

Run for Letting 4/2/66

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

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 80	1313-811 HB	COOK	44	1
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT 1-80-4(77)150				

P-91-110-00

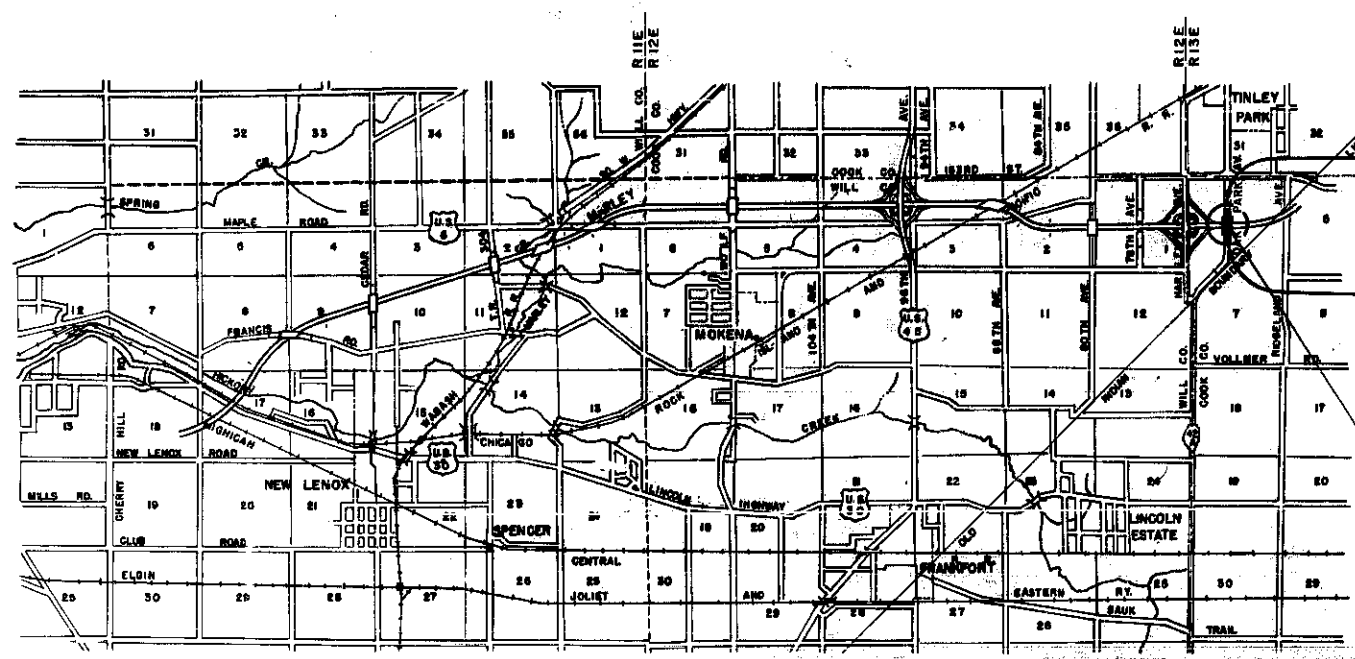
PLAN 1 INCH
PROFILE HOR. 1 INCH
PROFILE VERT. 1 INCH
CROSS-SECTIONS 1 INCH
VERT. HOR.

INDEX OF SHEETS ON SHEET No 3

F.A.I. ROUTE 80
COOK COUNTY
SECTION 1313-811 HB
PROJECT 1-80-4(77)150
OAK PARK AVENUE
C-90-512-65



HIGHWAY CLASSIFICATION
F.A.I. ROUTE 80 8100-T-60
OAK PARK AVE. 1000-T-45



OAK PARK AVE.
BEGIN CONSTRUCTION
STA. 40+65

OAK PARK AVE.
END CONSTRUCTION
STA. 58+75

PROJECT 1-80-4(77)150, SECTION 1313-811 HB
INCLUDES A 4-SPAN WF-BEAM GRADE
SEPARATION STRUCTURE (CARRYING OAK PARK
AVENUE OVER F.A.I. ROUTE 80) SPANS 2 AT
40'-6", 1 AT 67'-6" AND 1 AT 75'-9" ON R.C. OPEN
PIERS AND CONCRETE PILE BENT ABUTMENTS
AT STATION 1313+37.93. ALSO INCLUDES
CONCRETE PAVED APPROACHES.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Carl E. ...
Engineer of Bridge & Traffic Structures

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	
SUBMITTED	<i>APR 15 1966</i>
EXAMINED	<i>C.A. Benning</i>
PASSED	<i>May 6 1966</i>
APPROVED	<i>May 6 1966</i>
APPROVED	<i>May 6 1966</i>

NET LENGTH OF IMPROVEMENT = 1810 L.F. = 0.343 Miles
NET LENGTH OF PROJECT = 000 L.F. = 0.000 Miles

SCALE: 1" = 5000'

PREPARED BY: *Henry M. ...*
EXAMINED BY: *...*
ENTIRE SECTION INSPECTED
AND APPROVED AS TO POLICY
BY: *C.A. Benning*
DISTRICT ENGINEER

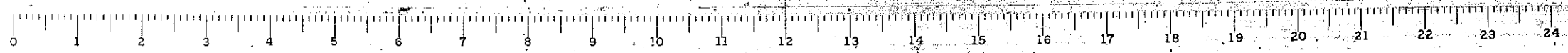
CONTRACT NO. 24617



THESE PLANS PREPARED
BY
Chas. W. Cole & Son
Engineers & Architects
South Bend, Indiana

Francis E. ...
REGISTERED STRUCTURAL ENGINEER - STATE OF ILLINOIS NO. 81-2547

DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	
APPROVED	
DIVISION ENGINEER	DATE

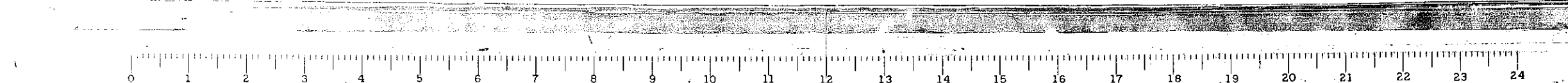


P-2A 36"x137'	Pipe Culvert (Type, Size and Length)	P.C.	Point of Curve
S-2 24"x128'	Storm Sewer (Type, Size and Length)	P.I.	Point of Intersection
B.C.C.M.P. 24"x76'	Pipe Culvert (Material, Size and Length)	P.T.	Point of Tangent
(Std. 1976) D36-2	Headwall (Type and Size)	P.O.T.	Point on Tangent
(Std. 1258)	Inlet, Type	P.R.C.	Point of Reverse Curve
		V.C.	Vertical Curve
		Δ	Central Angle
		D	Degree of Curve
		T	Tangent Length
Fl. Inl.	Flow Line, Inlet	L	Curve Length
Fl. Out	Flow Line, Outlet	R	Radius of Curve
E	Centerline	E	External Distance
F.A.I.	Federal Aid Interstate	S	Superelevation
Rte	Route	P.S.M.	Permanent Survey Monument
R.O.W	Right of Way	M.P.O.C.	Mid-Point on Curve
I.P.	Iron Pipe	S.D.	Special Ditch
I.P.B.	Iron Pipe Buried		
H&T	Hub and Tack		
S.A.	State Aid		
Sec	Section		
Sta	Station		
ℙ	Property Line		
B.M.	Bench Mark		
Elev.	Elevation		
P.C.C.	Portland Cement Concrete		
C.Y.	Cubic Yards		

INDEX OF SHEETS
OAK PARK AVE. - SECTION 1313-811HB

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2,A	TYPICAL SECTION OAK PARK AVENUE & SPECIAL DETAILS
3	SYMBOLS, ABBREVIATIONS, & INDEX OF SHEETS
4	GENERAL NOTES & SUMMARY OF QUANTITIES
5	SCHEDULE OF QUANTITIES
6	PLAN & PROFILE FEDERAL AID INTERSTATE ROUTE 80
7-8	PLAN & PROFILE OAK PARK AVE.
9	DETOUR ROAD GRADE
10	GENERAL PLAN AND ELEVATION
11	BORING DATA
12-13	SUPERSTRUCTURE DETAILS
14-15	STRUCTURAL STEEL DETAILS
16	SCREED DATA
17	HANDRAIL DETAILS
18	NORTH AND SOUTH ABUTMENT DETAILS
19	PIER NO.1 AND PIER NO.3 DETAILS
20	PIER NO.2 DETAILS
21	ABUTMENT PILE DETAILS, X-1
22	METAL HANDRAIL DETAILS, R-20
23	METAL HANDRAIL DETAILS, R-21
24	NAME PLATE DETAILS
25-33	STANDARD CROSS-SECTIONS, OAK PARK AVE., STA. 36+50 TO STA. 62+00
34	DETAILS FOR STEEL PLATE BEAM GUARD RAIL END & ANCHORAGE TREATMENT
35,A	STANDARDS 1683-2, 1744-1
36,A	STANDARDS 1766-4, 1971-3
37	STANDARD 1909-6
38,A	STANDARDS 2113-1, 2163-3
39,A,B	STANDARD 2179-1, 2114, 1976
40,A	STANDARDS 2115-1, 2208-2
41	STANDARD 2209-1
42,A	STANDARDS 2213-1, 2228
43	STANDARD 2230
44,A	STANDARDS 2231, 10-SS-539

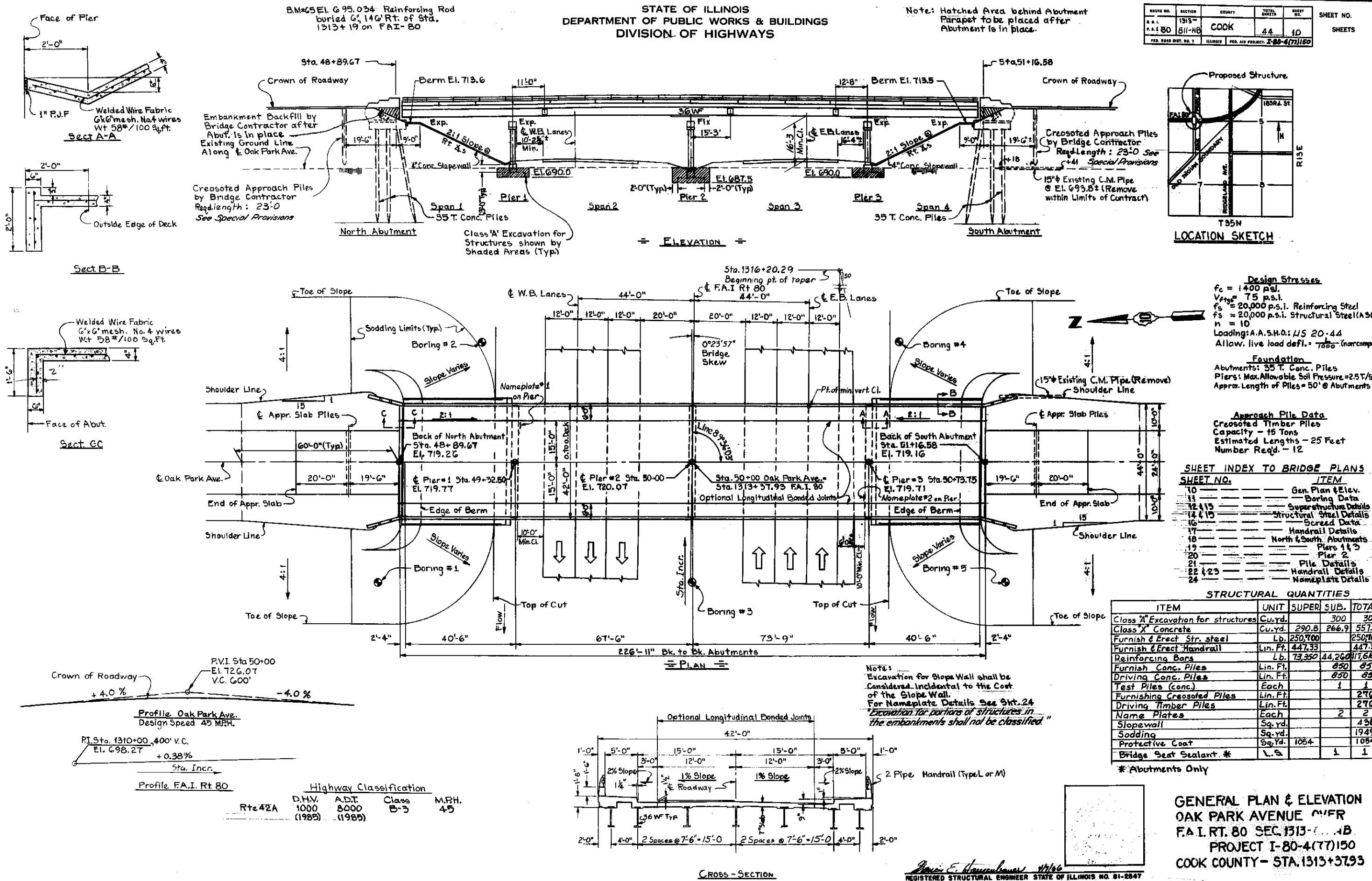
**SYMBOLS , ABBREVIATIONS
&
INDEX OF SHEETS**
F.A.I. ROUTE 80 SEC.1313-811HB
COOK COUNTY



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

Note: Hatched Area behind Abutment
Parapet to be placed after
Abutment is in place.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1313	1313-1B	COOK	44	10
PROJ. NO.	1313-1B	ILLINOIS	PER. AND PROJECT: 2-80-4(77)150	SHEETS



Design Stresses
 $f_c = 1400$ p.s.i.
 $V_{max} = 75$ p.s.i.
 $f_s = 20,000$ p.s.i. Reinforcing Steel
 $f_s = 20,000$ p.s.i. Structural Steel (A36)
 $n = 10$
 Loading: A.A.S.H.O.: HS 20-44
 Allow. live load defl. = $\frac{1}{7000}$ (noncomp.)

