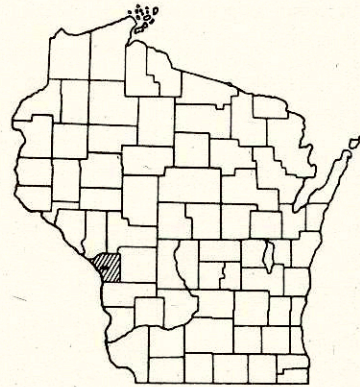


INDEX OF SHEETS

- SHEET NO. 1 TITLE
- SHEET NO. 2, 20-22 TYPICAL CROSS SECTIONS, MISCELLANEOUS DETAILS & ALIGNMENT PLAN
- SHEET NO. 3 ESTIMATE OF QUANTITIES
- SHEET NO. 3A MISCELLANEOUS QUANTITIES
- SHEET NO. 4, 0-43 RIGHT OF WAY PLAT
- SHEET NO. 5-7 PLAN AND PROFILE STA. 342+72.63 TO STA. 354+00
- SHEET NO. 8-84 STANDARD DETAILS
- SHEET NO. 9-35 DRAINAGE STRUCTURES
- SHEET NO. 36-40 CROSS SECTIONS



STATE OF WISCONSIN
STATE HIGHWAY COMMISSION OF WISCONSIN

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

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

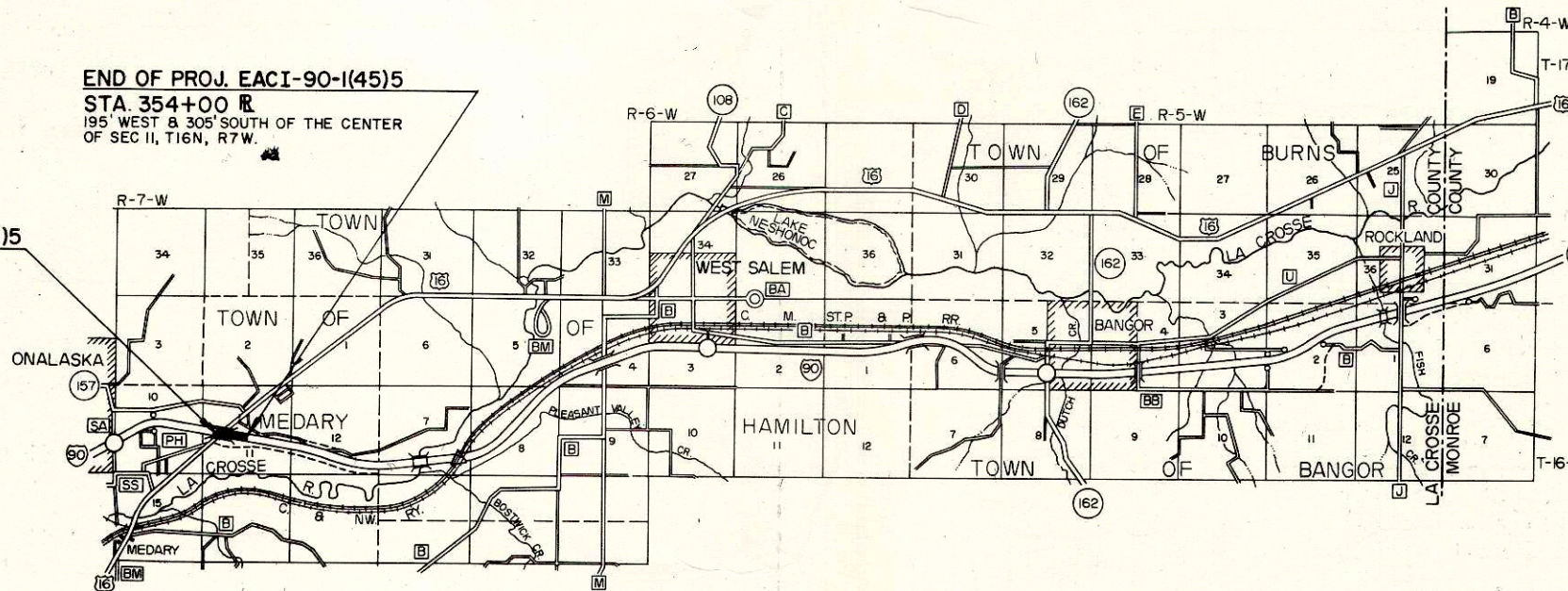
B-53
B-54

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

END OF PROJECT I-90-1(21)3
BEGINNING OF PROJ. EACI-90-1(45)5
STA. 342+72.63 R
215' SOUTH & 1317' WEST OF THE CENTER
OF SEC II, T16N, R7W.

END OF PROJ. EACI-90-1(45)5
STA. 354+00 R
195' WEST & 305' SOUTH OF THE CENTER
OF SEC II, T16N, R7W.

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	CULVERTS IN PLACE	APPROVED INTERSTATE LOCATION
COUNTY LINE	CULVERTS REQUIRED	INTERCHANGE (MAIN LINE UNDER)
TOWNSHIP OR RANGE LINE	DROP INLET	INTERCHANGE (MAIN LINE OVER)
SECTION LINE	POWER POLE	HWY. GRADE SEPARATION (MAIN LINE UNDER)
NEW RIGHT OF WAY LINE	TELEPHONE OR TELEGRAPH POLE	RAILROAD GRADE SEPARATION
PRESENT RIGHT OF WAY LINE	RIGHT OF WAY MARKERS	COMBINATION HWY.-RAILROAD SEPARATION
WIRE FENCE {WOVEN BARBED}	REFERENCE STAKE FOR HUBS ONLY	OTHER BRIDGES (MAIN LINE OVER)
LOT LINE	MARSH	FRONTAGE ROAD (LOCAL OR STATE)
CORPORATE OR CITY LIMITS	HEDGE	TERMINATED CROSS ROAD
PROPERTY LINE	TREES	
TRAVELED WAY OR P.E.	GROUND ELEVATION	
RAILROADS	GRADE ELEVATION	
BASE OR SURVEY LINE		

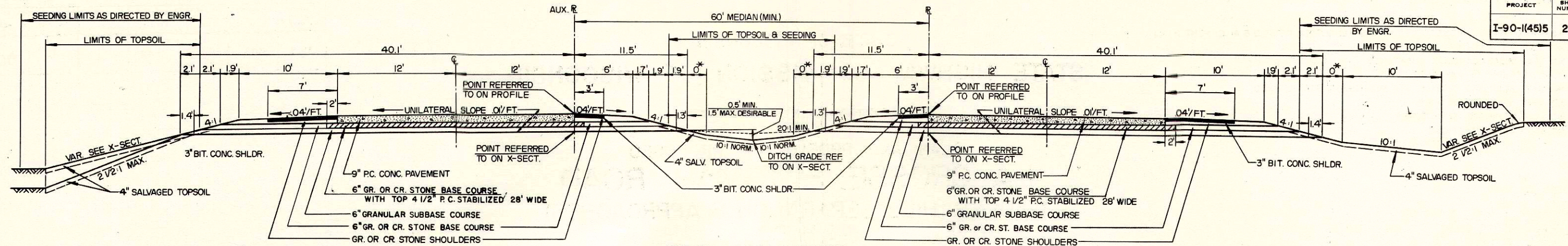
LAYOUT

SCALE 1" = 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.	M. O. CHECKER R.L.C.
DISTRICT CHECKER A.E.J.	CORRECT
CORRECT:	
DATE 6/13/66	<i>[Signature]</i> DISTRICT ENGINEER
RECOMMENDED FOR APPROVAL:	
DATE 6/17/66	<i>[Signature]</i> DISTRICT ENGINEER
APPROVED:	
DATE 6/29/66	<i>[Signature]</i> STATE HIGHWAY ENGINEER
DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	
APPROVED:	DATE
DIVISION ENGINEER	



WEST BOUND

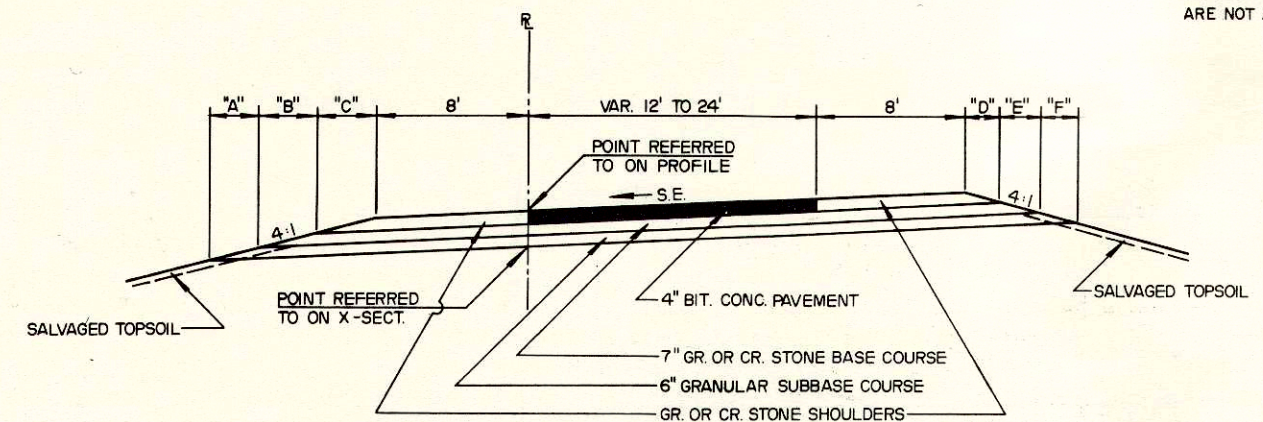
TYPICAL FINISHED SECTION

EAST BOUND

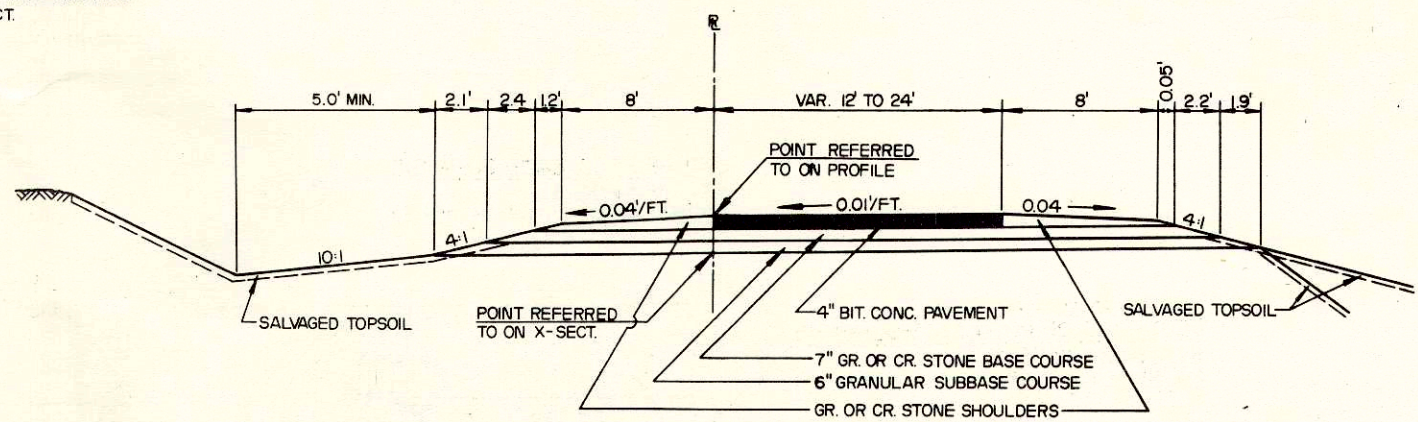
NOTE: P.C.C. SURFACING, GR. OR CR. STONE BASE COURSE, BASE STABILIZATION, BITUMINOUS CONCRETE SURFACE, & GRAVEL OR CRUSHED STONE BASE COURSE FOR SHOULDERS ON MAINLINE AND TEMPORARY CONNECTION ARE NOT A PART OF THIS CONTRACT.

