

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

FEDERAL-AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 61	531-1-HB-8	Cook	27	27
U. S. P. S. REG. NO. 4 ILLINOIS PROJECT U-184(25)				

DISTRICT 10
RELOCATED S.B.I. ROUTE 53 (F.A. ROUTE 61) SECTION 531-1 HB-8
DUAL STRUCTURES OVER KIRCHOFF ROAD
PROJECT U-184(25)
COOK COUNTY

GROSS LENGTH 201.26 LIN. FT.

PROJECT U-184(25) NET LENGTH 201.26 LIN. FT. OR 0.038 MILES

END OF PROJECT U-184(25)
 STA. 194+09.20

BEG. OF PROJECT U-184(25)
 STA. 192+07.94

SECTION 531-1-HB-8 INCLUDES THE CONSTRUCTION OF DUAL 3-SPAN CONTINUOUS WELDED PLATE GIRDER GRADE SEPARATION STRUCTURES (TO CARRY RELOCATED ROUTE 53 OVER KIRCHOFF ROAD), EACH HAVING SPANS 2 AT 42'-9" AND 1 AT 110'-3", WITH OPEN R. C. ABUTMENTS AND R. C. PIERS, AT STATION 193+08.57 IN PALATINE TOWNSHIP.



STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
 DIVISION OF HIGHWAYS

SUBMITTED SEPT 28 1962
Marshall Wilbur
 DISTRICT ENGINEER

EXAMINED [Signature] 1962
W. W. Van Cusen, Jr.
 CHIEF ENGINEER

PASSED [Signature] 1962
[Signature]
 DISTRICT ENGINEER

APPROVED [Signature] 1962
[Signature]
 CHIEF ENGINEER

APPROVED [Signature] 1962
[Signature]
 DISTRICT ENGINEER

DEPARTMENT OF COMMERCE
 BUREAU OF PUBLIC ROADS

APPROVED

DIVISION ENGINEER DATE

PLANS PREPARED BY BUREAU OF DESIGN *Wm. J. Dwyer* DATE 9-27-62
 EXAMINED BY BUREAU OF CONSTRUCTION *A. J. Peterson* DATE 9-28-62
 EXAMINED BY BUREAU OF MAINTENANCE *John J. Hayes* DATE 9-27-62
 EXAMINED BY BUREAU OF TRAFFIC *Walter C. Peterman* DATE 9-27-62
 ENTIRE SECTION INSPECTED AND APPROVED AS TO POLICY
 DISTRICT ENGINEER *Marshall B. Subway* DATE 9-28-62

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 61	531-1-NB-B	Cook	27	2
STA.	TO STA.			
U.S. BUR. PUB. ROADS, DIV. 4 ILLINOIS F.A. PROJECT				

SUMMARY OF QUANTITIES

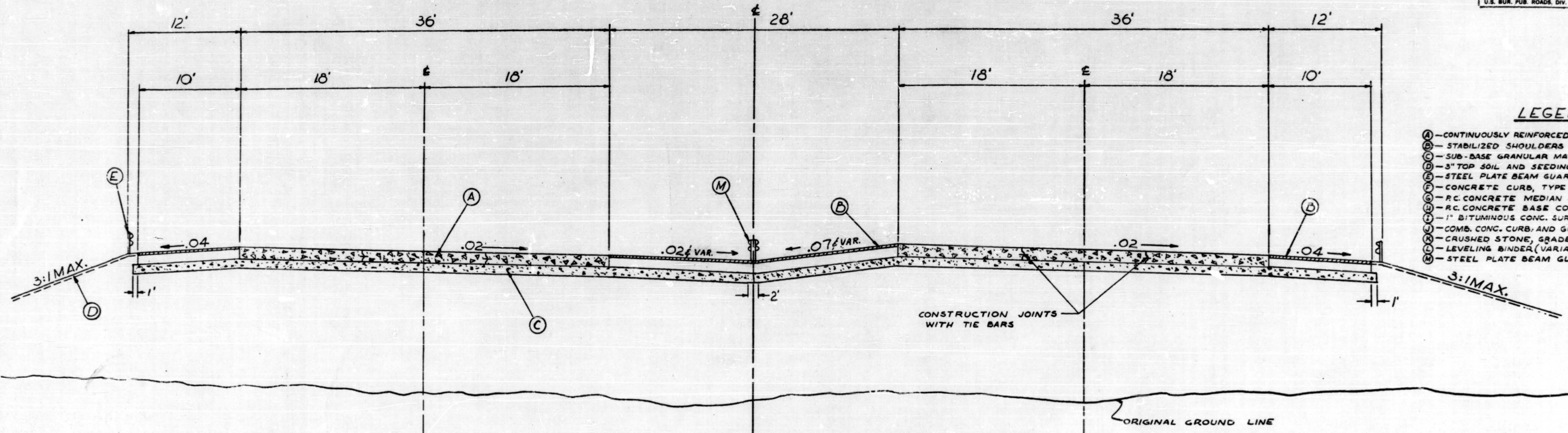
ITEM	UNIT	TOTAL	
1. EARTH EXCAVATION	CU. YDS.	130	011001
2. EMBANKMENT	CU. YDS.	38,200	016001
3. SUB-BASE GRANULAR MATERIAL, TYPE A	CU. YDS.	170	024002
4. PORTLAND CEMENT CONCRETE PAVEMENT, 8"	SQ. YDS.	1,491	048005
5. PORTLAND CEMENT CONCRETE PAVEMENT, 16 1/2" - 12 - 16 1/2"	SQ. YDS.	958	048012
6. CLASS A EXCAVATION FOR STRUCTURES	CU. YDS.	500	050001
7. CLASS X CONCRETE	CU. YDS.	^{1,637.6} 1,650.8	052003
8. PROTECTIVE COAT	SQ. YDS.	2,894	052021
9. ERECTING STRUCTURAL STEEL	POUNDS	1,005,660	054003
10. REINFORCEMENT BARS	POUNDS	^{250,320} 261,862	059001
11. FURNISHING CREOSOTED PILES UP TO 20 FEET	LIN. FT.	660	060004
12. FURNISHING CREOSOTED PILES 20.1 TO 38 FEET	LIN. FT.	6,480	060005
13. TEST PILE, TIMBER	EACH	1	060007
14. DRIVING TIMBER PILES	LIN. FT.	7,140	060008
15. FURNISHING PRECAST CONCRETE PILES, 44"	LIN. FT.	1,630	060010 060044
16. TEST PILE, PRECAST CONCRETE	EACH	1	060012 060047
17. DRIVING PRECAST CONCRETE PILES	LIN. FT.	1,630	060013 060043
18. NAME PLATES	EACH	2	061001
19. SLOPE WALL 4"	SQ. YDS.	2,380	083002
20. ALUMINUM HANDRAIL	LIN. FT.	792	Z00004
21. PERMANENT BARRICADES	LIN. FT.	181	Z00870

INDEX OF SHEETS

SHEET NO.

1. COVER SHEET
2. INDEX OF SHEETS, SUMMARY OF QUANTITIES, SIGNATURES
3. TYPICAL CROSS SECTIONS - RELOCATED ROUTE 53 AND KIRCHOFF ROAD
4. EXISTING TOPOGRAPHY AND DETOUR ROAD DETAILS
5. PLAN OF APPROACHES
6. PROFILE OF MAIN LINE
- 7 - 8. CROSS SECTIONS:
9. GENERAL PLAN AND ELEVATION OF STRUCTURES
10. BORING DATA
- 11 - 13. DECK ELEVATIONS
14. SUPERSTRUCTURE
15. FRAMING PLAN
16. GIRDER ELEVATIONS AND DETAILS
17. BEARING DETAILS
18. PARAPET AND HANDRAIL
19. ABUTMENTS
20. ABUTMENT DETAILS
- 21 - 22. PIERS
23. PILE DETAILS
24. DETAIL OF PERMANENT BARRICADE, STANDARD 1972-1, STANDARD 2114, STANDARD 2165
25. STANDARD 2138-1
26. STANDARD 2113, STANDARD 1686-1
27. STANDARD 2158-1

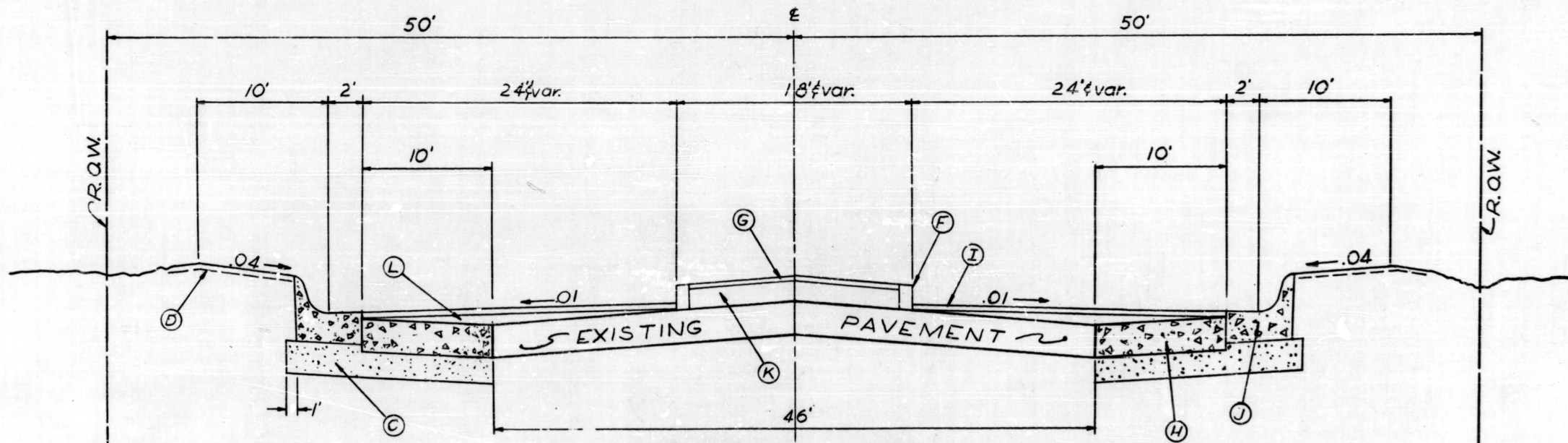
BOND ISSUE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ROUTE NO.	531-HB-8	COOK	27	3
STA.	TO STA.			
U.S. BUR. PUB. ROADS, DIV. 4 ILLINOIS F.A. PROJECT				



LEGEND

- (A) - CONTINUOUSLY REINFORCED P.C. CONCRETE PAV'T 8"
- (B) - STABILIZED SHOULDERS
- (C) - SUB-BASE GRANULAR MATERIAL, TYPE 'A' (6")
- (D) - 3" TOP SOIL AND SEEDING
- (E) - STEEL PLATE BEAM GUARD RAIL
- (F) - CONCRETE CURB, TYPE B (MOD)
- (G) - R.C. CONCRETE MEDIAN SURFACE (2 1/2")
- (H) - R.C. CONCRETE BASE COURSE (9")
- (I) - 1" BITUMINOUS CONC. SURFACE COURSE, SUBCLASS II
- (J) - COMB. CONC. CURB AND GUTTER, TYPE B-0.24 (MOD)
- (K) - CRUSHED STONE, GRADE B (COMPACTED)
- (L) - LEVELING BINDER (VARIABLE THICKNESS)
- (M) - STEEL PLATE BEAM GUARD RAIL (SPECIAL)

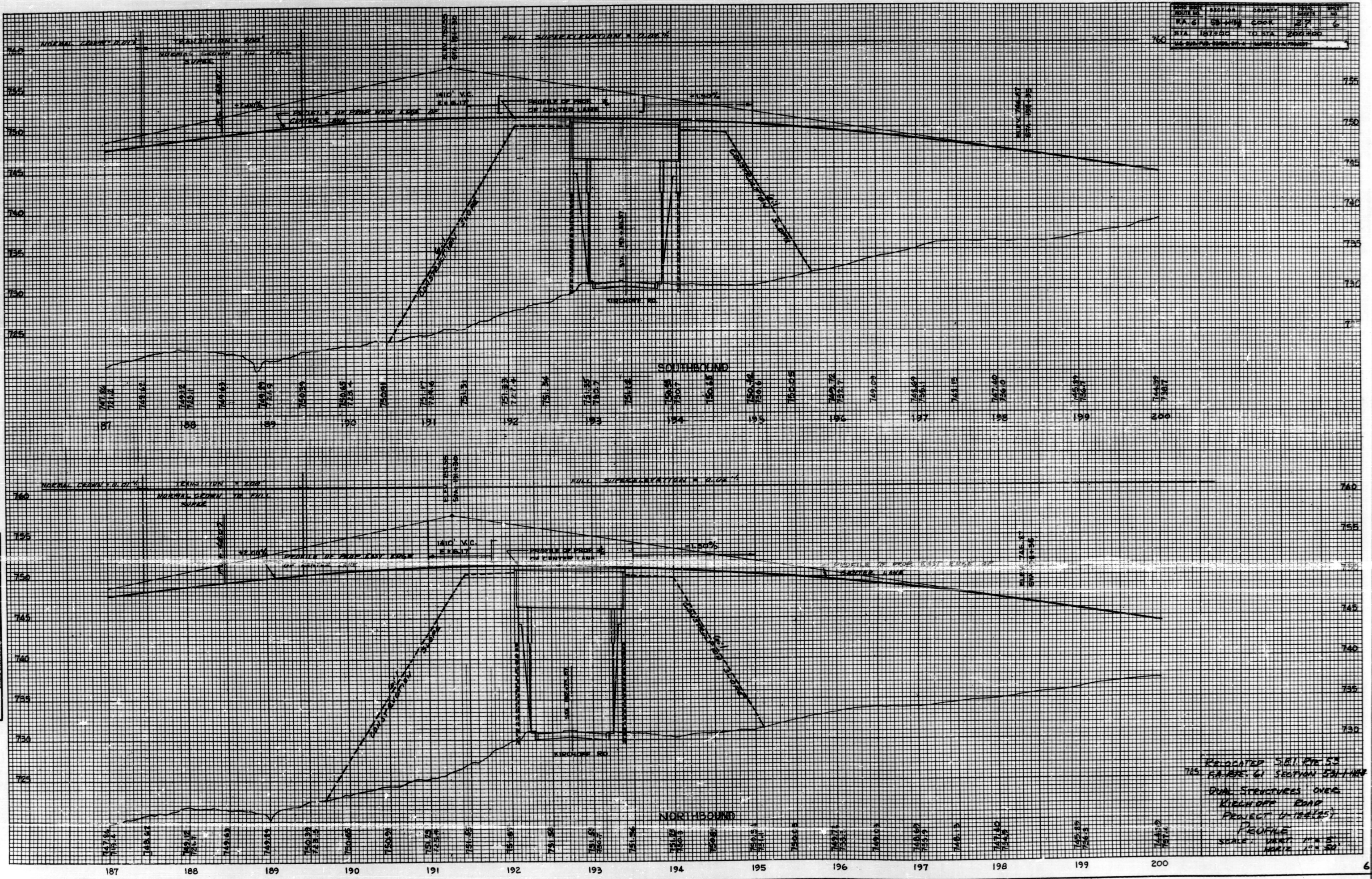
TYPICAL SECTION
RELOCATED ROUTE 53



TYPICAL SECTION
KIRCHOFF ROAD

RELOCATED SB. RTE 53
F.A. RTE. 61 SEC. 531-1-HB-8
TYPICAL
SECTIONS
(BY OTHERS)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RA. 61	531-115	COOK	27	6
STA. 187+00	TO STA. 200+00			
ALL SURV. DATA OF A. HANCOCK & PARTNER				



RELOCATED S.B.I. RTE. 53
 765. P.M. 187. 61 SECTION 531-115
 DUAL STRUCTURES OVER
 KIRCHOFF ROAD
 PROJECT U-102(25)
 PROFILE
 SCALE: VERT. 1" = 5'
 HORIZ. 1" = 50'

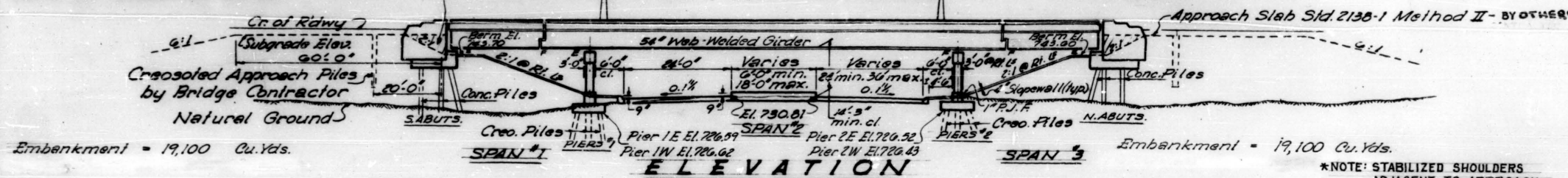
DATE
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 NOTE BOOK
 AREA CHECKED

DATE
 BY
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 NOTE BOOK
 AREA CHECKED

B.M. Railroad Spike in North Face of Power Pole on South Side of Kirchoff Road 1300 ft. East of Proposed \pm of Route 53. Elevation 726.80.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

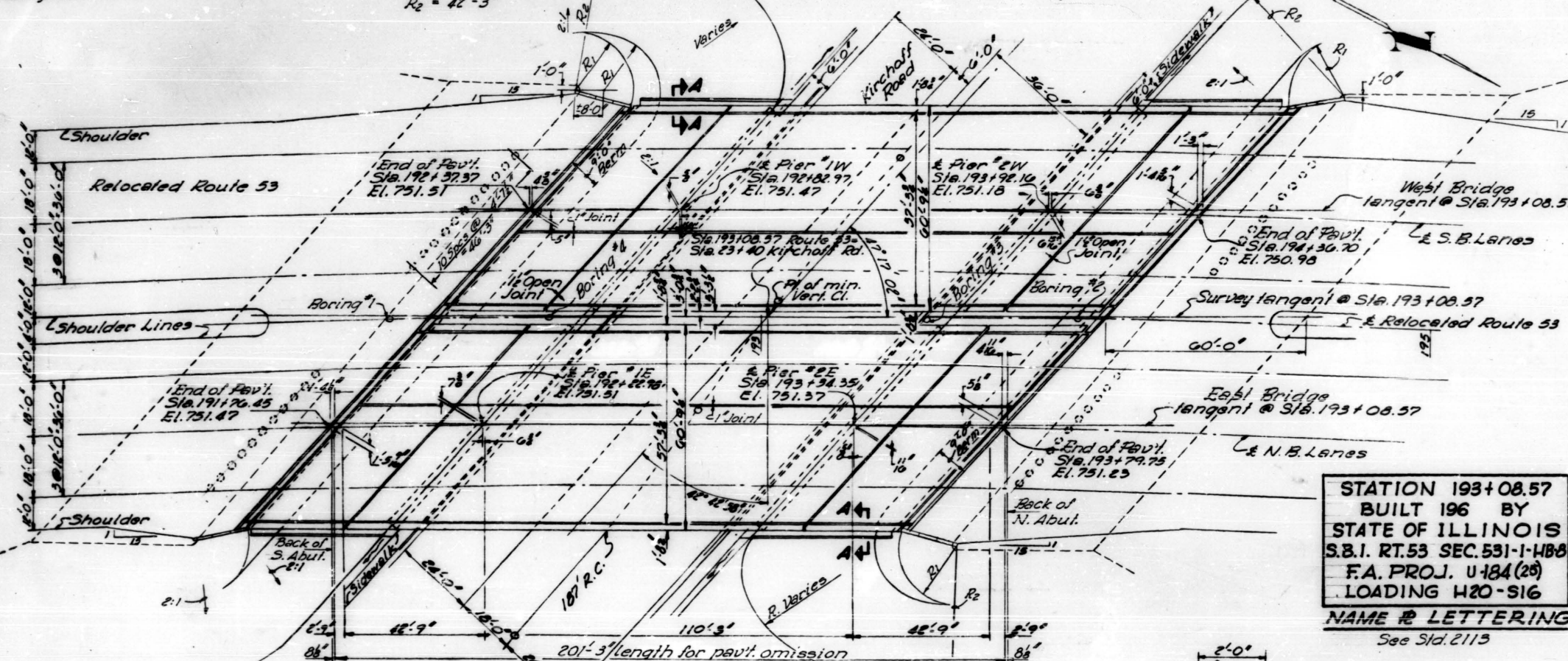
DATE	SECTION	COUNTY	DATE	SHEET NO.
5/1/62	531-1-HB-6	Cook	27	9
SHEET NO. 1				SHEETS 15



APPROACH PILE DATA

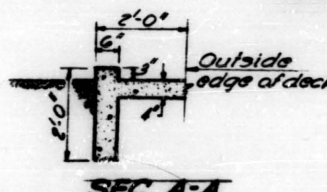
Type.....Creosoted
No. Req'd.....44
Length.....15'-0"

EARTHWORK RADII-TYP ALL CORNERS
 $R_1 = 17'-9"$
 $R_2 = 42'-3"$



Note: \pm of Roadway Stations referenced to \pm Relocated S.B.I. Rt. 53.

