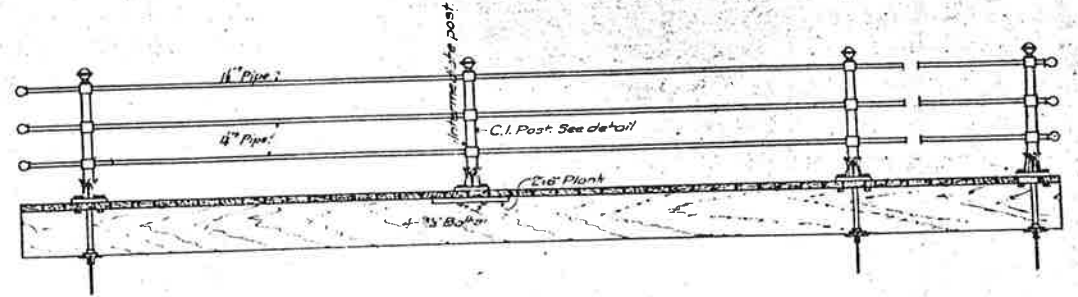
SECTION OF ROADWAY  
SCALE



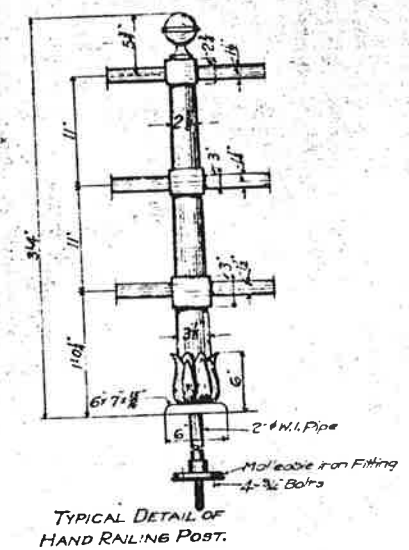
PROPOSED FUTURE ARRANGEMENT  
TO CARRY STREET CAR TRACK



SECTION A-A



HAND RAILING ON MOVING LEAF  
Scale 1/2" = 1'-0"



TYPICAL DETAIL OF  
HAND RAILING POST

GENERAL NOTES  
Material and workmanship as per specifications  
Specifications. See Sheet #2

