COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT		B P R REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
		STATE	FEDERAL			
32.3 32.2	90.1 614.0	23.3	13.21	4 WIS.	1	136

INDEX OF SHEETS

STATE OF WISCONSIN

STATE HIGHWAY COMMISSION OF WISCONSIN

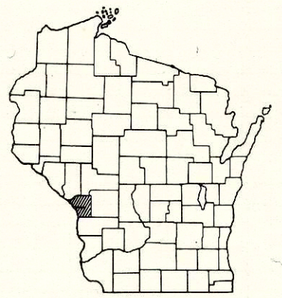
PLAN AND PROFILE OF PROPOSED

LA CROSSE - TOMAH ROAD
(BURLINGTON OVERPASS - U.S.H. 16 SECTION)
I.H. 90
LA CROSSE COUNTY
PROJECT I-90-1(21)3

U.S.H. 16 - ONALASKA ROAD
S.T.H. 157
LA CROSSE COUNTY
PROJECT T 0614(3)

CONTROL OF ACCESS

WITHIN THE LIMITS OF THE PROJECT WHERE CONTROL OF ACCESS LINE IS SHOWN THUS _____ NO ACCESS IS PERMITTED TO THE INTERSTATE TRAFFIC LANES, EXCEPT BY RAMPS AT INTERCHANGE.



SCALES
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.

END OF PROJECT T 0614(3) SEC. II
STA. 104+91.36 S.B. ℄ S.T.H. 157
260' WEST OF THE N.E. CORNER OF SEC. 9, T16N, R7W.

BEGINNING OF PROJECT T 0614(3) SEC. II
STA. 79+00 S.B. ℄ S.T.H. 157 =
LIMITS OF PROJECT I-90-1(21)3

END OF PROJECT I-IG-90-1(16)3

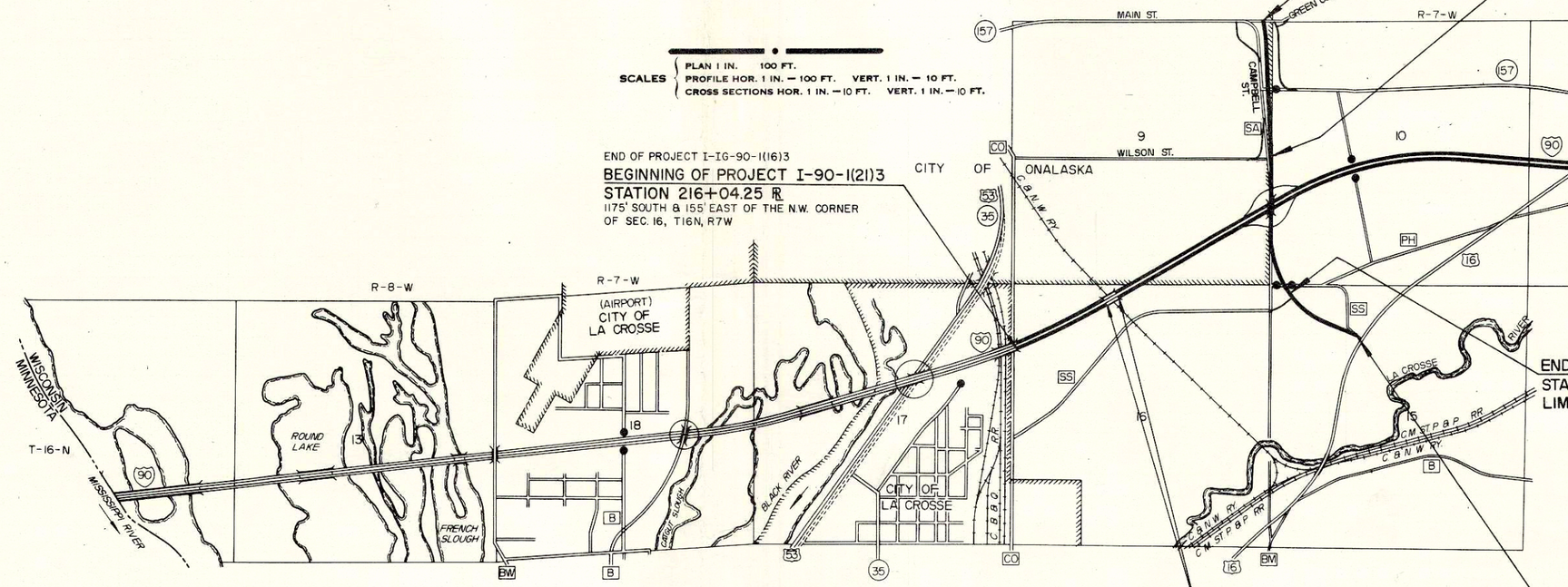
BEGINNING OF PROJECT I-90-1(21)3
STATION 216+04.25 ℄
1175' SOUTH & 155' EAST OF THE N.W. CORNER OF SEC. 16, T16N, R7W

END OF PROJECT I-90-1(21)3
STA. 342+72.85 ℄
215' SOUTH & 317' WEST OF THE CENTER OF SEC. 11, T16N, R7W.

END OF PROJECT T 0614(3) SEC. I
STA. 50+00 ℄ TEMP. CONN. =
LIMITS OF PROJECT I-90-1(21)3

STA. 233+31.82 E.B. - STA. 234+69.49 E.B.
EXCEPTION TO NET ℄ LENGTH
PROJECT IG-90-1(17)3

BEGINNING OF PROJECT T 0614(3) SEC. I
STA. 30+00 ℄ TEMP. CONN.
1710' EAST & 1160' SOUTH OF THE N.W. CORNER OF SEC. 15, T16N, R7W.



CONVENTIONAL SIGNS

STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
NEW RIGHT OF WAY LINE
PRESENT RIGHT OF WAY LINE
WIRE FENCE — WOVEN — BARBED
LOT LINE
CORPORATE OR CITY LIMITS
PROPERTY LINE — PL + 32.6
TRAVELED WAY OR P.E.
RAILROADS
BASE OR SURVEY LINE — 30

CULVERTS IN PLACE
CULVERTS REQUIRED
DROP INLET
POWER POLE
TELEPHONE OR TELEGRAPH POLE
RIGHT OF WAY MARKERS
REFERENCE STAKE FOR HUBS ONLY — +61.7 / 26.9
MARSH
HEDGE
TREES
GROUND ELEVATION ..... DATUM LINE 739
GRADE ELEVATION ..... DATUM LINE 751.6

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

LAYOUT

SCALE — 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 2.364 MI. 1.762 MI. RURAL, 0.602 MI. MCPL. } PROJECT I-90-1(21)3

TOTAL NET LENGTH OF CENTERLINE = 0.870 MI. 0.379 MI. RURAL, 0.491 MI. MCPL. } PROJECT T 0614(3)

STATE HIGHWAY COMMISSION OF WISCONSIN
MADISON, WIS.

SURVEYOR AERIAL D.E.K. NOTE BOOK L.L.
DIVISION COMPUTER G.O.B. M. O. CHECKER W.H.B.
DISTRICT CHECKER A.B.J. CORRECT

CORRECT:
DATE 12-13-65 — DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL
DATE 12/21/65 — CHIEF DESIGN ENGINEER

APPROVED:
DATE 12/22/65 — STATE HIGHWAY ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED:

IG 90 1(17)3 T 0614(3)

ESTIMATE OF QUANTITIES

CONTRACT NO. 1 & 2

B.P.R. REGION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(21)3 T 0614(3)	3	136

THIS PROJECT IS TO BE EXECUTED UNDER THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE HIGHWAY COMMISSION OF WISCONSIN — EDITION OF 1963 APPROVED OCTOBER 16, 1963 FEDERAL AID REQUIRED CONTRACT PROVISIONS APPROVED OCTOBER 15, 1963, AND SPECIAL PROVISIONS AS ATTACHED TO PROPOSALS.

CONTRACT NO.	SEC. NO.	STATION TO STATION	NET LENGTH OF CENTER LINE	CLEARING	CLEARING	GRUBBING	GRUBBING	REMOVING OLD CULVERT STA. 52"E"+50	REMOVING OLD CULVERT STA. 91+00 FR.RD.	REMOVING OLD BRIDGE STA.		ROAD SIDE CLEARING	CHAIN LINK FENCE 6'	LAND-MARK REF. MON.	EXCAVATION UNCLASSIFIED	EXCAVATION ROCK	EXCAVATION MARSH	EXCAVATION BORROW
		ITEM NO.		20101	20102	20104	20105	20301	20302	20351		20201	61606	62101	20503	20502	20505	20801
		UNIT	LIN. FT.	STA.	IN. DIA.	STA.	IN. DIA.	L.S.	L.S.	L.S.		STA.	L.F.	EACH	C.Y.	C.Y.	C.Y.	C.Y.
1	1	I 90-1(21)3 11"C0"+00-38"C0"+50 (URBAN LA X)		17		17									22,664			45,831
1	2	I 90-1(21)3 216+04.25-242+00 ℄ (RURAL)																
		273+77.17-342+72.85 ℄ (RURAL)	9,304.47	9		9						4	19,745	4	240,540			432,196
		50+00-58+00 S.T.H. 157 (RURAL)																
1	3	I 90-1(21)3 242+00-273+77.17 (MCPL.-ONA.)	3,177.51	13		13						4	7,995		71,595			87,109
		58+00-79+00 S.T.H. 157 (MCPL.-ONA.)																
		TOTAL PROJECT I 90-1(21)3	12,481.98	39		39						8	27,740	4	334,799			565,136
1	1	T 0614 (3) 30+00-50+00 S.T.H. 157 (RURAL)	2,000.00	25		25							1,860		67,625			
1	2	T 0614 (3) 79+00-104+91.36 (MCPL.-ONA.)	2,591.36	25		25		1	1			6	4,820		76,069			14,185
		TOTAL PROJECT T 0614 (3)	4,591.36	50		50		1	1			6	6,680		143,694			14,185
		TOTAL CONTRACT 1	17,073.34	89		89		1	1			14	34,420	4	478,493			579,321

STATION TO STATION		TEST ROLLING PROJ. I-90-1(21)3	MAINT. & REPAIR OF HAUL ROADS PROJ. I-90-1(21)3	FIELD OFFICE PROJ. I-90-1(21)3	GRANULAR SUBBASE COURSE	FINISHING ROADWAY PROJ. I-90-1(21)3	FINISHING ROADWAY PROJ. T0614(3)	REMOVING CURB & GUTTER	REMOVING INLETS	REMOVING GUARDRAIL	GRAVEL OR CRUSHED STONE BASE COURSE	CALCIUM CHLORIDE SURFACE TREAT.	CONCRETE BASE COURSE	CONCRETE BASE COURSE	BITUM. MAT. FOR PRIME COAT	BITUMINOUS CONCRETE PAVEMENT	BITUM. MAT. FOR SURFACE COURSE	CONCRETE PAVEMENT	CONCRETE PAVEMENT	OBLITERATING OLD ROAD	CONCRETE HEADER	CONCRETE SURFACE DRAINS	CONCRETE PAVEMENT REINF
ITEM NO.		21002	61803	90001	21201	21302	21303	20405	20416	20411	30402	62301	30	30	40202	40701	40702	409	409	21401	40933	40934	40950
UNIT		L.S.	L.S.	L.S.	C.Y.	L.S.	L.S.	L.F.	EACH	L.F.	TON	TON	S.Y.	S.Y.	GAL.	TON	TON	S.Y.	S.Y.	STA.	S.Y.	C.Y.	S.Y.
I 90-1(21)3 11"C0"+00-38"C0"+50 (URBAN LA X)					3,093			200	1	964	6,920	9.1								4.0			
273+77.17-342+72.85 ℄ (RURAL)		.7	*.7	.7	24,409	.7					4,164	6.4								7.3			
I 90-1(21)3 242+00-273+77.17 (MCPL.-ONA.)		.3	*.3	.3	11,487	.3					4,176	5.5			487	201	12			4.0			
TOTAL PROJECT I 90-1(21)3		1	1	1	38,989	1		200	1	964	15,260	21.0			487	201	12			15.3			
T 0614 (3) 30+00-50+00 S.T.H. 157 (RURAL)					3,024		.44				6,376	7.7								2.0			
T 0614 (3) 79+00-104+91.36 (MCPL.-ONA.)					6,684		.56			58	13,645	7.3			2,504	1,385	83			1.2			
TOTAL PROJECT T 0614 (3)					9,708		1			58	20,021	15.0			2,504	1,385	83			3.2			
TOTAL CONTRACT 1		1	1	1	48,697	1	1	200	1	1,022	35,281	36			2,991	1,586	95			18.5			

* NON FEDERAL PARTICIPATION

BRIDGES (STRUCTURES OVER 20 FT. SPAN)

CONTRACT NO.	SEC. NO.	BRIDGE NO.	EXCAVATION FOR STRUCTURES	GRANULAR BACKFILL	CONCRETE MASONRY	PRESTRESSED GIRDER	PRESTRESSED GIRDER	BAR STEEL REINF.	STRUCTURAL CARBON STEEL	STRUCTURAL LOW ALLOY STEEL	LUBRICATED BRONZE PLATES	SHEET ZINC	BEARING PADS	TR'T'D. LUMBER AND TIMBER	TREATED TIMBER TEST PILING B-32-55		UNTREATED TIMBER PILING DELIVERED	UNTREATED TIMBER PILING DRIVEN	TREATED TIMBER PILING DELIVERED	TREATED TIMBER PILING DRIVEN	CAST IN PLACE CONC. TEST PILING	FIELD OFFICE	CAST-IN-PLACE CONCRETE PILING DELIVERED	CAST-IN-PLACE CONCRETE PILING DRIVEN	TUBULAR RAILING TYPE "G"	FLOOR DRAINS TYPE	FLOOR DRAINS TYPE	DOWNSPOUT 6"	SLOPE PAVING CONCRETE
			20601	20901	50201	503	503	50501	50601	50605	50614	50616	50621	50702	50830		50810	50813	50816	50820	51001	90001	51010	51015	51332	5140	5140	51426	60404
			C.Y.	C.Y.	C.Y.	L.F.	L.F.	LB.	LB.	LB.	LB.	LB.	S.F.	M.B.M.	L.S.		L.F.	L.F.	L.F.	L.F.	L.S.	L.S.	L.F.	L.F.	L.F.	EACH	EACH	L.F.	S.Y.
2	3	B-32-55	410	430	589			116,100	317,270	3,920	149		29		1				2,465	2,465		1			510				390

CULVERTS (STRUCTURES 20 FT. SPAN & UNDER)

CONTRACT NO.	SEC. NO.	CULVERT NO.	REMOVE OLD CULV'T. STA.	EXCAVATION FOR STRUCTURES	GRANULAR BACKFILL	CONCRETE MASONRY	BAR STEEL REINF.	STRUCTURAL CARBON STEEL	TR'T'D. LUMBER AND TIMBER	UNTR'D. TIMBER TEST PILING	TREATED TIMBER PILING DELIVERED	TREATED TIMBER PILING DRIVEN	FLOOR DRAINS TYPE		INLET COVER TYPE MS
			20301	20602	20901	50401	50502	50601	50702	50801	50816	50820	5140		61171
			L.S.	C.Y.	C.Y.	C.Y.	LB.	LB.	M.B.M.	L.S.	L.F.	L.F.	EACH		EACH
1	2	I 90-1(21)3 C-32-37		1,350		227.6	30,540								1
1	2	I 90-1(21)3 C-32-38		1,210		152.4	24,700								
1	2	I 90-1(21)3 C-32-39		1,140		185.6	30,500								
		TOTAL PROJECT I90-1(21)3		3,700		565.6	85,740								1
1	1	T 0614(3) C-32-40		3,680		269.6	48,300								
1	1	T 0614(3) C-32-41		2,440		313.2	27,920	1,150							
1	2	T 0614(3) C-32-34		340		111.7	11,280								
		TOTAL PROJECT T 0614(3)		6,460		694.5	87,500	1,150							
		TOTAL CONTRACT 1.		10,160		1,260.1	173,240	1,150							1

CONTRACT NO.	SEC. NO.	RUBBLE MASONRY MORTAR	RUBBLE MASONRY DRY	CULVERT PIPE CLASS III	CULVERT PIPE CLASS III 24"	CORR. METAL CULV'T. PIPE 24"	REINF. CONC. CULVERT PIPE CLASS III 18"	CLASS III 24"	CLASS III 30"	CLASS III 36"	CLASS III 42"	CLASS III 48"	CLASS IV 30"	CLASS V 30"	APRON ENDWALLS FOR C.P. 18"	APRON ENDWALLS FOR C.P. 24"	METAL APRON ENDWALLS FOR C.P. 24"
		51801	51810	52003	52005	52107	52203	52205	52207	52209	52210	52211	52231	52250	52061	52063	52147
		C.Y.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	EACH	EACH	EACH
1	1			60		210									4		2
1	2	4.0		30	118		582		212	450	174	76	236	562	2	4	
1	3	11.7			46		104	168	182	300	62		542			2	
		15.7		90	164	210	686	168	394	750	236	76	778	562	6	6	2
1	1			106	178										6	6	
					58			254	88							2	
				106	236			254	88						6	8	
		[illegible]7		196	400	210	686	422	482	750	236	76	778	562	12	14	2

CONTRACT NO.	SEC. NO.	REINFORCED CONCRETE APRON ENDWALLS FOR CULVERT PIPE 18"	24"	30"	36"	42"	48"	SLOPE PAVING CONCRETE	REMOVING SEPTIC TANKS	RIP-RAP	HEAVY RIP-RAP	STORM SEWER REINFORCED CONCRETE PIPE CLASS III 30"					CATCH BASINS TYPE	CATCH BASINS TYPE	TYPE	INLETS TYPE	INLETS TYPE 8	INLETS TYPE 9
		52261	52263	52265	52267	52268	52269	60404	20417	60601	60602	60831	60	60	60	60	6110	6110	6111		61123	61124
		EACH	EACH	EACH	EACH	EACH	EACH	S.F.	EACH	C.Y.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	EACH	EACH	EACH	EACH	EACH	EACH
1	1									9												
1	2	10		4	4	2	2			1	300										6	2
1	3	1		4						2											1	1
		11		8	4	2	2			12	300										7	3
1	1								2		1,380											
			6	2					1		470											
			6	2					3		1,850											
		11	6	10	4	2	2		3	12	2,150										7	3

CONTRACT NO.	SEC. NO.	CATCH BASINS COVERS TYPE	CATCH BASINS COVERS TYPE	MANHOLES COVERS TYPE	MANHOLES COVERS TYPE	INLET COVERS TYPE M.S.	INLET COVERS TYPE	PIPE UNDER DRAIN UNPERFORATED C.M.P. 12"	STEEL PLATE BEAM GUARD	MARKER POSTS	MARKER POSTS FOR R-O-W	ABANDONING WELLS	STRAW MULCH	SALVAGED TOPSOIL	FERTILIZER	SEEDING	SODDING	MAINT. & REPAIR OF HAUL ROADS PROJ. T 0614 (3)
		6113	6113	6115	6115	61171	6116	61214	61410	61421	61422	20444	62701	62505	62901	63001	63101	61802
		EACH	EACH	EACH	EACH	EACH	EACH	L.F.	L.F.	EACH	EACH	EACH	S.Y.	S.Y.	CWT.	S.Y.	S.Y.	L.S.
1	1								2,403	4	29		18,941	23,569	21.2	23,569	310	
1	2					10		68	513	37	15		70,663	181,380	219.2	243,694	4,475	
1	3					3		106	28	17	4		23,588	68,902	78.0	86,255	1,015	
						13		174	2,944	58	48		113,192	273,851	318.4	353,518	5,800	
1	1								806	6	15	2	1,956	45,977	41.5	45,977		.44
									847	10	20	1	10,455	58,961	53.1	58,961	332	.56
									1,653	16	35	3	12,411	104,938	94.6	104,938	332	1
						13		174	4,597	74	83	3	125,603	378,789	413	458,456	6,132	1