PLAN



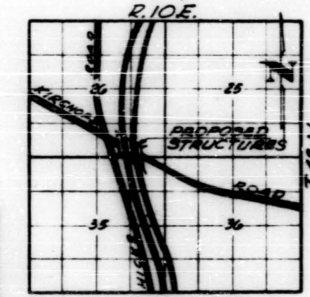
SEC. A-A



PROFILE-RELOCATED RT. 53

GENERAL NOTES

* Coarse aggregate to be used in parapet handrails and end posts must be absolutely free of chert, flint, limonite, lignite and soft sandstone.
The concrete floor slab shall be finished in accordance with Article 2119 of the Standard Specifications.
Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 55# per 100 sq. ft.
All reinforcement bars shall be lapped 20 diameters unless otherwise shown.
Rivets $\frac{3}{8}$ " open holes $\frac{1}{2}$ " unless otherwise noted.
Anchor bolts shall be set before riveting diaphragms and cross frames over supports.
The exposed surfaces of the expansion guard shall be given two shop coats of red lead paint, the contact surfaces shall be given one coat of red lead paint. Anchor studs shall not be painted.
Expansion guards are included in the quantity of structural steel. Estimated weight = 5,590 lbs.
Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Article 56.1 to 56.5 inclusive of the Standard Specifications.
The Contractor shall drive two test piles. One concrete test pile in a permanent location in the south east abutment and one timber test pile near Pier 2W as directed by the Engineer before ordering remainder of piles.
Concrete piles of abutments shall be driven in holes prepared through the embankment in accordance with Article 60.9(c) of the Standard Specifications.
Permanent forms will not be permitted in forming the concrete floor.
All material for the proposed lighting of the Kirchoff Road sidewalks and the Route 53 structure decks shall, with the exception of the anchor bolts and the 1" conduit, be furnished and installed under the provisions of future contracts.
The Contractor shall pour the full width of the concrete decks in the end units before pouring the center unit deck between the hinge joints.
Reinforcement bars designated thus: 26 x 6 indicates 26 lines of bars with 6 lengths per line.
Except as otherwise provided, all Structural Steel shall conform to A.S.T.M. Specifications - designation A-36.
Wherever in these plans reference is made to "Standard Specifications" it is understood to include the "Supplemental Specifications," effective Apr. 2, 1962.



LOCATION PLAN

TOTAL BILL OF MATERIAL-SEC. 531-1-HB-6

ITEM	UNIT	SUPER.	SUB.	TOTAL
Embankment	Cu.Yds.			38,200
Class A Excav. for Struct.	Cu.Yds.			500
Class X Concrete	Cu.Yds.	675.6	962.0	1,637.6
Structural Steel	Lbs.	1,005,000		1,005,000
Aluminum Handrail	Linft.	792		792
Reinforcement Bars	Lbs.	165,780	85,210	250,990
Creosoted Piles	Linft.		6,480	7,140
Test Piles (Timber)	Ea.		1	1
Concrete Piles	Linft.		1,630	1,630
Test Piles (Concrete)	Ea.		1	1
Name Plates	Ea.		2	2
Slope Wall	Sq.Yd.			2,380
Protective Coat	Sq.Yd.			2894

TOTAL BILL OF MATERIAL-SEC. 531-1-HF-6

ITEM	UNIT	TOTAL
Structural Steel	Lbs.	1,005,000

*EXCLUDING DETOUR ROAD AND APPROACH SLABS

RELOCATED ROUTE 53 OVER KIRCHOFF ROAD

GENERAL PLAN & ELEVATION

PROJECT U-184 (25)
S.B.I. ROUTE 53
SEC. 531-1-H(B,F) &
COOK COUNTY
STATION 193+08.57

DESIGNED	J. B. Nelson
CHECKED	J. Mullenix
DRAWN	J. B. Nelson
CHECKED	G.R.

EXAMINED	W.G. Baumann
APPROVED	R.K. [Signature]

DESIGN STRESSES

$f_c = 1,400$ psi Super
 $f_s = 20,000$ psi Reinf
 $f_s = 20,000$ psi Struct (A 36)
 $v_c = 75$ psi Footings
 $n = 10$

HORIZONTAL CURVE DATA

$\Delta = 77^\circ 11' 38"$
 $D = 0^\circ 57' 17.8"$
 $R = 6,000'$
 $T = 4,789.21'$
 $L = 8,083.72'$
 $E = 1,677.02'$
 $S.E. = .02\%$

LOADING H20-S16-44

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	1-1	Cook	27	15

SHEET NO. 2
SHEETS 15

BRIDGE FOUNDATION BORING LOG
PROJECT: BRIDGE Relocated Route 53 over Kirchoff Road
Date: June 1962
Route: S.B.I. 53
Sec: 531-1-HB-8
Station: 193+01
Checked By: G. R. R.

Boring No.	Station	Official centerline	Surface Water El.	Groundwater El. at Completion	After Hours
1	191+95	193+01			
2	194+01				
3	173+95				
4	192+42				

Elevation	N	Qu / A.L.	w (%)
727.4			
725.4			
720.4	5	1.0	
715.4	17	2.3	
712.9	22	2.2	Est.
707.9	15	2.5	
692.9	10	1.5	
687.9	16	2.8	
680.4	11	1.2	
675.9	15	1.8	
668.4	19	2.2	
668.4	20	2.3	
668.4	21	2.2	
668.4	23	3.0	
668.4	27	3.2	

Boring No.	Station	Official centerline	Surface Water El.	Groundwater El. at Completion	After Hours
2	194+01				
3	173+95				
4	192+42				

Elevation	N	Qu / A.L.	w (%)
729.1			
727.1			
719.6	4	0.7	
704.6	5	0.8	
704.6	8	2.2	
698.6	18	3.4	
689.6	17	3.5	
689.6	12	1.4	
689.6	18	1.6	
689.6	13	1.3	
689.6	15	2.2	
689.6	23	3.4	
689.6	19	2.7	
689.6	17	2.2	
689.6	18	3.2	
689.6	20	3.6	
689.6	27	3.2	

Boring No.	Station	Official centerline	Surface Water El.	Groundwater El. at Completion	After Hours
3	173+95				
4	192+42				

Elevation	N	Qu / A.L.	w (%)
730.4			
728.4			
723.4	5		
720.9	7	1.6	
705.9	13	2.2	
705.9	11	2.4	
705.9	10	1.4	
705.9	9	2.0	
705.9	9	1.8	
705.9	13	1.7	
705.9	12	1.5	
705.9	10	1.4	
705.9	15	1.3	
705.9	18	2.6	
705.9	15	2.3	
705.9	17	2.4	
705.9	14	2.2	
705.9	13	2.5	
705.9	20	3.6	

Boring No.	Station	Official centerline	Surface Water El.	Groundwater El. at Completion	After Hours
4	192+42				

Elevation	N	Qu / A.L.	w (%)
728.0			
725.5			
721.0	10	1.1	
718.5	18	4.7	
716.0	20	3.3	
716.0	14	1.8	
716.0	11	1.5	
708.5	15	1.8	
708.5	14	2.6	
698.5	9	1.3	
698.5	14	1.6	
698.5	12	1.4	
698.5	10	1.3	
698.5	16	2.2	
698.5	18	2.5	
698.5	23	2.7	
698.5	19	2.5	
698.5	31	2.9	
698.5	23	3.1	
698.5	26	3.3	

DESIGNED: J. B. R. [Signature]
CHECKED: [Signature]
DRAWN: J. B. R.
CHECKED: G. R.
EXAMINED: W. B. [Signature]
PASSED: [Signature]
APPROVED: R. B. [Signature]

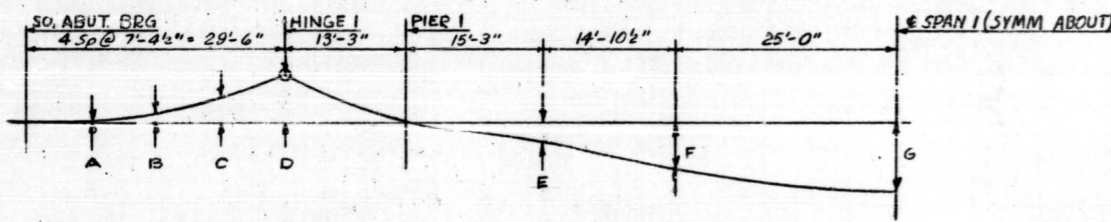
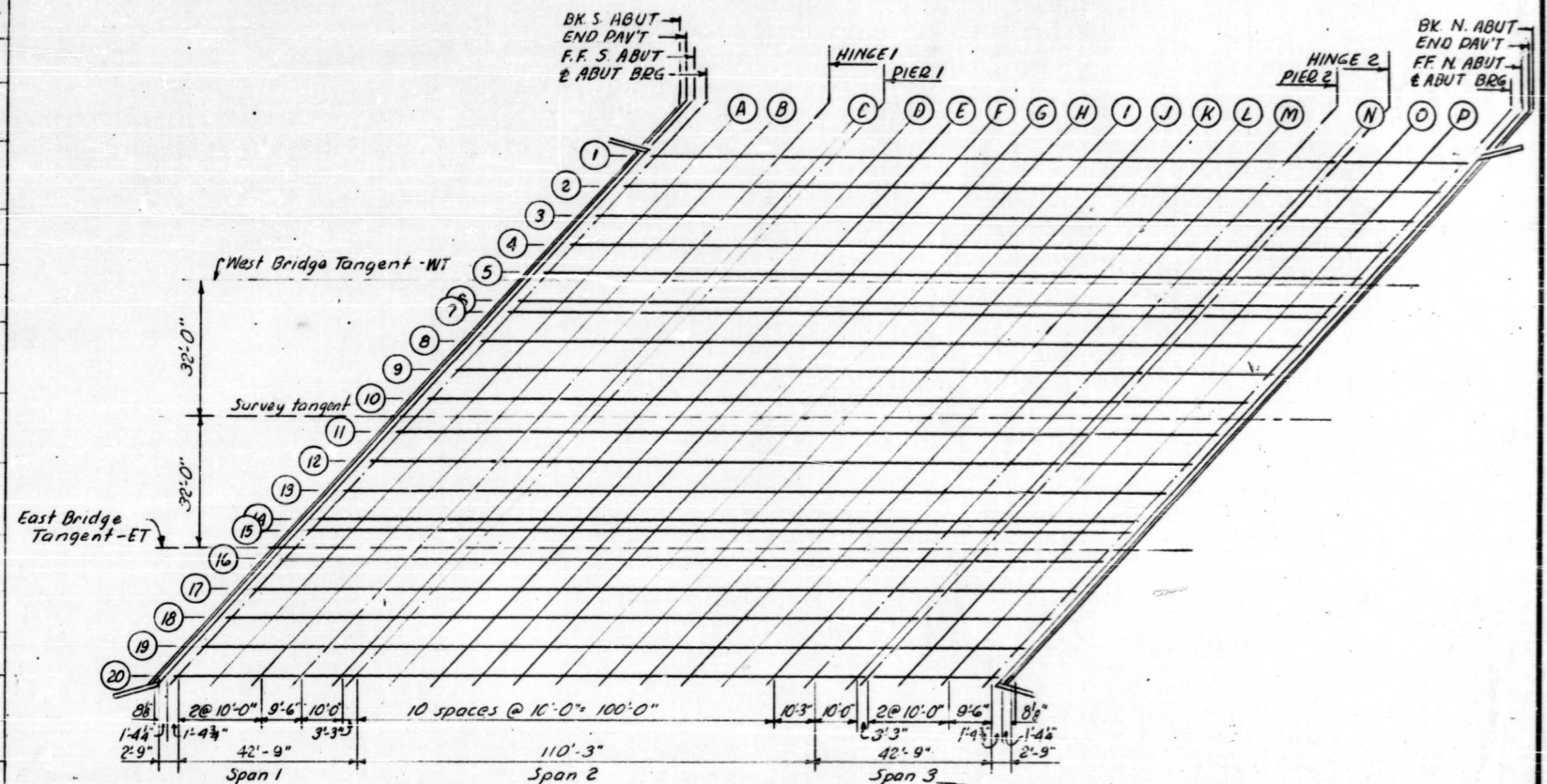
N - Standard Penetration Test - Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".
Qu - Unconfined Compressive Strength - t/d
w - Water Content - percentage of ovc. dry weight - %
Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value

BORING DATA
S.B.I. ROUTE 53
SEC. 531-1-HB-8
COOK COUNTY
STATION 193+08.57

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

Location	Gird	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevs adjusted for D.L. Defl.
End Pav't	10	19211.242	27.710	750.948	750.948
	7	19264.713	29.161	752.076	752.076
F.F. S. Abut.	10	19212.599	27.731	750.948	750.948
	1	19266.056	29.152	752.075	752.075
E Abut Brg	10	19213.990	27.754	750.949	750.949
	1	19267.435	29.142	752.073	752.073
A	10	19223.981	27.903	750.949	750.933
	1	19277.334	29.082	752.062	752.046
B	10	19233.974	28.035	750.946	750.907
	1	19287.293	29.038	752.048	752.009
Hinge	10	19243.467	28.146	750.942	750.872
	1	19296.637	29.011	752.033	751.963
C	10	19253.460	28.246	750.936	750.918
	1	19306.537	29.000	752.016	751.998
Pier 1	10	19256.706	28.275	750.933	750.933
	1	19309.754	29.000	752.010	752.010
D	10	19266.702	28.353	750.924	750.936
	1	19319.653	29.010	751.989	752.001
E	10	19276.695	28.415	750.913	750.945
	1	19329.553	29.037	751.967	751.999
F	10	19286.689	28.460	750.899	750.963
	1	19339.452	29.080	751.942	752.006
G	10	19296.683	28.488	750.883	750.961
	1	19349.351	29.140	751.915	751.993
H	10	19306.678	28.499	750.866	750.997
	1	19359.249	29.216	751.886	751.978
I	10	19316.672	28.494	750.846	750.937
	1	19369.148	29.308	751.855	751.947
J	10	19326.666	28.472	750.823	750.902
	1	19379.046	29.418	751.822	751.901
K	10	19336.660	28.434	750.799	750.884
	1	19388.944	29.543	751.787	751.852
L	10	19346.654	28.379	750.773	750.806
	1	19398.841	29.686	751.750	751.784
M	10	19356.647	28.307	750.744	750.756
	1	19408.738	29.844	751.711	751.723
Pier 2	10	19366.691	28.216	750.713	750.713
	1	19418.882	30.024	751.668	751.668
N	10	19376.684	28.110	750.680	750.627
	1	19428.778	30.216	751.625	751.571
Hinge 2	10	19386.131	28.072	750.669	750.598
	1	19431.994	30.282	751.610	751.539
O	10	19396.124	27.945	750.633	750.594
	1	19441.688	30.496	751.564	751.525
P	10	19406.116	27.801	750.585	750.580
	1	19451.782	30.726	751.515	751.501
E Abut Brg	10	19409.608	27.648	750.557	750.557
	1	19461.181	30.981	751.467	751.467
F.F. N. Abut.	10	19410.998	27.625	750.551	750.551
	1	19462.557	30.986	751.460	751.460
End Pav't	10	19412.356	27.601	750.546	750.546
	1	19463.902	31.031	751.453	751.453

Location	Gird	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevs adjusted for D.L. Defl.
End Pav't	2	19230.421	7.488	751.357	751.357
	6	19233.062	4.889	751.413	751.413
F.F. S. Abut.	2	19231.774	7.506	751.357	751.357
	6	19234.414	4.706	751.413	751.413
E Abut Brg	2	19233.160	7.524	751.357	751.357
	6	19235.799	4.723	751.412	751.412
A	2	19243.118	7.641	751.352	751.347
	6	19245.753	4.836	751.408	751.402
B	2	19253.078	7.742	751.346	751.327
	6	19255.708	4.932	751.401	751.382
Hinge 1	2	19262.539	7.822	751.338	751.302
	6	19265.165	5.008	751.392	751.357
C	2	19272.499	7.891	751.328	751.319
	6	19275.120	5.073	751.381	751.372
Pier 1	2	19275.736	7.909	751.324	751.324
	6	19276.355	5.090	751.377	751.377
D	2	19285.696	7.956	751.310	751.317
	6	19288.311	5.132	751.363	751.370
E	2	19295.656	7.986	751.295	751.312
	6	19298.266	5.157	751.347	751.365
F	2	19305.616	7.999	751.278	751.311
	6	19308.222	5.166	751.329	751.362
G	2	19315.576	7.995	751.258	751.298
	6	19318.177	5.158	751.309	751.349
H	2	19325.536	7.975	751.236	751.283
	6	19328.132	5.134	751.287	751.334
I	2	19335.496	7.939	751.212	751.259
	6	19338.088	5.093	751.262	751.309
J	2	19345.456	7.886	751.186	751.226
	6	19348.043	5.036	751.236	751.276
K	2	19355.416	7.816	751.158	751.191
	6	19357.998	4.962	751.207	751.240
L	2	19365.375	7.730	751.127	751.145
	6	19367.952	4.871	751.176	751.194
M	2	19375.334	7.627	751.095	751.102
	6	19377.907	4.784	751.143	751.150
Pier 2	2	19385.542	7.504	751.060	751.060
	6	19388.110	4.637	751.107	751.107
N	2	19395.500	7.387	751.023	750.996
	6	19398.063	4.496	751.070	751.043
Hinge 2	2	19398.737	7.319	751.010	750.975
	6	19401.298	4.446	751.057	751.021
O	2	19408.694	7.161	750.971	750.953
	6	19411.251	4.284	751.017	750.999
P	2	19418.651	6.985	750.929	750.924
	6	19421.203	4.104	750.975	750.970
E Abut Brg	2	19428.110	6.804	750.887	750.887
	6	19430.657	3.918	750.933	750.933
F.F. N. Abut.	2	19429.495	6.776	750.881	750.881
	6	19432.042	3.820	750.926	750.926
End Pav't	2	19430.848	6.748	750.875	750.875
	6	19433.394	3.862	750.920	750.920



GIRDERS		A	B	C	D	E	F	G
1	10	1/2"	5/16"	9/16"	7/8"	1/2"	3/4"	13/16"
2 thru 5	8, 9, 12, 13, 15 thru 20	1/2"	1/2"	5/16"	1/2"	1/2"	1/2"	3/4"
6	7	1/2"	1/2"	1/4"	7/16"	1/2"	7/16"	5/8"

DEAD LOAD DEFLECTION DIAGRAM
Includes weight of concrete only

Note: The above deflections are not for use in the field if the Engineer is working from the Theoretical Grade Elevations adjusted for Dead Load Deflection.

