

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

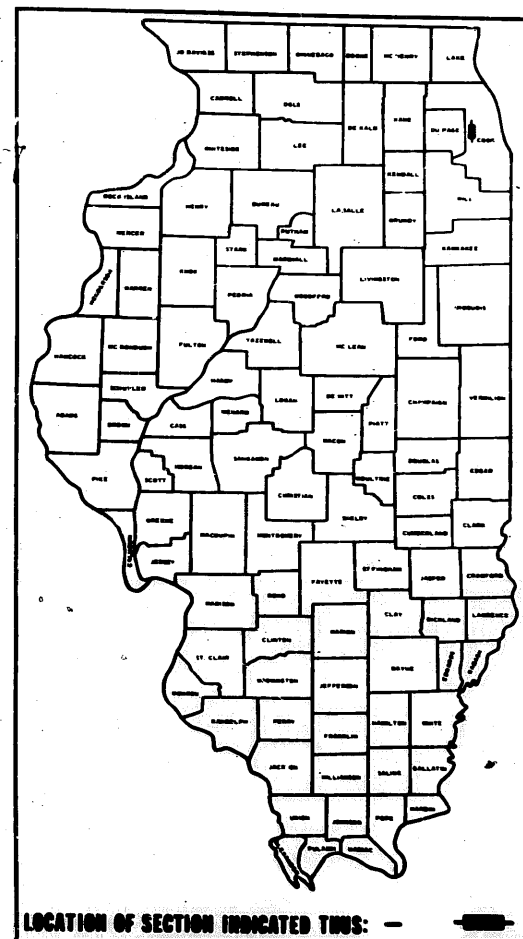
PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY

X (0204, 0303-1 & 3091B) W & RS (82)			
FALL RTE.	SECTION	COUNTY	TOTAL SHEETS
2746	2	COOK	196
P.A.A. NO.		P-91-458-82	

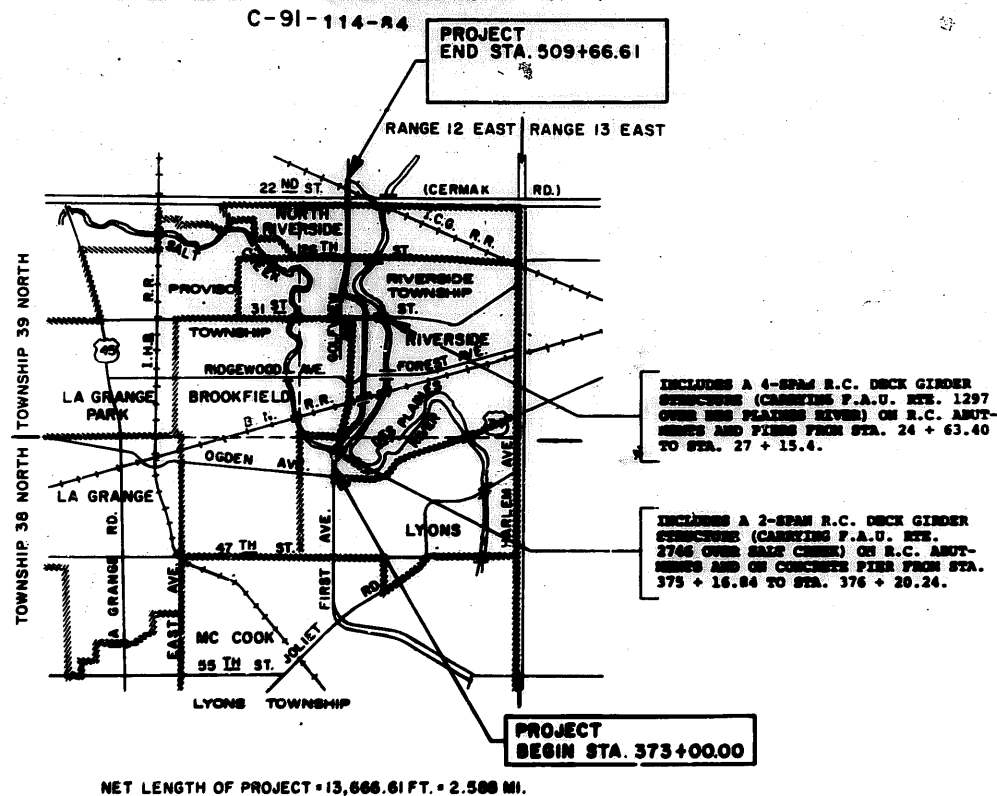
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	FIRST AVENUE
	31ST STREET
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	26TH STREET

F.A.U. ROUTE 2746 (FIRST AVE.)  
SECTION (0204, 0303-1 & 3091B) W & RS (82)  
0202B-R(82) & 1314B-R(82)  
PROJECT IX - 6003 - (383)  
COOK COUNTY



LOCATION OF SECTION INDICATED THUS: ———



INCLUDES A 4-SPAN R.C. DECK GIRDER STRUCTURE (CARRYING F.A.U. RTE. 1297 OVER THE PLAINFIELD RIVER) ON R.C. ABUTMENTS AND PIERS FROM STA. 24 + 63.40 TO STA. 27 + 15.4.

INCLUDES A 2-SPAN R.C. DECK GIRDER STRUCTURE (CARRYING F.A.U. RTE. 2746 OVER SALT CREEK) ON R.C. ABUTMENTS AND ON CONCRETE PIERS FROM STA. 375 + 16.84 TO STA. 376 + 20.24.

NET LENGTH OF PROJECT = 13,666.61 FT. = 2.588 MI.

LAYOUT



J.U.L.I.E. TOLL FREE # 1-800-892-0123

STANDARD DRAWINGS

1514-9	2188-10	2328-3	2372
1527-9	2213-4	2337-2	2373
1538-5	2217-3	2340-3	2374-1
1688-4	2230-15	2384-1	2375-1
1978	2230-7	2388	2378-1
2113-2	2288-7	2388-2	2383-1
2117-1	2288-10	2388	2384
2122-11	2300-3	2370-1	2304-6
2130-8	2323-5	2371-1	2306-6
			2311-8
			2316-8
			U-4

DESIGN DESIGNATION  
3310 (00)-MAJOR ARTERIAL -15.04 (COMP -20)  
CONTRACT NO. 38324

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED: MAY 3 1982

EXAMINED: 5-25 1982

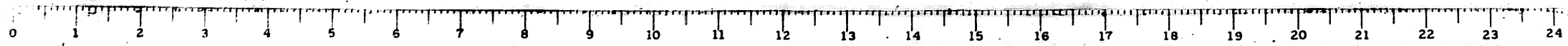
PASSED: 5-25 1982

APPROVED: 6-25 1982



LESTER B. KNIGHT & ASSOCIATES, INC.  
549 W. RANDOLPH ST., CHGO. ILL., 60606

R. SHAH



**TOTAL BILL OF MATERIAL**

Item	Unit	Super	Sub	Total
Removal of Existing Superstructures	Each	1		1
Structure Excavation	Cu.Yd.		194	194
Floor Drains	Each	28		28
Drainage Scuppers	Each	4		4
Protective Coat	Sq.Yd.	1839		1839
Class X Concrete	Cu.Yd.	555.2	155.9	711.1
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48 Inch Reinforcement Bars	Lin. Ft.	1752		1752
Reinforcement Bars (Epoxy Coated)	Pound	2860	13460	16320
Furnishing Steel Piles HP8x36	Lin. Ft.		342	342
Name Plates	Each	1		1
Structural Steel	Pound	5020		5020
Preformed Joint Seal 4"	Lin. Ft.	140		140
Elastomeric Bearing Assembly, Type I	Each	21		21
Temporary Concrete Barrier	Lin. Ft.	260		260
Aluminum Railing, Type L	Lin. Ft.	503		503
Concrete Removal	Cu.Yd.		79	79
Permanent Bench Mark	Each			1
Epoxy Crack Sealing	Lin. Ft.		299	299
Repair Concrete Structures	Sq. Ft.		319	319

**GENERAL NOTES**

All structural steel shall be shop pointed with the zinc-silicate and vinyl paint system.  
The structural steel bearing plates of the foundation and bearing assembly shall conform to the requirements of AASHTO M11-3.  
Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.  
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to normal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation or a change in the scope of the work, however, the Contractor shall be paid for the quantity actually furnished if the unit price bid for the work.  
The location and type of permanent bench mark shall be determined by the District.

STATION 25+89.40  
BUILT 19 BY  
STATE OF ILLINOIS  
F.A.U. RT. 1297 SEC. 1314B-R(82)  
F.A. PROJECT IX-6003(1-22)  
LOADING HS20  
STR. NO. 016-0870

**NAME PLATE**  
(See Std. 2113)

**LOADING HS20-44**

Design specifications: 1977 AASHTO and 1978 thru 1983 interim specifications as applicable.  
Allow 25% per sq. ft. for future wearing surface.

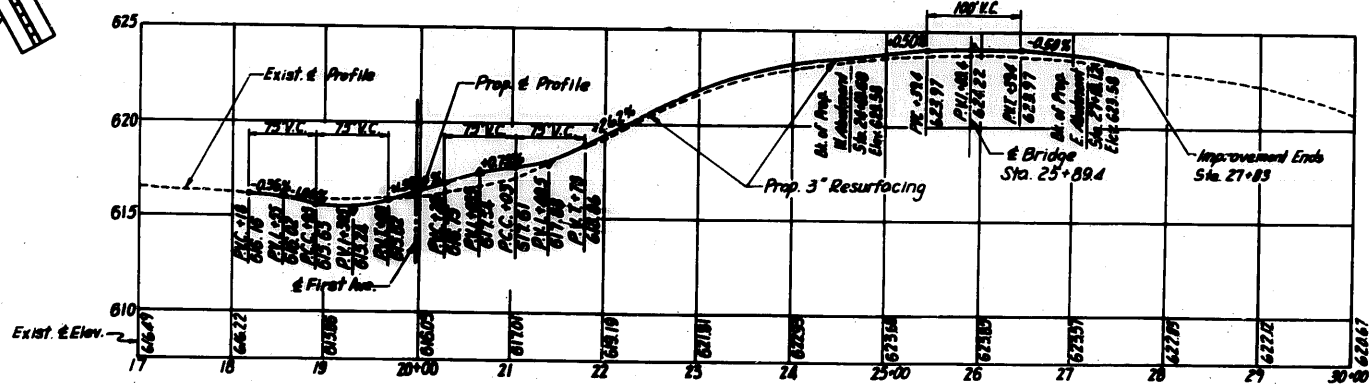
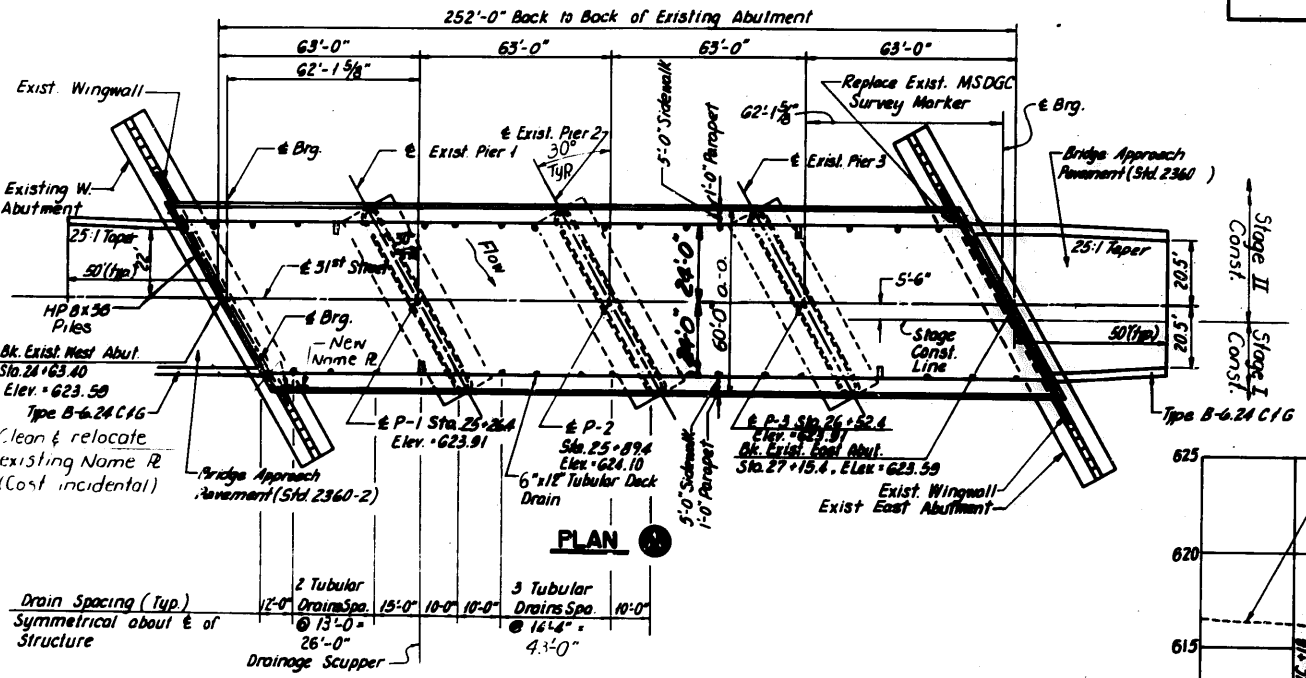
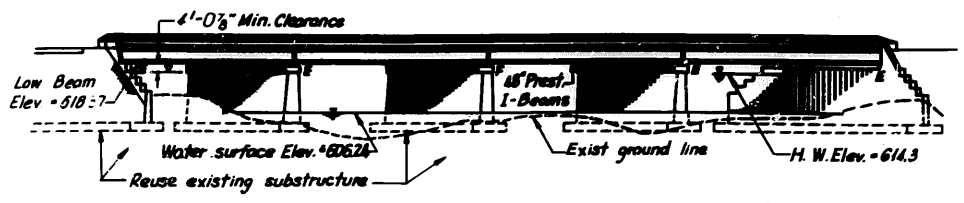
**DESIGN STRESSES**

FIELD UNITS	PRECAST PRESTRESSED UNITS
f'c = 3500 psi	f'c = 5000 psi
f <sub>y</sub> = 60,000 psi (Reinf.)	f'ci = 4600 psi
f <sub>s</sub> = 20,000 psi (Struct.)	f's = 270,000 psi (2# Strands)
(AASHTO M-183)	f'si = 163,000 psi (2# Strands)

**NOTES**

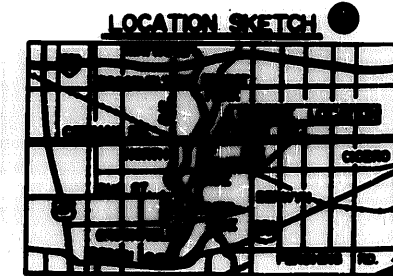
- Existing Bridge Data: Bridge No. 016-0870; 4-Span reinforced concrete deck girders with solid concrete closed abutments and piers, 56'-6" wide and 232'-0" long, built in 1928. Superstructure and portions of the substructure to be removed by the Bridge Contractor - No Salvage.
- One lane of traffic in each direction shall be maintained on the bridge during construction in accordance with the staging shown above.
- Centerline alignment of 31<sup>st</sup> Street is a tangent at the bridge.
- No channel changes or bank protection are proposed.
- Cook County Dept. of Highways Benchmark: Southwest Corner of Forest Avenue and Parkview Avenue, Elev. = 614.782

**GENERAL PLAN & ELEVATION**  
**F.A.U. ROUTE 1297 (31<sup>st</sup> STREET) BRIDGE**  
**OVER THE DES PLAINES RIVER**  
**F.A.U. RT. 1297 SEC. 1314B-R(82)**  
**COOK COUNTY**  
**STATION 25+89.40**



**WATERWAY INFORMATION**

FLOOD	FREQ. YR.	Q C.F.S.	OPENING SQ. FT.		NAT. H.W.E.	HEAD - FT.		HEADWATER EL.	
			EXIST.	PROP.		EXIST.	PROP.	EXIST.	PROP.
DESIGN	50	8770	1664	1664	614.3	0.04	0.04	614.34	614.37
BASE	100	6290	1726	1726	614.6	0.06	0.06	614.66	614.66
OVERTOPPING									
MAX. CALC.	500	7290		1849	615.2		0.09		615.29



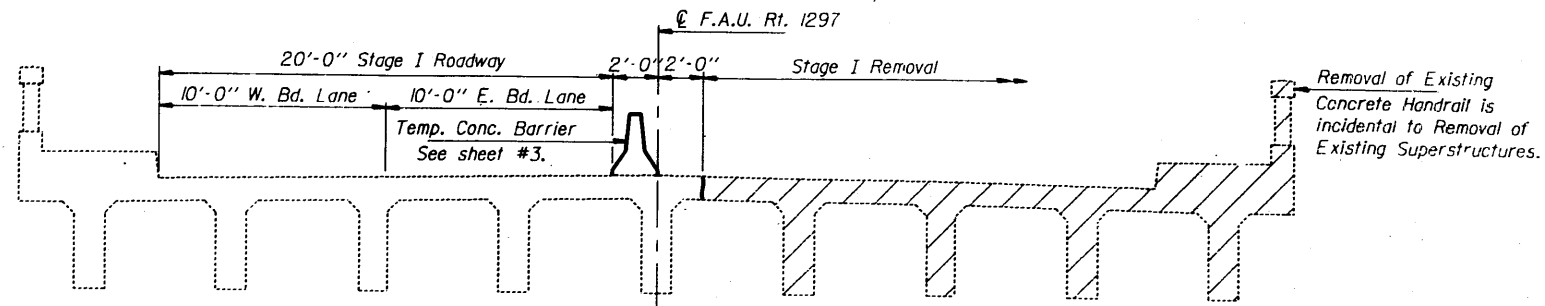
DESIGNED Mary Bloxdorf  
CHECKED L. ...  
DRAWN R. Doly  
CHECKED L. ...

EXAMINED May 3, 1984  
PASSED James J. ...  
APPROVED

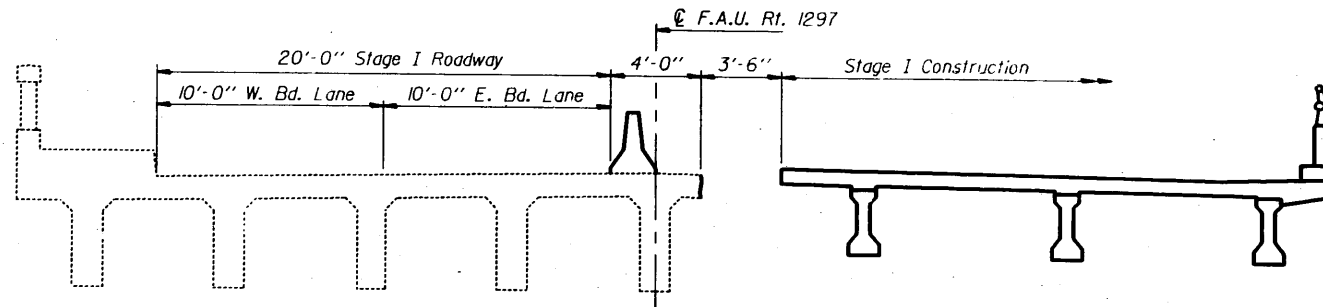
Note: See sheet #5 for location of back of new abutments

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

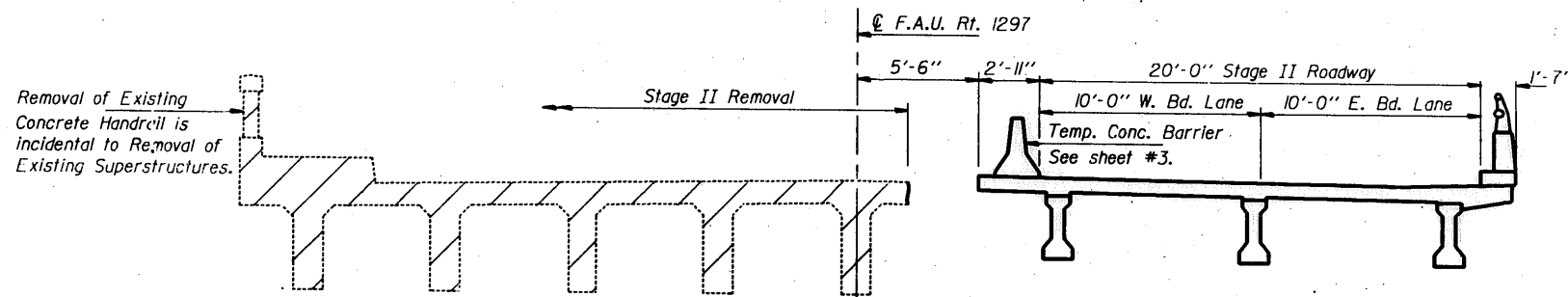
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			131	26 SHEETS
FED. ROAD DIST. NO. 7	LENGTHS	FED. AID PROJECT		



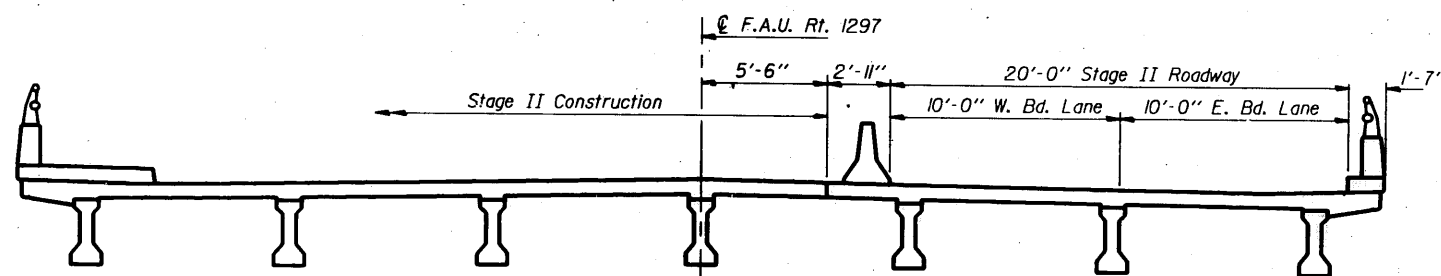
**\*STAGE I REMOVAL**



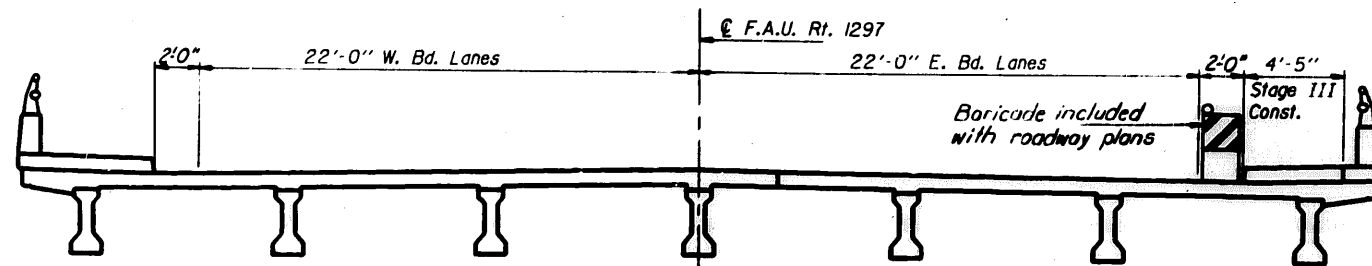
**\*STAGE I CONSTRUCTION**



**\*STAGE II REMOVAL**



**\*STAGE II CONSTRUCTION**



**\*STAGE III CONSTRUCTION**

\*Looking East

DESIGNED Mary Bloxdorf  
 CHECKED [Signature]  
 DRAWN R. Doty  
 CHECKED [Signature]  
 EXAMINED [Signature]  
 PASSED [Signature]  
 APPROVED [Signature]  
 DIRECTOR OF HIGHWAYS

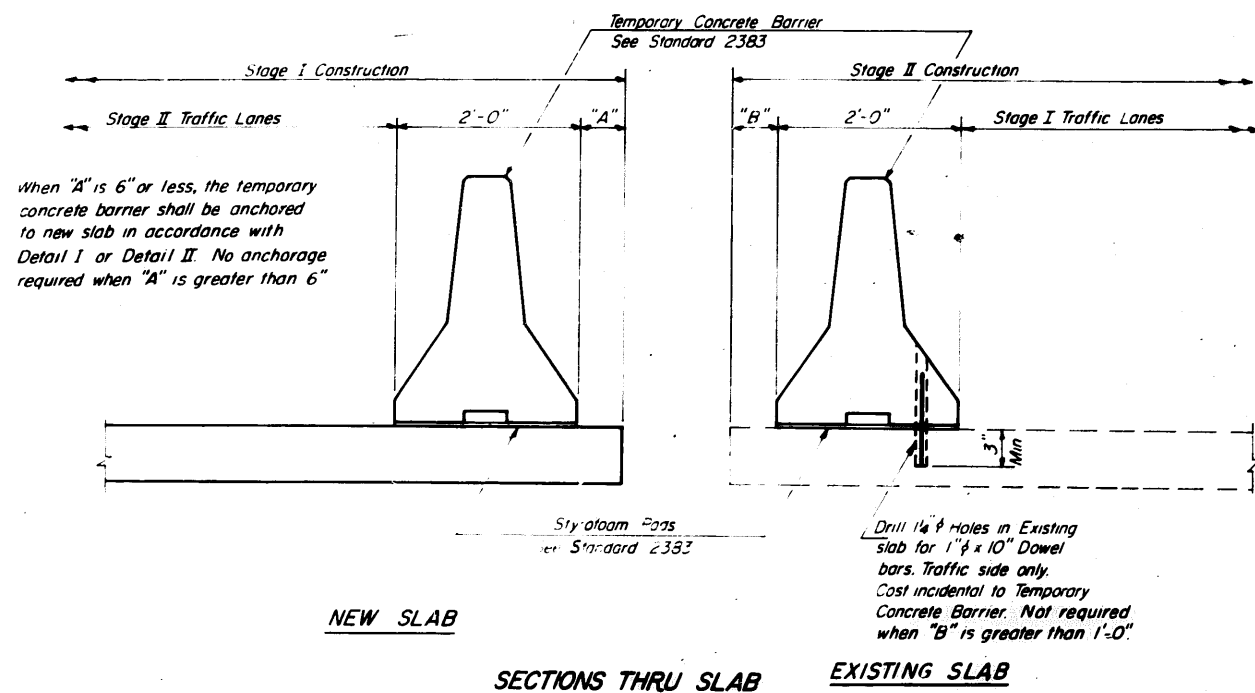
May 3, 1984

**STAGE CONSTRUCTION DETAILS**  
**F.A.U. RT. 1297 SEC. 134B-R(82)**  
**COOK COUNTY**  
**STA. 25+89.40**



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NO. 1 NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
1			196	135	26 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			