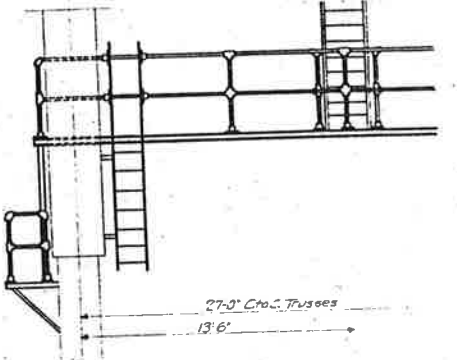
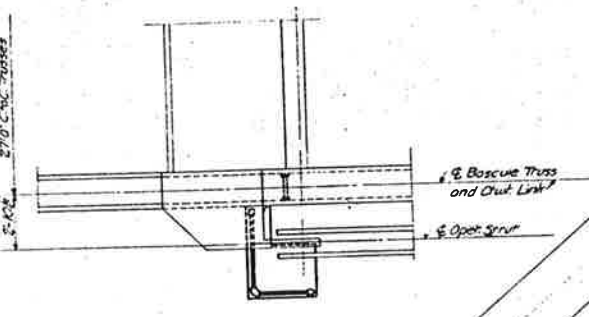
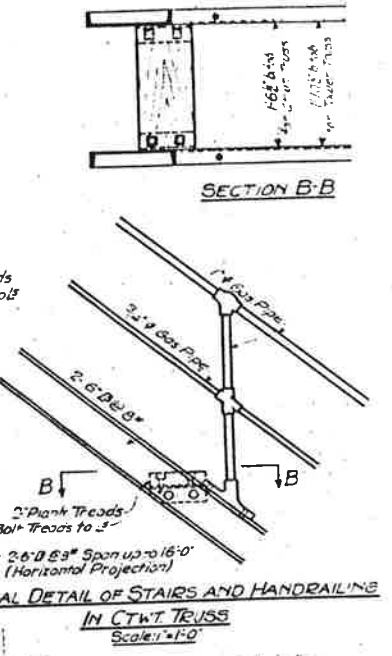
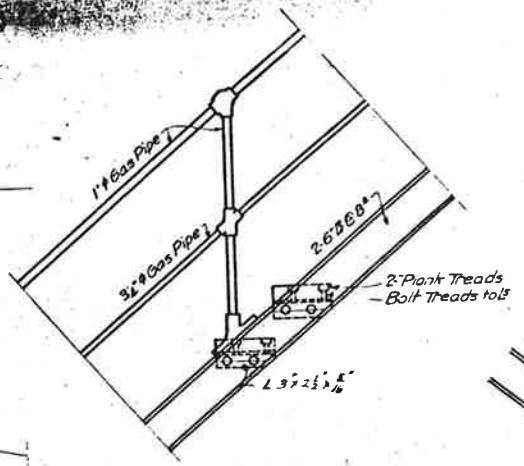
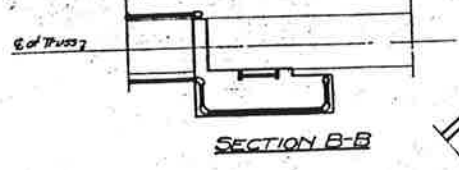
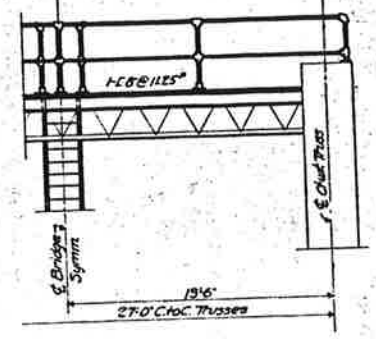
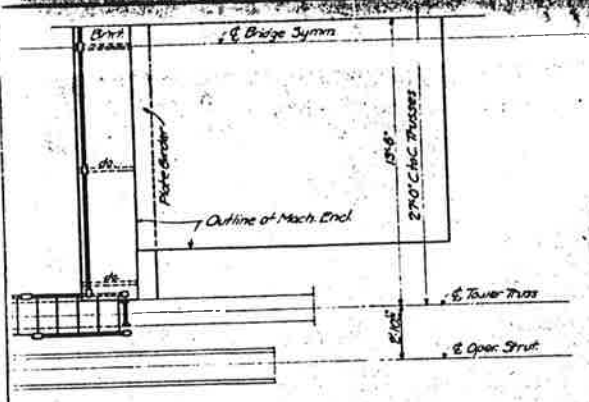
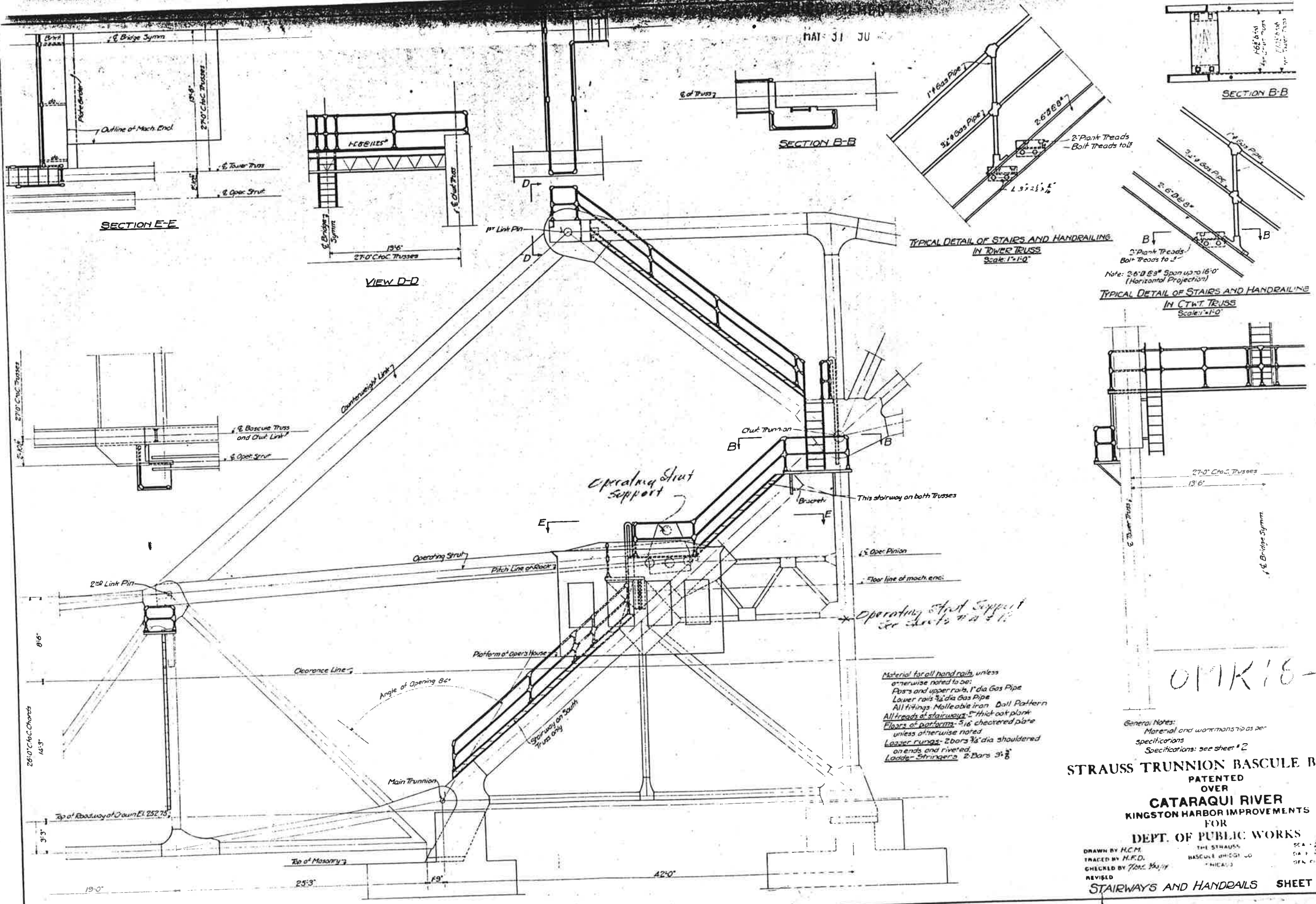
OMK 18-27