Foundation
 Abutments: 35 T. Conc. Piles
 Piers: Max. Allowable Soil Pressure = 2.5 T/sf
 Apprx. Length of Piles = 50' @ Abutments

Approach Pile Data
 Creosoted Timber Piles
 Capacity - 15 Tons
 Estimated Lengths - 25 Feet
 Number Req'd. - 12

SHEET INDEX TO BRIDGE PLANS

SHEET NO.	ITEM
10	Gen. Plan & Elev.
11	Boring Data
12 & 13	Superstructure Details
14 & 15	Structural Steel Details
16	Graded Data
17	Handrail Details
18	North & South Abutments
19	Piers 1 & 3
20	Pier 2
21	Pile Details
22 & 23	Handrail Details
24	Nameplate Details

STRUCTURAL QUANTITIES

ITEM	UNIT	SUPER	SUB.	TOTAL
Class 'A' Excavation for structures	Cu. yd.		300	300
Class 'X' Concrete	Cu. yd.	290.8	266.9	557.7
Furnish & Erect Str. steel	Lb.	250,700		250,700
Furnish & Erect Handrail	Lin. Ft.	447.33		447.33
Reinforcing Bars	Lb.	73,350	44,260	117,610
Furnish Conc. Piles	Lin. Ft.		850	850
Driving Conc. Piles	Lin. Ft.		850	850
Test Piles (conc.)	Each		1	1
Furnishing Creosoted Piles	Lin. Ft.		276	276
Driving Timber Piles	Lin. Ft.		276	276
Name Plates	Each		2	2
Slopedwall	Sq. yd.		438	438
Sodding	Sq. yd.		1949	1949
Protective Coat	Sq. yd.	1054		1054
Bridge Seat Sealant #	L.S.		1	1

* Abutments Only

GENERAL PLAN & ELEVATION
OAK PARK AVENUE OVER
F.A.I. RT. 80 SEC. 1313-1B
PROJECT I-80-4(77)150
COOK COUNTY - STA. 1313+37.93

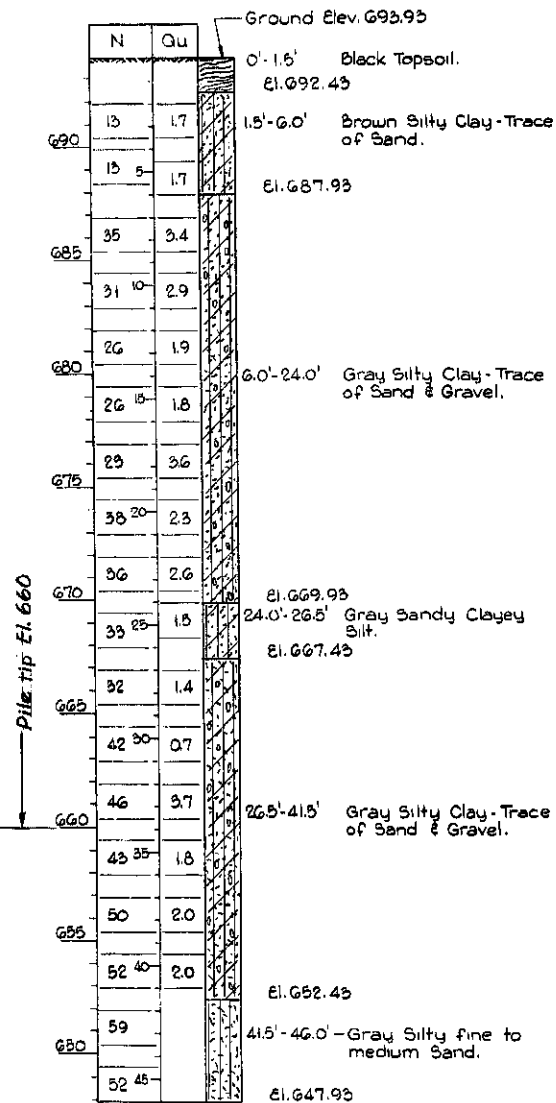
REGISTERED STRUCTURAL ENGINEER STATE OF ILLINOIS NO. 81-2847

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

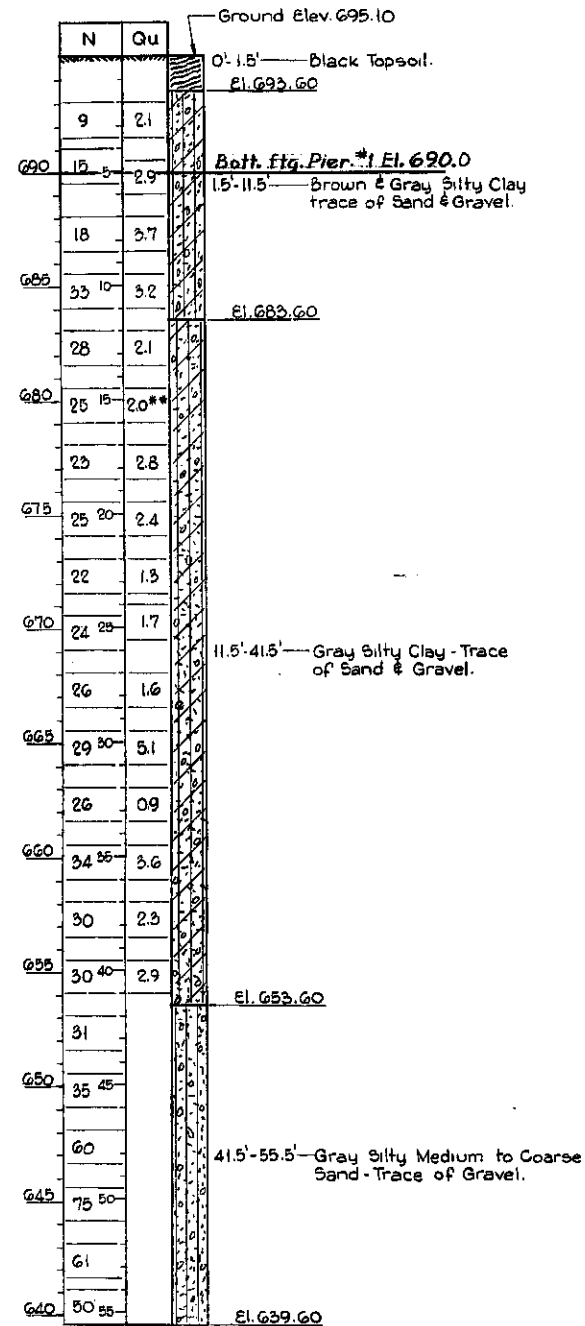
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1513-	11-11E	COOK	44	11
F.S.D.	60	11-11E	44	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO.
SHEETS

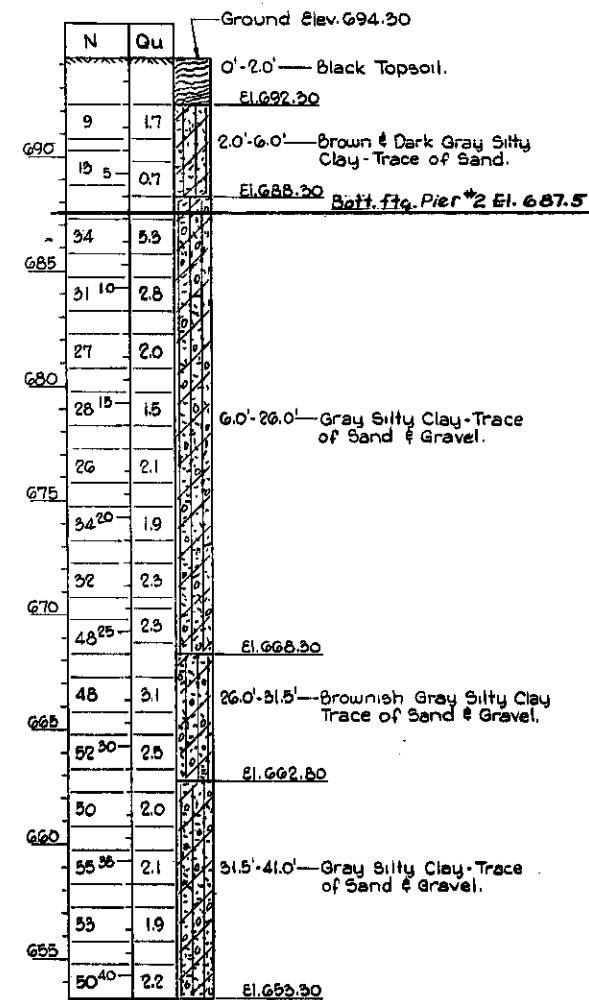
BORING No. 1



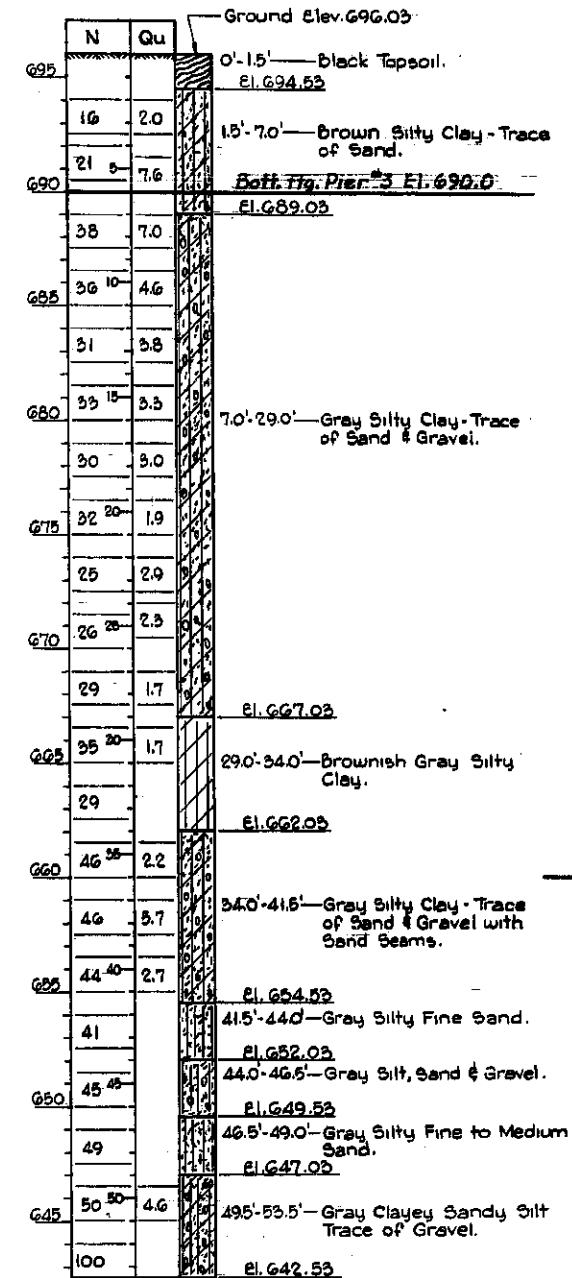
BORING No. 2



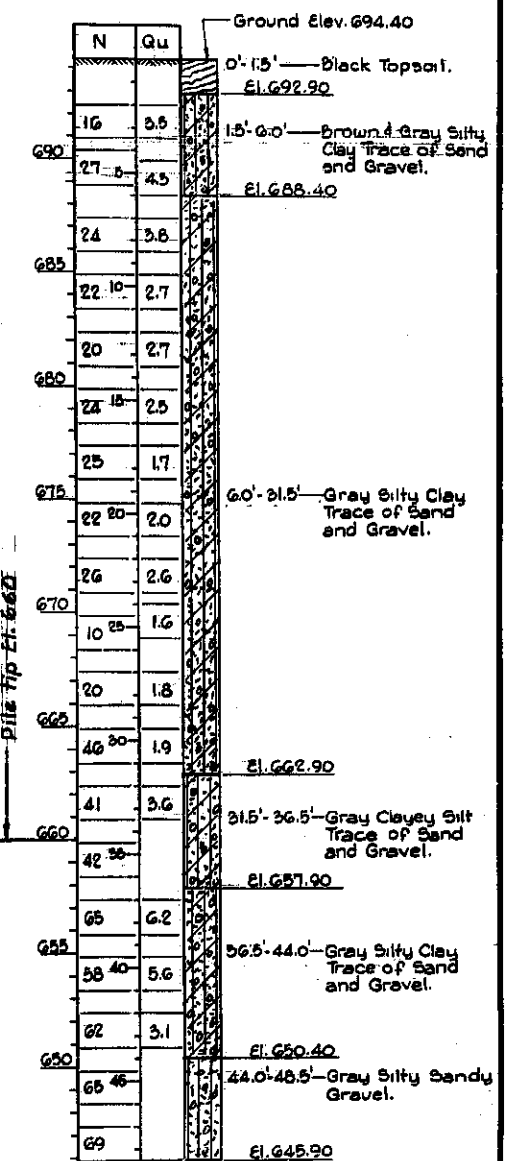
BORING No. 3



BORING No. 4



BORING No. 5



NOTE:-

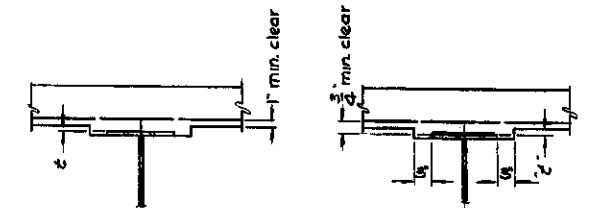
N = Blows per foot of penetration of Sampling spoon.
Hammer weight = 140 Lb., drop = 30 inches.
Qu = Unconfined compressive strength in tons per square foot.
See Art. 2.3 of Specifications regarding Test Pit Data.
** Based on pocket penetrometer measurements, maximum range of penetrometer = 4.5

BORING DATA

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
E. & L.	1315-			
F. & Z.	80 811-HB	COOK	44	13
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT.		

SHEET NO. _____

SHEETS _____



After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at the stations shown on sheet 16. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 15, minus floor thickness equals the fillet heights above top flange of beams.

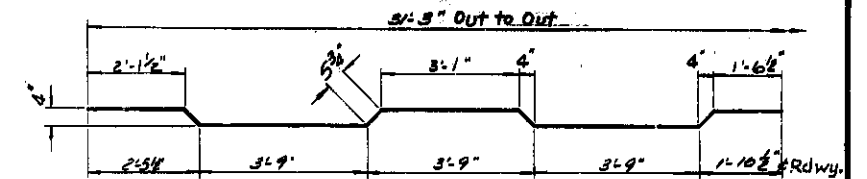


Diagram of a vertical bar with a horizontal base, labeled "BAR "d2"".