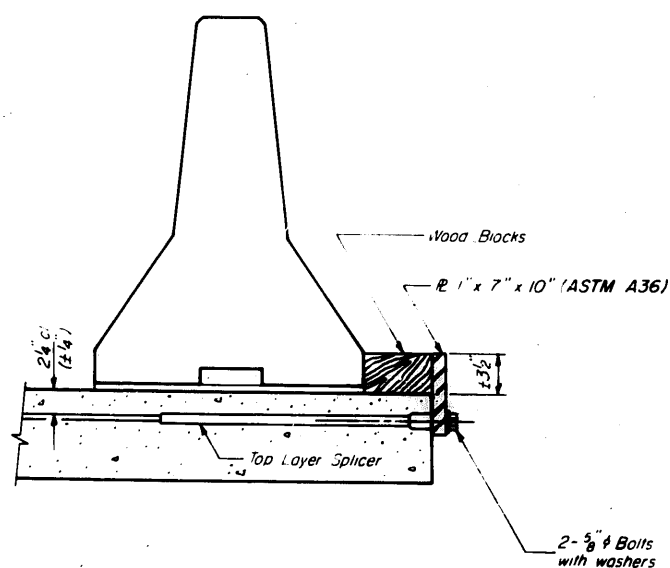


NOTES

Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1" x 7" x 10" steel  $\bar{R}$  to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each 10'-0" barrier panel

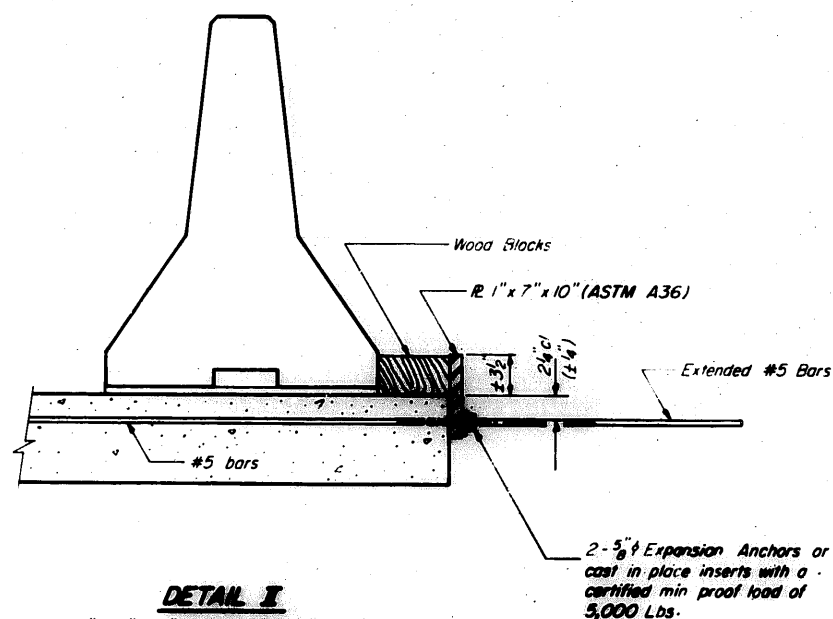
Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1" x 7" x 10" steel  $\bar{R}$  to the concrete slab with 2-5/8"  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each 10'-0" barrier panel

Cost of anchorage is incidental to Temporary Concrete Barrier



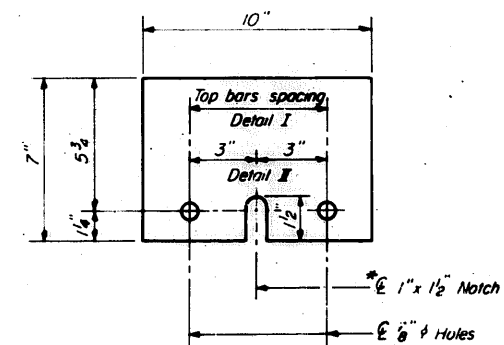
DETAIL I

The 1" x 7" x 10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 1" x 7" x 10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



1" x 7" x 10"

\* Required only with Detail II

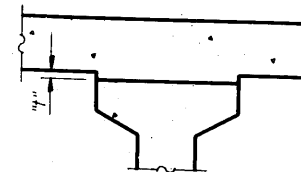
DESIGNED Mary Blaxdorf	EXAMINED <u>May 3, 1984</u>
CHECKED <u>Louise Hill</u>	PASSED <u>[Signature]</u>
DRAWN R. Doty	APPROVED <u>[Signature]</u>
CHECKED <u>Louise Hill</u>	

R-27 6-15-83

TEMPORARY CONCRETE BARRIER FOR  
FAH. TR. DIST. NO. 1 (102)  
COOK COUNTY  
STA. 23+63.90

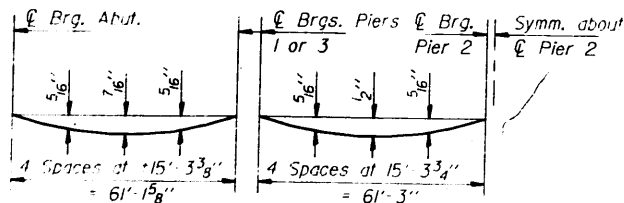


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



ROUTE NO.	SECTION	COUNTY	POST MILE	SHEET NO.
			116	136
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 4  
26 SHEETS



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete slab only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.

To determine "f": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" minus slab thickness, equals the fillet heights "f" above top flanges of beams.

**FILLET HEIGHTS**

**\*BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	2445.236	26.750	623.082	623.082
€ Brg. West Abut.	2448.819	26.750	623.100	623.100
A	2458.819	26.750	623.150	623.167
B	2468.819	26.750	623.200	623.229
C	2478.819	26.750	623.250	623.286
D	2488.819	26.750	623.300	623.330
E	2498.819	26.750	623.350	623.370
€ Pier 1	2510.955	-26.750	623.410	623.410
F	2520.955	-26.750	623.460	623.477
G	2530.955	-26.750	623.510	623.541
H	2540.955	-26.750	623.560	623.601
I	2550.955	-26.750	623.604	623.637
J	2560.955	-26.750	623.637	623.659
€ Pier 2	2573.955	26.750	623.666	623.666
K	2583.955	-26.750	623.676	623.693
L	2593.955	-26.750	623.677	623.707
M	2603.955	-26.750	623.667	623.707
N	2613.955	-26.750	623.648	623.681
O	2623.955	-26.750	623.618	623.640
€ Pier 3	2636.955	-26.750	623.565	623.565
P	2646.955	26.750	623.515	623.532
Q	2656.955	-26.750	623.465	623.494
R	2666.955	-26.750	623.415	623.451
S	2676.955	-26.750	623.365	623.395
T	2686.955	26.750	623.315	623.335
€ Brg. East Abut.	2699.090	-26.750	623.254	623.254
Back of East Abut.	2702.673	26.750	623.236	623.236

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	2450.384	-17.833	623.247	623.247
€ Brg. West Abut.	2453.967	-17.833	623.265	623.265
A	2463.967	-17.833	623.315	623.331
B	2473.967	-17.833	623.365	623.394
C	2483.967	-17.833	623.415	623.450
D	2493.967	-17.833	623.465	623.495
E	2503.967	-17.833	623.515	623.535
€ Pier 1	2516.103	-17.833	623.575	623.575
F	2526.103	-17.833	623.625	623.642
G	2536.103	-17.833	623.675	623.706
H	2546.103	-17.833	623.723	623.763
I	2556.103	-17.833	623.761	623.795
J	2566.103	-17.833	623.790	623.811
€ Pier 2	2579.103	-17.833	623.812	623.812
K	2589.103	-17.833	623.817	623.833
L	2599.103	-17.833	623.812	623.842
M	2609.103	-17.833	623.797	623.838
N	2619.103	-17.833	623.773	623.806
O	2629.103	-17.833	623.738	623.760
€ Pier 3	2642.103	-17.833	623.678	623.678
P	2652.103	-17.833	623.628	623.645
Q	2662.103	-17.833	623.578	623.607
R	2672.103	-17.833	623.528	623.564
S	2682.103	-17.833	623.478	623.509
T	2692.103	-17.833	623.428	623.449
€ Brg. East Abut.	2704.238	-17.833	623.368	623.368
Back of East Abut.	2707.822	-17.833	623.350	623.350

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	2455.532	-8.916	623.412	623.412
€ Brg. West Abut.	2459.116	-8.916	623.429	623.429
A	2469.116	-8.916	623.479	623.496
B	2479.116	-8.916	623.529	623.559
C	2489.116	-8.916	623.579	623.615
D	2499.116	-8.916	623.629	623.660
E	2509.116	-8.916	623.679	623.700
€ Pier 1	2521.251	-8.916	623.740	623.740
F	2531.251	-8.916	623.790	623.807
G	2541.251	-8.916	623.840	623.870
H	2551.251	-8.916	623.883	623.923
I	2561.251	-8.916	623.916	623.950
J	2571.251	-8.916	623.939	623.961
€ Pier 2	2584.251	-8.916	623.955	623.955
K	2594.251	-8.916	623.955	623.971
L	2604.251	-8.916	623.945	623.975
M	2614.251	-8.916	623.925	623.965
N	2624.251	-8.916	623.895	623.928
O	2634.251	-8.916	623.855	623.877
€ Pier 3	2647.251	-8.916	623.792	623.792
P	2657.251	-8.916	623.742	623.758
Q	2667.251	-8.916	623.692	623.721
R	2677.251	-8.916	623.642	623.677
S	2687.251	-8.916	623.592	623.622
T	2697.251	-8.916	623.542	623.562
€ Brg. East Abut.	2709.386	-8.916	623.481	623.481
Back of East Abut.	2712.970	-8.916	623.463	623.463

**BEAM 4 & € ROADWAY**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	2460.681	0.000	623.576	623.576
€ Brg. West Abut.	2464.264	0.000	623.594	623.594
A	2474.264	0.000	623.644	623.661
B	2484.264	0.000	623.694	623.723
C	2494.264	0.000	623.744	623.780
D	2504.264	0.000	623.794	623.825
E	2514.264	0.000	623.844	623.865
€ Pier 1	2526.399	0.000	623.905	623.905
F	2536.399	0.000	623.955	623.972
G	2546.399	0.000	624.003	624.033
H	2556.399	0.000	624.041	624.081
I	2566.399	0.000	624.069	624.102
J	2576.399	0.000	624.087	624.108
€ Pier 2	2589.399	0.000	624.095	624.095
K	2599.399	0.000	624.090	624.107
L	2609.399	0.000	624.075	624.105
M	2619.399	0.000	624.050	624.090
N	2629.399	0.000	624.015	624.048
O	2639.399	0.000	623.970	623.992
€ Pier 3	2652.399	0.000	623.905	623.905
P	2662.399	0.000	623.855	623.872
Q	2672.399	0.000	623.805	623.814
R	2682.399	0.000	623.755	623.791
S	2692.399	0.000	623.705	623.735
T	2702.399	0.000	623.655	623.675
€ Brg. East Abut.	2714.535	0.000	623.594	623.594
Back of East Abut.	2718.118	0.000	623.576	623.576

\*Note: The theoretical grade elevations given for Beams 1 and 7 were obtained by extending the crown slope to an imaginary point located at the centerline of Beams 1 and 7.

Note:  
For Elevations Location Plan see sheet #5.

DESIGNED Mary Bloxdorf  
CHECKED  
DRAWN R. Doty  
CHECKED

May 3, 1984  
EXAMINED  
PASSED  
APPROVED

PI-E

TOP OF SLAB ELEVATIONS  
F.A.U. RT. 1297 SEC. 1314B-R(82)  
COOK COUNTY  
STA. 25+89.40



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

\*Note: The theoretical grade elevations given for Beams 1 and 7 were obtained by extending the crown slope to an imaginary point located at the centerline of Beams 1 and 7.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			116	177
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 5  
26 SHEETS

STAGE CONSTRUCTION LINE

BEAM 5

BEAM 6

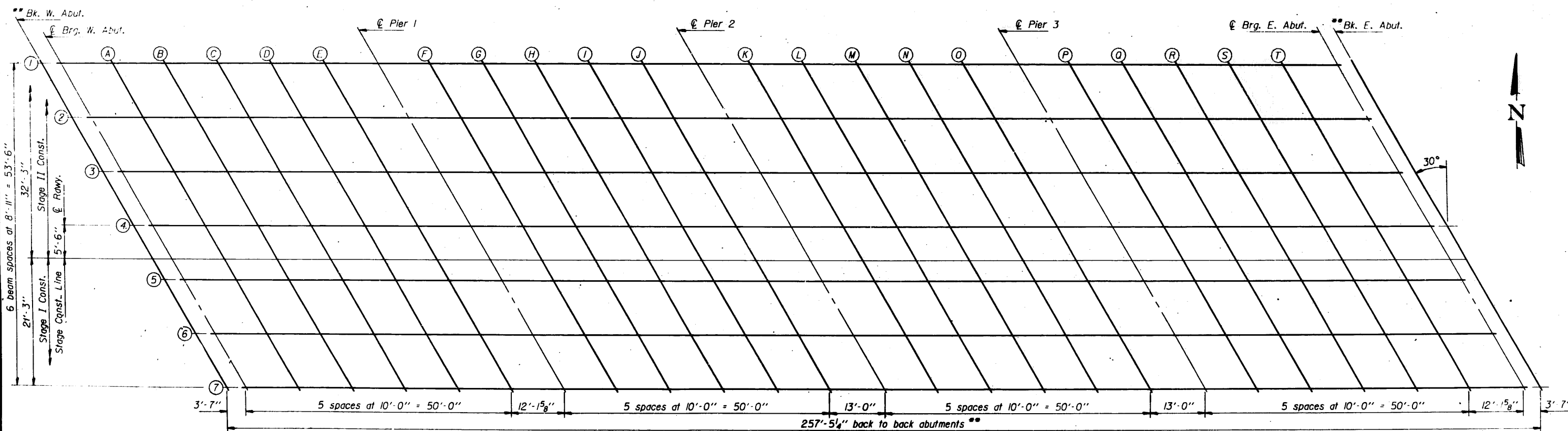
\*BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	2463.856	5.501	623.506	623.506
⊕ Brg. West Abut.	2467.439	5.501	623.524	623.524
A	2477.439	5.501	623.574	623.591
B	2487.439	5.501	623.624	623.653
C	2497.439	5.501	623.674	623.710
D	2507.439	5.501	623.724	623.755
E	2517.439	5.501	623.774	623.795
⊕ Pier 1	2529.575	5.501	623.835	623.835
F	2539.575	5.501	623.885	623.902
G	2549.575	5.501	623.930	623.960
H	2559.575	5.501	623.965	624.005
I	2569.575	5.501	623.990	624.023
J	2579.575	5.501	624.004	624.026
⊕ Pier 2	2592.575	5.501	624.009	624.009
K	2602.575	5.501	624.001	624.017
L	2612.575	5.501	623.982	624.013
M	2622.575	5.501	623.954	623.994
N	2632.575	5.501	623.916	623.949
O	2642.575	5.501	623.868	623.890
⊕ Pier 3	2655.575	5.501	623.803	623.803
P	2665.575	5.501	623.753	623.770
Q	2675.575	5.501	623.703	623.732
R	2685.575	5.501	623.653	623.689
S	2695.575	5.501	623.603	623.634
T	2705.575	5.501	623.553	623.574
⊕ Brg. East Abut.	2717.710	5.501	623.493	623.493
Back of East Abut.	2721.293	5.501	623.475	623.475

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	2465.829	8.918	623.463	623.463
⊕ Brg. West Abut.	2469.412	8.918	623.481	623.481
A	2479.412	8.918	623.531	623.548
B	2489.412	8.918	623.581	623.610
C	2499.412	8.918	623.631	623.667
D	2509.412	8.918	623.681	623.711
E	2519.412	8.918	623.731	623.751
⊕ Pier 1	2531.548	8.918	623.792	623.792
F	2541.548	8.918	623.841	623.858
G	2551.548	8.918	623.884	623.915
H	2561.548	8.918	623.917	623.957
I	2571.548	8.918	623.940	623.973
J	2581.548	8.918	623.953	623.974
⊕ Pier 2	2594.548	8.918	623.955	623.955
K	2604.548	8.918	623.944	623.961
L	2614.548	8.918	623.924	623.955
M	2624.548	8.918	623.894	623.934
N	2634.548	8.918	623.854	623.887
O	2644.548	8.918	623.805	623.827
⊕ Pier 3	2657.548	8.918	623.740	623.740
P	2667.548	8.918	623.690	623.707
Q	2677.548	8.918	623.640	623.669
R	2687.548	8.918	623.590	623.626
S	2697.548	8.918	623.540	623.571
T	2707.548	8.918	623.490	623.521
⊕ Brg. East Abut.	2719.683	8.918	623.429	623.429
Back of East Abut.	2723.266	8.918	623.412	623.412

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	2470.977	17.835	623.350	623.350
⊕ Brg. West Abut.	2474.560	17.835	623.368	623.368
A	2484.560	17.835	623.418	623.434
B	2494.560	17.835	623.468	623.497
C	2504.560	17.835	623.518	623.553
D	2514.560	17.835	623.568	623.598
E	2524.560	17.835	623.618	623.638
⊕ Pier 1	2536.696	17.835	623.678	623.678
F	2546.696	17.835	623.726	623.742
G	2556.696	17.835	623.763	623.794
H	2566.696	17.835	623.791	623.831
I	2576.696	17.835	623.809	623.842
J	2586.696	17.835	623.816	623.838
⊕ Pier 2	2599.696	17.835	623.811	623.811
K	2609.696	17.835	623.796	623.813
L	2619.696	17.835	623.771	623.801
M	2629.696	17.835	623.736	623.776
N	2639.696	17.835	623.690	623.724
O	2649.696	17.835	623.640	623.662
⊕ Pier 3	2662.696	17.835	623.575	623.575
P	2672.696	17.835	623.525	623.542
Q	2682.696	17.835	623.475	623.504
R	2692.696	17.835	623.425	623.461
S	2702.696	17.835	623.375	623.406
T	2712.696	17.835	623.325	623.346
⊕ Brg. East Abut.	2724.831	17.835	623.265	623.265
Back of East Abut.	2728.414	17.835	623.247	623.247

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of West Abut.	2476.125	26.752	623.236	623.236
⊕ Brg. West Abut.	2479.709	26.752	623.254	623.254
A	2489.709	26.752	623.304	623.321
B	2499.709	26.752	623.354	623.383
C	2509.709	26.752	623.404	623.440
D	2519.709	26.752	623.454	623.485
E	2529.709	26.752	623.504	623.525
⊕ Pier 1	2541.844	26.752	623.565	623.565
F	2551.844	26.752	623.607	623.624
G	2561.844	26.752	623.640	623.670
H	2571.844	26.752	623.662	623.702
I	2581.844	26.752	623.675	623.708
J	2591.844	26.752	623.677	623.699
⊕ Pier 2	2604.844	26.752	623.666	623.666
K	2614.844	26.752	623.645	623.662
L	2624.844	26.752	623.615	623.645
M	2634.844	26.752	623.574	623.615
N	2644.844	26.752	623.524	623.569
O	2654.844	26.752	623.475	623.497
⊕ Pier 3	2667.844	26.752	623.410	623.410
P	2677.844	26.752	623.360	623.377
Q	2687.844	26.752	623.310	623.340
R	2697.844	26.752	623.260	623.296
S	2707.844	26.752	623.210	623.241
T	2717.844	26.752	623.160	623.181
⊕ Brg. East Abut.	2729.979	26.752	623.100	623.100
Back of East Abut.	2733.563	26.752	623.082	623.082



ELEVATIONS LOCATION PLAN

DESIGNED *Mary Blaxdorf*  
 CHECKED *[Signature]*  
 DRAWN *R. Doty*  
 CHECKED *[Signature]*  
 PI-E

APPROVED *[Signature]*  
 DIRECTOR OF HIGHWAYS

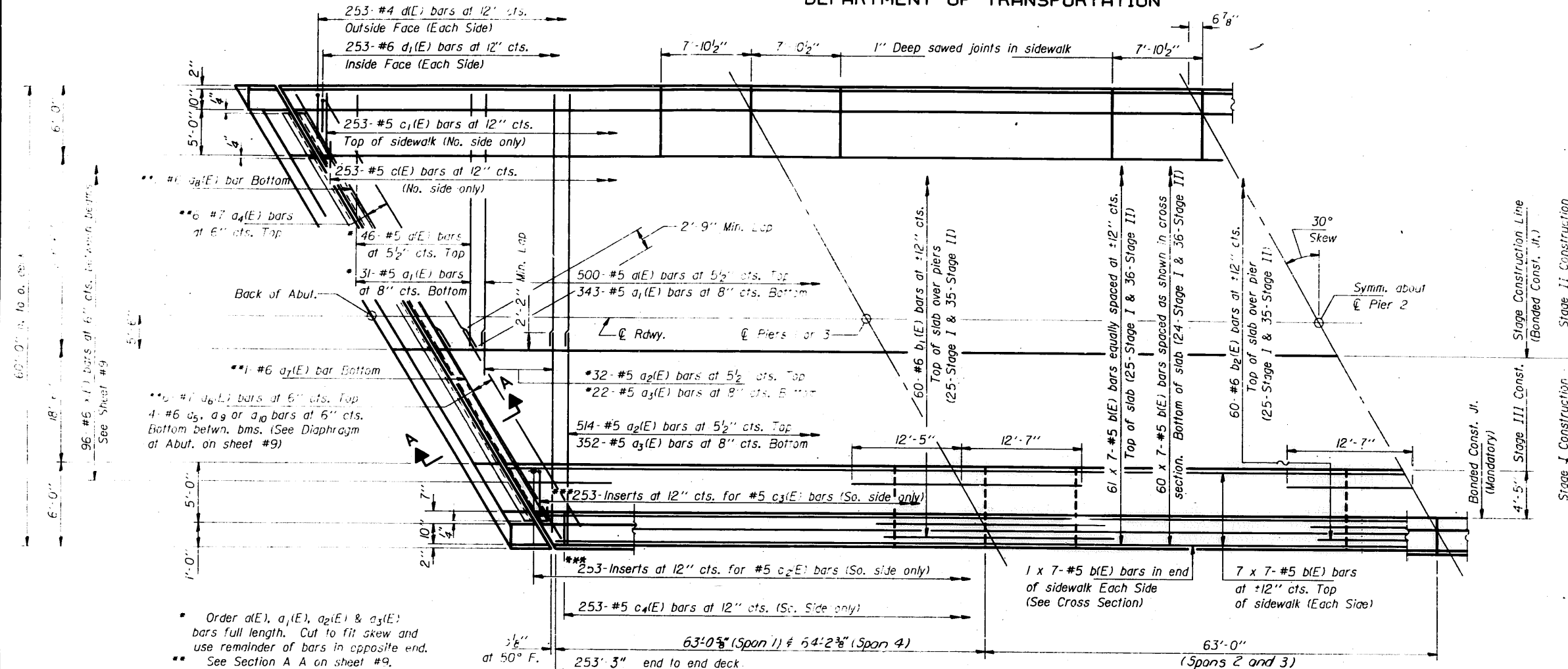
\*\* Back of New Abutment Caps.

TOP OF SLAB ELEVATIONS  
 F.A.U. RT. 1297 SEC. 1314B-R(82)  
 COOK COUNTY  
 STA. 25+89.40



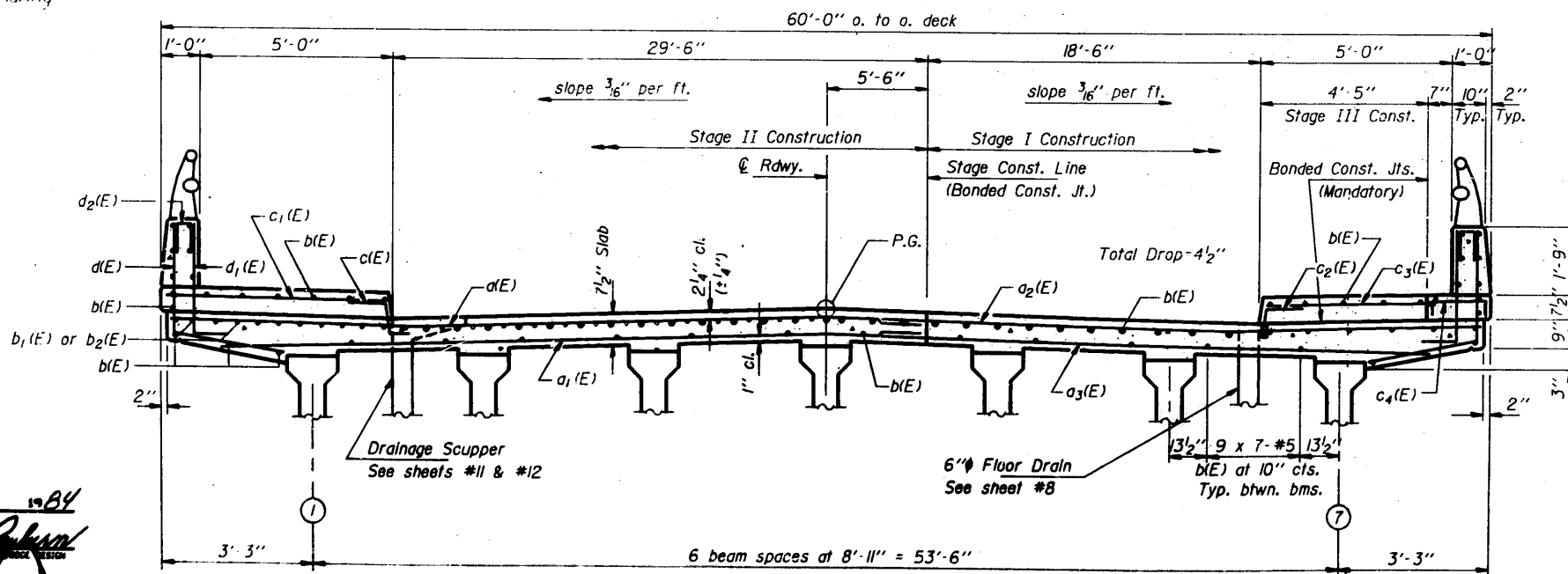
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	DATE	SCALE	SHEET NO.
				26 SHEETS



- Order d1(E), a1(E), a2(E) & a3(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.
- See Section A A on sheet #9.
- Cost of Inserts is incidental to Class X Concrete. Inserts shall be plugged or blocked off during Stage II Construction.

HALF PLAN



CROSS SECTION  
(Looking East)

Notes: See sheets #7 & #8 for superstructure details and Bill of Material.  
Reinforcement bars designated (E) shall be epoxy coated.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
Min. lap for #5 bars = 2'-2".  
See sheet #9 for Section A-A.  
For reinforcement at Scupper Drains see sheet #7.  
All inserts shall be epoxy coated.