STRAUSS TRUNNION BASCULE BRIDGE  
PATENTED  
OVER  
CATARAQUI RIVER  
KINGSTON HARBOR IMPROVEMENTS  
FOR  
DEPT. OF PUBLIC WORKS

DRAWN BY FLD  
TRACED BY SL  
CHECKED BY J.L. 1915  
REVISED  
BRIDGE DECK

THE STRAUSS  
BASCULE BRIDGE CO  
CHICAGO

SCALE 1/2" = 1'-0"  
DATE 7-2-12  
GEN. FILE 573  
SHEET NO 15



Material for all hand rails, unless otherwise noted to be:  
 Posts and upper rails, 1" dia Gas Pipe  
 Lower rails 3/4" dia Gas Pipe  
 All fittings Malleable Iron Ball Pattern  
 All treads of stairways, 5" thick oak plank  
 Floors of platforms, 3/16" chevroned plate unless otherwise noted  
 Ledger Rungs, 2 bars 3/4" dia shouldered on ends and riveted  
 Ladder Stringers, 2 Bars 3 1/2"

General Notes:  
 Material and workmanship as per specifications  
 Specifications: see sheet # 2

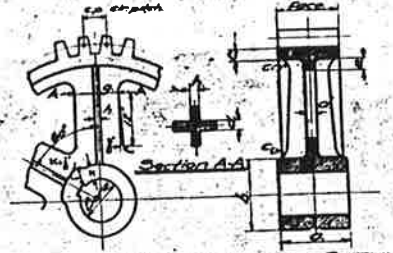
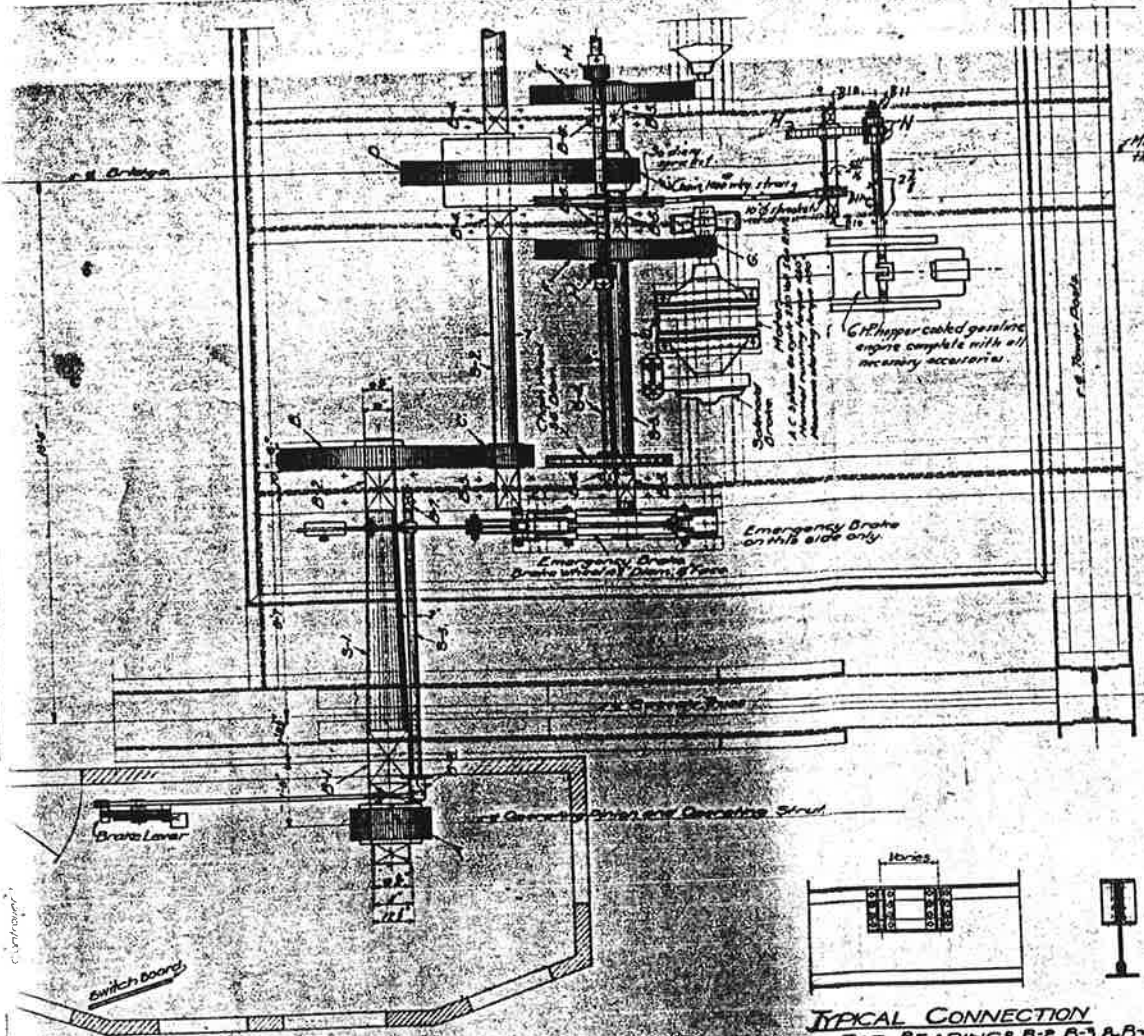
STRAUSS TRUNNION BASCULE BRIDGE  
 PATENTED  
 OVER  
 CATARAQUI RIVER  
 KINGSTON HARBOR IMPROVEMENTS  
 FOR  
 DEPT. OF PUBLIC WORKS

