COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT STATE	CLASS AND AGREEMENT FEDERAL	B.P.R. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
32.3	90.1		11.45	4 WIS.	1	40

INDEX OF SHEETS

STATE OF WISCONSIN

STATE HIGHWAY COMMISSION OF WISCONSIN

PLAN AND PROFILE OF PROPOSED

LA CROSSE - TOMAH ROAD

(FAUVER HILL SEPARATION & APPROACHES)

I. H. 90

LA CROSSE COUNTY

PROJ. EACI-90-1(45)5

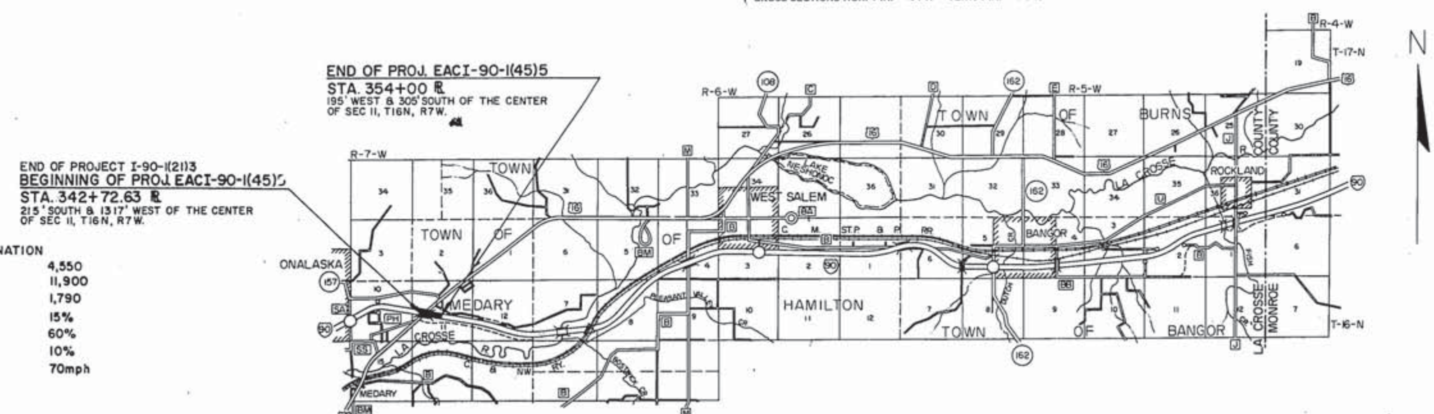
AS BUILT PLAN

CONTRACTOR - NELSON CONST. CO.
RESIDENT - A. LORENZ
DATE COMPLETED - 8-2-67

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.

DESIGN DESIGNATION

ADT 1962	4,550
ADT 1986	11,900
DHV 1986	1,790
K	15%
D	60%
T	10%
V	70mph



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
TRAVELED WAY OR P.E.
RAILROADS
BASE OR SURVEY LINE

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

APPROVED INTERSTATE LOCATION
INTERCHANGE (MAIN LINE UNDER)
INTERCHANGE (MAIN LINE OVER)
HWY. GRADE SEPARATION (MAIN LINE UNDER)
RAILROAD GRADE SEPARATION
COMBINATION HWY.-RAILROAD SEPARATION
OTHER BRIDGES (MAIN LINE OVER)
FRONTAGE ROAD (LOCAL OR STATE)
TERMINATED CROSS ROAD

LAYOUT

SCALE 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.214 MI.

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.

STATE HIGHWAY COMMISSION OF WISCONSIN
MADISON, WIS.

SURVEYOR AERO & D.E.K. NOTE BOOK L.L.
DIVISION COMPUTER L.A.B. H. D. CHECKER R.L.C.
DISTRICT CHECKER A.E.J. CORRECT

CORRECT:
DATE 6-13-66 [signature] DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL:
DATE 6/17/66 E. J. [signature] CHIEF DESIGN ENGINEER

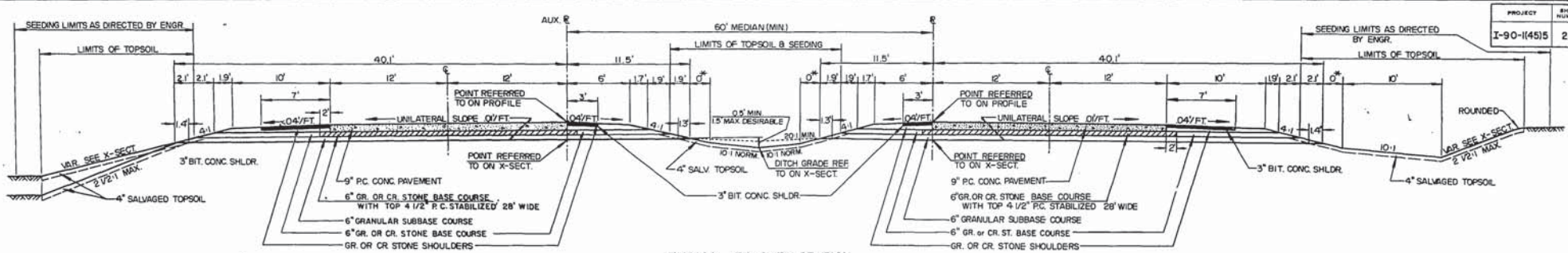
APPROVED:
DATE 6/20/66 H. J. [signature] STATE HIGHWAY ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED:
DATE
DIVISION ENGINEER

EAC I90-1(45)5 D25

PROJECT	SHEET NUMBER	TOTAL SHEETS
I-90-1(45)5	2.0	40

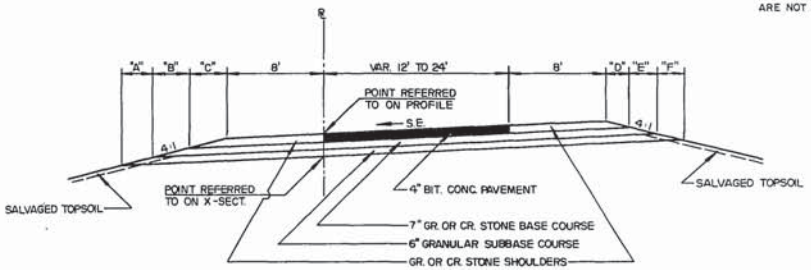


TYPICAL FINISHED SECTION

NOTE: P.C.C. SURFACING, GR. OR CR. STONE BASE COURSE, BASE STABILIZATION, BITUMINOUS CONCRETE SURFACE, & GRAVEL OR CRUSHED STONE BASE COURSE FOR SHOULDERS ON MAINLINE AND TEMPORARY CONNECTION ARE NOT A PART OF THIS CONTRACT.

BITUMINOUS CONCRETE SURFACING AND GRAVEL OR CRUSHED STONE BASE COURSE FOR SHOULDERS ON SOUTH FRONTAGE ROAD AND TEMP. TOWN ROAD ARE NOT A PART OF THIS CONTRACT.

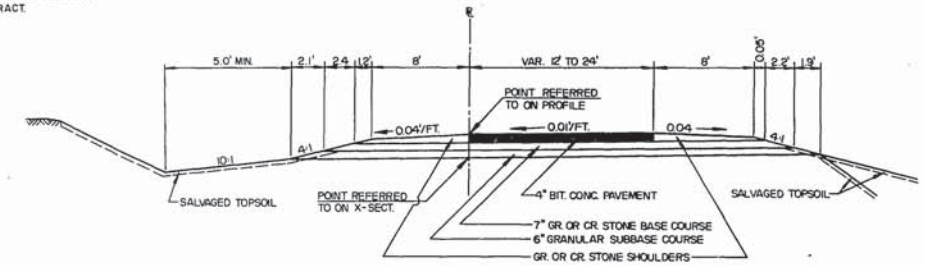
* VARY THIS DIMENSION TO ATTAIN SPECIAL DITCH GRADES



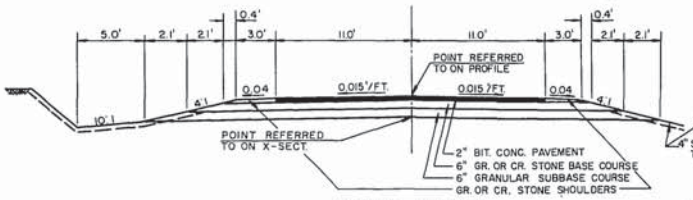
TYPICAL SUPERELEVATED SECTION
TEMPORARY CONNECTION

DISTANCES FOR SUPERELEVATED SECTION (FEET)

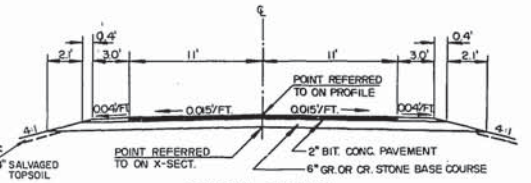
S.E.	"A"	"B"	"C"	"D"	"E"	"F"
0.01 RT.	1.9	2.2	2.1	1.2	2.4	2.1
0.02 RT.	1.9	2.1	2.0	1.6	2.5	2.2
0.03 RT.	1.8	2.1	1.9	2.1	2.6	2.3
0.04 RT.	1.7	2.0	1.9	2.6	2.7	2.4
0.05 RT.	1.7	1.9	1.8	2.7	2.9	2.5
0.06 RT.	1.6	1.9	1.7	2.8	3.0	2.6
0.07 RT.	1.6	1.8	1.7	3.0	3.2	2.8
0.08 RT.	1.5	1.8	1.6	3.2	3.4	2.9
0.01 LT.	2.1	2.4	1.2	2.1	2.2	1.9
0.02 LT.	2.2	2.5	1.6	2.0	2.1	1.9
0.03 LT.	2.3	2.6	2.1	1.9	2.1	1.8
0.04 LT.	2.4	2.7	2.6	1.9	2.0	1.7
0.05 LT.	2.5	2.9	2.7	1.8	1.9	1.7
0.06 LT.	2.6	3.0	2.8	1.7	1.9	1.6
0.07 LT.	2.8	3.2	3.0	1.7	1.8	1.6
0.08 LT.	2.9	3.4	3.2	1.6	1.8	1.5



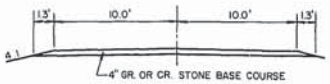
TYPICAL SECTION
TEMPORARY CONNECTION



TYPICAL SECTION
SOUTH FRONTAGE ROAD STA. 340"N"+40-354"N"+00



TYPICAL SECTION
TEMP. TOWN ROAD STA. 354"E"+00-STA. 363"E"+65.94

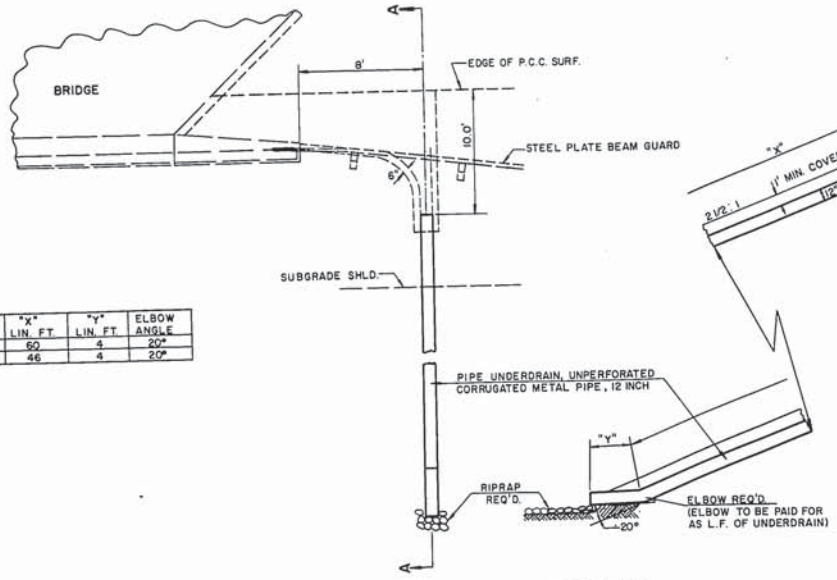


TYPICAL SECTION
PRIVATE ENTRANCE

TYPICAL CROSS SECTION
FOR

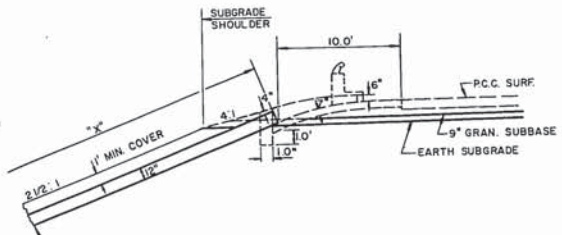
MAINLINE
TEMPORARY CONNECTION
SOUTH FRONTAGE ROAD
TOWN ROAD TEMP. CONN.

PROJECT	SHEET NUMBER	TOTAL SHEETS
I-90-1(45)5	2.1	40



LOC.	"X" LIN. FT.	"Y" LIN. FT.	ELBOW ANGLE
B-32-53	60	4	20°
B-32-54	46	4	20°

SURFACE DRAIN AT BRIDGES
(CONC. PORTION NOT A PART OF THIS CONTRACT)



SECTION A-A

GENERAL NOTES

1. THE REFERENCE LINE (℄) IS THE MEDIAN EDGE OF THE EASTBOUND PAVEMENT. THE AUXILIARY REFERENCE LINE (AUX. ℄) IS THE MEDIAN EDGE OF THE WESTBOUND PAVEMENT.
2. SALVAGED TOPSOIL TO BE PLACED ON ALL CUT SLOPES AND ALL FILL SLOPES TO AN APPROXIMATE DEPTH OF 4" AT TIME OF PLACING.
3. ALL RIGHT OF WAY EXCLUSIVE OF THE ROADBED AND AREAS ALREADY COVERED WITH SUITABLE GRASSES SHALL BE SEEDED.
4. NO TREES OR SHRUBS SHALL BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE BEEN DESIGNATED FOR REMOVAL BY THE ENGINEER.
5. SHRINKAGE IS VARIABLE AND ESTIMATED AT 25% FOR UNCLASSIFIED AND BORROW EMBANKMENTS AND 20% FOR GRANULAR SUBBASE COURSE.
6. CURVE DATA IS BASED ON ARC DEFINITION.
7. WHEN THE QUANTITY OF THE ITEMS OF SUBBASE, BASE, OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.
8. THE EXACT LOCATION OF PRIVATE ENTRANCES TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
9. STRAW MULCH ALL SLOPES STEEPER THAN 4:1.

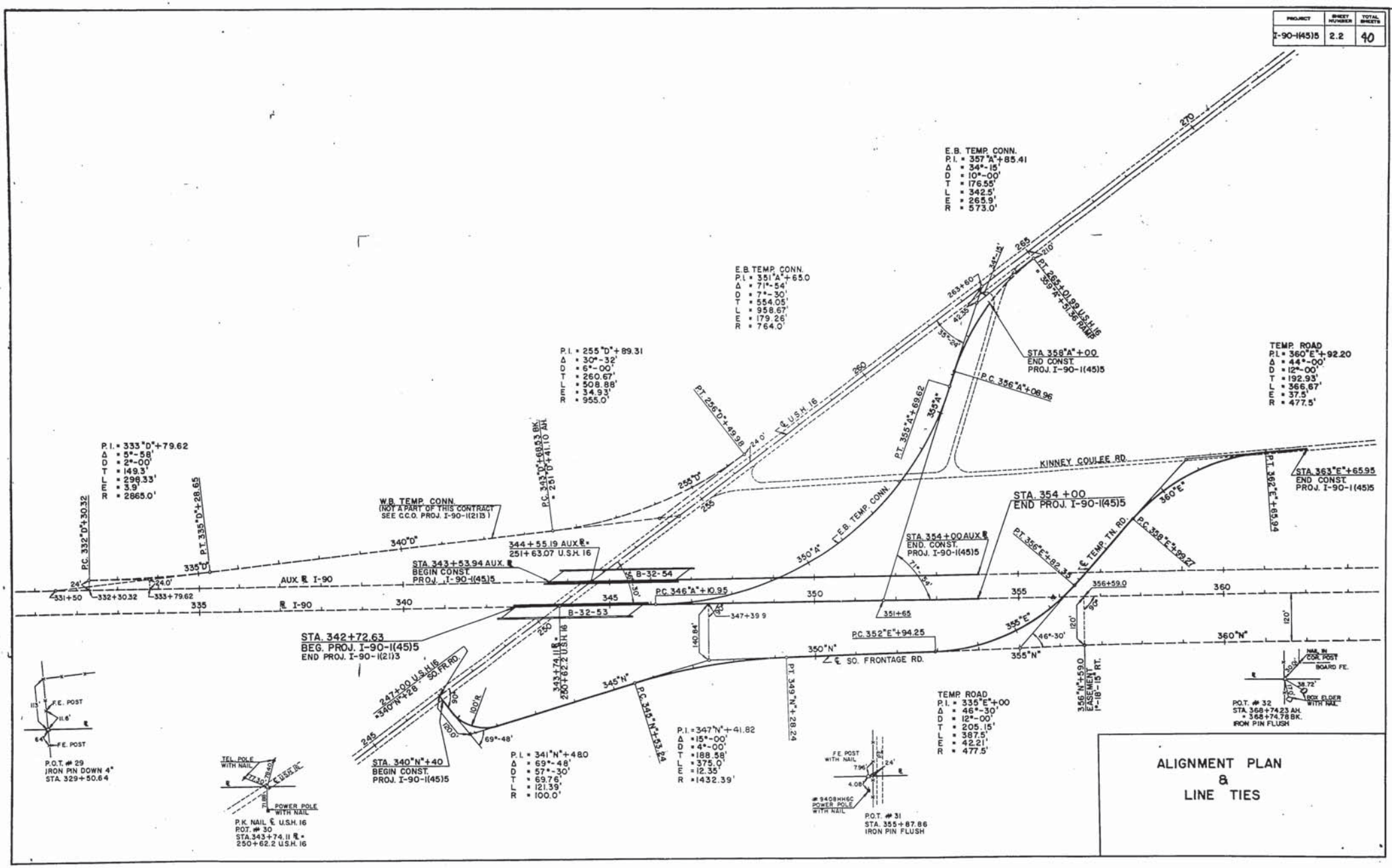
STANDARD DETAIL DRAWINGS

6-2.6.4	APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH.
7-1.3.4	MARKER POSTS
7-4.1.4	CONSTRUCTION BARRICADE.
8-2.1.4	SODDED BACKSLOPE FLUME & INTERCEPTING EMBANKMENT.
9-1.1.4	DESIGN AND LAYOUT DETAILS FOR SIDE ROAD AT GRADE INTERSECTIONS.

NOTE:
THE MARKER POSTS AT CULVERTS SHOWN ON THE STANDARD PLATE 7-1.3.4 ARE NOT REQUIRED.

MISCELLANEOUS DETAILS

PROJECT	SHEET NUMBER	TOTAL SHEETS
I-90-1(45)5	2.2	40



ALIGNMENT PLAN & LINE TIES

ESTIMATE OF QUANTITIES

CONTRACT NO. 1

B.P.R. REGION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(45)5	3	40

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.	STATION TO STATION	NET LENGTH OF CENTER LINE	CLEARING	CLEARING	GRUBBING	GRUBBING	REMOVING OLD CULVERT STA.	REMOVING OLD CULVERT	REMOVING OLD BRIDGE STA.	REMOVING OLD BRIDGE				EXCAVATION UNCL.	EXCAVATION ROCK	EXCAVATION MARSH	EXCAVATION BORROW	GRANULAR BACKFILL	TEST ROLLING	PREP FOUNDATION FOR
	ITEM NO.		20101	20102	20104	20105	20301		20351					20503	20502	20505	20801	20901	21001	211
	UNIT	LIN. FT.	STA.	IN. DIA.	STA.	IN. DIA.	L.S.		L.S.					C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	L.S.	L.S.
1	342+72.63 - 354+00	1127.37	6		6									1552			109,273			

CONTRACT NO.		GRANULAR SUBBASE COURSE	FINISHING ROADWAY	OBLITERATING OLD ROAD				GRAVEL OR CRUSHED STONE BASE COURSE	GRAVEL OR CRUSHED STONE BASE COURSE	CONCRETE BASE COURSE	CONCRETE BASE COURSE	BITUM. MAT. FOR PRIME COAT	BITUMINOUS CONCRETE PAVEMENT	BITUM. MAT. FOR SURFACE COURSE	CONCRETE PAVEMENT	CONCRETE PAVEMENT	CONCRETE DRIVEWAY	CONCRETE HEADER	CONCRETE SURFACE DRAINS	CONCRETE PAVEMENT REINF.
		21201	21301	21401				30401	30	30	30	4020	40701	4070	409	409	40931	40935	40934	40960
		C.Y.	L.S.	STA.				C.Y.		S.Y.	S.Y.		TON		S.Y.	S.Y.	S.Y.	S.Y.	C.Y.	S.Y.
1		3,600	1					2040												

BRIDGES (STRUCTURES OVER 20 FT. SPAN)

CONTRACT 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	UNTR'D TIMBER TEST PILING B-32-53	UNTR'D TIMBER TEST PILING B-32-54
		20801	20901	50201	503	503	50501	50601	50605	50614	50616	50621	50702	50801	50802
		C.Y.	C.Y.	C.Y.	L.F.	L.F.	LB.	LB.	LB.	LB.	LB.	S.F.	M.B.M.	L.S.	L.S.
1	[illegible]	540		622.3			118,780	109,300	119,800	238		26		1	
1	B-32-54	540		630.5			118,920	109,300	119,800	238		26			1
1	TOTAL	[illegible]		1252.8			237,700	218,600	239,600	476		52		1	1

CONTRACT NO.		UNTREATED TIMBER PILING DELIVERED	UNTREATED TIMBER PILING DRIVEN	TREATED TIMBER PILING DELIVERED	TREATED TIMBER PILING DRIVEN	CAST IN PLACE CONC. TEST PILING		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	RIP-RAP	SLOPE PAVING CRUSHED STONE
		50810	50813	50816	50820	51001		51010	51015	51332	5140	5140	51426	60404	6060	90002
		L.F.	L.F.	L.F.	L.F.	L.S.		L.F.	L.F.	L.F.	EACH	EACH	L.F.	S.F.	C.Y.	S.Y.
1	[illegible]			8,985	8,985					605						570
1	B-32-54			8,985	8,985					609						580
1	TOTAL			17,970	17,970					1214						1150

CULVERTS (STRUCTURES 20 FT. SPAN & UNDER)

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	RIP-RAP
20301	20802	20901	50401	50502	50601	50702	50801	50816	50820	5140	6060
L.S.	C.Y.	C.Y.	C.Y.	LB.	LB.	M.B.M.	L.S.	L.F.	L.F.	EACH	C.Y.

CONTRACT NO.	RUBBLE MASONRY MORTAR	RUBBLE MASONRY DRY	CULVERT PIPE CL. III 24"		CULVERT PIPE CL. III 18"								APRON ENDWALLS FOR CULVERT PIPE 18"	APRON ENDWALLS FOR CULVERT PIPE 24"						CONCRETE CURB	CONCRETE CURB AND GUTTER	CONCRETE SIDE WALK	SLOPE PAVING	DITCH CHECKS	RIP-RAP	HEAVY RIP-RAP
	51801	51810	52005	52	52003	52	522[illegible]	52	52	52	52	52	52061	52[illegible]43	52	52147	52	52263	52	6010	601	6020	6040	6050	60601	60602
	C.Y.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	L.F.	L.F.	S.F.	S.F.	C.Y.	C.Y.	C.Y.
1			208		66								2	6											2	

CONTRACT NO.	STORM SEWER	STORM SEWER	STORM SEWER	STORM SEWER	STORM SEWER	CATCH BASINS TYPE	CATCH BASINS TYPE	MANHOLES TYPE	MANHOLES TYPE	INLETS TYPE	INLETS TYPE	CATCH BASINS COVERS TYPE	CATCH BASINS COVERS TYPE	MANHOLES COVERS TYPE	MANHOLES COVERS TYPE	INLET COVERS TYPE	INLET COVERS TYPE	PIPE UNDER DRAIN UNPERF. CORR. METAL PIPE 12-INCH	STEEL PLATE BEAM GUARD	MARKER POSTS	MARKER POSTS FOR R-O-W	CALCIUM CHLORIDE SURFACE TREATMENT	STRAW MULCH	SALVAGED TOPSOIL	FERTILIZER	SEEDING	SODDING	FIELD OFFICE
	60	60	60	60	60	6110	6110	6111	6111	6112	6112	6113	6113	6115	6115	6116	6116	61214	61410	61421	61422	62301	62701	62505	62901	63001	63101	90001
	L.F.	L.F.	L.F.	L.F.	L.F.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	L.F.	L.F.	EACH	EACH	TON	S.Y.	S.Y.	CWT.	S.Y.	S.Y.	L.S.
1																		114		10		5	6300	22,600	21	46,300	2700	1

DETAIL SUMMARY OF MISCELLANEOUS QUANTITIES

CLEARING AND GRUBBING

Sta. - Sta.	Clearing Sta.	Grubbing Sta.
352"A"+00 - 356"A"+00	4	4
362"E"+00 - 364"E"+00	2	2

GRANULAR SUBBASE COURSE

Sta. - Sta.	Location	C.Y.
349+00 - 354+00	E.B.	530
346+75 - 354+00	W.B.	760
345"A"+55 - 358"A"+00	"A" Line	1,300
340"N"+40 - 354"N"+00	"N" Line	1,010

TOPSOIL, SEEDING & FERTILIZER

Location	Salv. Topsoil S.Y.	Fertilizer Cwt.	Seeding S.Y.
Mainline	11,272	10.0	11,272
"A" Line	4,439	4.0	28,139
Town Road	6,295	5.7	6,295
Undistributed	594	1.3	594

GRAVEL OR CRUSHED STONE BASE COURSE

Sta. - Sta.	Location	C.Y./ Sta.	C.Y.
340"N"+40 - 345"N"+53	S. Front. Rd.	74.39	382
345"N"+53 - 349"N"+28	S. Front. Rd.	80.89	303
349"N"+28 - 354"E"+00	S. Front. Rd.	74.39	351
354"E"+00 - 363"E"+66	Temp. Road	81.61	788
340+50	Radius		41
341"N"+50	Priv. Ent.		10
356"E"+00	Priv. Ent.		20
360"E"+30	Intersec.		55
Undistributed			90

SODDING

Station	Location	S.Y.
-	W. Abut., B-32-53	268
-	E. Abut., B-32-53	743
-	W. Abut., Median	336
-	E. Abut., Median	320
-	W. Abut., B-32-54	641
-	E. Abut., B-32-54	262
347+00	E.B.	50
Undistributed		80

PIPE CULVERTS - CROSS DRAIN PIPES

Station	Location	Type	Diam.	L.F.	Apron Endwalls	Marker Posts
347"A"+00	E.B. Temp.	C.P. Cl. III	18"	66	2	
354"A"+40	E.B. Temp.	C.P. Cl. III	24"	76	2	

MINOR SIDE ROAD & PRIVATE ENTRANCE PIPES

Station	Location	Type	Diam.	L.F.	Apron Endwalls	Skew	Marker Posts
340"N"+90	S. Front. Rd.	C.P., Cl. III*	24"	88	2		
345"N"+65	S. Front. Rd.	C.P., Cl. III*	24"	44	2	20° RHF	

*R.C.C.P., Steel or Aluminum

PIPE UNDERDRAIN, UNPERFORATED CORRUGATED METAL PIPE, 12 INCH

Station	Location	Diam.	L.F.	Riprap (C.Y.)	Remarks	Marker Posts
345+60+	Surf. Drain, B-32-53	12"	64	1	20° Elbow	
347+25+	Surf. Drain, B-32-54	12"	50	1	20° Elbow	

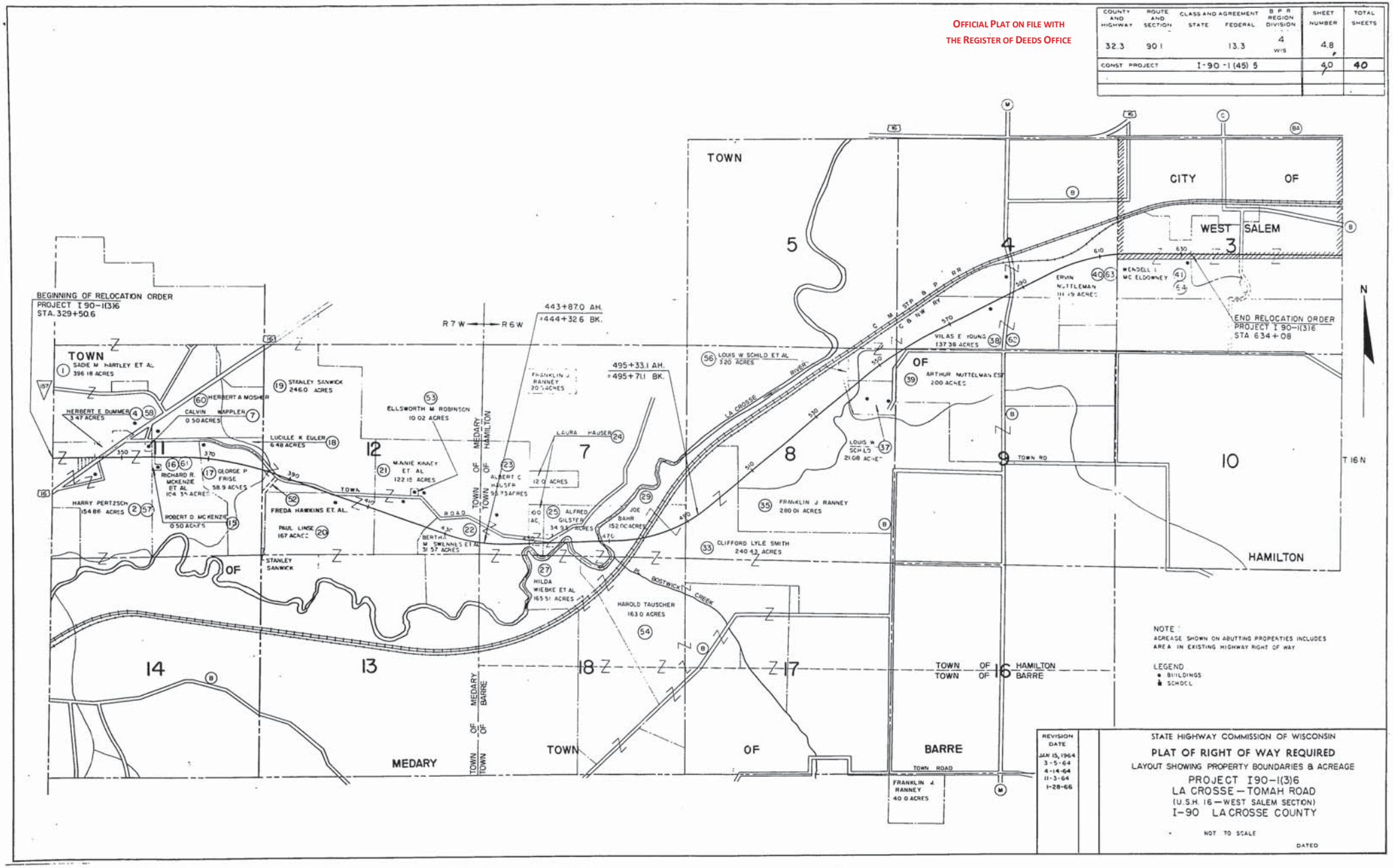
CALCIUM CHLORIDE SURFACE TREATMENT

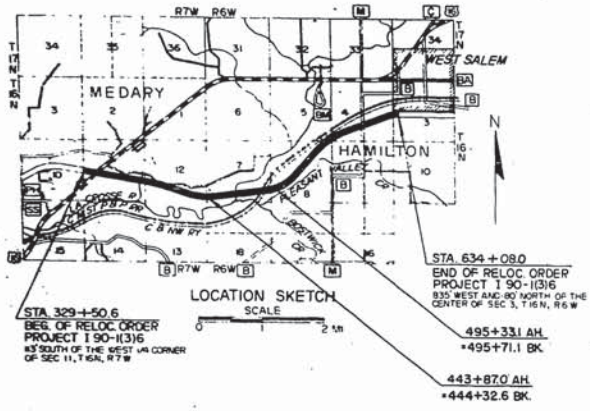
Sta. - Sta.	Width	Tons
340"N"+40 - 363"E"+66	24.0'	4.65
Undistributed		0.35

MARKER POSTS

Sta. - Sta.	Location	No.
352+70	Lt.	5
353+70	Rt.	5

PROJECT	SHEET NO.	TOTAL SHEETS
I-90-1(45)5	3A	40


OFFICIAL PLAT ON FILE WITH
THE REGISTER OF DEEDS OFFICE
COUNTY AND HIGHWAY
ROUTE AND SECTION
CLASS AND AGREEMENT STATE FEDERAL
B P R REGION DIVISION
SHEET NUMBER
TOTAL SHEETS
32.3
90 1
13.3
4 WIS
4.8
CONST PROJECT
I-90-1(45) 5
40
40
BEGINNING OF RELOCATION ORDER
PROJECT I 90-1(3)6
STA. 329+50.6
END RELOCATION ORDER
PROJECT I 90-1(3)6
STA 634+08
443+87.0 AH.
+444+32.6 BK.
495+33.1 AH.
+495+71.1 BK.
R 7 W
R 6 W
T 16 N
TOWN
CITY OF
WEST SALEM
OF
HAMILTON
MEDARY
TOWN
BARRE
TOWN OF HAMILTON
TOWN OF BARRE
TOWN OF MEDARY
TOWN OF BARRE
LA CROSSE RIVER
BOSTWICK CREEK
C M STP & P RR
C B & N W RY
TOWN ROAD
NOTE :
ACREAGE SHOWN ON ABUTTING PROPERTIES INCLUDES
AREA IN EXISTING HIGHWAY RIGHT OF WAY
LEGEND
BUILDINGS
SCHOOL
REVISION DATE
JAN 15, 1964
3-5-64
4-14-64
11-3-64
1-28-66
STATE HIGHWAY COMMISSION OF WISCONSIN
PLAT OF RIGHT OF WAY REQUIRED
LAYOUT SHOWING PROPERTY BOUNDARIES & ACREAGE
PROJECT I90-1(3)6
LA CROSSE — TOMAH ROAD
(U.S.H. 16 — WEST SALEM SECTION)
I-90 LA CROSSE COUNTY
NOT TO SCALE
DATED



COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT STATE	CLASS AND AGREEMENT FEDERAL	B. P. R. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
32.3	90.1		13.3	4 WIS.	4.7	
CONST. PROJECT		I-90-1 (45) 5			4.1	4.0

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	SHEET NUMBER	OWNER	INTERESTS REQUIRED	ACRES
1	4	SADIE M. HARTLEY ET. AL.	FEE & ACCESS RIGHTS	0.65
2	4	HARRY PERTZSCH	FEE SIMPLE, L.H.E. & ACCESS RIGHTS	17.45
4	4	HERBERT E. DUMMER	FEE & ACCESS RIGHTS	0.94
5	4	RICHARD W. DUMMER	" " "	0.43
6	4	JAMES DUNHAM	" " "	0.21
7	4	CALVIN WAPPLER	" " "	0.17
15	4.1	ROBERT D. MC KENZIE	ACCESS RIGHTS & ROAD EASEMENT RELEASE	—
16	4.1	RICHARD R. MC KENZIE ET. AL.	FEE & ACCESS RIGHTS	10.74
17	4.1-4.2	GEORGE P. FRISE	" " "	12.34
18	4.2	LUCILLE K. EULER	FEE SIMPLE, L.H.E. & ACCESS RIGHTS	0.59
19	4.2	STANLEY SANWICK	" " "	23.30
20	4.2	PAUL LINSE	" " "	5.07
21	4.2-4.3	MINNIE KINNEY ET AL.	FEE & ACCESS RIGHTS	16.14
22	4.2-4.3	BERTHA M. SWENNES ET. AL.	FEE SIMPLE, L.H.E. & ACCESS RIGHTS	18.22
23	4.3	ALBERT C. HAUSER	" " "	7.44
24	4.3	LAURA HAUSER	FEE, ACCESS RIGHTS, RIPARIAN RIGHTS & L.H.E.	1.45
25	4.3	ALFRED GILSTER		9.16
27	4.3	HILDA WIEBKE ET AL.	" " "	2.73
29	4.3	JOE BAHR	" " "	13.80
31	4.3	BERNARD PRALLE	ROAD EASEMENT RELEASE	—
32				
33	4.4	CLIFFORD LYLE SMITH	FEE SIMPLE, L.H.E. & ACCESS RIGHTS	15.73
35	4.4-4.5	FRANKLIN J. RANNEY	" " "	42.54
37	4.5	LOUIS W. SCHILD	FEE & ACCESS RIGHTS	1.01
38	4.5-4.6	VILAS E. YOUNG	" " " (INCLUDES WEIGH STA. SITE)	53.66
39	4.5	ARTHUR NUTTELMAN EST.	FEE, ACCESS RIGHTS & ROAD EASEMENT RELEASE	0.90
40	4.5-4.6	ERVIN NUTTELMAN	FEE SIMPLE, L.H.E. & ACCESS RIGHTS	27.21
41	4.6	WENDELL L. MC ELDOWNEY	FEE & ACCESS RIGHTS	14.61
50	4.3	C. B. N. W. R. R.	AGREEMENT	—
51	4.3	C. M. ST. P. & P. R. R.	AGREEMENT	—
52	4.2	FREDA HAWKINS	ROAD EASEMENT RELEASE	—
53	4.2	ELLSWORTH M. ROBINSON	FEE SIMPLE	0.17
54	4.3	HAROLD TAUSCHER	L.H.E.	
56	4.5	LOUIS W. SCHILD ET AL.	FEE SIMPLE	2.20
57	4	HARRY PERTZSCH	L. H. E.	—
58	4	HERBERT E. DUMMER	L. H. E.	—
60	4	HERBERT A. MOSHER	L. H. E.	—
61	4.1	RICHARD R. MC KENZIE ET AL.	L. H. E.	—
62	4.6	VILAS E. YOUNG	FEE SIMPLE	1.89
63	4.6	ERVIN NUTTLEMAN	" " "	5.42
64	4.6	WENDELL L. MC ELDOWNEY	" " "	3.07

STANDARD ABBREVIATIONS

ABANDON	ABND	NORTHEAST	N E
ACRES	AC	NORTHWEST	N W
AGRICULTURAL	AGRI	NUMBER	NO
AHEAD	AH	OUTLOT	OL
AUXILIARY REFERENCE LINE	A R L	PAVEMENT	PAV'T
AVENUE	AVE	POINT OF CURVATURE	PC
BACK	BK	POINT OF INTERSECTION	PI
BARN	B	POINT OF TANGENCY	PT
BOULEVARD	BLVD	POINT OF COMPOUND CURVE	PCC
BUILDINGS	BLDGS	POINT OF REVERSE CURVE	PRC
CEMETERY	CEM	POINT ON CURVE	POC
CENTERLINE	℄	PRIVATE DRIVE	PD
CHANNEL CHANGE	CH CH	PROJECT	PROJ.
CONCRETE	CONC	PROPERTY LINE	P L
CONSTRUCTION	CONST	RADIUS	R
CORN CRIB	C C	RAILROAD	RR
CORNER	COR	RAILWAY	RY
COUNTY	CO.	REFERENCE LINE	R L
COUNTY TRUNK HIGHWAY	C.T.H	REQUIRED	REQ'D
CREEK	CR.	RESIDENTIAL	RESID.
CULVERT	CULV.	RESTAURANT	REST
DEGREE OF CURVE	D	RIGHT	RT
DISPOSAL	DISP	RIGHT OF WAY	R/W
DISTRICT	DIST	ROAD	RD
ESTATE	EST.	ROADWAY	ROWY
EXTERNAL DISTANCE	E	SANITARY	SAN
FACTORY	FACT.	SCHOOL	SCH
FEDERAL AID PROJECT	F A P	SECTION	SEC
FIRE HYDRANT	F H	SERVICE STATION	S S
FOOT (FEET)	FT	SHED	S
FOUNDATION	FDN	SOUTHEAST	SE
GARAGE	G	SOUTHWEST	SW
GOVERNMENT	GOV'T	SPECIAL CROSSING	SC
HIGHWAY	HWY	SPECIAL DRIVE	S D
HOTEL	HO.	STANDARD	STD
HOUSE	H	STATE TRUNK HIGHWAY	S.T.H
HOUSE TRAILER	H T	STATION	STA
INCLUSIVE	INCL	STORE	ST
INTERSTATE HIGHWAY	I H	TANGENT LENGTH OF CURVE	T
IRON PIN	I P	TAVERN	TAV
LEFT	LT	TRANSMISSION TOWER	T T
LENGTH OF CURVE	L	UNITED STATES COAST & GEODETIC SURVEY	USC&GS
LIMITED HIGHWAY EASEMENT	L H E	UNITED STATES GEOLOGICAL SURVEY	USGS
MACHINERY SHED	M S	UNITED STATES HIGHWAY	U.S.H.
MAXIMUM	MAX	WAREHOUSE	WH
MILE	MI	WATER TOWER	W T
MILK HOUSE	M H	WELL	W
MINIMUM	MIN	WINDMILL	WM
MONUMENT	MON		
MUNICIPAL	MCPL		