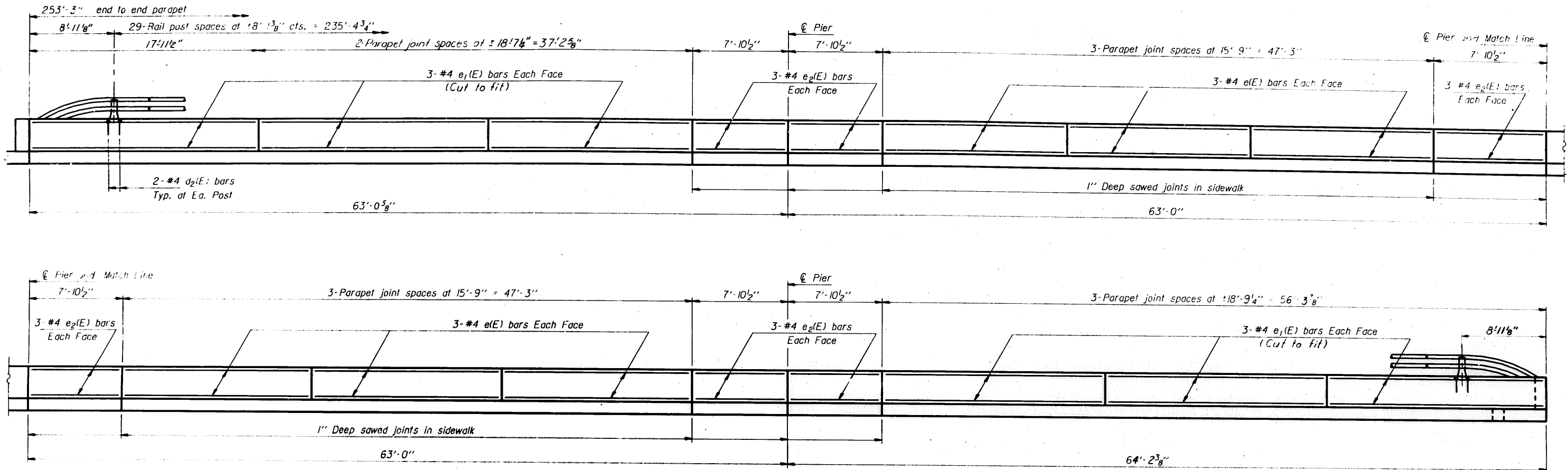
DESIGNED *Mary Bloxdorf*  
CHECKED  
DRAWN *R. Daly*  
CHECKED  
APPROVED *May 3, 1984*  
EXAMINED *James J. [Signature]*  
PASSED  
SECTION OF HIGHWAYS

PI-1-R(15°)

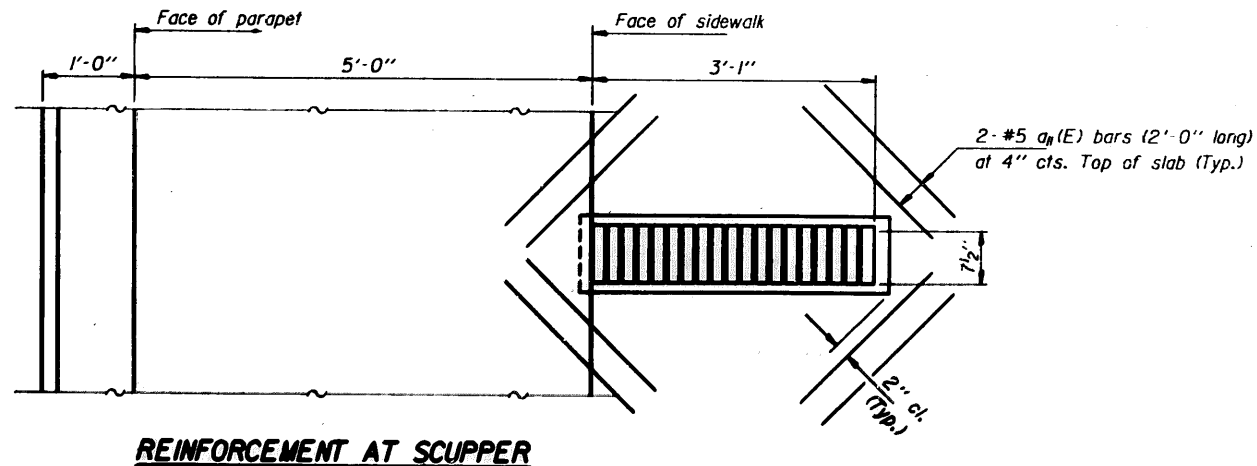
**SUPERSTRUCTURE**  
**F.A.U. RT. 1297 SEC. 1314B-R(82)**  
**COOK COUNTY**  
**STA. 25+89.40**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNT	SHEETS	SHEET NO.
			131	26
F.A.U. NO.		F.A.U. PROJECT		26 SHEETS



**ELEVATION OF PARAPET**  
 (North Parapet-Looking So.)  
 (South Parapet-Looking No.)



Notes:  
 Reinforcement bars designated (E) shall be epoxy coated.

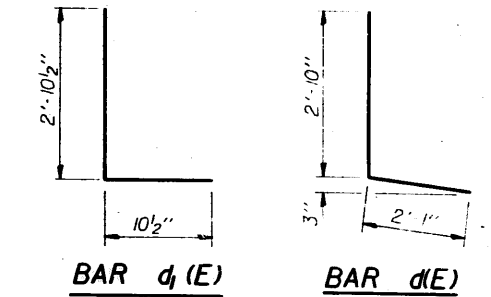
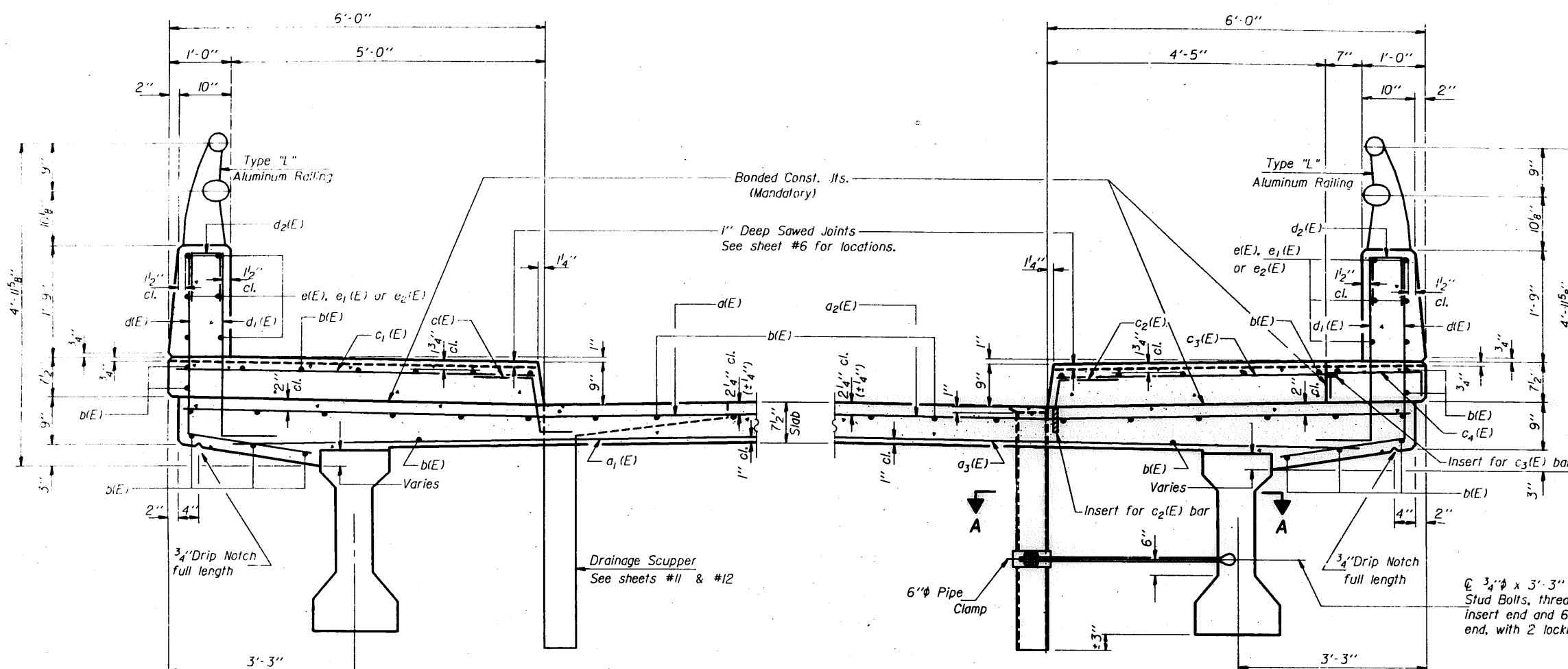
DESIGNED Mary Bloxdorf	EXAMINED <i>May 3 1984</i>
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>
DRAWN R. Doty	
CHECKED <i>[Signature]</i>	

**SUPERSTRUCTURE DETAILS**  
**F.A.U. RT. 1297 SEC. 134B-R(82)**  
**COOK COUNTY**  
**STA. 25+89.40**



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			146	145
20 SHEETS				

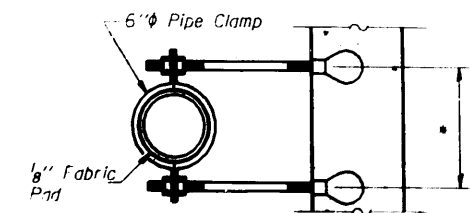


**SUPERSTRUCTURE  
BILL OF MATERIAL**

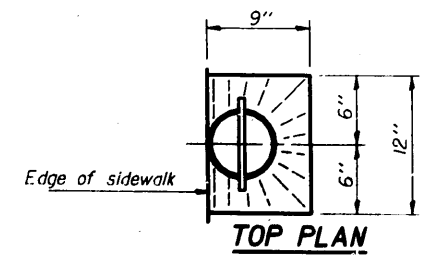
Bar	No.	Size	Length	Shape
a(E)	546	#5	35'-11"	—
a1(E)	374	#5	33'-11"	—
a2(E)	546	#5	26'-5"	—
a3(E)	374	#5	25'-0"	—
a4(E)	12	#7	40'-6"	—
a5	40	#6	9'-3"	—
a6(E)	12	#7	30'-10"	—
a7(E)	2	#6	27'-2"	—
a8(E)	2	#6	36'-11"	—
a9	8	#6	5'-5"	—
a10	8	#6	5'-10"	—
a11(E)	32	#5	2'-0"	—
b(E)	959	#5	38'-0"	—
b1(E)	120	#6	25'-0"	—
b2(E)	60	#6	25'-2"	—
c(E)	257	#5	27'-5"	—
c1(E)	257	#5	5'-7"	—
c2(E)	257	#5	1'-10"	—
c3(E)	257	#5	4'-6"	—
c4(E)	253	#5	2'-4"	—
d(E)	506	#4	4'-11"	L
d1(E)	506	#6	3'-9"	L
d2(E)	120	#4	2'-0 1/2"	n
e(E)	72	#4	15'-6"	—
e1(E)	72	#4	18'-4"	—
e2(E)	72	#4	7'-7"	—
m	60	#4	9'-2"	—
m1	30	#6	7'-10"	—
m2	15	#8	5'-10"	—
m3	6	#6	5'-0"	—
m4	12	#4	5'-9"	—
m5	6	#8	3'-8"	—
m6	6	#6	4'-10"	—
m7	12	#4	5'-4"	—
s	42	#4	12'-0"	—
s1	84	#4	11'-6"	—
x(E)	192	#6	7'-7"	—
Reinforcement Bars		Lbs.	2860	
Reinforcement Bars (Epoxy Coated)		Lbs.	11810	
Class X Concrete		Cu. Yds.	555.2	

SECTION THRU NORTH SIDEWALK

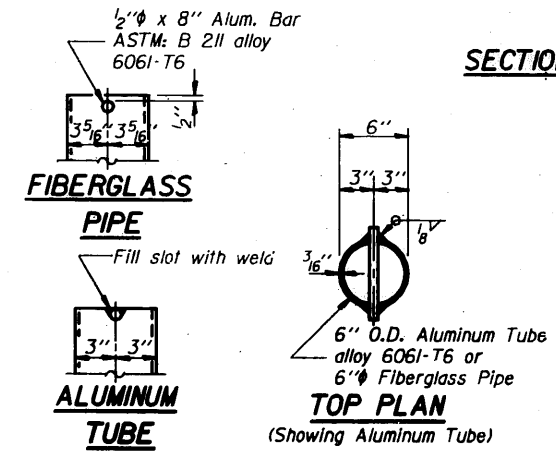
SECTION THRU SOUTH SIDEWALK



SECTION A-A  
\* Dimension as required by Pipe Clamp

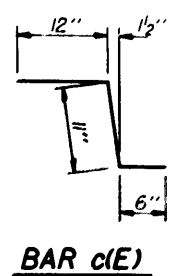


TOP PLAN

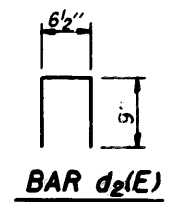


FIBERGLASS PIPE  
ALUMINUM TUBE

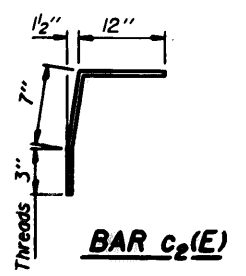
Notes:  
Fiberglass pipe shall conform to ASTM: D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. The surface of the Fiberglass pipe shall be free of bond inhibiting agents. The exterior surfaces of the Fiberglass Floor Drain shall be painted with one coat of Aluminum Paint. Painting of the Fiberglass Floor Drains will not be required when the exterior surfaces of the furnished drains are coated by the manufacturer with silver pigment or a pigment that matches the color of the concrete beam. The clamping device and inserts shall be galvanized in accordance with AASHTO M-232.



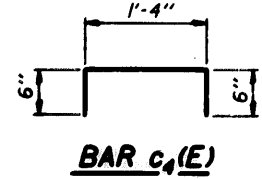
BAR c1(E)



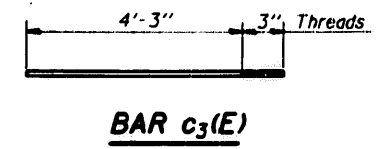
BAR d2(E)



BAR c2(E)



BAR c4(E)



BAR c3(E)

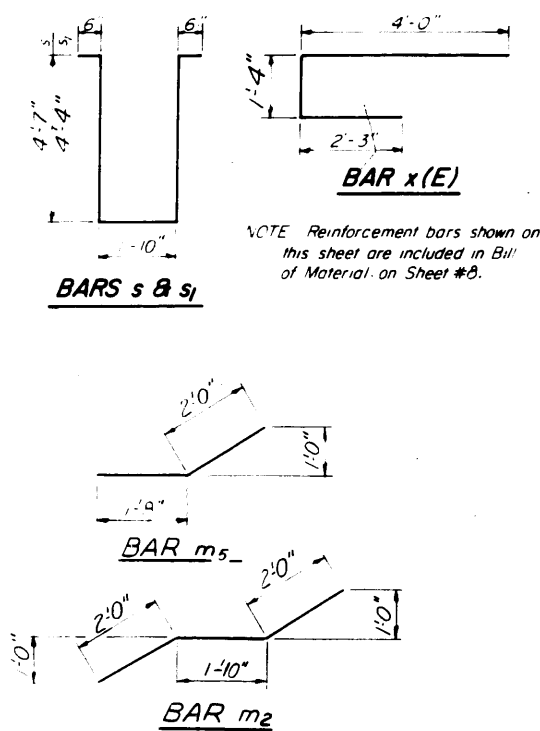
DESIGNED Mary Bloxdorf  
CHECKED  
DRAWN R. Doty  
CHECKED  
PI-1-D

EXAMINED May 3, 1984  
PASSED  
APPROVED

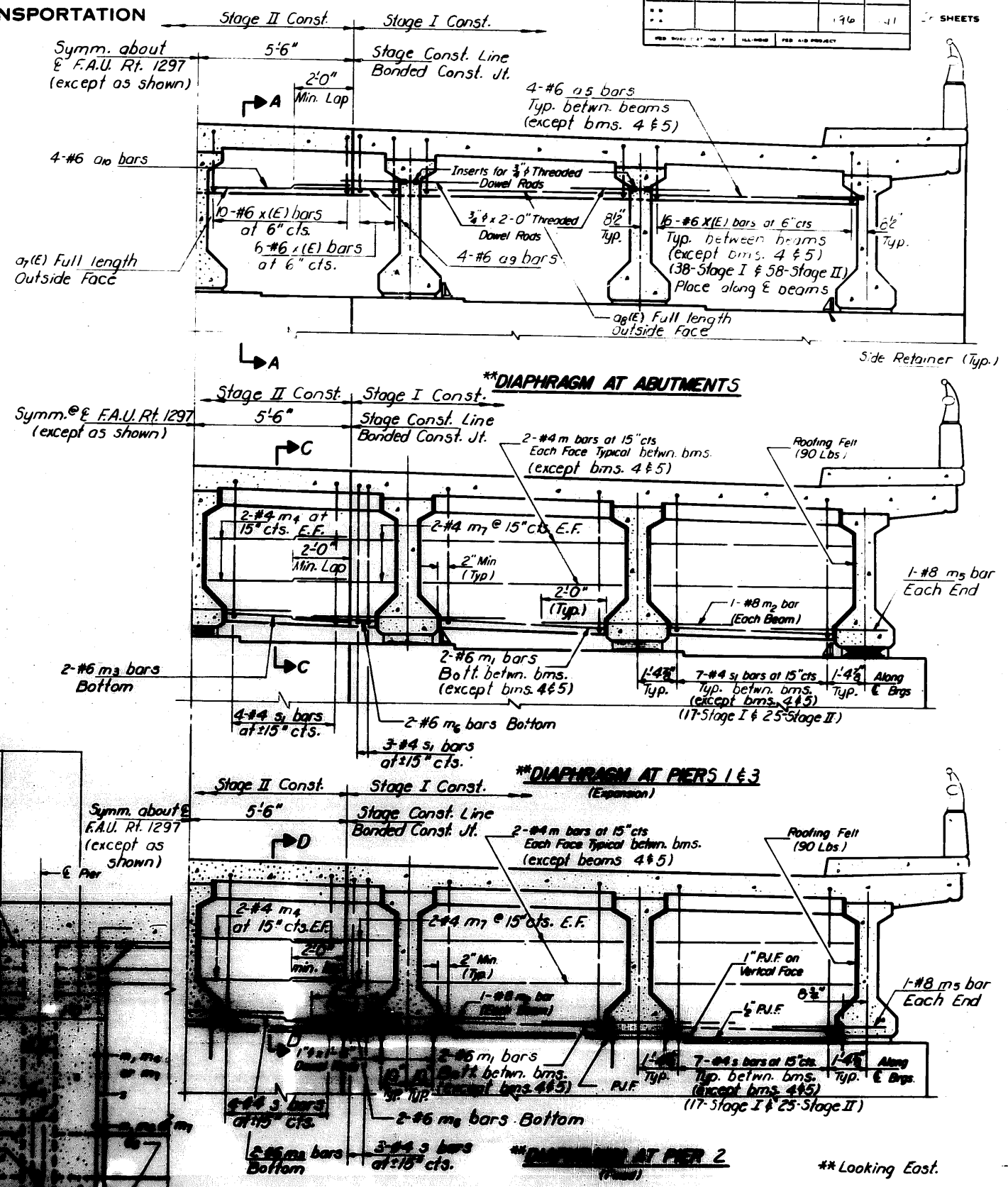
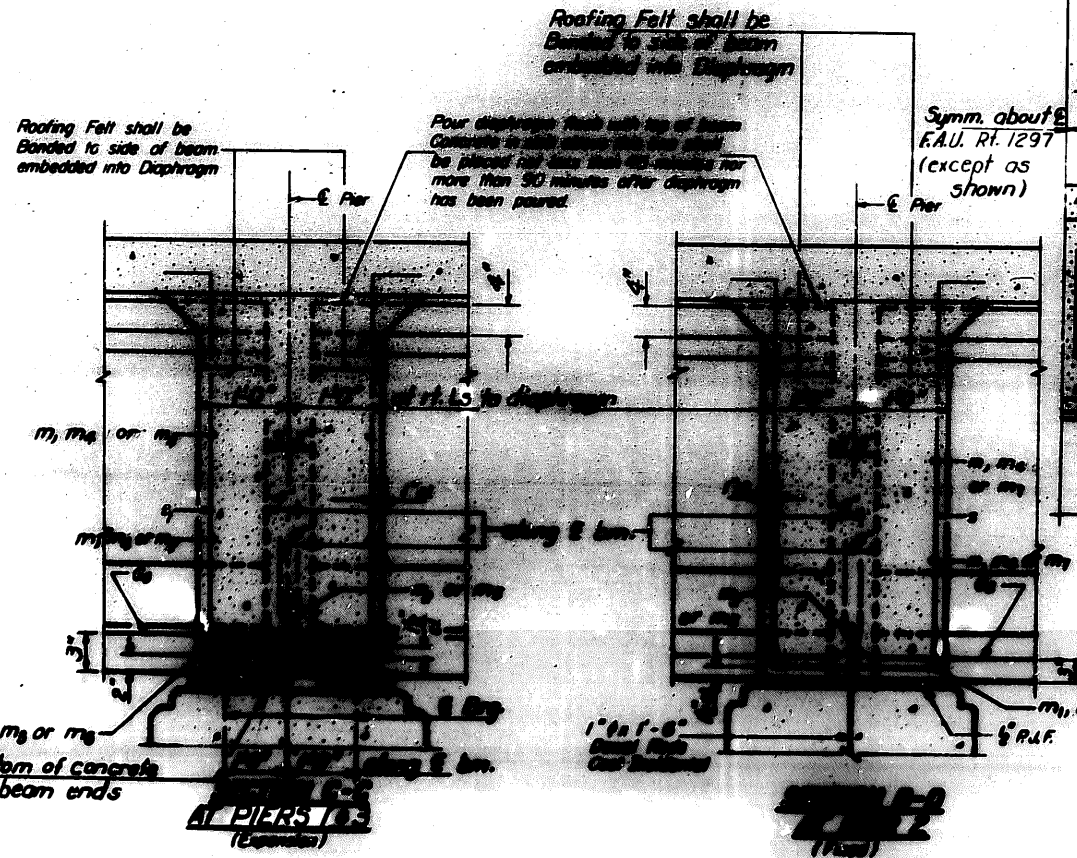
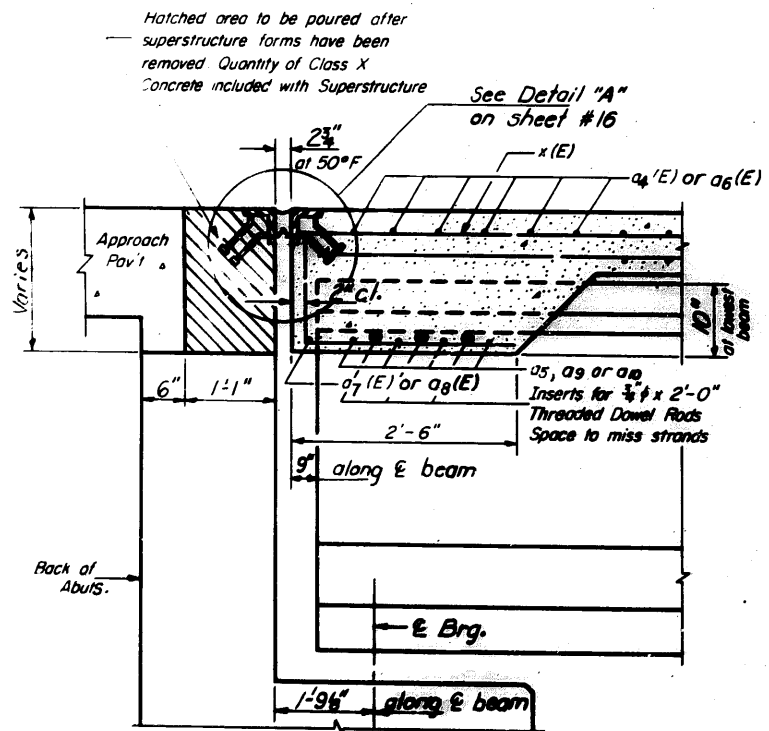
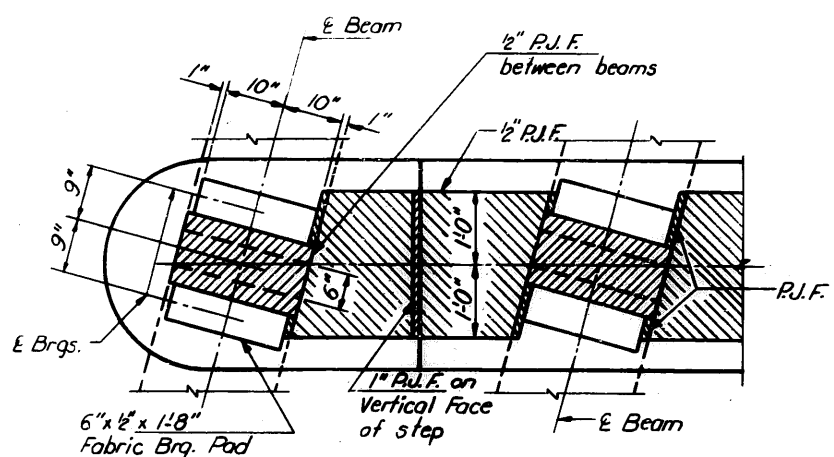
**SUPERSTRUCTURE DETAILS**  
F.A.U. RT. 1297 SEC. 1314B-R(82)  
COOK COUNTY  
STA. 25+89.40

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		196	41
SHEETS			



NOTE: Reinforcement bars shown on this sheet are included in Bill of Material on Sheet #8.