DESIGNED: J. B. Nelson
CHECKED: J. B. Nelson
DRAWN: J. B. N.
CHECKED: G.R.
EXAMINED: W. C. Baumann
APPROVED: R. B. Baumann

DECK ELEVATIONS
S.B.I. ROUTE 53
SEC. 531-1-118-8
COOK COUNTY
STATION 193 + 08.57

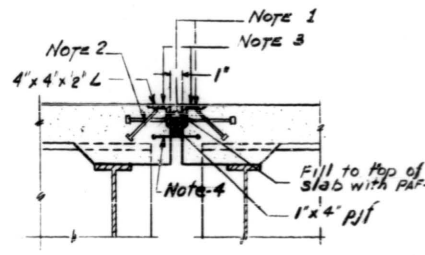
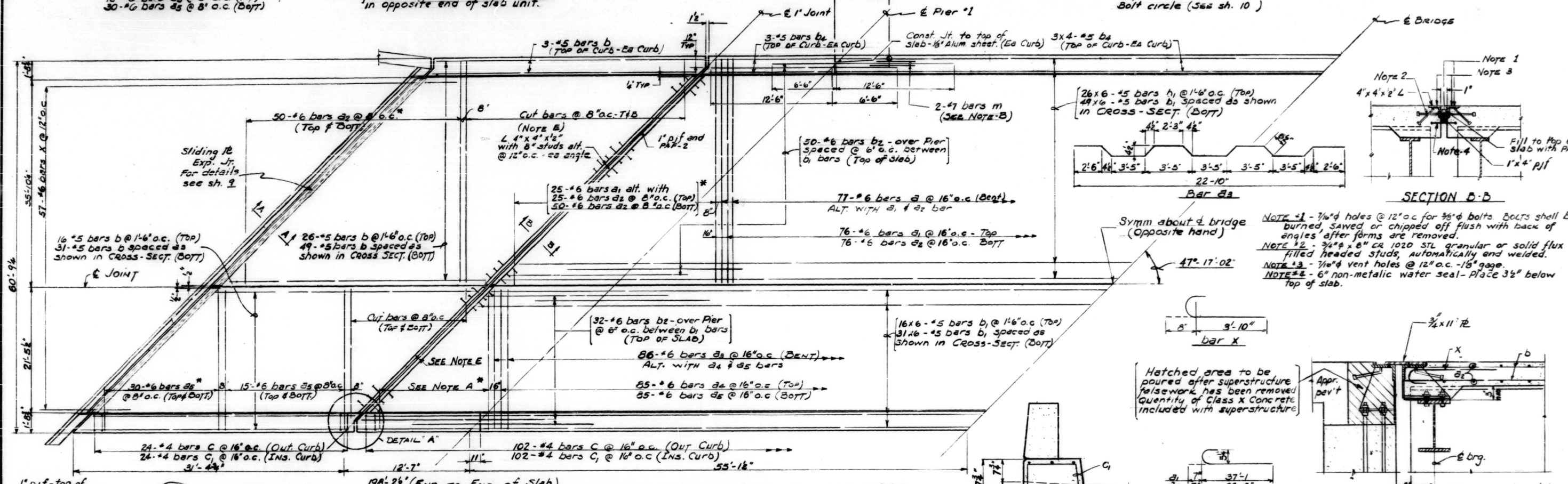
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
531-1-H-9		Cook	27	15
SHEETS 15				

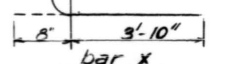
NOTE A
15-#6 bars a_1 alt. with
15-#6 bars a_2 @ 8" o.c. (TOP)
30-#6 bars a_3 @ 8" o.c. (BOT)

* Order bars full length. Cut to fit skew and use remainder of bars in opposite end of slab unit.

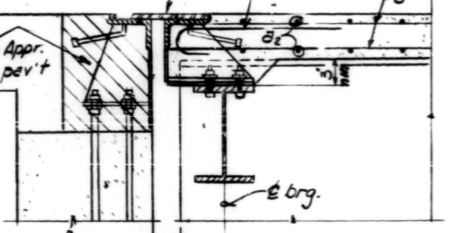
NOTE B
For position of 4-#7 bars
m & 4-1" x 40" bolts in 11"
Bolt circle (See sh. 10)



NOTE 1 - 3/4" dia holes @ 12" o.c. for 3/8" dia bolts. BOLTS shall be burned, sawed or chipped off flush with back of angles after forms are removed.
NOTE 2 - 3/4" x 6" CR 1020 STL granular or solid flux filled headed studs, automatically and welded.
NOTE 3 - 1/4" dia vent holes @ 12" o.c. - 18" gage.
NOTE 4 - 6" non-metallic water seal - Place 3/2" below top of slab.

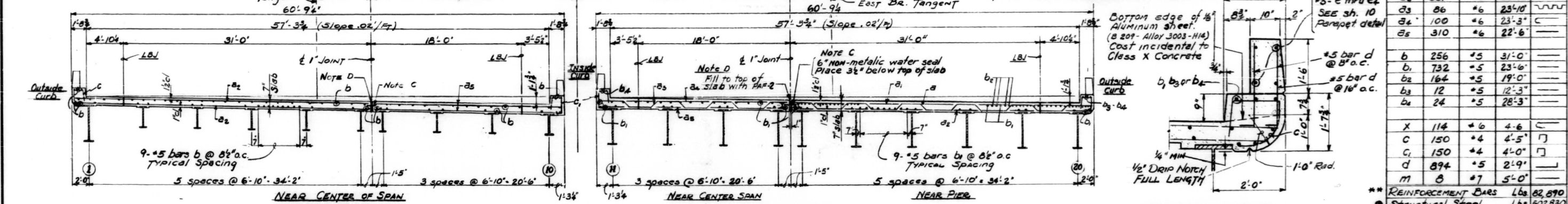
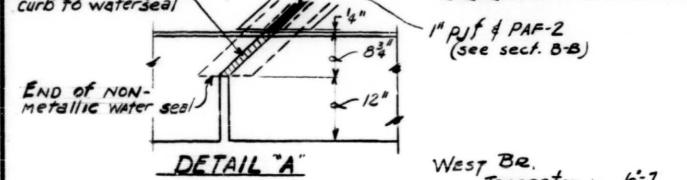


Hatched area to be poured after superstructure falsework has been removed. Quantity of Class X Concrete included with superstructure.



HALF PLAN - WEST STRUCTURE
HALF PLAN - EAST STRUCTURE WHEN ROTATED THRU 180°

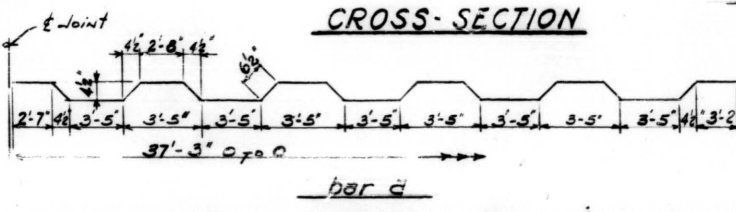
LBJ - LONGITUDINAL BONDED CONSTRUCTION JOINT DO NOT EDGE



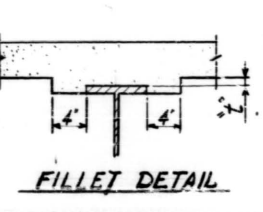
SPAN ONE

SPAN TWO
HINGE #1 TO HINGE #2

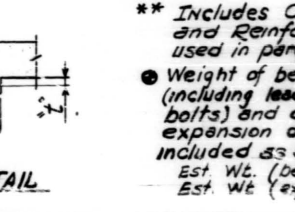
CROSS-SECTION



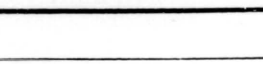
INSIDE CURB DETAIL



OUTSIDE CURB DETAIL



FILLET DETAIL



BILL OF MATERIAL - ONE BRIDGE

BAR NO	SIZE	LENGTH	SHAPE
a	77	#6	38'-11"
a1	101	#6	37'-8"
a2	351	#6	36'-10"
a3	86	#6	23'-10"
a4	100	#6	23'-3"
a5	310	#6	22'-6"
b	256	#5	31'-0"
b1	732	#5	23'-6"
b2	164	#5	19'-0"
b3	12	#5	12'-3"
b4	24	#5	28'-3"
X	114	#6	4'-6"
C	150	#4	4'-5"
C1	150	#4	4'-0"
d	894	#5	2'-9"
m	8	#7	5'-0"

** REINFORCEMENT BARS Lbs 82,890
 • Structural Steel Lbs 507,830
 *** Class X Concrete Cu.Yd. 337.8

DESIGNED James J. Warring
 CHECKED G. B. Nolen
 DRAWN James J. Warring
 CHECKED B. H.

EXAMINED J. E. Burmann
 PASSED [Signature]
 APPROVED R. H. Bartelme

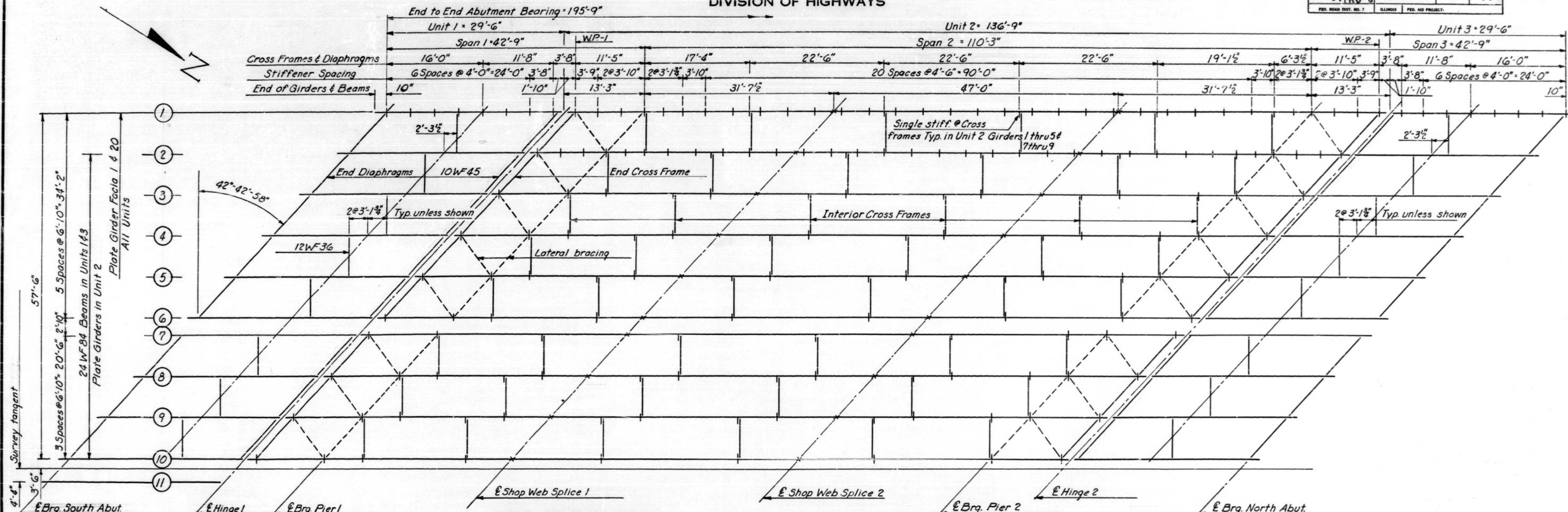
DIMENSION "Z"
 After all structural steel has been erected, elevations of the top flange of the beams shall be taken at intervals shown on sheet 3. These elevations subtracted from the "Grade Elevations Adjusted for Dead Load Deflections" shown on sheets 3, 4 & 5, minus slab thickness, equals the fillet height above top of beams.

** Includes Class X Concrete and Reinforcement Bars used in parapet - See sh. 10
 • Weight of bearing assemblies (including lead plate and anchor bolts) and open joint expansion devices are included as structural steel.
 Est. Wt. (bearings) 3,910
 Est. Wt. (expn dev) 27,360

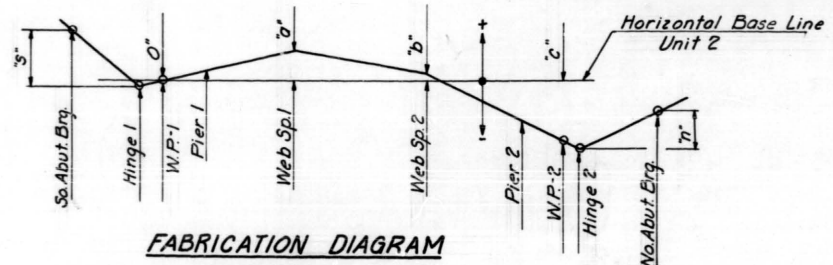
SUPERSTRUCTURE
S.B.I. ROUTE 53
SEC. 531-1-H (B, F)-8
COOK COUNTY
STATION 193+08.57

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
53-1	118-8	COOK	27	15	15 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		



HALF FRAMING PLAN
(West Structure shown - East Structure layout symm. by rotation except as shown)



FABRICATION DIAGRAM
(Girder ordinates are to top of web)

Girders & Beams	"s"	"o"	"b"	"c"	"n"
1 thru 6	2"	+3/8"	-1/8"	-4 1/8"	0"
7 thru 10	2"	+3/8"	-1/8"	-3 3/8"	1"
11 thru 14	1 1/2"	+3/8"	0"	-3 3/8"	1"
15 thru 20	1 1/2"	+1/4"	+1/4"	-2 1/4"	1 1/4"

For Girder Elevation and Fabrication Details see sheet #8

TOP OF FLANGE ELEVATIONS*

Beam or Girder	UNIT 1		UNIT 2					UNIT 3		
	Brg. S. Abut.	Hinge 1	W.P.1	Pier 1	Web Sp.1	Web Sp.2	Pier 2	W.P.2	Hinge 2	Brg. N. Abut.
1	751.449	751.282	751.285	751.301	751.441	751.274	750.965	750.888	750.876	750.876
2	751.324	751.157	751.160	751.176	751.305	751.138	750.840	750.763	750.751	750.751
3	751.199	751.032	751.035	751.051	751.180	751.013	750.715	750.638	750.626	750.626
4	751.074	750.907	750.910	750.926	751.055	750.888	750.590	750.513	750.501	750.501
5	750.949	750.782	750.785	750.801	750.930	750.763	750.465	750.388	750.376	750.376
6	750.824	750.657	750.660	750.676	750.805	750.638	750.340	750.263	750.251	750.251
7	750.740	750.573	750.576	750.592	750.721	750.638	750.340	750.263	750.251	750.293
8	750.615	750.448	750.451	750.467	750.596	750.513	750.215	750.138	750.126	750.168
9	750.490	750.323	750.326	750.342	750.471	750.388	750.090	750.013	750.001	750.043
10	750.365	750.198	750.201	750.217	750.357	750.274	749.965	749.888	749.876	749.918
11	751.429	751.325	751.328	751.344	751.484	751.422	751.113	751.036	751.024	751.108
12	751.304	751.200	751.203	751.219	751.348	751.286	750.988	750.911	750.899	750.983
13	751.179	751.075	751.078	751.094	751.223	751.161	750.863	750.786	750.774	750.858
14	751.054	750.950	750.953	750.969	751.098	751.036	750.738	750.661	750.649	750.733
15	750.892	750.788	750.792	750.820	750.979	750.979	750.681	750.604	750.592	750.738
16	750.767	750.663	750.667	750.695	750.854	750.854	750.556	750.479	750.467	750.613
17	750.642	750.538	750.542	750.570	750.729	750.729	750.431	750.354	750.342	750.488
18	750.517	750.413	750.417	750.445	750.604	750.604	750.306	750.229	750.217	750.363
19	750.392	750.288	750.292	750.320	750.479	750.479	750.181	750.104	750.092	750.238
20	750.267	750.163	750.167	750.195	750.365	750.365	750.056	749.979	749.967	750.113

*Elevations shown are before deflection

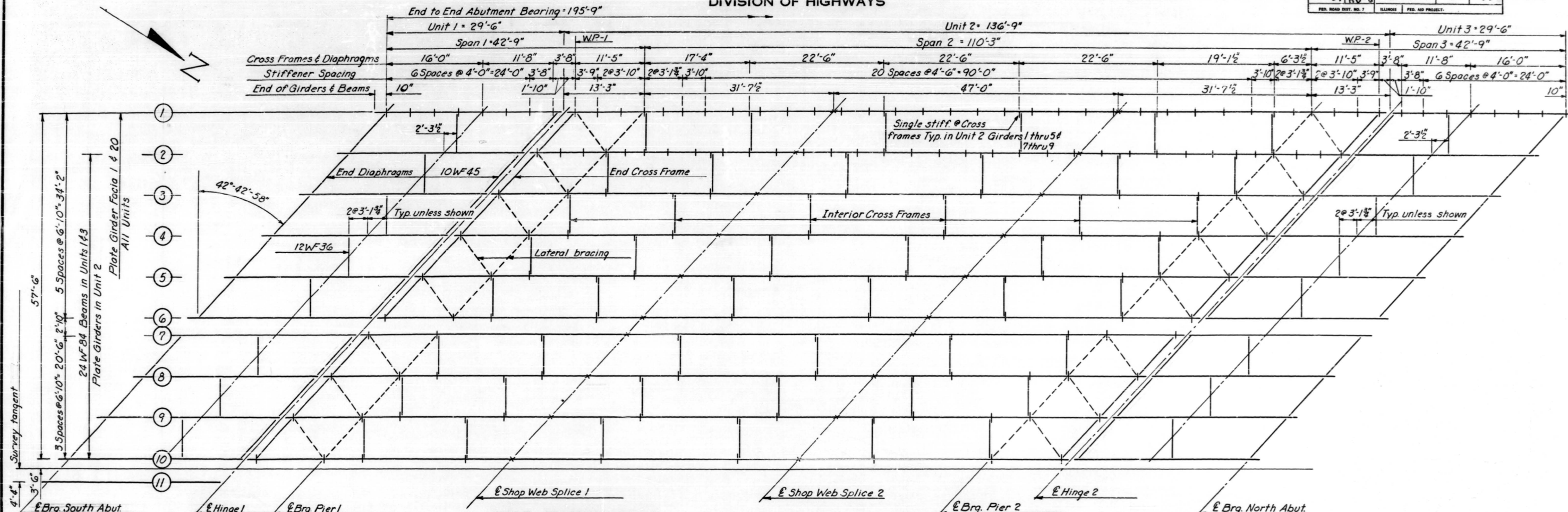
DESIGNED: J.B. Nelson
CHECKED: J. M. ...
DRAWN: W.E. Dickerson
CHECKED: G.R.
EXAMINED: W.E. Burmann
PASSED: ...
APPROVED: R.H. ...

