

SUMMARY OF QUANTITIES		
QUANTITY	UNIT	ITEM
5574	CU.YDS.	CLASS "X" CONCRETE
1,019,378	LBS.	REINFORCEMENT BARS
3,200,000	LBS.	FURNISHING & ERECTING STRUCTURAL STEEL
3,908	LIN.FT.	FURNISHING & ERECTING ALUMINUM HANDRAIL
2,794	CU.YDS.	CLASS "A" EXCAVATION FOR STRUCTURES
1,396	CU.YDS.	CLASS "A" EXCAVATION FOR STRUCTURES (MODIFIED)
11,833	CU.YDS.	SAND OR GRAVEL EMBANKMENT
980	CU.YDS.	POROUS GRANULAR EMBANKMENT
16,571	CU.FT.	SUB-PIERS
4,000	LIN.FT.	2 INCH RIGID STEEL CONDUIT
2	EACH	NAME PLATES
1,436	LIN.FT.	PERFORATED CORRUGATED 6" METAL PIPE
10,504	SQ.YDS.	PROTECTIVE COAT
484	SQ.FT.	SIDEWALK REMOVAL
4	EACH	TEST PILES
1,860	LIN.FT.	FURNISHING CRESOTED PILES (UP TO 20 FT.)
4,154	LIN.FT.	FURNISHING CRESOTED PILES (20 FT. TO 38 FT.)
6,014	LIN.FT.	DRIVING TIMBER PILES
1,060	LIN.FT.	STORM SEWERS, TYPE 2 (R.C.P. CLASS III) 8 INCHES
260	LIN.FT.	STORM SEWERS, TYPE 2 (R.C.P. CLASS III) 10 INCHES
1,086	LIN.FT.	STORM SEWERS, TYPE 2 (R.C.P. CLASS III) 12 INCHES
1,134	LIN.FT.	STORM SEWERS, TYPE 2 (R.C.P. CLASS III) 24 INCHES
180	LIN.FT.	STORM SEWERS, TYPE 2 (R.C.P. CLASS III) 30 INCHES
106	LIN.FT.	STORM SEWERS, TYPE 2 (R.C.P. CLASS III) 54 INCHES
761	LIN.FT.	STORM SEWERS, TYPE 2 (R.C.P. CLASS III) 60 INCHES
100	LIN.FT.	STORM SEWERS (CLASS IV) JACKED IN PLACE 24 INCHES
28	LIN.FT.	STORM SEWERS (CLASS IV) 24 INCHES
789	LIN.FT.	6 INCHES STEEL DOWNSPOUT PIPE
13	EACH	CATCH BASINS, TYPE A2, 4 FT. DIA. WITH TYPE 8 FRAME
12	EACH	CATCH BASINS, TYPE A2, 4 FT. DIA. WITH TYPE 11 FRAME
7	EACH	MANHOLES, TYPE A, 4 FT. DIA. WITH TYPE 1 FRAME (CLOSED LID)
3	EACH	MANHOLES, TYPE A, 4 FT. DIA. WITH TYPE 5 FRAME (CLOSED LID)
2	EACH	MANHOLES, PRECAST "T" WITH TYPE 1 FRAME & GRATE (CLOSED LID) 60" S.S.
1	EACH	MANHOLES, PRECAST "T" WITH TYPE 5 FRAME & GRATE (CLOSED LID) 60" S.S.
3	EACH	FIRE HYDRANTS, TO BE MOVED
1	EACH	CATCH BASINS TO BE ADJUSTED
5	EACH	MANHOLES TO BE RECONSTRUCTED
3	EACH	MANHOLES TO BE ADJUSTED
5	EACH	FILLING EXISTING MANHOLES
6	EACH	CAST IRON FRAMES TYPE 1 FRAME (CLOSED LID)
687	CU.YDS.	TRENCH BACKFILL
956	LIN.FT.	WATER MAIN - 12 INCH
100	LIN.FT.	ADJUSTING WATER SERVICE LINES - 6 INCH
120	LIN.FT.	WATER MAIN, 6 INCH
2	EACH	FIRE HYDRANTS (CONFORMING TO VILLAGE SPEC.)
59980	EACH	WELDED STUD SHEAR CONNECTORS
1	LUMP SUM	FIELD OFFICE AND LABORATORY

DESIGN DATA

LOADING:
Live Load H20-S16-44

SPECIFICATIONS:
DESIGN A.A.S.H.O. Specifications for Highway Bridges, 1961

CONSTRUCTION & MATERIALS Standard Specifications for Road & Bridge Construction of the State of Illinois, 1958 & Supplemental Specifications, effective March 2, 1964
WELLING A.W.S. STANDARD SPECIFICATIONS for Welded Highway and Railway Bridges, dated 1963.

ALLOWABLE STRESSES:
fs Structural Steel (A.S.T.M.-A36) 20,000 p.s.i.
fs Reinforcement Bars 20,000 p.s.i.
fc Flexural Compressive Stress of concrete 1,400 p.s.i.
Flexural Compressive Stress of Concrete with Earth Pressure 800 p.s.i.
n= 10

SUPERSTRUCTURE:
All beams are designed as a continuous or simple wide Flange Beams with Composite action in the positive moment area.
Maximum Live Load deflection - L/1200.
Shear connectors shall be automatically welded studs.

GENERAL NOTES

CONCRETE:
Class "X" Concrete shall be used throughout. The concrete deck slab shall be placed in one continuous operation from expansion device to expansion device between construction joints shown on the plans, and additional construction joints as approved by the Engineer and as specified in the Special Provisions. Finishing of the Deck Slab shall be as specified in the Article 51.10 of the Standard Specifications.

Permanent forms will not be permitted in forming concrete deck slabs. All concrete shall be hand-finished 3/4" unless otherwise shown or noted on plans.

The cost of the Bituminous Preformed Fibre Joint Filler shall be included in the Unit Bid Price of Class "X" Concrete. The Rubber Water Seal shall be utilized as recommended by the manufacturer. The cost of the rubber water seal and its installation, shall be included in the Unit Price Bid for Class "X" Concrete. Exposed concrete surfaces shall have a rubbed finish in accordance with Art. 72.13 of the Standard Specifications.

After the concrete is cured and finished and the surfaces are clean and dry, the exposed surfaces of the deck slabs, curbs, sidewalks and parapet walls shall be given a protective coat (see Special Provisions).

The part of the abutments and retaining walls that are in contact with earth or embankment material shall be covered with waterproofing in accordance with Art. 51.21 of the Standard Specifications.

The Contractor shall adequately support brace and protect bituminous preformed fibre joint filler during construction so that it does not become torn and distorted. The Contractor's method of supporting, bracing and protecting the bituminous preformed fibre joint filler shall be approved by the Engineer.

All bridge seats shall be constructed to exact elevations shown. If bush hammering or grinding is necessary it shall be done at no additional cost to the County.

The Contractor shall drive test piles as part of permanent crews as directed by the Engineer before ordering balance of piles.

All piles shall be driven to obtain a minimum penetration of ten feet into a stratum of solid material regardless of bearing capacity developed. The cost of the rubbed finish, the waterproofing, rubber water seals, bituminous preformed fibre joint filler, the sealing compound, ground mica and copper nails shall be included in the bid price for Class "X" Concrete.

REINFORCEMENT BARS:
All reinforcement bars shall conform to A.S.T.M. A 305-58T as amended to date and shall comply with A.S.T.M. A 15-58T Specification. Minimum lap for all reinforcement bars shall be 24 bar diameters.
Reinforcement bars shall comply with Article 59 of the State Standard Specifications.

STRUCTURAL STEEL:
All structural steel shall conform to the requirements of A.S.T.M.-A36 except as otherwise shown or noted.

Welding shall be in accordance with current 1963 Specifications for welded Highway and Railway Bridges of the American Welding Society and as noted on the Plans and in the Special Provisions.

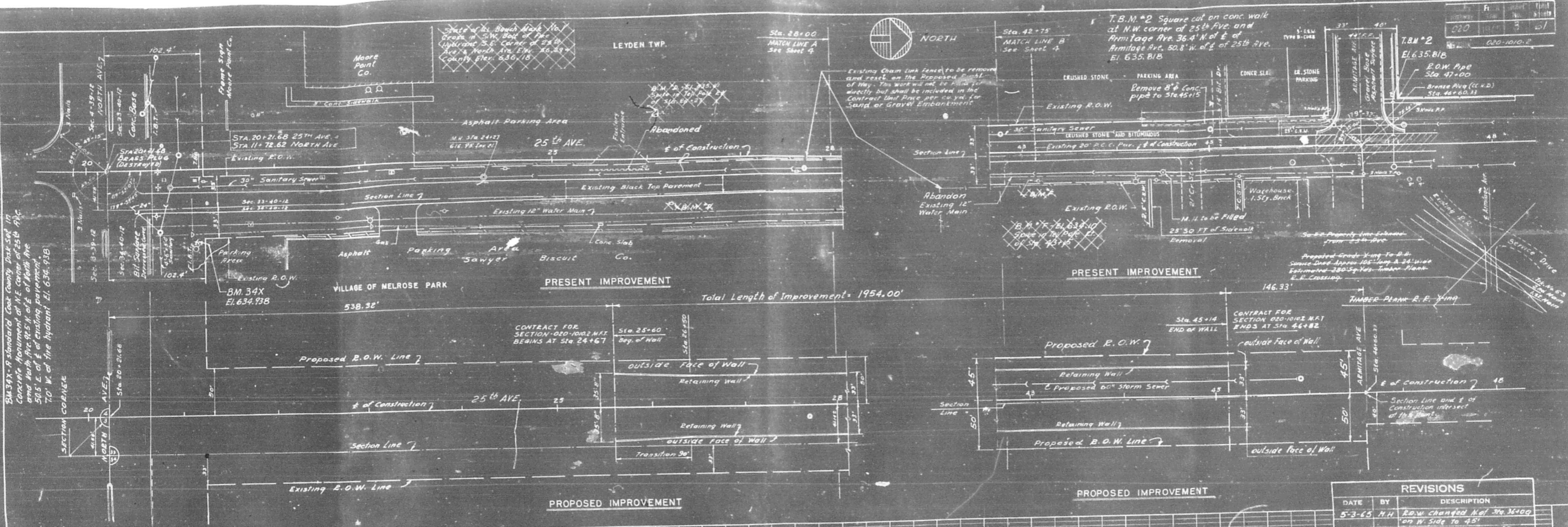
SUB-PIERS
For Construction of Sub-Piers see Special Provisions.

MISCELLANEOUS:
Existing 54" storm sewer shall be removed as shown on the plans or as directed by the Engineer. This work will not be paid for directly, but shall be considered as incidental to, and included in, the contract unit price per cubic yard for Class A Excavation for Structures.
SHOP DRAWINGS: Five sets of shop drawings for reinforcing steel, and seven sets for structural steel and for handrail shall be submitted to the Cook County Highway Department for approval. See Standard Specification.
For Construction of embankment between Retaining Walls see Section 16 of the Standard Specifications. No compaction equipment is to be operated closer than three (3) feet to any Retaining Wall or Abutment. Only hand methods of compaction will be permitted in these areas.

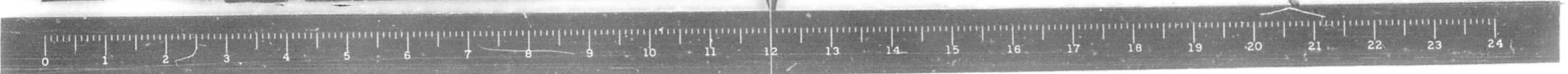
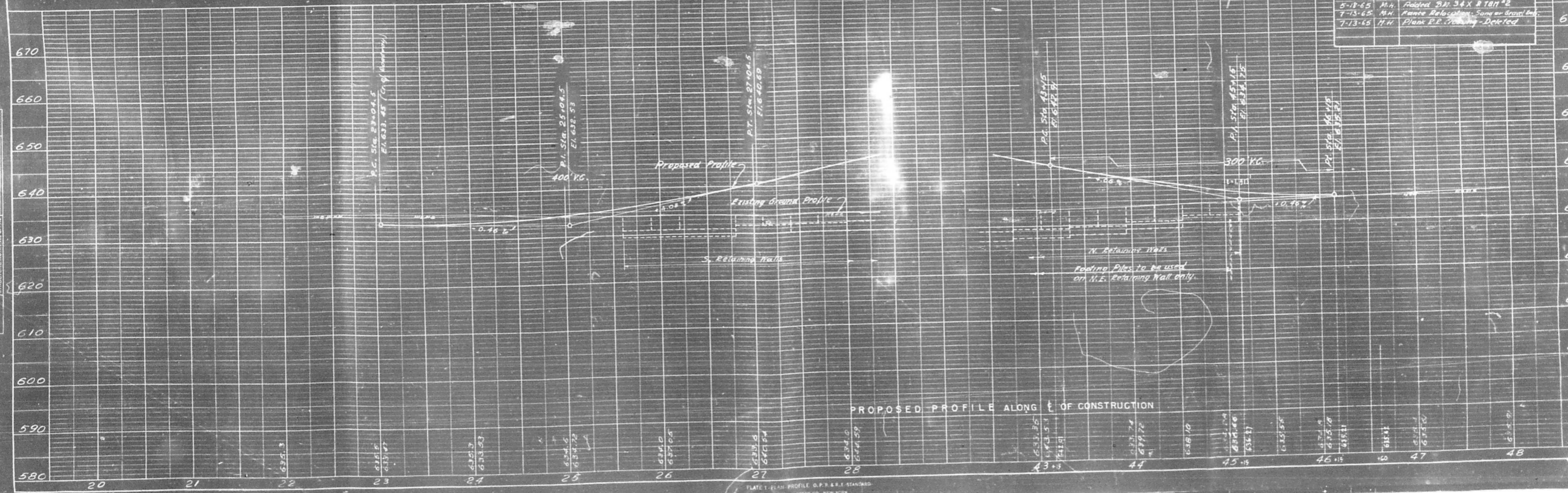
All anchor bolts for bearing plates on all piers & abutments (except Piers 2, 5, 8, 14) are to be drilled in place after beams are erected and abutments are backfilled. Use approved non-shrinking material to set anchor bolts.

REVISIONS		
DATE	BY	DESCRIPTION
9-3-65	L.S.	Revised total of shear connectors

DEPARTMENT OF HIGHWAYS			
SEYMOUR SIMON PRESIDENT BOARD OF COMMISSIONERS		ANDREW V. PLUMMER SUPERVISOR OF HIGHWAYS	
SUMMARY OF QUANTITIES & GENERAL NOTES			
25 TH AVE. GRADE SEPARATION OVER I.H.B. RAILROAD			
COMPUTED	B.H.	PROJECT	
DRAWN	L.S.	SCALE	
CHECKED	M.H.	APPROVED	J.P. SIMON
APPROVED	1965	DATE	2 61

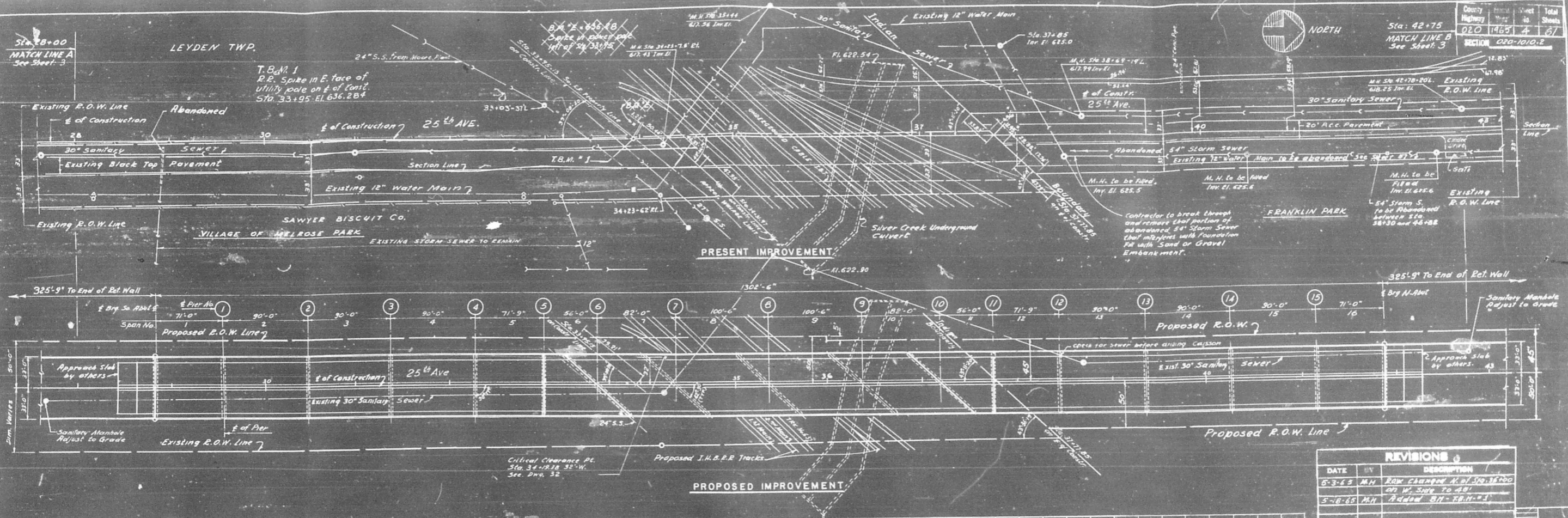


REVISIONS		
DATE	BY	DESCRIPTION
5-3-65	M.H.	R.O.W. changed from 36' to 45' on N. Side to 45'
5-11-65	M.H.	Added B.M. 34X & Tan #2
7-15-65	M.H.	Fence Relocation: Sand or Gravel Bed
7-13-65	M.H.	Plank R.P. Crossing Deleted



PLAN
 SURVEYED BY
 CHECKED BY
 DATE
 NO. OF REVISIONS
 NO. OF SHEETS

PROFILE
 DRAWN BY
 CHECKED BY
 DATE
 NO. OF REVISIONS
 NO. OF SHEETS



REVISIONS		
DATE	BY	DESCRIPTION
5-3-65	M.H.	RAW CHANGE N. OF STA. 35+00 ON W. SIDE TO 48'
5-18-65	M.H.	Added 87'-58.11'-3'

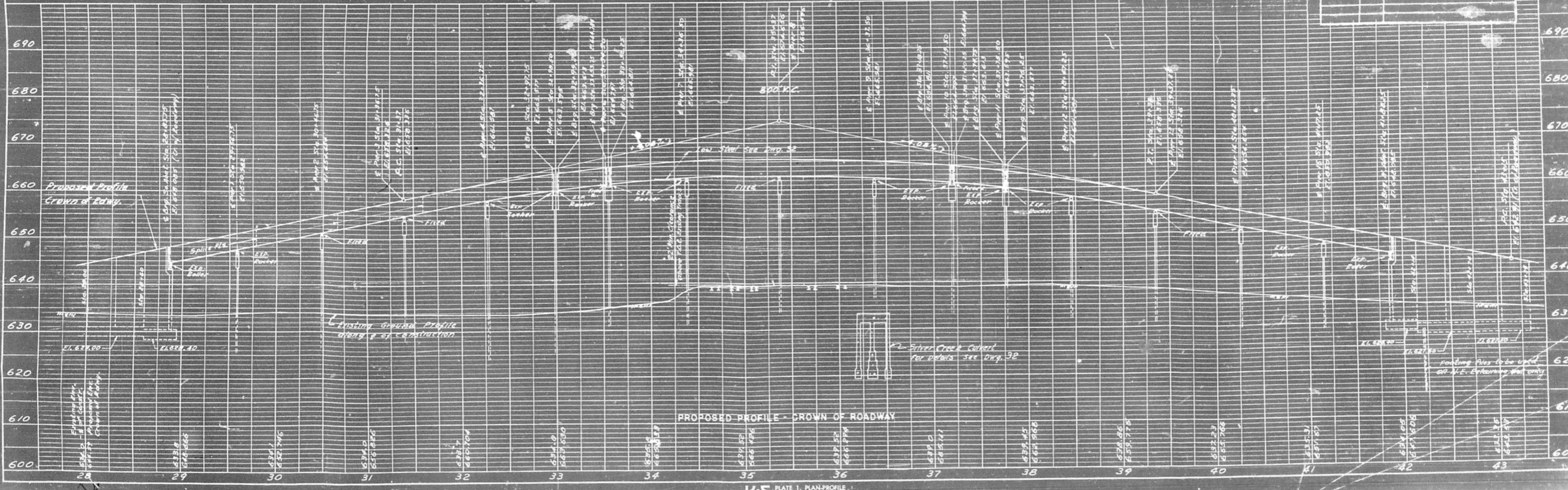
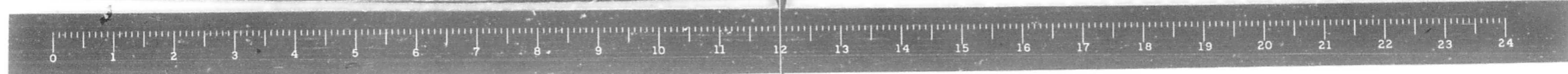


PLATE 1. PLAN-PROFILE
SHEPHERD & GEAR CO.



NOTE: BOOK ALIGNMENT CHECKED BY: []
 NO. []
 DATE: []
 CHECKED BY: []
 DATE: []

TR. LINE 25th AVENUE

KEY PLAN
Scale 1" = 100'

Sta.	Gr. El.	U.C.S. Tons/50 Ft.	% Moisture	DEPTH IN FT. BELOW SURF.	Soil Description
Sta. 26+00	On Tr. Line Gr. El. 634.4	2.1 15.8	2.0	2.1	Very Stiff Brown Clay
Sta. 28+00	Off Tr. 5'-W Gr. El. 634.1	2.1 22.1	2	2	Fish-tailed
Sta. 29+56	Off Tr. 5'-W Gr. El. 633.7	2.5 14.9	4	2.5	Very Stiff Brown Clay
Sta. 30+47	Off Tr. 6'-W Gr. El. 634.1	3.1 10.7	22	3.1	Very Stiff Gray Clay
Sta. 31+37	Off Tr. 6'-W Gr. El. 634.6	4.7 17.9	22	4.7	Fish-tailed
Sta. 32+27	Off Tr. 6'-W Gr. El. 633.9	6.0 17.0	24	6.0	Hard Gray Clay
Sta. 32+99	Off Tr. 6'-W Gr. El. 634.3	5.9 17.1	22	5.9	Hard Gray Silty Clay
Sta. 33+54	Off Tr. 5'-E Gr. El. 634.8	3.6 18.2	24	3.6	Very Stiff Gray Clay
Sta. 34+37	On Tr. Line Gr. El. 638.0	2.1 12.4	22	2.1	Fish-tailed
Sta. 37+20	On Tr. Line Gr. El. 639.5	2.1 17.8	22	2.1	Very Stiff Gray Silty Clay Loam
Sta. 37+76	On Tr. Line Gr. El. 639.5	4.0 11.9	22	4.0	Fish-tailed
Sta. 38+47	On Tr. Line Gr. El. 639.2	3.9 18.3	24	3.9	Very Stiff Gray Clay
Sta. 39+37	On Tr. Line Gr. El. 638.3	4.0 16.6	22	4.0	Fish-tailed

Sta.	Gr. El.	U.C.S. Tons/50 Ft.	% Moisture	DEPTH IN FT. BELOW SURF.	Soil Description
Sta. 40+27	On Tr. Line Gr. El. 636.6	4.0 12.4	22	4.0	Fish-tailed
Sta. 41+17	On Tr. Line Gr. El. 634.8	3.5 16.3	22	3.5	Very Stiff Gray Grav. Clay
Sta. 42+50	Off Tr. 14.5'-W Gr. El. 633.2	3.8 17.5	2	3.8	Very Stiff Brown Clay
Sta. 44+50	Off Tr. 20'-E Gr. El. 633.9	2.0 23.8	2	2.0	Stiff Brown Grav. Clay

REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON
PRESIDENT BOARD OF COMMISSIONERS

ANDREW V. PLUMMER
SUPERVISOR DEPARTMENT OF HIGHWAYS

BORING LOGS
25 TH. AVE. GRADE SEPARATION
OVER
I. H. B. RAILROAD

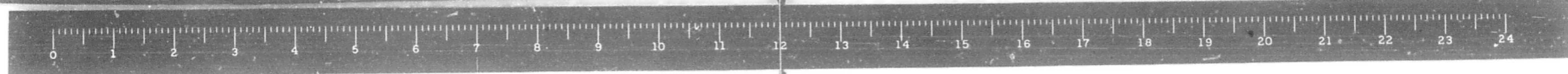
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DRAWN L. S.
CHECKED G. T.

APPROVED *March 22 1965*
August 2 1965

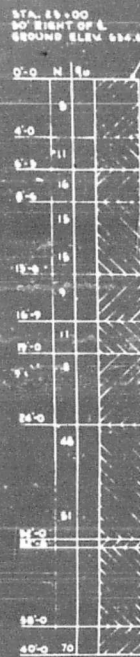
FISCAL YEAR 1965

Cook County Highway Bureau, Inc.
080-1010.2
M.P.T.

PROJECT SCALE APPROVED
5 61



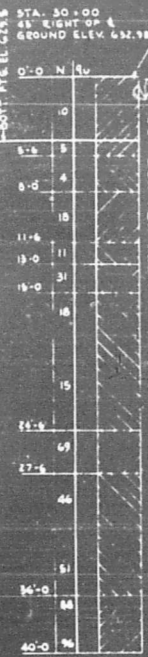
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BORING NO. 2



BORING NO. 3



BORING NO. 4



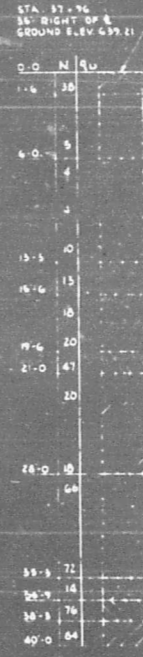
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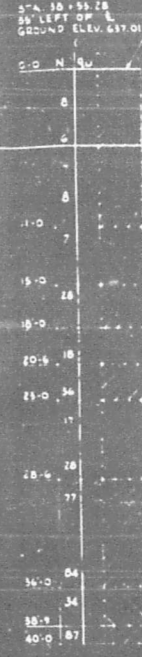
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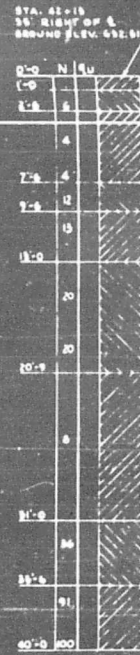
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BORING NO. 8



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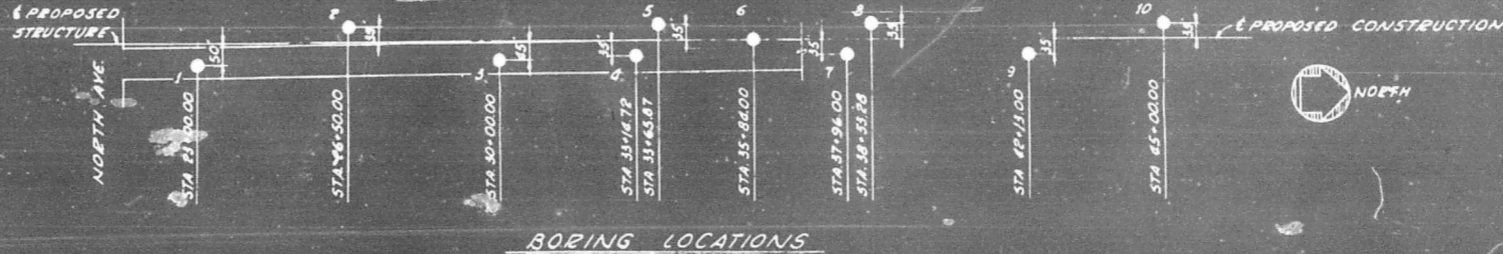


BORING NO. 10



BORING NOTES

- NOTE A: MEDIUM TO COARSE SAND, SMALL GRAVEL, TRACE OF SILT, CLAY BINDER.
 - NOTE B: VERY STIFF BROWN CLAY, TRACE OF SAND & SMALL GRAVEL.
 - NOTE C: VERY HARD GRAY CLAYEY SILT WITH FINE TO COARSE SAND & SMALL GRAVEL.
 - NOTE D: STIFF GRAY SILTY CLAY.
 - NOTE E: VERY DENSE SAND, SMALL GRAVEL, SOME SILT WITH CLAY BINDER.
 - NOTE F: VERY HARD GRAY SILT, TRACE OF SAND & SMALL GRAVEL.
 - NOTE G: COARSE SAND, SMALL GRAVEL, TRACE OF SILT, CLAY BINDER.
- N = NUMBER OF BLOWS PER FT. FOR A 140# HAMMER FALLING 15'.
 QU = UNCONFINED COMPRESSIVE STRENGTH IN KIPS PER SQ. FT.



BORING DATA ARE SHOWN ON THE DRAWINGS ONLY AS A GUIDE TO BIDDERS IN ESTIMATING SOIL CONDITIONS WHICH MAY BE ENCOUNTERED IN THE WORK.

DEPARTMENT OF HIGHWAYS
 COOK COUNTY, ILLINOIS

SEYMOUR SIMON ANDREW V. PLUMMER
 PRESIDENT BOARD OF COMMISSIONERS SUPERINTENDENT OF ROADS

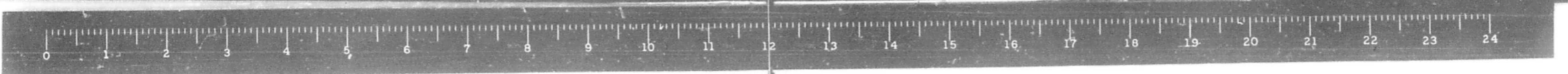
BORING LOGS
 25TH AVE GRADE SEPARATION
 OVER
 I. H. B. RAILROAD

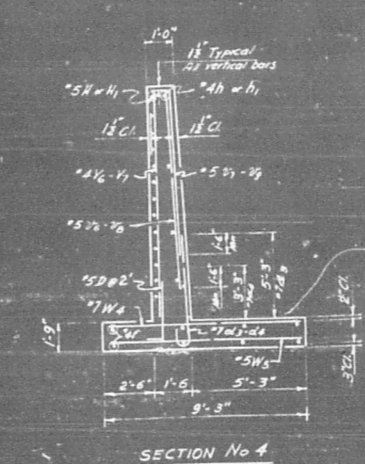
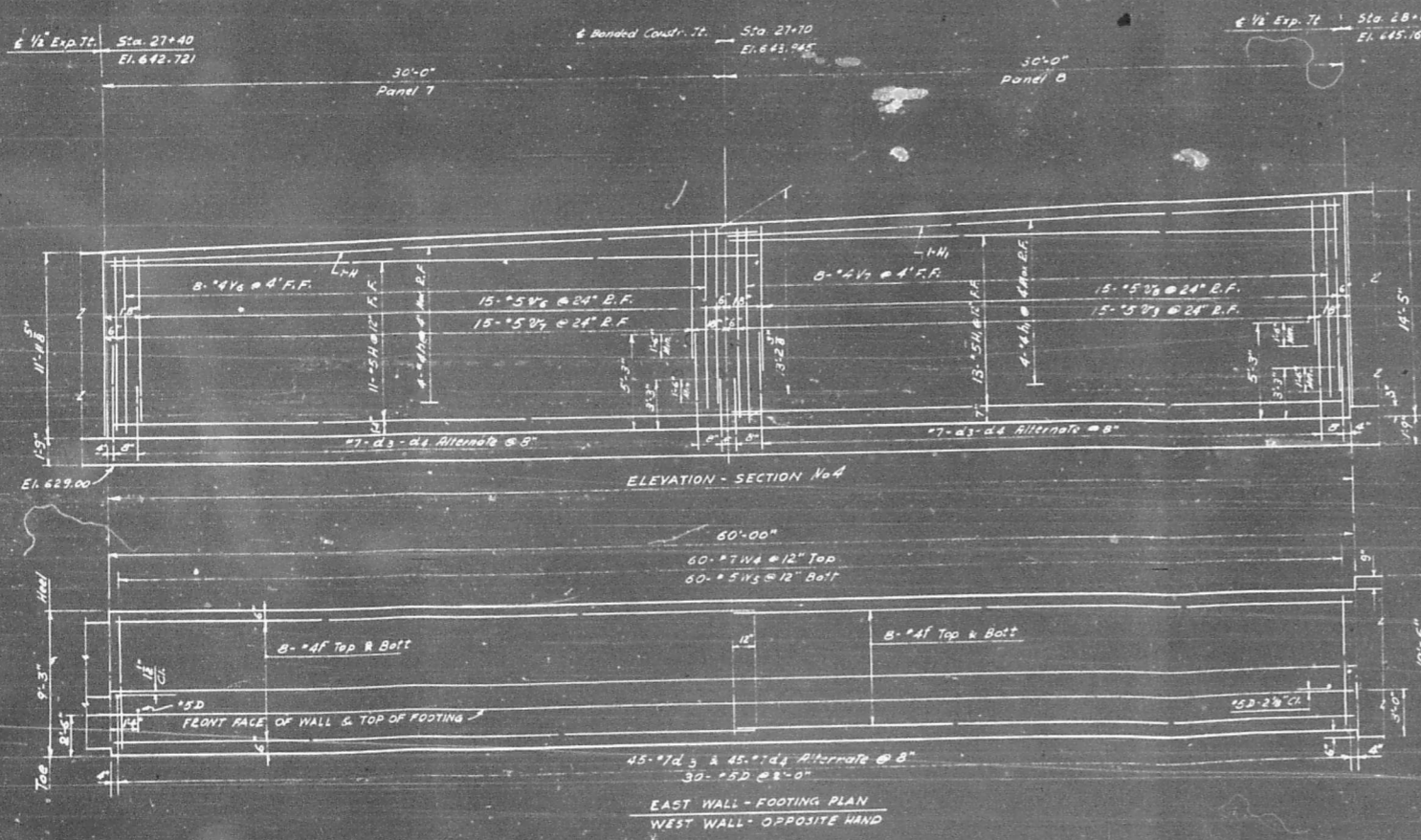
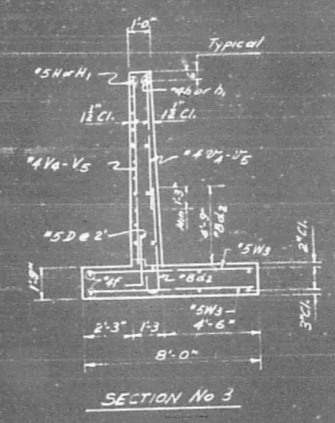
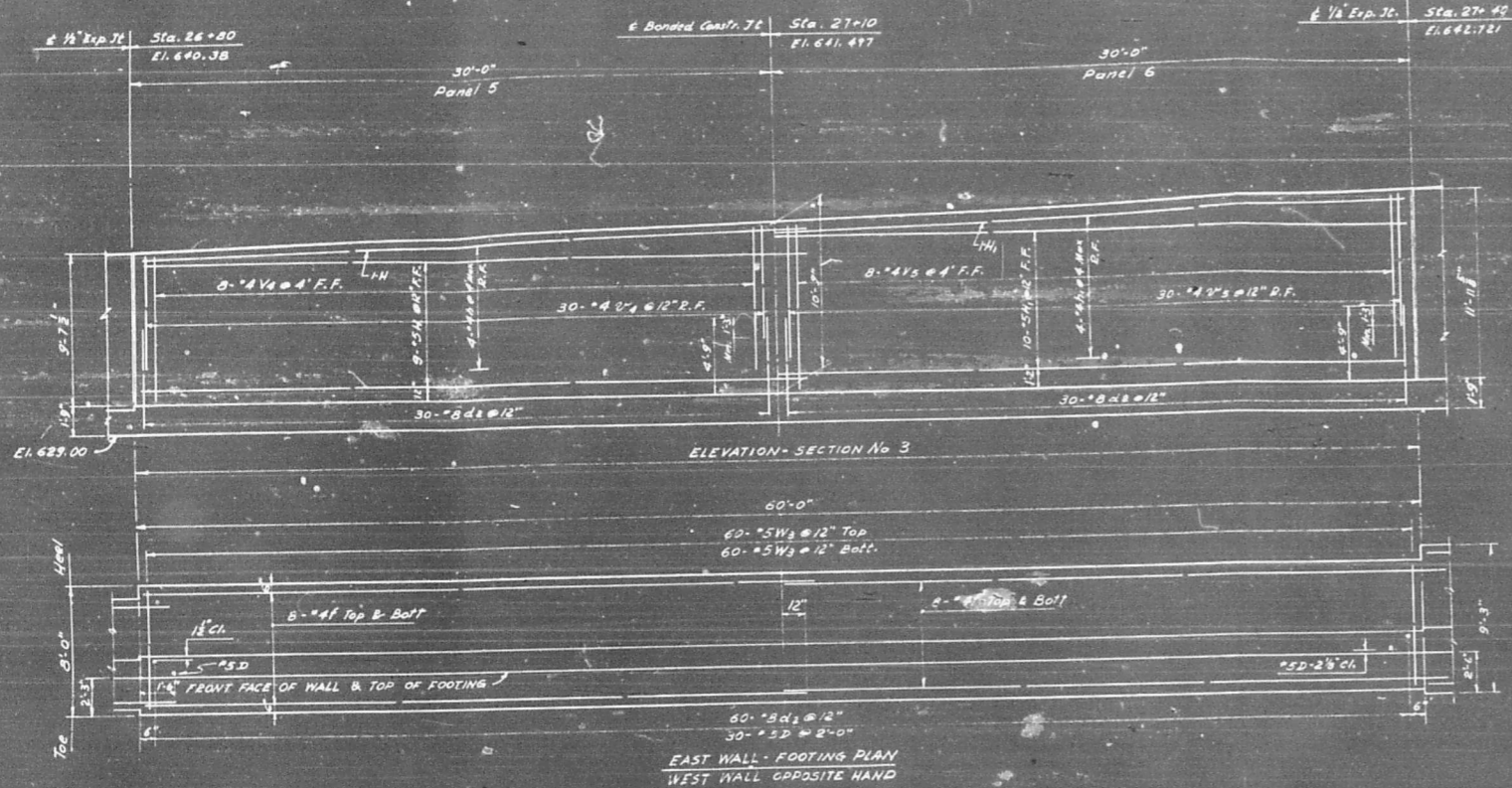
DATE	BY	DESCRIPTION

COMPUTED: _____ PROJECT: _____
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 CHECKED: _____ APPROVED: _____

APPROVED: _____
 COUNTY ENGINEER

FISCAL YEAR	County Highway Bond No.	Sheet No.	Total Sheets	Drawing No.