DESIGNED *Mary Bloxdorf*  
CHECKED *Lisa Kahl*  
DRAWN *R. Doty*  
CHECKED *Lisa Kahl*

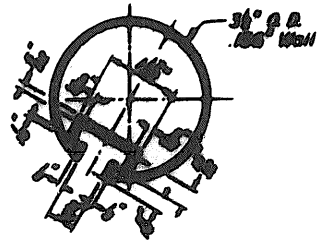
DATE *May 3 1984*  
APPROVED *[Signature]*

**SUPERSTRUCTURE DETAILS**  
FAU. RT. 1297 SEC. 1314B-R02  
COOK COUNTY  
STA. 25+89.40

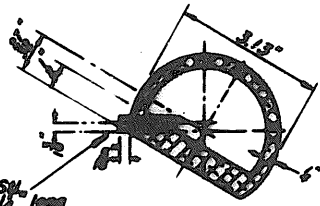


STATE OF ALABAMA  
DEPARTMENT OF TRANSPORTATION

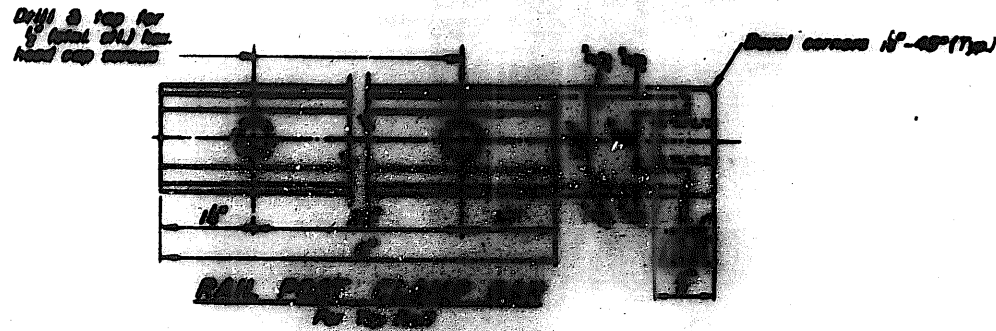
DATE	BY	CHKD	APP'D	SHEET NO. 10
196	196			26 SHEETS



SECTION THRU TOP RAIL



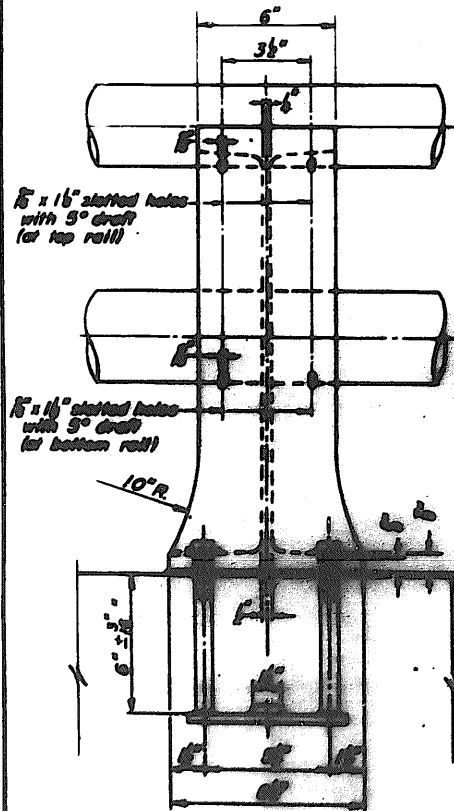
SECTION THRU SPLICE  
TOP RAIL



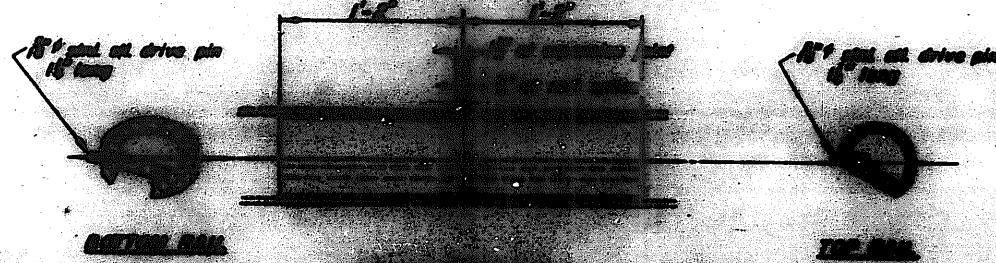
RAIL POST DETAIL

NOTES:

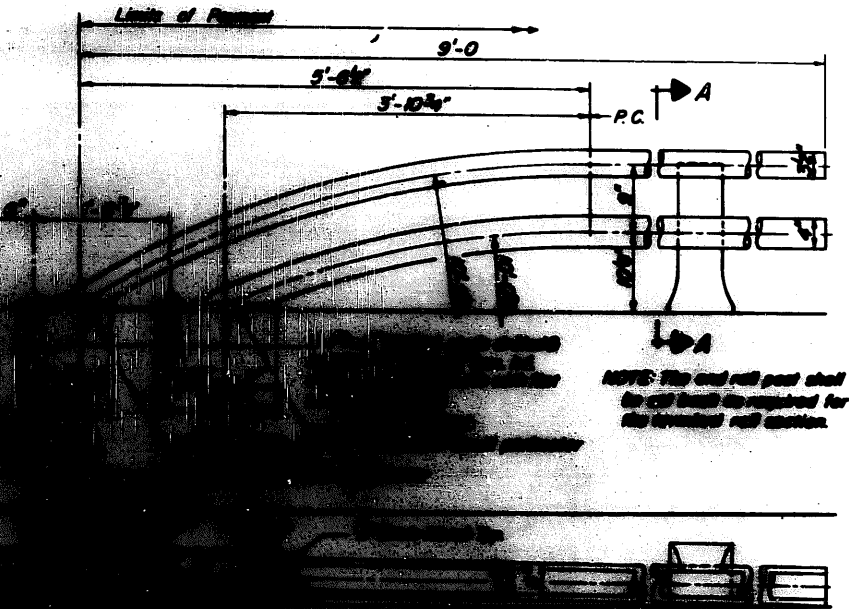
- All Posts shall be normal to parapet.
- All Aluminum Alloy (Extruded Rail) shall be supplied in modular lengths of 20 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2500 feet radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.
- All joints in rail shall be spaced per detail.
- Provide 1-1/2" and 2-1/2" Aluminum Shims for 25% of the Posts. All shims shall be parallel to Grade - high spots shall be ground and low spots allowed.
- Routing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per foot for ALUMINUM RAILING, TYPE L.
- Aluminum alloy rail shall conform to ASTM B 221 alloy 6061-T6 or 6063-T5 with min. yield 35 ksi, min. tensile 38 ksi, and elongation of 10% to 2 inches.



VIEW B-B



RAIL DETAIL



NOTE: The end rail post shall be cut back as required for the finished rail section.

RAIL DETAIL  
(North Parapet - Looking North)  
(South Parapet - Looking South)

AASHTO (1015)

ALL MATERIALS  
SHALL BE IN ACCORDANCE WITH  
SECTION 503

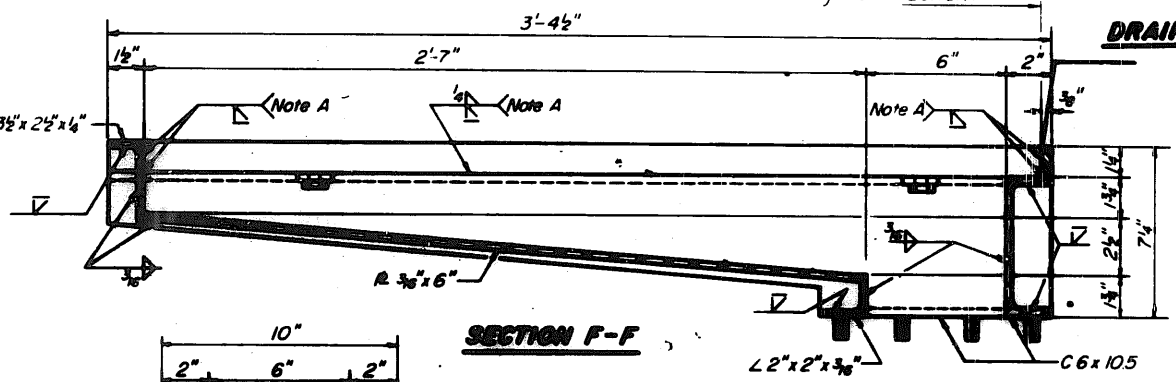
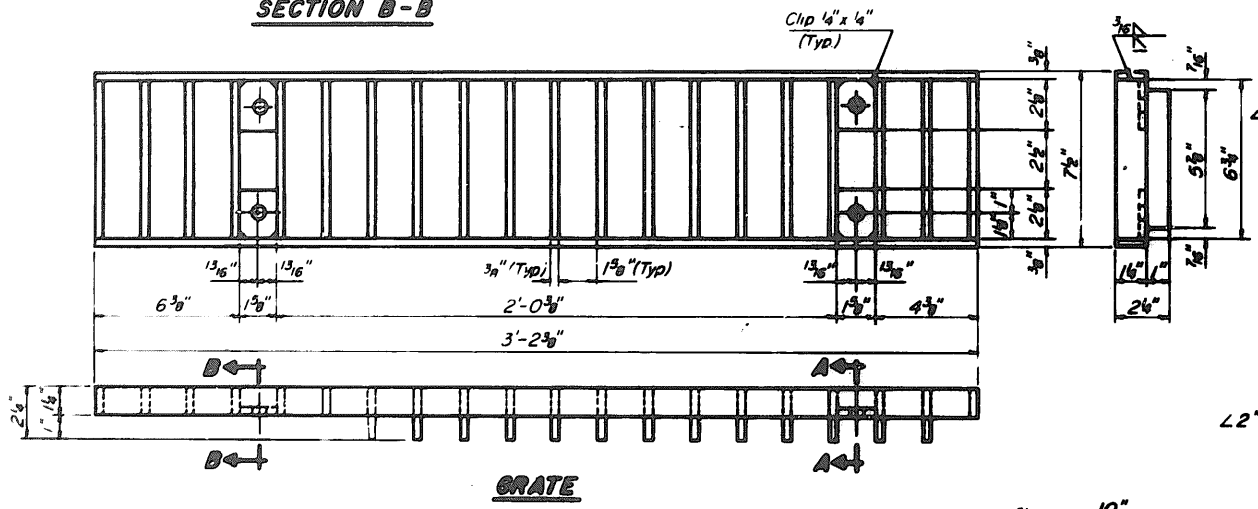
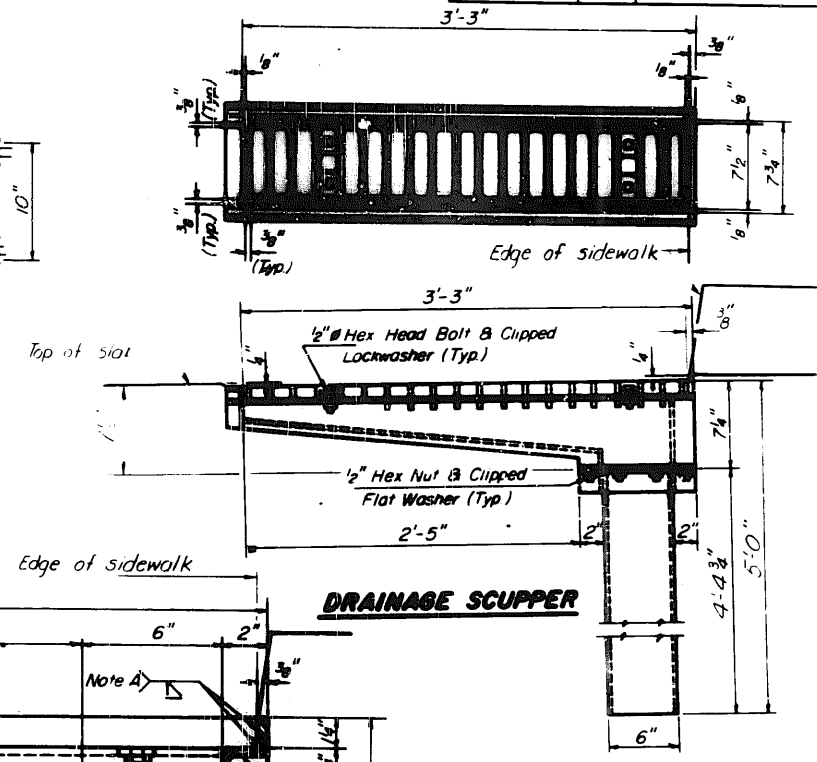
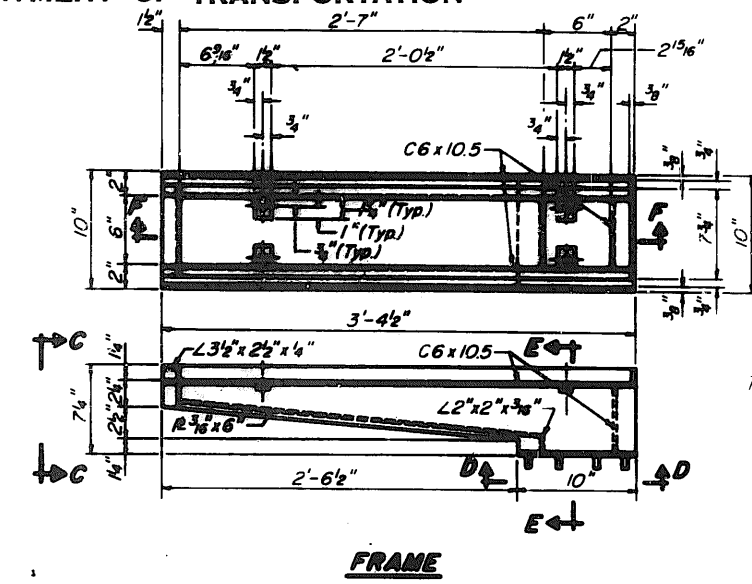
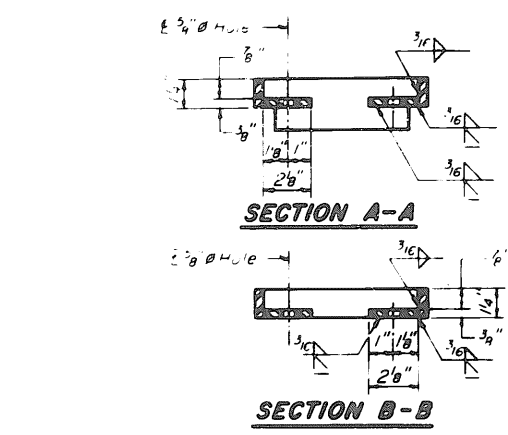
TYPE L  
ALUMINUM RAILING  
F.A.I. NO. 1548-R(82)  
COAL COUNTY  
ALABAMA

Note: For rail post spacing see sheet #7.

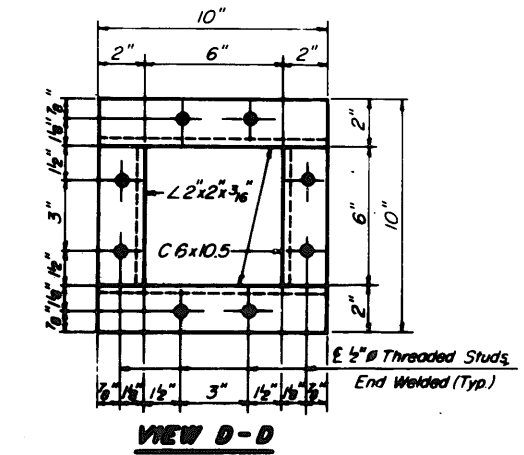
DESIGNED	Mary Blonderf
CHECKED	Lense Hill
DESIGNED	R. Doty
CHECKED	Lense Hill

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

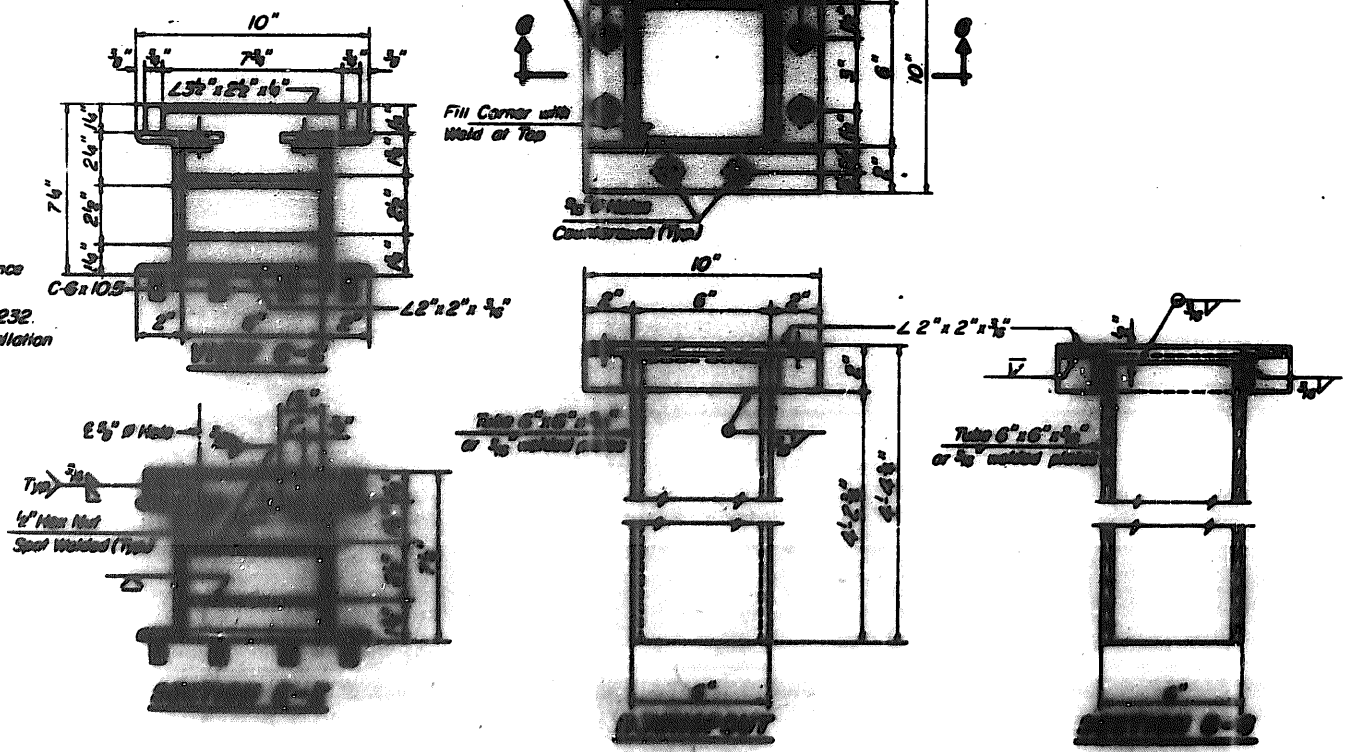
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			196	143
SHEET NO.		SHEETS		



Note A: Surface of welds shall be recessed 1/16" Max. or placed flush with inside face of bars to provide clearance for Grate.



Notes  
 Hollow structural steel tubing shall conform to the requirements of A.S.T.M. designation A-500 Grade B, or A-501 Structural Steel Tubing.  
 All other shapes, plates and bars shall conform to the requirements of AASHTO M 183.  
 Bolts, studs, washers and nuts shall conform to the requirements of A.S.T.M. A-307.  
 The Grate, Frame, and Downspout shall be galvanized after shop fabrication in accordance with AASHTO M-111 & A.S.T.M. A-305.  
 All bolts, washers and nuts shall be galvanized in accordance with A.A.S.H.T.O. M 232.  
 Cost of the Grate, Frame, Downspout, Bolts, Washers and Nuts including complete installation of Scupper shall be paid for at the unit bid price for "DRAINAGE SCUPPERS"



**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Drainage Scupper	Each	4

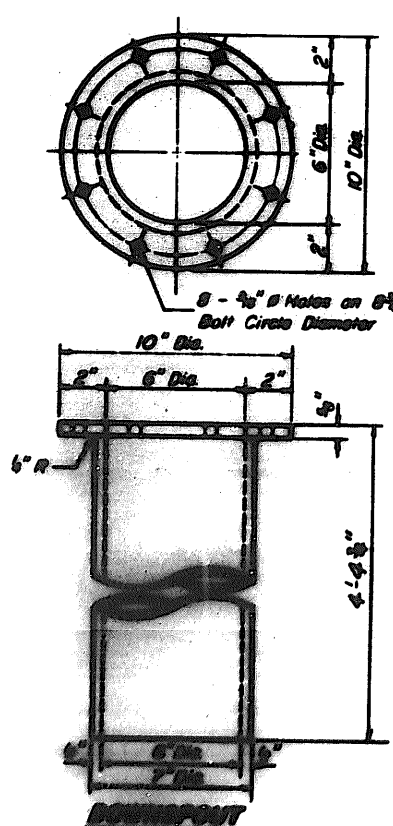
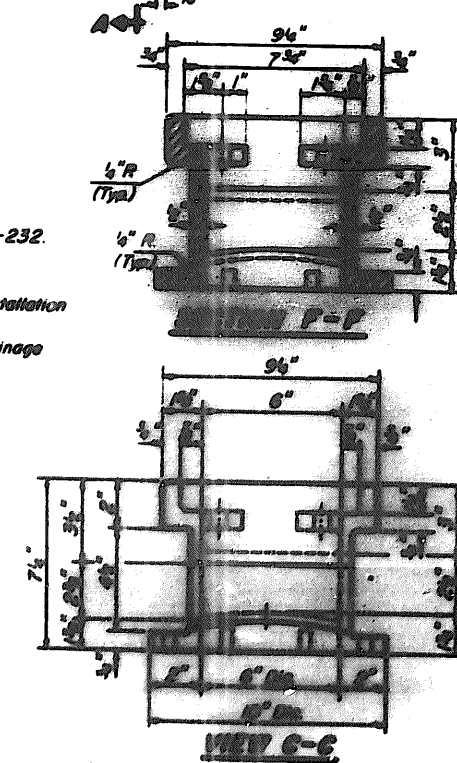
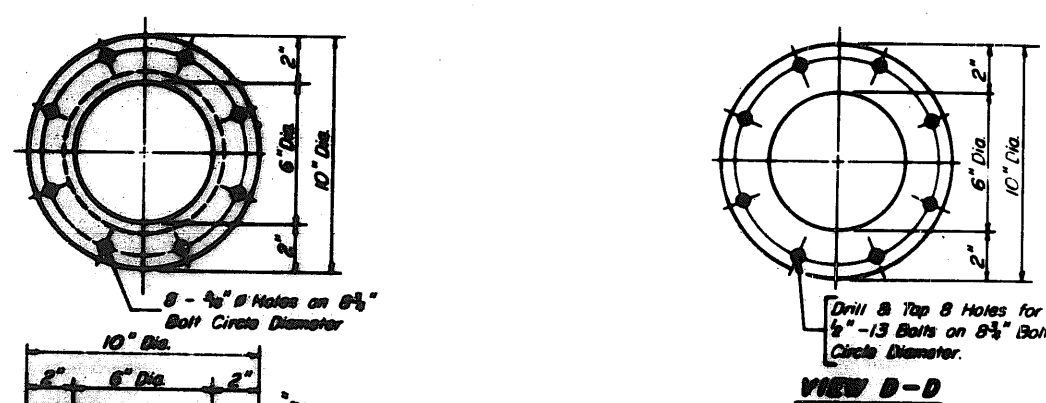
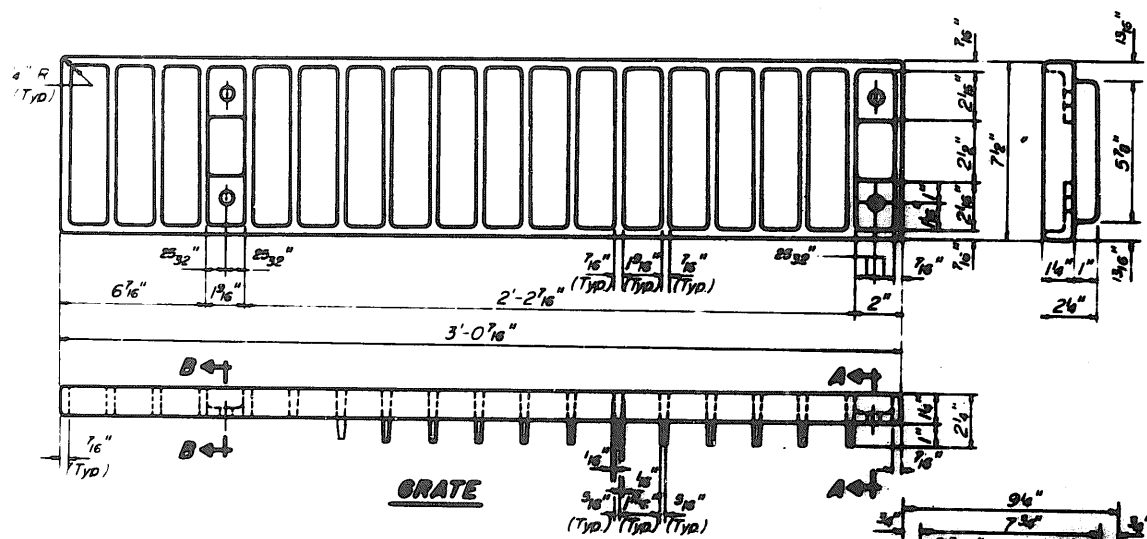
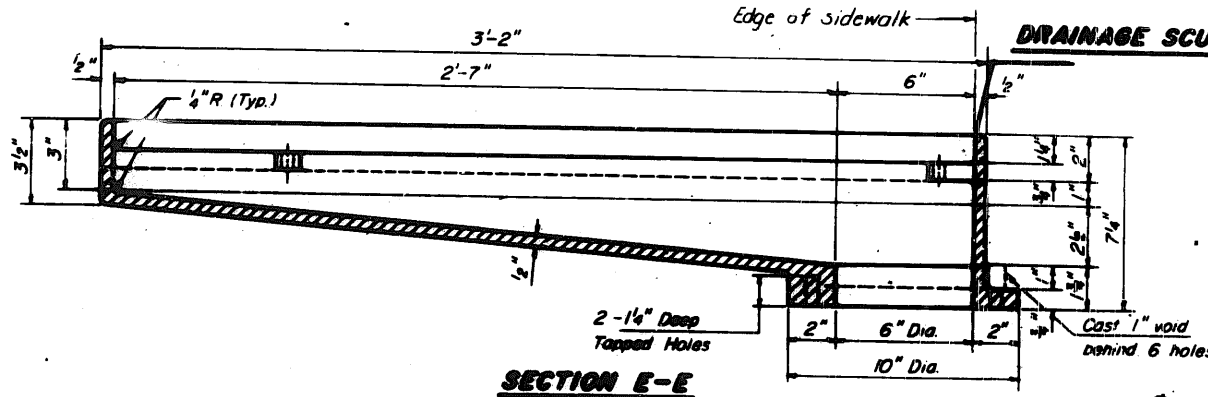
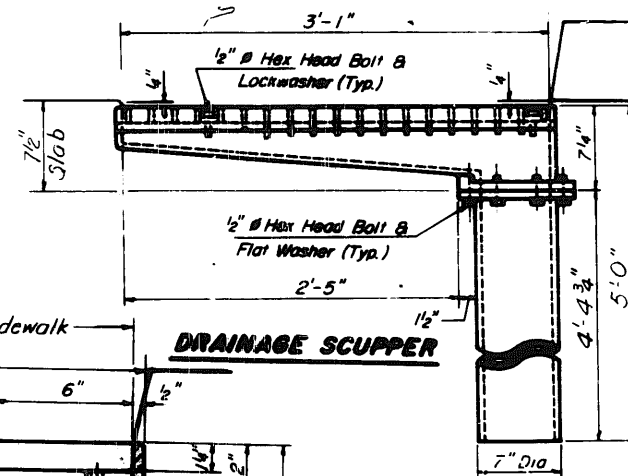
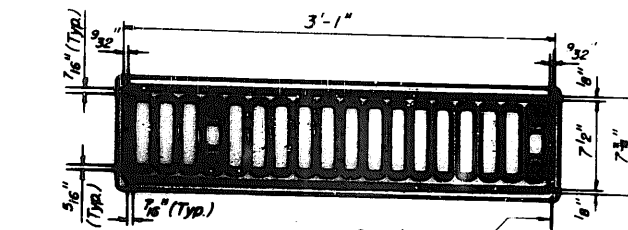
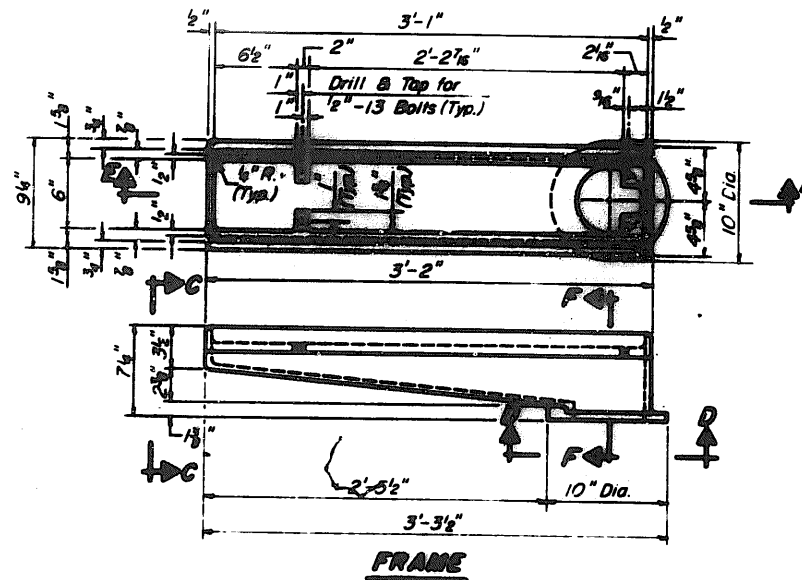
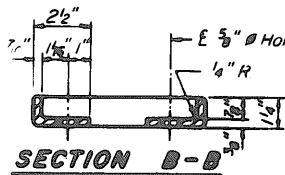
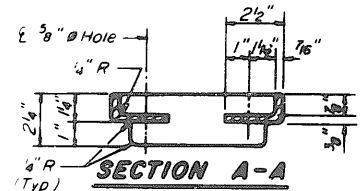
(Sheet 1 of 2)  
**STEEL DRAINAGE SCUPPER**  
 ILL. RT. 1037 SEC. 131/2B-R(82)  
 COOK COUNTY  
 STA. 25+89.40