SEPT 22 1962

FRAMING PLAN
S.B.I. ROUTE 53
SEC. 531-1-H(B,F)-8
COOK COUNTY
STATION 193+00.57

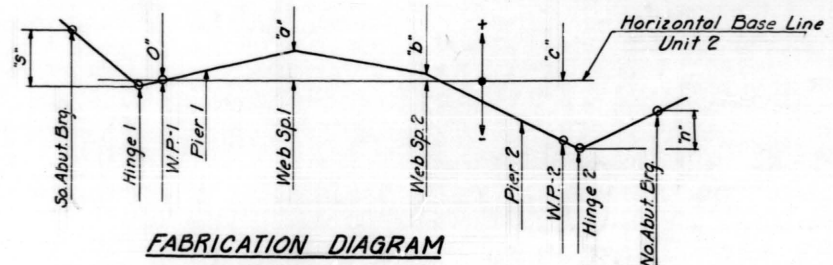
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
53	531-1	COOK	27	15	15 SHEETS
P.A. 61	118-8				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



HALF FRAMING PLAN

(West Structure shown - East Structure layout symm. by rotation except as shown)



FABRICATION DIAGRAM

(Girder ordinates are to top of web)

Girders/Beams	"s"	"o"	"b"	"c"	"n"
1 thru 6	2"	+3/4"	-1/4"	-4 1/4"	0"
7 thru 10	2"	+3/4"	-1/4"	-3 3/4"	1/2"
11 thru 14	1 1/4"	+3/4"	0"	-3 3/4"	1"
15 thru 20	1 1/4"	+1/4"	+1/4"	-2 1/4"	1 1/4"

For Girder Elevation and Fabrication Details see sheet #8

TOP OF FLANGE ELEVATIONS*

Beam or Girder	UNIT 1		UNIT 2					UNIT 3		
	Brg. S. Abut.	Hinge 1	W.P.1	Pier 1	Web Sp.1	Web Sp.2	Pier 2	W.P.2	Hinge 2	Brg. N. Abut.
1	751.449	751.282	751.285	751.301	751.441	751.274	750.965	750.888	750.876	750.876
2	751.324	751.157	751.160	751.176	751.305	751.138	750.840	750.763	750.751	750.751
3	751.199	751.032	751.035	751.051	751.180	751.013	750.715	750.638	750.626	750.626
4	751.074	750.907	750.910	750.926	751.055	750.888	750.590	750.513	750.501	750.501
5	750.949	750.782	750.785	750.801	750.930	750.763	750.465	750.388	750.376	750.376
6	750.824	750.657	750.660	750.676	750.805	750.638	750.340	750.263	750.251	750.251
7	750.740	750.573	750.576	750.592	750.721	750.638	750.340	750.263	750.251	750.293
8	750.615	750.448	750.451	750.467	750.596	750.513	750.215	750.138	750.126	750.168
9	750.490	750.323	750.326	750.342	750.471	750.388	750.090	750.013	750.001	750.043
10	750.365	750.198	750.201	750.217	750.357	750.274	749.965	749.888	749.876	749.918
11	751.429	751.325	751.328	751.344	751.484	751.422	751.113	751.036	751.024	751.108
12	751.304	751.200	751.203	751.219	751.348	751.286	750.988	750.911	750.899	750.983
13	751.179	751.075	751.078	751.094	751.223	751.161	750.863	750.786	750.774	750.858
14	751.054	750.950	750.953	750.969	751.098	751.036	750.738	750.661	750.649	750.733
15	750.892	750.788	750.792	750.820	750.979	750.979	750.681	750.604	750.592	750.738
16	750.767	750.663	750.667	750.695	750.854	750.854	750.556	750.479	750.467	750.613
17	750.642	750.538	750.542	750.570	750.729	750.729	750.431	750.354	750.342	750.488
18	750.517	750.413	750.417	750.445	750.604	750.604	750.306	750.229	750.217	750.363
19	750.392	750.288	750.292	750.320	750.479	750.479	750.181	750.104	750.092	750.238
20	750.267	750.163	750.167	750.195	750.365	750.365	750.056	749.979	749.967	750.113

*Elevations shown are before deflection

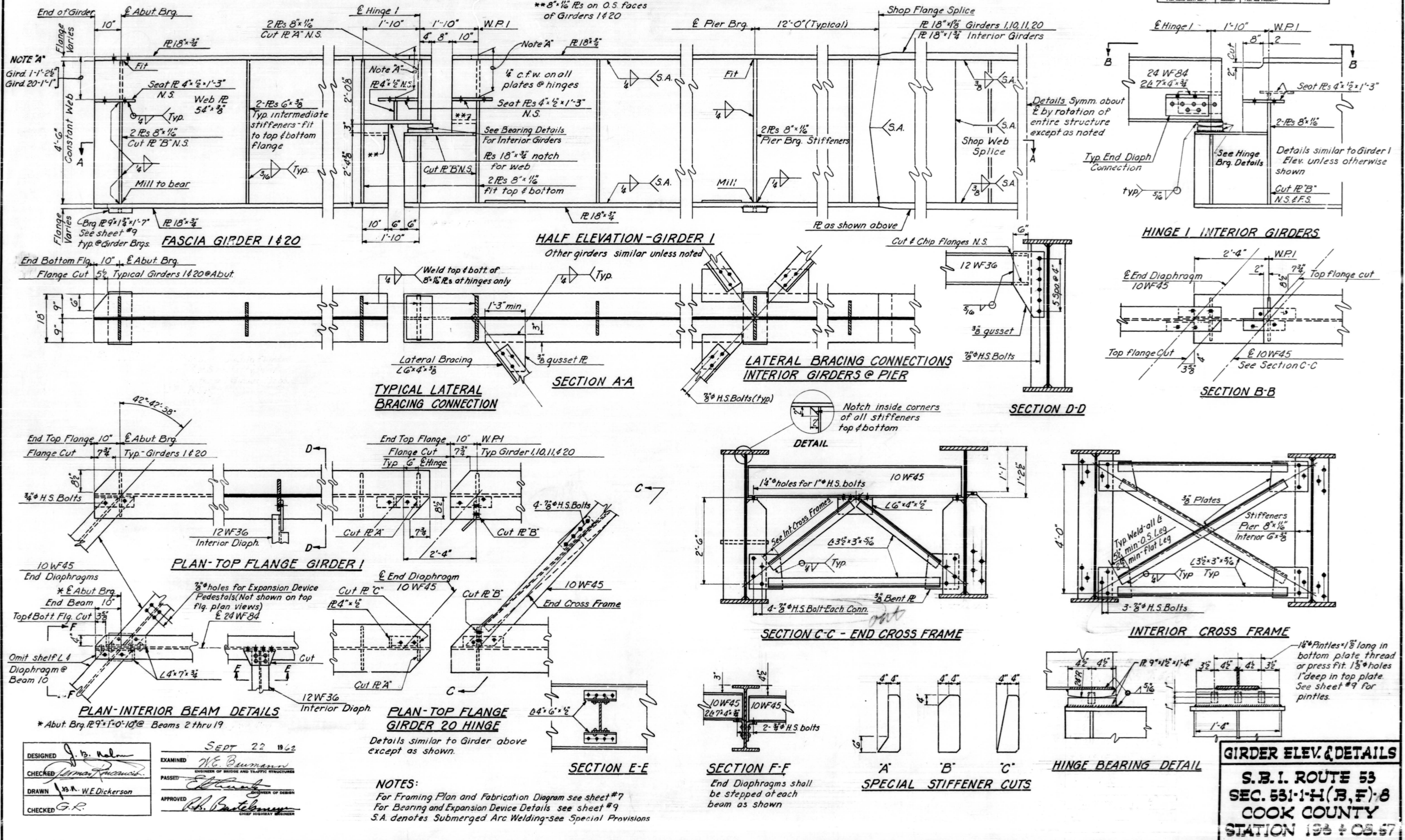
DESIGNED: J.B. ...
CHECKED: ...
DRAWN: W.E. Dickerson
CHECKED: G.R.
EXAMINED: W.E. Burmann
PASSED: ...
APPROVED: ...

SEPT 22 1962

FRAMING PLAN
S.B.I. ROUTE 53
SEC. 531-1-H(B,F)-8
COOK COUNTY
STATION 193+00.57

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
53	531-1	Cook	27	16
P.A. L.H.R. 8		15 SHEETS		

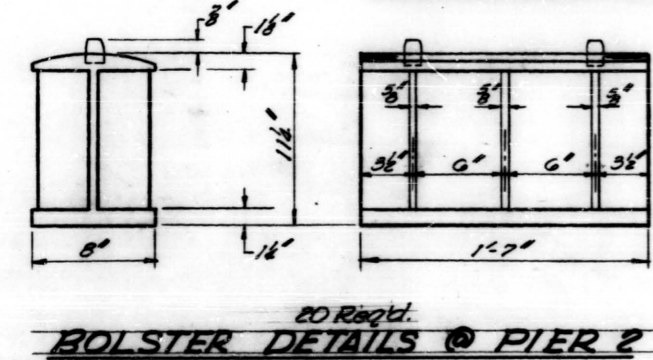
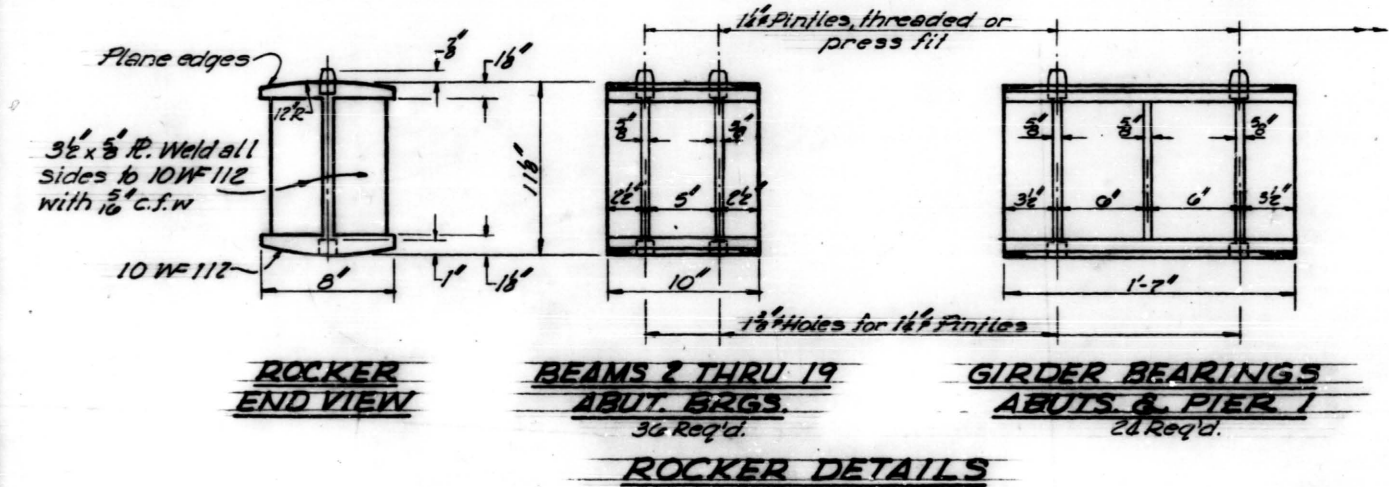
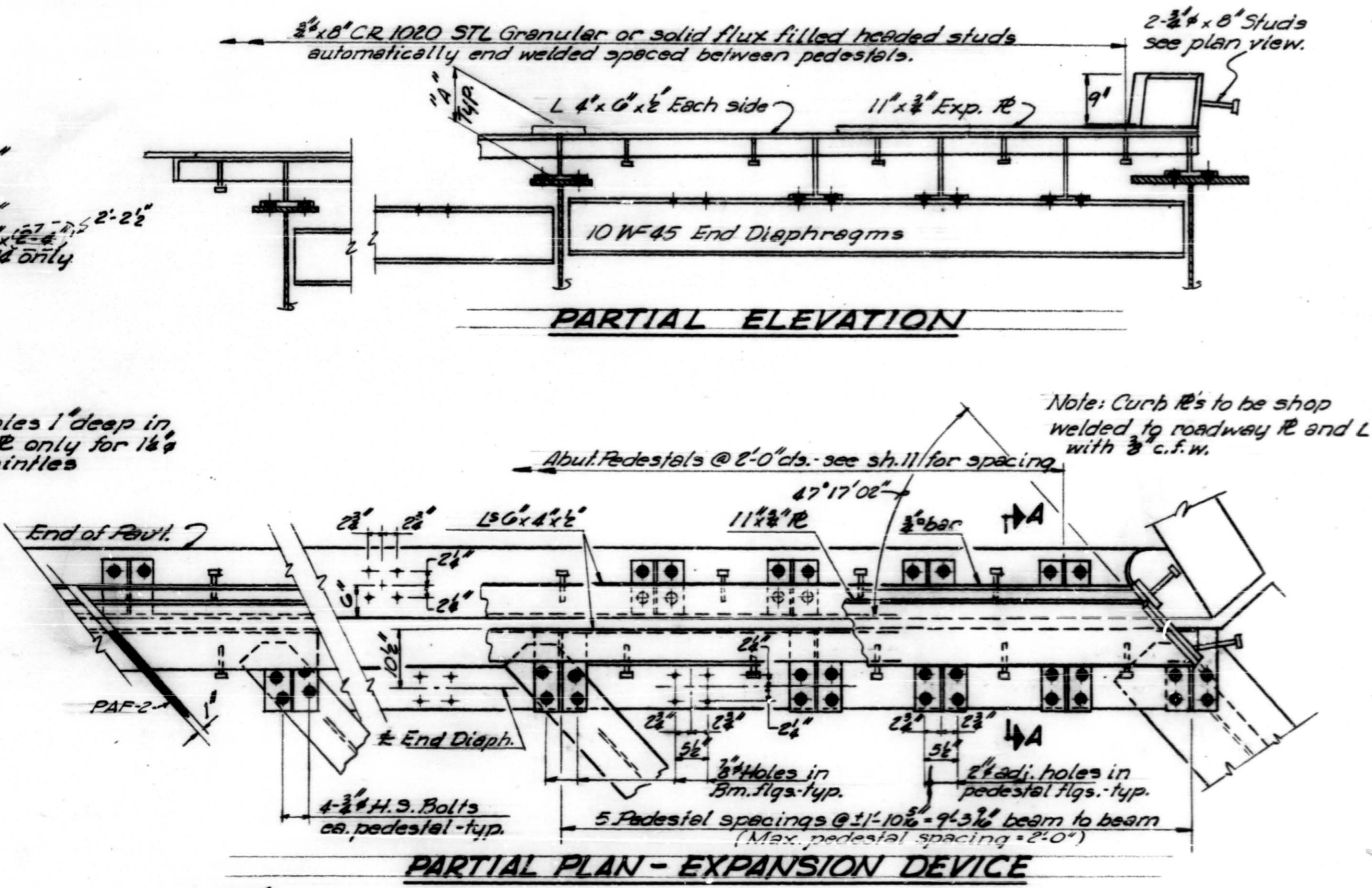
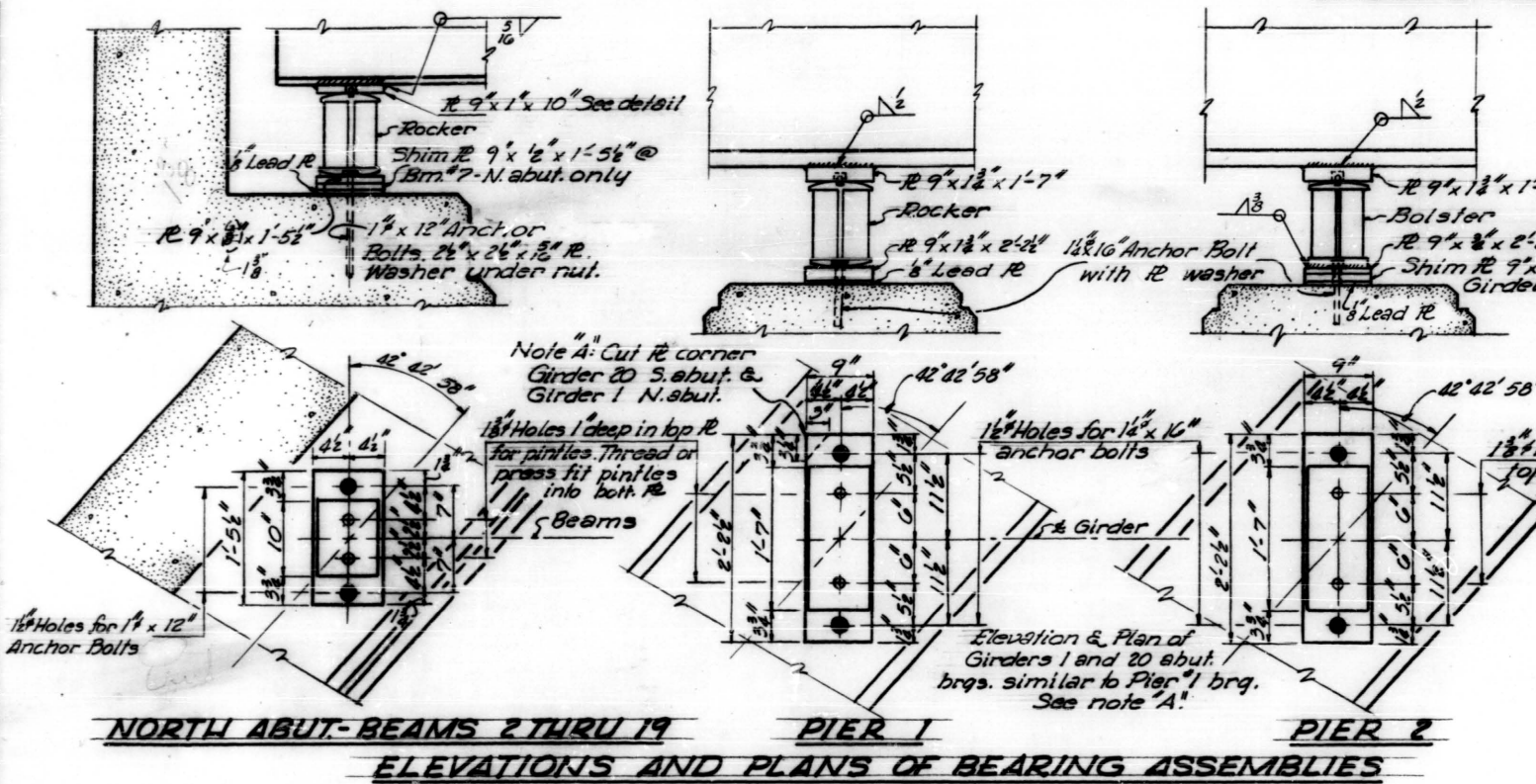