REVISIONS		
DATE	BY	DESCRIPTION

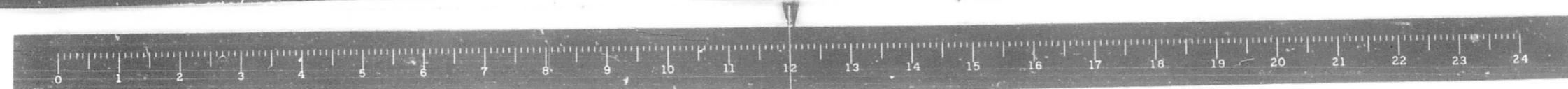
DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

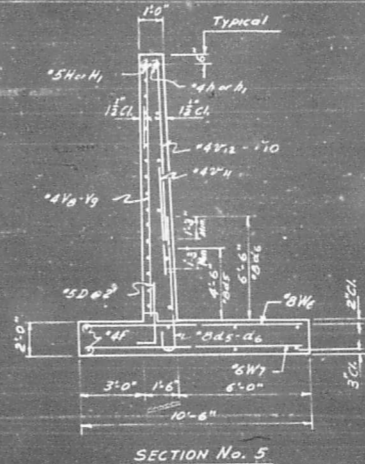
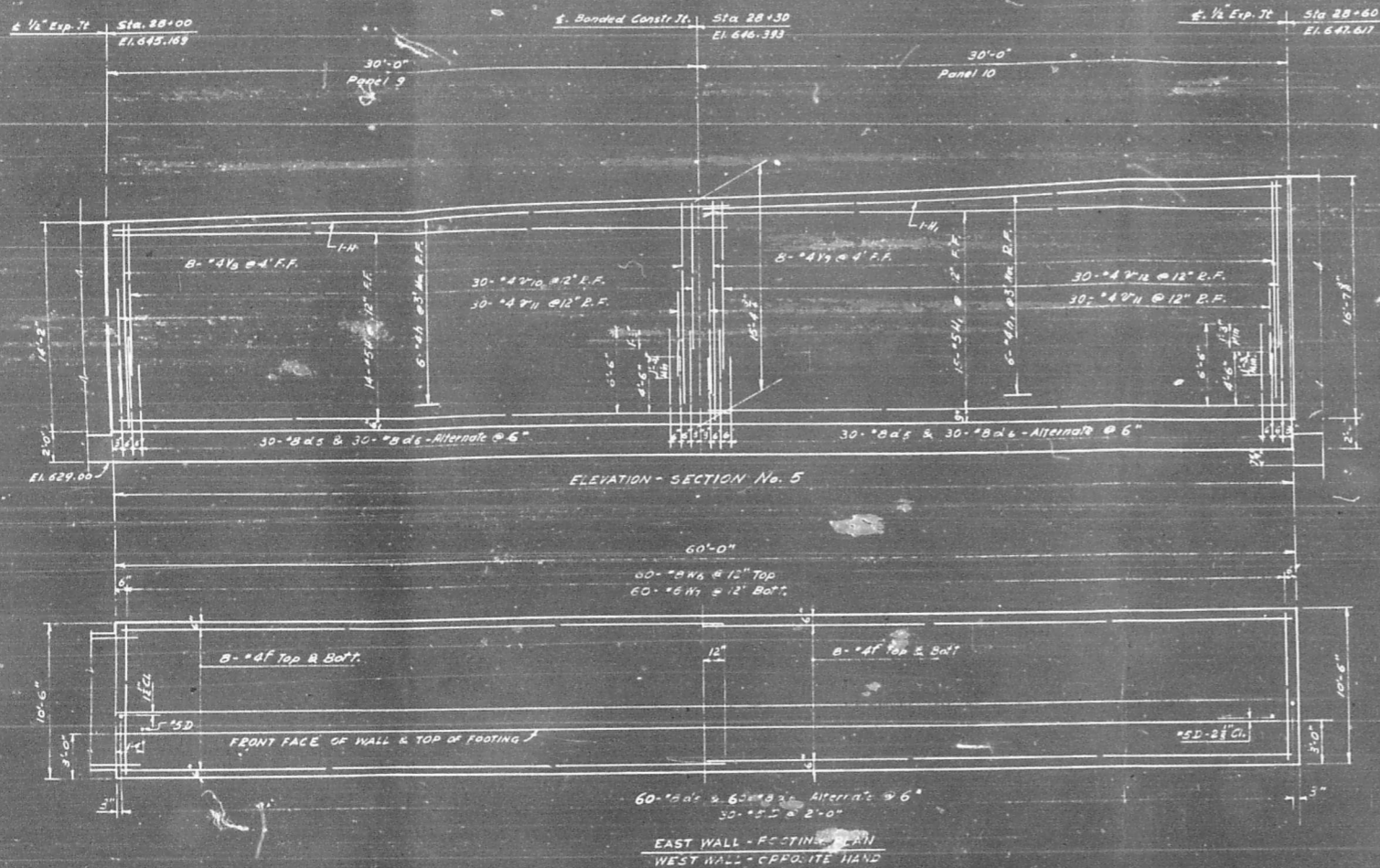
SEYMOUR SIMON
PRESIDENT BOARD OF COMMISSIONERS

ANDREW V. PLUMMER
DEPARTMENT OF HIGHWAYS

SOUTH-WEST & SOUTH EAST RETAINING WALLS
25 TH. AVE. GRADE SEPARATION
OVER
I. H. B. RAILROAD

COMPUTED	M.H.	PROJECT	SOUTH-WEST & SOUTH EAST RETAINING WALLS
DRAWN	E.S.	SCALE	Horizontal: 1/4" = 1'-0" Vertical: 1/8" = 1'-0"
CHECKED	M.H.	APPROVED	[Signature]
APPROVED	[Signature]	DATE	1955
		COUNTY ENGINEER	





REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

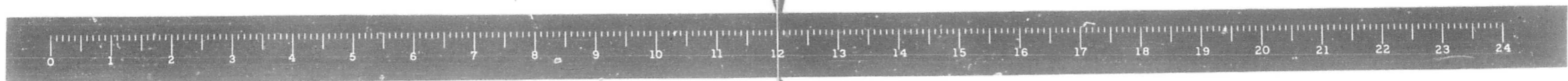
SEYMOUR SIMON
PRESIDENT BOARD OF COMMISSIONERS

ANDREW V. FLUMMER
SUPERVISOR OF HIGHWAYS

SOUTH-WEST & SOUTH EAST RETAINING WALLS
25 TH. AVE. GRADE SEPARATION
OVER
I. H. B. RAILROAD

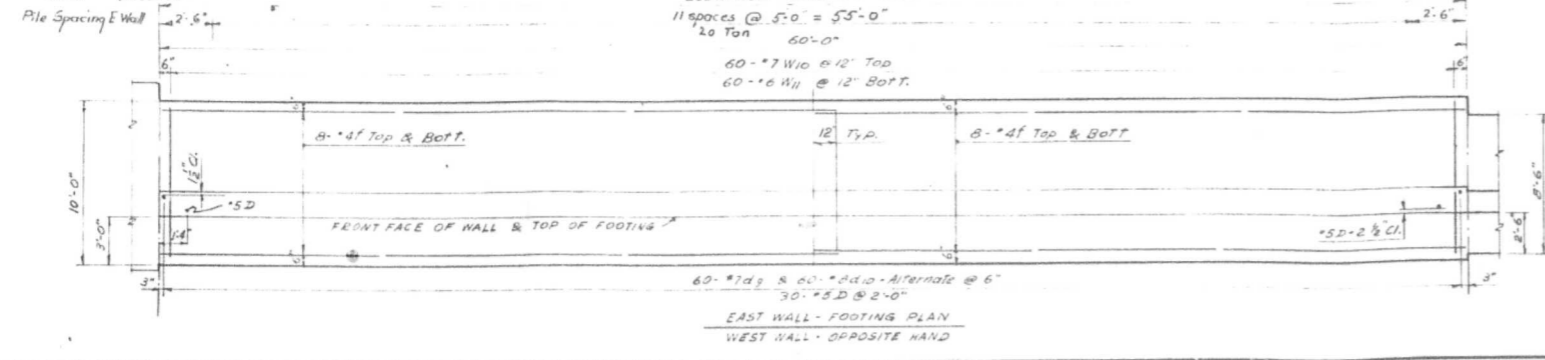
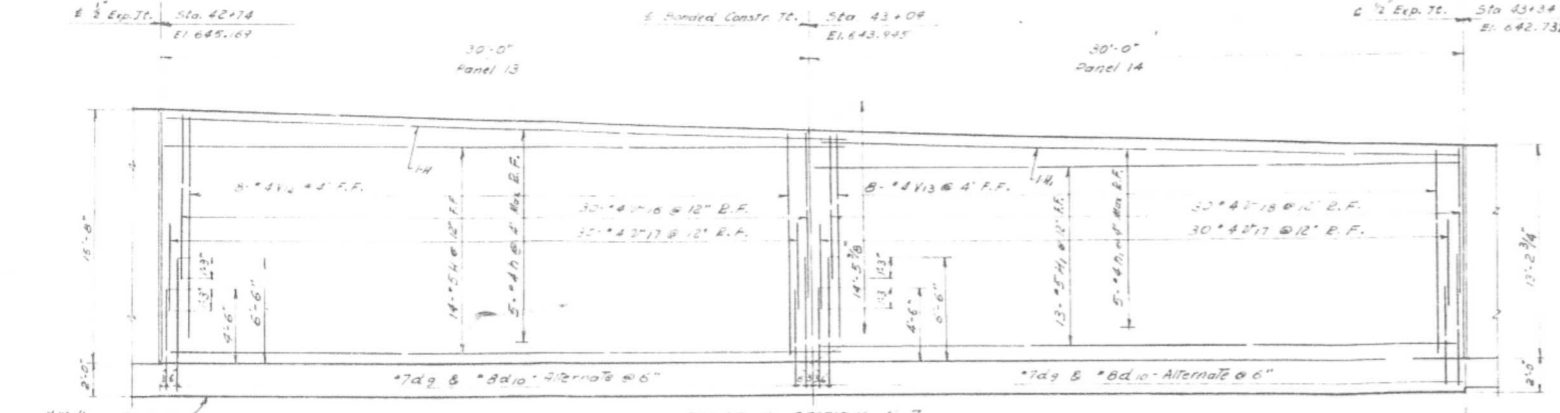
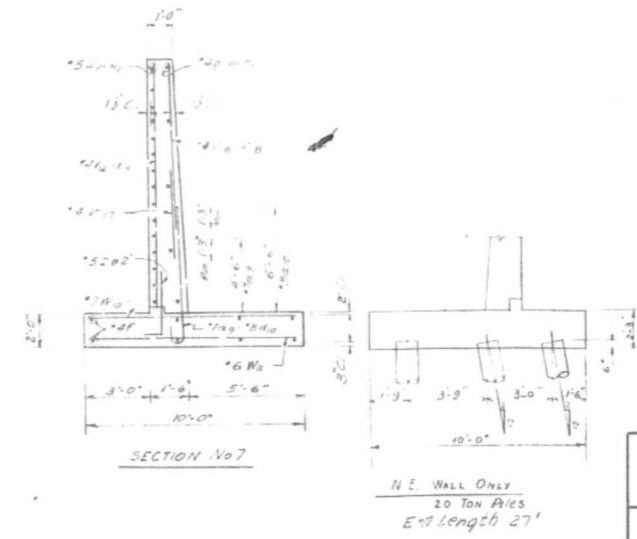
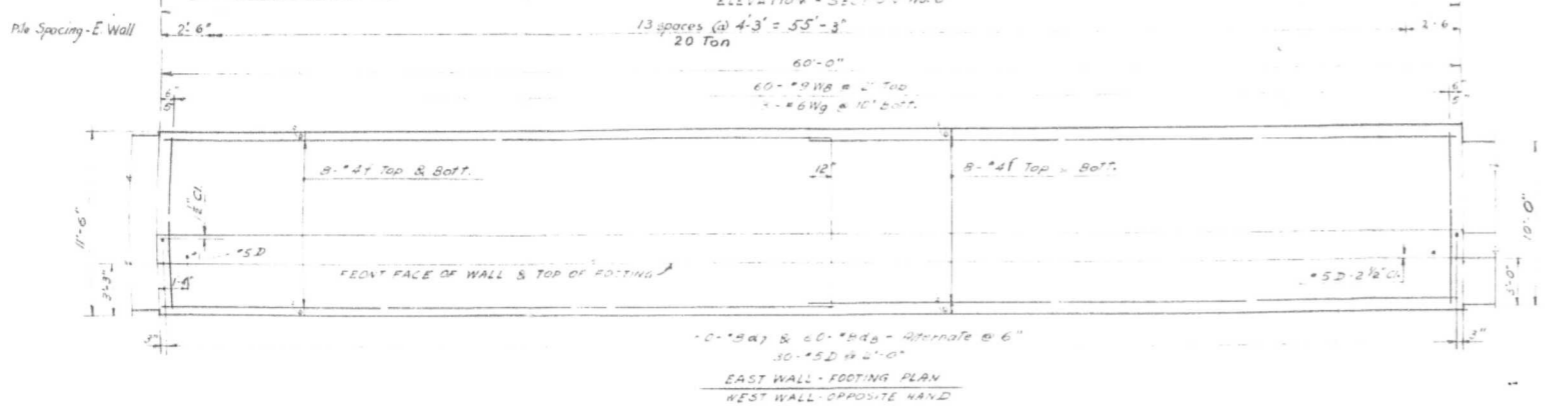
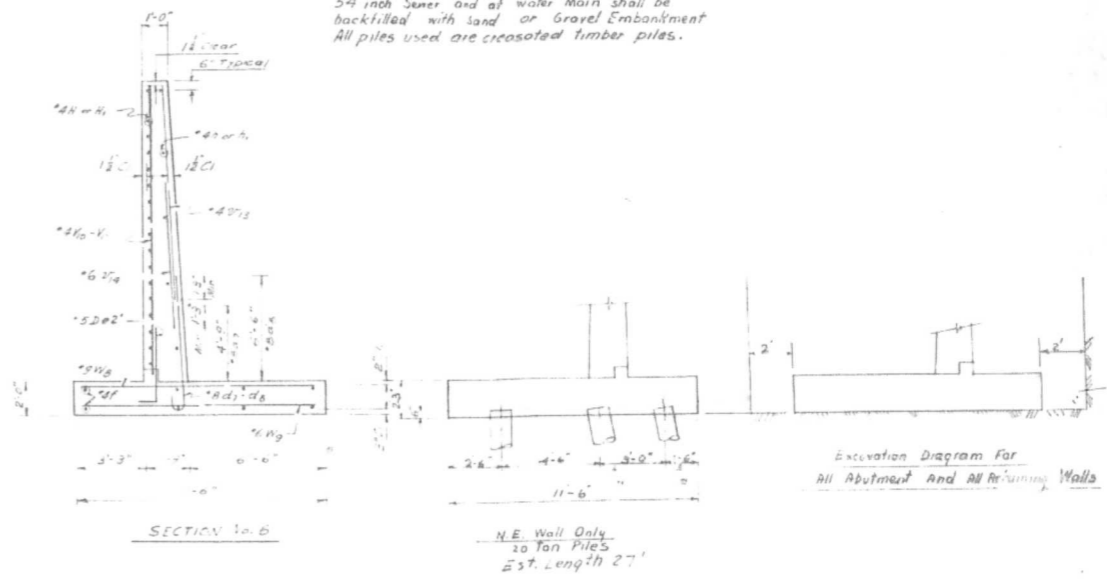
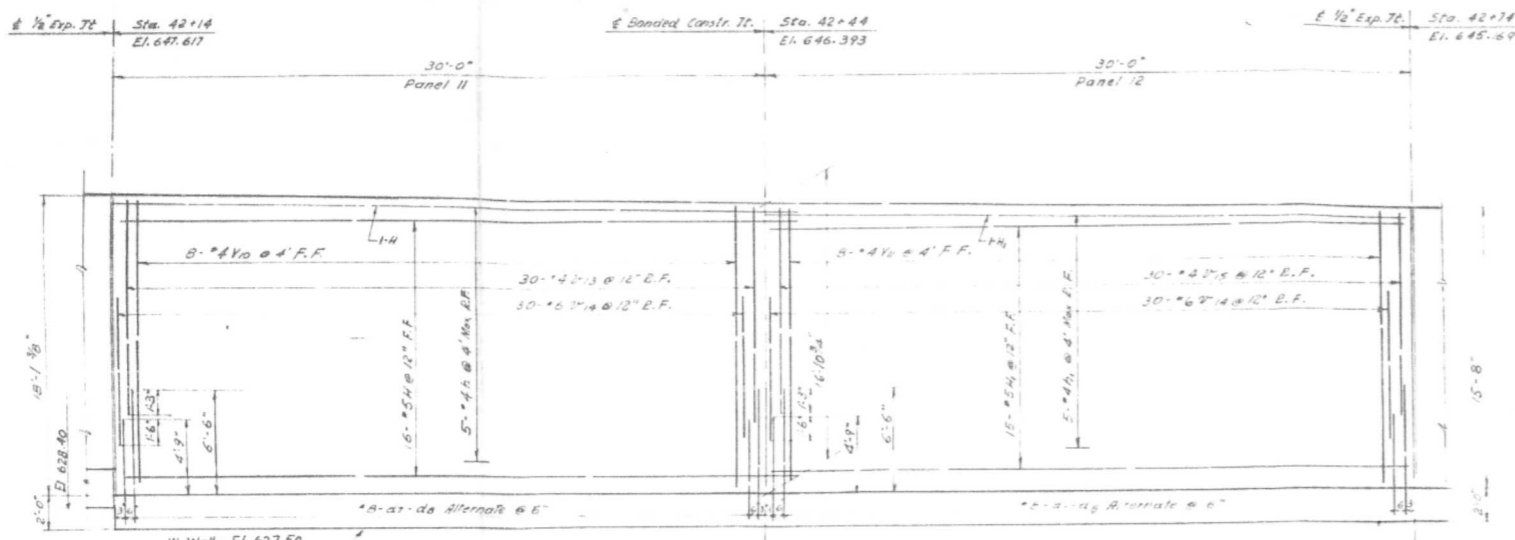
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DRAWN *L.S.* SCALE *Horizontal: 1/4"=1'-0" Vertical: 3/4"=1'-0"*
CHECKED *M.H.* APPROVED *[Signature]*

APPROVED *[Signature]* COUNTY CLERK
FISCAL YEAR 1965 COUNTY HIGHWAY DIST. NO. 020-1010.2
SHEET NO. 9 OF 61 DRAWING NO.





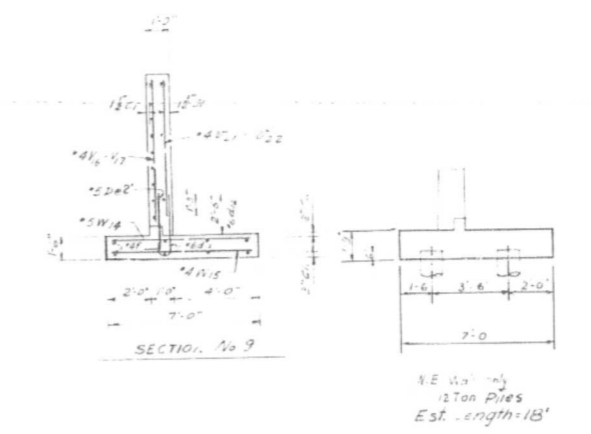
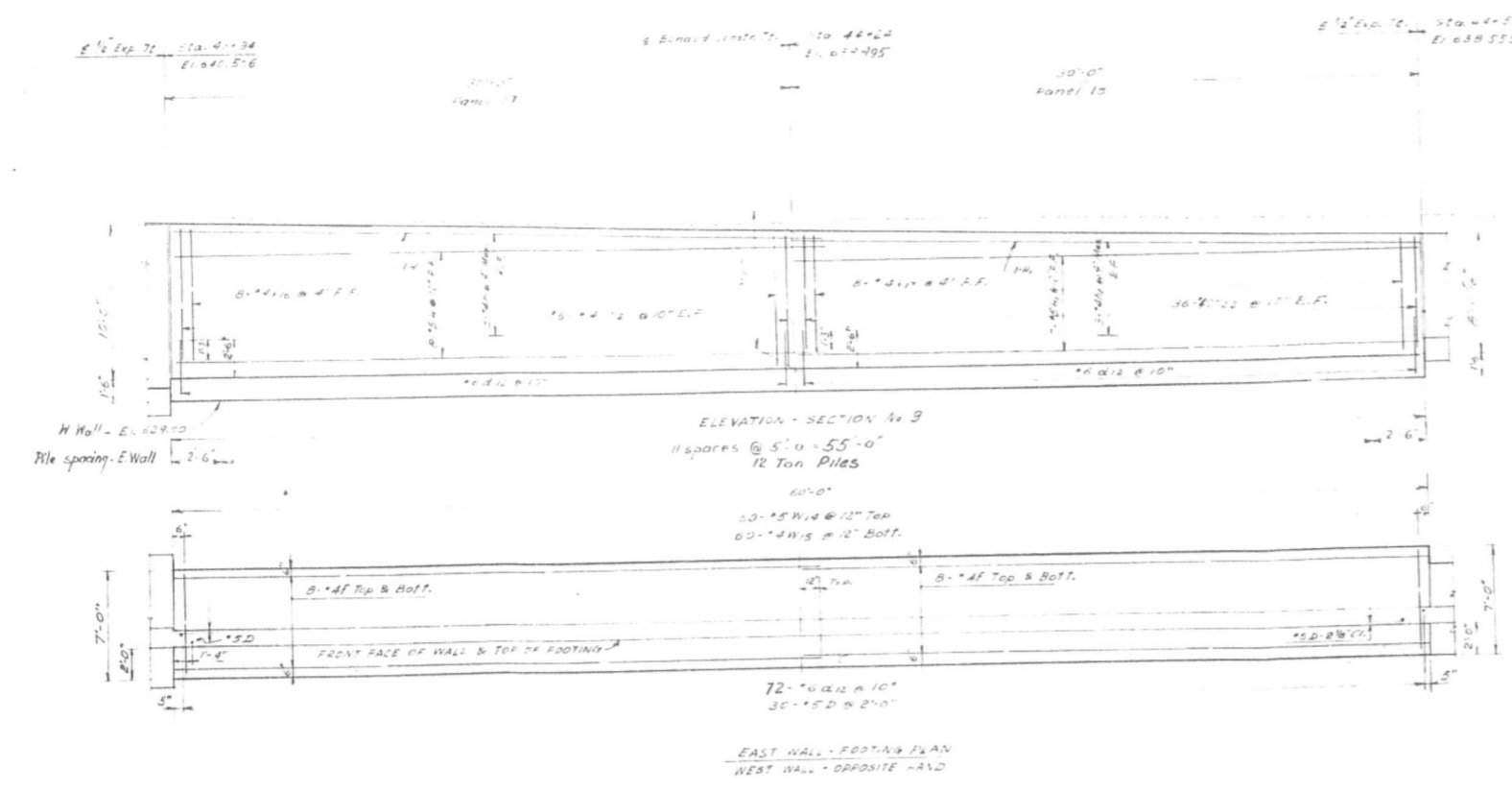
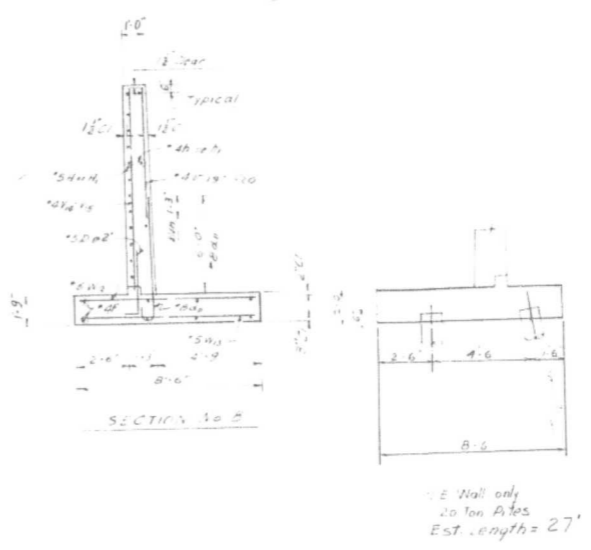
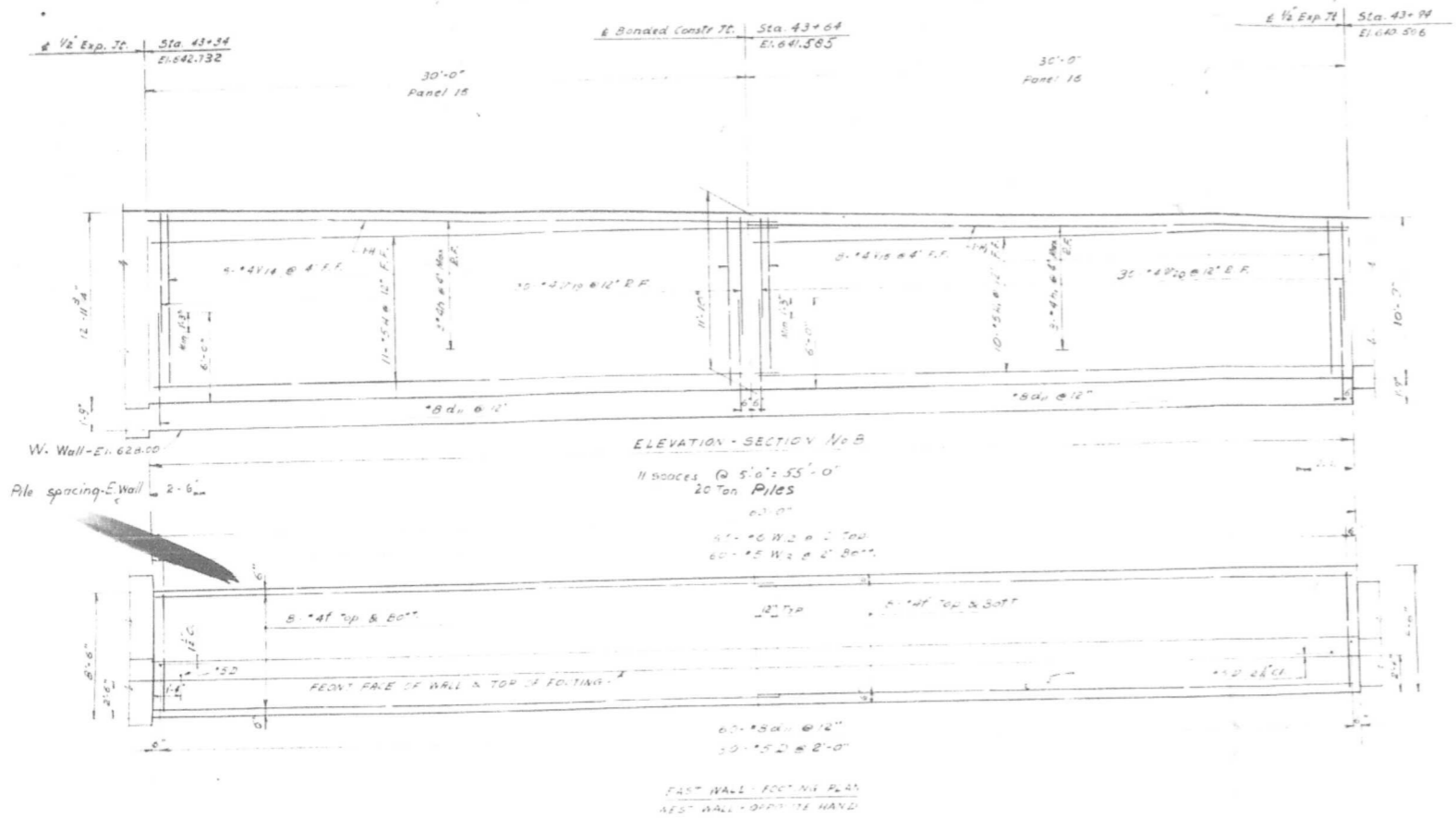
Note:
 Footing Piles to be used on N.E. Retaining wall only. Lower Footing Elevation by 3 inches where piles are used. Depressions left in East Wall Footing caused by removal of existing 54 inch Sizer and all water Main shall be backfilled with sand or Gravel Embankment. All piles used are creosoted timber piles.



REVISIONS		
DATE	BY	DESCRIPTION
10-15-65	M.H.	Est. length of Piles changed

DEPARTMENT OF HIGHWAYS COOK COUNTY, ILLINOIS	
SEYMOUR SIMON PRESIDENT BOARD OF COMMISSIONERS	ANDREW V. FLUMMER SUPERVISOR DEPT. OF HIGHWAYS
NORTH-WEST & NORTH EAST RETAINING WALLS 25 TH. AVE. GRADE SEPARATION OVER I. H. B. RAILROAD	
COMPUTED M.H. DRAWN L.S. CHECKED M.H.	PROJECT SCALE: Horiz. 1/4" = 1'-0" Vert. 1/8" = 1'-0" APPROVED: [Signature] APPROVED: [Signature] APPROVED: [Signature]
APPROVED: [Signature] 1965	FISCAL YEAR: 1965 COUNTY HIGHWAY DIST. NO.: 020-1000.2 SHEET NO.: 10 TOTAL SHEETS: 61

State



REVISIONS		
DATE	BY	DESCRIPTION
10-5-65	M.H.	Est. length of Piles added

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON
PRESIDENT BOARD OF COMMISSIONERS

ANDREW V. PLUMMER
SUPERINTENDENT OF HIGHWAYS

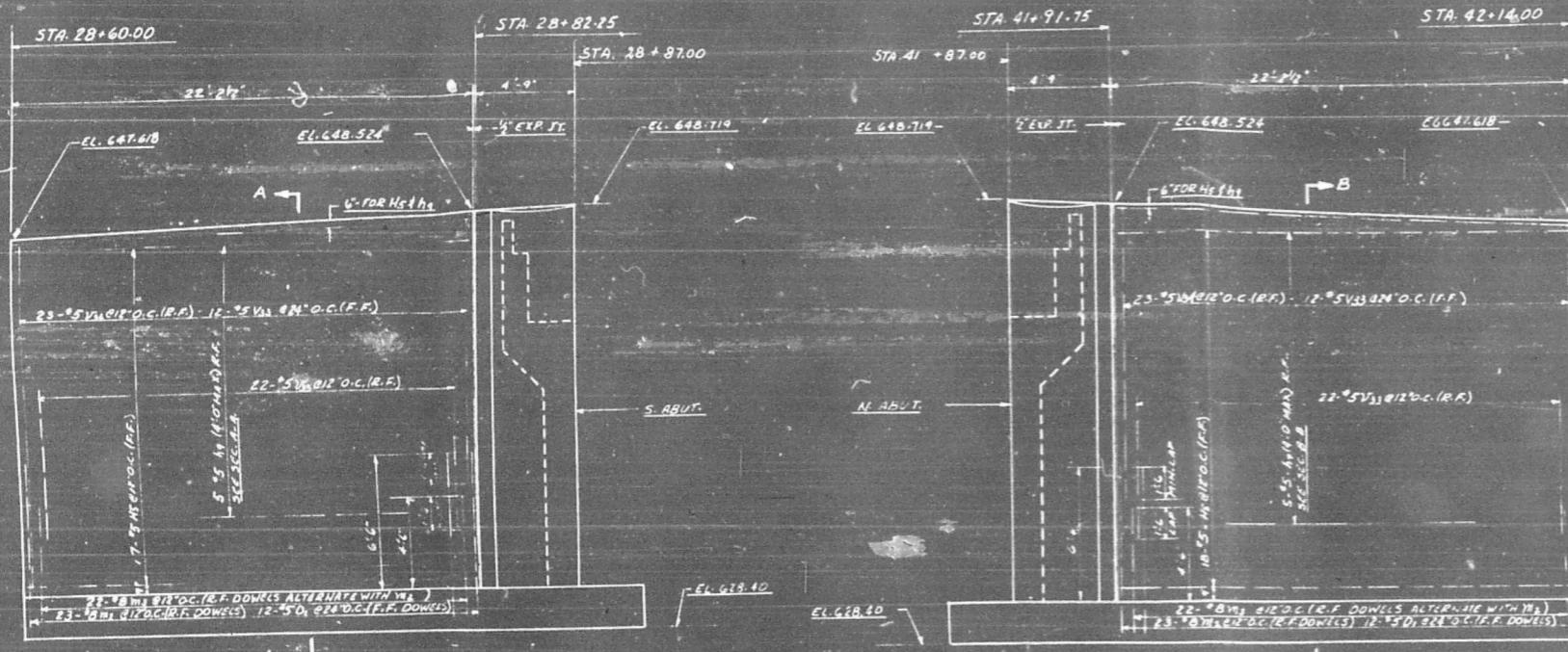
NORTH - WEST & NORTH EAST RETAINING WALLS
25 TH. AVE. GRADE SEPARATION
OVER
I. H. B. RAILROAD

COMPUTED: M.H.
DRAWN: L.S.
CHECKED: M.H.