Mary Blaxdorf  
 Lance Kidd  
 R. Doty  
 Lance Kidd

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			196	144

SHEET NO. 2  
OF 2 SHEETS

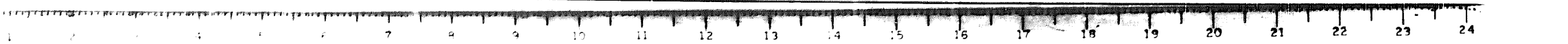


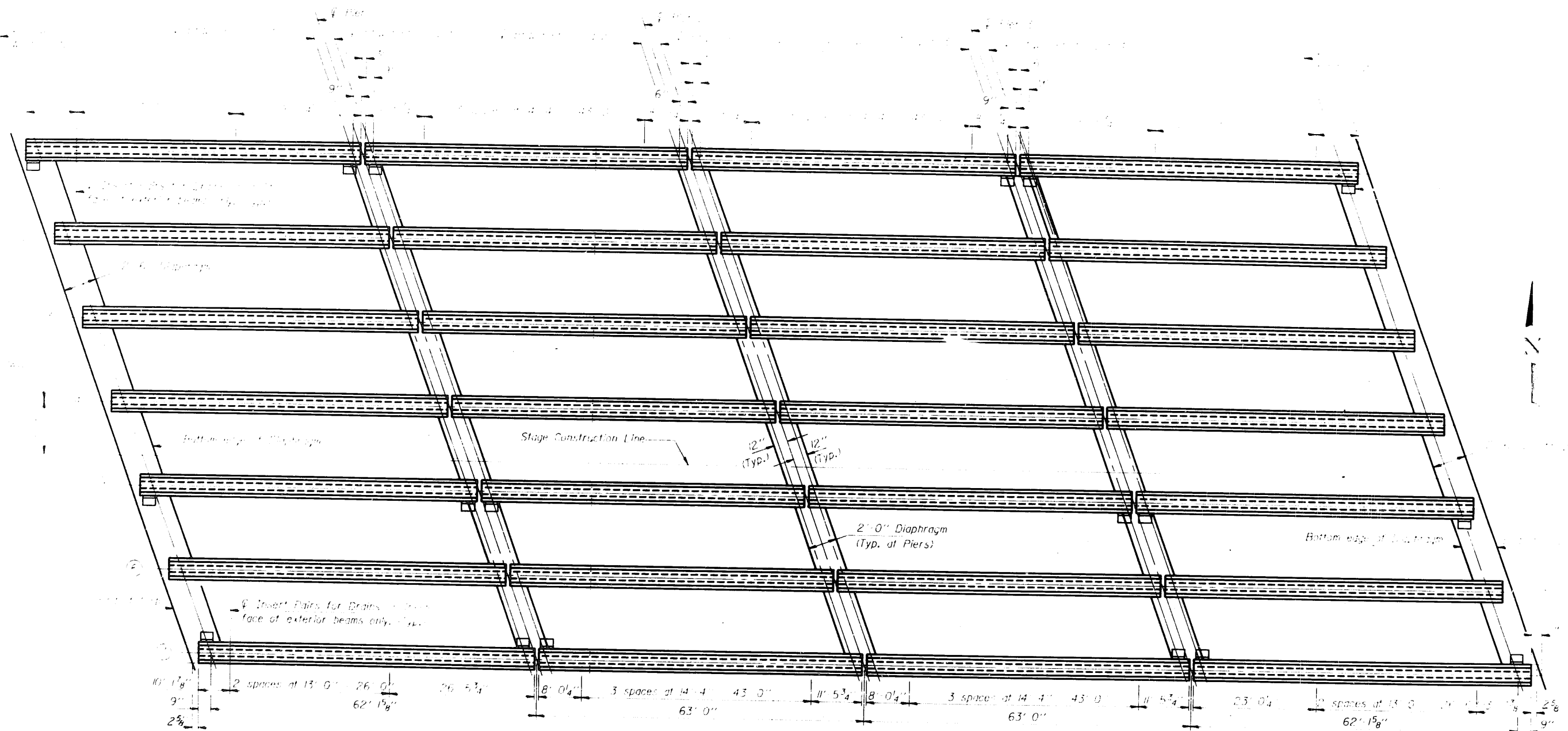
Notes  
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M-105, Class 30  
 Bolts and washers shall conform to the requirements of A.S.T.M. A-307.  
 All bolts and washers shall be galvanized in accordance with A.A.S.H.T.O. M-232.  
 As an alternate bolts and washers may be stainless steel conforming to the requirements of A.S.T.M. A-193, Type 304.  
 Cost of the Grate, Frame, Downspout, bolts and washers including complete installation of Scupper shall be paid for at the unit bid price for "DRAINAGE SCUPPERS".  
 The Contractor may use at his option steel drainage scuppers or cast iron drainage scuppers.

DESIGNED *Mary Blizardorf*  
 CHECKED *Louise Hill*  
 PD *R. Doty*  
 CHECKED *Louise Hill*

(Sheet 2 of 2)  
**ALTERNATE - CAST IRON  
 DRAINAGE SCUPPER**  
 F.A.U. RT. 1297 SEC. 134 B-R (82)  
 COOK COUNTY  
 STA. 25+89.40

DS-4 4-21-77 (WT to inside of exterior stringer flange shall not be > 3'-11")





**FRAMING PLAN**

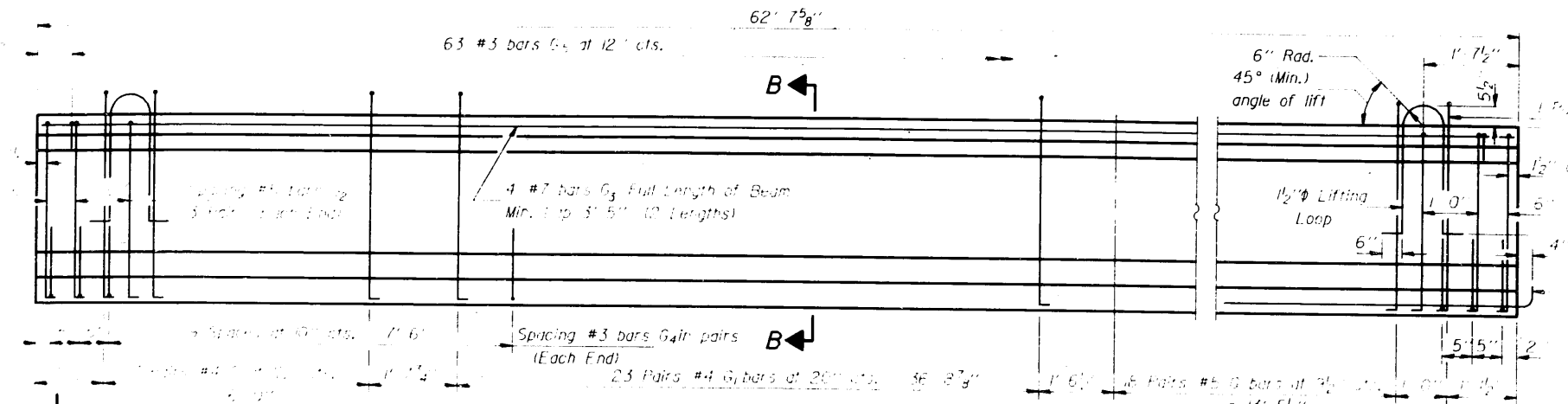
DESIGNED	Am. B. B. B.	May 3, 1984
CHECKED		
DRAWN	M. J. J.	
CHECKED		

EXAMINED *James J. B. B.*  
PASSED *[Signature]*  
APPROVED *[Signature]*

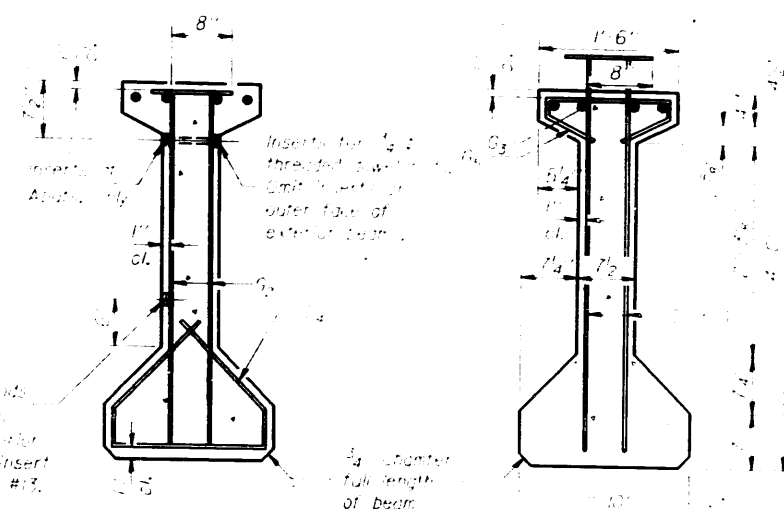
**FRAMING PLAN**  
F.A.U. RT. 1297 SEC. 1314B-R(82)  
COOK COUNTY  
STA. 25+89.40

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	DATE	SCALE	SHEET NO.
				4
TOTAL SHEETS				7

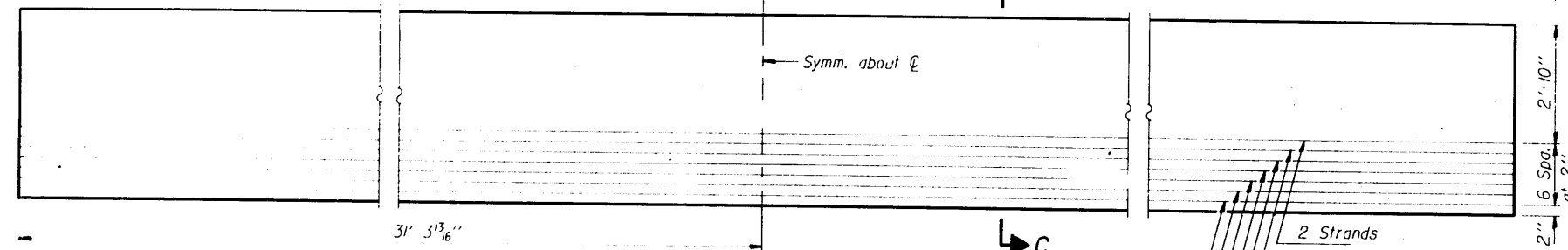


**ELEVATION OF BEAM**  
(Showing Reinforcement & Dimensions)  
(Span 1-Linking No. & Span 4-Linking No.)

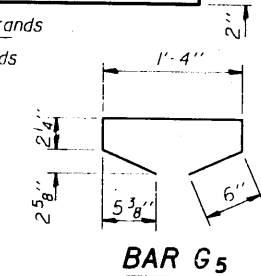
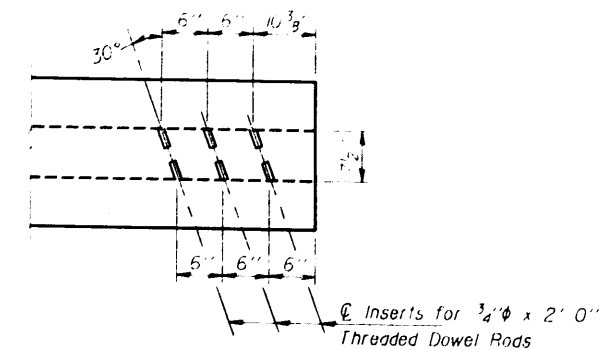


**SECTION A-A**

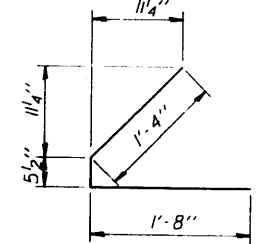
**SECTION B-B**



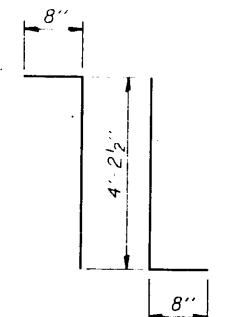
**ELEVATION OF BEAM**  
(Showing Prestressing Steel)



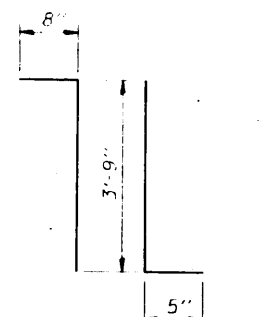
**BAR G<sub>5</sub>**



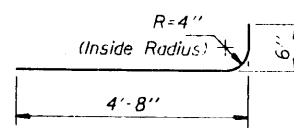
**BAR G<sub>4</sub>**



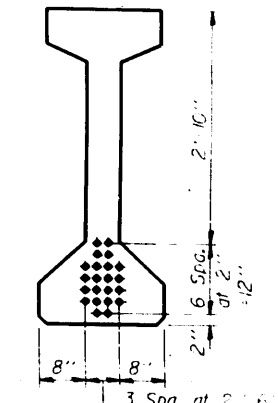
**BARS G & G<sub>1</sub>**



**BAR G<sub>2</sub>**



**BAR G<sub>6</sub>**



**SECTION C-C**

**\*\* BAR LIST**

Bar	No.	Size	Length	Shape
G	38	#5	5'-6 1/2"	TL
G <sub>1</sub>	60	#4	5'-6 1/2"	TL
G <sub>2</sub>	12	#5	4'-10"	TL
G <sub>3</sub>	8	#7	33'-0"	
G <sub>4</sub>	40	#3	3'-5 1/2"	
G <sub>5</sub>	63	#3	2'-8 1/2"	
G <sub>6</sub>	2	#8	5'-2"	

\*\* For one beam only.

**NOTES**

All inserts and threaded dowel rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per lined foot of "Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48 in."

Insert for 3/4" threaded dowel rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams.

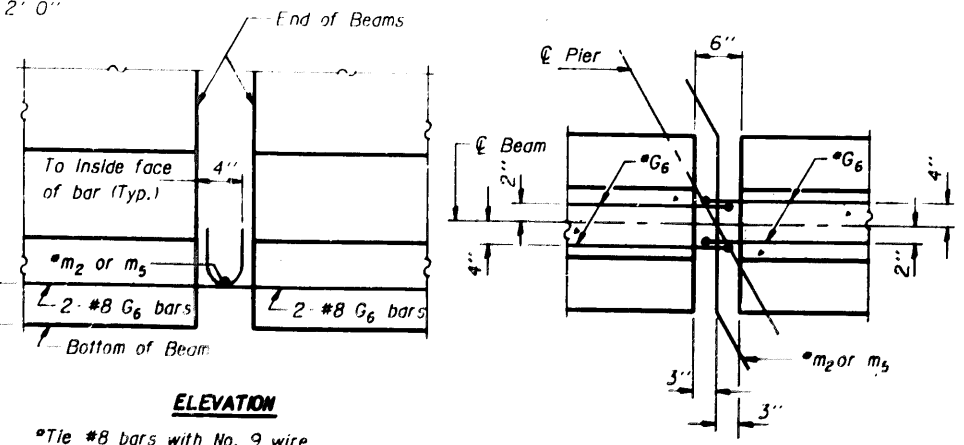
Prestressing steel shall be non galvanized high strength, stress-relieved 7-wire strand, Grade 270.

The nominal diameter shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in.

Non-prestressing steel shall conform to AASHTO designation M-31 or M-53 Grade 60.

Steel for lifting loops shall be non deformed bars f<sub>y</sub> 40,000 psi. Required release strength, f<sub>cl</sub>, shall be 4600 psi.

For Bill of Material see sheet #15.



**ELEVATION**

**PLAN**

\*Tie #8 bars with No. 9 wire tightly fastened to prevent any movement between bars.

DESIGNED	Mary Bloxdorf
CHECKED	
DRAWN	R. Doly
CHECKED	

May 3, 1984

EXAMINED *[Signature]*

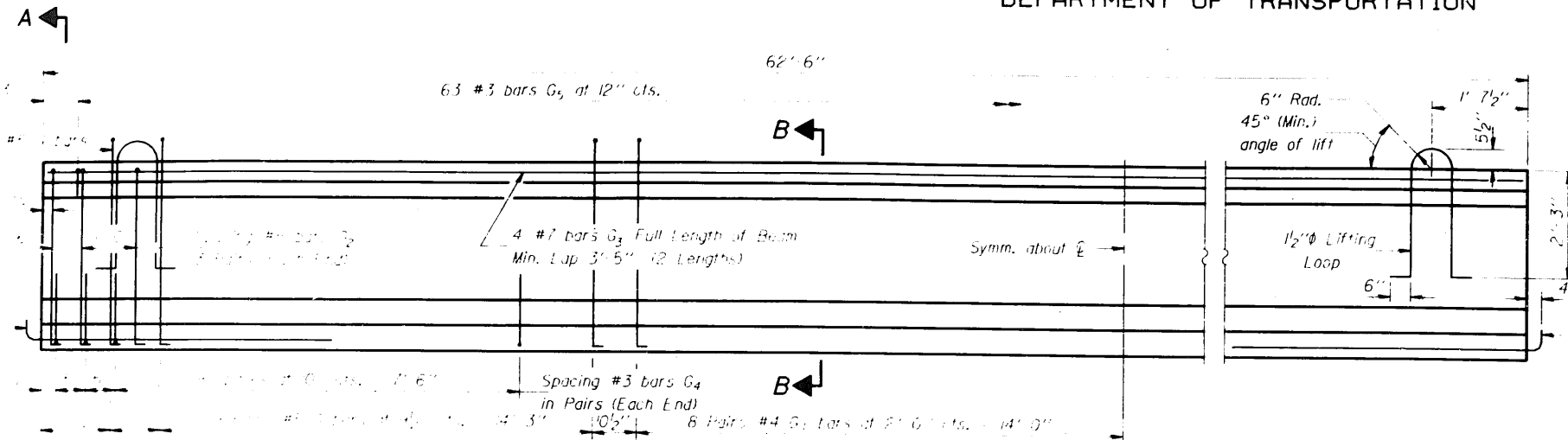
PASSED *[Signature]*

APPROVED *[Signature]*

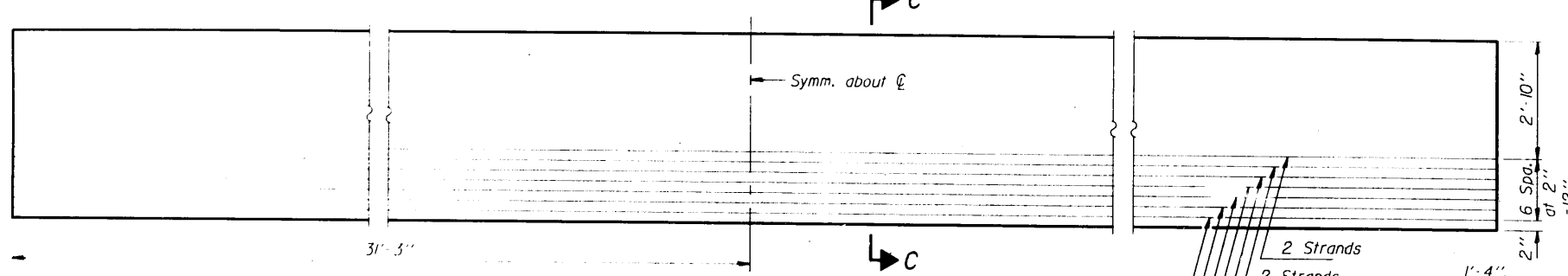
DIRECTOR OF HIGHWAYS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

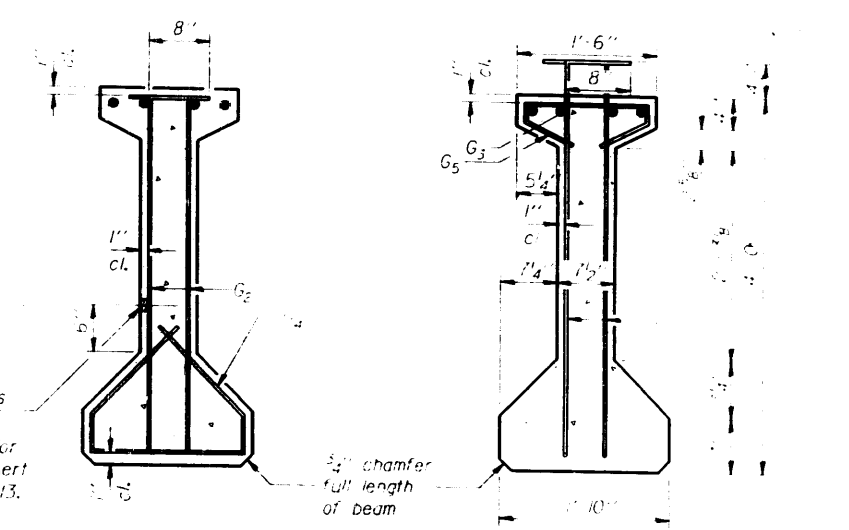
ROUTE NO.	SECTION	DATE	DESIGNER	CHECKER	SHEET NO.
					17
TOTAL SHEETS					22



**ELEVATION OF BEAM**  
(Showing Reinforcement & Dimensions)

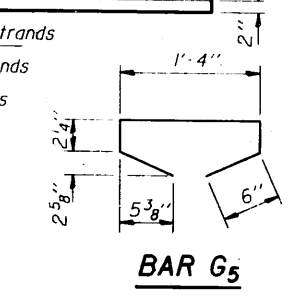


**ELEVATION OF BEAM**  
(Showing Prestressing Steel)

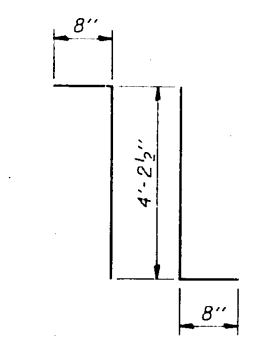


**SECTION A-A**

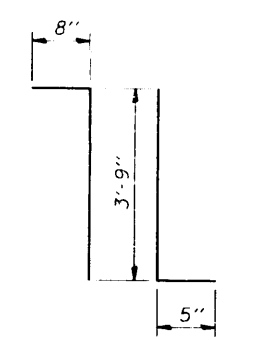
**SECTION B-B**



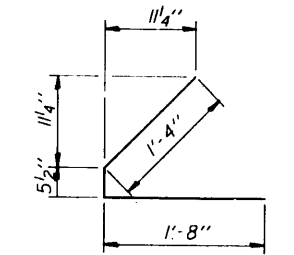
**BAR  $G_5$**



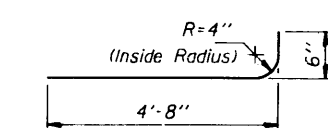
**BARS  $G$  &  $G_1$**



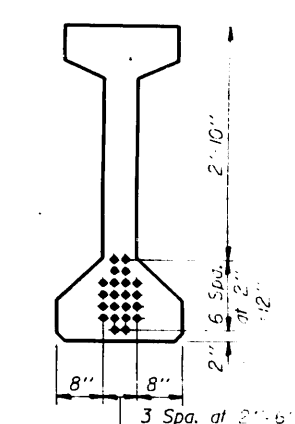
**BAR  $G_2$**



**BAR  $G_4$**



**BAR  $G_6$**



**SECTION C-C**

**\*\* BAR LIST**

Bar	No.	Size	Length	Shape
$G$	80	#5	5'-6 1/2"	TL
$G_1$	30	#4	5'-6 1/2"	TL
$G_2$	12	#5	4'-10"	TL
$G_3$	8	#7	33'-0"	—
$G_4$	40	#3	3'-5 1/2"	L
$G_5$	63	#3	2'-8 1/2"	L
$G_6$	4	#8	5'-2"	L

\*\* For one beam only.

**BILL OF MATERIAL**

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48"	Lin. Ft.	1752

**NOTES**

All inserts and threaded dowel rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per lineal foot of "Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48 in."