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT		B. P. R. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
		STATE	FEDERAL			
32.3	90.1		13.2	4 WIS.	4.8	

CONST. PROJECT I-90-1(21)3
T 0614(3)

4.3 136

CURVE #7
P.I. = 269+22.71
I = 240°-14'
Δ = 60°-14'
D = 13°-00'
T = 255.65'
L = 463.33'
R = 440.73'
E = 68.79'

CURVE #8
P.I. = 276+01.40
I = 142°-26'
Δ = 37°-34'
D = 9°-00'
T = 216.57'
L = 417.50'
R = 636.62'
E = 35.81'

CURVE #9
P.I. = 283+99.85
I = 223°-51'
Δ = 43°-51'
D = 7°-30'
T = 307.52'
L = 584.72'
R = 763.94'
E = 59.57'

CURVE #15
P.I. = 262+33.18
I = 228°-45'
Δ = 48°-45'
D = 7°-30'
T = 346.14'
L = 650.0'
R = 763.94'
E = 74.77'

CURVE #16
P.I. = 271+73.46
I = 231°-17'
Δ = 51°-17'
D = 13°-00'
T = 211.58'
L = 394.45'
R = 440.73'
E = 48.15'

CURVE #23
P.I. = 264+75.26
I = 133°-52'
Δ = 46°-08'
D = 7°-30'
T = 325.26'
L = 615.0'
R = 763.94'
E = 66.39'

CURVE #24
P.I. = 272+32.96
I = 217°-48'
Δ = 37°-48'
D = 9°-00'
T = 217.96'
L = 420.0'
R = 636.62'
E = 36.29'

CURVE #25
P.I. = 279+73.25
I = 129°-17'
Δ = 50°-43'
D = 13°-00'
T = 208.85'
L = 390.07'
R = 440.73'
E = 47.00'

CURVE #31
P.I. = 276+46.66
I = 119°-00'
Δ = 61°-00'
D = 13°-00'
T = 259.59'
L = 469.20'
R = 440.73'
E = 70.78'

CURVE #32
P.I. = 285+75.98
I = 228°-47'
Δ = 48°-47'
D = 7°-30'
T = 346.36'
L = 650.38'
R = 763.94'
E = 74.88'

S.B. 157 ℄ CURVE
P.I. = 79+67.89
I = 175°-11'
Δ = 4°-49'
D = 0°-30'
T = 482.0'
L = 963.4'
R = 11460.0'
E = 10.2'

S.B. 157 R/W ℞ CURVE
P.I. = 49+67.43
I = 248°-33'
Δ = 68°-33'
D = 3°-00'
T = 1301.73'
L = 2285.0'
R = 1909.9'
E = 40.14'

NOTE: SEE SHEET NO. 4.13 FOR CONTINUATION OF RIGHT OF WAY PLAT TO THE NORTH.

NOTE: SEE SHEET NO. 4.13 FOR CONTINUATION OF RIGHT OF WAY PLAT TO THE SOUTH.

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

LEGEND
DENOTES NO ACCESS

REVISION DATE
5-20-63
8-14-63
11-26-63
4-17-64
8-17-64
3-17-65
8-25-65

STATE HIGHWAY COMMISSION OF WISCONSIN

PLAT OF RIGHT OF WAY REQUIRED

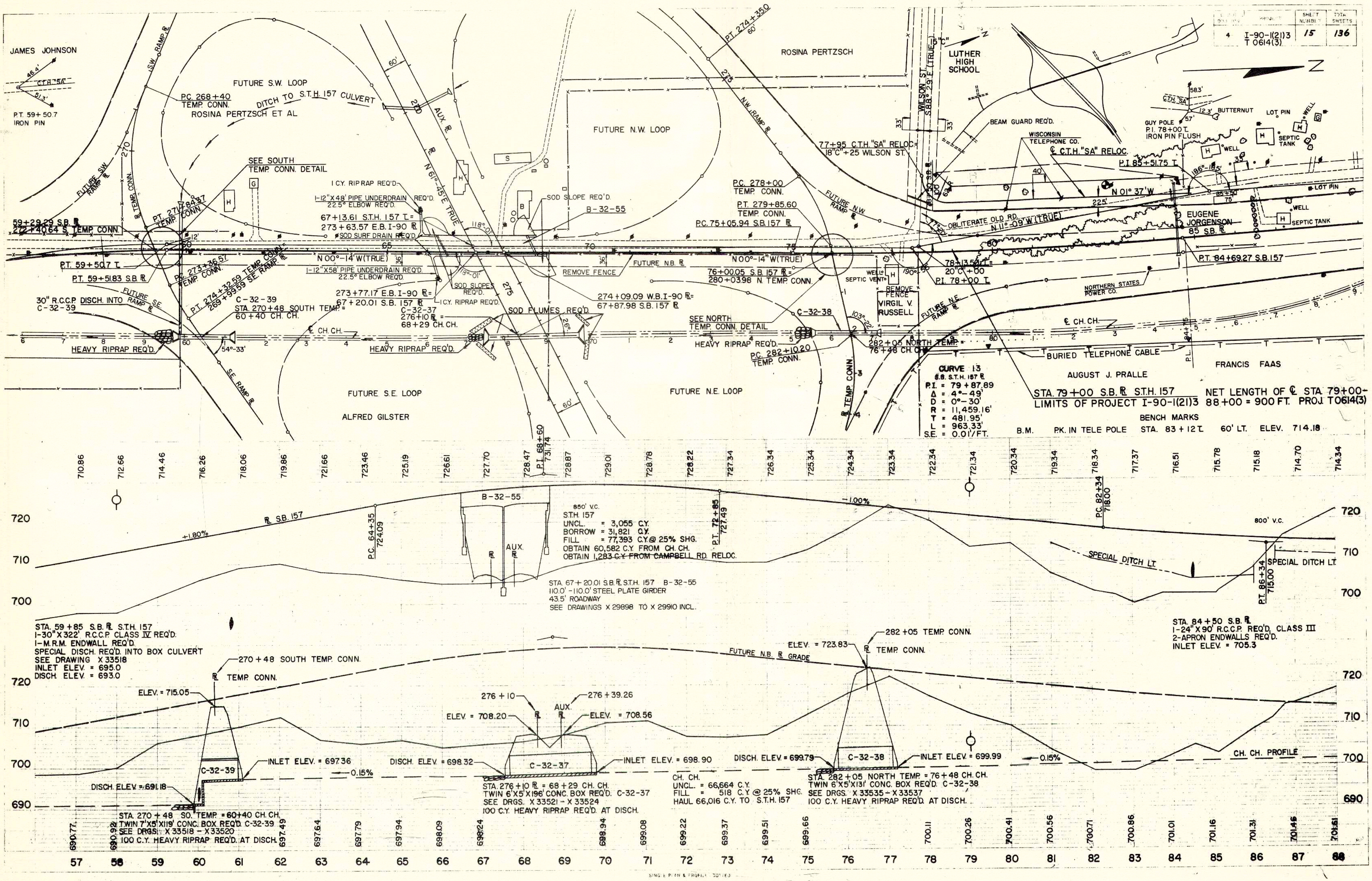
PROJECT I 90-1(2)0

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

SCALE
0 100 200 400 FEET

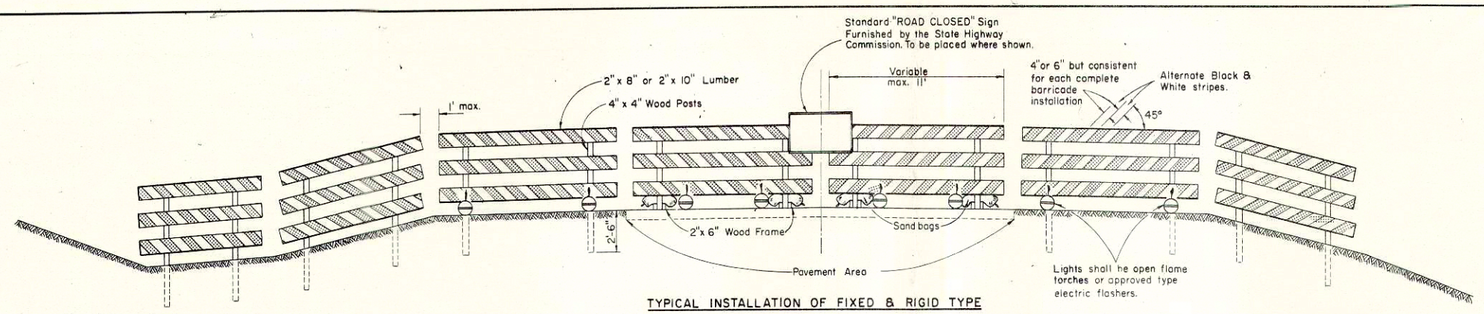
DATED MARCH 6, 1963

Division	Project	Sheet Number	Total Sheets
4	I-90-1(21)3 T 0614(3)	15	136

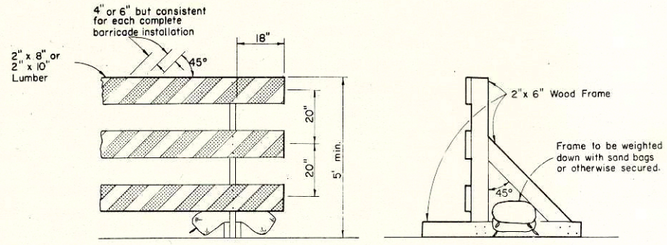


SINGLE PLAN & PROFILE DOTTED

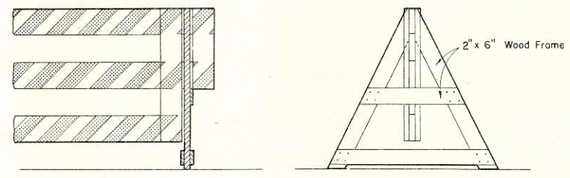
25.6-136
P.10-17



TYPICAL INSTALLATION OF FIXED & RIGID TYPE



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS I BARRICADE

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 painted 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 of 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 woodworking 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 a prime coat of good grade wood primer, followed by two coats of white "Codit Reflective Liquid" (Minnesota Mining Co.) or equivalent, or reflective sheeting wide angle, flat top "Scotchlite" brand material (Minnesota Mining Co.) or equivalent.

DIRECTION OF DIAGONAL STRIPES

Where a barricade extends entirely across the roadway and no vehicle access provision, the stripes shall slope downward toward the highway centerline.

Where vehicle access is permitted, the stripes shall slope downward in the direction toward which vehicles must turn in detouring.

Where both right and left turns are provided for, the stripes shall slope downward in both directions from the center.

MEASUREMENT & PAYMENT

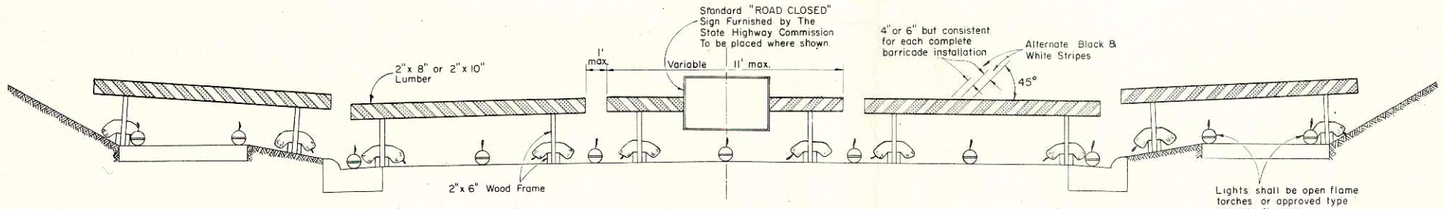
All barricades, unless otherwise provided for in the plans and/or special provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.

NOTE:

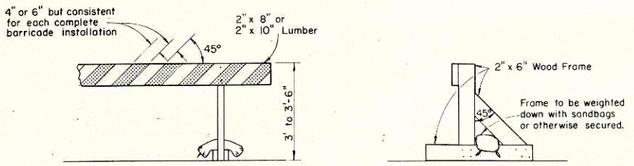
Lighting devices for barricades shall conform to the requirements of the Standard Specifications.

NOTE:

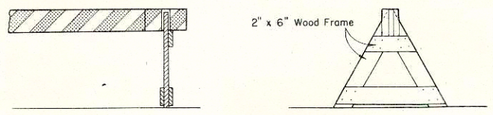
All lumber or timber dimensions shown hereon are nominal.



TYPICAL INSTALLATION OF RIGID TYPE



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS II BARRICADE

CONSTRUCTION BARRICADE

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

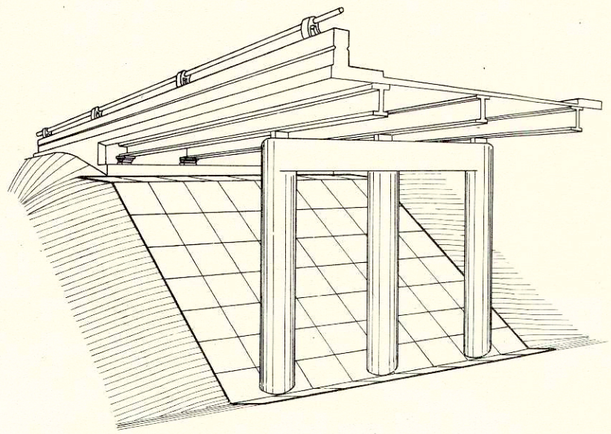
2-5-63 — DATE — J. S. Pilf — ENGINEER OF DESIGN

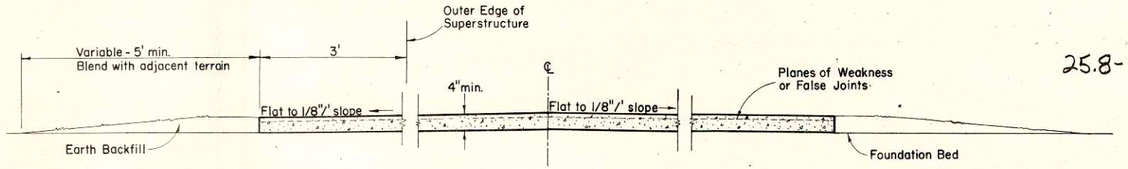
APPROVED:

2/6/63 — DATE — E. L. Rustigan — STATE HIGHWAY ENGINEER

PLATE NO. 7-4.1.4

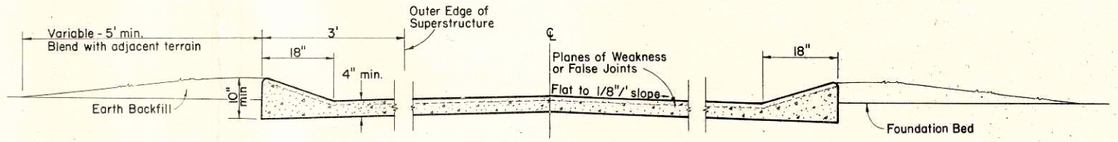
25.8-136





SECTION "A-A"

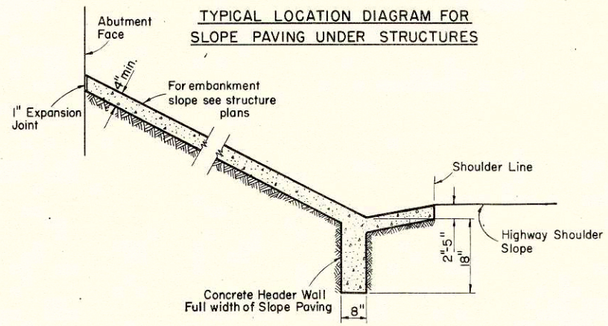
To be used when Δ = 75°+ to 90°



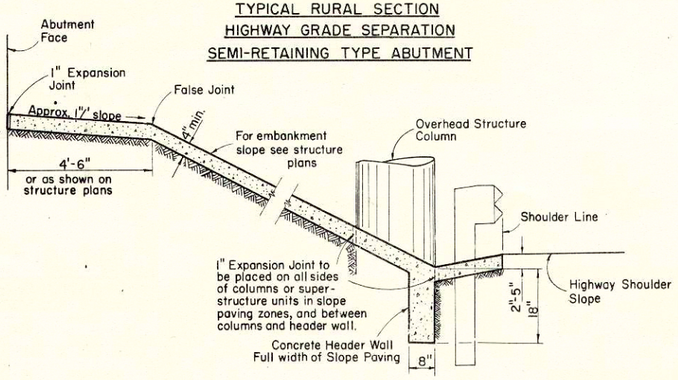
SECTION "B-B"

To be used when Δ = 75° or less

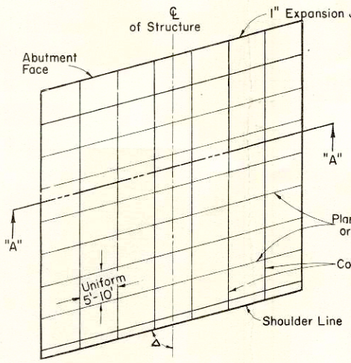
TYPICAL LOCATION DIAGRAM FOR SLOPE PAVING UNDER STRUCTURES



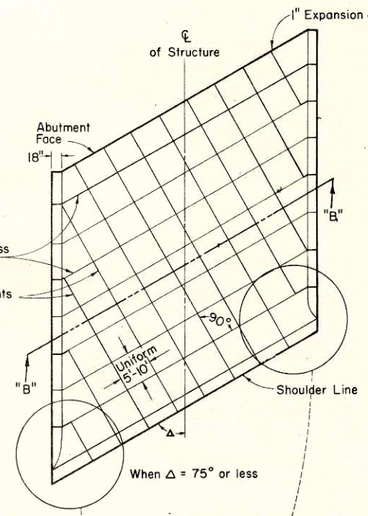
TYPICAL RURAL SECTION
HIGHWAY GRADE SEPARATION
SEMI-RETAINING TYPE ABUTMENT



TYPICAL RURAL SECTION
HIGHWAY GRADE SEPARATION
SILL TYPE ABUTMENT

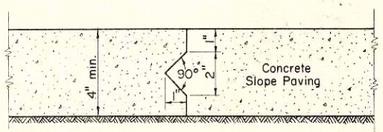


When Δ = 75°+ to 90°

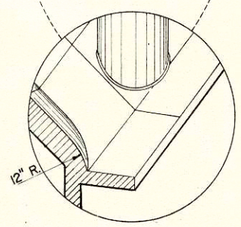


When Δ = 75° or less

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 by the square yard, which yardage shall be the summation of the total area measured on the plane of the surface thereof, which area includes the header wall and thickened edges, but exclusive of the areas occupied by the 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:

11-5-64
DATE

E. J. Bobek
CHIEF DESIGN ENGINEER

APPROVED:

11/5/64
DATE

E. L. Rottier
STATE HIGHWAY ENGINEER

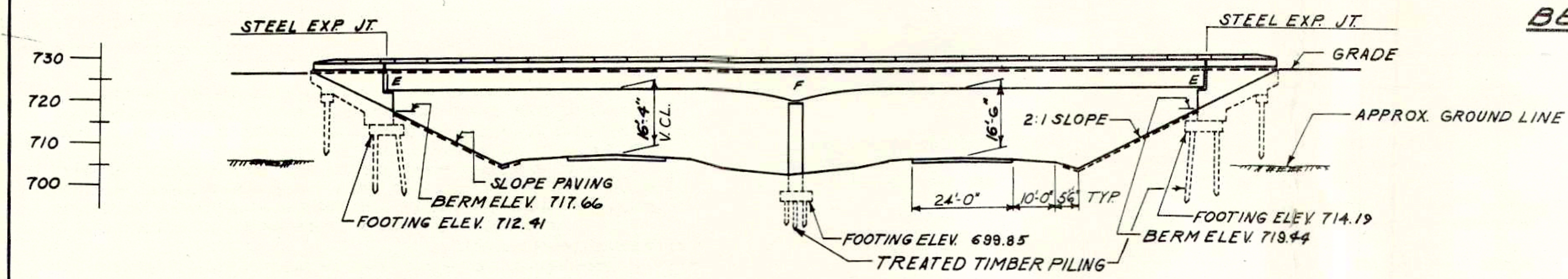
PLATE NO. 8-3.3.7

FORM E-B-11-62

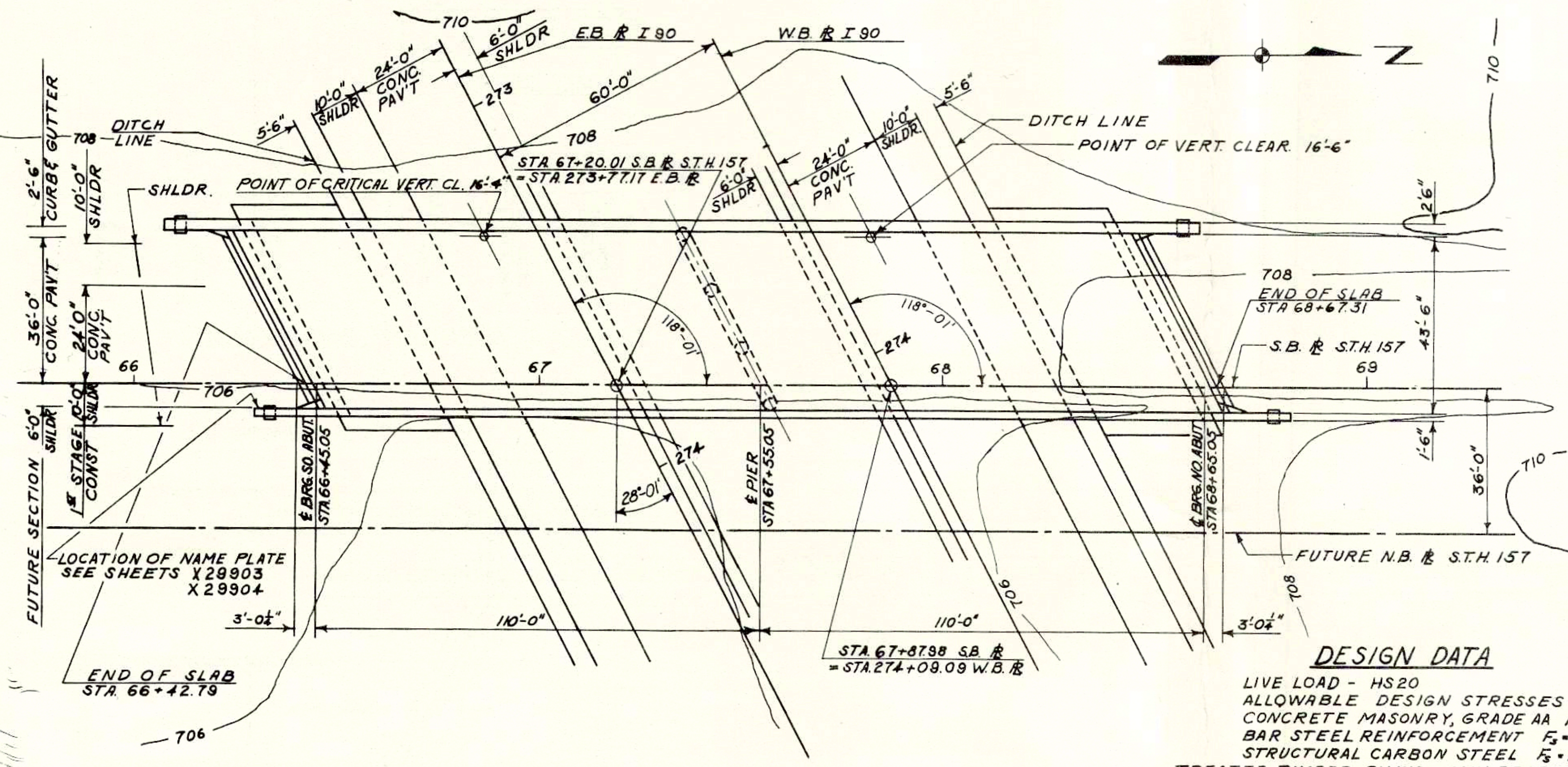
COUNTY & HIGHWAY	ROUTE & SECTION	CLASS & AGREEMENT STATE	CLASS & AGREEMENT FEDERAL	B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
72.3	90.1		13.1	4	I-90-1(21)3	26	136

STA.	DESCRIPTION	ELEV.
83+12	P.K. IN TELE. POLE 60' LT.	714.34

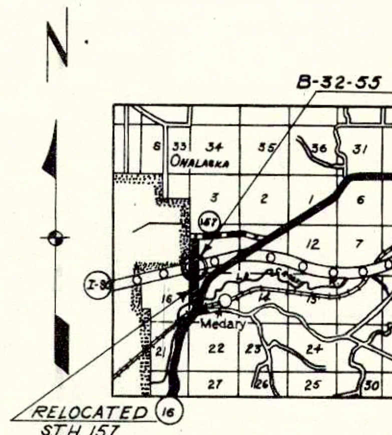
BENCH MARK



ELEVATION
NORMAL TO I.H 90



PLAN



LOCATION MAP

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL CONCRETE MASONRY SHALL BE GRADE "AA", f_c EQUAL TO 1400 P.S.I.

BEVEL ALL EXPOSED EDGES OF CONCRETE 1" UNLESS OTHERWISE SHOWN OR NOTED.

BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING TO THE EXTENT SHOWN ON THIS SHEET AND ON SHEETS X29905 AND X29907.

ALL FIELD CONNECTIONS SHALL BE MADE WITH 3/4" ϕ HIGH TENSILE STRENGTH BOLTS (FRICTION TYPE) UNLESS OTHERWISE SHOWN OR NOTED.

UPPER LIMITS FOR "EXCAVATION FOR STRUCTURES" AT THE ABUTMENTS SHALL BE AS SHOWN ON X29908 AND AT THE PIER, SHALL BE THE FINISHED GRADED SECTION.

GRANULAR BACKFILL SHALL BE PLACED AT BOTH ABUTMENTS TO THE LIMITS SHOWN ON X29908

PILING AT ALL SUB-STRUCTURE UNITS SHALL BE TREATED TIMBER PILING, ESTIMATED LENGTH OF ABUT. PILES - 30'-0"; ESTIMATED LENGTH OF PIER PILES - 25'-0".

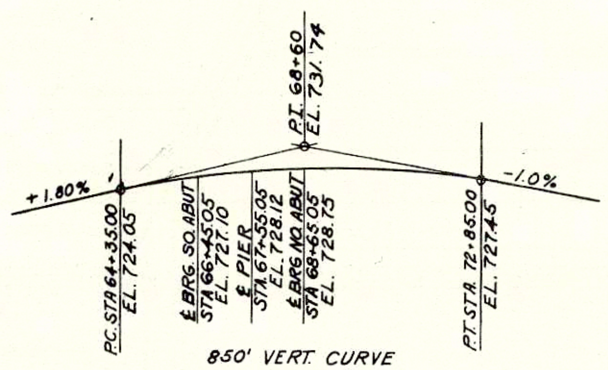
DESIGN DATA

LIVE LOAD - HS20
ALLOWABLE DESIGN STRESSES:
CONCRETE MASONRY, GRADE AA F_c = 1400 PSI
BAR STEEL REINFORCEMENT F_s = 20,000 PSI
STRUCTURAL CARBON STEEL F_s = 20,000 PSI
TREATED TIMBER PILING - MIN BEARING VALUE = 24 TONS PER PILE

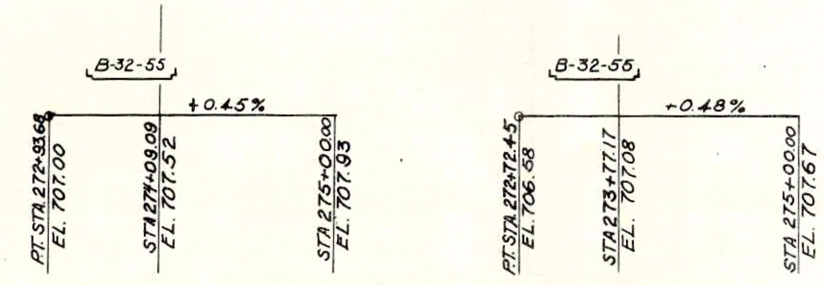
TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	S. ABUT.	PIER	N. ABUT.	TOTAL
EXCAVATION FOR STRUCTURES	C.Y.	—	150	120	140	410
GRANULAR BACKFILL	C.Y.	—	230	—	200	430
CONCRETE MASONRY	C.Y.	284	116.5	72	116.5	589
BAR STEEL REINFORCEMENT	LB.	96,360	5,160	9,430	5,150	116,100
STRUCTURAL CARBON STEEL	LB.	317,270	—	—	—	317,270
STRUCTURAL LOW ALLOY STEEL	LB.	3,920	—	—	—	3,920
LUBRICATED BRONZE PLATES	LB.	149	—	—	—	149
BEARING PADS	S.F.	29	—	—	—	29
* TREATED TIMBER TEST PILING	L.S.	—	—	—	—	1
TREATED TIMBER PILING - DEL.	L.F.	—	720	1,025	720	2,465
TREATED TIMBER PILING - DRV.	L.F.	—	720	1,025	720	2,465
TUBULAR RAILING TYPE-G	L.F.	510	—	—	—	510
SLOPE PAVING (CONCRETE)	S.Y.	—	190	—	200	390
NON-BID ITEMS						
ALUMINUM OR ZINC PLATES	S.F.	28	—	—	—	28

* DRIVE ONE 40'-0" TEST PILE AT EACH SUB-STRUCTURE UNIT.



GRADE LINE S.T.H. 157
S.B. REF. LINE
STRUCTURE B-32-55



GRADE LINE I-90

LIST OF DRAWINGS

1. GENERAL PLAN ____ X29898
2. SUPERSTRUCTURE ____ X29899
3. SUPERSTRUCTURE ____ X29900
4. EXPANSION JOINT ____ X29901
5. BEARING DETAILS ____ X29902
6. TUBULAR ALUMINUM RAILING, TYPE "G" ____ X29903
7. TUBULAR STEEL RAILING, TYPE "G" ____ X29904
8. SOUTH ABUTMENT ____ X29905
9. PIER ____ X29906
10. NORTH ABUTMENT ____ X29907
11. ABUTMENT DETAILS ____ X29908
12. BILL OF BARS ____ X29909
13. SUBSURFACE EXPLORATION ____ X29910

STATE HIGHWAY COMMISSION OF WISCONSIN

GENERAL PLAN

CO. LA CROSSE	TN. MEDARY		STA. 67+55.05
SECTION 10	TOWN 16 N		RANGE 7 W
DESIGN SPEC. AASHO 61	LOADING HS 20		CONST. SPEC. 1963
DATE 11-25-64	DESIGN G. N.	DRAWN JAS	CKD. By

REVISED

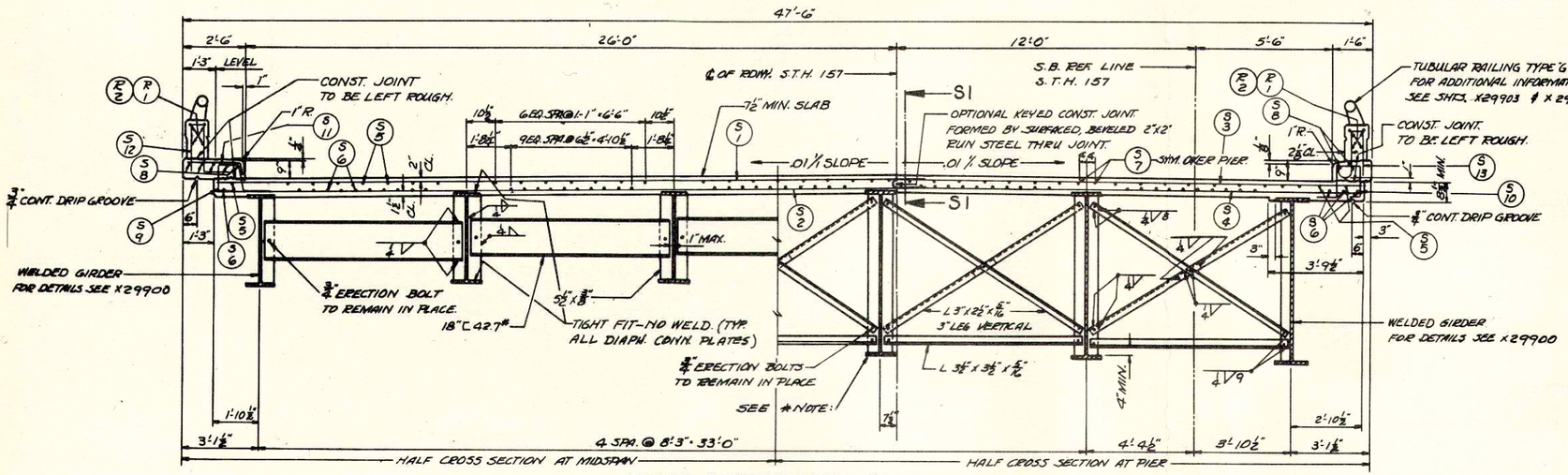
RECOMMENDED: H. B. Schultz — ENGINEER OF BRIDGES
APPROVED: H. J. Burmeister — STATE HIGHWAY ENGINEER

STRUCTURE B-32-55 SHEET 1 OF 13

X29898

FORM E-B-12-62

B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(21)8	27	136



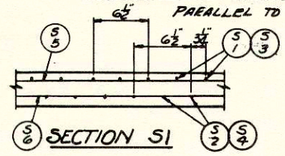
CROSS SECTION THRU RDWY.

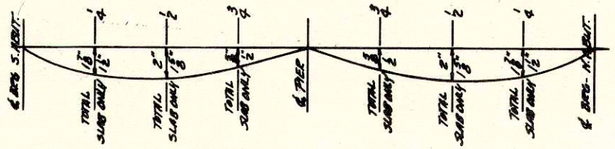
AT RIGHT ℄ TO REF. LINE. LOOKING NORTH.

* NOTE:
IF THE OPTIONAL CONSTRUCTION JOINT IS USED THIS GIRDER WILL TAKE 50% OF ITS ANTICIPATED SLAB DEAD LOAD DEFLECTION WHEN THE FIRST FLOOR POUR IS COMPLETED.

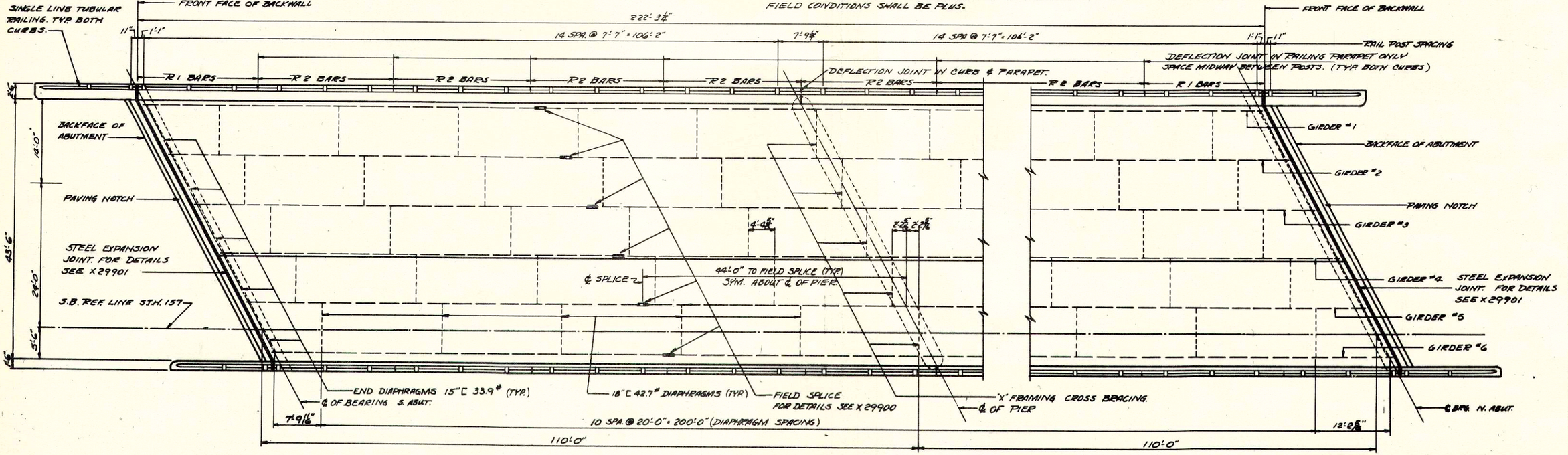
NOTE:
SLAB THICKNESS 7½" CONSTANT FOR GIRDERS #1 THRU #5
SLAB THICKNESS 8½" CONSTANT FOR GIRDERS #6
CAMBER IN GIRDERS PROVIDE THE ABOVE THEORETICAL SLAB THICKNESS. ANY CHANGE IN THICKNESS DUE TO VARIABLE FIELD CONDITIONS SHALL BE PLUS.

NOTE:
TOP & BOTTOM TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS ON OR ADJACENT TO EACH GIRDER AND BY INDIVIDUAL BAR CHAIRS AT 3'-0" CENTERS AT APPROXIMATELY THE ¼ POINTS BETWEEN GIRDERS.
WHERE EMBEDMENT OF GIRDER FLANGES EXCEEDS 1½" THE BOTTOM TRANSVERSE SLAB REINFORCEMENT SHALL BE TIED DOWN TO HOLD 1½" CLEAR AT MIDSPAN BETWEEN GIRDERS.
THE 9" HEIGHT OF CURB TO BE MAINTAINED AT ALL POINTS OF BEARING.
TRANSVERSE REINFORCEMENT IN SLAB SHALL BE PLACED PARALLEL TO ℄ OF SUBSTRUCTURE UNITS.





DEAD LOAD DEFLECTIONS



PLAN

DIRECTION OF POUR MAY BE MADE IN EITHER DIRECTION. SEE SHEET 5 FOR LOCATION OF TEMPORARY HOLD DOWN DEVISE.

