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- SHEET NO. 5 PLAN AND PROFILE STA. 212+36.84 TO STA. 216+04.25
- SHEET NO. 6-6.1 STANDARD DETAILS
- SHEET NO. 7-38 DRAINAGE STRUCTURES
- SHEET NO. 39 CROSS SECTIONS



STATE OF WISCONSIN
STATE HIGHWAY COMMISSION OF WISCONSIN

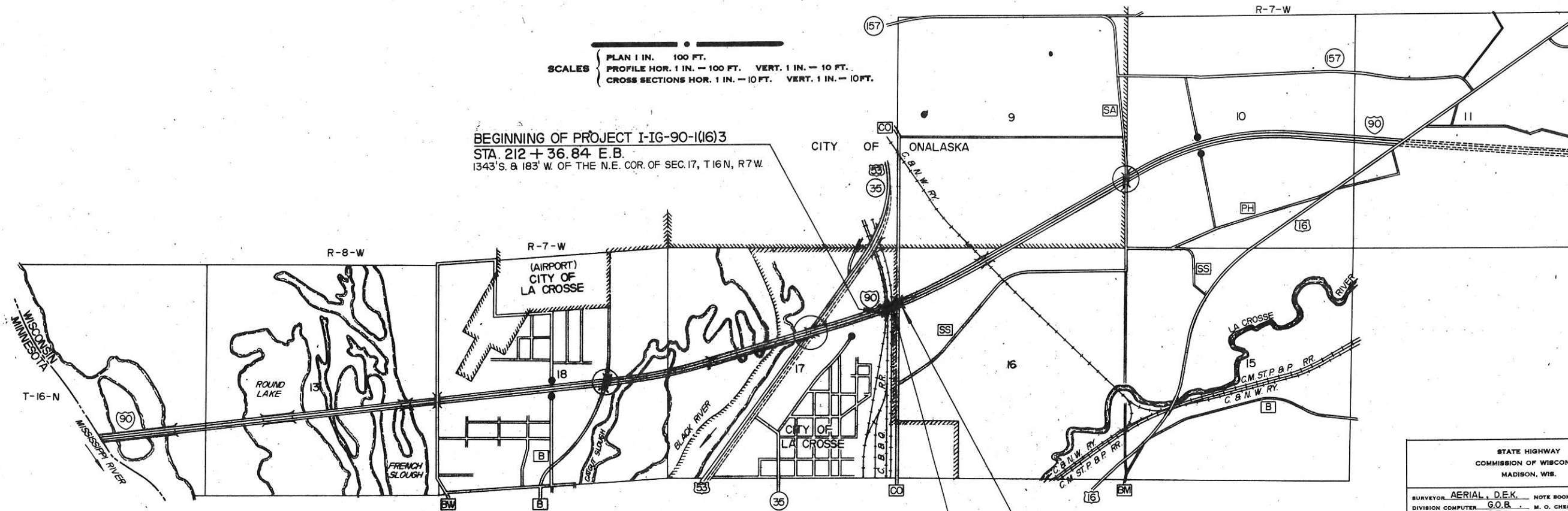
PLAN AND PROFILE OF PROPOSED
LA CROSSE - TOMAH ROAD
(NORTH LA CROSSE YARD OVERPASS)
I. H. 90
LA CROSSE COUNTY
PROJECT I-IG-90-1(16)3

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT		S.P.R. REGION DIVISION	SHEET NUMBER
		STATE	FEDERAL		
32.3	90.1		12.16	4 WIS.	1

CONTROL OF ACCESS
WITHIN THE LIMITS OF THE PROJECT, WHERE CONTROL ACCESS LINE IS SHOWN THUS _____ NO ACCESS IS PERMITTED TO THE INTERSTATE HIGHWAY TRAFFIC LAN

PLAN 1 IN. = 100 FT.
PROFILE HOR. 1 IN. = 100 FT. VERT. 1 IN. = 10 FT.
CROSS SECTIONS HOR. 1 IN. = 10 FT. VERT. 1 IN. = 10 FT.

BEGINNING OF PROJECT I-IG-90-1(16)3
STA. 212+36.84 E.B.
1343' S. & 183' W. OF THE N.E. COR. OF SEC. 17, T 16 N, R 7 W.



CONTRACT 1 { B-32-39 STA. 213+13.5 E.B.
B-32-40 STA. 213+40.25 W.B.

END OF PROJECT I-IG-90-1(16)3
STA. 216+04.25 E.B.
1175' S. & 155' E. OF THE N.W. COR. OF SEC. 16, T 16 N, R 7 W.

CONVENTIONAL SIGNS

- | | | | |
|---------------------------|-------|-------------------------------|------------------|
| STATE LINE | ----- | CULVERTS IN PLACE | ----- |
| COUNTY LINE | ----- | CULVERTS REQUIRED | ----- |
| TOWNSHIP OR RANGE LINE | ----- | DROP INLET | ----- |
| SECTION LINE | ----- | POWER POLE | ----- |
| NEW RIGHT OF WAY LINE | ----- | TELEPHONE OR TELEGRAPH POLE | ----- |
| PRESENT RIGHT OF WAY LINE | ----- | RIGHT OF WAY MARKERS | ----- |
| WIRE FENCE {WOVEN | ----- | REFERENCE STAKE FOR HUBS ONLY | ----- |
| {BARBED | ----- | MARSH | ----- |
| LOT LINE | ----- | HEDGE | ----- |
| CORPORATE OR CITY LIMITS | ----- | TREES | ----- |
| PROPERTY LINE | ----- | GROUND ELEVATION | DATUM LINE 73.9 |
| TRAVELED WAY OR P.E. | ----- | GRADE ELEVATION | DATUM LINE 73.16 |
| RAILROADS | ----- | | |
| BASE OR SURVEY LINE | ----- | | |

- APPROVED INTERSTATE LOCATION
- INTERCHANGE
- HWY. GRADE SEPARATION (MAIN LINE UNDER)
- BRIDGES (MAIN LINE OVER)
- TERMINATED CROSS ROAD

LAYOUT

SCALE 1" = 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.070 MI.

STATE HIGHWAY COMMISSION OF WISCONSIN
MADISON, WIS.

SURVEYOR AERIAL, D.E.K. NOTE BOOK
DIVISION COMPUTER G.O.B. M. O. CHECK
DISTRICT CHECKER A.E.J. CORRECT

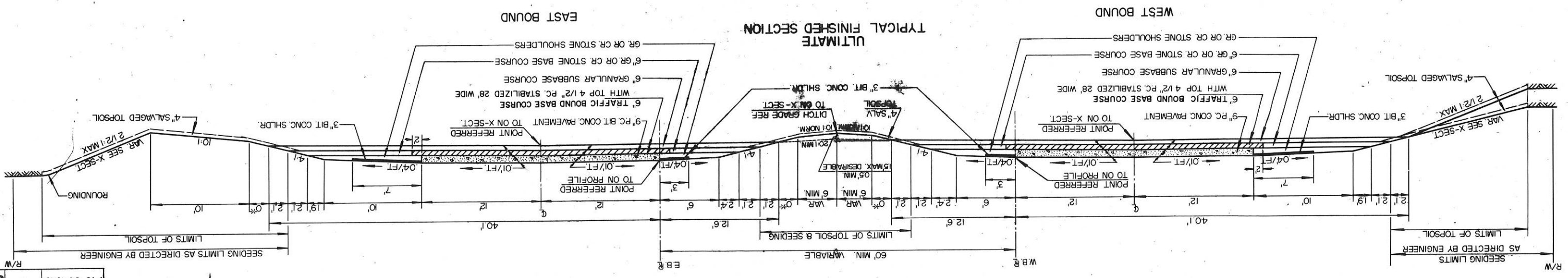
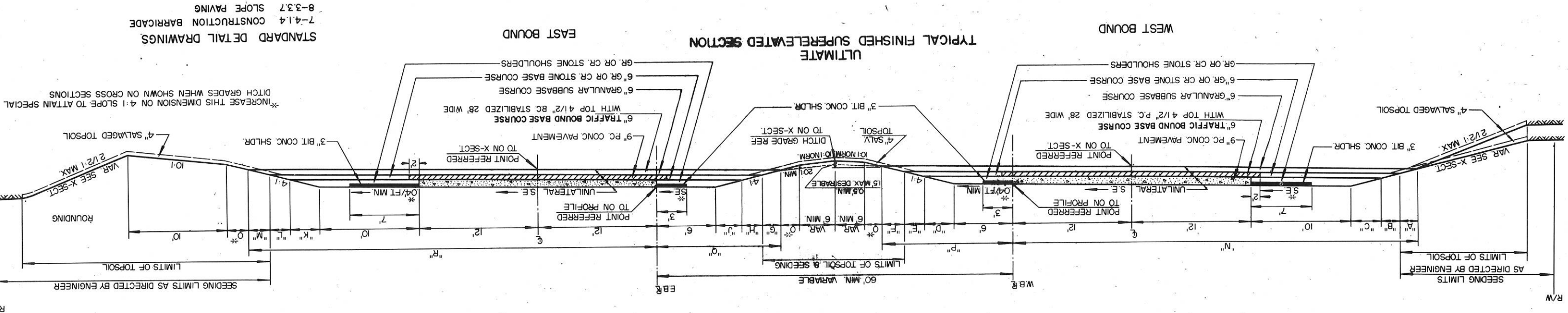
CORRECT: A.E.J.
DATE 10-18-65

RECOMMENDED FOR APPROVAL:
DATE 10/22/65 E.J. Barkel CHIEF DESIGNER
APPROVED: H.P. L... STATE HIGHWAY
DATE 10/22/65
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED:

TYPICAL CROSS SECTION
FOR
MAINLINE

VARIABLE DISTANCES FOR HORIZONTAL CURVES (FEET)

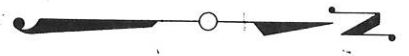
CURVE	S.E.	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"I"	"J"	"K"	"L"	"M"	"N"	"P"	"Q"	"R"
0°-15'	010	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
15°-30'	042	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
30°-45'	076	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
45°-60'	110	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
60°-75'	144	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
75°-90'	178	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
90°-105'	212	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
105°-120'	246	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96
120°-135'	280	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108
135°-150'	314	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
150°-165'	348	132	132	132	132	132	132	132	132	132	132	132	132	132	132	132	132	132
165°-180'	382	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144



STANDARD DETAIL DRAWINGS
7-4.1.4 CONSTRUCTION BARRICADE
8-3.3.7 SLOPE PAVING

SHEET NUMBER	45
DIVISION OFFICE	4
FEDERAL OFFICE	13.2
ROUTE AND HIGHWAY	901
COUNTY	32.3

I-16-90-11(16)3



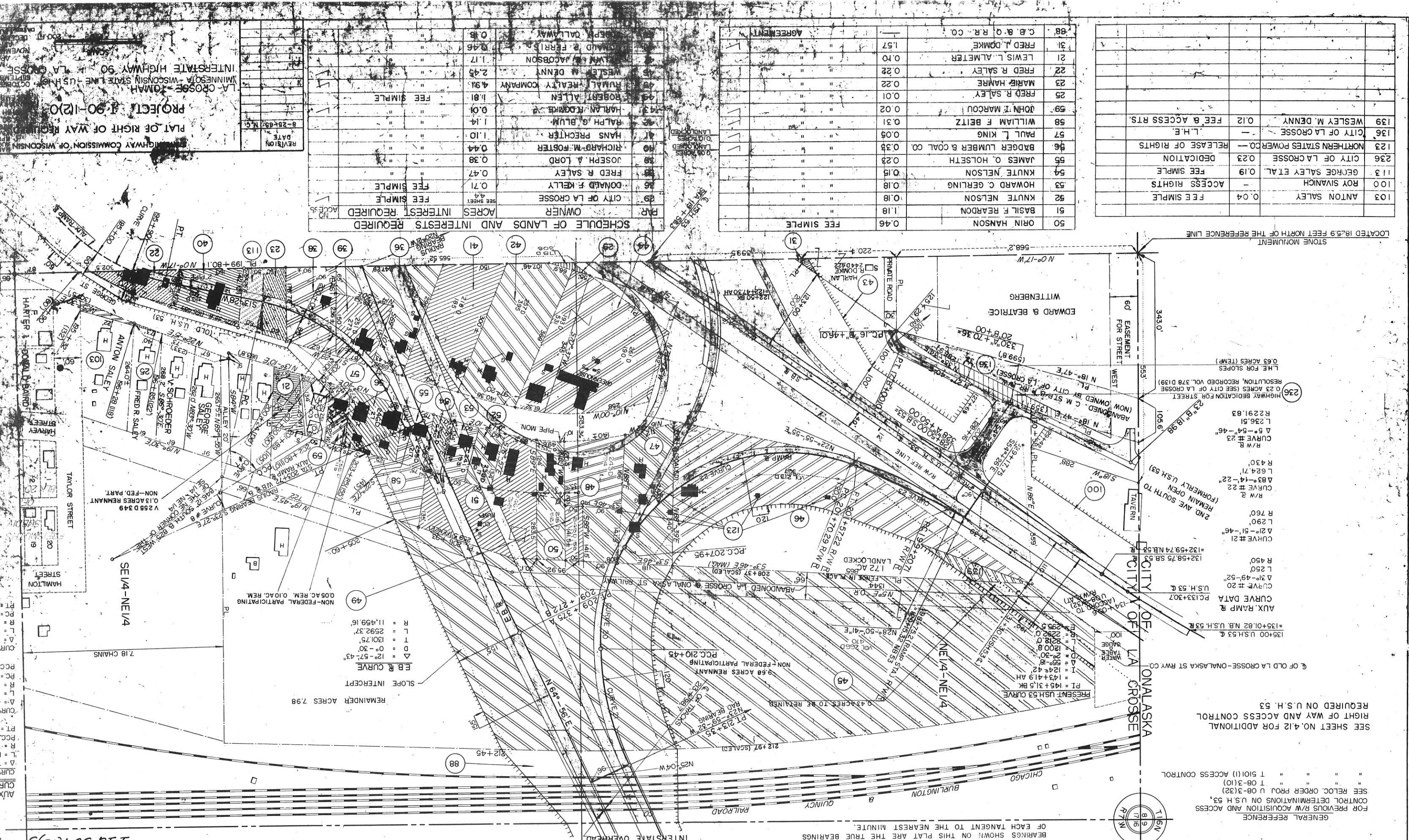
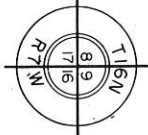
NOTE: NO DIRECT ACCESS PERMITTED BETWEEN THE MAIN ROADWAYS OR RAMPS OF THE INTERSTATE HIGHWAY, AND ADJUTING PROPERTIES. SYMBOL TO DENOTE NO ACCESS IS SHOWN THUS O.R. = ON RECORD

EB R = MEDIUM EDGE OF PAVEMENT - EAST BOUND LANE
 RAMP R = OUTER EDGE OF PAVEMENT

BEARINGS SHOWN ON THIS PLAT ARE THE TRUE BEARINGS OF EACH TANGENT TO THE NEAREST MINUTE.

GENERAL REFERENCE
 FOR PREVIOUS R/W ACQUISITION AND ACCESS CONTROL DETERMINATIONS ON U.S.H. 53, SEE RELOC. ORDER PROJ. U 08-3(10) T 08-3(10) T 5101(1) ACCESS CONTROL.

SEE SHEET NO. 412 FOR ADDITIONAL RIGHT OF WAY AND ACCESS CONTROL REQUIRED ON U.S.H. 53



REMAINDER ACRES 7.98
 EB R CURVE
 SLOPE INTERCEPT
 D = 12°-57'.43"
 T = 1301.75
 L = 2592.37
 R = 11,459.16
 NON-FEDERAL PARTICIPATING
 0.05 AC. REM. 0.10 AC. REM.

AUX. RAMP R CURVE DATA
 P.C. 133+30.7
 U.S.H. 53 C
 CURVE # 20
 A 31°-49'-52"
 L 250'
 R 450'
 132+58.75 SB. 53
 = 132+59.74 NB. 53

2ND AVE SOUTH TO
 (FORMERLY U.S.H. 53)
 R/W R
 CURVE # 22
 A 83°-14'-22"
 L 624.71'
 R 430'
 R/W R
 CURVE # 23
 A 5°-54'-46"
 L 236.51'
 R 2291.83'

HIGHWAY DEDICATION FOR STREET
 RESOLUTION, RECORDED VOL. 378 D139)
 0.23 ACRES (SEE CITY OF LA CROSSE
 236)

STONE MONUMENT
 LOCATED 1875.9 FEET NORTH OF THE REFERENCE LINE

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PAR.	OWNER	ACRES	INTERESTS REQUIRED
50	ORIN HANSON	0.46	FEE SIMPLE
51	BASIL F. REARDON	1.18	FEE SIMPLE
52	KNUTE NELSON	0.18	FEE SIMPLE
53	HOWARD C. GERLING	0.18	FEE SIMPLE
54	KNUTE NELSON	0.15	FEE SIMPLE
55	JAMES O. HOLSETH	0.23	FEE SIMPLE
56	BADGER LUMBER & COAL CO.	0.35	FEE SIMPLE
57	PAUL L. KING	0.05	FEE SIMPLE
58	WILLIAM F. BEITZ	0.31	FEE SIMPLE
59	JOHN T. MARCOU	0.02	FEE SIMPLE
25	FRED R. SALEY	0.01	FEE SIMPLE
23	MARIE HAMRE	0.22	FEE SIMPLE
22	FRED R. SALEY	0.22	FEE SIMPLE
21	LEWIS L. ALMETER	0.10	FEE SIMPLE
31	FRED J. DOMKE	1.57	FEE SIMPLE
88	C.B. & O. R.R. CO.	0.88	FEE SIMPLE

PAR.	OWNER	ACRES	INTERESTS REQUIRED
59	CITY OF LA CROSSE	0.71	FEE SIMPLE
56	DONALD F. KELLY	0.47	FEE SIMPLE
55	FRED R. SALEY	0.38	FEE SIMPLE
54	JOSEPH A. LORD	0.44	FEE SIMPLE
53	RICHARD M. ROSTER	0.44	FEE SIMPLE
41	HANS PRECHTER	1.10	FEE SIMPLE
42	ALPH G. BLUM	1.14	FEE SIMPLE
43	HARLAN R. DOMKE	0.01	FEE SIMPLE
44	ROBERT ALLEN	1.81	FEE SIMPLE
45	HUMAL REALTY COMPANY	4.91	FEE SIMPLE
46	WESTEN DENNY	2.45	FEE SIMPLE
47	WYAN JACOBSON	1.17	FEE SIMPLE
48	ANDREW FERRIS	0.46	FEE SIMPLE
49	DESP. DALLAWAY	0.88	FEE SIMPLE

PAR.	OWNER	ACRES	INTERESTS REQUIRED
103	ANTON SALEY	0.04	FEE SIMPLE
100	ROY SIVANICH	-	ACCESS RIGHTS
113	GEORGE SALEY ET AL.	0.19	FEE SIMPLE
236	CITY OF LA CROSSE	0.23	DEDICATION
123	NORTHERN STATES POWER CO.	-	RELEASE OF RIGHTS
136	CITY OF LA CROSSE	-	L.H.E.
139	WESLEY M. DENNY	0.12	FEE & ACCESS RTS.

PLAT OF RIGHT OF WAY REQUIRED
 HIGHWAY COMMISSION OF WISCONSIN
 PROJECT I-90-11(2)0
 INTERSTATE HIGHWAY 90
 MINNESOTA - WISCONSIN STATE LINE - U.S.H. 53
 NOVEMBER 1988

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT		FEDERAL DIVISION OFFICE	SHEET NUMBER
		STATE	FEDERAL		
32.3	90.1	13.2	4	4.6	

I-90-1(16)3

PAR	OWNER	ACRES	INTEREST REQUIRED	NO ACCESS
60	C. B. & Q. RR. CO.	5.41	HWY. EASEMENT	
106	NORTHERN STATES POWER CO.		RELEASE OF RIGHTS	
62	CHARLES COLLINS	0.17	FEE SIMPLE	✓
63	MARY G. COLLINS	0.75	" "	✓
64	OSCAR L. SAGEN	1.41	" "	✓
65	GERALD SAGEN	0.97	" "	✓
66	GLEN R. ULRY ET AL	0.27	" "	✓
67	LESLIE C. JEROME	0.01	" "	✓
68	SADIE S. INFELD	0.13	" "	✓
69	LE ROY T. BEIER	0.47	" "	✓
70	STANLEY V. SEVERSON	0.18	" "	✓
71	BEN STARCH	0.01	" "	✓
72	LESTER R. ROCHESTER	0.09	" "	✓
73	OSCAR D. GOSLIN JR.	0.17	" "	✓
74	MARCUS B. LARSON	0.18	" "	✓
75	WALTER J. VALLEY	0.14	" "	✓
76	MAURICE J. VALLEY	0.15	" "	✓
77	RAYMOND L. LAMB	0.13	" "	✓
78	WARREN D. HULETT	0.20	" "	✓
79	WILLIS M. CARRIER	0.39	" "	✓
80	NORBERT B. LANDMEYER	0.32	" "	✓
81	MORRIS K. OLSON	0.03	" "	✓
82	EMIL HAUSER	13.03	" "	✓
95	IVAN W. SMITH	0.05	" "	✓
61	GRETCHEN A. HAUSER	0.09	" "	✓
88	C. B. & Q. RR. CO.		AGREEMENT	
132	DELBERT FREEMORE	0.36	FEE SIMPLE	
133	JOHN PARK	0.06	" "	
123	NORTHERN STATES POWER CO.		RELEASE OF RIGHTS	

NOTE: BEARINGS SHOWN ON THIS-PLAN ARE TRUE BEARINGS OF EACH TANGENT TO THE NEAREST MINUTE.

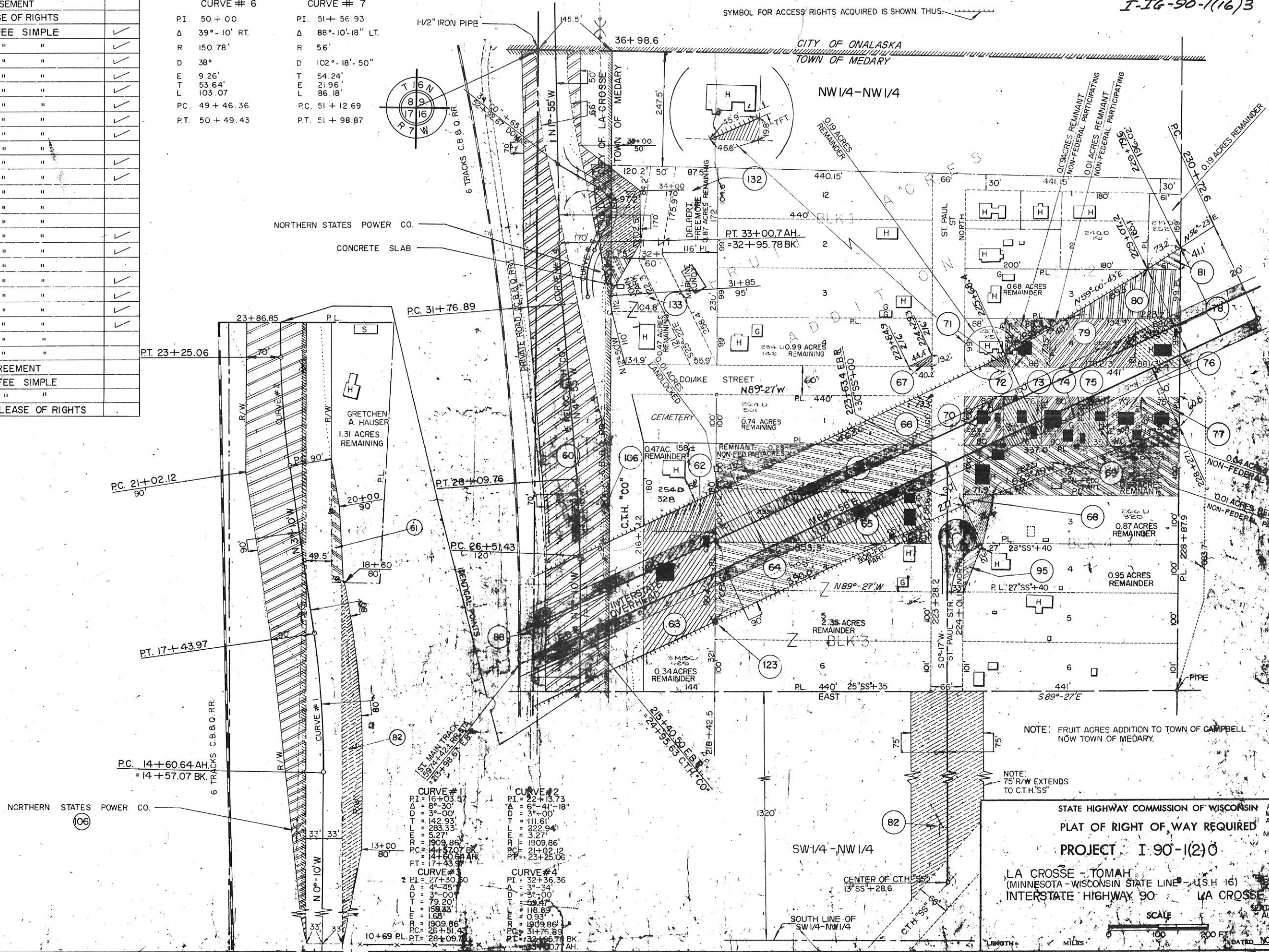
NOTE: NO DIRECT ACCESS PERMITTED BETWEEN THE MAIN ROADWAYS OR RAMPS OF THE INTERSTATE HIGHWAY, AND ABUTTING PROPERTIES.

E. B. R. = MEDIAN EDGE OF PAVEMENT - EAST BOUND LANE

SYMBOL FOR ACCESS RIGHTS ACQUIRED IS SHOWN THUS:

CURVE # 6
 PI 50+00
 Δ 39°-10' RT.
 R 150.78'
 D 38°
 E 9.26'
 T 53.64'
 L 103.07'
 PC 49+46.36
 PT 50+49.43

CURVE # 7
 PI 51+56.93
 Δ 88°-10'-18" LT.
 R 56'
 D 102°-18'-50"
 T 54.24'
 E 21.96'
 L 86.18'
 P.C. 51+12.69
 P.T. 51+98.87



NOTE: FRUIT ACRES ADDITION TO TOWN OF CAMPBELL NOW TOWN OF MEDARY.

NOTE: 75' R/W EXTENDS TO C.T.H. 55'

STATE HIGHWAY COMMISSION OF WISCONSIN

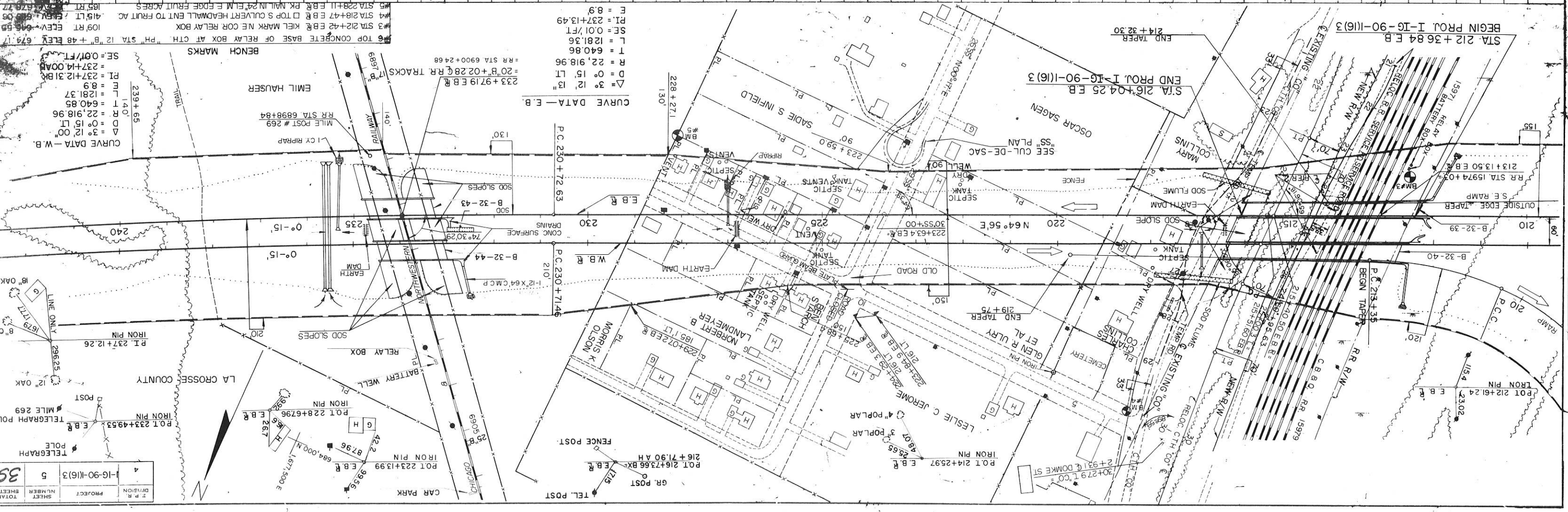
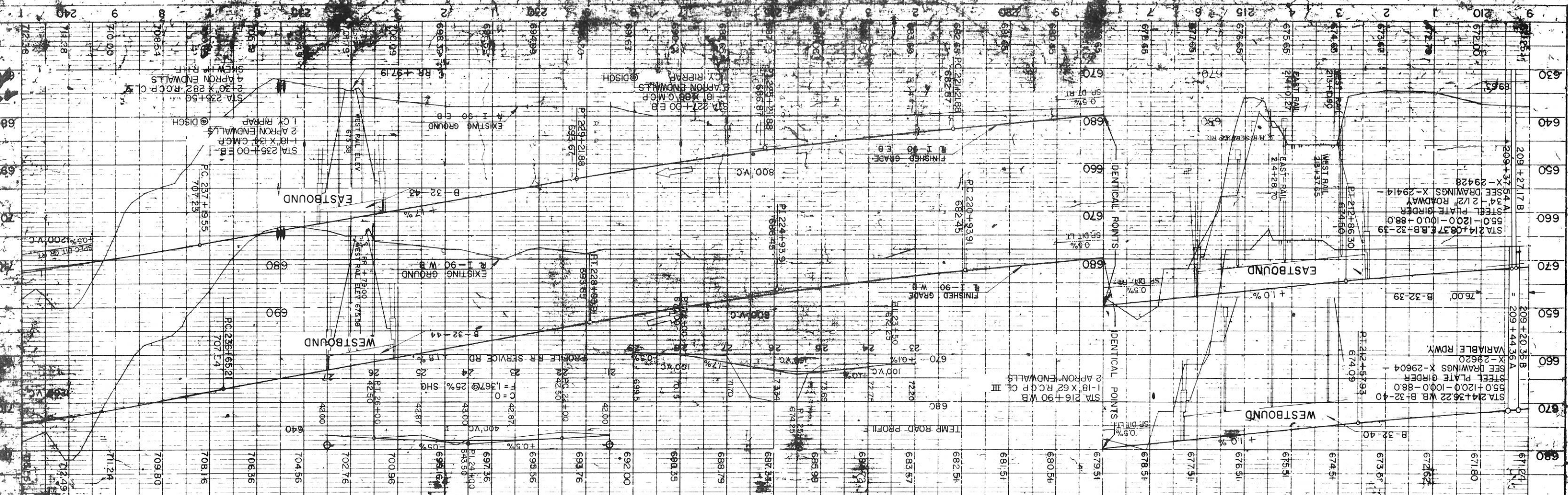
PLAT OF RIGHT OF WAY REQUIRED

PROJECT I 90-1(2)0

LA CROSSE - TOMAH
 (MINNESOTA - WISCONSIN STATE LINE - U.S.H. 16)
 INTERSTATE HIGHWAY 90 LA CROSSE

SCALE
 1" = 100'

DATE NOV 1968



CURVE DATA - E-B

Δ	3° 12' 12"
D	22.918.96
R	640.86
L	1281.36
SE	0.017/FT
PI	237+13.49
E	8.9

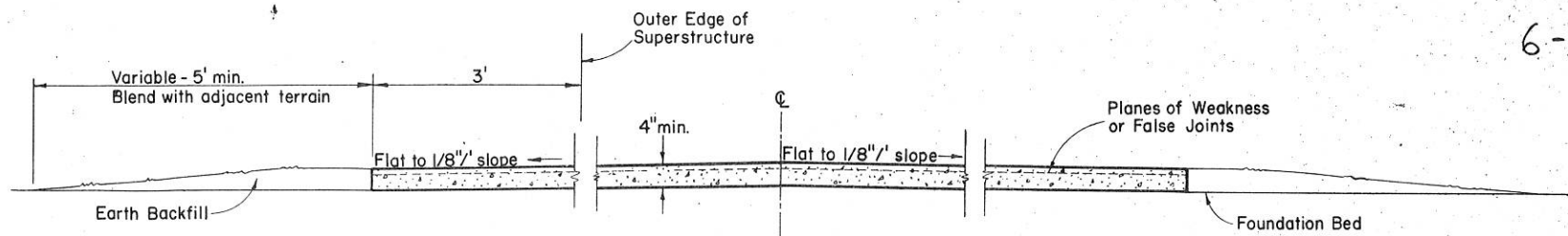
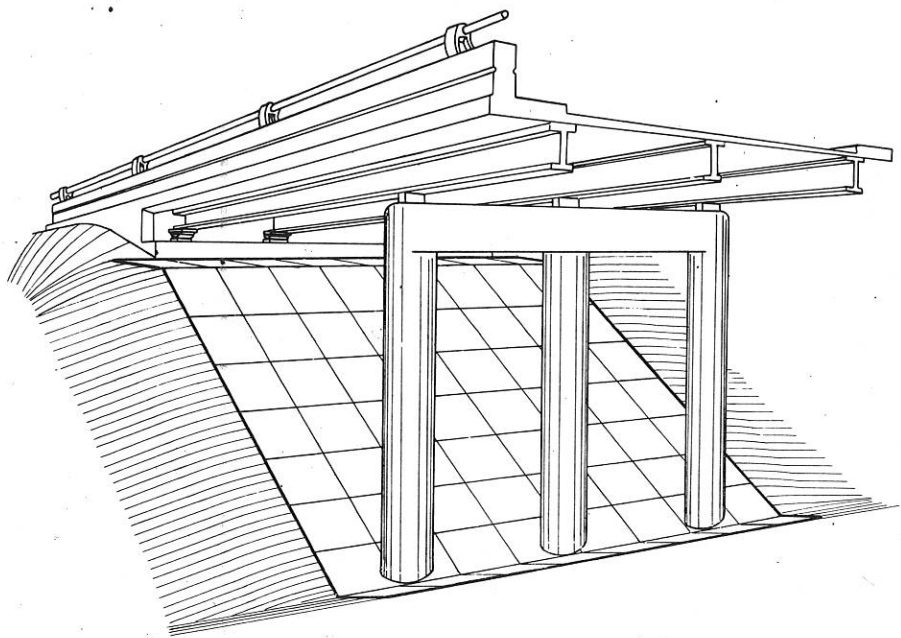
CURVE DATA - W-B

Δ	3° 12' 00"
D	0.151.00
R	640.85
L	1281.37
SE	0.017/FT
PI	237+12.31
E	8.9

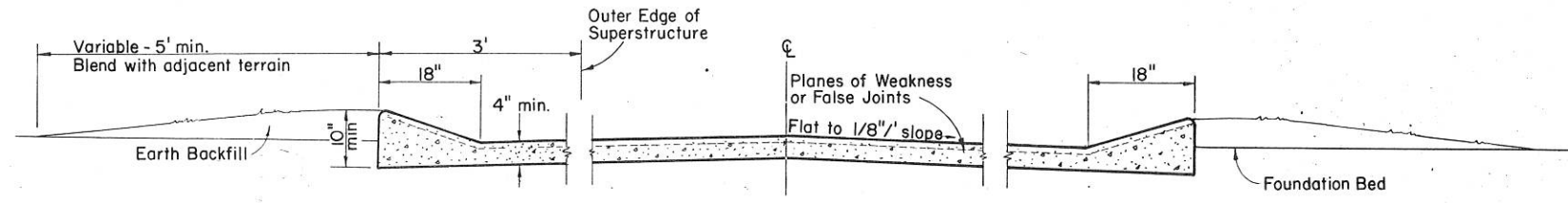
5	4
PROJECT	PROJECT
SHEET NUMBER	SHEET NUMBER
TOTAL SHEETS	TOTAL SHEETS

NOTED: GRADES CHECKED
 DATE: 11/11/00
 BY: [Signature]
 CHECKED: [Signature]

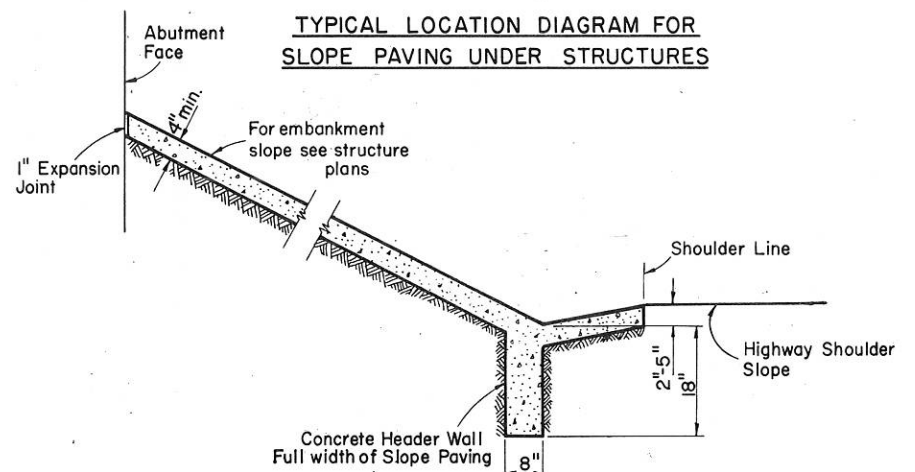
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 DATE: 11/11/00
 BY: [Signature]
 CHECKED: [Signature]



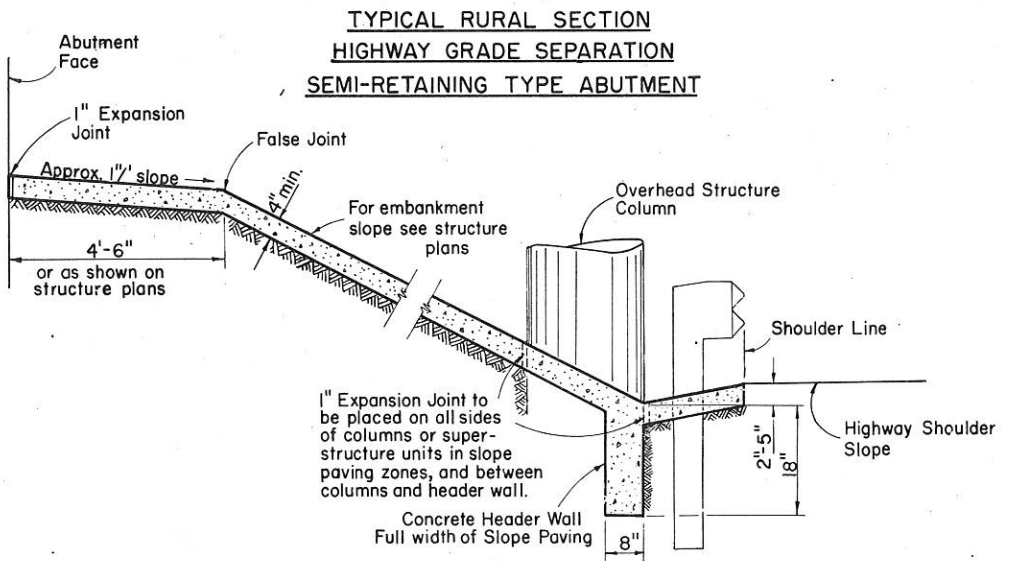
SECTION "A-A"
To be used when $\Delta = 75^\circ$ to 90°



SECTION "B-B"
To be used when $\Delta = 75^\circ$ or less

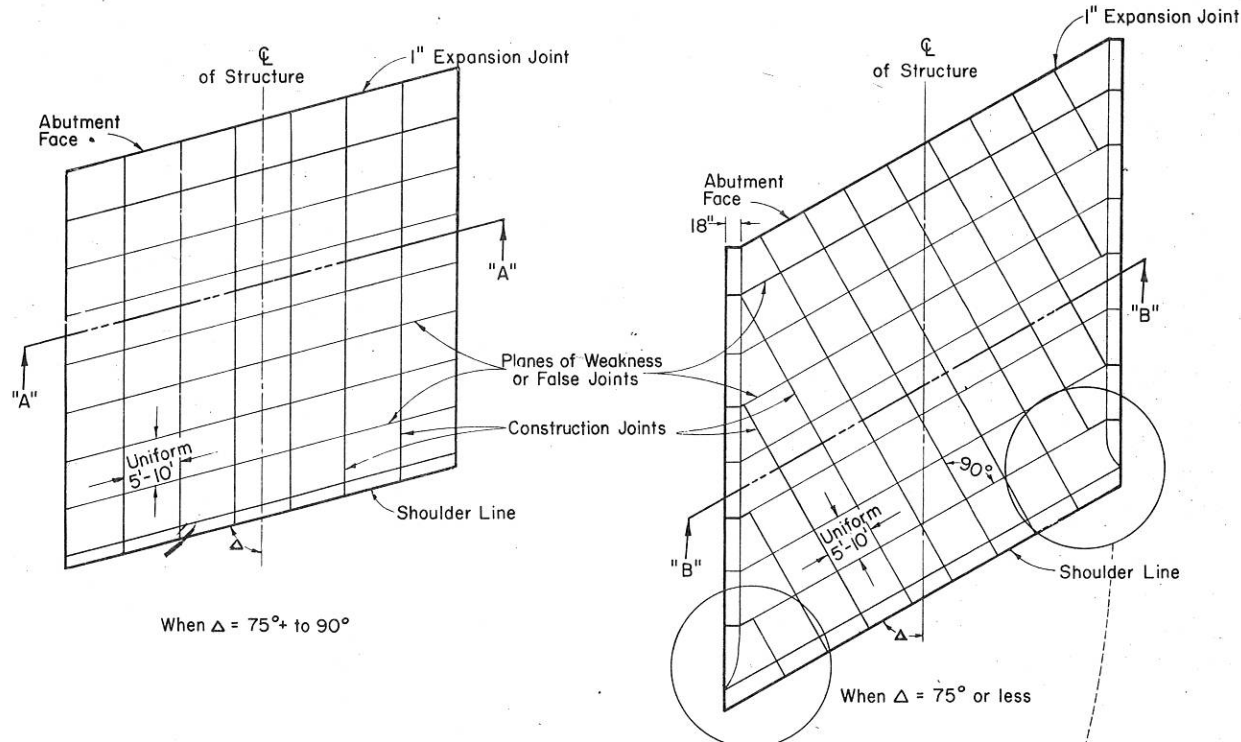


TYPICAL LOCATION DIAGRAM FOR
SLOPE PAVING UNDER STRUCTURES



TYPICAL RURAL SECTION
HIGHWAY GRADE SEPARATION
SEMI-RETAINING TYPE ABUTMENT

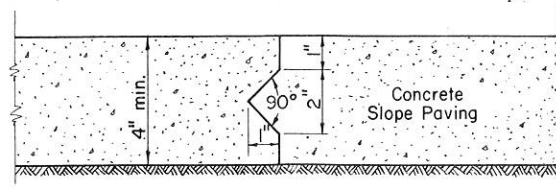
TYPICAL RURAL SECTION
HIGHWAY GRADE SEPARATION
SILL TYPE ABUTMENT



When $\Delta = 75^\circ$ to 90°

When $\Delta = 75^\circ$ or less

Sketches Showing Planes of Weakness
Construction Joint Designs for
SKEWED TYPE INSTALLATIONS



CONSTRUCTION JOINT

GENERAL NOTES

Details of construction not shown hereon shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

CONCRETE MASONRY

All concrete masonry shall conform to the Standard Specifications requirements for Grade AA.