DRAWN BY H.C.M.  
 TRACED BY H.F.D.  
 CHECKED BY J.C. [unclear]  
 REVISED

THE STRAUSS  
 BASCULE BRIDGE CO  
 CHICAGO

SCALE: 1/4"=1'-0"  
 DATE: [unclear]  
 SHEET NO. 573

STAIRWAYS AND HANDRAILS SHEET NO. 10

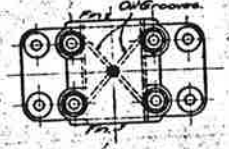


STANDARD DIMENSIONS FOR OUTLINE OF CAST STEEL GEARS

TABLE OF GEARS

No. Range	Mater.	No. of Teeth	Pitch Dia. in	Face Dia. in	Back Dia. in	Hub Dia. in	Hub Length in	Key	Remarks	Teeth	Notes
20	A	11	5"	8"	5.5"	4"	1.5"	C.S.	Cast steel Pinion	11	1 1/2 - 1 1/2
2	A	15	5"	8"	5.5"	4"	1.5"	C.S.	Cast steel Pinion	15	1 1/2 - 1 1/2
2	B	34	5 1/2"	8 1/2"	6"	4 1/2"	1.5"	C.S.	Cast steel Pinion	34	1 1/2 - 1 1/2
2	C	15	5 1/2"	8 1/2"	6"	4 1/2"	1.5"	C.S.	Cast steel Pinion	15	None
1	D	60	5"	7 1/2"	5.75"	4"	1.5"	C.S.	Cast steel Pinion	60	1 1/2 - 1 1/2
1	E	15	5"	7 1/2"	5.75"	4"	1.5"	C.S.	Cast steel Pinion	15	1 1/2 - 1 1/2
2	F	112	2 1/2"	4 1/2"	3 1/2"	2 1/2"	1"	C.S.	Cast steel Pinion	112	1 1/2 - 1 1/2
3	G	16	2 1/2"	4 1/2"	3 1/2"	2 1/2"	1"	C.S.	Cast steel Pinion	16	1 1/2 - 1 1/2
2	H	16	2 1/2"	4 1/2"	3 1/2"	2 1/2"	1"	C.S.	Cast steel Pinion	16	1 1/2 - 1 1/2
2	K	36	1"	1 1/2"	1.25"	1"	0.5"	C.S.	Cast steel Pinion	36	1 1/2 - 1 1/2
2	L	14	1"	1 1/2"	1.25"	1"	0.5"	C.S.	Cast steel Pinion	14	1 1/2 - 1 1/2
1	M	32	3/4"	1 1/4"	1.125"	3/4"	0.375"	C.S.	Cast steel Pinion	32	1 1/2 - 1 1/2
3	N	3	3/4"	1 1/4"	1.125"	3/4"	0.375"	C.S.	Cast steel Pinion	3	1 1/2 - 1 1/2

Note: Bearings to be babbitted in place for a good bearing. Inner surface of bearings to have provision for self-aligning anchoring bobbit.