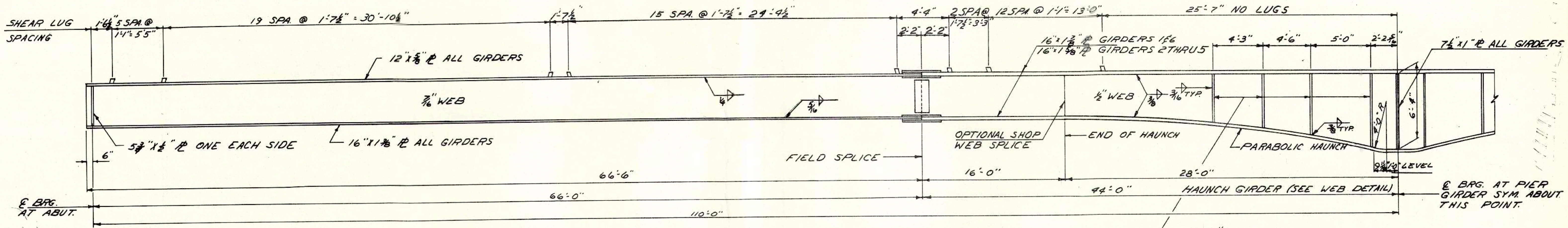
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN			
	SUPERSTRUCTURE			
	DESIGN SPEC. AASHO '61	LOADING H S 20	SHEET DATED 1963	
	DATE 1-25-63	DESIGN G. N.	DRAWN I. L. A.	CHKD. BK
STRUCTURE B-32-55	SHEET 2 OF 13			

X29899

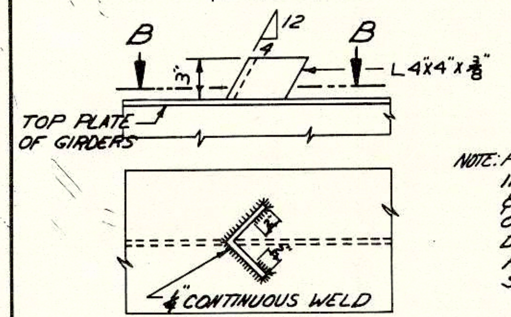
FORM E-B-12-62

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

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(21)3	28	136

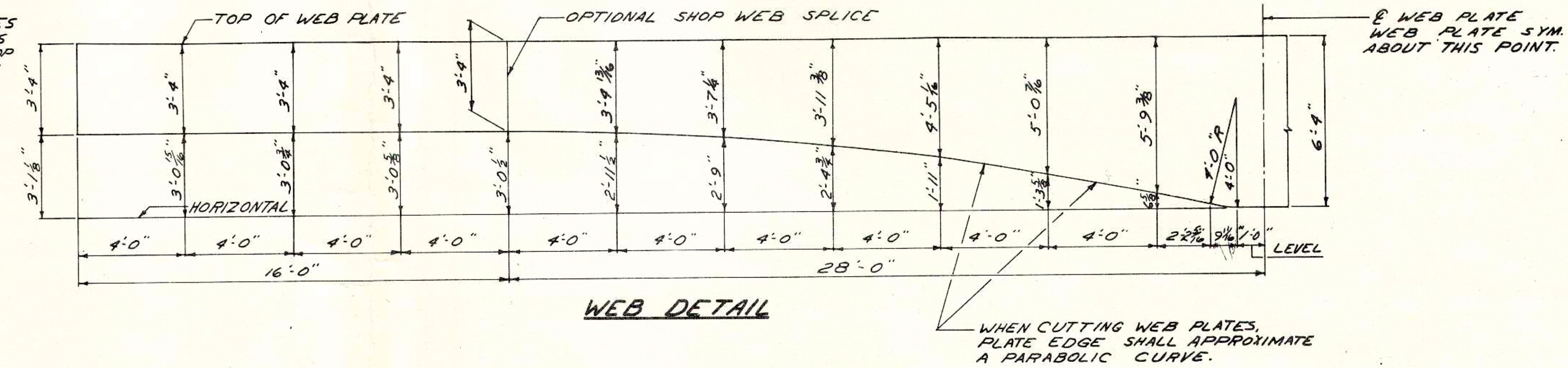


HALF LONGITUDINAL GIRDER SECTION

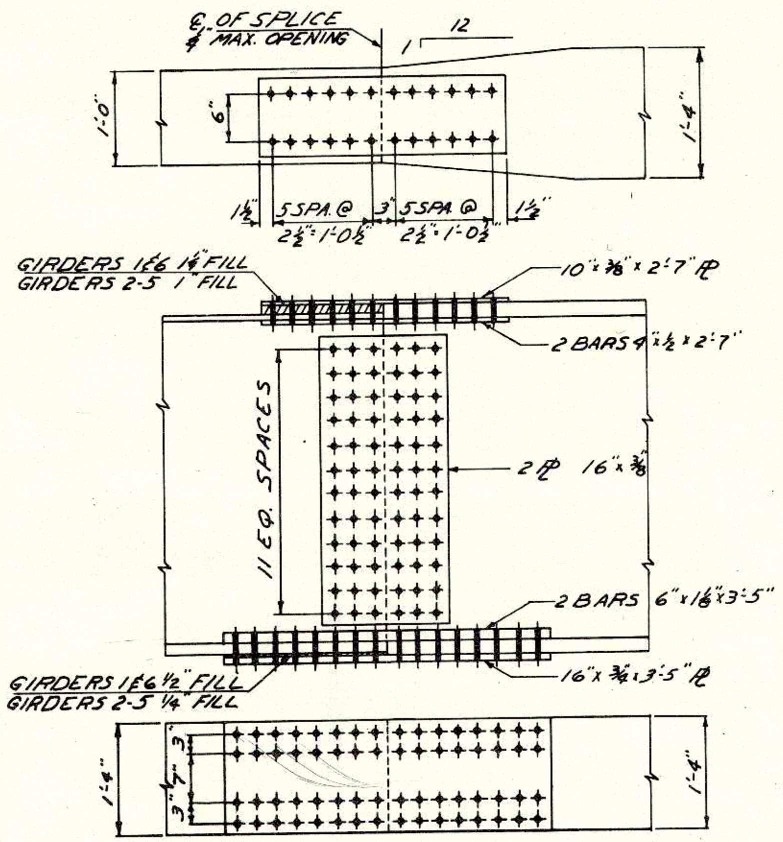


SHEAR LUG DETAIL

NOTE: FLANGE & WEB PLATES SHOWN OVER 57'-0" IN LENGTH MAY BE MADE OF TWO PIECES & SHOP BUTT WELDED. LOCATION & DETAILS OF SPLICES SHALL BE SHOWN ON THE SHOP DRAWINGS AND ARE SUBJECT TO THE APPROVAL OF THE ENGINEER. ALL SPLICES SHALL BE GROUND FLUSH.

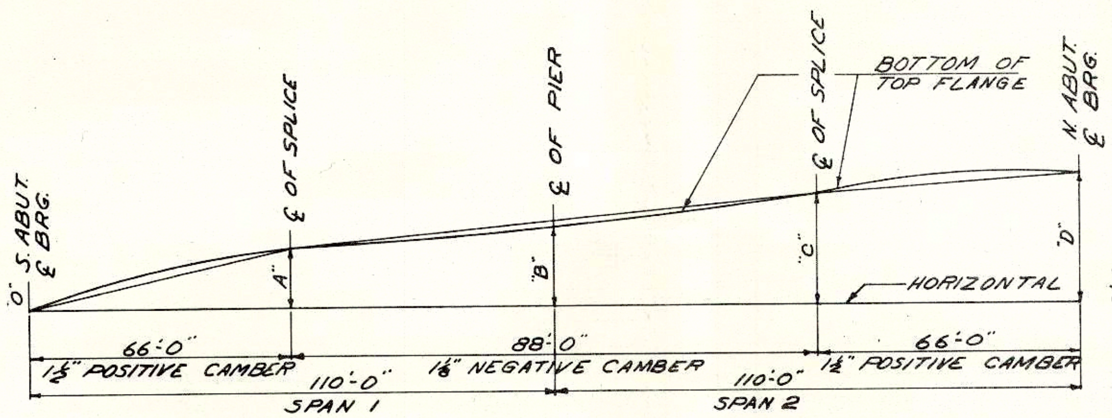


WEB DETAIL



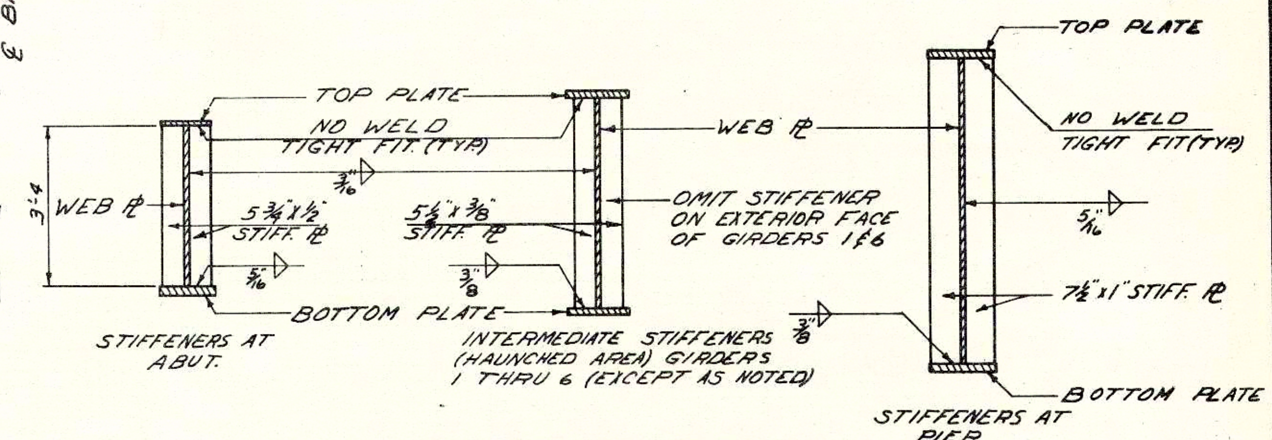
SPLICE DETAIL

NOTE: ⅞" ϕ HIGH STRENGTH BOLTS (FRICTION TYPE) SHALL BE USED AT SPLICES.
TACK WELD FILL MATERIAL TO GIRDER FLANGES.



LOCATION	A	B	C	D
GIRDER #1	9 15/16"	1'-1 1/8"	1'-6 1/2"	1'-9 7/16"
GIRDER #2	9 13/16"	1'-0 15/16"	1'-6 1/4"	1'-9 1/16"
GIRDER #3	9 11/16"	1'-0 11/16"	1'-6"	1'-8 5/8"
GIRDER #4	9 5/8"	1'-0 1/2"	1'-5 11/16"	1'-8 1/4"
GIRDER #5	9 1/2"	1'-0 5/16"	1'-5 7/16"	1'-7 7/8"
GIRDER #6	9 3/8"	1'-0 1/8"	1'-5 3/16"	1'-7 1/2"

BLOCKING DIAGRAM



STIFFENER DETAILS

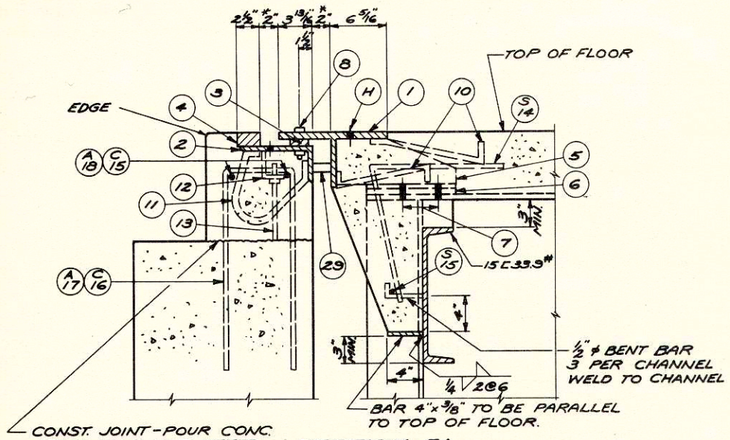
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN			
	SUPERSTRUCTURE			
	DESIGN SPEC. AASHO '61	LOADING HS 20	CONST. SPEC. 1963	
	DATE 11-25-64	DESIGN GN	DRAWN AWW	CKD. Bz
STRUCTURE B-32-55		SHEET 3 OF 13		

X 29900

FORM E-B-12-62

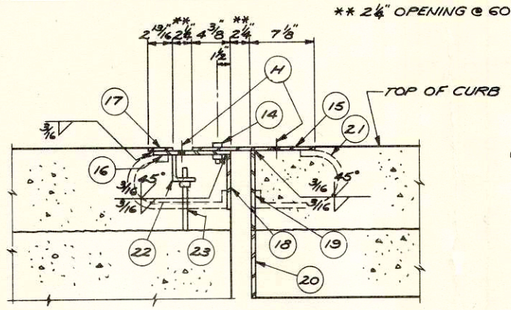
B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	1.90-1(21)3	29	136

* 2" OPENING @ 60°F

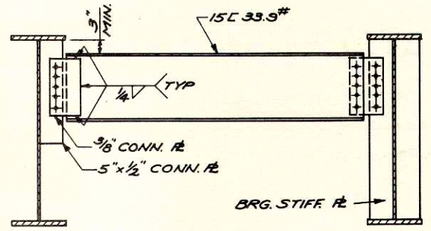


SECTION E1

** 2¼" OPENING @ 60°F

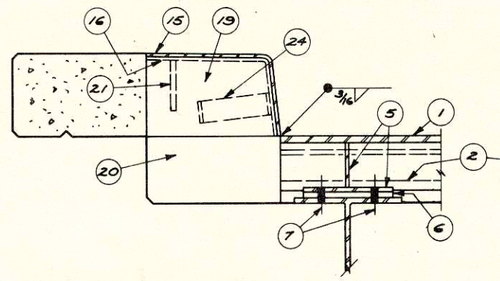


SECTION E2

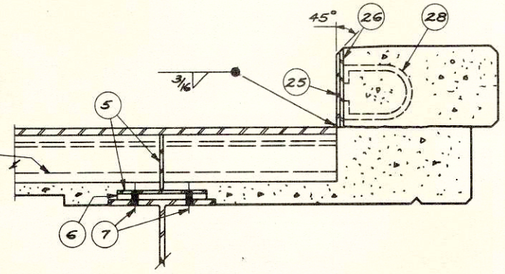


DIAPHRAGM CONN. DETAIL

AT END DIAPHRAGM



SECTION THRU JOINT AT CURB



SECTION THRU JOINT AT BRUSH BACK TYPE CURB

LEGEND

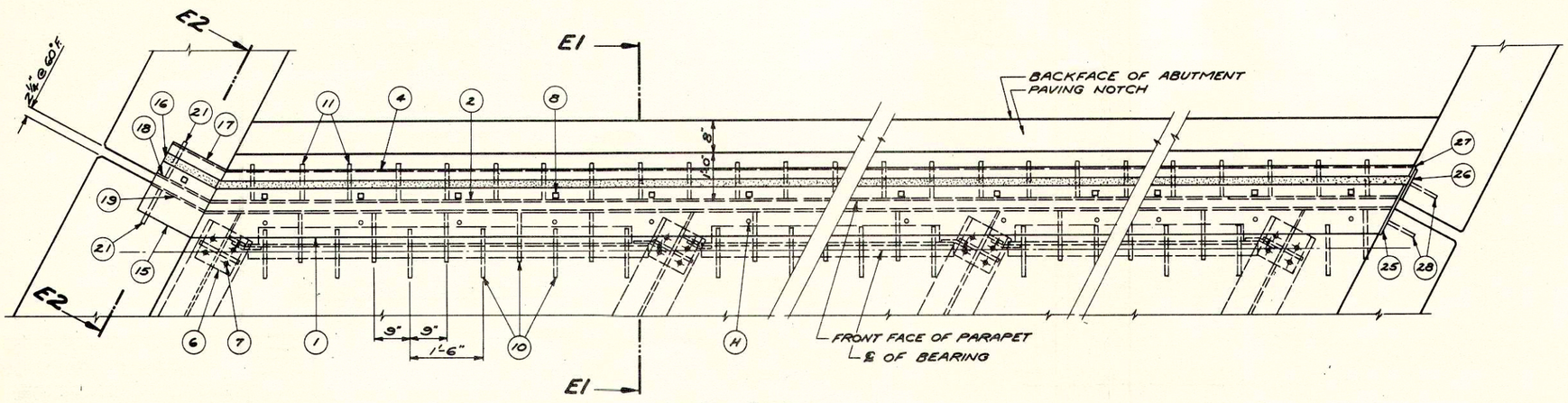
1. S.T. 6WF 39.5# x ROADWAY WIDTH.
2. L 8"x4"x 7/16" x ROADWAY WIDTH.
3. BAR 2"x ¾" x ROADWAY WIDTH. WELD TO L#2 WITH 2 LINES OF ¼" FILLET WELD. 2 ℄ G.
4. BAR 2½"x 1⅝" x ROADWAY WIDTH. WELD TO L#2 WITH 2 LINES OF ¼" FILLET WELD. 2 ℄ G.
5. FABRICATE FROM ⅜" WELDED PL. WELD TO STEM ℄ FLANGE OF S.T. #1 WITH ¼" FILLET WELD NEAR SIDE ℄ FAR SIDE.
6. ⅜" MIN. LAMINATED ℄ SLOTTED SHIM.
7. DRILL HOLES IN GIRDER FLANGE IN FIELD FOR 4-¾" ϕ ERECTION BOLTS.
8. ¾" ϕ BOLTS WITH SQ. NUTS @ 2'-0" CTRS. TACK WELD NUT TO L#2. GREASE FOR EASY REMOVAL. 13/16"x1⅛" SLOTTED HOLE IN S.T.#1. LONGITUDINAL DIMENSION OF SLOTTED HOLE TO BE PARALLEL TO ℄ OF ROADWAY. 13/16" ϕ HOLE IN BAR #3 ℄ L#2.
9. VENT HOLES "H", 13/16" ϕ, PLACED AT 2'-0" CTRS. ON L#2 ℄ S.T.#1 AND AT 9" CTRS ON PL'S 15 ℄ 16.
10. ⅝" □ BENT BAR @ 0'-9" ALTERNATE CTRS. BETWEEN GIRDERS 1'-3" LONG. WELD TO S.T. #1.
11. ⅝" □ BENT BAR @ 1'-0" CENTERS. 2'-0" LONG. WELD TO L#2.
12. L 3"x2½"x⅜"x0'-3" @ 3'-0" CTRS. WELD TO L#2. PROVIDE ⅞" ϕ HOLE IN 2½" LEG FOR BOLT #13.
13. ½" ϕ BOLT x 3" LONG. ℄ NUT. TACK WELD NUT TO L#12.
14. ¾" ϕ BOLT. SAME AS BOLT #8 EXCEPT FOR LENGTH.
15. PL 13¾" x ⅜" - BEND DOWN FLUSH WITH FACE OF CURB AS SHOWN. WELD TO PL#19 AS SHOWN. FIELD WELD TO S.T. #1.
16. PL 9" x ⅜" - BEND DOWN FLUSH WITH FACE OF CURB AS SHOWN. WELD TO PL#18 AS SHOWN.
17. PL 2 13/16" x ⅜" - BEND DOWN FLUSH WITH FACE OF CURB AS SHOWN. WELD TO PL#16 WITH ONE LINE OF 5/16" FILLET WELD. FIELD WELD TO BAR #4.
18. 6" x ⅜" PL. CUT TO CURB LIMITS AS SHOWN.
19. ⅜" PL. CUT TO CURB LIMITS AS SHOWN. FIELD WELD TO PL 20.
20. ⅜" PL. CUT TO CURB LIMITS AS SHOWN. SHOP WELD TO S.T. #1.
21. ⅝ □ BAR. 1'-6" LONG. WELD TO PL'S #16 ℄ #18 AND PL'S #15 ℄ #19 WITH 5/16" FILLET WELDS ALL AROUND.
22. L 3"x 2½" x ⅜" x 0'-3". WELD TO PL #16. PROVIDE ⅝" ϕ HOLE IN 2½" LEG FOR BOLT #23.
23. ½" ϕ BOLT x 0'-7" LONG. ℄ NUT. TACK WELD NUT TO L#22.
24. ANCHOR BAR - 2½" x ⅜" x 1'-0" ⌙ WELD TO PL'S #15 ℄ #16.
25. PL 13¾" x ⅜" - CUT TO CURB LIMITS AS SHOWN. FIELD WELD TO S.T. #1.
26. PL 9" x ⅜" - CUT TO CURB LIMITS AS SHOWN.
27. PL 2 13/16" x ⅜" - CUT TO CURB LIMITS AS SHOWN. WELD TO PL #26 WITH ONE LINE OF 5/16" FILLET WELD. FIELD WELD TO BAR #4.
28. ⅝" □ BAR. 1'-9" LONG. WELD TO PL'S #25 ℄ #26 WITH 5/16" FILLET WELDS ALL AROUND.
29. BLOCK AND BOLT FOR SHIPMENT WITH PIPE SLEEVE AND ½" ϕ BOLT. PROVIDE 9/16" ϕ HOLES AT 3'-0" CTRS. IN S.T. #1 AND L#2 FOR ½" ϕ BOLT.