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

LEGEND
DENOTES NO ACCESS

REVISION DATE
1-15-64
3-5-64
4-14-64
11-3-64
1-28-66

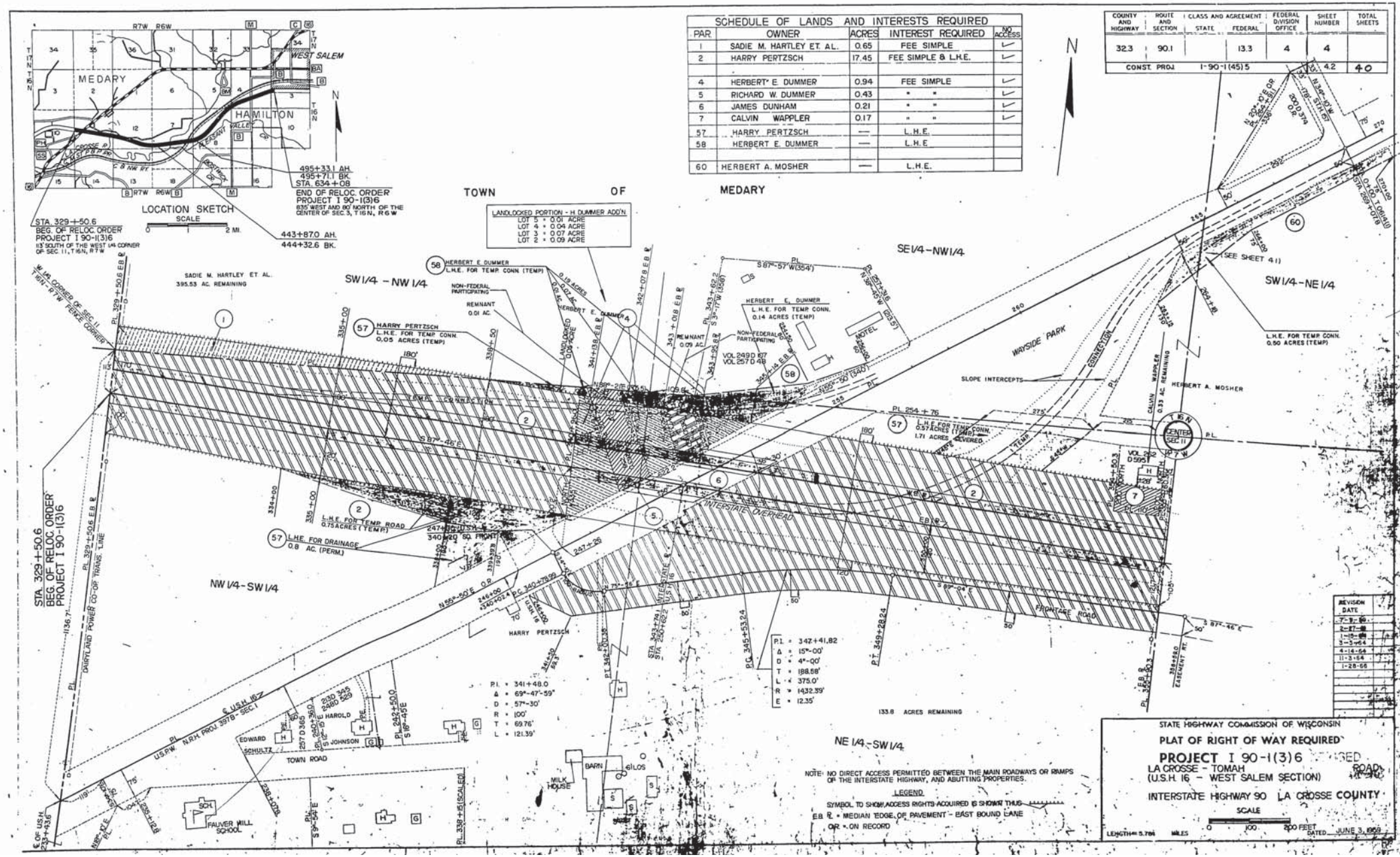
STATE HIGHWAY COMMISSION OF WISCONSIN

PLAT OF RIGHT OF WAY REQUIRED

PROJECT I 90—1(3)6
LA CROSSE — TOMAH ROAD
(U.S.H.16— WEST SALEM SECTION)
INTERSTATE HIGHWAY 90 LA CROSSE COUNTY

LENGTH = 5.784 MILES

DATE: _____


SCHEDULE OF LANDS AND INTERESTS REQUIRED
PAR. | OWNER | ACRES | INTEREST REQUIRED | NO ACCESS
1 | SADIE M. HARTLEY ET. AL. | 0.65 | FEE SIMPLE
2 | HARRY PERTZSCH | 17.45 | FEE SIMPLE & L.H.E.
4 | HERBERT E. DUMMER | 0.94 | FEE SIMPLE
5 | RICHARD W. DUMMER | 0.43 | " "
6 | JAMES DUNHAM | 0.21 | " "
7 | CALVIN WAPPLER | 0.17 | " "
57 | HARRY PERTZSCH | — | L.H.E.
58 | HERBERT E. DUMMER | — | L.H.E.
60 | HERBERT A. MOSHER | — | L.H.E.
COUNTY AND HIGHWAY | ROUTE AND SECTION | CLASS AND AGREEMENT STATE | FEDERAL | FEDERAL DIVISION OFFICE | SHEET NUMBER | TOTAL SHEETS
32.3 | 90.1 | | 13.3 | 4 | 4 | 4.2 | 40
CONST. PROJ. I-90-1(45)5
LOCATION SKETCH
SCALE 0 1 2 MI.
STA. 329+50.6 BEG. OF RELOC. ORDER PROJECT I 90-1(3)6 113' SOUTH OF THE WEST 1/4 CORNER OF SEC. 11, T16N, R7W
443+87.0 AH. 444+32.6 BK.
495+33.1 AH. 495+71.1 BK. STA. 634+08 END OF RELOC. ORDER PROJECT I 90-1(3)6 635' WEST AND 80' NORTH OF THE CENTER OF SEC. 3, T16N, R6W
TOWN OF MEDARY
LANDLOCKED PORTION - H DUMMER ADD'N
LOT 5 = 0.01 ACRE
LOT 4 = 0.04 ACRE
LOT 3 = 0.07 ACRE
LOT 2 = 0.09 ACRE
SW1/4 - NW1/4
SE1/4 - NW1/4
SW1/4 - NE1/4
NW1/4 - SW1/4
NE1/4 - SW1/4
SADIE M. HARTLEY ET AL. 395.53 AC. REMAINING
HERBERT E. DUMMER L.H.E. FOR TEMP. CONN. (TEMP)
HARRY PERTZSCH L.H.E. FOR TEMP CONN. 0.05 ACRES (TEMP)
L.H.E. FOR TEMP. ROAD 0.75 ACRES (TEMP)
L.H.E. FOR DRAINAGE 0.8 AC. (PERM.)
HERBERT E. DUMMER L.H.E. FOR TEMP CONN. 0.14 ACRES (TEMP)
L.H.E. FOR TEMP CONN. 0.57 ACRES (TEMP) 1.71 ACRES SEVERED
L.H.E. FOR TEMP CONN. 0.50 ACRES (TEMP)
HERBERT A. MOSHER
CALVIN WAPPLER 0.33 AC. REMAINING
WAYSIDE PARK
SLOPE INTERCEPTS
CONNECTION
INTERSTATE OVERHEAD
FRONTAGE ROAD
HARRY PERTZSCH
133.8 ACRES REMAINING
P.I. = 342+41.82
Δ = 15°-00'
D = 4°-00'
T = 188.58'
L = 375.0'
R = 1432.39'
E = 12.35'
P.I. = 341+48.0
Δ = 69°-47'-59"
D = 57°-30'
R = 100'
T = 69.76'
L = 121.39'
EDWARD SCHULTZ
E. HAROLD JOHNSON
TOWN ROAD
FAUVER HILL SCHOOL
MILK HOUSE
BARN
SILOS
NOTE: NO DIRECT ACCESS PERMITTED BETWEEN THE MAIN ROADWAYS OR RAMPS OF THE INTERSTATE HIGHWAY, AND ABUTTING PROPERTIES.
LEGEND
SYMBOL TO SHOW ACCESS RIGHTS ACQUIRED IS SHOWN THUS
E.B.R. = MEDIAN EDGE OF PAVEMENT - EAST BOUND LANE
OR = ON RECORD
REVISION DATE
7-3-59
2-27-58
1-15-58
3-3-54
4-14-54
11-3-54
1-28-55
STATE HIGHWAY COMMISSION OF WISCONSIN
PLAT OF RIGHT OF WAY REQUIRED
PROJECT I 90-1(3)6
LA CROSSE - TOMAH
(U.S.H. 16 - WEST SALEM SECTION)
INTERSTATE HIGHWAY 90 LA CROSSE COUNTY
SCALE 0 100 200 FEET
LENGTH = 5.786 MILES
DATED JUNE 3, 1959
SEE SHEET 41

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT STATE	CLASS AND AGREEMENT FEDERAL	FEDERAL DIVISION OFFICE	SHEET NUMBER	TOTAL SHEETS
32.3	90.1		13.3	4	4.1	
CONST PROJ.		I-90-1 (45) 5			4.3	40

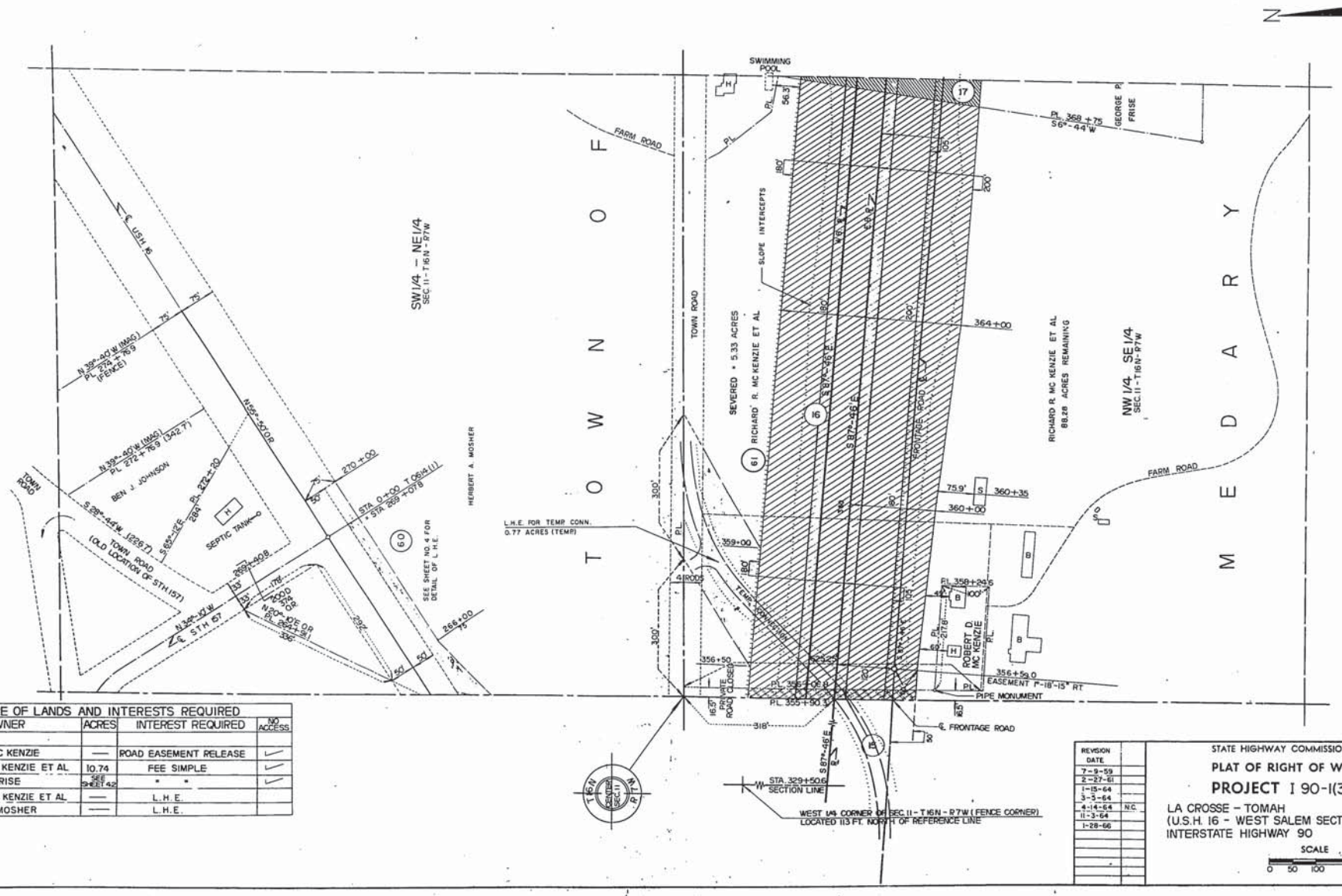
LEGEND

SYMBOL TO SHOW ACCESS RIGHTS ACQUIRED IS SHOWN THUS

℄ = MEDIAN EDGE OF PAVEMENT EAST BOUND LANE

OR = ON RECORD

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



SCHEDULE OF LANDS AND INTERESTS REQUIRED				
PAR.	OWNER	ACRES	INTEREST REQUIRED	NO ACCESS
15	ROBERT D. MC KENZIE	—	ROAD EASEMENT RELEASE	✓
16	RICHARD R. MC KENZIE ET AL	10.74	FEE SIMPLE	✓
17	GEORGE P. FRISE	SEE SHEET 42	" "	✓
61	RICHARD R. MC KENZIE ET AL	—	L.H.E.	
60	HERBERT A. MOSHER	—	L.H.E.	

REVISION DATE	
7-9-59	
2-27-61	
1-15-64	
3-3-64	
4-14-64	N.C.
11-3-64	
1-28-66	

STATE HIGHWAY COMMISSION OF WISCONSIN

PLAT OF RIGHT OF WAY REQUIRED

PROJECT I 90-1(3)6

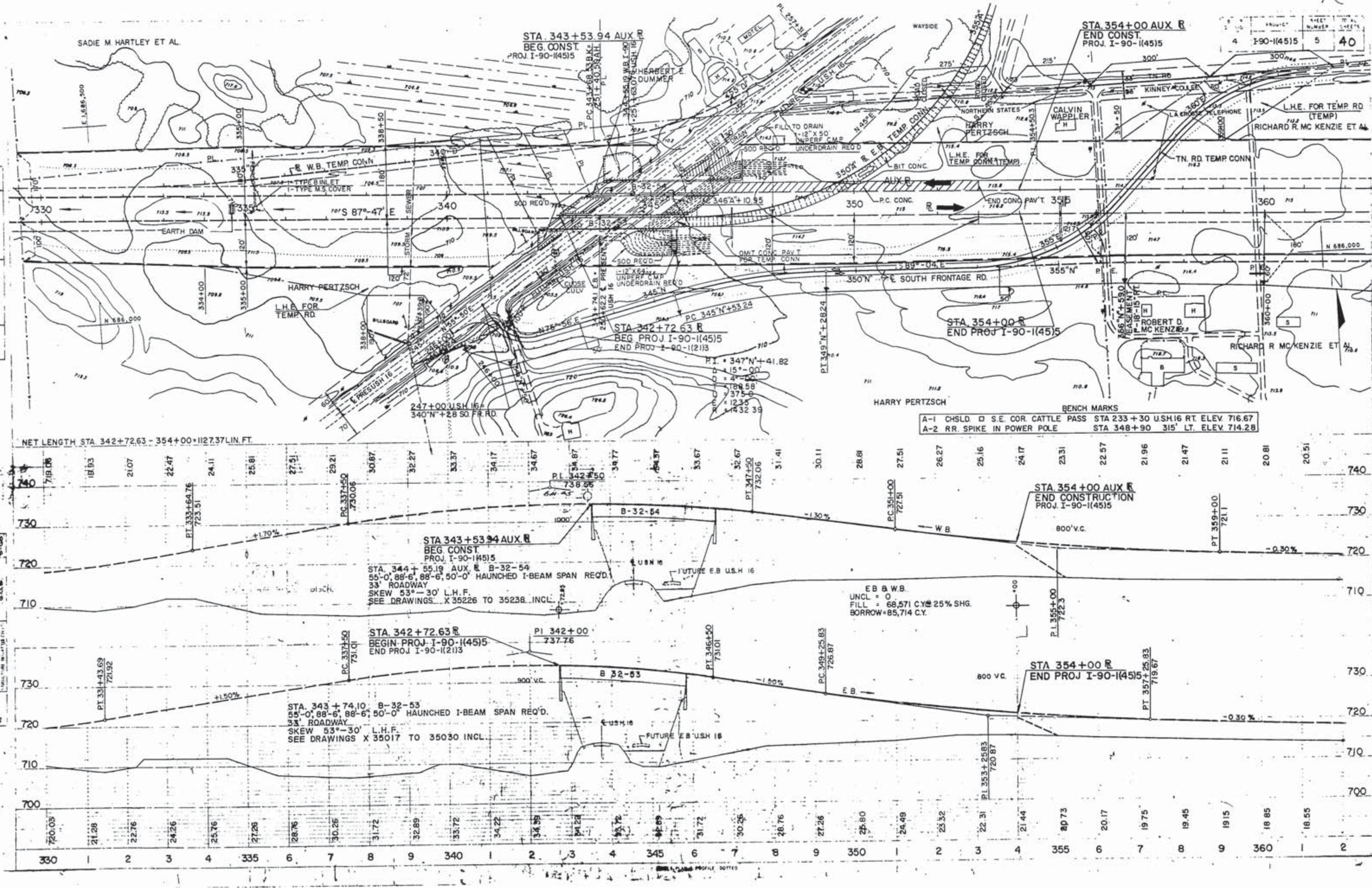
LA CROSSE - TOMAH (U.S.H. 16 - WEST SALEM SECTION) INTERSTATE HIGHWAY 90

ROAD

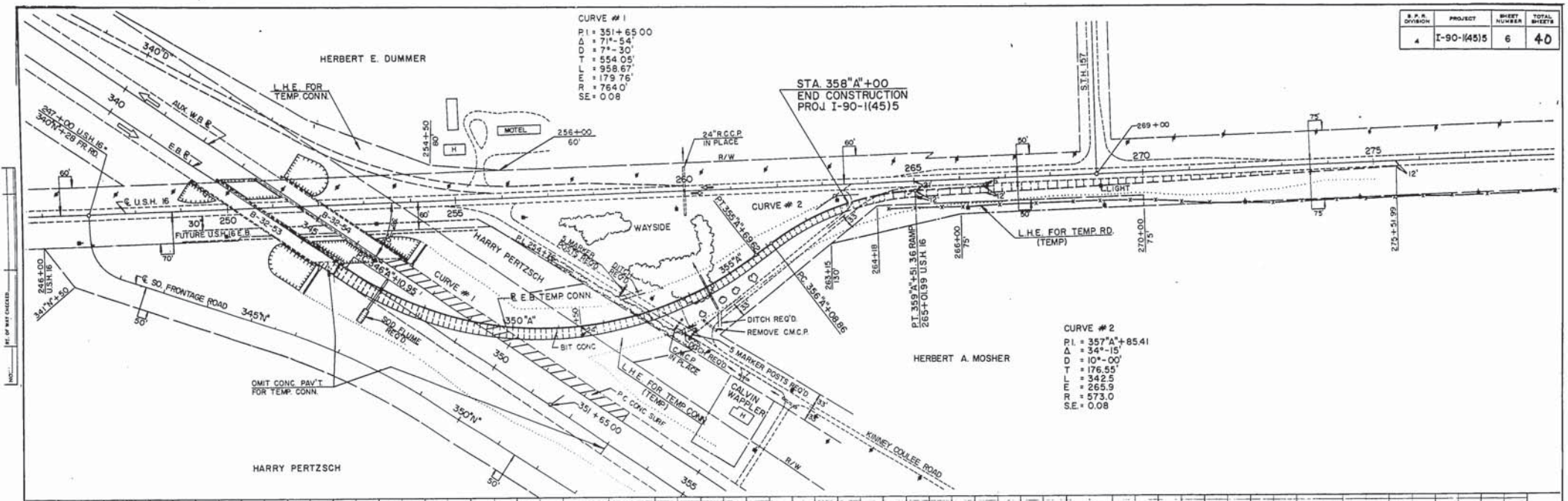
LA CROSSE COUNTY

SCALE 0 50 100 200 FT.

DATED JUNE 3, 1959


4 I-90-1(45)5 5 40
STA. 343+53.94 AUX. ℞
BEG. CONST.
PROJ. I-90-1(45)5
STA. 354+00 AUX. ℞
END CONST.
PROJ. I-90-1(45)5
SADIE M. HARTLEY ET AL.
HERBERT E. DUMMER
MOTEL
WAYSIDE
KINNEY COULEE RD.
NORTHERN STATES
CALVIN WAPPLER
HARRY PERTZSCH
LA CROSSE TELEPHONE
L.H.E. FOR TEMP. RD (TEMP)
RICHARD R. MC KENZIE ET AL
TN. RD. TEMP. CONN.
L.H.E. FOR TEMP. CONN. (TEMP)
W.B. TEMP. CONN.
1-TYPE B INLET
1-TYPE M.S. COVER
EARTH DAM
S 87°-47' E
SEWER
STORM
SOD REQ'D.
FILL TO DRAIN
1-12" X 50' UNPERF. CMP UNDERDRAIN REQ'D
BIT. CONC.
AUX ℞
P.C. CONC.
END CONC. PAV'T
OMIT CONC. PAV'T FOR TEMP. CONN.
S 89°-04' E
SOUTH FRONTAGE RD.
HARRY PERTZSCH
L.H.E. FOR TEMP. RD.
N 686,000
E 1,686,500
CLOSE CULV.
STA. 342+72.63 ℞
BEG. PROJ. I-90-1(45)5
END PROJ. I-90-1(21)3
P.I. = 347"N"+41.82
Δ = 15°-00'
D = 4°-00'
T = 188.58'
L = 375.0
E = 12.35
R = 1432.39
PT 349"N"+28.24
STA. 354+00 ℞
END PROJ. I-90-1(45)5
ROBERT D. MC KENZIE
RICHARD R. MC KENZIE ET AL.
247+00 U.S.H. 16 = 340"N"+28 SO. FR. RD.
PRES. U.S.H. 16
BENCH MARKS
A-1 CHSLD. □ S.E. COR. CATTLE PASS STA 233+30 U.S.H.16 RT. ELEV. 716.67
A-2 RR. SPIKE IN POWER POLE STA 348+90 315' LT. ELEV. 714.28
NET LENGTH STA. 342+72.63 - 354+00 = 1127.37 LIN. FT.
P.I. 342+50 738.66
PT 333+64.76 723.51
PC 337+50 730.06
PT 347+50 732.06
PC 351+00 727.51
PT 359+00 721.1
+1.70%
-1.30%
-0.30%
1000' V.C.
800' V.C.
B-32-54
W.B.
STA. 354+00 AUX. ℞
END CONSTRUCTION
PROJ. I-90-1(45)5
STA 343+53.94 AUX. ℞
BEG. CONST.
PROJ. I-90-1(45)5
STA. 344+55.19 AUX. ℞ B-32-54
55'-0", 88'-6", 88'-6", 50'-0" HAUNCHED I-BEAM SPAN REQ'D.
33' ROADWAY
SKEW 53°-30' L.H.F.
SEE DRAWINGS X 35226 TO 35238 INCL.
℄ U.S.H. 16
FUTURE E.B. U.S.H. 16
E.B. & W.B.
UNCL. = 0
FILL = 68,571 C.Y. @ 25% SHG.
BORROW = 85,714 C.Y.
P.I. 355+00 722.3
STA. 342+72.63 ℞
BEGIN PROJ. I-90-1(45)5
END PROJ. I-90-1(21)3
PI 342+00 737.76
PT 331+43.69 721.92
PC 337+50 731.01
PT 346+50 731.01
PC 349+25.83 726.87
PT 357+25.83 719.67
+1.50%
-1.50%
-0.30%
900' V.C.
800 V.C.
B 32-53
E.B.
STA. 354+00 ℞
END PROJ. I-90-1(45)5
STA. 343+74.10 B-32-53
55'-0", 88'-6", 50'-0" HAUNCHED I-BEAM SPAN REQ'D.
33' ROADWAY
SKEW 53°-30' L.H.F.
SEE DRAWINGS X 35017 TO 35030 INCL.
P.I. 353+25.83 720.87
700
710
720
730
740
330
335
340
345
350
355
360

B.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	I-90-1(45)5	6	40



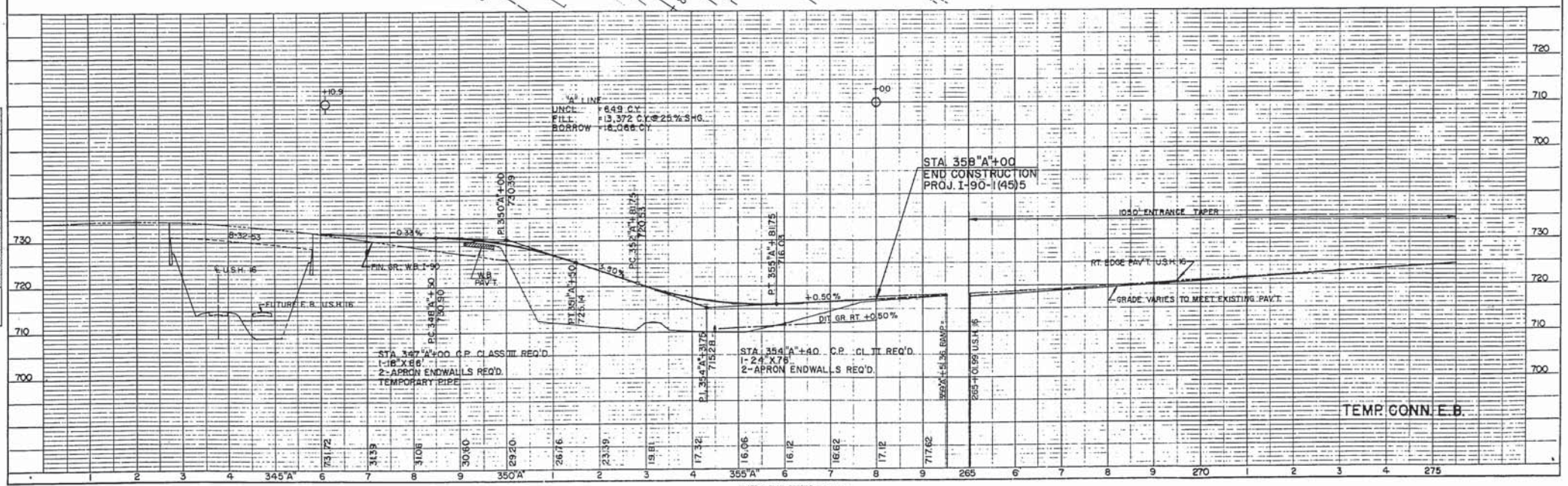
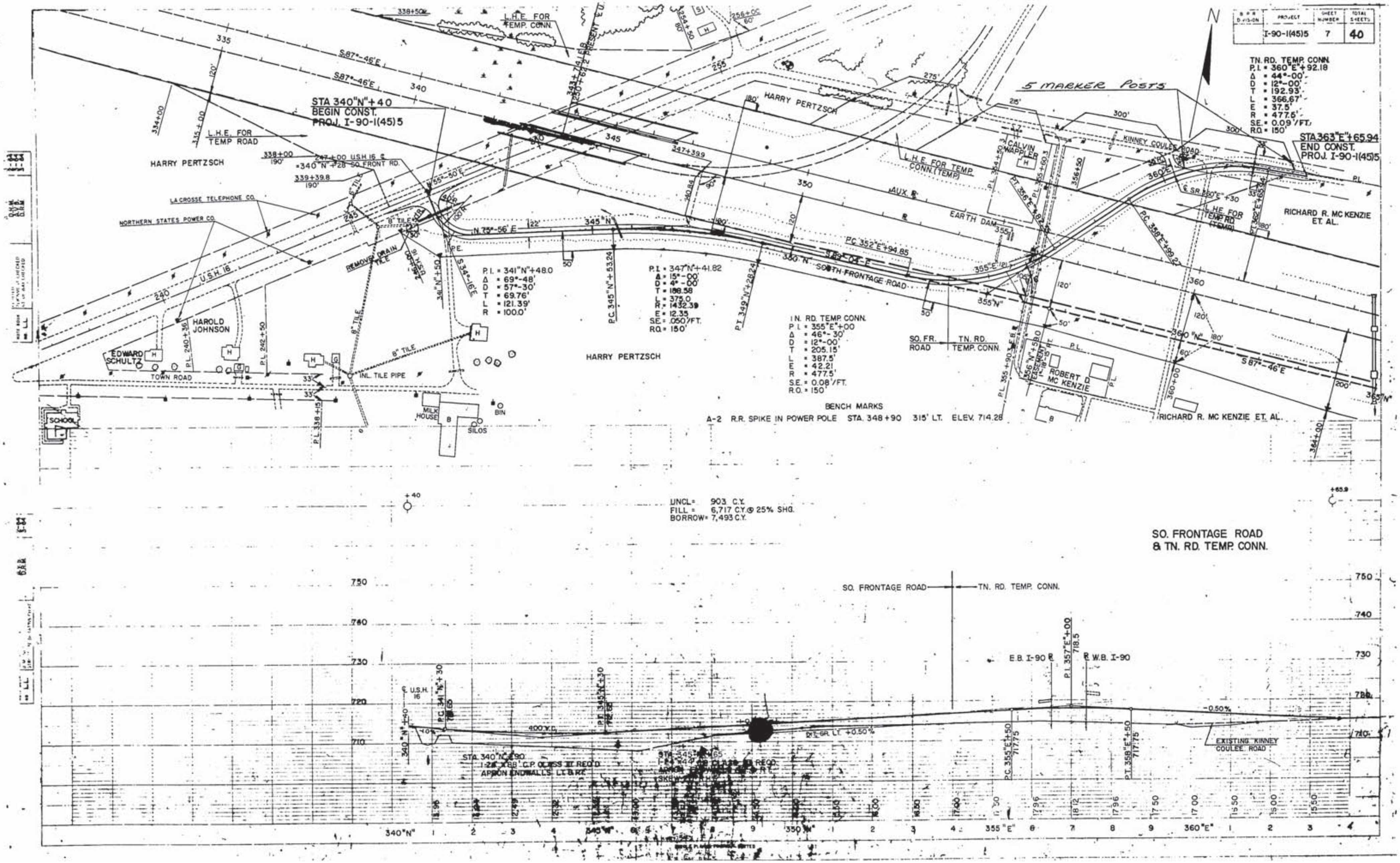
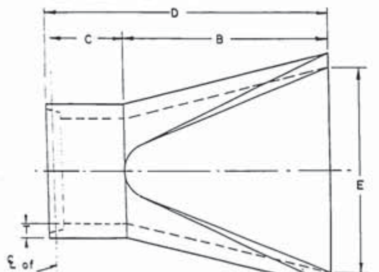


PLATE 1-PLAN-PROFILE

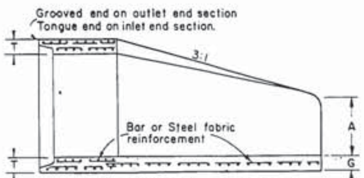

I-90-1(45)5
7
40
STA 340"N"+40
BEGIN CONST.
PROJ. I-90-1(45)5
STA 363"E"+65.94
END CONST.
PROJ. I-90-1(45)5
TN. RD. TEMP. CONN.
P.I. = 360"E"+92.18
Δ = 44°-00'
D = 12°-00'
T = 192.93'
L = 366.67'
E = 37.5'
R = 477.5'
S.E. = 0.09'/FT.
R.O. = 150'
5 MARKER POSTS
HARRY PERTZSCH
L.H.E. FOR TEMP. CONN.
L.H.E. FOR TEMP ROAD
L.H.E. FOR TEMP. CONN. (TEMP)
KINNEY COULEE ROAD
CALVIN WAPPLER
RICHARD R. MC KENZIE ET. AL.
LA CROSSE TELEPHONE CO.
NORTHERN STATES POWER CO.
U.S.H. 16
HAROLD JOHNSON
EDWARD SCHULTZ
TOWN ROAD
SCHOOL
INL. TILE PIPE
MILK HOUSE
SILOS
BIN
REMOVE DRAIN TILE
SOUTH FRONTAGE ROAD
EARTH DAM
AUX. R
P.I. = 341"N"+48.0
Δ = 69°-48'
D = 57°-30'
T = 69.76'
L = 121.39'
R = 100.0'
P.I. = 347"N"+41.82
Δ = 15°-00'
D = 4°-00'
T = 188.58
L = 375.0
R = 1432.39
E = 12.35
S.E. = .050'/FT.
R.O. = 150'
IN. RD. TEMP. CONN.
P.I. = 355"E"+00
Δ = 46°-30'
D = 12°-00'
T = 205.15'
L = 387.5'
E = 42.21
R = 477.5'
S.E. = 0.08'/FT.
R.O. = 150'
SO. FR. ROAD
TN. RD. TEMP. CONN.
ROBERT O. MC KENZIE
BENCH MARKS
A-2 R.R. SPIKE IN POWER POLE STA. 348+90 315' LT. ELEV. 714.28
UNCL = 903 C.Y.
FILL = 6,717 C.Y. @ 25% SHG.
BORROW = 7,493 C.Y.
SO. FRONTAGE ROAD
& TN. RD. TEMP. CONN.
SO. FRONTAGE ROAD
TN. RD. TEMP. CONN.
E.B. I-90
W.B. I-90
P.I. 357"E"+00
718.5
-0.50%
EXISTING KINNEY COULEE ROAD
P.C. 355"E"+50 717.75
P.T. 358"E"+50 717.75
400' V.C.
STA. 340"N"+90
P.C. 341"N"+30
P.T. 345"N"+30
340"N"
345"N"
350"N"
355"E"
360"E"

8-140-44

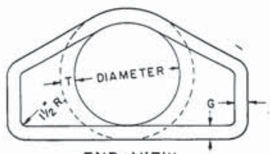
APRON ENDWALLS FOR CULVERT PIPE



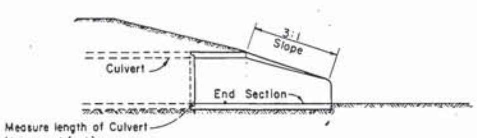
PLAN



LONGITUDINAL SECTION



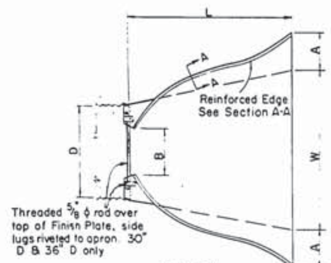
END VIEW



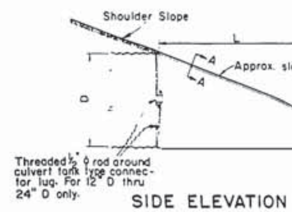
SLOPE DETAIL

DIA.	APPROX. WEIGHT/ SECTION	SLOPE	T	A	B	C	D	E	G
18"	990	3 to 1	2½"	9"	27"	46"	73"	36"	2½"
21"	1280	3 to 1	2¾"	9"	36"	37½"	73½"	42"	2¾"
24"	1520	3 to 1	3"	9½"	43½"	30"	73½"	48"	3"
27"	1930	3 to 1	3¼"	10½"	49½"	24"	73½"	54"	3¼"
30"	2190	3 to 1	3½"	12"	54"	19¾"	73¾"	60"	3½"
36"	4100	3 to 1	4"	15"	63"	34¾"	97¾"	72"	4"
42"	5380	3 to 1	4½"	21"	63"	35"	98"	78"	4½"
48"	6550	3 to 1	5"	24"	72"	26"	98"	84"	5"

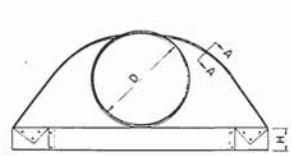
REINFORCED CONCRETE APRON ENDWALLS



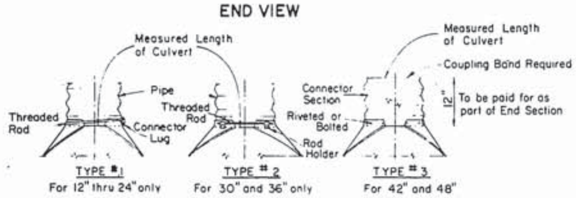
PLAN



SIDE ELEVATION



END VIEW



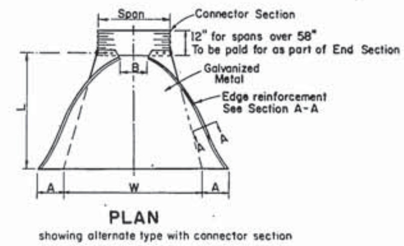
CONNECTION DETAILS

D Pipe Diam.	Gage Min.	Dimensions A ±1"	B Max	H ±1"	L ±1½"	W ±2"	Approx Slope	Fabrication Remarks
18"	16	8"	10"	6"	31"	36"	2½ to 1	1 Piece
21"	16	9"	12"	6"	36"	42"	"	"
24"	16	10"	13"	6"	41"	48"	"	"
30"	14	12"	16"	8"	51"	60"	"	"
36"	14	14"	19"	9"	60"	72"	"	2 Pieces, ℄ Splice
42"	12	16"	22"	11"	69"	84"	"	"
48"	12	18"	27"	12"	78"	90"	2¼ to 1	"

Note. All splices to be lap riveted or bolted.

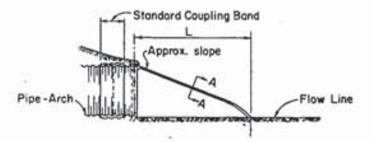
METAL AND ALUMINUM APRON ENDWALLS

APRON ENDWALLS FOR PIPE ARCH

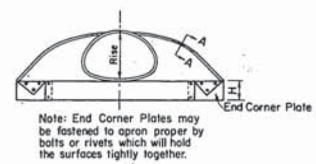


PLAN

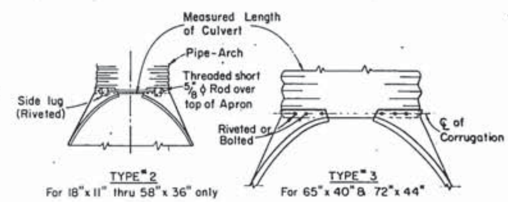
showing alternate type with connector section



SIDE ELEVATION



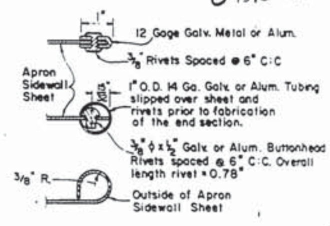
END VIEW



CONNECTION DETAILS

Pipe-Arch Dimensions Span	Rise	Gage Min.	Dimensions A ±1"	B Max.	H ±1"	L ±1½"	W ±2"	Approx. Slope	Fabrication Remarks
18"	11"	16	7"	9"	6"	19"	30"	2½ to 1	1 Piece
22"	13"	16	7"	10"	6"	23"	36"	"	"
25"	16"	16	8"	12"	6"	28"	42"	"	"
29"	18"	16	9"	14"	6"	32"	48"	"	"
36"	22"	14	10"	16"	6"	39"	60"	"	"
43"	27"	14	12"	18"	8"	46"	75"	"	"
50"	31"	12	13"	21"	9"	53"	85"	"	2 Pieces, ℄ Splice
58"	36"	12	18"	26"	12"	63"	90"	"	"
65"	40"	12	18"	30"	12"	70"	102"	2¼ to 1	"
72"	44"	12	18"	33"	12"	77"	114"	"	3 Pieces, 2 Splics equal distance from ℄

Note: All splices to be lap riveted or bolted.



SECTION A-A

GENERAL NOTES

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

Reinforced concrete apron endwalls shall conform to the pertinent requirements of the Standard AASHO Designation: M170, Class II (Wall B).

Metal apron endwalls shall conform to the pertinent requirements of the Standard AASHO Designation: M36.

Aluminum apron endwalls shall conform to the pertinent requirements of the Standard AASHO Designation: M-196-62 I

NOTE:

Variations of the dimensions and designs shown hereon will be permitted providing equivalent capacity and structural integrity are attained, and prior approval of the Engineer is obtained.

Reinf. concrete apron endwalls shall be used with concrete pipe culvert installations, metal apron endwalls shall be used with corr. metal pipe culvert installations, and Aluminum endwalls shall be used with corr. aluminum culvert installations.