BAR 'di'

Bill of Material

Bar	No.	Size	Length	Shape
a	448	6	31'-3"	
a1	223	6	32'-4"	
a2	600	4	5'-6"	
b	672	5	32'-10	
b1	32	6	19'-0	
b2	32	6	23'-9"	
b3	32	6	23'-0"	
b4	16	5	16'-0"	
b5	28	5	32'-3"	
b6	36	5	8'-6"	
b7	36	5	6'-9"	
b8	24	5	16'-9"	
b9	56	5	26'-3"	
b10	36	5	9'-3"	
b11	36	5	8'-3"	
b12	16	5	19'-9"	
b13	56	5	28'-6"	
b14	8	5	17'-6"	
b15	36	5	7'-3"	
b16	36	5	10'-6"	
b17	28	5	31'-3"	
b18	16	5	15'-0"	
c	362	4	5'-8"	
d	450	6	3'-4"	
d1	450	4	2'-6"	
d2	300	4	1'-11"	

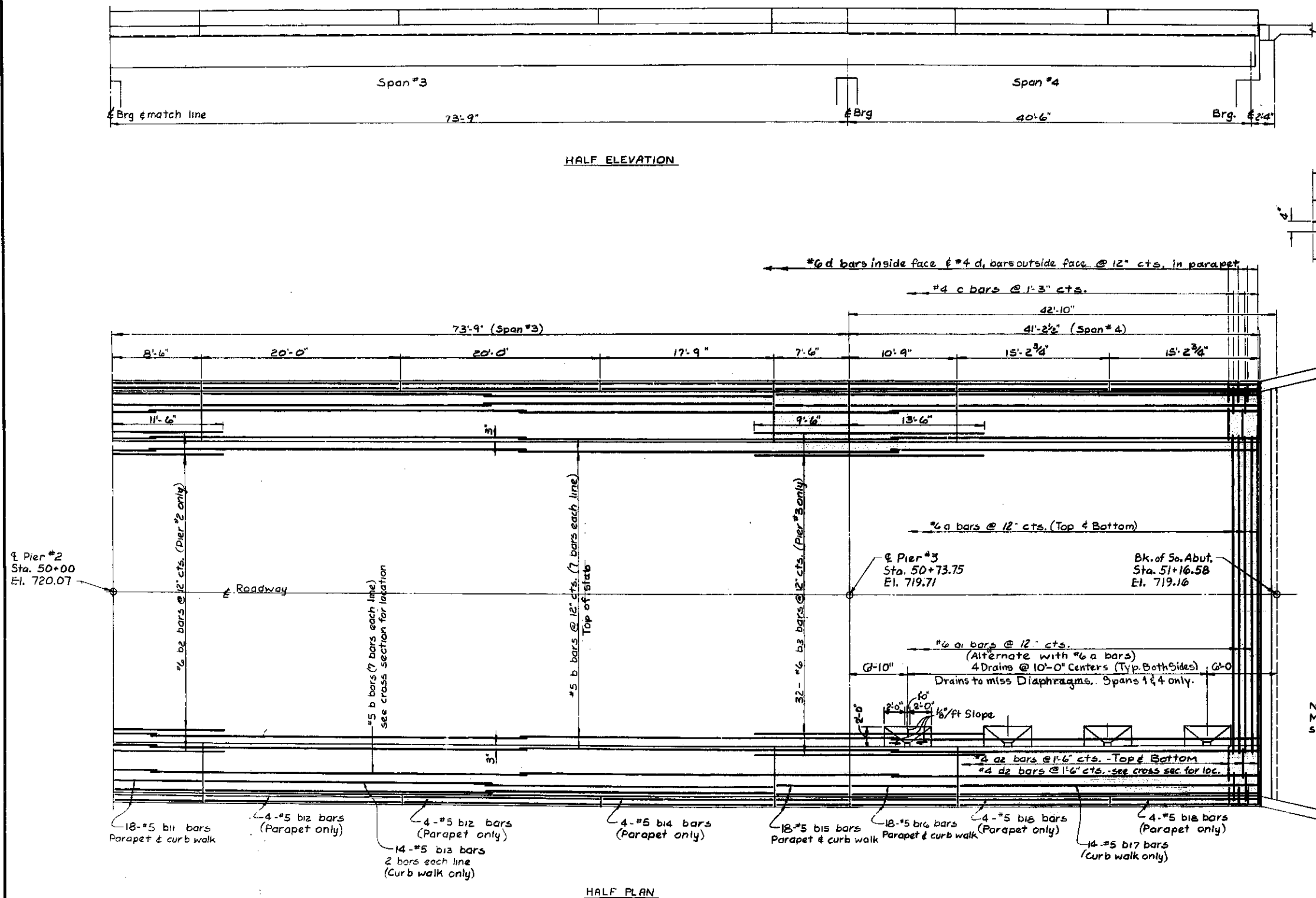
Note:
Minimum lap for all reinforcing bars
shall be 20 bar diameters

Summary of Quantities

Class "X" Concrete	290.8 cu.yd
Reinforcement bars	73350 lbs.
*Structural Steel	250,700 lbs.

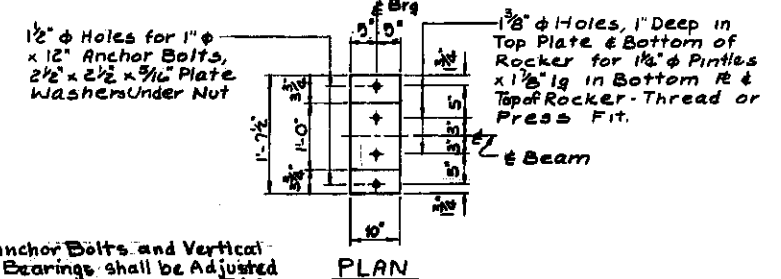
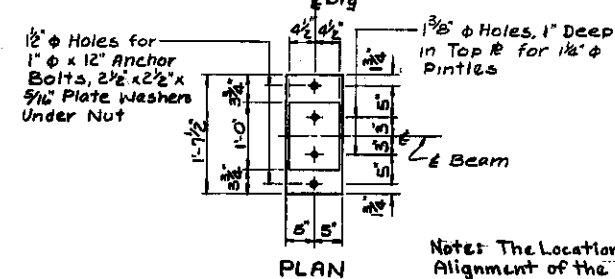
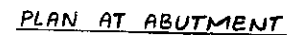
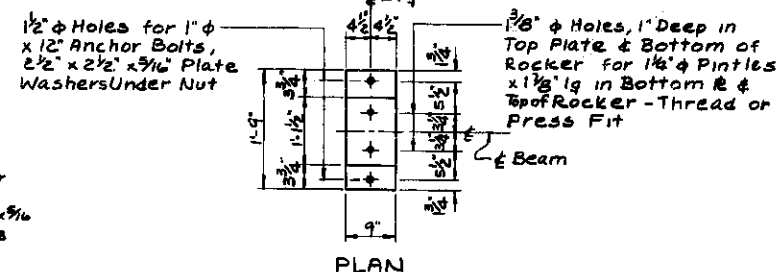
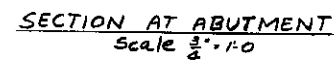
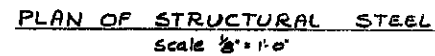
*Weight of Rockers, Bearing Plates,
Lead Plates & Anchor Bolts included
as Structural Steel

SUPERSTRUCTURE DETAIL:
OAK PARK AVE. OVER
FAI RT. 80 - SEC. 1313 - 811HB
COOK COUNTY - STA. 1313+37.93



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.D.L.	1313-			
S.A.T.	80811-NB	COOK	44	14
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT.		

SHEET NO.
SHEETS



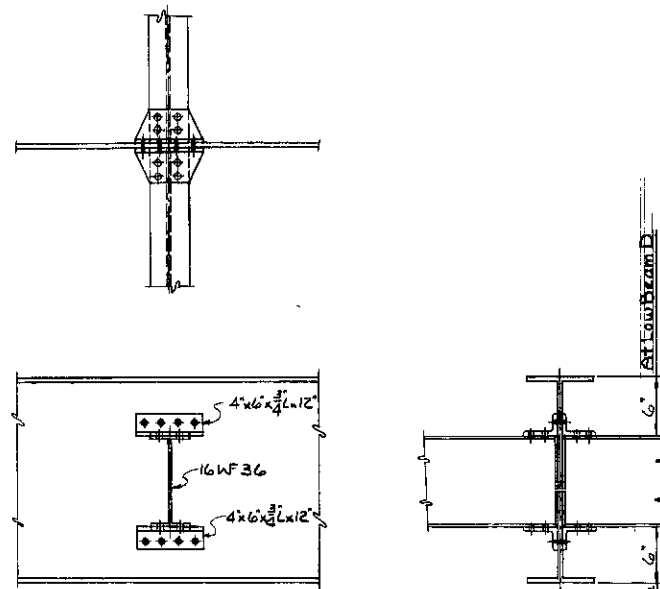
Structural Steel	
A 36	250,870
Lead Plates	330
Total Struct. Steel	250,700

Beam Location	#1	#2	#3	#4	#5	#6	#7
North Abut.	0	0	0	5/8"	0	0	0
Pier #1	0	0	0	3/8"	0	0	0
Pier #2	0	0	0	5/8"	0	0	0
Pier #3	0	0	0	5/8"	0	0	0
South Abut.	0	0	0	5/8"	0	0	0

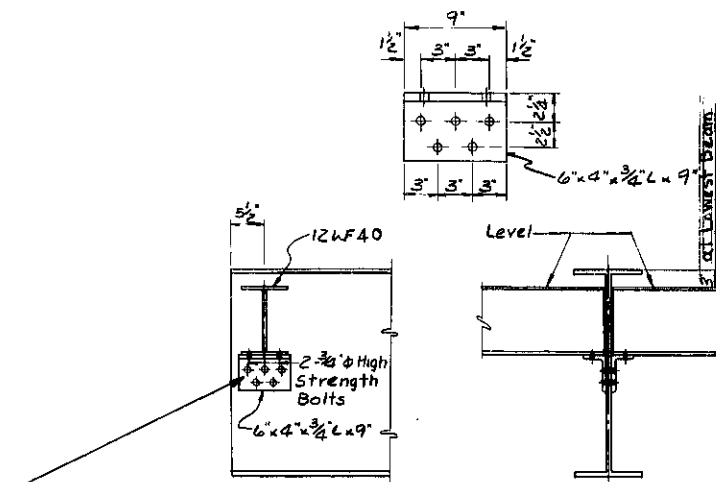
STRUCTURAL STEEL DETAILS
OAK PARK AVENUE OVER
FAJ RT. 80 SEC. 1313-B11HB
DOK COUNTY - STA. 1313+37.93

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RD 80	1313	COOK	44	15
FILE NO.	811MB			
PER. ROAD DIST. NO. 7	ILLINOIS	PER. AIR PROJECT		



DIAPHRAGM 'D' & 'D'
66 Req'd.

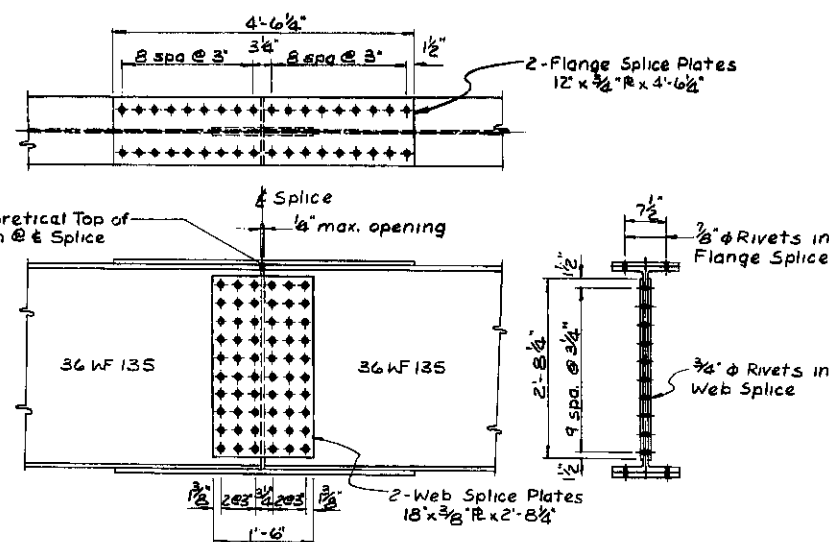


DIAPHRAGM 'DI'
12 Req'd.

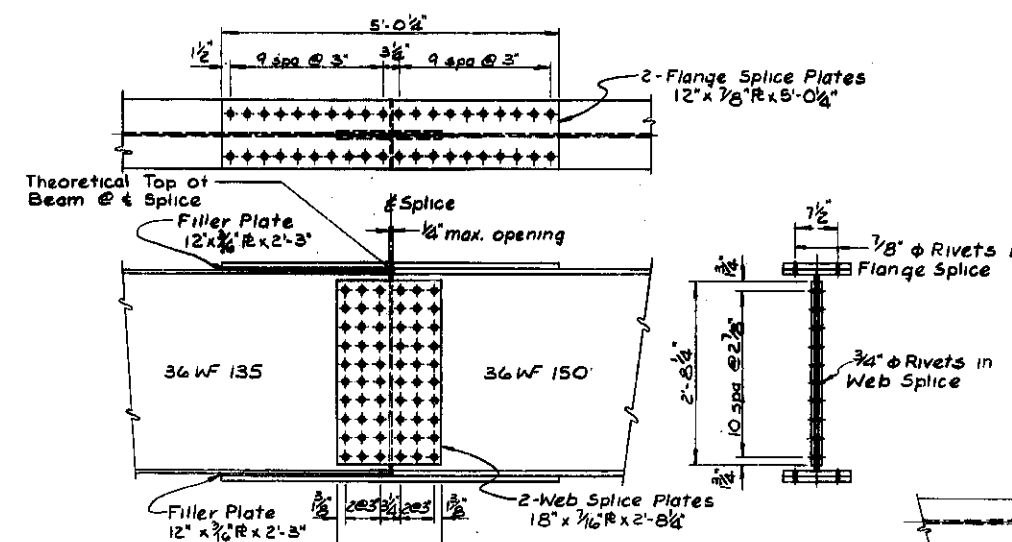
(For Fabrication)
THEORETICAL ELEVATION TOP OF BEAMS

Beam Location	*1	*2	*3	*4	*5	*6	*7
Brig. No. Abut.	718.522	718.522	718.657	718.709	718.657	718.522	718.522
Brig. Pier #1	718.966	718.966	719.101	719.153	719.101	718.966	718.966
Splice #1	719.086	719.086	719.222	719.274	719.222	719.086	719.086
Brig. Pier #2	719.234	719.234	719.369	719.421	719.369	719.234	719.234
Splice #2	719.284	719.284	719.419	719.471	719.419	719.284	719.284
Splice #3	719.050	719.050	719.186	719.238	719.186	719.050	719.050
Brig. Pier #3	718.895	718.895	719.030	719.082	719.030	718.895	718.895
Brig. So. Abut.	718.429	718.429	718.564	718.617	718.564	718.429	718.429

Notes: Elevation Top of Beam is Always Top of Beam Flange, does not include Top Cover or Top Flange Splice Plates if any. Elevation Top of Beam does not include Dead Load Deflection due to the Weight of the Structural Steel or the Concrete Deck.