NOTES

EXPANSION JOINT SHALL BE BUILT TO CONFORM TO ROADWAY CROWN AND GRADE.
ONE FIELD SPLICE WILL BE PERMITTED.

AFTER CONCRETE HAS SET REMOVE BOLTS #8 ℄ #14 AND FILL HOLES WITH HOT POURED ELASTIC TYPE JOINT SEALER WHICH CONFORMS TO ASTM DESIGNATION, D1190.

AFTER CONCRETE HAS SET THE JOINT OPENING SHALL BE THROUGHLY CLEANED.
APPLY ± 1/16" COAT OF BITUMASTIC TO METAL SURFACES FORMING THE JOINT AND FILL WITH HOT POURED ELASTIC TYPE JOINT SEALER.



PART PLAN

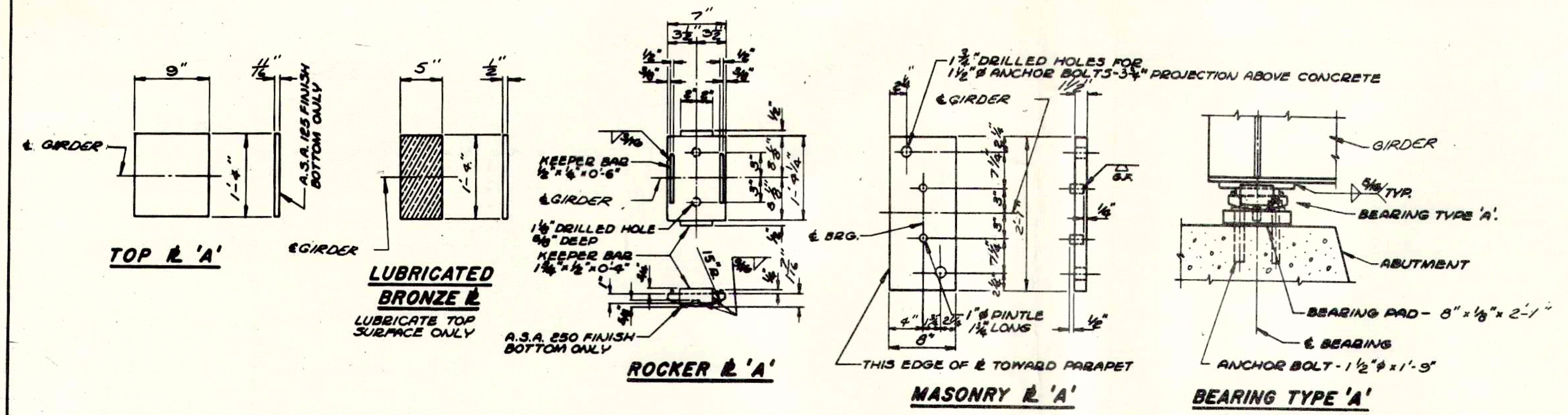
SHOWING NORTH ABUTMENT
SOUTH ABUTMENT SIMILAR

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	EXPANSION JOINTS
	DESIGN SPEC. A.A.S.H.O. '61 LOADING H S20 CONST. SPEC. 1963
	DATE 11-25-64 DESIGN STD. DRAWN BW CKD. BJ
STRUCTURE B-32-55	SHEET 4 OF 13

X29901

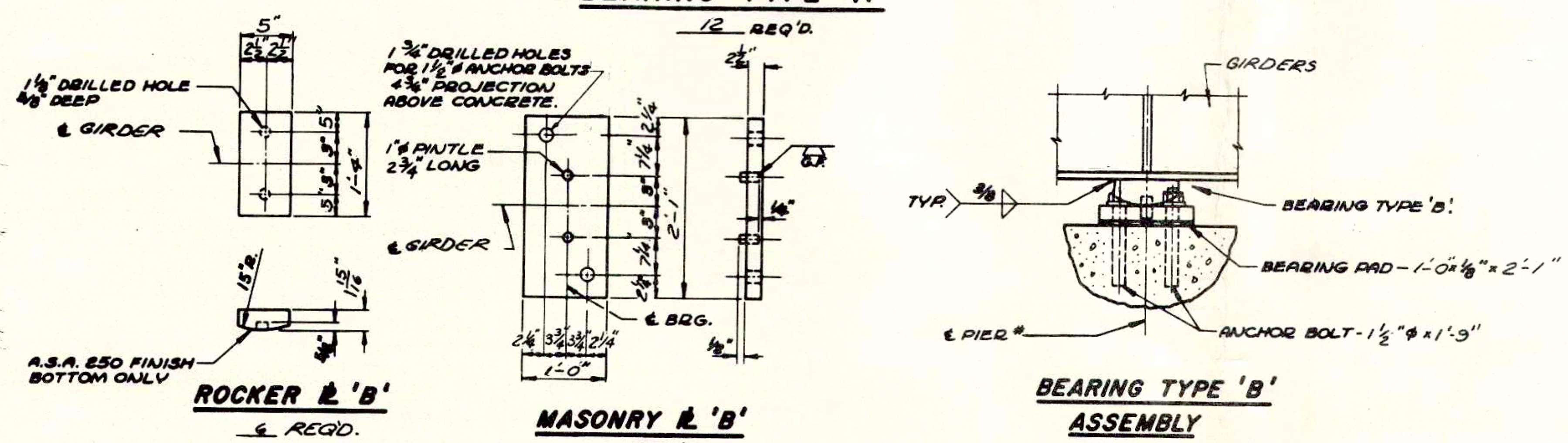
B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(21)3	80	136

FORM E-B-12-62

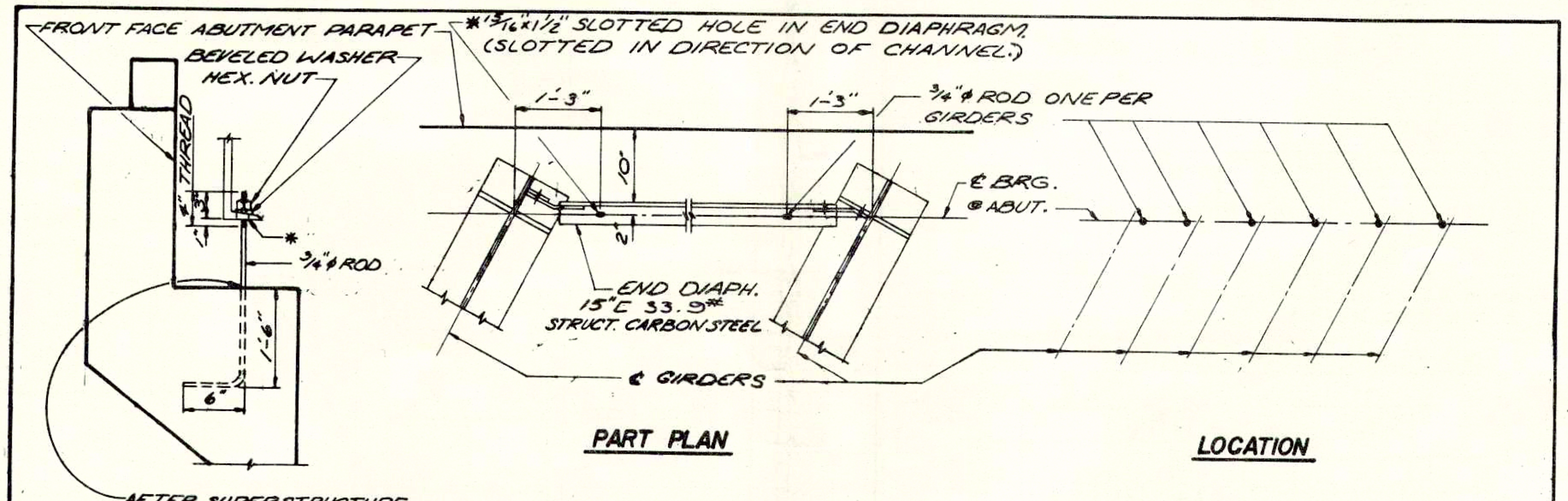


BEARING TYPE 'A'

12 REQ'D.



BEARING TYPE 'B'



TEMPORARY HOLD DOWN DEVICE

6 REQ'D PLACE TEMPORARY HOLD DOWN DEVICES AT ABUTMENT WHERE FLOOR POUR TERMINATES.

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

BEARING NOTES

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT 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.

ALL SURFACE MARKED "f" SHALL BE MACHINE FINISHED.

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

ALL MATERIAL INCLUDING SHIMS BUT EXCLUDING ANCHOR BOLTS, NUTS AND WASHERS SHALL BE MADE OF A242 STEEL WITH A CORROSIVE RESISTANCE OF 4 OR MORE TIMES THAT OF A36 STEEL.

THE TOP 4½" OF ANCHOR BOLTS, WASHERS AND NUTS SHALL BE GALVANIZED.

ALL MATERIAL IN BEARINGS, EXCLUDING BRONZE PLATES AND BEARING PADS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STRUCTURAL LOW ALLOY STEEL."

CHAMFER TOP OF PINTLES 1/8". DRILL HOLES FOR PINTLES IN ALL MASONRY PLATES FOR DRIVING FIT.

REVISED

STATE HIGHWAY COMMISSION OF WISCONSIN

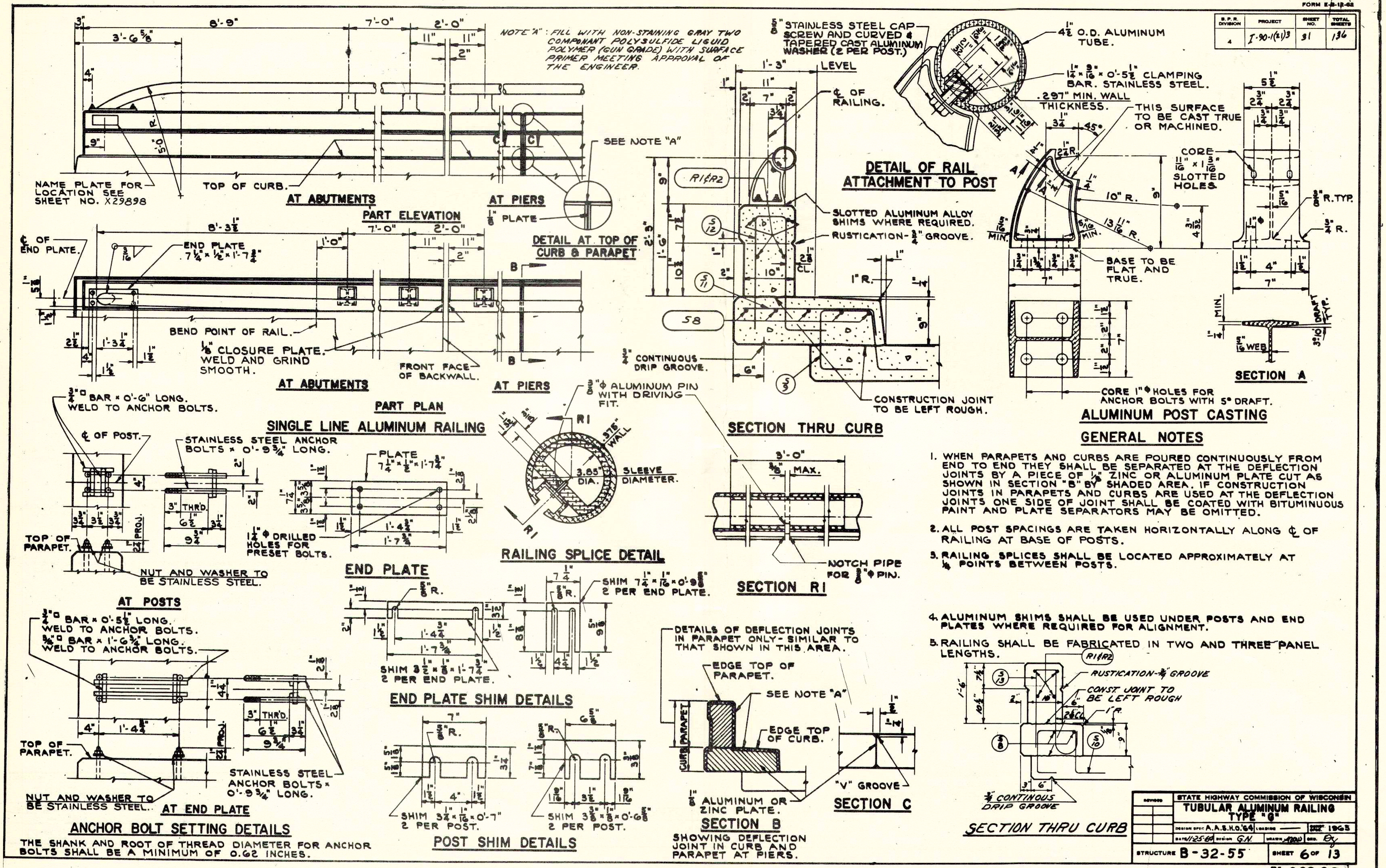
BEARING DETAILS

DESIGN SPEC. A.A.S.H.O. 61 | LOADING HS 20 | CONST. SPEC. 1963

DATE 11/25/64 | DESIGN G.B.N. | DRAWN G.T.R. | CKD. B.Z.

STRUCTURE B-32-55 | SHEET 5 OF 13

X 29902

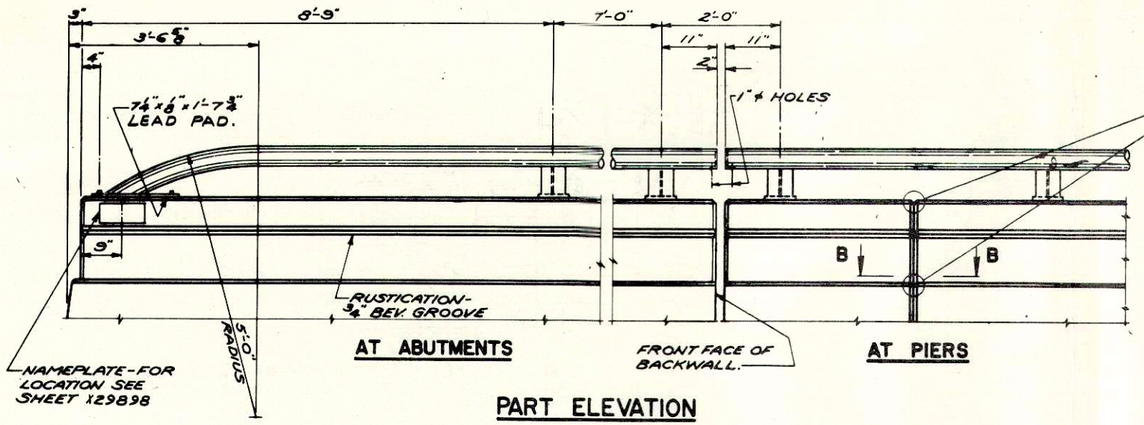


GENERAL NOTES

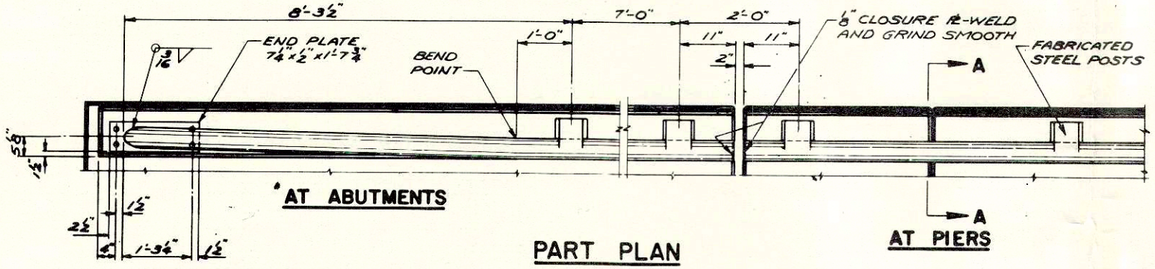
1. WHEN PARAPETS AND CURBS ARE POURED CONTINUOUSLY FROM END TO END THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/8" ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION "B" BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS AND CURBS ARE USED AT THE DEFLECTION JOINTS ONE SIDE OF JOINT SHALL BE COATED WITH BITUMINOUS PAINT AND PLATE SEPARATORS MAY BE OMITTED.
2. ALL POST SPACINGS ARE TAKEN HORIZONTALLY ALONG ℄ 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.

FORM E-B-12-62

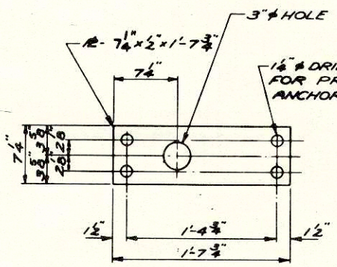
B P R DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(21)3	32	136



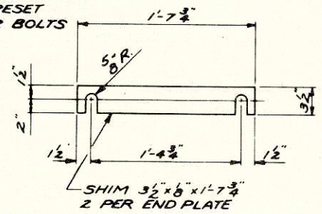
PART ELEVATION

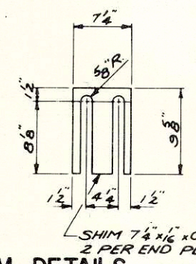


PART PLAN

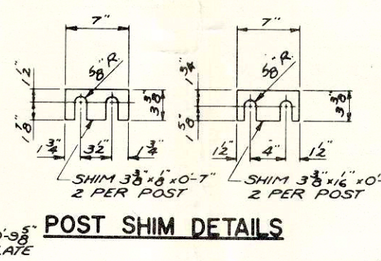


END PLATE

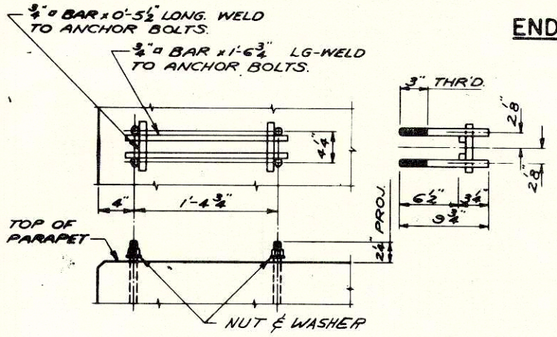




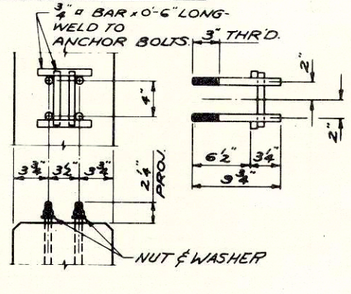
END PLATE SHIM DETAILS



POST SHIM DETAILS



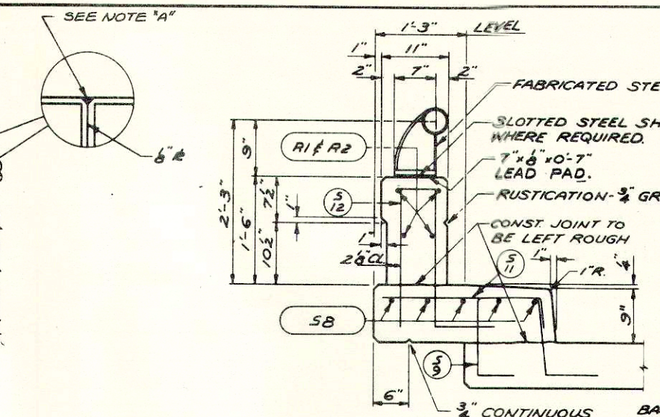
AT END PLATE



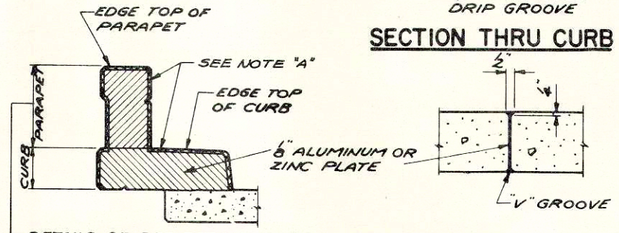
AT POSTS

ANCHOR BOLT SETTING DETAILS

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

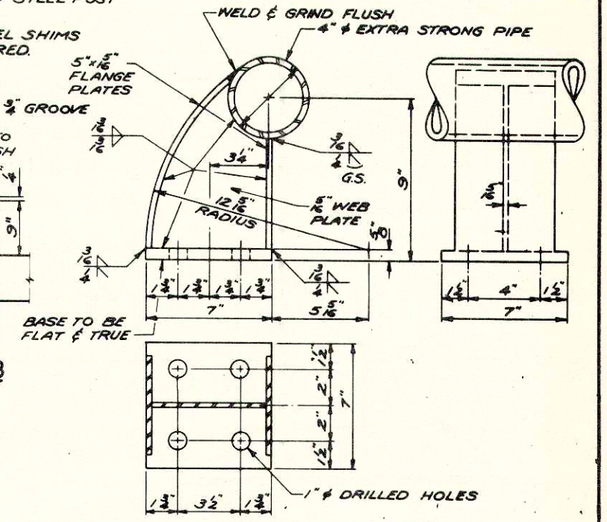


SECTION THRU CURB

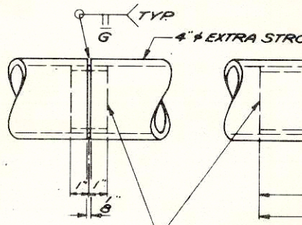


SECTION A

SECTION B



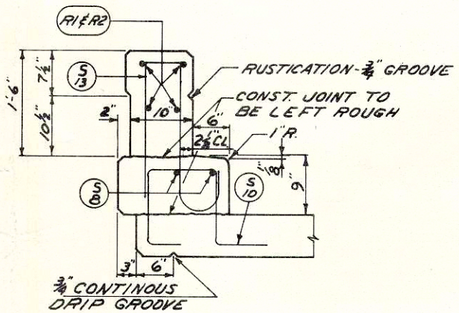
POST DETAILS



SHOP RAIL SPLICE DETAIL

THE LOCATION OF THE SHOP SPLICE SHALL BE SHOWN ON THE SHOP DRAWINGS.