APRON ENDWALLS FOR CULVERT PIPE & PIPE ARCH

STATE HIGHWAY COMMISSION OF WISCONSIN

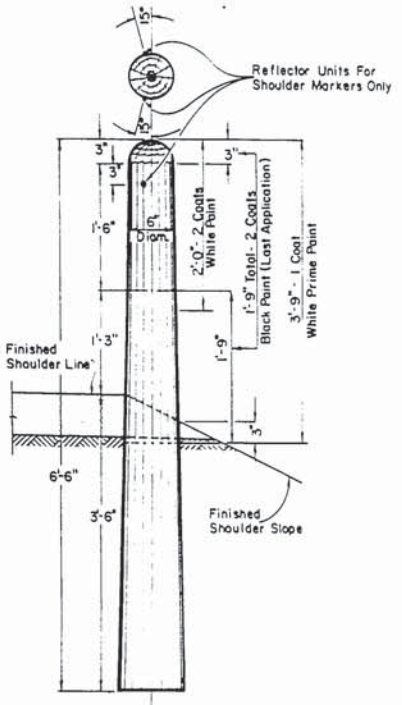
RECOMMENDED FOR APPROVAL

4/9/65 DATE — E. J. Kubik — CHIEF DESIGN ENGINEER

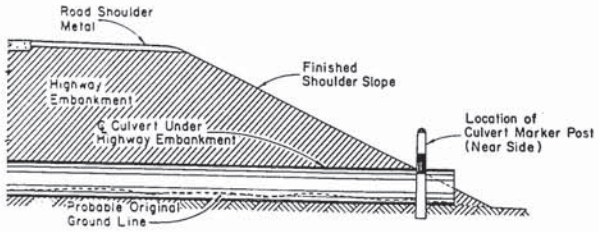
DATE 4/13/65 — E. C. Roettger — STATE HIGHWAY ENGINEER

PLATE NO. 6-2.6.4

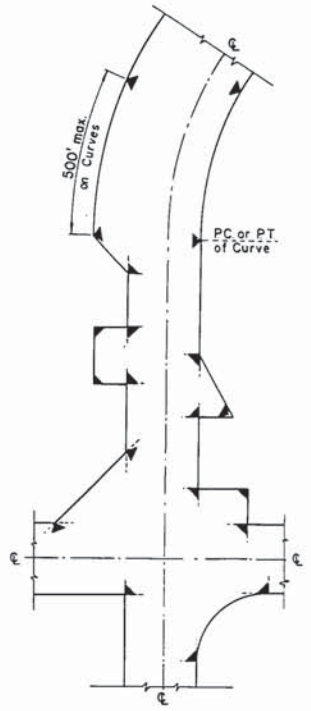
8.1-40



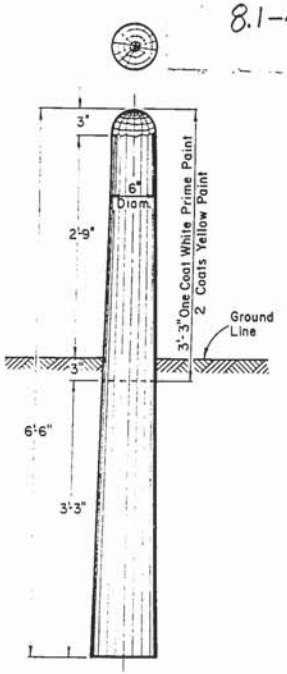
MARKER POST FOR ROAD SHOULDERS AND CULVERTS



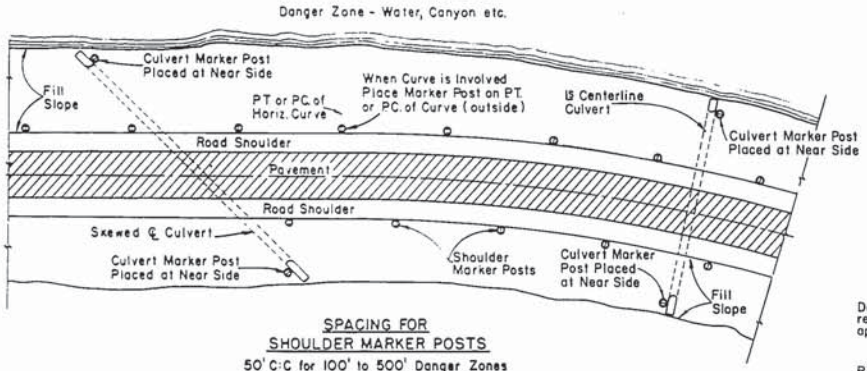
SECTION
SHOWING RELATIVE LOCATION OF
MARKER POST FOR CULVERTS



LOCATION DIAGRAM
SHOWING TYPICAL LOCATIONS OF
MARKER POSTS FOR RIGHT OF WAY



MARKER
POST
FOR
RIGHT OF WAY



SPACING FOR
SHOULDER MARKER POSTS
50' C:C for 100' to 500' Danger Zones
100 C:C for Over 500' Danger Zones

LOCATION DIAGRAM
SHOWING RELATIVE LOCATIONS OF SHOULDER MARKER POSTS
AND CULVERT MARKER POSTS

MARKER POSTS FOR ROAD SHOULDERS AND CULVERTS

MARKER POST FOR RIGHT OF WAY

GENERAL NOTES

Details of Construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

MARKER POSTS FOR RIGHT OF WAY

Right of Way Marker Posts shall be erected in advance of Grading Operations. Posts shall be placed at the outer limits of the Highway Right of Way, but entirely within the Right of Way and shall be so placed that the outer edge of the posts shall be tangent to the Right of Way line or lines extended. The exact location of all Right of Way Posts will be staked in the field by the Engineer.

REFLECTOR UNITS

Reflector Units shall have plastic crystal lens 7/8" in diameter. Unit assembly shall be a minimum of 7/8" in length. Reflector Units shall be furnished with flared expanding metal clips for wood mounting. Units shall be mounted in tightest fit possible and securely stayed in posts. Reflector Units shall be installed in Road Shoulder Marker Posts only.

MARKER POSTS & MARKER POSTS FOR RIGHT OF WAY

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

2-5-63
DATE

J. S. Pilt
ENGINEER OF DESIGN

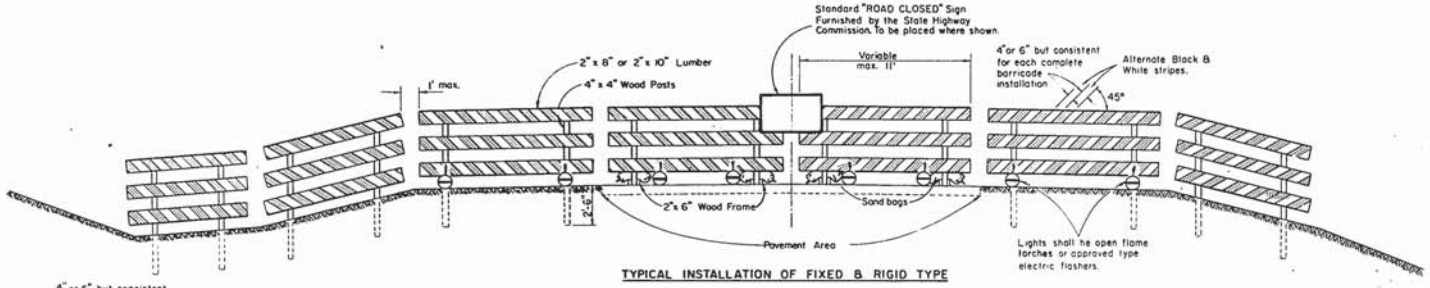
APPROVED

2/6/63
DATE

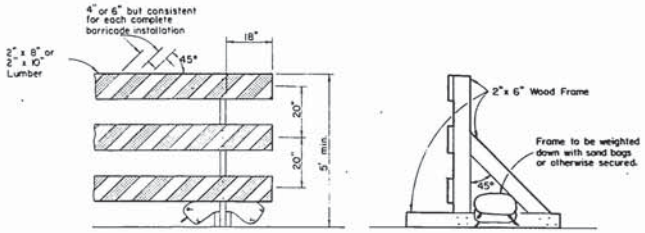
E. L. Ruttinger
STATE HIGHWAY ENGINEER

PLATE NO. 7-1.3.4

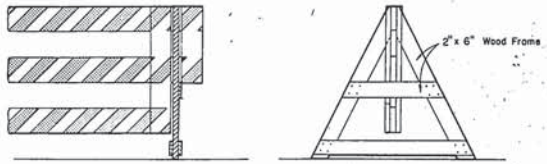
1.1.82-40



TYPICAL INSTALLATION OF FIXED & RIGID TYPE

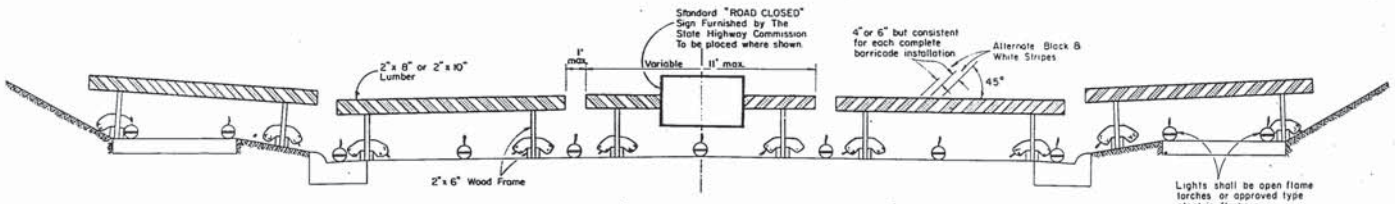


ALTERNATE TYPE INSTALLATION (RIGID)

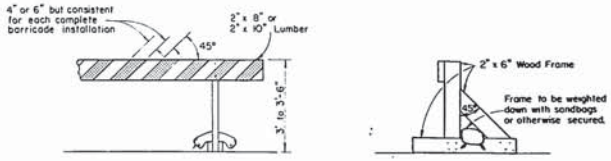


ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS I BARRICADE



TYPICAL INSTALLATION OF RIGID TYPE



ALTERNATE TYPE INSTALLATION (RIGID)

ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS II 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 stability 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.

CONSTRUCTION BARRICADE

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

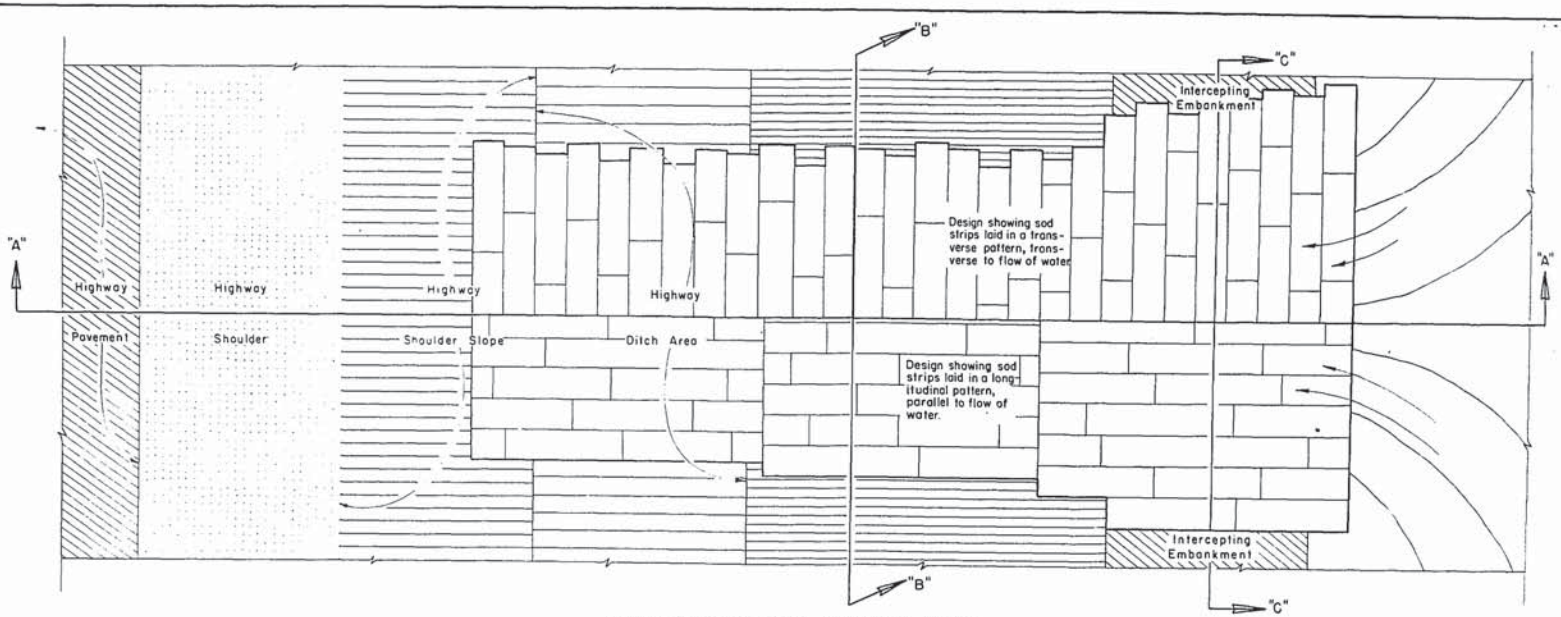
2-5-63 DATE — J. L. Pitt ENGINEER OF DESIGN

APPROVED:

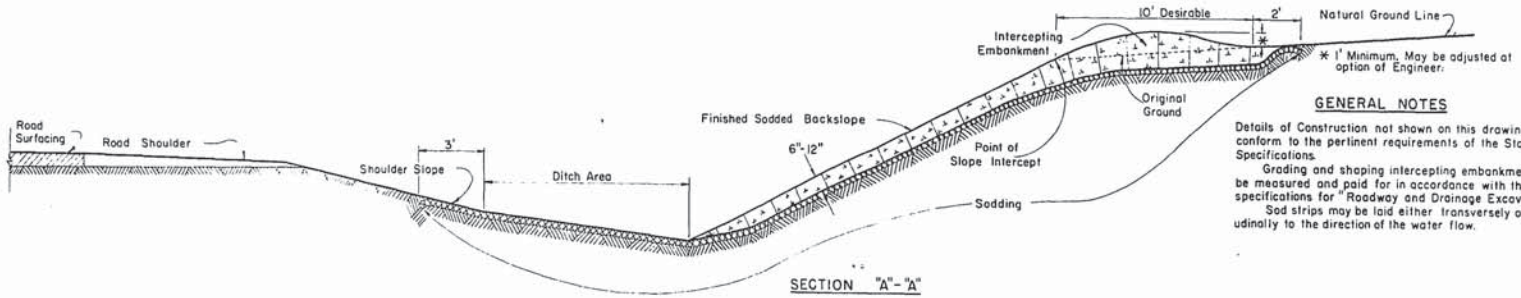
2/6/63 DATE — E. C. Martinson STATE HIGHWAY ENGINEER

PLATE NO. 7-4.1.4

8.3-40



PLAN VIEW OF SODDED BACKSLOPE FLUME



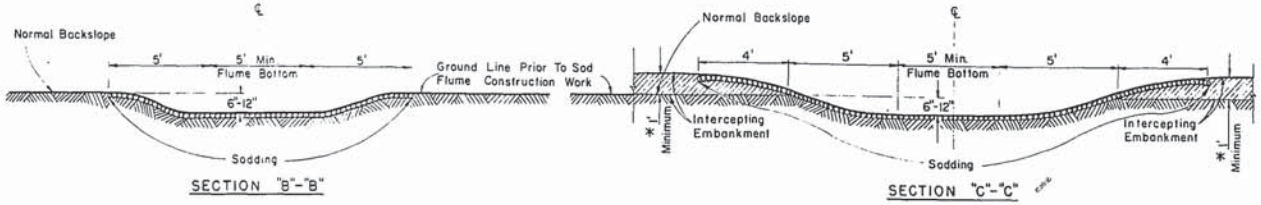
SECTION "A"-"A"

GENERAL NOTES

Details of Construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications.

Grading and shaping intercepting embankment will be measured and paid for in accordance with the standard specifications for "Roadway and Drainage Excavation".

Sod strips may be laid either transversely or longitudinally to the direction of the water flow.



SECTION "B"-"B"

SECTION "C"-"C"

NOTE: Dimensions shown may be adjusted at the option of the Engineer to fit local conditions.

SODDED BACKSLOPE FLUME & INTERCEPTING EMBANKMENT

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

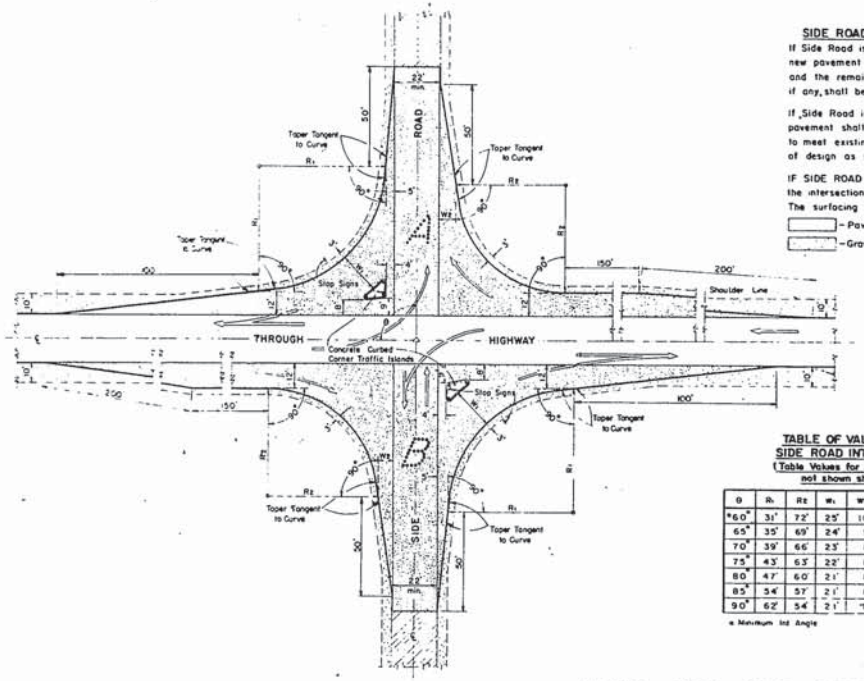
2-5-63 DATE — J. A. Pitt ENGINEER OF DESIGN

APPROVED:

2/6/63 DATE — C. A. Rutten STATE HIGHWAY ENGINEER

PLATE NO. 8-2.1.4

8.4-40



SIDE ROAD SURFACING NOTE

If Side Road is not presently surfaced, new pavement shall be placed as shown, and the remainder to construction limits, if any, shall be gravel or crushed stone surfaced

If Side Road is presently paved, new pavement shall be placed only as necessary to meet existing pavement, and to limits of design as shown.

IF SIDE ROAD IS THE CONSTRUCTION PROJECT, the intersection geometrics remain as shown. The surfacing shall be same as for the project.

- Pavement
- Gravel or Crushed Stone

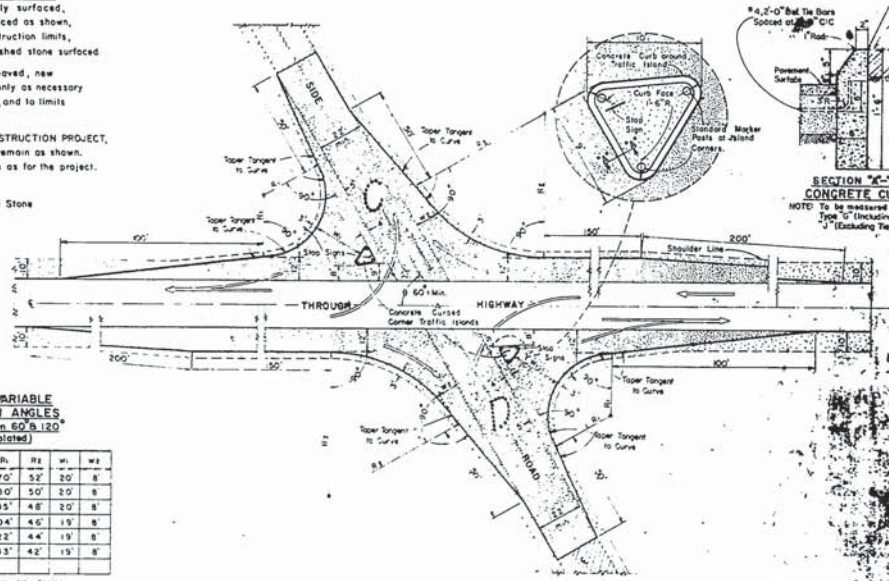
TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES
(Table Values for Angles between 60° & 120° not shown shall be interpolated)

θ	R_1	R_2	W_1	W_2
*60°	31'	72'	25'	10'
65°	35'	69'	24'	9'
70°	39'	66'	23'	8'
75°	43'	63'	22'	8'
80°	47'	60'	21'	8'
85°	54'	57'	21'	8'
90°	62'	54'	21'	8'

θ	R_1	R_2	W_1	W_2
95°	70'	52'	20'	8'
100°	80'	50'	20'	8'
105°	95'	48'	20'	8'
110°	104'	46'	19'	8'
115°	122'	44'	19'	8'
*120°	143'	42'	19'	8'

* Minimum Int Angle

* Maximum Int. Angle



SECTION "C-A" CONCRETE CURB

NOTE: To be measured and paid for as "Type 'G' (Including Tie Bars) or Type 'J' (Excluding Tie Bars) Concrete Curb"

MAJOR SIDE ROAD INTERSECTION DESIGN DETAILS

To be used only when current ADT on Through Highway is 1500 or over, and on Side Road is Over 200

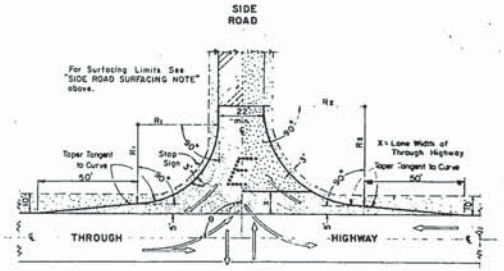


TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES
(Table Values for Angles between 60° & 120° not shown shall be interpolated)

θ	R_1	R_2
* 60°	40'	50'
65°	40'	50'
70°	40'	50'
75°	40'	50'
80°	40'	50'
85°	40'	50'
90°	40'	50'

θ	R_1	R_2
95°	45'	45'
100°	50'	48'
105°	55'	47'
110°	60'	46'
115°	65'	45'
*120°	70'	44'

* Minimum Int Angle

** Maximum Int Angle

MINOR SIDE ROAD INTERSECTION DESIGN DETAILS

To be used when current ADT on Through Highway is Less than 1500 or on Side Road is Less than 200

GENERAL NOTES

Designs "A" "B" "C" "D" or "E" may be used changeably in combination or separately for any one complete intersection depending upon Traffic Volume, Intersection Angle, Surfacing of each approach [illegible]

Details on this drawing are for Minimum Design Only, and not applicable to Special Conditions, as shown elsewhere on the plans.

DESIGN & LAYOUT DETAILS FOR SIDE ROAD TO STATE HIGHWAY INTERSECTIONS (RURAL IN CHARACTER)

STATE HIGHWAY COMMISSION OF WISCONSIN

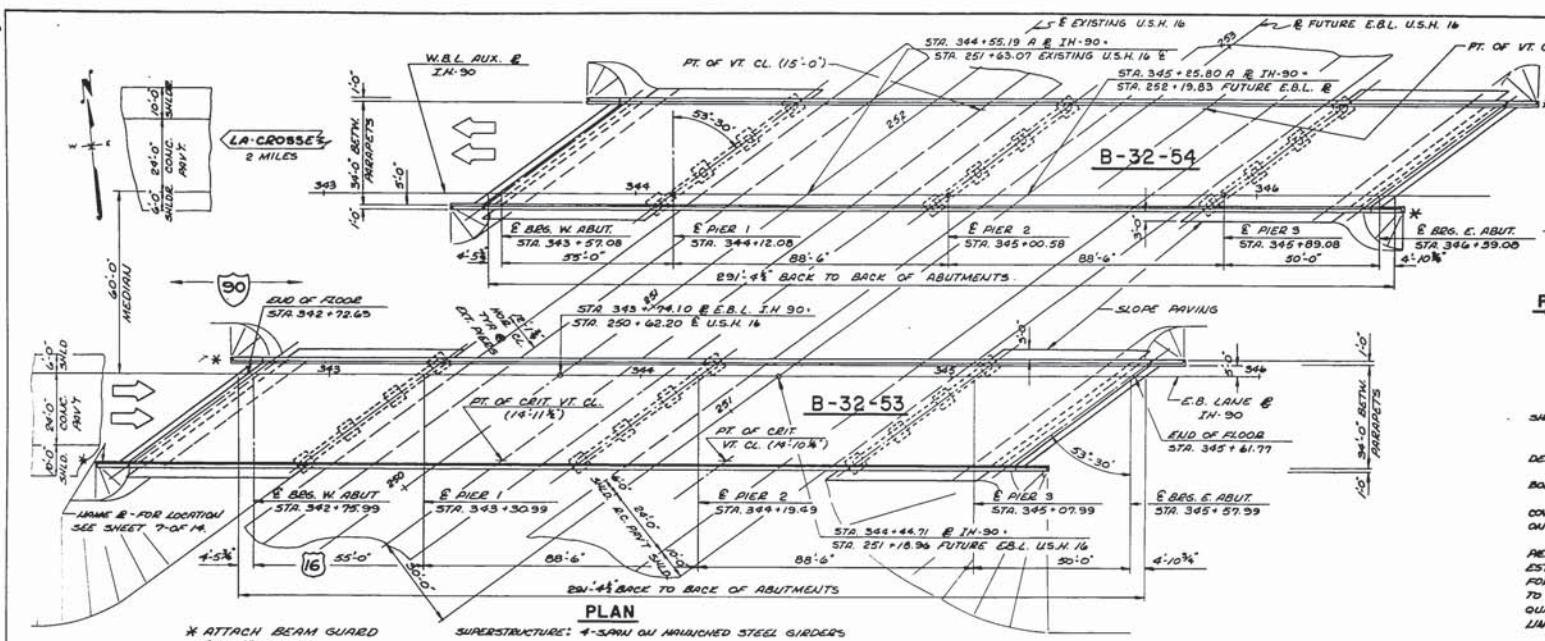
RECOMMENDED FOR APPROVAL
DATE 2-5-63

APPROVED
DATE 2/6/63

PLATE

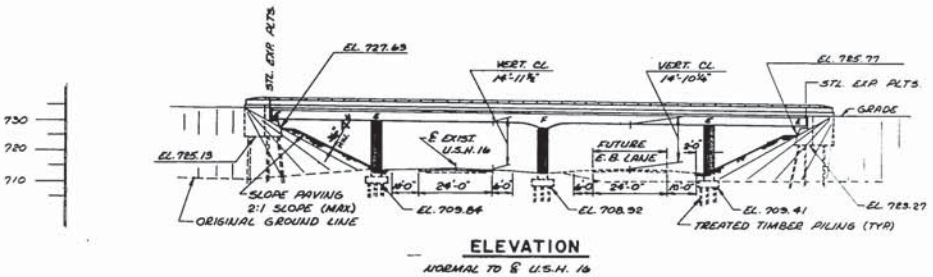
FORM E-B-11-62

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	I90-1(4-5)15	9	40



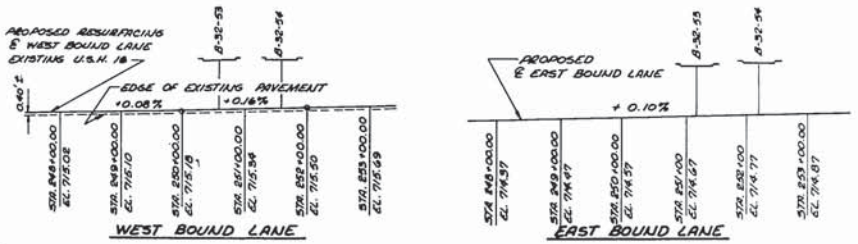
PLAN

SUPERSTRUCTURE: 4-SPAN ON HAUNCHED STEEL GIRDERS
SUBSTRUCTURE: SILL ABUTMENTS ON TREATED TIMBER PILES & 4-COLUMN PIERS ON TREATED TIMBER PILES.

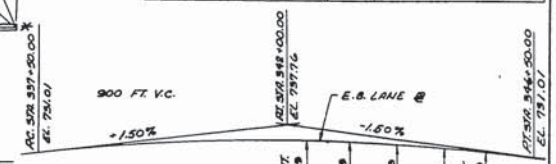


ELEVATION

NORMAL TO ℄ U.S.H. 16



PROFILE GRADE LINE U.S.H. 16



PROFILE GRADE LINE IH90 EAST BOUND LANE

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE SPECIFIED.
HOT-POURED ELASTIC TYPE JOINT SEALER SHALL CONFORM TO ASTM DESIGNATION, D1190.
ALL FIELD CONNECTIONS SHALL BE MADE OF ⅞" ϕ HIGH TENSILE STRENGTH BOLTS UNLESS OTHERWISE SPECIFIED.
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 9 AND 10.
THE UPPER LIMITS FOR EXCAVATION FOR STRUCTURES AT THE PIERS IS CONSIDERED TO BE THE FINISHED GRADED SECTION AND THE ESTIMATED QUANTITY IS COMPUTED FROM THIS LINE. UPPER LIMITS FOR EXCAVATION FOR STRUCTURES AT THE ABUTMENTS IS CONSIDERED TO BE THE BOTTOM OF SLOPE PROTECTION AND THE ESTIMATED QUANTITY FOR EXCAVATION FOR STRUCTURES IS COMPUTED FROM THIS LINE.

LIST OF DRAWINGS

DESIGN DATA

LIVE LOAD: HS-20 MOD.
ALLOWABLE DESIGN STRESSES:
CONCRETE MASONRY, GRADE AA ____ f_c = 1,400 p.s.i.
BAR STEEL REINFORCEMENT ____ f_s = 20,000 p.s.i.
STRUCTURAL STEEL
A.S.T.M. A36 ____ f_s = 20,000 p.s.i.
A.S.T.M. A441 ¾" AND UNDER ____ f_s = 27,000 p.s.i.
OVER ¾" TO 1½" INCL. ____ f_s = 25,000 p.s.i.

FOUNDATION:
ABUTMENTS SHALL BE SUPPORTED ON TREATED TIMBER PILES.
PILING WITH A MIN. BEARING CAPACITY OF 80 TONS PER PILE AND ~~35'-0" LONG @ W. ABUT & 55'-0" LONG @ E. ABUT.~~
PIERS TO BE SUPPORTED ON TREATED TIMBER PILING WITH A MIN. BRG. CAPACITY OF 20 TONS/PILE ~~35'-0" LONG.~~
~~PILING AT THE ABUTMENTS AND PIERS SHALL BE DRIVEN SO THAT FINAL TIP ELEVATION IS BELOW EL. 660.0~~

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER	W. ABUT	PIER 1	PIER 2	PIER 3	E. ABUT.	TOTAL
EXCAVATION FOR STRUCTURES	C.Y.		45	90	70	90	45	340
CONCRETE MASONRY	C.Y.	285.1	80.5	56.1	58.1	55.1	82.4	622.3
BAR STEEL REINFORCEMENT	LB	94,310	2,580	6,670	6,180	6,520	8,520	118,780
STRUCTURAL CARBON STEEL	LB	109,300						109,300
STRUCTURAL LOW ALLOY STEEL	LB	119,800						119,800
LUBRICATED BRONZE PLATES	LB	238						238
BEARING PADS	S.F.	26						26
UNTREATED TIMBER TEST PILING	L.S.							1
TREATED TIMBER PILING DEL	L.F.		1575	1980	1980	1980	1470	8985
TREATED TIMBER PILING DRIVEN	L.F.		1575	1980	1980	1980	1470	8985
TUBULAR RAILING - TYPE "S"	L.F.	605						605
SLOPE PAVING ~~- BUSHED STONE~~ CONCRETE	S.Y.		300				270	570
NON-BID ITEMS								
HARDWOOD TIMBER & BOLTS	E.A.		1				1	2
ALUMINUM OR ZINC PLATE	S.F.	41						41

5 TEST PILES REQ'D. DRIVE 1-65'-0" TEST PILE @ EACH PIER & 1-75'-0" LONG @ EACH ABUT.

TRAFFIC VOLUME

A.D.T. = 9,600 (1975 2-WAY)
D.H.V. = 1,440 (1975)

MINIMUM BEARING WAS REACHED AT 15' IN ABUTMENTS AND 20'-25' IN PIERS.

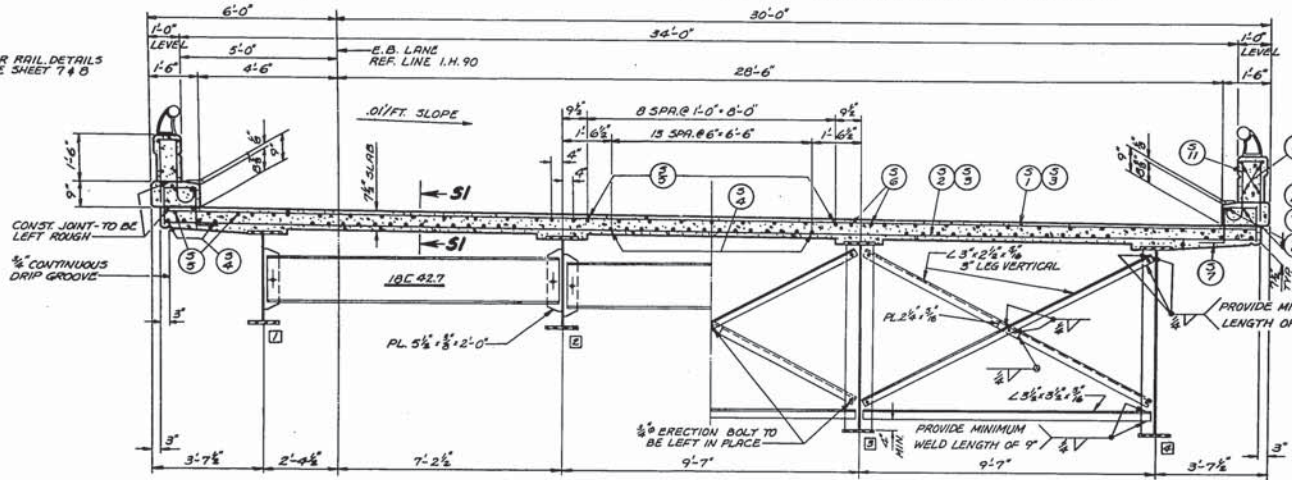
REVISIONS	STATE HIGHWAY COMMISSION OF WISCONSIN
	GENERAL PLAN
	CO. LA CROSSE · DIST. No. 4 · MEDARY · STA. 343+79.10 ETC. ℄ E.B.L.
	SECTION 11 · TOWN 16N · RANGE 7W
	DESIGN SPEC. A.A.S.H.O. '61 · LOAD DESIGN HS-20 MOD. · CONST. SPEC. 1963
	DATE 5-24-66 · DESIGN H.B. · DRAWN R.D. · CKD. J.C.K.
	RECOMMENDED H.B. Schultz, CHIEF BRIDGE ENGINEER
	APPROVED A. Summerfield, STATE HIGHWAY ENGINEER
	STRUCTURE B-32-53 · SHEET 1 OF 14

X35017

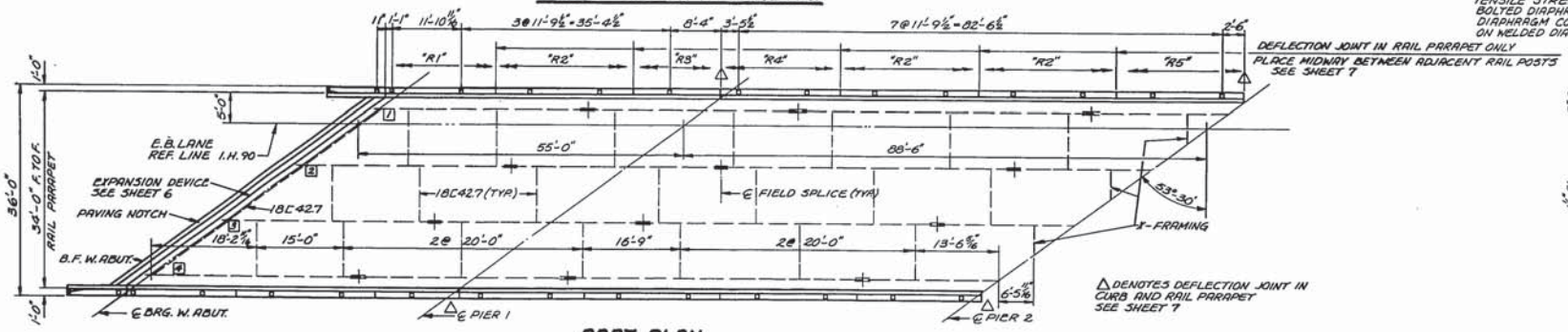
FORM E-B-12-62

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I90-1(45)5	10	40

NOTE: TOP AND 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" CTRS. AT APPROXIMATELY THE 1/3 POINTS BETWEEN GIRDERS.

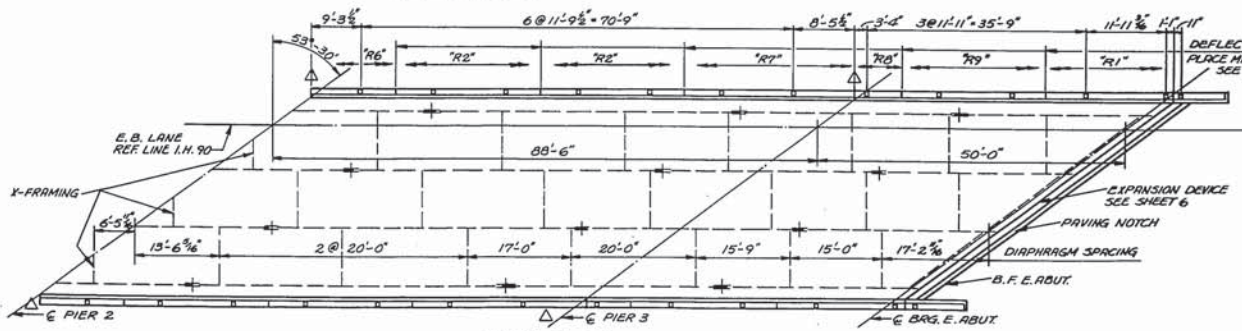


CROSS SECTION THRU RDWY.



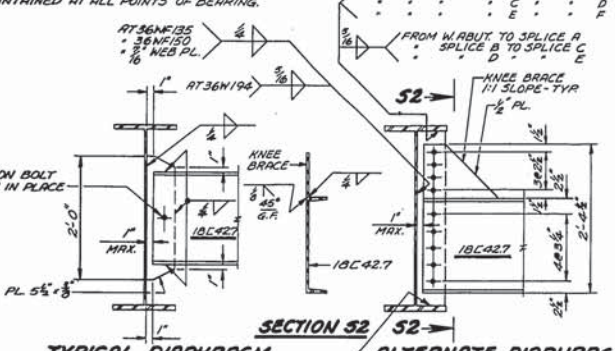
PART PLAN

△ DENOTES DEFLECTION JOINT IN CURB AND RAIL PARAPET SEE SHEET 7



PART PLAN

NOTE: CURB POUR SHALL BE MADE AFTER SPANS HAVE TAKEN D.L. DEFLECTION. THE 9" HEIGHT OF CURB IS TO BE MAINTAINED AT ALL POINTS OF BEARING.



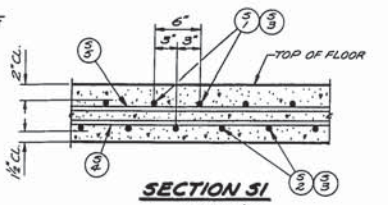
SECTION S2

TYPICAL DIAPHRAGM CONNECTION

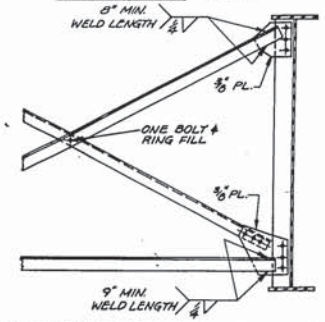
ALTERNATE DIAPHRAGM CONNECTION

TIGHT-FIT FROM W. ABUT. TO SPLICE A
" " " SPLICE B " C
" " " D " E
FROM SPLICE A TO SPLICE B
" " " C " D
" " " E " F

CONNECTION PLATE SIZES FOR BOLTED DIAPHRAGM CONNECTIONS SHALL BE THE SAME SIZE AS FOR WELDED DIAPHRAGM CONNECTIONS EXCEPT FOR LENGTH.
BOLTED DIAPHRAGM CONNECTIONS TO BE MADE WITH ¾" ø HIGH TENSILE STRENGTH BOLTS.
BOLTED DIAPHRAGM CONNECTIONS MAY BE USED IN PLACE OF WELDED DIAPHRAGM CONNECTIONS, HOWEVER PAY QUANTITIES SHALL BE BASED ON WELDED DIAPHRAGM CONNECTIONS.



SECTION S1



ALTERNATE X-FRAME CONNECTION

AT PIER 2 ONLY

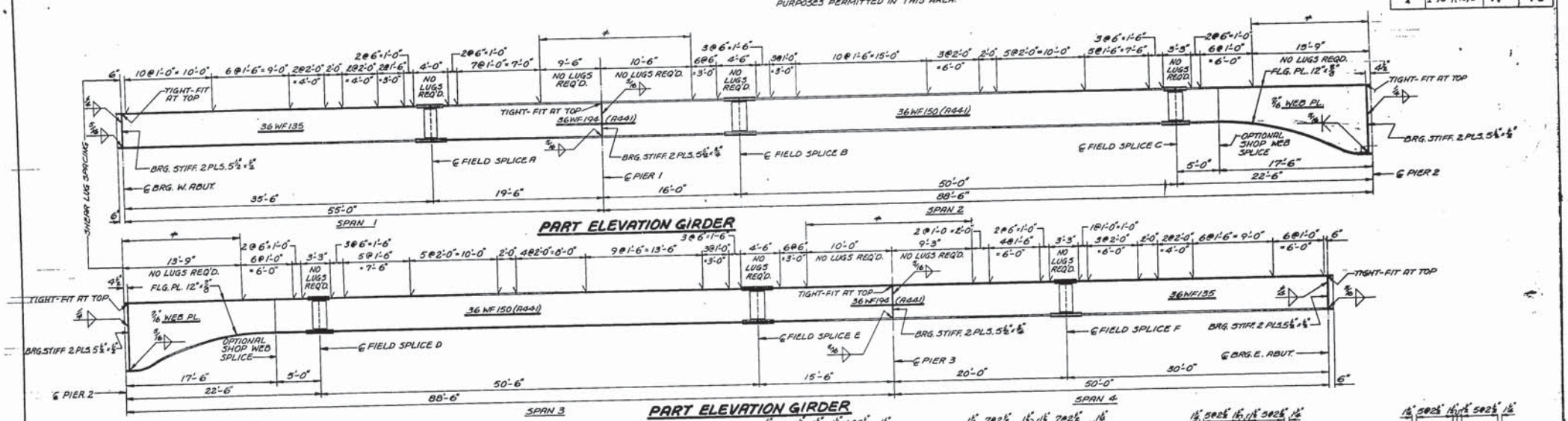
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	SUPERSTRUCTURE
	DESIGN SPEC. A.A.S.H.O. 61 | LOADING H520-M013 | CONST. SPEC. 1963
	DATE 5-24-66 | DESIGN J.S.B. | DRAWN JW | CKD. J.C.K.
	STRUCTURE B-32-53 | SHEET 2 OF 14

X35018

FORM S-B-12-62

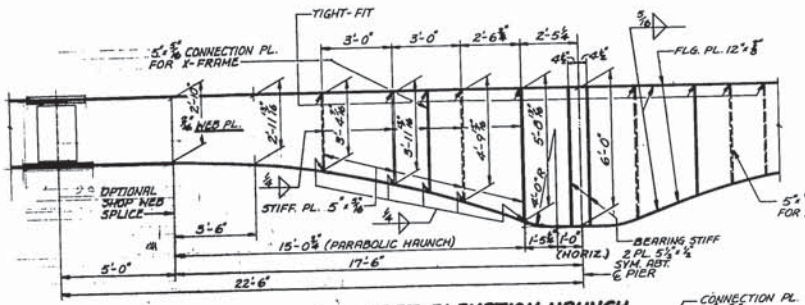
S. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)5	11	40

NO FIELD WELDING FOR CONSTRUCTION PURPOSES PERMITTED IN THIS AREA.