SPLICE #1



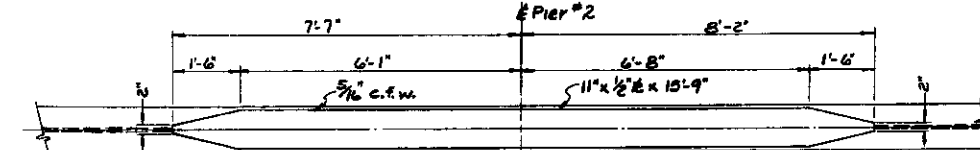
SPLICE #2 & #3

TABLE OF MOMENTS (INTERIOR BEAMS)

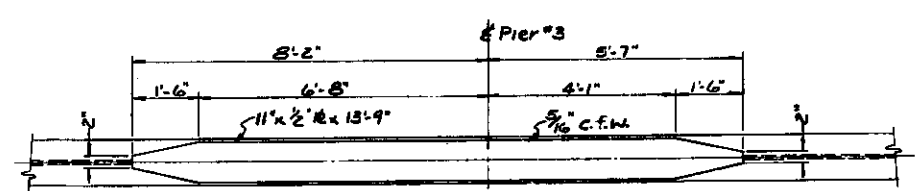
	Me. Sp. #1 Ft. Kips	Me. Pier #1 Ft. Kips	Me. Sp. #2 Ft. Kips	Me. Pier #2 Ft. Kips	Me. Sp. #3 Ft. Kips	Me. Pier #3 Ft. Kips	Me. So. Abut. Ft. Kips
Dead Load	74.7	-263.3	176.9	-424.0	238.0	-253.7	47.6
Live Load	260.4	-293.7	388.8	-365.0	428.4	-334.6	262.6
Impact	78.1	-76.4	101.0	-93.4	107.2	-83.3	78.8
Total Load	413.2	-632.4	666.4	-882.4	780.6	-749.6	389.0

TABLE OF REACTIONS

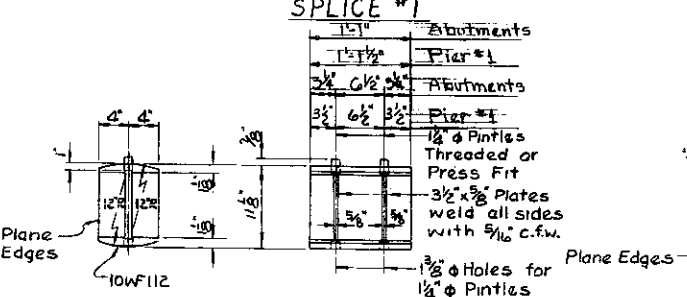
	R. No. Abut. Kips	R. Pier #1 Kips	R. Pier #2 Kips	R. Pier #3 Kips	R. So. Abut. Kips
Dead Load	12.01	53.47	68.20	59.11	10.35
Live Load	40.86	52.39	55.88	55.42	40.94
Impact	12.26	73.62	14.31	13.97	12.28
Total Load	65.13	119.48	138.39	126.75	63.57



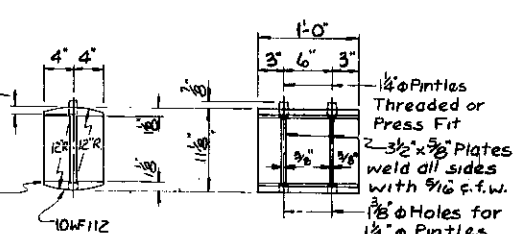
DETAIL OF COVER PLATE - PIER #2



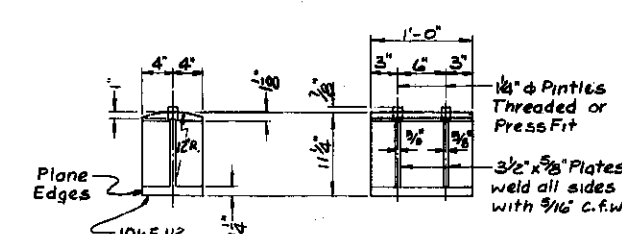
DETAIL OF COVER PLATE - PIER #3



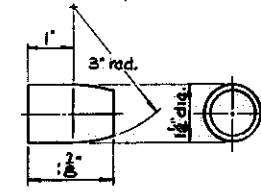
DETAIL OF BEARING - ABUTMENTS & PIER #1



DETAIL OF BEARING - PIER #3



DETAIL OF BEARING - PIER #2

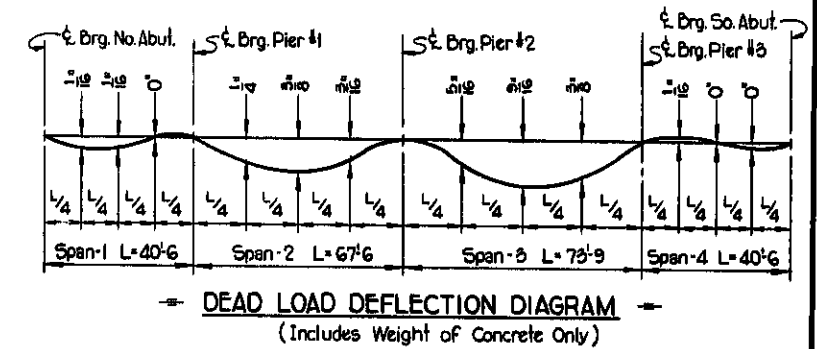
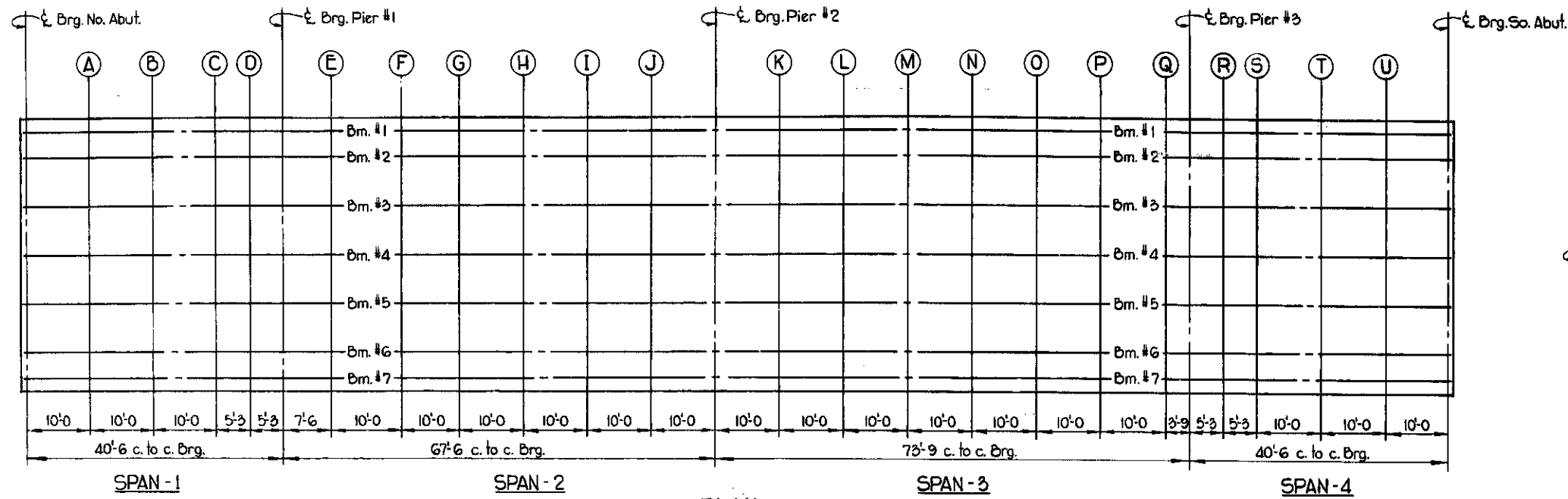


DETAIL OF PINTLE

STRUCTURAL STEEL DETAIL:
OAK PARK AVENUE OVER
RD. 80 SEC 1313-811MB
COOK COUNTY - STA. 1313+37.93

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
1313- P.A.V. 80/BN-HB	COOK	44	16		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



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.

SPAN - 1					
	Beam	Station	Offset	Theoretical Grade Elevation	Theor. Grade El. Adjusted for Dead Load Deflection
E. Brg. North Abut.	1 1/2 7	48 + 92.00	19.000	719.105	719.105
	2 1/2 6	48 + 92.00	15.000	719.105	719.105
	3 1/2 5	48 + 92.00	7.500	719.240	719.240
	4	48 + 92.00	.000	719.292	719.292
A	1 1/2 7	49 + 2.00	19.000	719.242	719.246
	2 1/2 6	49 + 2.00	15.000	719.242	719.246
	3 1/2 5	49 + 2.00	7.500	719.378	719.381
	4	49 + 2.00	.000	719.430	719.433
B	1 1/2 7	49 + 12.00	19.000	719.366	719.369
	2 1/2 6	49 + 12.00	15.000	719.366	719.369
	3 1/2 5	49 + 12.00	7.500	719.502	719.505
	4	49 + 12.00	.000	719.554	719.557
C	1 1/2 7	49 + 22.00	19.000	719.477	719.476
	2 1/2 6	49 + 22.00	15.000	719.477	719.476
	3 1/2 5	49 + 22.00	7.500	719.612	719.612
	4	49 + 22.00	.000	719.664	719.664
D	1 1/2 7	49 + 37.25	19.000	719.530	719.528
	2 1/2 6	49 + 27.25	15.000	719.530	719.528
	3 1/2 5	49 + 27.25	7.500	719.665	719.664
	4	49 + 27.25	.000	719.717	719.716
E. Brg. Pier #1	1 1/2 7	49 + 32.50	19.000	719.579	719.579
	2 1/2 6	49 + 32.50	15.000	719.579	719.579
	3 1/2 5	49 + 32.50	7.500	719.714	719.714
	4	49 + 32.50	.000	719.766	719.766

SPAN - 2					
	Beam	Station	Offset	Theoretical Grade Elevation	Theor. Grade El. Adjusted for Dead Load Deflection
E	1 1/2 7	49 + 40.00	19.000	719.642	719.651
	2 1/2 6	49 + 40.00	15.000	719.642	719.651
	3 1/2 5	49 + 40.00	7.500	719.778	719.786
	4	49 + 40.00	.000	719.830	719.838
F	1 1/2 7	49 + 50.00	19.000	719.716	719.738
	2 1/2 6	49 + 50.00	15.000	719.716	719.738
	3 1/2 5	49 + 50.00	7.500	719.851	719.874
	4	49 + 50.00	.000	719.903	719.926
G	1 1/2 7	49 + 60.00	19.000	719.776	719.807
	2 1/2 6	49 + 60.00	15.000	719.776	719.807
	3 1/2 5	49 + 60.00	7.500	719.911	719.942
	4	49 + 60.00	.000	719.963	719.995
H	1 1/2 7	49 + 70.00	19.000	719.823	719.852
	2 1/2 6	49 + 70.00	15.000	719.823	719.852
	3 1/2 5	49 + 70.00	7.500	719.958	719.988
	4	49 + 70.00	.000	720.010	720.040
I	1 1/2 7	49 + 80.00	19.000	719.856	719.875
	2 1/2 6	49 + 80.00	15.000	719.856	719.875
	3 1/2 5	49 + 80.00	7.500	719.991	720.011
	4	49 + 80.00	.000	720.043	720.063
J	1 1/2 7	49 + 90.00	19.000	719.876	719.882
	2 1/2 6	49 + 90.00	15.000	719.876	719.882
	3 1/2 5	49 + 90.00	7.500	720.011	720.017
	4	49 + 90.00	.000	720.063	720.069
E. Brg. Pier #2	1 1/2 7	50 + .00	19.000	719.882	719.882
	2 1/2 6	50 + .00	15.000	719.882	719.882
	3 1/2 5	50 + .00	7.500	720.018	720.018
	4	50 + .00	.000	720.070	720.070

SPAN - 3					
	Beam	Station	Offset	Theoretical Grade Elevation	Theor. Grade El. Adjusted for Dead Load Deflection
K	1 1/2 7	50 + 10.00	19.000	719.876	719.888
	2 1/2 6	50 + 10.00	15.000	719.876	719.888
	3 1/2 5	50 + 10.00	7.500	720.011	720.024
	4	50 + 10.00	.000	720.063	720.076
L	1 1/2 7	50 + 20.00	19.000	719.856	719.887
	2 1/2 6	50 + 20.00	15.000	719.856	719.887
	3 1/2 5	50 + 20.00	7.500	719.991	720.023
	4	50 + 20.00	.000	720.043	720.075
M	1 1/2 7	50 + 30.00	19.000	719.823	719.869
	2 1/2 6	50 + 30.00	15.000	719.823	719.869
	3 1/2 5	50 + 30.00	7.500	719.958	720.004
	4	50 + 30.00	.000	720.010	720.056
N	1 1/2 7	50 + 40.00	19.000	719.776	719.826
	2 1/2 6	50 + 40.00	15.000	719.776	719.826
	3 1/2 5	50 + 40.00	7.500	719.911	719.961
	4	50 + 40.00	.000	719.963	720.014
O	1 1/2 7	50 + 50.00	19.000	719.716	719.757
	2 1/2 6	50 + 50.00	15.000	719.716	719.757
	3 1/2 5	50 + 50.00	7.500	719.851	719.893
	4	50 + 50.00	.000	719.903	719.945
P	1 1/2 7	50 + 60.00	19.000	719.642	719.666
	2 1/2 6	50 + 60.00	15.000	719.642	719.666
	3 1/2 5	50 + 60.00	7.500	719.778	719.802
	4	50 + 60.00	.000	719.830	719.854
Q	1 1/2 7	50 + 70.00	19.000	719.556	719.561
	2 1/2 6	50 + 70.00	15.000	719.556	719.561
	3 1/2 5	50 + 70.00	7.500	719.691	719.696
	4	50 + 70.00	.000	719.743	719.749
E. Brg. Pier #3	1 1/2 7	50 + 73.75	19.000	719.520	719.520
	2 1/2 6	50 + 73.75	15.000	719.520	719.520
	3 1/2 5	50 + 73.75	7.500	719.655	719.655
	4	50 + 73.75	.000	719.707	719.707