* VARY THIS DIMENSION TO ATTAIN SPECIAL DITCH GRADES

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.



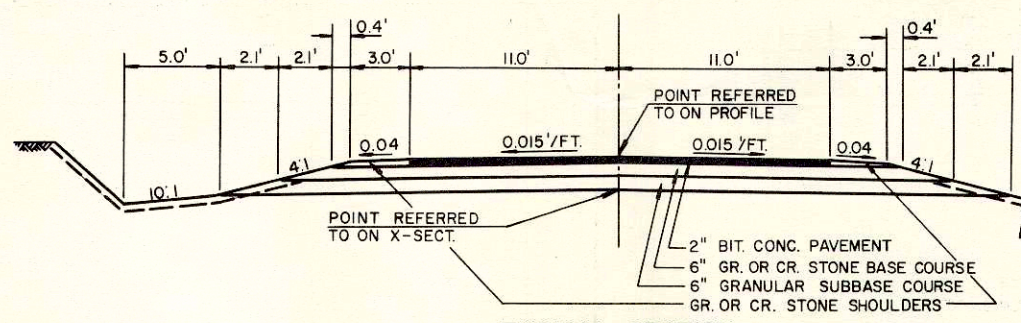
TYPICAL SUPERELEVATED SECTION
TEMPORARY CONNECTION



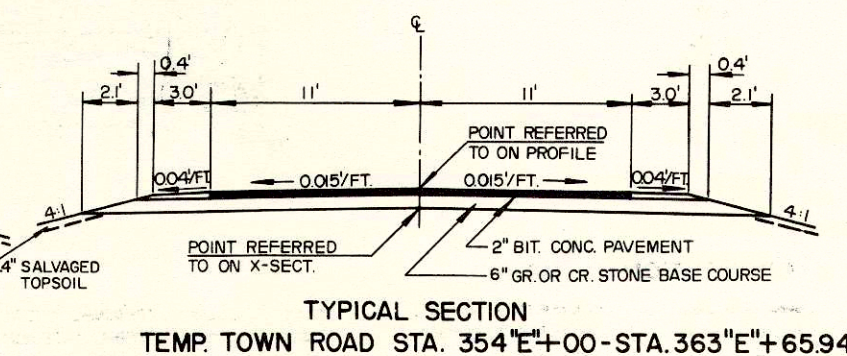
TYPICAL SECTION
TEMPORARY CONNECTION

DISTANCES FOR SUPERELEVATED SECTION (FEET)

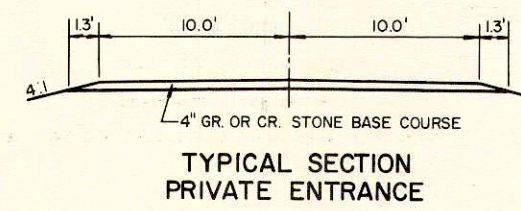
S.E.	"A"	"B"	"C"	"D"	"E"	"F"
0.01 RT.	1.9	2.2	2.1	1.2	2.4	2.1
0.02 RT.	1.9	2.1	2.0	1.6	2.5	2.2
0.03 RT.	1.8	2.1	1.9	2.1	2.6	2.3
0.04 RT.	1.7	2.0	1.9	2.6	2.7	2.4
0.05 RT.	1.7	1.9	1.8	2.7	2.9	2.5
0.06 RT.	1.6	1.9	1.7	2.8	3.0	2.6
0.07 RT.	1.6	1.8	1.7	3.0	3.2	2.8
0.08 RT.	1.5	1.8	1.6	3.2	3.4	2.9
0.01 LT.	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
SOUTH FRONTAGE ROAD STA. 340"N"+40-354"N"+00

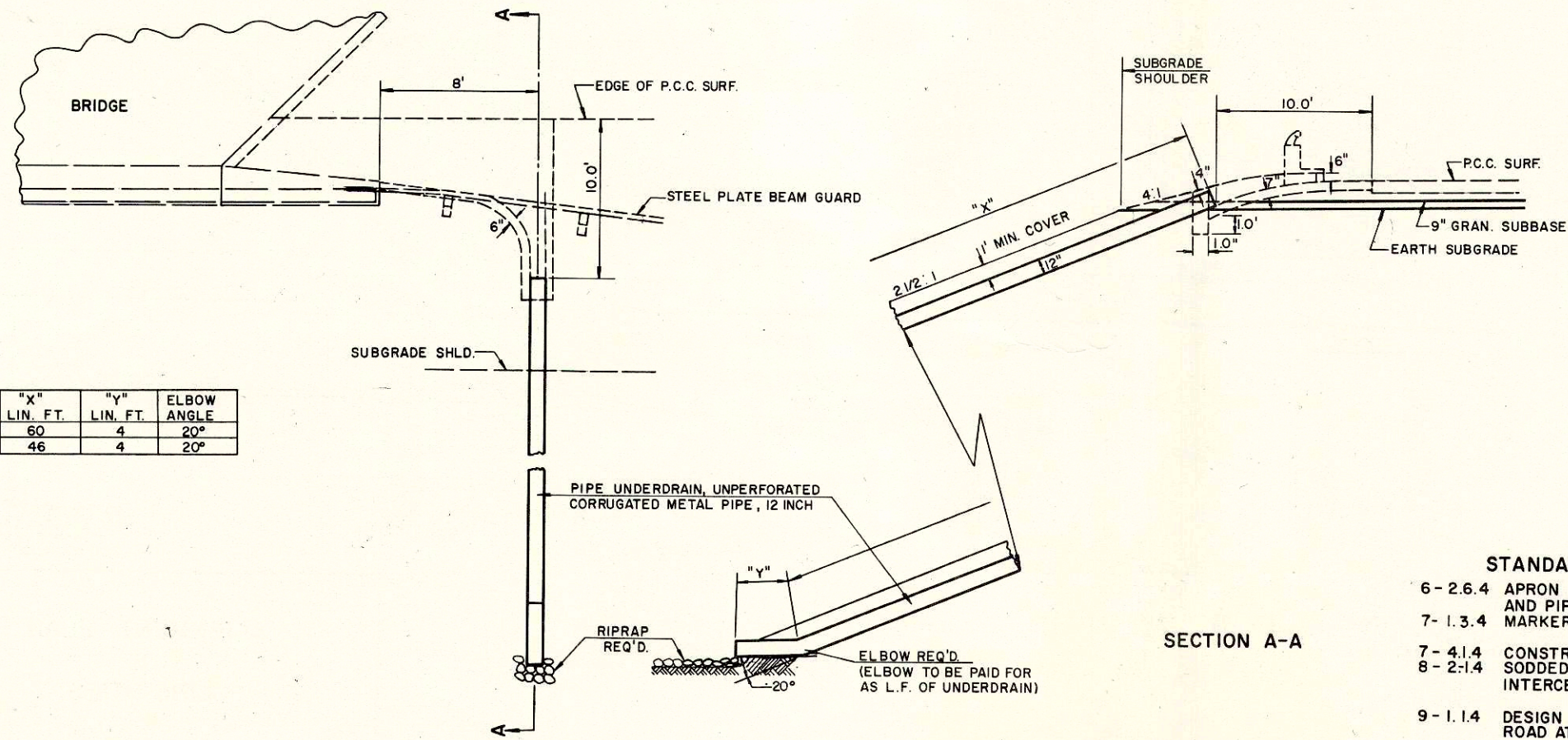


TYPICAL SECTION
TEMP. TOWN ROAD STA. 354"E"+00-STA. 363"E"+65.94



TYPICAL SECTION
PRIVATE ENTRANCE

TYPICAL CROSS SECTION
FOR
MAINLINE
TEMPORARY CONNECTION
SOUTH FRONTAGE ROAD
TOWN ROAD TEMP. CONN.



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 (R) IS THE MEDIAN EDGE OF THE EASTBOUND PAVEMENT. THE AUXILIARY REFERENCE LINE (AUX. R) 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 SEEDDED.
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.

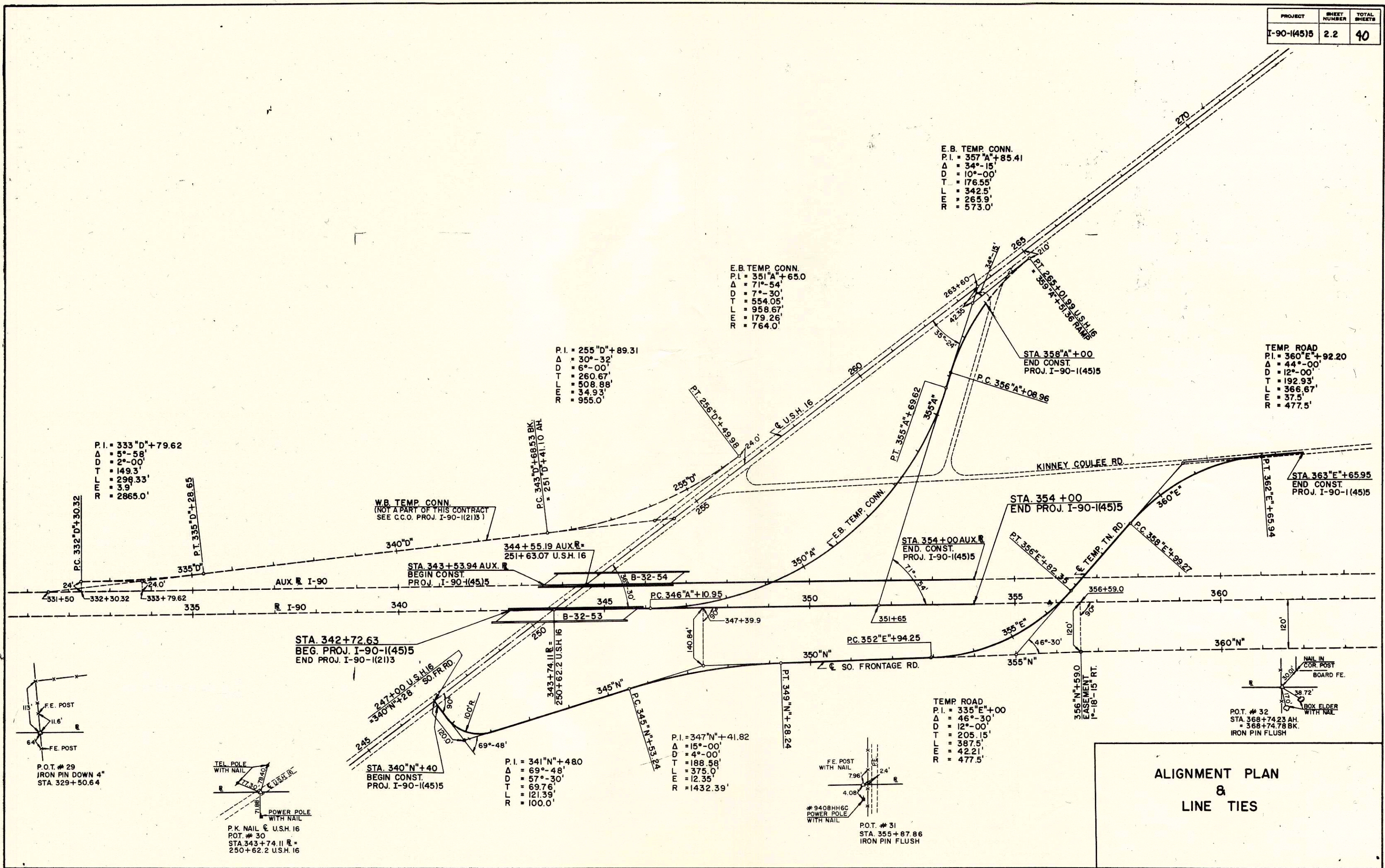
STANDARD DETAIL DRAWINGS

- 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-(45)5	2.2	40



E.B. TEMP. CONN.
 P.I. = 357°A'+85.41
 Δ = 34°-15'
 D = 10°-00'
 T = 176.55'
 L = 342.5'
 E = 265.9'
 R = 573.0'