EXPANSION JOINTS

Expansion joint filler, where required as shown hereon shall conform to the Standard Specifications.

METHOD OF MEASUREMENT & PAYMENT

This work shall be measured and paid for in square yard, which yardage shall be the sum of the total area measured on the plane of the surface thereof, which area includes the header wall or edges, but exclusive of the areas occupied by structure piers or columns, and as provided for in the Standard Specifications.

SLOPE PAVING
(CONCRETE CAST-IN-PLACE)

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

DATE: 11/5/67

DATE: 11/5/64

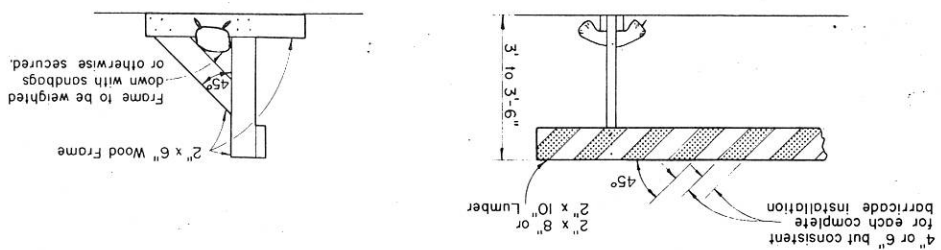
CHIEF DESIGN ENGINEER

STATE HIGHWAY ENGINEER

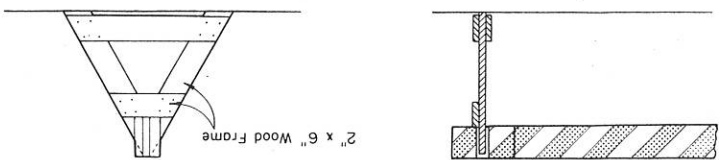
PLATE NO. 8-3.

CLASS II BARRICADE

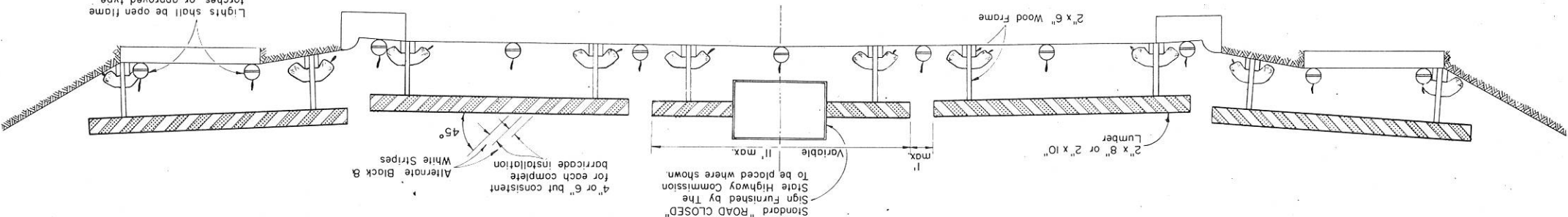
ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

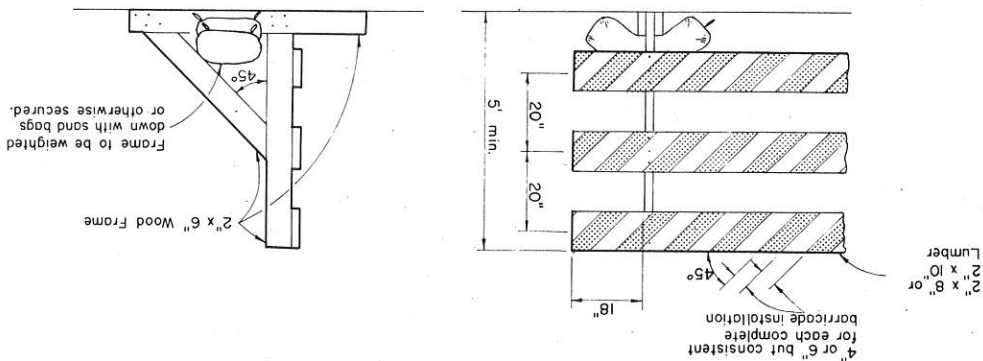


TYPICAL INSTALLATION OF RIGID TYPE

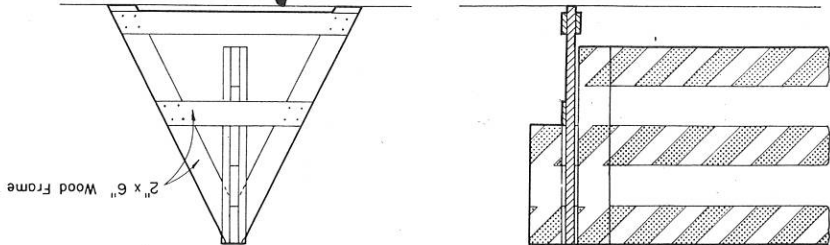


CLASS I BARRICADE

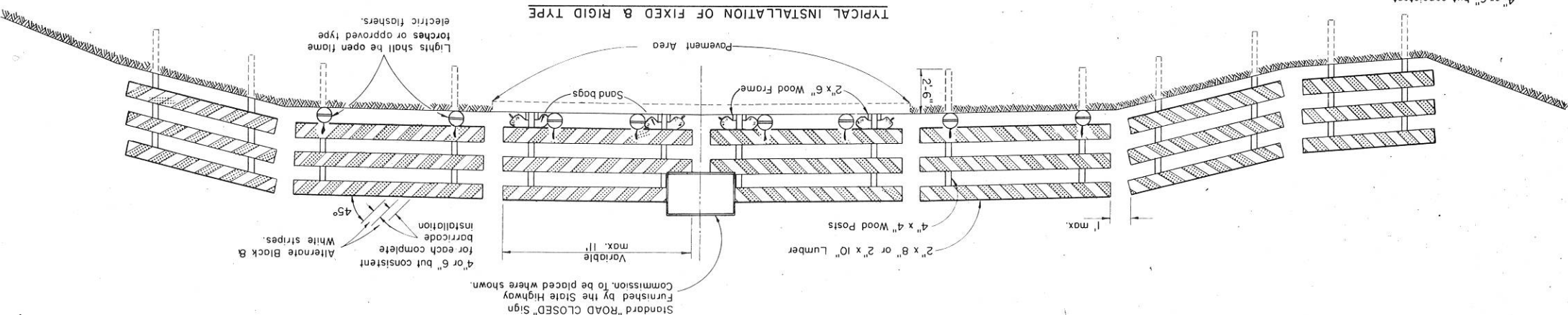
ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)



TYPICAL INSTALLATION OF FIXED & RIGID TYPE



CONSTRUCTION BARRICADE

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL: _____

DATE: 2-5-63

APPROVED: _____

DATE: 2/10/63

PLATE NO. 2-414

NOTE:
Lighting devices for barricades shall conform to the requirements of the Standard Specifications.

NOTE:
All barricades, unless otherwise provided for in the plans and/or special provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.

MEASUREMENT & PAYMENT
All barricades, unless otherwise provided for in the plans and/or special provisions shall be measured as follows: Where the slope downward in the direction of travel is less than 10 percent, the slope shall be measured in the direction of travel. Where the slope downward in the direction of travel is 10 percent or more, the slope shall be measured perpendicular to the slope. Payment shall be made for the area of the barricade as shown on the plans.

DIRECTION OF DIAGONAL STRIPES
Where a barricade extends entirely across the roadway and no vehicle access is provided, the stripes shall slope downward toward the highway centerline. Where vehicle access is provided, the stripes shall slope downward in the direction of travel. Where both right and left turns are provided for, the stripes shall slope downward in both directions from the center.

GENERAL NOTES:
The Contractor shall construct, place and maintain barricades as shown on this drawing and as required by the Standard Specifications for the duration of the project at all points of highway closure. Barricades shall be pointed as shown hereon and structurally maintained for maximum visibility at all times, for the duration of the respective project.

CLASS I BARRICADE
Shall be used at points of closure where road is closed to traffic. Gates or movable sections of barricade shall be provided when necessary, for access or equipment or other authorized vehicles only.

CLASS II BARRICADE
May be used only where the hazard to traffic is relatively small, and for the more or less continuous delimiting of a restricted roadway, or for temporary daytime use.

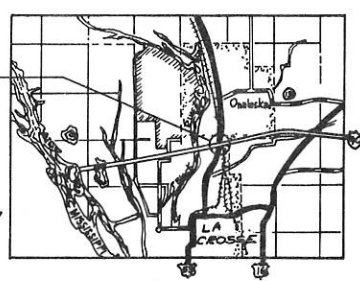
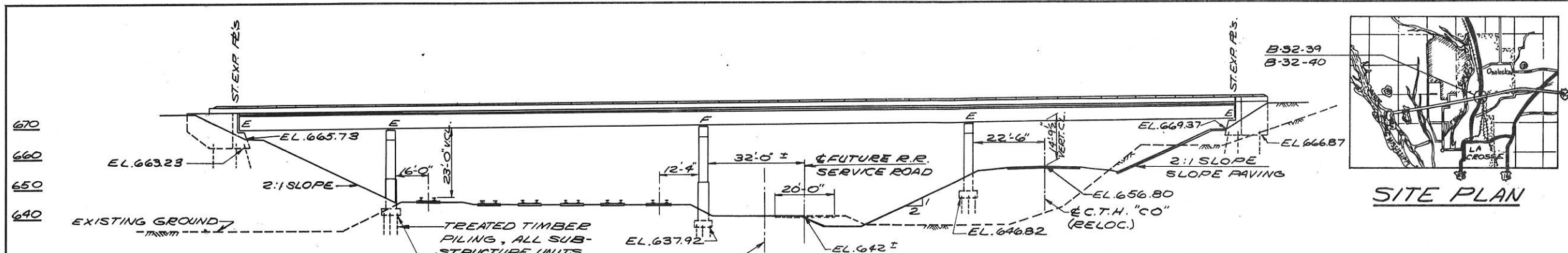
LUMBER & FABRICATION
Lumber shall be of a grade structurally sound and sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility. The fabrication of the barricade shall be in accord with good pertinent wood-working practices.

PAINTING
Barricades shall be painted as shown hereon in alternate black and white stripes. Black stripes shall be painted with weather resistant and durable black paint. White stripes shall be painted with a prime coat of good grade wood primer, followed by two coats of white "Coddit Reflective Liquid" (Minnesota Mining Co.) or equivalent, or reflective sheathing wide angle, flat top "Scotchite" brand material (Minnesota Mining Co.) or equivalent.

COUNTY & HIGHWAY	ROUTE & SECTION	CLASS & AGREEMENT	B. P. R. DIVISION	PROJECT
723 90.1	13.1	4	I-16-90-1(16)3	

LIST OF DRAWINGS

1. GENERAL PLAN
2. TOTAL ESTIMATED QUANTITIES
3. SUPERSTRUCTURE
4. SUPERSTRUCTURE
5. BEARING DETAILS
6. EXPANSION JOINT
7. TUBULAR ALUMINUM BAILING, TYPE "G"
8. TUBULAR STEEL RAILING, TYPE "G"
9. WEST ABUTMENT
10. PIER 1
11. PIER 2
12. PIER 3
13. EAST ABUTMENT
14. BILL OF BARS
15. SUBSURFACE EXPLORATION



RAMP "A" CURVE DATA

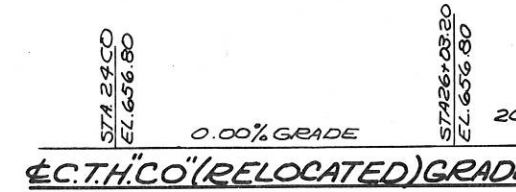
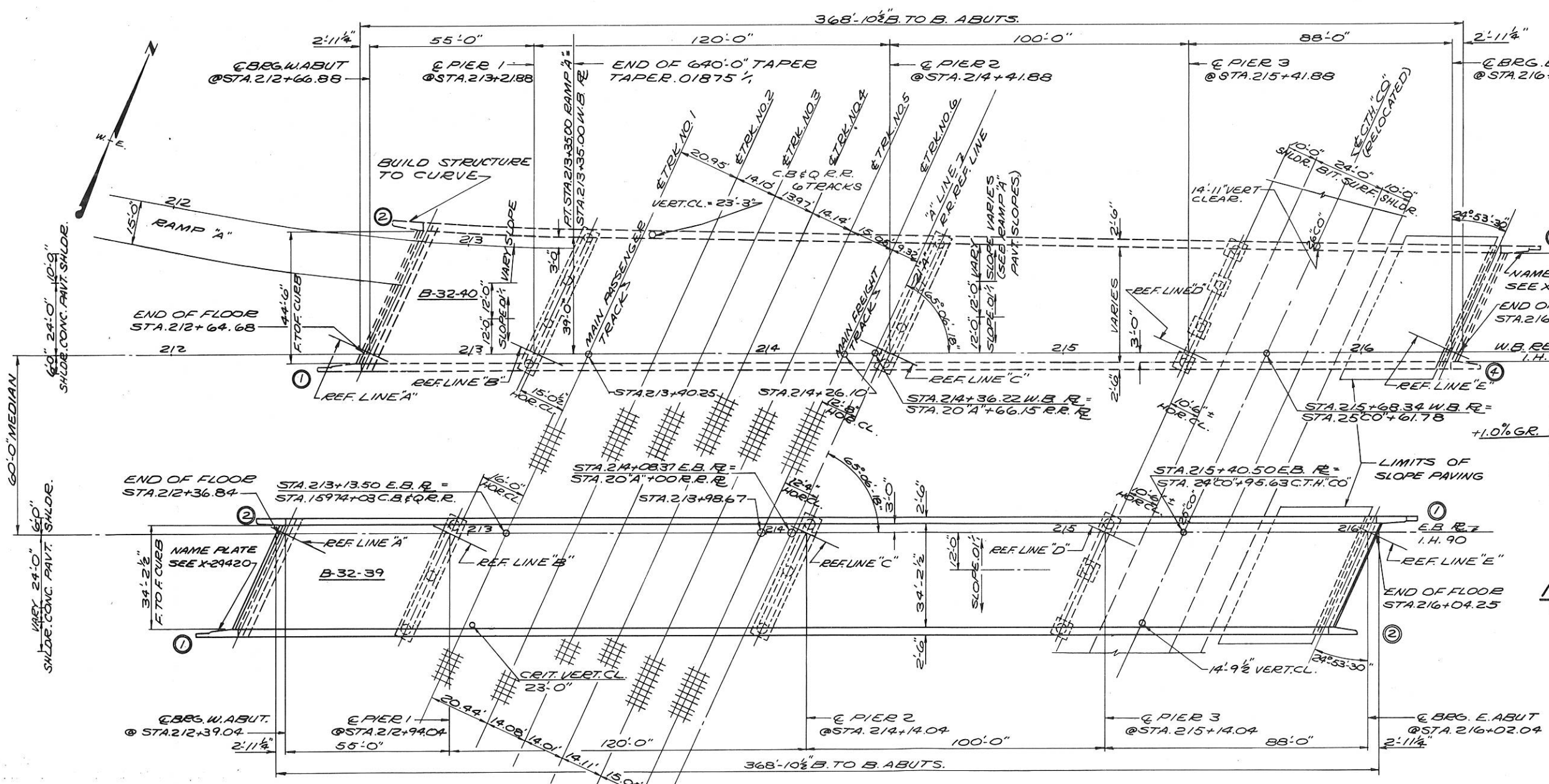
Δ = 21° 51' 46"
D = 7° 32' 20"
R = 760
T = 146.79
L = 290.0'
SE = .08 1/2
PC = STA. 210+45.00
PT = STA. 213+35.00

PAVEMENT SLOPES FOR RAMP "A"

STA.	SLOPE
212	.08 1/2
213	.05 1/2
214	.015 1/2
215	.010 1/2

TOP OF RAIL ELEVATIONS

STATION	TRK #1	TRK #2	TRK #3	TRK #4	TRK #5	TRK #6
18"A	46.79	46.39	45.84	45.98	46.09	46.09
19"A	46.77	46.37	45.83	45.92	46.03	46.04
20"A	46.75	46.36	45.89	45.98	46.06	46.09
21"A	46.75	46.33	46.02	46.06	46.03	46.05



I.H. 90 PROPOSED GRADE LINE
(ALONG REF. LINES E.B. & W.B. LANES)

REVISION	STATE HIGHWAY COMMISSION OF
GENERAL PLAN	
CO. LA CROSSE	CITY LA CROSSE
SECTION 16E17	TOWN 16N
DESIGN SPEC. A.A.S.H.O. 61	LOADING H520
DATE 9-10-64	DESIGN AL.
RECOMMENDED	ENGINEER OF BRIDGES
APPROVED:	STATE HIGHWAY ENGINEER

STRUCTURE **B-32-39** SHEET **1**

DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
11(1)3	5-16-50	8	39

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
 BEVEL EXPOSED EDGES OF CONCRETE 1" UNLESS OTHERWISE SPECIFIED.
 IMBED ALL BAR STEEL 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
 ALL CONCRETE MASONRY SHALL BE GRADE "A-A" $f_c = 1400$ P.S.I.
 THE SLOPE OF TOP OF FILL IN FRONT OF THE ABUTMENT SHALL BE COVERED WITH SLOPE PAVING AS SHOWN ON SHEETS X-29414 AND X-29426.
 HOT Poured ELASTIC TYPE JOINT SEALER SHALL CONFORM TO A.S.T.M. DESIGNATION, D1190.
 ALL FIELD CONNECTIONS SHALL BE MADE WITH $\frac{3}{4}$ " HIGH TENSILE STRENGTH FRICTION BOLTS UNLESS OTHERWISE SPECIFIED.
 PILING AT THE ABUTMENTS SHALL BE TREATED TIMBER LONG AT THE EAST ABUTMENT AND 40'-0" PILING EST. 45'-0" LONG AT THE WEST ABUTMENT AND 40'-0" VALUE OF 24 TONS/PILE.
 PILING AT THE RIGGS SHALL BE TREATED TIMBER PILING EST. 45'-0" LONG AT RIGGS 1 & 2 & 40'-0" AT PIER 3 AND DRIVEN TO A MIN. BEARING VALUE OF 24 TONS/PILE.
 SLOPE PAVING, CONCRETE

DESIGN DATA

LIVELOAD - HS20-MOD.
 ALLOWABLE DESIGN STRESSES
 CONCRETE MASONRY, GRADE "A" $f_c = 1400$ P.S.I.
 BAR STEEL REINFORCEMENT $f_s = 20000$ P.S.I.
 STRUCTURAL CARBON STEEL $f_s = 20000$ P.S.I.
 STRUCTURAL LOW ALLOY STEEL $f_s = 27000$ P.S.I.
 TO INCLUDING $\frac{3}{4}$ " THICK $f_s = 25000$ P.S.I.
 OVER $\frac{3}{4}$ " INCLUDING $\frac{1}{2}$ " THICK $f_s = 23000$ P.S.I.
 OVER $\frac{1}{2}$ " THICK $f_s = 23000$ P.S.I.

TOTAL ESTIMATED QUANTITIES

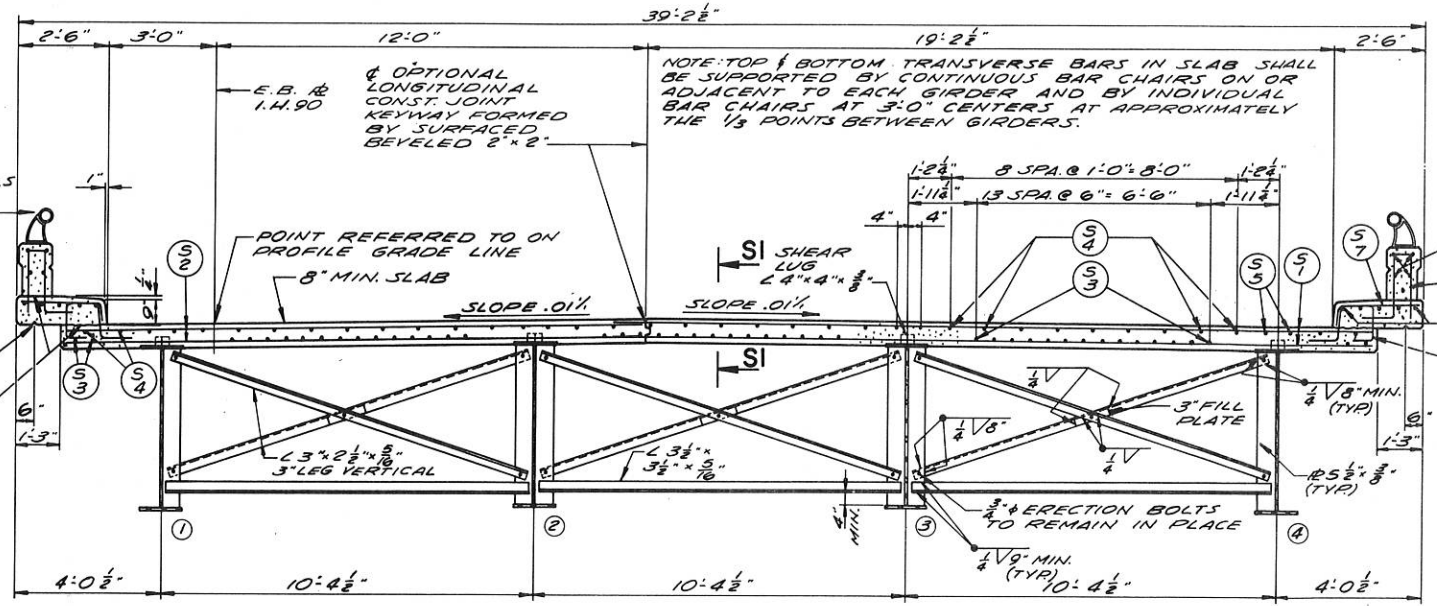
BID ITEM	UNIT	SUPER.	W. ABUT.	PIER 1	PIER 2	PIER 3	E. ABUT.	TOTAL
EXCAVATION FOR STRUCTURES	C.Y.	50	80	120	180	40		470
CONCRETE MASONRY	C.Y.	415.5	70.7	103.2	117.5	59.3	71.0	837.2
BAR STEEL REINFORCEMENT	LB.	137110	1960	10650	15150	14620	1960	181950
STRUCTURAL CARBON STEEL	LB.	341750						341750
STRUCTURAL LOW ALLOY STEEL	LB.	5470						5470
LUBRICATED BRONZE PLATES	LB.	266						266
BEARING PADS	S.F.	34						34
* TREATED TIMBER TEST PILING	L.S.							1
TREATED TIMBER PILING, DELIVERED	L.F.		720	1575	1890	1240	720	6145
TREATED TIMBER PILING, DRIVEN	L.F.							6145
TUBULAR RAILING, TYPE "G"	L.F.	768						768
SLOPE PAVING, CONCRETE	S.Y.						190	190
NON-BID ITEM								
ALUMINUM OR ZINC PLATE	S.F.	53						53

* DRIVE ONE 55'-0" TEST PILE AT PIER 1 & ONE 50'-0" TEST PILE AT PIERS 2 & 3.

STATE HIGHWAY COMMISSION OF WISCONSIN
 TOTAL ESTIMATED QUANTITIES
 DESIGN
 DATE 9-10-50
 DRAWN BY K.G.
 CHECKED BY K.G.
 STRUCTURE B-32-39
 SHEET 2 OF 15
 X 29415

NOTE: THE 9" HEIGHT OF CURB IS TO BE MAINTAINED AT ALL POINTS OF BEARING.

NOTE: FOR "BILL OF BARS" AND "BAR DETAILS" SEE SHEET X29427



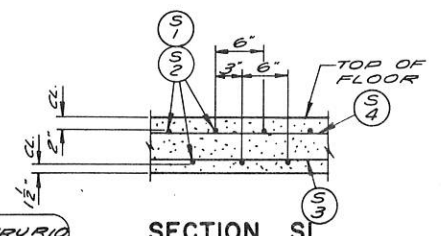
CROSS SECTION THRU ROADWAY

FOR RAILING DETAILS SEE SHEET X29420 OR X29421

3/4" CONTINUOUS DRIP GROOVE CONST. JOINT TO BE LEFT ROUGH

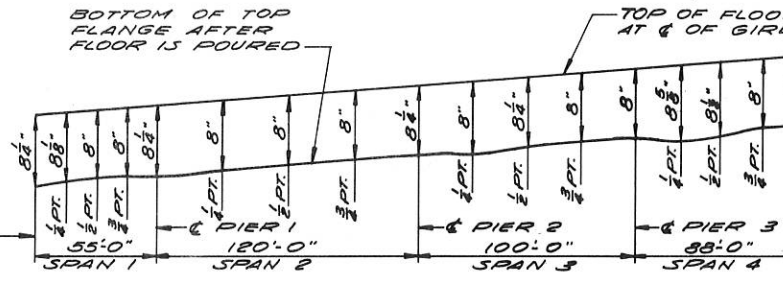
NOTE: TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE PLACED PARALLEL TO SUBSTRUCTURE UNITS.
NOTE: IF LONGIT. CONST. JOINT IS USED, 25% OF THE ANTICIPATED DEAD LOAD DEFLECTION WILL OCCUR AT GIRDER 2.

NOTE: WHEN EMBEDMENT OF GIRDER FLANGE EXCEEDS 13" THE BOTTOM TRANSVERSE SLAB REINFORCEMENT SHALL BE TIED DOWN TO HOLD 1/2" CLEAR AT MID-SPAN BETWEEN GIRDERS.

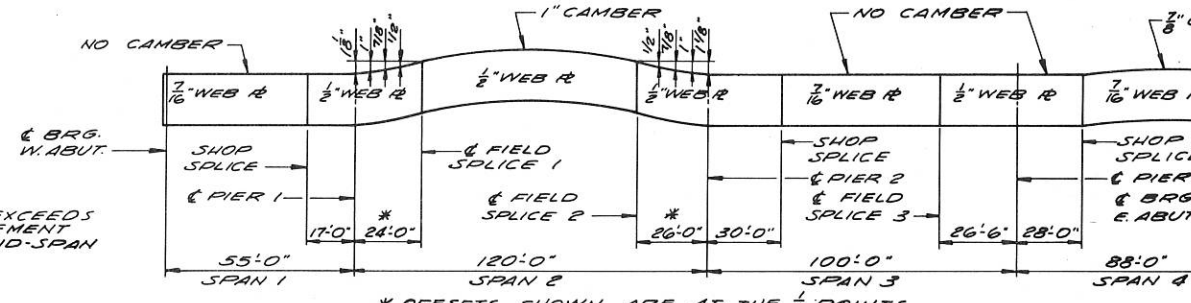


SECTION S1

NOTE: SLAB THICKNESS FIGURES SHOWN ARE THEORETICAL AND ARE SUBJECT TO CORRECTION TO MEET VARIABLE FIELD CONDITIONS AND CAMBER.

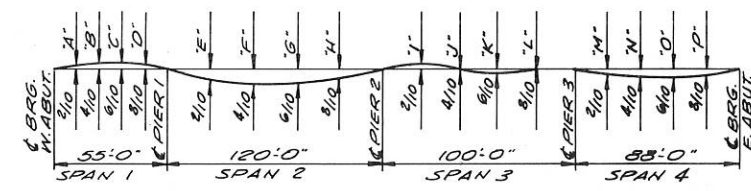


SLAB THICKENING DIAGRAM



CAMBER DIAGRAM

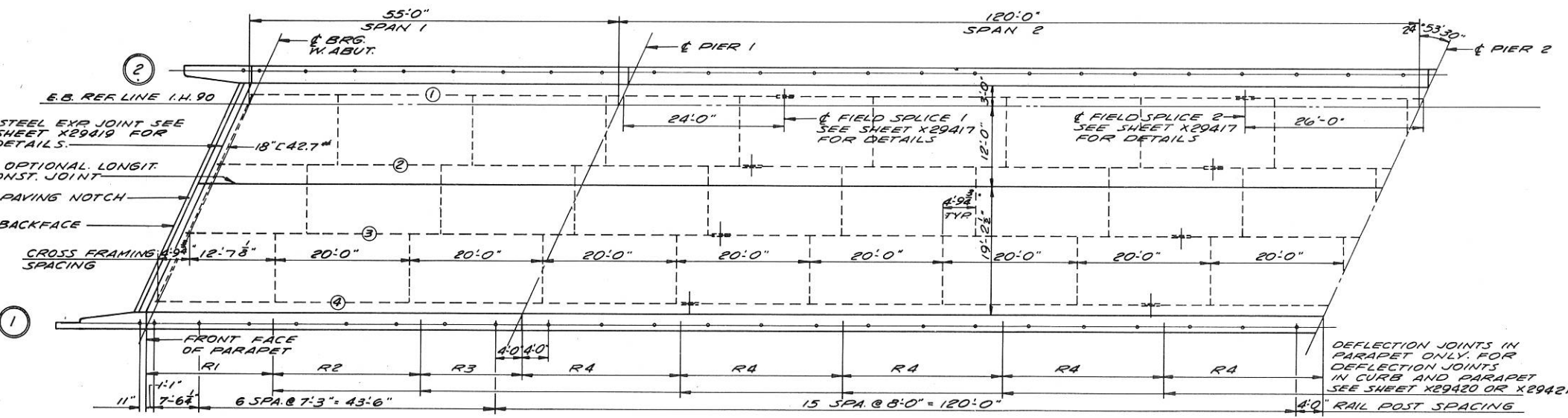
TYPICAL ALL GIRDERS



DEFLECTION DIAGRAM

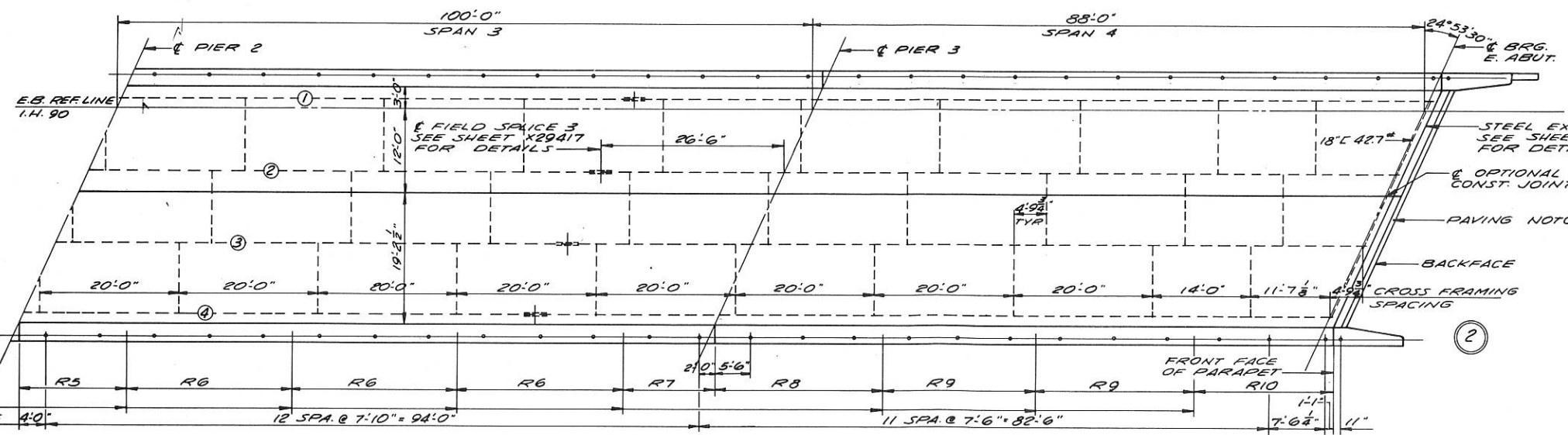
SHOWING D.L. DEFLECTION

DEFLECTION	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
CONC. ONLY	1/16	1/8	3/16	1/2	3/4	1 1/8	1 3/8	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2
TOTAL	1/16	3/16	3/16	3/16	13/16	1 1/8	1 3/8	1 3/4	2	2 1/8	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2



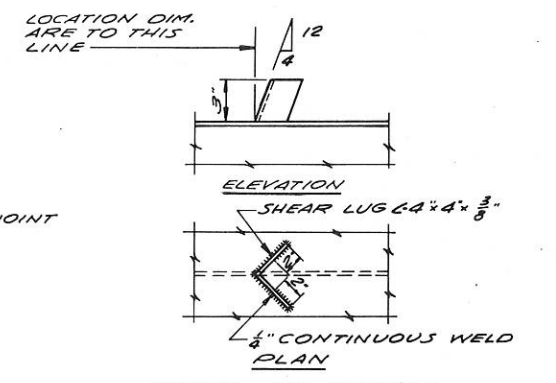
PART PLAN

DEFLECTION JOINTS IN PARAPET ONLY. FOR DEFLECTION JOINTS IN CURB AND PARAPET SEE SHEET X29420 OR X29421



PART PLAN

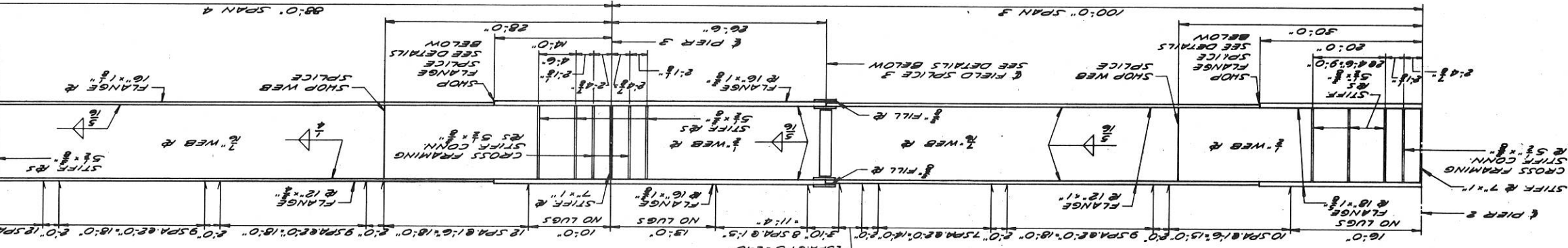
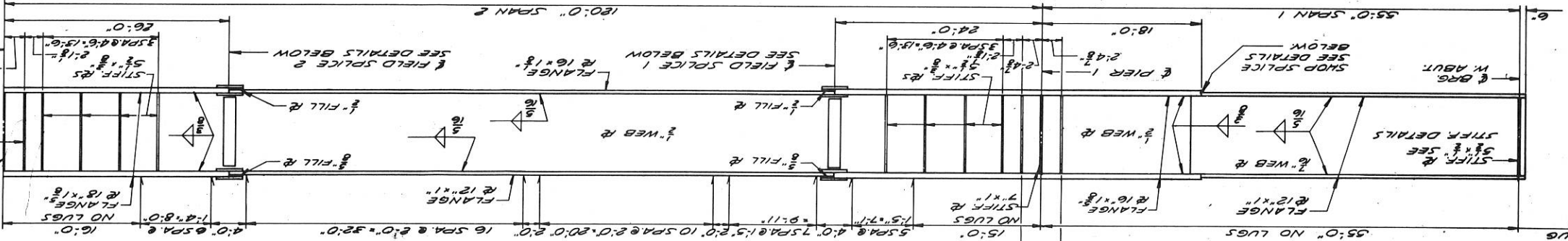
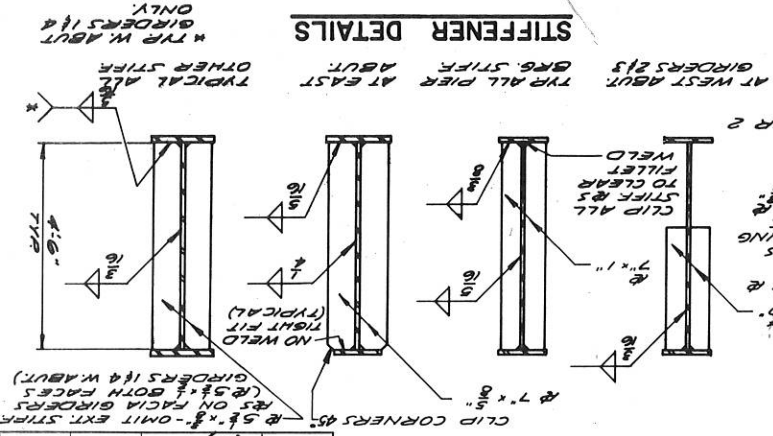
DEFLECTION JOINTS IN PARAPET ONLY. FOR DEFLECTION JOINTS IN CURB AND PARAPET SEE SHEET X29420 OR X29421



SHEAR LUG DETAILS

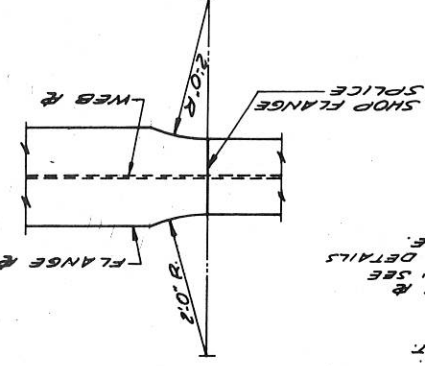
REVISED	STATE HIGHWAY COMMISSION OF
	SUPERSTRUCTURE
DESIGN SPEC. A.A.S.H.O. 6/	LOADING 4500
DATE 9-10-64	DESIGN A.L.
STRUCTURE B-32-39	SHEET 3

B. R. DIVISION	PROJECT	1039
SHEET NO.	1039	
TOTAL SHEETS	1039	

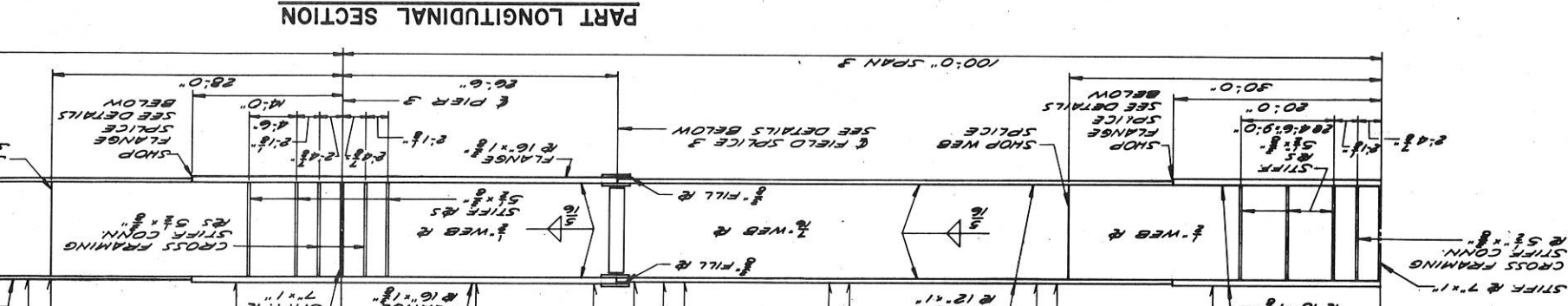


PART LONGITUDINAL SECTION

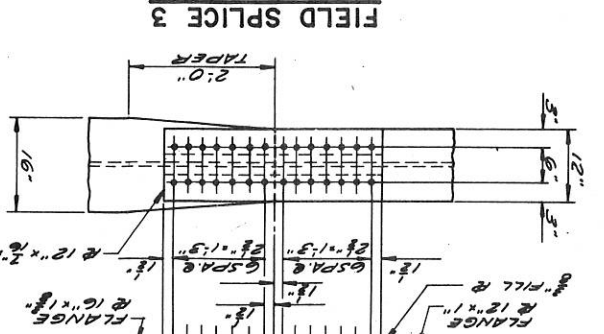
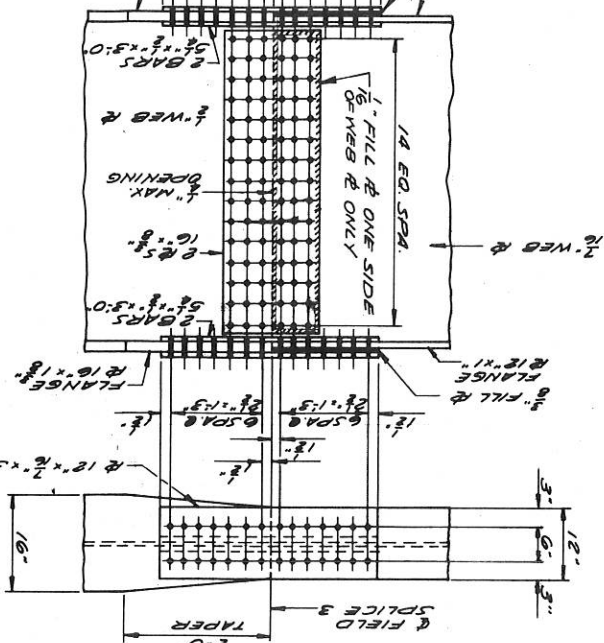
SHOP FLANGE PLATE
SPICE DETAILS



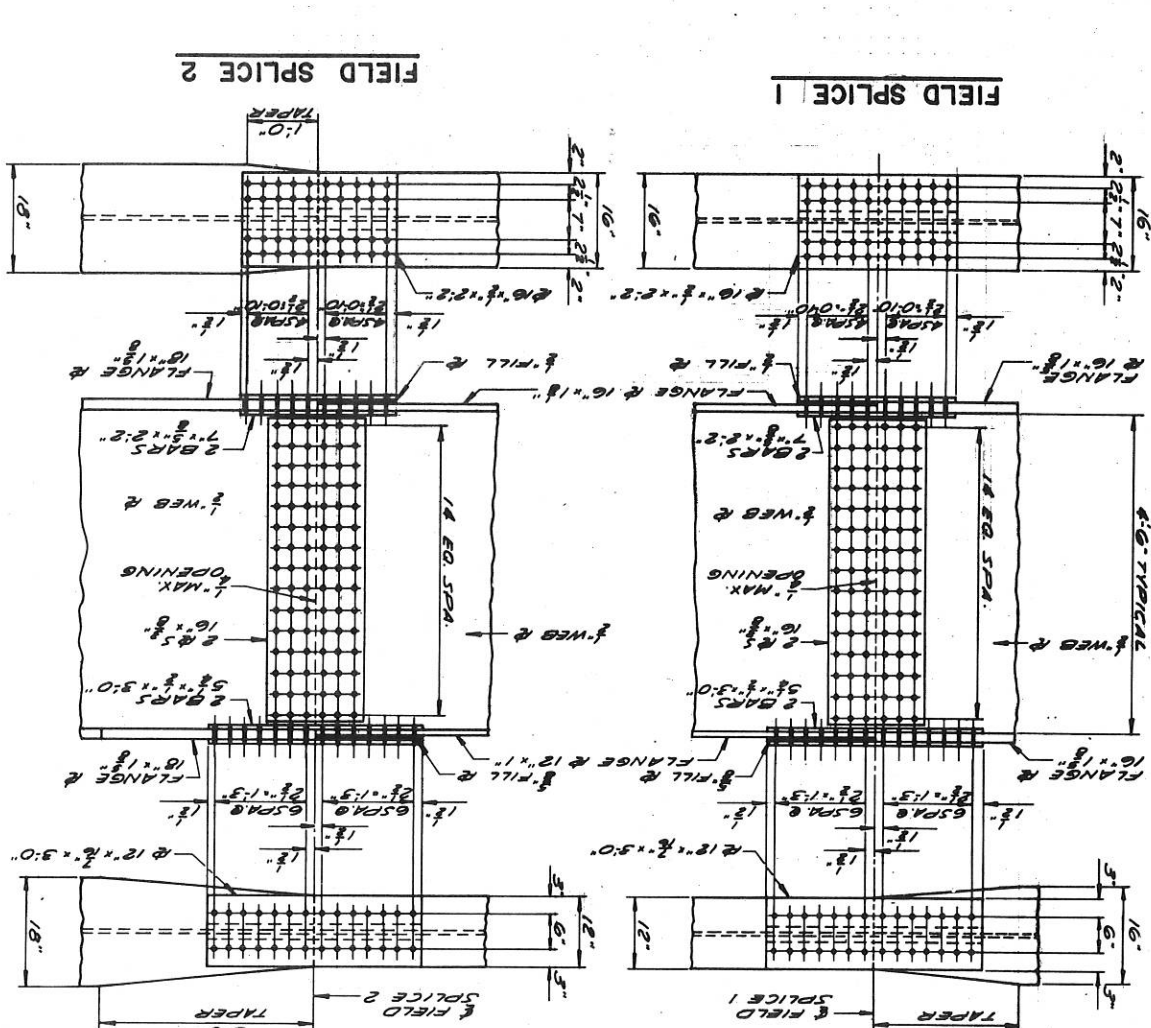
NOTE: FIELD WELDING ON TOP FLANGE FOR CONSTRUCTION PURPOSES IS PROHIBITED IN THE AREA OVER THE PIERS BETWEEN THE SHEAR LUGS.