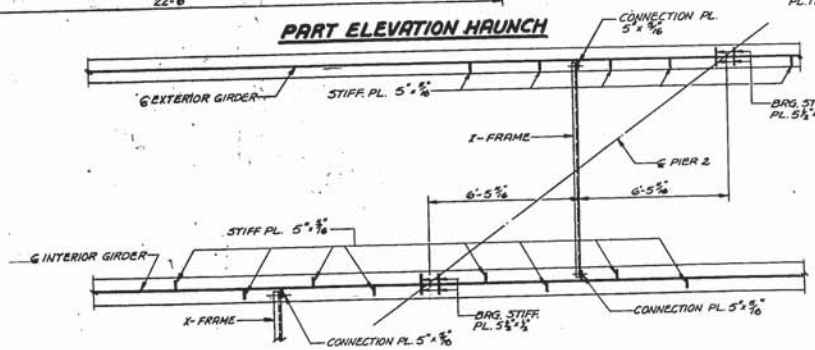


PART ELEVATION GIRDER

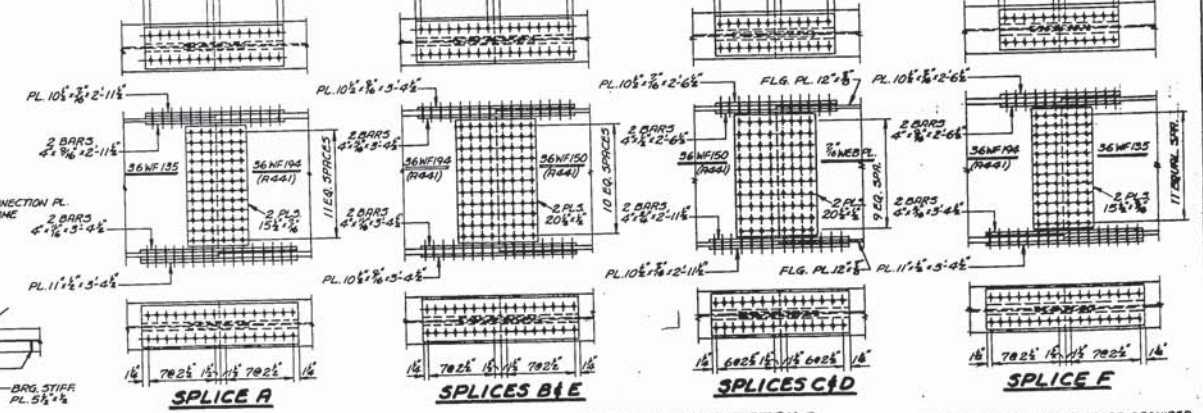
PART ELEVATION GIRDER



PART ELEVATION HAUNCH

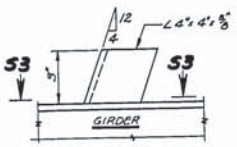


PART PLAN AT PIER 2

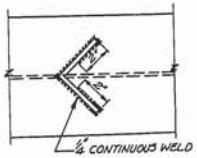


FIELD SPLICE DETAILS

NOTE: PROVIDE FILL PLATES AS REQUIRED AT SPLICES. ⅛ MINIMUM THICKNESS.



SHEAR LUG DETAIL



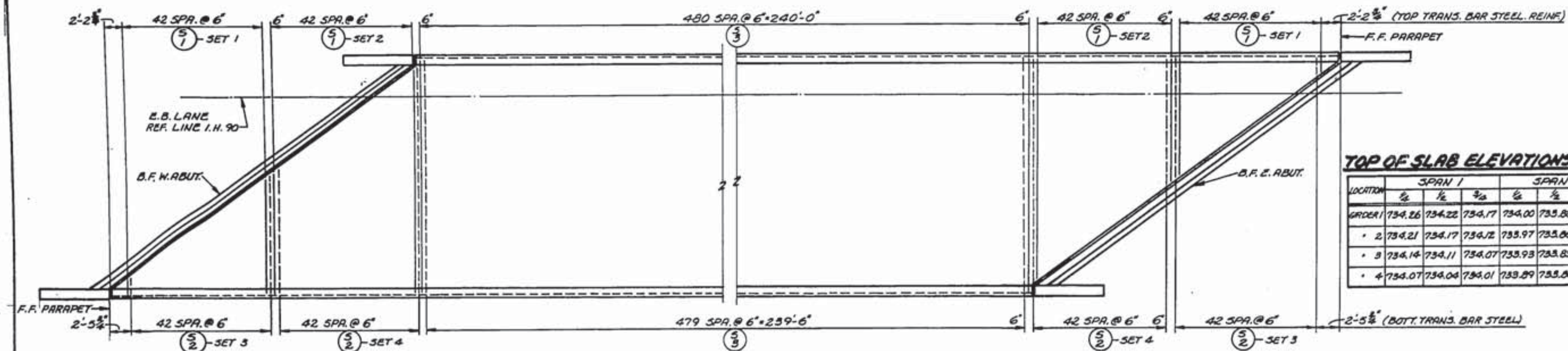
SECTION 33

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	SUPERSTRUCTURE
	DESIGN SPEC. A.R.S.H.O. '61 — LOADING E-70 - MOD — CONST. SPEC. 1963
	DATE 5-24-66 — DESIGN J.S.B. — DRAWN — CKD. J.C.K.
	STRUCTURE B-32-53 — SHEET 3 OF 14

X35019

FORM E-B-12-62

B.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	I90-1(45)5	12	40



PLAN

TOP OF SLAB ELEVATIONS AT QUARTER POINTS OF SPANS

LOCATION	SPAN 1			SPAN 2			SPAN 3			SPAN 4		
	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
GIRDER 1	734.26	734.22	734.17	734.00	733.88	733.74	733.41	733.22	733.02	732.66	732.52	732.38
" 2	734.21	734.17	734.12	733.97	733.86	733.73	733.42	733.24	733.04	732.70	732.57	732.43
" 3	734.14	734.11	734.07	733.93	733.83	733.71	733.42	733.25	733.05	732.74	732.61	732.48
" 4	734.07	734.04	734.01	733.89	733.80	733.69	733.41	733.25	733.08	732.77	732.65	732.52

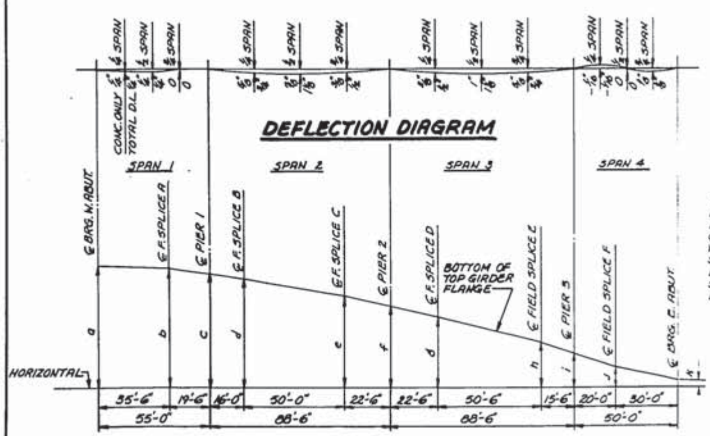
TOP OF SLAB ELEVATIONS

LOCATION	℄ BRG. W.ABUT.	℄ SPLICE A	℄ PIER 1	℄ SPLICE B	℄ SPLICE C	℄ PIER 2	℄ SPLICE D	℄ SPLICE E	℄ PIER 3	℄ SPLICE F	℄ BRG. E.ABUT.
GIRDER 1	734.30	734.19	734.11	734.03	733.74	733.58	733.41	732.95	732.79	732.58	732.25
" 2	734.24	734.14	734.07	734.00	733.73	733.58	733.41	732.98	732.83	732.62	732.29
" 3	734.17	734.09	734.02	733.96	733.71	733.57	733.42	733.00	732.86	732.66	732.34
" 4	734.09	734.03	733.97	733.91	733.69	733.56	733.41	732.02	732.89	732.70	732.39

TOP OF STEEL ELEVATIONS

LOCATION	℄ BRG. W.ABUT.	℄ SPLICE A	℄ PIER 1	℄ SPLICE B	℄ SPLICE C	℄ PIER 2	℄ SPLICE D	℄ SPLICE E	℄ PIER 3	℄ SPLICE F	℄ BRG. E.ABUT.
GIRDER 1	733.65	733.60	733.48	733.46	733.15	732.93	732.80	732.38	732.17	731.99	731.58
" 2	733.58	733.56	733.44	733.42	733.12	732.92	732.80	732.41	732.20	732.03	731.63
" 3	733.51	733.50	733.40	733.38	733.10	732.92	732.81	732.43	732.23	732.07	731.68
" 4	733.44	733.44	733.35	733.34	733.07	732.90	732.80	732.45	732.26	732.10	731.73

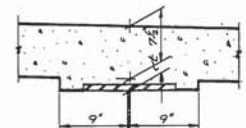
THESE ELEVATIONS ARE TO TOP OF STEEL (TOP OF SPLICE PLS. AT SPLICE) AND THEY ARE FOR THE MATERIAL AS ERECTED. THE ELEVATION OF THE TOP OF STEEL AT THE FIELD SPLICE POINTS SHALL BE CHECKED AND CORRECTED, IF POSSIBLE, AFTER ERECTION AND BEFORE PERMANENTLY WELDING OR BOLTING THE DIAPHRAGMS IN PLACE.



DEFLECTION DIAGRAM

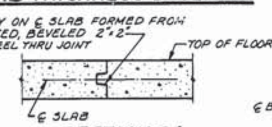
BLOCKING DIAGRAM

DIMENSION	a	b	c	d	e	f	g	h	i	j	k
GIRDER 1	2'-0 13/16"	1'-11 5/16"	1'-10 1/16"	1'-9 5/8"	1'-6 5/8"	1'-4 5/8"	1'-2 1/8"	0'-8 11/16"	0'-6 5/16"	0'-4 1/16"	0
" 2	1'-11 3/8"	1'-10 3/16"	1'-9 1/4"	1'-8 1/2"	1'-5 1/4"	1'-3 7/16"	1'-1 9/16"	0'-8 5/16"	0'-6 5/8"	0'-3 7/8"	0
" 3	1'-9 13/16"	1'-8 7/8"	1'-8 1/16"	1'-7 7/16"	1'-4 5/16"	1'-2 5/16"	1'-0 7/16"	0'-8"	0'-6 5/8"	0'-3 3/4"	0
" 4	1'-8 9/16"	1'-7 5/8"	1'-6 13/16"	1'-6 5/16"	1'-3 5/8"	1'-2"	1'-0 5/16"	0'-7 5/16"	0'-5 7/8"	0'-3 5/16"	0

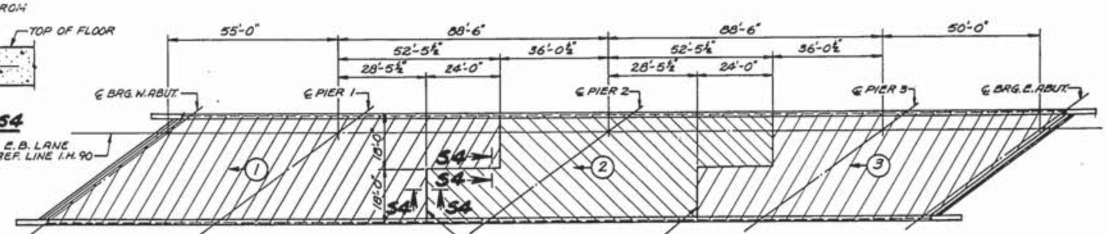


TO DETERMINE t: AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES OR TOP OF SPLICE PLATES WHICHEVER APPLIES, SHALL BE TAKEN AT THE ℄ OF BEARINGS, ℄ OF FIELD SPLICES, AND AT QUARTER POINTS OF EACH SPAN WHICH ARE MORE THAN 6 FEET FROM A FIELD SPLICE. THESE ELEVATIONS SUBTRACTED FROM THE GRADE ELEVATIONS, ADJUSTED FOR THE DEAD LOAD DEFLECTION OF THE CONCRETE, MINUS THE SLAB DEPTH PLUS THE STEEL THICKNESS TO BOTTOM OF TOP FLANGE, EQUALS THE HAUNCH DEPTH "t".

SLAB THICKNESS DIAGRAM



SECTION S4



INDICATES POUR NUMBER AND DIRECTION

POURING DIAGRAM

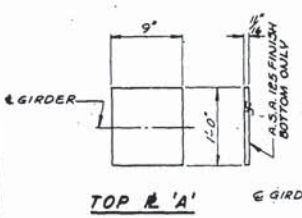
NOTE: TWO OR MORE POURS MAY BE COMBINED AND THE TRANSVERSE CONSTRUCTION JOINTS OMITTED IF THE POUR FOR AN ENTIRE SPAN OR THE PORTION OF A SPAN TO A CONSTRUCTION JOINT CAN BE COMPLETED WITHIN FOUR HOURS AFTER CONCRETE OVER THE ADJACENT PIER IS PLACED.
DIRECTION OF POUR MAY BE REVERSED IF PORTION OF POUR FROM THE PIER CAN BE COMPLETED IN A FOUR HOUR PERIOD.

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	SUPERSTRUCTURE DETAILS		
	DESIGN SPEC. A.A.S.H.O. '61	LOADING HS20-H20	CONST. SPEC. 1963
	DATE 5-24-66	DESIGN S.S.B.	DRAWN HL / CKD. J.C.K.
STRUCTURE B-32-53	SHEET 4 OF 14		

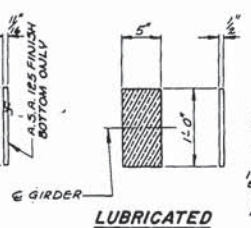
X35020

FORM E-8-12-62

B.F.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-(45)5	13	40

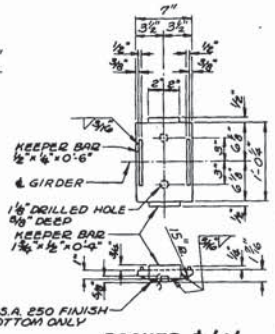


TOP ℄ 'A'



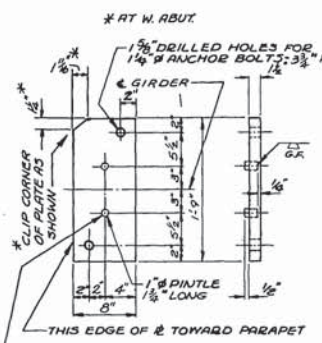
LUBRICATED BRONZE ℄

LUBRICATE TOP SURFACE ONLY



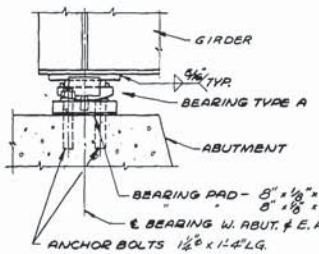
ROCKER ℄ 'A'

BEARING TYPE 'A'

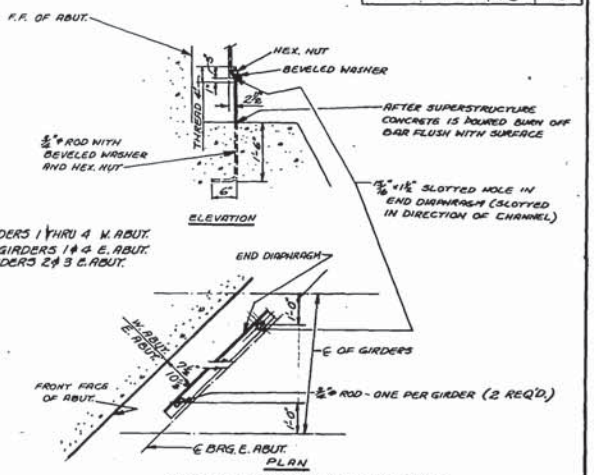


MASONRY ℄ 'A'

AT GIRDERS 2 & 3 E. ABUT. USE ANCHOR BOLT MASONRY PLATE DETAILS AS SHOWN ON SHEET 6.



BEARING TYPE 'A' ASSEMBLY

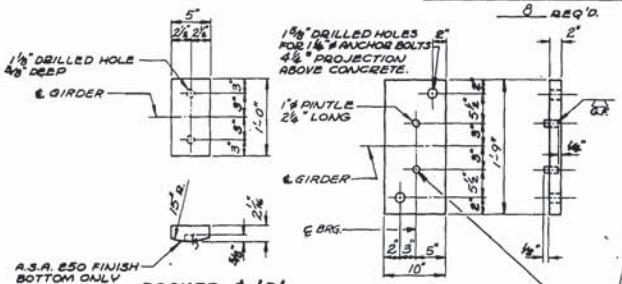


PLACE AT GIRDERS 1 & 4 @ E. ABUT.

TEMPORARY HOLD DOWN DEVICE

(TO BE PAID FOR AS STRUCT. CARBON STEEL)

IF POURING SEQUENCE IS REVISED TO TERMINATE AT W. ABUT. PLACE TEMPORARY HOLD DOWN DEVICE AT EACH GIRDER AT WEST ABUT.



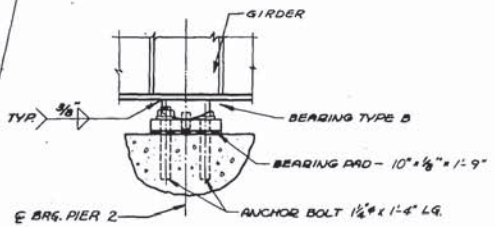
ROCKER ℄ 'B'

MASONRY ℄ 'B'

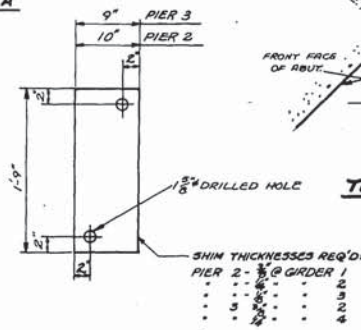
8 REQ'D.

BEARING TYPE 'B'

4 REQ'D.

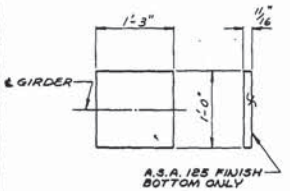


BEARING TYPE 'B' ASSEMBLY

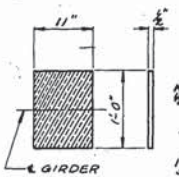


SHIM PLATE DETAIL

1" ø PINTLE - DRILL PLATE FOR DRIVING FIT CHAMFER TOP OF PINTLE ⅛"

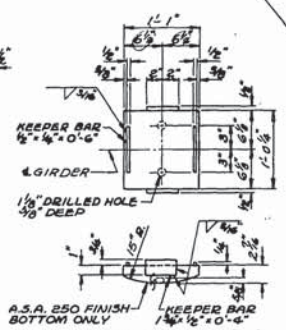


TOP ℄ 'C'



LUBRICATED BRONZE ℄

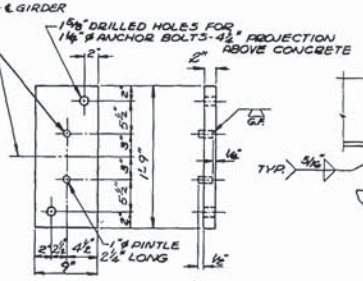
LUBRICATE TOP SURFACE ONLY



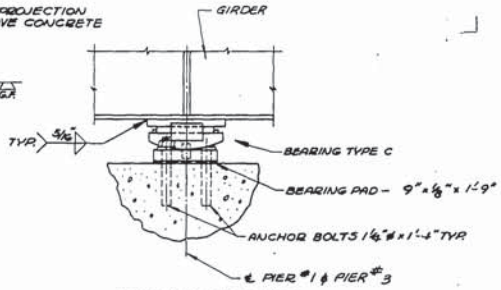
ROCKER ℄ 'C'

BEARING TYPE 'C'

8 REQ'D.



MASONRY ℄ 'C'



BEARING TYPE 'C' ASSEMBLY

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 SURFACES MARKED ∫ 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 A-242 STEEL WITH A CORROSIVE RESISTANCE OF 4 OR MORE TIMES THAT OF A36 STEEL.

THE TOP 4-½" OF ANCHOR BOLTS, WASHERS AND NUTS SHALL BE GALVANIZED.

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

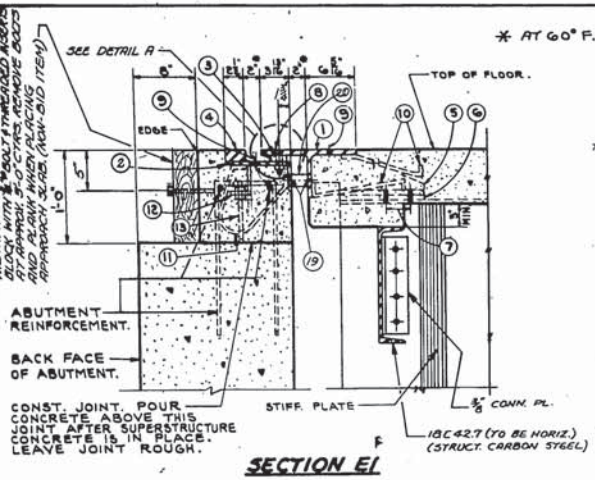
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	BEARING DETAILS
	DESIGN SPEC A.A.S.H.O. '61 LOADING —— CONST. SPEC. 1963
	DATE 5-24-66 DESIGN —— DRAWN EHE TRD. J.C.W.
STRUCTURE B-32-53	SHEET 5 OF 14

X 35021

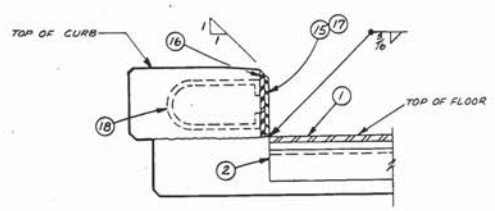
S.H.D. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	I90-1(45)5	14	40

* AT 60° F.

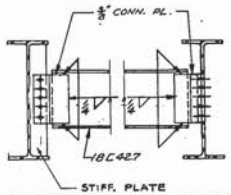
+ LONG. DIM. OF 15/16" x 1 1/8" SLOTTED HOLE PARALLEL TO REF. LINE



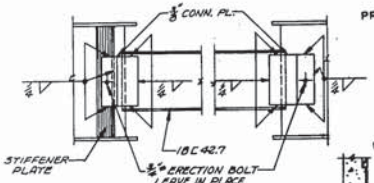
SECTION E1



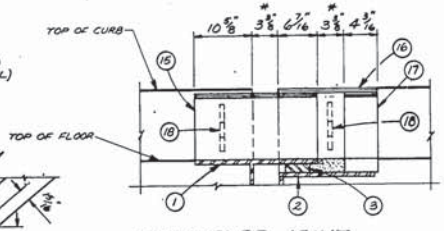
DETAIL AT CURB



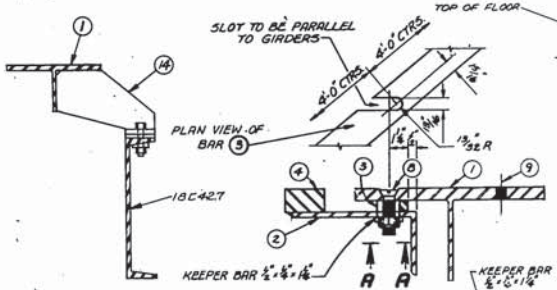
ALTERNATE DIAPHRAGM CONNECTION



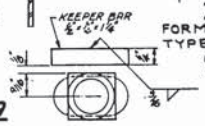
TYPICAL DIAPHRAM CONNECTION



ELEV. CURB JOINT



SUPPORT TEE
(PLACE AT MIDPOINT OF CHANNELS)



DETAIL A

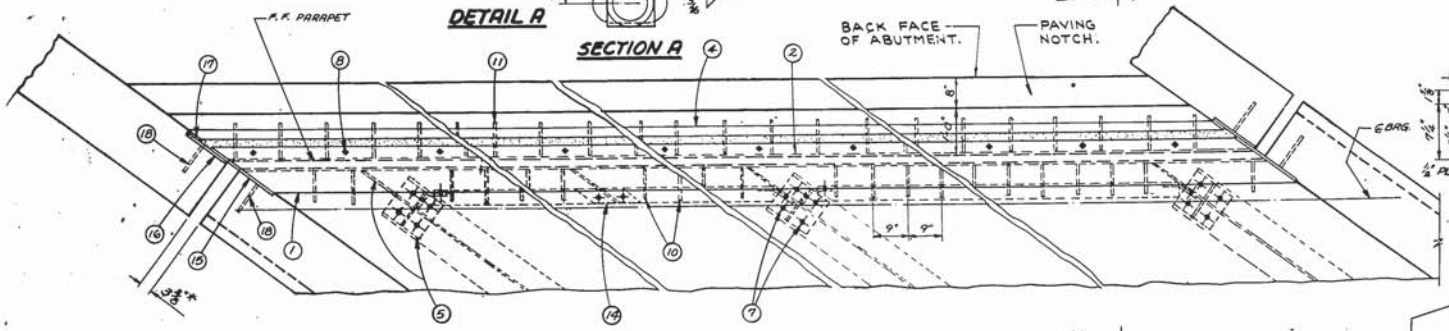
NOTES

EXPANSION JOINT SHALL BE BUILT TO CONFORM TO RDWY. CROWN & GRADE. AFTER CONCRETE HAS SET REMOVE BOLTS NO. 8 AND FILL HOLES WITH HOT POURED ELASTIC TYPE JOINT SEALER.

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

ONE FIELD SPLICE IS PERMITTED IN JOINTS OVER 30 FT. IN LENGTH.

ALL MATERIAL IN EXPANSION JOINT SHALL BE PAID FOR AS STRUCTURAL CARBON STEEL.



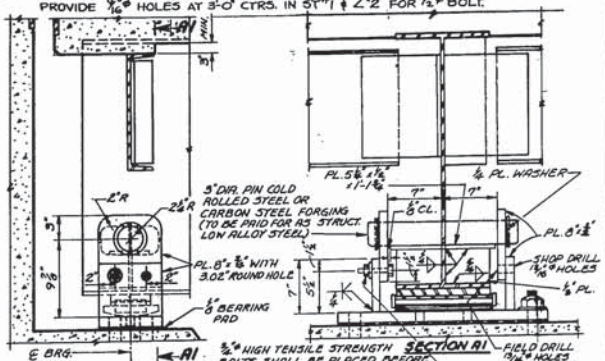
SECTION A

PLAN
(AT WEST AND EAST ABUTS.)

LEGEND

1. S.T. 6" W.F. 35.5# x ROADWAY WIDTH.
2. ∠ 8" x 4" x 1/16" x ROADWAY WIDTH.
3. BAR 2" x 3/8" x RDWY. WIDTH. WELD TO ∠ #2 WITH 2 LINES OF 1/4" FILLET WELD. 2 @ 6.
4. BAR 2 1/2" x 1 1/4" x RDWY. WIDTH. WELD TO ∠ #2 WITH 2 LINES OF 1/4" FILLET WELD. 2 @ 6.
5. FABRICATE FROM 3/8" WELDED PLATE. WELD TO STEM & FLG. OF S.T. #1 WITH 1/4" FILLET WELD NEAR AND FAR SIDE.
6. 5/8" MIN. LAMINATED & SLOTTED SHIM.
7. DRILL HOLES IN STRINGER FLG. IN FIELD FOR 3/4" ø BOLTS.
8. 3/4" FLAT HD. CAP SCREW x 0'-2 3/4" WITH 3Ø NUT @ 4'-0" CTRS. GREASE FOR EASY REMOVAL. 1/4" x 2" x 1'-6" KEEPER BAR - WELD TO ∠ #2 TO KEEP 3Ø NUT FROM TURNING.
9. VENT HOLES. 1 1/16" ø PLACED AT 2'-0" CENTERS ON ∠ #2 AND S.T. #1
10. 5/8" ø BENT BAR @ 0'-9" ALTERNATE CENTERS BETWEEN GIRDERS, — 1'-3" LONG. WELD TO S.T. #1.
11. 5/8" ø BENT BAR @ 1'-0" CENTERS. 2'-0" LONG. WELD TO ∠ #2.
12. ∠ 3" x 2 1/2" x 3/16" x 0'-3" @ 3'-0" CENTERS. WELD TO ∠ #2.
13. 1/4" ø BOLT x 0'-9" LG & NUT. TACK WELD NUT TO ∠ #12.
14. SUPPORT TEE - FABRICATE FROM 5/8 PL. WELD TO ST #1
15. 3/8 PL. - CHAMFER AS SHOWN
16. 3/8 PL. - CHAMFER AS SHOWN
17. 3/8 PL. - CHAMFER AS SHOWN. WELD TO PL. #16 WITH 1 LINE OF 5/16 FILLET WELD. FIELD WELD TO BM.
18. 5/8" ø BENT BAR x 1'-5" LG. WELD TO PL #15 & PL #16
19. PROVIDE 5/16" ø HOLES AT 3'-0" CTRS. FOR BOLT #20
20. BLOCK & BOLT FOR SHIPMENT WITH PIPE SLEEVE AND 1/2" ø BOLT

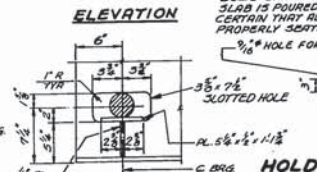
PROVIDE 5/16" ø HOLES AT 3'-0" CTRS. IN ST #1 & ∠ #2 FOR 1/2" ø BOLT.



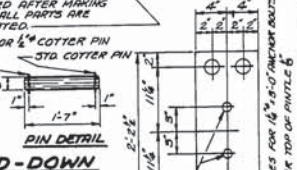
ELEVATION

3/4" ø HIGH TENSILE STRENGTH BOLTS SHALL BE PLACED BEFORE SLAB IS POURED AFTER MAKING CERTAIN THAT ALL PARTS ARE PROPERLY SEATED.

SECTION A1

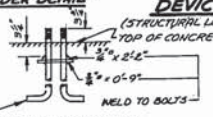


GIRDER DETAIL



PIN DETAIL

HOLD-DOWN DEVICE DETAILS
(STRUCTURAL LOW ALLOY STEEL)



ANCHOR BOLT DETAIL

DRILL 1" ø HOLE FOR DRIVING FIT FOR 1" ø PINTLE

MASONRY PLATE

1 1/4" x 3'-0" PRESET ANCHOR BOLTS AT HOLD-DOWN DEVICES ONLY
3 1/4" PROJECTION ABOVE CONCRETE
90° BEND 4" LONG AT END OF BOLT

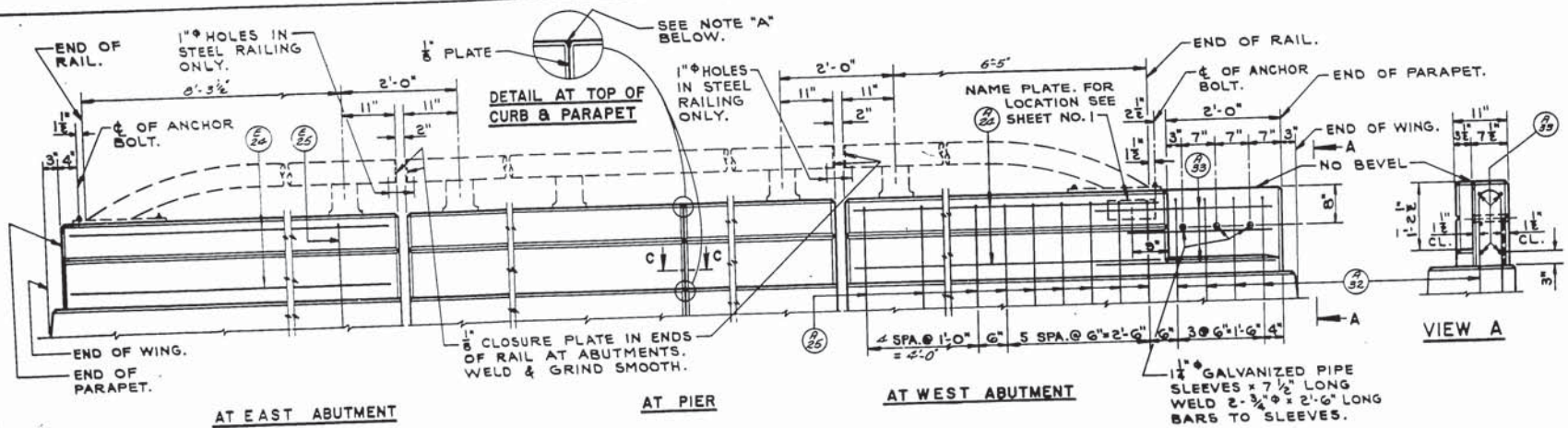
NOTE: PLACE HOLD-DOWN DEVICES AT BEAMS 2 & 3 AT E. ABUT. ONLY

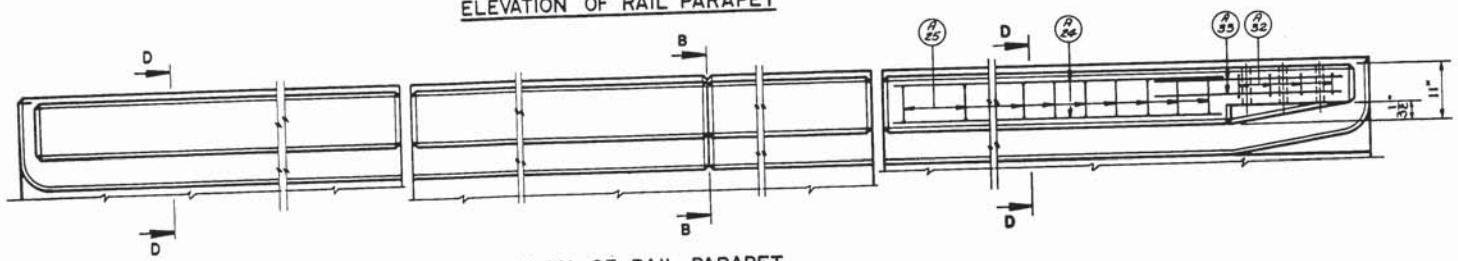
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	EXPANSION JOINT AND HOLD-DOWN DEVICE
	DESIGN SPEC A.A.S.H.O.'61 LOCATION — SHEET 1963
	DATE 5-25-66 REVISION STD. DRAWN JCK CHK JCK
	STRUCTURE B-32-53 SHEET 6 OF 14

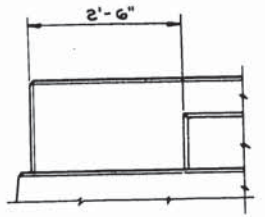
X35022

FORM E-9-12-62

S.F.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I90-1(45)5	15	40







NOTES

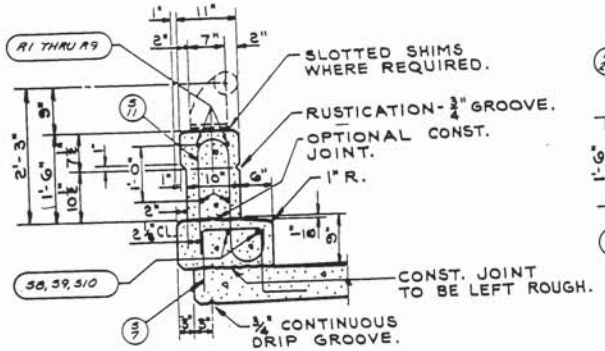
WHEN PARAPETS AND CURBS ARE POURED CONTINUOUSLY FROM END TO END THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/8" ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION "B" BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS AND CURBS ARE USED AT THE DEFLECTION JOINTS ONE SIDE OF JOINT SHALL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

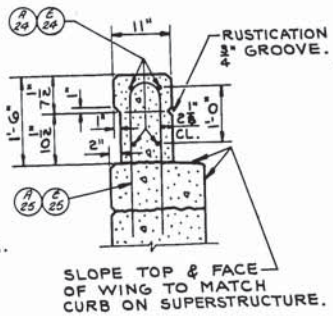
COST OF 1 1/4" ⌀ GALVANIZED PIPE SLEEVES AND 3/4" ⌀ BARS TO BE INCLUDED IN UNIT PRICE BID FOR CONCRETE MASONRY.

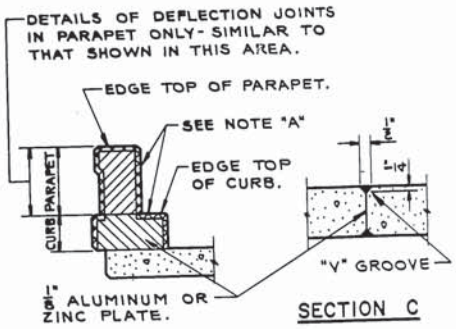
WORK THIS SHEET WITH SHEET TITLED "DETAILS FOR TYPE "G" TUBULAR ALUMINUM AND STEEL RAILING".

ALL POST SPACINGS ARE TAKEN HORIZONTALLY ALONG ℄ OF RAILING AT BASE OF POSTS. ALL POSTS SHALL BE SET NORMAL TO GRADE.

NOTE "A": FILL WITH NON-STAINING GRAY TWO COMPONENT POLYSULFIDE LIQUID POLYMER (GUN GRADE) WITH SURFACE PRIMER, CONFORMING TO A.S.A.-A-116.1-1960.





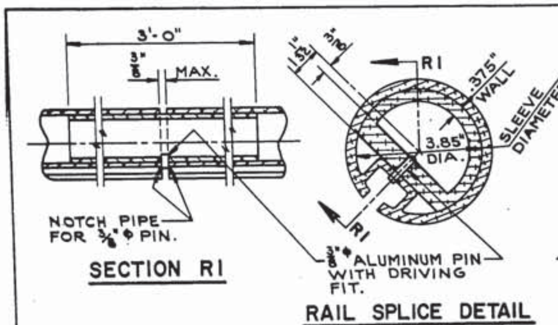


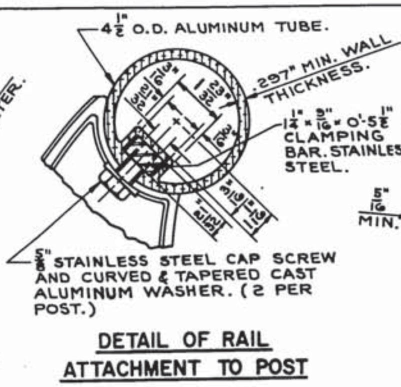
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	RAIL PARAPET DETAILS
DESIGN SPEC A.A.S.H.O. '61	LOADING — CONST. 1965
DATE 5-24-62 DESIGN —	DRAWN BC CHK. J.C.K.
STRUCTURE B-32-53	SHEET 7 OF 14

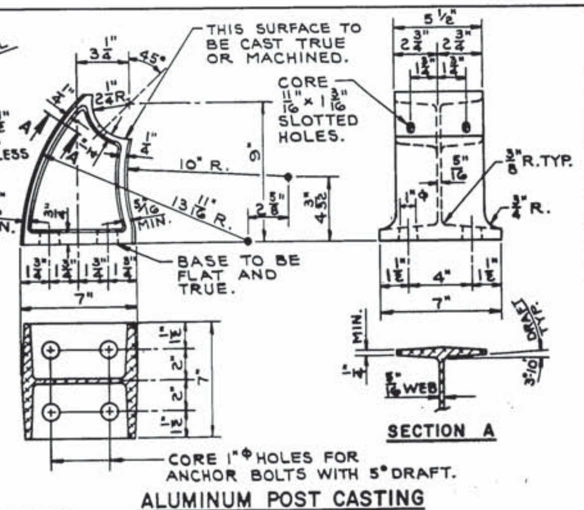
X35023

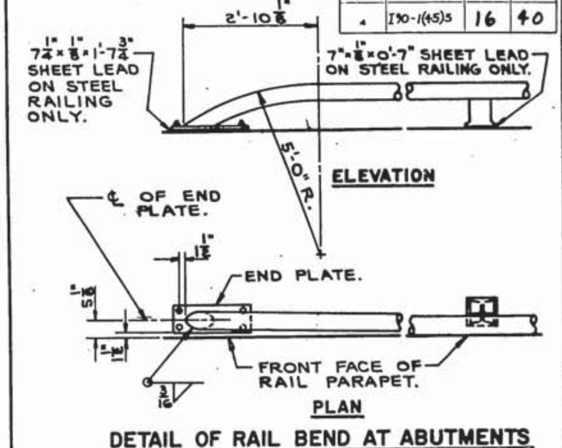
F.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I90-1(45)5	16	40

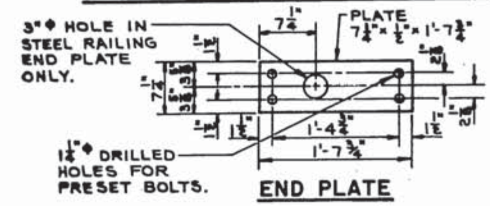
ALUMINUM RAILING DETAILS











NOTES

RAILING SPLICES SHALL BE LOCATED SUCH THAT ℄ OF SPLICE IS 1/6 PANEL LENGTH ±4" OFF NEAREST POST.