APPROVED: *Hugo J. Stark*
SUPERVISOR

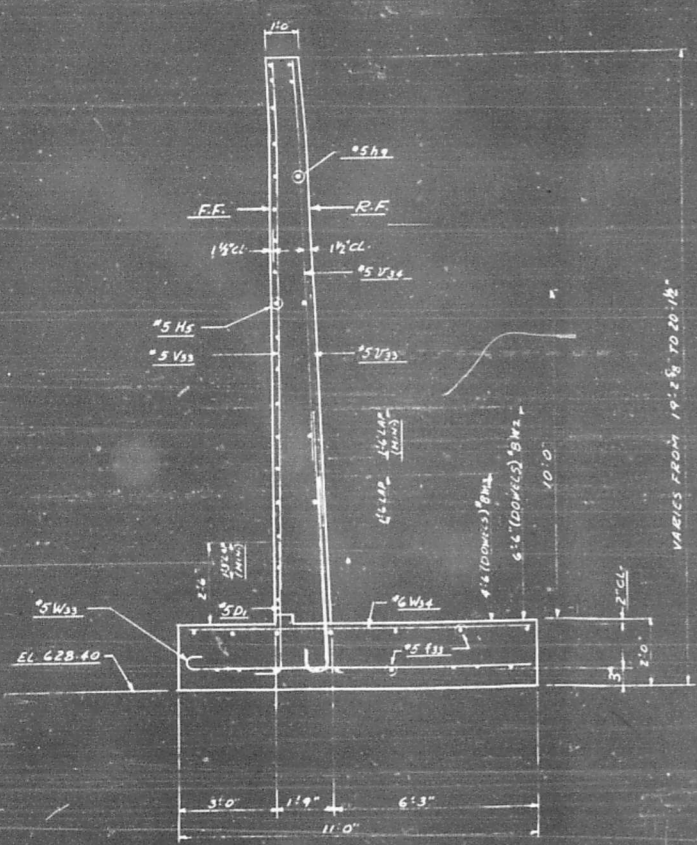
PROJECT: SCALE Horiz. 1/4" = 1'-0" Vert. 1/4" = 1'-0"
APPROVED: *[Signature]*

FISCAL YEAR	County Highway Route No.	Sheet No.	Total Sheets	Drawing No.
1965	030-1010.2	M.F.T	11	61

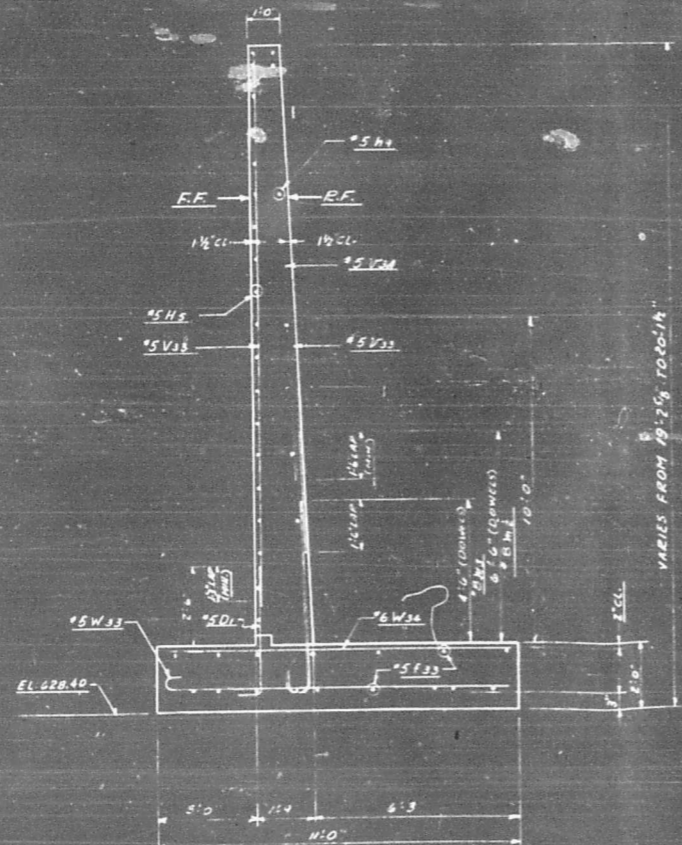


FRONT ELEVATION OF S.E. WING WALL
REAR ELEVATION OF S.W. WING WALL

FRONT ELEVATION OF N.E. WING WALL
REAR ELEVATION OF N.W. WING WALL

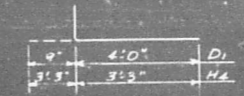


SECTION A-A



SECTION B-B

8"	8'6"	W30
7"	7'0"	W32
10'6"	10'6"	W33
7"	3'6"	W34
11'	8'0"	W35
11'	6'0"	W36



S. ABUT. & SE. & S.W. WING WALLS						N. ABUT. & NE. & N.W. WING WALLS					
BAR No.	SIZE	LENGTH	SHAPE	REMARKS		BAR No.	SIZE	LENGTH	SHAPE	REMARKS	
F30	14	5	31'0"	ABT.FTG. E.W.		F30	14	5	31'0"	ABT.FTG. E.W.	
F31	18	5	25'0"	"		F31	18	5	25'0"	"	
F32	32	5	22'6"	WING FTG. N.S.		F32	32	5	22'6"	WING FTG. N.S.	
W30	168	6	9'2"	ABT.FTG. N.S.		W30	168	6	9'2"	ABT.FTG. N.S.	
W31	72	5	8'6"	"		W31	72	5	8'6"	"	
W32	32	5	7'7"	"	E.W.	W32	32	5	7'7"	"	E.W.
W33	86	5	11'1"	WING FTG. E.W.		W33	86	5	11'1"	WING FTG. E.W.	
W34	84	6	10'6"	"		W34	84	6	10'6"	"	
M	68	8	8'1"	R.F. FTG. DOWN		M	68	8	8'1"	R.F. FTG. DOWN	
M1	68	5	4'1"	"		M1	68	5	4'1"	"	
M2	66	8	4'1"	"		M2	66	8	4'1"	"	
M3	44	8	7'1"	"		M3	44	8	7'1"	"	
D1	72	5	4'9"	R.F. FTG. DOWN		D1	72	5	4'9"	R.F. FTG. DOWN	
H2	10	5	33'6"	R.F. ABT. STEM		H2	10	5	33'6"	R.F. ABT. STEM	
H3	10	5	33'6"	R.F. BEAMSEAT		H3	10	5	33'6"	R.F. BEAMSEAT	
H4	4	5	5'9"	"		H4	4	5	5'9"	"	
H5	24	5	8'6"	PILASTER		H5	24	5	8'6"	PILASTER	
H6	12	5	10'6"	"		H6	12	5	10'6"	"	
H7	48	4	1'6"	"		H7	48	4	1'6"	"	
H8	24	4	2'3"	"		H8	24	4	2'3"	"	
H9	12	5	22'0"	R.F. WING STEM		H9	12	5	22'0"	R.F. WING STEM	
H10	2	8	10'6"	ABOVE 10' W.B.		H10	2	8	10'6"	ABOVE 10' W.B.	
H11	26	5	33'0"	R.F. ABT. STEM		H11	26	5	33'0"	R.F. ABT. STEM	
H12	8	5	33'6"	R.F. BEAMSEAT		H12	8	5	33'6"	R.F. BEAMSEAT	
H13	68	5	6'6"	"		H13	68	5	6'6"	"	
H14	36	5	22'0"	R.F. WING STEM		H14	36	5	22'0"	R.F. WING STEM	
V30	64	6	9'11"	R.F. ABT. STEM		V30	64	6	9'11"	R.F. ABT. STEM	
V31	64	5	9'10"	R.F. BEAMSEAT		V31	64	5	9'10"	R.F. BEAMSEAT	
V32	10	5	3'10"	"		V32	10	5	3'10"	"	
V33	44	5	7'10"	R.F. WING STEM		V33	44	5	7'10"	R.F. WING STEM	
V34	46	5	14'0"	"		V34	46	5	14'0"	"	
V35	16	5	12'2"	R.F. ABT. STEM		V35	16	5	12'2"	R.F. ABT. STEM	
V36	24	5	5'4"	R.F. BEAMSEAT		V36	24	5	5'4"	R.F. BEAMSEAT	
V37	22	5	17'9"	PILASTER		V37	22	5	17'9"	PILASTER	
V38	24	5	16'9"	R.F. WING STEM		V38	24	5	16'9"	R.F. WING STEM	
V39	44	5	5'4"	R.F. BEAMSEAT		V39	44	5	5'4"	R.F. BEAMSEAT	
V40	24	5	16'9"	R.F. WING STEM		V40	24	5	16'9"	R.F. WING STEM	
V41	22	5	17'9"	PILASTER		V41	22	5	17'9"	PILASTER	

CLASS "X" CONCRETE REINFORCEMENT BARS

CY. VOL. 399.4
LBS 37540.

REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

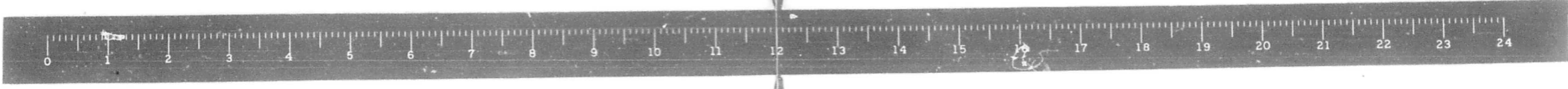
SEYMOUR SIMON
PRESIDENT BOARD OF COMMISSIONERS

ANDREW V. FEENHAMER
SUPERVISOR OF HIGHWAYS

ABUTMENT WING WALLS
25 TH. AVE. GRADE SEPARATION
OVER
I. H. B. RAILROAD

COMPUTED *M.H.* PROJECT
DRAWN *G.A. TUVESEN* SCALE *1/2" = 1'-0"*
CHECKED *M.H.* APPROVED *[Signature]*

APPROVED *[Signature]* 1965
030-10002
M.P.T. 13 61



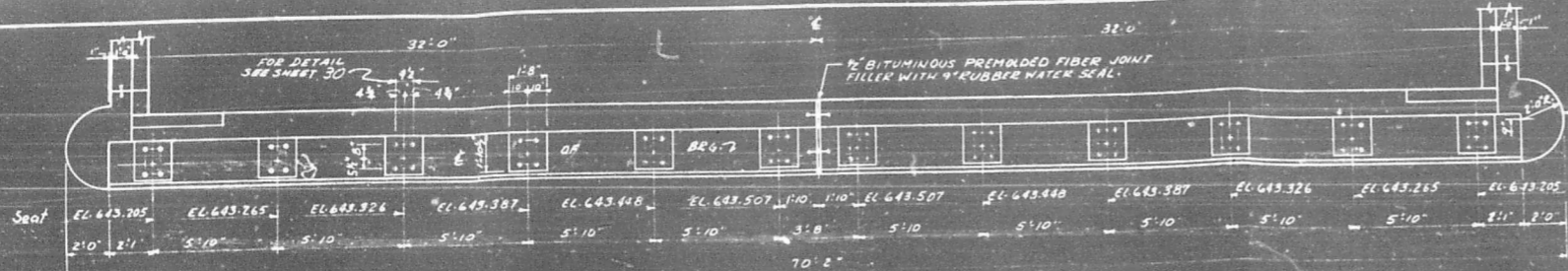


NOTE:

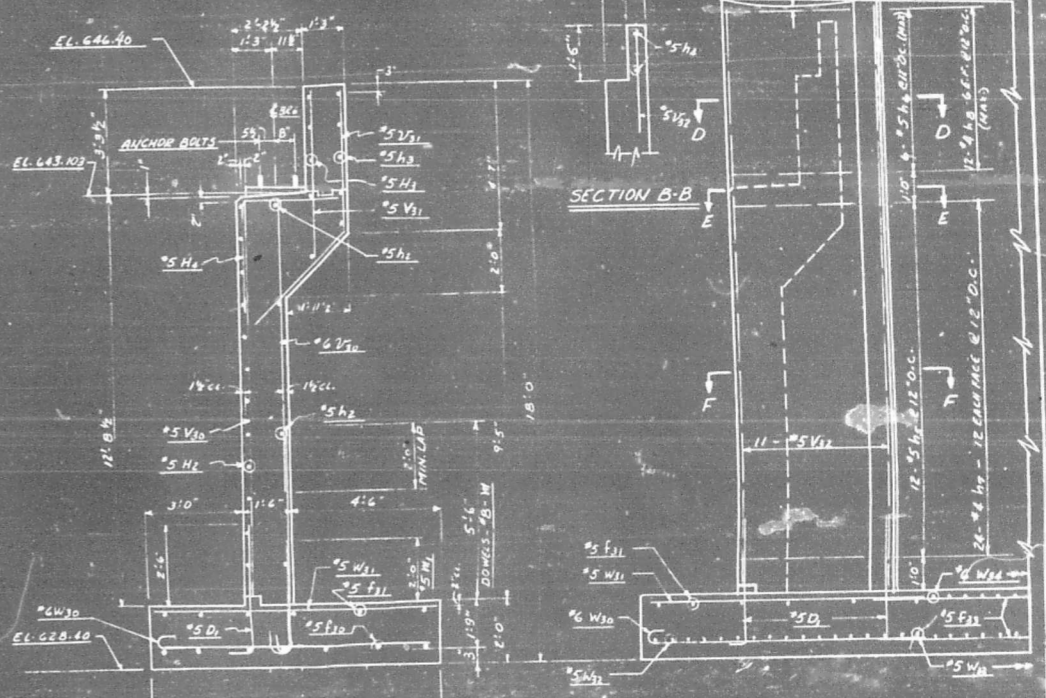
ALL BRIDGE PADS SHALL BE CONSTRUCTED TO THE EXACT ELEVATION SHOWN. IF BUSH HAMMERING OR GRINDING IS NECESSARY IT SHALL BE DONE AT NO ADDITIONAL COST TO THE COUNTY. BRIDGE PADS SHALL BE BUILT INTEGRAL WITH THE BRIDGE SEAT.

1/2" BITUMINOUS PREMOULDED FIBER JOINT FILLER WITH 9" RUBBER WATER SEAL.

3/4" CHAMFER

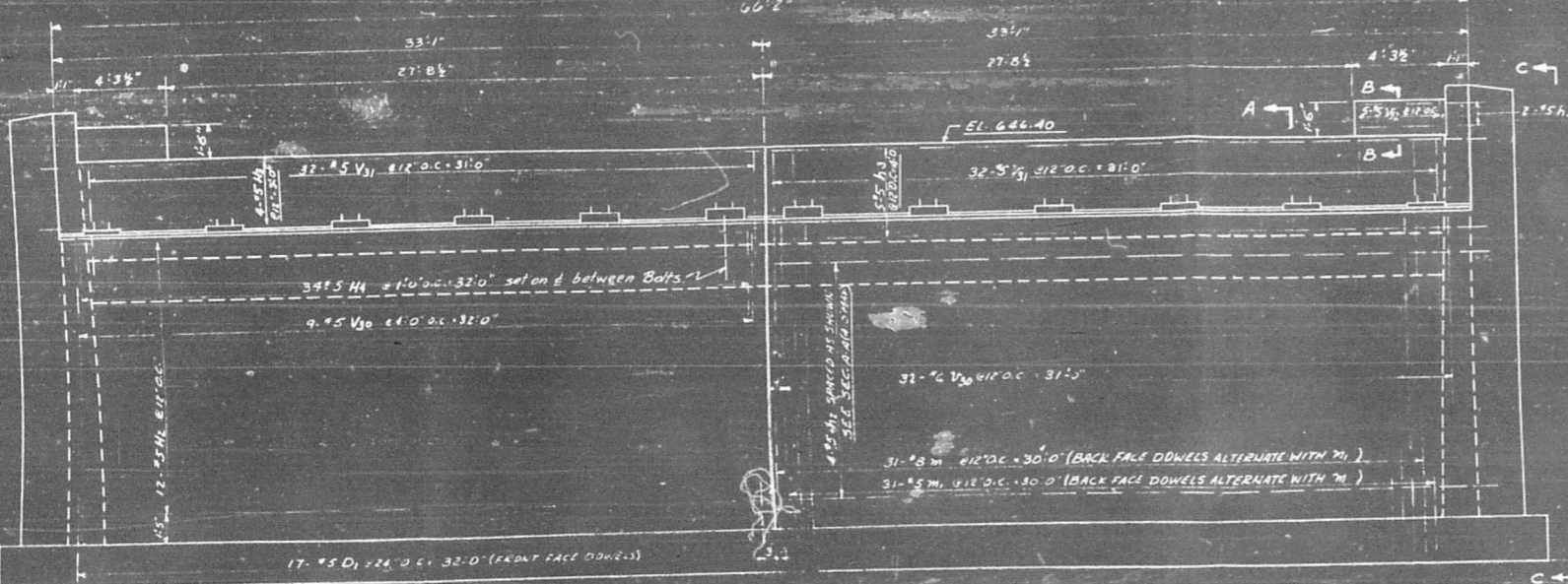


BRIDGE SEAT PLAN



SECTION B-B

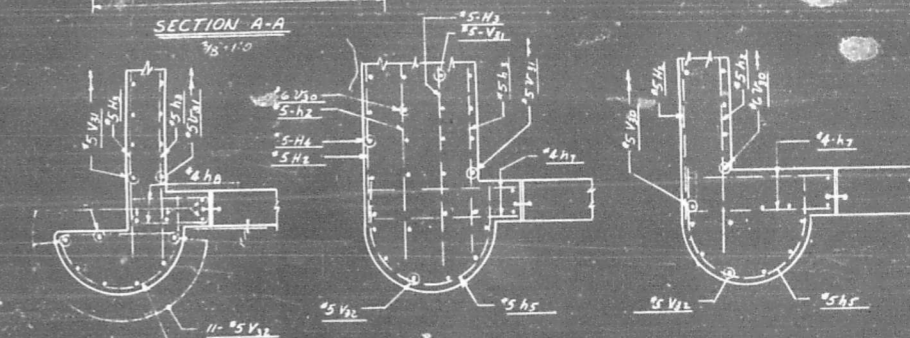
SECTION C-C



FRONT FACE REINF. STEEL SEC. A-A

ELEVATION

BACK FACE REINF. STEEL SEC. A-A



SECTION A-A

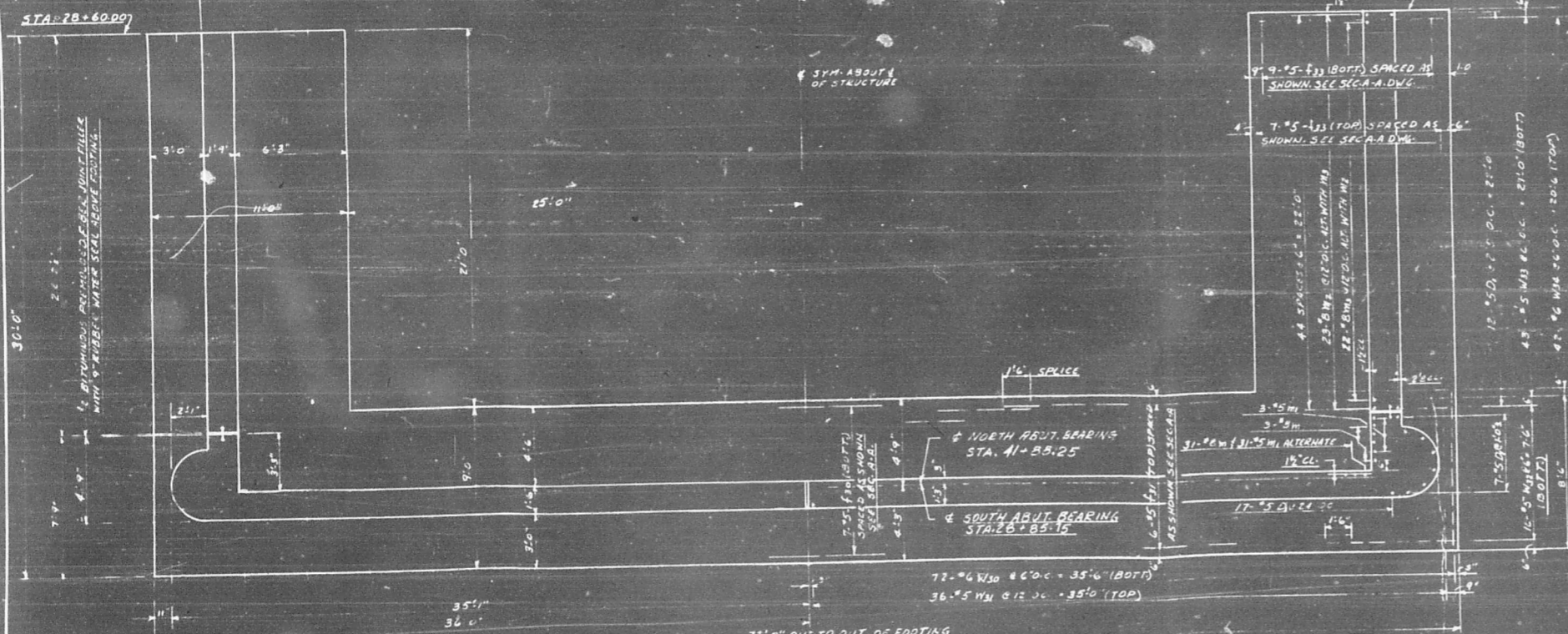
SECTION D-D

SECTION E-E

SECTION F-F

Note: Drawing on this sheet shows So. Abutment North Abutment similar but opposite hand. See Sheet No 15 for details of cut-out for sewer in North Abutment.

North Abutment, cut Bars f30 and f31 in field to fit cut-out for sewer opening.



FOOTING PLAN

REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON
PRESIDENT BOARD OF COMMISSIONERS

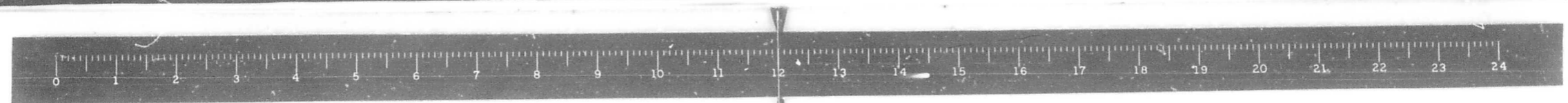
ANDREW V. PLUMMER
SUPERINTENDENT OF HIGHWAYS

NORTH AND SOUTH ABUTMENT
25 TH. AVE. GRADE SEPARATION
OVER
I. H. B. RAILROAD

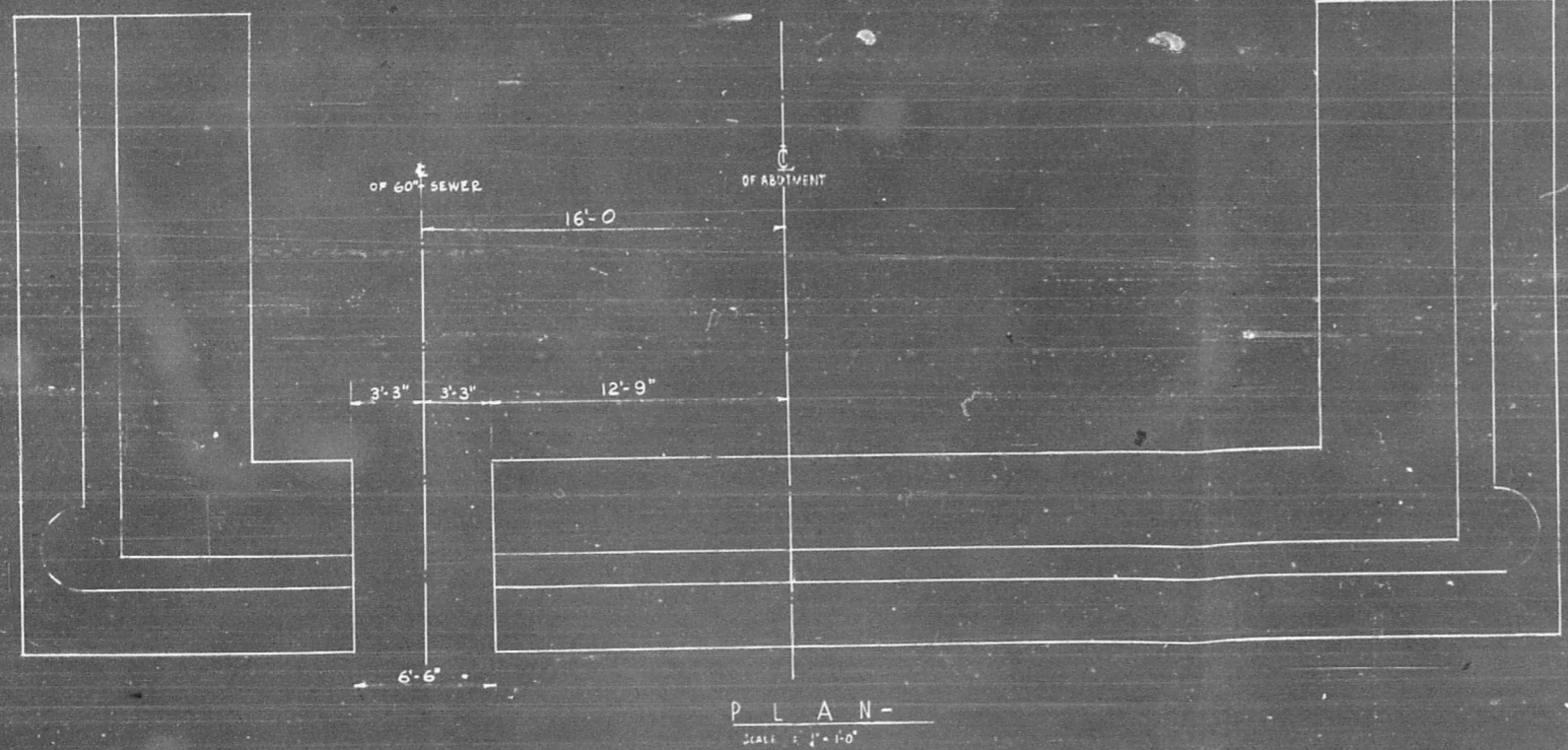
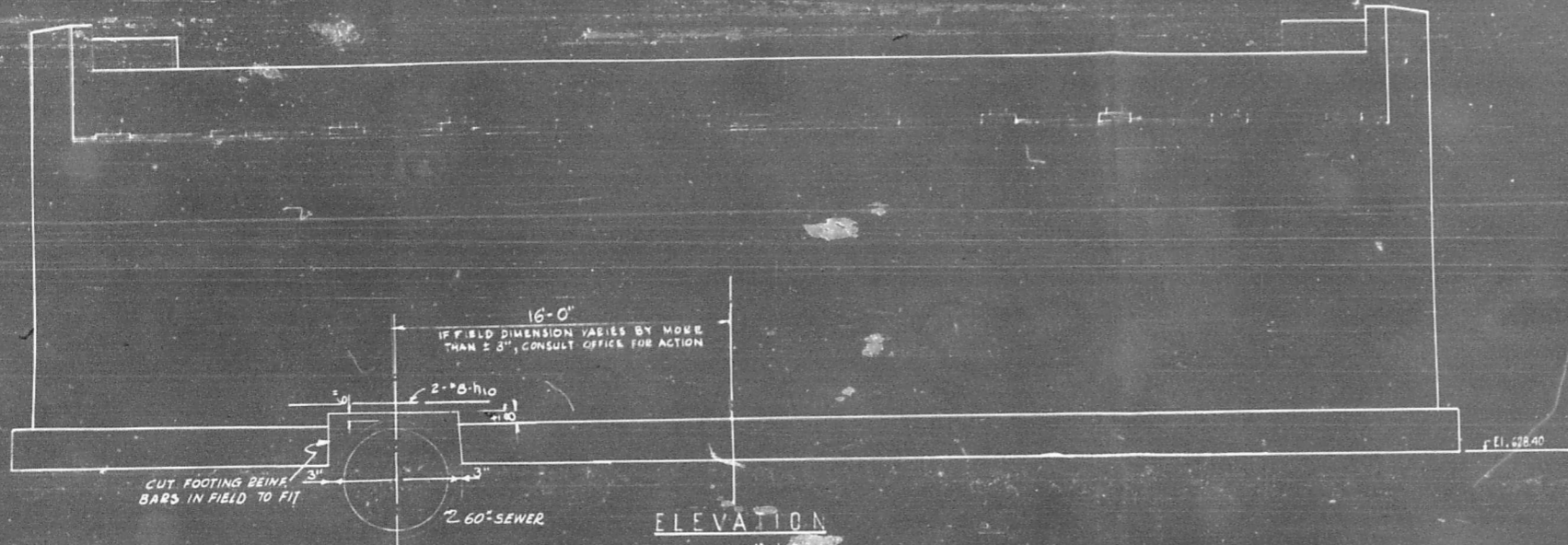
COMPUTED: M. H.
DRAWN: G. A. TUNESON
CHECKED: M. H.

PROJECT: SCALE: 1/4" = 1'-0"
APPROVED: [Signature]

APPROVED: [Signature] DATE: 11/27/66
FISCAL YEAR: 1965
COUNTY HIGHWAY DISTRICT: 030-1010.2
M.F.T.
SHEET NO: 14
TOTAL SHEETS: 61



North
↑



REVISIONS		
DATE	BY	DESCRIPTION

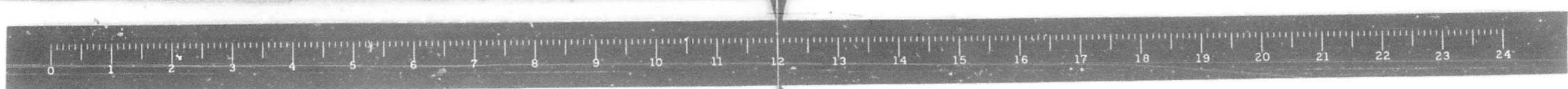
DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

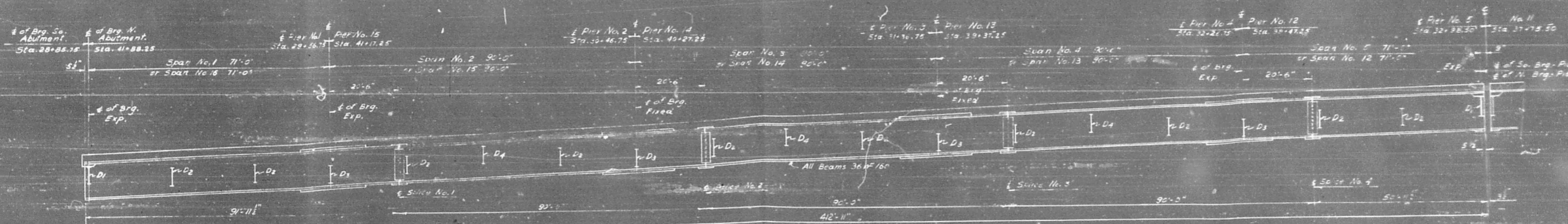
SEYMOUR SIMON
PRESIDENT BOARD OF COMMISSIONERS

ANDREW V. PLUMMER
SUPERINTENDENT OF HIGHWAYS

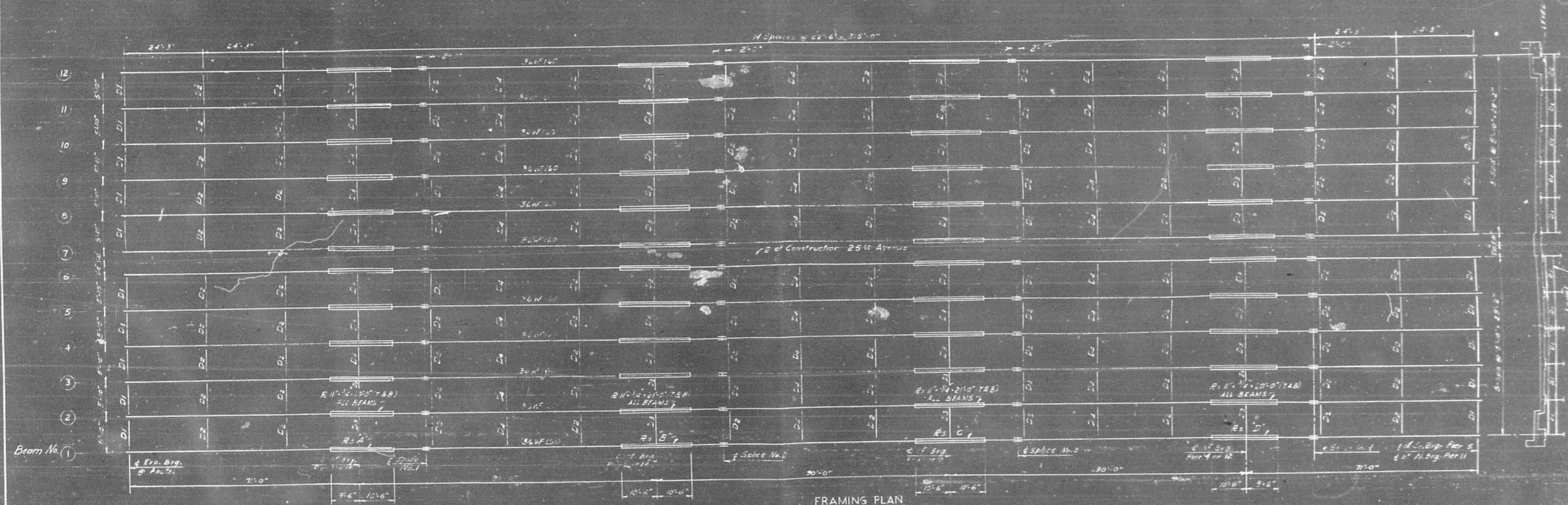
NORTH ABUTMENT
25 TH. AVE. GRADE SEPARATION
OVER
I.H.B. RAILROAD

PROJECT: 628-1100.20
SCALE: AS SHOWN
APPROVED: *[Signature]*
COUNTY ENGINEER
1965
020-1010.2
N.F.T.
15 61





TYPICAL ELEVATION OF BEAMS - SPANS 1-5 INCL. & 12 1/2 16 INCL.
Scale: vert. 1" = 10'-0" Hor. 1" = 10'-0"



FRAMING PLAN
Scale: vert. 1" = 10'-0" Hor. 1" = 10'-0"

TYPICAL SECTION
Scale: 1" = 10'-0"

SEE SHEET No. 18 FOR NOTES
FURNISHING AND ERECTING
STRUCTURAL STEEL THIS
SHEET 1,800,050 LBS.