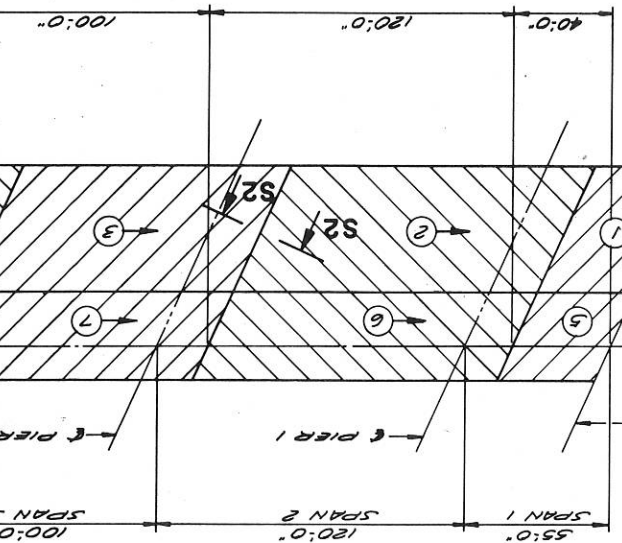
FIELD SPICE 3



FIELD SPICE 3



POURING DIAGRAM



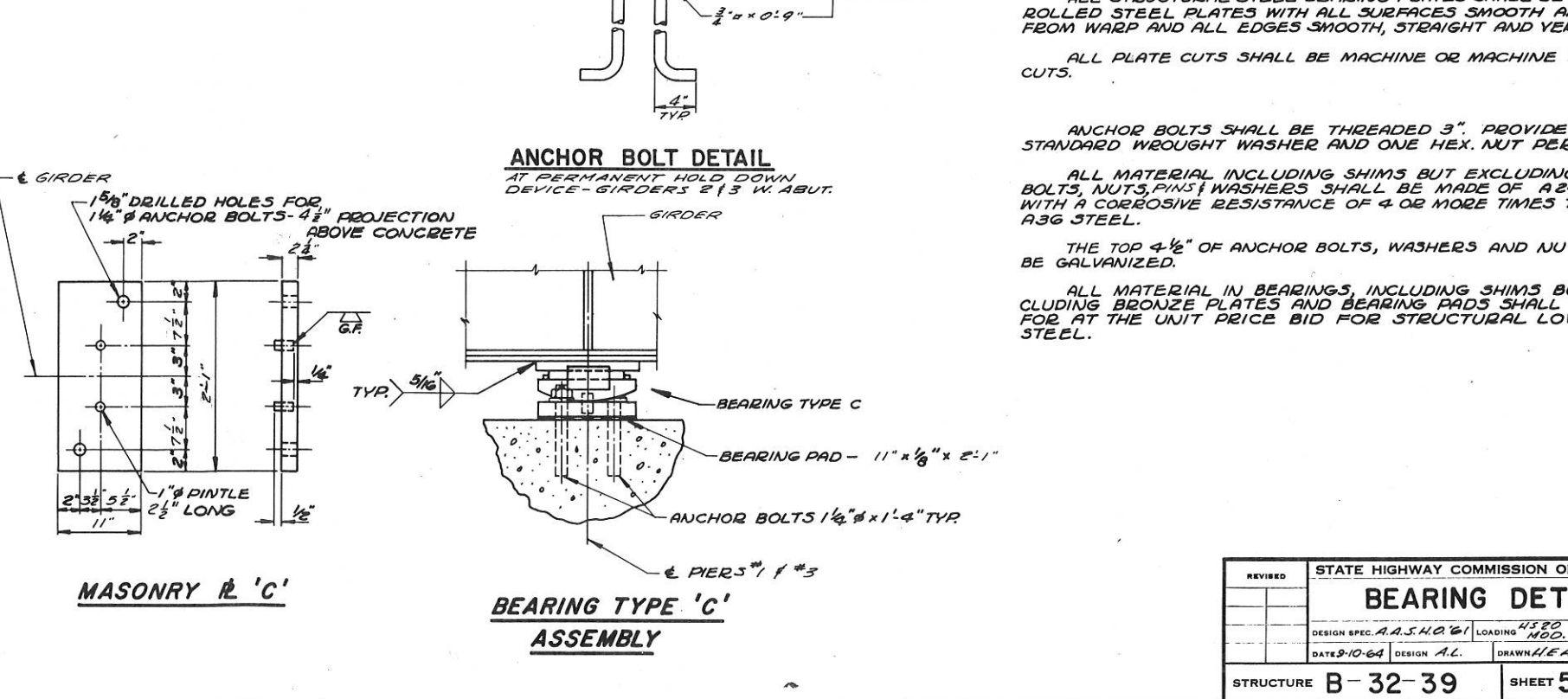
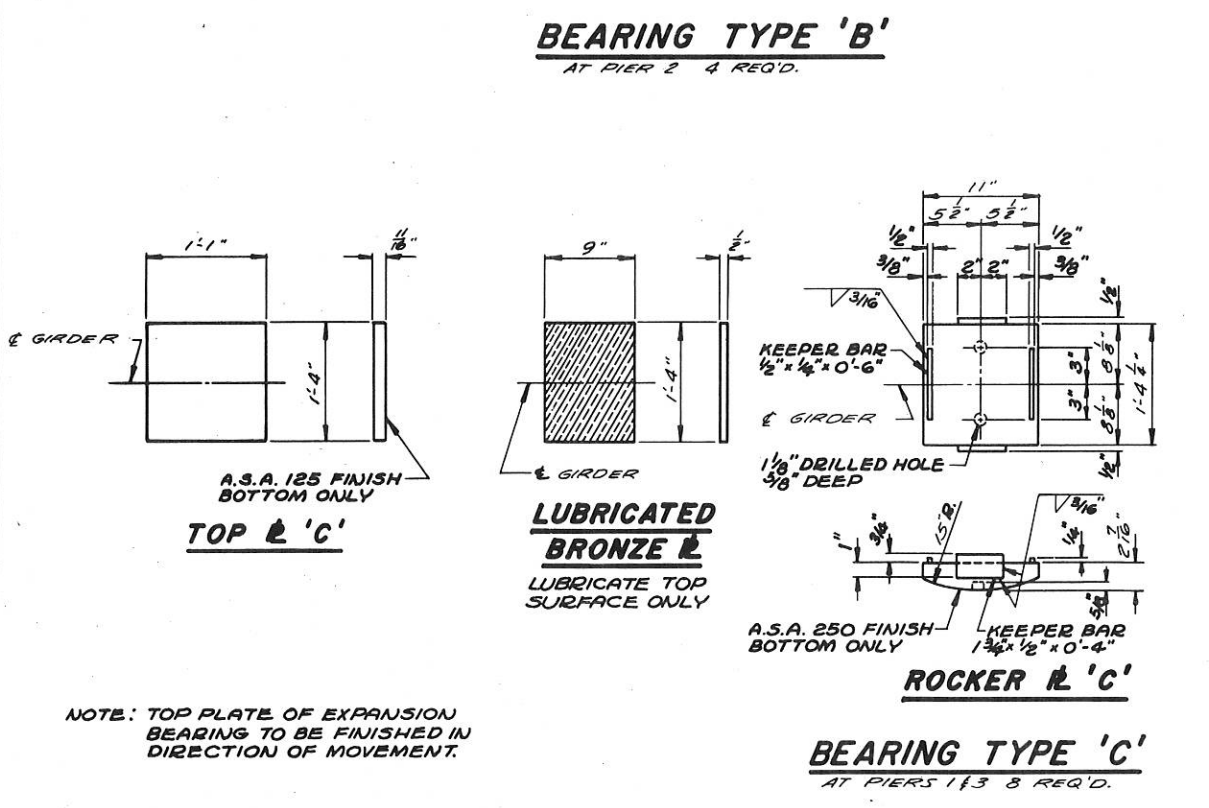
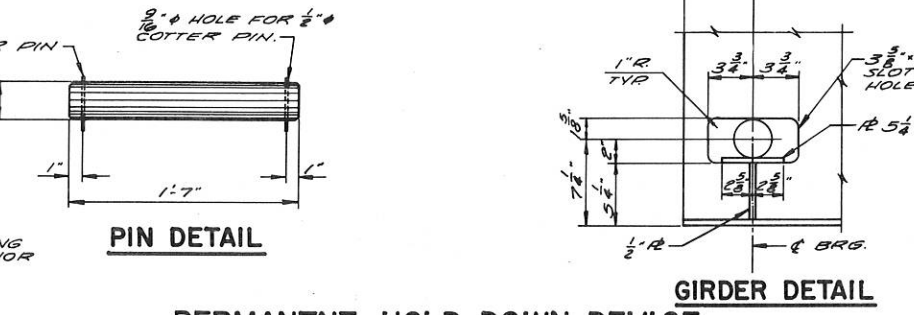
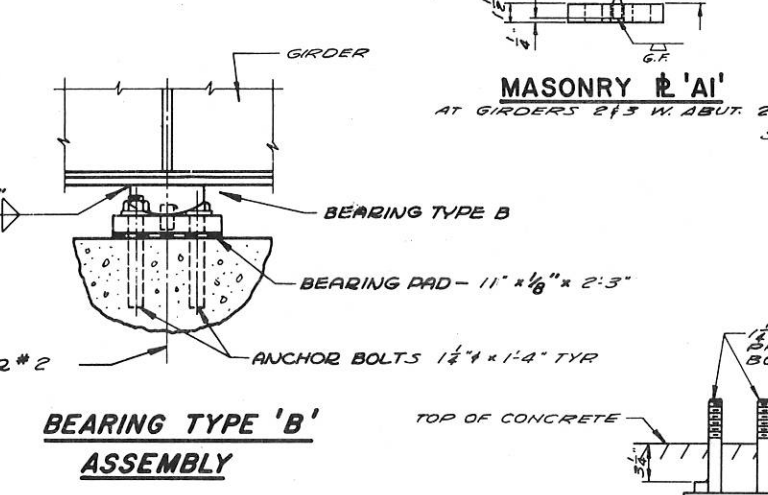
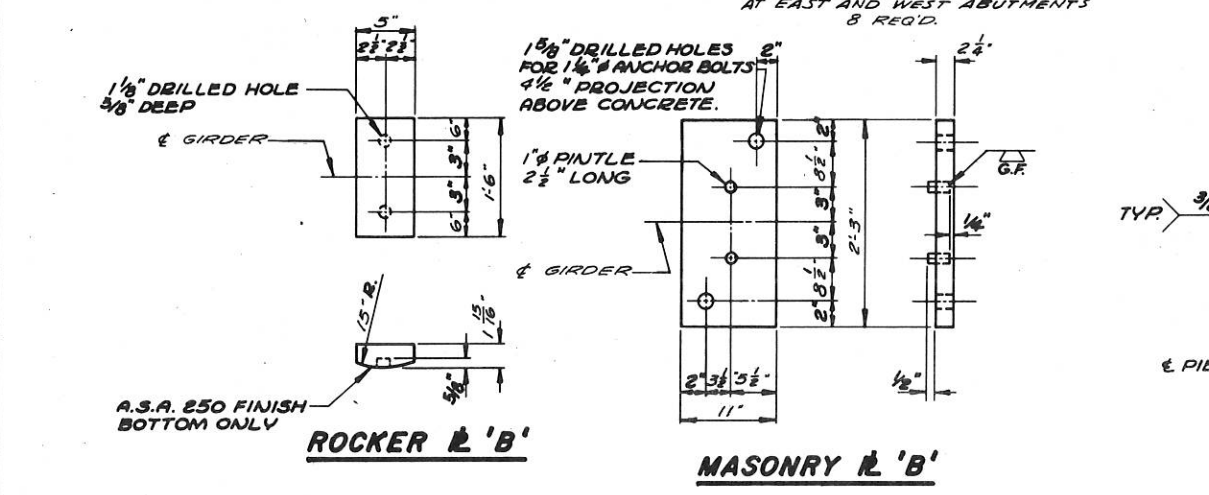
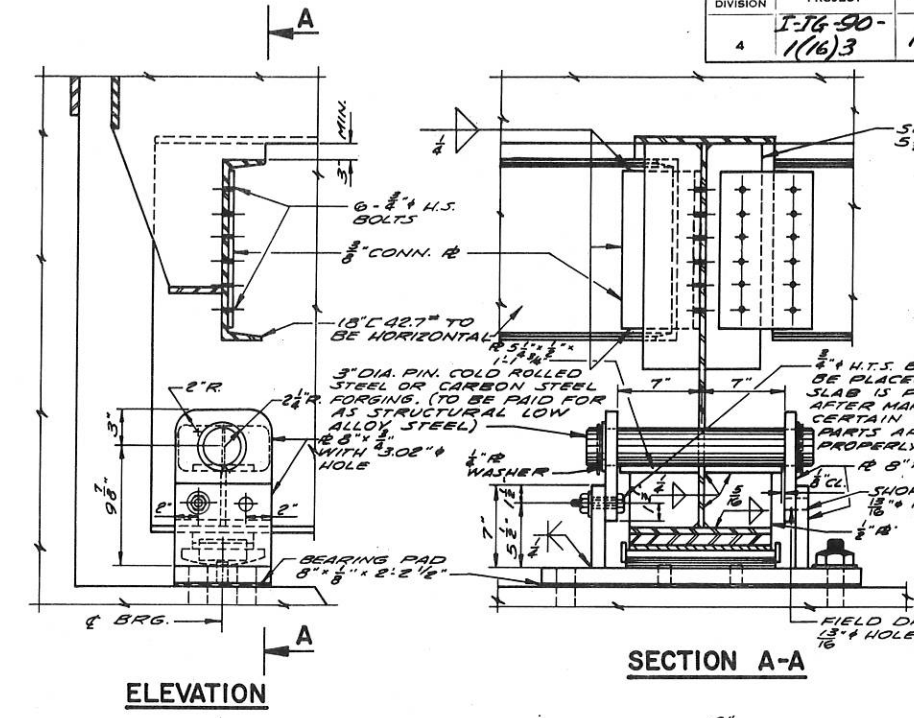
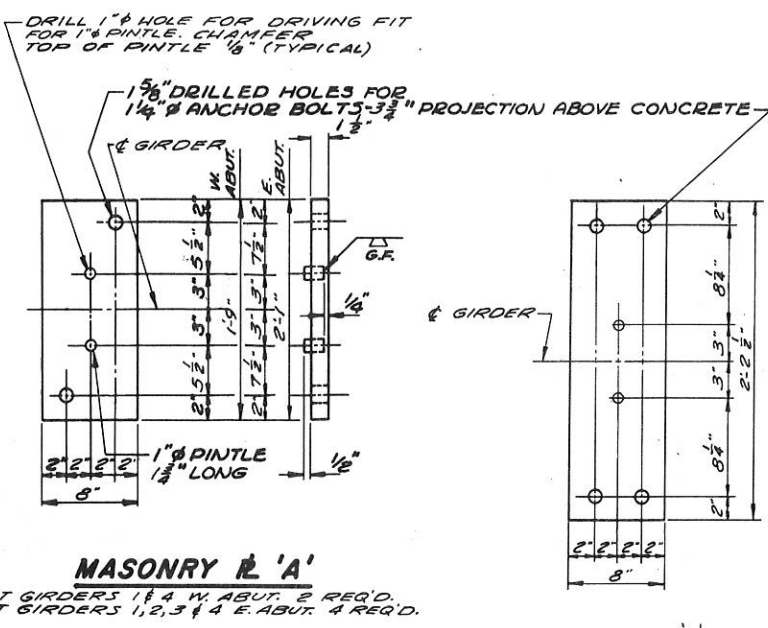
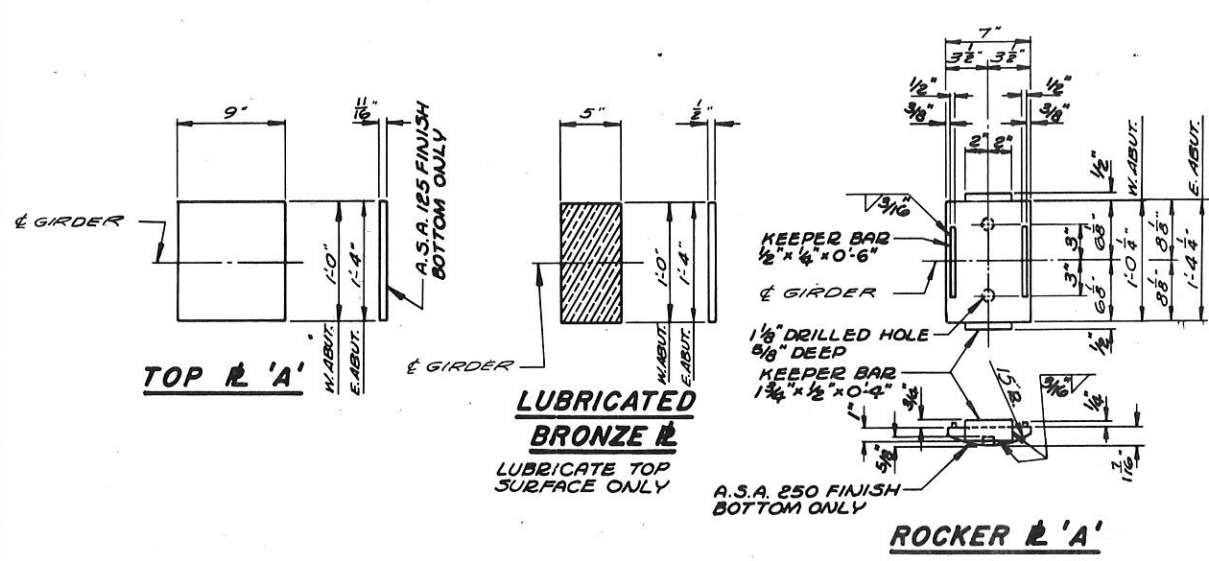
NOTE: TWO OR MORE POURS MAY BE COMBINED AND THE TRANSVERSE CONSTRUCTION OF THE JOINTS OBTAINED FROM AN ENTIRE SPAN OR THE PORTION OF A SPAN TO A CONST. JOINT CAN BE COMPLETED WITHIN FOUR HOURS AFTER CONCRETE OVER THE ADJACENT PIER IS PLACED.

SECTION S2



KEYWAY ON E OF SLAB FORMED BY 2\"/>

STEEL THRU JOINT



PERMANENT HOLD DOWN DEVICE
AT GIRDERS 2 & 3 W. ABUT. SEE SHEET X29419 FOR TEMPORARY HOLD DOWN DEVICE AT E. ABUT.

BEARING NOTES

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FOLDED ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FINISHED CUTS.

ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX. NUT PER BOLT.

ALL MATERIAL INCLUDING SHIMS BUT EXCLUDING BOLTS, NUTS, PINS & WASHERS SHALL BE MADE OF A24 WITH A CORROSIVE RESISTANCE OF 4 OR MORE TIMES THAT OF A36 STEEL.

THE TOP 4 1/2" OF ANCHOR BOLTS, WASHERS AND NUTS SHALL BE GALVANIZED.

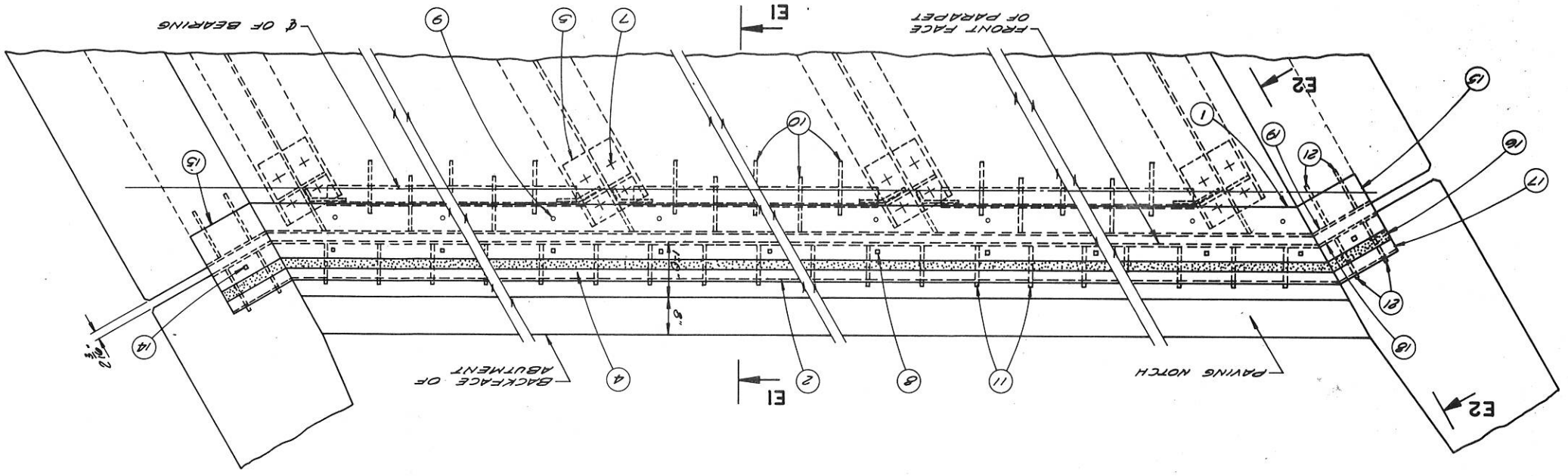
ALL MATERIAL IN BEARINGS, INCLUDING SHIMS INCLUDING BRONZE PLATES AND BEARING PADS SHALL BE GALVANIZED FOR AT THE UNIT PRICE BID FOR STRUCTURAL LOW CARBON STEEL.

NOTE: TOP PLATE OF EXPANSION BEARING TO BE FINISHED IN DIRECTION OF MOVEMENT.

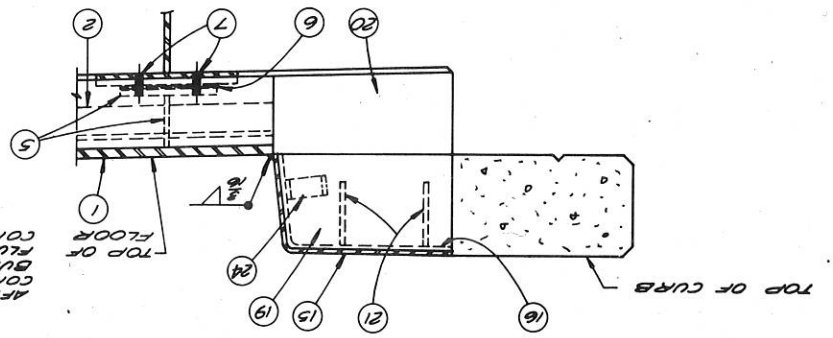
REVISED	STATE HIGHWAY COMMISSION OF		
	BEARING DETAIL		
	DESIGN SPEC. A.A.S.H.O.'61	LOADING	4380 MOD.
	DATE: 9-10-64	DESIGN: A.L.	DRAWN: A.E.A.
STRUCTURE B-32-39		SHEET 5	

DATE 9-0-64	DESIGN A.L.	DRAWN K.A.A.	C.D.	B.T.Z.
DESIGN SPEC. A.A.S.H.O. 91	LOADING	NO. 2	SPEC. 1965	
EXPANSION JOINT				
STATE HIGHWAY COMMISSION OF WISCONSIN				

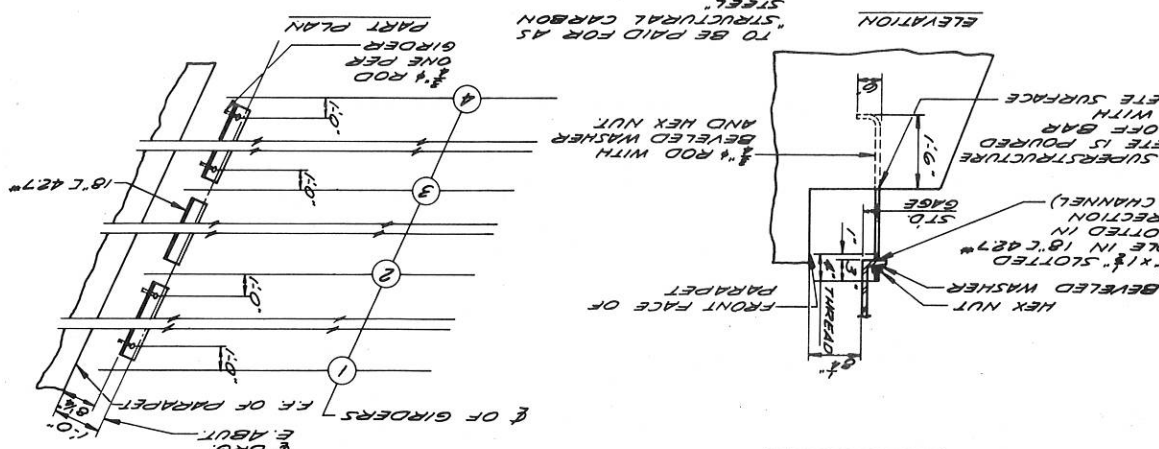
PART PLAN



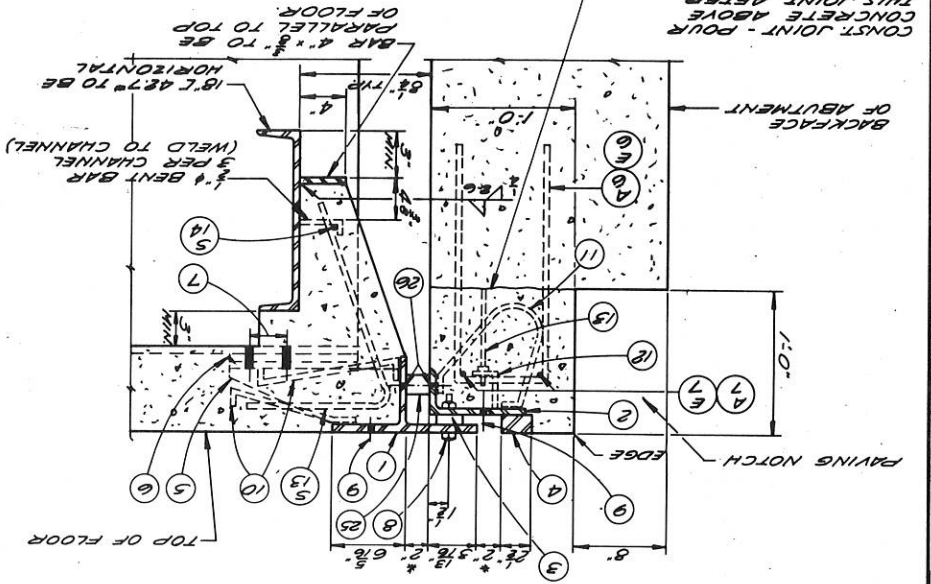
SECTION THRU JOINT AT CURB



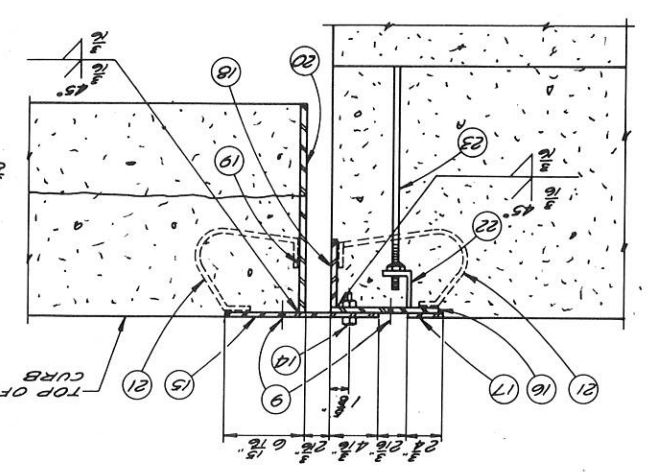
TEMPORARY HOLD DOWN DEVICE



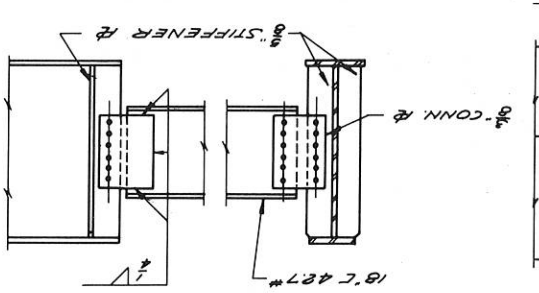
SECTION E1



SECTION E2



TYPICAL DIAPHRAGM DETAIL



LEGEND

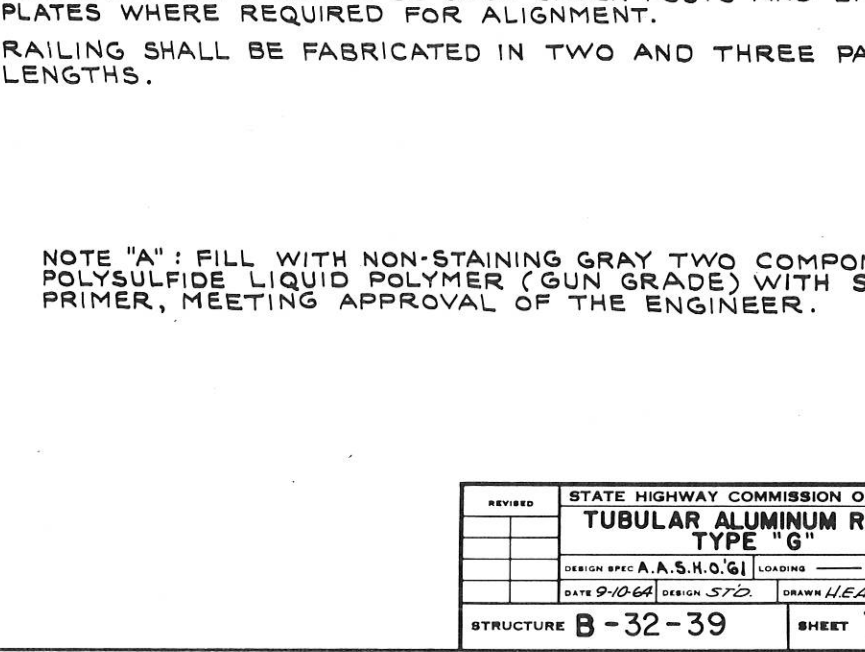
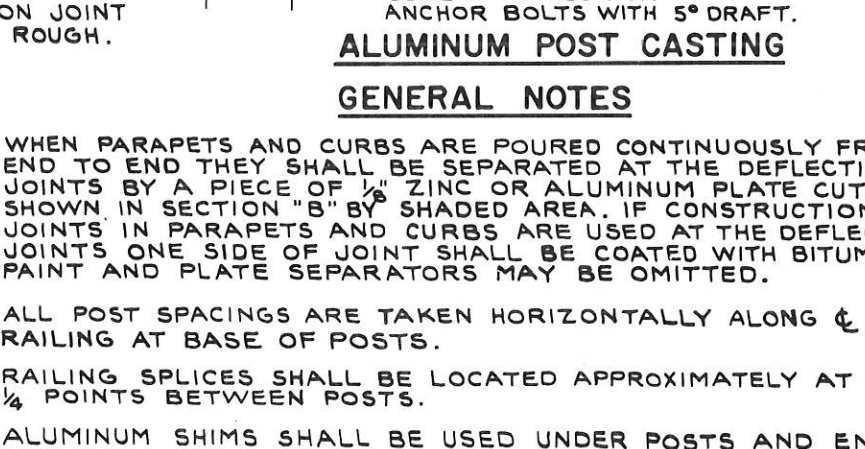
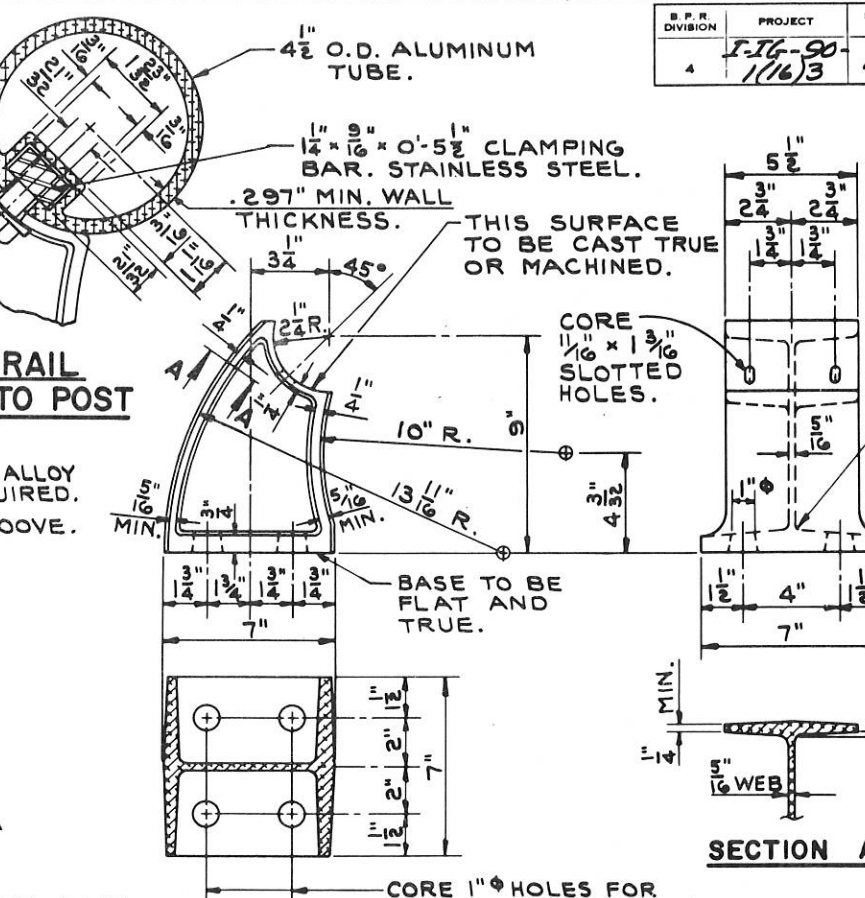
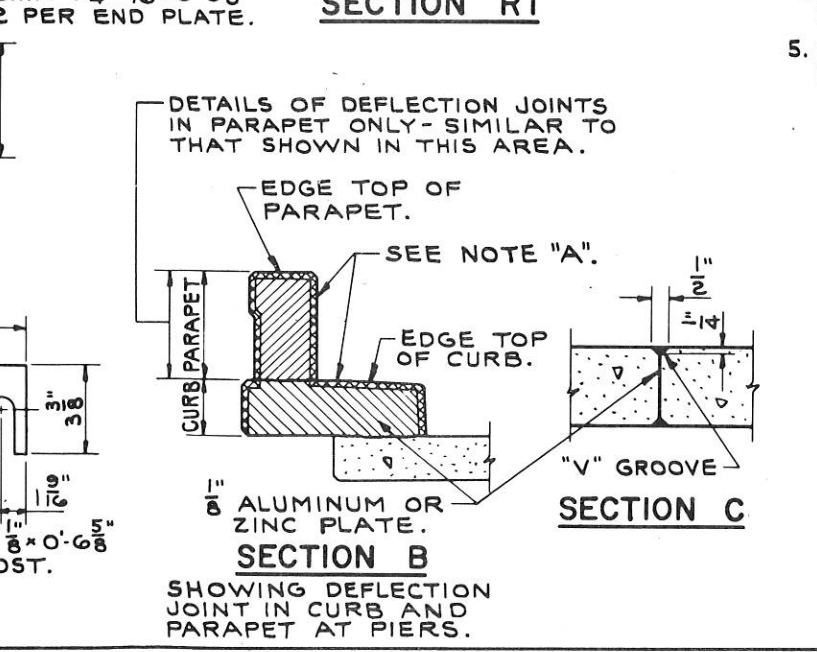
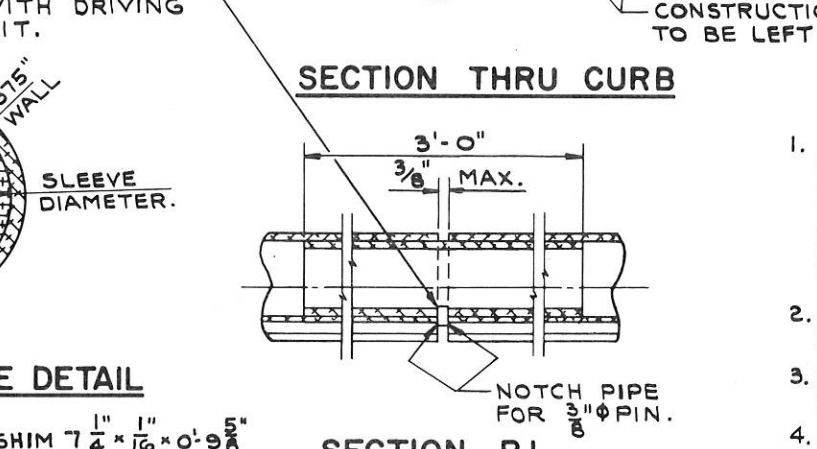
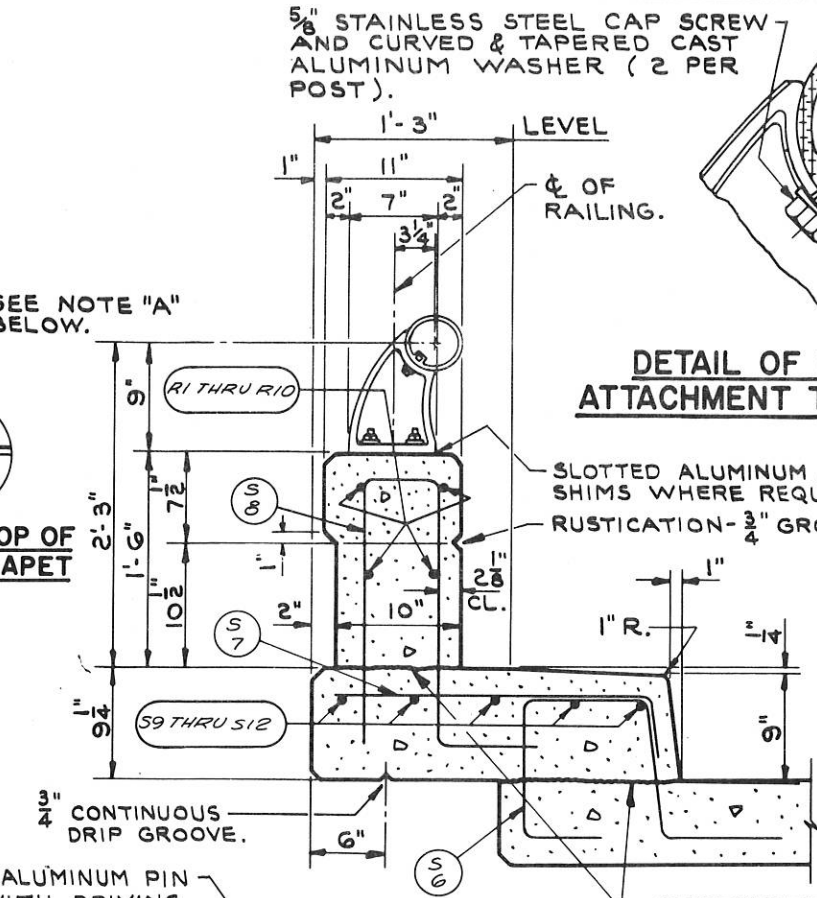
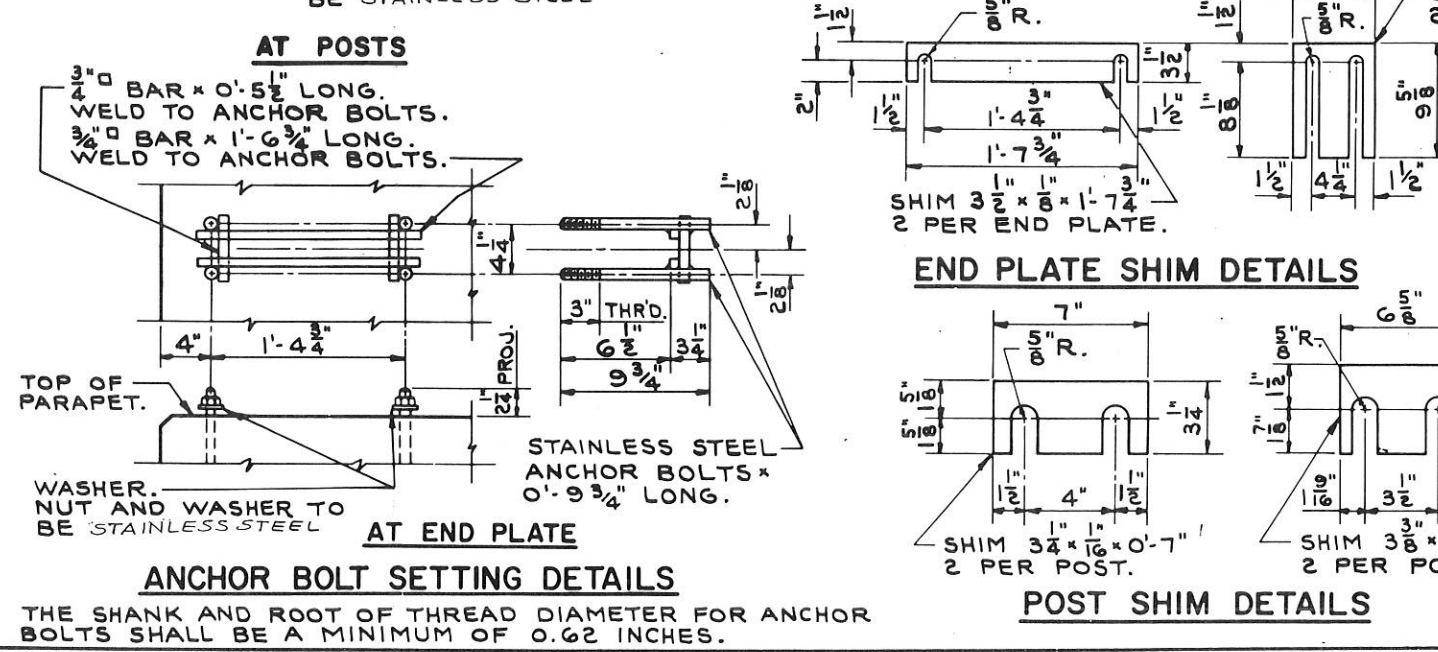
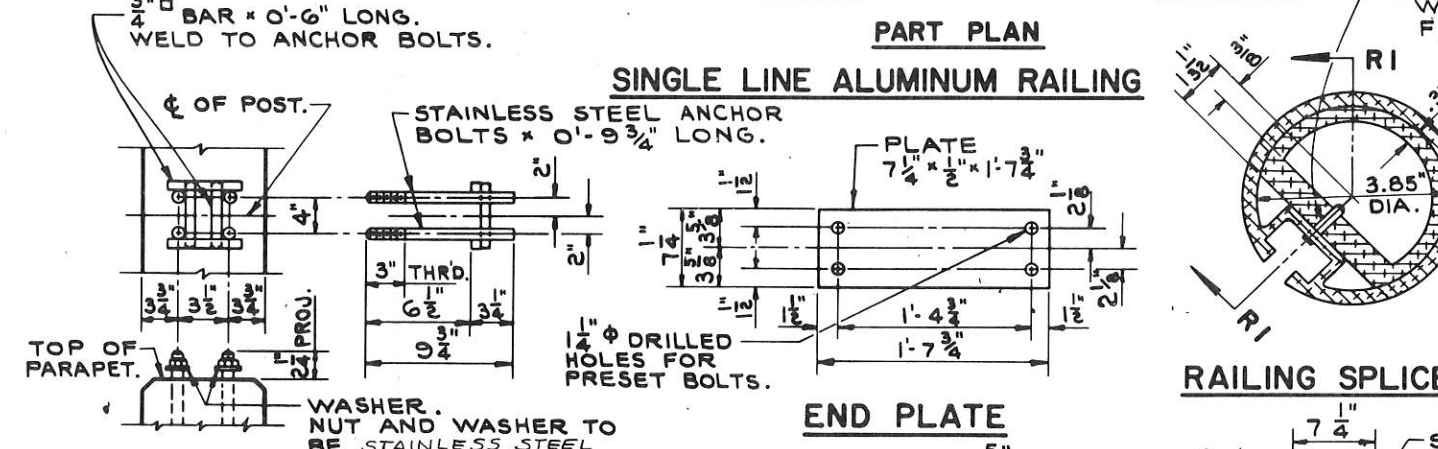
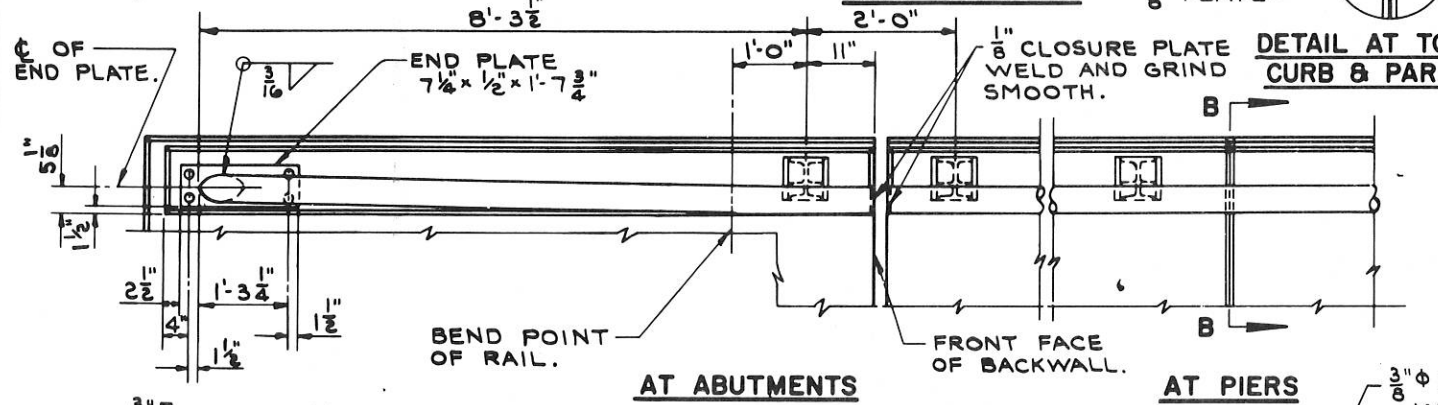
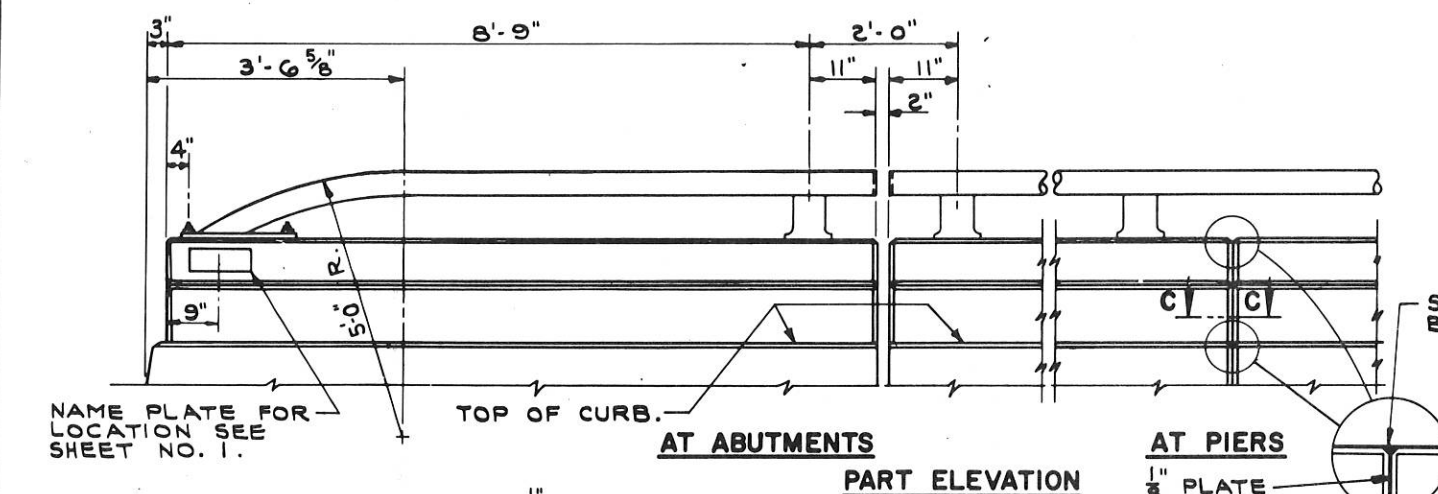
- 1. ST. G. MC 39.5" x ROADWAY WIDTH.
- 2. 2" x 4" x ROADWAY WIDTH.
- 3. G. 2" x 4" x ROADWAY WIDTH.
- 4. BAR 2" x 1/2" x ROADWAY WIDTH.
- 5. FABRICATE FROM 5/8" WELDED PLATE.
- 6. 5/8" WELDED PLATE.
- 7. 5/8" WELDED PLATE.
- 8. 5/8" WELDED PLATE.
- 9. 5/8" WELDED PLATE.
- 10. 5/8" WELDED PLATE.
- 11. 5/8" WELDED PLATE.
- 12. 5/8" WELDED PLATE.
- 13. 5/8" WELDED PLATE.
- 14. 5/8" WELDED PLATE.
- 15. 5/8" WELDED PLATE.
- 16. 5/8" WELDED PLATE.
- 17. 5/8" WELDED PLATE.
- 18. 5/8" WELDED PLATE.
- 19. 5/8" WELDED PLATE.
- 20. 5/8" WELDED PLATE.
- 21. 5/8" WELDED PLATE.
- 22. 5/8" WELDED PLATE.
- 23. 5/8" WELDED PLATE.
- 24. 5/8" WELDED PLATE.
- 25. 5/8" WELDED PLATE.
- 26. 5/8" WELDED PLATE.