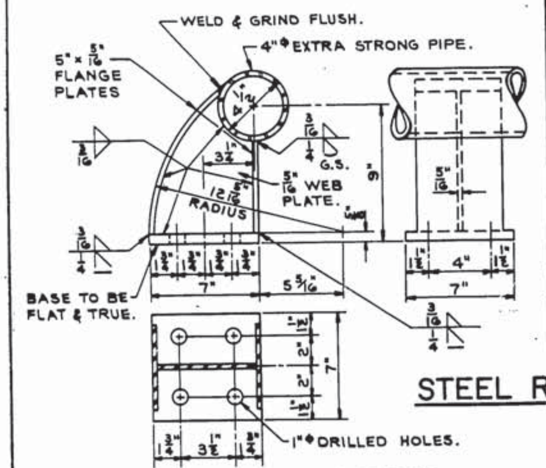
ALUMINUM SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQUIRED FOR ALIGNMENT.

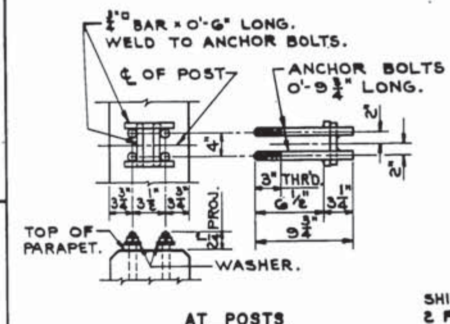
RAILING SHALL BE FABRICATED IN TWO AND THREE PANEL LENGTHS.

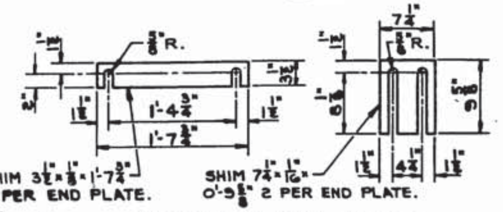
ANCHOR BOLTS, NUTS & WASHERS TO BE STAINLESS STEEL.

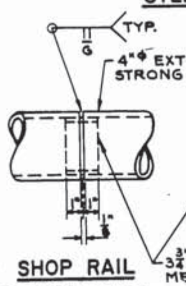
WALL THICKNESS OF TUBING SHOWN ABOVE SHALL BE MINIMUM NOMINAL AVERAGE WALL THICKNESS.

STEEL RAILING DETAILS

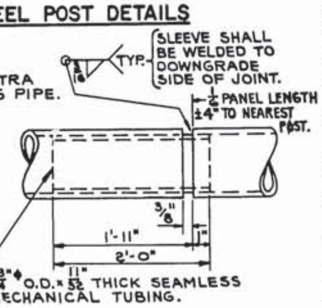








THE LOCATION OF THE SHOP SPLICE SHALL BE SHOWN ON THE SHOP DRAWINGS.



NOTES

RAILING SHALL BE FABRICATED IN 2 & 3 PANEL LENGTHS.

STEEL SHIMS SHALL BE USED UNDER POSTS AND UNDER END PLATES WHERE REQUIRED FOR ALIGNMENT.

THE FOLLOWING MATERIALS SHALL BE USED:

RAILING SHALL BE 4"Φ EXTRA STRONG PIPE CONFORMING TO ASTM DESIGNATION A53, GRADE B.

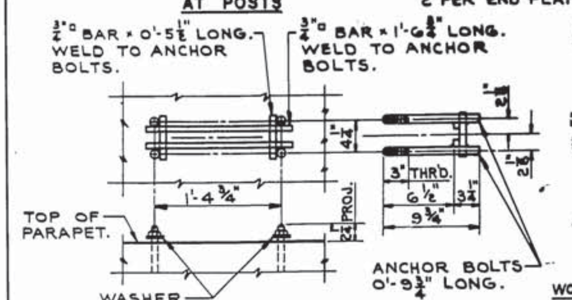
SLEEVES SHALL BE 3 3/4"Φ O.D. x 11/32" THICK SEAMLESS MECHANICAL TUBING MADE OF STEEL WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 60,000 P.S.I. AND A MINIMUM ELONGATION OF 10%.

POSTS SHALL BE FABRICATED FROM MATERIAL CONFORMING TO ASTM DESIGNATION A36.

ANCHOR BOLTS TO BE MADE FROM MATERIAL CONFORMING TO ASTM A307.

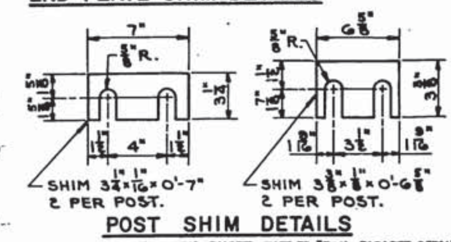
CAULK EXPOSED OPENINGS BETWEEN SHIMS WITH LEAD WOOL.

GALVANIZE ENTIRE RAILING AFTER FABRICATION INCLUDING NUTS, WASHERS, SHIMS AND TOP 3 1/2" OF ANCHOR BOLTS.



ANCHOR BOLT SETTING DETAILS

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



WORK THIS SHEET WITH SHEET TITLED "RAIL PARAPET DETAILS"

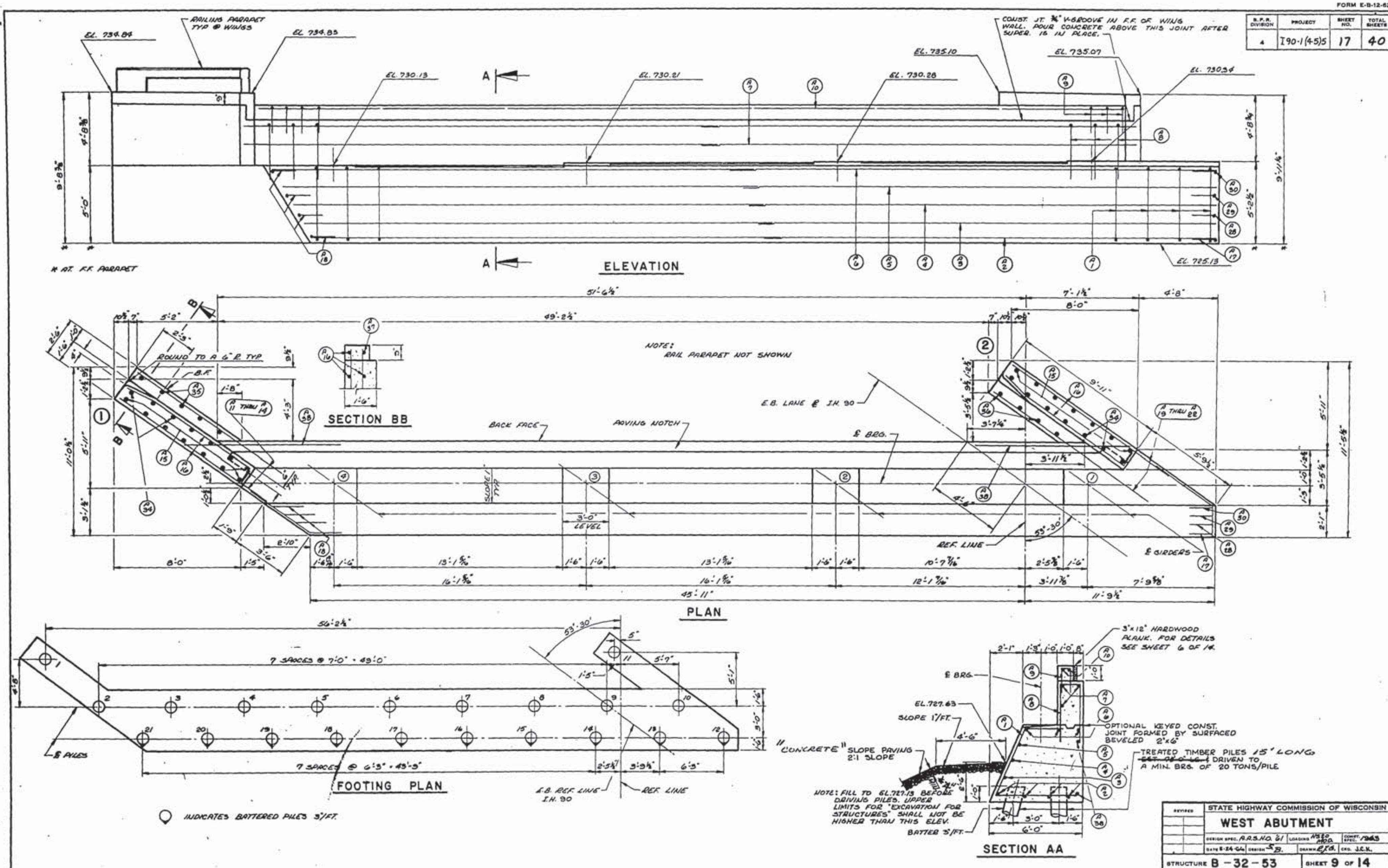
STATE HIGHWAY COMMISSION OF WISCONSIN

DETAILS FOR TYPE "G" TUBULAR ALUMINUM & STEEL RAILING

DESIGN SPEC. A.A.S.H.O. '61 — 1963 — DATE 7-26-66 — J.C.K.

STRUCTURE B-32-53 — SHEET 8 OF 14

X35024



B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I90-1(4-5)5	17	40

STATE HIGHWAY COMMISSION OF WISCONSIN

WEST ABUTMENT

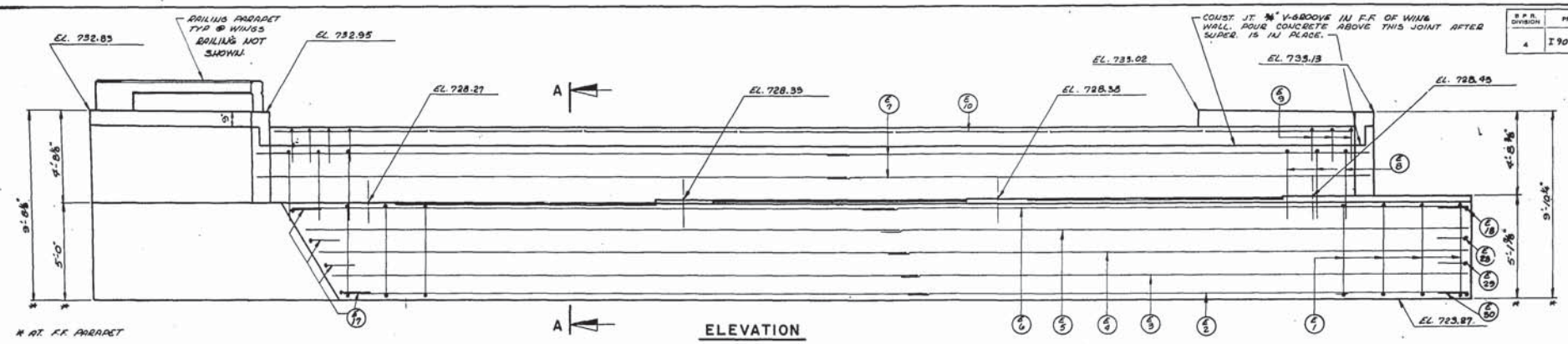
DESIGN SPEC. A.R.S. NO. 61 — LOADING HS20 — CONST. SPEC. 1963

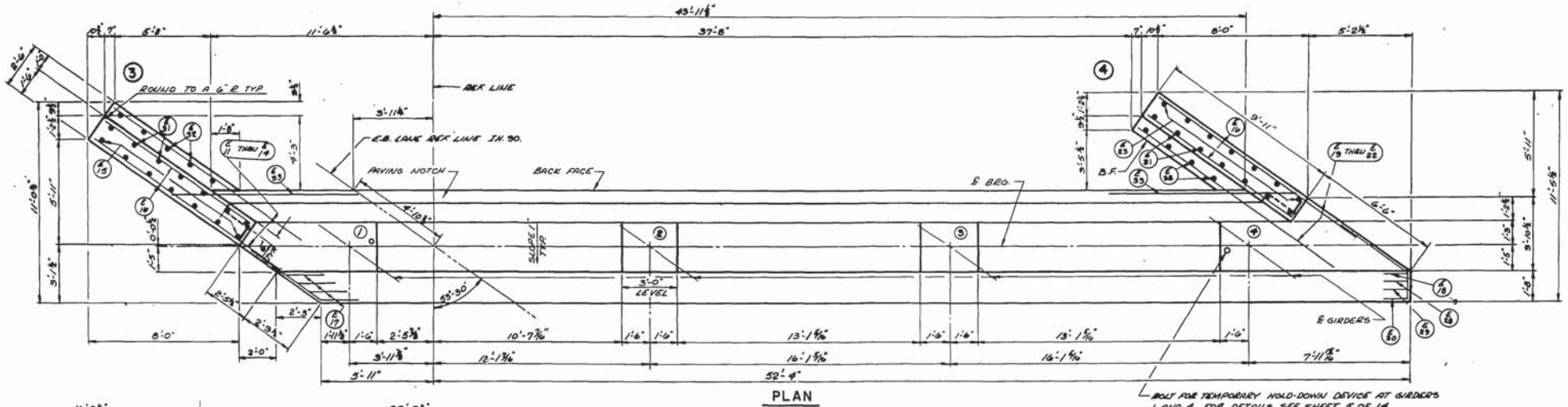
STRUCTURE B – 32 – 53 — SHEET 9 OF 14

X35025

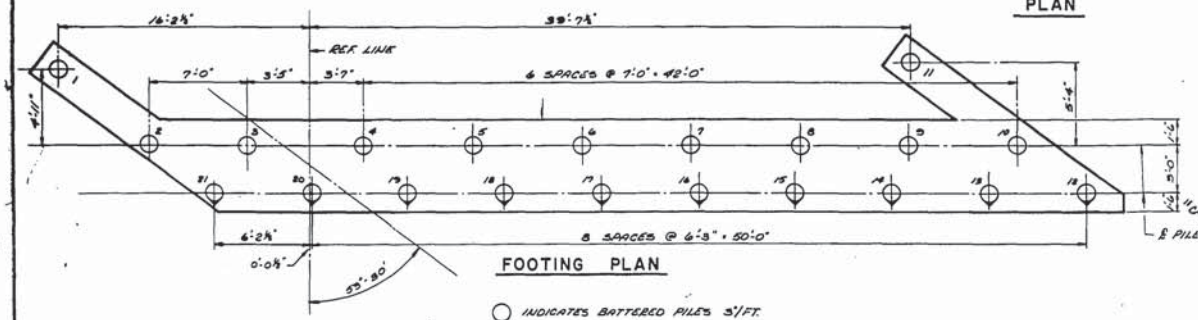
FORM E-B-12-62

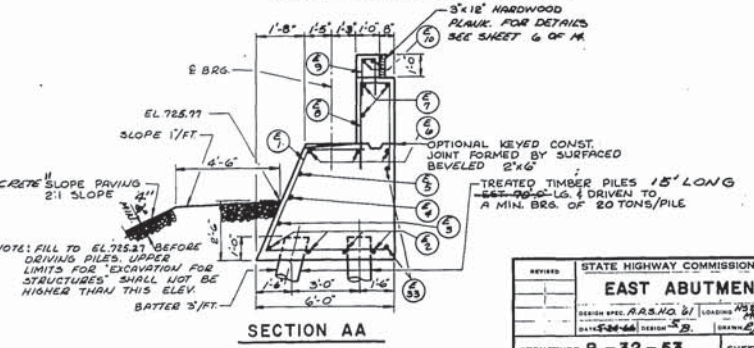
B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)1		40





BOLT FOR TEMPORARY HOLD-DOWN DEVICE AT GIRDERS 1 AND 4. FOR DETAILS SEE SHEET 5 OF 14.



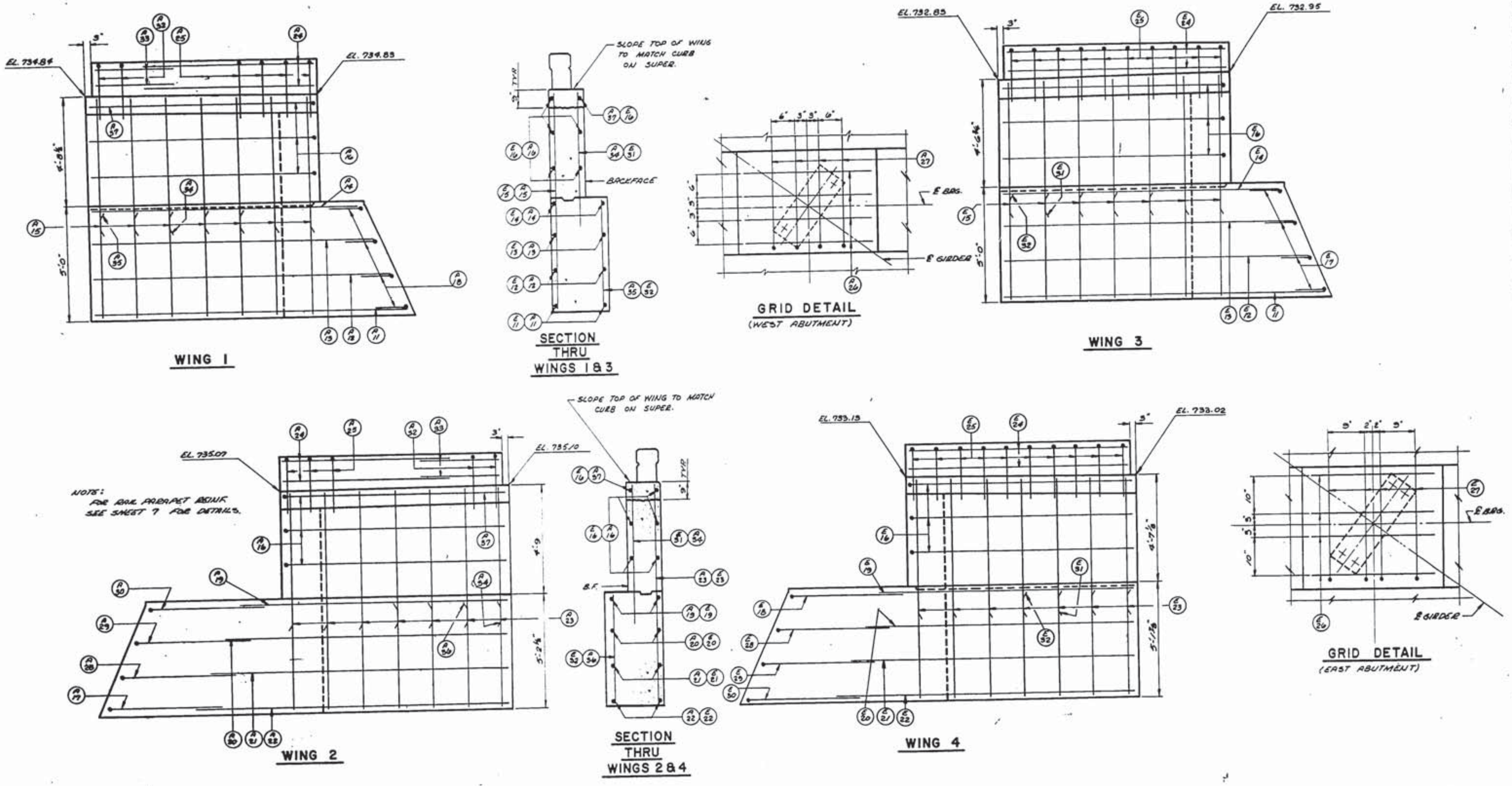


REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	EAST ABUTMENT
DESIGN SPEC. A.R.S. NO. 61	LOADING H 20 S 16 MOD.
DATE 5-26-66 DESIGN S.B.	DRAWN E.F.S. CKD. J.C.K.
STRUCTURE B-32-53	SHEET 10 OF 14

X35026

FORM E-B-12-52

B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)5	19	40

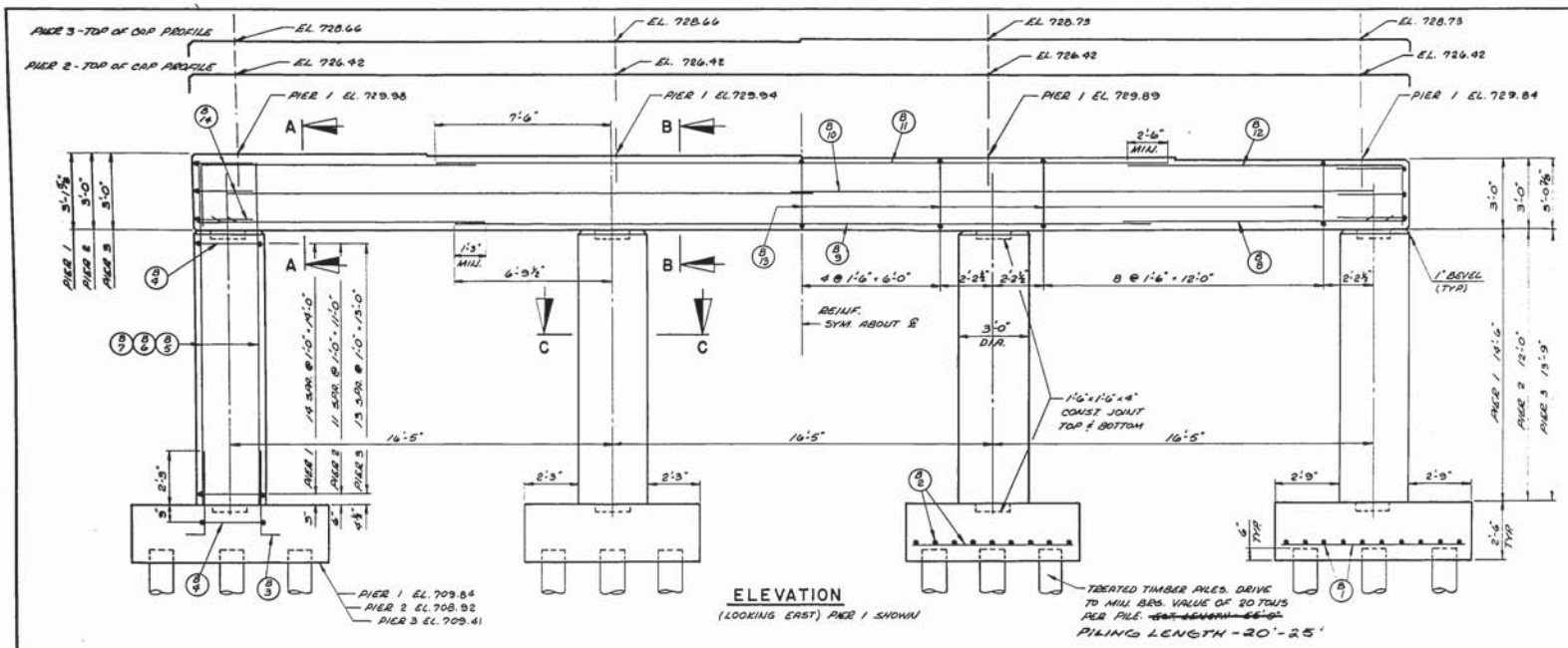


REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	ABUTMENT DETAILS
	DESIGN SPEC. A.A.S.H.O. '61 — LOADING HS20 MOD. — CONST. SPEC. 1965
	DATE 5-26-66 — DESIGN — DRAWN — CKD. J.C.K.
	STRUCTURE B-32-53 — SHEET 11 OF 14

X35027

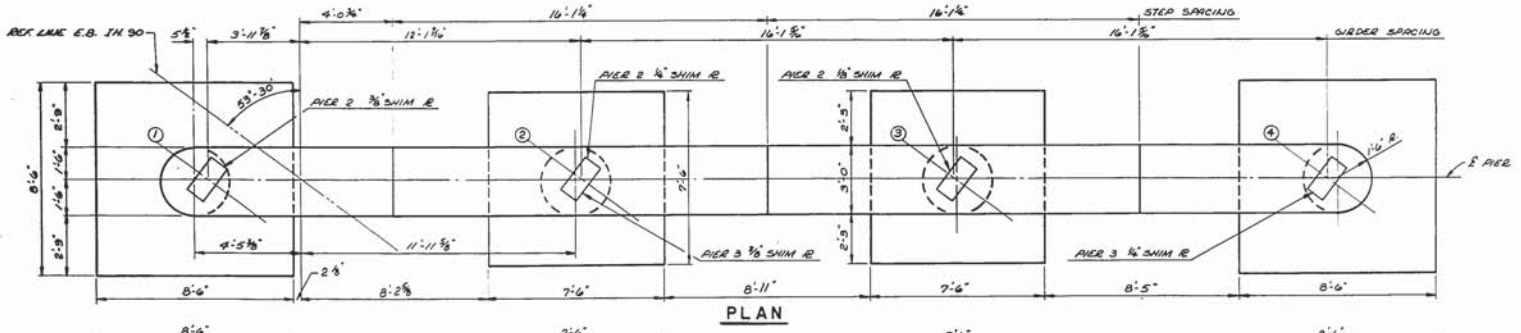
FORM E-B-12-62

S.F.H. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)5	20	40

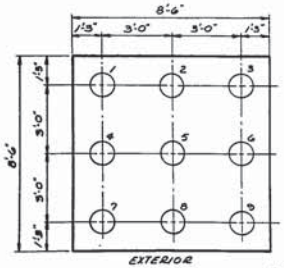


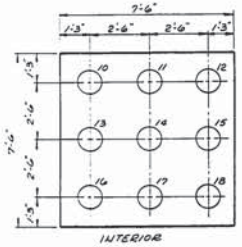
ELEVATION

(LOOKING EAST) PIER 1 SHOWN

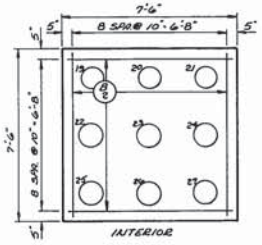


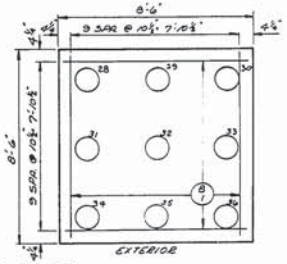
PLAN



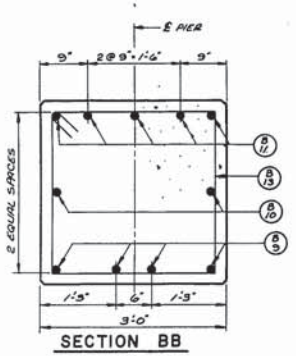


FOOTING PLAN

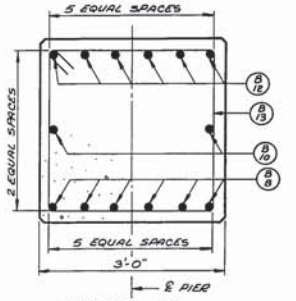




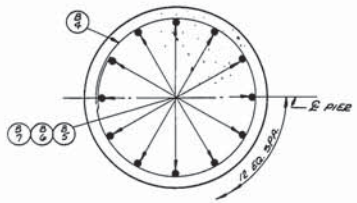
REINFORCEMENT PLAN



SECTION BB



SECTION AA



SECTION CC

CONCRETE MASONRY

	PIER 1	PIER 2	PIER 3
FOOTINGS	23.3 C.Y.	23.3 C.Y.	23.3 C.Y.
COLUMNS	15.2 C.Y.	12.6 C.Y.	14.4 C.Y.
CAPS	17.6 C.Y.	17.2 C.Y.	17.4 C.Y.
TOTAL	56.1 C.Y.	53.1 C.Y.	55.1 C.Y.

REVISED

STATE HIGHWAY COMMISSION OF WISCONSIN

PIERS 1, 2, & 3

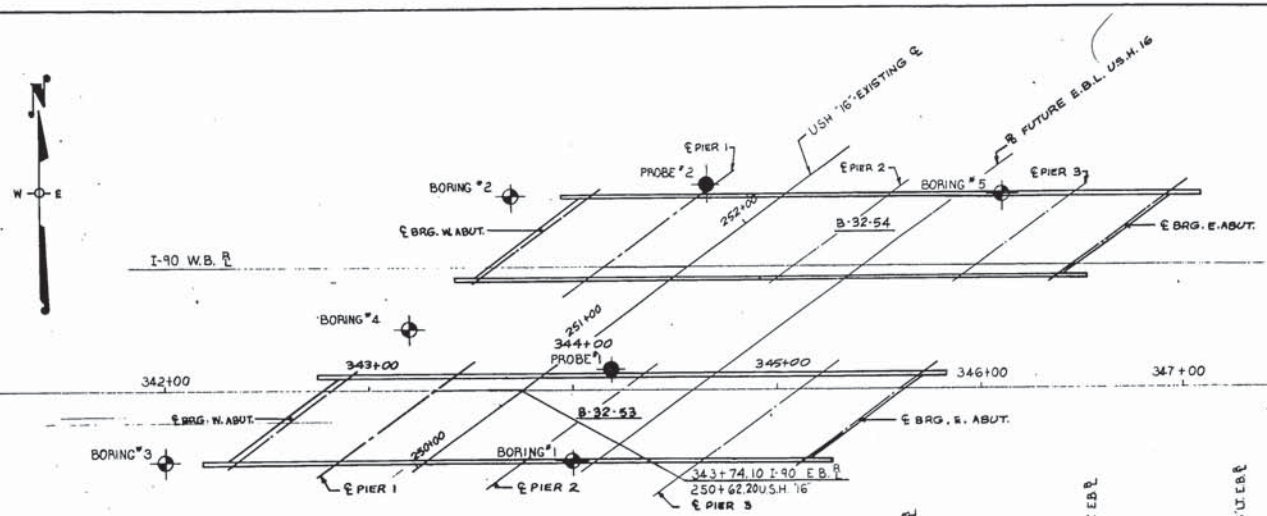
DESIGN SPEC. A.A.S.H.O. '61 | LOADING H 20 M 10 | CONST. SPEC. 1963

DATE 5-24-66 | DESIGNED JB. | DRAWN R.T.S. | CKD. J.C.K.

STRUCTURE B -32-53 | SHEET 12 OF 14

X35028

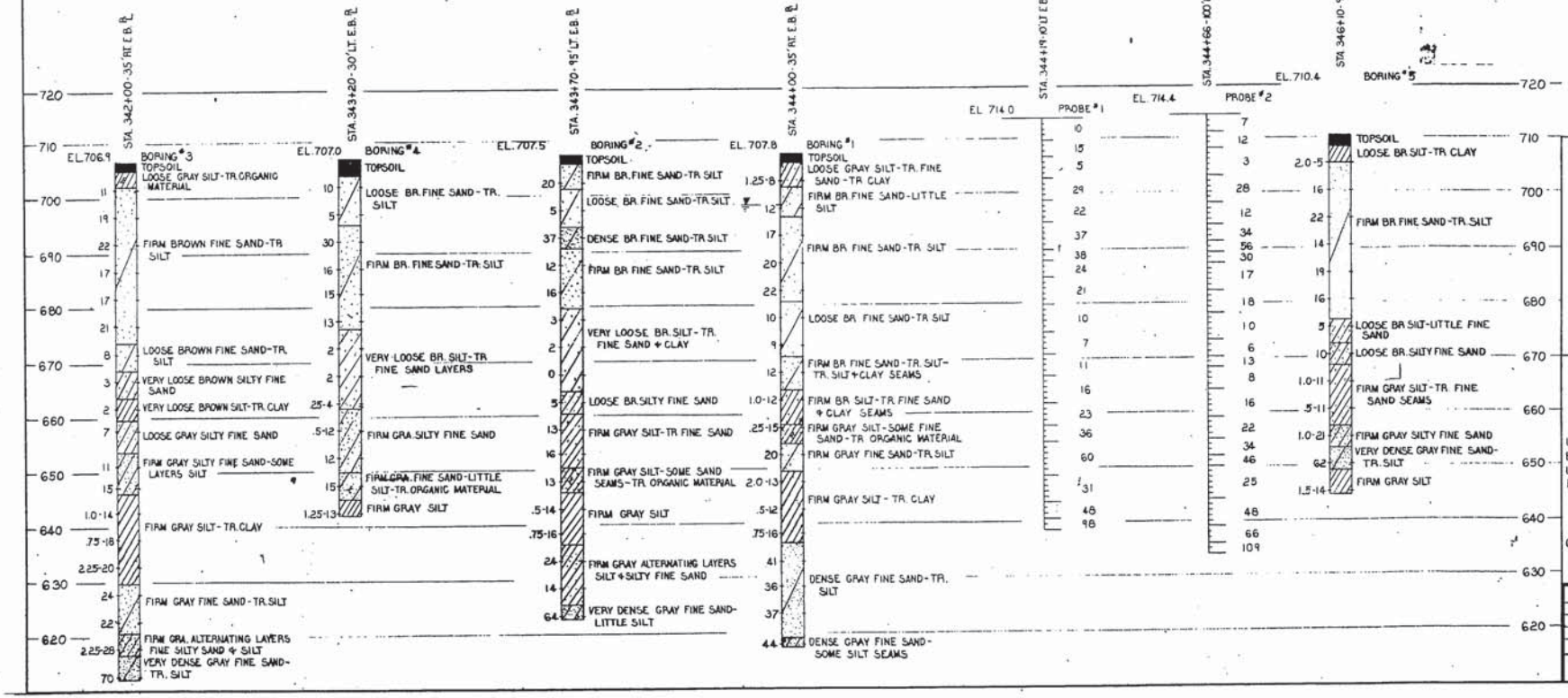
S.H.D. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I90-1(45)6	21	40



SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN

FOR THE DESIGN OF THE STRUCTURE FOUNDATION, TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON 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 REACTION 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 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 PROBING

ELEV. STA. PROBE #

7 AVERAGE BLOWS PER FT.

PROBING TAKEN WITH A 350# W.T. FALLING 18" ON A 2" O.D. POINT

LEGEND OF BORING

ELEV. STA. BORING #

UNCONFINED STRENGTH BLOWS PER FT. 1.1-7 USING 140# WT. FALLING 30"

DESCRIPTION OF MATERIAL

MATERIAL CHANGE

GROUND WATER ELEVATION

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	SUBSURFACE EXPLORATION
	DESIGN SPEC. AASHO '61 LOADING H20-S16-44 DIAGRAM SHEET 1963
	DATE 5-31-66 DESIGNED — DRAWN DB CHKD. J.C.K.
STRUCTURE B-32-53	SHEET 13 OF 14

SUPERSTRUCTURE 94,310

POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
	S 1	86	6	35-9	6	Floor-Top-Transverse	†
	S 2	86	6	36-0	6	" Bottom-Transverse	†
	S 3	961	6	35-0	6	" " "	
	S 4	400	5	36-9	Shown	" " Longitudinal	
	S 5	264	5	36-9	"	" Top-Longitudinal	
	S 6	24	5	15-0	"	" " Symmetrical about ℄ Piers	
	S 7	564	5	3-9	1-0	Curb-Transverse	G
	S 8	8	5	28-9	Shown	" Longitudinal-Span 1	
	S 9	24	5	30-3	"	" " Spans 2 & 3	
	S10	8	5	26-3	"	" " Span 4	
	S11	564	5	5-0	1-0	" & Rail Parapet	D
	R 1	16	5	18-3	Shown	Rail Parapet	
	R 2	40	5	23-3	"	" "	
	R 3	8	5	13-9	"	" "	
	R 4	8	5	20-9	"	" "	
	R 5	8	5	19-9	"	" "	
	R 6	8	5	14-9	"	" "	
	R 7	8	5	25-9	"	" "	
	R 8	8	5	8-9	"	" "	
	R 9	8	5	23-6	"	" "	

WEST ABUTMENT 2,580

POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
	A 1	29	4	13-9	2-0	Body-Space to Miss Piling	F
	A 2	8	4	29-3	Shown	" Horizontal	
	A 3	2	4	29-6	"	" "	
	A 4	2	4	30-0	"	" "	
	A 5	2	4	30-6	"	" "	
	A 6	6	6	30-9	"	" "	
	A 7	6	4	30-0	"	Parapet-Horizontal	
	A 8	38	5	9-6	1-6	Body & Parapet	B
	A 9	56	5	5-0	1-0	Parapet	B
	A10	14	4	7-9	Shown	" Horizontal-Do Not Lap	
	A11	2	4	14-6	1-6	Wing 1-Horizontal	
	A12	2	4	13-3	1-6	" 1 "	
	A13	2	4	12-3	1-6	" 1 "	
	A14	2	6	11-3	1-6	" 1 "	
	A15	7	4	9-3	1-6	" 1-Vertical	
	A16	10	4	10-9	1-6	Wings 1 & 2-Horizontal	A
	A17	1	4	7-3	1-6	Wing 2-Horizontal-Corner	M
	A18	4	4	2-6	1-6	" 1 " "	C
	A19	2	6	12-3	1-6	" 2 "	
	A20	2	4	13-3	1-6	" 2 "	
	A21	2	4	14-3	1-6	" 2 "	
	A22	2	4	15-3	1-6	" 2 "	
	A23	7	4	9-6	1-6	" 2-Vertical	
	A24	8	5	7-3	Shown	Railing Parapet-Horizontal	
	A25	22	5	5-9	1-0	" "	B
	A26	16	5	2-6	Shown	Grid	
	A27	16	5	4-3	"	"	A
	A28	1	4	6-9	1-6	Wing 2-Horizontal-Corner	M
	A29	1	4	6-3	1-6	" 2 " "	M
	A30	1	4	5-6	1-6	" 2 " "	P
	A31	4	4	10-0	Shown	Body-Horizontal at Wings	
	A32	8	5	5-6	6	Rail Parapet	B
	A33	8	5	3-3	Shown	" "	
	A34	14	5	5-9	1-6	Wings 1 & 2-Vertical	
	A35	5	4	4-9	1-6	Wing 1-Vertical	
	A36	4	4	4-9	1-6	" 2 "	
	A37	2	4	10-9	1-6	Wings 1 & 2-Horizontal	N

PIERS 1, 2, & 3 19,370

POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
	B 1	120	6	8-0	10½	Footing-Exterior-Piers 1, 2 & 3	
	B 2	108	6	7-0	10	" Interior " 1, 2 & 3	
	B 3	144	9	4-6	Shown	" & Columns-Piers 1, 2 & 3	A
	B 4	12	4	9-6	"	" Hoops	J
	B 4	164	4	9-6	1-0	Columns-Hoops	J
	B 5	48	9	17-3	Shown	" Pier 1 only	
	B 6	48	9	14-9	"	" " 2 "	
	B 7	48	9	16-6	"	" " 3 "	
	B 8	36	9	12-3	"	Cap-Ends	
	B 9	12	5	30-0	"	" Bottom	
	B10	12	4	25-0	"	"	
	B11	15	9	31-6	"	" Top	
	B12	36	7	15-3	"	" " Ends	A
	B13	81	4	11-6	1-6	" Stirrups	L
	B14	18	5	6-9	Shown	"	H

EAST ABUTMENT 2,520

POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
	E 1	29	4	13-9	2-0	Body-Space to Miss Piling	F
	E 2	8	4	29-6	Shown	" Horizontal	
	E 3	2	4	30-0	"	" "	
	E 4	2	4	30-6	"	" "	
	E 5	2	4	30-9	"	" "	
	E 6	6	6	31-0	"	" "	
	E 7	6	4	30-0	"	Parpaet-Horizontal	
	E 8	38	5	9-6	1-6	Body & Parapet	B
	E 9	56	5	5-0	1-0	Parapet	B
	E10	14	4	7-9	Shown	" Horizontal Do Not Lap	
	E11	2	4	14-6	1-6	Wing 3-Horizontal	
	E12	2	4	13-9	1-6	" 3 "	
	E13	2	4	12-9	1-6	" 3 "	
	E14	2	6	12-0	1-6	" 3 "	
	E15	7	4	9-3	1-6	" 3-Vertical	
	E16	12	4	10-9	1-6	Wings 3 & 4-Horizontal	A
	E17	4	4	2-6	1-6	Wing 3-Horizontal-Corner	C
	E18	1	4	5-6	1-6	" 4 " "	P
	E19	2	6	13-0	1-6	" 4 "	
	E20	2	4	13-9	1-6	" 4 "	
	E21	2	4	14-6	1-6	" 4 "	
	E22	2	4	15-6	1-6	" 4 "	
	E23	7	4	9-6	1-6	" 4-Vertical	
	E24	8	5	9-3	Shown	Railing Parapet-Horizontal	
	E25	20	5	5-9	1-0	" "	B
	E26	16	5	2-6	Shown	Grid	
	E27	16	5	4-6	"	"	A
	E28	1	4	5-9	1-6	Wing 4-Horizontal-Corner	M
	E29	1	4	5-6	1-6	" 4 " "	M
	E30	1	4	5-0	1-6	" 4 "	M
	E31	14	5	5-9	1-6	Wings 3 & 4-Vertical	
	E32	9	4	4-9	1-6	" 3 & 4 "	
	E33	4	4	10-0	Shown	Body-Horizontal at Wings	

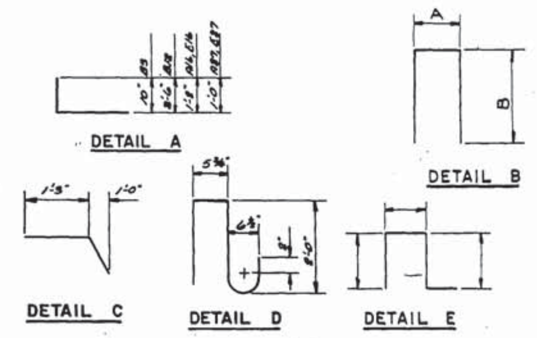
FORM E-B-12-62

S.P.R. DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	I90-1(45)5	22	40

BAR BENDING DETAILS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.
OMIT DETAILS WHERE DIMENSIONS ARE BLANK.