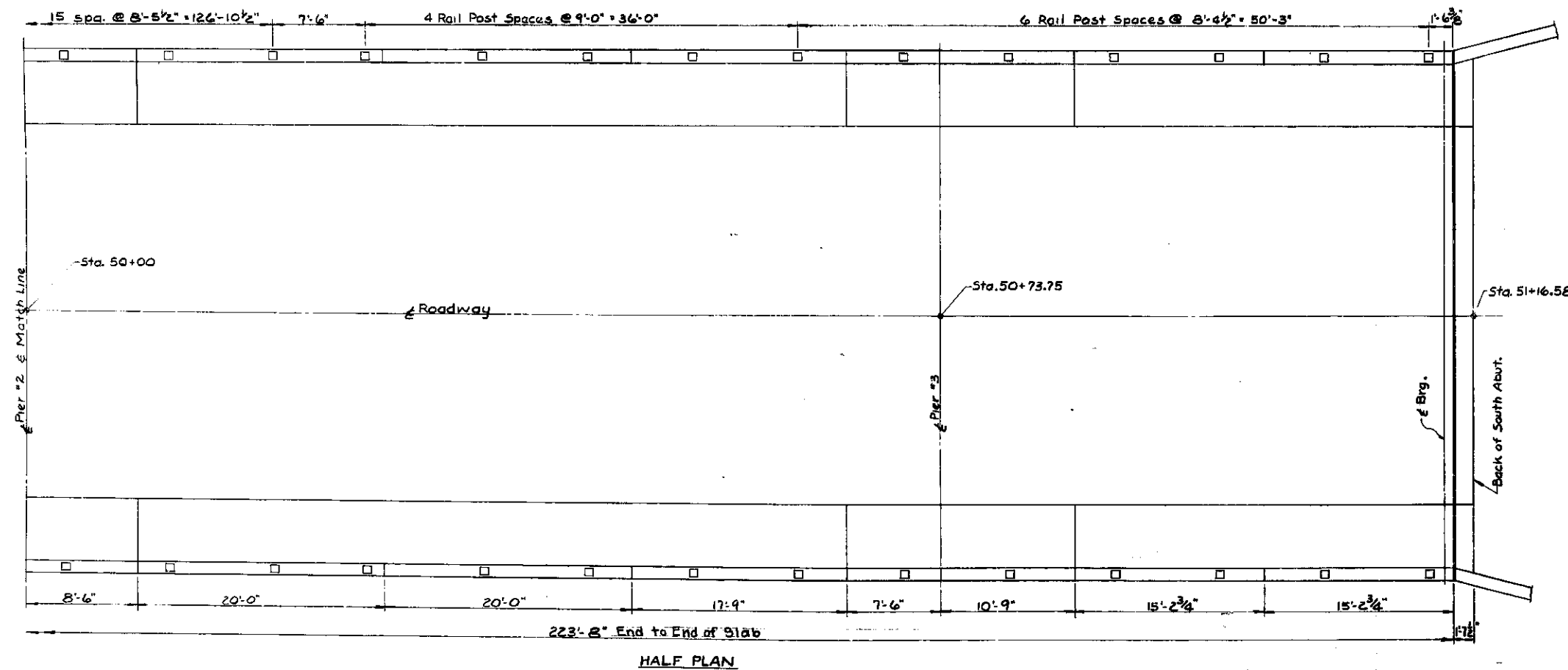
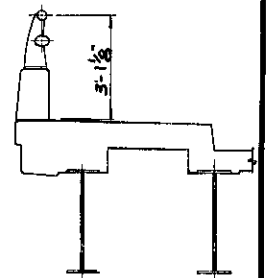
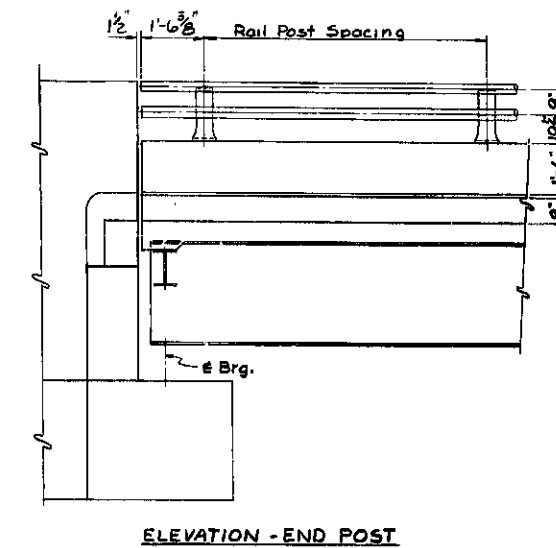
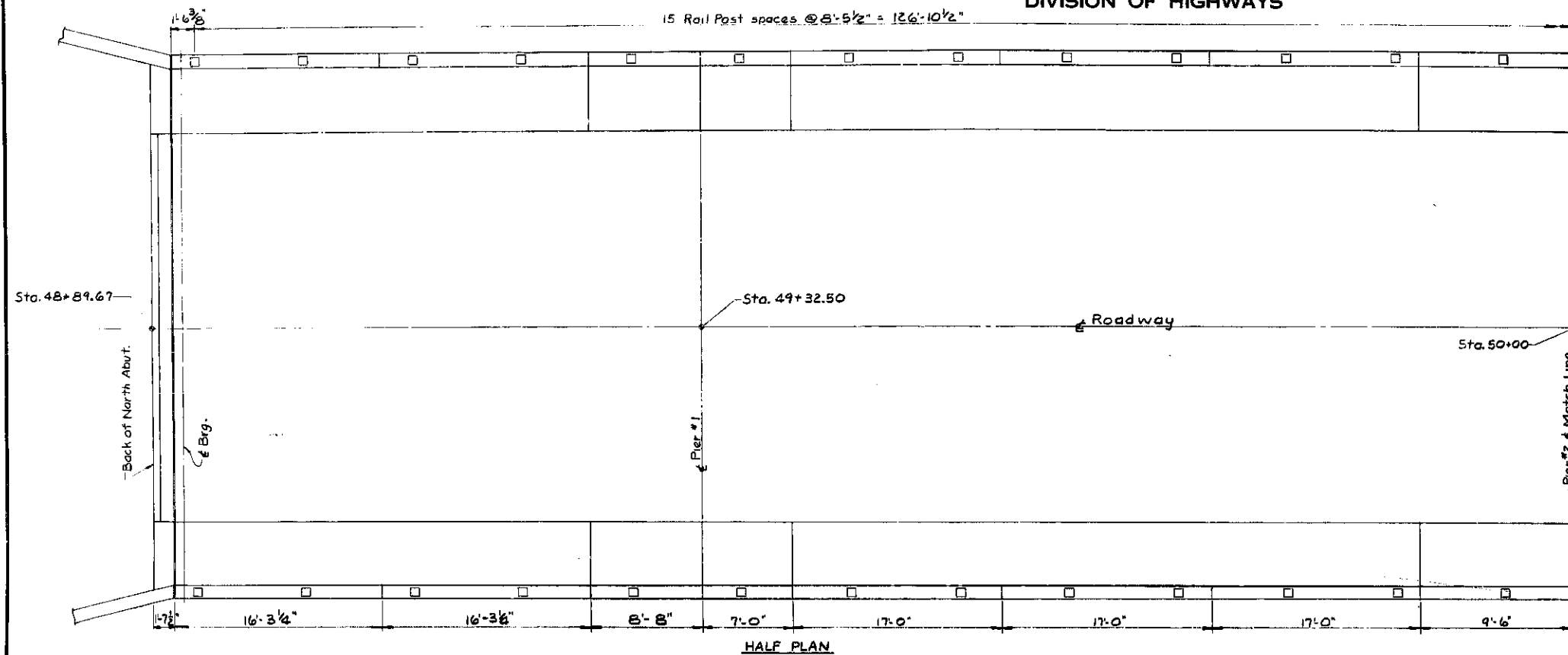
SPAN - 4					
	Beam	Station	Offset	Theoretical Grade Elevation	Theor. Grade El. Adjusted for Dead Load Deflection
R	1 1/2 7	50 + 79.00	19.000	719.466	719.463
	2 1/2 6	50 + 79.00	15.000	719.466	719.463
	3 1/2 5	50 + 79.00	7.500	719.602	719.598
	4	50 + 79.00	.000	719.654	719.651
S	1 1/2 7	50 + 84.25	19.000	719.409	719.406
	2 1/2 6	50 + 84.25	15.000	719.409	719.406
	3 1/2 5	50 + 84.25	7.500	719.545	719.541
	4	50 + 84.25	.000	719.597	719.593
T	1 1/2 7	50 + 94.25	19.000	719.290	719.289
	2 1/2 6	50 + 94.25	15.000	719.290	719.289
	3 1/2 5	50 + 94.25	7.500	719.426	719.425
	4	50 + 94.25	.000	719.478	719.477
U	1 1/2 7	51 + 4.25	19.000	719.158	719.159
	2 1/2 6	51 + 4.25	15.000	719.158	719.159
	3 1/2 5	51 + 4.25	7.500	719.293	719.294
	4	51 + 4.25	.000	719.345	719.347
E. Brg. South Abut.	1 1/2 7	51 + 14.25	19.000	719.012	719.012
	2 1/2 6	51 + 14.25	15.000	719.012	719.012
	3 1/2 5	51 + 14.25	7.500	719.148	719.148
	4	51 + 14.25	.000	719.200	719.200

+ SCREED DATA +
OAK PARK AVENUE OVER
CAL. RT. 80 SEC. 1313-811 HB
PROJECT I-80-4
COOK COUNTY - STA. 1313+57.93

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1513	801811-HE	COOK	44	17
F.A.T.	SEC 1315	QUINCY		
PED. ROAD DIST. NO. 2	ILLINOIS	FEA. AND PROJECT		

SHEET NO.
SHEETS

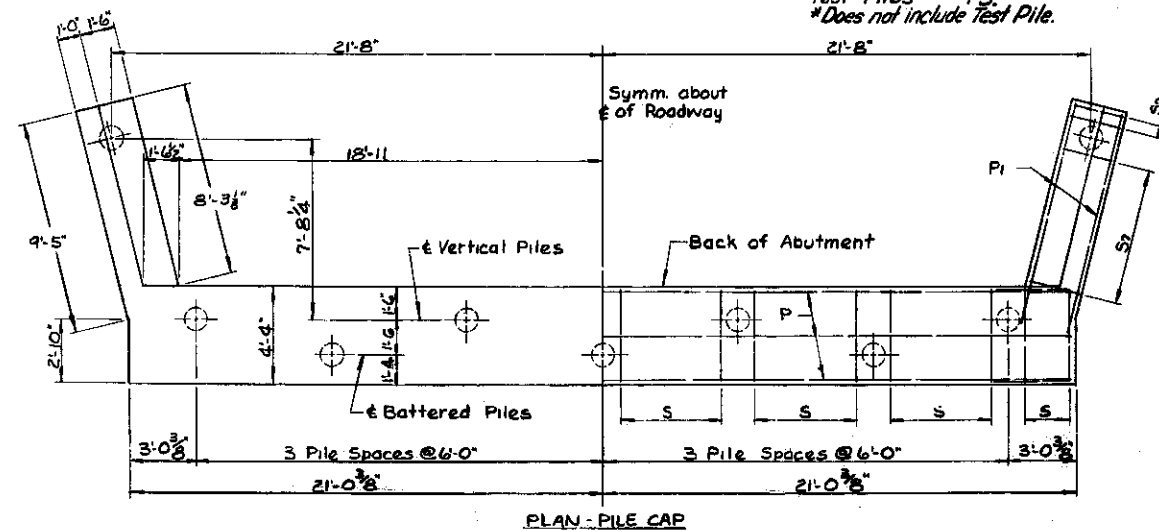
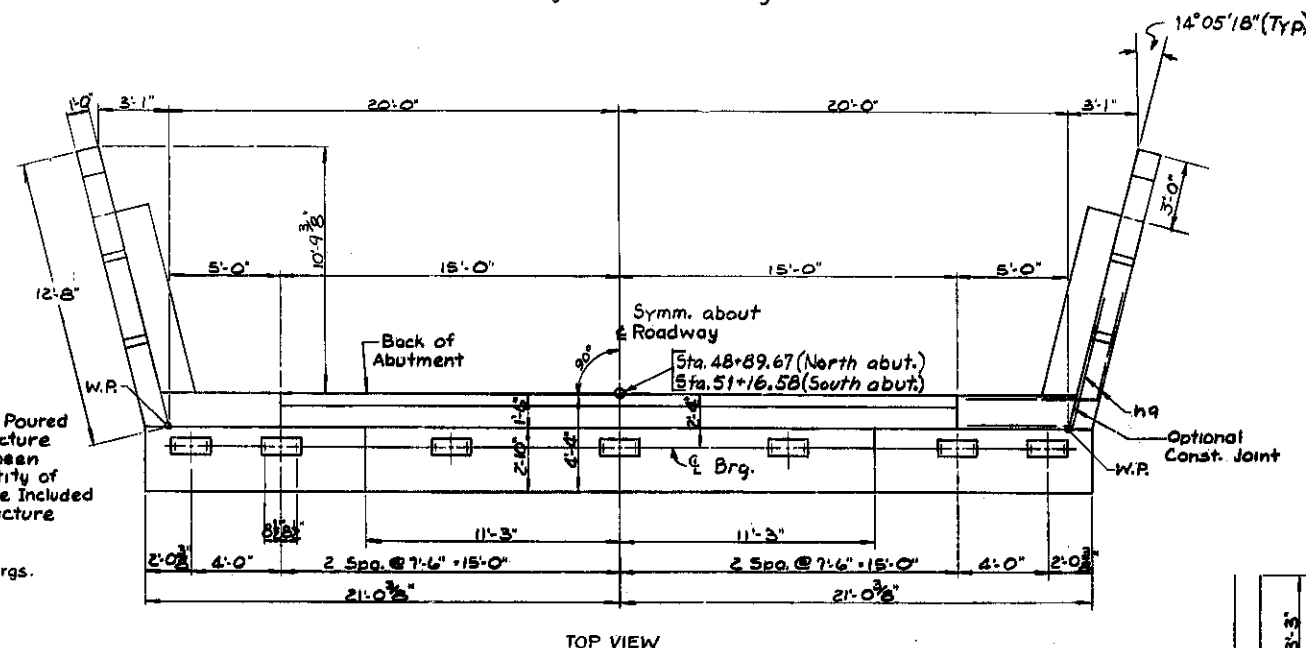
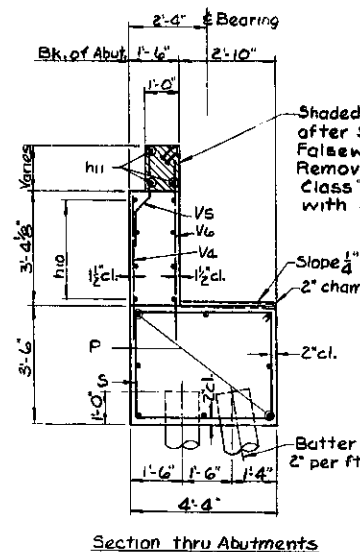
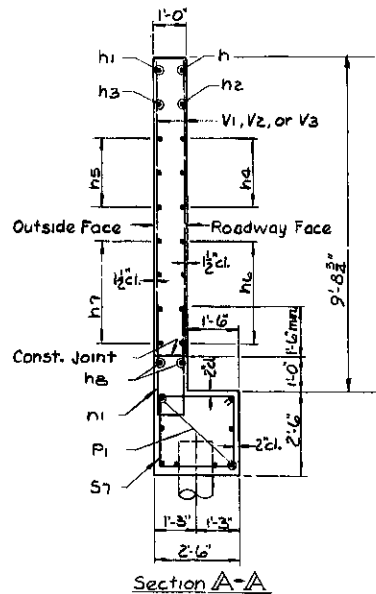
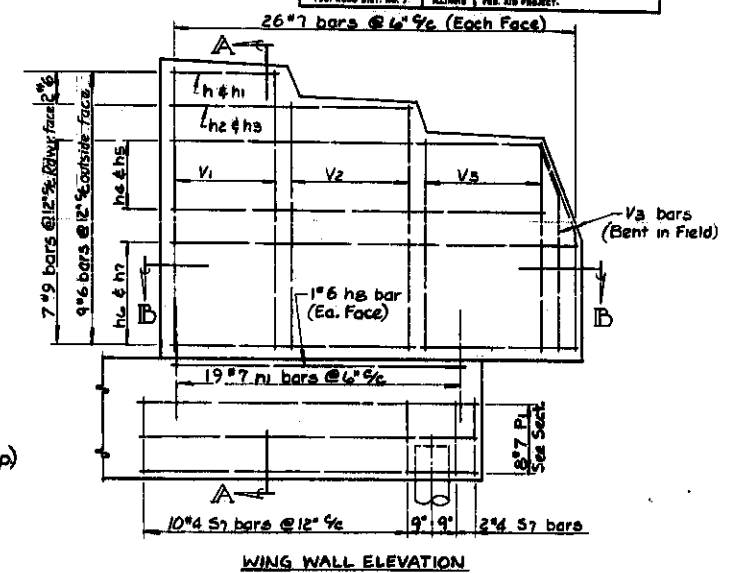
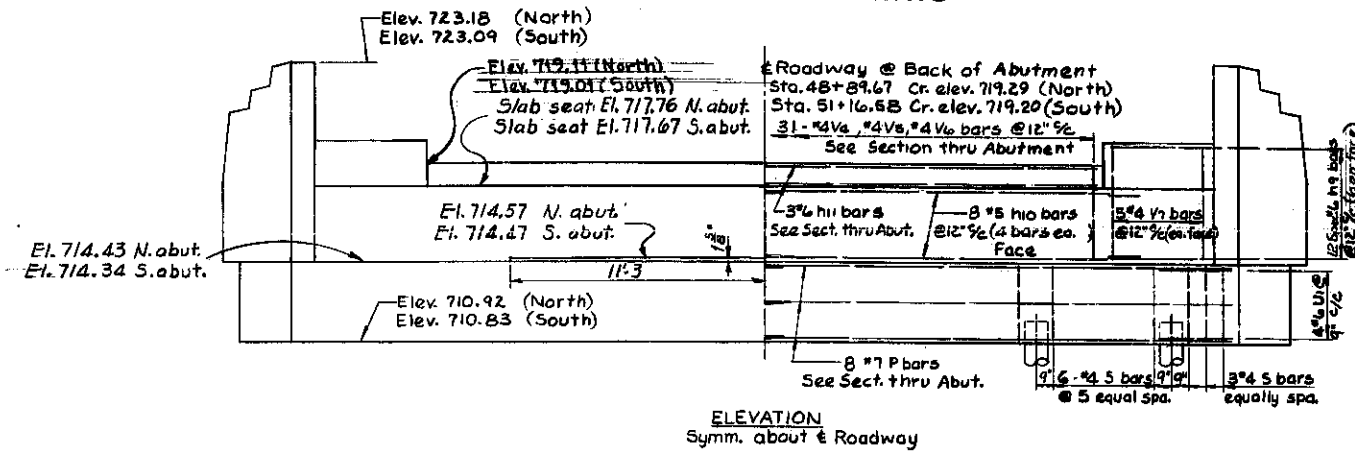
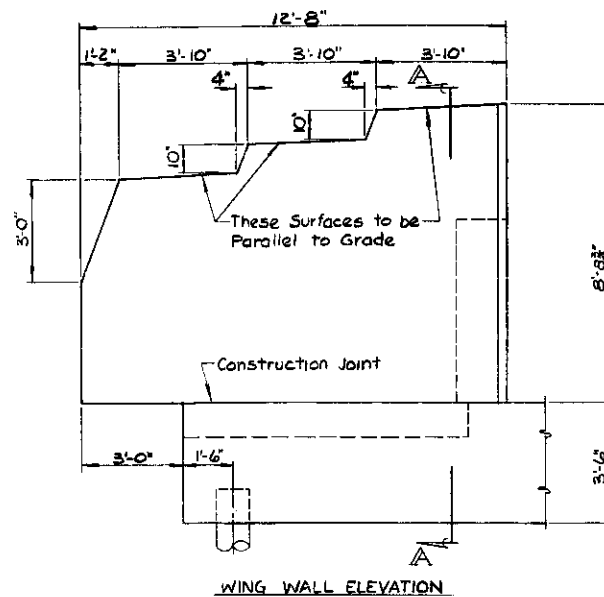