Note: All dimensions given on this
sheet are horizontal unless noted.

REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON
PRESIDENT BOARD OF ENGINEERS

ANDREW V. PLEBANY
SUPERVISOR OF HIGHWAYS

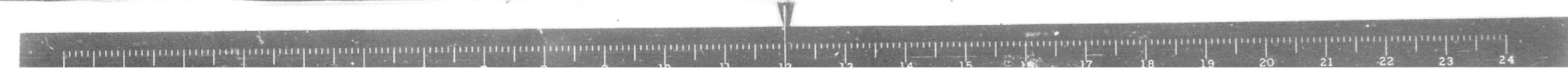
FRAMING PLAN
25 TH. AVE. GRADE SEPARATION
OVER
I. H. B. RAILROAD

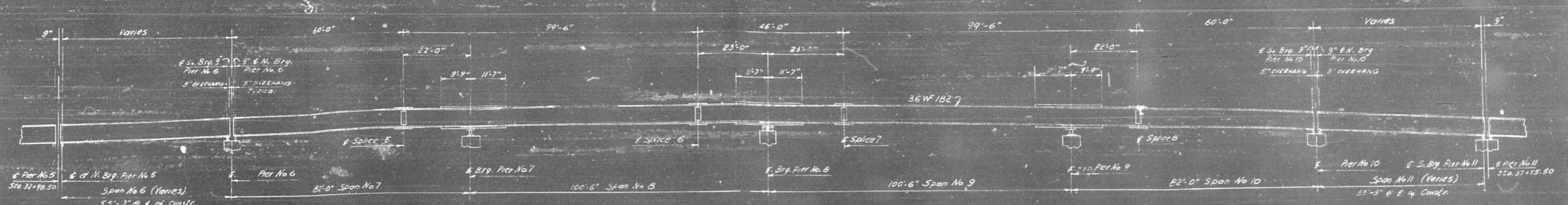
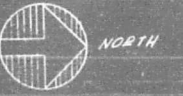
COMPUTED: M.H.
DRAWN: L.S.
CHECKED: M.H.

APPROVED: *[Signature]*
DATE: 1965

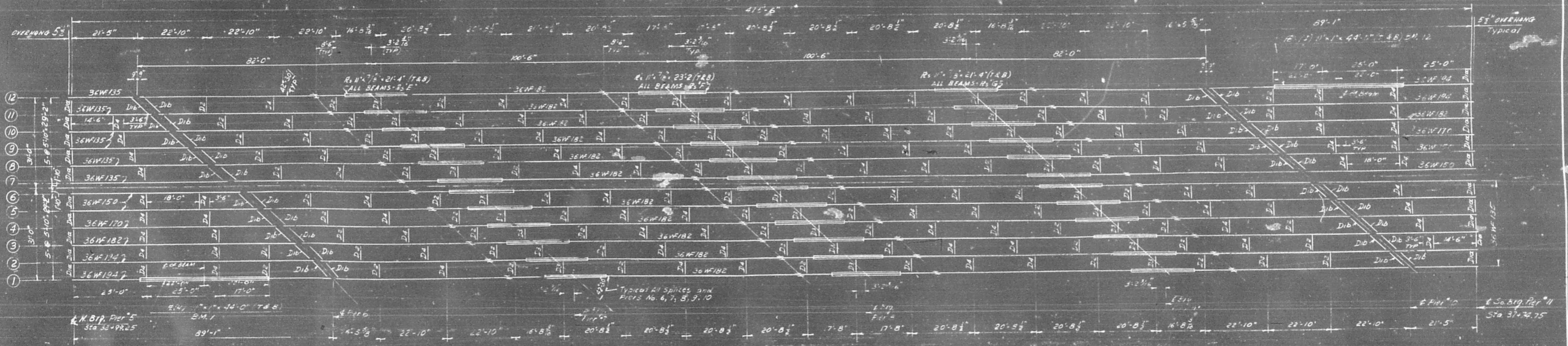
PROJECT: 25th Ave. Grade Separation
SCALE: AS SHOWN
APPROVED: *[Signature]*

1965
250-1010.2
M.A.T.
16 61





ELEVATION



FRAMING PLAN

SEE SHEET No 18 FOR NOTES
 FURNISHING AND ERECTING
 STRUCTURAL STEEL THIS
 SHEET 1,196,650 LBS.

REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
 COOK COUNTY, ILLINOIS

SEYMOUR SIMON
 PRESIDENT BOARD OF COMMISSIONERS

ANDREW V. PLUMMER
 SUPERINTENDENT OF HIGHWAYS

FRAMING PLAN
 PIER No. 9 TO PIER No. 11
 25 TH. AVE. GRADE SEPARATION
 OVER I. H. B. RAILROAD

COMPUTED M.H. PROJECT
 DRAWN L.S. SCALE 1/8" = 1'-0"
 CHECKED M.H. APPROVED [Signature]

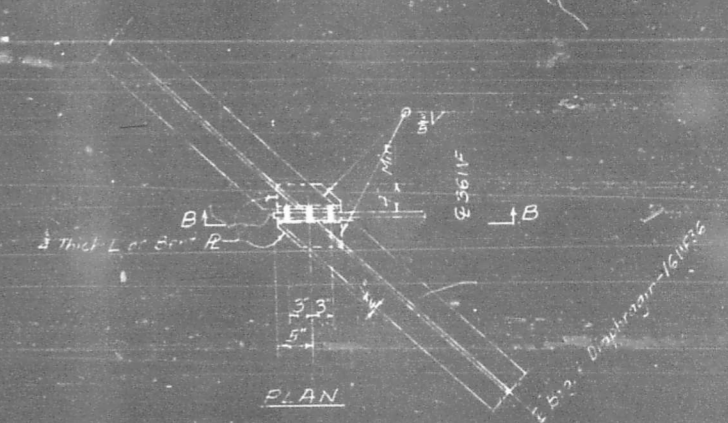
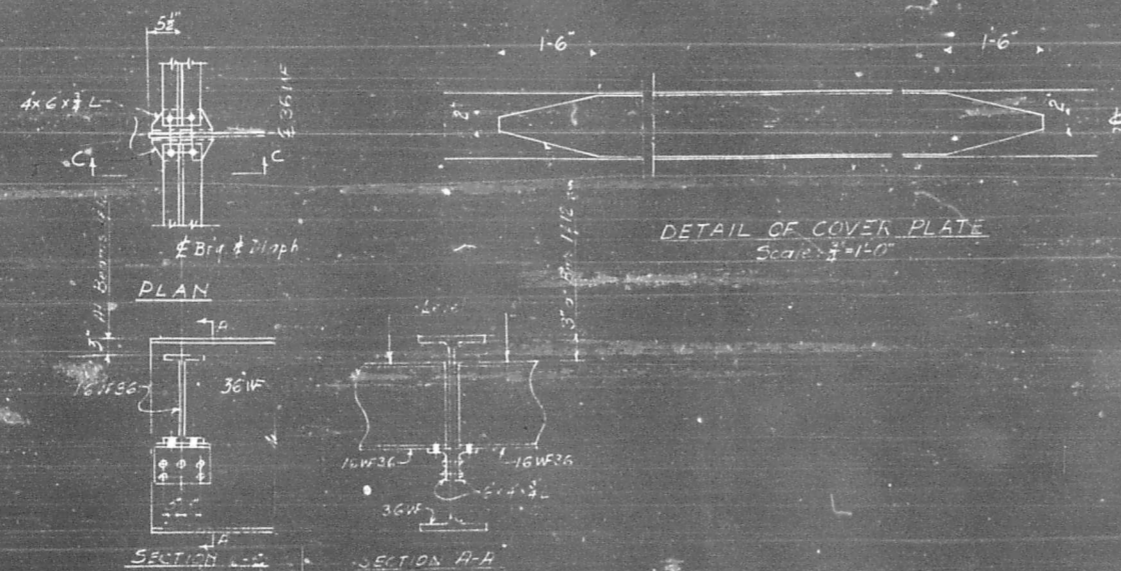
APPROVED [Signature] 1965
 CIVIL ENGINEER

APPROVED [Signature] 1965
 COUNTY HIGHWAY ENGINEER

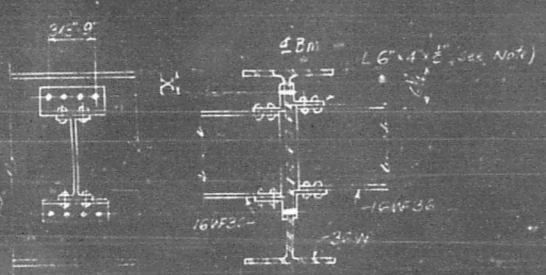
APPROVED [Signature] 1965
 M.P.T.

Sheet No. 17 of 61

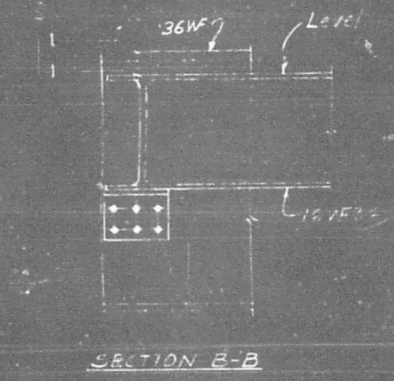




DETAIL OF DIAPHRAGM D1
Scale: 1/4"=1'-0"

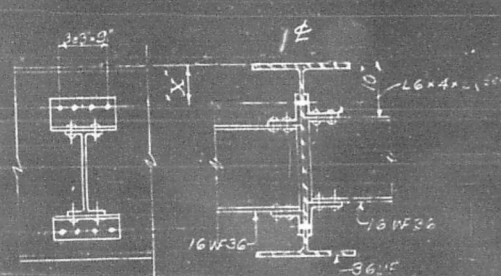


DETAIL OF DIAPHRAGM D1
Scale: 1/4"=1'-0"

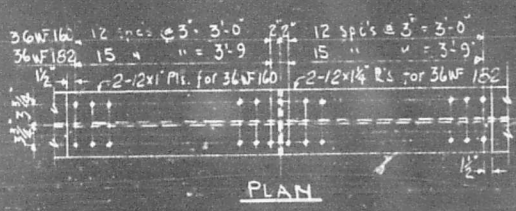


DETAIL OF DIAPHRAGM D1B
Scale: 1/4"=1'-0"

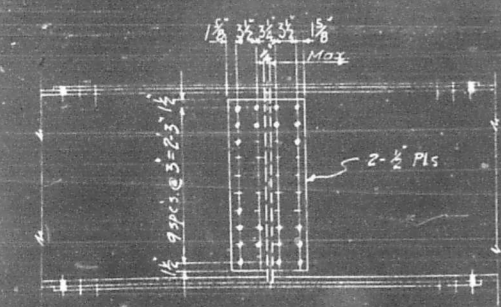
NOTE:
Dimensions 'X' shall be adjusted to permit using multiple punching. Increase 4" leg if necessary.



DETAIL OF DIAPHRAGM D2



PLAN



ELEVATION
DETAIL OF SPLICES
Scale: 1/4"=1'-0"

DETAIL OF DIAPHRAGM D2
Scale: 1/4"=1'-0"

NOTE:

STRUCTURAL STEEL SHALL BE CARBON STEEL AND SHALL CONFORM TO A.S.T.M., A-36 SPECIFICATIONS AMENDED TO DATE. ALL RIVETS SHALL BE 5/8" Ø, OPEN HOLES 1/8" Ø. ALL FIELD CONNECTIONS SHALL BE RIVETED. ALL BEAM SPLICES SHALL HAVE RIVET HOLES SUB-PUNCHED TO 1/8" AND REAMED TO 1/4". BEFORE ANY BEAMING IS DONE, ALL STRINGERS OF A CONTINUOUS UNIT SHALL BE ASSEMBLED IN THEIR PROPER POSITION, WITH OR WITHOUT THE DIAPHRAGMS IN PLACE. MATCH MARK AND LEAVE ASSEMBLED FOR INSPECTION. WELDING SHALL CONFORM TO THE SPECIFICATIONS OF THE AMERICAN WELDING SOCIETY FOR HIGHWAY AND RAILWAY BRIDGES 1963 AS AMENDED TO DATE. CONTACT SURFACES OF SHOP WELDED OR SHOP RIVETED STRUCTURAL STEEL SHALL NOT BE PAINTED. SEE SPECIFICATIONS CONCERNING UNACCESSIBLE SURFACES. TOP OF BEAMS THAT ARE IN CONTACT WITH CONCRETE SHALL NOT BE PAINTED EXCEPT OVER ABUTMENTS AND PIERS. SUCH SURFACES SHALL BE PAINTED FOR A DISTANCE OF 5 FEET EACH WAY FROM CENTER LINE OF BEARING. THE STRUCTURAL STEEL SHALL BE GIVEN ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT. SEE SPECIAL PROVISION: "PAINT FOR BRIDGES" AND ARTICLES 96.1 TO 96.5 INCLUSIVE OF THE STANDARD SPECIFICATION. THE STRUCTURAL STEEL SHALL BE INSPECTED BY THE ILLINOIS DIVISION OF HIGHWAYS BEFORE PAINTING. AS AN ALTERNATE FOR RIVETS, THE CONTRACTOR MAY ELECT TO USE HIGH-TENSILE STRENGTH BOLTS AS SPECIFIED IN ARTICLE 2.10.20 OF THE STATE STANDARD SPECIFICATIONS.

REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON
PRESIDENT BOARD OF COMMISSIONERS

ANDREW V. PLUMMER
SUPERINTENDENT OF HIGHWAYS

STRUCTURAL STEEL DETAILS
25TH AVE. GRADE SEPARATION
OVER
I. H. B. RAILROAD

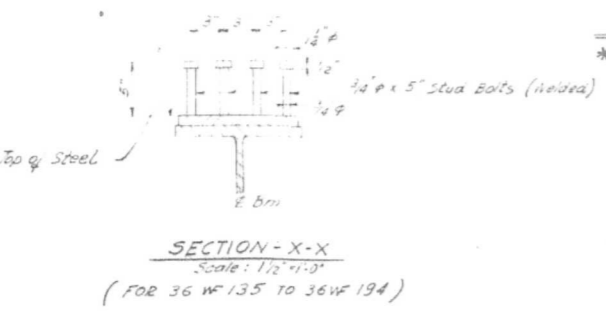
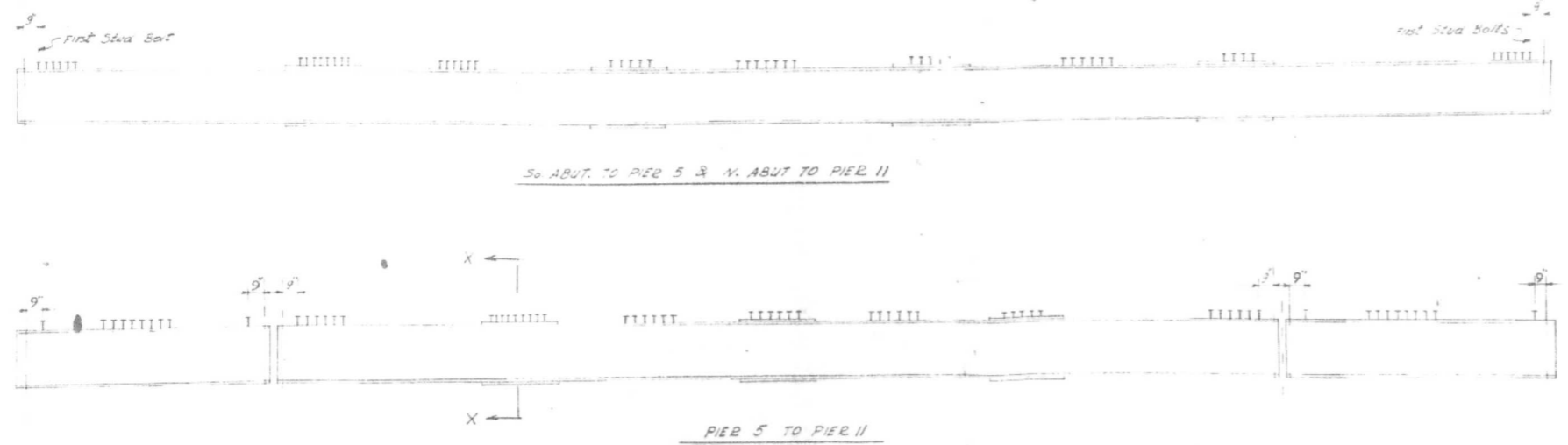
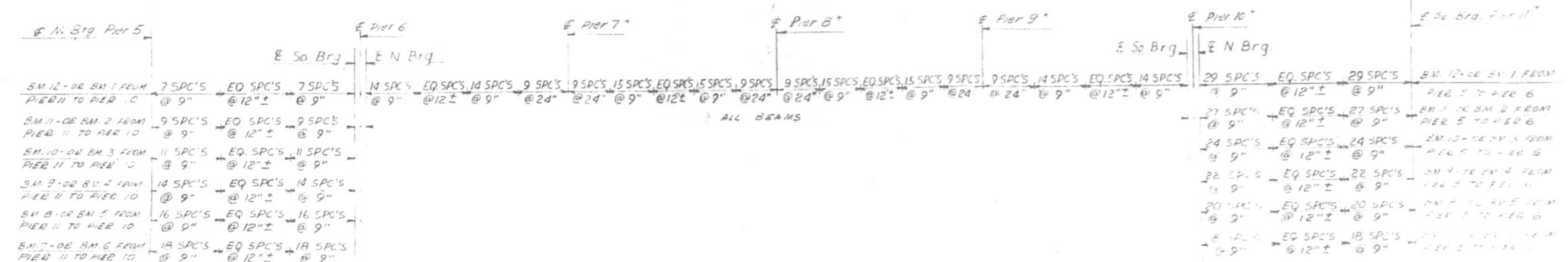
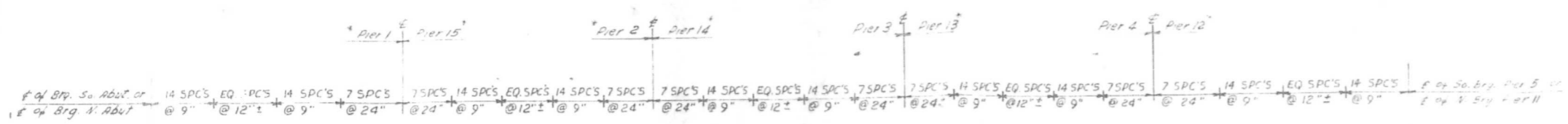
COMPUTED: G. T.
DRAWN: B. Pakalinski
CHECKED: M. H.

PROJECT: SCALE As Shown
APPROVED: [Signature]

APPROVED: [Signature]
1965

FOCAL: 1/2" R.
COUNTY HIGHWAY DIST. NO.: 020-1010.2
SHEET NO.: 18
TOTAL SHEETS: 61





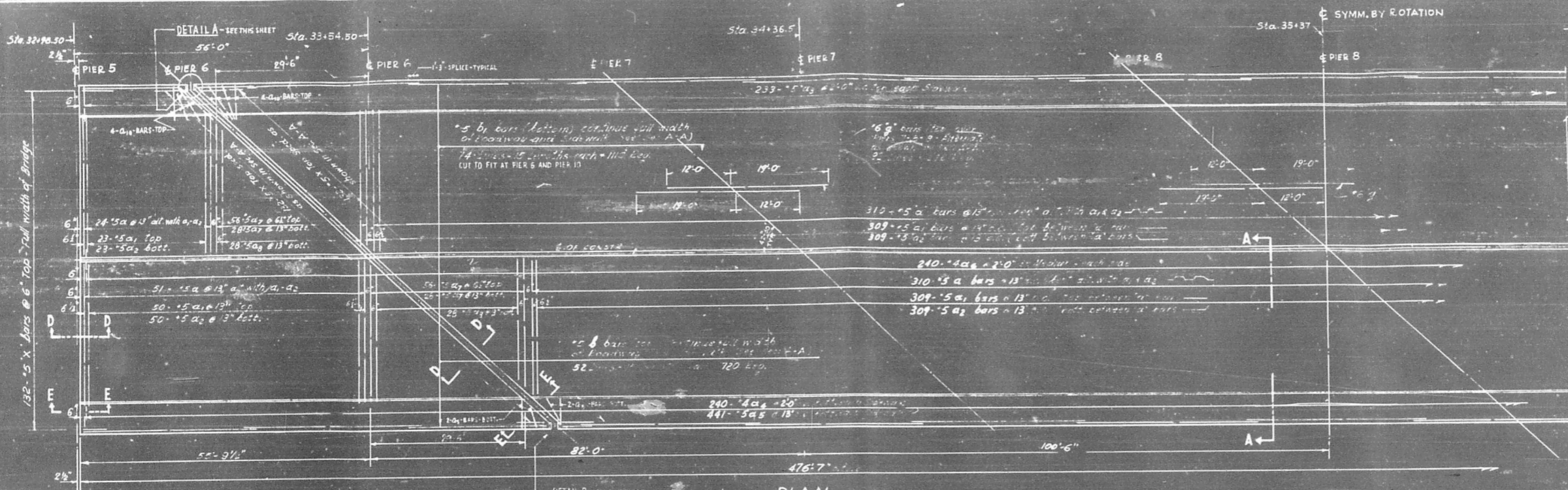
SPACING OF SHEAR CONNECTORS
 * OMIT 1 ROW OF STUD BOLTS AT E OF PIERS
 NOTE: 59980 Welded Stud Shear Connectors Required, To be welded after beams are erected See Special Provision.

STRUCTURAL STEEL NOTES

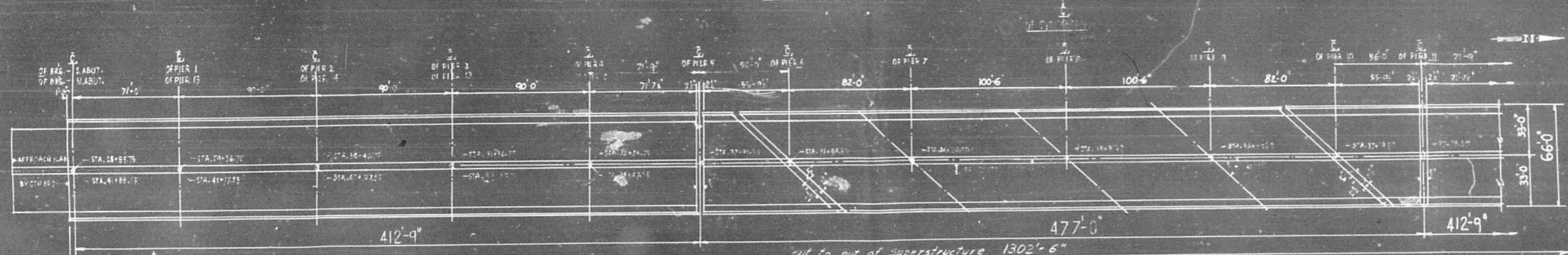
1. STRUCTURAL STEEL SHALL BE CARBON STEEL & SHALL CONFORM TO A513M33, SPECIFICATIONS AMENDED TO DATE, EXCEPT EXPANSION DEVICES AS NOTED ON THESE PLANS.
2. JOISTS FOR WEARMS SHALL BE TAY WITH OPEN HOLES. ALL FIELD CONNECTIONS SHALL BE RIVETED ALL SPLICES FOR STRINGERS SHALL HAVE RIVET HOLES SURF-PUNCHED TO 1/4" & REAMED TO 3/4" BEFORE. ANY REAMING IS DONE, ALL STRINGERS OF A CONTINUOUS UNIT SHALL BE ASSEMBLED IN THEIR PROPER POSITION WITH OR WITHOUT THE DIAPHRAGMS IN PLACE. MATCH MARK & LEAVE ASSEMBLED FOR INSPECTION.
3. WELDING SHALL CONFORM TO SPECIFICATIONS OF AWS FOR HIGHWAY RAILWAY BRIDGES, 1963 AMENDED TO DATE.
4. CONTACT SURFACES OF SHOP WELDED OR SHOP RIVETED STRUCTURAL STEEL SHALL NOT BE PAINTED. SEE SPECIFICATIONS CONCERNING INACCESSIBLE SURFACES. TOPS OF BEAMS THAT ARE TO HAVE CONCRETE POURED IN CONTACT WITH THEM SHALL NOT BE PAINTED EXCEPT THAT OVER ABUTMENTS & PIERS SUCH SURFACES SHALL BE PAINTED FOR A DISTANCE OF 5 FEET EACH WAY FROM CENTER LINE OF BEARING.
5. STRUCTURAL STEEL SHALL BE INSPECTED BY ILLINOIS DIVISION OF HIGHWAYS BEFORE PAINTING.
6. THE STRUCTURAL STEEL BELOW ELEVATION OF BOTTOM OF ROADWAY SURFACE, EXCEPT THE FASCIA GIRDERS, SHALL BE GIVEN ONE (1) THICK COAT OF RED LEAD & TWO (2) FIELD COATS OF ALUMINUM PAINT. SEE SPECIAL PROVISIONS, RE: "GREEN PAINT FOR BRIDGES".

REVISIONS		
DATE	BY	DESCRIPTION
9-3-65	E.S.	Revised total of Stud Connectors

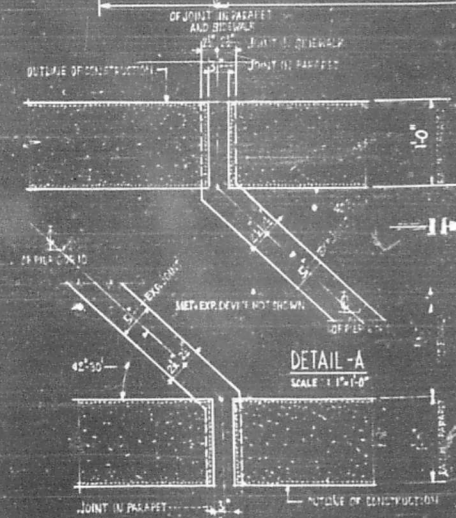
DEPARTMENT OF HIGHWAYS COOK COUNTY, ILLINOIS									
SEYMOUR SIMON PRESIDENT BOARD OF COMMISSIONERS	ANDREW V. FLUMMER SUPERINTENDENT OF HIGHWAYS								
STRUCTURAL STEEL DETAILS SHEAR CONNECTORS 25 TH. AVE. GRADE SEPARATION OVER I. H. B. RAILROAD									
COMPUTED: E.S.	PROJECT: _____								
DRAWN: L.S.C.R.	SCALE: _____								
CHECKED: M.H.	APPROVED: _____								
APPROVED: <i>March 23 1965</i> <i>Hugo J. Stahl</i> CHIEF ENGINEER	<table border="1"> <tr> <td>County Highway Route No.</td> <td>Year</td> <td>Sheet</td> <td>Showing</td> </tr> <tr> <td>020-10102</td> <td>1965</td> <td>19</td> <td>61</td> </tr> </table>	County Highway Route No.	Year	Sheet	Showing	020-10102	1965	19	61
County Highway Route No.	Year	Sheet	Showing						
020-10102	1965	19	61						



PLAN



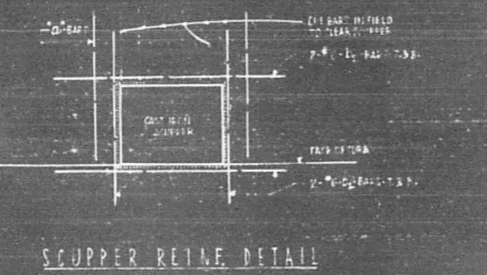
PLAN OF SUPERSTRUCTURE



DETAIL-A



DETAIL-B



SCUPPER REINFORCEMENT DETAIL



DETAIL OF 9\"/>

NOTE:
 ALL LONGITUDINAL AND TRANSVERSE BAR WILL BE LAID AND CUT OFF IN FIELD AT PIER 6 AND PIER 10 TO SAVE THE CONDITIONS AT EXPANSION JOINTS. CUT OFFS TO BE USED ON OPPOSITE SIDE OF EXPANSION JOINT.
 FOR SECTIONS A-A, D-D, E-E SEE SHEET NO. 20.
 FOR EXPANSION JOINTS SEE SHEETS NO. 37 & 38.
 FOR JOINTS & PARAPETS SEE SHEETS NO. 39 & 43.

MARK	NO.	SIZE	LENGTH	SHAPE	LOCATION
a	770	5	28'-6"	[Diagram]	TOP AND BOTTOM OF ABUTMENT
a ₁	764	5	27'-6"	[Diagram]	TOP
a ₂	764	5	28'-4"	[Diagram]	BOTTOM
a ₃	466	5	7'-7"	[Diagram]	TOP OF SCUPPER
a ₄	466	5	3'-5"	[Diagram]	BOTTOM OF SCUPPER
a ₅	926	5	4'-0"	[Diagram]	MEDIAN
a ₆	480	4	2'-6"	[Diagram]	PIER 6 OR 10 TOP & BOT
a ₇	336	5	26'-0"	[Diagram]	PIER 6 OR 10 BOT.
a ₈	112	5	27'-0"	[Diagram]	TOP OF SIDEWALK
a ₉	16	5	10'-0"	[Diagram]	TOP OF SIDEWALK
b	780	5	33'-0"	[Diagram]	TOP OF DECK
b ₁	4110	5	33'-0"	[Diagram]	BOTTOM OF DECK
b ₂	48	6	6'-0"	[Diagram]	SCUPPER
g	276	6	31'-0"	[Diagram]	PIER 7 & 8
x	792	5	4'-11"	[Diagram]	PIER 5 & 10-11

CLASS "X" CONCRETE
 REINFORCEMENT BARS 171,864 LBS.

* DOES NOT INCLUDE DOWELS FOR CONCRETE PARAPET

FOR BAR DETAILS SEE SHEET NO. 20

REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
 COOK COUNTY, ILLINOIS

SEYMOUR SIMON
 PRESIDENT BOARD OF COMMISSIONERS

ANDREW V. PLUMMER
 SUPERINTENDENT OF HIGHWAYS

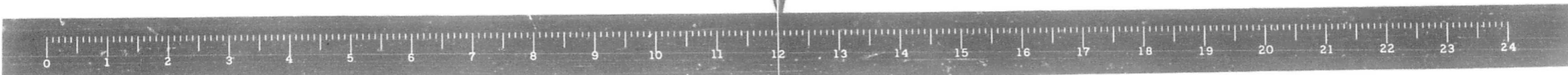
SUPERSTRUCTURE CONCRETE DETAILS SPANS 6 TO 11
 25TH AVE GRADE SEPARATION
 OVER
 I. H. B. RAIL ROAD

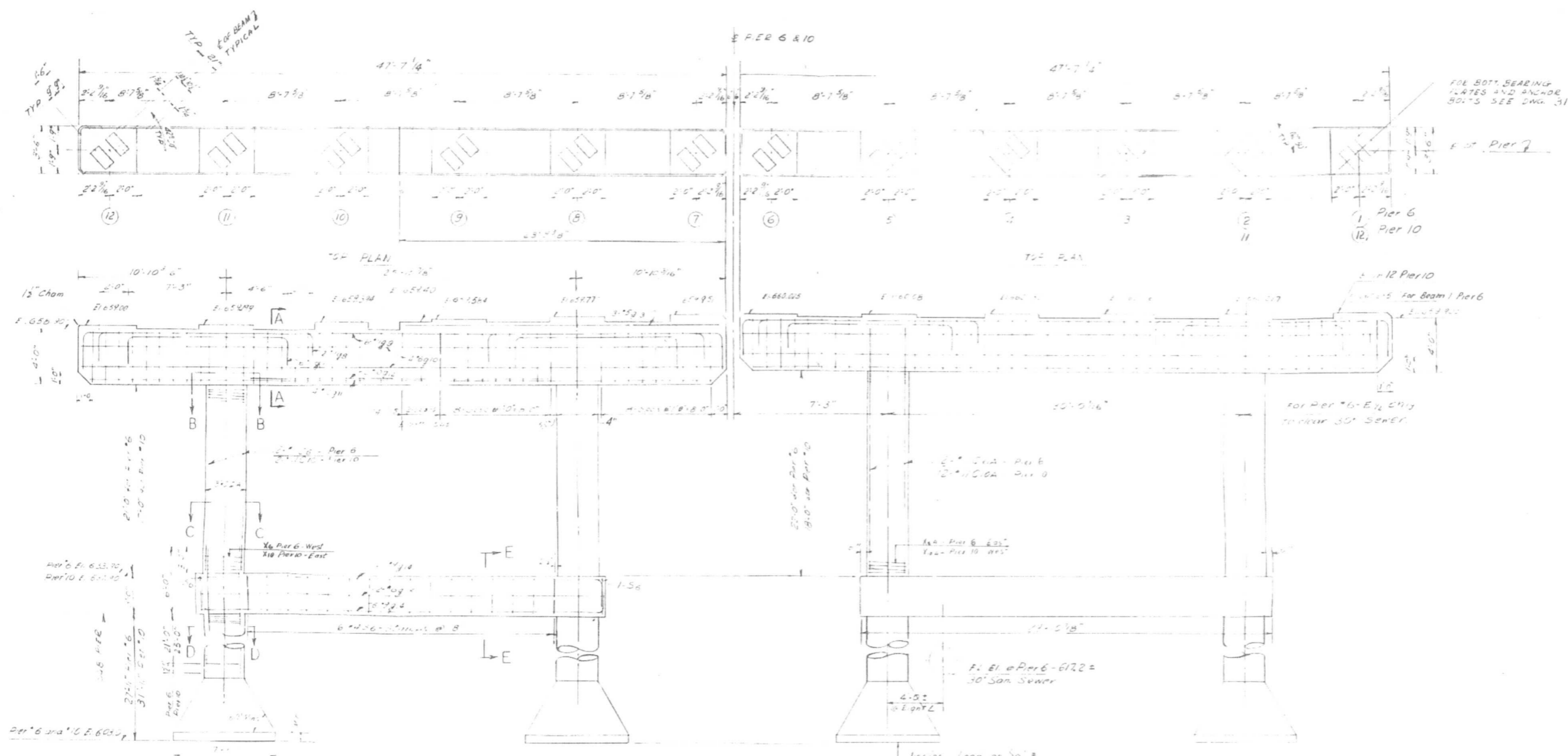
COMPUTED I.S.
 DRAWN I.S. & B.K.
 CHECKED M.H.