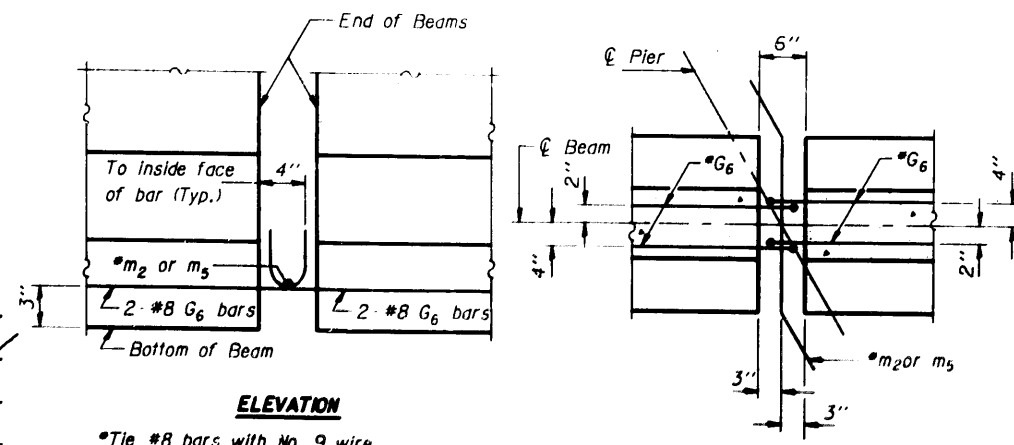
Insert for 3/4" threaded dowel rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams.

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270.

The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.

Non-prestressing steel shall conform to AASHTO designation M-31 or M-53 Grade 60.

Steel for lifting loops shall be non-deformed bars  $f_y=40,000$  psi. Required release strength,  $f_{ci}$ , shall be 4600 psi.



**ELEVATION**

**DETAIL "A"**

**PLAN**

\*Tie #8 bars with No. 9 wire tightly fastened to prevent any movement between bars.

DESIGNED Mary Blaxdorf

CHECKED

DRAWN R. Doty

CHECKED

May 3, 1984

EXAMINED

PASSED

APPROVED

DIRECTOR OF HIGHWAYS

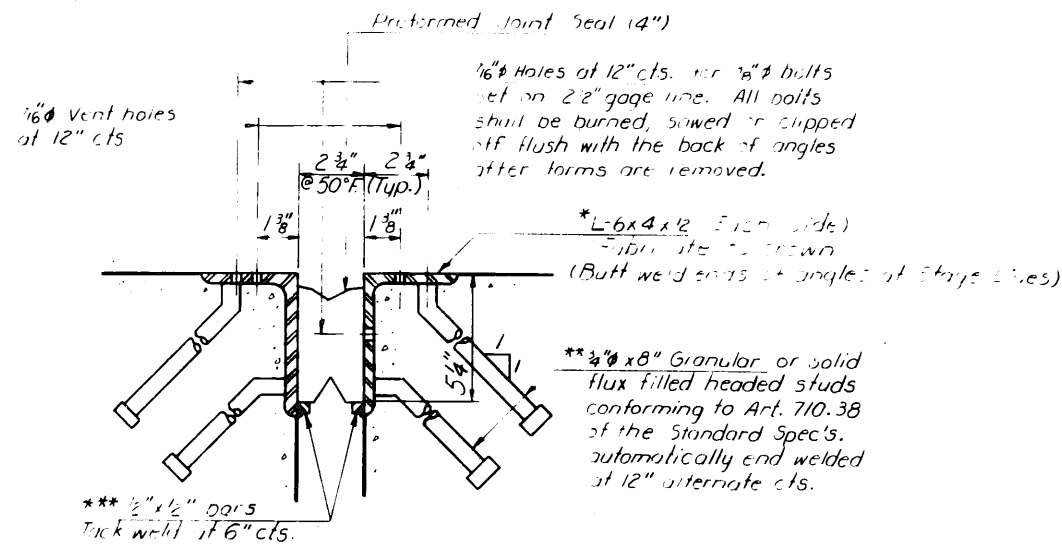


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	SHEET NO.	TOTAL SHEETS	SHEET NO.
			196	148
PREPARED BY		DATE		

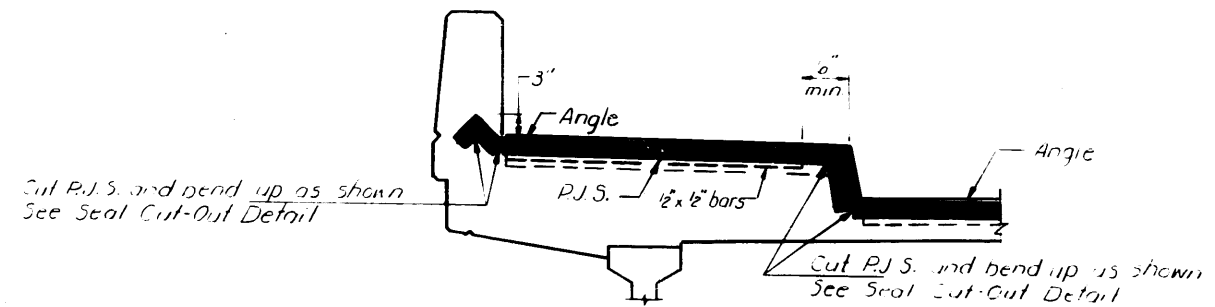
SHEET NO 16

OF 6 SHEETS

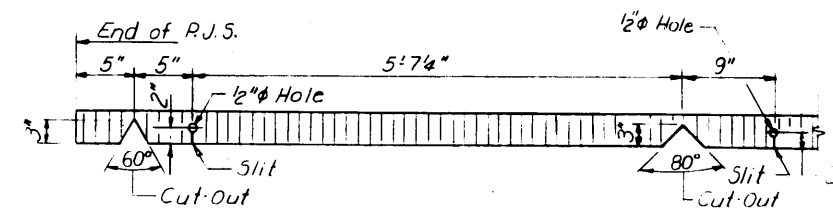


DETAIL "A"  
(Dim. @ Rt. Ls)

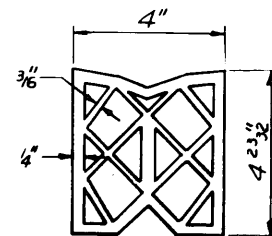
- \* 21'4" long in roadway and 7 3/4" long in sidewalk (Stage I)  
34'0 1/2" long in roadway and 5-7 1/2" long in sidewalk (Stage II)  
4-11 3/4" long in sidewalk (Stage III)
- \*\* 2 Required Each Side in roadway and 1 Each side in sidewalk (Stage I)  
34 Required Each Side in roadway and 5 Each Side in sidewalk (Stage II)  
4 Required Each Side in sidewalk (Stage III)
- \*\*\* 21'4" long in roadway and 7 3/4" long in sidewalk (Stage I)  
34'0 1/2" long in roadway and 5-7 1/2" long in sidewalk (Stage II)  
4-5 3/4" long in sidewalk (Stage III)



TYPICAL END OF SEAL  
TREATMENT AT SIDEWALK



SEAL CUT-OUT DETAIL



PREFORMED JOINT SEAL 4"

DESIGNED	
CHECKED	
DRAWN	R. Doty
CHECKED	

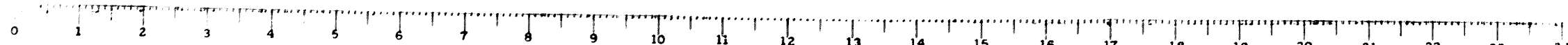
May 3, 1934

EXAMINED

PASSED

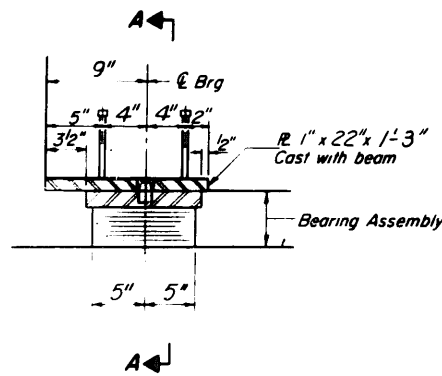
APPROVED

PREFORMED JOINT SEAL (4")  
F.A.U. RT. 1297 SEC. 1314B-R(82)  
COOK COUNTY  
STA. 25+89.40

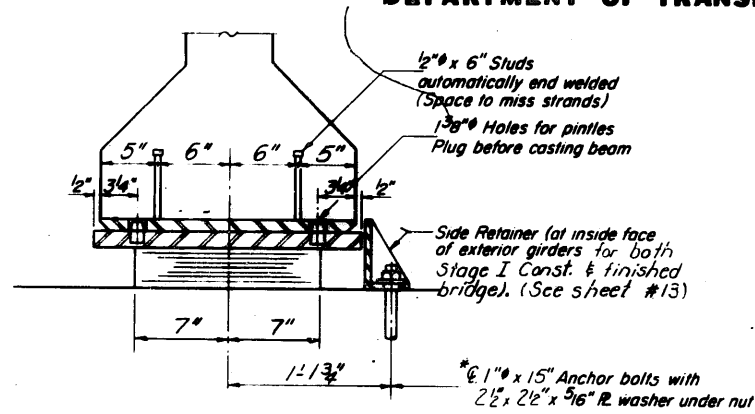


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			196	47
SHEET NO. 17				
24 SHEETS				



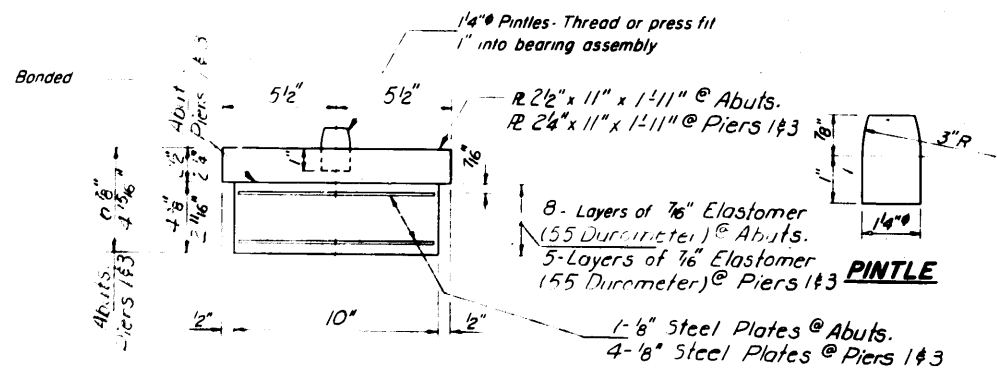
**SECTION AT ABUT.  
AND PIERS 1 & 3**



**SECTION A-A**

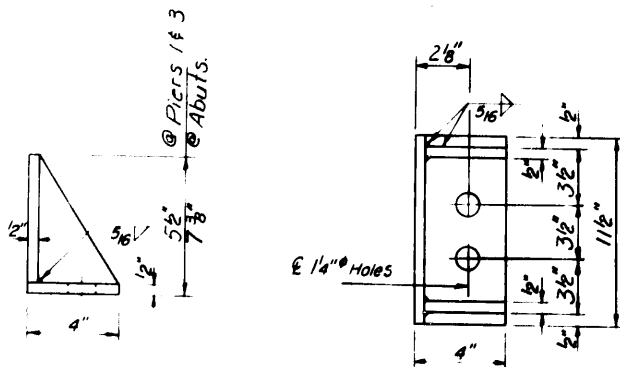
**TYPE I ELASTOMERIC EXP. BRG.**

Note: After beams have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place. For detail of anchor bolt see sheet #18.



**BEARING ASSEMBLY**

Note: Shim plates shall not be placed under bearing assembly.



**SIDE RETAINER**

(Retainers built from 1/2" angles are permitted)

DESIGNED	Mary Blaxdorf
CHECKED	L. & K. H.
DRAWN	R. Doty
CHECKED	L. & K. H.

EXAMINED	[Signature]
APPROVED	[Signature]

PI-2E-1 4-15-83

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	21

**BEARING DETAILS**  
F.A.U. RT. 1297 SEC. 1314 B-R82  
COOK COUNTY  
STA. 25+89.40

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEETS
			196	150
F.A.U. NO.		ILLINOIS FED. AID PROJECT		

The Illinois Coil Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

**MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT**

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A519, Grade 1026 and supplied with hexagonal nuts and cut washers.  
The coil wire shall be made of any suitable soft steel wire.  
The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.  
The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C881, Type I, Grade I and of a Class suitable for the temperature at installation.

**GENERAL NOTES**

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or in accordance with the manufacturer's recommendation after beams or girders have been erected and adjusted.  
Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.  
The anchor bolts, furnished and installed including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".

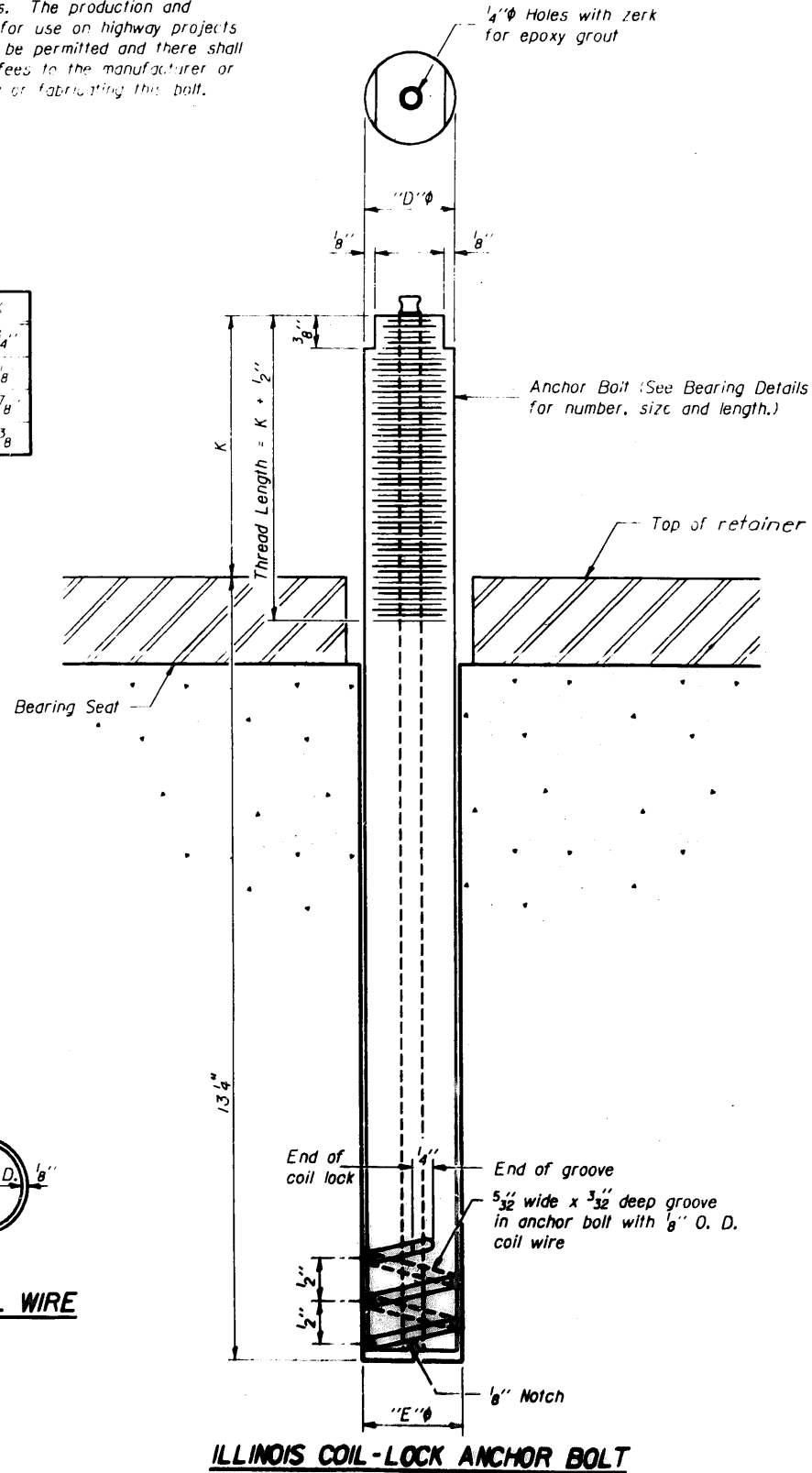
**INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT**

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

**ALTERNATE ANCHOR BOLTS**

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes in accordance with the manufacturer's recommendations and procedures.  
The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:  
1. A threaded rod stud with nut and washer conforming to ASTM A307.  
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

D	t	H	K
1"	1/8"	13/16"	1 3/4"
1 1/2"	1 5/8"	1 5/16"	2 7/8"
2"	2 1/8"	1 3/16"	2 7/8"
2 1/2"	2 5/8"	2 5/16"	3 3/8"



**ILLINOIS COIL-LOCK ANCHOR BOLT**

**ANCHOR BOLT DETAILS  
FOR BEARINGS**  
F.A.U. RT. 1297 SEC. 1314B-R(82)  
COOK COUNTY  
STA. 25+8940

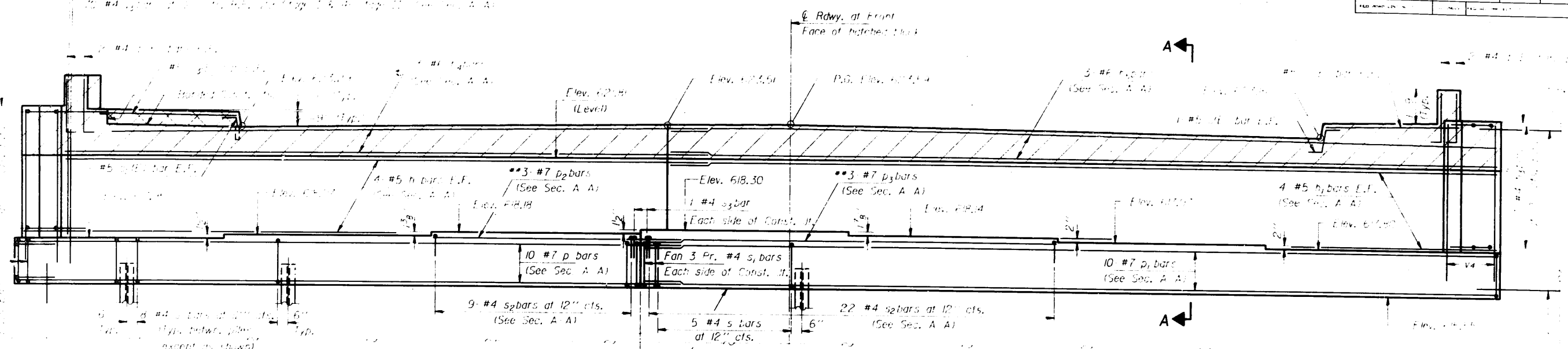
DESIGNED Mary Bloxdorf  
CHECKED [Signature]  
DRAWN R. Doty  
CHECKED [Signature]  
ABB-1 6.15.85

APPROVED [Signature]  
DATE: MAY 3, 1985

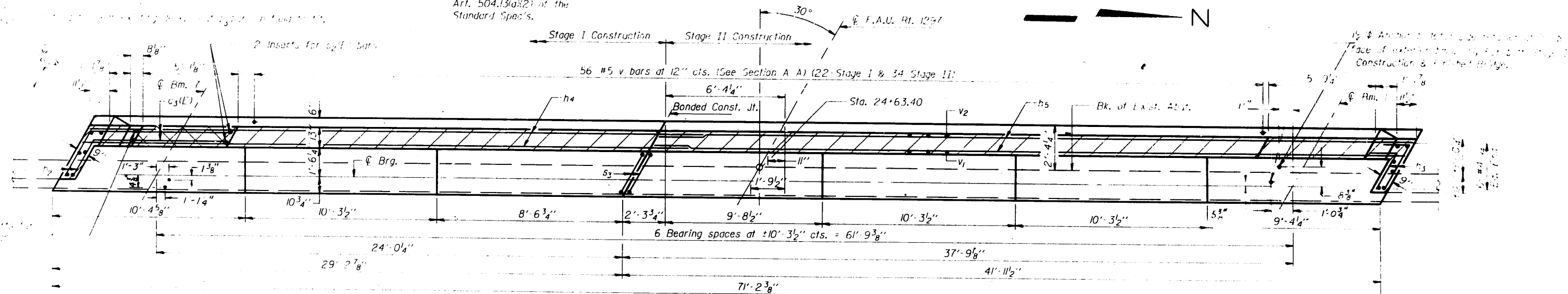


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

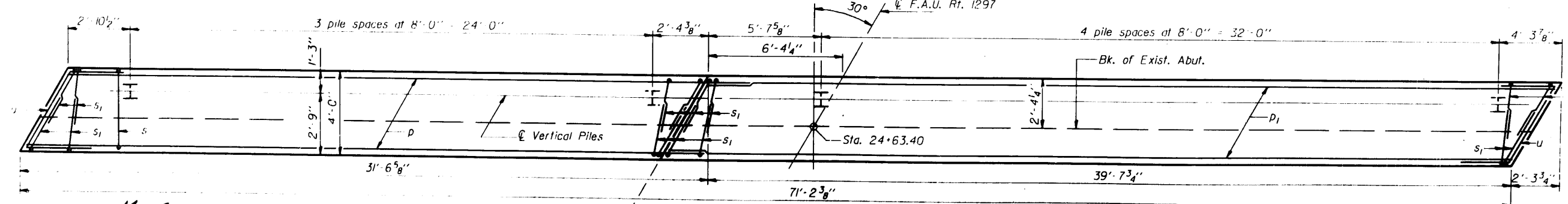
ROUTE NO.	SECTION	PROJECT	SHEET NO.	TOTAL SHEETS
			12	27



**ELEVATION**  
(Looking West)



**TOP VIEW**



**PLAN-PILE CAP**

DESIGNED *Mary Bloxarf*  
 CHECKED  
 DRAWN *M. Lady*  
 CHECKED

May 3 1984  
 EXAMINED *James J. Robinson*  
 PASSED  
 APPROVED

Note: Work this sheet with sheet #20.

Notes:  
 Hatched area to be poured after superstructure is in place.  
 Quantity of Class X Concrete included with superstructure.  
 Cross hatched area indicates Stage III Construction. Quantity of Class X Concrete included with superstructure.  
 Bars d<sub>1</sub>(E) and c<sub>3</sub>(E) are billed with superstructure on sheet #8.  
 Cast of inserts is incidental to Class X Concrete. Inserts shall be plugged or blocked off during Stage II Construction.  
 Pour steps monolithically with cap.  
 Existing reinforcement extending into removed areas shall be cleaned and incorporated into the new construction.

**WEST ABUTMENT**  
**F.A.U. RT. 1297 SEC. 1314B-R(82)**  
**COOK COUNTY**  
**STA. 25+89.40**

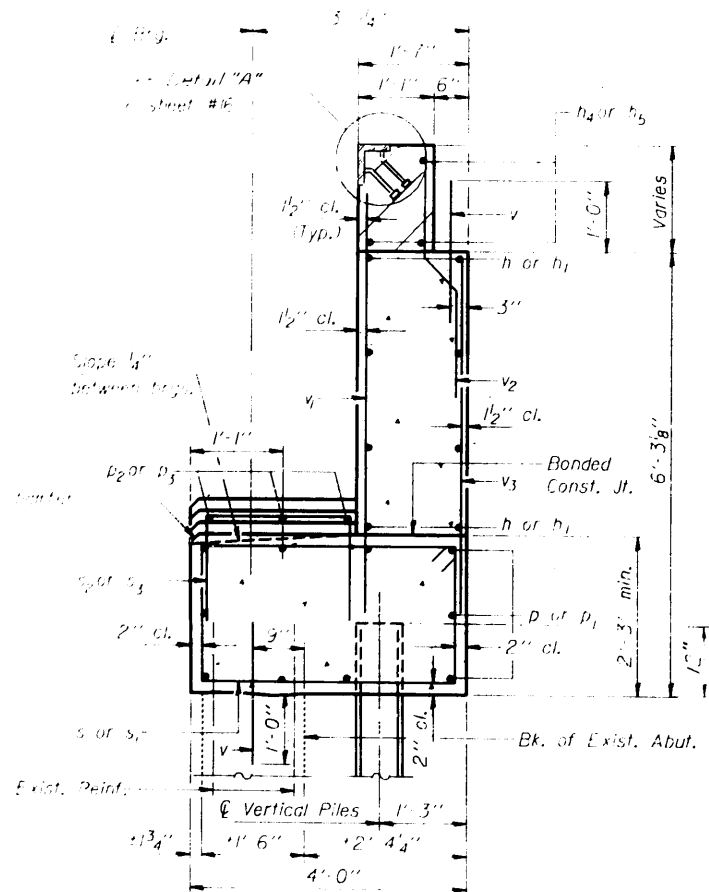
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	DATE	SCALE	SHEET NO.
				1
TOTAL SHEETS				1

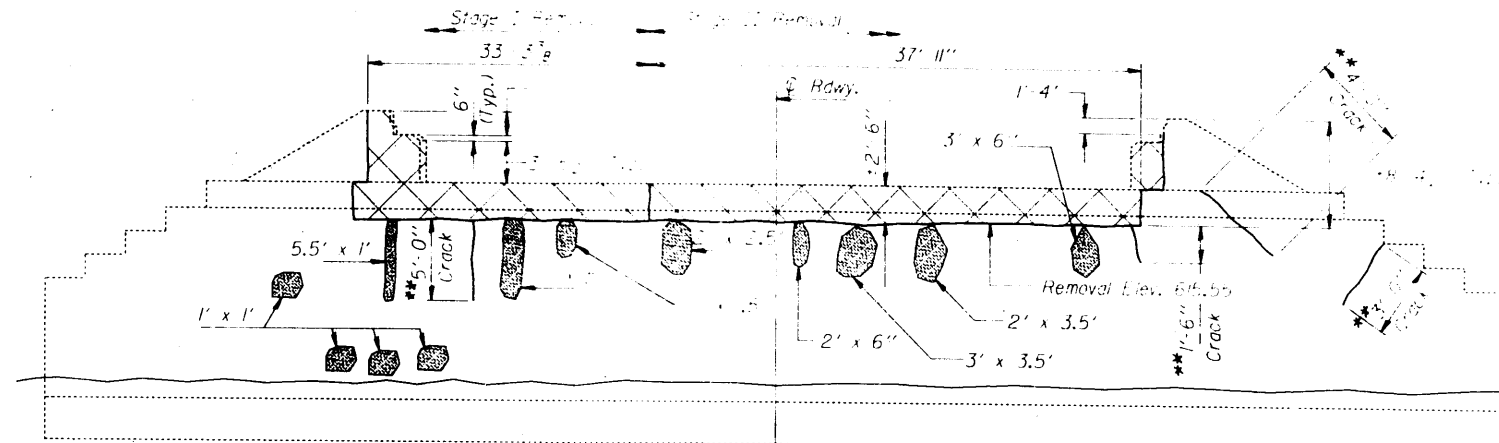
**PILE DATA**

Type: Steel HPB x 36  
Capacity: \*Set on Existing Footing  
Est. Length: 4'  
No. Required: 4

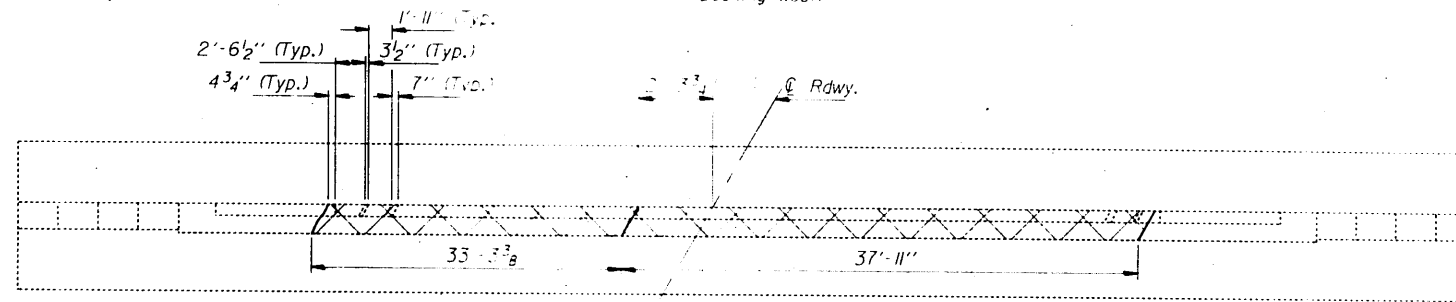
\*Note:  
Steel HPB x 36 piles shall be set on top of existing footing. The piles shall be installed in existing concrete after setting the piles, the holes shall be filled with concrete. \*Indicates areas to be repaired. Billed as Repair Concrete Structures.