FIELD ERECTION JOINT DETAIL



NOTES

1. STEEL RAIL POSTS SHALL BE SET NORMAL TO GRADE.
2. RAILINGS 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 CONTINUOUSLY FROM END TO END THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF ⅛" ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION "A" BY SHADED AREA. 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 4" ϕ EXTRA STRONG PIPE CONFORMING TO ASTM DESIGNATION A53, GRADE B.
   SLEEVES SHALL BE 3¾" ϕ O.D. x.11/32" THICK SEAMLESS MECHANICAL TUBING MADE OF STEEL WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 60,000 P.S.I. AND A MINIMUM ELONGATION OF 10%.
   POSTS SHALL BE FABRICATED FROM MATERIAL CONFORMING TO ASTM DESIGNATION A36.
   ANCHOR BOLTS TO BE MADE FROM MATERIAL CONFORMING TO ASTM A307
6. CAULK EXPOSED OPENINGS BETWEEN SHIMS WITH LEAD WOOL.
7. GALVANIZE ENTIRE RAILING AFTER FABRICATION INCLUDING NUTS, WASHERS, SHIMS AND TOP 3½" OF ANCHOR BOLTS.

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

REVISED

STATE HIGHWAY COMMISSION OF WISCONSIN

TUBULAR STEEL RAILING TYPE "G"

DESIGN SPEC A.A.S.H.O. '61 | LOADING — | SHEET SPEC. 1963

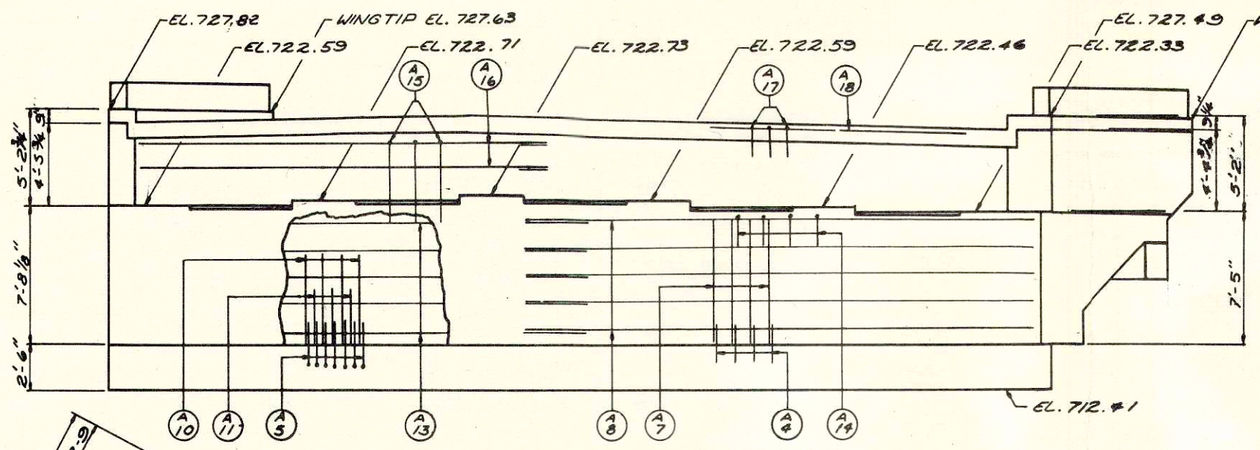
DATE 11-25-68 | DESIGN G.N. | DRAWN ABW | CHKD. BV

STRUCTURE B-32-55 | SHEET 7 OF 13

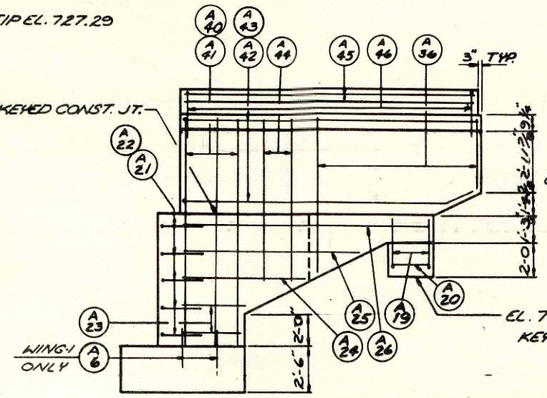
X 29904

FORM E-B-12-62

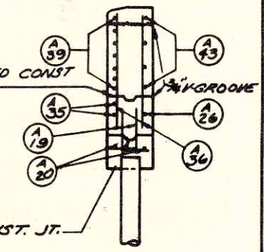
B. F. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(21)3	33	136



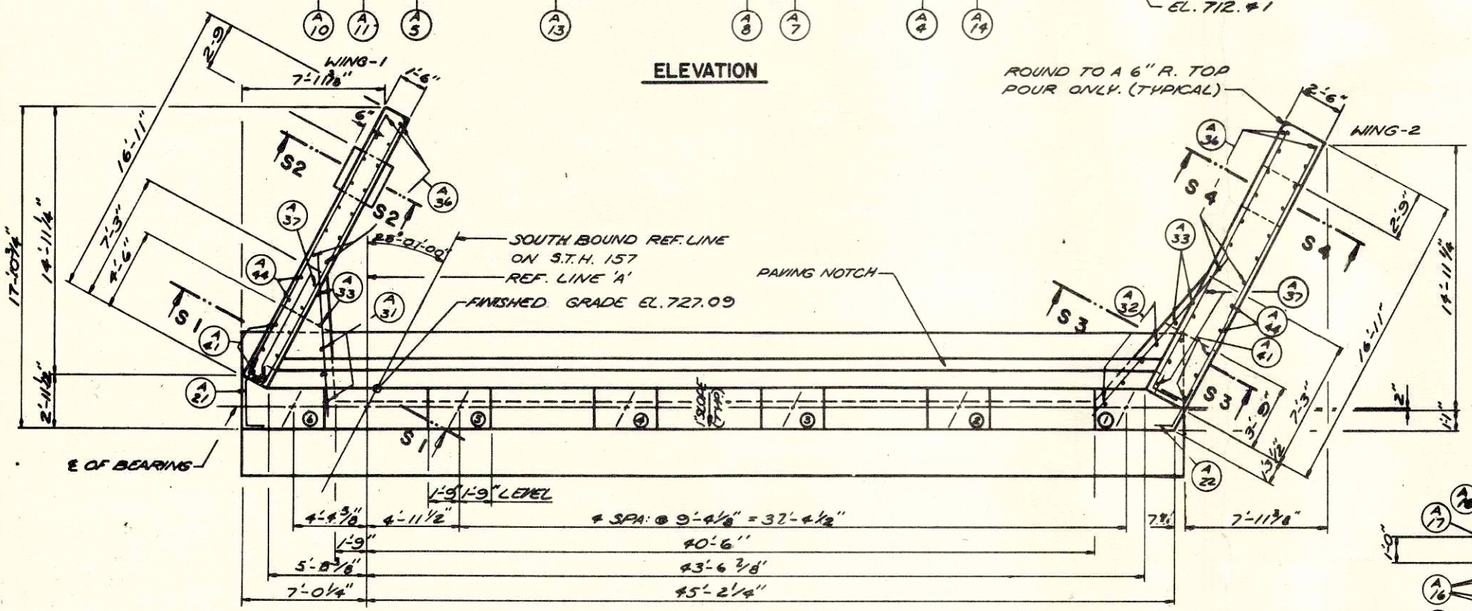
ELEVATION



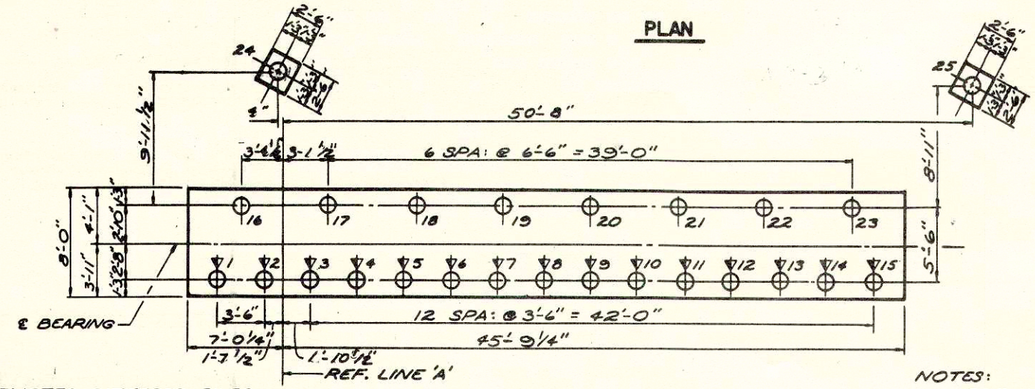
SLOPE TOP & FACE OF CURB TO MATCH CURB ON SUPERSTRUCTURE.



SECTION S4



PLAN

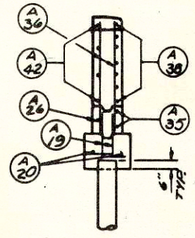


FOOTING PLAN

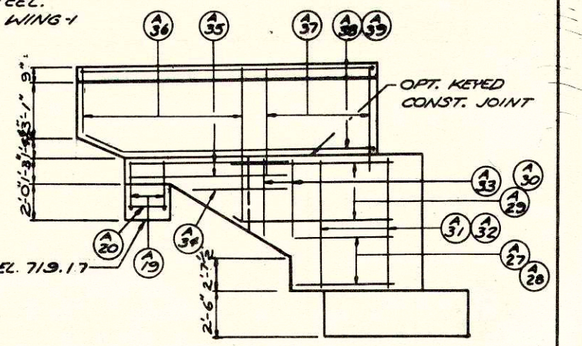
⊕ DENOTES BATTERED PILES. BATTER 3"/FT. IN DIRECTION SHOWN.

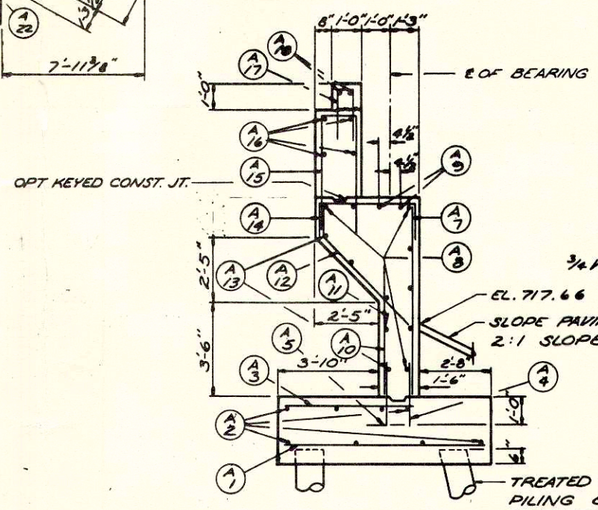
ELEVATION WING – 2

SHOWING FRONT FACE STEEL. FRONT FACE STEEL FOR WING-1 SIMILAR.



SECTION S2



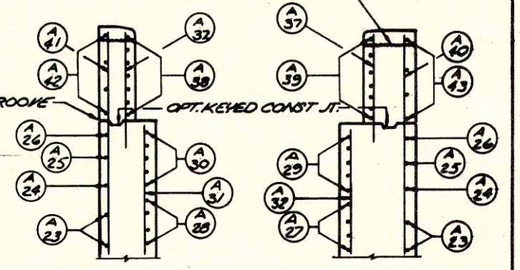


SECTION THRU BODY

ELEVATION WING – 1

SHOWING BACK FACE STEEL. BACKFACE STEEL FOR WING-2 SIMILAR.

POUR CONC. ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE.



SECTION S1

SECTION S3

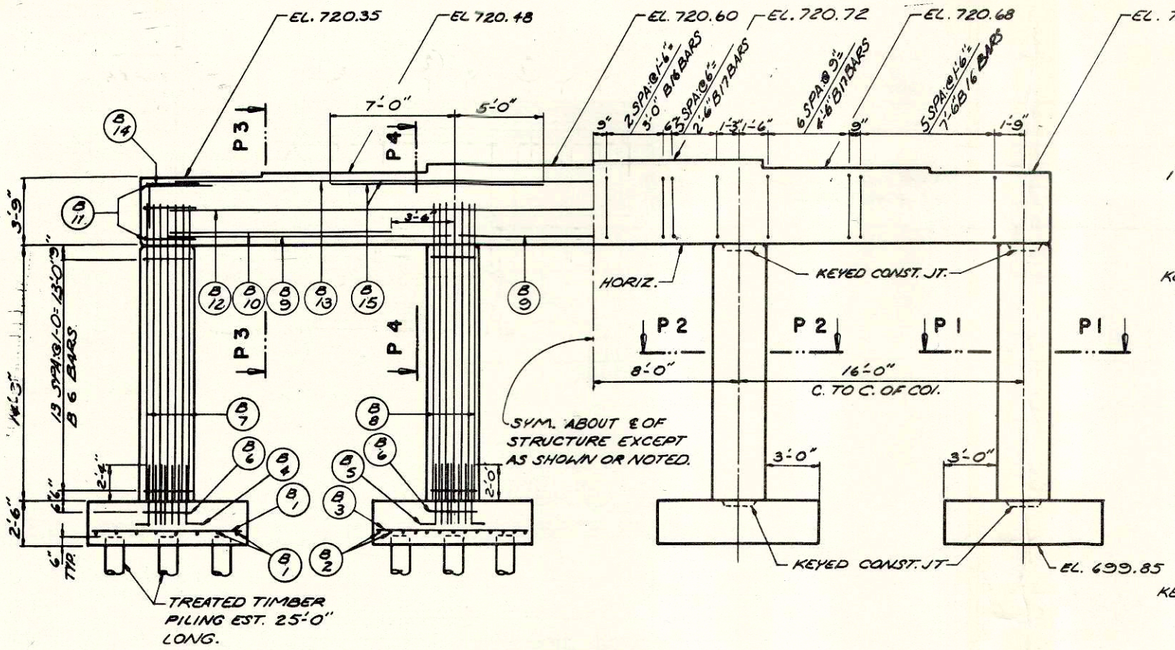
NOTES:
FOR ADDITIONAL RAILING PARAPET DETAILS SEE SHEETS X29903, X29904 & X29908.
ALL KEYED CONST. JOINTS ARE FORMED BY A SURFACED BEVELED 2"x6".

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN	
	SOUTH ABUTMENT	
	DESIGN SPEC. A.A.S.H.O. '61 LOADING M320	CONST. SPEC. 1963
	DATE 11/25/64 DESIGN G.N. DRAWN G.T.R. CKD. EK	
STRUCTURE B-32-55	SHEET 8 OF 13	

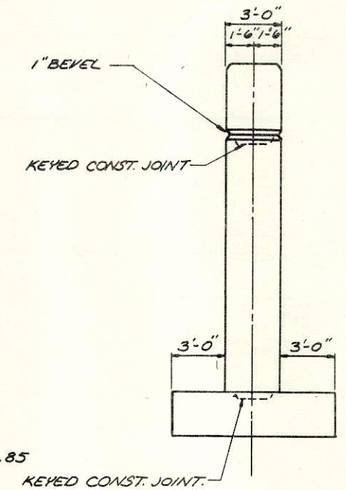
X29905

FORM E-B-12-62

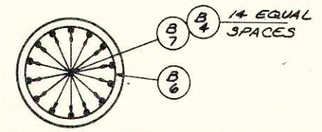
B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(21)3	34	136



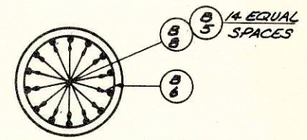
ELEVATION
LOOKING NORTH



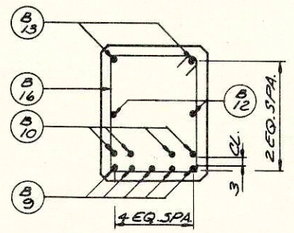
END VIEW



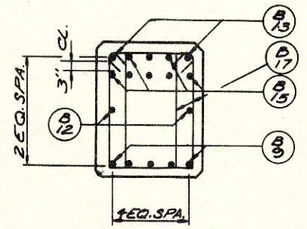
SECTION P 1



SECTION P 2

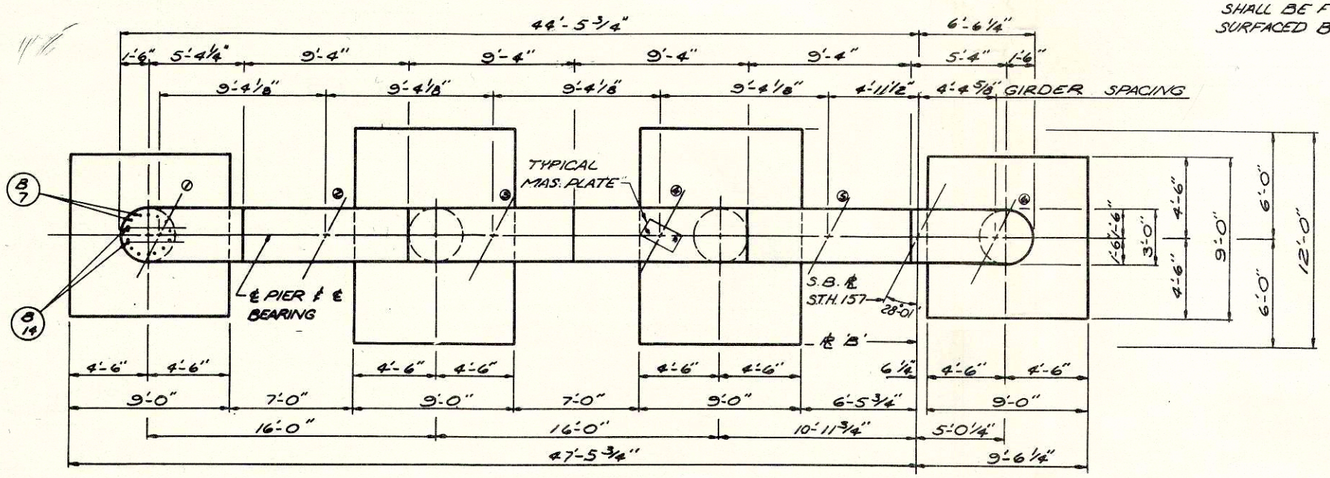


SECTION P 3

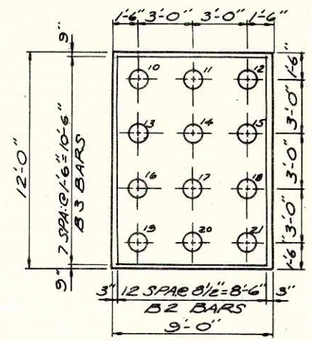


SECTION P 4

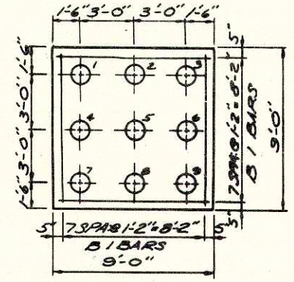
NOTE:
ALL KEYED CONST. JOINTS SHALL BE FORMED BY A SURFACED BEVELED 1'-6" x 1'-6" x 4".