PROJECT 820-1010-2
 SCALE AS INDICATED
 APPROVED [Signature]

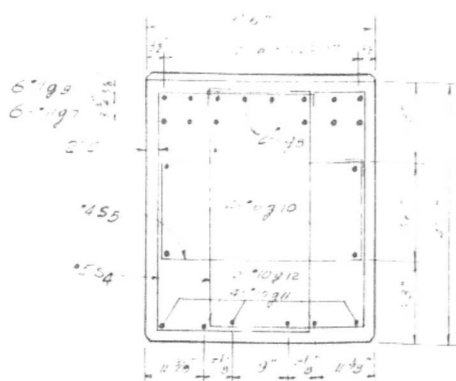
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 COUNTY ENGINEER OF DESIGN

FISCAL YEAR 1965
 COUNTY HIGHWAY DIST. NO. 020-1010A
 SHEET NO. 21
 TOTAL SHEETS 61

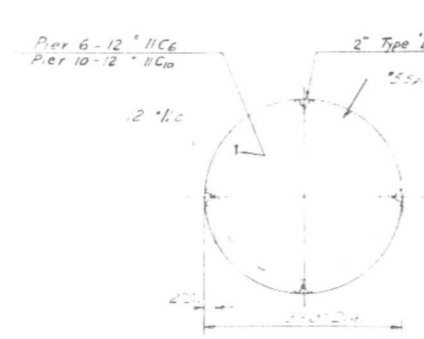




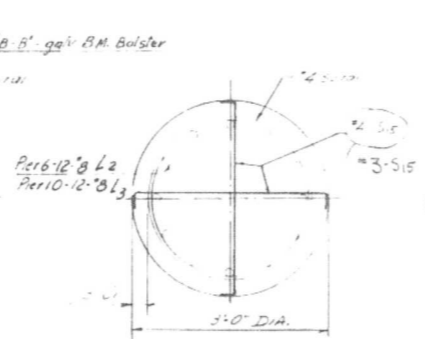
PIER 6 LOOKING NORTH
PIER 10 LOOKING SOUTH



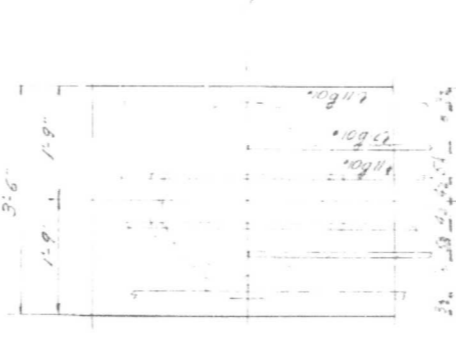
SECTION A-A



SECTION C-C



SECTION D-D



SECTION E-B



SECTION E-E

See Sheet 2B for Bill of Material.

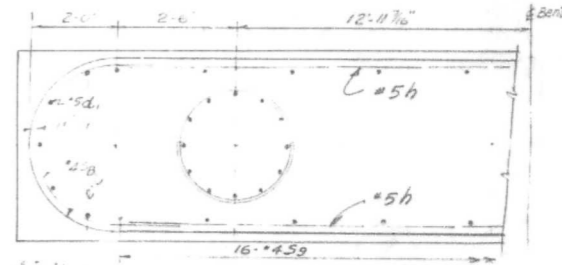
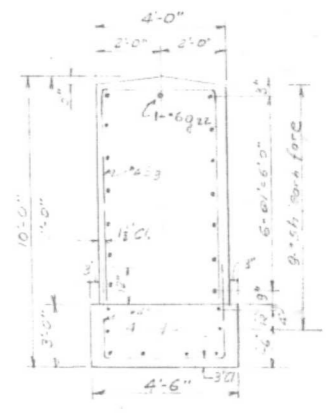
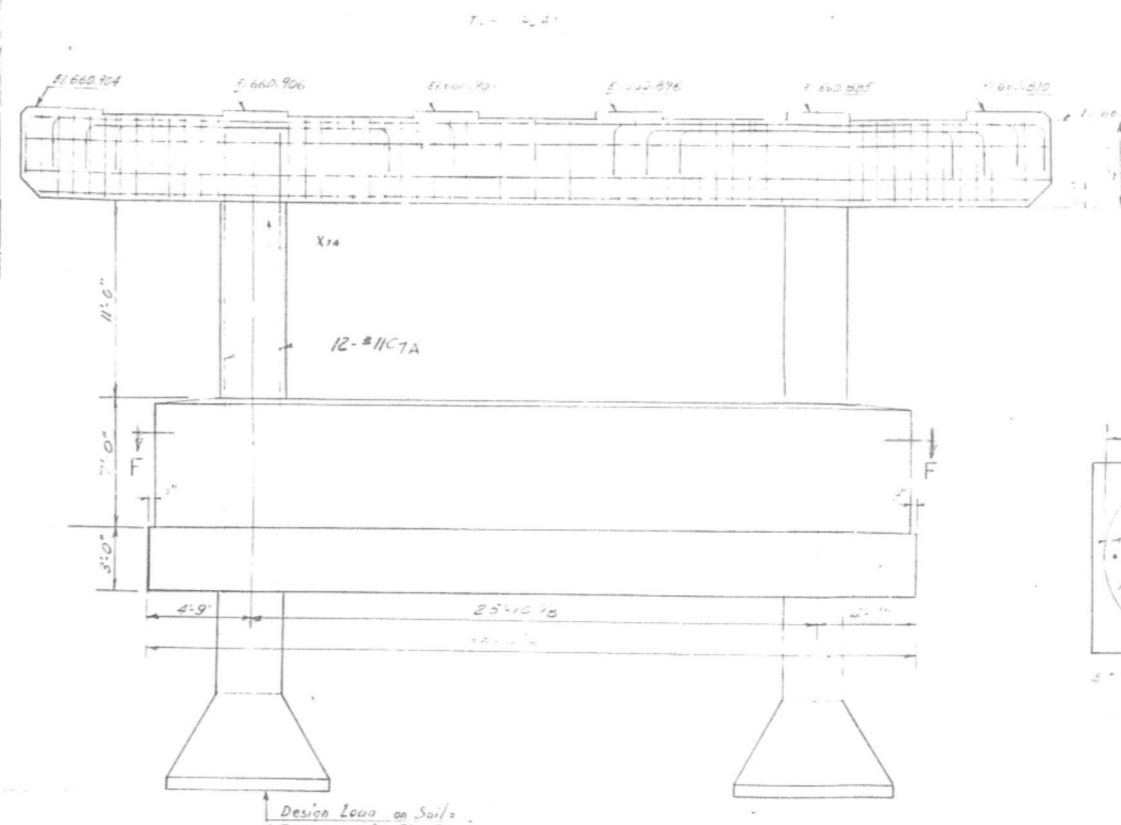
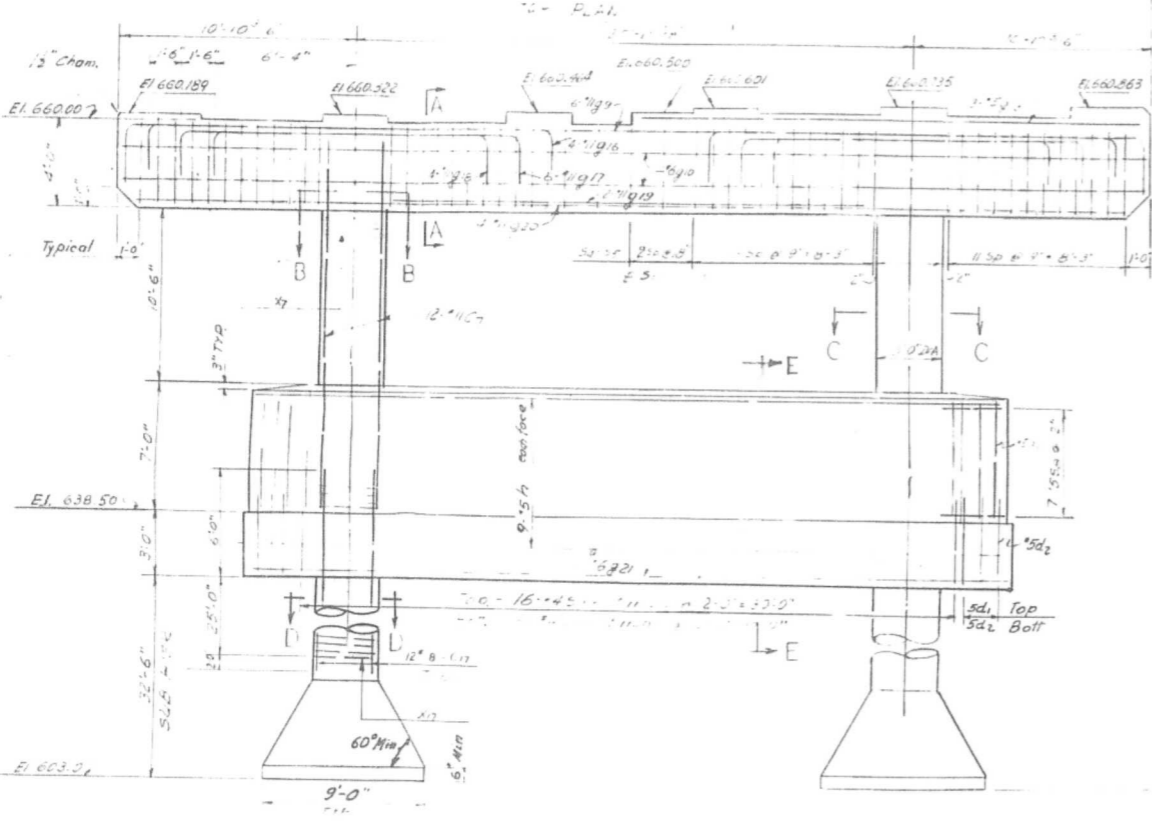
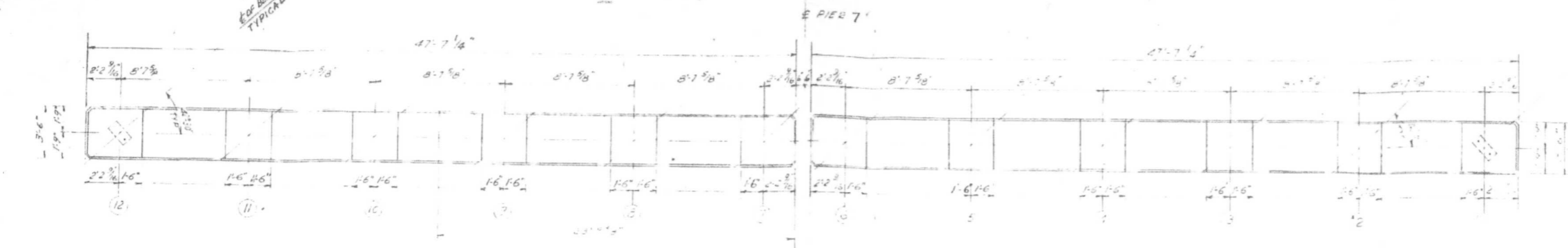
REVISIONS		
DATE	BY	DESCRIPTION
0-8-55	M.H.	SIS - Changed to #3

DEPARTMENT OF HIGHWAYS COCK COUNTY, ILLINOIS		ANDREW V. PLUMMER SUPERINTENDENT OF HIGHWAYS	
PIERS 6 & 10 25TH AVE GRADE SEPARATION OVER L.H.B. RAILROAD			
COMPUTED	M.H.	PROJECT	14'-1'-0"
DRAWN	L.S.	SCALE	1/4" = 1'-0"
CHECKED	M.H.	APPROVED	<i>[Signature]</i>
APPROVED	<i>[Signature]</i> 1965	FISCAL YEAR	1965
		County Highway	020-1010.2
		Sheet No.	24
		Total Sheets	61
		Drawing No.	

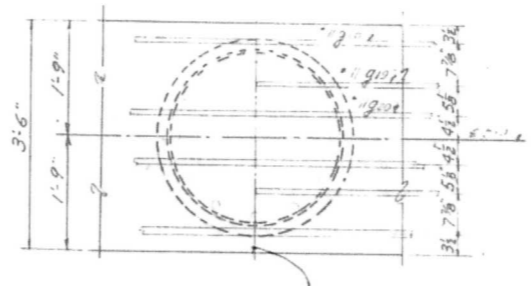
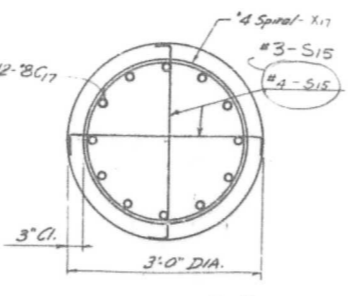
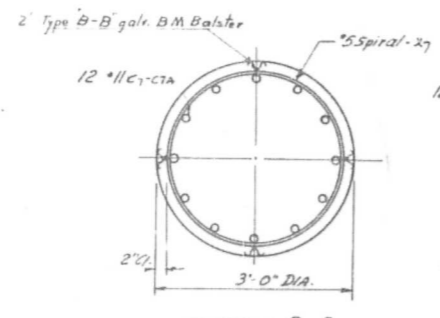
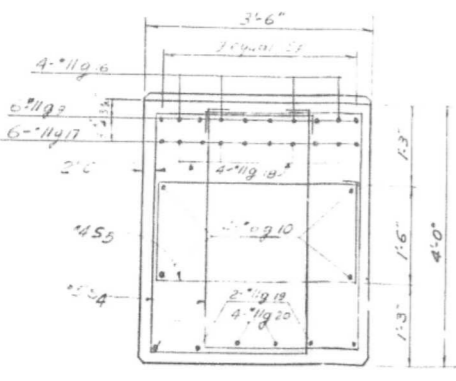
FOR BEAM 7
TYPICAL



SEE SOFT SEAMING
PLATES AND BRACES
NOTES SEE DRAWING 31



PIER 7 LOOKING NORTH



See Sheet 28 for Bill of Material.

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON
PRESIDENT BOARD OF COMMISSIONERS

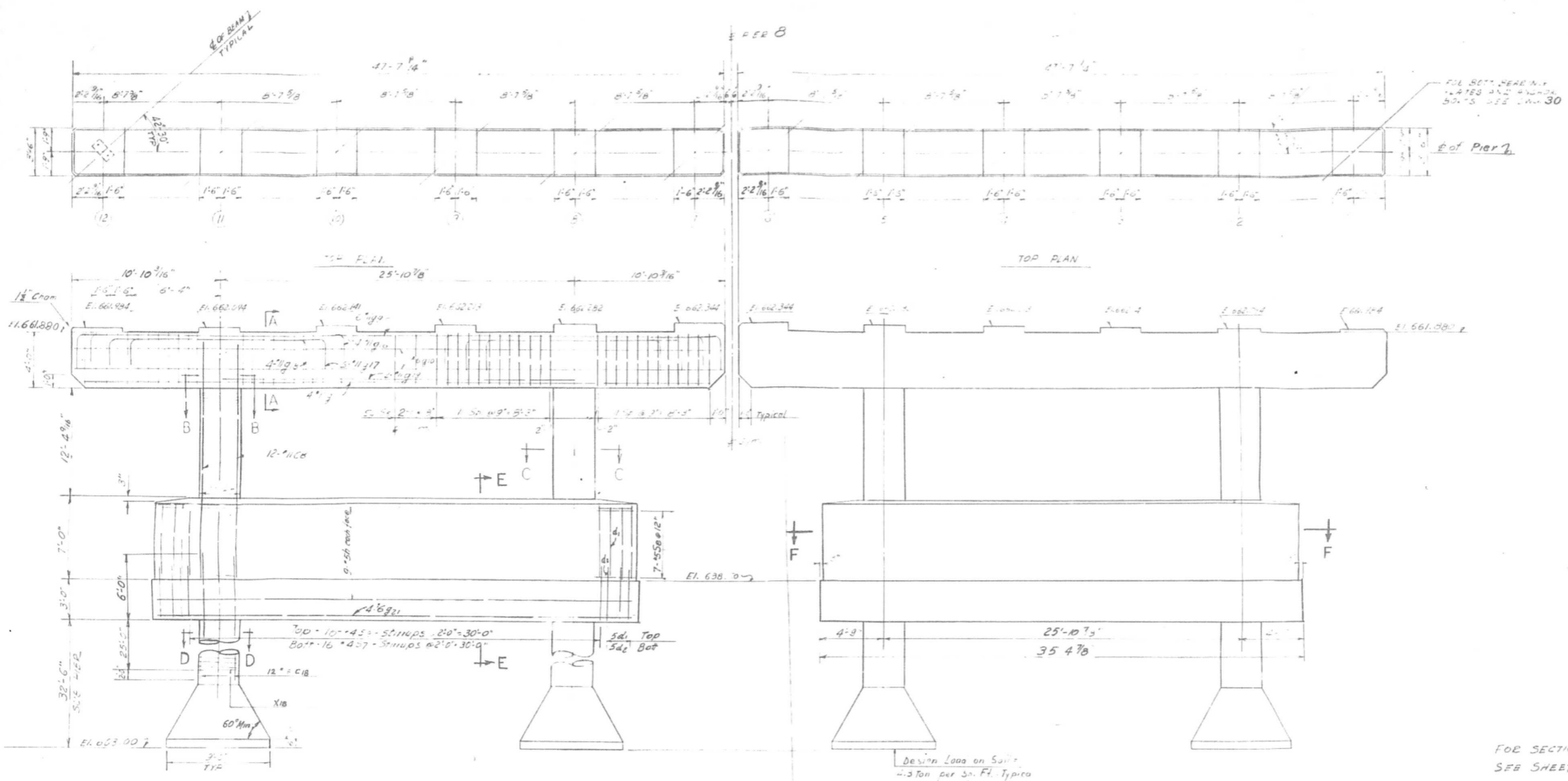
ANDREW V. PLUMMER
SUPERINTENDENT OF HIGHWAYS

PIER 7
25TH AVE GRADE SEPARATION
OVER
I.H.B. RAILROAD

COMPUTED M.H. PROJECT
DRAWN L.S. SCALE 1/4" = 1'-0"
CHECKED M.H. APPROVED [Signature]

APPROVED [Signature] COUNTY HIGHWAY DISTRICT NO. 2
DATE 10-18-65 1965 DISTRICT M.P.T. 25 61

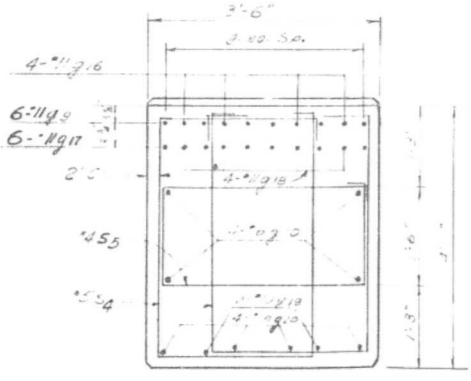
REVISIONS		
DATE	BY	DESCRIPTION
10-18-65	M.H.	S15-Changed to #3



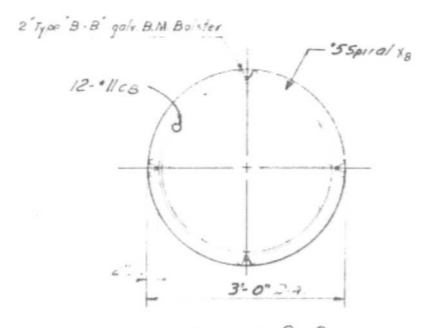
FOR SECTION E-E & F-F
SEE SHEET 25

Design Load on Soil
-3 Ton per Sq. Ft. Typical

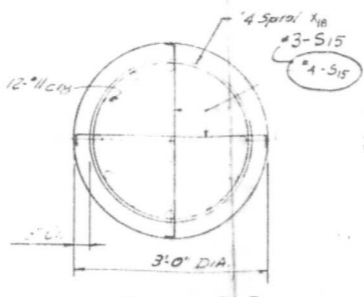
See Sheet 29 for Bill of Material.



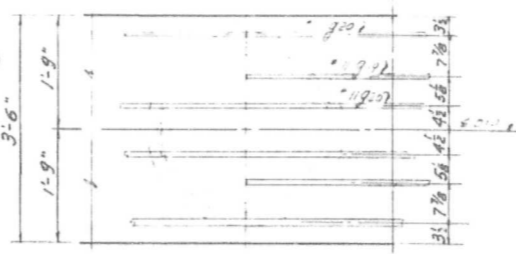
SECTION A-A



SECTION C-C



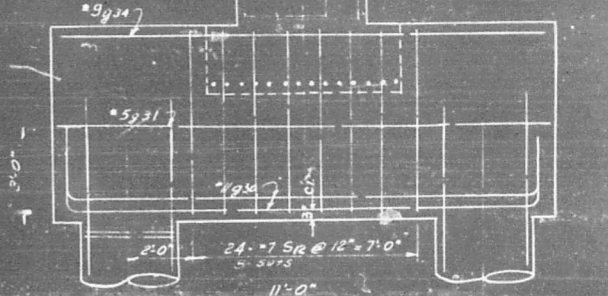
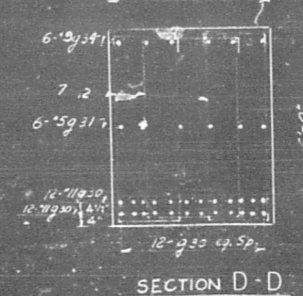
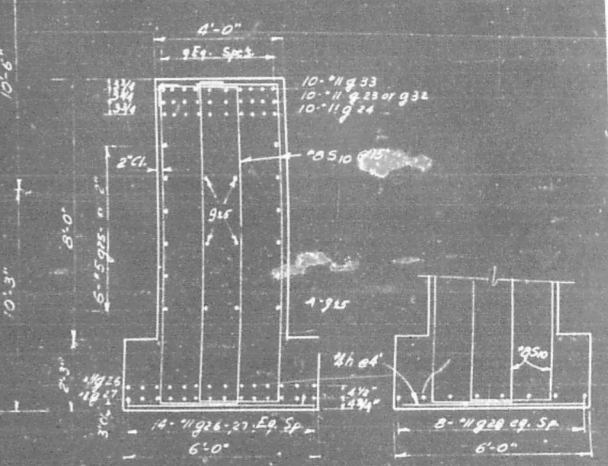
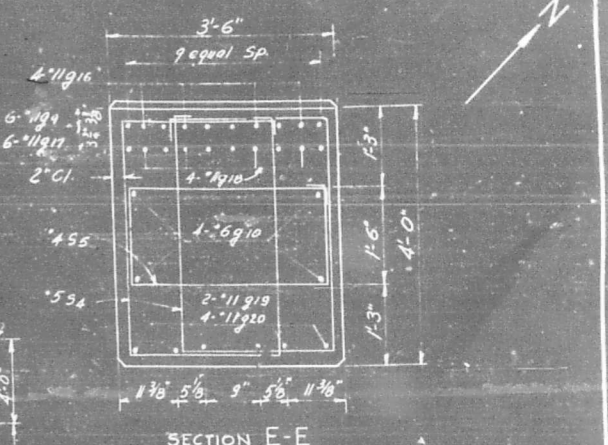
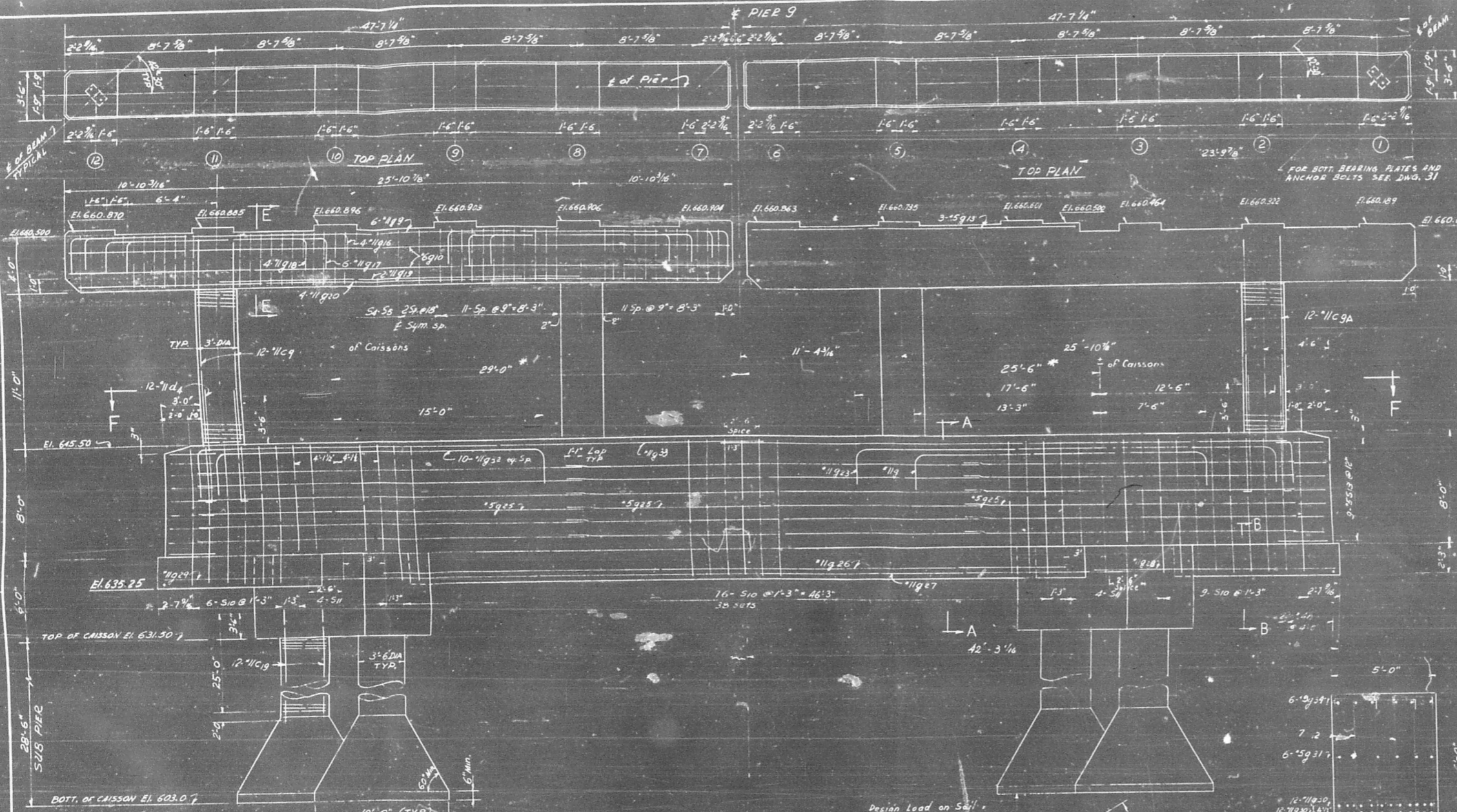
SECTION D-D



SECTION B-B

REVISIONS		
DATE	BY	DESCRIPTION
10-18-65	M.H.	SIS - Changed to #3

DEPARTMENT OF HIGHWAYS COOK COUNTY, ILLINOIS	
SEYMOUR SIMON PRESIDENT BOARD OF COMMISSIONERS	ANDREW V. PLUMMER SUPERINTENDENT OF HIGHWAYS
PIER 8 25TH AVE GRADE SEPARATION OVER I.H.B. RAILROAD	
COMPUTED M.H.	PROJECT 14'-1'-0"
DRAWN L.S.	SCALE 1/4"=1'-0"
CHECKED M.H.	APPROVED [Signature]
APPROVED [Signature] 10/18/65	1965
County Highway Route No. 020-10462	Sheet No. 26
M.P.T.	61



Design Load on Soil = 5 Ton per Sq. Ft. Typical

See Sheet 29 for Bill of Material.

*Dimensions subject to field check, if off more than 6" ± Consult with Bridge office for action.

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

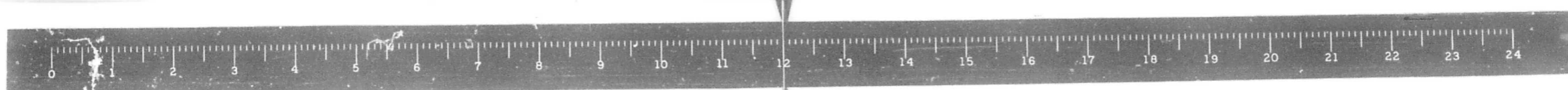
SEYMOUR SIMON
PRESIDENT BOARD OF COMMISSIONERS

ANDREW Y. PLUMMER
SUPERINTENDENT OF HIGHWAYS

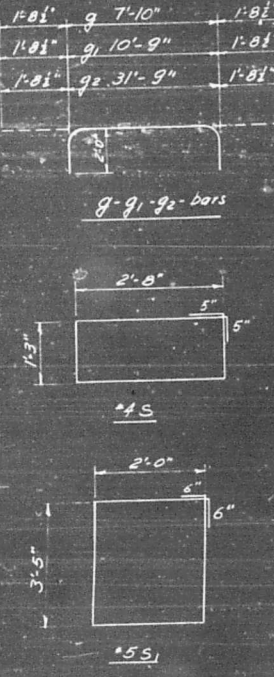
PIER 9
25TH AVE GRADE SEPARATION
OVER
I.H.B. RAILROAD

DATE	BY	DESCRIPTION

COMPUTED	G.T.	PROJECT	
DRAWN	L.S.	SCALE	
CHECKED	M.H.	APPROVED	
APPROVED			



BILL OF MATERIAL FOR PIERS 1, 3, 4, 5, 11, 12, 13, 15					
MARK	No	SIZE	LENGTH	SKETCH	LOCATION
8	132	11	11'-3"	[Sketch]	Cap
91	64	11	14'-2"	[Sketch]	"
82	96	11	35'-2"	[Sketch]	"
83	64	6	31'-9"	[Sketch]	"
84	32	8	30'-2"	[Sketch]	"
85	32	10	30'-2"	[Sketch]	"
86	32	10	17'-6"	[Sketch]	"
S	305	4	8'-8"	[Sketch]	Cap
S1	610	5	11'-10"	[Sketch]	Cap
S15	384	3	3'-6"	[Sketch]	Caissons
C1	48	10	13'-2"	[Sketch]	Column Pier 1
C3	48	10	21'-5"	[Sketch]	"
C4	48	10	23'-5"	[Sketch]	"
C5	48	10	24'-11"	[Sketch]	"
C11	48	10	19'-11"	[Sketch]	"
C12	48	10	17'-5"	[Sketch]	"
C13	48	10	17'-5"	[Sketch]	"
C15	48	10	12'-2"	[Sketch]	"
L	192	7	26'-0"	[Sketch]	Caisson
L1	192	7	31'-0"	[Sketch]	"



SUB PIERS cu. ft. 9300
 CLASS 'X' CONCRETE cu. yds. 321
 REINFORCEMENT BARS lb. 135,050
 * Includes Estimated Wt. of Spirals & Channel Spacers

BILL OF MATERIAL FOR PIERS 6-10					
MARK	No	SIZE	LENGTH	SKETCH	LOCATION
97	48	11	15'-2"	[Sketch]	Cap
98	16	11	19'-2"	[Sketch]	"
99	24	11	50'-7"	[Sketch]	"
910	16	6	47'-2"	[Sketch]	"
911	16	10	45'-7"	[Sketch]	"
912	8	10	25'-10"	[Sketch]	"
913	6	5	23'-5"	[Sketch]	"
914	48	9	5'-3"	[Sketch]	"
915	8	6	29'-6"	[Sketch]	"
S4	312	5	13'-0"	[Sketch]	"
S5	156	4	10'-2"	[Sketch]	"
S6	72	4	12'-6"	[Sketch]	"
S15	96	3	3'-6"	[Sketch]	Caissons
C6	24	11	24'-6"	[Sketch]	Column Pier 6
C6A	24	11	25'-6"	[Sketch]	"
C10	24	11	20'-6"	[Sketch]	"
C10A	24	11	21'-6"	[Sketch]	"
L2	48	8	29'-0"	[Sketch]	Caisson Pier 6
L3	48	8	33'-0"	[Sketch]	Caissons Pier 10

SUB PIERS cu. ft. 2340
 CLASS 'X' CONCRETE cu. yds. 193.3
 REINFORCEMENT BARS lb. 57,602
 * Includes Estimated Wt. of Spirals & Channel Spacers

SPIRALS IN COLUMNS AND CAISSONS FOR PIERS 6-10							
MARK	No	SIZE	LENGTH	CORE	PITCH	SPACERS	LOCATION
X6	2	5	21'-0"	2'-8"	3/2"	4	Col. Pier 6W
X6A	2	5	22'-0"	2'-8"	3/2"	4	" 6E
X10	2	5	17'-0"	2'-8"	3/2"	4	" 10E
X10A	2	5	18'-0"	2'-8"	3/2"	4	" 10W
Y2	4	4	21'-0"	2'-6"	3/2"	3	Caissons Pier 6
Y3	4	4	25'-0"	2'-6"	3/2"	3	Caisson Pier 10

Estimated weight of Spirals & Channel Spacers 9,160 lb.

SPIRALS IN COLUMNS AND CAISSONS FOR PIERS 1, 3, 4, 5, 11, 12, 13, 15							
MARK	No	SIZE	LENGTH	CORE	PITCH	SPACERS	LOCATION
X1	4	5	9'-9"	2'-4"	3/2"	3	Columns Pier 1
X3	4	5	18'-0"	2'-4"	3/2"	3	"
X4	4	5	20'-3"	2'-4"	3/2"	3	"
X5	4	5	21'-9"	2'-4"	3/2"	3	"
X11	4	5	16'-6"	2'-4"	3/2"	3	"
X12	4	5	14'-3"	2'-4"	3/2"	3	"
X13	4	5	14'-0"	2'-4"	3/2"	3	"
X15	4	5	8'-9"	2'-4"	3/2"	3	"
Y1	16	4	21'-0"	2'-3"	3/2"	3	Caiss (P. 3, 4, 5, 11, 12, 13, 15)
Y1	16	4	26'-0"	2'-3"	3/2"	3	Caiss (P. 1, 3, 11 & 12)

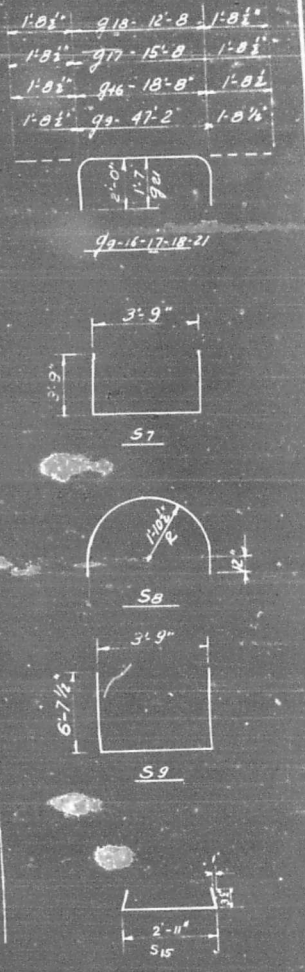
ESTIMATED WEIGHT OF SPIRALS & CHANNEL SPACERS 29,090 lb.

BILL OF MATERIAL FOR PIER 7					
MARK	No	SIZE	LENGTH	SKETCH	LOCATION
99	12	11	50'-7"	[Sketch]	Cap
910	8	6	47'-2"	[Sketch]	"
913	3	5	23'-5"	[Sketch]	"
916	16	11	32'-1"	[Sketch]	"
917	24	11	19'-1"	[Sketch]	"
918	16	11	16'-1"	[Sketch]	"
919	4	11	25'-10"	[Sketch]	"
920	5	11	45'-7"	[Sketch]	"
921	6	6	35'-0"	[Sketch]	FOOTING
922	2	6	34'-6"	[Sketch]	CRASHWALL
h			31'-0"	[Sketch]	"
S4	204	5	13'-0"	[Sketch]	"
S5	102	4	10'-2"	[Sketch]	Cap
S7	4	4	11'-3"	[Sketch]	Bumper Ft'g.
S8	28	4	8'-0"	[Sketch]	Bumper Post
S9	4	4	17'-0"	[Sketch]	"
S15	56	3	3'-6"	[Sketch]	Caissons
S7	24	11	21'-0"	[Sketch]	Col.
S7A	24	11	21'-6"	[Sketch]	Col.
S7	48	8	33'-0"	[Sketch]	Caisson
d1	4	4	6'-6"	[Sketch]	Ch. Wall
d2	4	4	4'-0"	[Sketch]	"

SUB PIER cu. ft. 1573
 CLASS 'X' CONCRETE cu. yds. 168.6
 REINFORCEMENT BARS lb. 32,250
 * Includes Estimated Wt. of Spirals & Channel Spacers

SPIRALS IN COLUMNS AND CAISSONS FOR PIER 7							
MARK	No	SIZE	LENGTH	CORE	PITCH	SPACERS	LOCATION
Y1	4	4	21'-0"	2'-6"	3/2"	3	Column
Y2	4	4	25'-0"	2'-6"	3/2"	3	"

Estimated weight of Spirals & Channel Spacers 4,530 lb.



REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
 COOK COUNTY, ILLINOIS

SEYMOUR SIMON
 PRESIDENT BOARD OF COMMISSIONERS

ANDREW V. PLUMMER
 SUPERINTENDENT OF HIGHWAYS

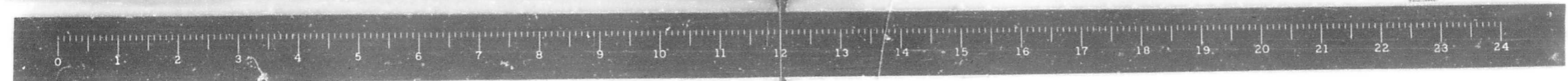
BILL OF MATERIAL - PIERS 1, 3, 4, 5, 6, 7, 10, 11, 12, 13, 15
 25TH AVE GRADE SEPARATION
 OVER
 I.H.B. RAILROAD

COMPUTED L.S.
 DRAWN L.S.
 CHECKED M.H.

APPROVED [Signature] 1965

PROJECT SCALE: 1" = 10'-0"

FISCAL YEAR: 1965
 COUNTY HIGHWAY DISTRICT NO: 020-1010-E
 SHEET NO: 28
 TOTAL SHEETS: 61



BILL OF MATERIAL FOR PIER 8						
MARK	NO	SIZE	LENGTH	SKETCH	LOCATION	
99	12	11	50-7"	[]	Cap	
910	8	6	47-2"	[]	"	
916	16	11	22-1"	[]	"	
917	24	11	19-1"	[]	"	
918	16	11	16-1"	[]	"	
919	4	11	25-10"	[]	"	
920	8	11	45-7"	[]	"	
921	8	6	35-0"	[]	FOOTING	
922	2	6	34-6"	[]	CEMENT WALL	
h	36	5	31-0"	[]	CEMENT WALL	
S4	204	5	13-0"	[]	"	
S5	102	4	10-2"	[]	"	
S7	32	4	11-3"	[]	"	
S8	40	4	8-0"	[]	Cap	
S9	32	4	17-0"	[]	"	
S15	56	3	3-6"	[]	CAISSONS	
C8	48	11	22-9"	[]	Col	
S18	48	11	33-0"	[]	CAISSONS	
a1	20	2	8-6"	[]	CEMENT WALL	
a2	20	4	4-0"	[]	"	

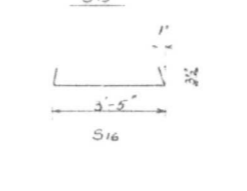
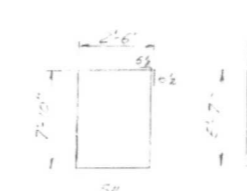
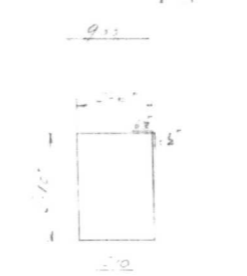
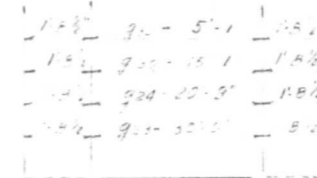
SUB PIER 8 1523
 CLASS 'X' CONCRETE 168.8
 * REINFORCEMENT BARS 18. 32,823.
 * Includes Estimate of 1/2" Spirals & Chair Spacers

SPIRALS IN COLUMNS AND CAISSONS IN PIER 8							
MARK	NO	SIZE	LENGTH	CORE	PITCH	SPACES	LOCATION
X8	4	5	19-4"	2-8"	3/2	4	Col
X18	4	4	25-0"	2-6"	3/2	3	CAISSON

BILL OF MATERIAL FOR PIER 9						
MARK	NO	SIZE	LENGTH	SKETCH	LOCATION	
99	12	11	50-7"	[]	Cap	
910	8	6	47-2"	[]	"	
916	16	11	22-1"	[]	"	
917	24	11	19-1"	[]	"	
918	16	11	16-1"	[]	"	
919	4	11	25-10"	[]	"	
920	8	11	45-7"	[]	Cap	
923	10	11	33-5"	[]	Boff. Beam	
924	10	11	33-5"	[]	"	
915	54	5	2-9"	[]	"	
916	14	11	49-9"	[]	"	
917	12	11	60-0"	[]	"	
918	8	11	17-2"	[]	"	
919	3	11	4-7"	[]	Boff. Beam	
921	48	11	12-6"	[]	Caisson Cap	
922	11	5	17-3"	[]	"	
923	11	11	28-6"	[]	Boff. Beam	
924	10	11	33-5"	[]	"	
925	12	9	15-3"	[]	Caisson Cap	
S4	204	5	13-0"	[]	Cap	
S5	102	4	10-2"	[]	"	
S7	106	4	25-9"	[]	Boff. Beam	
S11	3	8	21-9"	[]	"	
S12	48	7	5-9"	[]	Caisson Cap	
S13	15	5	6-2"	[]	End Post	
S16	48	(4) 3	4-0"	[]	CAISSONS	
926	24	11	14-1"	[]	"	
927	24	11	14-1"	[]	Cap	
928	48	11	27-0"	[]	"	
929	48	11	7-0"	[]	Col	
930	20	4	5-9"	[]	Boff. B.M. - Fly	

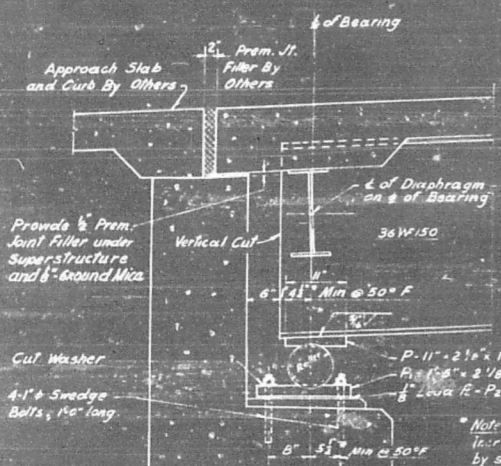
SUB PIER 9 1885
 CLASS 'X' CONCRETE 234.0
 * REINFORCEMENT BARS 18. 67710.
 * Includes Estimate of 1/2" Spirals & Chair Spacers

SPIRALS IN COLUMNS AND CAISSONS IN PIER 9							
MARK	NO	SIZE	LENGTH	CORE	PITCH	SPACES	LOCATION
X9	2	5	11-0"	2-8"	3/2	4	Col
X9A	2	5	10-6"	2-8"	3/2	4	Col
X19	4	5	21-6"	3-0"	3/2	4	CAISSONS



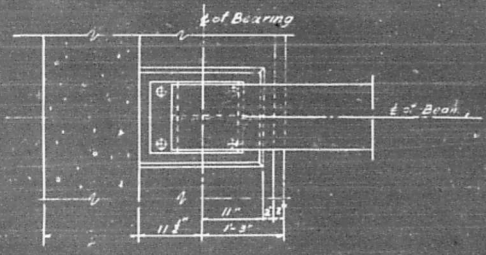
REVISIONS		
DATE	BY	DESCRIPTION
10-18-65	M.H.	S16 - changed to #3

DEPARTMENT OF HIGHWAYS COOK COUNTY, ILLINOIS		SEYMOUR SIMON PRESIDENT BOARD OF COMMISSIONERS	ANDREW V. FLUMMER SUPERINTENDENT OF HIGHWAYS
BILL OF MATERIAL - PIERS 8 & 9 25TH AVE GRADE SEPARATION OVER I.H.B. RAILROAD			
COMPUTED L.S.	PROJECT	SCALE	APPROVED
DRAWN L.S.			
CHECKED M.H.			
APPROVED [Signature]	FISCAL YEAR 1965	County Highway Dist. No. 020-100.2	Sheet No. 29 of 61

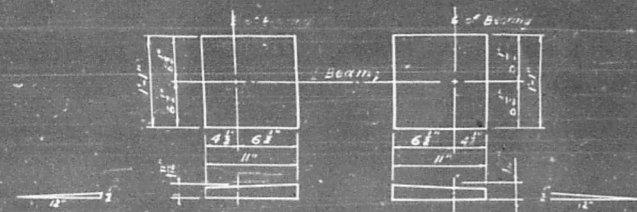


SECTION AT ABUTMENT

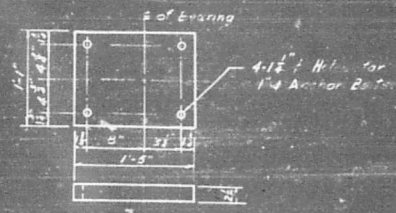
Note to Erector
Increase each dimension by same amount if abutment has moved or if temperature is over 50°F. Decrease each dimension by same amount if temperature is below 50°



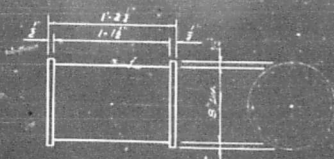
PLAN



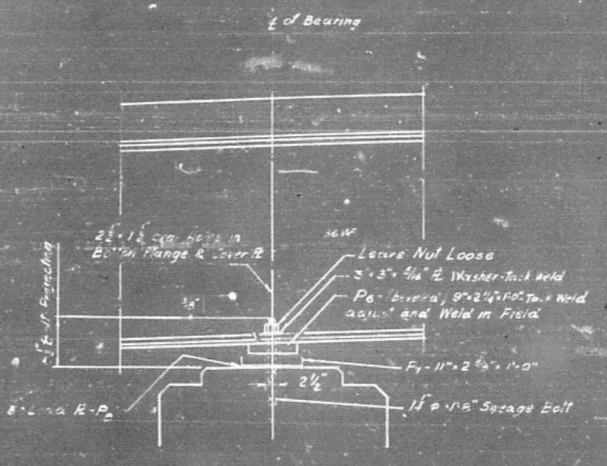
TOP BEARING PLATE AT ABUTMENTS-P
24-Reg'd Wt. 2097*



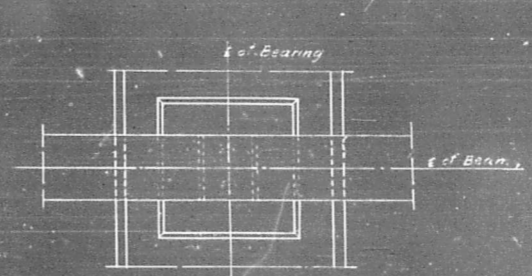
BOTTOM BEARING PLATE AT ABUTMENT - P1
24-Reg'd Wt. 3535* Lead P. Incl. - P2



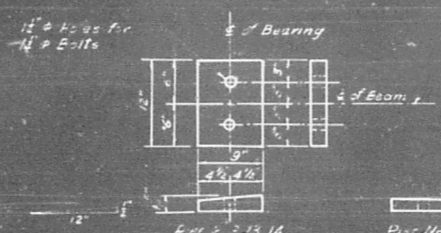
EXPANSION ROLLER
24-Reg'd Wt. 273



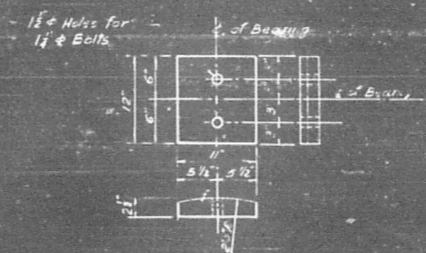
SECTION AT PIER No. 2, 3, 9
OPPOSITE HAND FOR PIER No. 13, 14



PLAN



TOP BEARING PLATE AT PIERS
48-Reg'd Wt. 3305*



BOTTOM BEARING PLATE AT PIER No. 2, 3, 9, 13, 14
60-Reg'd Wt. 2560*
Includes Lead Plates - P2

SWEDGE ANCHOR BOLTS		
1\"/>		

NOTES

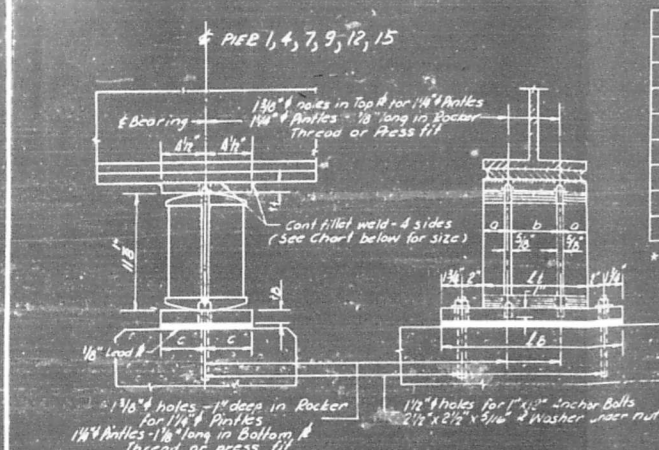
Rollers shall be turned down from a solid bar. For All Plates in contact with the Rollers the edges adjacent to the rollers shall be rolled, cut square or finished. Estimated weights of rockers, rollers, steel plates, lead plates and anchor bolts are included in weight of * Furnishing and Erecting Structural Steel.

*Included in Summary of Quantities Sheet #1.

DEPARTMENT OF HIGHWAYS COOK COUNTY, ILLINOIS	
BEYMOUR SIMON PRESIDENT BOARD OF COMMISSIONERS	ANDREW V. PLUMMER COMMISSIONER OF HIGHWAYS
BEARING DETAILS 25 TH. AVE. GRADE SEPARATION OVER I. H. B. RAILROAD	
COMPUTED <i>M.H.</i>	PROJECT
DRAWN <i>L.S.</i>	SCALE
CHECKED <i>M.H.</i>	APPROVED <i>[Signature]</i>
APPROVED <i>[Signature]</i> 1965	FISCAL YEAR 1965
County Highway Route No. 020-Hwy. 2	Sheet No. 30
M.F.T.	Sheet No. 61

REVISIONS		
DATE	BY	DESCRIPTION





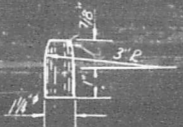
PIER	No. & MARK
1	12 EB1
4	12 EB1
7	12 EB1
9	12 EB1
12	12 EB1
15	12 EB1

Note:
For Plate Beveled
See TOP PLATE DETAILS

Mark	Beam Size	Lt	Lb	Lc	Ld	a	b	c	c.f.w.	Total Weight
EB1	36W160 to 36W182	12"	11 1/2"	1 1/2"	2"	3"	6"	3"	3/8"	321 lbs.

EXPANSION BEARING DETAILS
(WITH COVER PLATE FOR SINGLE BEARING PIER)

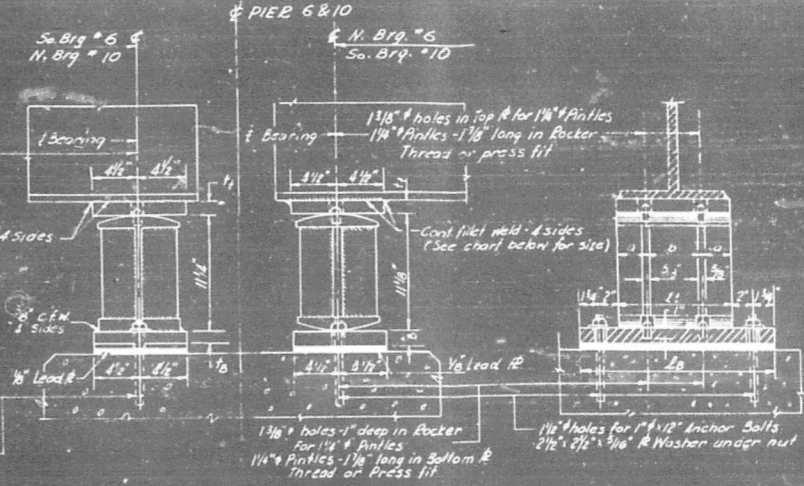
PINTLE DETAILS



DETAILS
FIXED BOLSTER

Mark	Beam Size	Lt	Lb	Lc	Ld	a	b	c	c.f.w.	Total Weight
FB	36W135 to 36W150	12 1/2"	21"	1 1/2"	1"	3 1/2"	6 1/2"	9/8"		279 lbs.

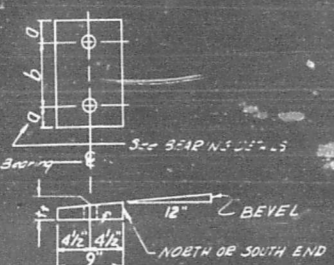
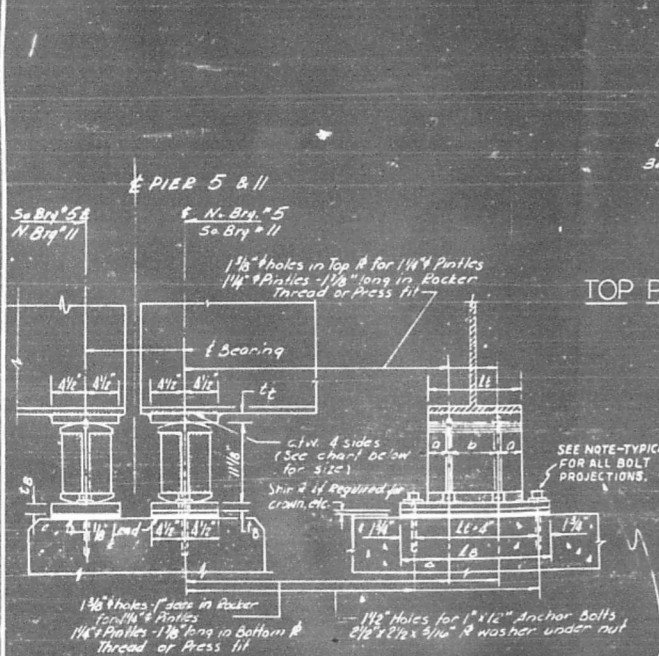
FIXED AND EXPANSION BEARING DETAILS
(FOR DOUBLE BEARING PIERS)



PIER	No. & MARK
6	12 FB3 - 12 EB2
10	12 FB3 - 12 EB2

DETAILS
EXPANSION ROCKER

Mark	Beam Size	Lt	Lb	Lc	Ld	a	b	c	c.f.w.	Total Weight
EB2	36W135 to 36W194	13 1/2"	21"	1 1/2"	1 1/2"	3 1/2"	6 1/2"	9/8"		325 lbs.



PIER	No. & MARK
5	24 EB2
11	24 EB2

Note:
For Plate Beveled
See TOP PLATE DETAILS

Mark	Beam Size	Lt	Lb	Lc	Ld	a	b	c	c.f.w.	Total Weight
EB2	36W135 to 36W194	13 1/2"	21"	1 1/2"	1 1/2"	3 1/2"	6 1/2"	9/8"		325 lbs.

EXPANSION BEARING DETAILS
(FOR DOUBLE BEARING PIERS)

Note:
Total weight of each assembly listed includes Rocker
or Bolster, Top & Bottom Plates, Anchor Bolts, Plate Washers
and Lead Plate. Does not include weight of any shim
plates.

PIER	LOCATION	BEAM ASSY	BEARING
1 & 15	E. Brg	1 to 12 EB1	1 1/8"
4 & 12	E. Brg	1 to 12 EB1	3/8"
5	So. Brg.	1 to 12 EB2	1 1/8"
5	N. Brg.	1 to 12 EB2	1 1/8"
6	So. Brg.	1 to 12 EB3	1 1/8"
5	N. Brg.	1 to 12 EB2	1 1/8"
7 & 9	E. Brg.	1 to 12 EB1	1 1/8"
10	So. Brg.	1 to 12 EB2	1 1/8"
10	N. Brg.	1 to 12 EB3	1 1/8"
11	So. Brg.	1 to 12 EB2	1 1/8"
11	N. Brg.	1 to 12 EB2	3/8"

BEARING LOCATION AND BEVEL

BEAM No.	SHIM PLATE THICKNESS			
	N. Brg. - Pier 5	So. Brg. - Pier 11	So. Brg. Pier 6	N. Brg. Pier 10
1		1"	3/8"	1 1/4"
2		1"	3/8"	1 1/4"
3		1"	1/2"	1 1/4"
4	5/16"	1"	1/2"	1 1/4"
5	9/16"	1"	1/2"	1 1/4"
6	9/16"	1"	1/2"	1 1/4"
7	1"	3/16"	1/2"	1 1/4"
8	1"	9/16"	1/2"	1 1/4"
9	1"	5/16"	1/2"	1 1/4"
10	1"		1/2"	1 1/4"
11	1"		1/2"	3/8"
12	1"		1/2"	3/8"

NOTE:
ANCHOR BOLT PROJECTION ABOVE CONCRETE
SHALL BE DETERMINED AT TIME BOLTS ARE
POSITIONED IN PLACE BEFORE CONCRETE IS
POURED. TOTAL PROJECTION TO INCLUDE
ALL PLATE THICKNESS PLUS 1/2" FOR
NUT & EXPOSED THREAD.

TOTAL WT. THIS SHEET 55,276.66

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON
PRESIDENT BOARD OF COMMISSIONERS

ANDREW V. PLIMMER
SUPERINTENDENT OF HIGHWAYS

BEARING DETAILS
25TH AVE GRADE SEPARATION
OVER
I. H. B. RAILROAD

COMPUTED M.H.-L.S.
DRAWN L.S.
CHECKED M.H.

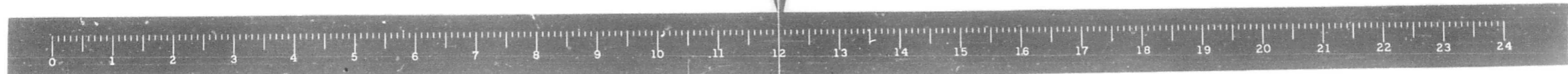
PROJECT
SCALE
APPROVED

APPROVED
1965

County (Number)
220-1010.2
M.P.T.

Sheet No. 31
Total Sheets 61

REVISIONS		
DATE	BY	DESCRIPTION



ELEVATIONS - TOP OF BEAMS AND SLAB

# OF BEAM	Location Top of	# N.Brg. or N.Brg.	1/4 Point	1/2 Point	3/4 Point	Splice 1	1/4 Point	1/2 Point	3/4 Point	Splice 2	1/4 Point	1/2 Point	3/4 Point	Splice 3	1/4 Point	1/2 Point	3/4 Point	Splice 4	1/4 Point	1/2 Point	3/4 Point	
1	Bottom Slab	648.468	647.392	650.117	650.841	651.565	652.289	653.013	653.737	654.461	655.185	655.909	656.633	657.357	658.081	658.805	659.529	660.253	660.977	661.701	662.425	663.149
2	Top of Slab	647.844	648.568	649.292	650.016	650.740	651.464	652.188	652.912	653.636	654.360	655.084	655.808	656.532	657.256	657.980	658.704	659.428	660.152	660.876	661.600	662.324
3	Top of Slab	647.220	647.944	648.668	649.392	650.116	650.840	651.564	652.288	653.012	653.736	654.460	655.184	655.908	656.632	657.356	658.080	658.804	659.528	660.252	660.976	661.700
4	Top of Slab	646.596	647.320	648.044	648.768	649.492	650.216	650.940	651.664	652.388	653.112	653.836	654.560	655.284	656.008	656.732	657.456	658.180	658.904	659.628	660.352	661.076
5	Top of Slab	645.972	646.696	647.420	648.144	648.868	649.592	650.316	651.040	651.764	652.488	653.212	653.936	654.660	655.384	656.108	656.832	657.556	658.280	659.004	659.728	660.452
6	Top of Slab	645.348	646.072	646.796	647.520	648.244	648.968	649.692	650.416	651.140	651.864	652.588	653.312	654.036	654.760	655.484	656.208	656.932	657.656	658.380	659.104	659.828
7	Top of Slab	644.724	645.448	646.172	646.896	647.620	648.344	649.068	649.792	650.516	651.240	651.964	652.688	653.412	654.136	654.860	655.584	656.308	657.032	657.756	658.480	659.204

ELEVATIONS - TOP OF BEAMS AND SLAB

# OF BEAM	Location Top of	# N.Brg. Pier 5	1/4 Point	1/2 Point	3/4 Point	Splice 5	1/4 Point	1/2 Point	3/4 Point	Splice 6	1/4 Point	1/2 Point	3/4 Point	Splice 7	1/4 Point	1/2 Point	3/4 Point	Splice 8	1/4 Point	1/2 Point	3/4 Point	Splice 9	1/4 Point	1/2 Point	3/4 Point	Splice 10	1/4 Point	1/2 Point	3/4 Point	Splice 11	
1	Bottom Slab	664.197	664.719	665.241	665.763	666.285	666.807	667.329	667.851	668.373	668.895	669.417	669.939	670.461	670.983	671.505	672.027	672.549	673.071	673.593	674.115	674.637	675.159	675.681	676.203	676.725	677.247	677.769	678.291	678.813	679.335
2	Top of Slab	663.573	664.095	664.617	665.139	665.661	666.183	666.705	667.227	667.749	668.271	668.793	669.315	669.837	670.359	670.881	671.403	671.925	672.447	672.969	673.491	674.013	674.535	675.057	675.579	676.101	676.623	677.145	677.667	678.189	678.711
3	Top of Slab	662.952	663.474	663.996	664.518	665.040	665.562	666.084	666.606	667.128	667.650	668.172	668.694	669.216	669.738	670.260	670.782	671.304	671.826	672.348	672.870	673.392	673.914	674.436	674.958	675.480	675.999	676.521	677.043	677.565	678.087
4	Top of Slab	662.331	662.853	663.375	663.897	664.419	664.941	665.463	665.985	666.507	667.029	667.551	668.073	668.595	669.117	669.639	670.161	670.683	671.205	671.727	672.249	672.771	673.293	673.815	674.337	674.859	675.381	675.903	676.425	676.947	677.469
5	Top of Slab	661.710	662.232	662.754	663.276	663.798	664.320	664.842	665.364	665.886	666.408	666.930	667.452	667.974	668.496	669.018	669.540	670.062	670.584	671.106	671.628	672.150	672.672	673.194	673.716	674.238	674.760	675.282	675.804	676.326	676.848
6	Top of Slab	661.089	661.611	662.133	662.655	663.177	663.699	664.221	664.743	665.265	665.787	666.309	666.831	667.353	667.875	668.397	668.919	669.441	669.963	670.485	671.007	671.529	672.051	672.573	673.095	673.617	674.139	674.661	675.183	675.705	676.227
7	Top of Slab	660.468	660.990	661.512	662.034	662.556	663.078	663.600	664.122	664.644	665.166	665.688	666.210	666.732	667.254	667.776	668.298	668.820	669.342	669.864	670.386	670.908	671.430	671.952	672.474	672.996	673.518	674.040	674.562	675.084	675.606
8	Top of Slab	659.847	660.369	660.891	661.413	661.935	662.457	662.979	663.501	664.023	664.545	665.067	665.589	666.111	666.633	667.155	667.677	668.199	668.721	669.243	669.765	670.287	670.809	671.331	671.853	672.375	672.897	673.419	673.941	674.463	674.985
9	Top of Slab	659.226	659.748	660.270	660.792	661.314	661.836	662.358	662.880	663.402	663.924	664.446	664.968	665.490	666.012	666.534	667.056	667.578	668.100	668.622	669.144	669.666	670.188	670.710	671.232	671.754	672.276	672.798	673.320	673.842	674.364
10	Top of Slab	658.605	659.127	659.649	660.171	660.693	661.215	661.737	662.259	662.781	663.303	663.825	664.347	664.869	665.391	665.913	666.435	666.957	667.479	667.999	668.521	669.043	669.565	670.087	670.609	671.131	671.653	672.175	672.697	673.219	673.741
11	Top of Slab	657.984	658.506	659.028	659.550	660.072	660.594	661.116	661.638	662.160	662.682	663.204	663.726	664.248	664.770	665.292	665.814	666.336	666.858	667.380	667.902	668.424	668.946	669.468	669.990	670.512	671.034	671.556	672.078	672.600	673.122
12	Bottom Slab	657.363	657.885	658.407	658.929	659.451	659.973	660.495	661.017	661.539	662.061	662.583	663.105	663.627	664.149	664.671	665.193	665.715	666.237	666.759	667.281	667.803	668.325	668.847	669.369	669.891	670.413	670.935	671.457	671.979	672.501

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON
PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. PLUMMER
SUPERINTENDENT OF HIGHWAYS

TOP OF SLAB AND BEAM ELEVATION
25TH AVE GRADE SEPARATION
OVER
I.H.B. RAILROAD

REVISIONS

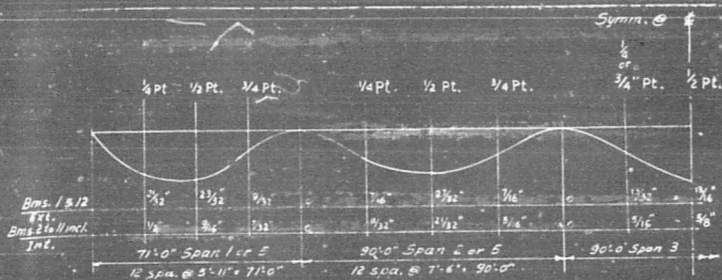
DATE	BY	DESCRIPTION

COMPUTED	G.T.-L.S.	PROJECT	
DRAWN	G.T.-L.S.	SCALE	
CHECKED	M.H.	APPROVED	
APPROVED		FISCAL YEAR	1965
		County Highway/Route No.	020-10102
		Sheet No.	33
		Total Sheets	61
		Drawing No.	

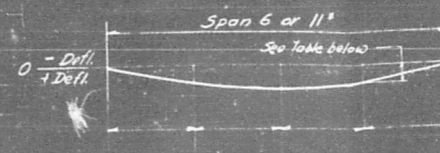


DEAD LOAD DEFLECTION in FT. - DECK SLAB.

Point	Span 1 and 5 Beams		Span 2 and 4 Beams		Span 3 Beams	
	Ext.	Int.	Ext.	Int.	Ext.	Int.
1/8	0.0212	0.0164	0.0035	0.0027	0.0021	0.0016
1/4	0.0399	0.0308	0.0171	0.0132	0.0046	0.0113
3/8	0.0540	0.0418	0.0360	0.0279	0.0328	0.0253
1/2	0.0624	0.0483	0.0539	0.0418	0.0503	0.0389
5/8	0.0644	0.0499	0.0664	0.0514	0.0626	0.0484
3/4	0.0603	0.0467	0.0707	0.0547	0.0670	0.0518
7/8	0.0508	0.0393	0.0660	0.0511	0.0626	0.0484
1	0.0374	0.0291	0.0592	0.0412	0.0503	0.0389
3/4	0.0227	0.0177	0.0351	0.0272	0.0328	0.0253
1/2	0.0084	0.0073	0.0162	0.0125	0.0146	0.0113
1/4	0.0011	0.0008	0.0029	0.0023	0.0021	0.0016

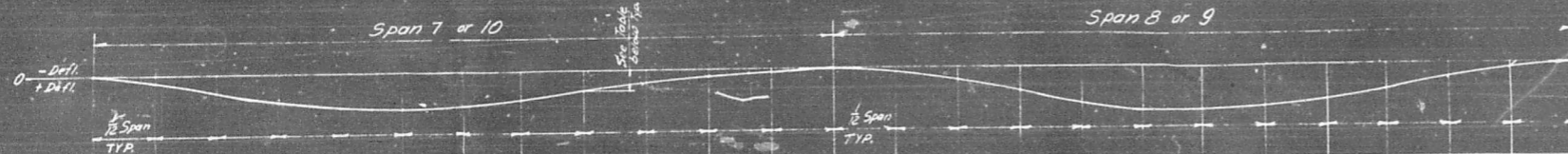


DEAD LOAD DEFLECTION DIAGRAM
See Table for deflections at each 1/8 point



Beam	# N. Beams r.s. B. Per 11	1/8 Pt.	1/4 Pt.	3/8 Pt.	# S. Beams r.s. B. Per 10
1	0.000	0.191	0.272	0.191	0.000
2	0.000	0.102	0.143	0.102	0.000
3	0.000	0.074	0.103	0.074	0.000
4	0.000	0.060	0.078	0.060	0.000
5	0.000	0.044	0.062	0.044	0.000
6	0.000	0.029	0.040	0.029	0.000
7	0.000	0.025	0.034	0.025	0.000
8	0.000	0.015	0.021	0.015	0.000
9	0.000	0.008	0.011	0.008	0.000
10	0.000	—	0.006	—	0.000
11	0.000	—	0.002	—	0.000
12	0.000	—	0.001	—	0.000

* Span 11 opposite hand



Beam	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Pier 3
1	0.000	0.023	0.043	0.053	0.068	0.070	0.067	0.057	0.043	0.027	0.013	0.003	0.000	0.007	0.024	0.046	0.066	0.081	0.086	0.083	0.070	0.051	0.029	0.011	0.000
2	0.000	0.016	0.030	0.041	0.048	0.050	0.047	0.040	0.030	0.019	0.009	0.002	0.000	0.002	0.012	0.025	0.037	0.045	0.049	0.046	0.037	0.025	0.012	0.003	0.000
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11	0.000	0.0161	0.030	0.041	0.048	0.050	0.047	0.040	0.030	0.019	0.009	0.002	0.000	0.002	0.012	0.025	0.037	0.045	0.049	0.046	0.037	0.025	0.012	0.003	0.000
12	0.000	0.023	0.043	0.053	0.068	0.070	0.067	0.057	0.043	0.027	0.013	0.003	0.000	0.007	0.024	0.046	0.066	0.081	0.086	0.083	0.070	0.051	0.029	0.011	0.000

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON
PRESIDENT BOARD OF SUPERVISORS

ANDREW V. PLUMMER
COMMISSIONER OF HIGHWAYS

DEAD LOAD DEFLECTIONS
25TH AVE GRADE SEPARATION
OVER
I.H.B. RAILROAD

COMPUTED: L.S.
DRAWN: L.S.
CHECKED: N.H.