E.B. TEMP. CONN.
 P.I. = 351°A'+65.0
 Δ = 71°-54'
 D = 7°-30'
 T = 554.05'
 L = 958.67'
 E = 179.26'
 R = 764.0'

P.I. = 255°D'+89.31
 Δ = 30°-32'
 D = 6°-00'
 T = 260.67'
 L = 508.88'
 E = 34.93'
 R = 955.0'

P.I. = 333°D'+79.62
 Δ = 5°-58'
 D = 2°-00'
 T = 149.3'
 L = 298.33'
 E = 3.9'
 R = 2865.0'

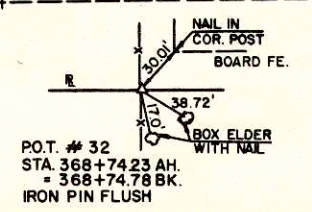
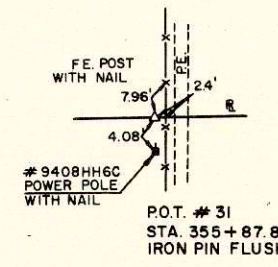
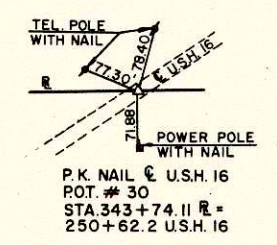
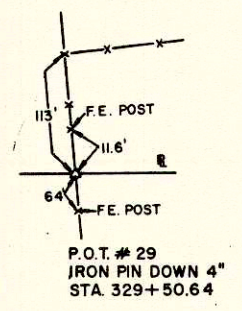
W.B. TEMP. CONN.
 (NOT A PART OF THIS CONTRACT
 SEE C.C.O. PROJ. I-90-I(21)3)

TEMP. ROAD
 P.I. = 360°E'+92.20
 Δ = 44°-00'
 D = 12°-00'
 T = 192.93'
 L = 366.67'
 E = 37.5'
 R = 477.5'

TEMP. ROAD
 P.I. = 335°E'+00
 Δ = 46°-30'
 D = 12°-00'
 T = 205.15'
 L = 387.5'
 E = 42.21'
 R = 477.5'

P.I. = 341°N'+480
 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'
 E = 12.35'
 R = 1432.39'



**ALIGNMENT PLAN
&
LINE TIES**

DETAIL SUMMARY OF MISCELLANEOUS QUANTITIES

CLEARING AND GRUBBING

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

GRAVEL OR CRUSHED STONE BASE COURSE

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

C.Y.
382
303
351
788
41
10
20
55
90

GRANULAR SUBBASE COURSE

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

TOPSOIL, SEEDING & FERTILIZER

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

SODDING

Location	Station	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
E.B.	347+00	50
Undistributed		80

PIPE CULVERTS - GROSS DRAIN PIPES

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

MINOR SIDE ROAD & PRIVATE ENTRANCE PIPES

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

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

PIPE UNDERDRAIN, UNPERFORATED CORRUGATED METAL PIPE, 12 INCH

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

CALCIUM CHLORIDE SURFACE TREATMENT

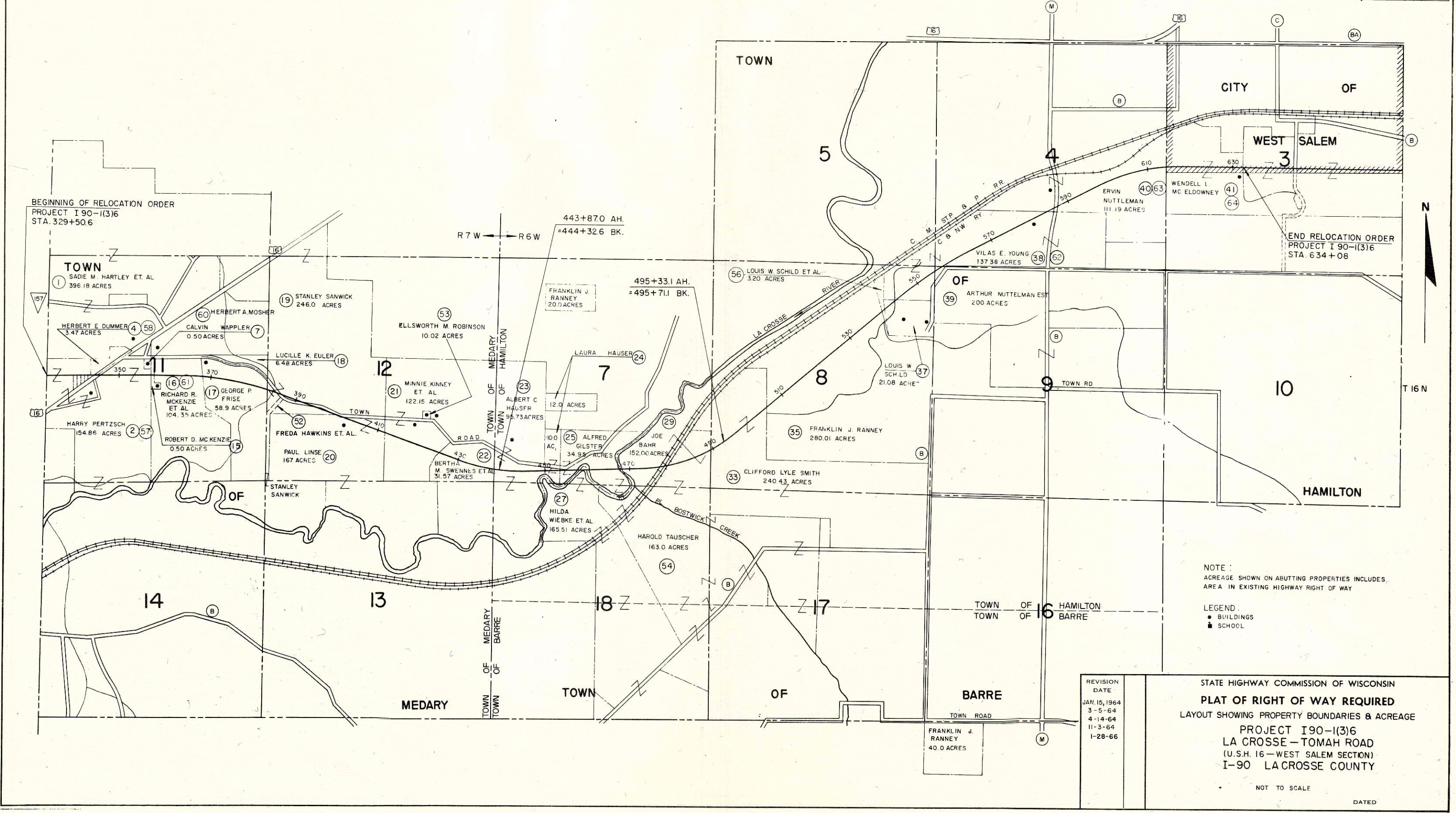
Sta. - Sta.	Width	Tons
340"N"+40 - 363"E"+66	24.0'	4.65
Undistributed		0.35

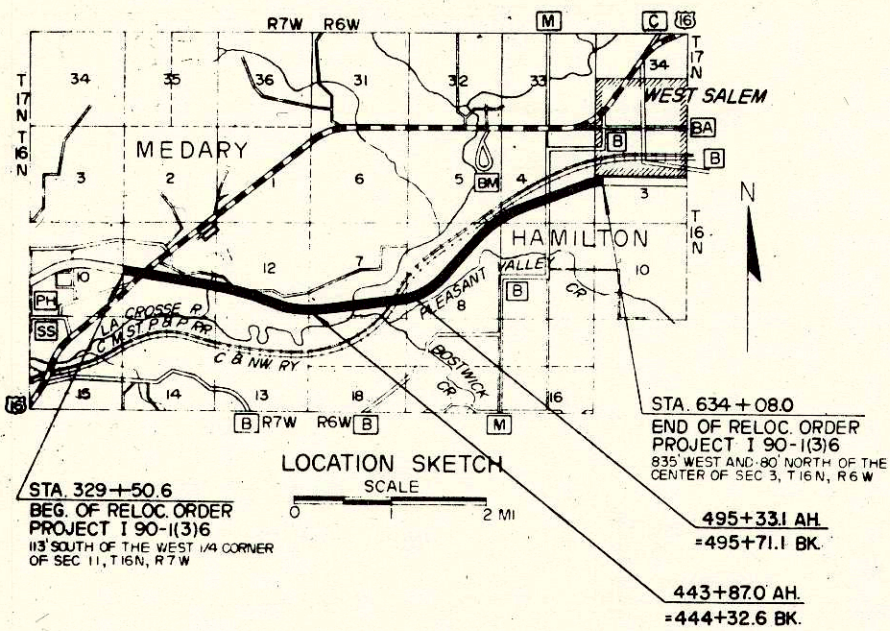
MARKER POSTS

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

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

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





STANDARD ABBREVIATIONS

ABANDON	ABND.	NORTHEAST	NE
ACRES	AC	NORTHWEST	NW
AGRICULTURAL	AGRI	NUMBER	NO.
AHEAD	AH	OUTLOT	OL
AUXILIARY REFERENCE LINE	A.R.L.	PAVEMENT	PAVT.
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	CL	PRIVATE DRIVE	P.D.
CHANNEL CHANGE	CH CH	PROJECT	PROJ.
CONCRETE	CONC.	PROPERTY LINE	PL
CONSTRUCTION	CONST.	RADIUS	R
CORN CRIB	C.C.	RAILROAD	RR
CORNER	COR	RAILWAY	RY
COUNTY	CO.	REFERENCE LINE	RL
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	RDWY
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	SD
HOTEL	HO.	STANDARD	STD.
HOUSE	H	STATE TRUNK HIGHWAY	STH
HOUSE TRAILER	HT.	STATION	STA
INCLUSIVE	INCL.	STORE	ST
INTERSTATE HIGHWAY	I.H.	TANGENT LENGTH OF CURVE	T
IRON PIN	I.P.	TAVERN	TAV.
LEFT	L	TRANSMISSION TOWER	TT
LENGTH OF CURVE	L.C.	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	WT.
MILK HOUSE	MH	WELL	W
MINIMUM	MIN.	WINDMILL	WM.
MONUMENT	MON		
MUNICIPAL	MCPL.		