EXPANSION JOINT SHALL BE BUILT TO CONFORM TO ROADWAY CROWN AND GRADE. AFTER CONCRETE HAS SET REMOVE BOLTS NO. 8 AND NO. 14 AND THOROUGHLY CLEANED. AFTER CONCRETE HAS SET THE JOINT OPENING SHALL BE THE UT. FILL JOINT WITH HOT POURED ELASTIC TYPE JOINT SEALER. APPLY A COAT OF BITUMASTIC TO METAL SURFACES FORMING ONE FIELD SPICE IS PERMITTED IN JOINT. ALL MATERIAL IN EXPANSION JOINT SHALL BE PAID FOR AS STRUCTURAL CARBON STEEL.

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4	1-16-50	1163	12	39
B. P. N.	PROJECT	SHEET NO.	TOTAL SHEETS	

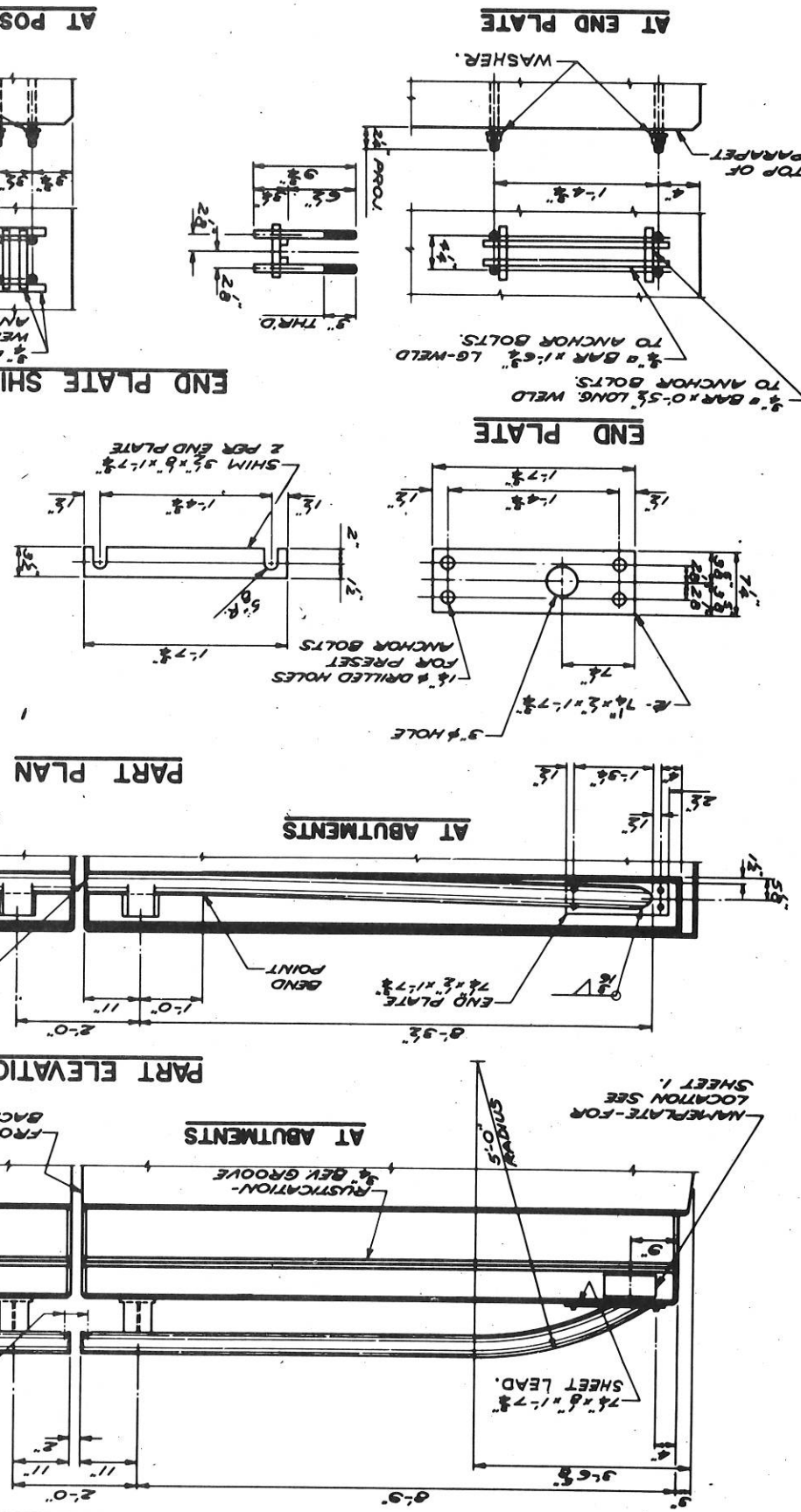
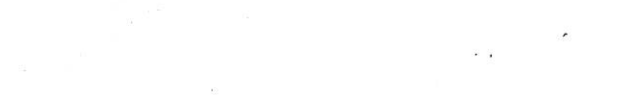
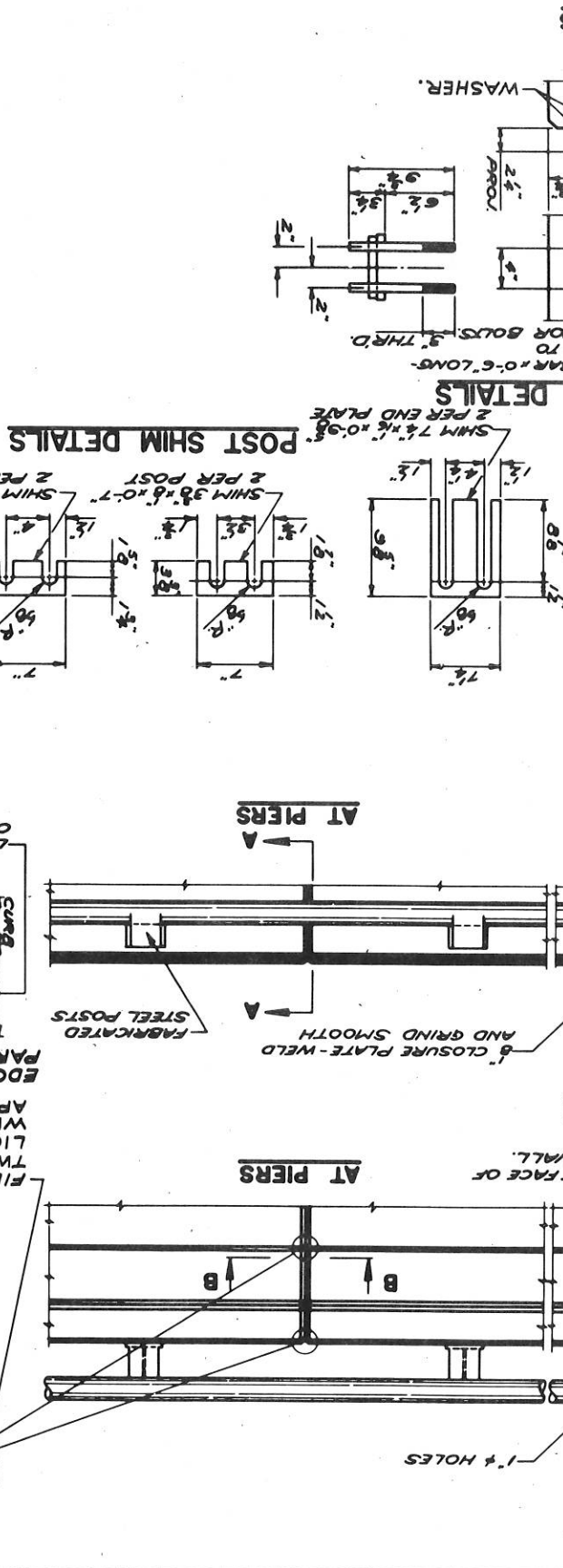
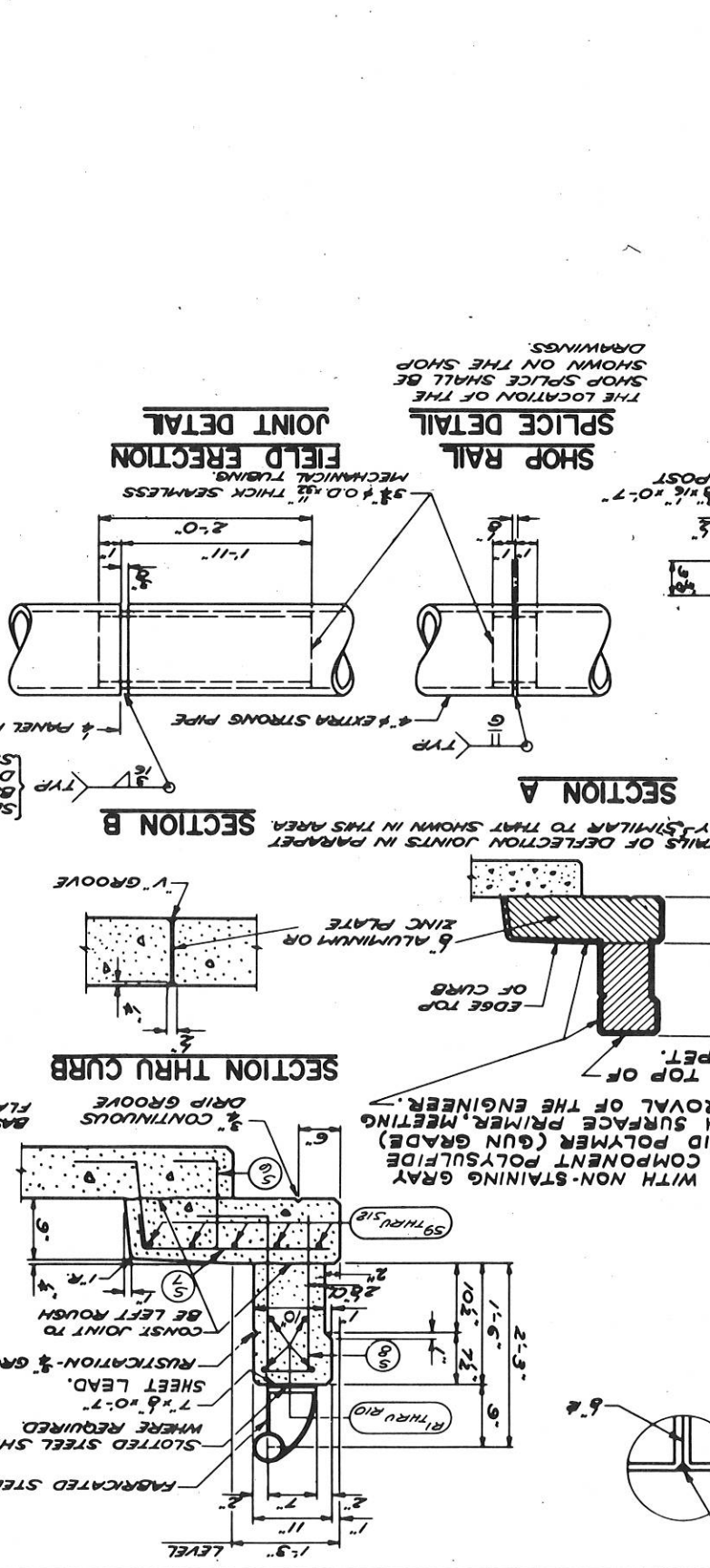
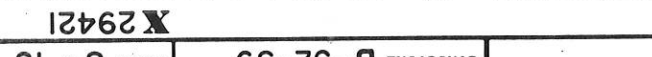
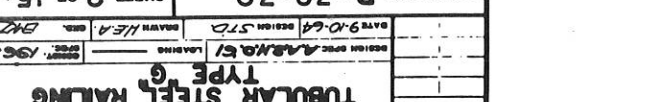
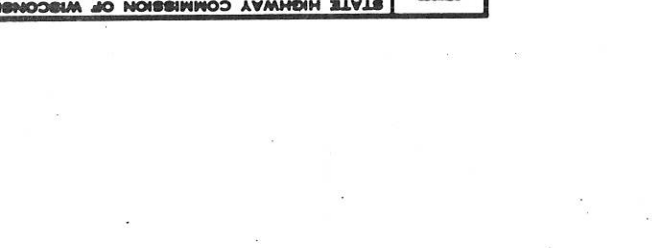
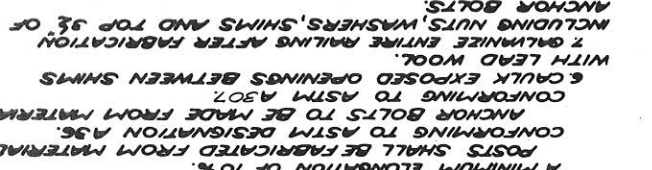
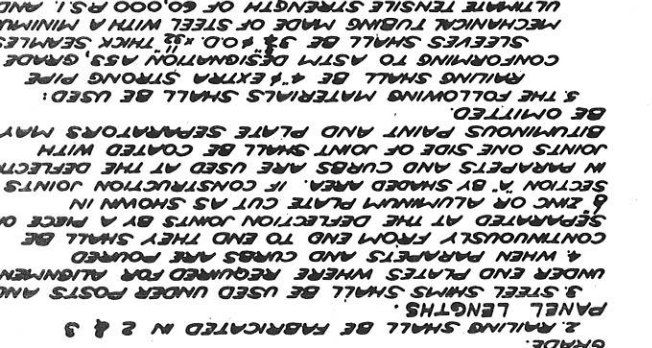
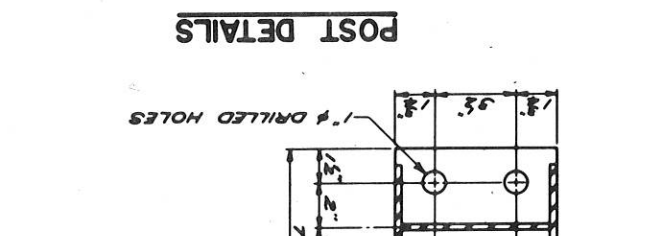
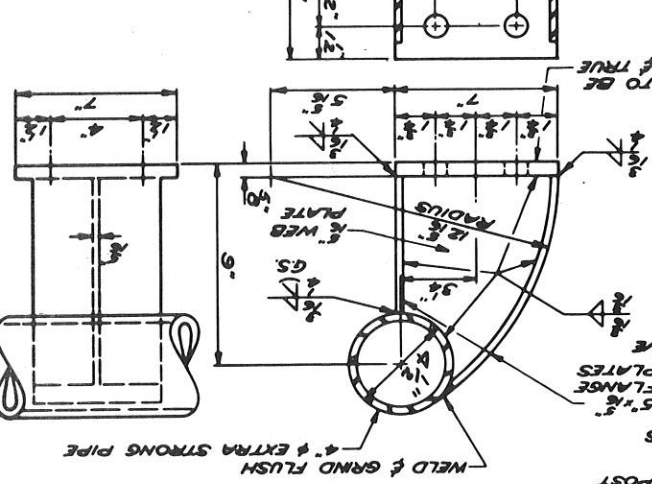
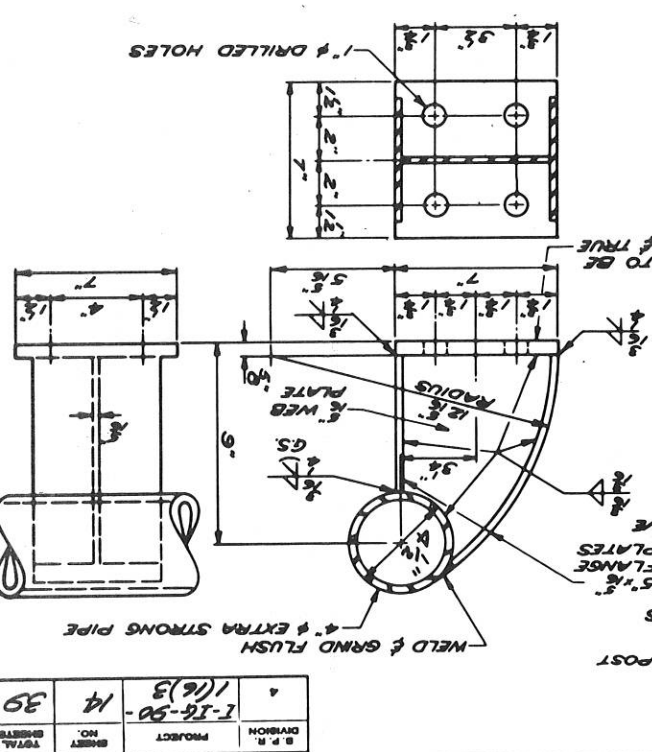


- GENERAL NOTES**
1. WHEN PARAPETS AND CURBS ARE POURED CONTINUOUSLY FROM END TO END THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/8" ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION "B" BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS AND CURBS ARE USED AT THE DEFLECTION JOINTS ONE SIDE OF JOINT SHALL BE COATED WITH BITUMI PAINT AND PLATE SEPARATORS MAY BE OMITTED.
 2. ALL POST SPACINGS ARE TAKEN HORIZONTALLY ALONG C OF RAILING AT BASE OF POSTS.
 3. RAILING SPLICES SHALL BE LOCATED APPROXIMATELY AT 1/4 POINTS BETWEEN POSTS.
 4. ALUMINUM SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQUIRED FOR ALIGNMENT.
 5. RAILING SHALL BE FABRICATED IN TWO AND THREE PANEL LENGTHS.

NOTE "A": FILL WITH NON-STAINING GRAY TWO COMPONENT POLYSULFIDE LIQUID POLYMER (GUN GRADE) WITH SU PRIMER, MEETING APPROVAL OF THE ENGINEER.

REVISED	STATE HIGHWAY COMMISSION OF
	TUBULAR ALUMINUM RAILING
	TYPE "G"
	DESIGN SPEC A.A.S.H.O. G1
	DATE 9-10-64 DESIGN STD. DRAWN H.E.D.
STRUCTURE B-32-39	SHEET 7

NO.	PROJECT	DATE	BY
30	1-16-50	1/16/50	



NOTES

1. STEEL RAIL POSTS SHALL BE SET NORMAL TO GRADE.
2. RAILING SHALL BE FABRICATED IN 2' & 3' PANEL LENGTHS.
3. STEEL SHIMS SHALL BE USED UNDER POSTS AND UNDER END PLATES WHERE REQUIRED FOR ALIGNMENT.
4. WHEN PARAPETS AND CURBS ARE POURED, SEPARATORS AT THE DEFLECTION JOINTS BY A PACE OF 6 ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION A BY SHIMMED PLATE. IF CONSTRUCTION JOINTS IN PARAPETS AND CURBS ARE USED AT THE DEFLECTION JOINTS ONE SIDE OF JOINT SHALL BE COATED WITH BITUMINOUS PAINT AND PLATE SEPARATORS MAY BE OMITTED.
5. THE FOLLOWING MATERIALS SHALL BE USED: RAILING SHALL BE ASTM DESIGNATION A53, GRADE CONFORMING TO ASTM DESIGNATION A53, GRADE SLEEVES SHALL BE 3/4\"/>

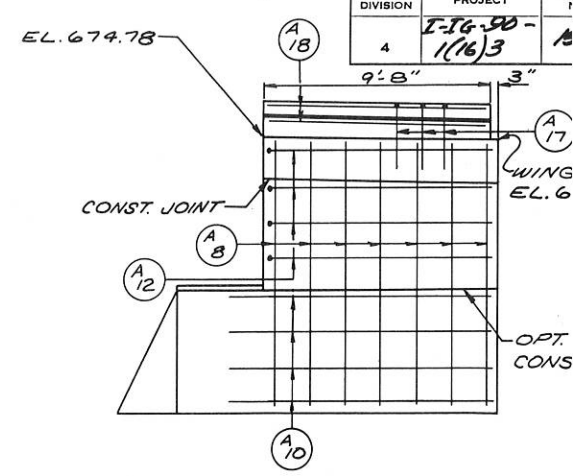
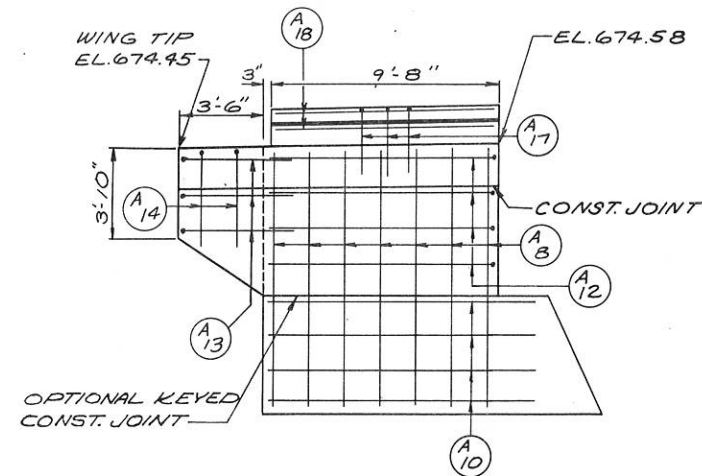
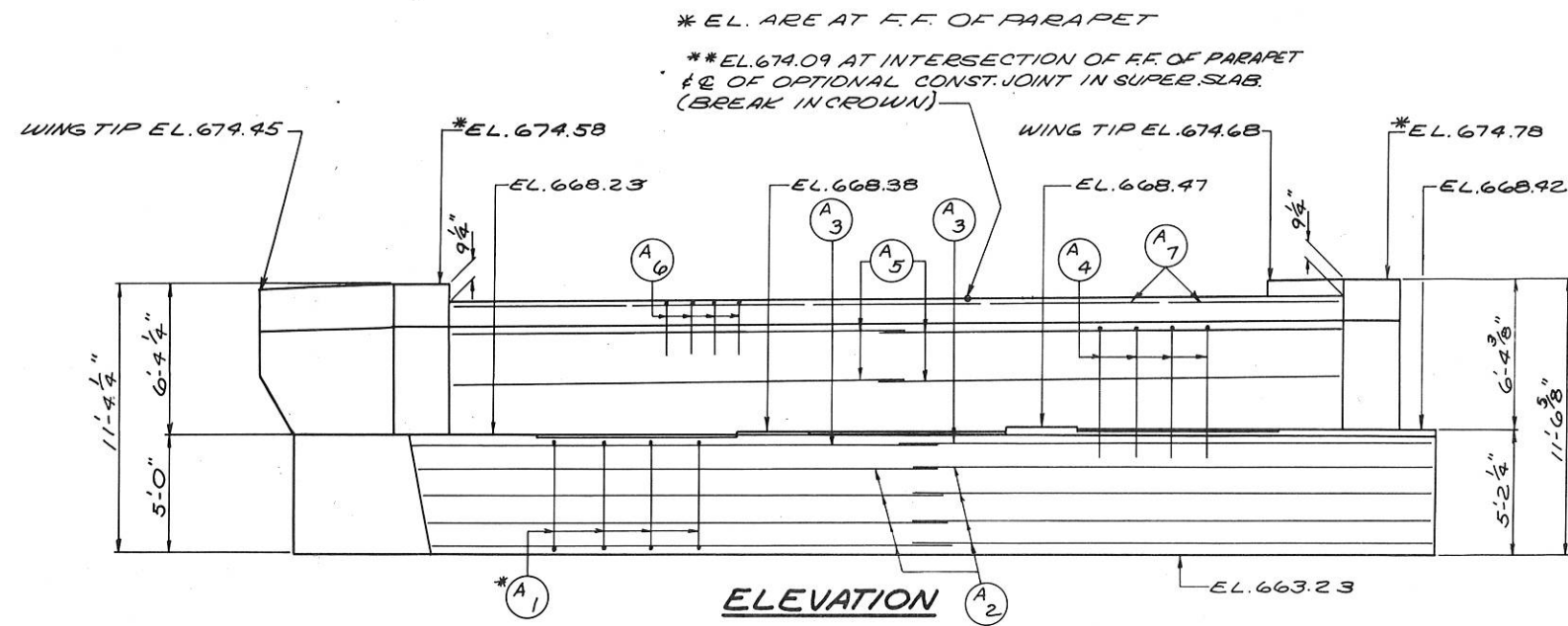
ANCHOR BOLT SETTING DETAILS

THE SHANK AND ROOT OF THREAD DETERMINED FOR ANCHOR BOLTS SHALL BE A MINIMUM OF 0.52 INCHES.

STATE HIGHWAY COMMISSION OF WISCONSIN	TUBULAR STEEL RAILING	TYPE G
DESIGNER	DATE	SCALE
REVISION NO.	BY	DATE
30		

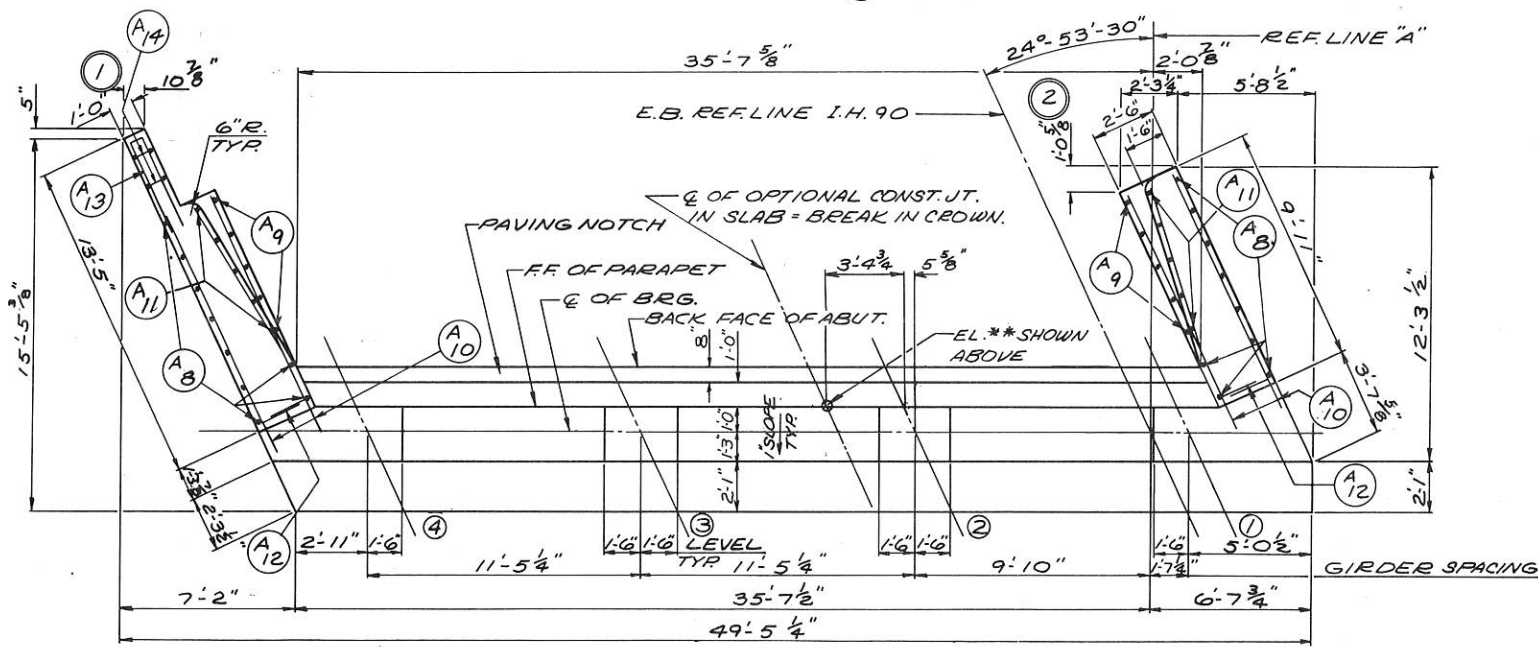
STRUCTURE B-32-39 SHEET 8 OF 15

X 29421

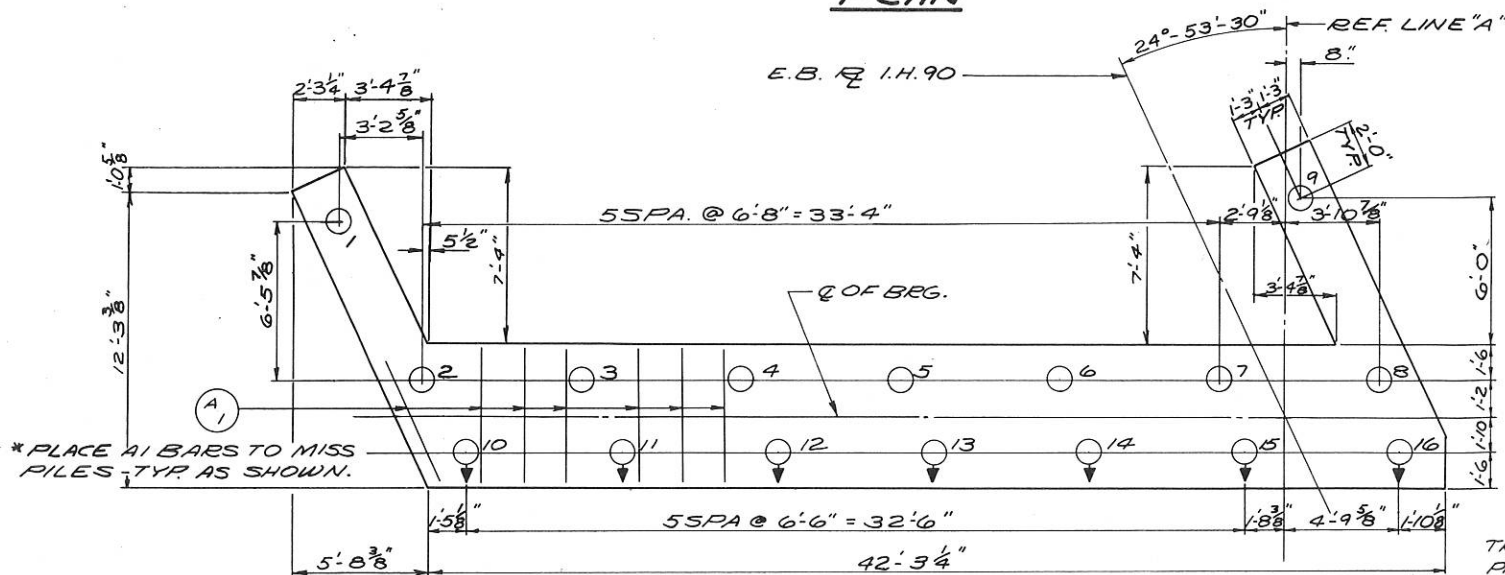


ELEVATION WING 1

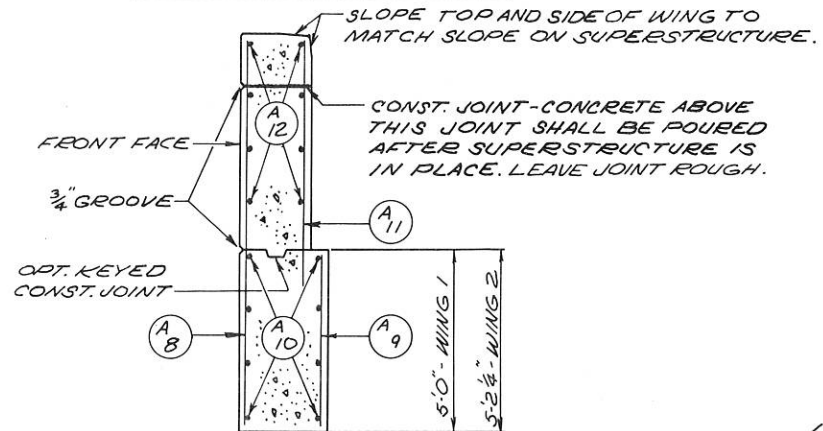
ELEVATION WING 2



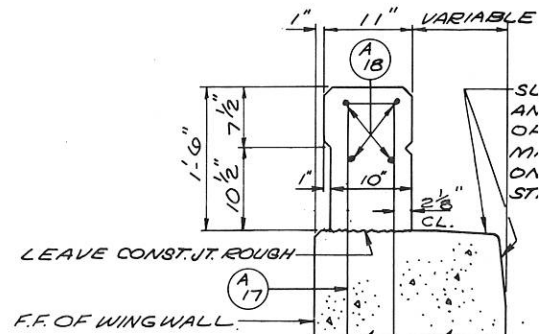
PLAN



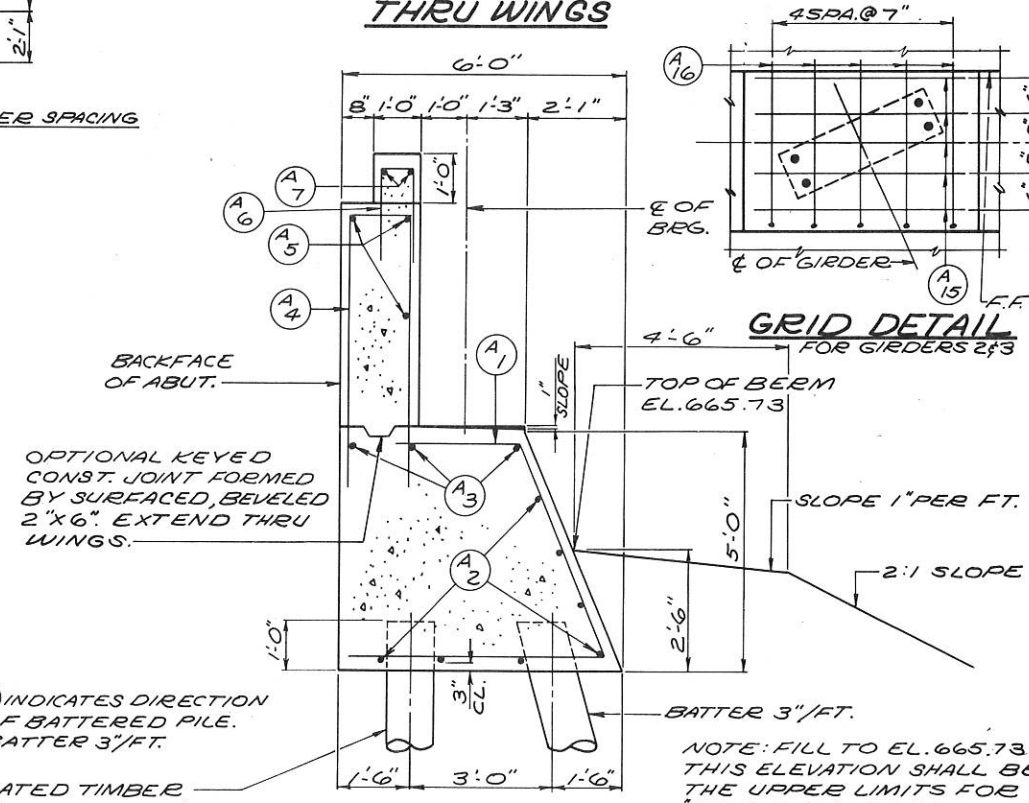
PILE PLAN



TYP. SECT. THRU WINGS



RAILING PARAPET



TYP. SECT. THRU BODY

* PLACE A1 BARS TO MISS PILES TYR AS SHOWN.