PROJECT: _____
SCALE: _____
APPROVED: _____

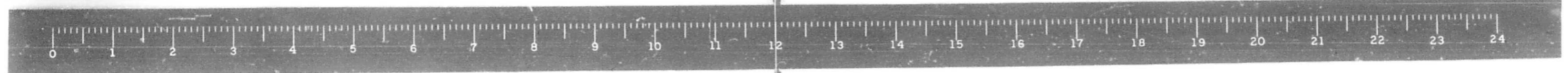
APPROVED: _____
DATE: 12/16/65
BY: _____
TITLE: CHIEF ENGINEER OF DESIGN

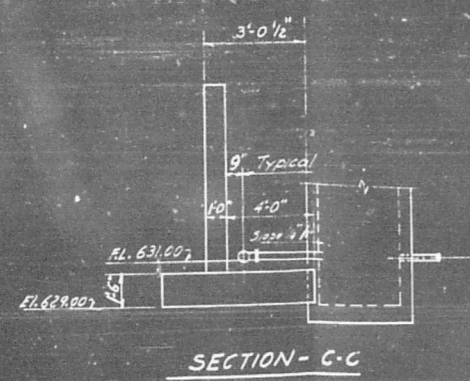
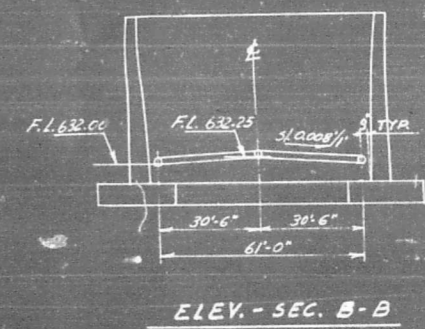
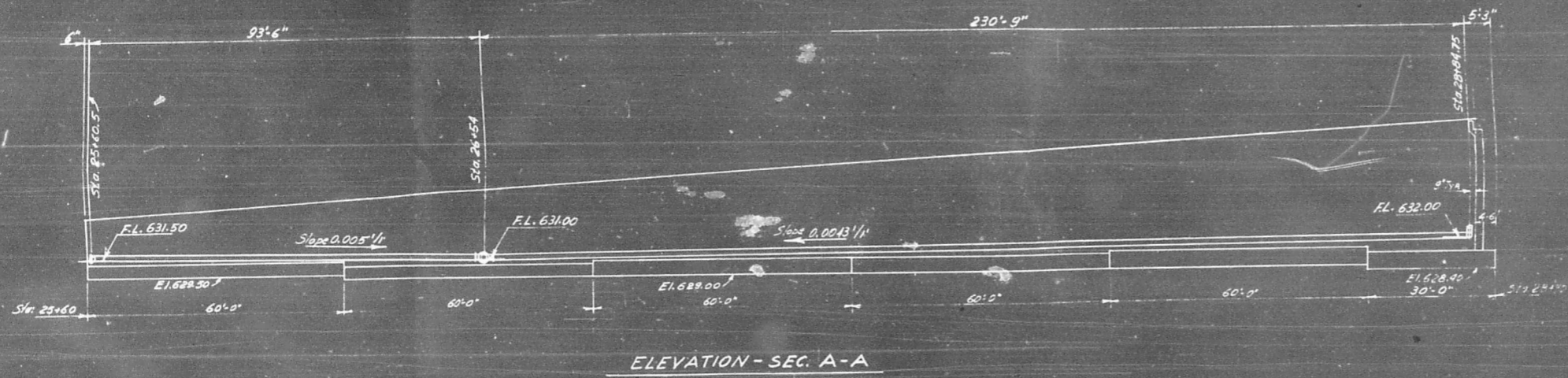
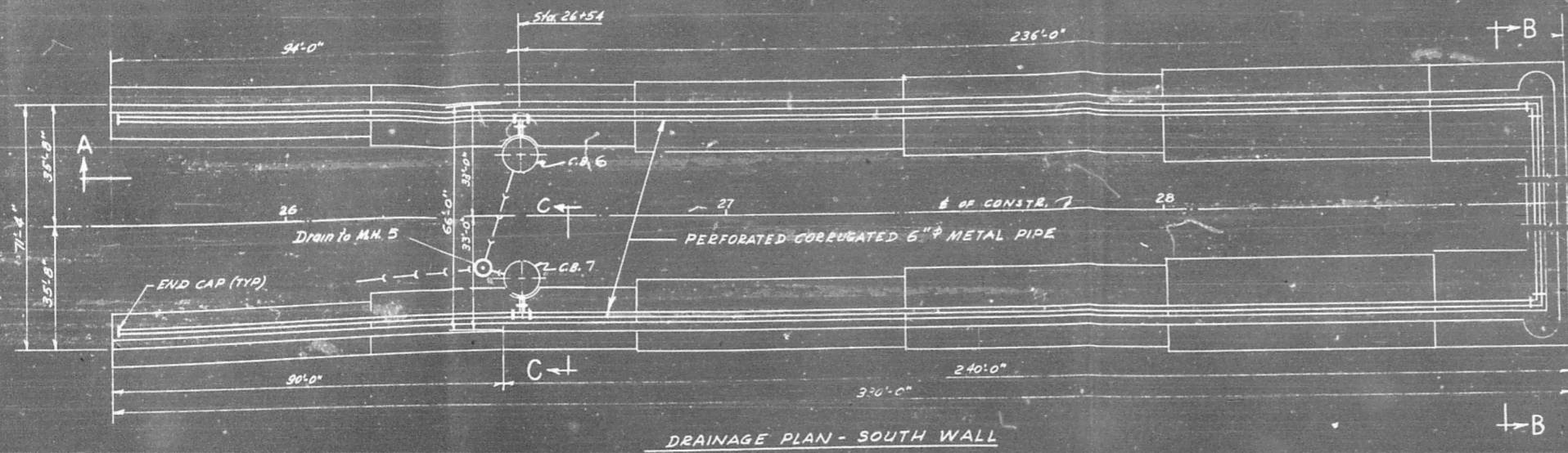
1965

34 61

REVISIONS

DATE	BY	DESCRIPTION





NOTE
 The cost of furnishing and installing 6" Corrugated Metal Pipe, End Caps, and all fittings shall be paid for at the Contract Unit Price per lineal foot for 6" Corrugated Metal Pipe.
 All horizontal pipe along walls only, shall be perforated, lateral connections and risers to existing storm sewers shall not be perforated.

PERFORATED CORRUGATED
 6" METAL PIPE 718 LIN. FT.

REVISIONS		
DATE	BY	DESCRIPTION

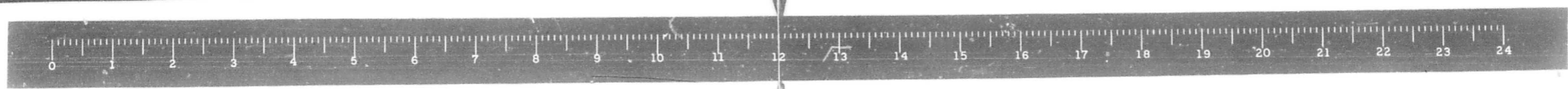
DEPARTMENT OF HIGHWAYS
 COOK COUNTY, ILLINOIS

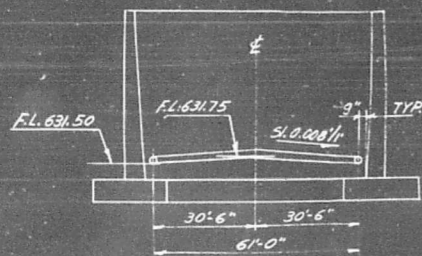
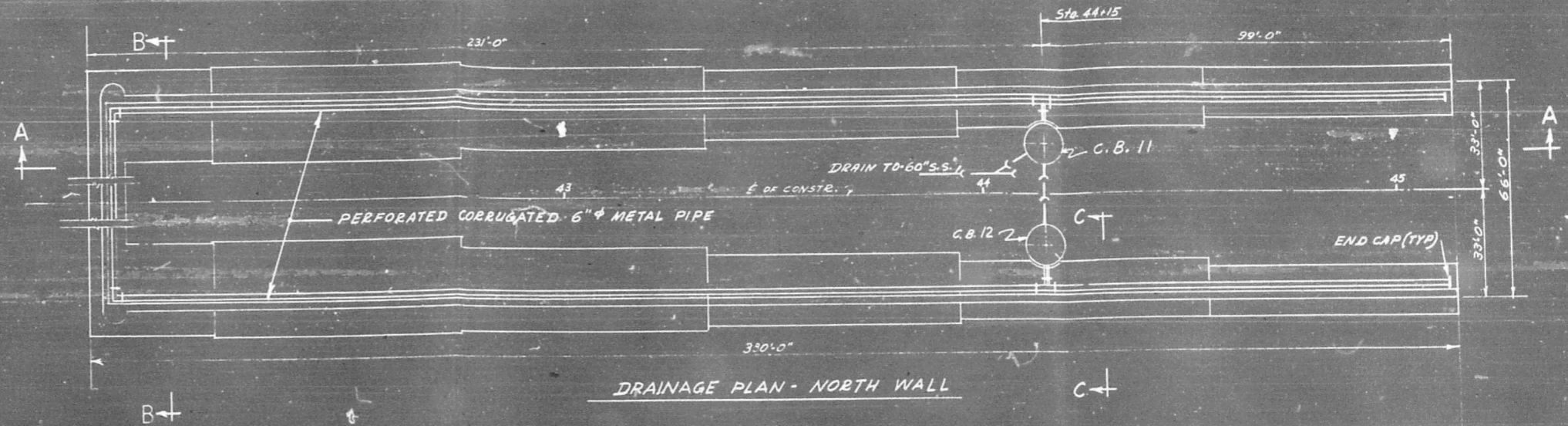
SEYMOUR SIMON
 PERMANENT CHIEF OF ENGINEERS

ANDREW V. PLUMMER
 SUPERINTENDENT OF HIGHWAYS

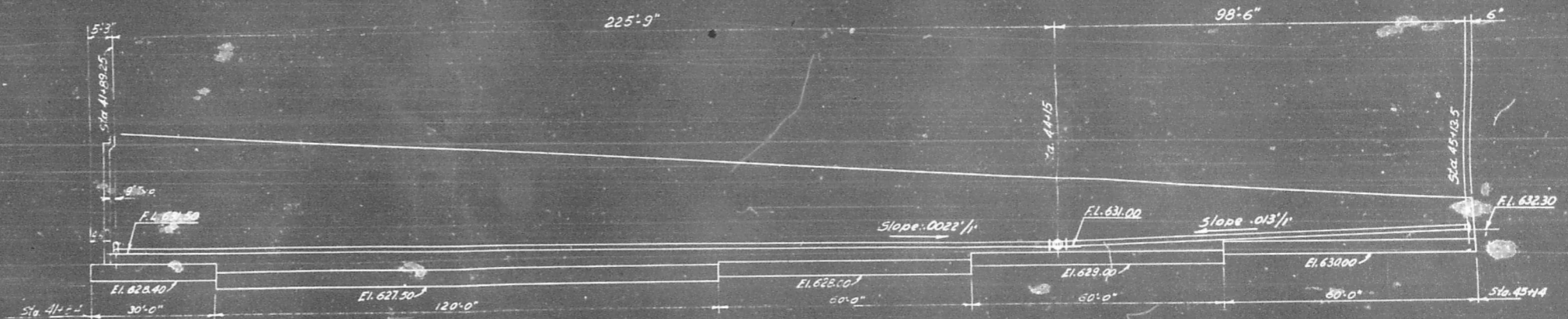
DRAINAGE DETAILS - SOUTH APPROACH
 25 TH. AVE. GRADE SEPARATION
 OVER
 I.H.B. RAILROAD

COMPUTED: E.S.	PROJECT:
DRAWN: E.S.	SCALE: 1/8" = 1'-0"
CHECKED: A.H.	APPROVED: [Signature]
APPROVED: [Signature]	DATE: 1965
CHIEF ENGINEER OF DESIGN	NO. 35 61

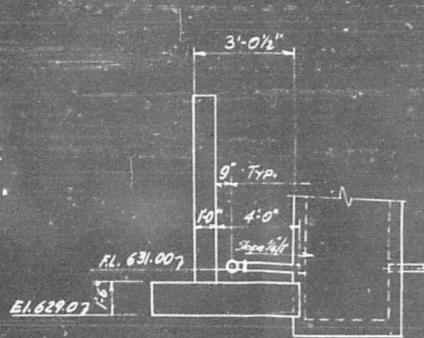




ELEV. - SEC. B-B



ELEVATION - SEC. A-A



SECTION - C-C

PERFORATED CORRUGATED 6" METAL PIPE 718 LIN. FT

REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
 COOK COUNTY, ILLINOIS
 SEYMOUR SIMON
 PRESIDENT BOARD OF SUPERVISORS

ANDREW V. PLUMMER
 SUPERVISOR OF HIGHWAYS

DRAINAGE DETAILS - NORTH APPROACH
 25 TH. AVE. GRADE SEPARATION
 OWNER
 I.H.B. RAILROAD

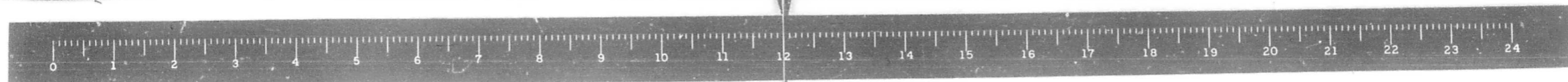
COMPUTED: L.S.
 DRAWN: L.S.
 CHECKED: A.H.

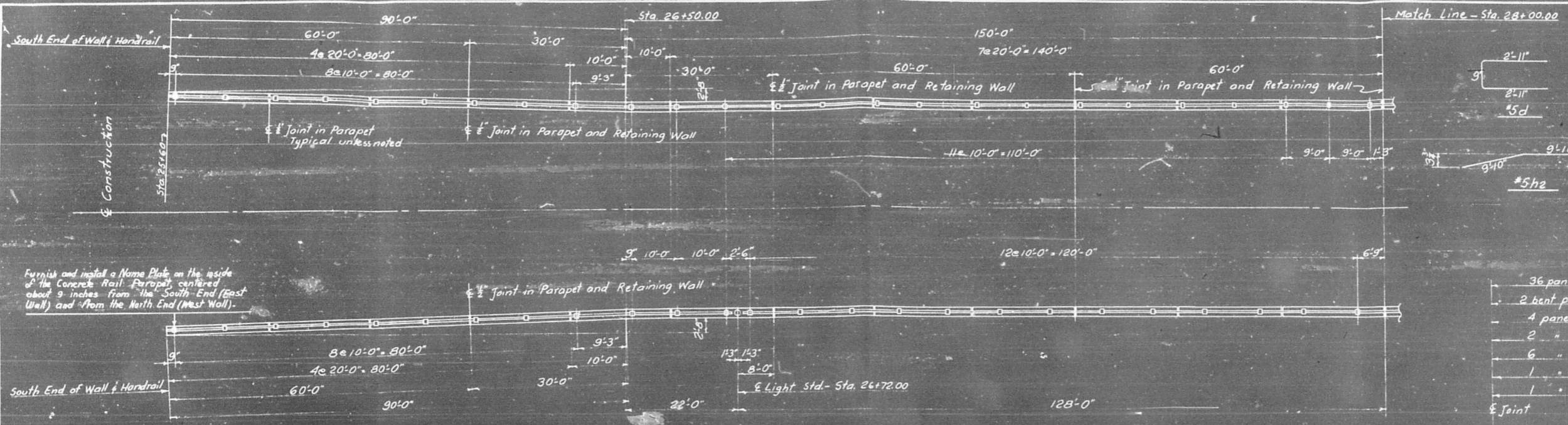
APPROVED: *[Signature]* 1965
 CHIEF ENGINEER OF HIGHWAYS

PROJECT: *[Signature]*
 SCALE: *[Signature]*
 APPROVED: *[Signature]*

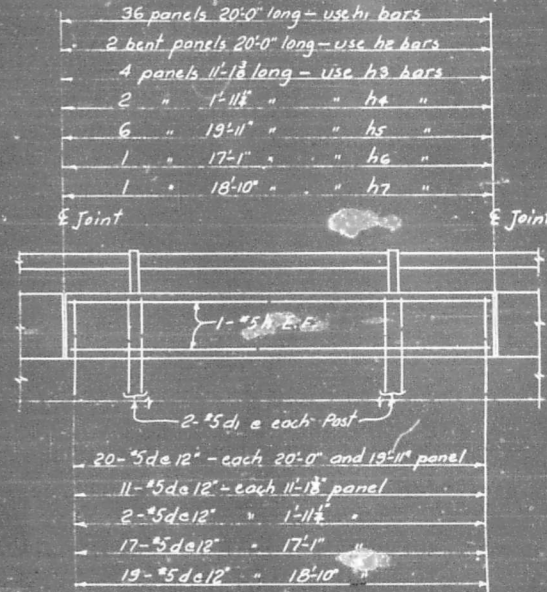
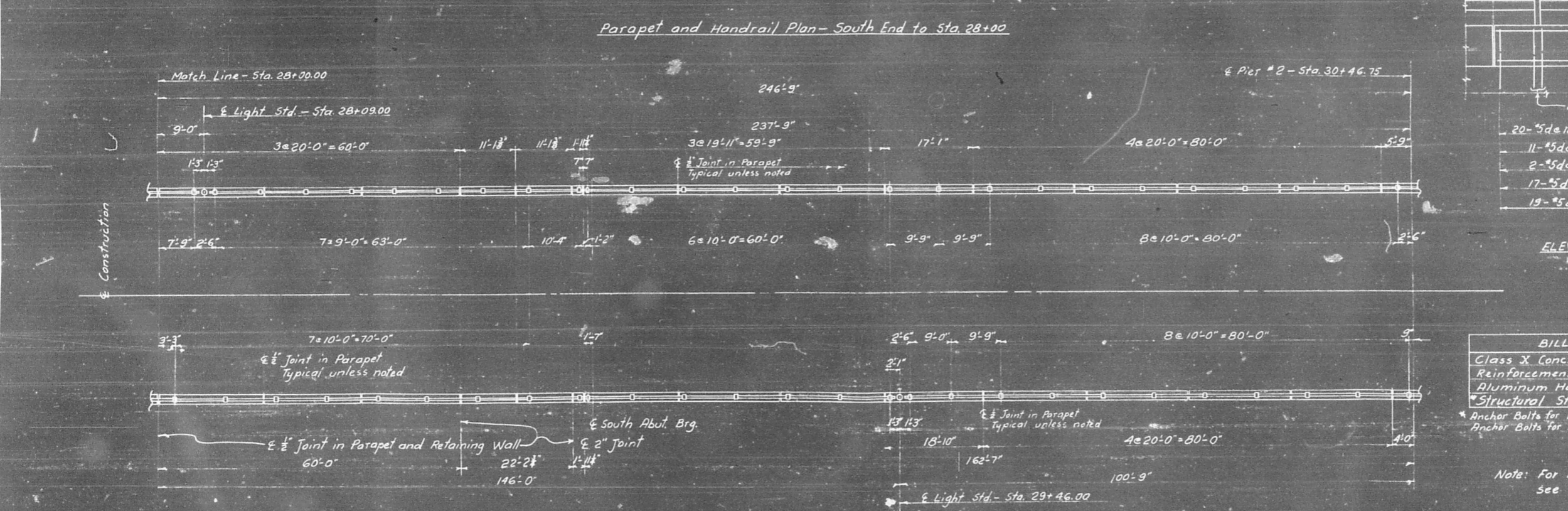
APPROVED: *[Signature]* 1965
 CHIEF ENGINEER OF HIGHWAYS

DATE: 36
 TIME: 61





BAR SCHEDULE				
Bar No.	Size	Length	Sketch	
d	9/16"	5	6-7	
d	20#	5	2-11	
h1	1/4"	5	19-8	
h2	8	5	19-8	
h3	16	5	10-10	
h4	8	5	1-7	
h5	24	5	19-7	
h6	4	5	16-9	
h7	4	5	18-6	



ELEVATION OF TYPICAL PANEL

BILL OF MATERIAL	
Class X Concrete	72.11 cu. yds.
Reinforcement Bars	11202 lbs.
Aluminum Handrail	973.5 lin. ft.
Structural Steel	105 lbs.
Anchor Bolts for Handrail Posts	208 each
Anchor Bolts for Light Standards	6 pairs

Note: For Anchor Bolts, for Handrail Posts see Note on sheet 43



REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON
PRESIDENT BOARD OF COMMISSIONERS

ANDREW V. PLUMMER
SUPERINTENDENT OF HIGHWAYS

HANDRAIL PLANS
25TH AVE. GRADE SEPARATION
OVER
I. H. B. RAILROAD

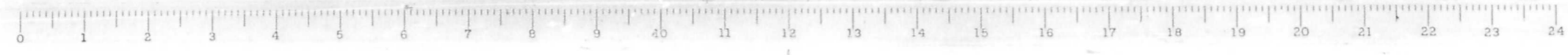
COMPUTED: B. Pakalnis
DRAWN: B. Pakalnis
CHECKED: A. H.

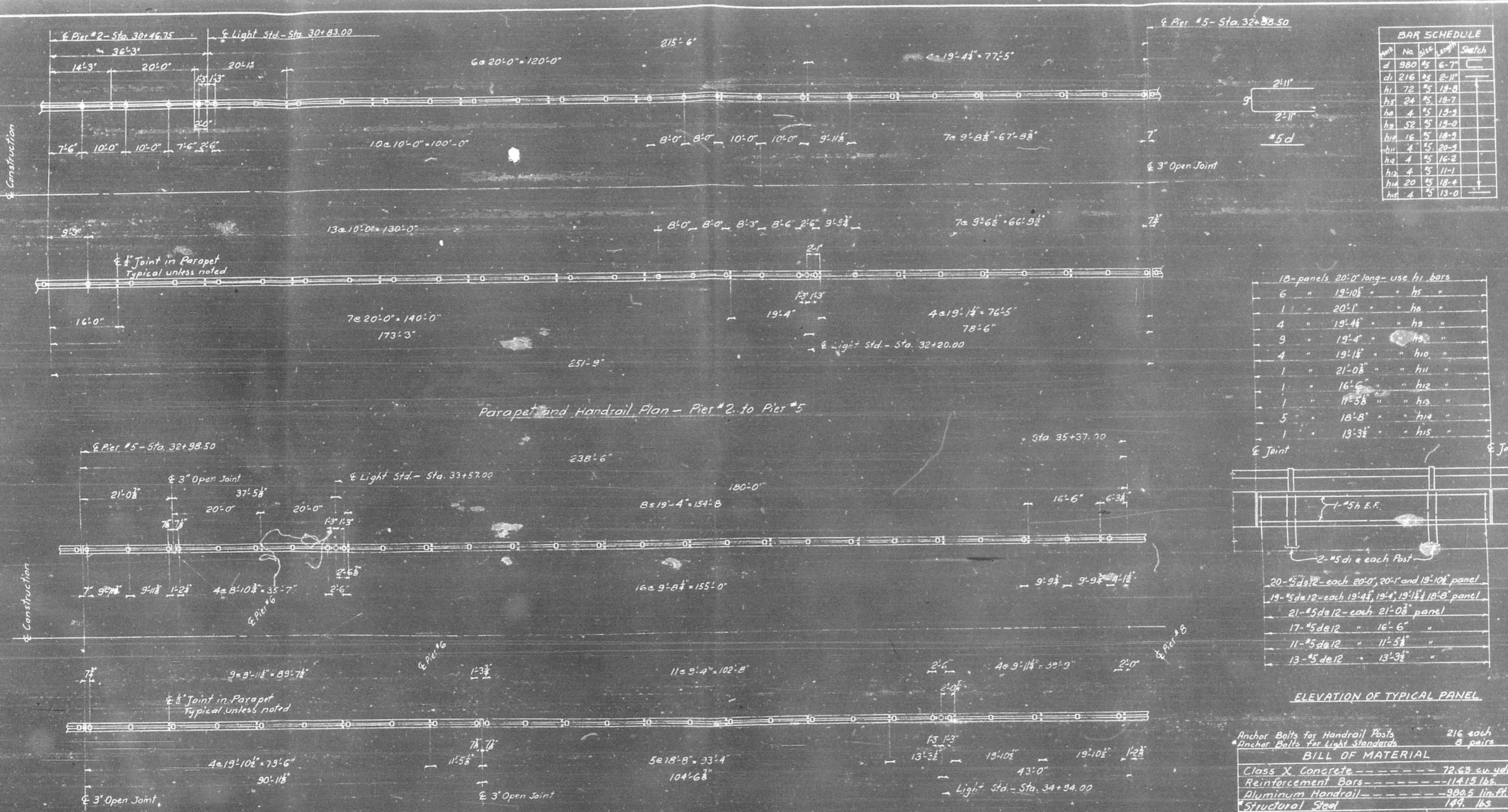
APPROVED: [Signature]
CHIEF ENGINEER OF DESIGN

PROJECT: [Blank]
SCALE: None

APPROVED: [Signature]

DATE: 1955
SHEET: 39
TOTAL SHEETS: 61



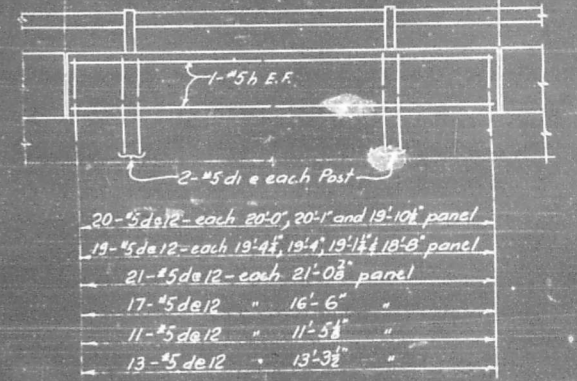


BAR SCHEDULE			
Bar No.	Length	Quantity	Notes
d	980	5	6-7
di	216	25	2-11
hi	72	25	19-8
hs	24	25	19-7
he	4	25	19-9
hi	52	25	19-0
hi	16	25	18-9
hi	4	25	20-9
hi	4	25	16-2
hi	4	25	11-1
hi	20	25	18-4
hi	4	25	13-0

Parapet and Handrail Plan - Pier #2 to Pier #5

Parapet and Handrail Plan - Pier #5 to Pier #B

Panel No.	Length	Bar
18	20'-0"	use hi bars
6	19'-10"	hs
1	20'-1"	he
4	19'-4"	he
9	19'-4"	he
4	19'-1"	hi
1	21'-0"	hi
1	16'-6"	hi
1	11'-5"	hi
5	18'-8"	hi
1	13'-3"	hi



ELEVATION OF TYPICAL PANEL

Anchor Bolts for Handrail Posts 216 each
Anchor Bolts for Light Standards 8 pairs

BILL OF MATERIAL	
Class X Concrete	72.63 cu yds
Reinforcement Bars	11415 lbs
Aluminum Handrail	980.5 lin. ft.
Structural Steel	149 lbs

REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

SEYMOUR SIMON
PRESIDENT BOARD OF SUPERVISORS

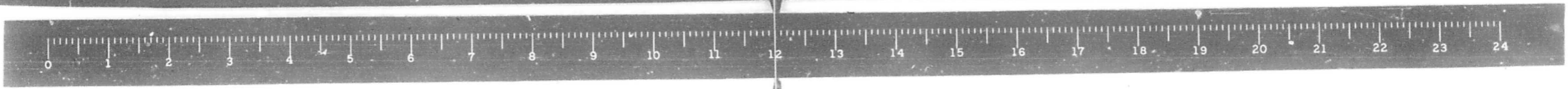
ANDREW V. FLIMMER
SUPERVISOR OF HIGHWAYS

HANDRAIL PLANS
25th AVE. GRADE SEPARATION
OVER
I. H. B. RAILROAD

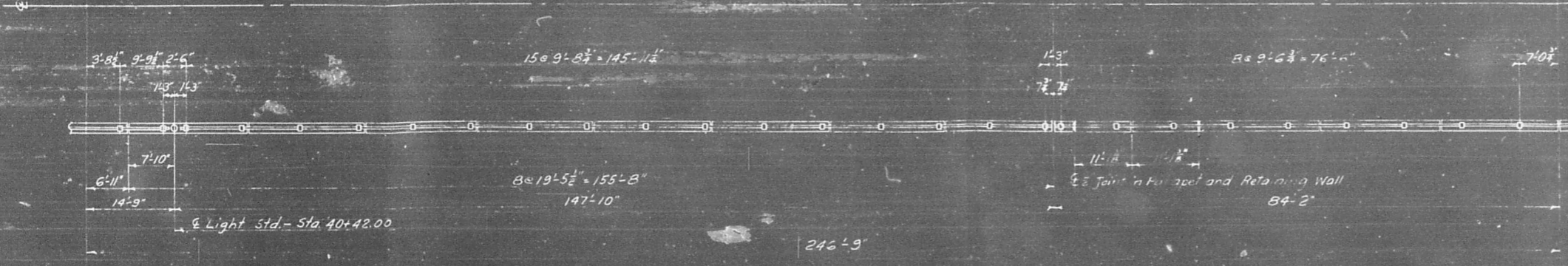
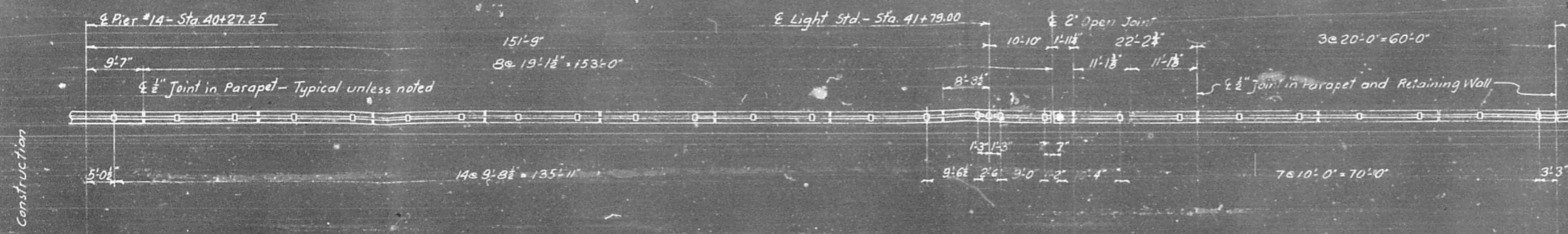
COMPUTED *A. Pakalinski* PROJECT
DRAWN *A. Pakalinski* SCALE *N=1/2"*
CHECKED *M.H.* APPROVED *[Signature]*

APPROVED *[Signature]* 1965
DATE OF DESIGN

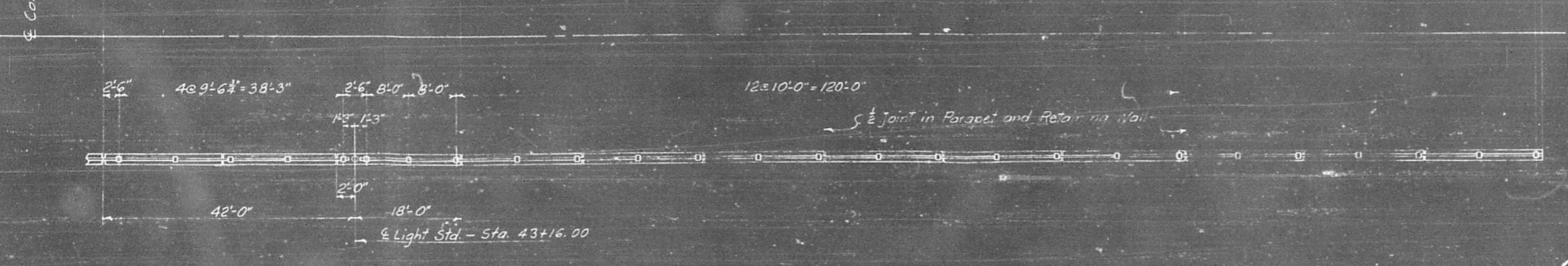
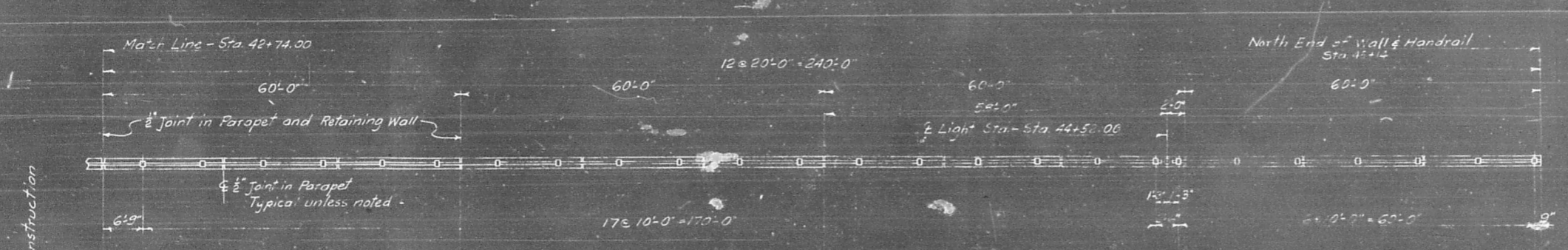
1965	020-1010.2	M.P.T.	40	61
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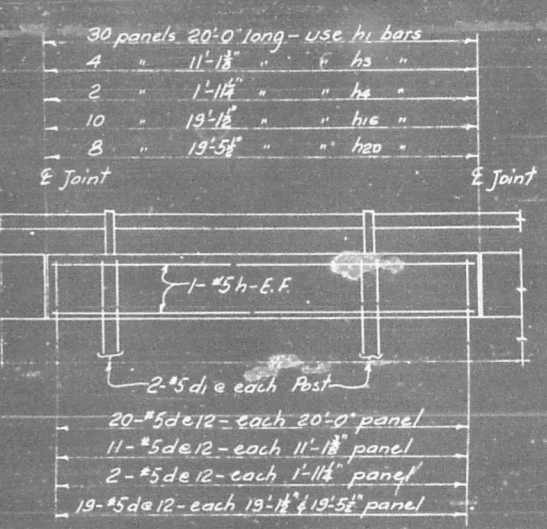
BAR SCHEDULE				
Bar	No	Size	Length	Sketch
d	930	#5	6-7	
d	210	#5	2-11	
h1	120	#5	19-8	
h2	16	#5	10-10	
h3	8	#5	1-7	
h4	40	#5	19-10	
h5	32	#5	19-2	



Parapet and Handrail Plan - Pier #14 to Sta. 42+74



Parapet and Handrail Plan - Sta. 42+74 to North End



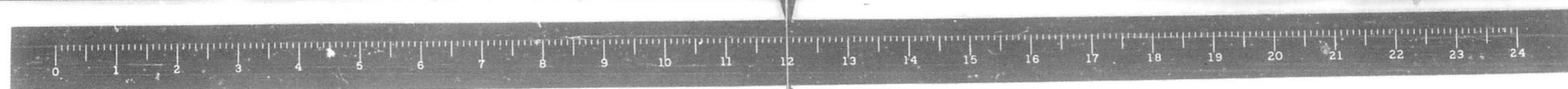
ELEVATION OF TYPICAL PANEL

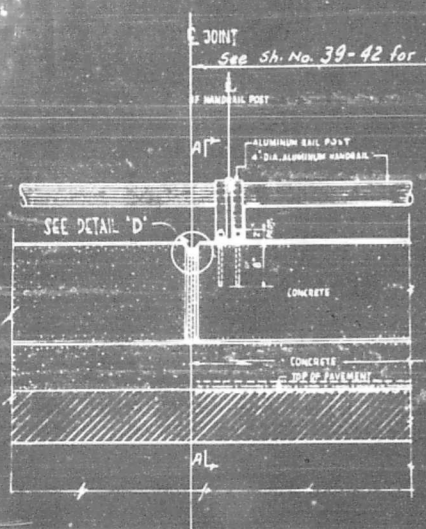
BILL OF MATERIAL	
Class X Concrete	72.11 cu. yds.
Reinforcement Bars	11518 lbs.
Aluminum Handrail	973.5 lin. ft.
Structural Steel	72 lbs.
Anchor Bolts for Handrail Posts	210 each.
Anchor Bolts for Light Standards	4 pairs.