PLAN



TYPICAL INT. FOOTING



TYPICAL EXT. FOOTING

CONCRETE MASONRY

FOOTINGS	35.0 C.Y.
COLUMNS	15.0 C.Y.
CAP	22.0 C.Y.
TOTAL	72.0 C.Y.

PART FOOTING PLAN

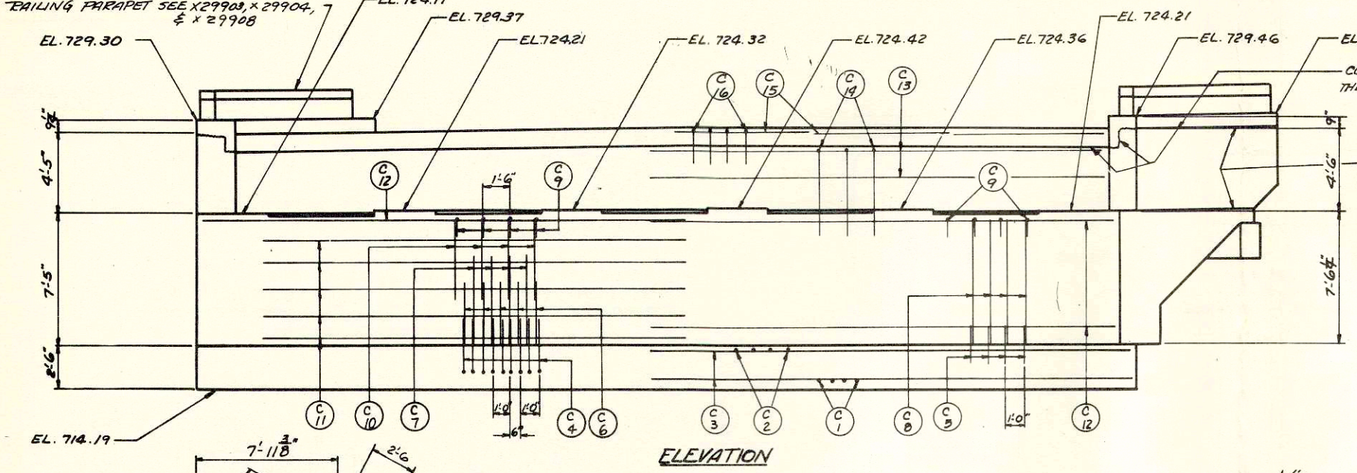
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	PIER
	DESIGN SPEC. A.A.S.H.O. '61' LOADING H S 20 CONST. SPEC. 1963
	DATE 11/25/64 DESIGN G.B.N DRAWN G.T.R. CKD. B.V.
STRUCTURE B - 32 - 55	SHEET 9 OF 13

X29906

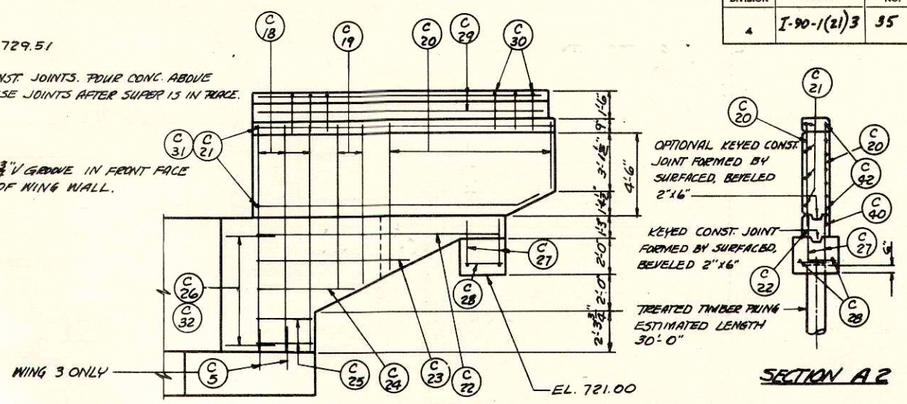
FORM E-B-12-62

B. F. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(21)3	35	136

FOR ADDITIONAL INFORMATION ON RAILING PARAPET SEE X29903, X 29904, & X 29908



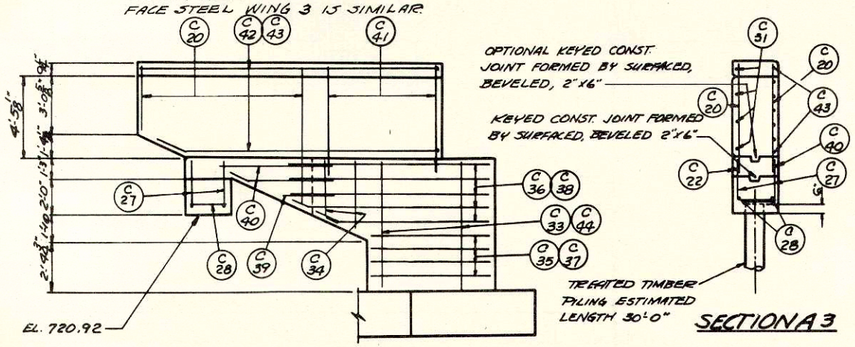
ELEVATION



SECTION A2

ELEVATION WING 4

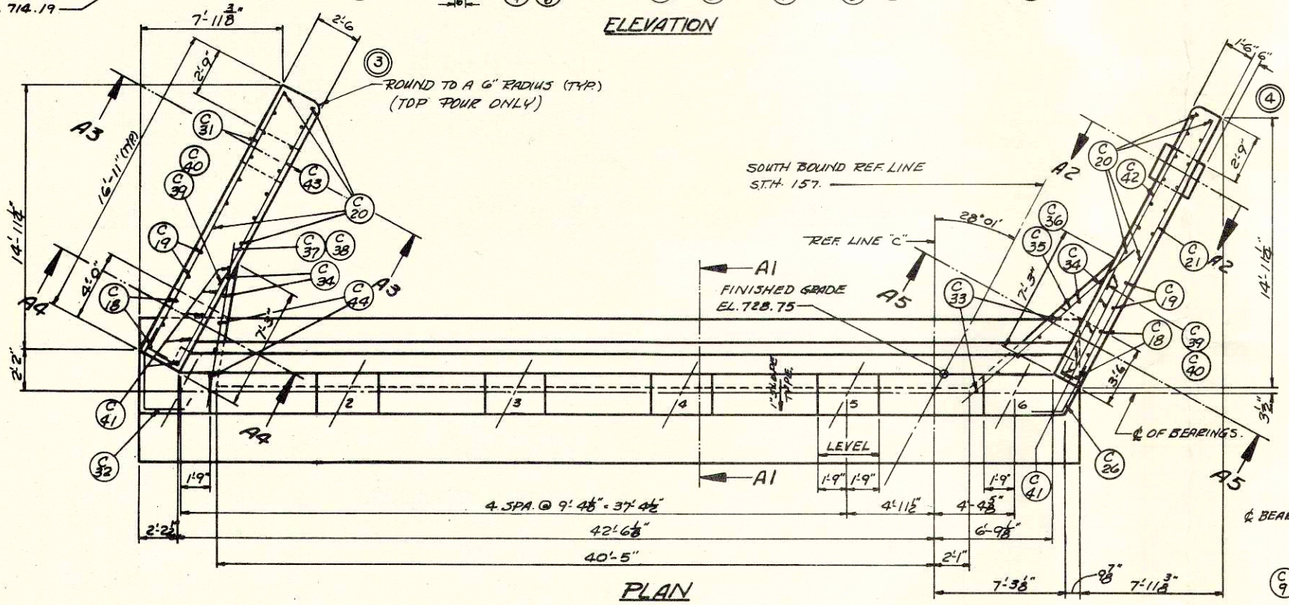
SHOWING FRONT FACE STEEL. FRONT FACE STEEL WING 3 IS SIMILAR.



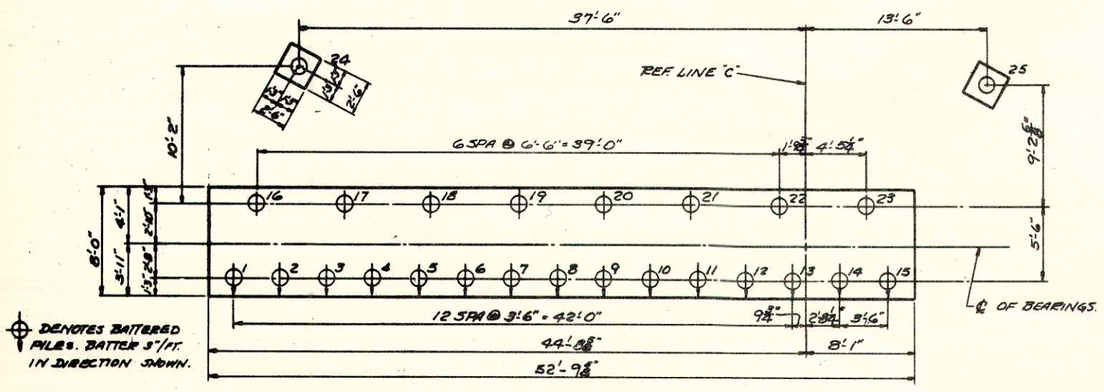
SECTION A3

ELEVATION WING 3

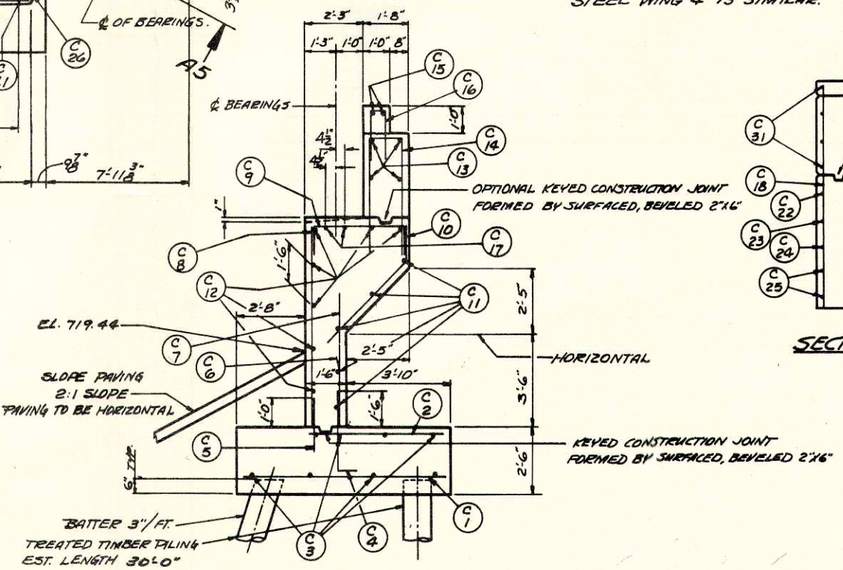
SHOWING BACKFACE STEEL. BACK FACE STEEL WING 4 IS SIMILAR.



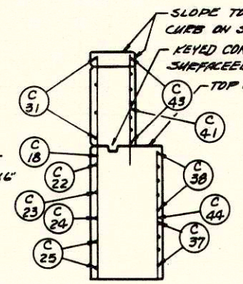
PLAN



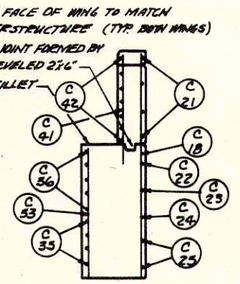
FOOTING PLAN



SECTION A1



SECTION A4



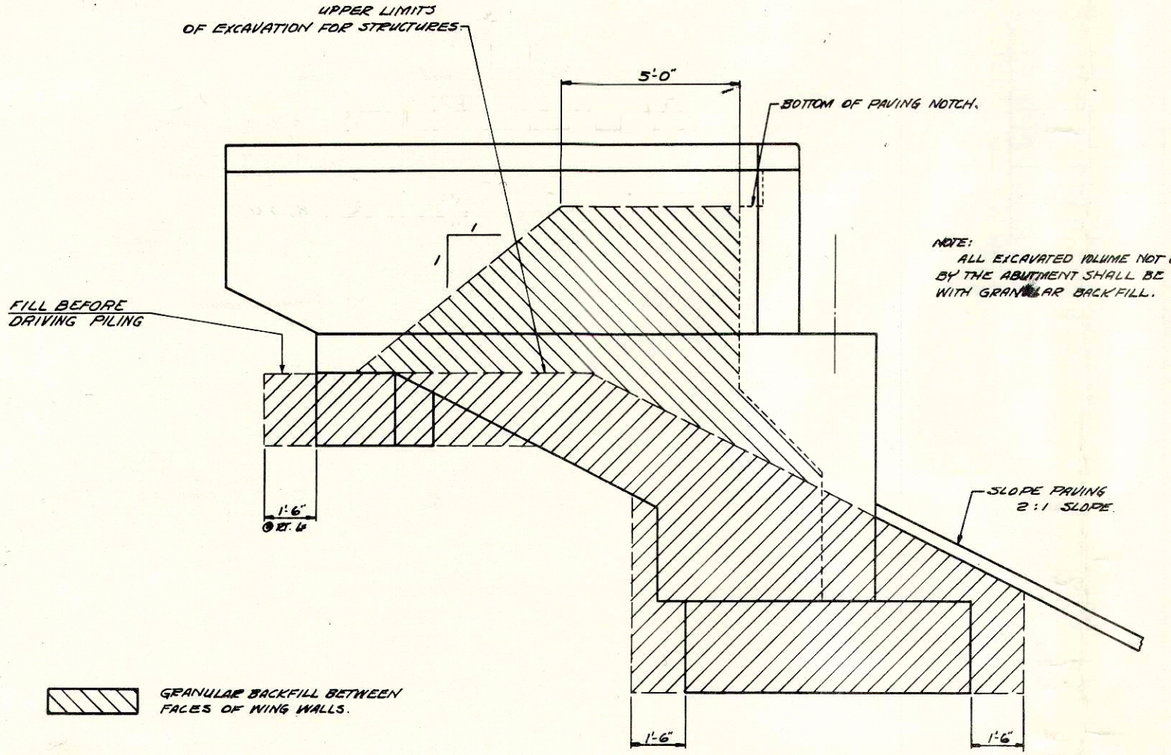
SECTION A5

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	NORTH ABUTMENT
	DESIGN SPEC. AASHO 61 LOADING H S 20 CONST. SPEC. 1963
	DATE 1-25-63 DESIGN G.N DRAWN I. L. J. CKD.
STRUCTURE B-32-55	SHEET 10 OF 13

X 29907

FORM E-B-12-62

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(21)3	36	136

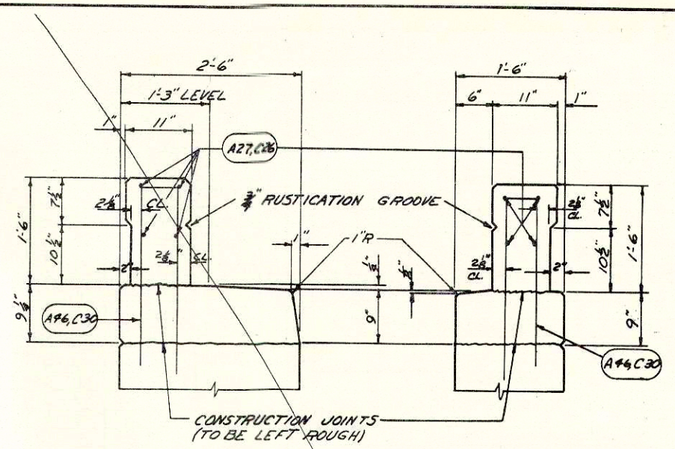


NOTE:
ALL EXCAVATED VOLUME NOT OCCUPIED BY THE ABUTMENT SHALL BE BACKFILLED WITH GRANULAR BACKFILL.

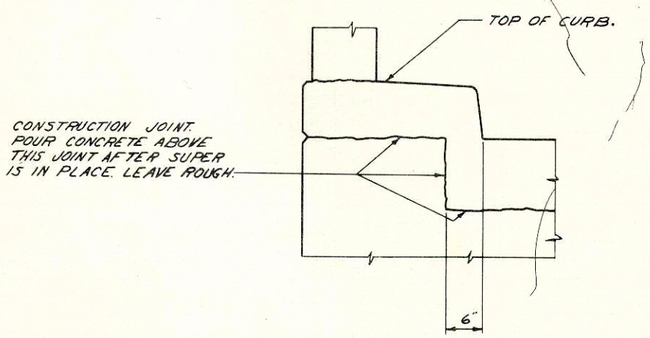
GRANULAR BACKFILL BETWEEN FACES OF WING WALLS.

EXCAVATION FOR STRUCTURES & GRANULAR BACKFILL.

PAY LIMITS FOR EXCAVATION FOR STRUCTURES & GRANULAR BACKFILL.