Note:
Handrail to be two pipe (Type L or M)
See Sheets 22 & 23

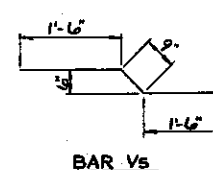
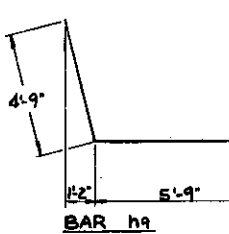
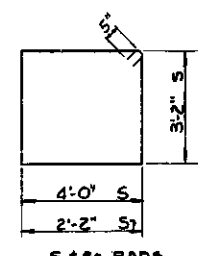
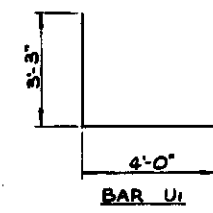
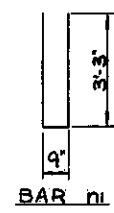
TWO PIPE HANDRAIL
OAK PARK AVENUE OVER
SEC 1315 QUINCY
COOK COUNTY STA. 1313+37.93

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

ROUTE NO.	DISTRICT	COUNTY	SHEET NO.	SHEET NO.
U.S. 1	1313	COOK	43	18
PROJ. NO.	SEC. 1313-B11-HB	ALIGNED & PER. AND PROJECT		



PILE DATA
Type --- Concrete
Capacity --- 35 Ton
Est. Length --- 50 ft. (N. & S.)
Number Req'd --- 9 N. & 8 S.
Test Piles --- 1 S.
*Does not include Test Pile.



BILL OF MATERIAL
TWO (2) ABUTMENTS

Bar	No	Size	Length	Shape
h	4	#6	3'-6"	
h1	4	#6	3'-3"	
h2	4	#6	7'-3"	
h3	4	#6	7'-0"	
h4	12	#9	11'-3"	
h5	12	#6	11'-0"	
h6	16	#9	12'-3"	
h7	16	#6	12'-0"	
h8	8	#6	11'-6"	
h9	48	#6	10'-6"	
h10	32	#5	17'-6"	
h11	6	#6	29'-9"	
n1	76	#7	7'-3"	
P	32	#7	22'-0"	
P1	32	#7	11'-6"	
S	84	#4	15'-2"	
S7	48	#4	9'-6"	
U1	16	#6	10'-6"	
V1	64	#7	8'-5"	
V2	64	#7	7'-5"	
V3	80	#7	6'-6"	
V4	62	#4	4'-6"	
V5	62	#4	3'-9"	
V6	62	#4	5'-6"	
V7	40	#4	5'-6"	
Class 'X' Concrete		Cu. yds.	97.8	
Reinforcement Bars		Lbs.	12,000	
Concrete Piles		Lin. ft.	850	
Test Piles (Conc.)		Ea.	1	

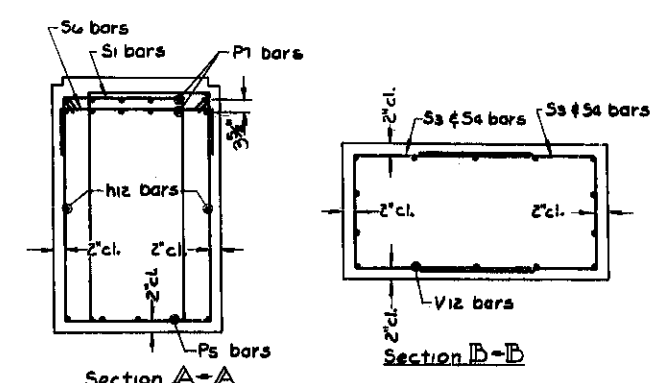
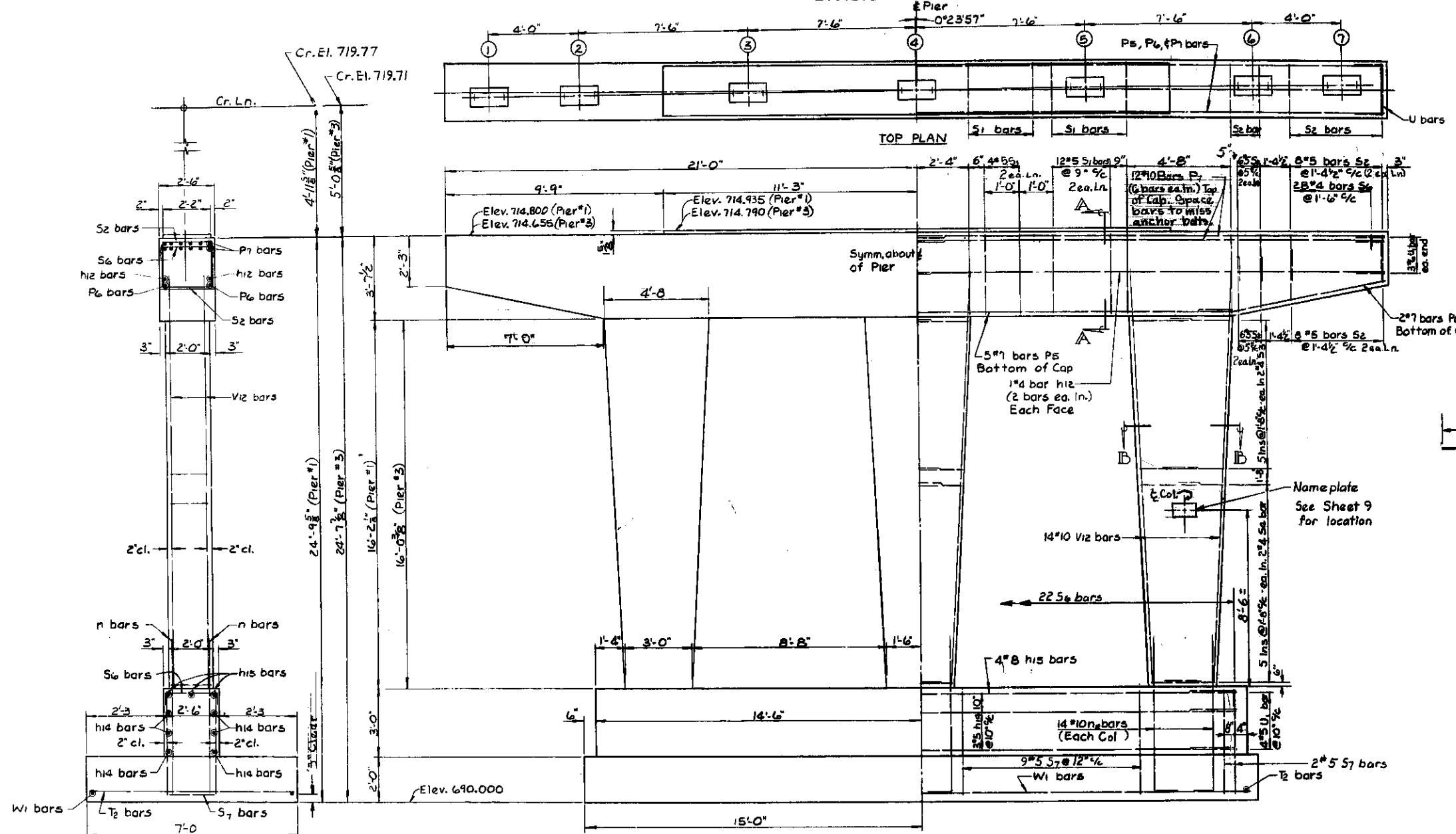
NORTH & SOUTH ABUTMENTS
OAK PARK AVENUE OVER
P.A.T. RT. 80 SEC. 1313-B11 HB
COOK COUNTY - STA. 1313+37.93

Note:
Minimum lap or embedment of all reinforcement bars shall be 20 bar dia.
For Precast Concrete Piles see Sht. 21.

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	11-HB	COOK	44	19
F.A.I. RT. 80 SEC. 1313-B11 HB				
COOK COUNTY - STA. 1313+37.93				

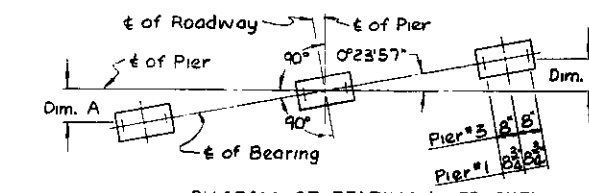
SHEET NO.
SHEETS



BILL OF MATERIAL
TWO (2) PIERS

Bar	No.	Size	Length	Shape
h12	8	#4	21'-6"	
h14	12	#5	28'-6"	
h15	4	#8	28'-6"	
n1	84	#10	8'-3"	
P5	10	#7	28'-0"	
P6	8	#7	8'-3"	
P7	48	#10	22'-0"	
S1	64	#5	10'-0"	
S2	44	#5	5'-4"	
S3	60	#4	7'-0"	
S4	60	#4	6'-2"	
S6	92	#5	3'-2"	
S7	44	#5	11'-2"	
T2	60	#6	6'-6"	
U1	28	#6	8'-2"	
V12	84	#10	19'-0"	
W1	20	#6	29'-6"	
Class 'X' Concrete			Cu. yds.	100.8
Reinforcement Bars			Lbs.	19,970

Notes:
Minimum lap or embedment of
all reinforcement bars shall
be 20 bar diameters



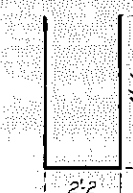
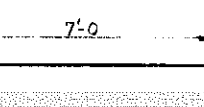
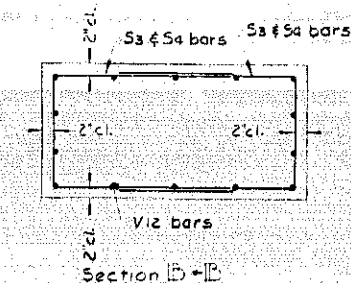
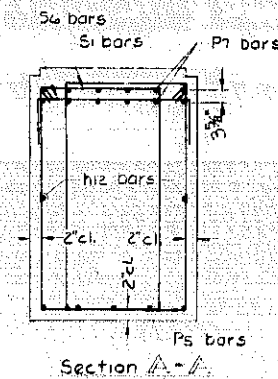
Brq. No.	1	2	3	4	5	6	7
Dim. 'A'	1 1/16	1 1/8	5/8	0	5/8	1 1/8	1 1/16
Dim. 'B'	1 1/16	1 1/8	5/8	0	5/8	1 1/8	1 1/16

PIER #1 & #3
OAK PARK AVENUE OVER
F.A.I. RT. 80 SEC. 1313-B11 HB
COOK COUNTY - STA. 1313+37.93

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
101	1313-			
101	3011-HB	COOK	44	19
FED ROAD DIST NO 1	ILLINOIS	FED AID PROJECT		

SHEET NO. 19

SHEETS 44



BILL OF MATERIAL				
TWO (2) PIERS				
Bar	No.	Size	Length	Shape
n12	8	"4	21'-6"	
n14	16	"5	28'-6"	
n15	4	"8	28'-6"	
n3	44	"#	3'-0"	
n2	84	"10	8'-3"	
n4	42	"10	4'-3"	
P5	10	"7	28'-0"	
P6	8	"7	2'-3"	
P7	48	"10	22'-0"	
e	6	"6	24'-4"	
s	68	"3	6'-0"	☒
S1	64	"5	10'-0"	☐
S2	44	"5	5'-4"	☐
S3	60	"4	7'-0"	☐
S4	60	"4	6'-2"	☐
S6	92	"5	3'-2"	☐
S7	44	"5	11'-2"	☐
T8	60	"6	6'-6"	
U	(52)	"6	8'-2"	☐
V12	84	"10	19'-0"	
W1	20	"#	24'-6"	
Class 'X' Concrete			Cu. yds.	105.
Reinforcement Bars			Lbs.	21,750