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 NUTTLEMAN	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. & 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

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT	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		41	40

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

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

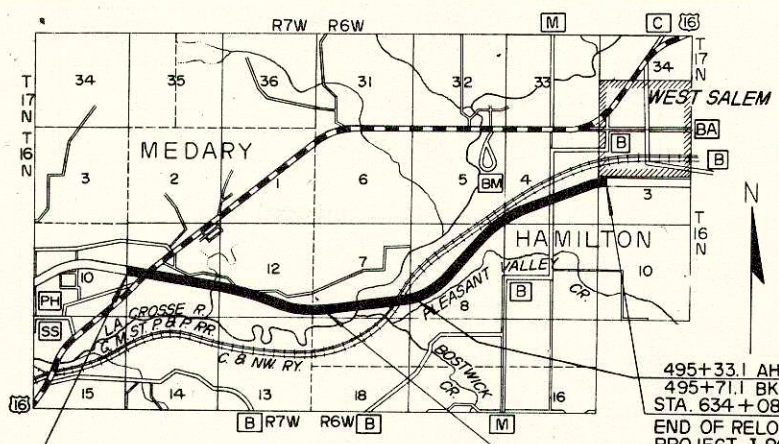
STATE HIGHWAY COMMISSION OF WISCONSIN
PLAT OF RIGHT OF WAY REQUIRED
PROJECT I 90-1(3)6
LA CROSSE — TOMAH ROAD
(U.S.H.16 — WEST SALEM SECTION)
INTERSTATE HIGHWAY 90 LA CROSSE COUNTY

LENGTH=5.784 MILES

DATED

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.	

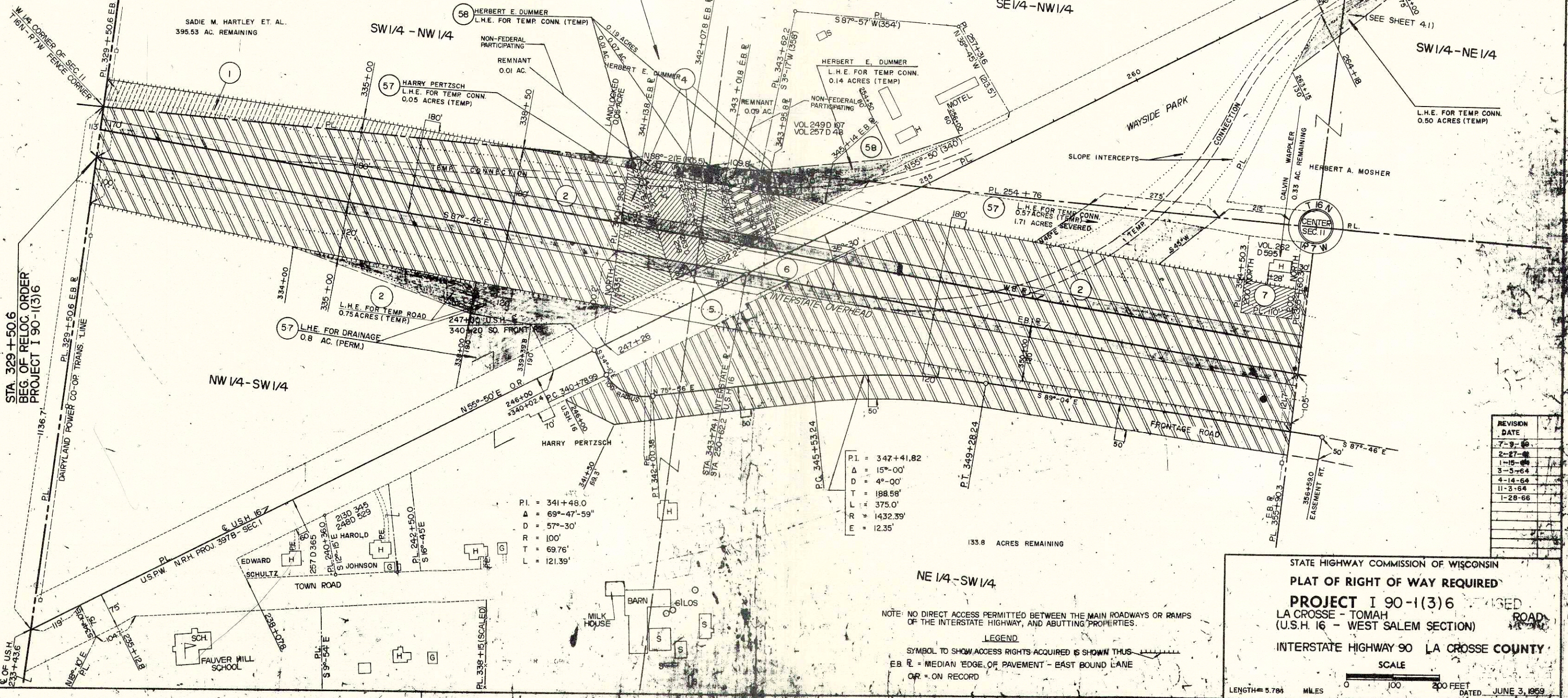
COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT	FEDERAL DIVISION OFFICE	SHEET NUMBER	TOTAL SHEETS
32.3	90.1		13.3	4	
CONST. PROJ.		1-90-1(45)5		4.2	40



LOCATION SKETCH SCALE
 0 1 2 MI.
 STA. 329+50.6
 BEG. OF RELOC. ORDER
 PROJECT I 90-1(3)6
 1/3 SOUTH OF THE WEST 1/4 CORNER
 OF SEC. 11, 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



PI = 347+41.82
 Δ = 15°-00'
 D = 4°-00'
 T = 188.58'
 L = 375.0'
 R = 1432.39'
 E = 12.35'

PI = 341+48.0
 Δ = 69°-47'-59"
 D = 57°-30'
 T = 69.76'
 L = 121.39'


REVISION	DATE
7-9-66	
2-27-66	
1-15-66	
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

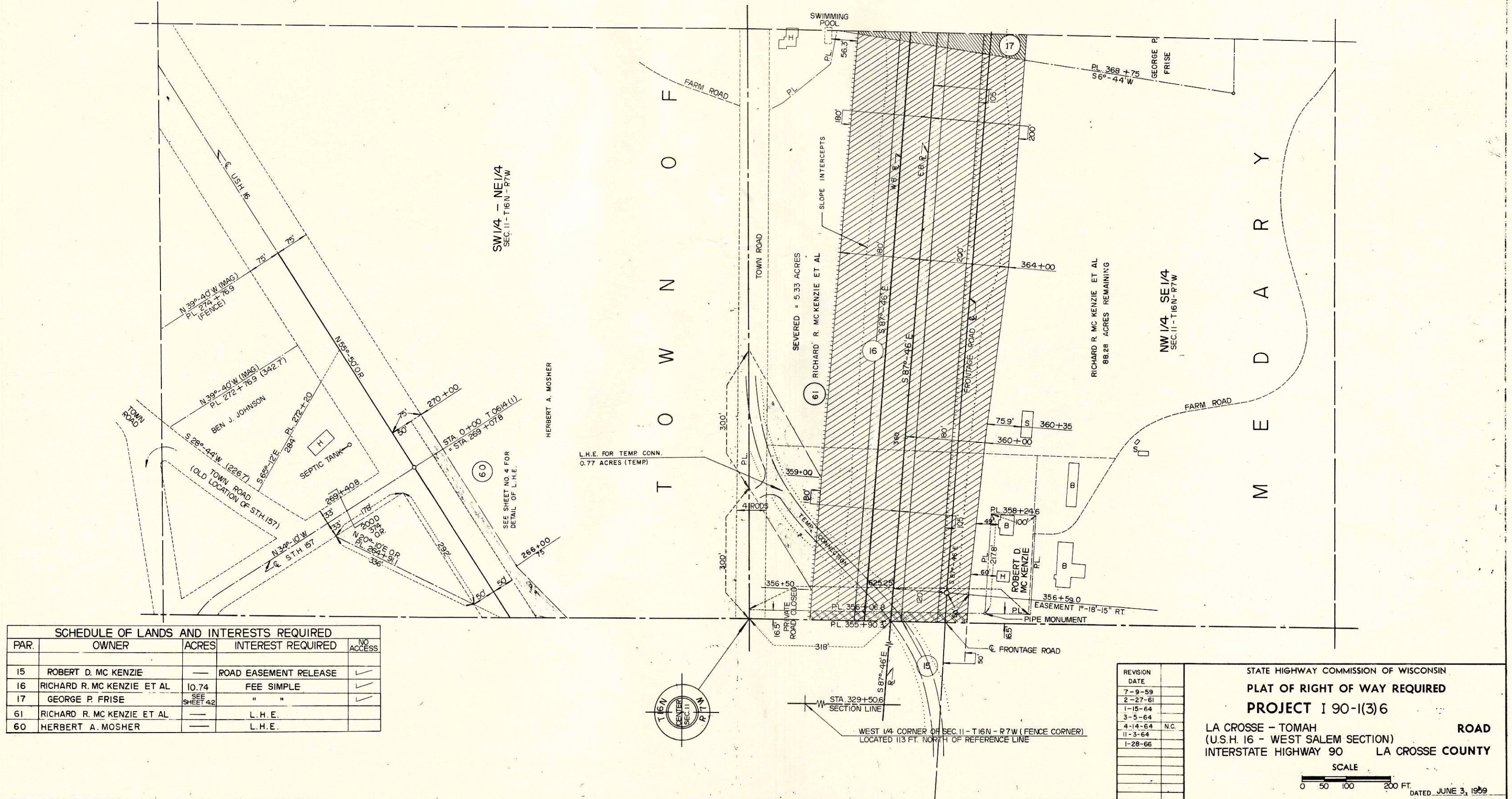
SCALE
 LENGTH = 5.784 MILES
 0 100 200 FEET
 DATED JUNE 3, 1959

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

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

LEGEND
 SYMBOL TO SHOW ACCESS RIGHTS ACQUIRED IS SHOWN THUS 
 R = MEDIAN EDGE OF PAVEMENT EAST BOUND LANE
 O.R. = ON RECORD

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



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	N.C.
7-9-59		
2-27-61		
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

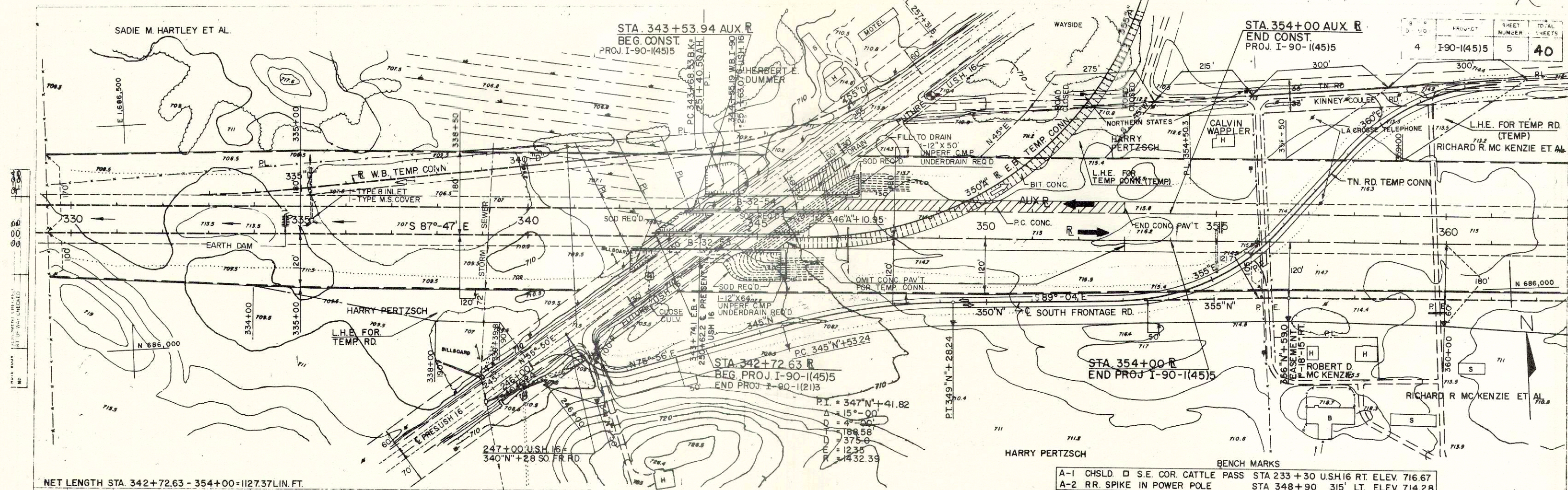
SCALE
 0 50 100 200 FT.
 DATED JUNE 3, 1959

SADIE M. HARTLEY ET AL.