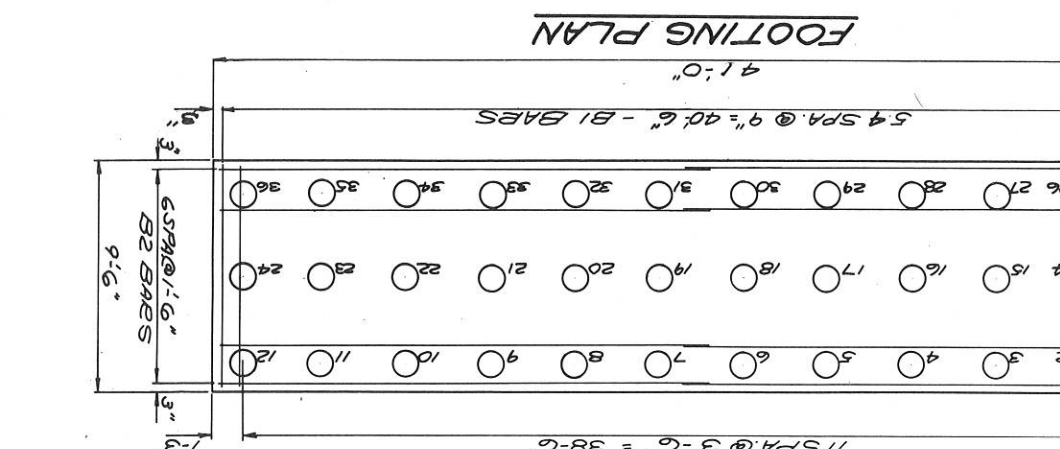
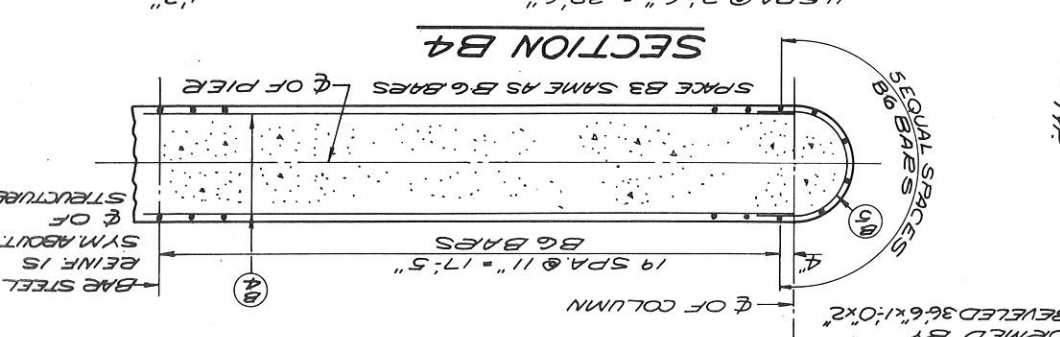
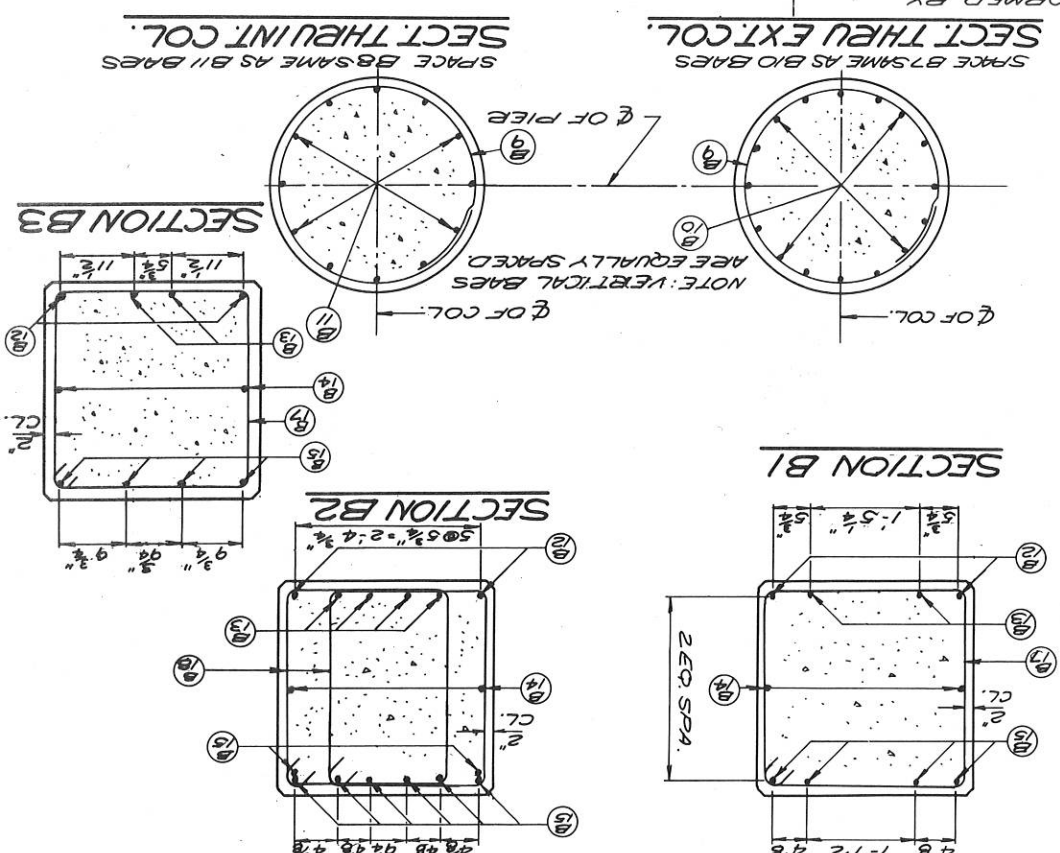
OPTIONAL KEYED CONST. JOINT FORMED BY SURFACED, BEVELED 2"x6". EXTEND THRU WINGS.

TREATED TIMBER PLING EST. 45'-0" DRIVEN TO A MIN. BEARING VALUE OF 24 TONS/PILE.

NOTE: FILL TO EL. 665.73 THIS ELEVATION SHALL BE THE UPPER LIMITS FOR EXCAVATION FOR STRUCTURES.

REVISED	STATE HIGHWAY COMMISSION OF
	WEST ABUTMENT
DESIGN SPEC. A.A.S.H.O. '61	4530 MOD.
DATE 9-10-66 DESIGN A.L.	DRAWN J.H.G.
STRUCTURE B-32-39	SHEET 9

B.P.R. DIVISION	PROJECT	1-16-50	1/16/3	16	39
SHEET NO.	TOTAL SHEETS				

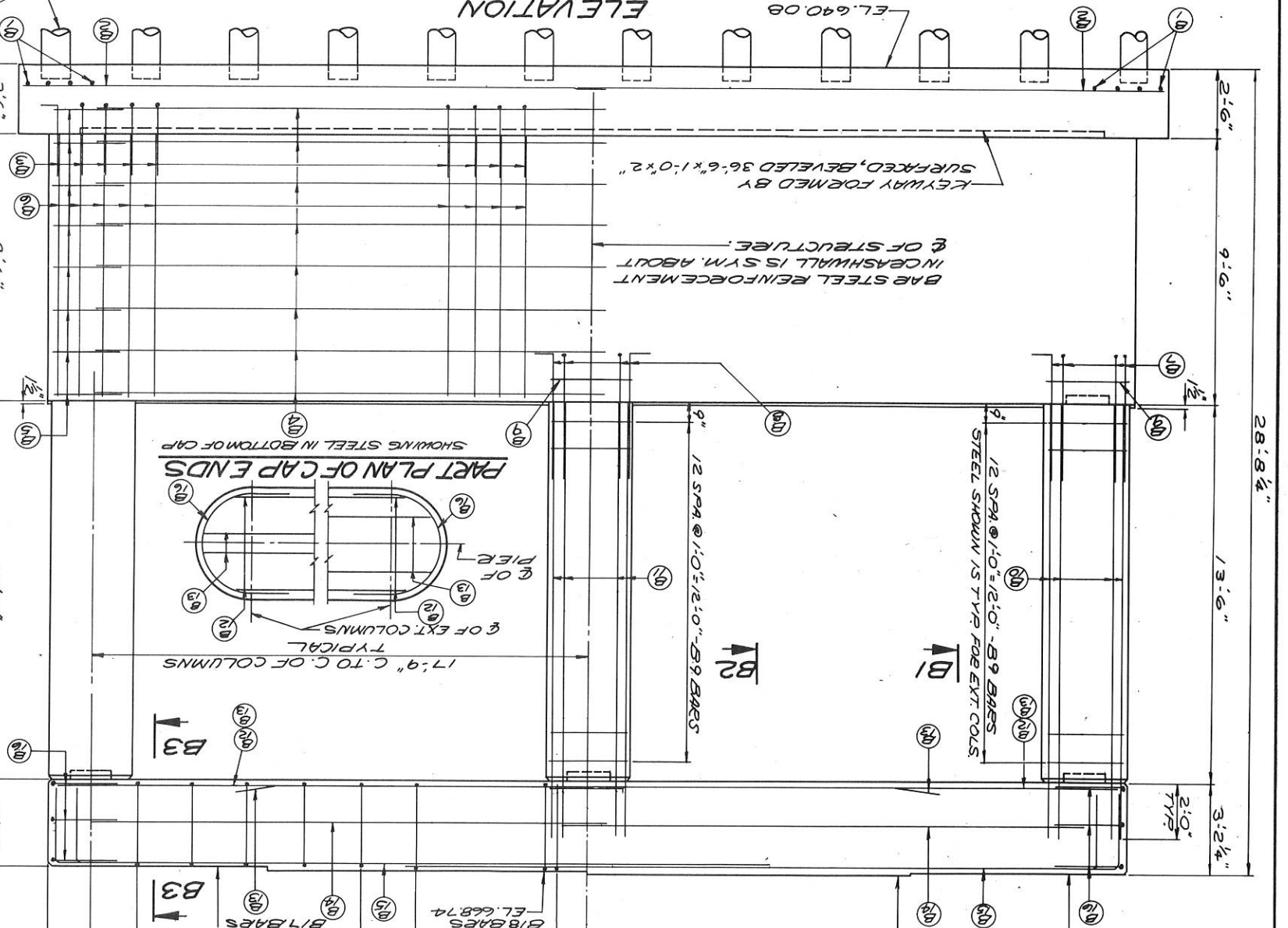
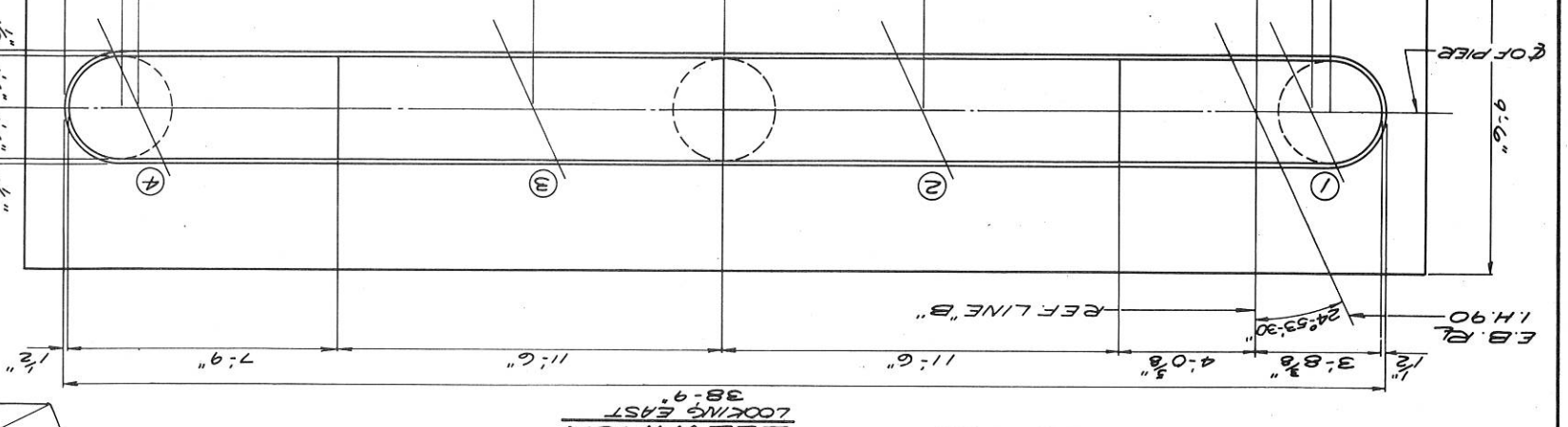
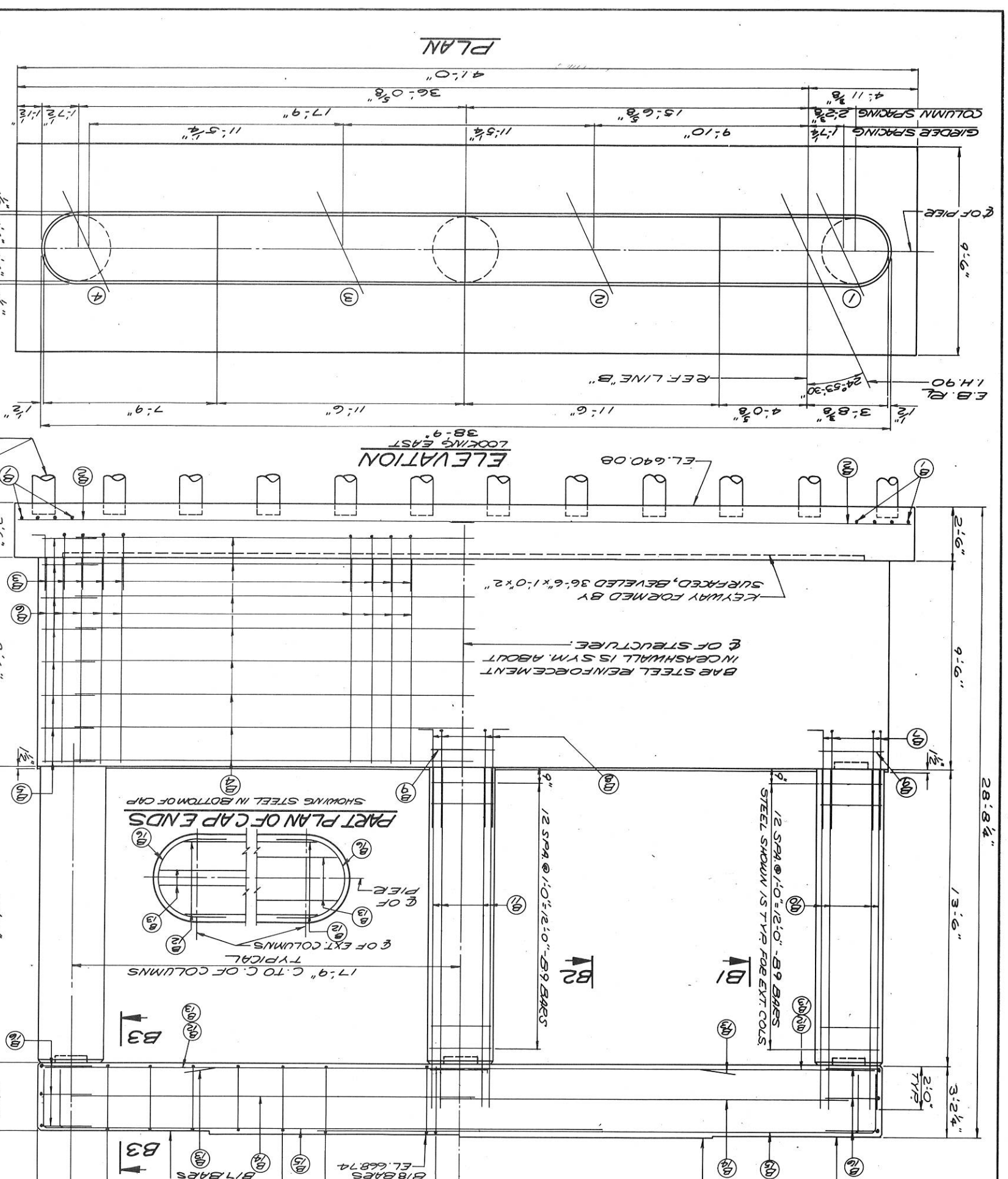
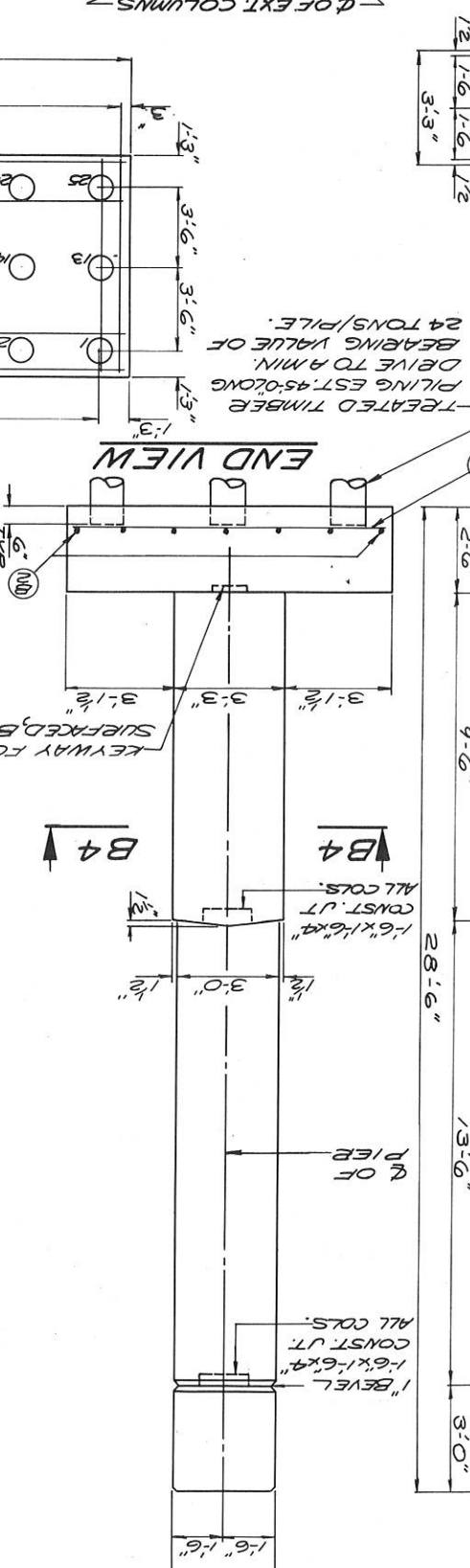
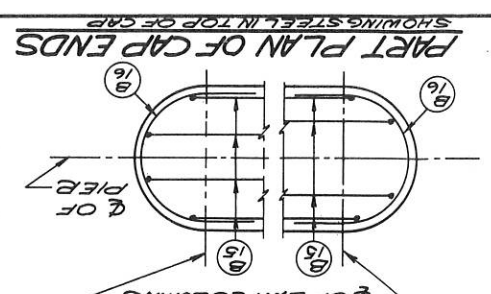


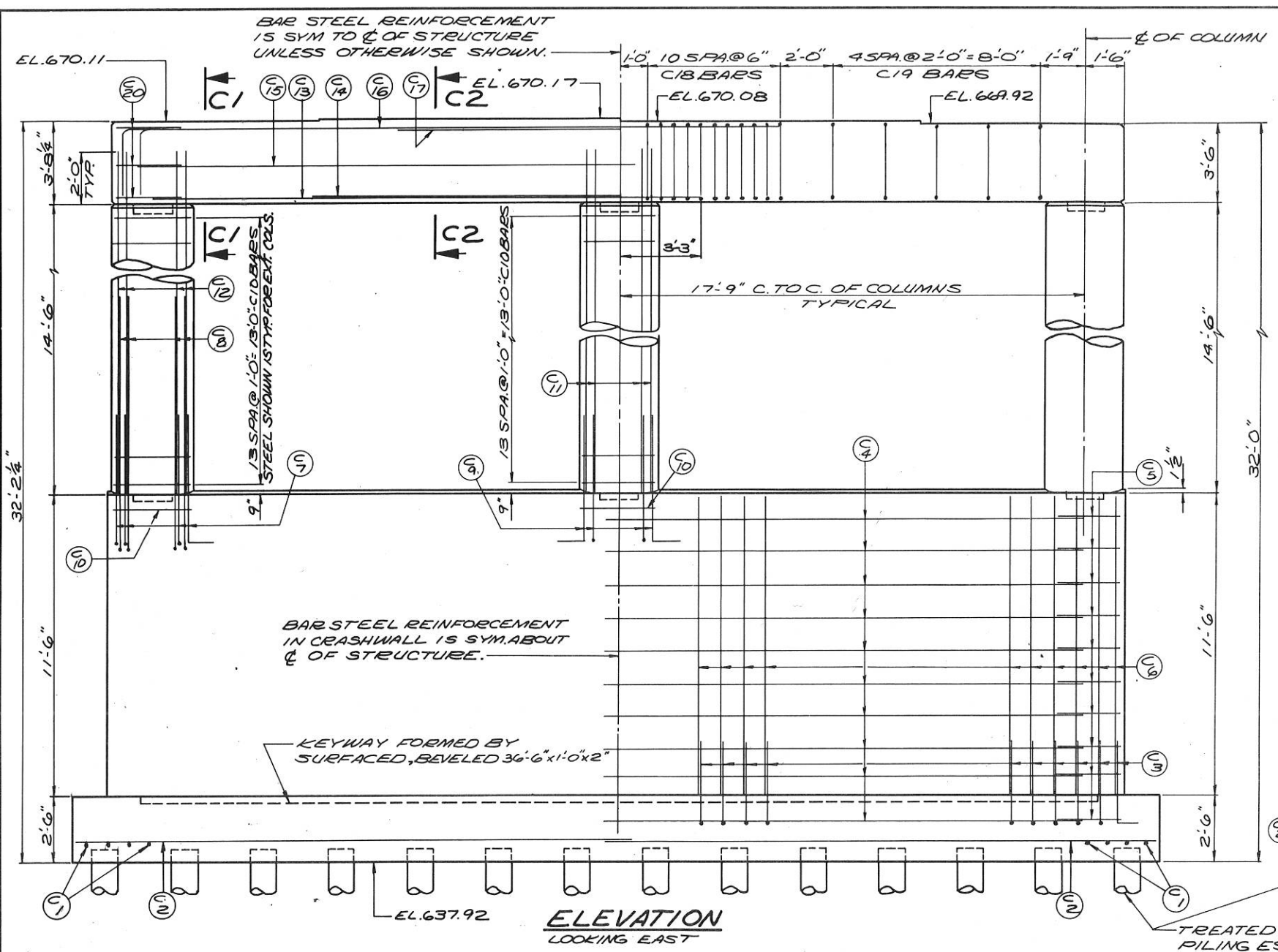
REVISION	DATE	BY	DESCRIPTION
	9-10-64	A.L.	DESIGN
			LOADING
			MOD.
			CONSTR.
			1963

STATE HIGHWAY COMMISSION OF WISCONSIN
PIER 1
DESIGN SPEC. A.S.H.O. & I.
LOADING MOD. CONSTR. 1963
DRAWN U.H.G. BY
SHEET 10 OF 15
STRUCTURE B-32-39
X 29423

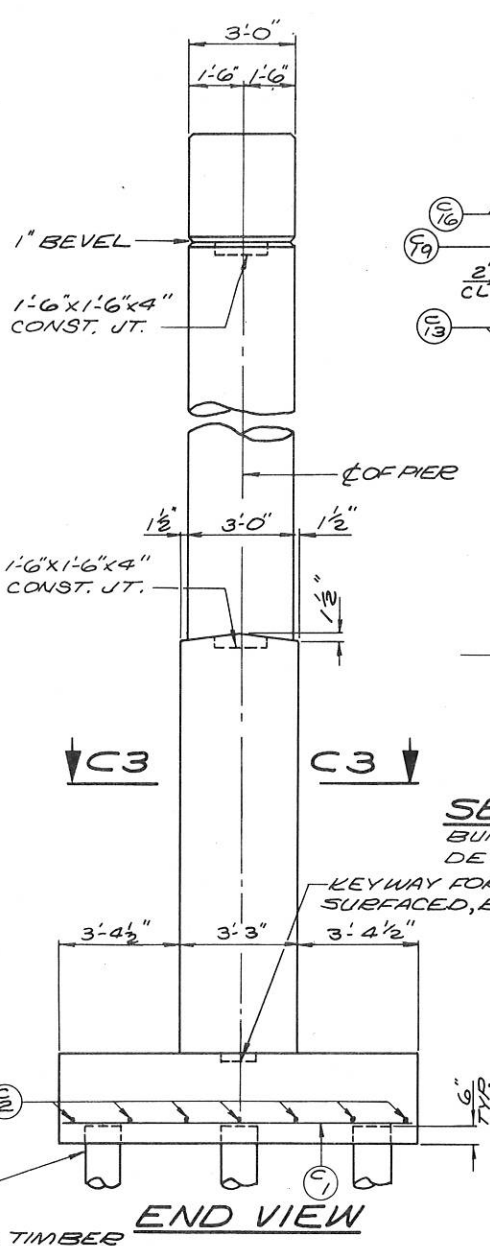
CONCRETE MASONRY

FOOTING 355 C.Y.
CRASHWALL 438 C.Y.
COLUMNS 106 C.Y.
CAP 133 C.Y.
TOTAL 1032 C.Y.

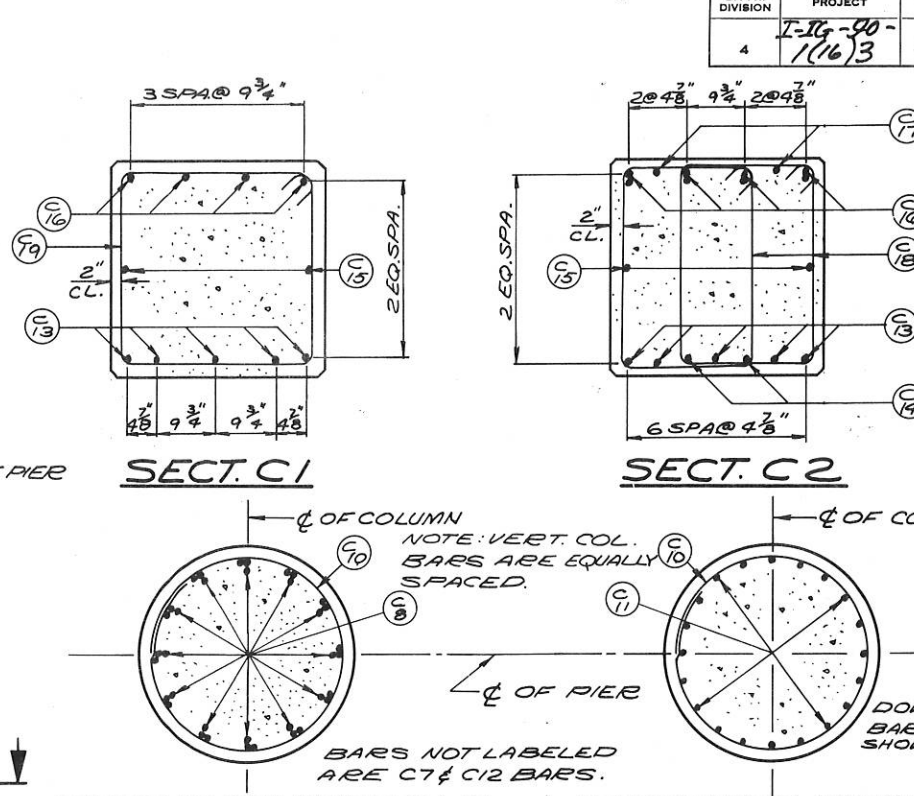




ELEVATION
LOOKING EAST



END VIEW

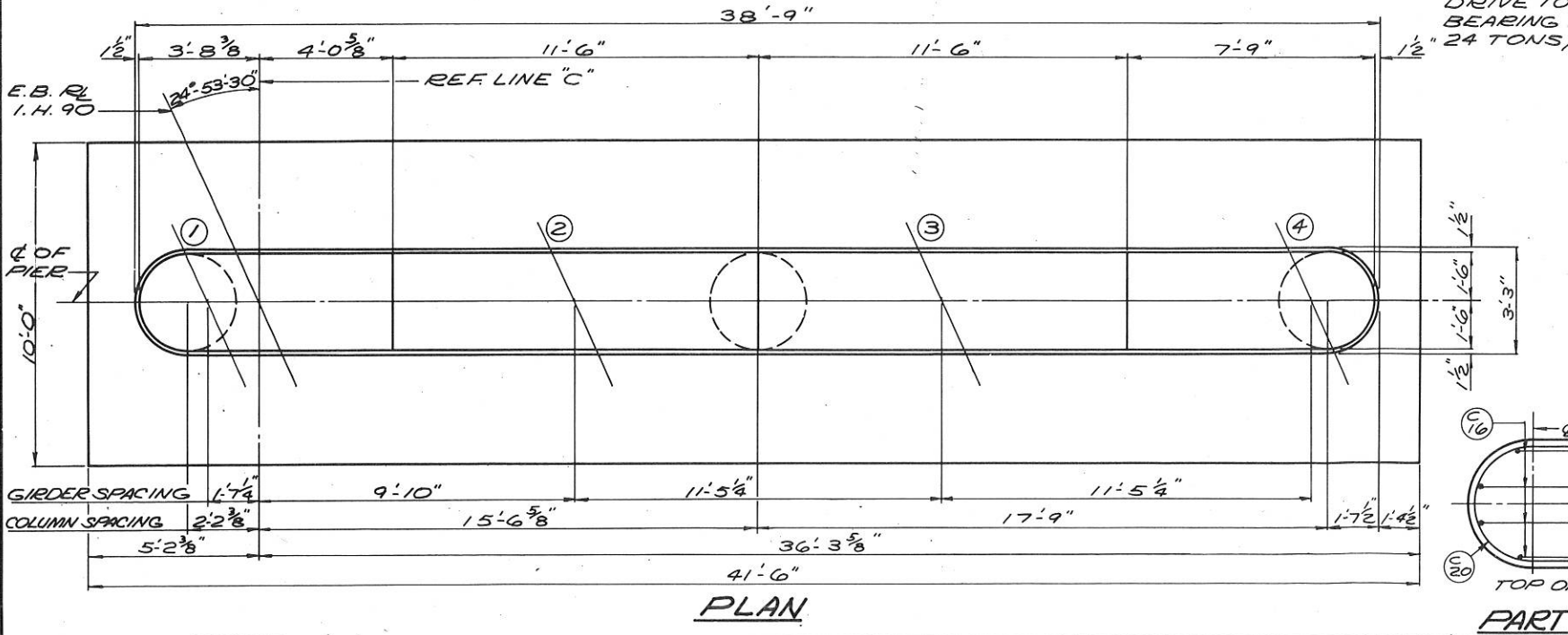


SECT. C1

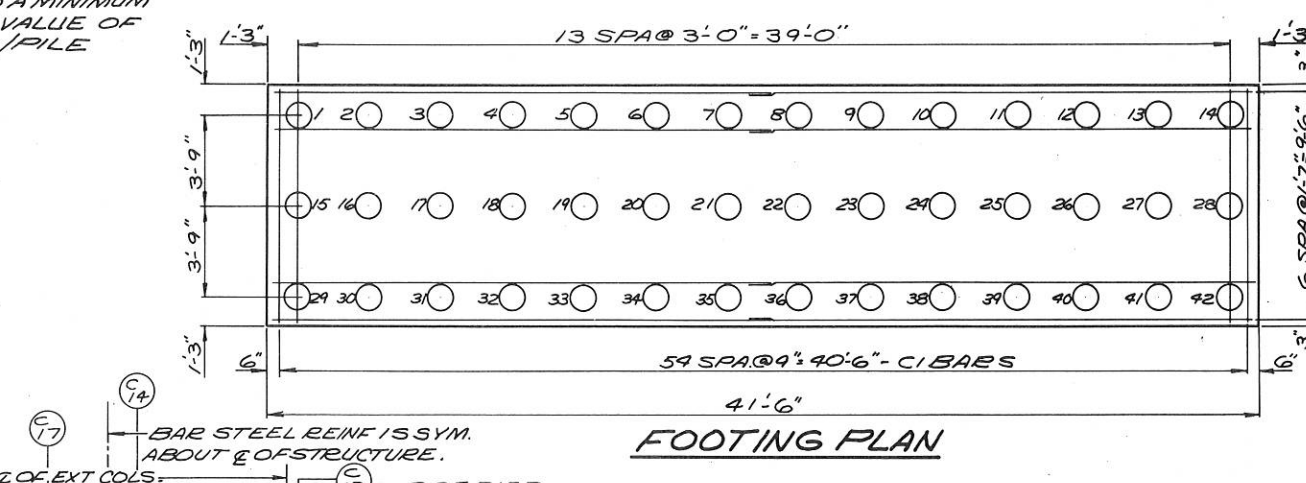
SECT. C2

SECT. THRU EXT. COLS.
BUNDLE C7, C8 & C12 BARS - SEE DETAIL ON SHEET # 14.

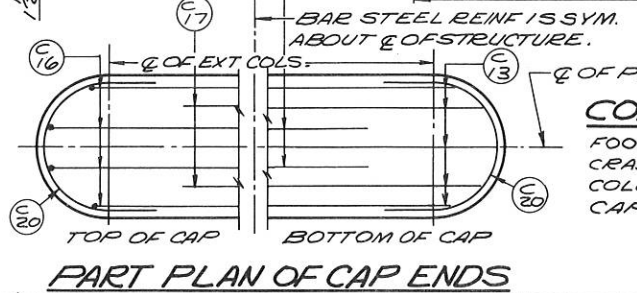
SECT. THRU INT. COLS.
SPACE C 9 BARS SAME AS C 10. BAR STEEL REINFORCEMENT IS SYM. ABOUT Q OF STRUCTURE.



PLAN



FOOTING PLAN



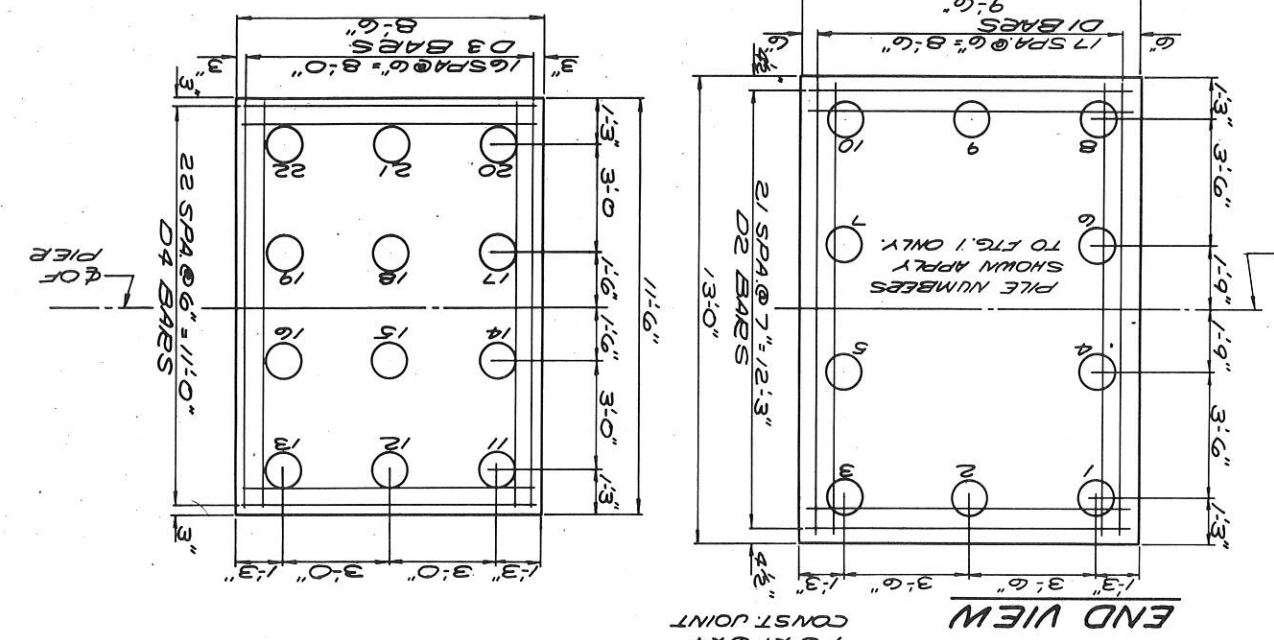
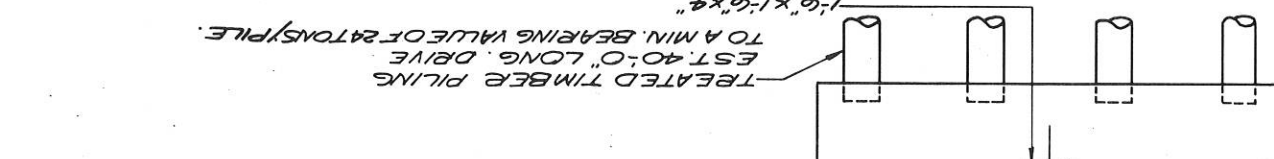
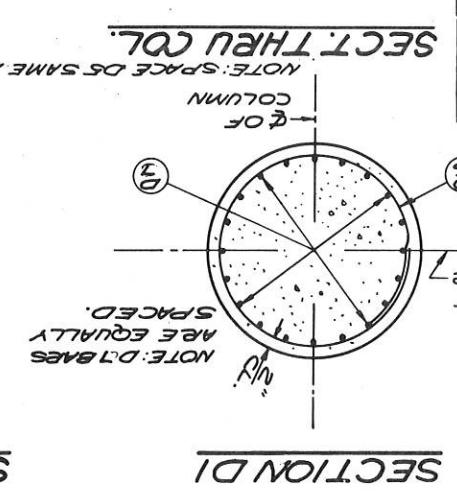
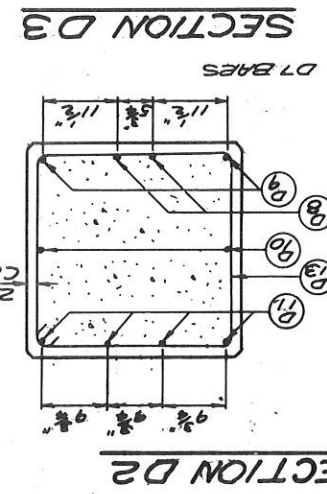
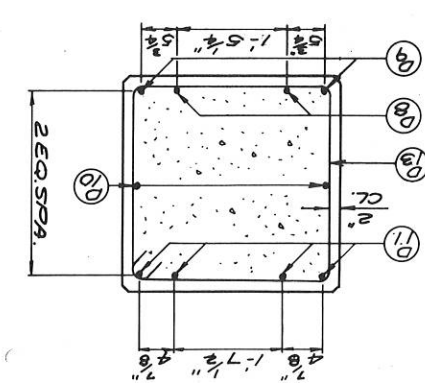
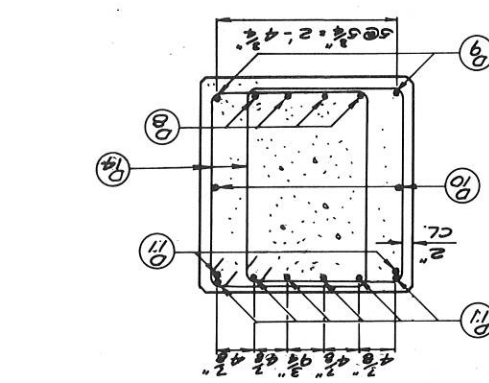
PART PLAN OF CAP ENDS

CONCRETE MASONRY

FOOTING	37.8 CY.
CRASHWALL	52.9 CY.
COLUMNS	11.4 CY.
CAP	15.4 CY.
TOTAL	117.5 CY.