Notes:
Minimum lap or embedment of all reinforcement bars shall be 20 bar diameters

The Following Splice Bars Shall Be Used For Pier #1:
#5 n5 (Lap With #5 n7)
#10 n4 (Lap With #10 n2)

PIER #1 E *3
OAK PARK AVENUE OVER
F.A.I. RT. 80 SEC. 1313-811 MB
COOK COUNTY-STA. 1313+37.93

AS BUILT

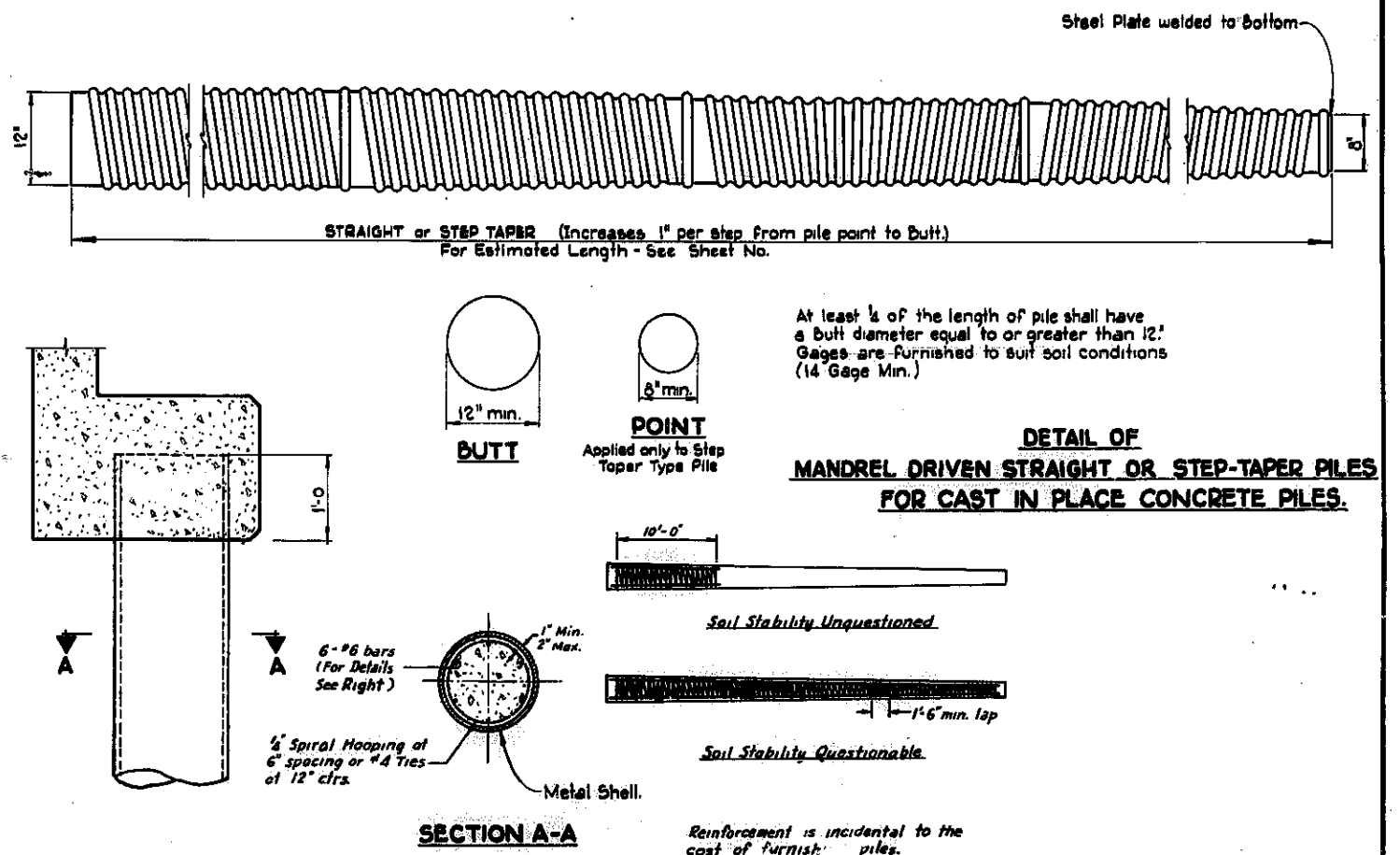
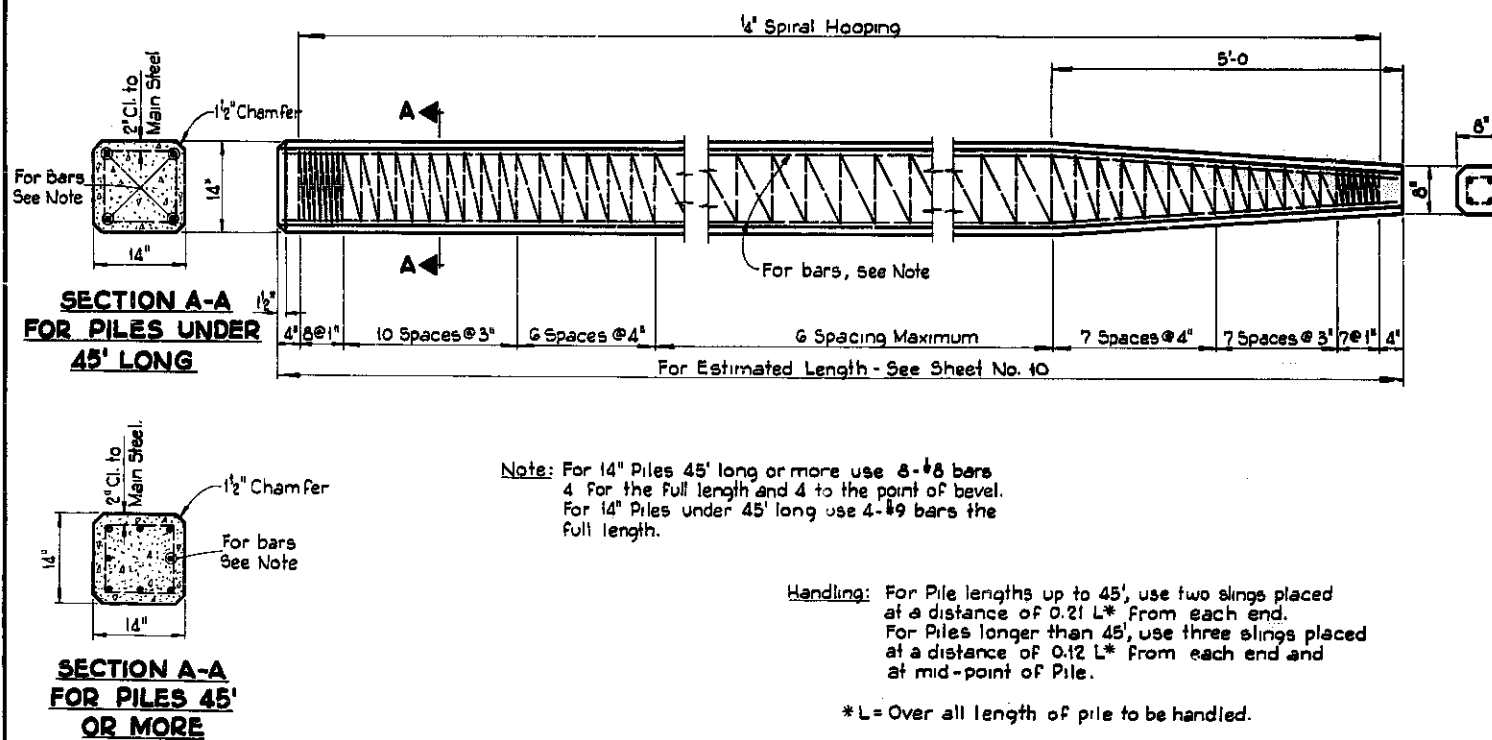
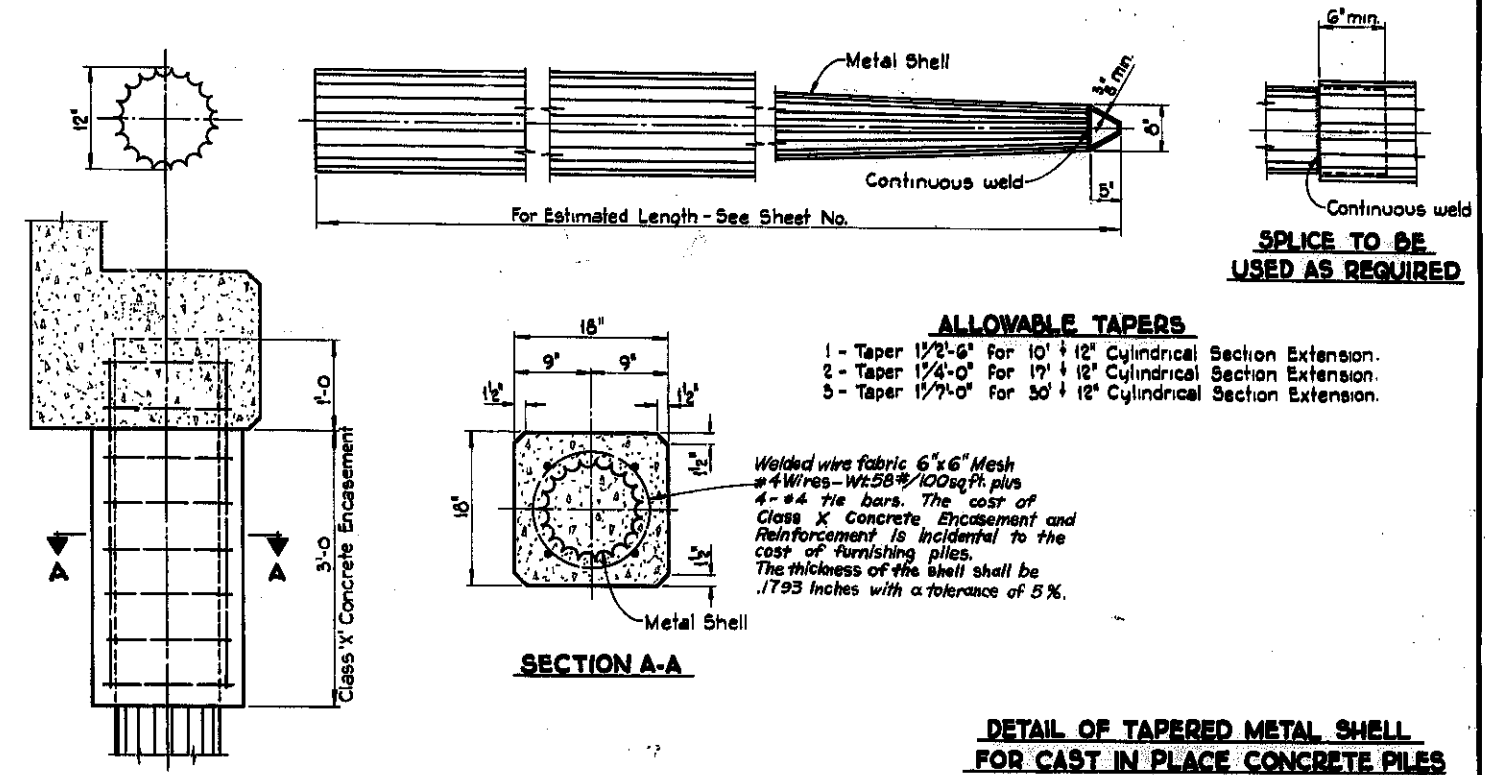
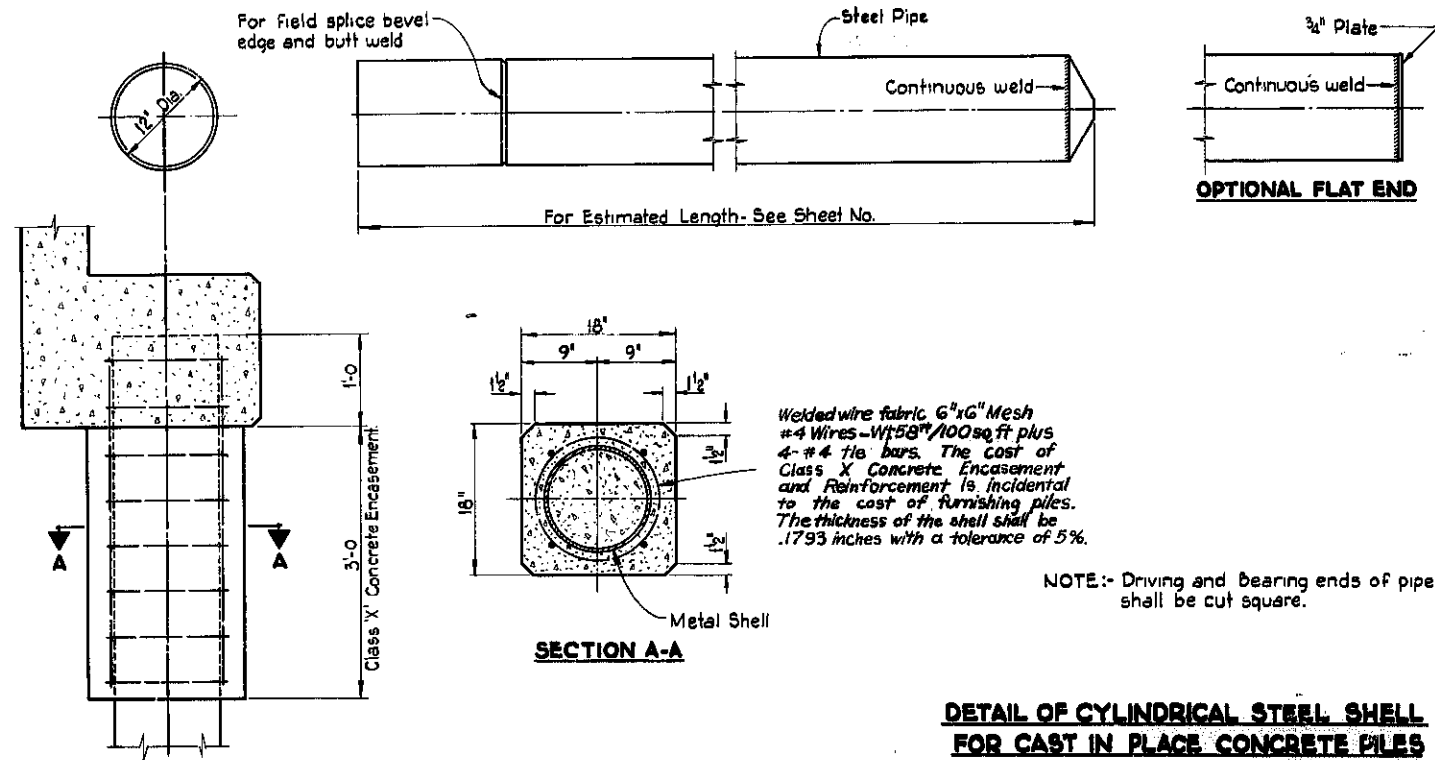
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N.E. 1	1913			
F.A. 2	80811-HB	COOK	44	20
FED. ROAD DIST. NO. 7	CLINCH	FED. AID PROJECT.		