DESIGNED *J. B. Nelson*
CHECKED *W. E. Dickerson*
DRAWN *W. E. Dickerson*
CHECKED *G. R.*

EXAMINED *W. E. Dickerson*
PASSED *W. E. Dickerson*
APPROVED *W. E. Dickerson*

SEPT 22 1962

**S.B.I. ROUTE 53
SEC. 531-1-H (B, F) 8
COOK COUNTY
STATION 193 ± OS. 57**

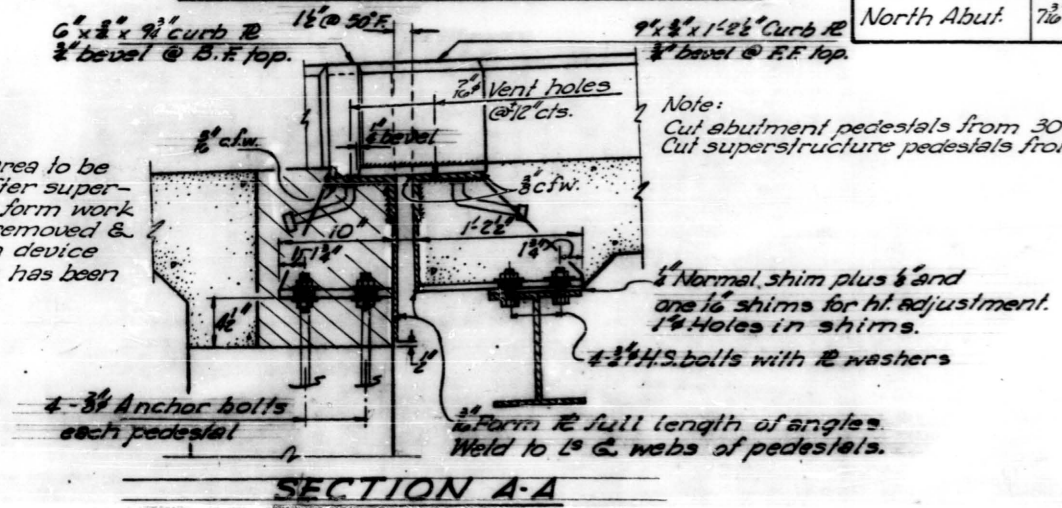
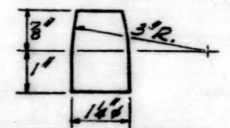


DIMENSIONS "A"

Beams/Girders	1	2	3	4	5	6	7	8	9	10
South Abut.	7 $\frac{1}{2}$ "	7 $\frac{1}{16}$ "	7 $\frac{1}{16}$ "	7 $\frac{1}{16}$ "	7 $\frac{3}{16}$ "	7 $\frac{1}{16}$ "	7 $\frac{1}{8}$ "	7 $\frac{1}{8}$ "	7 $\frac{1}{8}$ "	7"
North Abut.	7 $\frac{1}{16}$ "	7 $\frac{3}{16}$ "	7 $\frac{1}{16}$ "	7 $\frac{1}{8}$ "	8"	8 $\frac{3}{16}$ "	7 $\frac{1}{8}$ "	7 $\frac{1}{16}$ "	7 $\frac{1}{8}$ "	7 $\frac{1}{16}$ "

Beams/Girders	11	12	13	14	15	16	17	18	19	20
South Abut.	7 $\frac{1}{16}$ "	7 $\frac{1}{16}$ "	7 $\frac{3}{8}$ "	7 $\frac{1}{16}$ "	8 $\frac{1}{16}$ "	8 $\frac{3}{16}$ "	8"	7 $\frac{1}{2}$ "	7 $\frac{1}{16}$ "	7 $\frac{1}{16}$ "
North Abut.	7 $\frac{1}{16}$ "	7 $\frac{3}{8}$ "	7 $\frac{1}{8}$ "	7 $\frac{1}{8}$ "	7"	7 $\frac{1}{8}$ "	7 $\frac{1}{8}$ "	7 $\frac{1}{16}$ "	7 $\frac{1}{16}$ "	7 $\frac{1}{8}$ "

Hatched area to be poured after superstructure form work has been removed & expansion device assembly has been adjusted.



BEARING DETAILS
S.B.I. ROUTE 55
SEC. 55-1-H (S.F.) - 8
COOK COUNTY
STATION 195 ± 04.87

DESIGNED J.B.N.
CHECKED J.M.
DRAWN J.P.
CHECKED J.V.W.

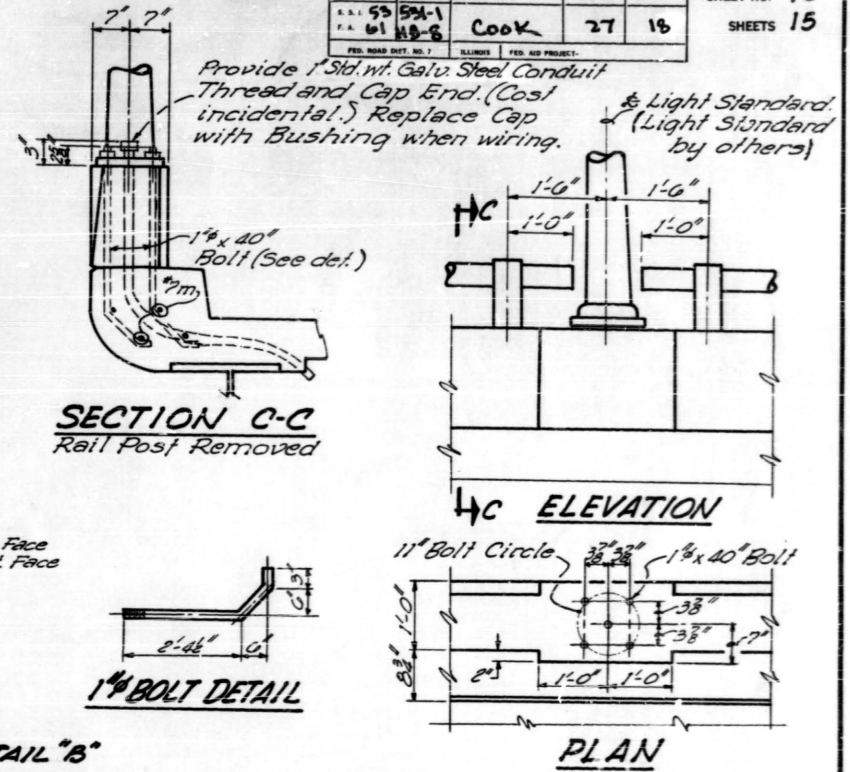
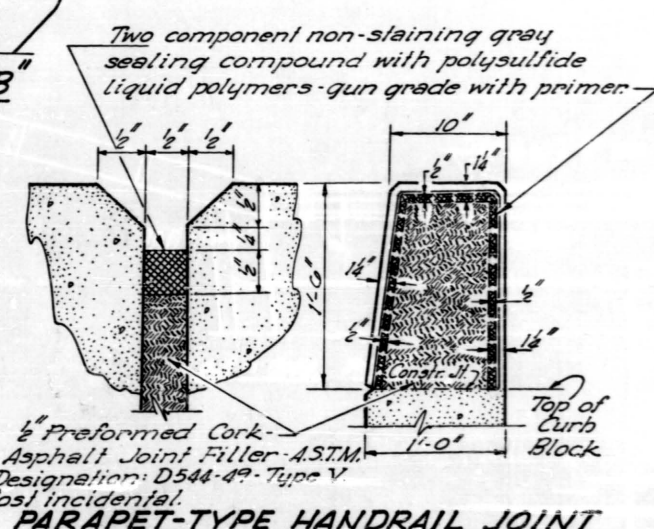
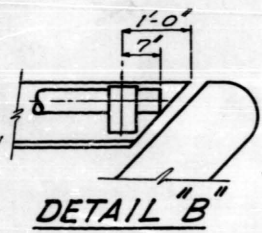
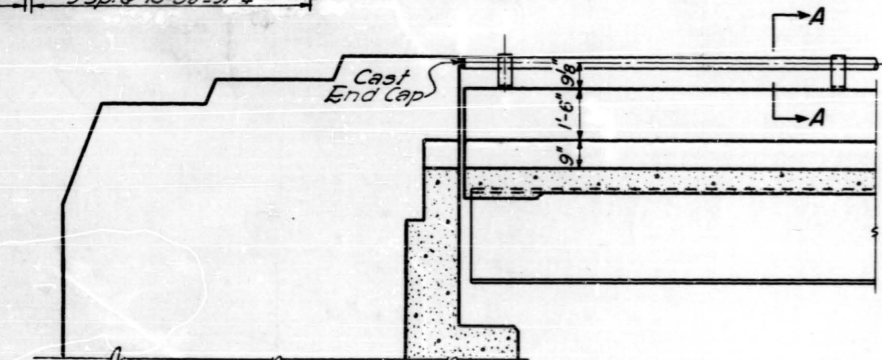
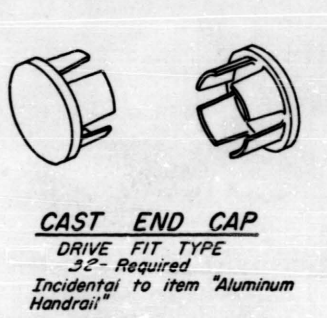
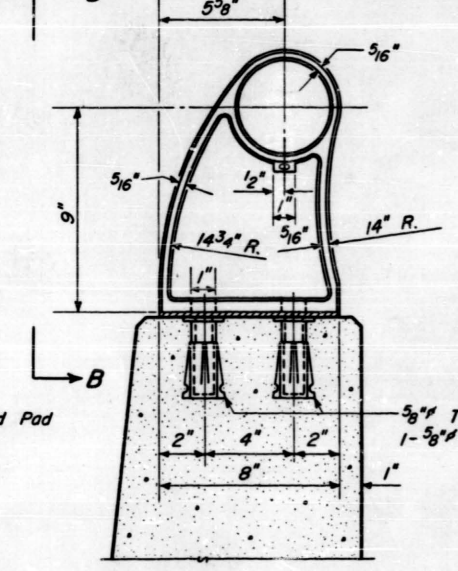
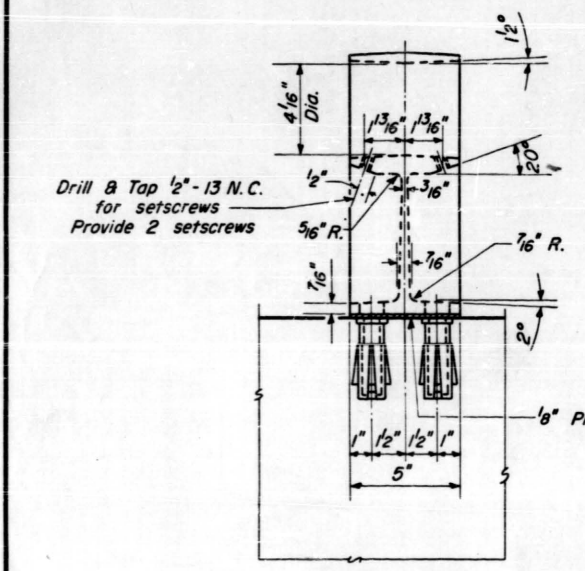
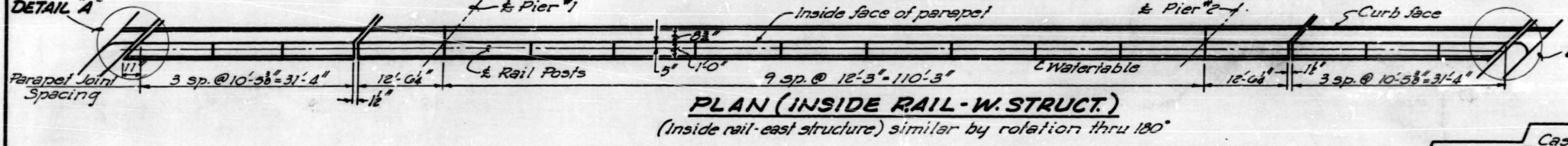
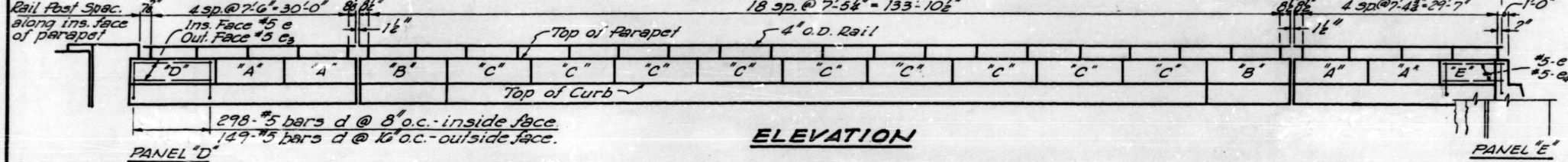
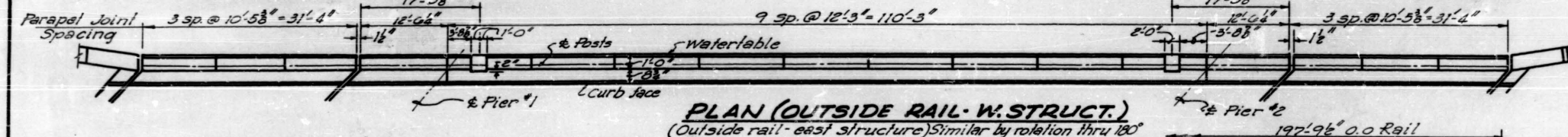
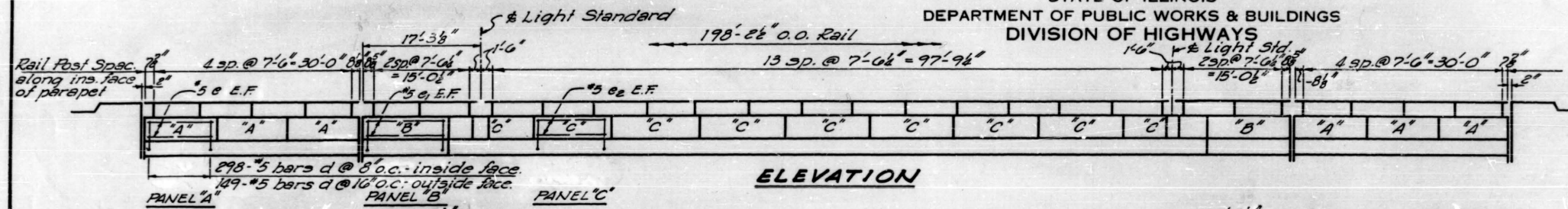
SEPT. 22, 1922

EXAMINED H.E.B.
PASSED E.H.
APPROVED R.H.

Revised (11/22) in ELEVATIONS AND PLANS OF BEARING ASSEMBLIES - NORTH ABUT-BEAMS 2 THRU 19 changed plate thickness (left of Anchor Bolt) from $\frac{1}{2}$ " to $\frac{3}{8}$ " - Pier 2 changed shim plate length from 2'4" to 2'2" - N.S.
NOTES: In SECTION A-A revised $\frac{3}{8}$ " Form plate on Abut. side by removing cross hatched portion. Same $\frac{1}{2}$ " diameter. N.S.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
53	53A-1	COOK	27	18	10
P.A. 61	HB-8				15



ONE STRUCTURE BILL OF MATERIAL

Item	Unit	Quantity
Aluminum Handrail	Lin. Ft.	396

BAR LIST - ONE STRUCTURE

Bar	No.	Size	Length	Shape
c	44	#5	10'-3"	—
c ₁	10	#5	12'-3"	—
c ₂	72	#5	12'-0"	—
c ₃	2	#5	11'-0"	—
c ₄	2	#5	9'-0"	—

Quantities for Reinforcement Bars included in Superstructure Bill of Material. Sh. #.

PARAPET & HANDRAIL

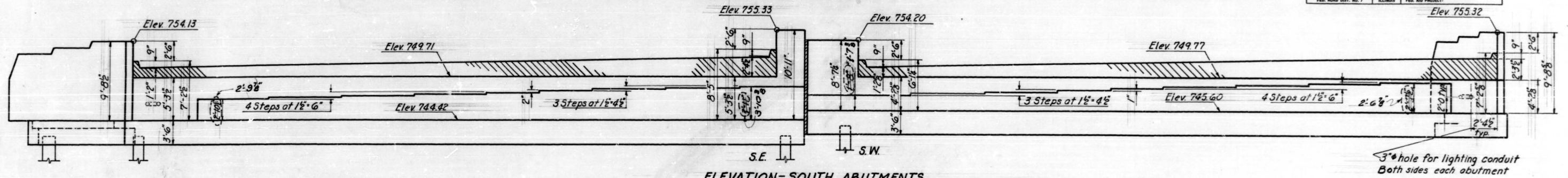
**S. B. I. ROUTE 53
SEC. 531-1-HB-8
COOK COUNTY
STATION 193 + 02.57**

DESIGNED	J. J. Morrison	EXAMINED	W. C. Burman
CHECKED	J. B. Nelson	PASSED	E. Hunt
DRAWN	W. A. Sausaman	APPROVED	R. B. [Signature]
CHECKED	J. B. N.		