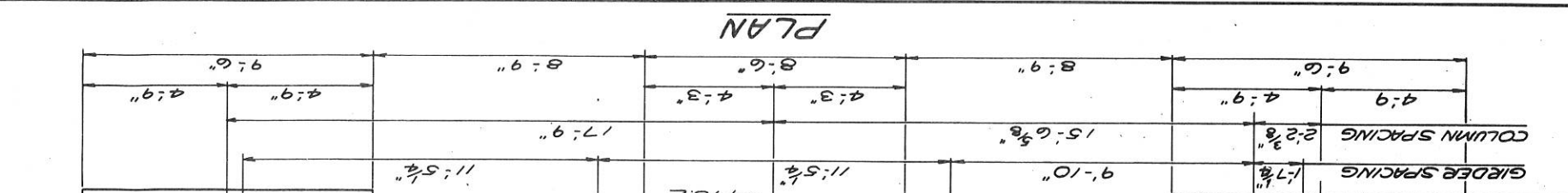
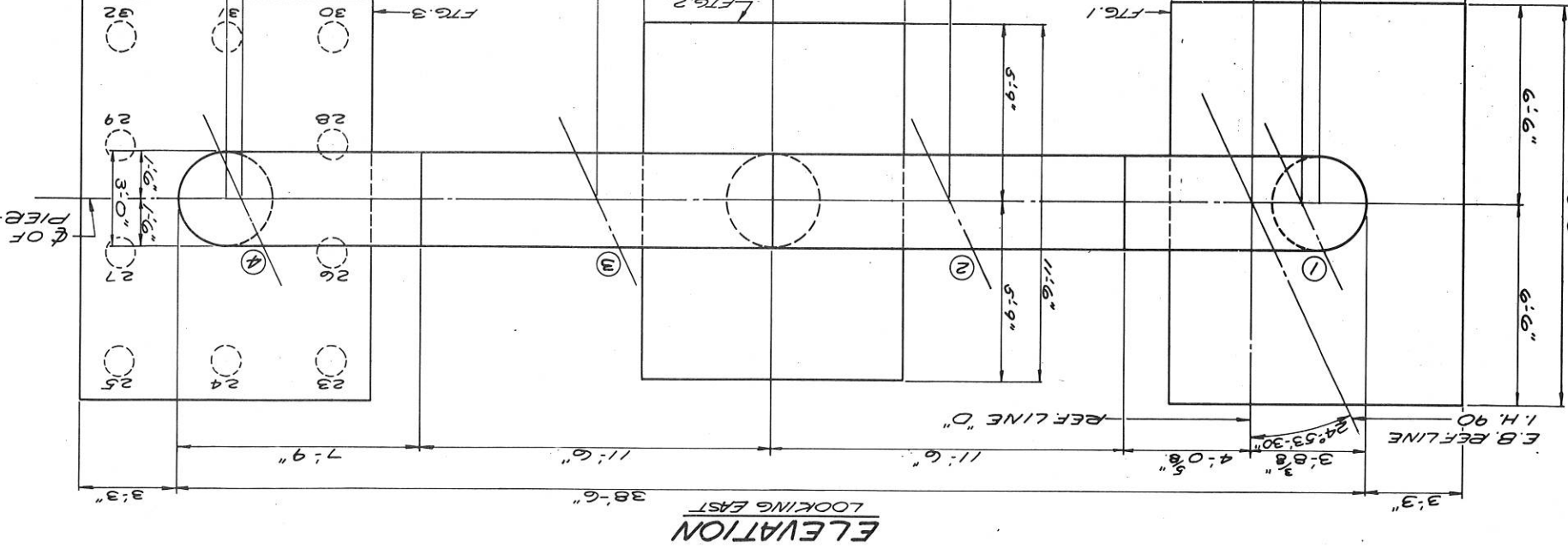
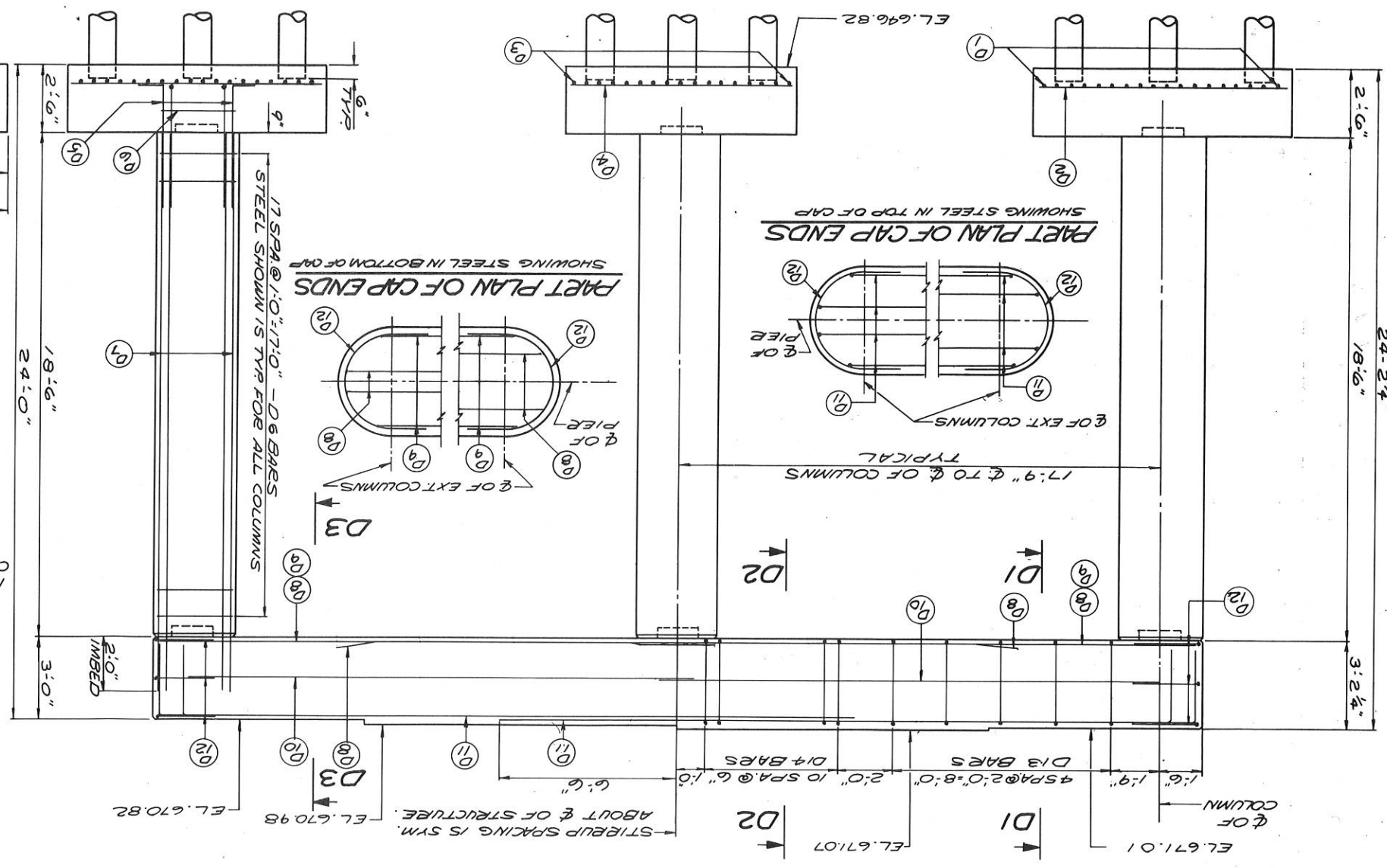
REVISED	STATE HIGHWAY COMMISSION OF
	PIER 2
DESIGN SPEC. A.S.H.O. 61	LOADING H.S. MOD.
DATE 9-10-69	DESIGN A.L. DRAWN U.H.G.
STRUCTURE B-32-39	SHEET 1

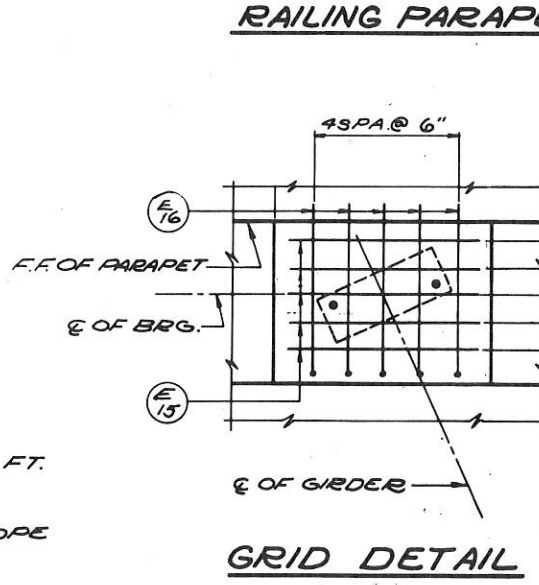
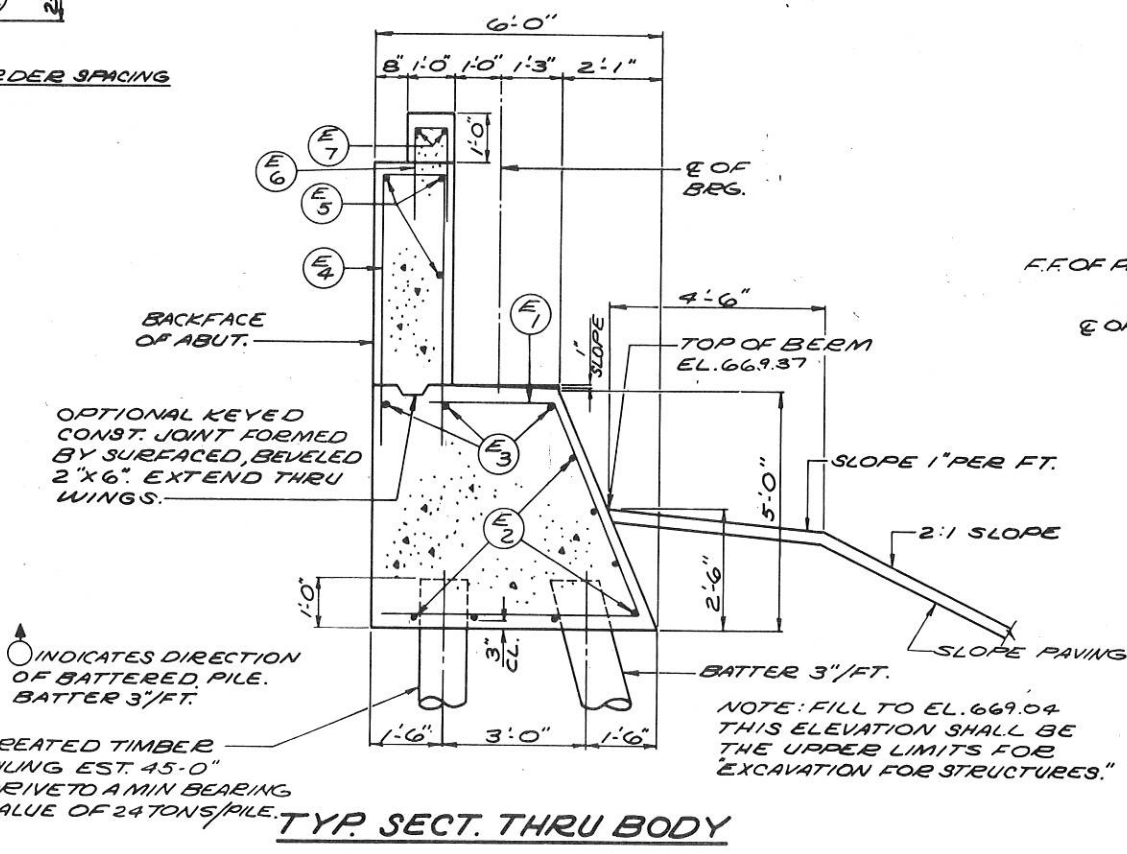
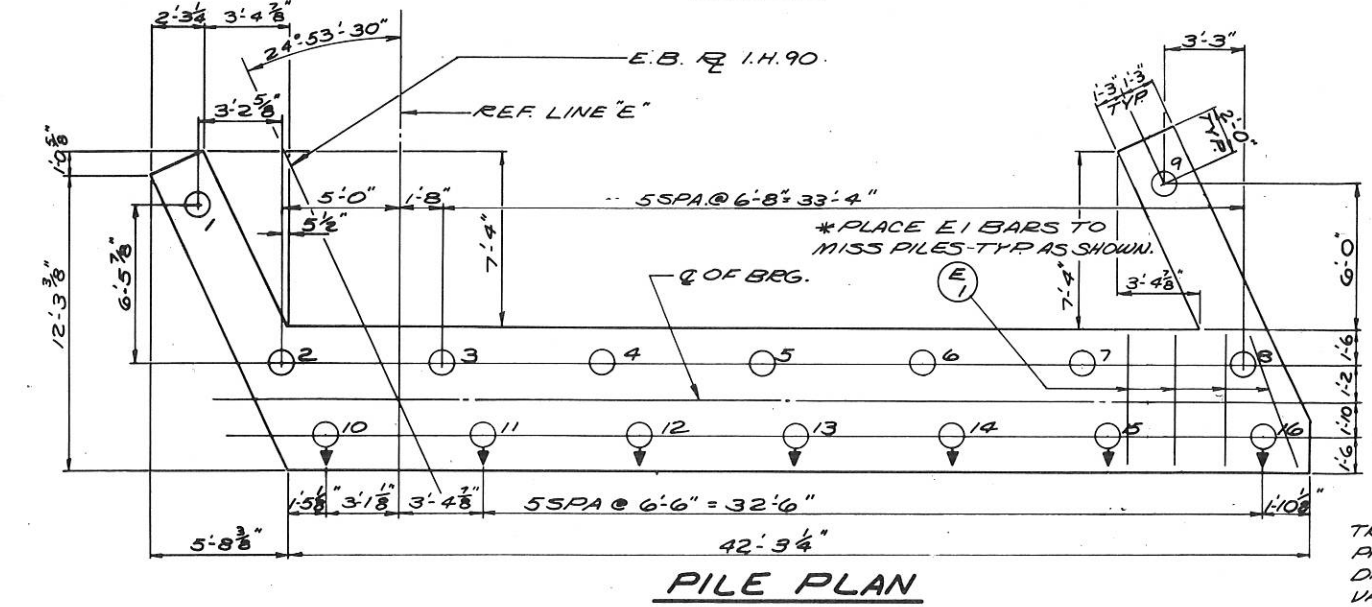
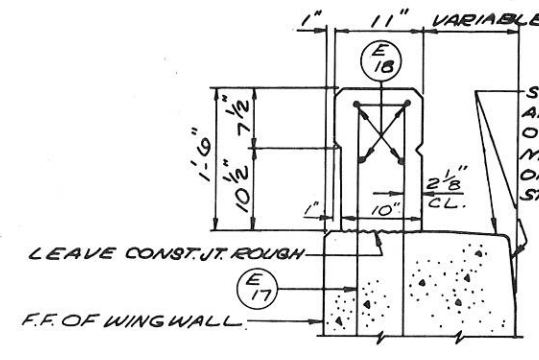
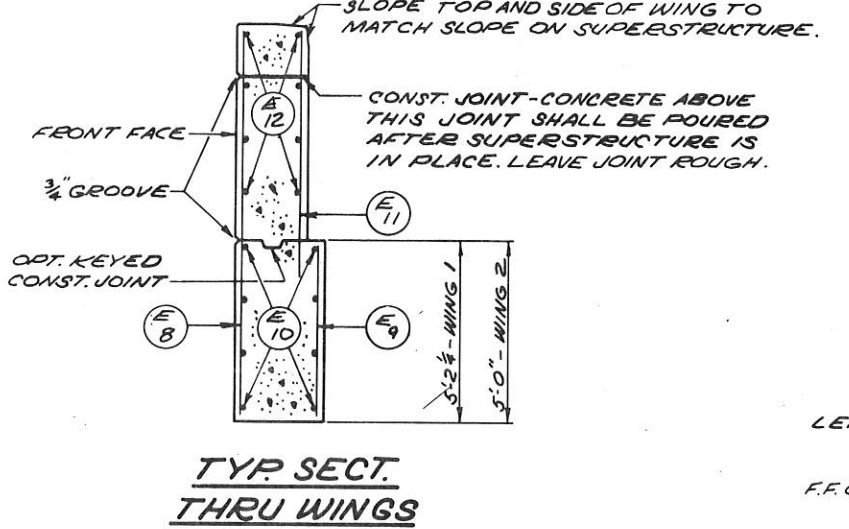
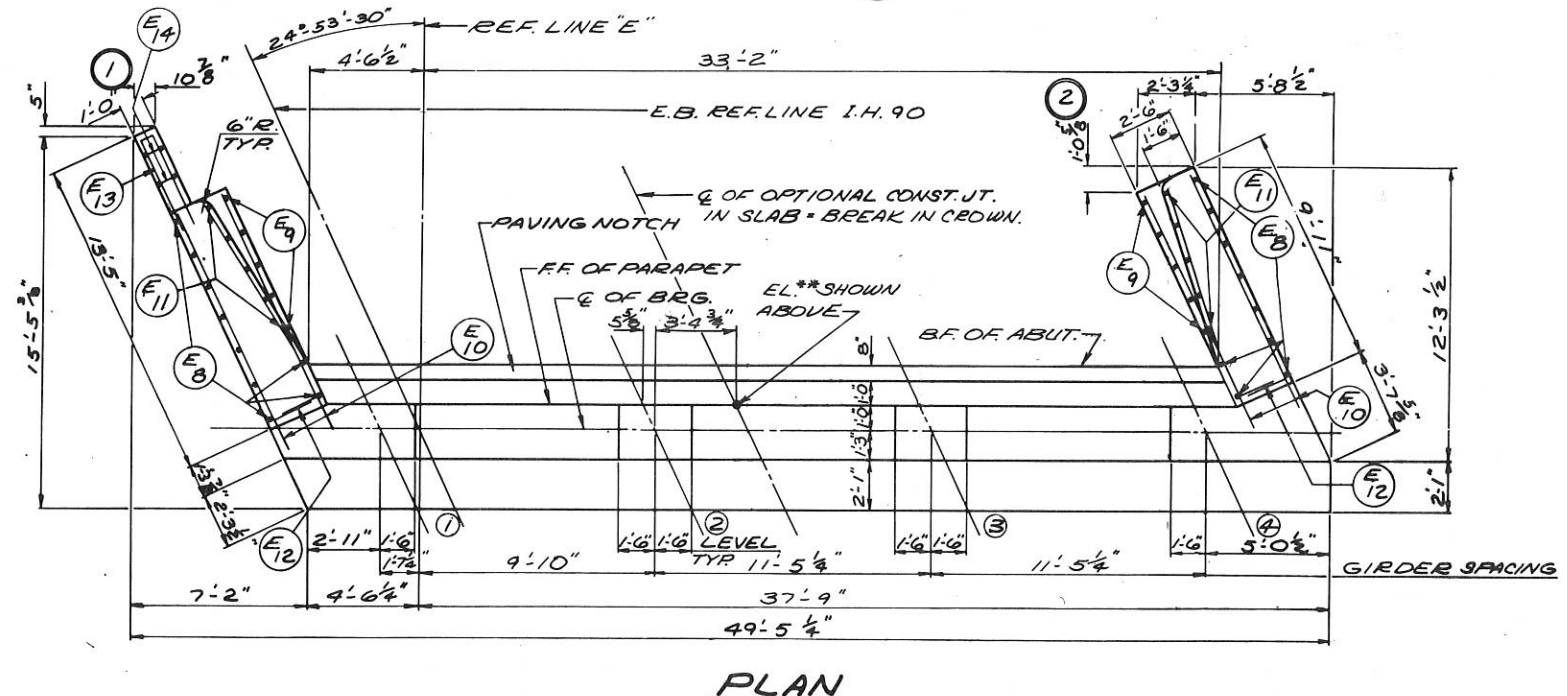
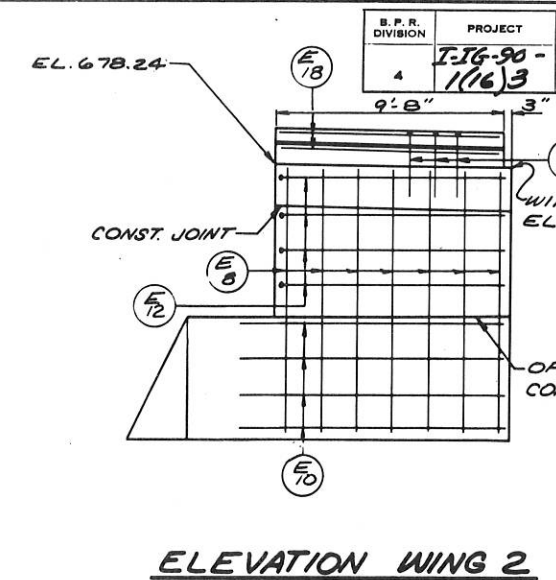
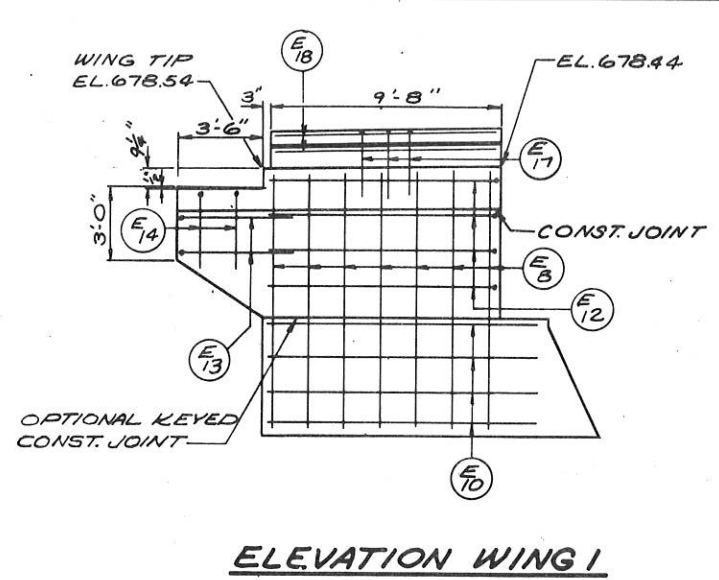
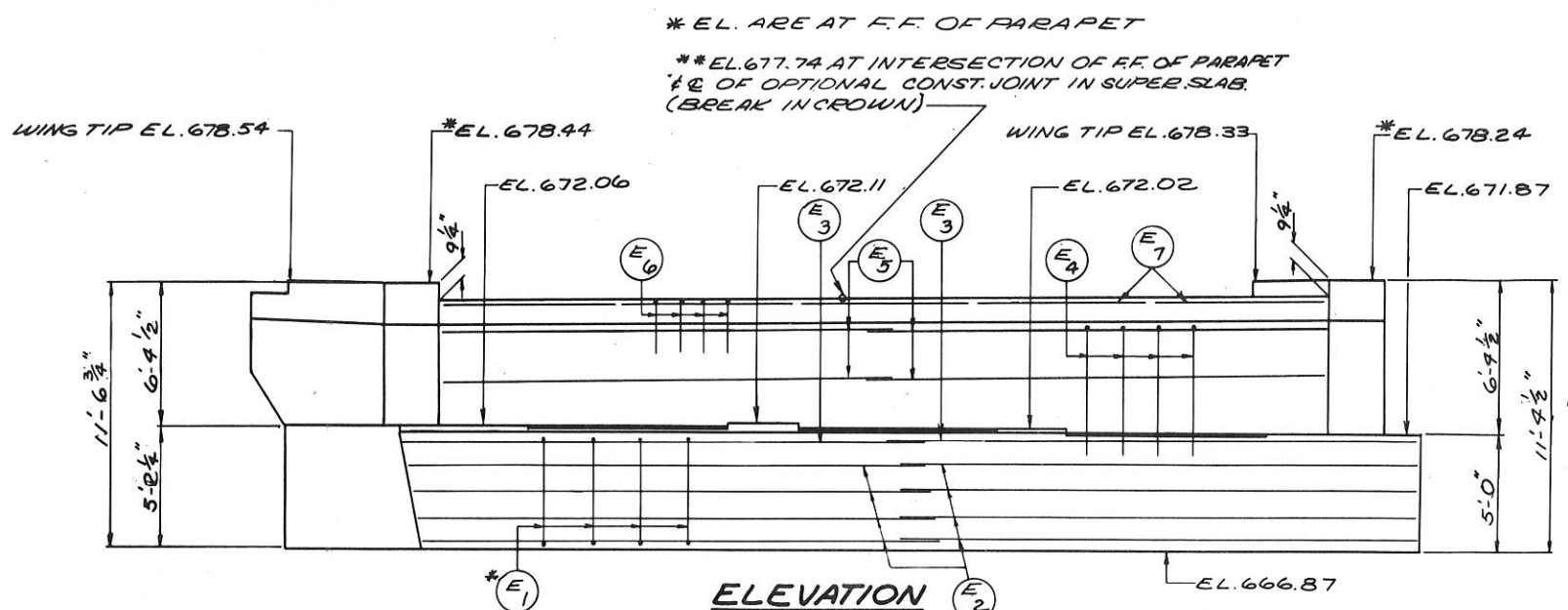
B.P.R.	PROJECT	1-16-50	18	39
SHEET NO.	TOTAL SHEETS			



REVISION	DATE	BY	DESCRIPTION
	9-10-51	A.L.	DESIGN
			LOADING
			CONC. STRENGTH

FOOTINGS	31.5 CY
COLUMNS	14.5 CY
CAP	13.3 CY
TOTAL	59.3 CY





INDICATES DIRECTION OF BATTERED PILE. BATTER 3"/FT.
 TREATED TIMBER PILING EST. 45'-0" DRIVEN TO A MIN BEARING VALUE OF 24 TONS/PILE.

REVISED	STATE HIGHWAY COMMISSION OF
	EAST ABUTMENT
DESIGN SPEC. A.A.S.H.O. '61	LOADING MOD.
DATE 9-10-64 DESIGN A.L.	DRAWN J.H.G.
STRUCTURE B-32-39	SHEET 13

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
1-16-50	1763	20	39

SUPERSTRUCTURE 137,110 #

PR. MK. NO.	SIZE	LENGTH	S.P.A.	LOCATION
S1	152	6	23-9	SLAB TRANS.-TOP & BOTTOM
S2	160	5	37-3	LONG - BOTTOM
S3	160	5	37-3	LONG - BOTTOM
S4	30	5	34-0	"
S5	30	5	30-0	"
S6	30	5	30-0	"
S7	30	5	30-0	"
S8	730	5	5-0	RAILING PARAPET & CURB
S9	20	5	28-0	CURB - LONG. TOP
S10	40	5	30-9	"
S11	30	5	34-0	"
S12	30	5	30-0	"
S13	48	5	2-9	AT ABUTMENTS
S14	6	4	11-0	SHOWN
E1	8	5	19-0	SHOWN RAILING PARAPET
E2	8	5	21-6	"
E3	8	5	14-9	"
E4	40	5	23-9	"
E5	8	5	15-6	"
E6	24	5	23-3	"
E7	8	5	13-6	"
E8	8	5	24-0	"
E9	8	5	22-3	"
E10	8	5	19-6	"

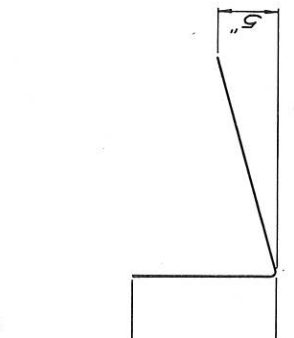
WEST ABUTMENT 1960 #

PR. MK. NO.	SIZE	LENGTH	S.P.A.	LOCATION
A1	20	4	13-0	2-O: BODY - VERTICAL
A2	14	4	22-0	SHOWN HORIZONTAL
A3	6	6	22-3	"
A4	25	5	12-9	1-O: PARAPET
A5	6	4	19-3	SHOWN PARAPET
A6	37	5	4-9	1-O: PAVING BLOCK
A7	10	4	7-6	SHOWN PAVING BLOCK (NO LAP)
A8	18	4	11-0	1-O: WINGS - VERTICAL
A9	10	4	4-9	1-O: B.F.
A10	16	4	10-9	1-O: HOE - F.F. & B.F.
A11	30	4	7-3	1-O: VERTICAL - B.F.
A12	16	4	11-3	1-O: HOE - F.F. & B.F.
A13	3	4	9-9	1-O: WING 1
A14	2	4	8-3	1-O: VERTICAL
A15	20	4	2-0	SHOWN GRID BARS
A16	20	4	3-3	1-O: RAILING PARAPET
A17	20	5	5-6	1-O: RAILING PARAPET
A18	8	5	9-3	SHOWN

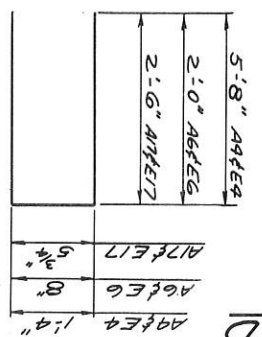
EAST ABUTMENT 1960 #

PR. MK. NO.	SIZE	LENGTH	S.P.A.	LOCATION
E1	20	4	13-0	2-O: BODY - VERTICAL
E2	14	4	22-0	SHOWN HORIZONTAL
E3	6	6	22-3	"
E4	25	5	12-9	1-O: PARAPET
E5	6	4	19-3	SHOWN PARAPET
E6	37	5	4-9	1-O: PAVING BLOCK
E7	10	4	7-6	SHOWN PAVING BLOCK (NO LAP)
E8	18	4	11-0	1-O: WINGS - VERTICAL
E9	10	4	4-9	1-O: B.F.
E10	16	4	10-9	1-O: HOE - F.F. & B.F.
E11	30	4	7-3	1-O: VERTICAL - B.F.
E12	16	4	11-3	1-O: HOE - F.F. & B.F.
E13	2	4	9-9	1-O: WING 1
E14	2	4	7-0	1-O: VERTICAL
E15	20	4	2-6	SHOWN GRID BARS
E16	20	4	3-3	1-O: RAILING PARAPET
E17	20	5	5-6	1-O: RAILING PARAPET
E18	8	5	9-3	SHOWN

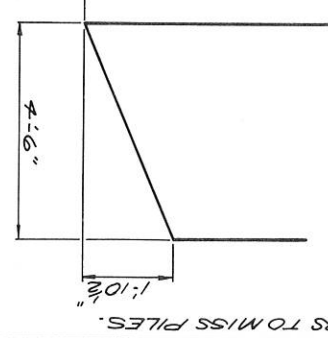
DETAIL D



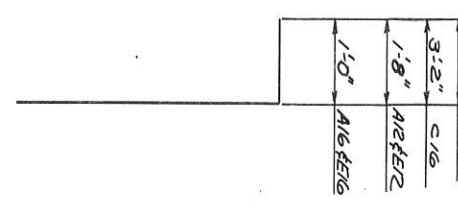
DETAIL F



DETAIL E



DETAIL G



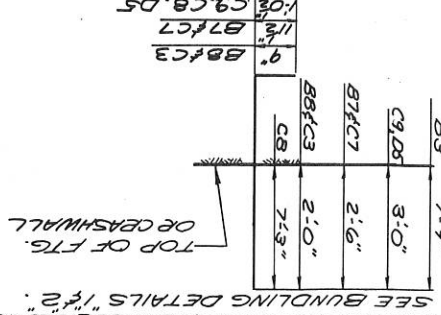
PIER 1 10,650 #

PR. MK. NO.	SIZE	LENGTH	S.P.A.	LOCATION
B1	55	7	9-0	SHOWN FOOTING
B2	14	4	20-9	"
B3	86	7	3-6	"
B4	4	4	18-3	HOE - TOP
B5	2	4	6-9	ENDS - "
B6	28	4	18-3	1-O: CRASH WALL - HORIZONTAL
B7	32	10	5-0	"
B8	12	8	4-0	"
B9	3	4	9-6	"
B10	32	10	15-6	"
B11	12	8	15-6	EXT. COLUMNS - VERT.
B12	12	8	15-6	"
B13	4	11	31-0	SHOWN CAP - BOTTOM
B14	4	5	18-6	SIDES
B15	8	11	28-3	TOP
B16	6	4	6-3	ENDS
B17	10	5	11-9	STAIRS
B18	44	5	11-0	"

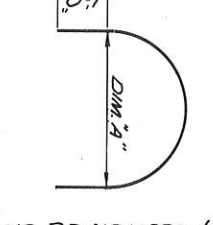
PIER 2 15,150 #

PR. MK. NO.	SIZE	LENGTH	S.P.A.	LOCATION
C1	55	8	9-6	SHOWN FOOTING
C2	14	4	21-0	"
C3	94	8	4-0	"
C4	4	4	18-3	HOE - TOP
C5	2	4	6-9	ENDS - "
C6	94	8	4-0	"
C7	24	10	5-0	"
C8	24	11	10-3	"
C9	20	11	6-0	"
C10	3	4	9-6	"
C11	20	11	16-6	"
C12	24	10	16-6	EXT.
C13	10	10	21-0	SHOWN CAP BOTTOM
C14	2	10	23-6	"
C15	4	5	18-6	SIDES
C16	8	10	27-9	TOP
C17	2	10	17-0	"
C18	44	5	11-0	STAIRS
C19	10	5	12-9	"
C20	6	4	6-3	ENDS

DETAIL H



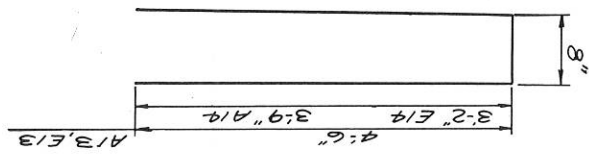
DETAIL J



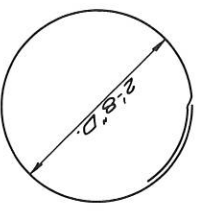
PIER 3 14,620 #

PR. MK. NO.	SIZE	LENGTH	S.P.A.	LOCATION
D1	36	8	12-6	SHOWN EXT. FOOTINGS
D2	44	6	9-0	"
D3	17	8	11-0	"
D4	23	8	8-0	"
D5	60	11	6-0	"
D6	3	4	9-6	"
D7	60	11	20-6	SHOWN COLUMN HOOPS
D8	4	11	31-0	SHOWN CAP BOTTOM
D9	4	11	20-6	"
D10	4	5	18-6	SIDES
D11	8	11	28-3	TOP
D12	6	4	6-3	ENDS
D13	10	5	11-9	STAIRS
D14	44	5	11-0	"

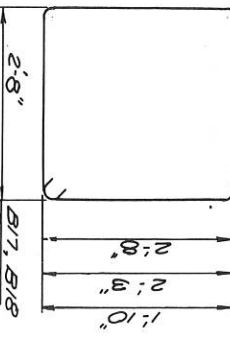
DETAIL M



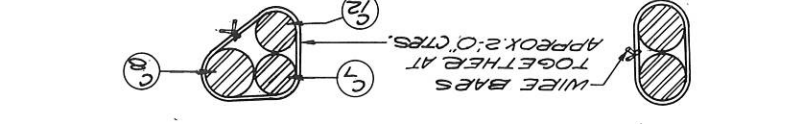
DETAIL K



DETAIL L



BUNDLING DETAIL 1 BUNDLING DETAIL 2

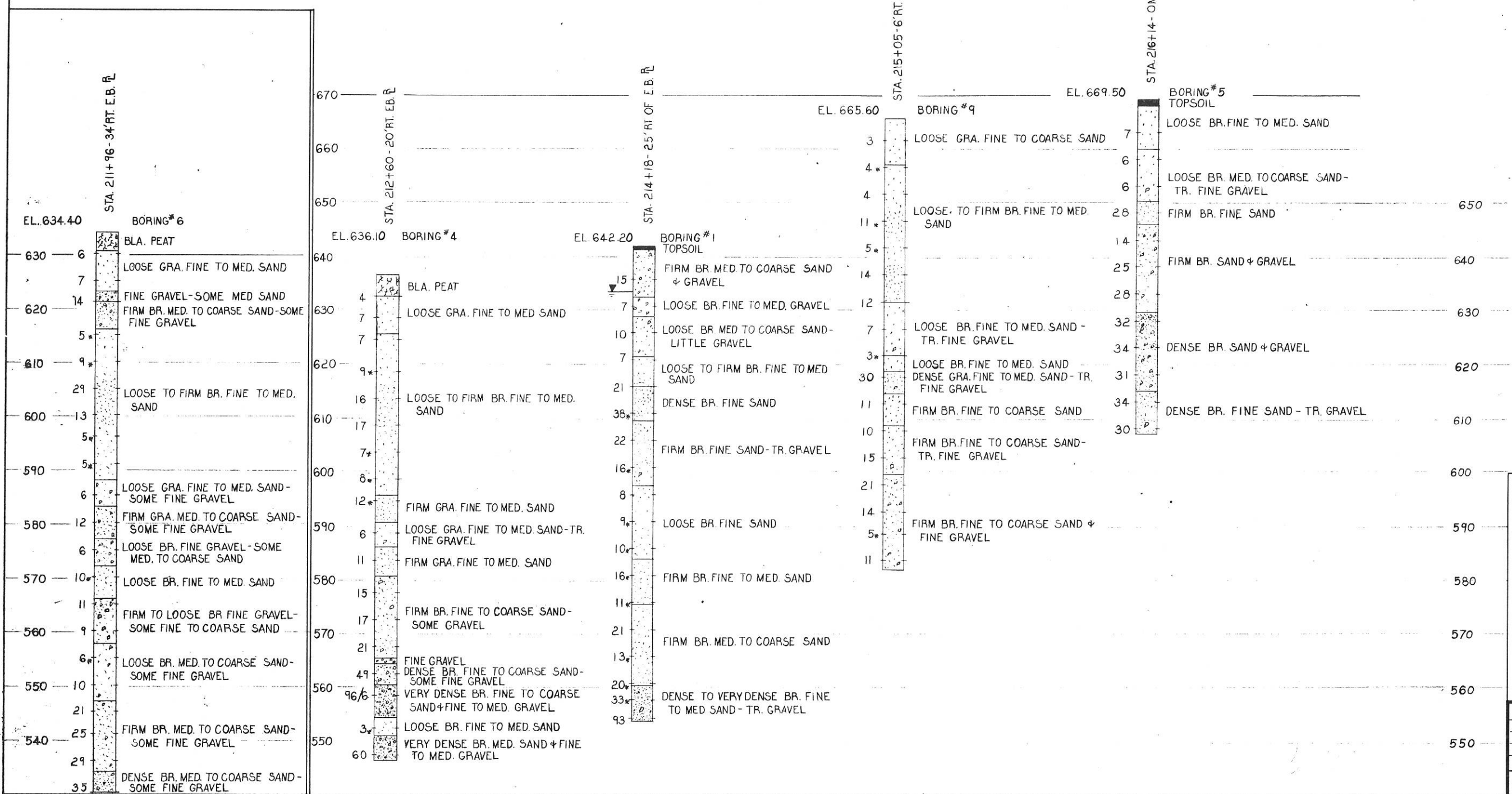
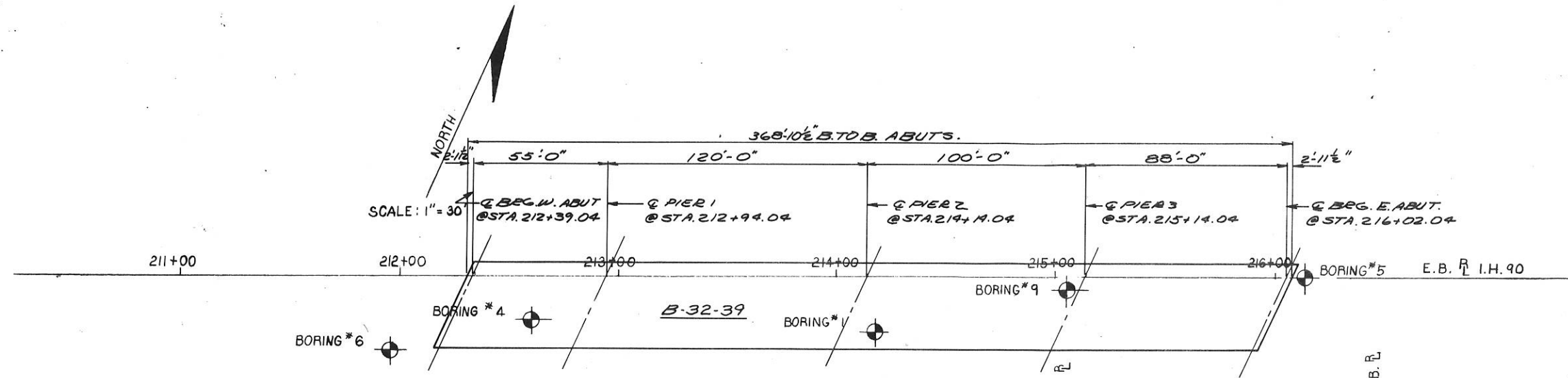


NOTE: DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

REVISION	DATE	BY	DESCRIPTION

BILL OF BARS

DIM. #	BAR NUMBERS
2: 11"	B5 # C5
2: 8"	B16, C20 & D12



LEGEND OF BORING

STA. BORING #

ELEV. DESCRIPTION MATERIAL

7

WASH SAMPLE *

GROUND WATER ELEV. ▽

STATE HIGHWAY COMMISSION OF

SUBSURFACE EXPLORATION

DESIGN SPEC. A.A.S.H.O. 61

DATE 9-10-64

STRUCTURE B-32-39

SHEET 15

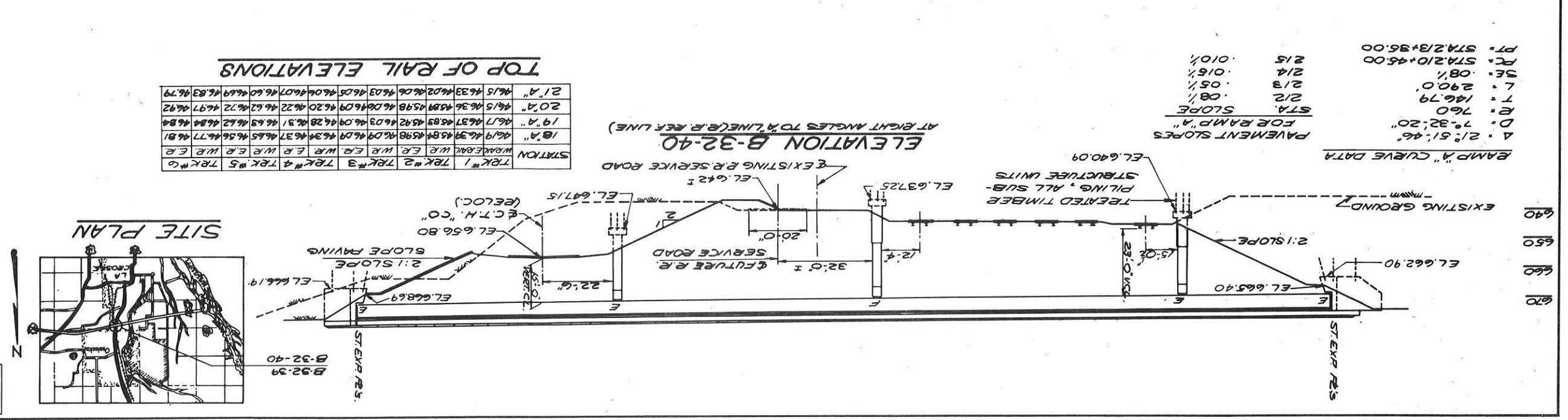
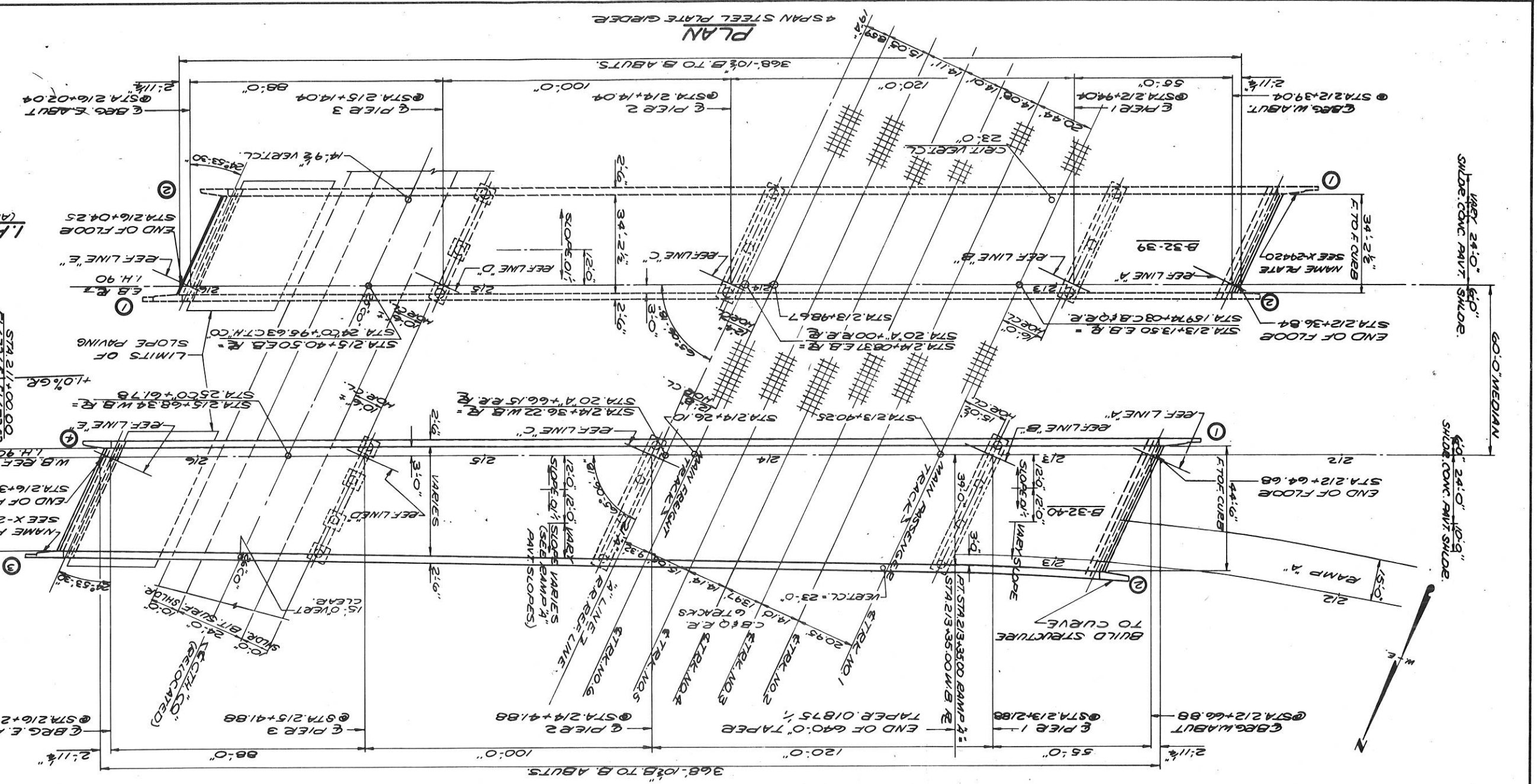
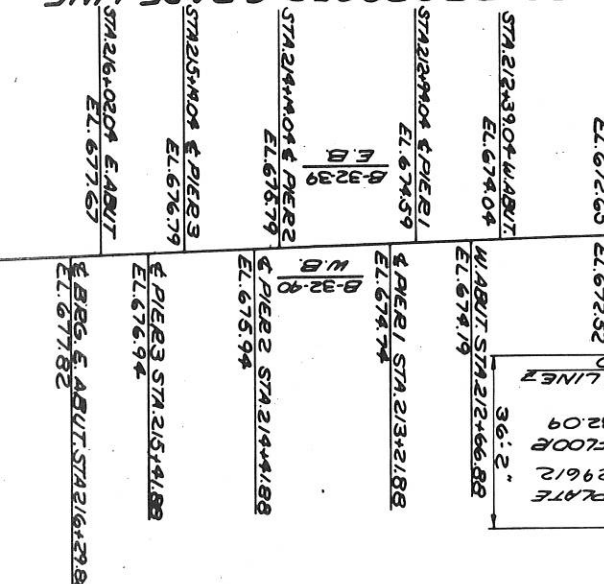
723 901	13.1	1-16-50	1/163	22	39
COUNTY & ROUTE & CLASS & AGREEMENT	STATE	FEDERAL	PROJECT	SHEET NO.	TOTAL SHEETS

LIST OF DRAWINGS

1. GENERAL PLAN
2. TOTAL ESTIMATED QUANTITIES
3. SUPERSTRUCTURE
4. SUPERSTRUCTURE
5. SUPERSTRUCTURE
6. SUPERSTRUCTURE
7. BEARING DETAILS
8. EXPANSION JOINT
9. TUBULAR ALUMINUM RAILING TYPE "G"
10. TUBULAR STEEL RAILING TYPE "G"
11. WEST ABUTMENT
12. PIER 1
13. PIER 2
14. PIER 3
15. EAST ABUTMENT
16. BILL OF BARS
17. SUBSURFACE EXPLODATION