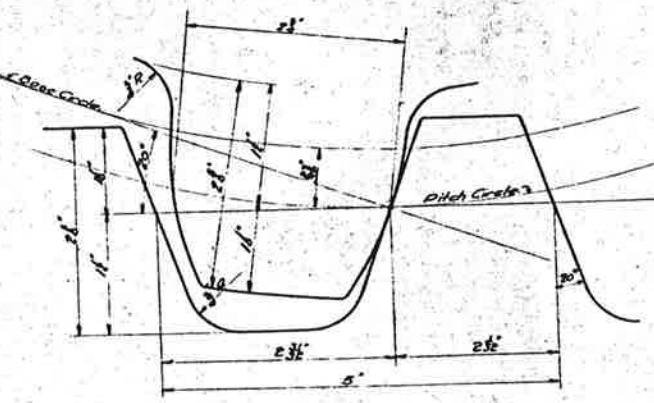


TYPICAL BEARING

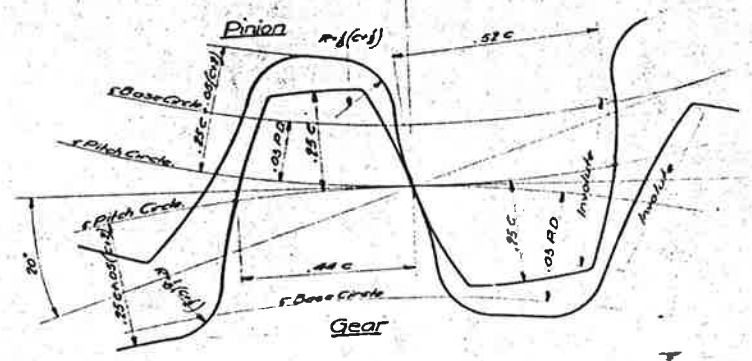
TABLE OF BEARINGS

No. Range	Mater.	Bores in	Length in	Notes	Remarks	Lining	Base No.	Boles Size
2	B-1	1 1/2"	16"	C.S.	See detail	None	4	1 1/2"
2	B-2	1 1/2"	16"	C.S.	See detail	None	4	1 1/2"
2	B-3	7"	12"	Typical	Cast	Bobbit	4	7"
2	B-4	7"	10"	Typical	Cast	Bobbit	4	7"
3	B-5	5 1/2"	8"	Typical	Cast	Bobbit	4	5 1/2"
4	B-6	5"	8"	Typical	Cast	Bobbit	4	5"
1	B-7	2"	8"	Typical	Cast	Bobbit	4	2"
1	B-8	2"	8"	Typical	Cast	Bobbit	4	2"
1	B-9	2"	8"	Typical	Cast	Bobbit	4	2"
2	B-10	2 1/2"	6"	Typical	Cast	Bobbit	4	2 1/2"
4	B-11	2 1/4"	6"	Typical	Cast	Bobbit	4	2 1/4"