MARK	DIM. "A"	DIM. "B"
A8, E8	1'-4"	4'-1"
A9, E9	8"	2'-2"
A25, E25	5¾"	2'-7¾"
A32	4½"	2'-7"



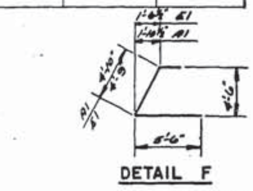
DETAIL A

DETAIL B

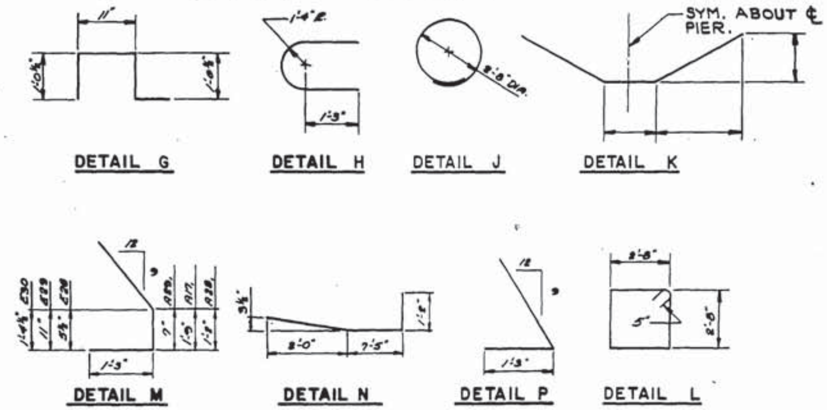
DETAIL C

DETAIL D

DETAIL E



DETAIL F



DETAIL G

DETAIL H

DETAIL J

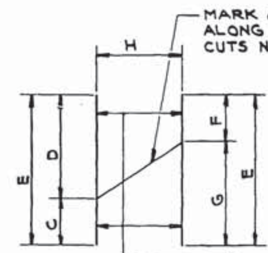
DETAIL K

DETAIL M

DETAIL N

DETAIL P

DETAIL L



"H" IS NUMBER OF BARS, BEFORE CUTTING.

MARK		C	D	E	F	G	H	SETS REQ'D.
S1	SET 1	———	17'-8"	35'-9"	2'-1"	———	43	2
	SET 2	18'-1"	———		———	33'-8"		2
S2	SET 3	———	17'-10"	36'-0"	2'-4"	———	45	2
	SET 4	18'-2"	———		———	33'-8"		2

CUT, BUNDLE & MARK. (MARK WITH BAR NO. & SET NO.)

BENT BARS, IF USED, IN CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.

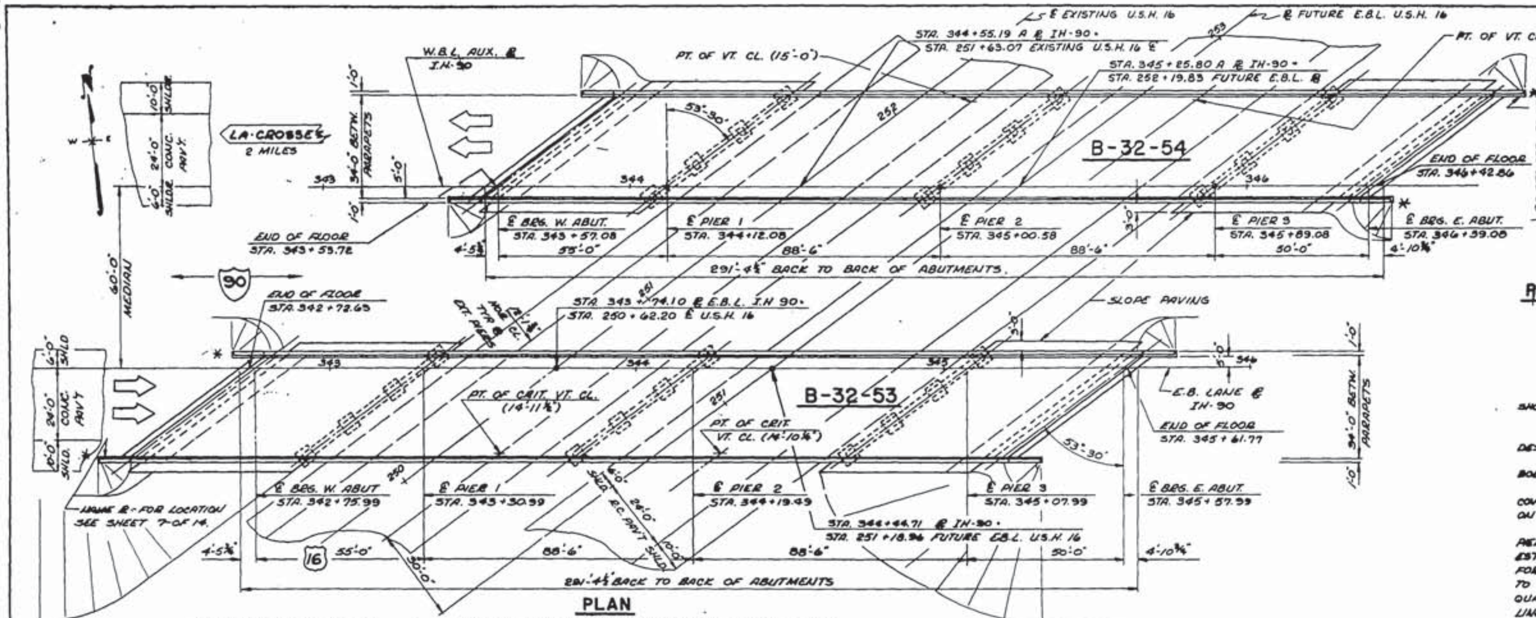
† CUTTING DIAGRAM

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	BILL OF BARS		
	DESIGN SPEC. A.A.S.H.O. 61	LOADING H520 M00	CONST. SPEC. 1963
	DATE 5-24-66 DESIGN S.B.	DRAWN R.T.G.	CKD. J.G.K.
STRUCTURE B - 32 - 53		SHEET 14 OF 14	

X35030

FORM E-B-11-62

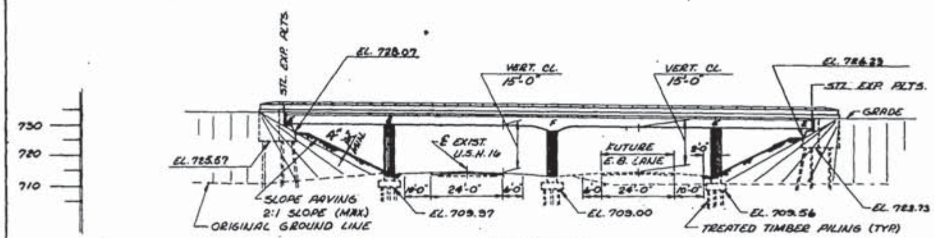
COUNTY & HIGHWAY	ROUTE & SECTION	CLASS & AGREEMENT STATE	CLASS & AGREEMENT FEDERAL	B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
72.3	90.1		13.1	4	I90-1(45)5	23	40



PLAN

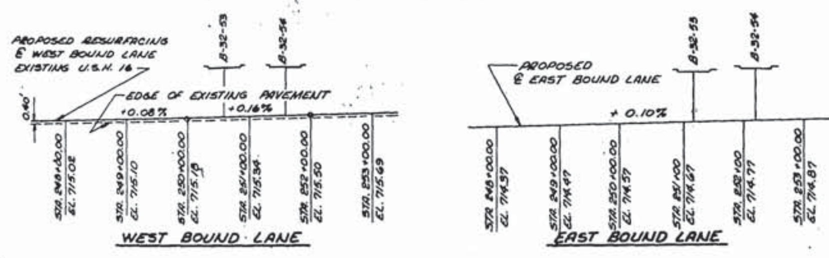
* ATTACH BEAM GUARD RAIL TO WING.

SUPERSTRUCTURE: 4-SPAN ON HAUNCHED STEEL GIRDERS
SUBSTRUCTURE: SILL ABUTMENTS ON TREATED TIMBER PILES & 4-COLUMN PIERS ON TREATED TIMBER PILES.

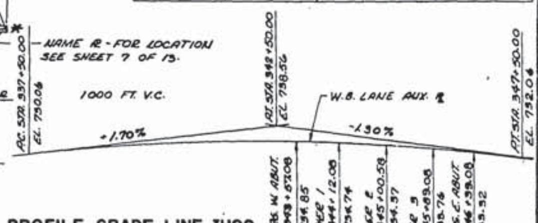


ELEVATION

NORMAL TO ℄ U.S.H. 16



PROFILE GRADE LINE U.S.H. 16



PROFILE GRADE LINE IH90 WEST BOUND LANE

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

BEVEL EXPOSED EDGES OF CONCRETE 1" UNLESS OTHERWISE SPECIFIED.

HOT-POURED ELASTIC TYPE JOINT SEALER SHALL CONFORM TO ASTM DESIGNATION, D1190.

ALL FIELD CONNECTIONS SHALL BE MADE OF ¾"φ HIGH TENSILE STRENGTH BOLTS UNLESS OTHERWISE SPECIFIED.

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 9 AND 10.

THE UPPER LIMITS FOR EXCAVATION FOR STRUCTURES AT THE PIERS IS CONSIDERED TO BE THE FINISHED GRADED SECTION AND THE ESTIMATED QUANTITY IS COMPUTED FROM THIS LINE. UPPER LIMITS FOR EXCAVATION FOR STRUCTURES AT THE ABUTMENTS IS CONSIDERED TO BE THE BOTTOM OF SLOPE PROTECTION AND THE ESTIMATED QUANTITY FOR EXCAVATION FOR STRUCTURES IS COMPUTED FROM THIS LINE.

LIST OF DRAWINGS

NOTE: FOR SUBSURFACE EXPLORATION USE B-32-53. SEE SHEET X35029.

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER	W. ABUT	PIER 1	PIER 2	PIER 3	E. ABUT	TOTAL
EXCAVATION FOR STRUCTURES	C.Y.	—	45	90	70	90	45	340
CONCRETE MASONRY	C.Y.	295.1	81.3	57.1	54.8	56.9	85.3	630.5
BAR STEEL REINFORCEMENT	LB	94310	2,510	6,710	6,220	6,560	2,610	118,920
STRUCTURAL CARBON STEEL	LB	109,300	—	—	—	—	—	109,300
STRUCTURAL LOW ALLOY STEEL	LB	119,800	—	—	—	—	—	119,800
LUBRICATED BRONZE PLATES	LB	238	—	—	—	—	—	238
BEARING PADS	S.F.	26	—	—	—	—	—	26
* UNTREATED TIMBER TEST PILING	L.S.	—	—	—	—	—	—	1
TREATED TIMBER PILING DEL	L.F.	—	1575	1980	1980	1980	1470	8985
TREATED TIMBER PILING DRIVEN	L.F.	—	1575	1980	1980	1980	1470	8985
TUBULAR RAILING - TYPE 'G'	L.F.	605	—	—	—	—	—	605
SLOPE PAVING - ~~CRUSHED STONE~~ CONCRETE	S.Y.	—	305	—	—	—	275	580
NON-BID ITEMS								
HARDWOOD TIMBER & BOLTS	EA.	—	1	—	—	—	1	2
ALUMINUM OR ZINC PLATE	S.F.	41	—	—	—	—	—	41

* 5 TEST PILES REQ'D. DRIVE 1-65'-0" TEST PILE @ EACH PIER & 1-75'-0" LONG @ EACH ABUT.

DESIGN DATA

LIVELOAD: HS-20 MOD.

ALLOWABLE DESIGN STRESSES:

CONCRETE MASONRY, GRADE AA — f_c = 1,400 p.s.i.
BAR STEEL REINFORCEMENT — f_s = 20,000 p.s.i.
STRUCTURAL STEEL
A.S.T.M. A36 — f_s = 20,000 p.s.i.
A.S.T.M. A441 ¾" AND UNDER — f_s = 27,000 p.s.i.
OVER ¾" TO 1½" INCL — f_s = 25,000 p.s.i.

FOUNDATION:

ABUTMENTS SHALL BE SUPPORTED ON TREATED TIMBER PILES. PILING WITH A MIN. BEARING CAPACITY OF 20 TONS PER PILE ~~AND EST. 75'-0" LONG @ W. ABUT & EST. 70'-0" LONG @ E. ABUT.~~

PIERS TO BE SUPPORTED ON TREATED TIMBER PILING WITH A MIN. BRG. CAPACITY OF 20 TONS/PILE, ~~EST. 65'-0" LONG.~~

~~PILING AT THE ABUTMENTS AND PIERS SHALL BE DRIVEN SO THAT FINAL TIP ELEVATION IS BELOW EL. 660.0.~~

TRAFFIC VOLUME

A.D.T. = 3,600 (1975 2-WAY)
D.H.V. = 1,490 (1975)

MINIMUM BEARING WAS REACHED AT 15' IN ABUTMENTS AND 20'-25' IN PIERS.

STATE HIGHWAY COMMISSION OF WISCONSIN

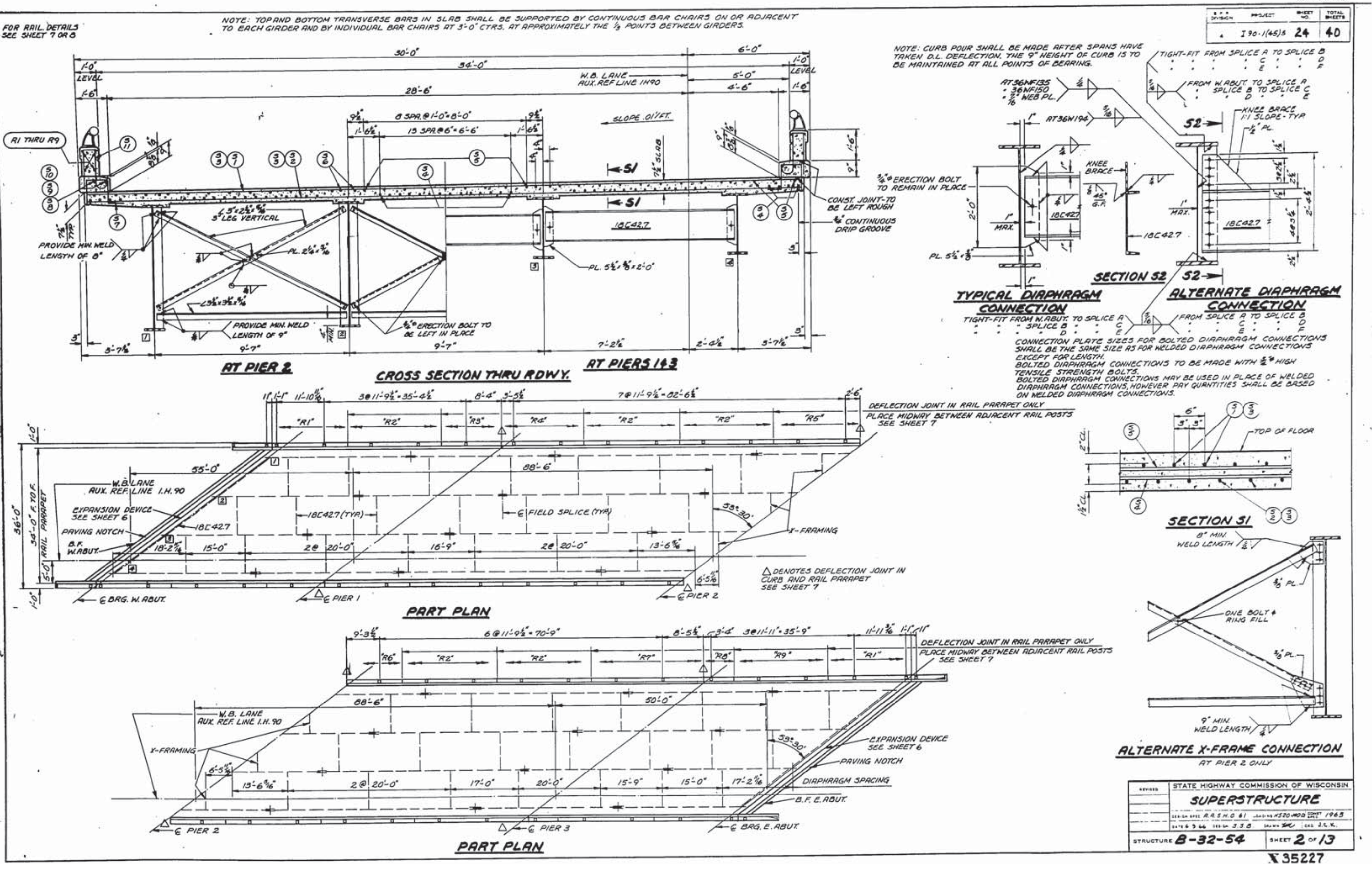
GENERAL PLAN

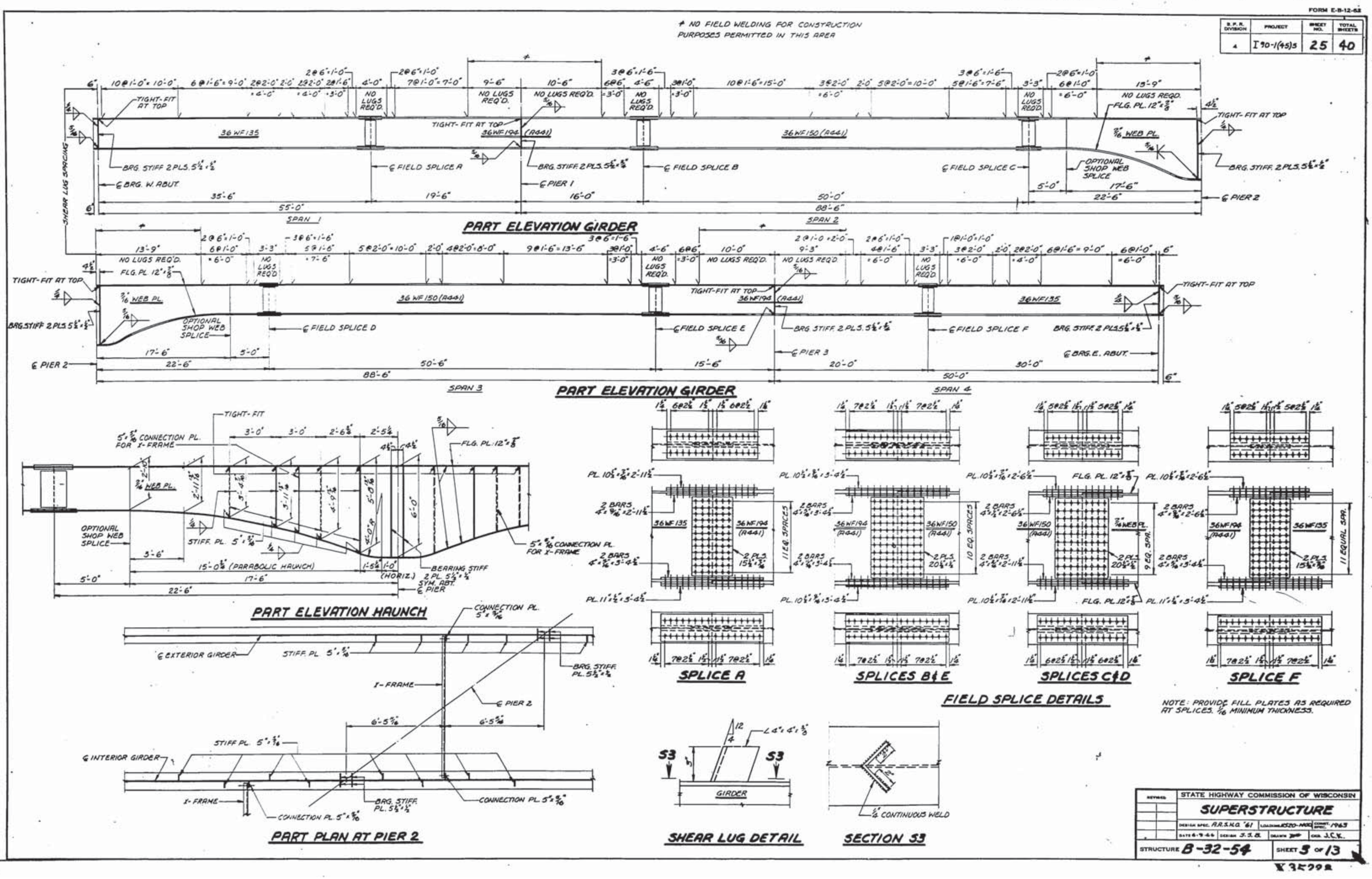
CO. LA-CROSSE — MEDARY — STA. 343+74.10 E.B.L.
SECTION 11 — TOWN 16N — RANGE 7W
DESIGN SPEC. A.A.S.H.O. '61 — LOADING HS-20 MOD. — CONST. 1963

RECOMMENDED H.B. Schultz CHIEF BRIDGE ENGINEER
APPROVED STATE HIGHWAY ENGINEER

STRUCTURE B-32-54 — SHEET 1 OF 13

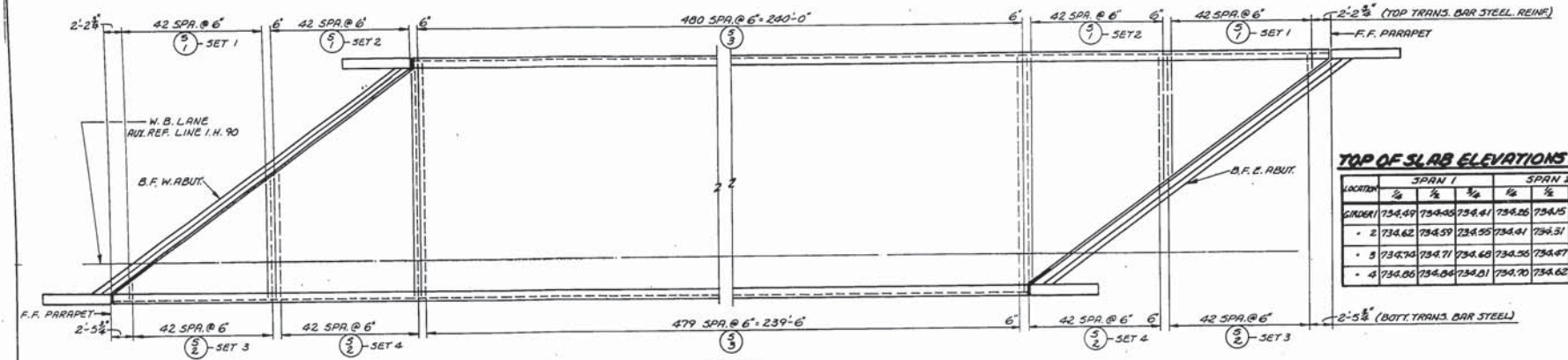
X35226


FORM E-B-12-62
STATE PROJECT I 90-1(45)3 SHEET NO. 24 TOTAL SHEETS 40
FOR RAIL DETAILS SEE SHEET 7 OR 8
NOTE: TOP AND 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" CTRS. AT APPROXIMATELY THE 1/3 POINTS BETWEEN GIRDERS.
NOTE: CURB POUR SHALL BE MADE AFTER SPANS HAVE TAKEN D.L. DEFLECTION. THE 9" HEIGHT OF CURB IS TO BE MAINTAINED AT ALL POINTS OF BEARING.
R1 THRU R9
W.B. LANE AUX. REF LINE IH90
SLOPE .01'/FT.
PROVIDE MIN. WELD LENGTH OF 8"
PROVIDE MIN. WELD LENGTH OF 9"
5/8"⌀ ERECTION BOLT TO BE LEFT IN PLACE
CONST. JOINT TO BE LEFT ROUGH
3/4" CONTINUOUS DRIP GROOVE
18C42.7
AT PIER 2
CROSS SECTION THRU RDWY.
AT PIERS 1 & 3
5/8"⌀ ERECTION BOLT TO REMAIN IN PLACE
KNEE BRACE
KNEE BRACE 1:1 SLOPE - TYP.
TYPICAL DIAPHRAGM CONNECTION
SECTION S2
ALTERNATE DIAPHRAGM CONNECTION
TIGHT-FIT FROM SPLICE A TO SPLICE B
FROM W. ABUT. TO SPLICE A
TIGHT-FIT FROM W. ABUT. TO SPLICE A
CONNECTION PLATE SIZES FOR BOLTED DIAPHRAGM CONNECTIONS SHALL BE THE SAME SIZE AS FOR WELDED DIAPHRAGM CONNECTIONS EXCEPT FOR LENGTH.
BOLTED DIAPHRAGM CONNECTIONS TO BE MADE WITH 3/4"⌀ HIGH TENSILE STRENGTH BOLTS.
BOLTED DIAPHRAGM CONNECTIONS MAY BE USED IN PLACE OF WELDED DIAPHRAGM CONNECTIONS, HOWEVER PAY QUANTITIES SHALL BE BASED ON WELDED DIAPHRAGM CONNECTIONS.
DEFLECTION JOINT IN RAIL PARAPET ONLY
PLACE MIDWAY BETWEEN ADJACENT RAIL POSTS SEE SHEET 7
TOP OF FLOOR
SECTION S1
EXPANSION DEVICE SEE SHEET 6
PAVING NOTCH
B.F. W. ABUT.
€ FIELD SPLICE (TYP)
X-FRAMING
△ DENOTES DEFLECTION JOINT IN CURB AND RAIL PARAPET SEE SHEET 7
€ BRG. W. ABUT.
€ PIER 1
€ PIER 2
PART PLAN
8" MIN. WELD LENGTH
ONE BOLT & RING FILL
9" MIN. WELD LENGTH
ALTERNATE X-FRAME CONNECTION
AT PIER 2 ONLY
DIAPHRAGM SPACING
B.F. E. ABUT.
€ PIER 3
€ BRG. E. ABUT.
PART PLAN
STATE HIGHWAY COMMISSION OF WISCONSIN
SUPERSTRUCTURE
DESIGN SPEC. A.A.S.H.O. 61 LOADING HS20-40 CONST. SPEC. 1965
STRUCTURE B-32-54
SHEET 2 OF 13
X 35227


FORM E-B-12-63
S.P.R. DIVISION 4
PROJECT I 90-1(45)5
SHEET NO. 25
TOTAL SHEETS 40
* NO FIELD WELDING FOR CONSTRUCTION PURPOSES PERMITTED IN THIS AREA
PART ELEVATION GIRDER
SPAN 1
SPAN 2
36 WF 135
36 WF 194 (A441)
36 WF 150 (A441)
NO LUGS REQ'D.
TIGHT-FIT AT TOP
BRG. STIFF 2 PLS. 5½ x ½
℄ FIELD SPLICE A
℄ FIELD SPLICE B
℄ FIELD SPLICE C
℄ BRG. W. ABUT.
℄ PIER 1
℄ PIER 2
OPTIONAL SHOP WEB SPLICE
FLG. PL. 12" x ⅞
5/16 WEB PL.
SHEAR LUG SPACING
PART ELEVATION GIRDER
SPAN 3
SPAN 4
℄ FIELD SPLICE D
℄ FIELD SPLICE E
℄ FIELD SPLICE F
℄ PIER 3
℄ BRG. E. ABUT.
PART ELEVATION HAUNCH
TIGHT-FIT
5" x 5/16 CONNECTION PL. FOR X-FRAME
STIFF. PL. 5" x 5/16
15'-0¾ (PARABOLIC HAUNCH)
BEARING STIFF 2 PL. 5½" x ½ SYM. ABT. ℄ PIER
PART PLAN AT PIER 2
CONNECTION PL. 5" x 5/16
℄ EXTERIOR GIRDER
℄ INTERIOR GIRDER
X-FRAME
BRG. STIFF. PL. 5½ x ½
SPLICE A
SPLICES B & E
SPLICES C & D
SPLICE F
FIELD SPLICE DETAILS
NOTE: PROVIDE FILL PLATES AS REQUIRED AT SPLICES. 1/16 MINIMUM THICKNESS.
SHEAR LUG DETAIL
L 4" x 4" x ⅜
GIRDER
SECTION S3
¼ CONTINUOUS WELD
STATE HIGHWAY COMMISSION OF WISCONSIN
SUPERSTRUCTURE
DESIGN SPEC. A.A.S.H.O. '61
STRUCTURE B-32-54
SHEET 3 OF 13
X 35292

FORM E-B-12-62

S. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	I90-1(45)5	26	40



PLAN

TOP OF SLAB ELEVATIONS AT QUARTER POINTS OF SPANS

LOCATION	SPAN 1			SPAN 2			SPAN 3			SPAN 4		
	¼	½	¾	¼	½	¾	¼	½	¾	¼	½	¾
GIRDER 1	734.49	734.45	734.41	734.26	734.15	734.05	733.75	733.57	733.39	733.07	732.95	732.82
" 2	734.62	734.59	734.55	734.41	734.31	734.20	733.98	733.76	733.59	733.29	733.17	733.05
" 3	734.76	734.71	734.68	734.56	734.47	734.36	734.11	733.96	733.79	733.50	733.39	733.27
" 4	734.86	734.84	734.81	734.70	734.62	734.52	734.28	734.16	733.98	733.71	733.60	733.49

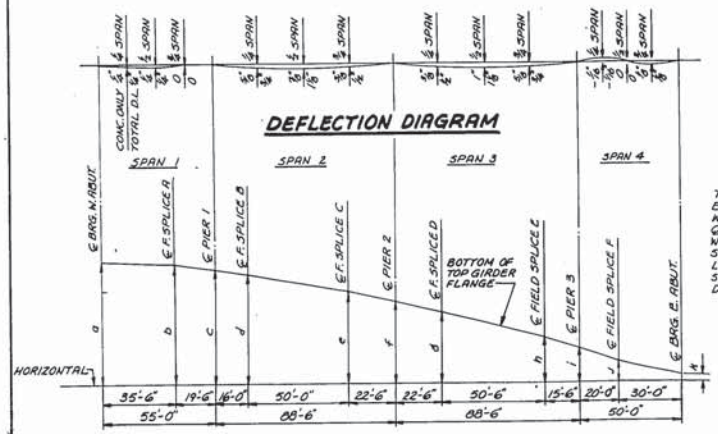
TOP OF SLAB ELEVATIONS

LOCATION	℄ BRG. W. ABUT.	℄ SPLICE A	℄ PIER 1	℄ SPLICE B	℄ SPLICE C	℄ PIER 2	℄ SPLICE D	℄ SPLICE E	℄ PIER 3	℄ SPLICE F	℄ BRG. E. ABUT.
GIRDER 1	734.53	734.43	734.36	734.29	734.03	733.89	733.73	733.35	733.19	733.00	732.69
" 2	734.65	734.56	734.50	734.44	734.20	734.07	733.92	733.54	733.40	733.22	732.92
" 3	734.77	734.69	734.64	734.58	734.37	734.24	734.10	733.74	733.61	733.44	733.15
" 4	734.88	734.82	734.77	734.72	734.53	734.41	734.28	733.95	733.81	733.65	733.37

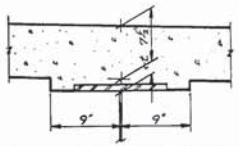
TOP OF STEEL ELEVATIONS

LOCATION	℄ BRG. W. ABUT.	℄ SPLICE A	℄ PIER 1	℄ SPLICE B	℄ SPLICE C	℄ PIER 2	℄ SPLICE D	℄ SPLICE E	℄ PIER 3	℄ SPLICE F	℄ BRG. E. ABUT.
GIRDER 1	733.87	733.84	733.73	733.71	733.42	733.25	733.12	732.76	732.56	732.40	732.03
" 2	733.99	733.98	733.88	733.86	733.59	733.41	733.31	732.96	732.78	732.63	732.26
" 3	734.11	734.11	734.01	734.01	733.75	733.59	733.49	733.17	732.98	732.84	732.49
" 4	734.22	734.24	734.15	734.15	733.91	733.75	733.67	733.36	733.19	733.05	732.71

THESE ELEVATIONS ARE TO TOP OF STEEL (TOP OF SPLICE PLS. AT SPLICE) AND THEY ARE FOR THE MATERIAL AS ERECTED. THE ELEVATION OF THE TOP OF STEEL AT THE FIELD SPLICE POINTS SHALL BE CHECKED AND CORRECTED, IF POSSIBLE, AFTER ERECTION AND BEFORE PERMANENTLY WELDING OR BOLTING THE DIAPHRAGMS IN PLACE.

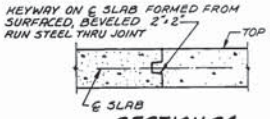


BLOCKING DIAGRAM

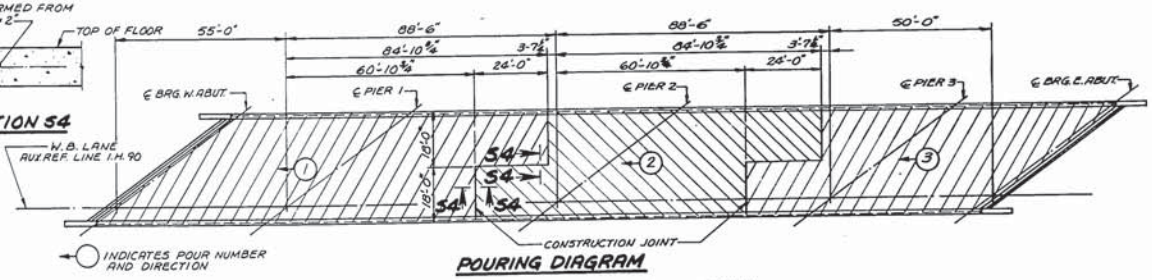


TO DETERMINE "t": AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES OR TOP OF SPLICE PLATES WHICHEVER APPLIES, SHALL BE TAKEN AT THE ℄ OF BEARINGS, ℄ OF FIELD SPLICES, AND AT QUARTER POINTS OF EACH SPAN WHICH ARE MORE THAN 6 FEET FROM A FIELD SPLICE. THESE ELEVATIONS SUBTRACTED FROM THE GRADE ELEVATIONS, ADJUSTED FOR THE DEAD LOAD DEFLECTION OF THE CONCRETE, MINUS THE SLAB DEPTH PLUS THE STEEL THICKNESS TO BOTTOM OF TOP FLANGE, EQUALS THE HAUNCH DEPTH "t".

SLAB THICKNESS DIAGRAM



SECTION S4



POURING DIAGRAM

DIMENSION	a	b	c	d	e	f	g	h	i	j	k
GIRDER 1	1'-10⅛"	1'-8⅛"	1'-7⅛"	1'-7⅛"	1'-4⅜"	1'-2⅝"	1'-0⅝"	0'-7⅜"	0'-5⅜"	0'-3⅜"	0
" 2	1'-8⅝"	1'-7⅛"	1'-6⅜"	1'-6⅜"	1'-3⅝"	1'-1⅝"	1'-0⅛"	0'-7⅜"	0'-5⅜"	0'-3⅜"	0
" 3	1'-7⅝"	1'-6⅜"	1'-5⅝"	1'-5⅝"	1'-2⅝"	1'-1⅛"	0'-11⅝"	0'-7⅝"	0'-5⅛"	0'-3⅜"	0
" 4	1'-6⅞"	1'-5⅝"	1'-4⅞"	1'-4⅞"	1'-1⅞"	1'-0⅝"	0'-11"	0'-6⅞"	0'-5⅛"	0'-3⅛"	0

NOTE: TWO OR MORE POURS MAY BE COMBINED AND THE TRANSVERSE CONSTRUCTION JOINTS OMITTED IF THE POUR FOR AN ENTIRE SPAN OR THE PORTION OF A SPAN TO A CONSTRUCTION JOINT CAN BE COMPLETED WITHIN FOUR HOURS AFTER CONCRETE OVER THE ADJACENT PIER IS PLACED.
DIRECTION OF POUR MAY BE REVERSED IF PORTION OF POUR FROM THE PIER CAN BE COMPLETED IN A FOUR HOUR PERIOD.

STATE HIGHWAY COMMISSION OF WISCONSIN

SUPERSTRUCTURE DETAILS

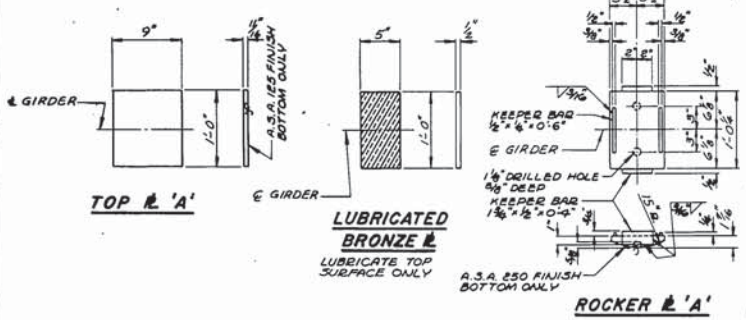
VERSION SPEC: A.A.S.H.O.'61 | LOADING: H20-M30 | CONST. SPEC.: 1963
DATE: 8-9-66 | REVISION: S.S.B. | DRAWN: TW | CKD.: J.C.K.

STRUCTURE 8-32-54 | SHEET 4 OF 13

X35229

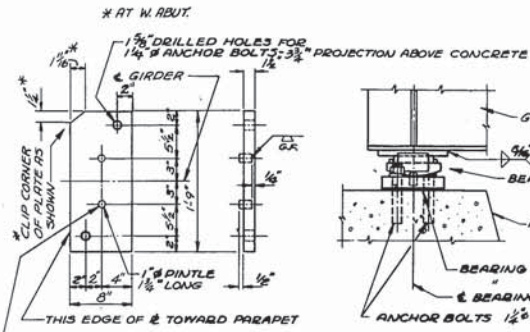
FORM E-B-12-62

S.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)5	27	40

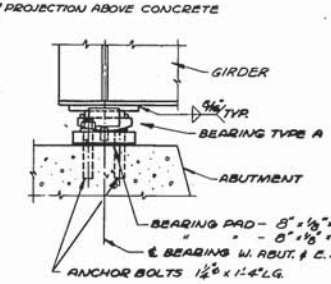


BEARING TYPE 'A'

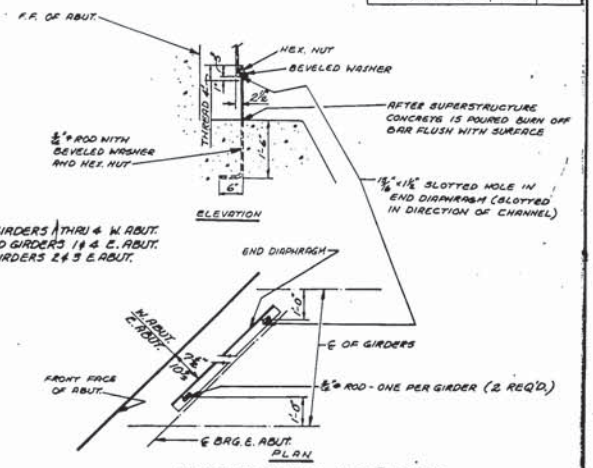
8 REQ'D.



AT GIRDERS 2 & 3 E. ABUT. USE ANCHOR BOLT & MASONRY PLATE DETAILS AS SHOWN ON SHEET 6.



BEARING TYPE 'A' ASSEMBLY

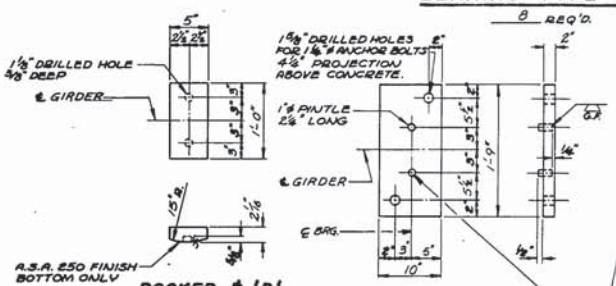


PLACE AT GIRDERS 1 & 4 @ E. ABUT.

TEMPORARY HOLD DOWN DEVICE

(TO BE PAID FOR AS STRUCT. CARBON STEEL.)

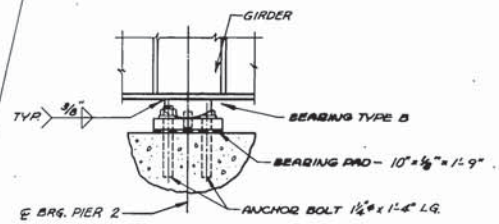
IF POURING SEQUENCE IS REVISED TO TERMINATE AT W. ABUT. PLACE TEMPORARY HOLD DOWN DEVICE AT EACH GIRDER AT WEST ABUT.



BEARING TYPE 'B'

4 REQ'D.

1" ø PINTLE – DRILL PLATE FOR DRIVING FIT CHAMFER TOP OF PINTLE ⅛



BEARING TYPE 'B' ASSEMBLY

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.

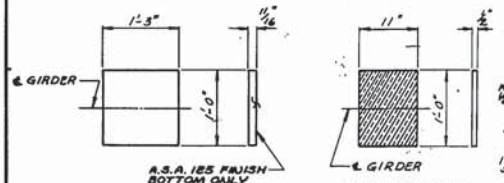
ALL SURFACES MARKED ƒ SHALL BE MACHINE FINISHED.

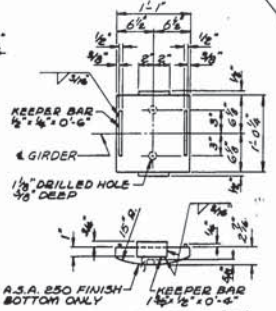
ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX. NUT PER BOLT.