**SECTION A-A**  
(Dim. at Rt. L.S.)



**ELEVATION**  
(Looking West)



**PLAN**

**CONCRETE REMOVAL DETAILS**

**END VIEW**

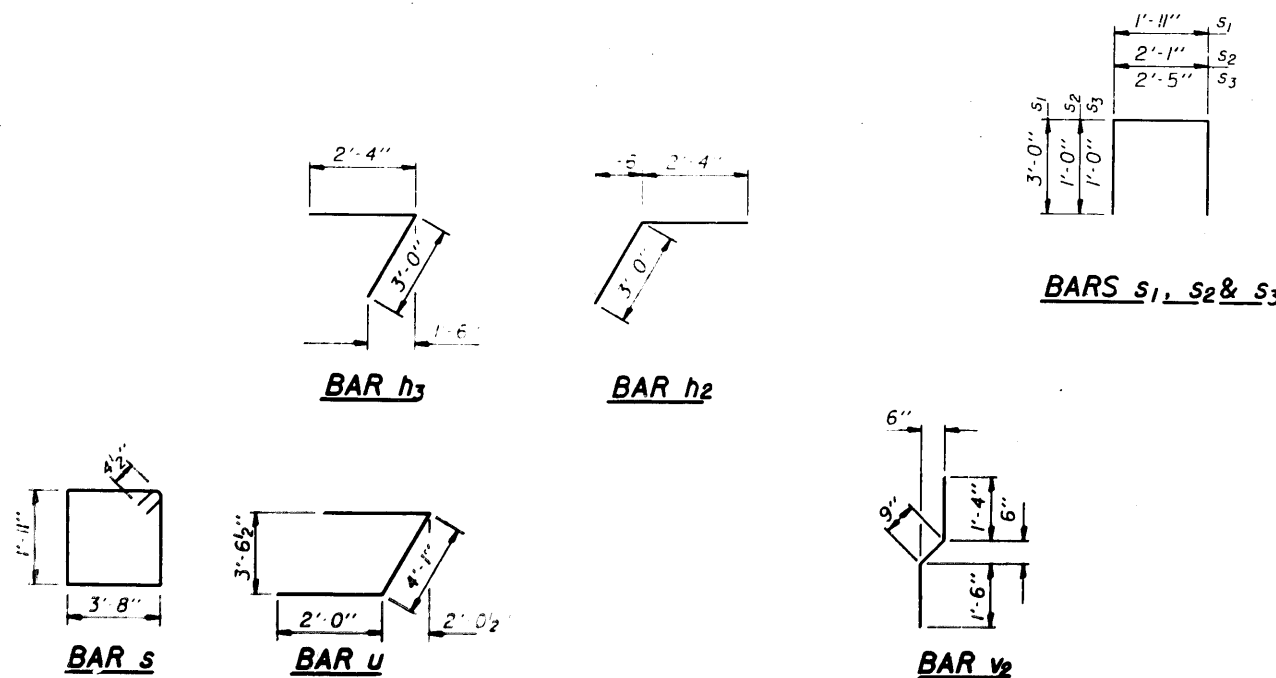
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h	8	#5	31'-1"	—
h1	9	#5	41'-8"	—
h2	14	#4	5'-4"	└
h3	14	#4	5'-4"	└
h4	3	#6	31'-1"	—
h5	3	#6	41'-8"	—
p	10	#7	32'-5"	—
p1	10	#7	41'-9"	—
p2	3	#7	13'-5"	—
p3	3	#7	22'-0"	—
s	61	#4	11'-11"	□
s1	20	#4	7'-11"	□
s2	31	#4	4'-1"	□
s3	2	#4	4'-5"	□
u	8	#6	8'-1"	└
v	103	#5	2'-0"	—
v1	70	#4	6'-2"	—
v2	70	#4	3'-7"	—
v3	70	#4	5'-0"	—
v4	12	#4	7'-5"	—
Class X Concrete			Cu. Yds.	42.1
Reinforcement Bars			Lbs.	4510
Concrete Removal			Cu. Yds.	14
Furnishing Steel Piles HPB x 36			Lin. Ft.	171
Epoxy Crack Sealing			Lin. Ft.	14
Repair Conc. Struct.			Sq. Ft.	41

Legend:  
Cross hatched areas indicate Concrete Removal.  
■ Indicates areas to be repaired. Billed as Repair Concrete Structures.  
\*\* Indicates Epoxy Crack Sealing

DESIGNED	Mary Bloydorf
CHECKED	
DRAWN	R. Doty
CHECKED	

EXAMINED	May 3 1984
PASSED	
APPROVED	

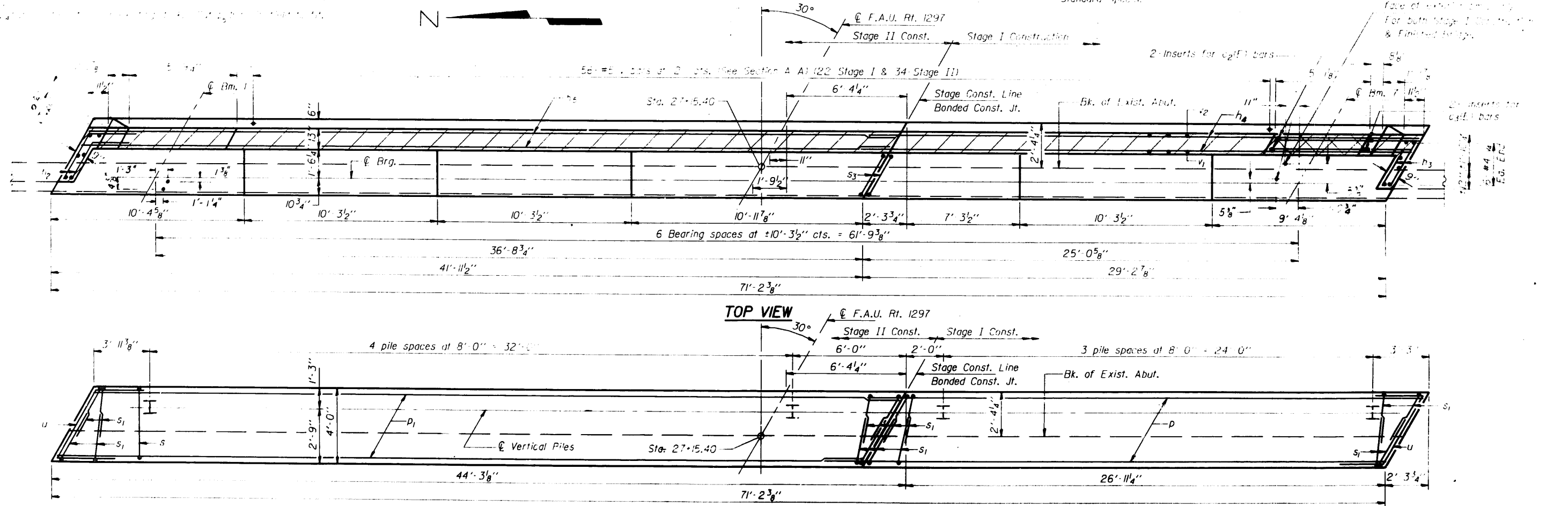
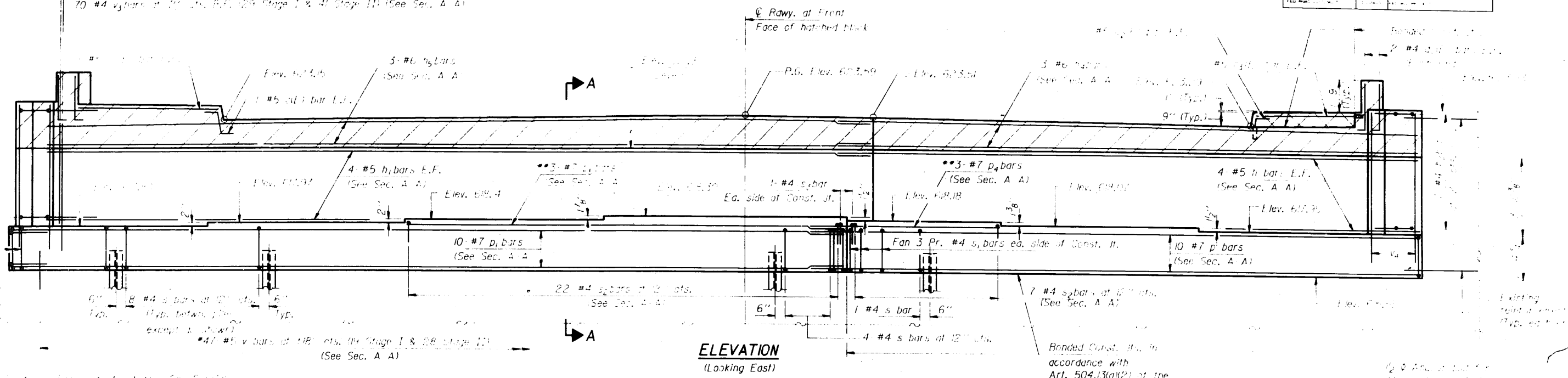


**WEST ABUTMENT DETAILS**  
F.A.U. RT. 1297 SEC. 1314B-R(82)  
COOK COUNTY  
STA. 25+89.40

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DATE	1/10	1954	SHEET NO.	15
			SHEETS	

70 #4 v. bars at 12" cts. (See Sec. A A) Stage I & 41 Stage II (See Sec. A A)  
 70 #4 v. bars at 12" cts. (See Sec. A A) Stage I & 41 Stage II (See Sec. A A)  
 70 #4 v. bars at 12" cts. (See Sec. A A) Stage I & 41 Stage II (See Sec. A A)



DESIGNED Mary Blodorf  
 CHECKED  
 DRAWN R. Doty  
 CHECKED  
 EXAMINED James J. Robinson  
 PASSED  
 APPROVED

Note: Work this sheet with sheet #22.

Notes: Hatched area to be poured after superstructure is in place. Quantity of Class X Concrete included with superstructure. Cross hatched area indicates Stage III Construction. Quantity of Class X Concrete included with superstructure. Bars d<sub>1</sub>(E) and c<sub>1</sub>(E) thru c<sub>3</sub>(E) are billed with superstructure on sheet #8. Cost of Inserts is incidental to Class X Concrete. Inserts shall be plugged or blocked off during Stage II Construction. Existing reinforcement extending into removed areas shall be cleaned and incorporated into the new construction. Pour steps monolithically with cap.

**EAST ABUTMENT**  
**F.A.U. RT. 1297 SEC. 1314B-R(82)**  
**COOK COUNTY**  
**STA. 25+89.40**



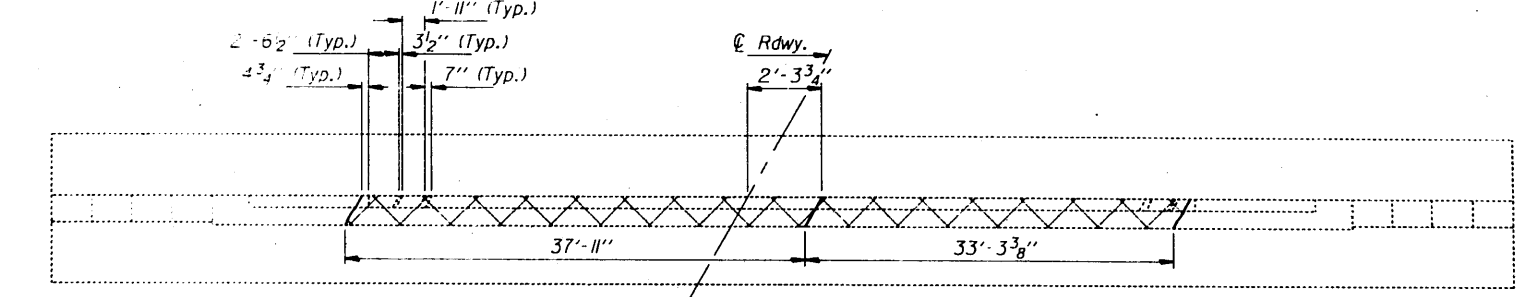
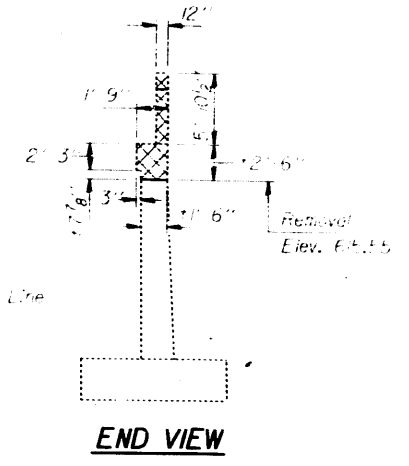
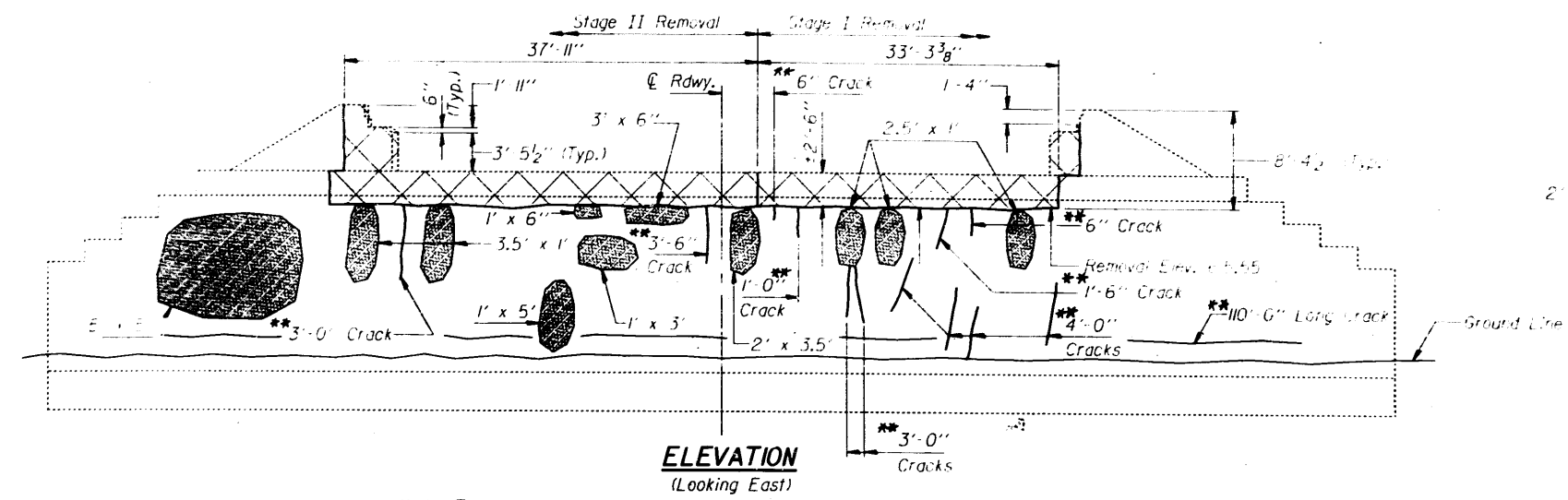
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 22 26 SHEETS
			16	154	

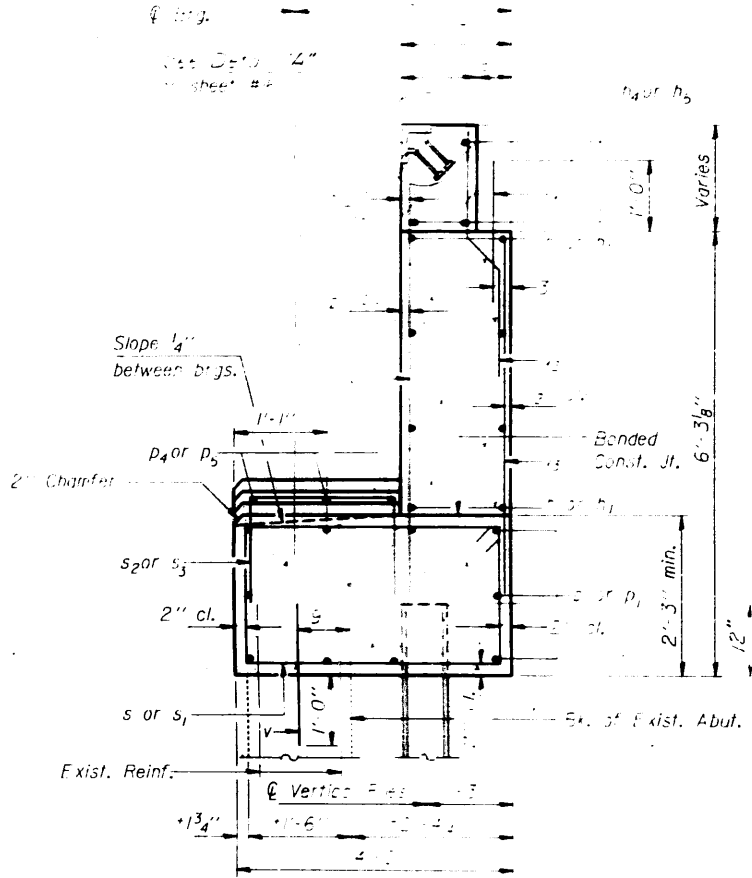
**PILE DATA**

Type: Steel HPB x 36  
Capacity: 35 tons  
Est. Length: 90 ft  
No. Required: 9

\*Note: Steel HPB x 36 piles to be furnished by contractor. Piles to be installed in concrete abutment. The piles, the piles and the concrete to be furnished by contractor.

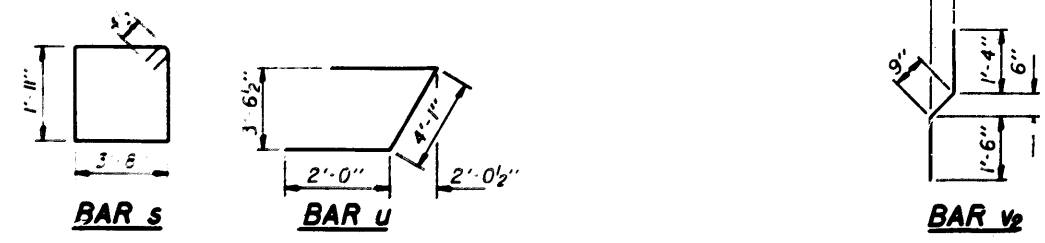
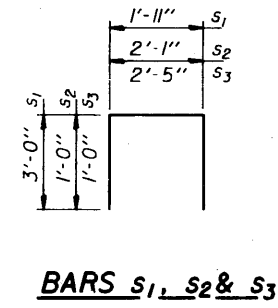
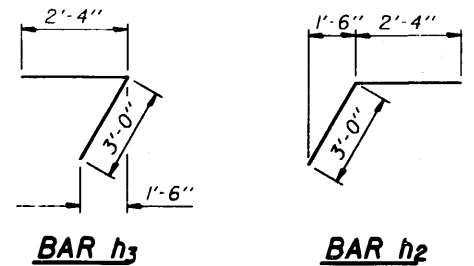


**CONCRETE REMOVAL DETAILS**



**SECTION A-A**  
Dim. in Feet

Legends:  
Cross hatched area indicates concrete to be removed.  
Indicates areas to be repaired with repair concrete structures.  
\*\* Indicates Epoxy Crack Sealing



**BILL OF MATERIAL**

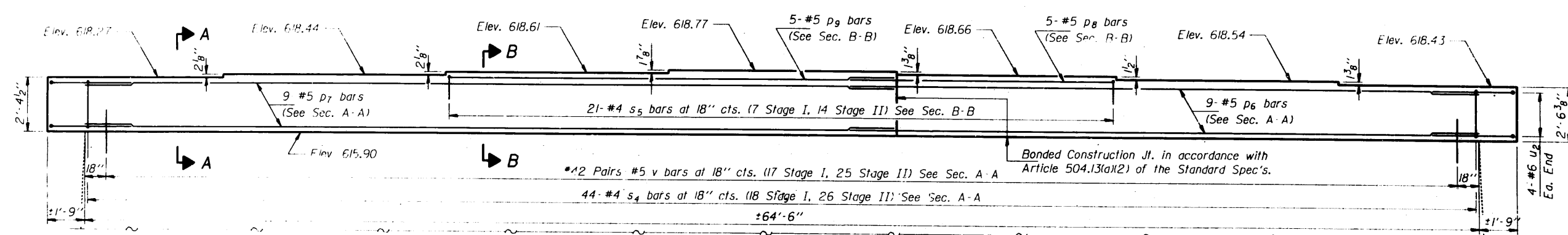
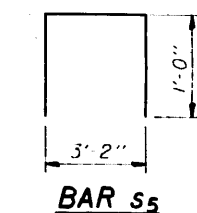
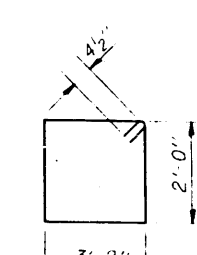
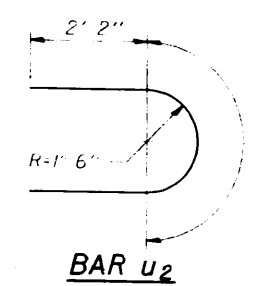
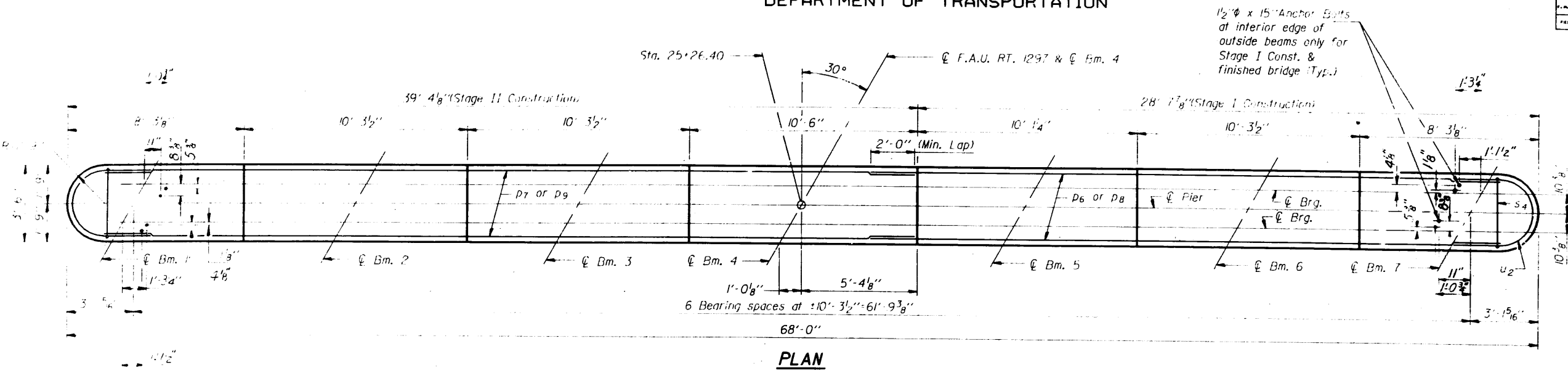
Bar	No.	Size	Length	Shape
h	8	#5	31'-1"	—
h1	8	#5	41'-8"	—
h2	14	#4	5'-4"	└
h3	14	#4	5'-4"	└
h4	3	#6	31'-1"	—
h5	3	#6	41'-8"	—
P	10	#7	32'-5"	—
P1	10	#7	41'-9"	—
P4	3	#7	13'-0"	—
P5	3	#7	22'-5"	—
s	61	#4	11'-11"	□
s1	20	#4	7'-11"	□
s2	29	#4	4'-1"	□
s3	2	#4	4'-5"	□
u	8	#6	8'-1"	└
v	103	#5	2'-0"	—
v1	70	#4	6'-2"	—
v2	70	#4	3'-7"	—
v3	70	#4	5'-0"	—
v4	12	#4	7'-5"	—
Class X Concrete			Cu. Yds.	42.1
Reinforcement Bars			Lbs.	4570
Concrete Removal			Cu. Yds.	14
Furnishing Steel Piles HPB x 36			Lin. Ft.	171
Epoxy Crack Sealing			Lin. Ft.	142
Repair Conc. Struct.			Sq. Ft.	107

DESIGNED	Mary Bloxdorf	DATE	May 3, 1984
CHECKED		DESIGNED BY	J. J. [Signature]
DRAWN	R. Doty	CHECKED BY	[Signature]
CHECKED		APPROVED	[Signature]

**EAST ABUTMENT DETAILS**  
F.A.U. RT. 1297 SEC. 134B-R(82)  
COOK COUNTY  
STA. 25+89.40

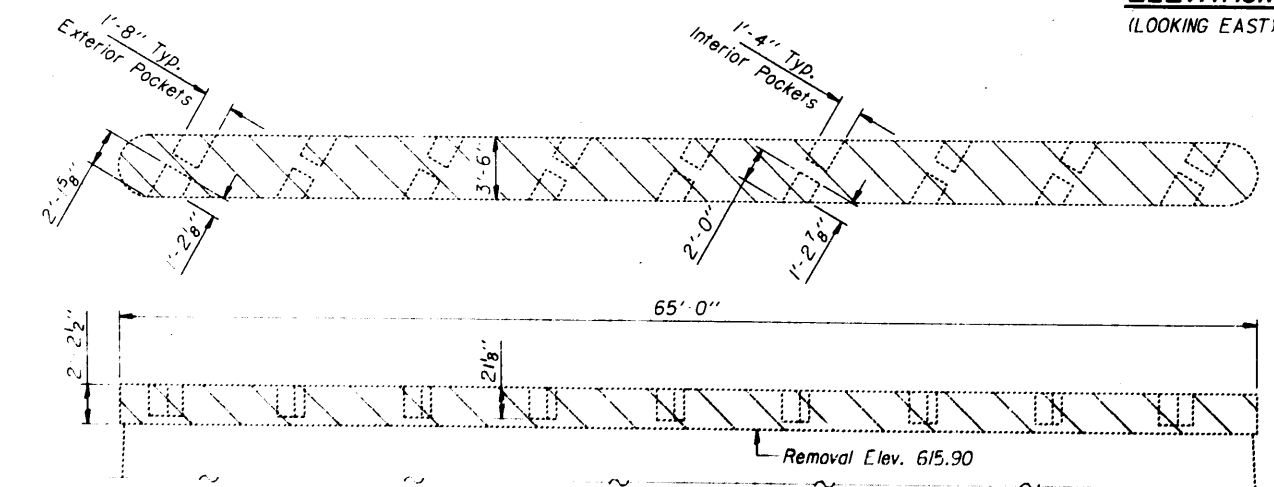
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
			10	26
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

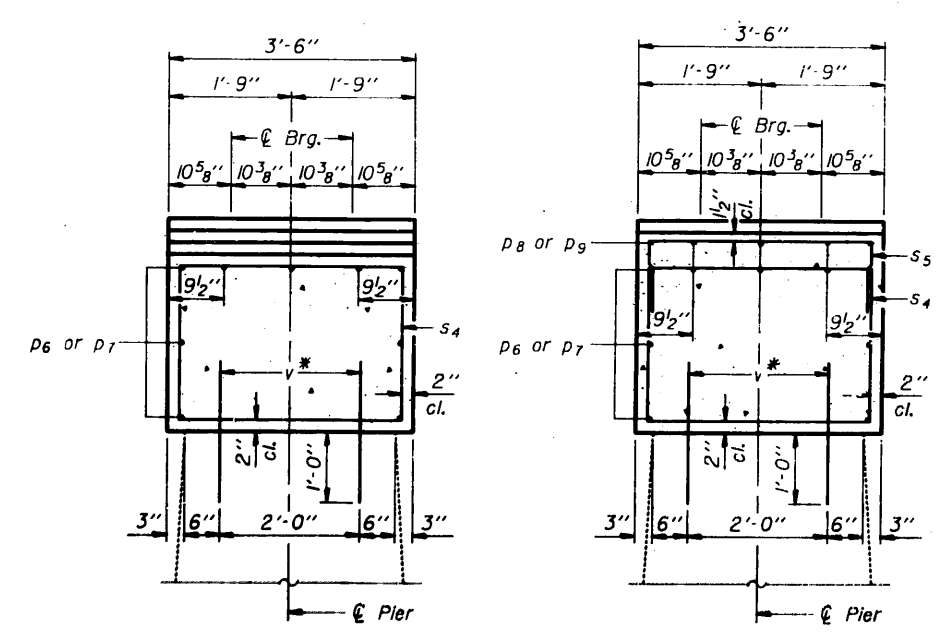


**ELEVATION**  
(LOOKING EAST)

\*Drill 1" x 1'-0" holes and epoxy grout v bars in them. See Special Provisions.