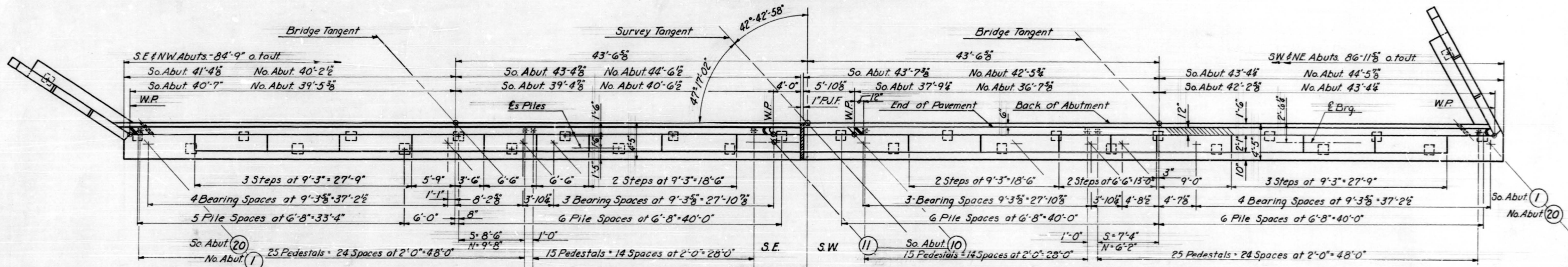
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 53	531-1	COOK	27	19
P.A. 61	H.B. 8			

15 SHEETS

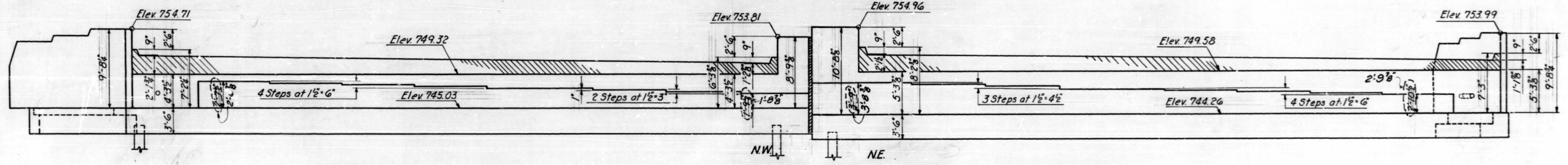


ELEVATION-SOUTH ABUTMENTS

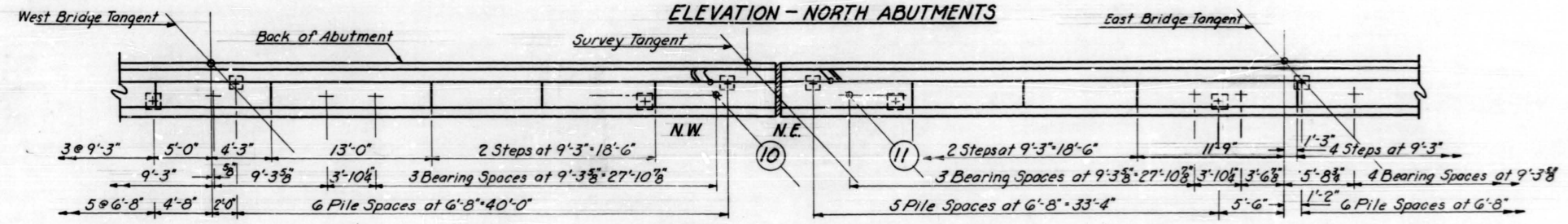


PLAN VIEW-SOUTH ABUTMENTS

North Abutment similar except as shown below



ELEVATION-NORTH ABUTMENTS



PARTIAL PLAN VIEW-NORTH ABUTMENTS

See South Abutment Plan View for dimensions not shown

DESIGNED	J. B. Nelson	SEPT 22 1962
CHECKED	W. E. Dickerson	
DRAWN	W. E. Dickerson	
CHECKED	G. R.	

NOTES
Elevations shown are on faces of abutments
for abutment details, reinforcement & Bill
of Material see sheet #12

ABUTMENTS
S.B.I. ROUTE 53
SEC. 531-1-H (R.F.)-8
COOK COUNTY
STATION 198+08.57

Revised 1/22/62. In ELEVATION-SOUTH ABUTMENTS and ELEVATION-NORTH ABUTMENTS lowered interior bridge seat by 5/8" W.S.

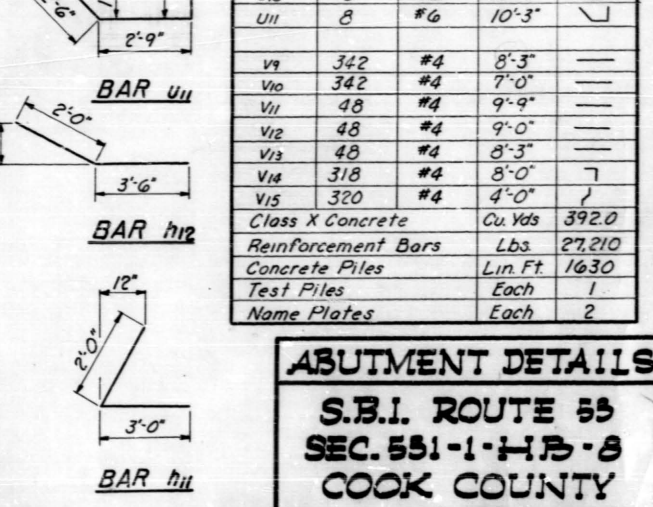
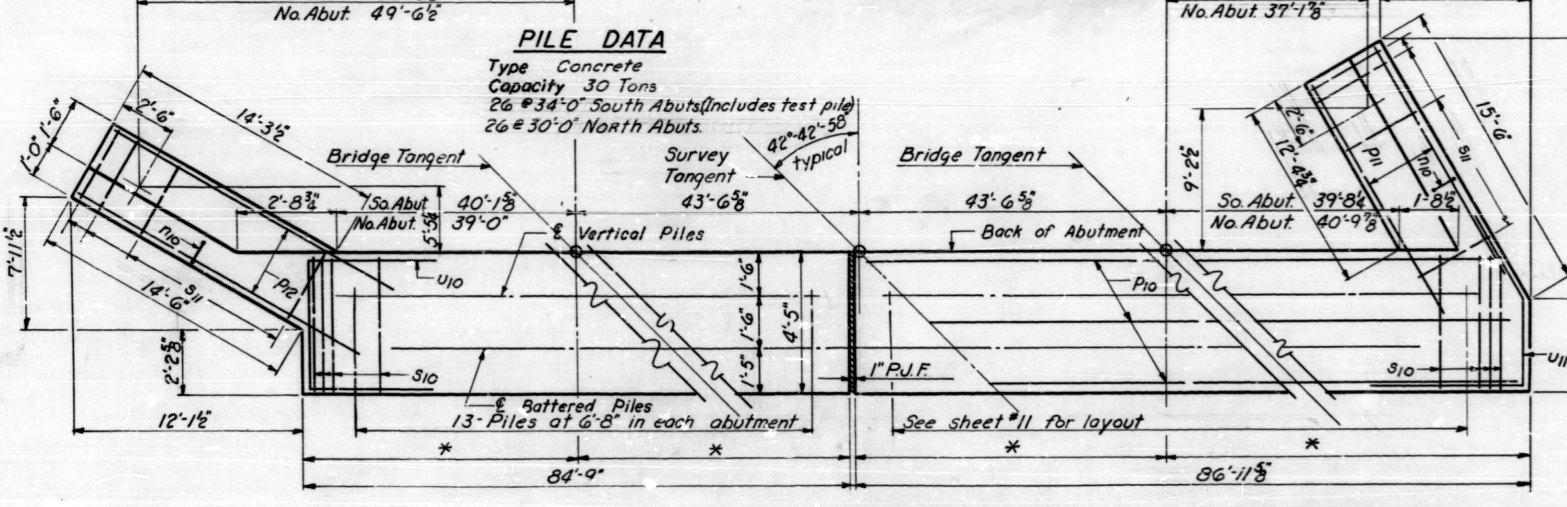
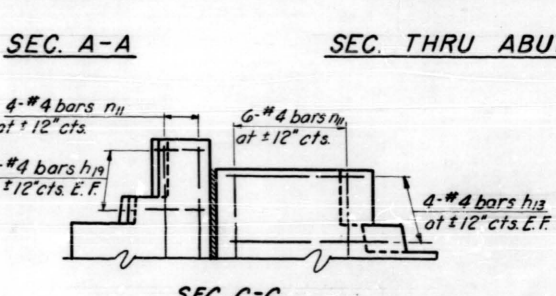
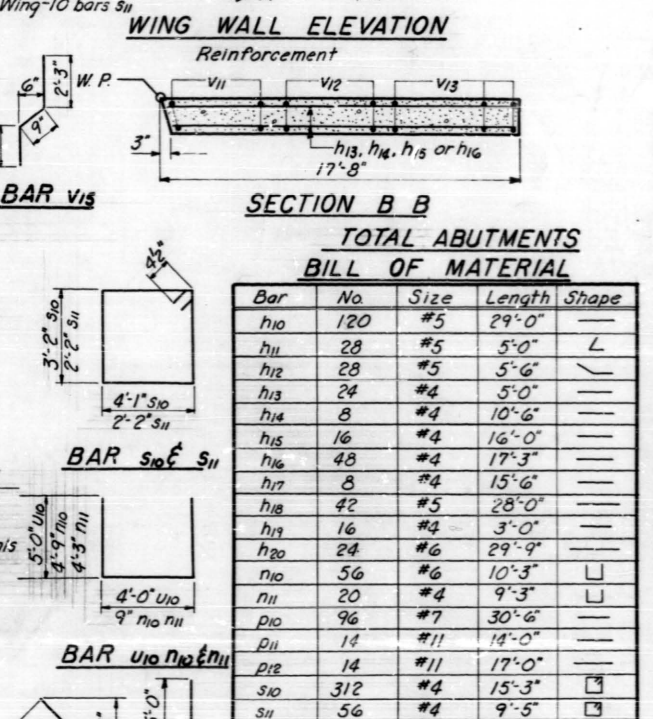
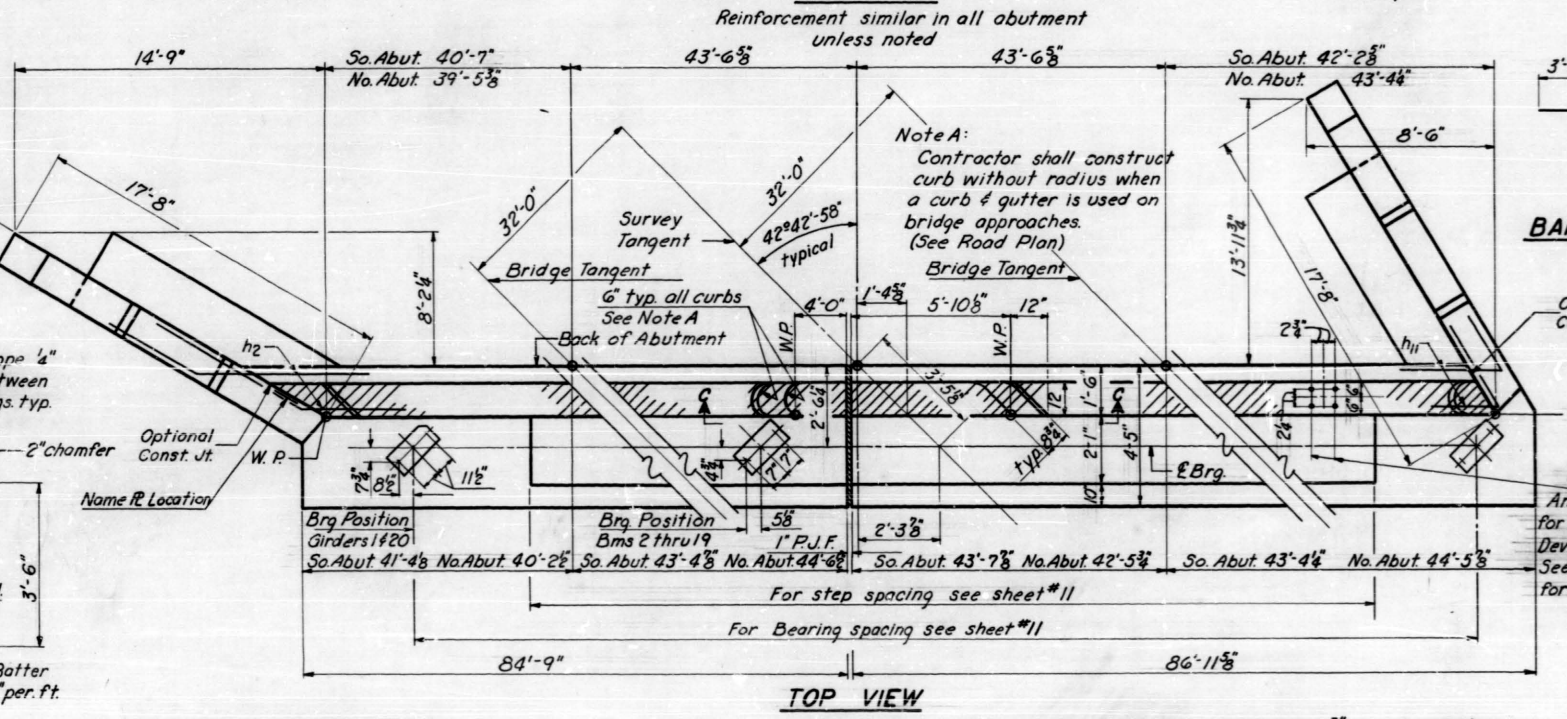
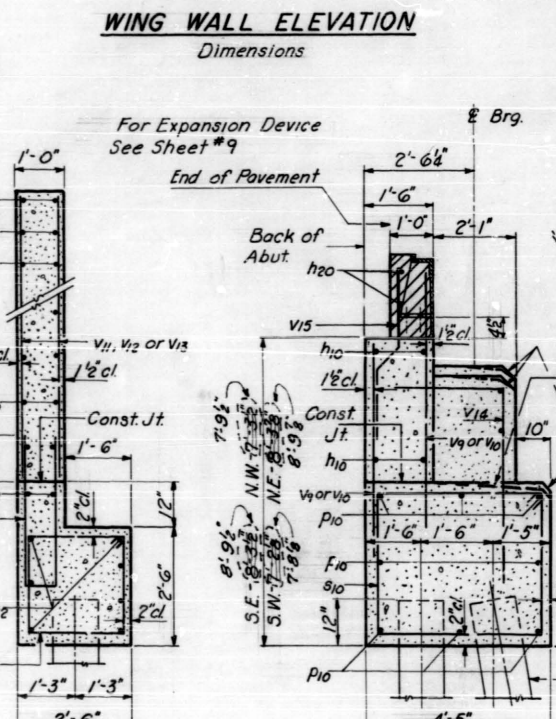
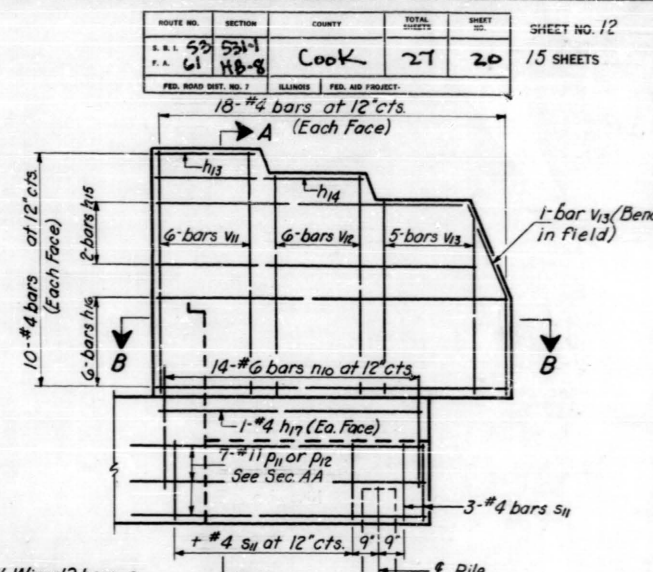
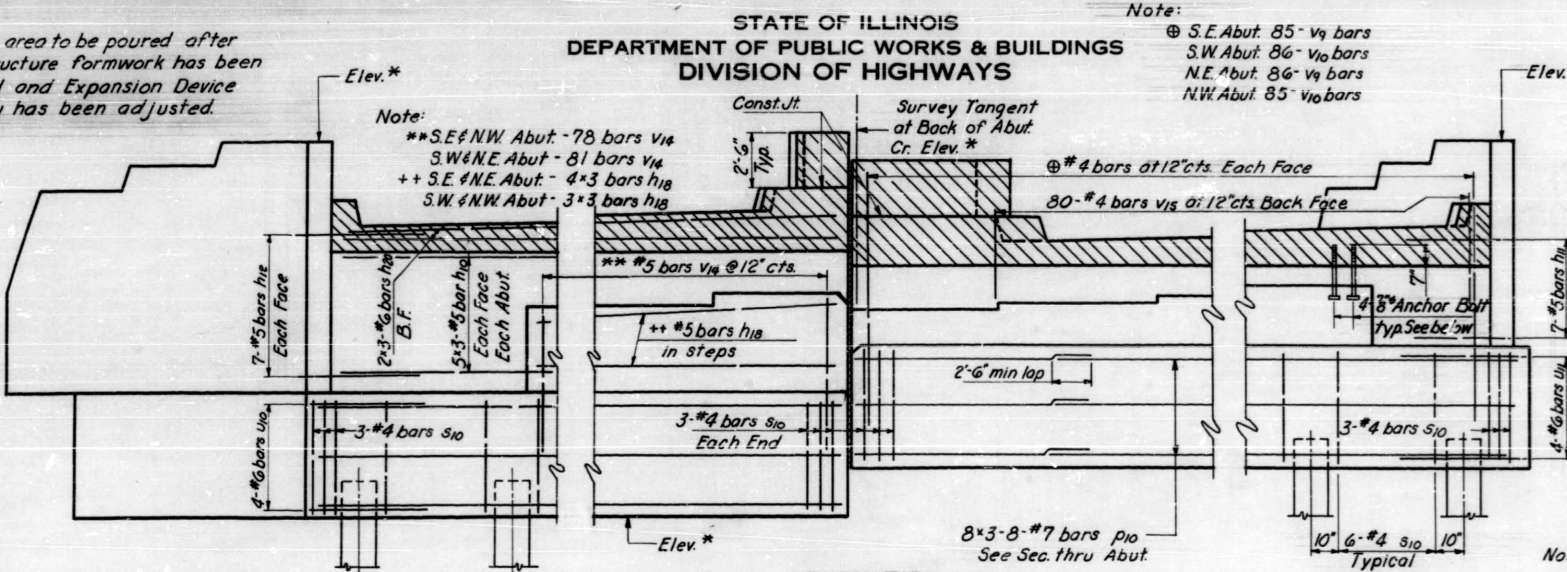
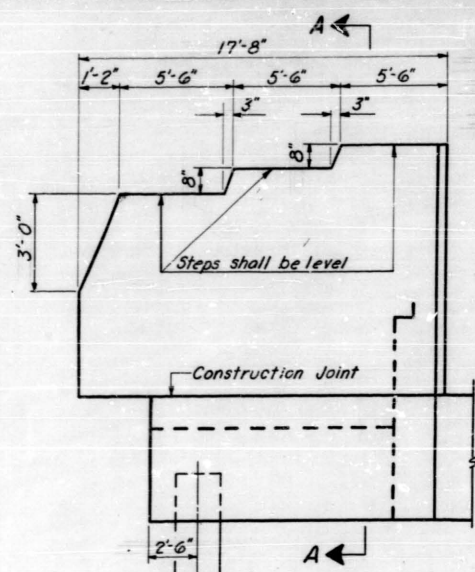
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	551-1-HB-8	Cook	27	20
15 SHEETS				

NOTE:
Hatched area to be poured after Superstructure Formwork has been removed and Expansion Device Assembly has been adjusted.