ALL MATERIAL EXCLUDING ANCHOR BOLTS, NUTS AND WASHERS SHALL BE MADE OF A 242 STEEL WITH A CORROSIVE RESISTANCE OF 4 OR MORE TIMES THAT OF A 36 STEEL.

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

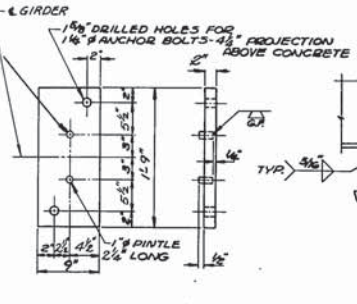
ALL MATERIAL IN BEARINGS, INCLUDING SHIMS BUT EXCLUDING BRONZE PLATES AND BEARING PADS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR STRUCTURAL LOW ALLOY STEEL.

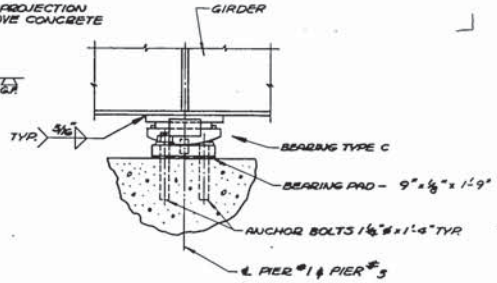




BEARING TYPE 'C'

8 REQ'D.





BEARING TYPE 'C' ASSEMBLY

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

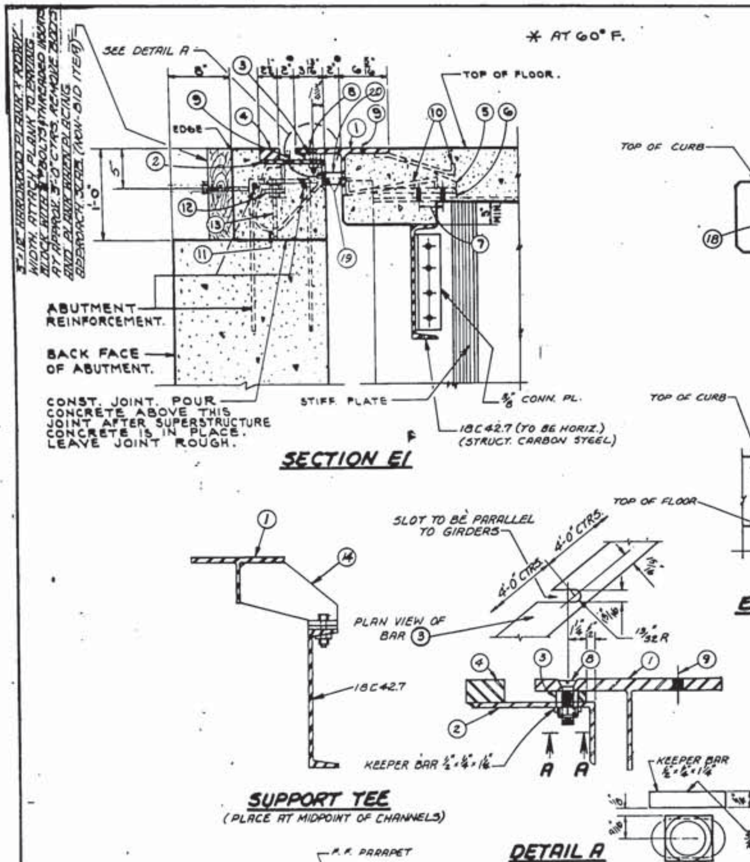
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	BEARING DETAILS
	DESIGN SPEC. A.R.S.H.O. '61 LOADING —— CONST. SPEC. 1963
	DATE 6-3-66 DESIGN —— DRAWN TMF CHD. J.C.K.
	STRUCTURE B-32-54 SHEET 5 OF 13

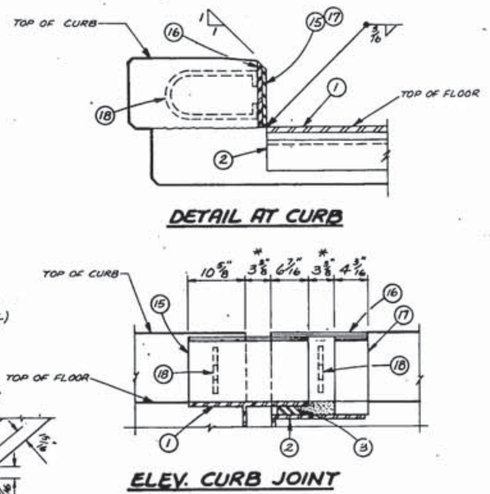
X 35230

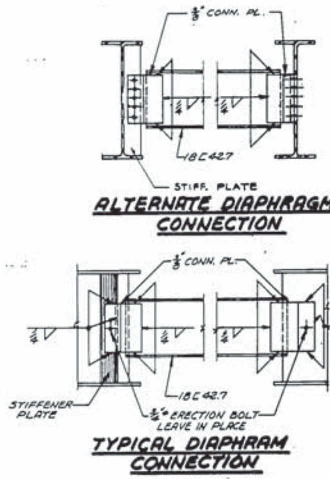
* AT 60° F.

* LONG. DIM. OF 13/16" x 1 1/2" SLOTTED HOLE PARALLEL TO REF. LINE

F.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	I90-1(45)5	28	40







LEGEND

1. S.T. 6" W.F. 35.5# x ROADWAY WIDTH.
*2. ∠ 8" x 4" x 7/16" x ROADWAY WIDTH.
3. BAR 2" x 3/4" x RDWY. WIDTH. WELD TO ∠#2 WITH 2 LINES OF 1/4" FILLET WELD. 2 @ 6.
4. BAR 2 1/2" x 1 1/2" x RDWY. WIDTH. WELD TO ∠#2 WITH 2 LINES OF 1/4" FILLET WELD. 2 @ 6.
5. FABRICATE FROM 3/8" WELDED PLATE. WELD TO STEM & FLG. OF S.T.#1 WITH 1/4" FILLET WELD NEAR AND FAR SIDE.
6. 5/16" MIN. LAMINATED & SLOTTED SHIM.
7. DRILL HOLES IN STRINGER FLG. IN FIELD FOR 3/4"Φ BOLTS.
8. 3/4" FLAT HD. CAP SCREW x 0'-2 3/4" WITH SQ. NUT @ 4'-0" CTRS. GREASE FOR EASY REMOVAL. 1/4" x 1/2" x 1 1/4" KEEPER BAR-WELD TO ∠#2 TO KEEP SQ. NUT FROM TURNING. 13/16" x 1 1/2" SLOTTED HOLE IN ∠#2. 13/16"Φ HOLE CSK. 3/16 DEEP IN ST#1. 13/16 SLOT IN BAR #3 & ∠#2 AS SHOWN. (HOLE IN ∠#2 PARALLEL TO GIRDERS)
9. VENT HOLES. 13/16"Φ PLACED AT 2'-0" CENTERS ON ∠#2 AND S.T.#1
10. 5/8"□ BENT BAR @ 0'-9" ALTERNATE CENTERS BETWEEN GIRDERS. 1'-3" LONG. WELD TO S.T.#1.
11. 5/8"□ BENT BAR @ 1'-0" CENTERS. 2'-0" LONG. WELD TO ∠#2.
12. ∠ 3" x 2 1/2" x 3/8" x 0'-3" @ 3'-0" CENTERS. WELD TO ∠#2. PROVIDE 5/8"Φ HOLE IN 2 1/2" LEG FOR BOLT #13.
13. 1/2"Φ BOLT x 0'-9" LG & NUT. TACK WELD NUT TO ∠#12.
14. SUPPORT TEE - FABRICATE FROM 3/8 PL. WELD TO ST#1
15. 3/8" PL. - CHAMFER AS SHOWN
16. 3/8" PL. - CHAMFER AS SHOWN
17. 3/8" PL. - CHAMFER AS SHOWN. WELD TO PL.#16 } WITH 1 LINE OF 3/16 FILLET WELD. FIELD WELD TO BAR 4
18. 5/8"□ BENT BAR x 1'-3" LG. WELD TO PL.#15 & PL.#16
19. PROVIDE 9/16"Φ HOLES AT 3'-0" CTRS. FOR BOLT #20
20. BLOCK & BOLT FOR SHIPMENT WITH PIPE SLEEVE AND 1/2"Φ BOLT PROVIDE 9/16"Φ HOLES AT 3'-0" CTRS. IN ST#1 & ∠#2 FOR 1/2"Φ BOLT.

NOTES

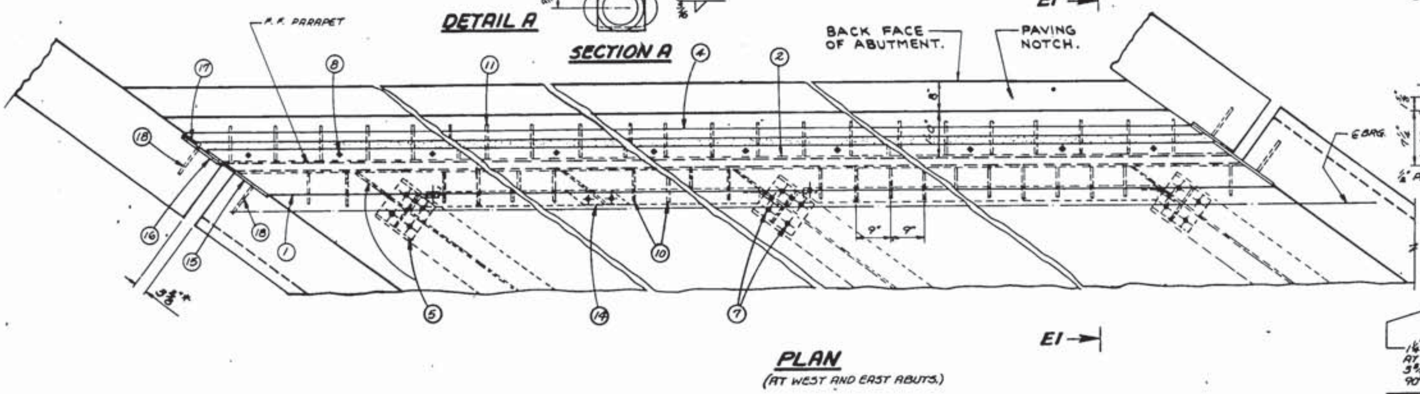
EXPANSION JOINT SHALL BE BUILT TO CONFORM TO RDWY. CROWN & GRADE.

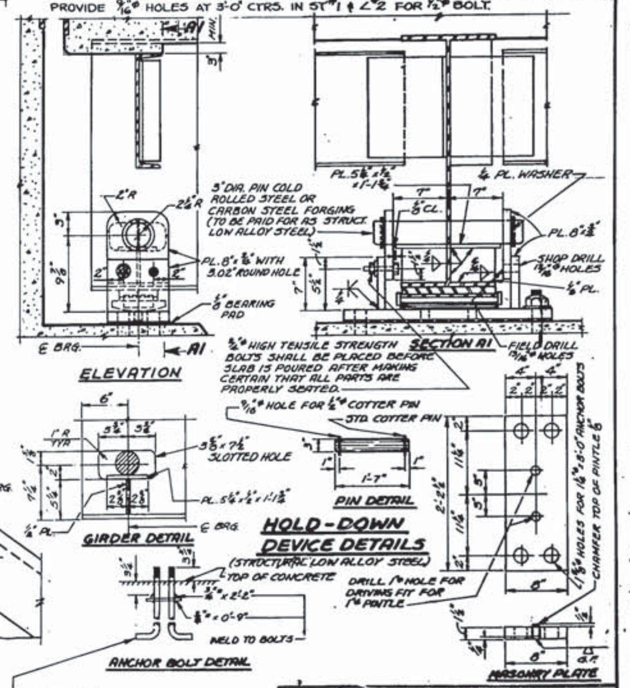
AFTER CONCRETE HAS SET REMOVE BOLTS NO. 8 AND FILL HOLES WITH HOT POURED ELASTIC TYPE JOINT SEALER.

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

ONE FIELD SPLICE IS PERMITTED IN JOINTS OVER 30 FT. IN LENGTH.

ALL MATERIAL IN EXPANSION JOINT SHALL BE PAID FOR AS STRUCTURAL CARBON STEEL.





1 1/4"Φ x 3'-0" PRESET ANCHOR BOLTS AT HOLD-DOWN DEVICES ONLY 3 3/4" PROJECTION ABOVE CONCRETE 90° BEND 4" LONG AT END OF BOLT

NOTE: PLACE HOLD-DOWN DEVICES AT BEAMS 2 & 3 AT E. ABUT. ONLY

STATE HIGHWAY COMMISSION OF WISCONSIN

EXPANSION JOINT AND HOLD-DOWN DEVICE

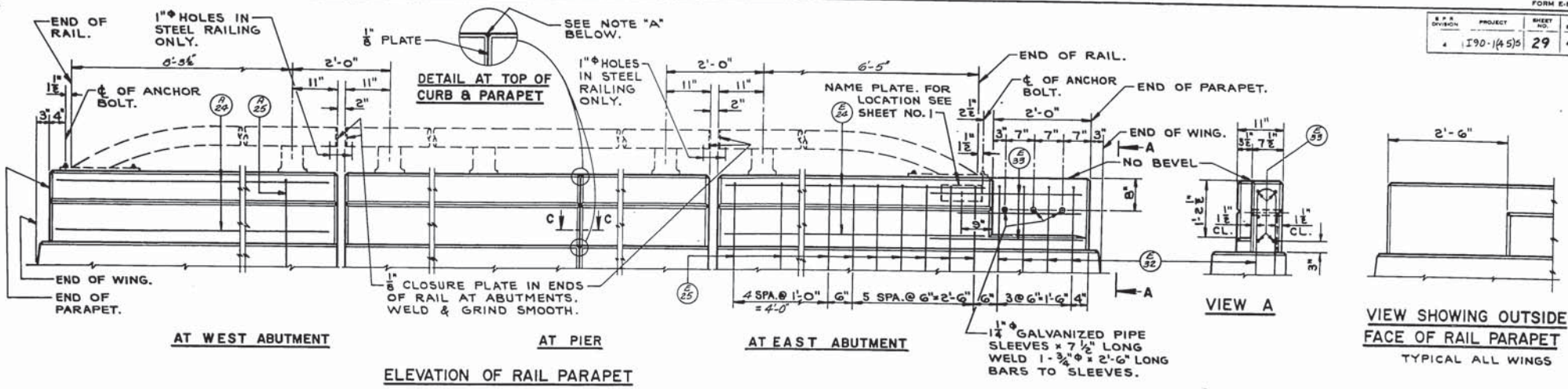
A.A.S.H.O. '61 — 1963 — 6-9-64 — ST'D. — J.C.K.

STRUCTURE B-32-54 — SHEET 6 OF 13

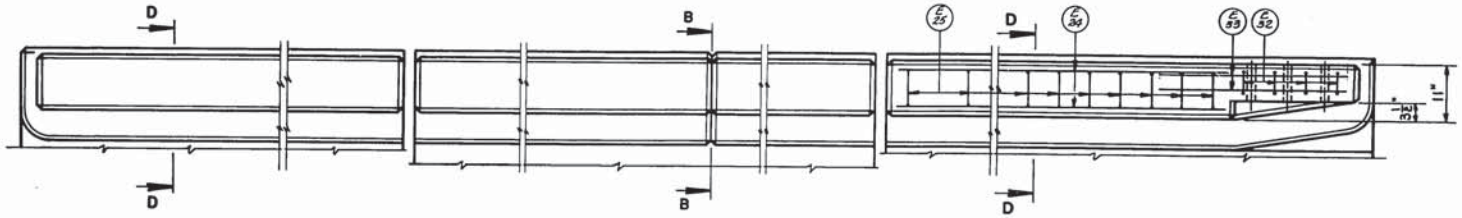
X 35231

FORM E-B-12-62

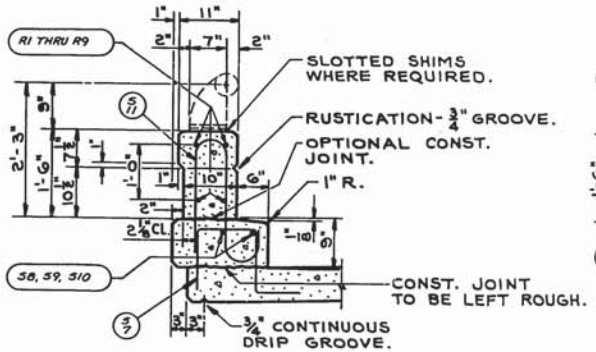
E.P.S. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I90-1(45)5	29	40



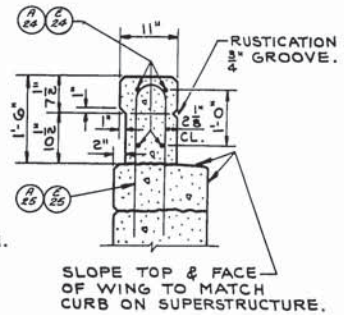
ELEVATION OF RAIL PARAPET



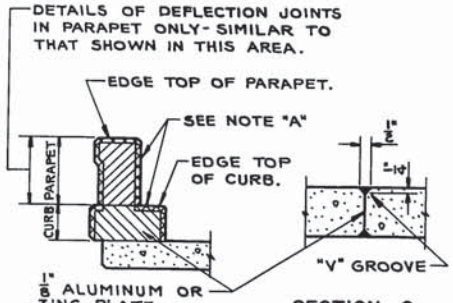
PLAN OF RAIL PARAPET



SECTION THRU PARAPET & CURB ON BRIDGE



SECTION D



SECTION B
SHOWING DEFLECTION JOINT IN CURB AND PARAPET AT PIERS.

SECTION C

NOTES

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.

COST OF 1 1/4"Φ GALVANIZED PIPE SLEEVES AND 3/4"Φ BARS TO BE INCLUDED IN UNIT PRICE BID FOR CONCRETE MASONRY.

WORK THIS SHEET WITH SHEET TITLED "DETAILS FOR TYPE "G" TUBULAR ALUMINUM AND STEEL RAILING".

ALL POST SPACINGS ARE TAKEN HORIZONTALLY ALONG ℄ OF RAILING AT BASE OF POSTS. ALL POSTS SHALL BE SET NORMAL TO GRADE.

NOTE "A": FILL WITH NON-STAINING GRAY TWO COMPONENT POLYSULFIDE LIQUID POLYMER (GUN GRADE) WITH SURFACE PRIMER, CONFORMING TO A.S.A.-A-116.1-1960.

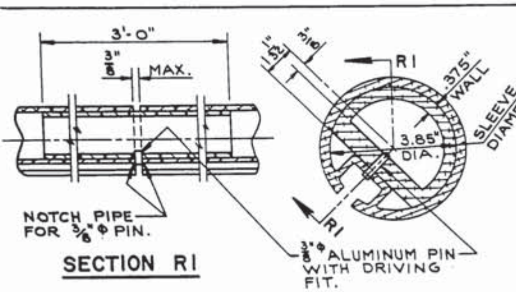
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN	
	RAIL PARAPET DETAILS	
	DESIGN SPEC. A.A.S.H.O. '61 LOADING ——	CONST. SPEC. 1963
	DATE 6-5-62 DESIGN —— DRAWN JMC	CKD. J.C.K.
STRUCTURE B-32-54	SHEET 7 OF 13	

X 35232

FORM E-8-12-62

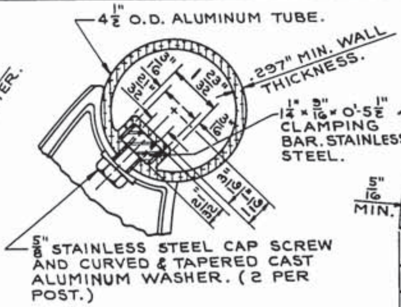
S.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)5	30	40

ALUMINUM RAILING DETAILS

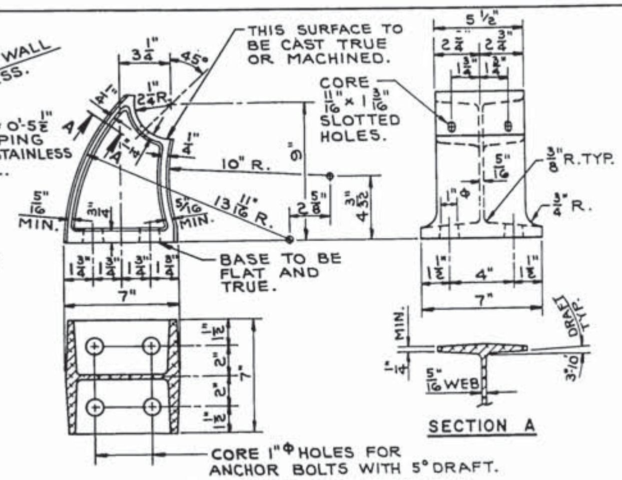


SECTION R1

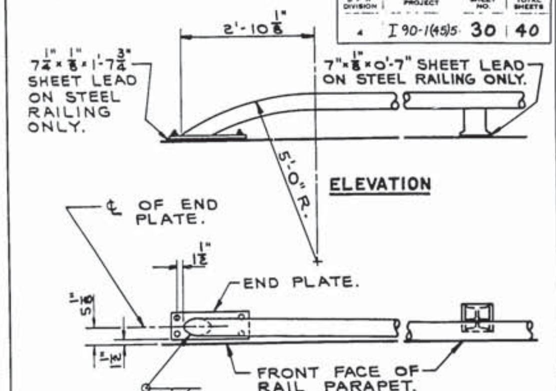
RAIL SPLICE DETAIL



DETAIL OF RAIL ATTACHMENT TO POST

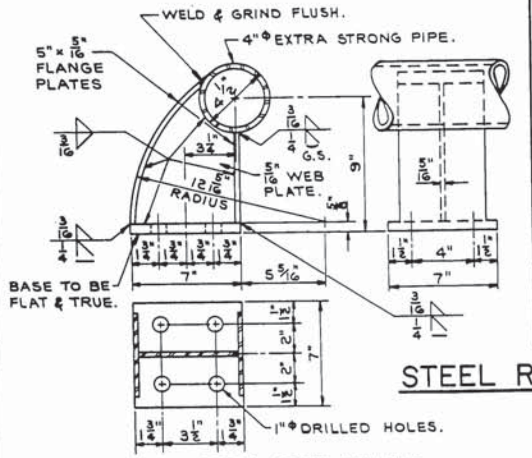


ALUMINUM POST CASTING



DETAIL OF RAIL BEND AT ABUTMENTS

STEEL RAILING DETAILS



STEEL POST DETAILS

NOTES

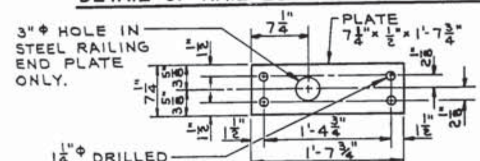
RAILING SPLICES SHALL BE LOCATED SUCH THAT ℄ OF SPLICE IS 1/6 PANEL LENGTH ±4" OFF NEAREST POST.

ALUMINUM SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQUIRED FOR ALIGNMENT.

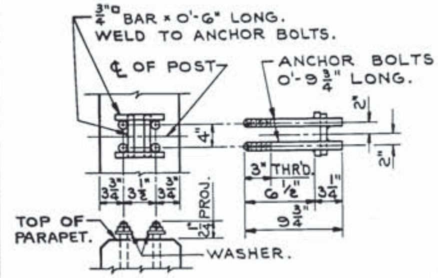
RAILING SHALL BE FABRICATED IN TWO AND THREE PANEL LENGTHS.

ANCHOR BOLTS, NUTS & WASHERS TO BE STAINLESS STEEL.

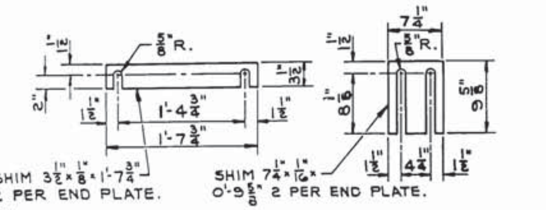
WALL THICKNESS OF TUBING SHOWN ABOVE SHALL BE MINIMUM NOMINAL AVERAGE WALL THICKNESS.



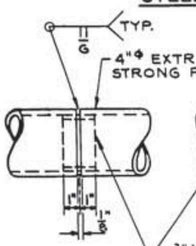
END PLATE



AT POSTS

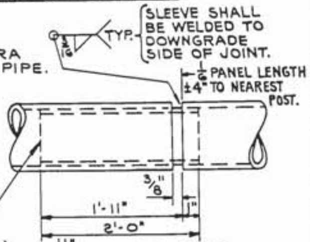


END PLATE SHIM DETAILS



SHOP RAIL SPLICE DETAIL

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



FIELD ERECTION JOINT DETAIL

NOTES

RAILING SHALL BE FABRICATED IN 2 & 3 PANEL LENGTHS.

STEEL SHIMS SHALL BE USED UNDER POSTS AND UNDER END PLATES WHERE REQUIRED FOR ALIGNMENT.

THE FOLLOWING MATERIALS SHALL BE USED:

RAILING SHALL BE 4" Φ EXTRA STRONG PIPE CONFORMING TO ASTM DESIGNATION A53, GRADE B.

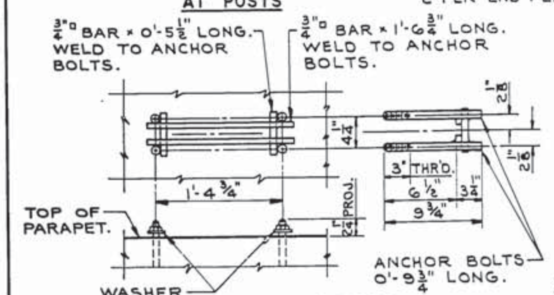
SLEEVES SHALL BE 3 3/4" Φ O.D. x 11/32" THICK SEAMLESS MECHANICAL TUBING MADE OF STEEL WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 60,000 P.S.I. AND A MINIMUM ELONGATION OF 10%.

POSTS SHALL BE FABRICATED FROM MATERIAL CONFORMING TO ASTM DESIGNATION A36.

ANCHOR BOLTS TO BE MADE FROM MATERIAL CONFORMING TO ASTM A307.

CAULK EXPOSED OPENINGS BETWEEN SHIMS WITH LEAD WOOL.

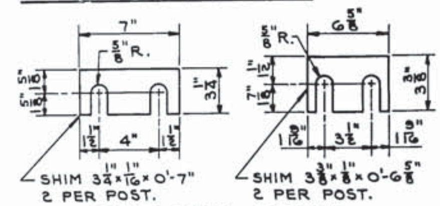
GALVANIZE ENTIRE RAILING AFTER FABRICATION INCLUDING NUTS, WASHERS, SHIMS AND TOP 3 1/2" OF ANCHOR BOLTS.



AT END PLATE

ANCHOR BOLT SETTING DETAILS

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



POST SHIM DETAILS

WORK THIS SHEET WITH SHEET TITLED "RAIL PARAPET DETAILS"

STATE HIGHWAY COMMISSION OF WISCONSIN

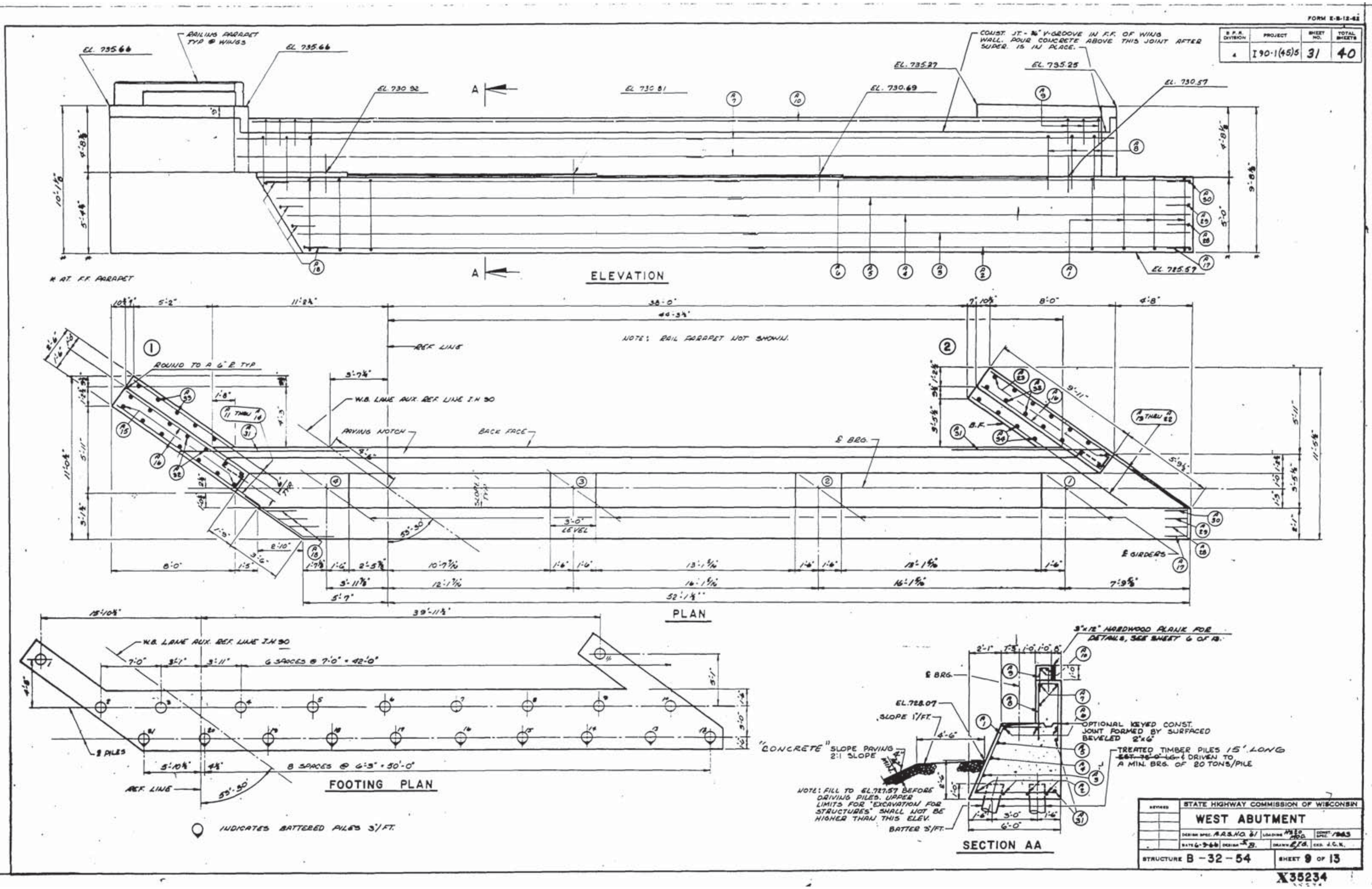
DETAILS FOR TYPE "G" TUBULAR ALUMINUM & STEEL RAILING

DESIGN SPEC. A.A.S.H.O. '61 | LOADING — | CONST. SPEC. 1965

DATE 6-9-66 | DESIGN — | DRAWN ZO | CKD. J.C.K.

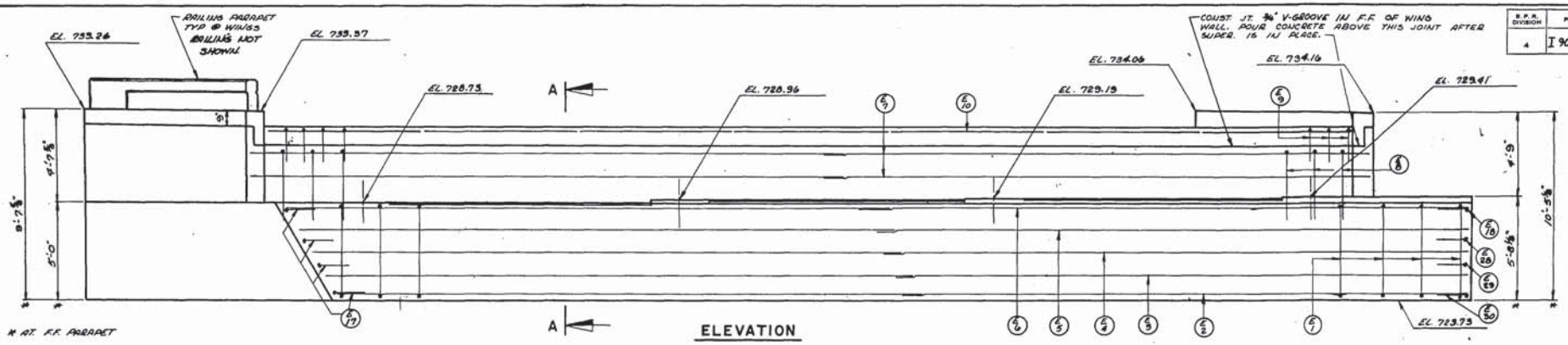
STRUCTURE B-32-54 | SHEET 8 OF 13

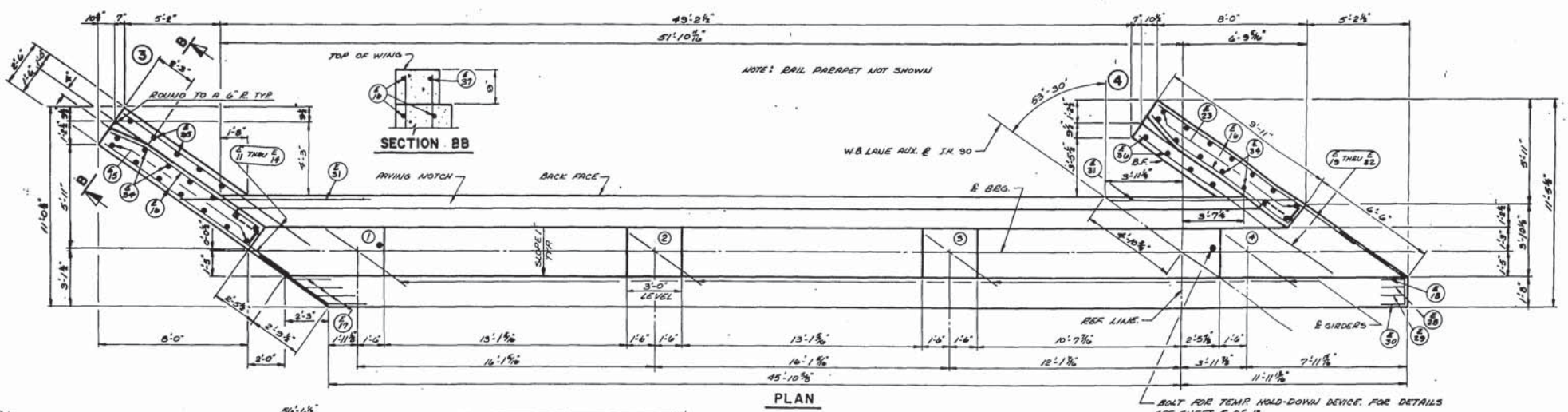
X 35233

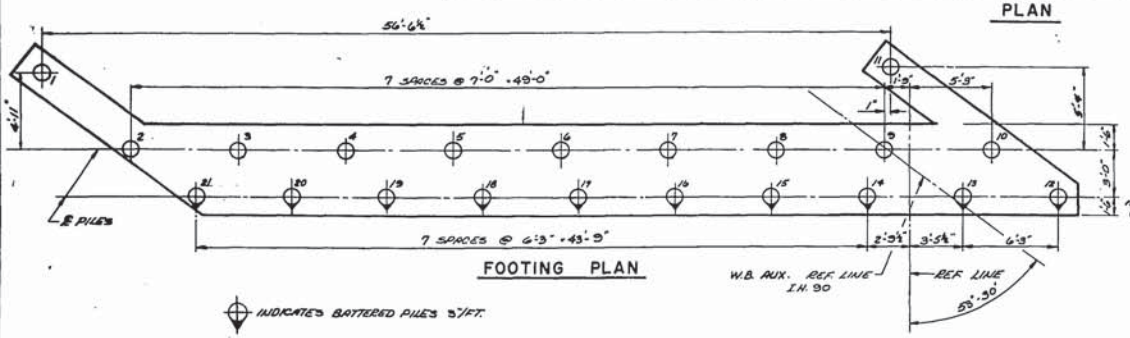

FORM E-8-12-62
B.P.R. DIVISION 4
PROJECT I90-1(45)5
SHEET NO. 31
TOTAL SHEETS 40
RAILING PARAPET TYP @ WINGS
EL. 735.66
EL. 735.66
CONST. JT. - ¾" V-GROOVE IN F.F. OF WING WALL. POUR CONCRETE ABOVE THIS JOINT AFTER SUPER. IS IN PLACE.
EL. 735.27
EL. 735.25
EL. 730.92
EL. 730.81
EL. 730.69
EL. 730.57
EL. 725.57
* AT F.F. PARAPET
ELEVATION
NOTE: RAIL PARAPET NOT SHOWN.
REF. LINE
ROUND TO A 6" R. TYP.
W.B. LANE AUX. REF. LINE I.H. 30
PAVING NOTCH
BACK FACE
℄ BRG.
B.F.
3'-0" LEVEL
55°-30'
℄ GIRDERS
44'-3¼"
38'-0"
52'-1⅛"
PLAN
W.B. LANE AUX. REF. LINE I.H. 30
6 SPACES @ 7'-0" = 42'-0"
8 SPACES @ 6'-3" = 50'-0"
2 PILES
REF. LINE
55°-30'
FOOTING PLAN
INDICATES BATTERED PILES 3"/FT.
3"x12" HARDWOOD PLANK FOR DETAILS, SEE SHEET 6 OF 13.
℄ BRG.
EL. 728.07
SLOPE 1"/FT.
"CONCRETE" SLOPE PAVING 2:1 SLOPE
OPTIONAL KEYED CONST. JOINT FORMED BY SURFACED BEVELED 2"x6"
TREATED TIMBER PILES 15' LONG DRIVEN TO A MIN. BRG. OF 20 TONS/PILE
NOTE: FILL TO EL. 727.57 BEFORE DRIVING PILES. UPPER LIMITS FOR "EXCAVATION FOR STRUCTURES" SHALL NOT BE HIGHER THAN THIS ELEV.
BATTER 3"/FT.
SECTION AA
STATE HIGHWAY COMMISSION OF WISCONSIN
WEST ABUTMENT
STRUCTURE B-32-54
SHEET 9 OF 13
X35234

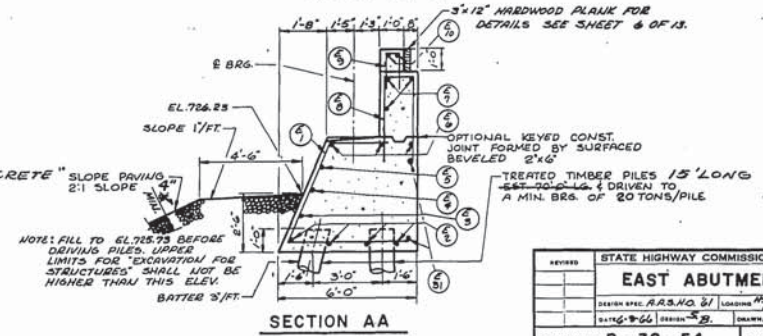
FORM E-8-12-62

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)5	32	40







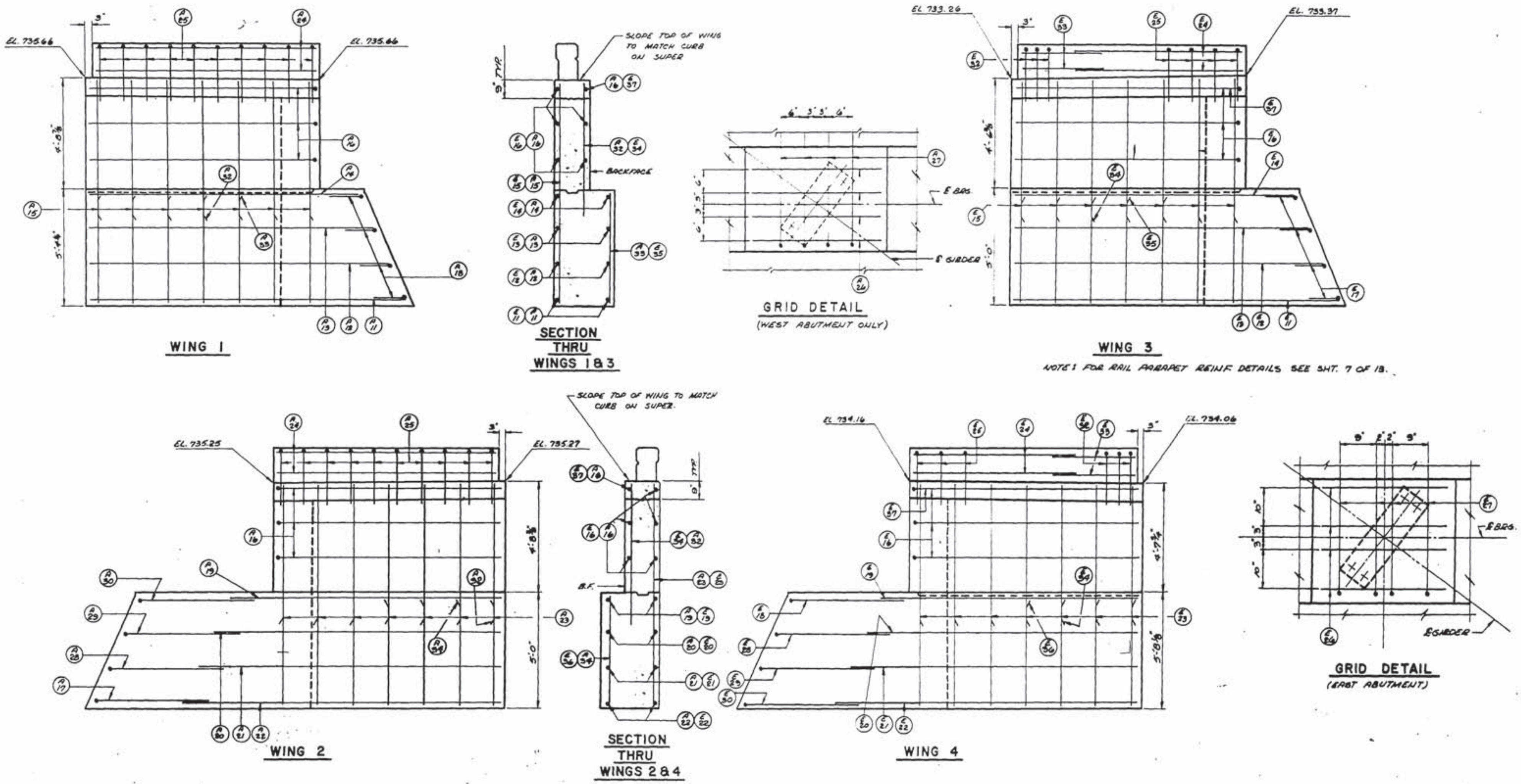


REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	EAST ABUTMENT
DESIGN SPEC. A.A.S.H.O. '61	LOADING H20-S16-44
DATE 6-8-66	DESIGN J.B.
DRAWN E.F.G.	CHD. J.C.K.
STRUCTURE B-32-54	SHEET 10 OF 13

X35235

FORM E-8-12-62

F.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)3	33	40



NOTE: FOR RAIL PARAPET REINF. DETAILS SEE SHT. 7 OF 13.