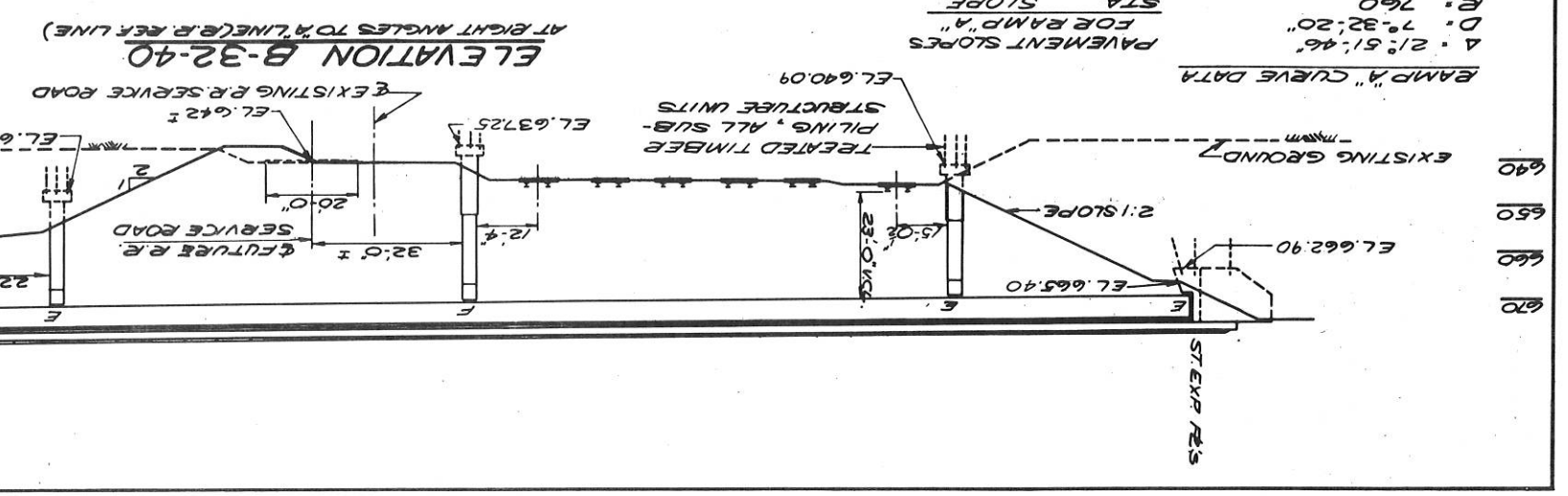
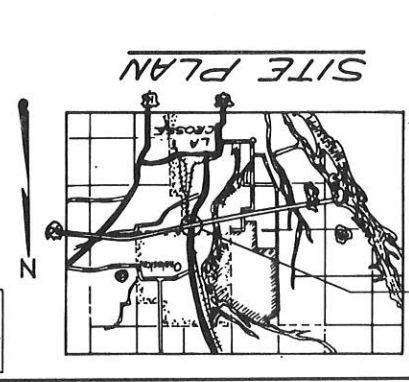
STRUCTURE B-32-40		SHEET 1 OF 17	
APPROVED	DESIGNED	DATE	BY
<i>[Signature]</i>	<i>[Signature]</i>	9-29-54	AL
RECOMMENDED	DESIGNER	DESIGN NO.	BY
<i>[Signature]</i>	<i>[Signature]</i>	9-29-54	AL
SECTION	TOWN	CONTRACT	NO.
16/17	16N	196	71
CITY	LA CROSSE	STATE	WISCONSIN
2/4	36.2	36.2	36.2

GENERAL PLAN



TOP OF RAIL ELEVATIONS

STATION	TRK #1	TRK #2	TRK #3	TRK #4	TRK #5
18+00	46.77	46.77	46.77	46.77	46.77
19+00	46.77	46.77	46.77	46.77	46.77
20+00	46.77	46.77	46.77	46.77	46.77
21+00	46.77	46.77	46.77	46.77	46.77



TOTAL ESTIMATED QUANTITIES

BID ITEM	UNIT	SUPER.	W. ABUT.	PIER 1	PIER 2	PIER 3	E. ABUT.	TOTAL
EXCAVATION FOR STRUCTURES	C.Y.	—	55	85	150	220	40	550
CONCRETE MASONRY	C.Y.	472.5	87.7	131.8	140.4	77.4	73.4	983.2
BAR STEEL REINFORCEMENT	LB.	159,850	2,350	12,440	15,770	13,400	2,070	205,880
STRUCTURAL CARBON STEEL	LB.	409,970	—	—	—	—	—	409,970
STRUCTURAL LOW ALLOY STEEL	LB.	6,840	—	—	—	—	—	6,840
LUBRICATED BRONZE PLATES	LB.	316	—	—	—	—	—	316
BEARING PADS	S.F.	42	—	—	—	—	—	42
* TREATED TIMBER TEST PILING	L.S.	—	—	—	—	—	—	1
TREATED TIMBER PILING, DELIVERED	L.F.	—	810	2025	2,115	1,440	640	7,030
TREATED TIMBER PILING, DRIVEN	L.F.	—	810	2025	2,115	1,440	640	7,030
TUBULAR RAILING, TYPE "G"	L.F.	765	—	—	—	—	—	765
SLOPE PAVING, CONCRETE	S.Y.	—	—	—	—	—	190	190
NON-BID ITEM								
MEMBRANE WATER PROOFING	S.F.	—	16	—	—	—	—	16
ALUMINUM OR ZINC PLATE	S.F.	58	—	—	—	—	—	58

* DRIVE ONE 55'-0" TEST PILE AT WEST ABUT. & AT PIER 2. DRIVE ONE 50'-0" TEST PILE AT E. ABUT.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
 BEVEL EXPOSED EDGES OF CONCRETE 1" UNLESS OTHERWISE SPECIFIED.
 IMBED ALL BAR STEEL 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
 ALL CONCRETE MASONRY SHALL BE GRADE "A-A" $f_c = 1400$ P.S.I.
 THE SLOPE & TOP OF FILL IN FRONT OF THE EAST ABUTMENT SHALL BE COVERED WITH SLOPE PAVING AS SHOWN ON SHEETS X-29419 AND X-29426.
 HOT POURED ELASTIC TYPE JOINT SEALER SHALL CONFORM TO A.S.T.M. DESIGNATION, D1190.
 ALL FIELD CONNECTIONS SHALL BE MADE WITH $\frac{3}{4}$ " ϕ HIGH TENSILE STRENGTH FRICTION BOLTS UNLESS OTHERWISE SPECIFIED.
 PILING AT THE ABUTMENTS SHALL BE TREATED TIMBER PILING EST. 45'-0" LONG AT THE WEST ABUTMENT AND 40'-0" LONG AT THE EAST ABUTMENT AND DRIVEN TO A MIN. BEARING VALUE OF 24 TONS/PILE.
 PILING AT THE PIERS SHALL BE TREATED TIMBER PILING EST. 45'-0" LONG AT PIERS 1 & 2 & 40'-0" AT PIER 3 AND DRIVEN TO A MIN. BEARING VALUE OF 24 TONS/PILE.

DESIGN DATA

LIVELOAD - HS20-MOD.
 ALLOWABLE DESIGN STRESSES
 CONCRETE MASONRY, GRADE "A-A" f_c =
 BAR STEEL REINFORCEMENT f_s =
 STRUCTURAL CARBON STEEL f_s =
 STRUCTURAL LOW ALLOY STEEL
 TO & INCLUDING $\frac{3}{8}$ " THICK f_s =
 OVER $\frac{3}{8}$ " INCLUDING $\frac{1}{2}$ " THICK f_s =
 OVER $\frac{1}{2}$ " THICK f_s =

REVISED	STATE HIGHWAY COMMISSION OF
	TOTAL ESTIMATED QUANTITIES
DESIGN SPEC. A.A.S.H.O. 6	LOADING HS20 MOD.
DATE 9-2-64	DESIGN AL. DRAWN JNG.
STRUCTURE B-32-40	SHEET 2

DESIGN NO.	DESIGN DATE	DESIGNER	DATE
100	1963	W.S.	1963
LOADING	CONC.	STEEL	REVISION
AS SHOWN	100	100	

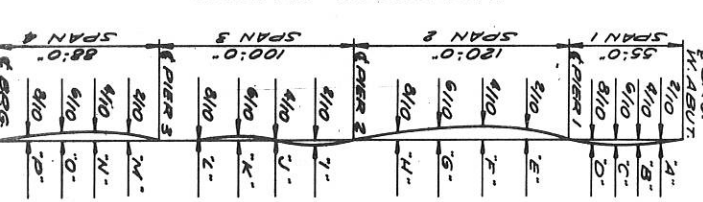
STATE HIGHWAY COMMISSION OF WISCONSIN SUPERSTRUCTURE

GIRDER 1												
CONC ONLY	0	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	TOTAL
DEFLECTION	0	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8

GIRDERS 2 THRU 5												
CONC ONLY	0	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	TOTAL
DEFLECTION	0	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8

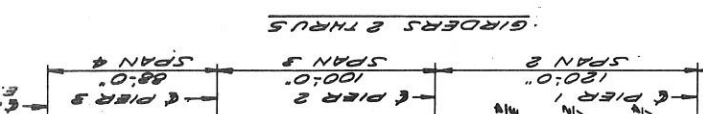
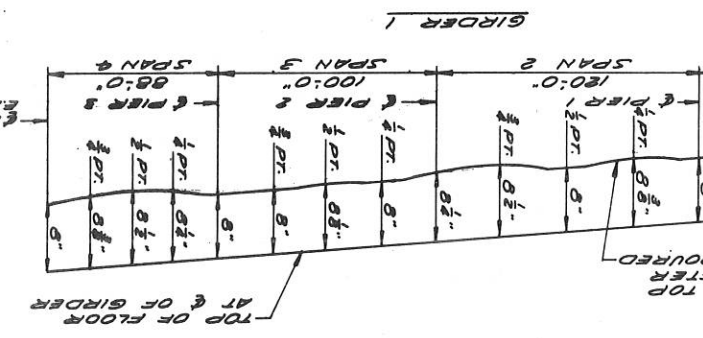
SHOWING D.L. DEFLECTION

DEFLECTION DIAGRAM

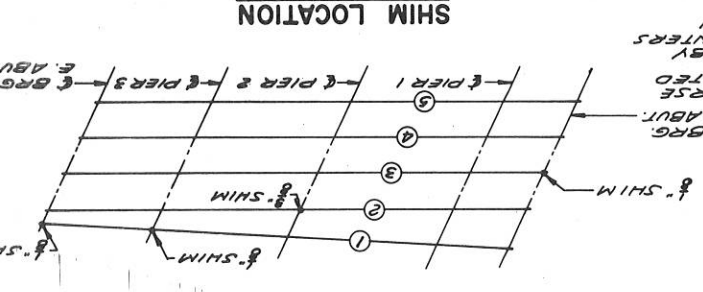


SLAB THICKENING DIAGRAMS

SLAB THICKENING FIGURES SHOWN ARE THEORETICAL AND ARE SUBJECT TO CORRECTION TO MEET VARIABLE FIELD CONDITIONS AND CAMBER.

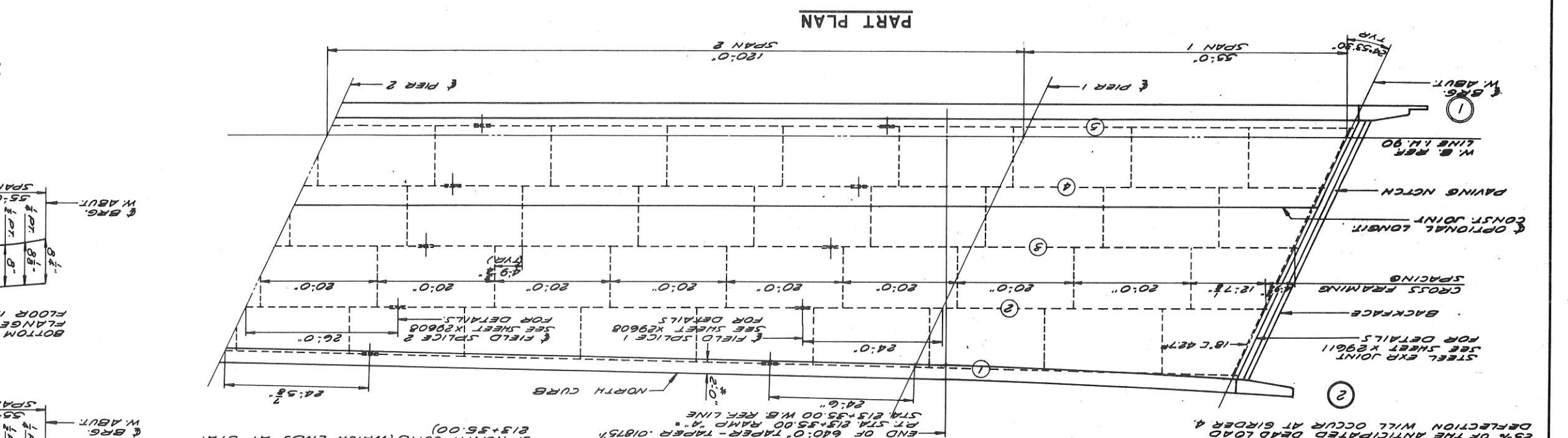
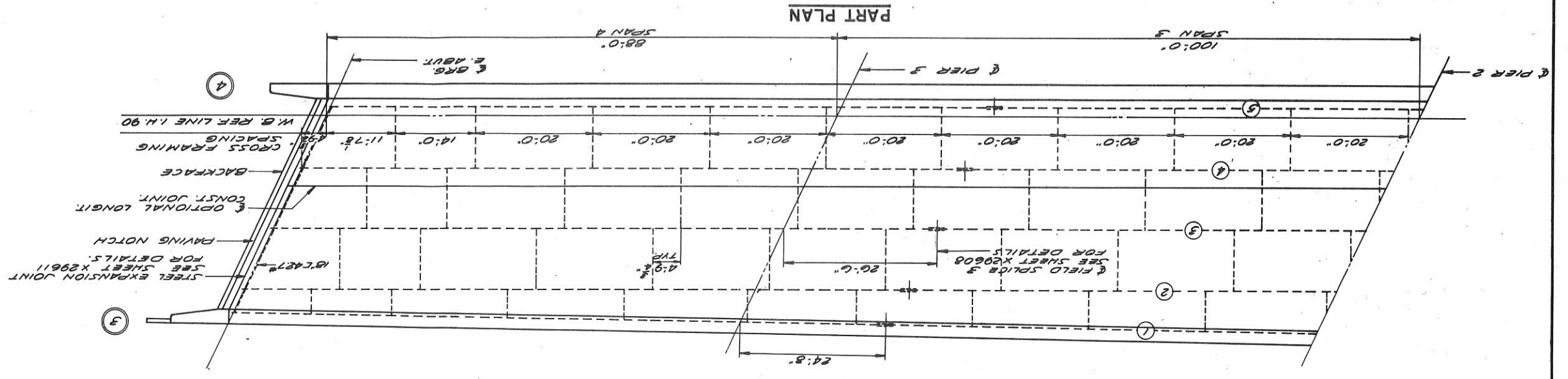


SHIM LOCATION

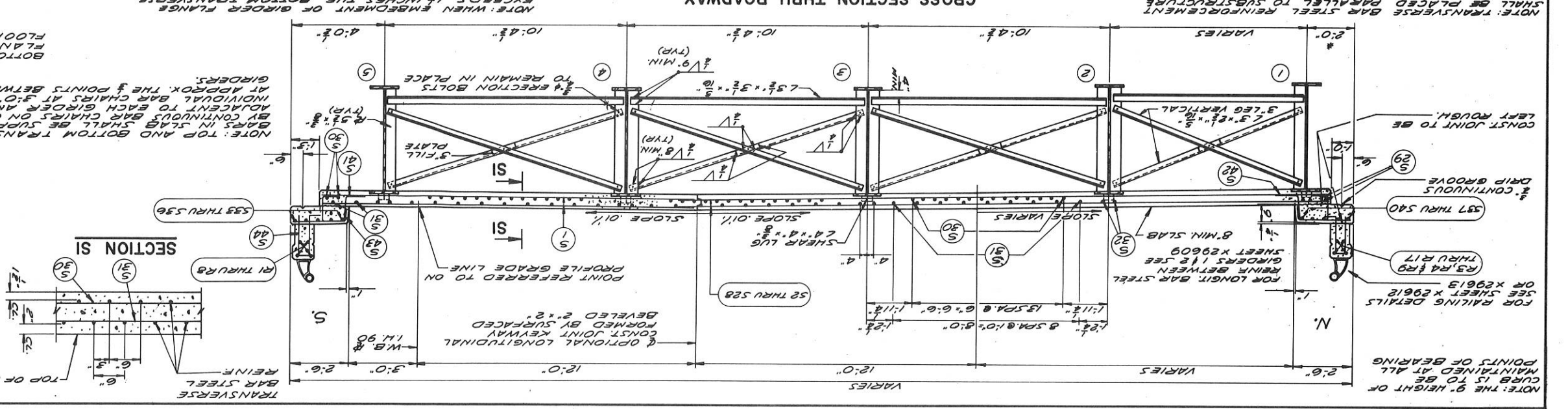


NOTE: FOR BILL OF BARS AND BAR DETAILS SEE SHEET X29613

PROJECT	1-16-00-2430
SHEET NO.	2430
TOTAL SHEETS	30

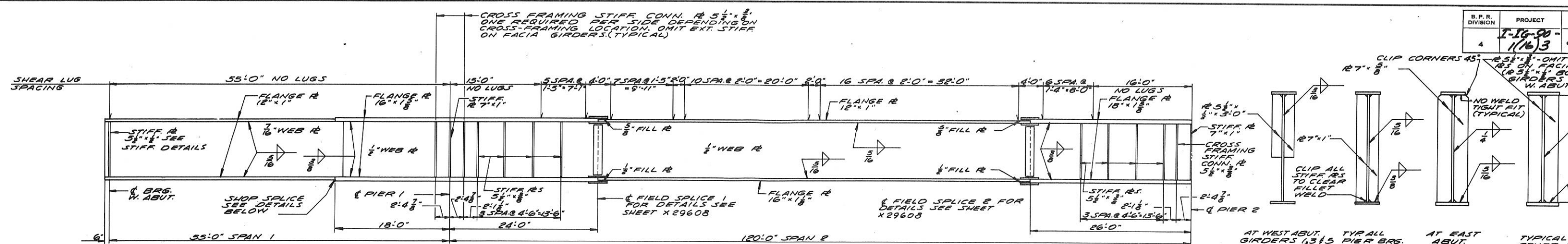


CROSS SECTION THRU ROADWAY

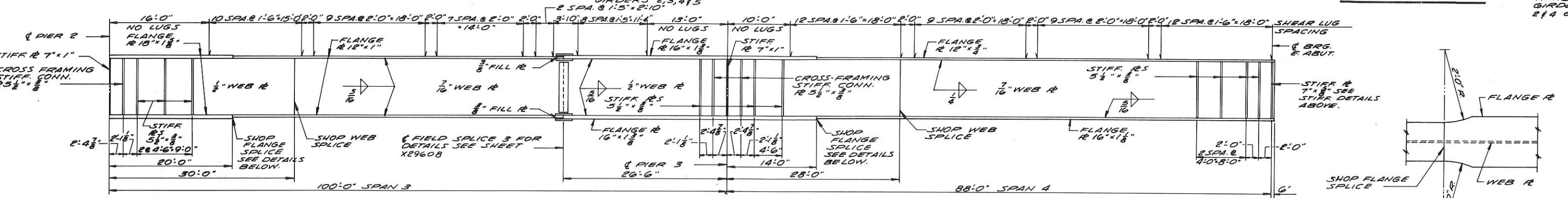


NOTE: THE 9" HEIGHT OF CURB IS TO BE MAINTAINED AT ALL POINTS OF BEARING

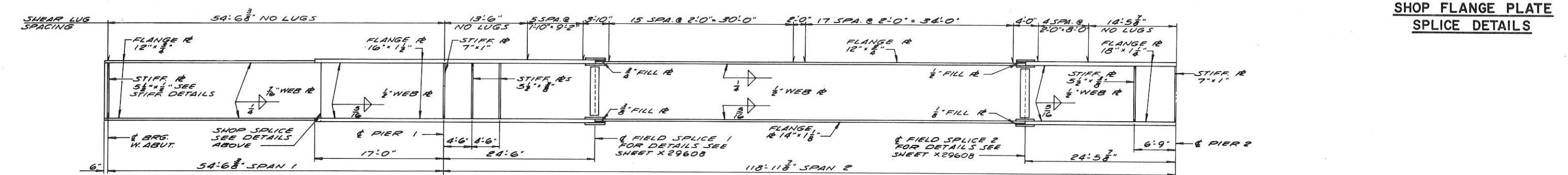
B.P.R. DIVISION	PROJECT	SHEET
4	I-16-90-1(16)3	2



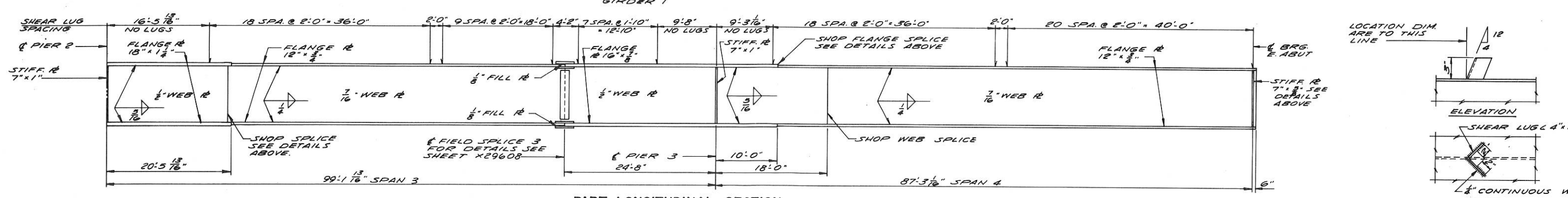
PART LONGITUDINAL SECTION
GIRDERS 2, 3, 4 & 5



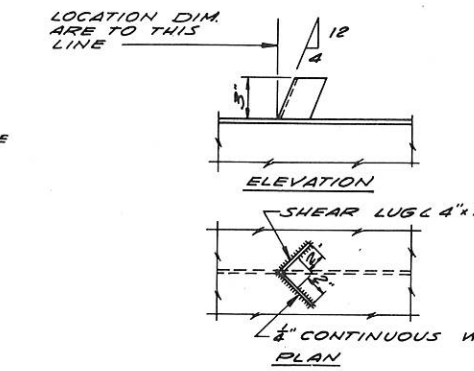
PART LONGITUDINAL SECTION
GIRDERS 3, 4 & 5



PART LONGITUDINAL SECTION
GIRDER 1



PART LONGITUDINAL SECTION
GIRDER 1



SHEAR LUG DETAILS

NOTE: FIELD WELDING ON TOP FLANGE FOR CONSTRUCTION PURPOSES IS PROHIBITED IN THE AREA OVER THE PIERS BETWEEN THE SHEAR LUGS.

REVISED	STATE HIGHWAY COMMISSION OF
	SUPERSTRUCTURE
DESIGN SPEC. A.A.S.H.O. '61	LOADING '15 20
DATE 9-29-64	DESIGN A.L. DRAWN/HEA.
STRUCTURE B-32-40	SHEET 4

NOTE: TWO OR MORE POURS MAY BE COMBINED AND THE TANGERS OR CONST. JOINTS OMITTED IF THE POUR FOR AN ENTIRE SPAN OR THE PORTION OF A SPAN TO A WITHIN FOUR HOURS AFTER CONCRETE OVER THE ADJACENT PIER IS PLACED.

POURING DIAGRAM

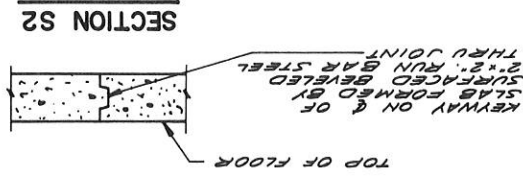
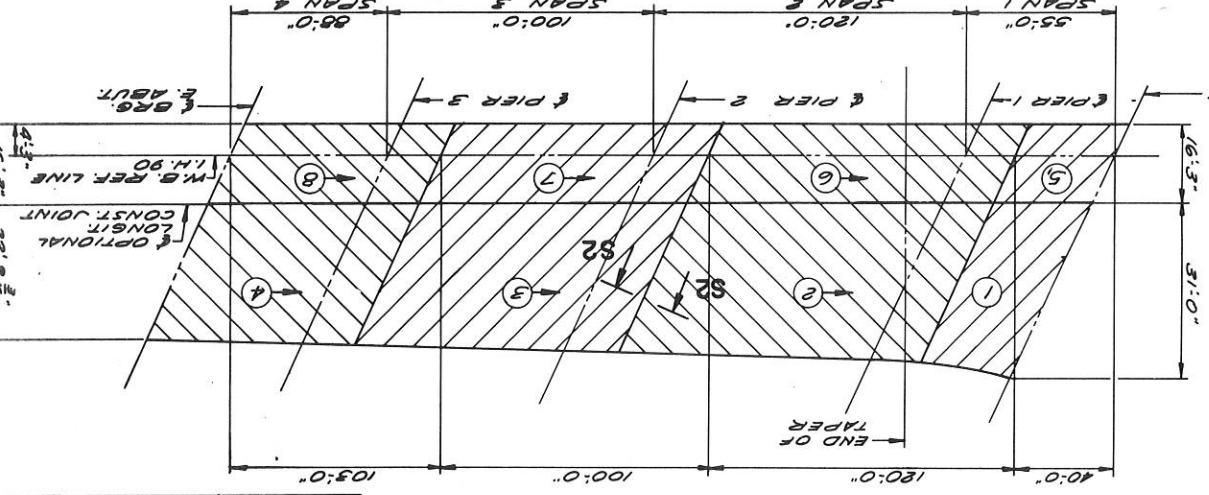
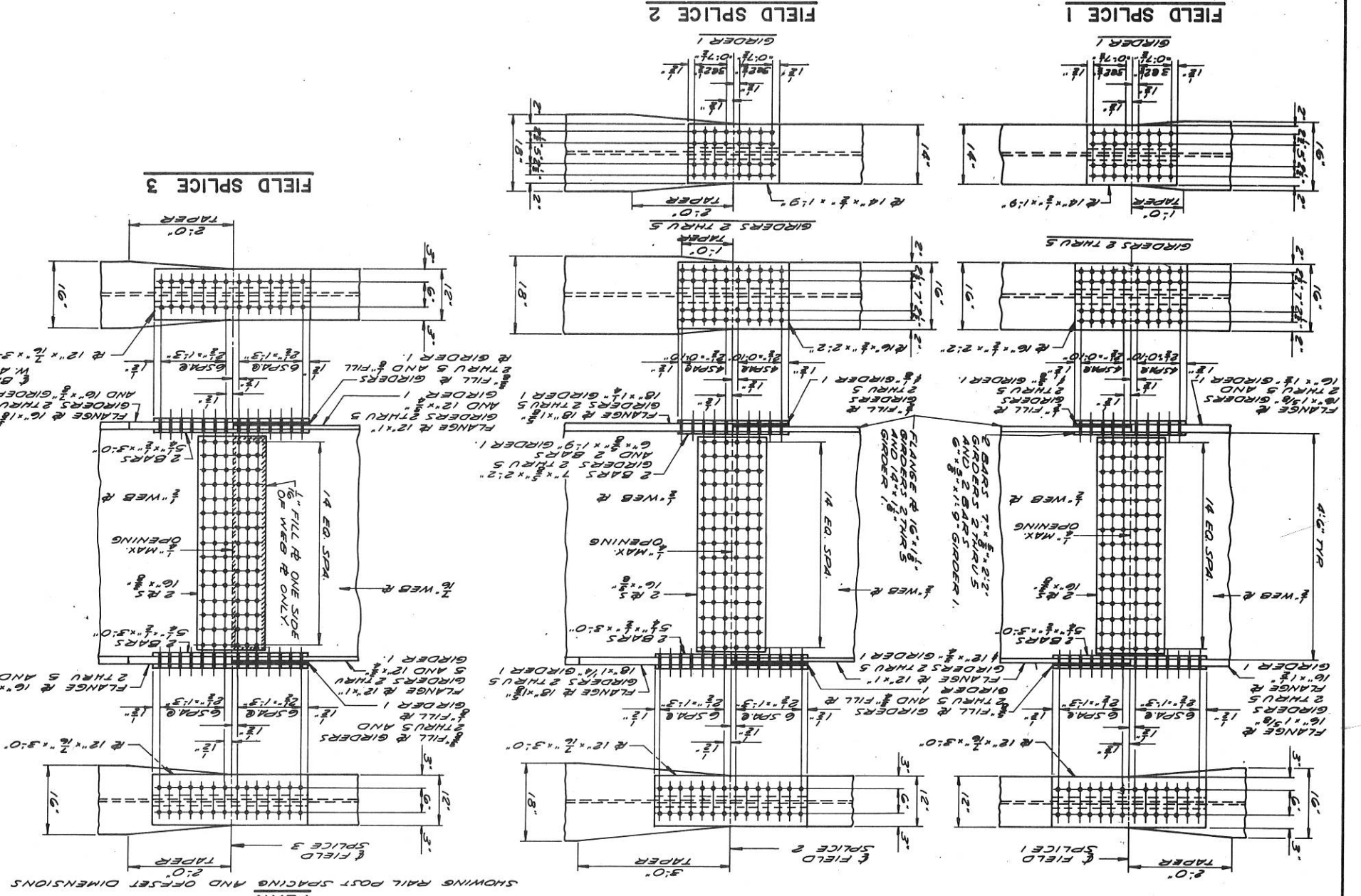
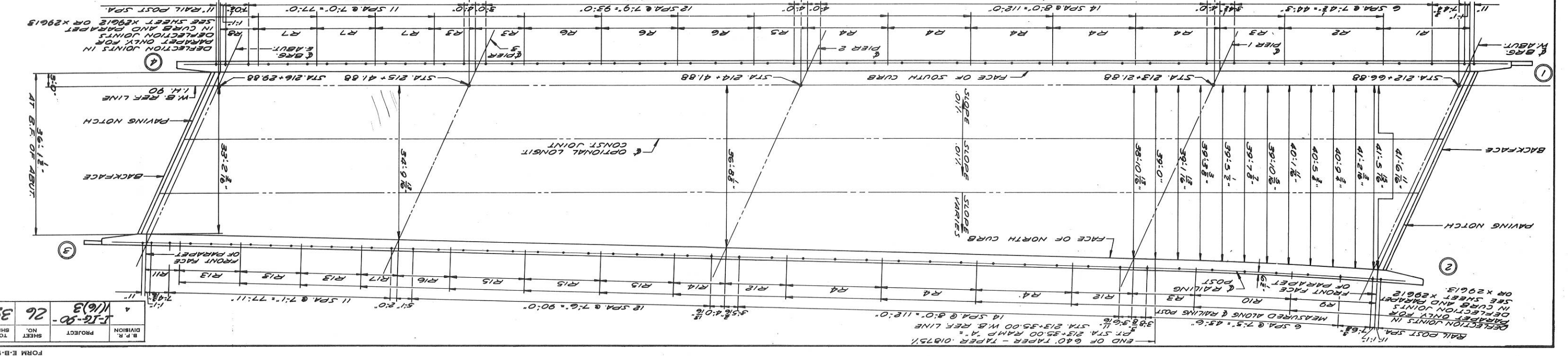


TABLE OF OFFSETS & ELEVATIONS

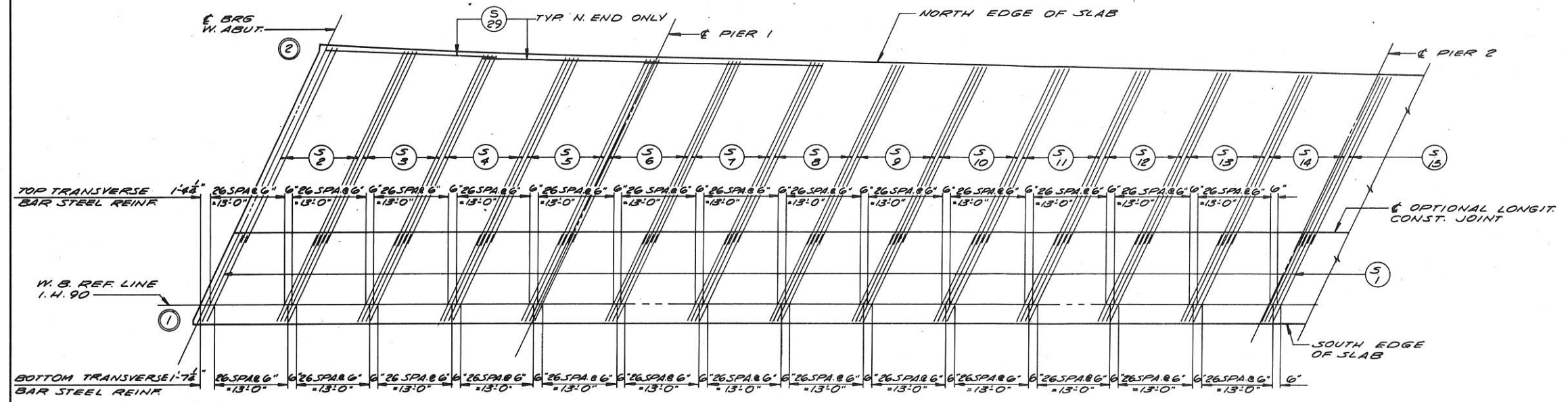
STATION	TO N. BUTTE	TO N. GUTTER	TO N. GUTTER
212+90.00	41:2 1/2"	675.51	675.51
212+95.00	41:5 1/2"	675.61	675.61
213+00.00	40:5 3/4"	675.70	675.70
213+05.00	40:1 1/2"	675.79	675.79
213+10.00	39:10 3/8"	675.88	675.88
213+15.00	39:7 7/8"	675.97	675.97
213+20.00	39:5 1/2"	676.06	676.06
213+25.00	39:3 3/8"	676.14	676.14
213+30.00	39:1 1/8"	676.23	676.23
213+35.00	39:0"	676.31	676.31
212+85.25	41:0 1/16"	675.45	675.45

TABLE OF OFFSETS & ELEVATIONS

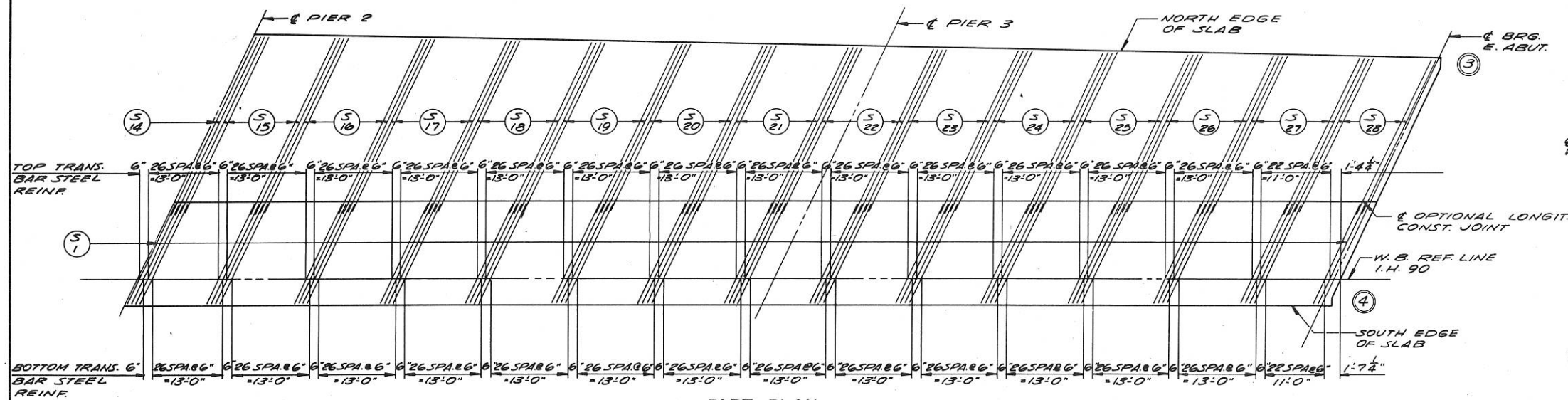


PROJECT INFORMATION

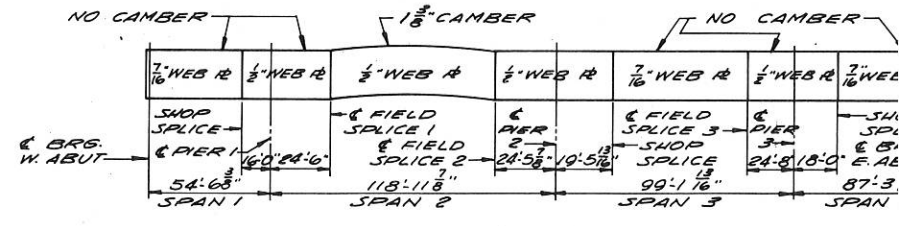
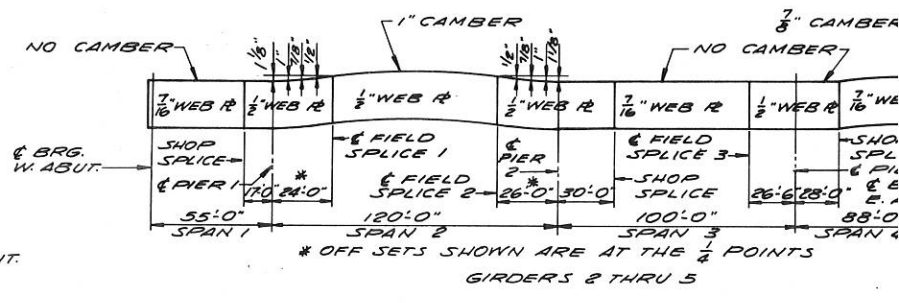
B.P.R. DIVISION	1163
PROJECT	J-16-90
SHEET NO.	26
TOTAL SHEETS	39



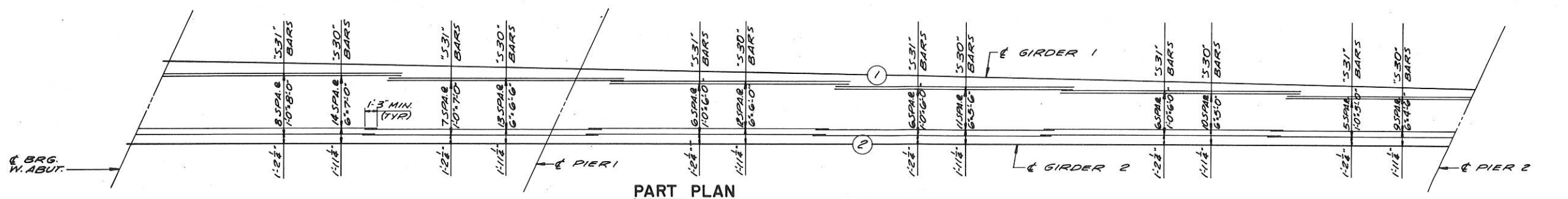
PART PLAN
SPANS 1 & 2



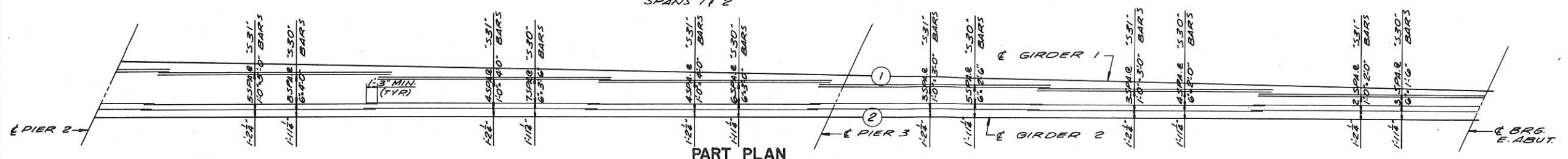
PART PLAN
SPANS 2 & 3



CAMBER DIAGRAM



PART PLAN
SPANS 1 & 2

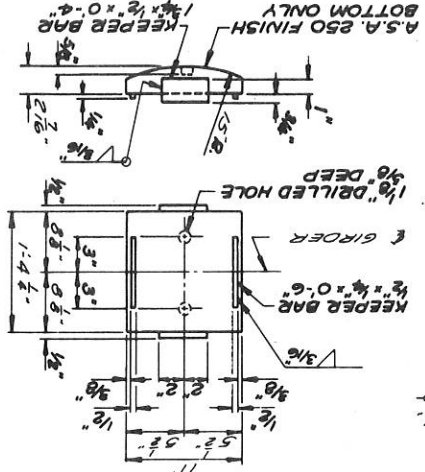
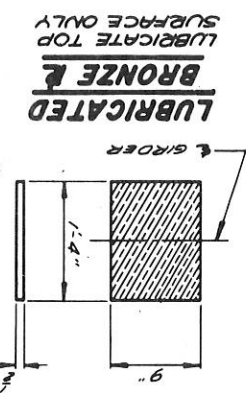
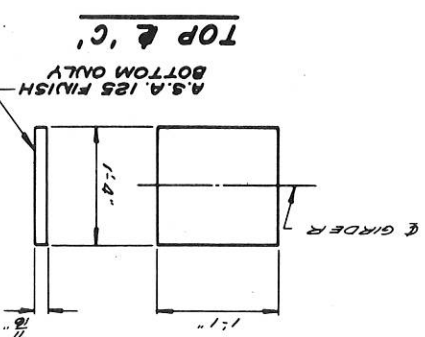


PART PLAN
SPANS 3 & 4

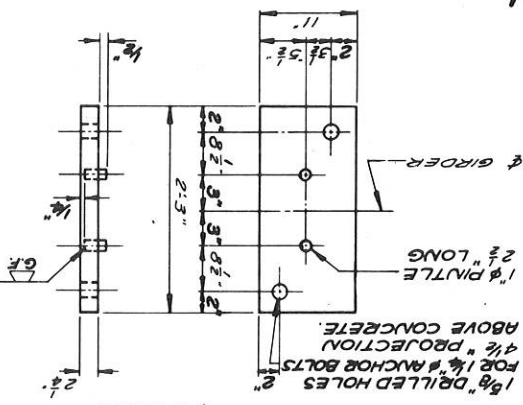
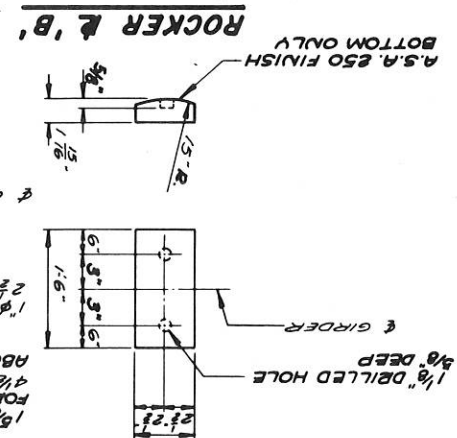
REVISED	STATE HIGHWAY COMMISSION OF
	SUPERSTRUCTURE
DESIGN SPEC. A.A.S.H.O. '67	LOADING MOD.
DATE 9-29-64	DESIGN A.L.
	DRAWN H.E.A.
STRUCTURE B-32-40	SHEET 6

STATE HIGHWAY COMMISSION OF WISCONSIN	BEARING DETAILS	DESIGN SPEC. A.S.H.S. & I. LOADING MOD. 1963	DATE 9-29-64	DESIGN NO. B-32-40	SHEET 7 OF 17
REVISED		DESIGN SPEC. A.S.H.S. & I. LOADING MOD. 1963			

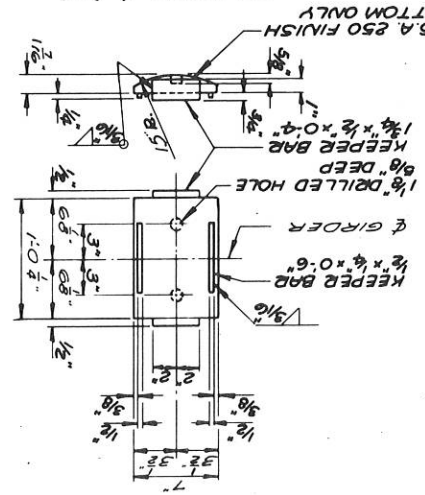
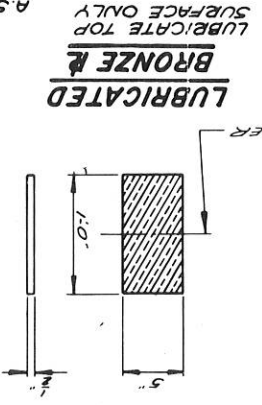
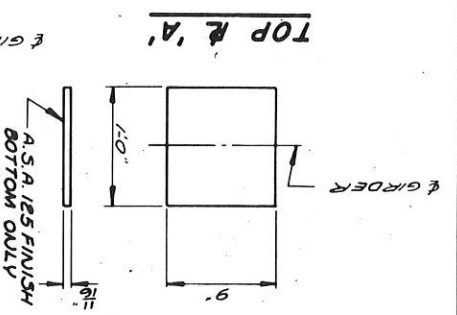
NOTE: TOP PLATE OF EXPANSION BEARING TO BE FINISHED IN DIRECTION OF MOVEMENT



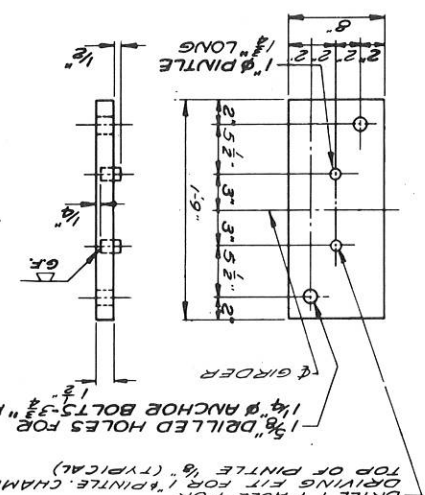
BEARING TYPE 'C',
ROCKER & 'C',
AT PIERS 1 & 10 REQ'D.