SECTION THRU RAILING PARAPET



CURB DETAIL

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	ABUTMENT DETAILS
	DESIGN SPEC. AASHO 61 · LOADING HS 20 · CONST. SPEC. 1963
	DATE 11-25-68 · DESIGN STD. · DRAWN APDO · CKD.
STRUCTURE B-32-55	SHEET 11 OF 13

X29908

FORM E-B-12-62

S.F.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(21)3	37	136

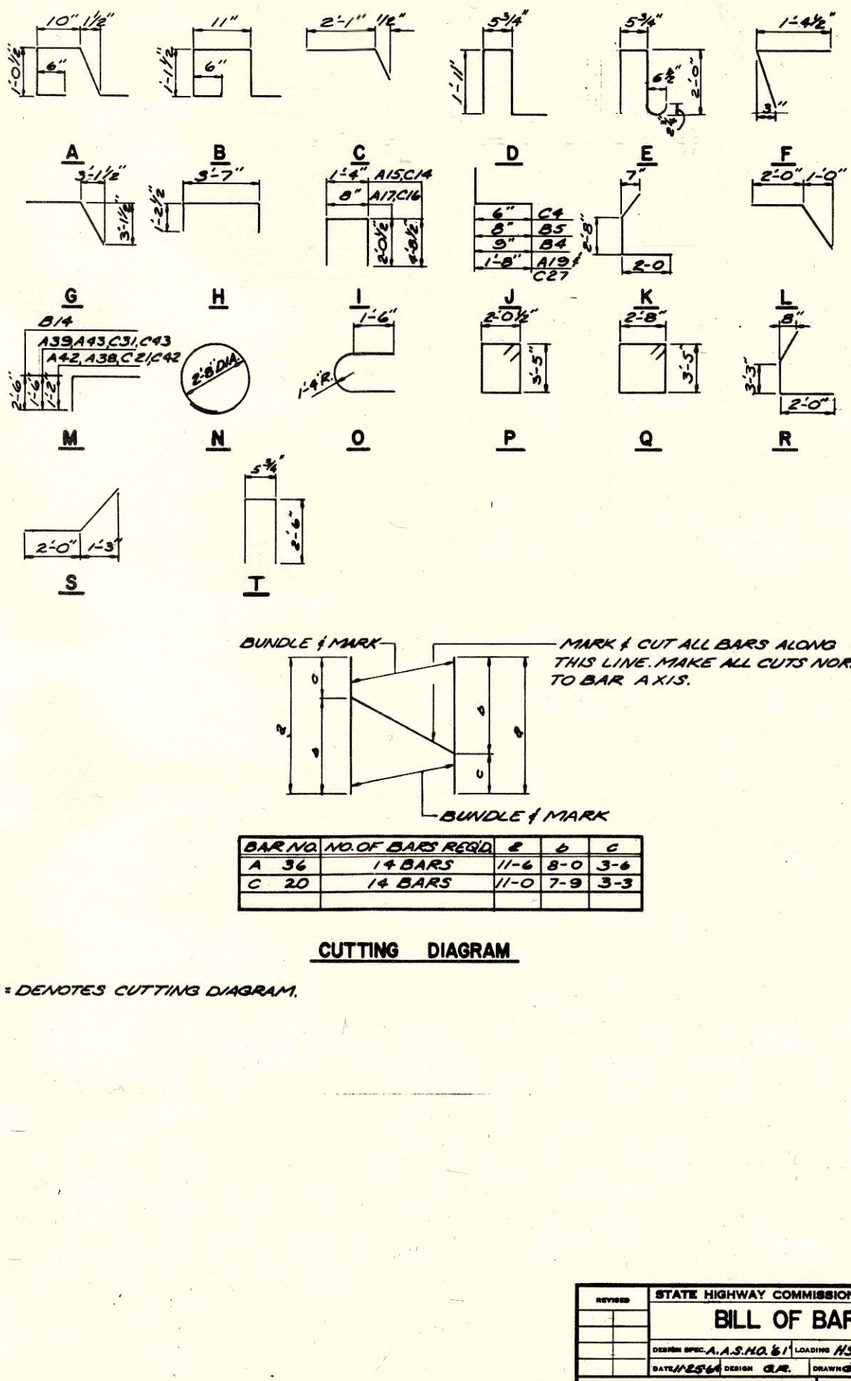
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
SUPERSTRUCTURE 94,360 #	S 1	408	6	32-3	0-6½	SLAB TOP	
	S 2	407	6	32-3	0-6½	" BOTTOM	
	S 3	408	6	21-0	0-6½	" TOP	
	S 4	407	6	21-0	0-6½	" BOTTOM	
	S 5	228	5	38-0	SHOWN	" TOP	
	S 6	324	5	38-0	"	" BOTTOM	
	S 7	12	5	15-0	"	" SYM. ABOUT PIER	
	S 8	42	5	37-9	± 6	CURB	
	S 9	224	5	4-9	1-0	" & SLAB	A
	S 10	224	5	4-9	1-0	" " "	B
	S 11	224	6	2-6	1-0	"	C
	S 12	224	5	5-0	1-0	" RAILING PARAPET	D
	S 13	224	5	5-0	1-0	" " "	E
	S 14	60	5	2-9	1-6	END OF FLOOR	F
	S 15	10	4	9-0	SHOWN	" DIAPHRAGM	
	R 1	16	5	19-6	1-0	RAILING PARAPET	
	R 2	64	5	22-6	1-0	" "	
SOUTH ABUTMENT 5,180 #	A 1	63	6	7-6	0-10	FOOTING	
	A 2	16	4	26-9	SHOWN	"	
	A 3	33	4	4-9	1-0	"	
	A 4	52	4	2-0	1-0	" & BODY	
	A 5	85	6	3-0	0-6	" "	
	A 6	2	4	2-0	1-6	" " WING 1	
	A 7	52	4	7-3	1-0	BODY	
	A 8	14	4	27-0	±1-6	"	
	A 9	12	4	4-0	0-9	GIRD-SYM. ABOUT & GIRDER	
	A 10	43	6	5-0	1-0	BODY	
	A 11	42	6	3-9	1-0	"	
	A 12	28	5	5-9	1-6	"	G
	A 13	10	4	22-9	±1-6	"	
	A 14	35	5	6-0	1-6	"	H
	A 15	33	5	10-9	1-6	" PARAPET	I
	A 16	8	4	26-0	SHOWN	" "	
	A 17	49	5	4-9	1-0	PAVING BLOCK	I
	A 18	14	4	7-0	SHOWN	" "	
	A 19	8	4	4-3	"	WING FOOTINGS	J
	A 20	4	4	2-3	"	" "	
	A 21	5	4	5-9	1-6	" 1 CORNER	K
	A 22	5	4	4-0	1-6	" 2 "	L
	A 23	4	4	3-3	1-6	" 1&2 F.F.	
	A 24	2	4	7-0	1-6	" " " "	
	A 25	2	4	10-0	1-6	" " " "	
	A 26	2	4	13-6	1-6	" " " "	
	A 27	4	4	6-0	0-9	" 2 B.F.	
	A 28	4	4	4-6	0-9	" 1 "	
	A 29	5	4	11-6	0-9	" 2 "	
	A 30	6	4	9-0	0-9	" 1 "	
	A 31	3	4	7-3	1-6	" 1 "	
	A 32	4	4	7-0	1-6	" 2 "	
	A 33	4	4	4-0	1-6	" 1&2 "	
	A 34	2	4	5-3	0-9	" " "	
	A 35	4	4	9-0	0-9	" " " "	
	A 36	14	4	11-6	1-6	" " " " & F.F.	*
	A 37	10	4	6-0	1-6	" " "	
	A 38	7	4	17-9	0-9	" 1 "	M
	A 39	7	4	18-0	0-9	" 2 "	M
	A 40	3	4	12-3	1-6	" 2 F.F.	
	A 41	3	4	12-6	1-6	" 1 "	
	A 42	4	4	17-9	1-6	" 1 "	M
	A 43	4	4	18-0	1-6	" 2 "	M
	A 44	4	4	9-0	1-6	" 1&2 "	
	A 45	8	5	16-3	SHOWN	RAILING PARAPET	
	A 46	34	5	5-6	1-0	" "	T

	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
PIER 9,430 #	B 1	32	8	8-6	SHOWN	FOOTING EXT.	
	B 2	26	9	11-6	"	" INT.	
	B 3	16	9	8-6	"	" "	
	B 4	28	9	4-9	"	" & COLUMNS	J
	B 5	28	8	4-6	"	" " "	J
	B 6	60	4	9-6	"	" " "	N
	B 7	28	9	16-6	"	COLUMNS	
	B 8	28	8	16-6	"	"	
	B 9	15	9	16-0	"	CAP	
	B 10	8	9	12-6	"	"	
	B 11	6	4	7-3	"	"	O
	B 12	4	6	25-0	"	"	
	B 13	4	9	25-0	"	"	
	B 14	4	9	6-3	"	"	M
	B 15	16	9	12-0	"	"	
	B 16	18	4	13-3	"	" SINGLE STIRRUPS	Q
	B 17	52	5	12-6	"	" DOUBLE "	P
NORTH ABUTMENT 5,150 #	C 1	63	6	7-6	0-10	FOOTING	
	C 2	52	4	4-9	1-0	"	
	C 3	16	4	26-9	SHOWN	"	
	C 4	86	6	3-0	0-6	" & BODY	J
	C 5	54	4	2-0	1-0	" " " & WINGS	
	C 6	43	6	3-6	1-0	BODY	
	C 7	43	6	5-0	1-0	"	
	C 8	52	4	7-3	1-0	"	
	C 9	35	5	6-0	1-6	"	H
	C 10	29	5	5-9	1-6	"	G
	C 11	10	4	22-6	±1-6	"	
	C 12	14	4	26-3	SHOWN	"	
	C 13	8	4	26-0	"	" PARAPET	
	C 14	33	5	10-9	1-6	" "	I
	C 15	10	4	9-9	SHOWN	PARAPET	
	C 16	49	5	4-9	1-0	"	I
	C 17	12	4	4-0	SHOWN	GRID-SYM. ABOUT & GIRDER	
	C 18	6	4	12-6	1-6	WING 3/4 F.F.	
	C 19	4	4	8-6	1-6	" " " "	
	C 20	14	4	11-0	1-6	" " " & B.F.	*
	C 21	4	4	17-9	±1-6	" 4 "	M
	C 22	2	4	13-6	1-6	" 3/4 "	
	C 23	2	4	8-9	1-6	" " "	
	C 24	2	4	6-0	1-6	" " "	
	C 25	4	4	3-0	1-6	" " "	
	C 26	5	4	4-9	±1-6	" 4 CORNER	S
	C 27	8	4	4-3	SHOWN	" FOOTING	J
	C 28	4	4	2-3	"	" "	
	C 29	8	5	16-3	"	RAILING PARAPET	
	C 30	34	5	5-6	1-0	" "	T
	C 31	4	4	18-0	±1-6	WING 3 F.F.	M
	C 32	5	4	6-8	1-6	" " CORNER	R
	C 33	5	4	7-3	1-6	" 4	
	C 34	4	4	4-6	1-6	" 3/4 B.F.	
	C 35	4	4	7-3	0-9	" 4 "	
	C 36	5	4	13-0	0-9	" " "	
	C 37	4	4	5-0	0-9	" 3 "	
	C 38	5	4	10-0	0-9	" " "	
	C 39	2	4	5-0	0-9	" 3/4 "	
	C 40	4	4	7-0	0-9	" " "	
	C 41	10	4	6-0	1-6	" " "	
	C 42	7	4	17-9	0-9	" 4 "	M
	C 43	7	4	18-0	0-9	" 3 "	M
	C 44	3	4	7-0	0-9	" 3 "	

BENDING DETAILS



BAR NO.	NO. OF BARS REQ'D	a	b	c
A 36	14 BARS	11-6	8-0	3-6
C 20	14 BARS	11-0	7-9	3-3

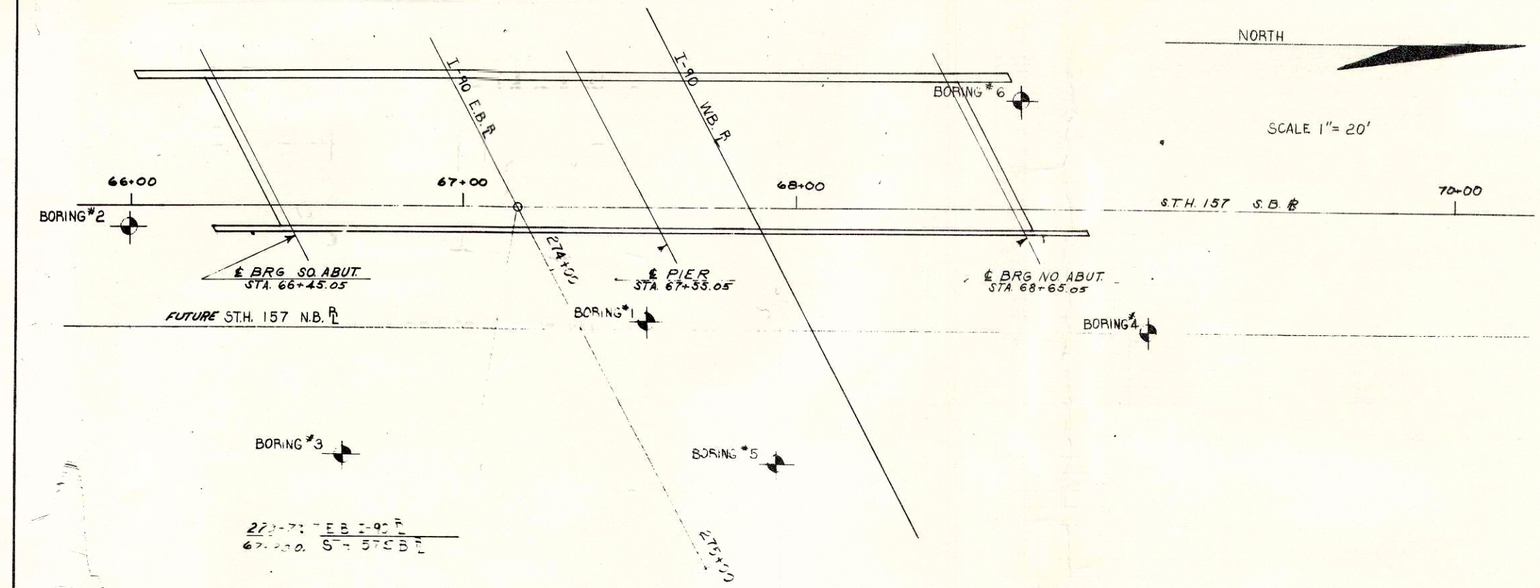
CUTTING DIAGRAM

* = DENOTES CUTTING DIAGRAM.

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	BILL OF BARS
	DESIGN SPEC. A.A.S.H.O. '61 LOADING H S 20 CONST. SPEC. 1963
	DATE 11-65-64 DESIGN G.A.E. DRAWN J.T.R. CKD. BY
STRUCTURE B -32-55	SHEET 12 OF 13

X29909

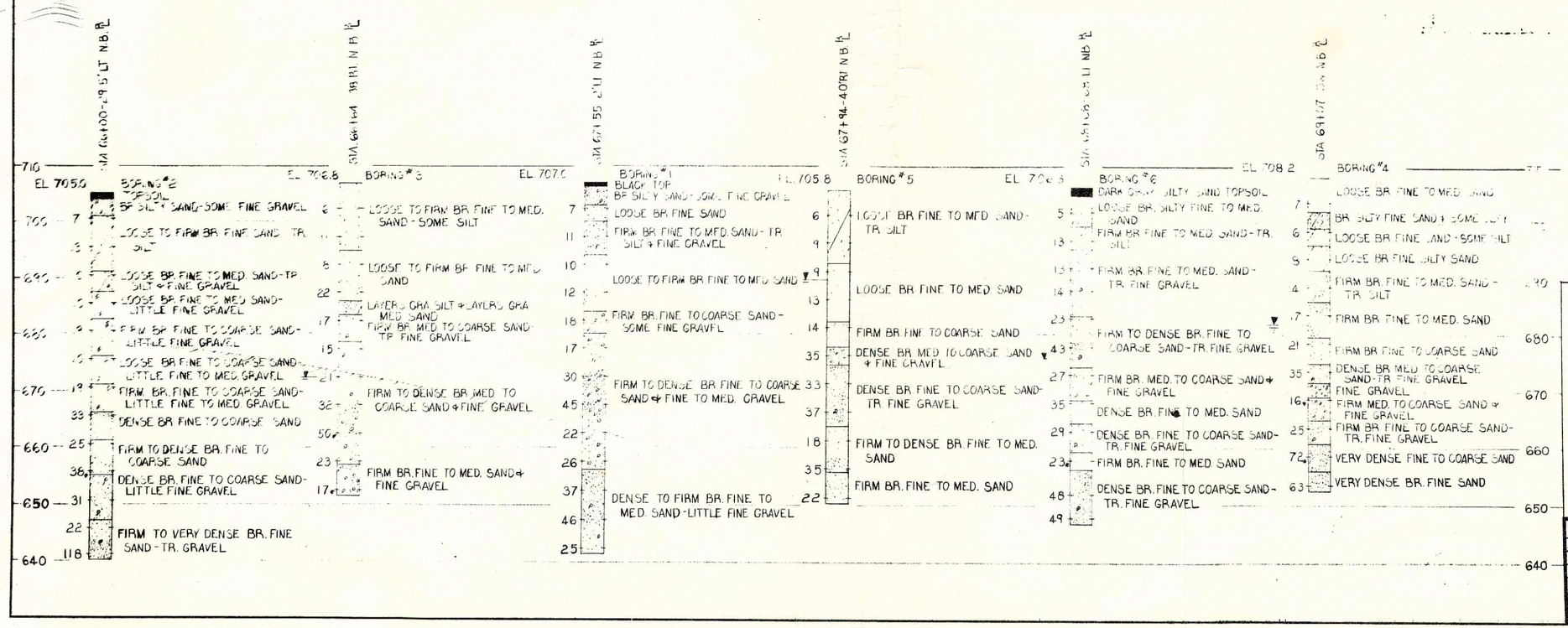
DIVISION	PROJECT	SHEET	TOTAL SHEETS
4	I-90-1(21)3	38	136



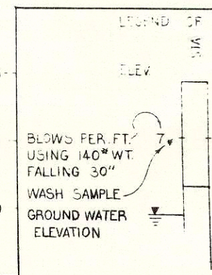
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN

FOR THE DESIGN OF THE STRUCTURE FOUNDATION, TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UNDER WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING WITH THE LOG OF SUCH EXPLORATION DATA AS INTERPRETED FOR SUCH DESIGN PURPOSE AS SHOWN. THE EXPLORATIONS WERE MADE BY ORDINARY AND CONVENTIONAL METHODS AND CARE DEEMED ADEQUATE FOR SUCH PURPOSE. HOWEVER, SINCE IT IS A MATTER OF COMMON KNOWLEDGE THAT THE EXACT CHARACTER OF ANY MATERIAL AND ITS BEARING IS DIFFICULT TO DETERMINE FROM SUCH SUBSURFACE EXPLORATION AND THAT THE KIND AND CHARACTER OF MATERIAL AT THE SITE WHERE THE FOUNDATIONS ARE BUILT MAY VARY SUBSTANTIALLY FROM THAT INDICATED BY THE LOG THEY ARE MADE AVAILABLE TO THE BIDDERS SIMPLY FOR WHAT THEY ARE WORTH, WITHOUT ANY WARRANTY, EXPRESSED OR IMPLIED, THAT THE MATERIAL TO BE ENCOUNTERED IN BUILDING THE FOUNDATION WILL CONFORM THEREWITH. IF THE LOG IS USED BY THE CONTRACTOR OR IN MAKING HIS BID, IT IS HEREBY EXPRESSLY STIPULATED THAT THE COMMISSION ACCEPTS NO RESPONSIBILITY FOR SAID USE.

UNLESS OTHERWISE SPECIFIED THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" OD X 1.4" ID SPLIT SPOON SAMPLER WITH A 140 LB. HAMMER HAVING A FREE FALL OF 30 INCHES. THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.



LEGEND OF BORING



REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	SUBSURFACE EXPLORATION		
	DESIGN SPEC. AASHO 61	LOADING H520	DATE 1963
	DATE 11-25-69	DESIGN	DRAWN JAS
STRUCTURE B-32-55		SHEET 13 OF 13	

X 29910