SHEET NO.
SHEETS



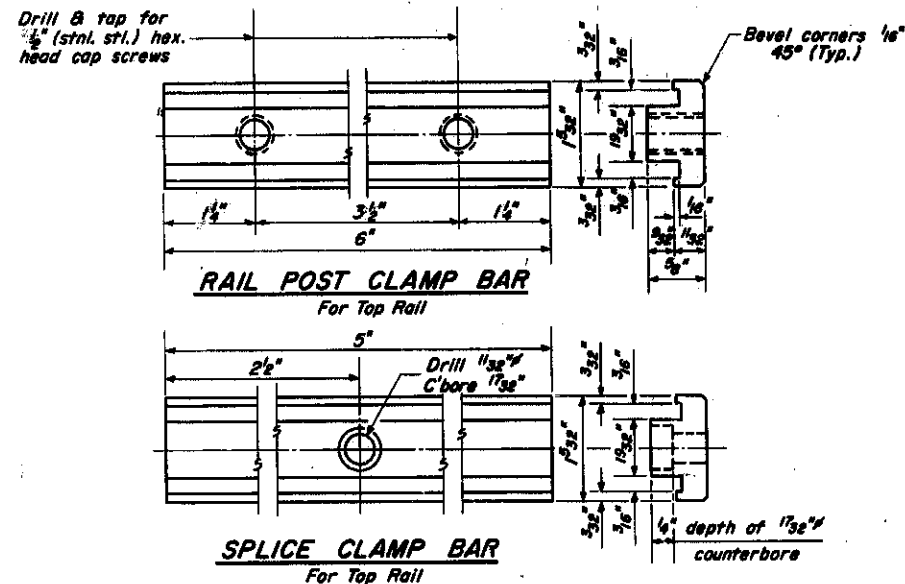
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
1-80	1915	COOK	44	21	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U. S. 1	1373			
P. S. 80	811-48	COOK	44	22
FED. ROAD DIST. NO. 7		STATES	FED. AID PROJECT-	

SHEET NO.
SHEETS



All Posts shall be normal to parapet.

All Aluminum Alloy Extruded Rail shall conform to ASTM specification B-221 alloy 6061-T6 and shall extend a minimum of 2 panel lengths (attached to a minimum of 3 posts) except at ends or at open joints where a minimum of 1 panel length is required. All joints in railing must be spliced per detail.

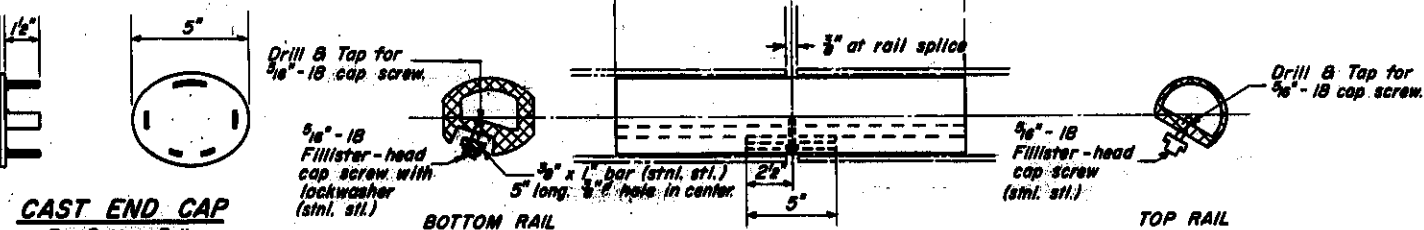
**Cast Aluminum Alloy Bridge Post - Alloy A344-T4.
Stainless Steel Cap Screws, Washers and Bars.
Fabric Bearing Pad**

METHOD of MEASUREMENT: Aluminum handrail shall be measured in lineal feet. The length paid for shall be the over all length along the top longitudinal railing member thru all posts and gaps.

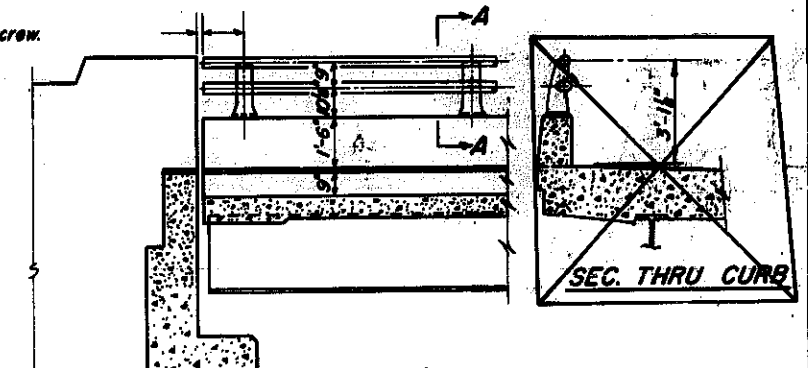
BASIS of PAYMENT: Aluminum handrail shall be paid for at the contract unit price per linear foot for ALUMINUM HANDRAIL, measured as specified, which price shall be payment in full for all materials, fabrication, transportation and erection.

Cost of rail splice, and caps and hardware to be incidental to item ALUMINUM HANDRAIL.

*Provide 1- 1/8" and 2- 1/8" Aluminum Shims for 25% of the Posts.
Rail element shall be parallel to Grade - high spots. shall be ground
and low spots shimmed.*

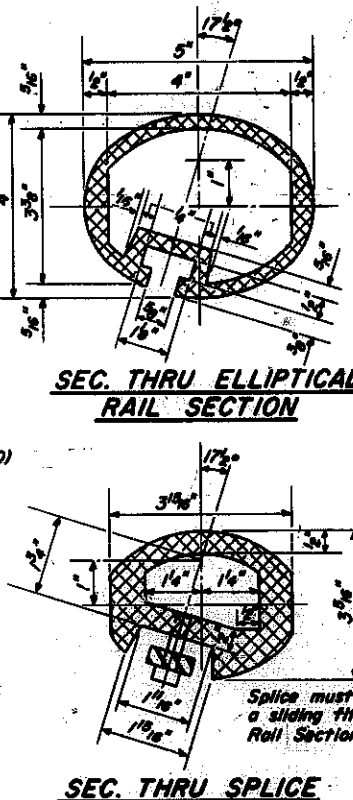


Notch top of slot in rolls to clear $\frac{5}{16}$ " screw.



Item	Unit	Quantity
ALUMINUM HANDRAIL	Lin. Ft.	447.3

OAK PARK AVENUE OVER
F.A.I. RT. 80 SEC. 1313-81114B
COOK COUNTY STA. 1313+37.93

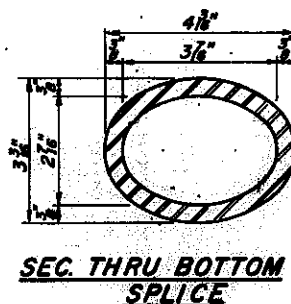


SEC. THRU SPLICE

DESIGNED	19
CHECKED	EXAMINED
DRAWN <i>W. M. Best</i>	ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
<i>W. A. Sausaman Jr.</i>	PASSED
CHECKED	APPROVED
	ENGINEER OF BRIDGES

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. 1. P. & Z. 80	1919 Bill-HA	COOK	68	23
FED. ROAD DIST. NO. 7	HAJIANE	FED. AID PROJECT:		

SHEET NO. _____
SHEETS _____



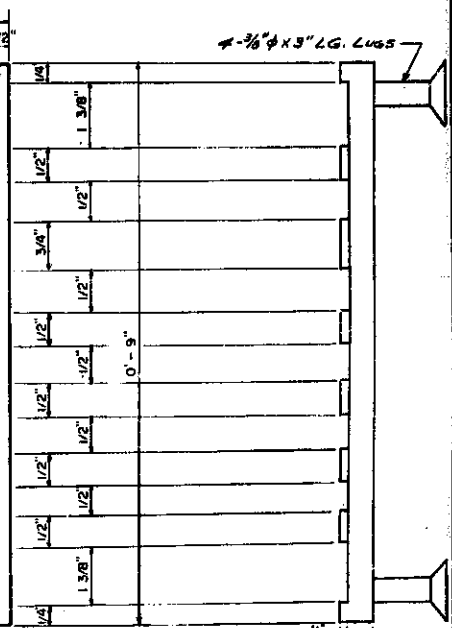
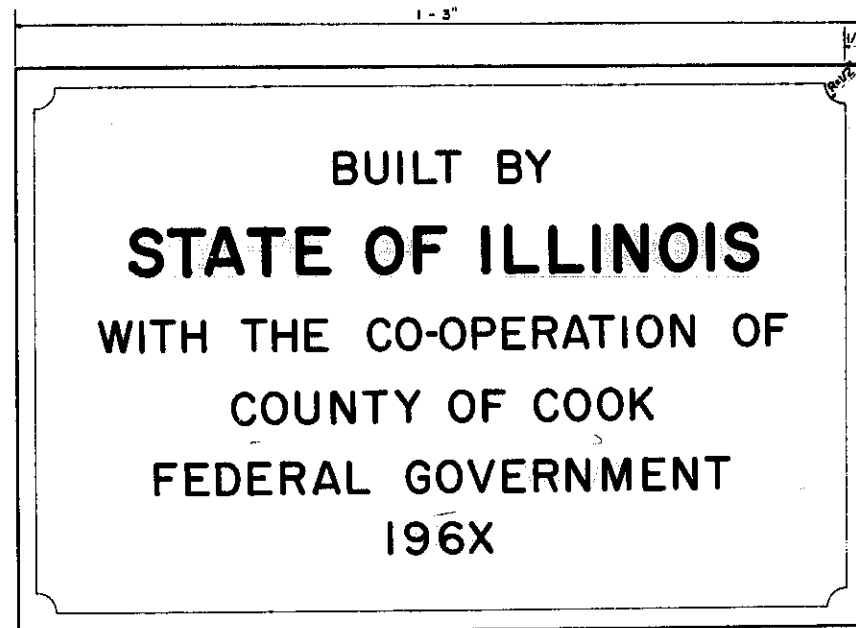
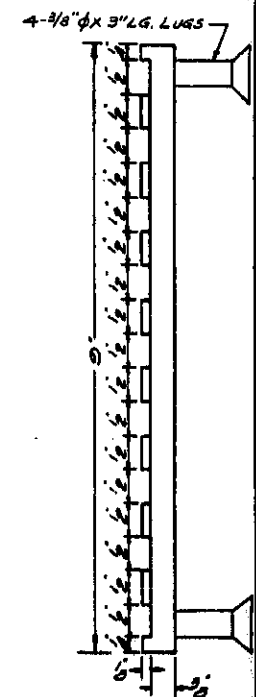
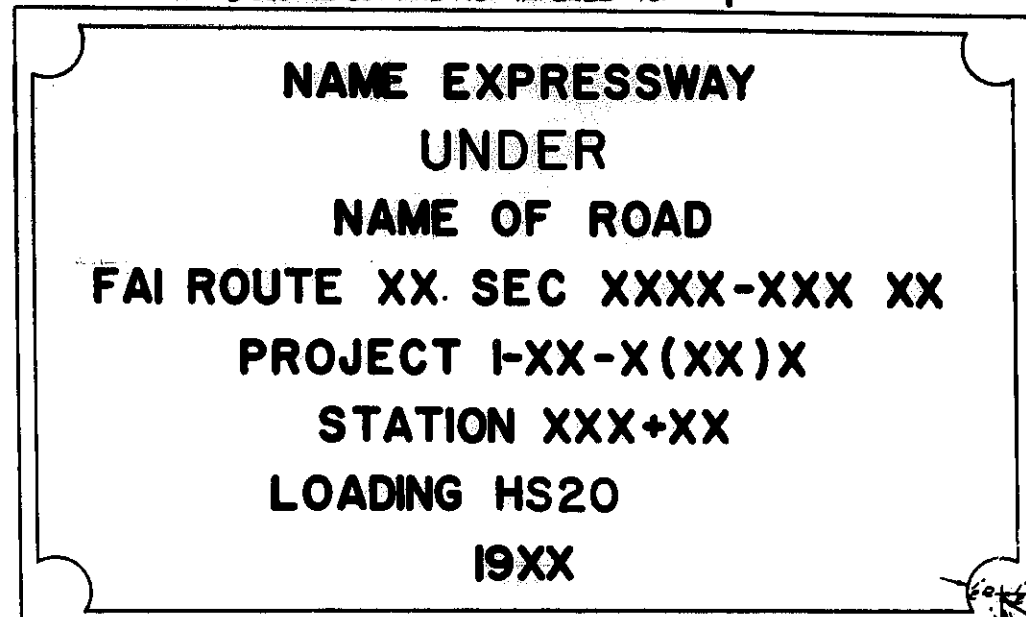
TYPE M
METAL HANDRAIL
OAK PARK AVENUE OVER
F.A.T. RT. 80 SEC. 13/13-81/118
COOK COUNTY STA. 13/13+37.93

		19	
EXAMINED			
		ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES	
PASSED			
		ENGINEER OF DESIGN	
APPROVED			

Note!
Splice must be
sliding fit in
Rail Section.

NOTES:
 PLATES SHALL BE FURNISHED AND INSTALLED AS SPECIFIED IN SECTION 161 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JAN. 5, 1958 AND AS SHOWN ON THE PLANS.
 DETAILED PLANS OF PLATE AND LETTERING WILL BE FURNISHED THE CONTRACTOR AFTER CONTRACT IS AWARDED.
 MATERIAL - BEST QUALITY BRASS OR BRONZE BORDER AND LETTERS RAISED 1/8" SQUARE CUT AND NOT TAPERED TOP

SURFACE POLISHED.
 THE NAME PLATE SHALL BE EMBEDDED IN THE CONCRETE SO THAT THE FACE OF THE NAME PLATE IS FLUSH WITH THE SURFACE OF THE CONCRETE.
 THE NAME PLATE SHALL BE FASTENED TO THE CONCRETE BY FOUR LUGS 3/8" DIA. AT LEAST 3" LONG, CAST ON BACK OF PLATE.



NOTE:
 A) BORDERING AND LETTERING: RAISE 1/8 INCH SQUARE CUT AND NOT TAPERED. TOP SURFACE POLISHED.
 B) MATERIAL: SHALL BE BEST QUALITY BRASS OR BRONZE
 C) FASTENING: 3/8" TO CONCRETE, FOUR (4) LUG OF AT LEAST 3" LONG, CAST ON BACK OF PLATE

ILLINOIS DIVISION OF HIGHWAYS
NAME PLATE DETAILS
 SCALE NOT TO SCALE
 DATE _____ DRAWN BY _____
 CHECKED BY _____