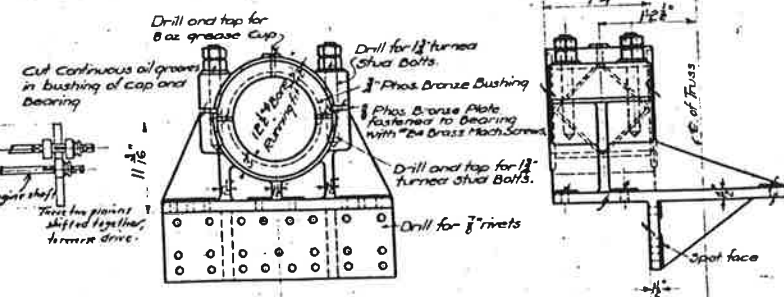
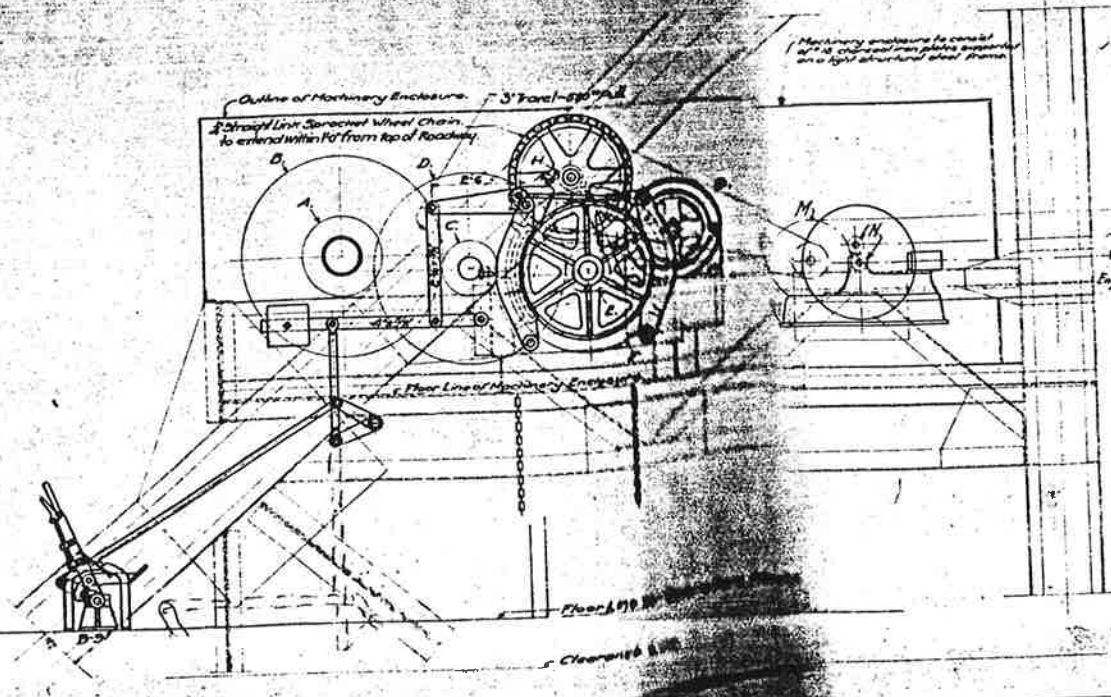
TYPICAL CONNECTION FOR BEARINGS B-2, B-3 & B-4