STATE HIGHWAY COMMISSION OF WISCONSIN

ABUTMENT DETAILS

DESIGN SPEC. A.A.S.H.O. '61 | LOADING HS20 MOD. | CONST. SPEC. 1963

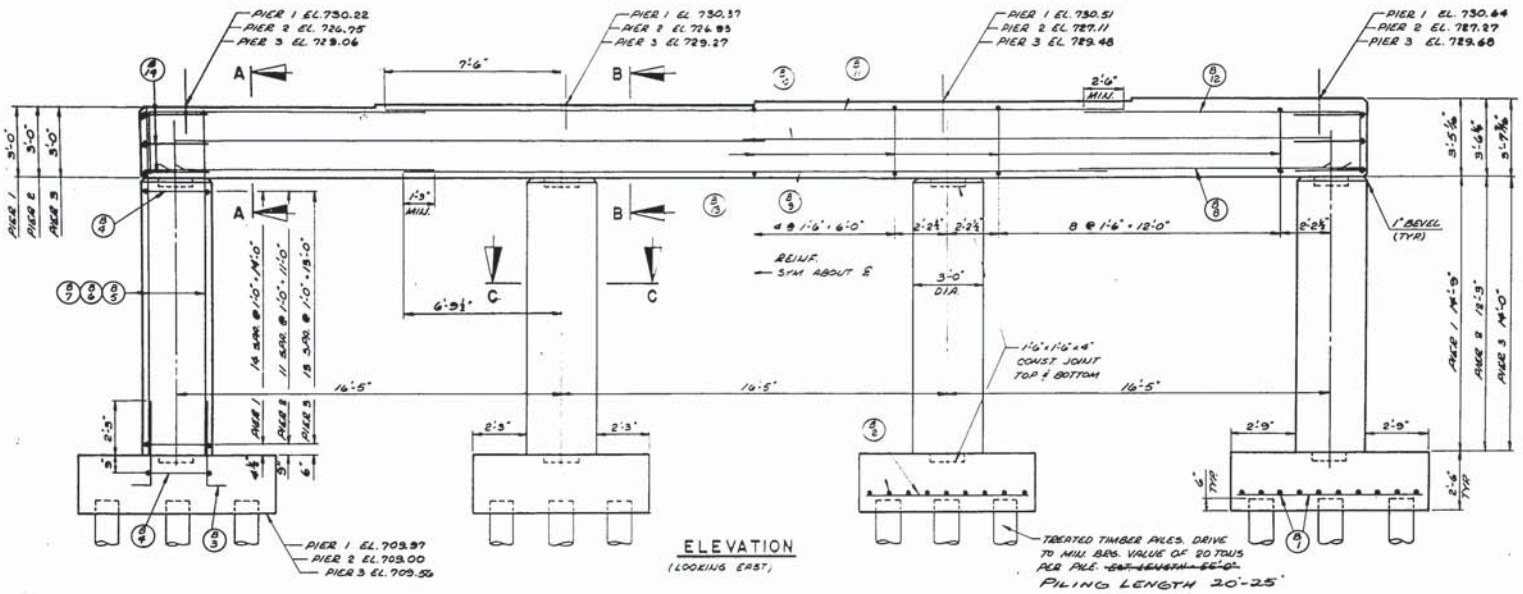
DATE 6-3-64 | DESIGN | DRAWN | CKD. J.C.K.

STRUCTURE B-32-54 | SHEET 11 OF 13

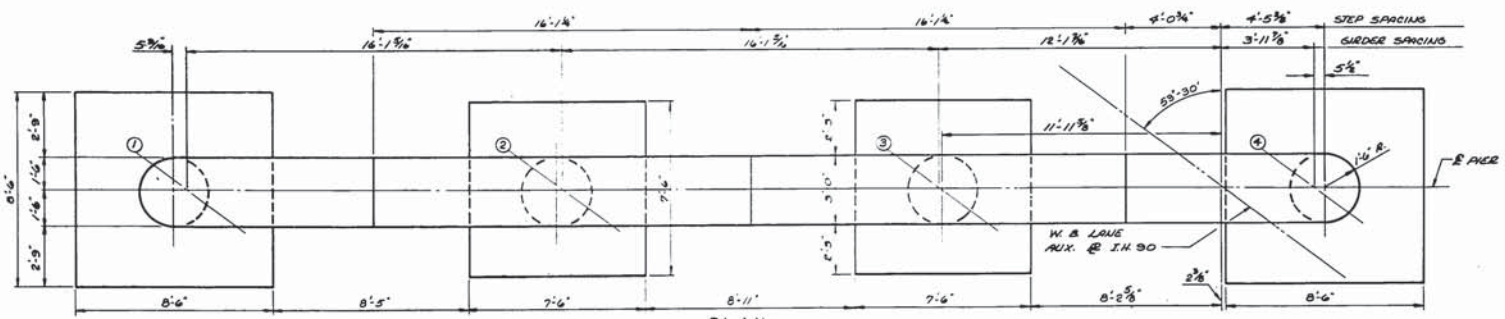
X 35236

FORM E-B-12-62

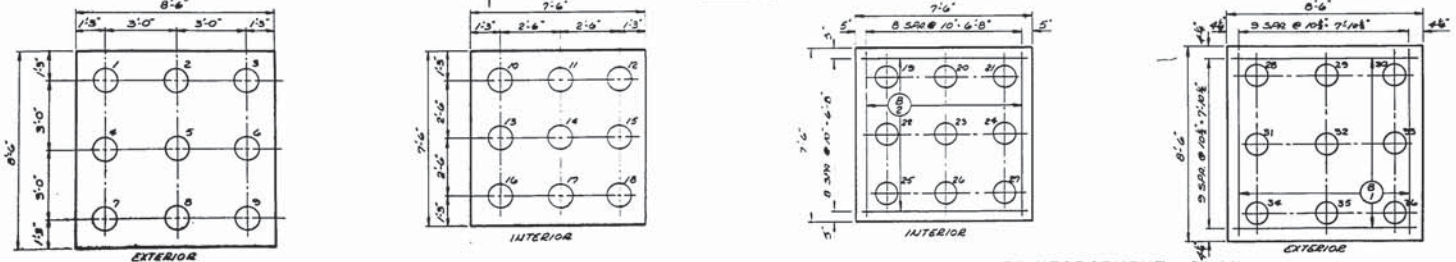
S. R. S. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)5	34	40



ELEVATION
(LOOKING EAST)

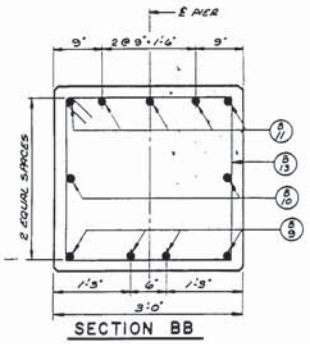


PLAN

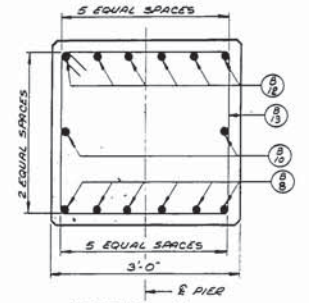


FOOTING PLAN

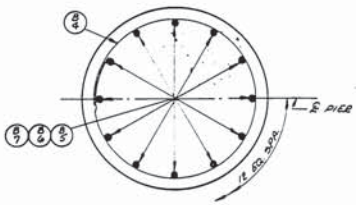
REINFORCEMENT PLAN



SECTION BB



SECTION AA



SECTION CC

CONCRETE MASONRY

	PIER 1	PIER 2	PIER 3
FOOTINGS	23.3 C.Y.	23.3 C.Y.	28.8 C.Y.
COLUMNS	15.4 C.Y.	12.8 C.Y.	14.7 C.Y.
CAPS	18.4 C.Y.	18.7 C.Y.	10.9 C.Y.
TOTAL	57.1 C.Y.	54.8 C.Y.	54.9 C.Y.

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	PIERS 1, 2, & 3
	DESIGN SPEC. A.A.S.H.O. '61 LOADING M 18.80 M 22.0 CONST. SPEC. 1965
	DATE 6-9-64 DESIGN JS DRAWN R.T.S. CKD. J.C.K.
	STRUCTURE B – 32 – 54 SHEET 12 OF 13

X35237

FORM E-B-12-62

B.P.R. DIVISION	PROJECT	SHEET NO	TOTAL SHEETS
4	I90-1(45)5	35	40

SUPERSTRUCTURE 94,310

POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
	S 1	86	6	35-9	6	Floor-Top-Transverse	†
	S 2	86	6	36-0	6	" Bottom-Transverse	†
	S 3	961	6	35-0	6	" "	
	S 4	400	5	36-9	Shown	" " Longitudinal	
	S 5	264	5	36-9	"	Top-Longitudinal	
	S 6	24	5	15-0	"	" " Symmetrical about ℄ Piers	
	S 7	564	5	3-9	1-0	Curb-Transverse	G
	S 8	8	5	28-9	Shown	" Longitudinal-Span 1	
	S 9	24	5	30-3	"	" " Spans 2 & 3	
	S10	8	5	26-3	"	" " Span 4	
	S11	564	5	5-0	1-0	" & Rail Parapet	D
	R 1	16	5	18-3	Shown	Rail Parapet	
	R 2	40	5	23-3	"	" "	
	R 3	8	5	13-9	"	"	
	R 4	8	5	20-9	"	" "	
	R 5	8	5	19-9	"	" "	
	R 6	8	5	14-9	"	"	
	R 7	8	5	25-9	"	" "	
	R 8	8	5	8-9	"	" "	
	R 9	8	5	23-6	"	" "	

WEST ABUTMENT 2,510

POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
	A 1	29	4	13-9	2-0	Body-Space to Miss Piling	F
	A 2	8	4	29-3	Shown	" Horizontal	
	A 3	2	4	29-6	"	" "	
	A 4	2	4	30-0	"	" "	
	A 5	2	4	30-6	"	" "	
	A 6	6	6	30-9	"	" "	
	A 7	6	4	30-0	"	Parapet-Horizontal	
	A 8	38	5	9-6	1-6	Body & Parapet	B
	A 9	56	5	5-0	1-0	Parapet	B
	A10	14	4	7-9	Shown	" Horizontal-Do Not Lap	
	A11	2	4	14-6	1-6	Wing 1-Horizontal	
	A12	2	4	13-3	1-6	" 1 "	
	A13	2	4	12-3	1-6	" 1 "	
	A14	2	6	11-3	1-6	" 1 "	
	A15	7	4	9-9	1-6	" 1-Vertical	
	A16	12	4	10-9	1-6	Wings 1 & 2-Horizontal	A
	A17	1	4	7-3	1-6	Wing 2-Horizontal-Corner	M
	A18	4	4	2-6	1-6	" 1 " "	C
	A19	2	6	12-3	1-6	" 2 "	
	A20	2	4	13-3	1-6	" 2 "	
	A21	2	4	14-3	1-6	" 2 "	
	A22	2	4	15-3	1-6	" 2 "	
	A23	7	4	9-6	1-6	" 2-Vertical	
	A24	8	5	9-3	Shown	Railing Parapet-Horizontal	
	A25	20	5	5-9	1-0	" "	B
	A26	16	5	2-6	Shown	Grid	
	A27	16	5	4-3	"	"	A
	A28	1	4	6-9	1-6	Wing 2-Horizontal-Corner	M
	A29	1	4	6-3	1-6	" 2 " "	M
	A30	1	4	5-6	1-6	" 2 " "	P
	A31	4	4	10-0	Shown	Body-Horizontal at Wing	
	A32	14	5	5-9	1-6	Wings 1 & 2-Vertical	
	A33	5	4	5-0	1-6	Wing 1-Vertical	
	A34	4	4	4-9	1-6	" 2 "	

PIERS 19,490

POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
	B 1	120	6	8-0	10½	Footing-Exterior-Piers 1, 2 & 3	
	B 2	108	6	7-0	10	" Interior " 1, 2 & 3	
	B 3	144	9	4-6	Shown	" & Columns-Piers 1, 2 & 3	A
	B 4	12	4	9-6	"	" Hoops	J
	B 4	164	4	9-6	1-0	Columns-Hoops	J
	B 5	48	9	17-6	Shown	" Pier 1 only	
	B 6	48	9	15-0	"	" " 2 "	
	B 7	48	9	16-9	"	" " 3 "	
	B 8	36	9	12-3	"	Cap-Ends	
	B 9	12	5	30-0	"	" Bottom	
	B10	12	4	25-0	"	"	
	B11	15	9	31-6	"	" Top	
	B12	36	7	15-3	"	" " Ends	A
	B13	81	4	11-6	1-6	" Stirrups	L
	B14	18	5	6-9	Shown	"	H

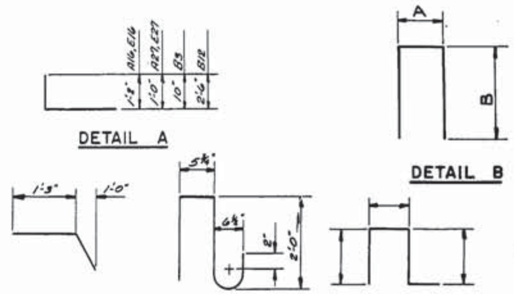
EAST ABUTMENT 2,610

POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
	E 1	29	4	13-9	2-0	Body-Space to Miss Piling	F
	E 2	8	4	29-6	Shown	" Horizontal	
	E 3	2	4	30-0	"	" "	
	E 4	2	4	30-6	"	" "	
	E 5	2	4	30-9	"	" "	
	E 6	6	6	31-0	"	" "	
	E 7	6	4	30-0	"	Parpaet-Horizontal	
	E 8	38	5	9-6	1-6	Body & Parapet	B
	E 9	56	5	5-0	1-0	Parapet	B
	E10	14	4	7-9	Shown	" Horizontal Do Not Lap	
	E11	2	4	14-6	1-6	Wing 3-Horizontal	
	E12	2	4	13-9	1-6	" 3 "	
	E13	2	4	12-9	1-6	" 3 "	
	E14	2	6	12-0	1-6	" 3 "	
	E15	7	4	9-3	1-6	" 3-Vertical	
	E16	10	4	10-9	1-6	Wings 3 & 4-Horizontal	A
	E17	4	4	2-6	1-6	Wing 3-Horizontal-Corner	C
	E18	1	4	5-6	1-6	" 4 " "	P
	E19	2	6	13-0	1-6	" 4 "	
	E20	2	4	13-9	1-6	" 4 "	
	E21	2	4	14-6	1-6	" 4 "	
	E22	2	4	15-6	1-6	" 4 "	
	E23	7	4	10-0	1-6	" 4-Vertical	
	E24	8	5	7-3	Shown	Railing Parapet-Horizontal	
	E25	22	5	5-9	1-0	" "	B
	E26	16	5	2-6	Shown	Grid	
	E27	16	5	4-6	"	"	A
	E28	1	4	5-9	1-6	Wing 4-Horizontal-Corner	M
	E29	1	4	5-6	1-6	" 4 " "	M
	E30	1	4	5-0	1-6	" 4 "	M
	E31	4	4	10-0	Shown	Body-Horizontal at Wings	
	E32	8	5	5-6	6	Rail Parapet	B
	E33	8	5	3-3	Shown	" "	
	E34	14	5	6-0	1-6	Wings 3 & 4-Vertical	
	E35	5	4	4-9	1-6	Wing 3-Vertical	
	E36	4	4	5-6	1-6	" 4 "	
	E37	2	4	10-9	1-6	Wings 3 & 4-Horizontal	N

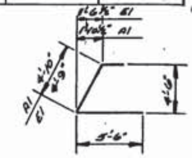
BAR BENDING DETAILS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.
OMIT DETAILS WHERE DIMENSIONS ARE BLANK.

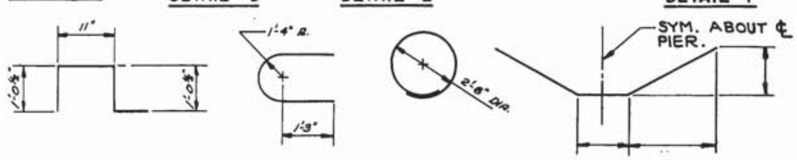
MARK	DIM. "A"	DIM. "B"
A8, E8	1'-4"	4'-1"
A9, E9	8"	2'-2"
A25, E25	5¾"	2'-7½"
E32	4½"	2'-7"



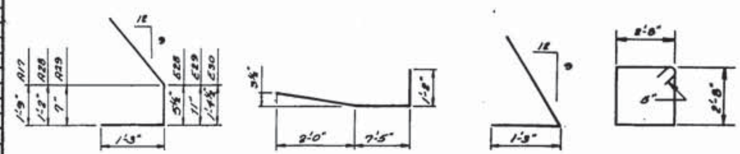
DETAIL A — DETAIL B — DETAIL C — DETAIL D — DETAIL E



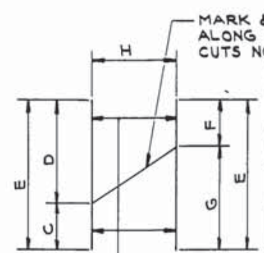
DETAIL F



DETAIL G — DETAIL H — DETAIL J — DETAIL K



DETAIL M — DETAIL N — DETAIL P — DETAIL L



"H" IS NUMBER OF BARS, BEFORE CUTTING.

MARK		C	D	E	F	G	H	SETS REQ'D.
S1	SET 1	—	17'-8"	35'-9"	8'-1"	—	45	2
	SET 2	18'-1"	—		—	35'-8"		2
S2	SET 3	—	17'-10"	36'-0"	8'-4"	—	43	2
	SET 4	18'-10"	—		—	33'-8"		2

CUT, BUNDLE & MARK. (MARK WITH BAR NO. & SET NO.)

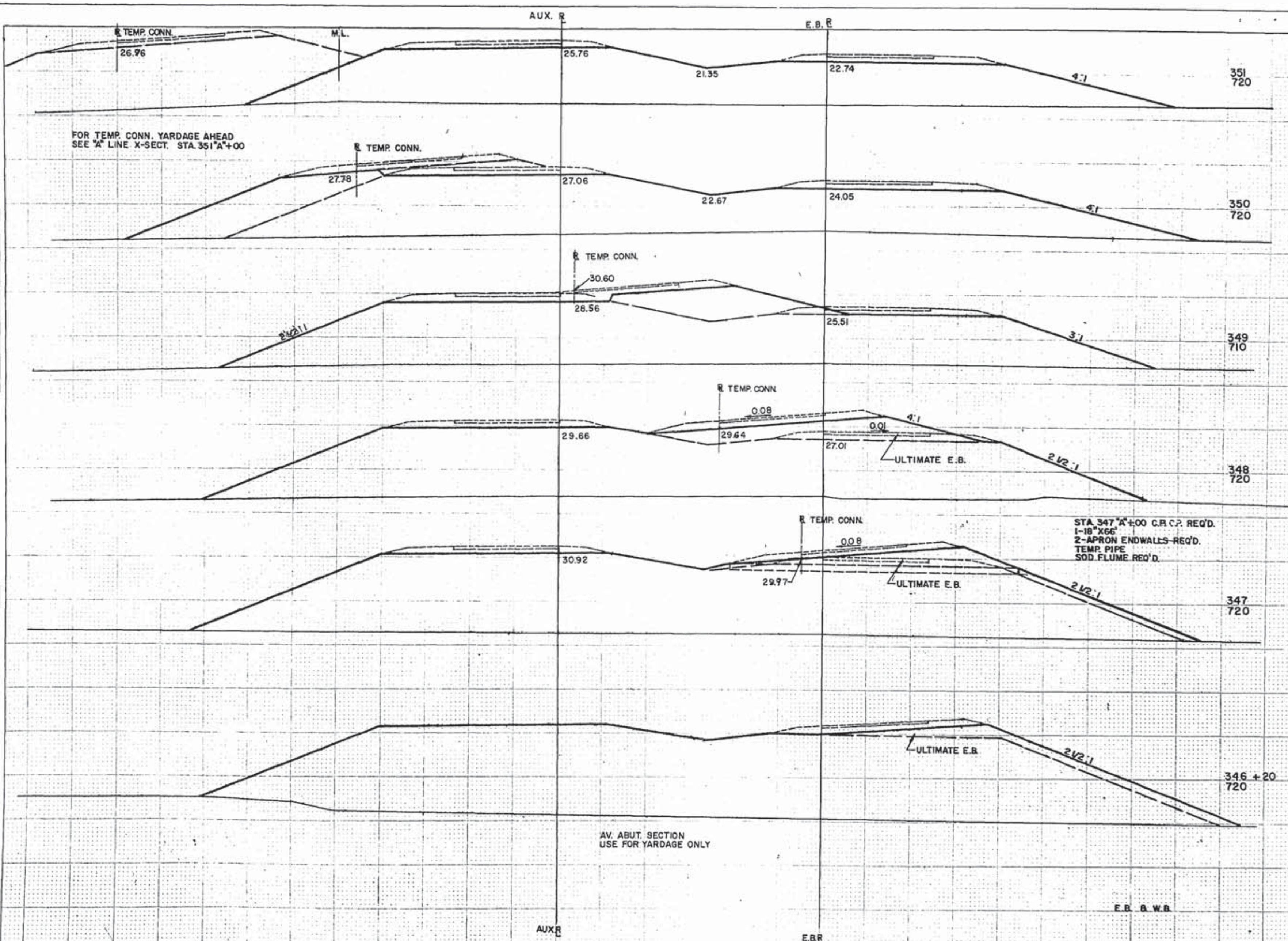
BENT BARS, IF USED, IN CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.

† CUTTING DIAGRAM

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	BILL OF BARS		
	DESIGN SPEC. A.A.S.H.O. 66	LOADING HS20 MOD.	CONST. SPEC. 1963
	DATE 6-9-66 DESIGN S. B.	DRAWN R.T.G.	CKD. J.C.K.
STRUCTURE B – 32-54		SHEET 13 OF 13	

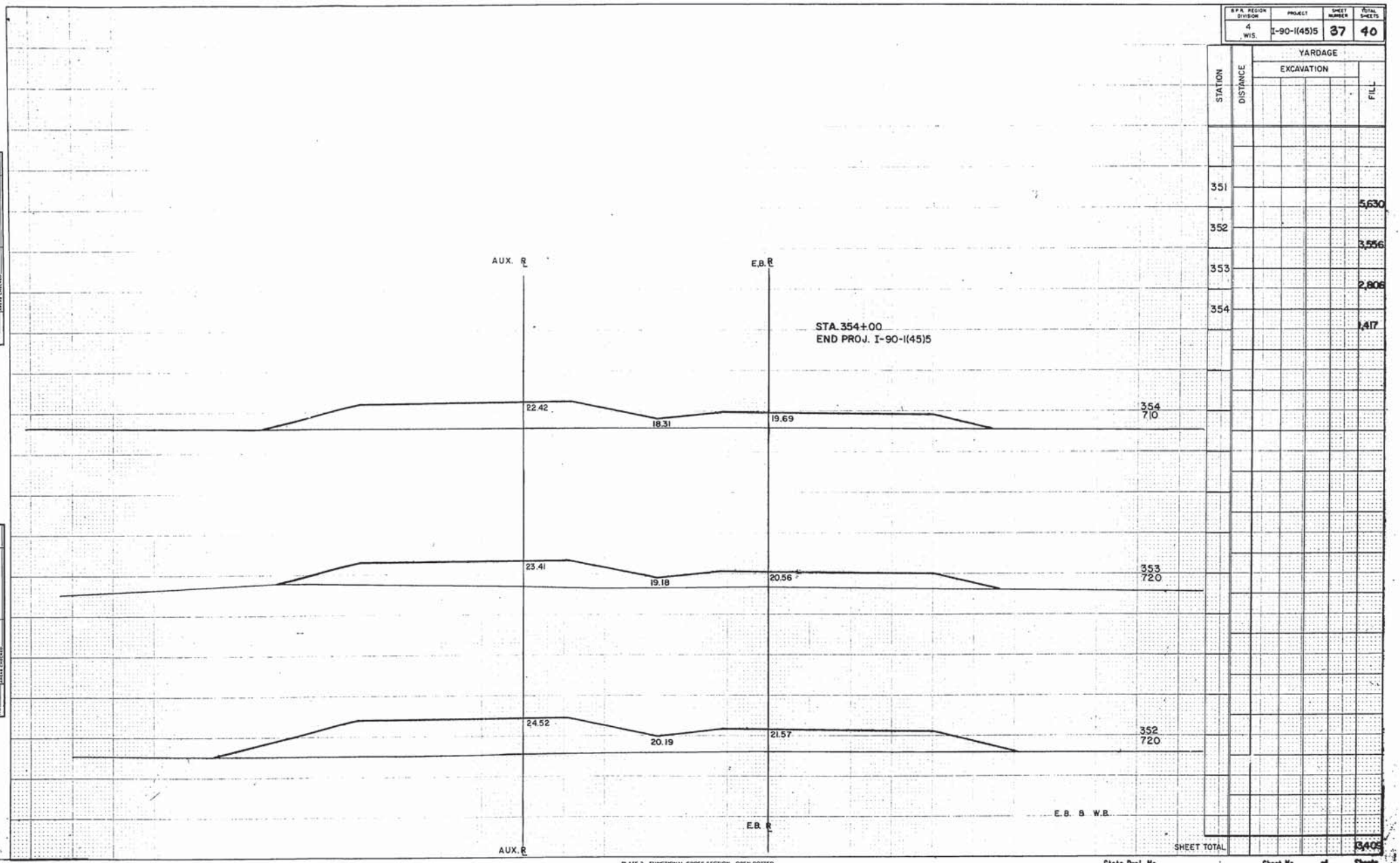
X35238

S.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	I-90-1(45)5	36	40



STATION	DISTANCE	YARDAGE EXCAVATION				FILL
						8168
346 +20						
						9902
347						
						11,241
348						
						9,629
349						
						8,926
350						
						7296
351						
SHEET TOTAL						55,162

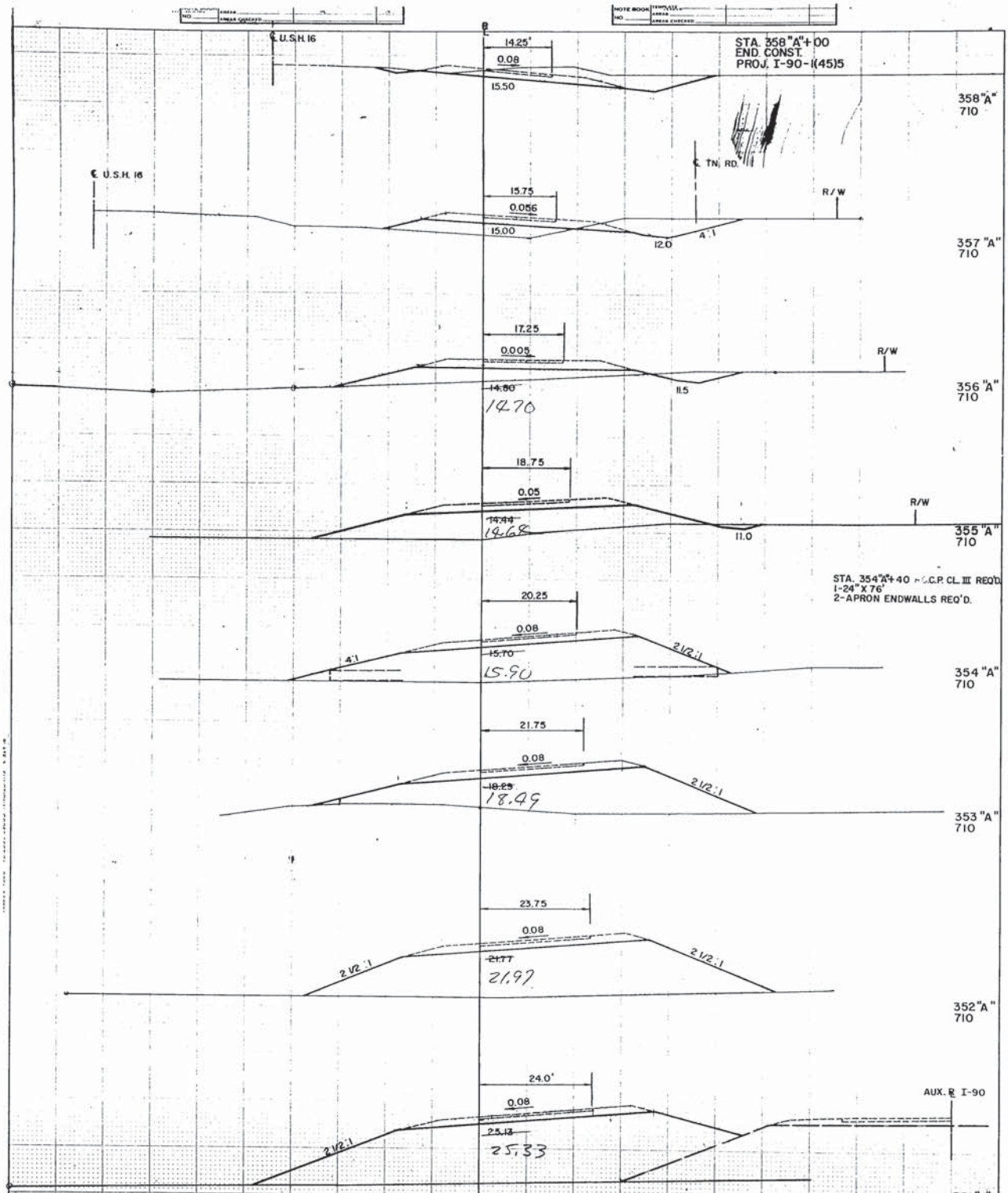
B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	I-90-1(45)5	37	40



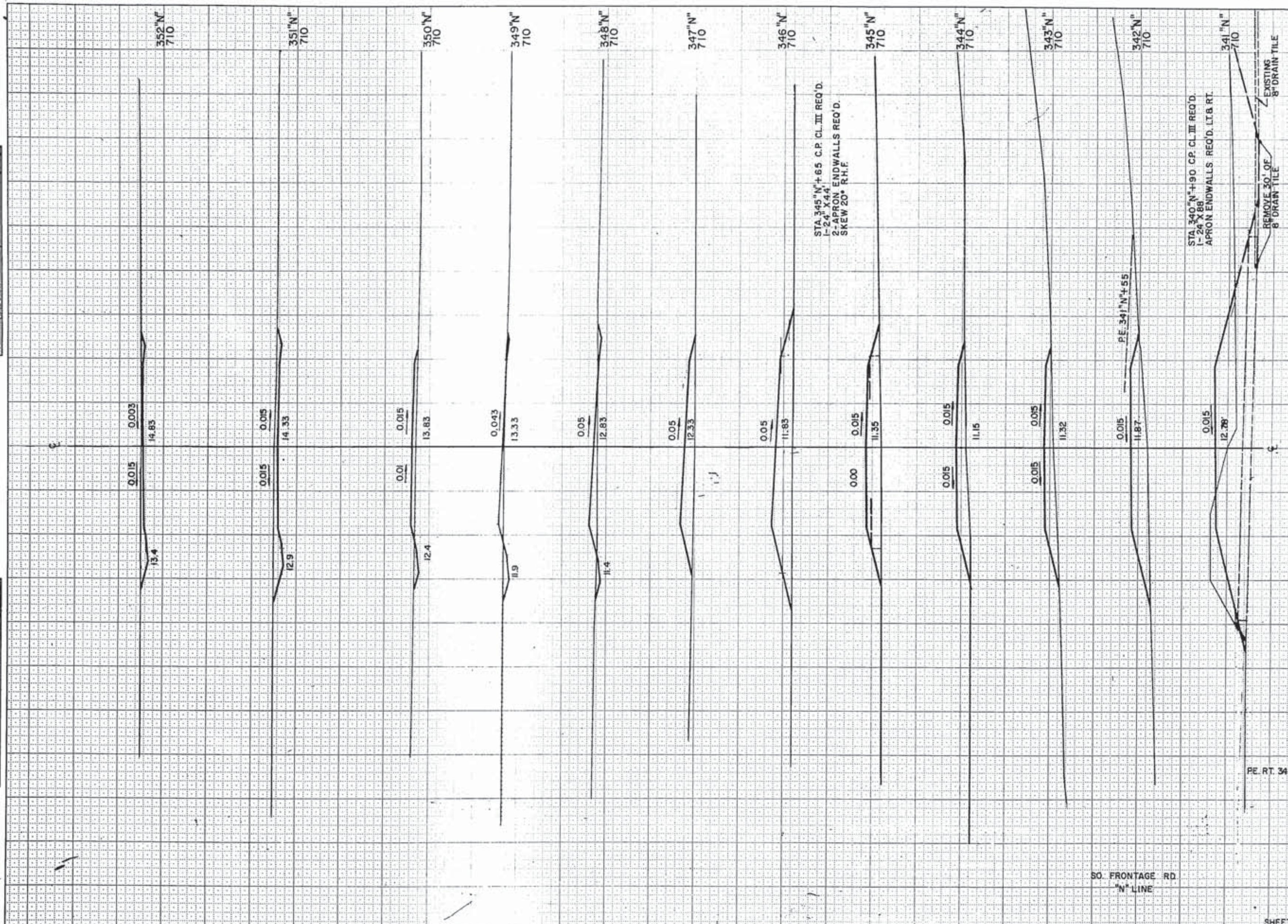
STATION	DISTANCE	YARDAGE EXCAVATION	YARDAGE FILL
351			5,630
352			3,556
353			2,806
354			1,417
		SHEET TOTAL	13,409

PLATE 3 - FUNCTIONAL CROSS SECTION - OPEN DOTTED
NATIONAL TRACING PAPER DIVISION

State Proj. No. ..... Sheet No. ... of ... Sheets

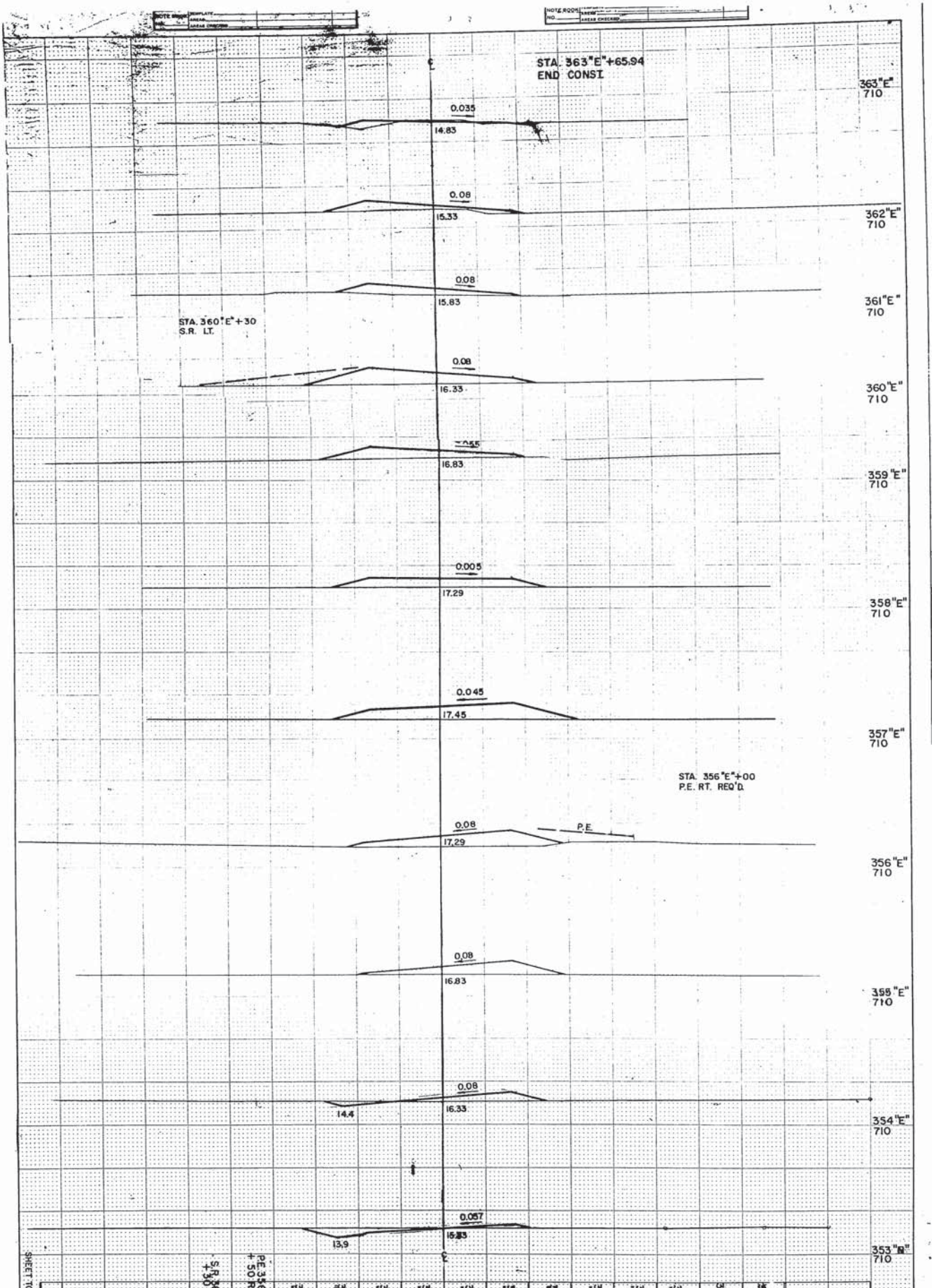

℄ U.S.H. 16
14.25'
0.08
15.50
STA. 358"A"+00
END CONST.
PROJ. I-90-1(45)5
358"A"
710
℄ U.S.H. 16
℄ TN. RD.
R/W
15.75
0.056
15.00
12.0
4:1
357"A"
710
17.25
0.005
R/W
14.80
11.5
14.70
356"A"
710
18.75
0.05
R/W
14.44
19.68
11.0
355"A"
710
STA. 354"A"+40 R.C.P. CL. III REQ'D.
1-24" X 76'
2-APRON ENDWALLS REQ'D.
20.25
0.08
4:1
2 1/2:1
15.70
15.90
354"A"
710
21.75
0.08
2 1/2:1
18.29
18.49
353"A"
710
23.75
0.08
2 1/2:1
2 1/2:1
21.77
21.97
352"A"
710
24.0'
0.08
AUX. R I-90
2 1/2:1
25.13
25.33
351"A"
710
FOR TEMP. CONN. YARDAGE BACK
SEE MAINLINE X-SECT. STA. 350+00
TEMP. CONN. "A" LINE E.B.
SHEET TOTAL
STATION
DISTANCE
UNCL. EXCAVATION
FILL
YARDAGE
358 "A"
357 "A"
356 "A"
355 "A"
354 "A"
353 "A"
352 "A"
351 "A"
350 "A"
649
389
185
56
19
167
495
898
1648
2019
2445
3315
2445
3572
BRA REGION
DIVISION
4
WIS.
PROJECT
I-90-1(45)5
PROJECT NUMBER
38
SHEETS
40

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	I-90-1(45)5	39	40



STATION	DISTANCE	YARDAGE EXCAVATION UNCL.				FILL
		67				98
341 "N"						
		167				585
342 "N"						
		0				525
343 "N"						
						378
344 "N"						
						465
345 "N"						
						661
346 "N"						
						581
347 "N"						
		9				267
348 "N"						
		28				115
349 "N"						
		28				106
350 "N"						
		130				65
351 "N"						
		191				0
352 "N"						
						35
SHEET TOTAL		620				3,881

FUNCTIONAL CROSS SECTION - OPEN DOTTED



STATION	DISTANCE	UNCL. EXCAVATION	FILL	YARDAGE
S.R. 360"E" +30 RT.			60	
P.E. 356"E" +50 RT.			50	
363"E"	9	9	93	
362"E"	9	9	148	
361"E"	9	9	272	
360"E"	9	9	313	
359"E"	9	0	287	
358"E"	9	0	437	
357"E"	9	0	474	
356"E"	9	0	357	
355"E"	9	0	230	
354"E"	9	28	96	
353"E"	9	93	19	
352"E"	9	135		
SHEET TOTAL	283			

N.Y.S. REGION DIVISION	4 WIS.
PROJECT	I-90-1(48)5
SHEET NUMBER	40
TOTAL SHEETS	40