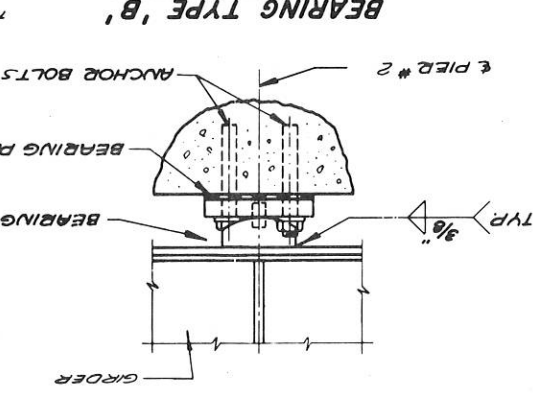
BEARING TYPE 'B',
MASONRY & 'B',
AT PIER 2 5 REQ'D.



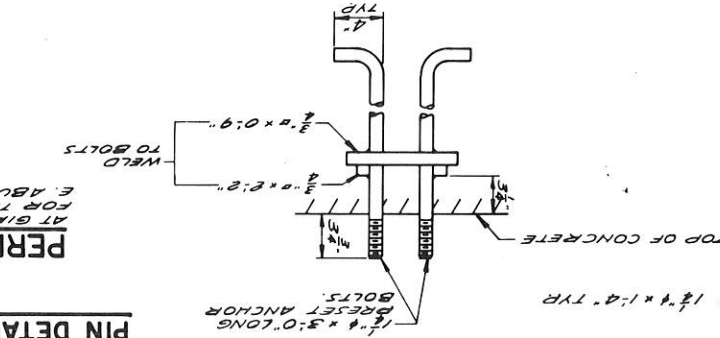
BEARING TYPE 'A',
ROCKER & 'A',
AT EAST AND WEST ABUTMENTS
10 REQ'D.



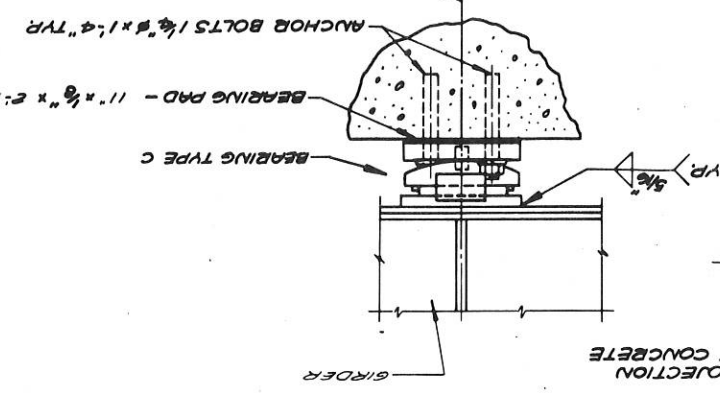
BEARING TYPE 'A',
MASONRY & 'A',
AT GIRDERS 2 & 4 W ABUT 2 REQ'D.
AT GIRDERS 1, 3, 5, 4 & 5 E ABUT 5 REQ'D.



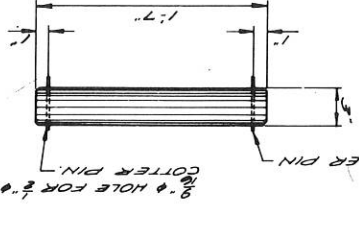
BEARING TYPE 'B',
ASSEMBLY



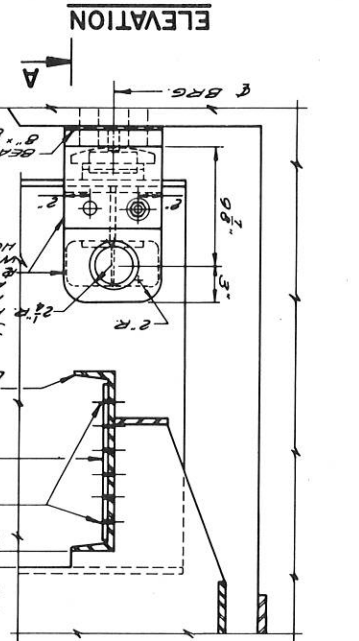
ANCHOR BOLT DETAIL



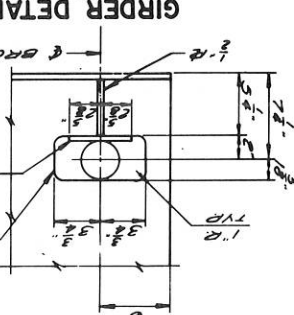
BEARING TYPE 'C',
ASSEMBLY



PIN DETAIL



ELEVATION



GIRDER DETAIL

PERMANENT HOLD DOWN DEVICE
AT GIRDERS 1, 3, 5 W ABUT. SEE SHEET X 29611
FOR TEMPORARY HOLD DOWN DEVICE AT
E ABUT.

BEARING NOTES

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

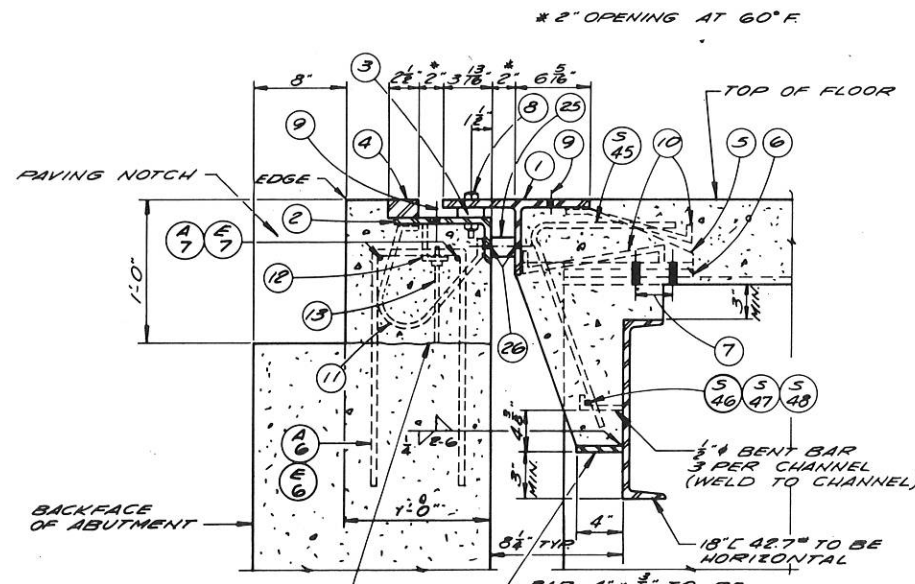
ANCHOR BOLTS SHALL BE THREADED 3", PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. BOLTS, NUTS, WASHERS SHALL BE MADE OF A36 STEEL WITH A CORROSION RESISTANCE OF 4 OR MORE TIMES THAT OF A36 STEEL.

THE TOP 4/8" OF ANCHOR BOLTS, WASHERS AND NUTS SHALL BE GALVANIZED.

ALL MATERIAL INCLUDING SHIMS BUT EXCLUDING ANCHOR BOLTS, NUTS, WASHERS SHALL BE MADE OF A36 STEEL WITH A CORROSION RESISTANCE OF 4 OR MORE TIMES THAT OF A36 STEEL.

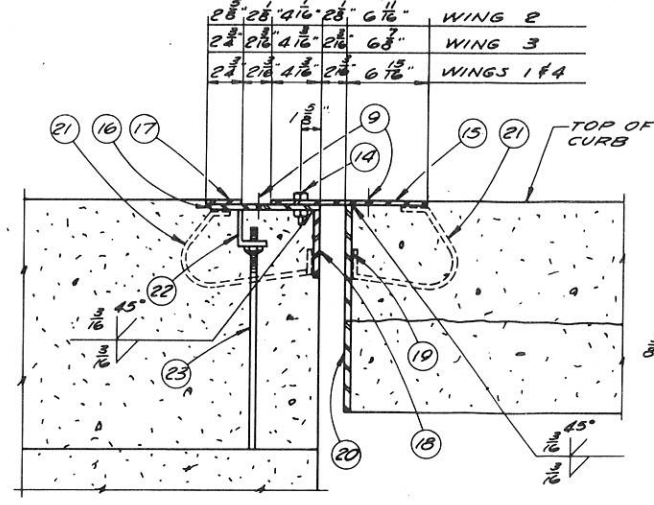
ALL MATERIAL IN BEARINGS INCLUDING SHIMS BUT EXCLUDING BRONZE PLATES AND BEARING PADS SHALL BE EXP. FOR AT THE UNIT PRICE BID FOR STRUCTURAL LOW ALLOY STEEL.

39	28	11/13	I-16-90
TOTAL SHEETS	SHEET NO.	PROJECT	DIVISION



SECTION EI

CONST. JOINT - POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. LEAVE JOINT ROUGH.



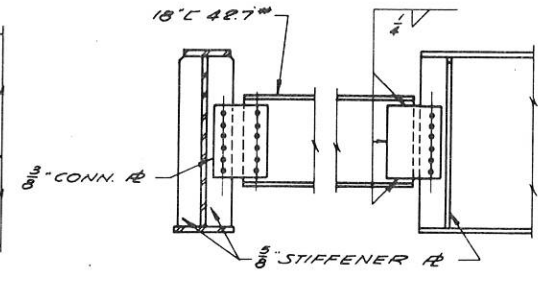
SECTION E2 (TYPICAL)

LOCATION	R#15	R#16	R#17
WINGS 1 & 4	13 1/16"	8 1/16"	2 3/4"
WING 2	12 1/8"	8 1/2"	2 3/8"
WING 3	13 1/4"	8 3/4"	2 3/4"

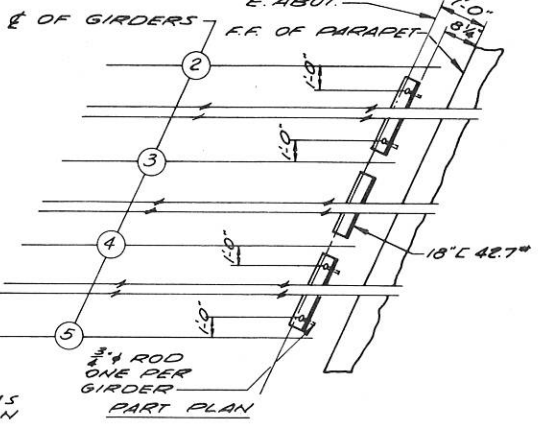
LEGEND

1. ST. 6" WF 39.5" x ROADWAY WIDTH.
2. L 8" x 4" x 7/16" x ROADWAY WIDTH.
3. BAR 2" x 3/4" x ROADWAY WIDTH. WELD TO L#2 WITH 2 LINES 1/4" FILLET WELD.
4. BAR 2" x 1/2" x ROADWAY WIDTH. WELD TO L#2 WITH 2 LINES 1/4" FILLET WELD.
5. FABRICATE FROM 3/8" WELDED PLATE. WELD TO STEM AND END OF ST. #1 WITH 1/4" FILLET WELD NEAR AND FAR SIDE.
6. 3/8" MIN. LAMINATED AND SLOTTED SHIM.
7. DRILL HOLES IN GIRDER FLANGE IN FIELD FOR 3/4" BOLT.
8. 3/4" BOLT WITH SQ. NUT & 2" O. CENTERS. TACK WELD NUT TO GREESE FOR EASY REMOVAL. 1 1/16" x 1 1/8" SLOTTED HOLE IN ST. #1. LONG D. OF SLOTTED HOLE TO BE PARALLEL TO Q OF ROADWAY. 1 1/16" HOLE IN #3 AND L#2.
9. VENT HOLES. 1 3/16" PLACED @ 2" O. CENTERS ON L#2 AND ST. #1 AND AT 9" CENTERS ON PLATES #15 AND #16.
10. 3/8" BENT BAR @ 0'9" ALTERNATE CENTERS BETWEEN GIRDES 1'3" LONG. WELD TO ST. #1.
11. 3/8" BENT BAR @ 1'0" CENTERS. 2'0" LONG. WELD TO L#2.
12. L 3" x 2 1/2" x 3/8" x 0'3" @ 3'0" CENTERS. WELD TO L#2. PROVIDE HOLE IN 2 1/2" LEG FOR BOLT #13.
13. 1/2" BOLT x 0'9" LONG AND NUT. TACK WELD NUT TO L#12.
14. 3/4" BOLT SAME AS BOLT #13 EXCEPT FOR LENGTH.
15. PLATE 3/8" BEND DOWN FLUSH WITH FACE OF CURB AS SHOWN. WELD TO R#19 AS SHOWN. FIELD WELD TO ST. #1.
16. PLATE 3/8" BEND DOWN FLUSH WITH FACE OF CURB AS SHOWN. WELD TO R#18 AS SHOWN.
17. PLATE 3/8" BEND DOWN FLUSH WITH FACE OF CURB AS SHOWN. WELD TO R#16 WITH 1 LINE OF 1/16" FILLET WELD. FIELD WELD TO R#18.
18. 6" x 3/8" PLATE. CUT TO CURB LIMITS AS SHOWN.
19. 3/8" PLATE. CUT TO CURB LIMITS AS SHOWN. FIELD WELD TO R#20.
20. 3/8" PLATE. CUT TO CURB LIMITS AS SHOWN. SHIP WELD TO S#21.
21. 3/8" BENT BAR 1'6" LONG. WELD TO PLATES #16 AND #18 WITH 1/4" FILLET WELDS ALL AROUND.
22. L 3" x 2 1/2" x 3/8" x 0'3". WELD TO R#16. PROVIDE 3/8" HOLE IN 2 1/2" LEG FOR BOLT #14.
23. 1/2" BOLT x 1'7" LONG AND NUT. TACK WELD NUT TO L#22.
24. ANCHOR BAR. 2 1/2" x 3/8" x 1'0" L. WELD TO PLATES #15 AND #16.
25. BLOCK AND BOLT FOR SHIPMENT WITH PIPE SLEEVE 1 1/2" BOLT.
26. PROVIDE 9/16" HOLES AT 3'0" CENTERS IN ST. #1 AND L#2 FOR 1/2" BOLT.

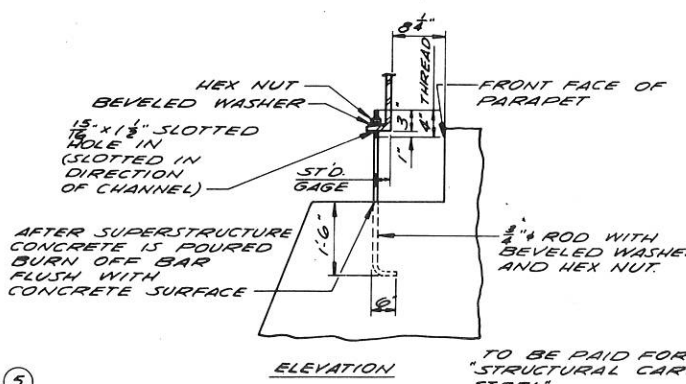
TYPICAL DIAPHRAGM DETAIL



3/8" STIFFENER #5 SHOWN ARE AT EAST ABUT. ONLY. FOR STIFF AT WEST ABUT. SEE SHEET X29607 AND X29610



PART PLAN

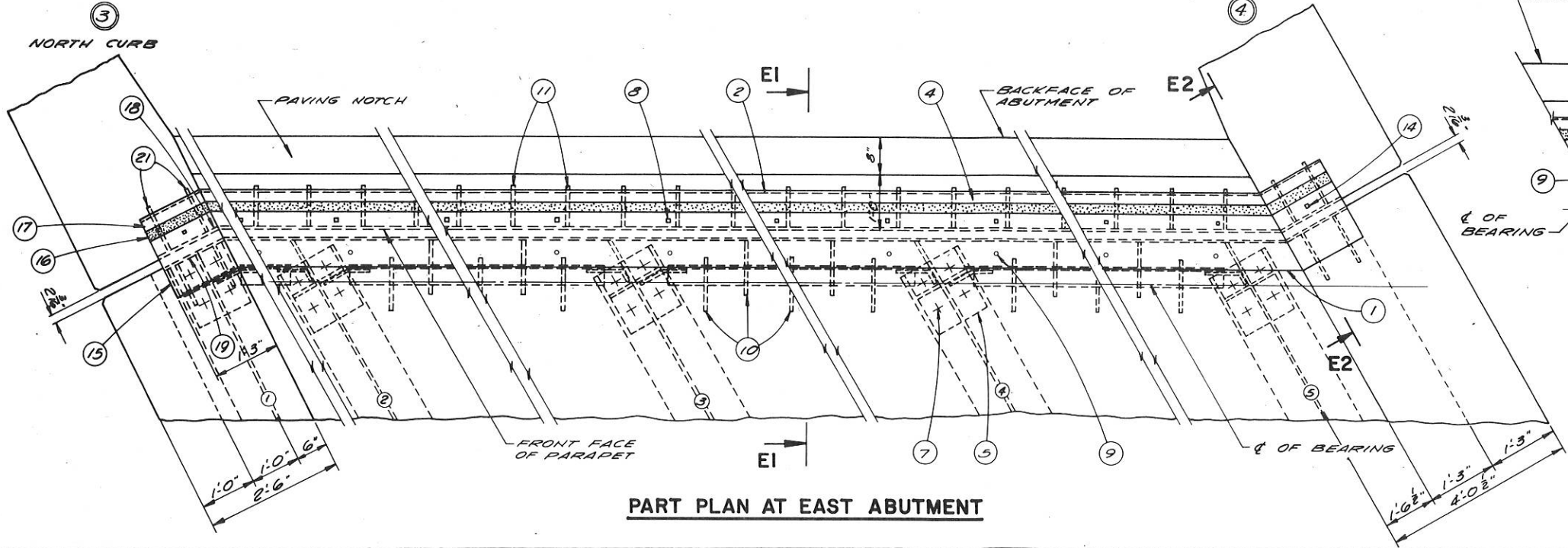
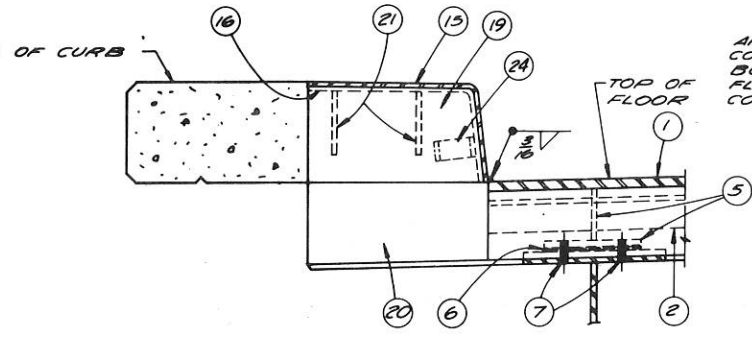


TEMPORARY HOLD DOWN DEVICE

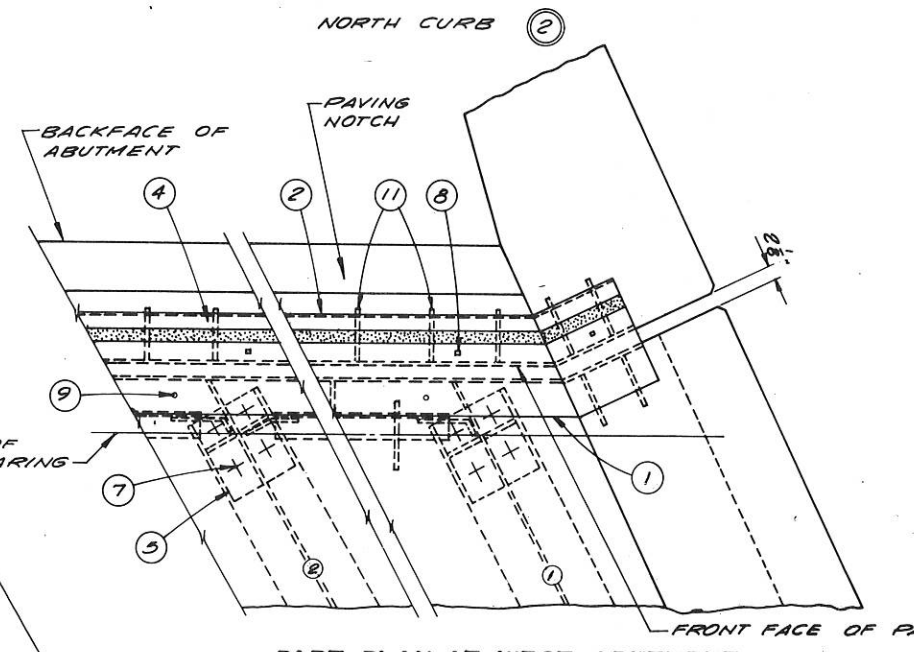
AT EAST ABUTMENT ONLY - FOR HOLD DOWN DEVICE AT WEST ABUTMENT SEE SHEET X29610

SECTION THRU JOINT AT SOUTH CURB

AT EAST ABUT. AT NORTH AND SOUTH CURB'S WEST ABUT.



PART PLAN AT EAST ABUTMENT



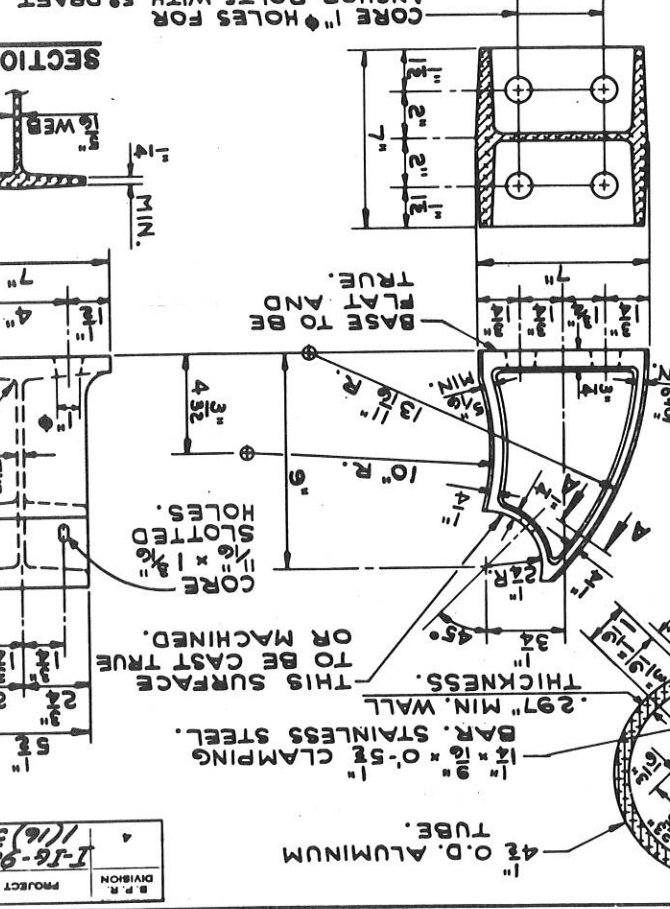
PART PLAN AT WEST ABUTMENT

NOTE "A": FILL WITH NON-STAINING GRAY TWO COMPONENT POLYURETHANE LIQUID POLYMER (GUN GRADE) WITH SURF PRIMER, MEETING APPROVAL OF THE ENGINEER.

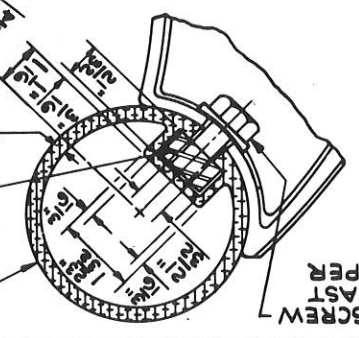
1. WHEN PARAPETS AND CURBS ARE Poured CONTINUOUSLY FROM END TO END THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/2" ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION "B" BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS AND CURBS ARE USED AT THE DEFLECTION POINTS ONE SIDE OF JOINT SHALL BE COATED WITH BITUMINUM PAINT AND PLATE SEPARATORS MAY BE OMITTED.
2. ALL POST SPACINGS ARE TAKEN HORIZONTALLY ALONG C OF PARAILING AT BASE OF POSTS.
3. RAILING SPLICES SHALL BE LOCATED APPROXIMATELY AT 1/4 POINTS BETWEEN POSTS.
4. ALUMINUM SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQUIRED FOR ALIGNMENT.
5. RAILING SHALL BE FABRICATED IN TWO AND THREE PANEL LENGTHS.

GENERAL NOTES

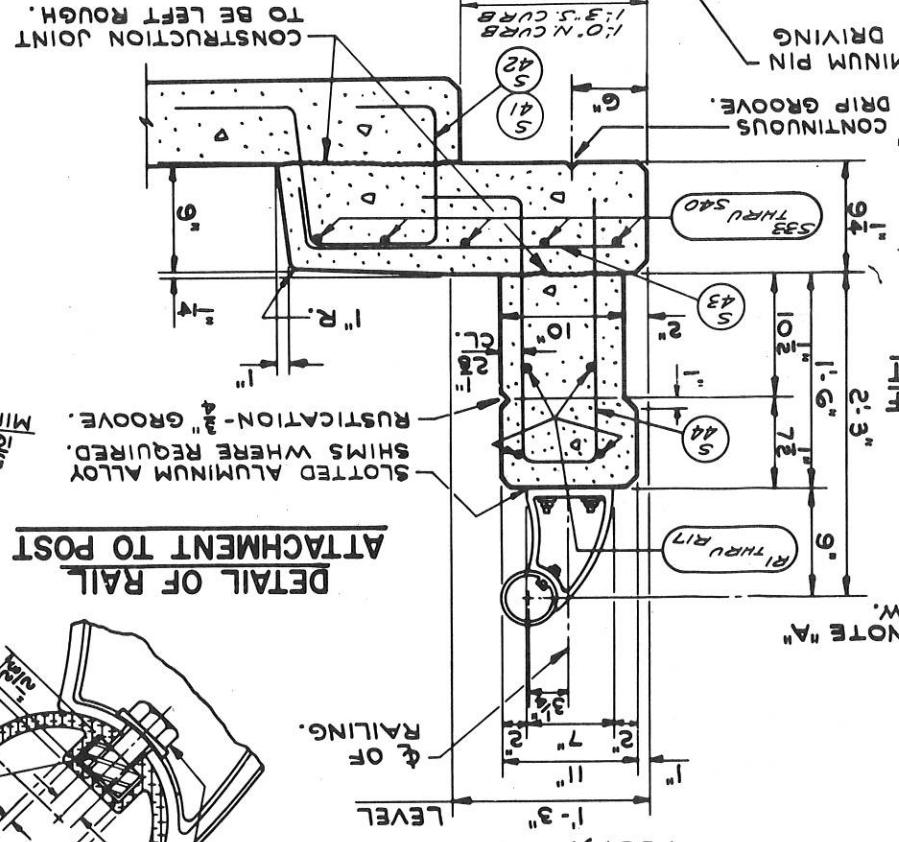
ALUMINUM POST CASTING



DETAIL OF RAIL ATTACHMENT TO POST

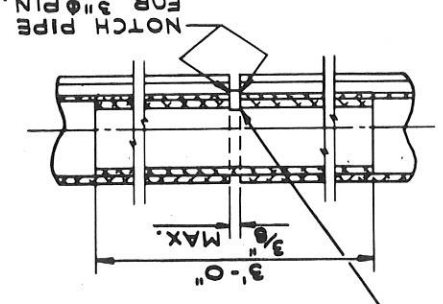


SECTION THRU CURB

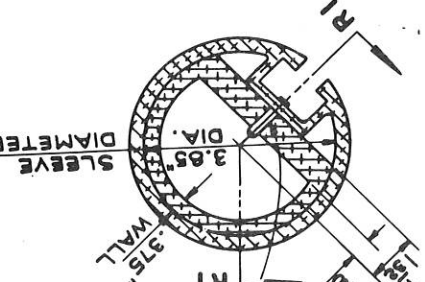


5" STAINLESS STEEL CAP SCREW AND CURVED & TAPERED CAST ALUMINUM WASHER (2 PER POST).

SECTION R1

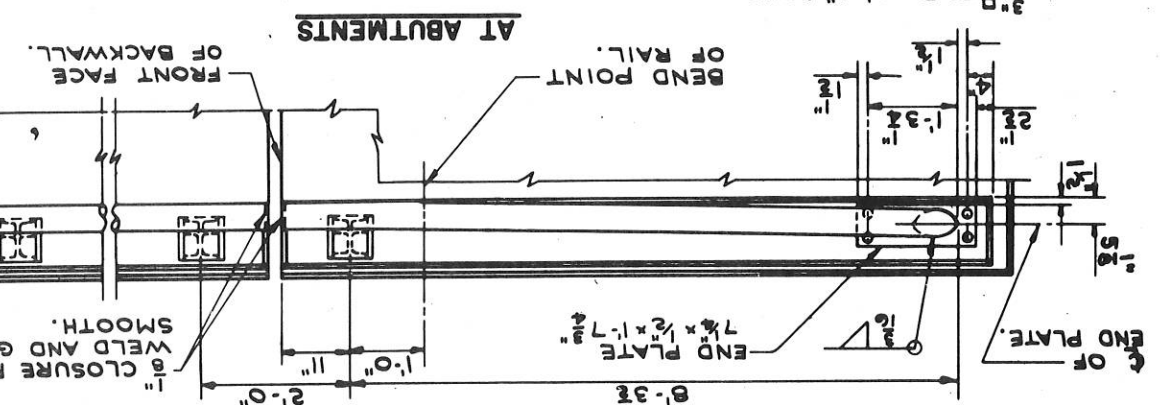


RAILING SPLICE DETAIL

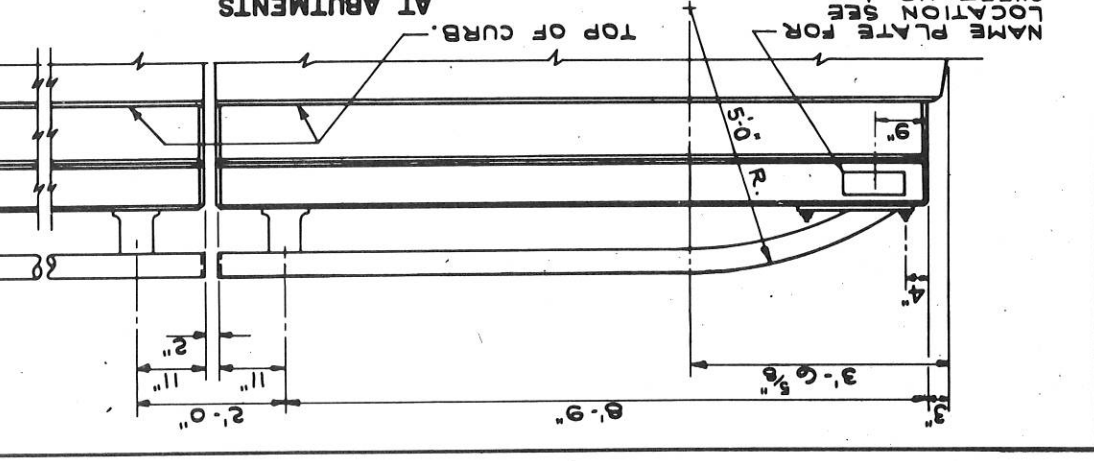


SINGLE LINE ALUMINUM RAILING

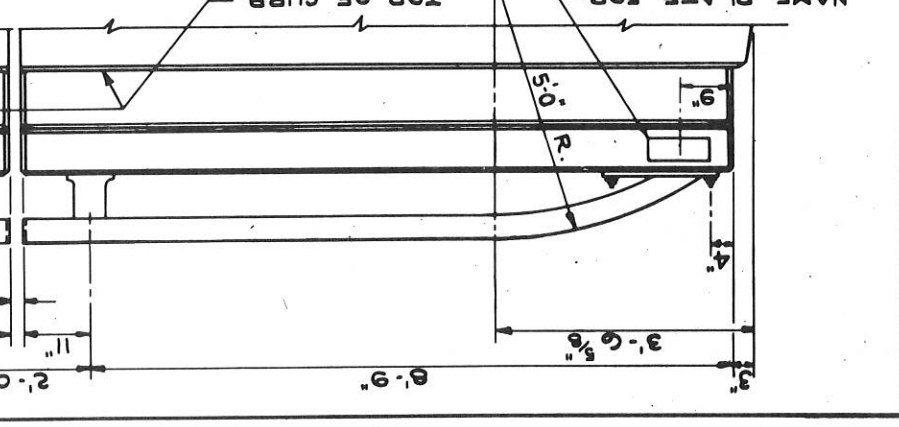
PART PLAN



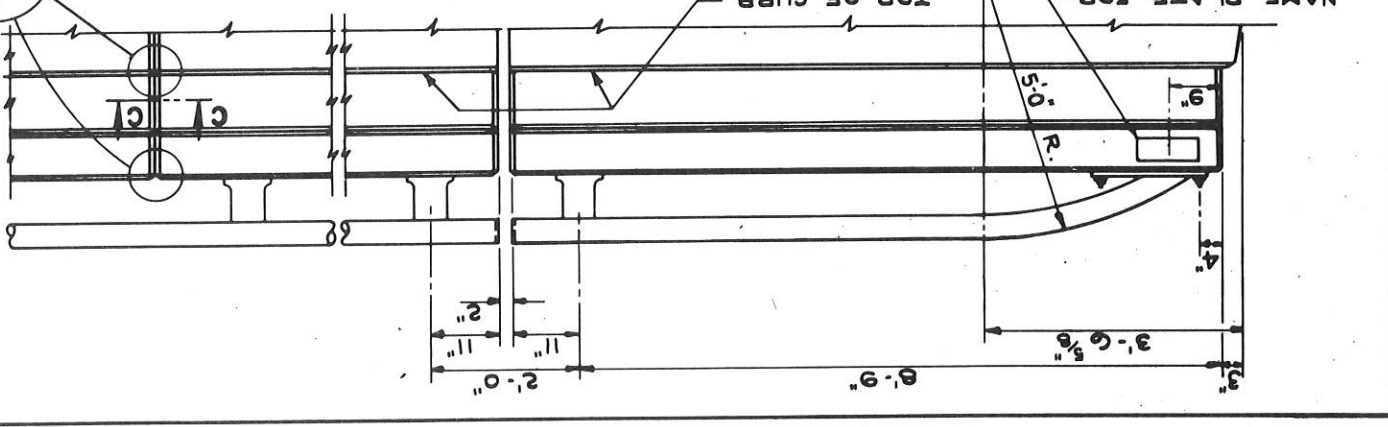
PART ELEVATION



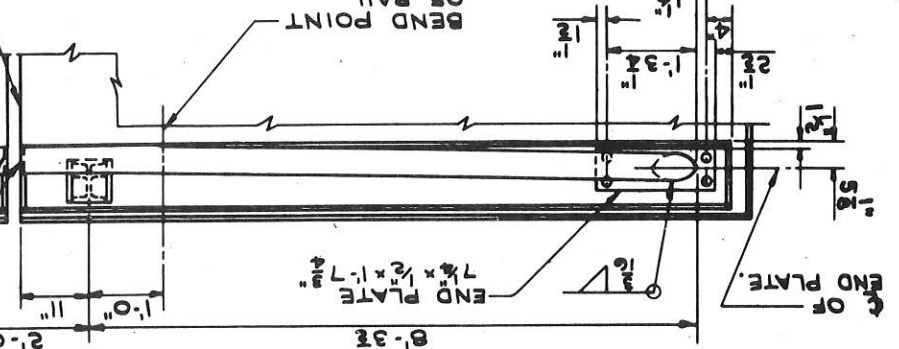
AT ABUTMENTS



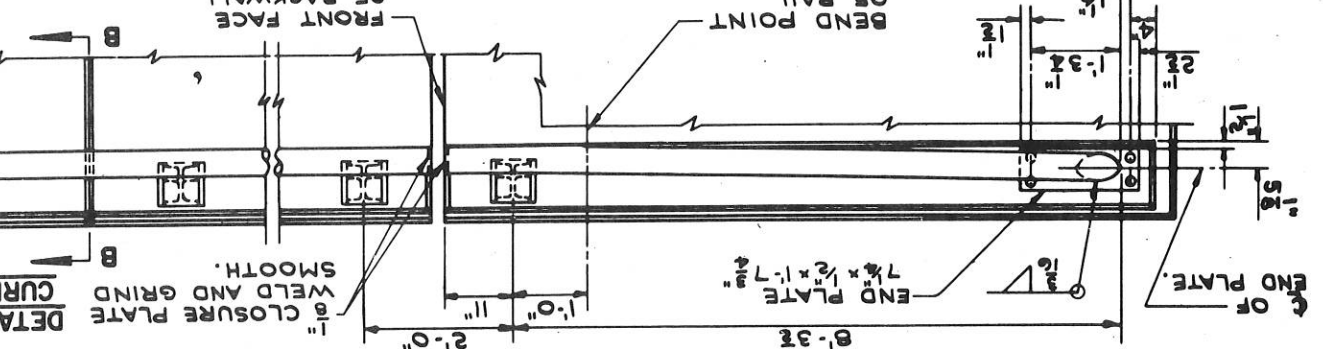
AT PIERS



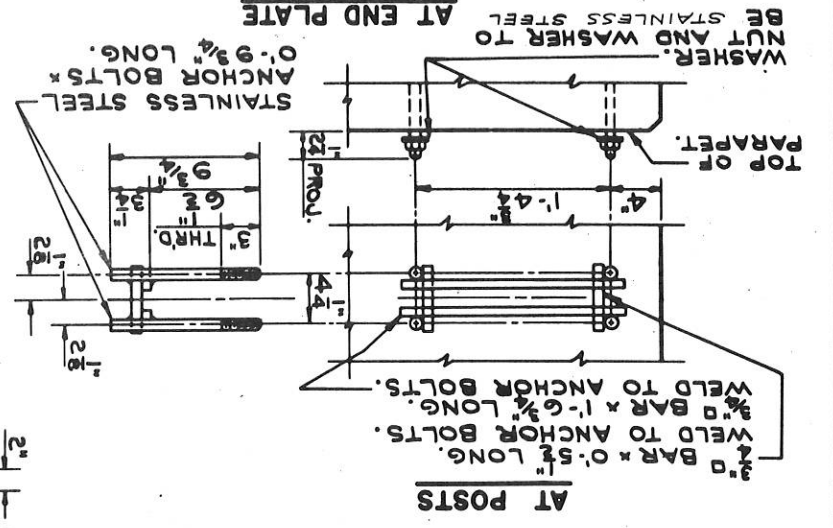
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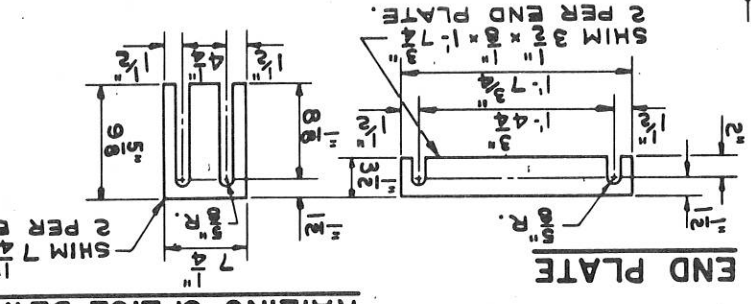
AT PIERS



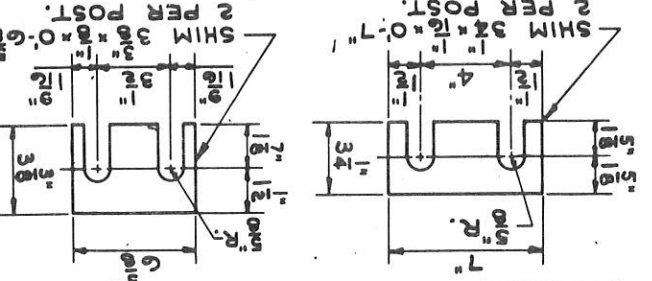
ANCHOR BOLT SETTING DETAILS



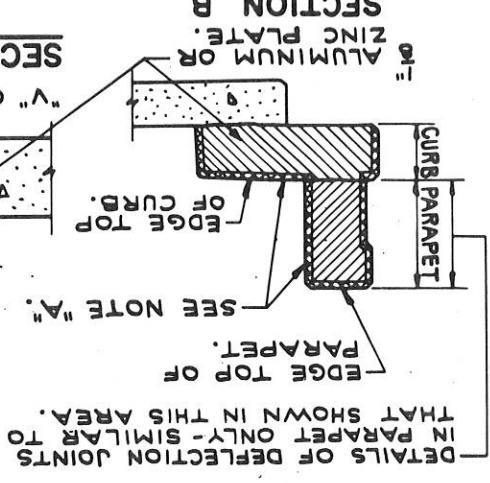
END PLATE SHIM DETAILS



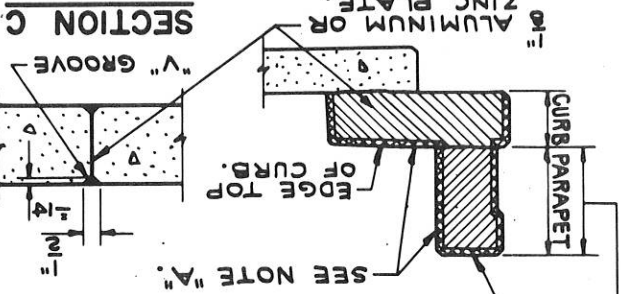
POST SHIM DETAILS



SECTION B



SECTION C



THE SHANK AND ROOT OF THREAD DIAMETER FOR ANCHOR BOLTS SHALL BE A MINIMUM OF 0.62 INCHES.