SPECIAL TOOTH FOR RACK & PINION 20° INVOLUTE



LAYOUT FOR SPECIAL TEETH 20° INVOLUTE

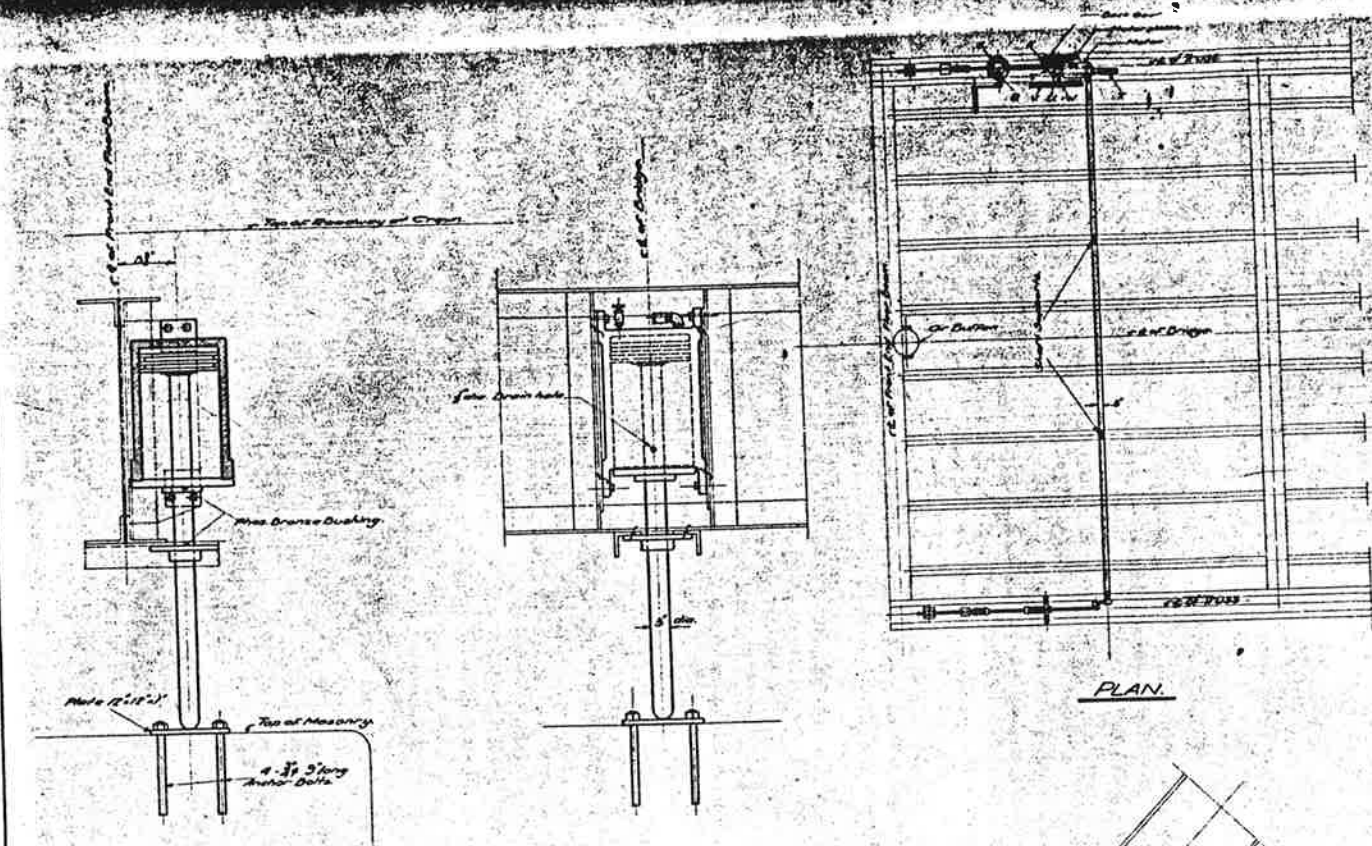


BEARING B-1 E-Req'd. - Cast Steel

STRAUSS TRUNNION BASCULE BRIDGE  
 PATENTED OVER  
 CATARAQUI RIVER  
 KINGSTON HARBOR IMPROVEMENTS  
 FOR  
 DEPT. OF PUBLIC WORKS  
 IHL STRAUSS  
 BASCULE BRIDGE CO  
 CHICAGO  
 DRAWN BY Z.A.S.  
 TRACED BY Z.A.S.  
 CHECKED BY I.M.E. P.Y.  
 REVISED Jan 21, 1915  
 OPERATING MACHINERY  
 SHEET NO. 17

MICROFILMED  
 MAY 31 20  
 OMK 18-27

General Notes:  
 Material and workmanship to conform to specifications.  
 Specifications see Sheet 2.  
 Standard Railway Gears with apex and centered  
 from the Operator's House, to be provided at  
 each end of bridge.

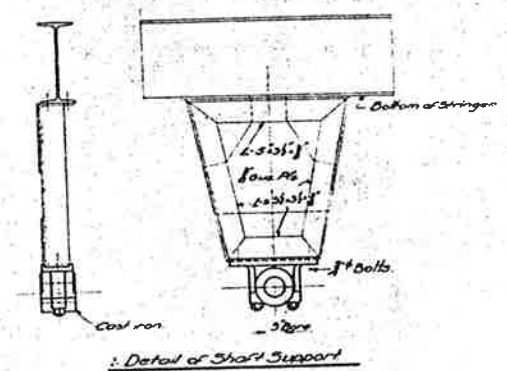
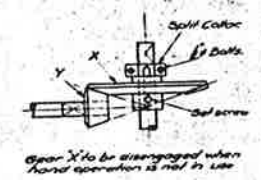