**REMOVAL DETAIL**



**SECTION A-A**

**SECTION B-B**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
p6	9	#5	28'-10"	—
p7	9	#5	37'-4"	—
p8	5	#5	12'-1"	—
p9	5	#5	20'-6"	—
s4	44	#4	11'-1"	□
s5	21	#4	5'-2"	□
u2	8	#6	9'-0"	U
v	84	#5	2'-0"	—
Class X Concrete			Cu. Yds.	23.1
Reinforcement Bars			Lbs.	1470
Concrete Removal			Cu. Yds.	16

DESIGNED *Mary Bloxdorf*  
 CHECKED  
 DRAWN *R. P. Sumner*  
 CHECKED

May 3 1984  
 EXAMINED *James J. Bohan*  
 PASSED  
 APPROVED *[Signature]*  
 DIRECTOR OF HIGHWAYS

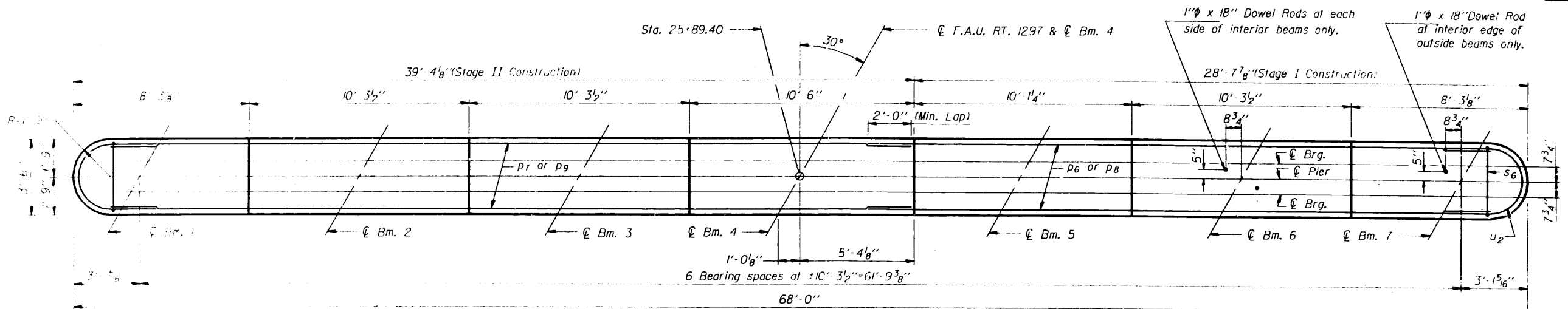
Notes: All edges shall have standard 3/4" chamfer except as noted.  
 Pour steps monolithically with cap.  
 Hatched area indicates concrete removal.  
 See sheet #26 for pier repair details.

**PIER 1**  
**F.A.U. RT. 1297 SEC. 1314B-R(82)**  
**COOK COUNTY**  
**STA. 25+89.40**

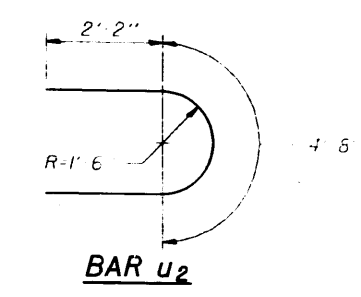


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

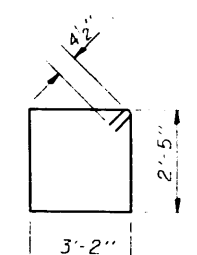
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
			6	26
FED. ROAD DIST. NO. 1		T.L. HOUS.		FED. AID PROJECT



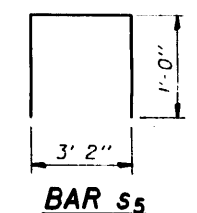
**PLAN**



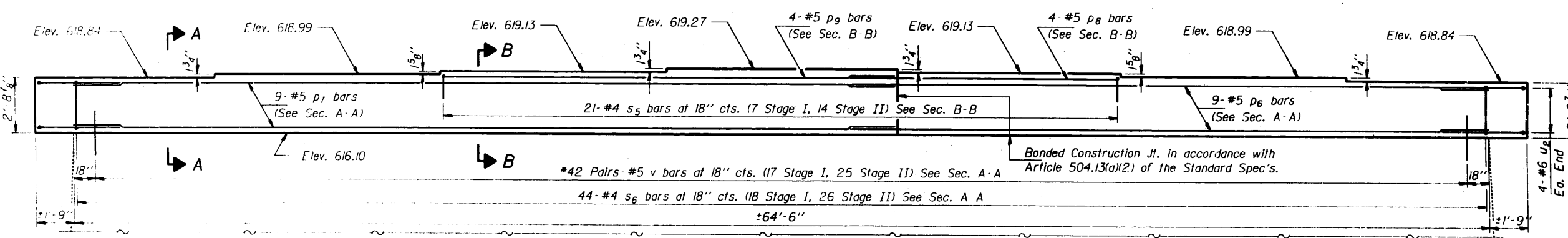
**BAR U2**



**BAR S6**

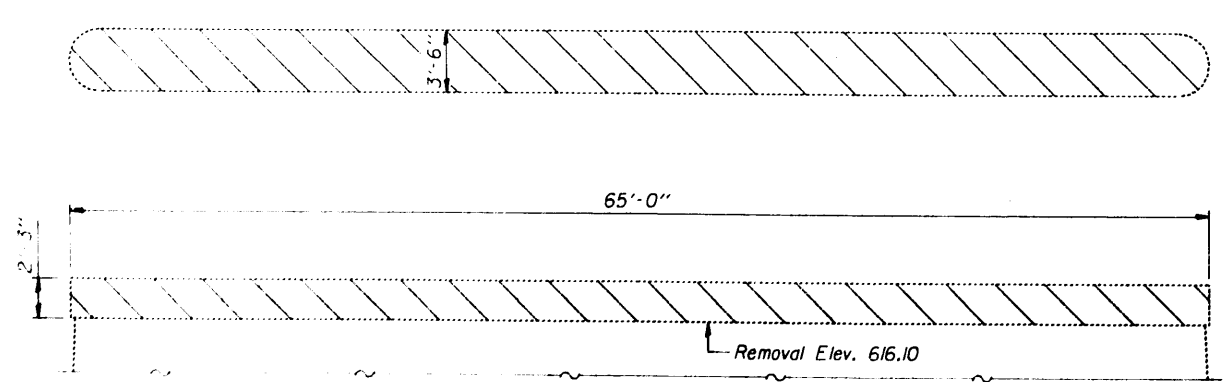


**BAR S5**

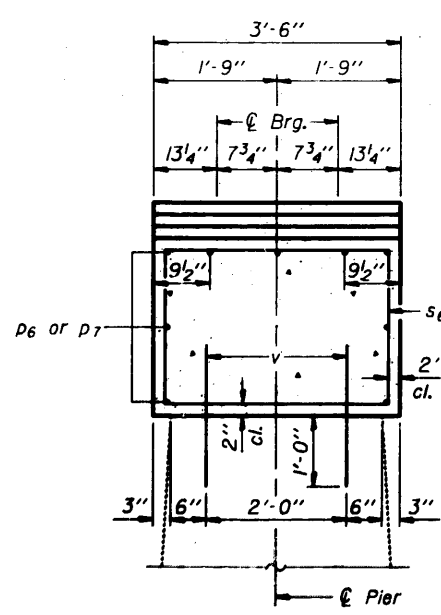


**ELEVATION**  
(LOOKING EAST)

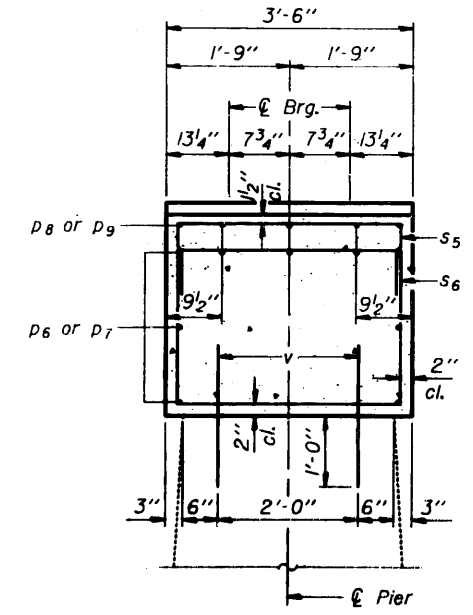
\*Drill 1" x 1'-0" holes and epoxy grout v bars in them. See Special Provisions.



**REMOVAL DETAIL**



**SECTION A-A**



**SECTION B-B**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
p6	9	#5	28'-10"	—
p7	9	#5	37'-4"	—
p8	5	#5	12'-1"	—
p9	5	#5	20'-6"	—
s5	21	#4	5'-2"	□
s6	44	#4	11'-11"	□
u2	8	#6	9'-0"	U
v	84	#5	2'-0"	—
Class X Concrete		Cu. Yds.	25.5	
Reinforcement Bars		Lbs.	1500	
Concrete Removal		Cu. Yds.	19	

DESIGNED Mary Bloxdorf  
 CHECKED \_\_\_\_\_  
 DRAWN R. P. Summer  
 CHECKED \_\_\_\_\_

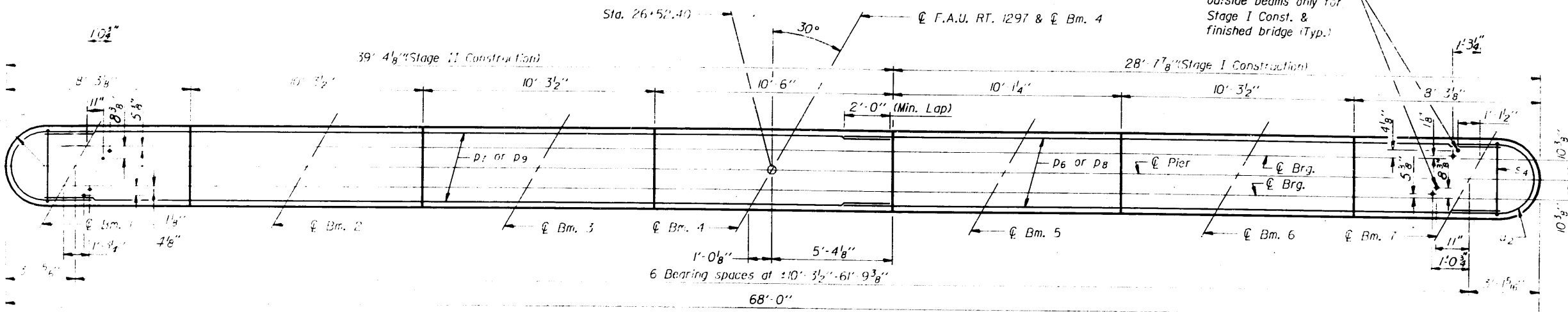
May 3, 1984  
 EXAMINED James J. Robinson  
 PASSED \_\_\_\_\_  
 APPROVED \_\_\_\_\_

Notes: All edges shall have standard 3/4" chamfer except as noted.  
 Pour steps monolithically with cap.  
 Hatched area indicates Concrete Removal.  
 See sheet #26 for pier repair details.

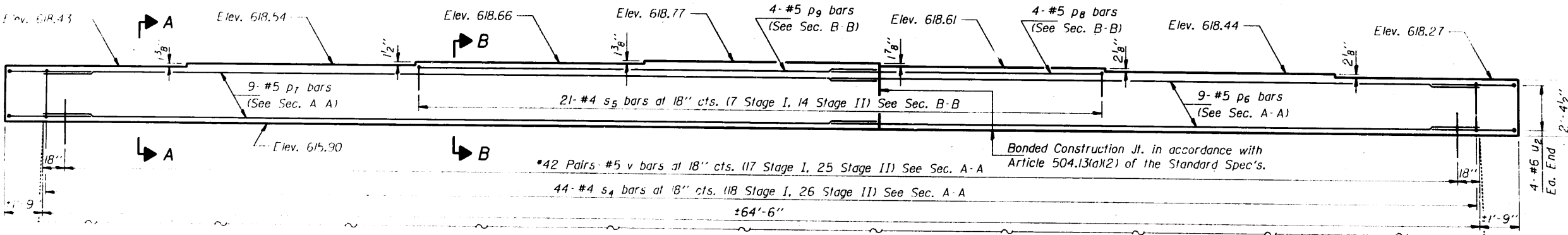
**PIER 2**  
**F.A.U. RT. 1297 SEC. 1314B-R(82)**  
**COOK COUNTY**  
**STA. 25+89.40**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	DATE	SHEET NO.	TOTAL SHEETS
			10	11
SHEET NO. 10 OF 11 SHEETS				

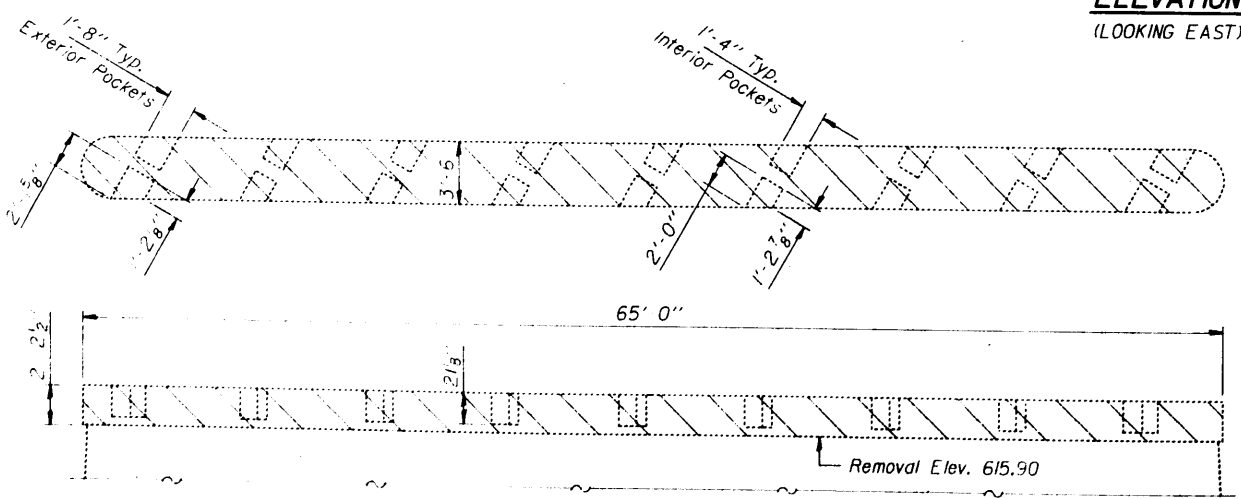


PLAN

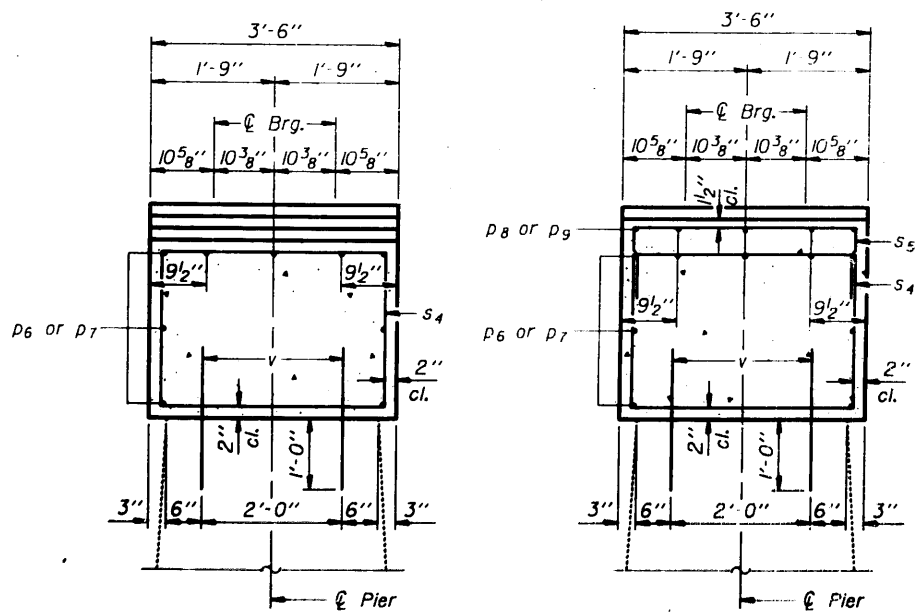


ELEVATION  
(LOOKING EAST)

\*Drill 1"Ø x 1'-0" holes and epoxy grout v bars in them. See Special Provisions.

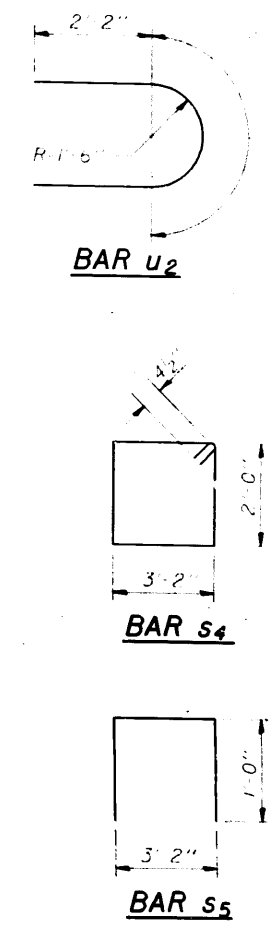


REMOVAL DETAIL



SECTION A-A

SECTION B-B



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p6	9	#5	28'-10"	—
p7	9	#5	37'-4"	—
p8	5	#5	12'-1"	—
p9	5	#5	20'-6"	—
s4	44	#4	11'-1"	□
s5	21	#4	5'-2"	□
u2	8	#6	9'-0"	U
v	84	#5	2'-0"	—
Class X Concrete			Cu. Yds.	23.1
Reinforcement Bars			Lbs.	1470
Concrete Removal			Cu. Yds.	16

DESIGNED *Mary Bloxdorf*  
CHECKED  
DRAWN *R. P. Summer*  
CHECKED

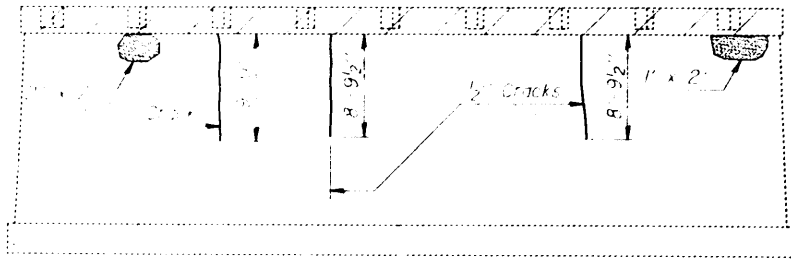
May 3 1984  
EXAMINED *James J. [Signature]*  
PASSED  
APPROVED *[Signature]*  
DIRECTOR OF HIGHWAYS

Notes: All edges shall have standard 3/4" chamfer except as noted.  
Pour steps monolithically with cap.  
Hatched area indicates Concrete Removal.  
See sheet #26 for pier repair details.

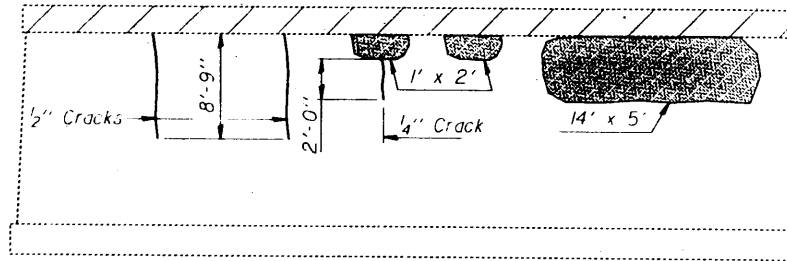
PIER 3  
F.A.U. RT. 1297 SEC. 1314B-R(82)  
COOK COUNTY  
STA. 25+89.40

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

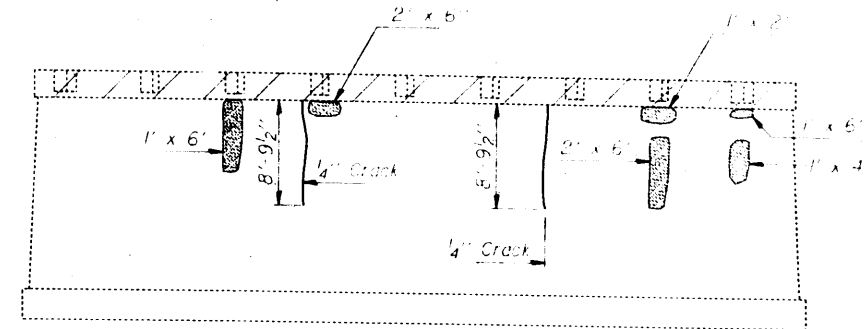
PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			10	10
F.A.U.				
FED. ROAD DIST. NO.	SHEET NO.	FED. AID PROJECT		



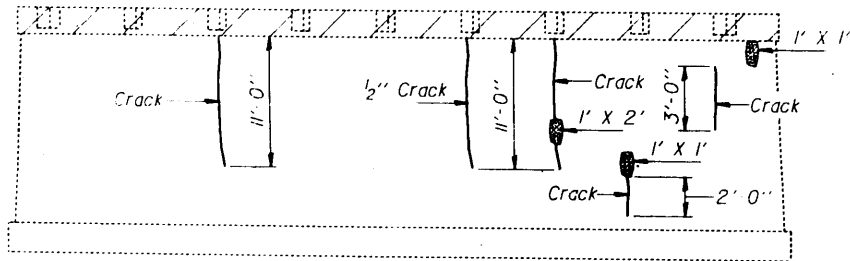
**PIER 1**  
(Looking West)



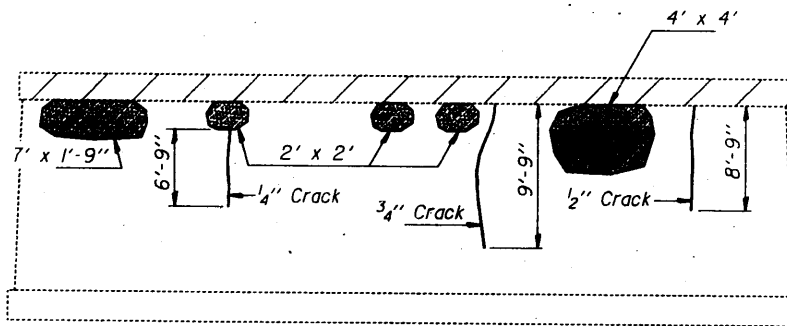
**PIER 2**  
(Looking West)



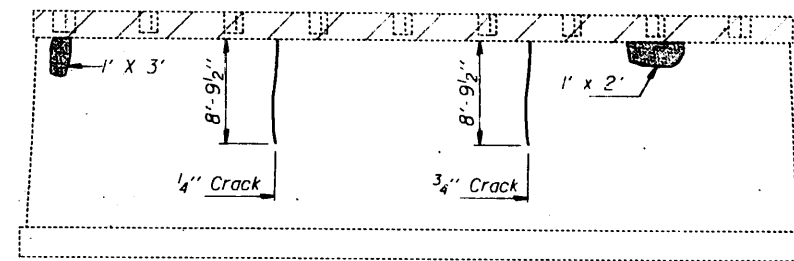
**PIER 3**  
(Looking West)



**PIER 1**  
(Looking East)



**PIER 2**  
(Looking East)



**PIER 3**  
(Looking East)

Legend:  
Hatched areas indicate Concrete Removal.  
■ Indicates areas to be repaired. Billed as Repair Concrete Structures.

**BILL OF MATERIAL**

Item	Un#	Total
Repair Concrete Structures	Sq. Ft.	171
Epoxy Crack Sealing	Lin. Ft.	143

**PIER REPAIR DETAILS**  
F.A.U. RT. 1297 SEC. 1314B-R(82.)  
COOK COUNTY  
STA. 25+89.40

DESIGNED	Mary Bloxdor
CHECKED	
DRAWN	R. Doty
CHECKED	

May 3, 1984  
EXAMINED  
PASSED  
APPROVED  
DIRECTOR OF HIGHWAYS