STA. 343+53.94 AUX R
BEG. CONST.
PROJ. I-90-I(45)5

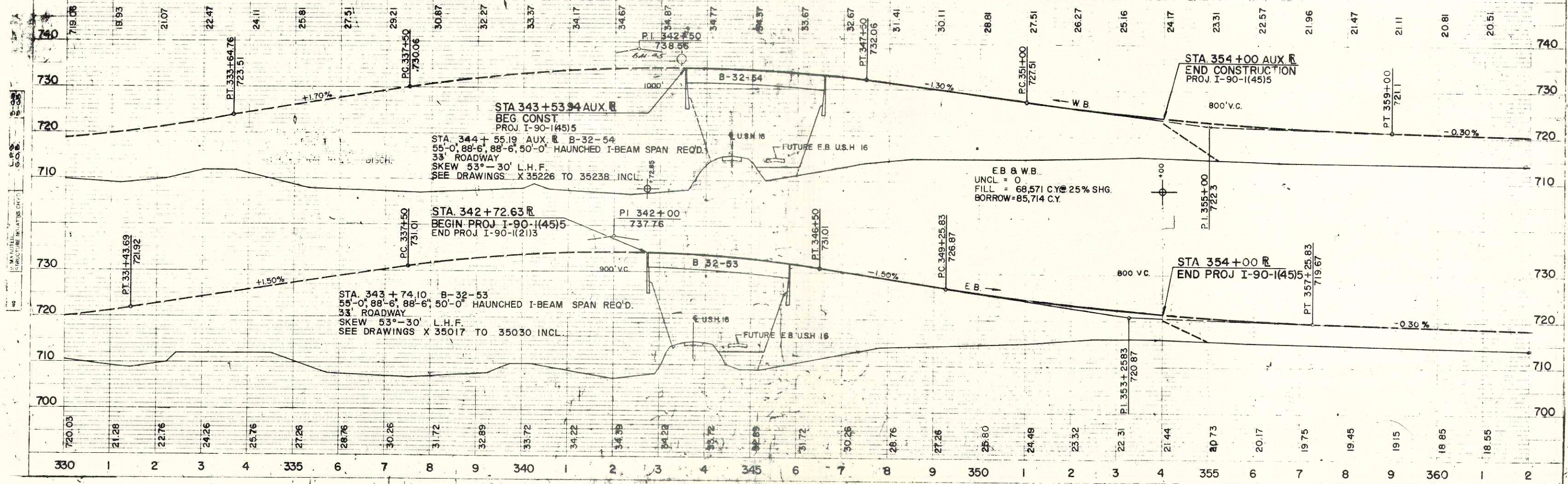
STA. 354+00 AUX R
END CONST.
PROJ. I-90-I(45)5

4	I-90-I(45)5	5	40
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NET LENGTH STA. 342+72.63 - 354+00=1127.37 LIN. FT.

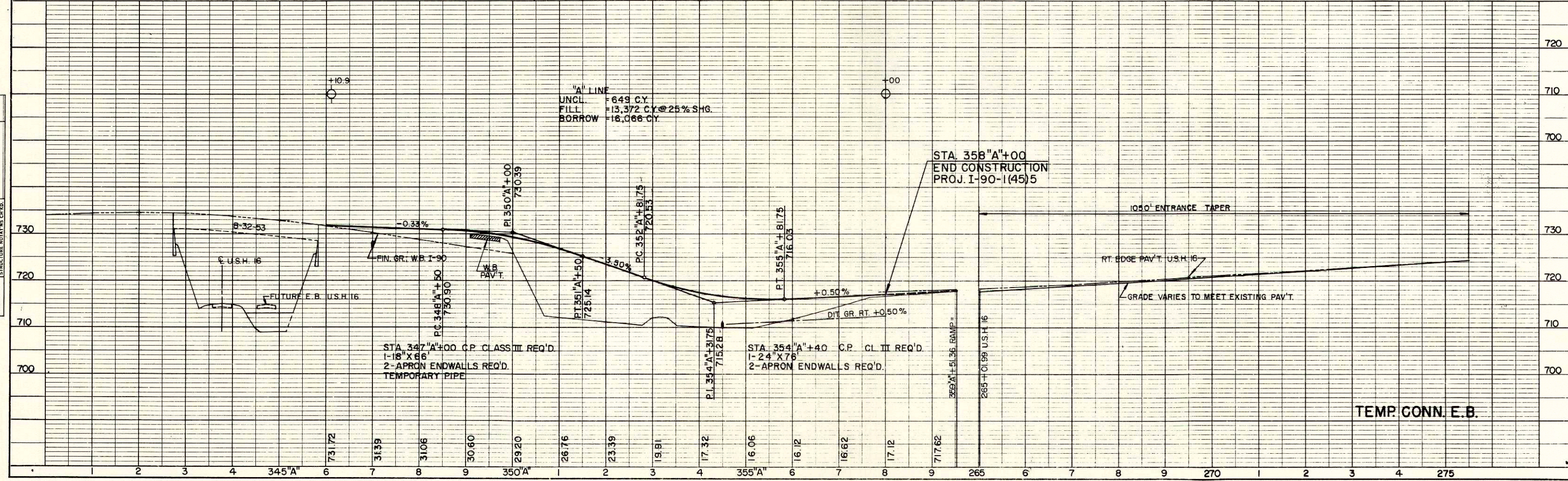
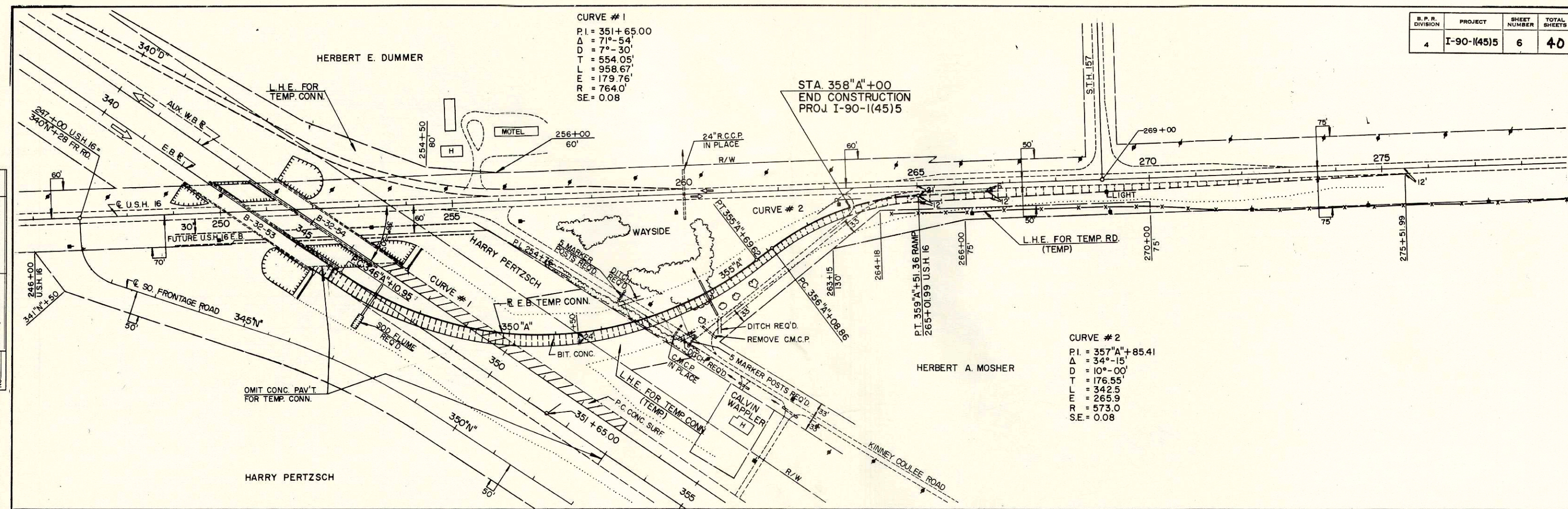
BENCH MARKS
 A-1 CHSLD □ S.E. COR. CATTLE PASS STA 233+30 U.S.H.16 RT. ELEV. 716.67
 A-2 RR. SPIKE IN POWER POLE STA 348+90 315' LT. ELEV. 714.28