PLAN

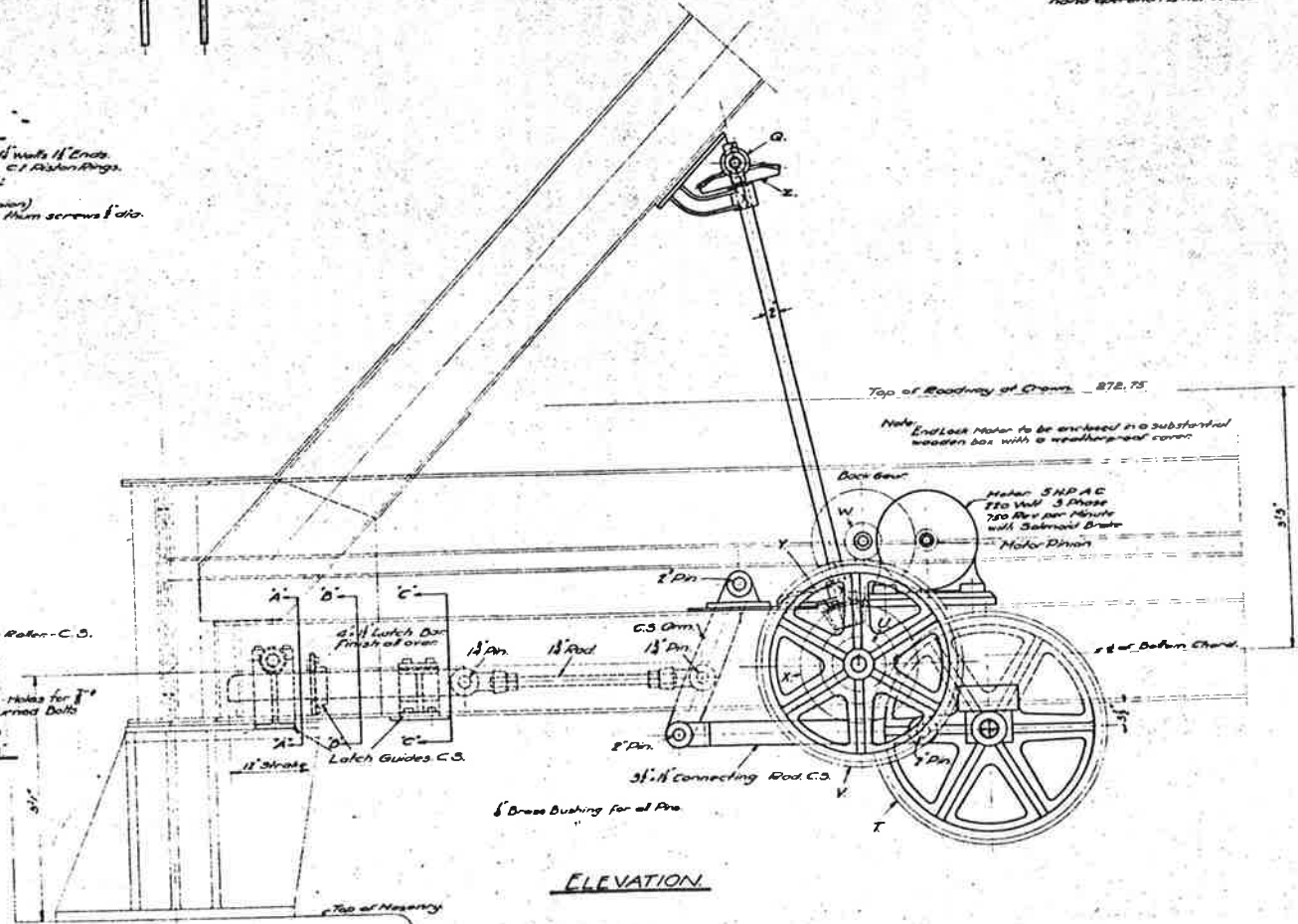
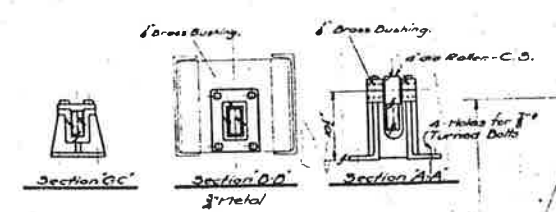
**AIR BUFFER**  
 One required at foot of  
 C.S. Cylinder 18" Bore 15" Stroke 14" Walls 1/2" Ends.  
 Clearance at top end of Piston C.I. Piston Rings.  
 Piston made of cast iron.  
 Heavy check valve.  
 Needle valve (single without union)  
 2 Oil holes tapered for air-tight then screws etc.

TABLE OF GEARS

Mark	Module	Pitch	No. of Teeth	Pitch Diam.	Face	Bore	Wall	Key	Remarks
T	1	1 1/2"	63	95.7"	5"	5"	C.S.	1 1/2"	3/4" Cast Iron 15" Involute
U	1	1 1/2"	18	27.0"	5"	5"	C.S.	1 1/2"	" " " " "
V	1	1 1/2"	28	42.0"	5"	5"	C.S.	1 1/2"	3/4" Cast Iron 15" Involute
W	1	1 1/2"	18	27.0"	5"	5"	C.S.	1 1/2"	" " " " "
X	1	1 1/2"	48	72.0"	5"	5"	C.S.	1 1/2"	" " " " "
Y	1	1 1/2"	18	27.0"	5"	5"	C.S.	1 1/2"	Bevel Gears
Z	1	1 1/2"	48	72.0"	5"	5"	C.S.	1 1/2"	3/4" Cast Iron 15" Involute
Q	1	1 1/2"	15	22.5"	5"	5"	C.S.	1 1/2"	Bevel Gears



Detail of Shaft Support



ELEVATION

General Note:  
 Material and workmanship as per specifications  
 Specifications see Sheet No. 2.

QMK:18-27

**STRAUSS TRUNNION BASCULE BRIDGE**  
 PATENTED  
 OVER  
**CATARAQUI RIVER**  
 KINGSTON HARBOR IMPROVEMENTS  
 FOR  
 DEPT. OF PUBLIC WORKS  
 DRAWN BY E.A.S.  
 TRACED BY J.A.S.  
 CHECKED BY J.A.C. 3/24/10  
 REVISED  
 ENDLOCK AND AIR BUFFER  
 THE STRAUSS  
 BASCULE BRIDGE CO  
 CHICAGO  
 SCALE 1/8" = 1'-0"  
 DATE 3-2-10  
 GEN. FILE 573  
 SHEET 20