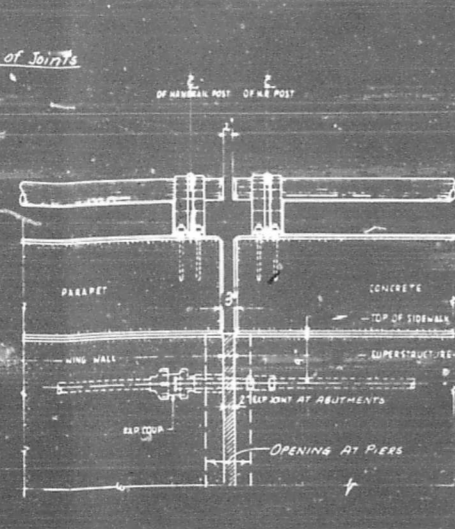
DEPARTMENT OF HIGHWAYS COOK COUNTY, ILLINOIS	
SEYMOUR SIMON PRESIDENT BOARD OF COMMISSIONERS	ANDREW V. PLUMMER COMMISSIONER OF HIGHWAYS
HANDRAIL PLANS 25TH AVE. GRADE SEPARATION OVER I. H. B. RAILROAD	
COMPUTED <i>A. Pakalinski</i>	PROJECT
DRAWN <i>A. Pakalinski</i>	SCALE <i>None</i>
CHECKED <i>M. H.</i>	APPROVED <i>J.P. Simpson</i>
APPROVED <i>[Signature]</i> 10/14/65	FISCAL YEAR
CHIEF ENGINEER OF DESIGN	1965
	County Highway Dist. No. 020-1010.2 M.F.T.
	Sheet No. 42
	Total Sheets 61

REVISIONS		
DATE	BY	DESCRIPTION

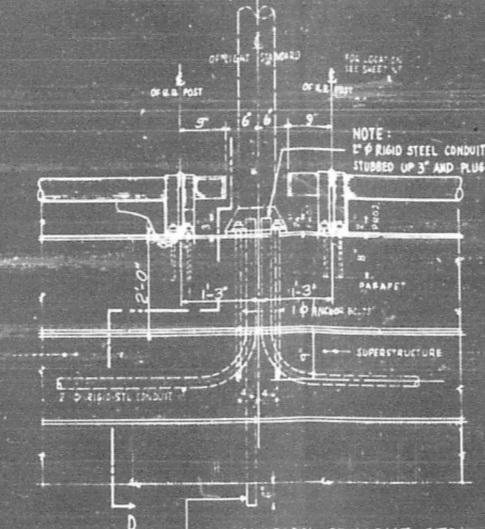




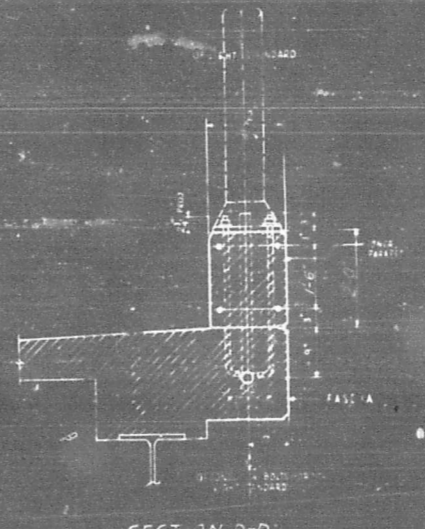
ELEVATION OF CONCRETE PARAPET SHOWING JOINT IN CONCRETE



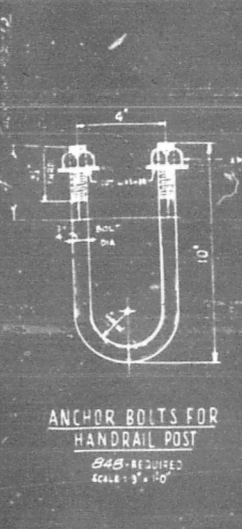
ELEVATION OF CONCRETE PARAPET AT ABUTMENTS AND PIERS 5 & 11



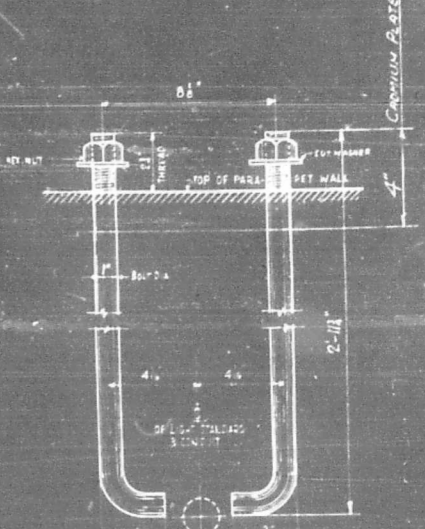
ELEVATION AT LIGHT STD.



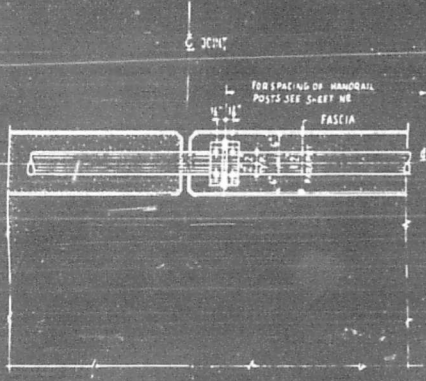
SECTION D-D SCALE 3/4\"/>



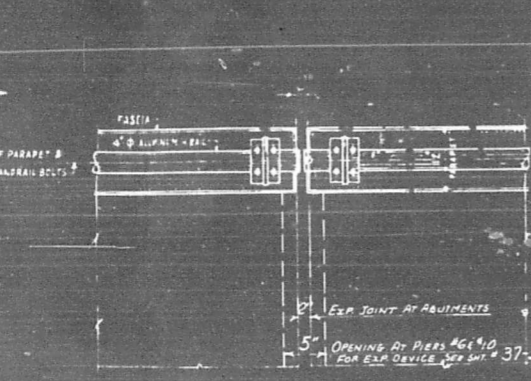
ANCHOR BOLTS FOR HANDRAIL POST 848 REQUIRED SCALE 3/4\"/>



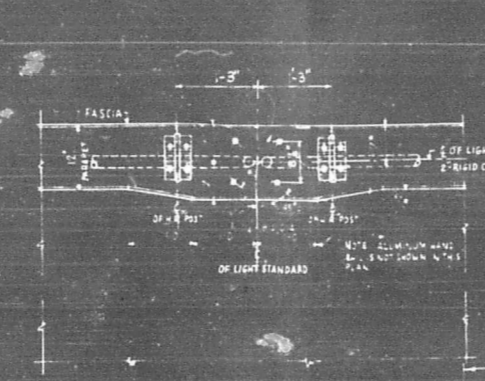
ANCHOR BOLTS FOR LIGHT STANDARD 28 PAIRS REQUIRED SCALE 3/4\"/>



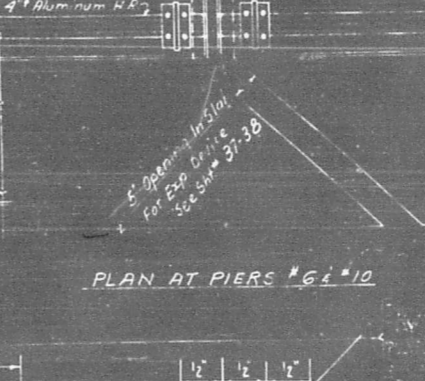
PLAN OF CONCRETE PARAPET SHOWING JOINT IN CONCRETE



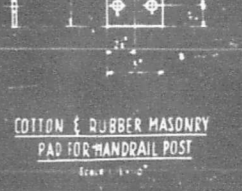
PLAN AT ABUTMENTS AND PIERS 5 & 11 SCALE 1\"/>



PLAN AT LIGHT STD. SCALE 1\"/>



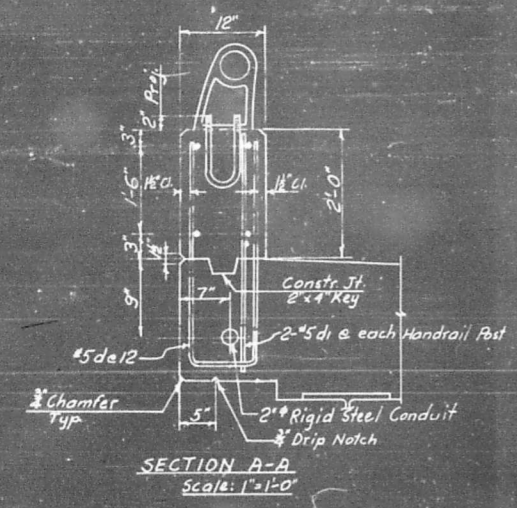
PLAN AT PIERS 6 & 10 SCALE 1\"/>



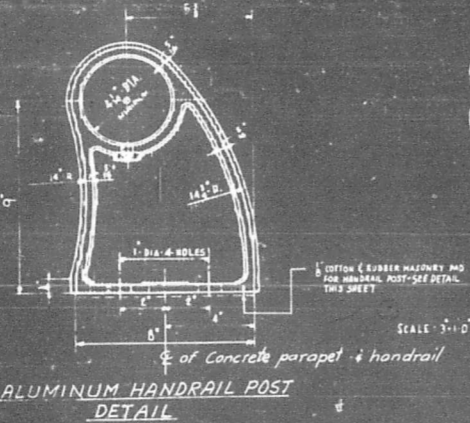
COTTON & RUBBER MASONRY PAD FOR HANDRAIL POST SCALE 1\"/>

NOTES

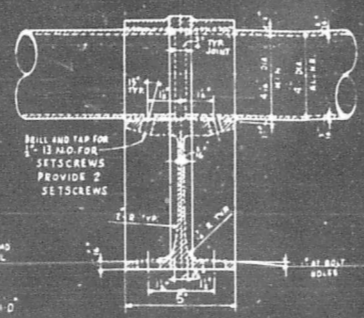
- FOR SPECIFICATIONS FOR ALUMINUM POSTS & PIPE SEE SPECIAL PROVISIONS.
- ALL DIMENSIONS SHOWN ON HANDRAIL PLANS ARE HORIZONTAL. CONTRACTOR SHALL MAKE ADJUSTMENT FOR GRADES.
- THE COARSE AGGREGATE TO BE USED IN THE HANDRAIL PARAPET CONCRETE SHALL BE FREE FROM CHERT, FLINT, LIMONITE, LIGHTS AND SOFT SANDSTONE AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR CLASS 'X' CONCRETE.
- RAIL TUBING MAY BE CUT TO RANDOM LENGTHS BUT IN NO CASE LESS THAN TWO RAIL POST SPACING.
- THE HANDRAIL SHALL BE MEASURED IN LINEAL FEET ALONG THE TOP LONGITUDINAL RAILING THRU ALL POSTS & GAPS.
- THE HANDRAIL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAL FOOT OF HANDRAIL MEASURED AS SPECIFIED ABOVE WHICH INCLUDES ALUMINUM POSTS, RAILS, ANCHOR BOLTS AND COTTON & RUBBER MASONRY PADS.
- ALL REINFORCEMENT BARS SHALL CONFORM TO A.S.T.M. SPECIFICATION A305-49 AMENDED TO DATE.
- * 2 INCH RIGID STEEL CONDUIT: 3970 LIN. FT.
- * EXPANSION COUPLINGS REQ'D INCLUDED IN UNIT PRICE BID. FOR 2 INCH RIGID STEEL CONDUIT



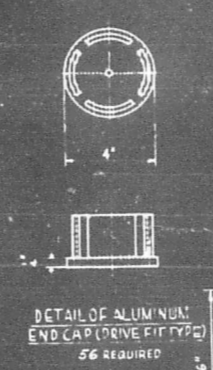
SECTION A-A SCALE 1\"/>



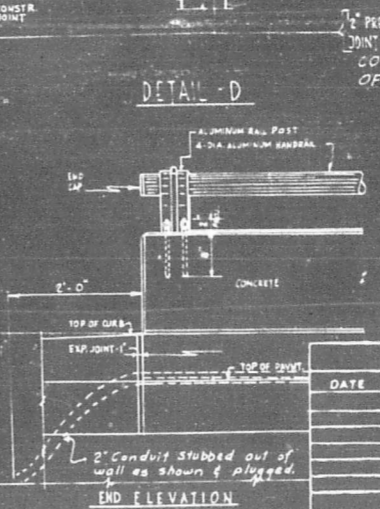
ALUMINUM HANDRAIL POST DETAIL SCALE 3/4\"/>



ALUMINUM PIPE JOINT DETAIL SCALE 3/4\"/>



DETAIL OF ALUMINUM END CAP (DRIVE FIT TYPE) SCALE 3/4\"/>



END ELEVATION SCALE 1\"/>

PREPARED: COOK-ASPHALT JOINT FILLER - A.S.T.M. DESIGNATION D544-49-TYPE V COST SHALL BE INCLUDED IN THE BID PRICE FOR CU. YD. OF CLASS 'X' CONCRETE.

REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
 COOK COUNTY, ILLINOIS

SEYMOUR SIMON
 PRESIDENT BOARD OF SUPERVISORS

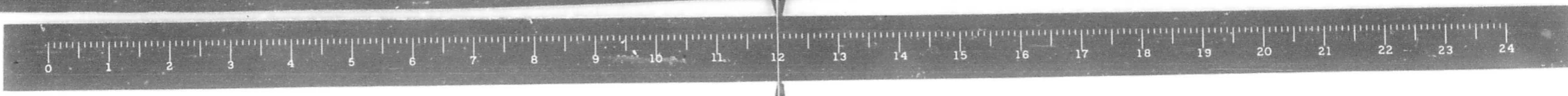
ANDREW V. PLUMMER
 SUPERINTENDENT OF HIGHWAYS

HANDRAIL DETAILS
 25TH AVE. GRADE SEPARATION
 OVER
 I. H. B. RAILROAD

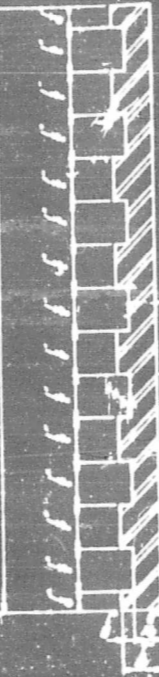
COMPUTED: R. Pakalniškis
 DRAWN: M.H.
 CHECKED: M.H.

PROJECT: SCALE AS SHOWN
 APPROVED: [Signature]

Revised Year	Count	Sheet No.	Total Sheets	Drawings No.
1965	1	43	61	



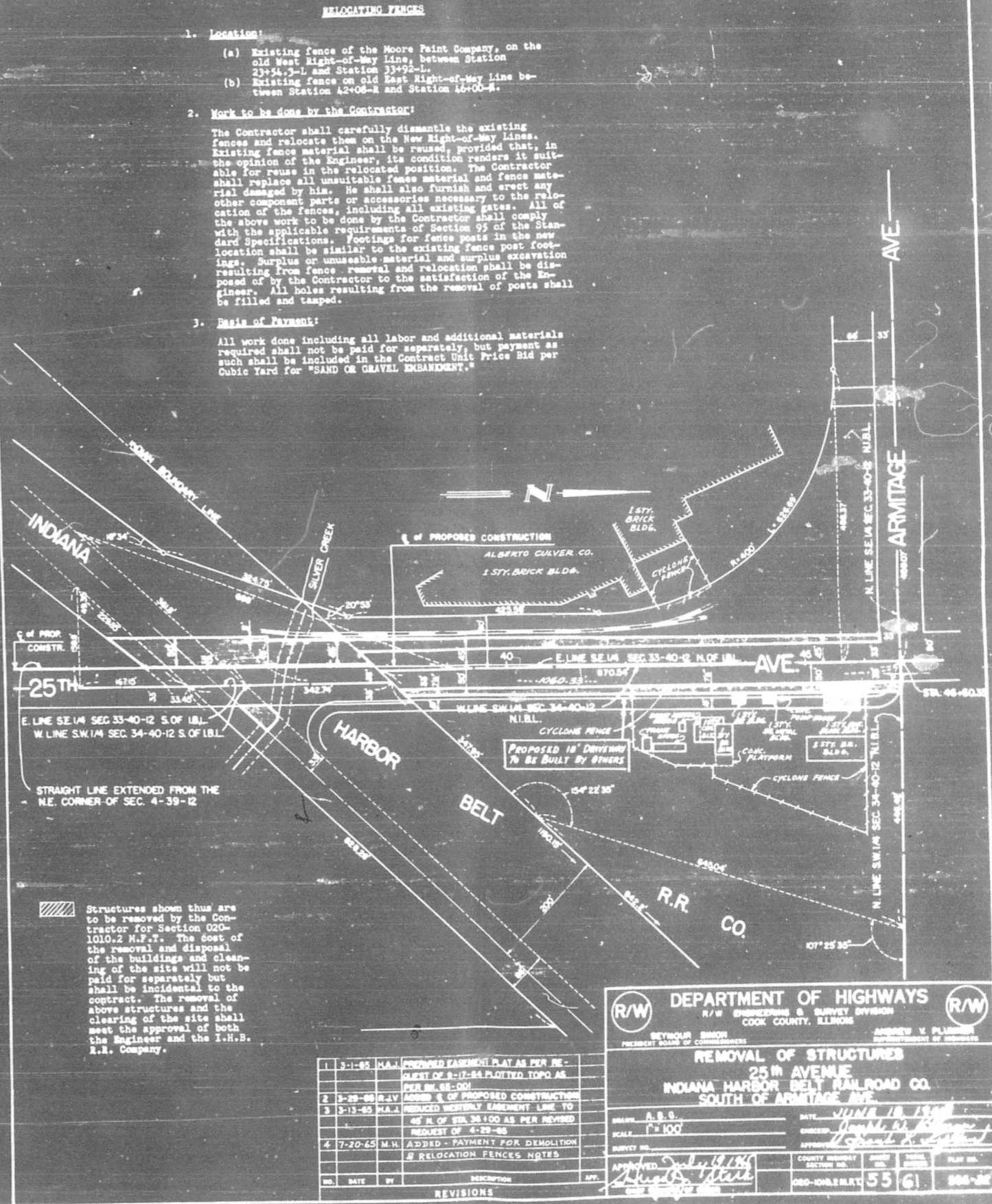
**25 TH AVENUE
OVER I.H.B.R.R. TRACKS
BUILT 196 X BY
COOK COUNTY
SECTION 020-1010.2 M.F.T
DESIGN LOADING H20-S16-44**



DETAIL OF NAME PLATE
AS REQUIRED

NOTES:
MATERIAL - BEST QUALITY BRASS OR BRASS-BOARD
AND LETTERING INKED IN. SQUARE CUT AND
ANY FINISHED TOP SURFACE POLISHED.
FASTENERS TO FOUR LUGS AT LEAST THREE INCHES
LONG. CAST ON BACK OF PLATE, ACCORDING TO SECTION 61 OF
THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
ADOPTED JAN. 2, 1958.
FOR LOCATION OF NAME PLATE SEE SHEET NO. 59.

SECTION A-A



- RELOCATING FENCES**
- Location:**
 - Existing fence of the Moore Paint Company, on the old West Right-of-Way Line, between Station 23+54.2-1 and Station 33+92-1.
 - Existing fence on old East Right-of-Way Line between Station 42+08-2 and Station 46+00-2.
 - Work to be done by the Contractor:**
The Contractor shall carefully dismantle the existing fences and relocate them on the New Right-of-Way Lines. Existing fence material shall be reused provided that, in the opinion of the Engineer, its condition renders it suitable for reuse in the relocated position. The Contractor shall replace all unsuitable fence material and fence material damaged by him. He shall also furnish and erect any other component parts or accessories necessary to the relocation of the fences, including all existing gates. All of the above work to be done by the Contractor shall comply with the applicable requirements of Section 95 of the Standard Specifications. Footings for fence posts in the new location shall be similar to the existing fence post footings. Surplus or unusable material and surplus excavation resulting from fence removal and relocation shall be disposed of by the Contractor to the satisfaction of the Engineer. All holes resulting from the removal of posts shall be filled and tamped.
 - Basis of Payment:**
All work done including all labor and additional materials required shall not be paid for separately, but payment as such shall be included in the Contract Unit Price Bid per Cubic Yard for "SAND OR GRAVEL EMBANKMENT."

Structures shown thus are to be removed by the Contractor for Section 020-1010.2 M.F.T. The cost of the removal and disposal of the buildings and cleaning of the site will not be paid for separately but shall be incidental to the contract. The removal of above structures and the clearing of the site shall meet the approval of both the Engineer and the I.H.B. R.R. Company.

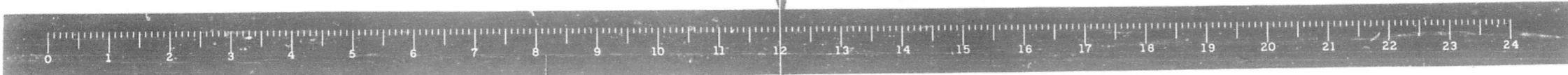
NO.	DATE	BY	DESCRIPTION	APP.
1	3-1-55	H.A.J.	PREPARED EASEMENT PLAT AS PER REQUEST OF 2-17-54 PLOTTED TOPO AS PER PL. 55-001	
2	3-29-55	R.L.V.	ADDED 2' OF PROPOSED CONSTRUCTION	
3	3-15-55	H.A.J.	REDUCED WESTERLY EASEMENT LINE TO 46' N. OF STA. 35+00 AS PER REVISED REQUEST OF 4-29-55	
4	7-20-55	M.H.	ADDED - PAYMENT FOR DEMOLITION & RELOCATION FENCES NOTES	

DEPARTMENT OF HIGHWAYS
R/W ENGINEERING & SURVEY DIVISION
COOK COUNTY, ILLINOIS

REMOVAL OF STRUCTURES
25th AVENUE
INDIANA HARBOR BELT RAILROAD CO.
SOUTH OF ARMITAGE AVE.

DATE: JUNE 18, 1955
SCALE: 1" = 100'
DRAWN BY: A.B.G.
CHECKED BY: Donald W. Williams
APPROVED BY: Robert H. Williams

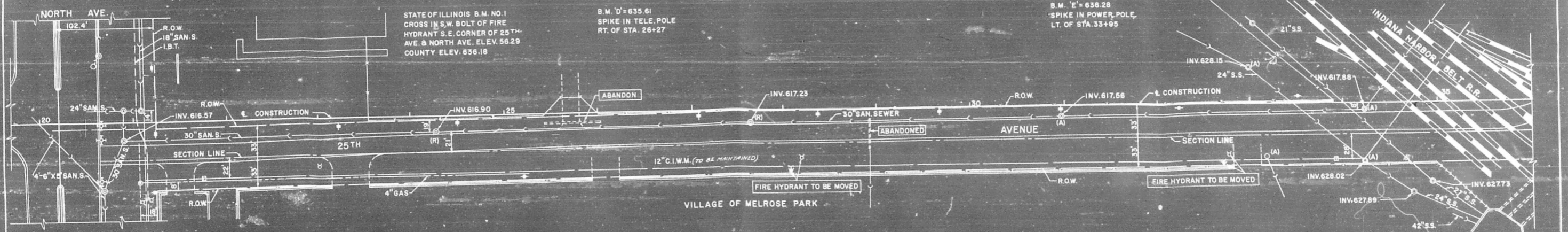
COUNTY ENGINEER: 55
SECTION NO.: 61
JOB NO.: 55-001



LEYDEN TWP.



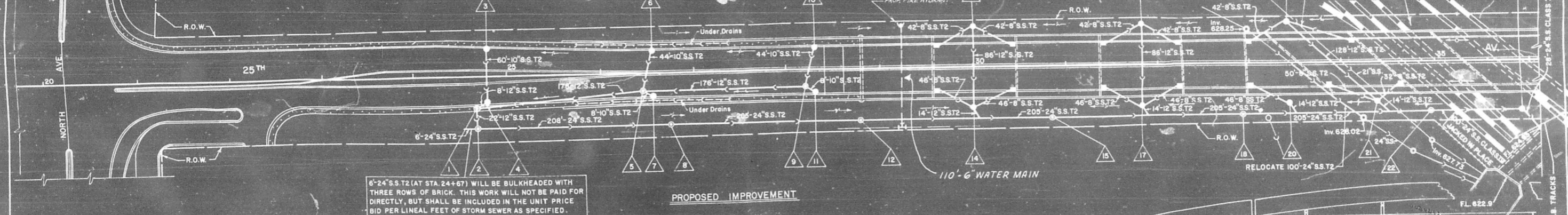
SECTION 020-1010.2 M.F.T.



PRESENT IMPROVEMENT

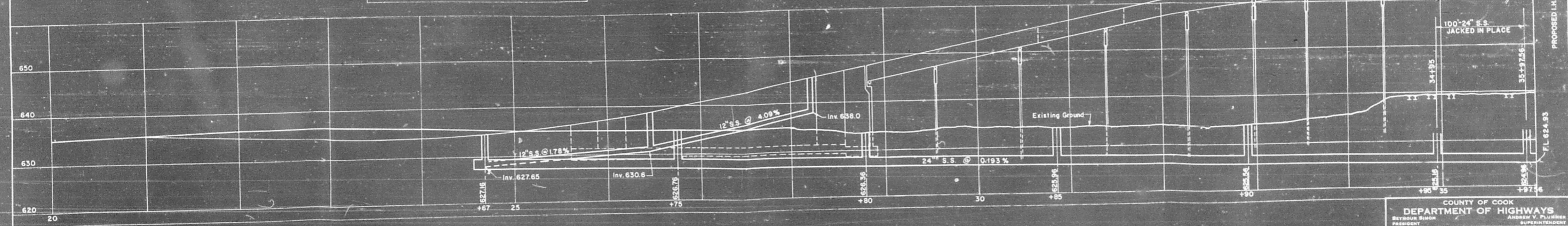
STA. 24+67 A-48-5C(32'R) EL. 634.17 Inv. 627.65	STA. 24+67 A-48-1C(55'R) EL. 634.1 Inv. 627.16	STA. 24+77 A2-48-11 EL. 634.38 FL. 629.4	STA. 24+77 A2-48-11 EL. 634.42 FL. 629.2	STA. 26+44 A-48-5C(20'R) EL. 639.05 Inv. 630.6	STA. 26+54 A2-48-11 EL. 638.37 FL. 630.8	STA. 26+54 A2-48-11 EL. 638.37 FL. 630.8	STA. 26+75 A-48-1C(55'R) EL. 633.7 Inv. 626.78	STA. 28+20 A-48-5C(20'R) EL. 645.55 Inv. 638.0	STA. 28+30 A2-48-11 EL. 645.38 FL. 640.2	STA. 28+30 A2-48-11 EL. 645.38 FL. 640.2	STA. 34+95 A-48-1C(55'R) EL. 638.5 Inv. 625.16	STA. 35+97.56 A-48-1C(55'R) EL. 638.0 Inv. 624.96
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THE LOCATION OF WATER MAIN TO BE DETERMINED PRIOR TO THE DRILLING OF CAISONS



6"-24" S.S. T2 (AT STA. 24+67) WILL BE BULKHEADED WITH THREE ROWS OF BRICK. THIS WORK WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAL FEET OF STORM SEWER AS SPECIFIED.

PROPOSED IMPROVEMENT



COUNTY OF COOK
DEPARTMENT OF HIGHWAYS
25TH AVENUE
DRAINAGE & UTILITIES

COMPUTED J.H.L.
DRAWN D.M.
CHECKED H.D.A.

APPROVED [Signature] 10/6/65
[Signature] CHIEF ENGINEER

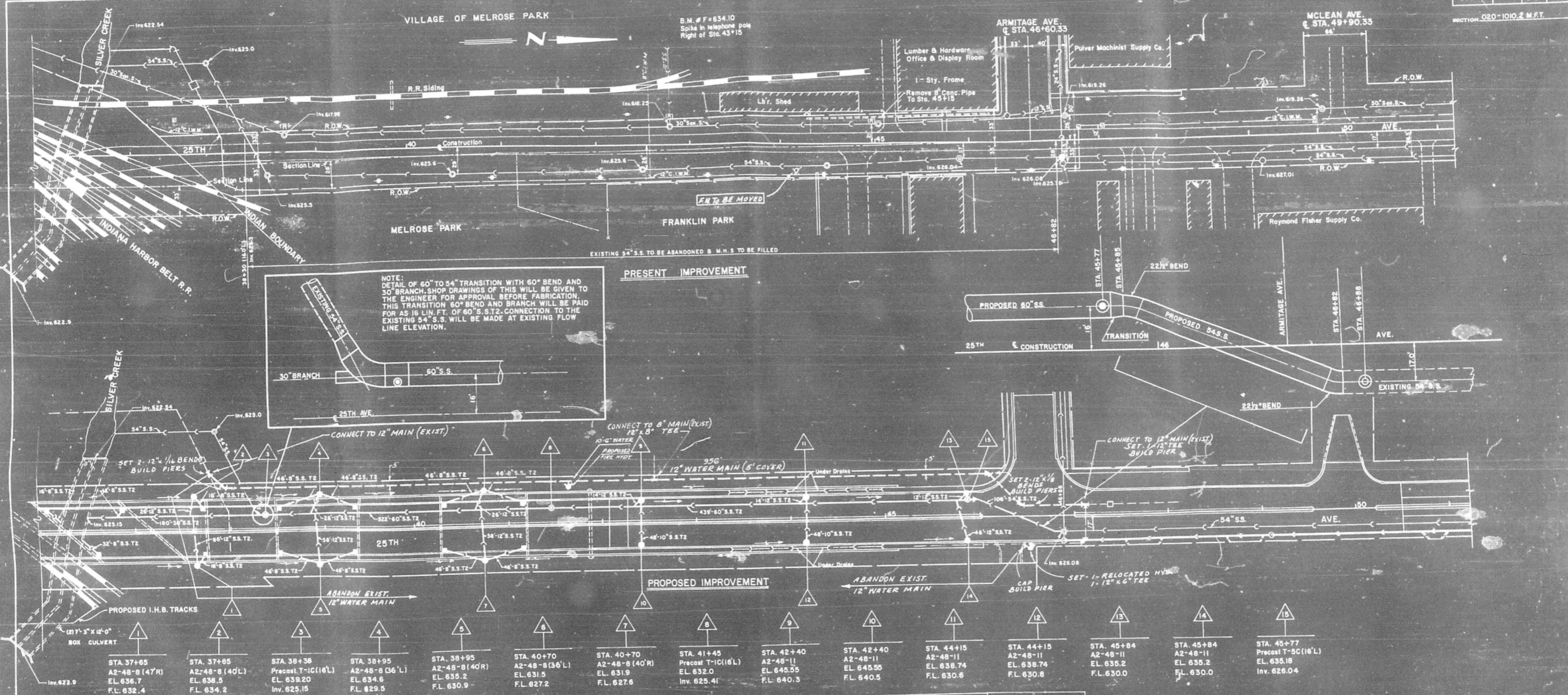


VILLAGE OF MELROSE PARK

B.M. # F=634.10
Spike in telephone pole
Right of Sta. 43+15

ARMITAGE AVE.
C STA. 46+60.33

MCLEAN AVE.
C STA. 49+90.33

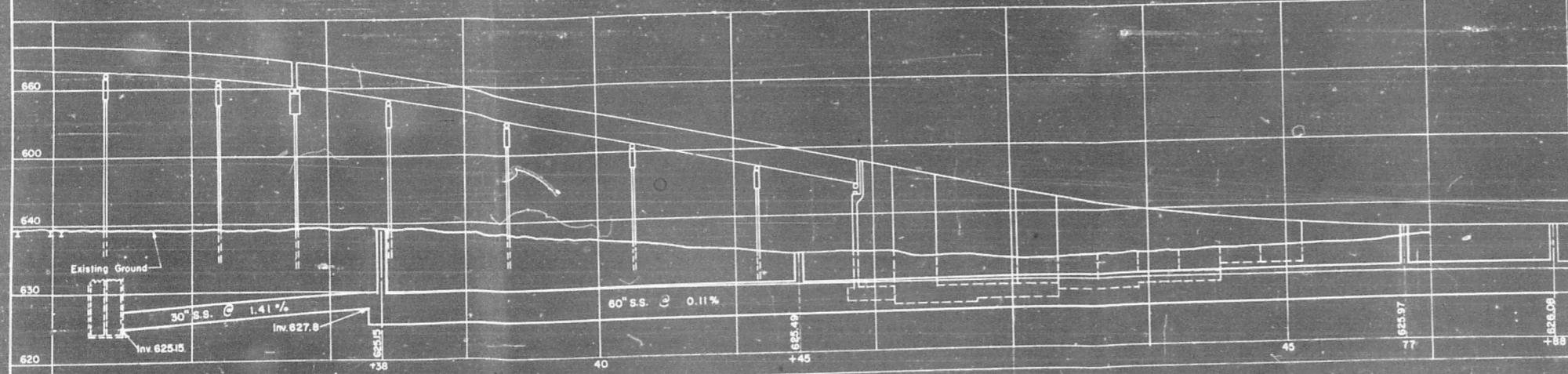


NOTE:
DETAIL OF 60" TO 54" TRANSITION WITH 60° BEND AND 30" BRANCH. SHOP DRAWINGS OF THIS WILL BE GIVEN TO THE ENGINEER FOR APPROVAL BEFORE FABRICATION. THIS TRANSITION 60" BEND AND BRANCH WILL BE PAID FOR AS 16 LIN. FT. OF 60" S.S. T2. CONNECTION TO THE EXISTING 54" S.S. WILL BE MADE AT EXISTING FLOW LINE ELEVATION.

PRESENT IMPROVEMENT

PROPOSED IMPROVEMENT

STA. 37+65 A2-48-8 (47R) EL. 636.7 F.L. 632.4	STA. 37+65 A2-48-8 (40L) EL. 638.5 F.L. 634.2	STA. 38+38 Precast T-1C(16'L) EL. 639.20 Inv. 625.15	STA. 38+95 A2-48-8 (36'L) EL. 634.6 F.L. 629.5	STA. 38+95 A2-48-8 (40R) EL. 635.2 F.L. 630.9	STA. 40+70 A2-48-8 (36'L) EL. 631.5 F.L. 627.2	STA. 40+70 A2-48-8 (40R) EL. 631.9 F.L. 627.6	STA. 41+45 Precast T-1C(16'L) EL. 632.0 Inv. 625.41	STA. 42+40 A2-48-11 EL. 645.55 F.L. 640.3	STA. 42+40 A2-48-11 EL. 645.55 F.L. 640.5	STA. 44+15 A2-48-11 EL. 638.74 F.L. 630.6	STA. 44+15 A2-48-11 EL. 638.74 F.L. 630.6	STA. 45+84 A2-48-11 EL. 635.2 F.L. 630.0	STA. 45+84 A2-48-11 EL. 635.2 F.L. 630.0	STA. 45+77 Precast T-5C(16'L) EL. 635.18 Inv. 626.04
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COUNTY OF COOK
DEPARTMENT OF HIGHWAYS
25TH AVENUE
DRAINAGE AND UTILITIES

COMPUTED J.H.L.
DRAWN D.M.
CHECKED H.D.A.

APPROVED [Signature]
SUPERINTENDENT