Note:
S.E. Abut. 85-#4 bars
S.W. Abut. 86-#4 bars
N.E. Abut. 86-#4 bars
N.W. Abut. 85-#4 bars

Note:
**S.E. & N.W. Abut. - 78 bars V_{14}
S.W. & N.E. Abut. - 81 bars V_{14}
+ S.E. & N.E. Abut. - 4 #3 bars h_{18}
S.W. & N.W. Abut. - 3 #3 bars h_{18}



TOTAL ABUTMENTS BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10	120	#5	29'-0"	—
h11	28	#5	5'-0"	L
h12	28	#5	5'-6"	—
h13	24	#4	5'-0"	—
h14	8	#4	10'-6"	—
h15	16	#4	16'-0"	—
h16	48	#4	17'-3"	—
h17	8	#4	15'-6"	—
h18	42	#5	28'-0"	—
h19	16	#4	3'-0"	—
h20	24	#6	29'-9"	—
n10	56	#6	10'-3"	U
n11	20	#4	9'-3"	U
n12	96	#7	30'-6"	U
n13	14	#11	14'-0"	—
n14	14	#11	17'-0"	—
s10	312	#4	15'-3"	□
s11	56	#4	9'-5"	□
u10	8	#6	14'-0"	U
u11	8	#6	10'-3"	U
v4	342	#4	8'-3"	—
v5	342	#4	7'-0"	—
v6	48	#4	9'-9"	—
v7	48	#4	9'-0"	—
v8	48	#4	8'-3"	—
v9	318	#4	8'-0"	7
v10	320	#4	4'-0"	7
Class X Concrete				Cu. Yds 392.0
Reinforcement Bars				Lbs. 27,210
Concrete Piles				Lin. Ft. 1630
Test Piles				Each 1
Name Plates				Each 2

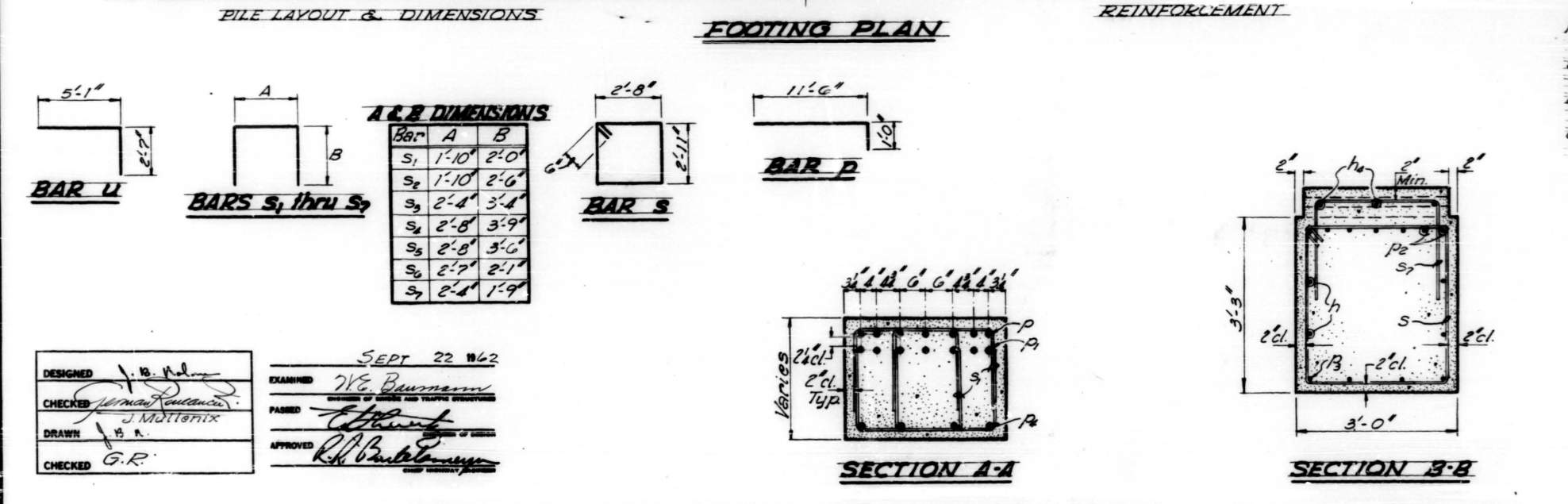
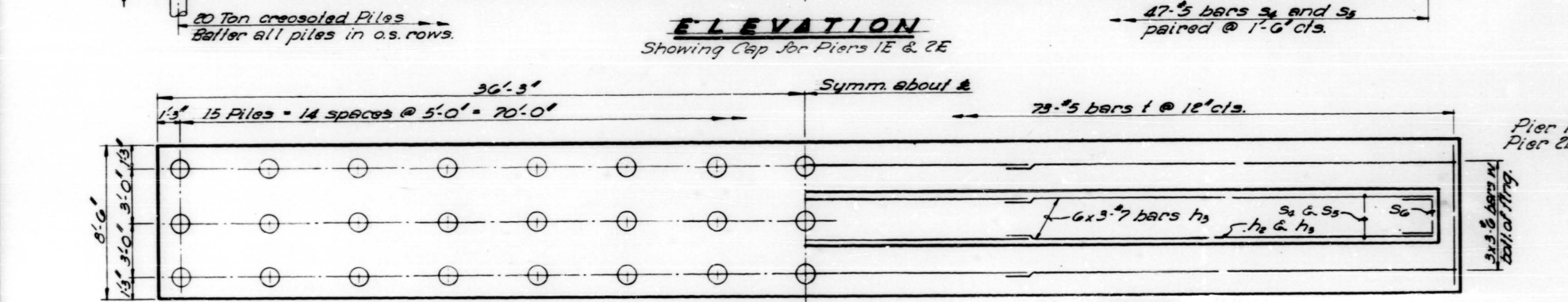
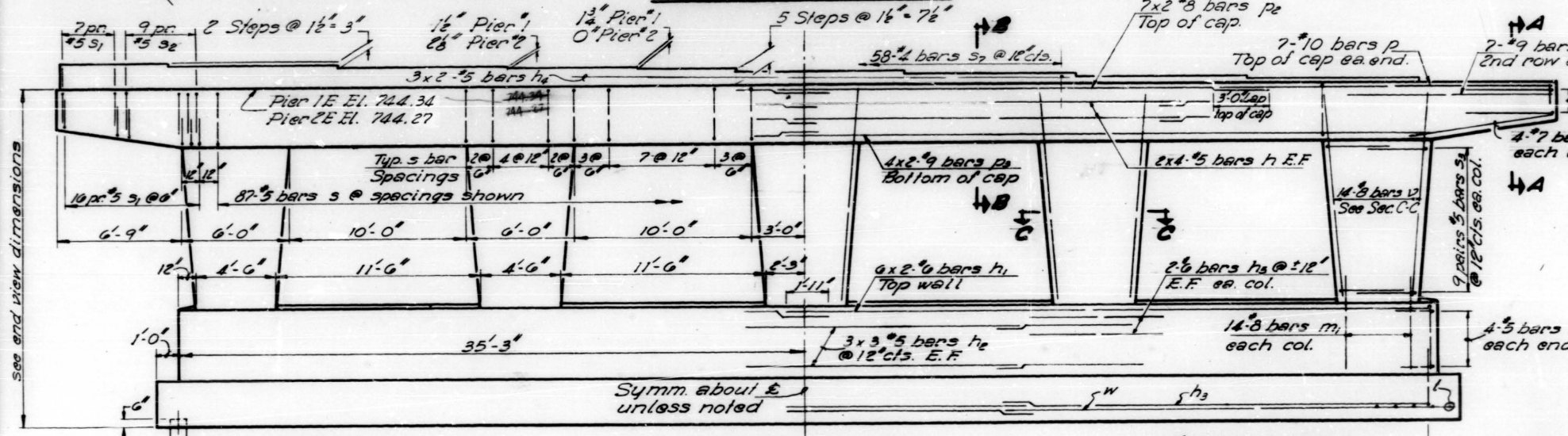
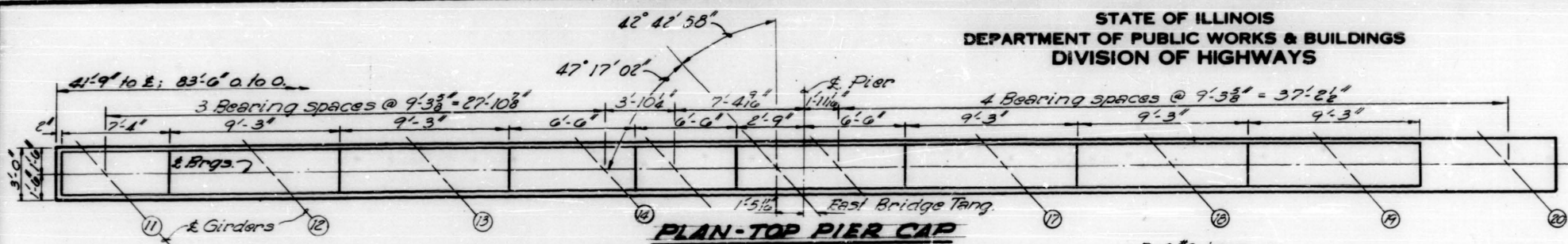
ABUTMENT DETAILS
S.B.I. ROUTE 55
SEC. 551-1-HB-8
COOK COUNTY
STATION 193+00.00

DESIGNED: J. R. Hall
CHECKED: J. R. Hall
DRAWN: W. E. Dickerson
CHECKED: G. R.
EXAMINED: W. E. Beumann
PASSED: [Signature]
APPROVED: R. R. [Signature]
SEPT 22, 1922

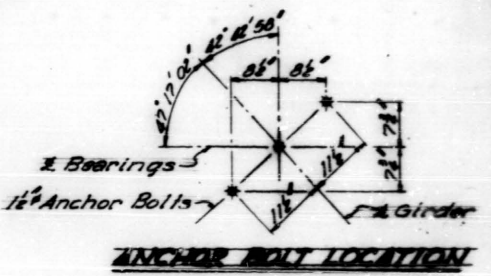
Revised Notes in SEC. THRU ABUT changed dimensions from bottom fly to top fly: S.E. from 8'-3" to 4'-9", S.W. from 7'-2" to 7'-4", N.W. from 7'-2 1/2" to 7'-2 1/2", N.E. from 8'-3 1/2" to 8'-3 1/2" etc.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

53	534-1	Cook	27	21	13
61	115-3				15



± Roadway and Pier
Pier 1E:
Sta. 1921+22.98; El. 751.51
Pier 2E:
Sta. 1931+34.35; El. 751.37



ONE PIER PILE DATA

Type..... Cross-tied
Capacity..... 20 Tons
Est. Length..... 36'-0"
No. Req'd..... 45

BILL OF MATERIAL-ONE PIER

Bar	No.	Size	Length	Shape
h	10	#5	21'-9"	□
h1	12	#6	36'-0"	□
h2	18	#5	24'-3"	□
h3	18	#7	24'-0"	□
h4	6	#5	29'-0"	□
h5	20	#6	7'-0"	□
m1	70	#8	5'-9"	□
p	14	#10	12'-6"	□
p1	14	#9	11'-0"	□
p2	14	#8	36'-9"	□
p3	8	#9	36'-0"	□
p4	8	#7	8'-0"	□
s	87	#5	12'-2"	□
s1	92	#5	5'-10"	□
s2	36	#5	6'-10"	□
s3	90	#5	9'-0"	□
s4	47	#5	10'-2"	□
s5	47	#5	9'-6"	□
s6	8	#5	6'-9"	□
s7	58	#4	5'-10"	□
i	73	#5	8'-3"	□
u	6	#6	12'-9"	□
v	70	#8	10'-0"	□
w	9	#6	25'-0"	□

Class X Concrete Cu. Yds. 142.5
Reinforcement Bars Lbs. 14,500
Cross-tied Piles Lin. Ft. 1,620

Note:
Space reinforcement in cap to miss anchor bolts.
Minimum bar laps = 20 diameters unless otherwise noted.
All edges shall have standard 3/4" chamfers except footings.
Four steps monolithically with cap.

DESIGNED: J. B. ...
CHECKED: J. M. ...
DRAWN: J. B. ...
CHECKED: G. R. ...

EXAMINED: W. E. ...
PASSED: ...
APPROVED: R. B. ...

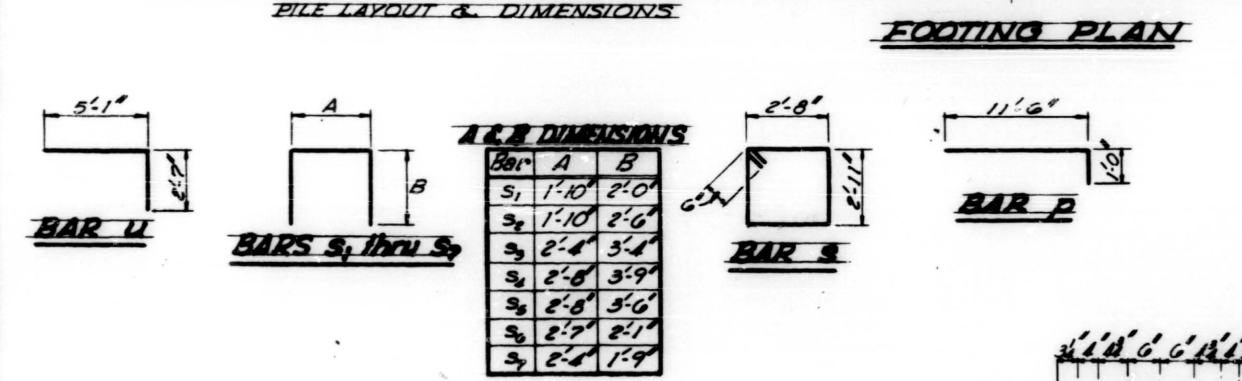
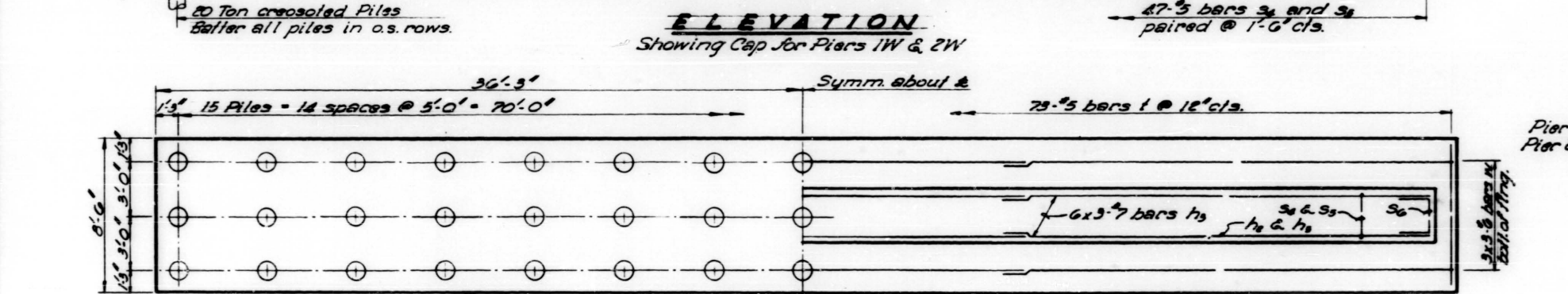
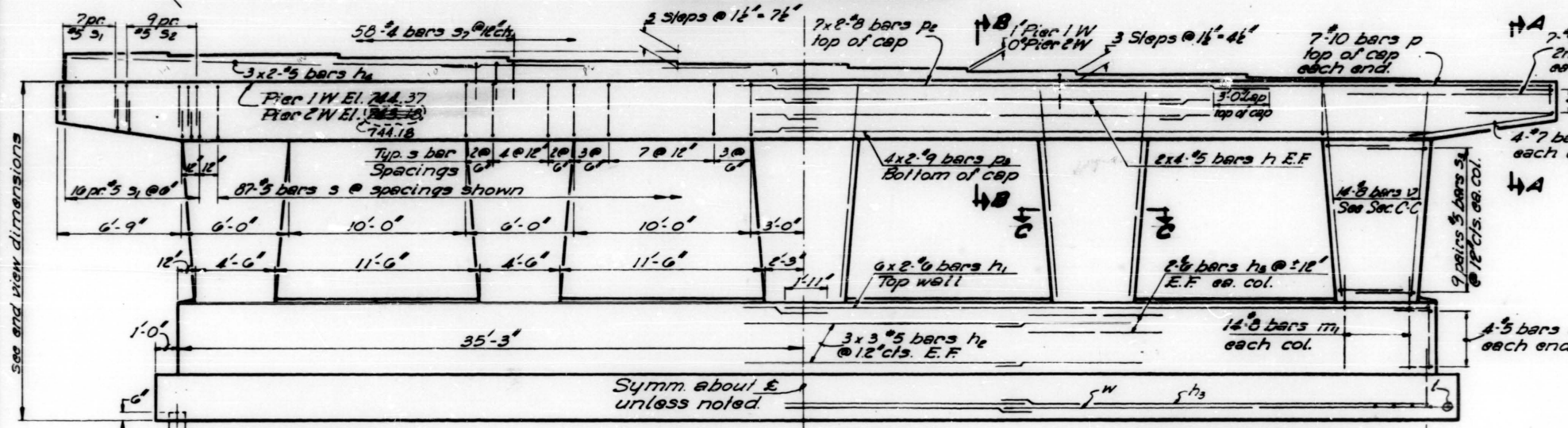
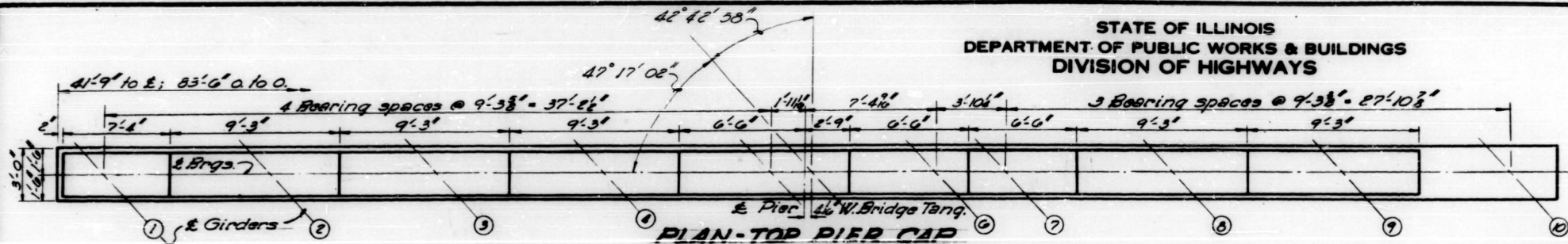
SEPT 22 1962

PIERS 1E & 2E
S. B. I. ROUTE 53
SEC. 531-1-H3-B
COOK COUNTY
STATION 193+08.57

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	BY	CHKD	APP'D
5-21-11	16-8	Cook	21
22			

SHEET NO. 14
SHEETS 15

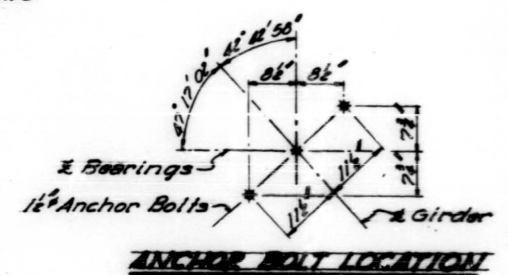


DESIGNED: J.B. Muller
CHECKED: J. Muller
DRAWN: J.B. Muller
CHECKED: G.R.