VERTICAL CURVE DATA
 STA. 343+53.94
 STA. 344+55.19
 STA. 346+50
 STA. 349+25.83
 STA. 354+00
 STA. 354+00

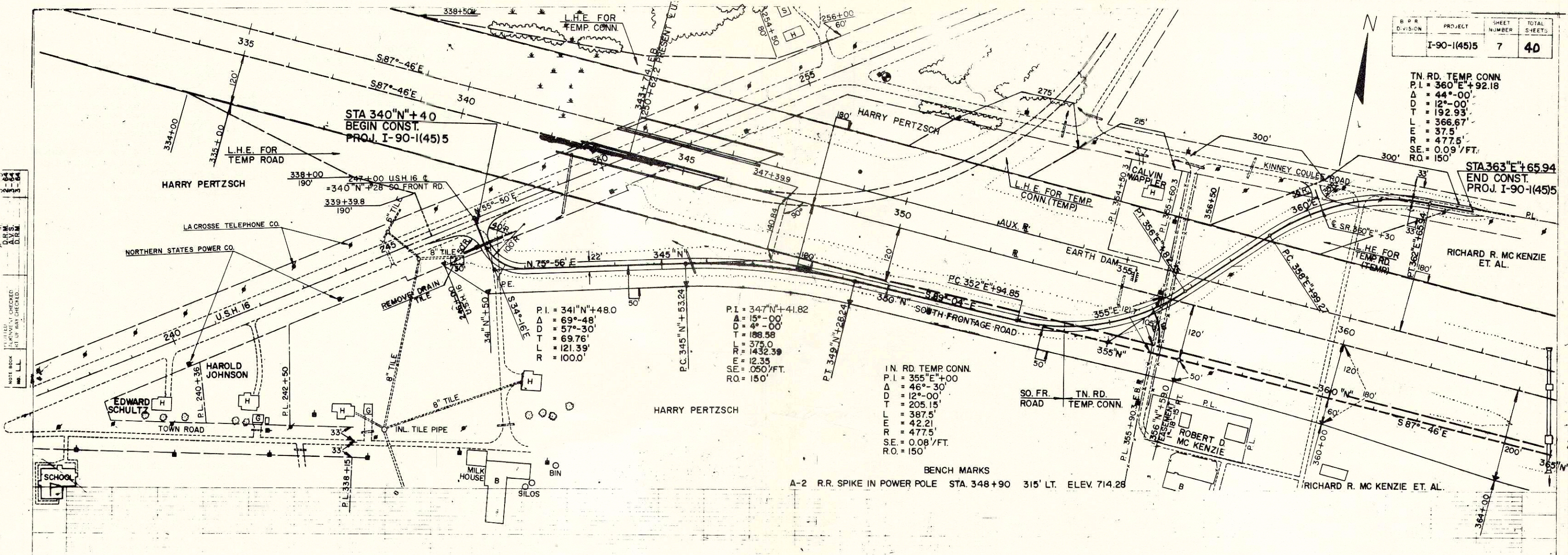
PROFILE DOTTED

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



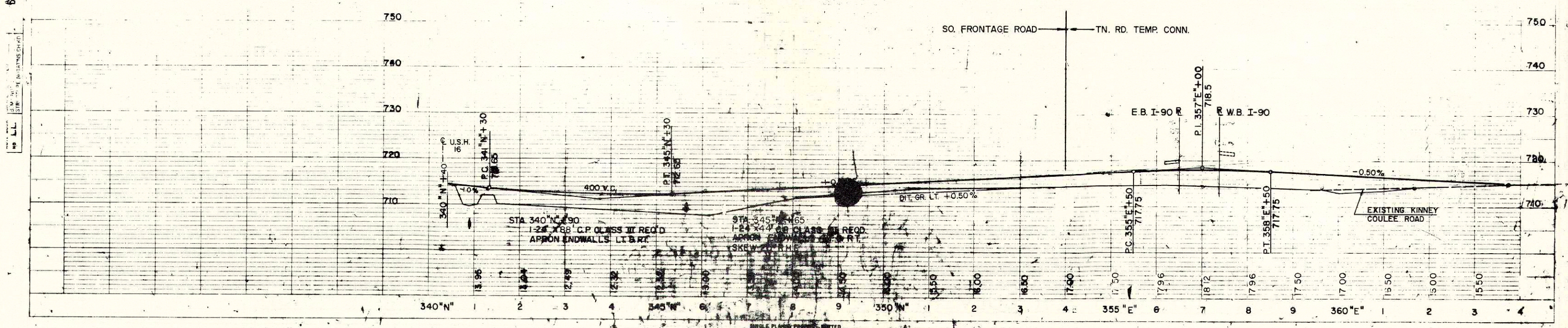
B.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
I-90-(45)5		7	40

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'



UNCL = 903 C.Y.
 FILL = 6,717 C.Y. @ 25% SHG.
 BORROW = 7,493 C.Y.

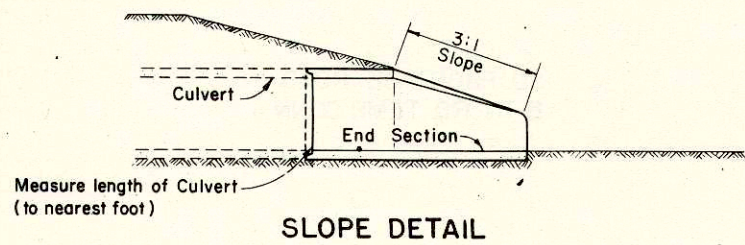
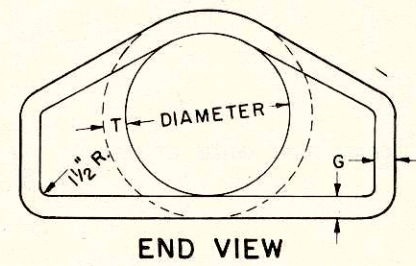
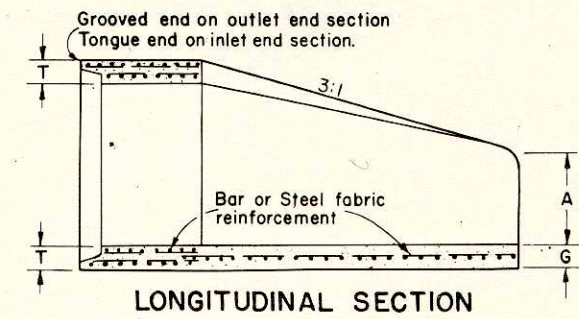
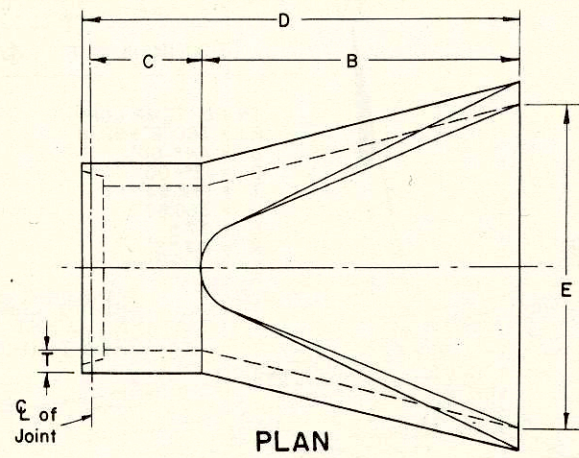
SO. FRONTAGE ROAD
 & TN. RD. TEMP. CONN.



ALL DIMENSIONS CHECKED
 BY L.L.

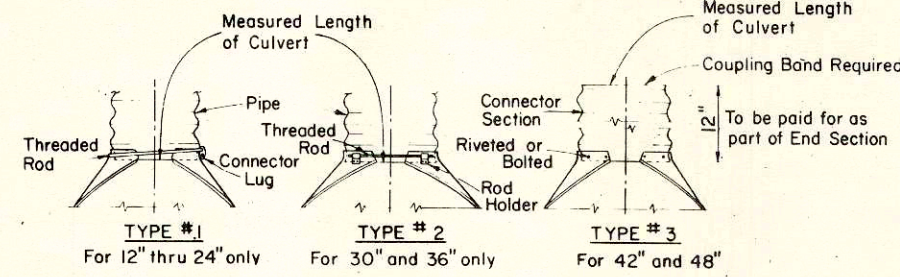
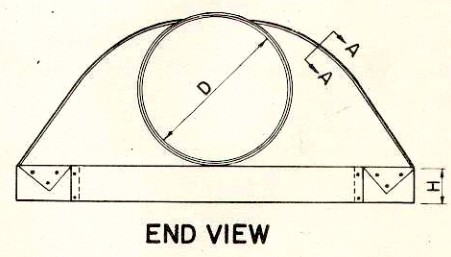
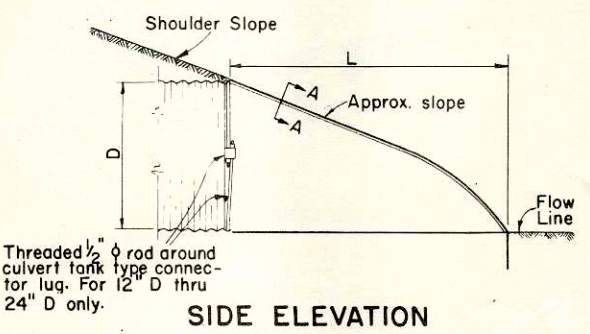
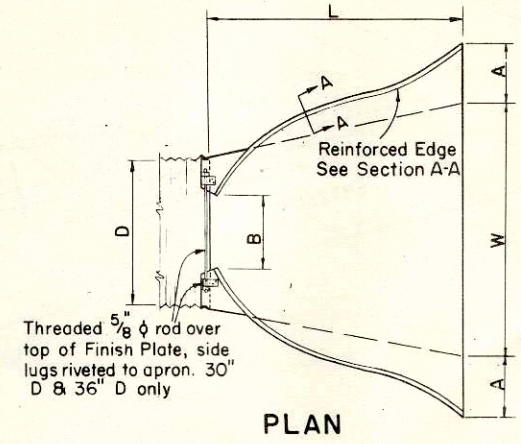
5-84
 B.R.M.

ALL DIMENSIONS CHECKED
 BY L.L.



DIA.	APPROX. WEIGHT/SECTION	SLOPE	T	A	B	C	D	E	G
18"	990	3 to 1	2 1/2"	9"	27"	46"	73"	36"	2 1/2"
21"	1280	3 to 1	2 3/4"	9"	36"	37 1/2"	73 1/2"	42"	2 3/4"
24"	1520	3 to 1	3"	9 1/2"	43 1/2"	30"	73 1/2"	48"	3"
27"	1930	3 to 1	3 1/4"	10 1/2"	49 1/2"	24"	73 1/2"	54"	3 1/4"
30"	2190	3 to 1	3 1/2"	12"	54"	19 3/4"	73 1/4"	60"	3 1/2"
36"	4100	3 to 1	4"	15"	63"	34 3/4"	97 3/4"	72"	4"
42"	5380	3 to 1	4 1/2"	21"	63"	35"	98"	78"	4 1/2"
48"	6550	3 to 1	5"	24"	72"	26"	98"	84"	5"

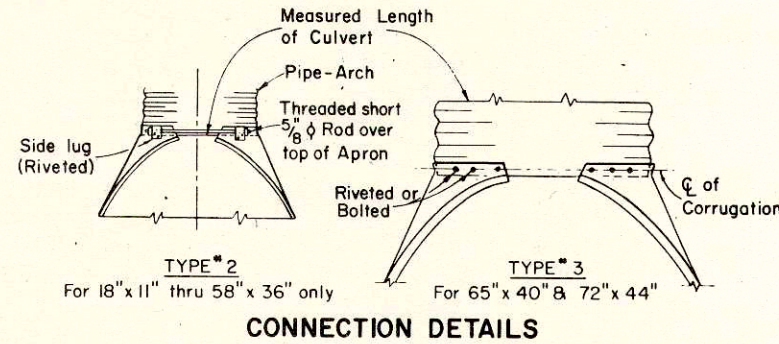
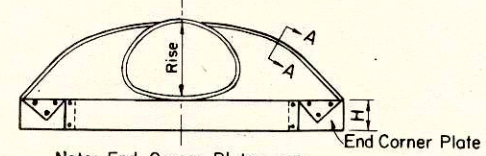
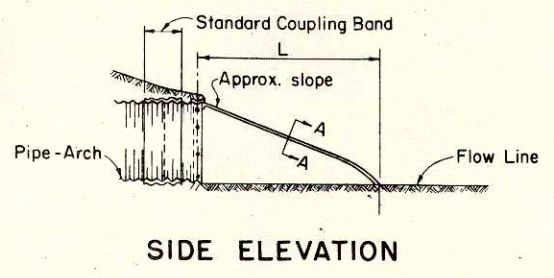
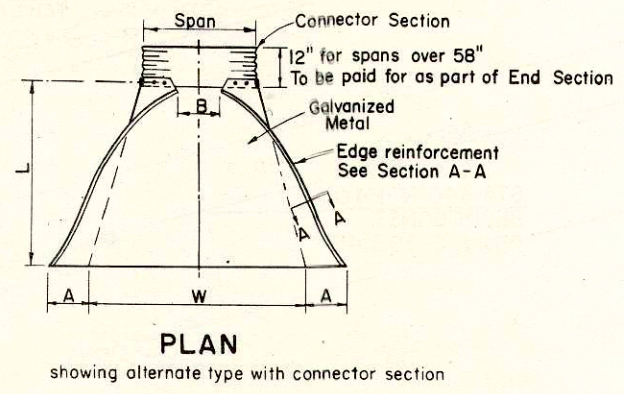
REINFORCED CONCRETE APRON ENDWALLS