DATE: SEPT 22 1962

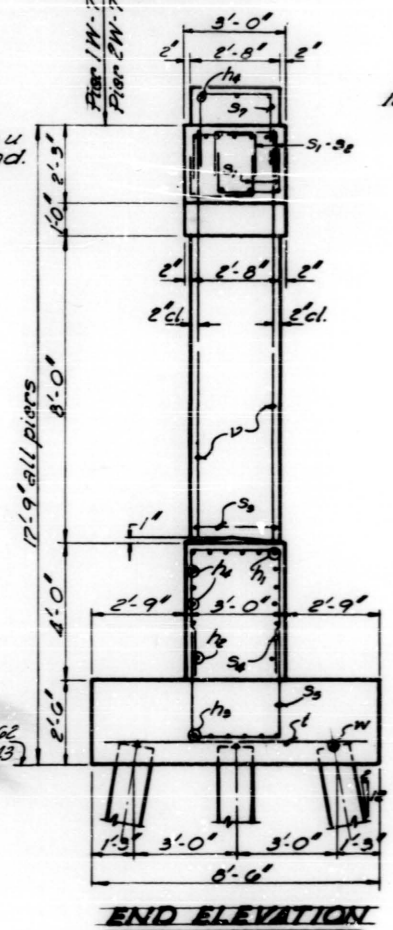
DESIGNED: W.E. Beermann
CHECKED: J. Muller
DRAWN: J.B. Muller
CHECKED: G.R.

± Roadway and Pier
Pier 1W:
Sta. 192+82.97; El. 751.47
Pier 2W:
Sta. 193+92.16; El. 751.18



ONE PIER
PILE DATA

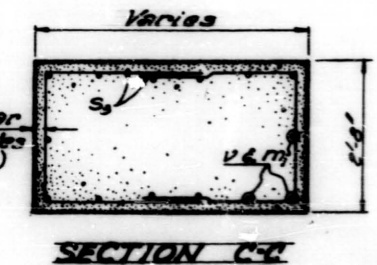
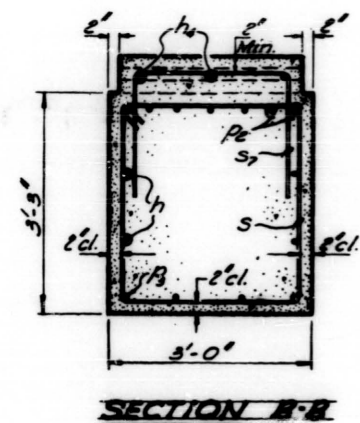
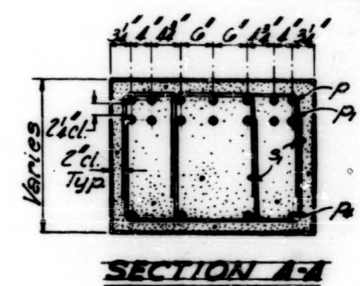
Type	Creosoted
Capacity	20 Tons
Est. Length	36'-0"
No. Rows	15
Test Piles	1 (Pier 2W)



BILL OF MATERIALS - ONE PIER

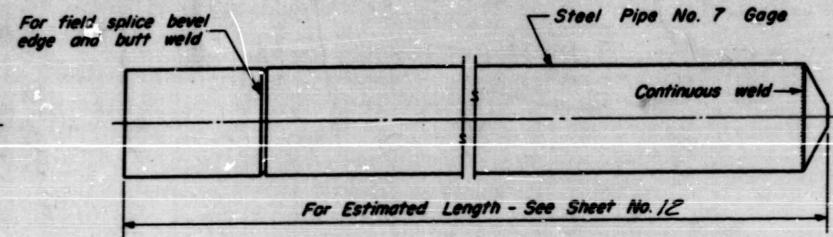
Bar	No.	Size	Length	Shape
h	10	#5	21'-9"	□
h ₁	12	#6	36'-0"	□
h ₂	18	#5	24'-3"	□
h ₃	18	#7	24'-0"	□
h ₄	0	#5	24'-0"	□
h ₅	20	#6	7'-0"	□
m	70	#8	3'-9"	□
P	14	#10	12'-6"	□
A	14	#9	11'-0"	□
B	14	#8	3'-9"	□
B	0	#9	36'-0"	□
B	0	#7	8'-0"	□
S	87	#5	12'-2"	□
S ₁	92	#5	8'-10"	□
S ₂	36	#5	6'-10"	□
S ₃	90	#5	9'-0"	□
S ₄	47	#5	10'-2"	□
S ₅	47	#5	9'-0"	□
S ₆	8	#5	6'-9"	□
S ₇	36	#4	3'-10"	□
l	23	#8	8'-3"	□
u	0	#6	12'-9"	□
v	20	#8	10'-0"	□
w	9	#6	25'-0"	□

Notes:
Space reinforcement in cap to miss anchor bolts.
Minimum bar laps = 20 diameters unless otherwise noted.
All edges shall have standard ± chamfers except footings.
Four steps monolithically with cap.

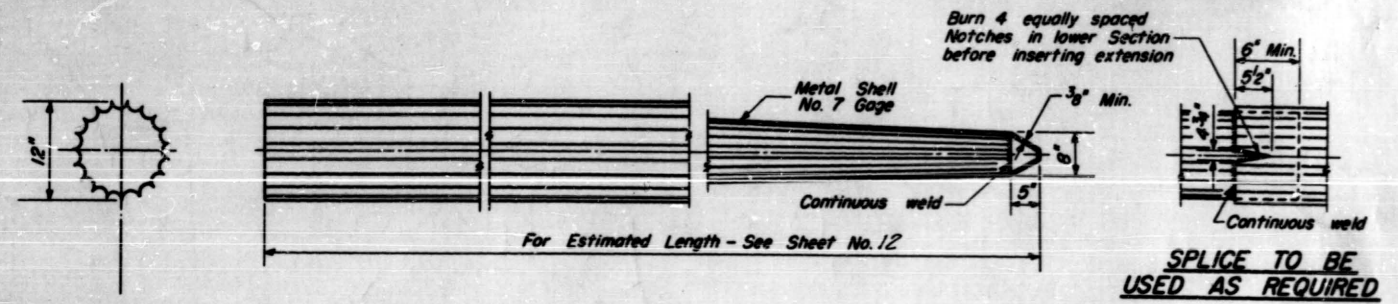


PIERS 1W & 2W
S.B.I. ROUTE 63
SEC. 51-1-HB-8
COOK COUNTY
STATION 192+82.97

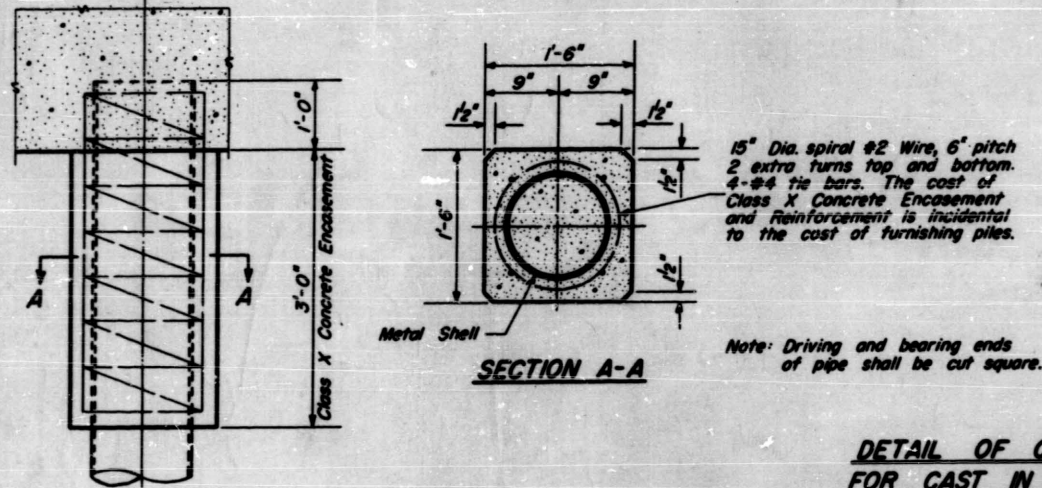
Revised 1/23/63: In ELEVATION changed top of cap elevation Pier 2W from 743.18 to 744.18, W.S.



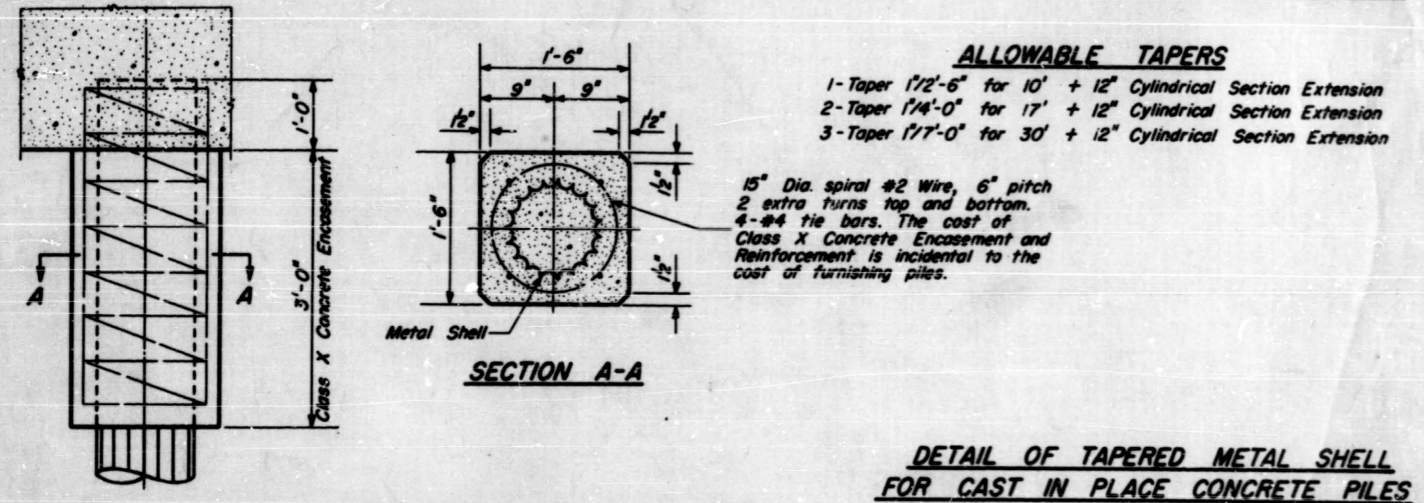
OPTIONAL FLAT END



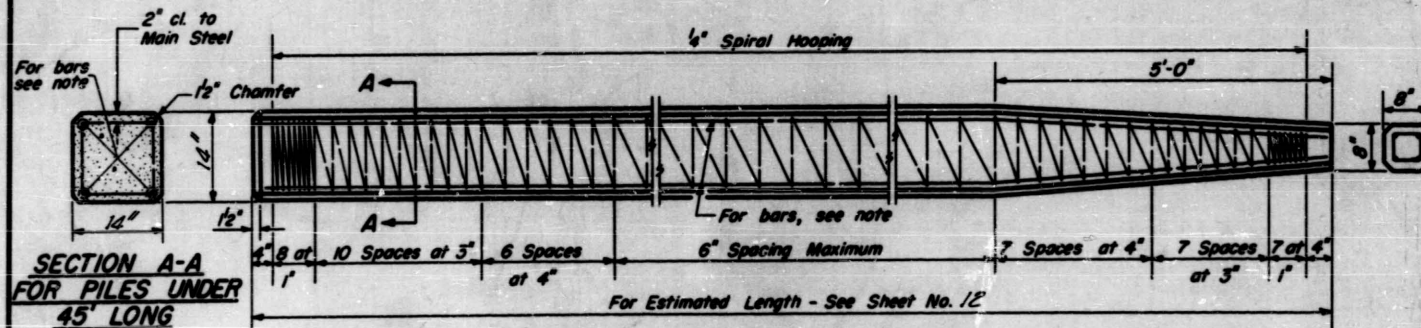
SPLICE TO BE USED AS REQUIRED



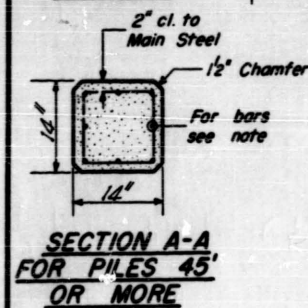
DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES



DETAIL OF TAPERED METAL SHELL FOR CAST IN PLACE CONCRETE PILES



SECTION A-A FOR PILES UNDER 45' LONG

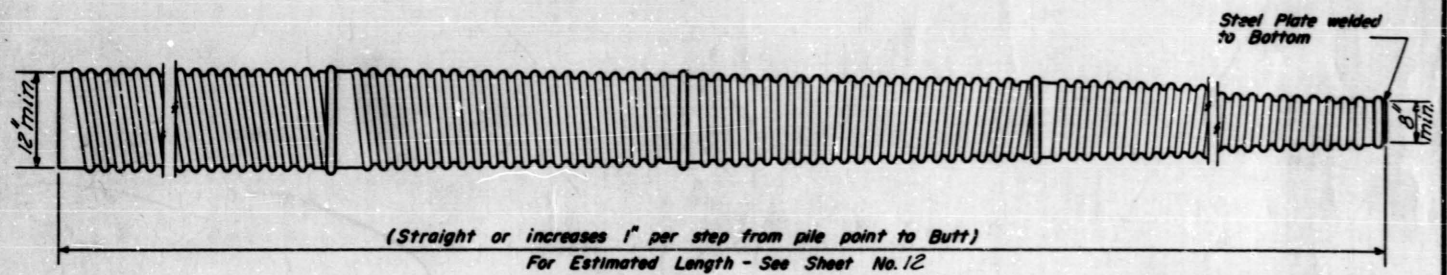


SECTION A-A FOR PILES 45' OR MORE

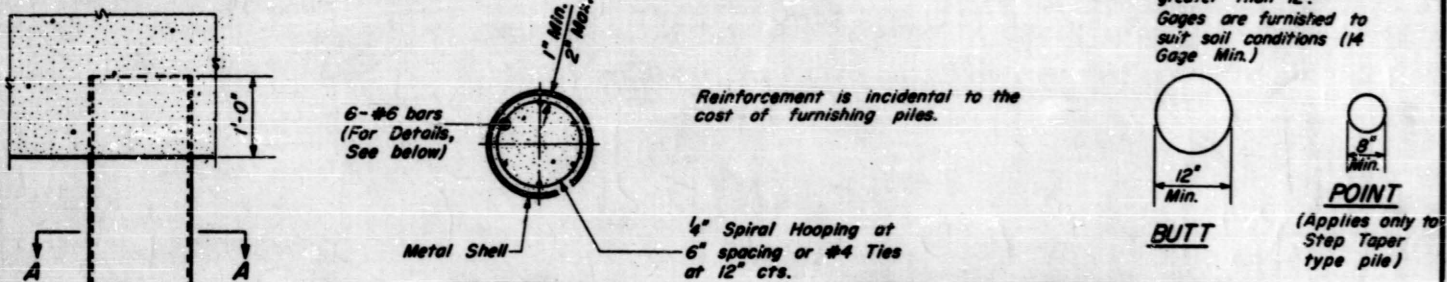
Note: For 14" Piles 45' long or more use 8-#8 bars 4 for the full length and 4 to the point of bevel. For 14" Piles under 45' long use 4-#9 bars the full length.

Handling: For Pile lengths up to 45', use two slings placed at a distance of 0.21 L* from each end. For Piles longer than 45', use three slings placed at a distance of 0.12 L* from each end and at mid-point of pile.

*L = Over all length of pile to be handled.



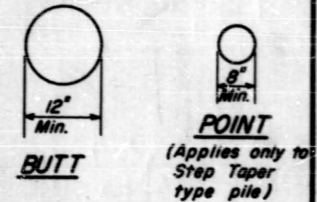
(Straight or increases 1" per step from pile point to Butt) For Estimated Length - See Sheet No. 12



SECTION A-A

DETAIL OF MANDREL DRIVEN STRAIGHT OR STEP-TAPER PILES FOR CAST IN PLACE CONCRETE PILES

At least 1/4 of the length of pile shall have a Butt diameter equal to or greater than 12". Gages are furnished to suit soil conditions (14 Gage Min.)



BUTT POINT (Applies only to Step Taper type pile)

DESIGNED	W.A.	SEPT 22 1962
CHECKED	W.A. Sausamon	EXAMINED
DRAWN	W.A. Sausamon	PASSED
CHECKED	G.R.	APPROVED

DETAIL OF PRECAST CONCRETE PILES

PILE DETAILS
S.B.I. ROUTE 59
SEC. 551-1-HB-8
COOK COUNTY
STATION 193+08.57