D Pipe Diam.	Gage Min.	Dimensions					Approx. Slope	Fabrication Remarks
		A ± 1"	B Max.	H ± 1"	L ± 1/2"	W ± 2"		
18"	16	8"	10"	6"	31"	36"	2 1/2 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, 1 Splice
42"	12	16"	22"	11"	69"	84"	"	"
48"	12	18"	27"	12"	78"	90"	2 1/4 to 1	"

Note: All splices to be lap riveted or bolted.
METAL AND ALUMINUM APRON ENDWALLS

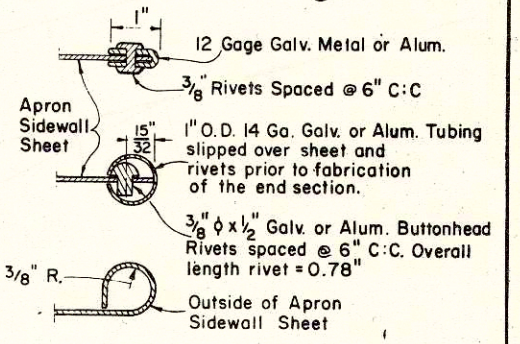
APRON ENDWALLS FOR CULVERT PIPE



Pipe - Arch Dimensions	Gage Min.	Dimensions					Approx. Slope	Fabrication Remarks
		A ± 1"	B Max.	H ± 1"	L ± 1/2"	W ± 2"		
18" Span, 11" Rise	16	7"	9"	6"	19"	30"	2 1/2 to 1	1 Piece
22" Span, 13" Rise	16	7"	10"	6"	23"	36"	"	"
25" Span, 16" Rise	16	8"	12"	6"	28"	42"	"	"
29" Span, 18" Rise	16	9"	14"	6"	32"	48"	"	"
36" Span, 22" Rise	14	10"	16"	6"	39"	60"	"	"
43" Span, 27" Rise	14	12"	18"	8"	46"	75"	"	"
50" Span, 31" Rise	12	13"	21"	9"	53"	85"	"	2 Pieces, 1 Splice
58" Span, 36" Rise	12	18"	26"	12"	63"	90"	"	"
65" Span, 40" Rise	12	18"	30"	12"	70"	102"	2 1/4 to 1	"
72" Span, 44" Rise	12	18"	33"	12"	77"	114"	"	3 Pieces, 2 Splices equal distance from 1/2"

Note: All splices to be lap riveted or bolted.

APRON ENDWALLS FOR PIPE ARCH



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.

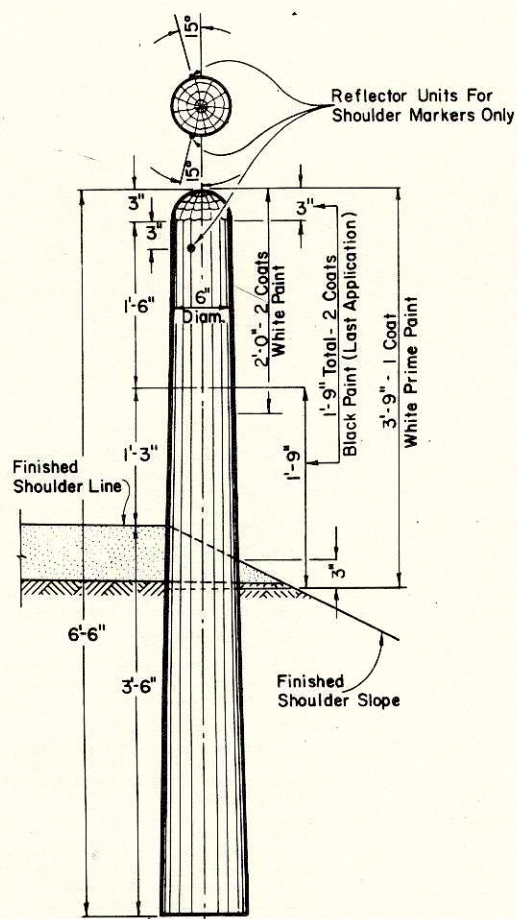
Reinf. concrete apron endwalls shall be used with concrete pipe culvert installations, metal apron endwalls shall be used with corr. metal pipe culvert installations, and Aluminum endwalls shall be used with corr. aluminum culvert installations.

APRON ENDWALLS FOR CULVERT PIPE & PIPE ARCH

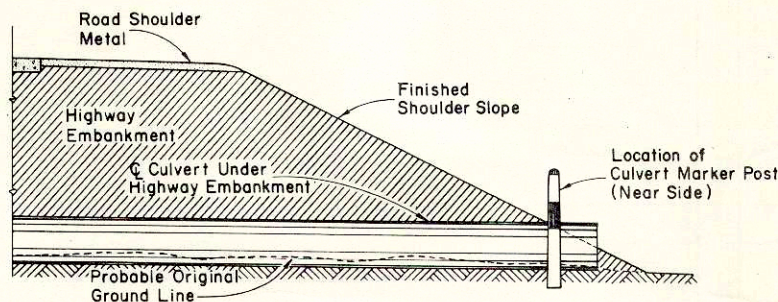
STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL
DATE: 4/9/65
E. J. Buehler
CHIEF DESIGN ENGINEER

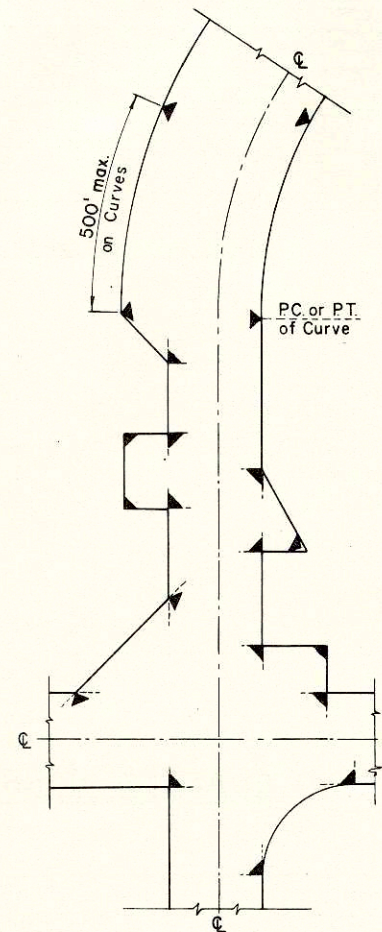
DATE: 4/2/65
E. C. Ruetten
STATE HIGHWAY ENGINEER



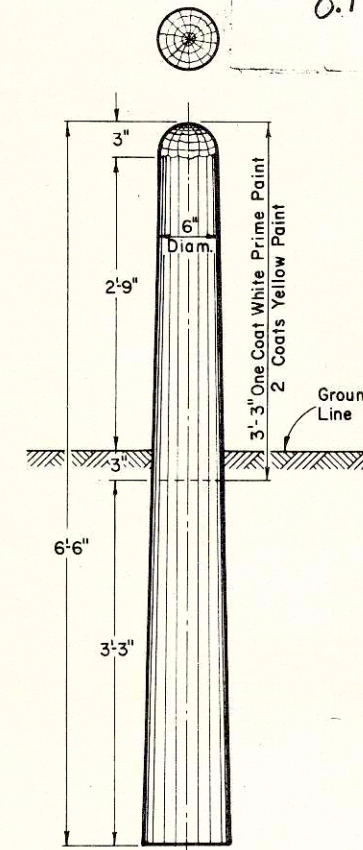
MARKER POST FOR ROAD SHOULDERS AND CULVERTS



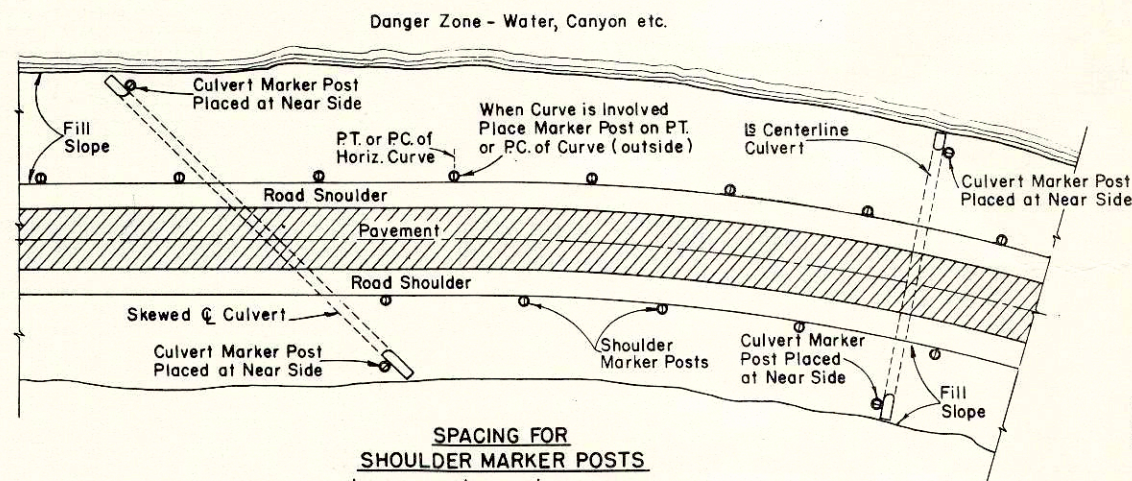
SECTION SHOWING RELATIVE LOCATION OF MARKER POST FOR CULVERTS



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

APPROVED:

2/6/63
DATE

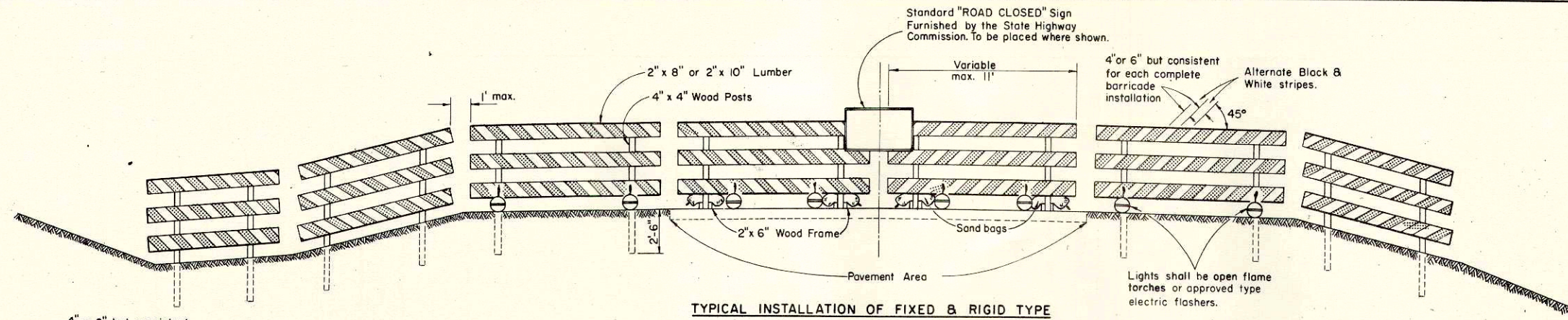
J. Pelt
ENGINEER OF DESIGN

E. L. Rottlind
STATE HIGHWAY ENGINEER

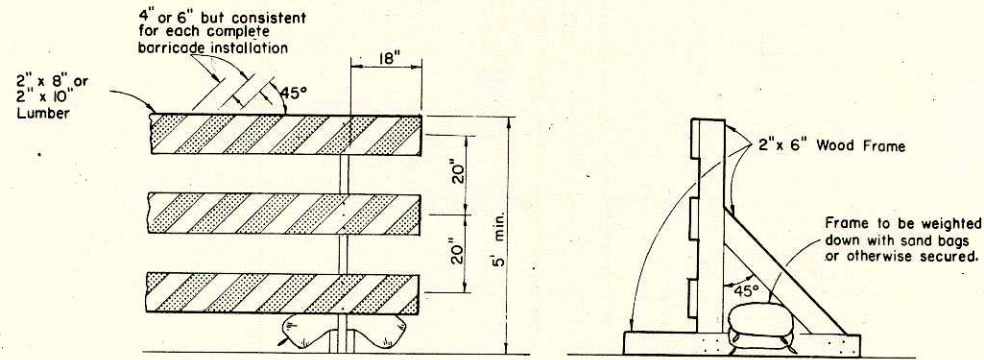
PLATE NO. 7-1.3.4

8.1-40

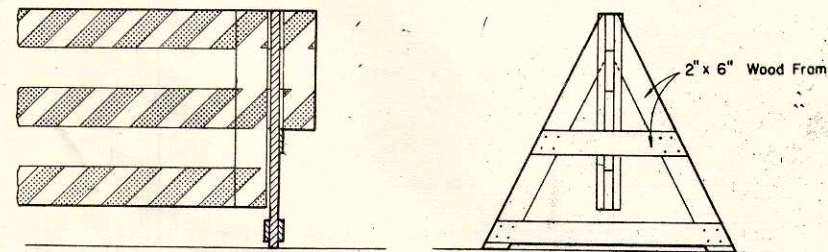
1182-406



TYPICAL INSTALLATION OF FIXED & RIGID TYPE



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS I BARRICADE

GENERAL NOTES:

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

CLASS I BARRICADE

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

CLASS II BARRICADE

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

LUMBER & FABRICATION

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

PAINTING

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

DIRECTION OF DIAGONAL STRIPES

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

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

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

MEASUREMENT & PAYMENT

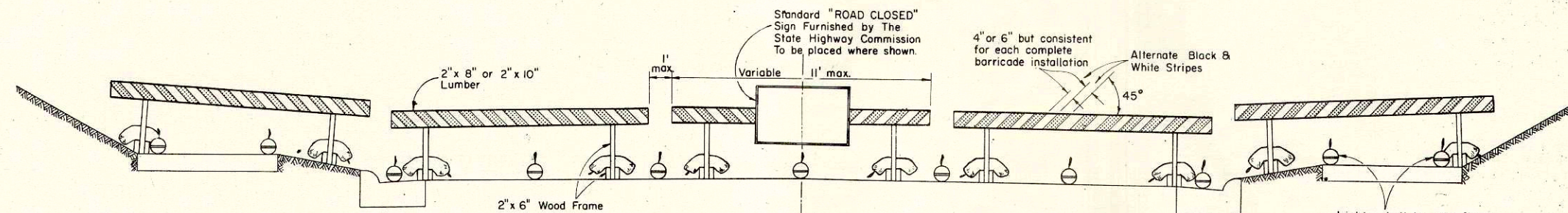
All barricades, unless otherwise provided for in the plans and/or special provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.

NOTE:

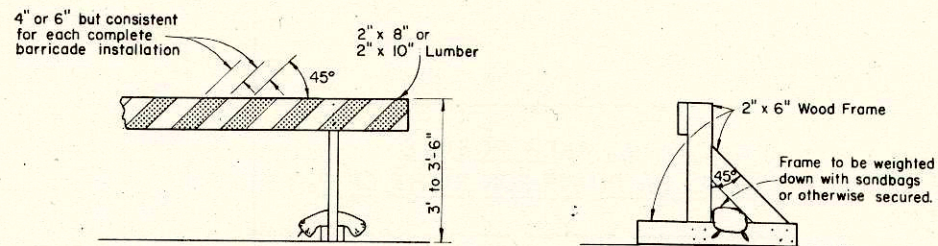
Lighting devices for barricades shall conform to the requirements of the Standard Specifications.

NOTE:

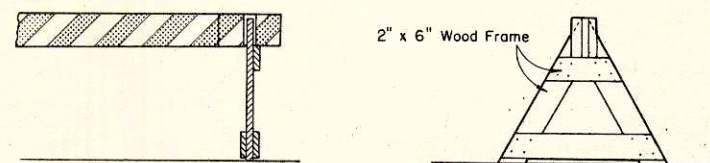
All lumber or timber dimensions shown hereon are nominal.



TYPICAL INSTALLATION OF RIGID TYPE



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS II BARRICADE

CONSTRUCTION BARRICADE

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

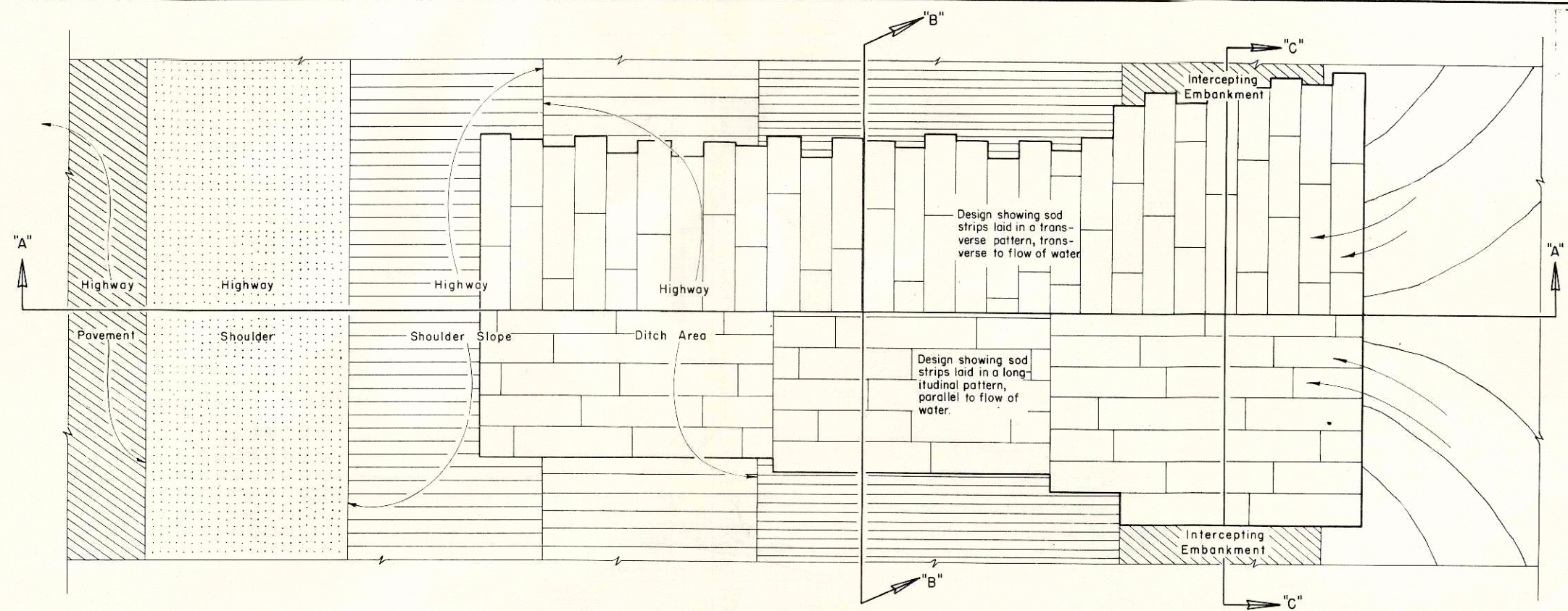
DATE 2-5-63 J. P. Pelt ENGINEER OF DESIGN

APPROVED:

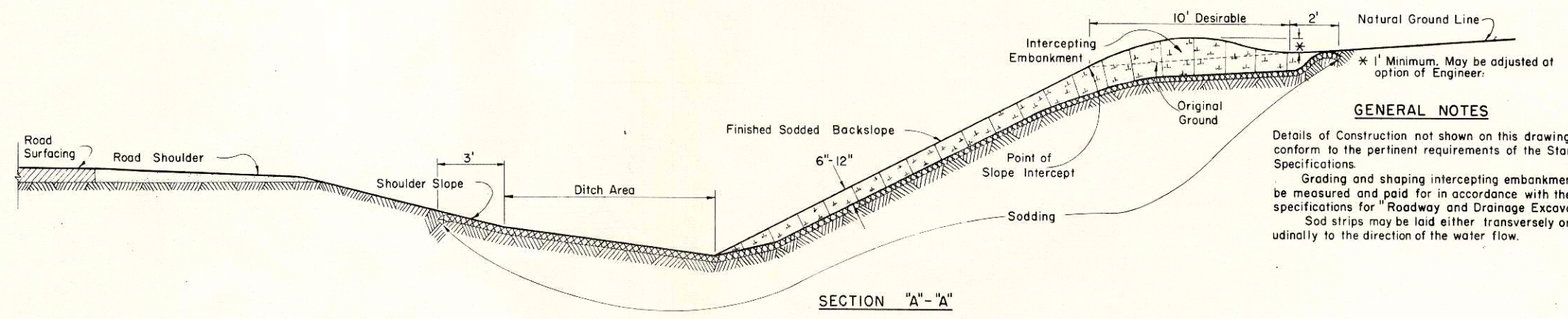
DATE 2/16/63 P. C. Rostetter STATE HIGHWAY ENGINEER

PLATE NO. 7-4.1.4

8.3-40



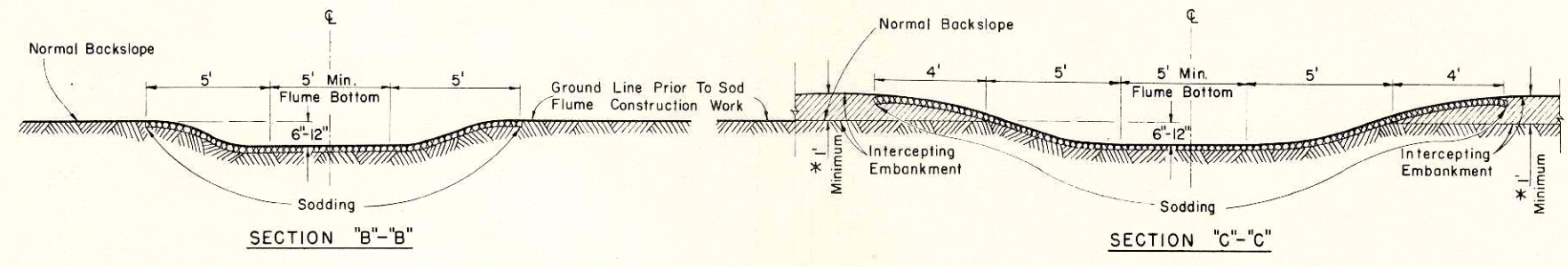
PLAN VIEW OF SODDED BACKSLOPE FLUME



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.

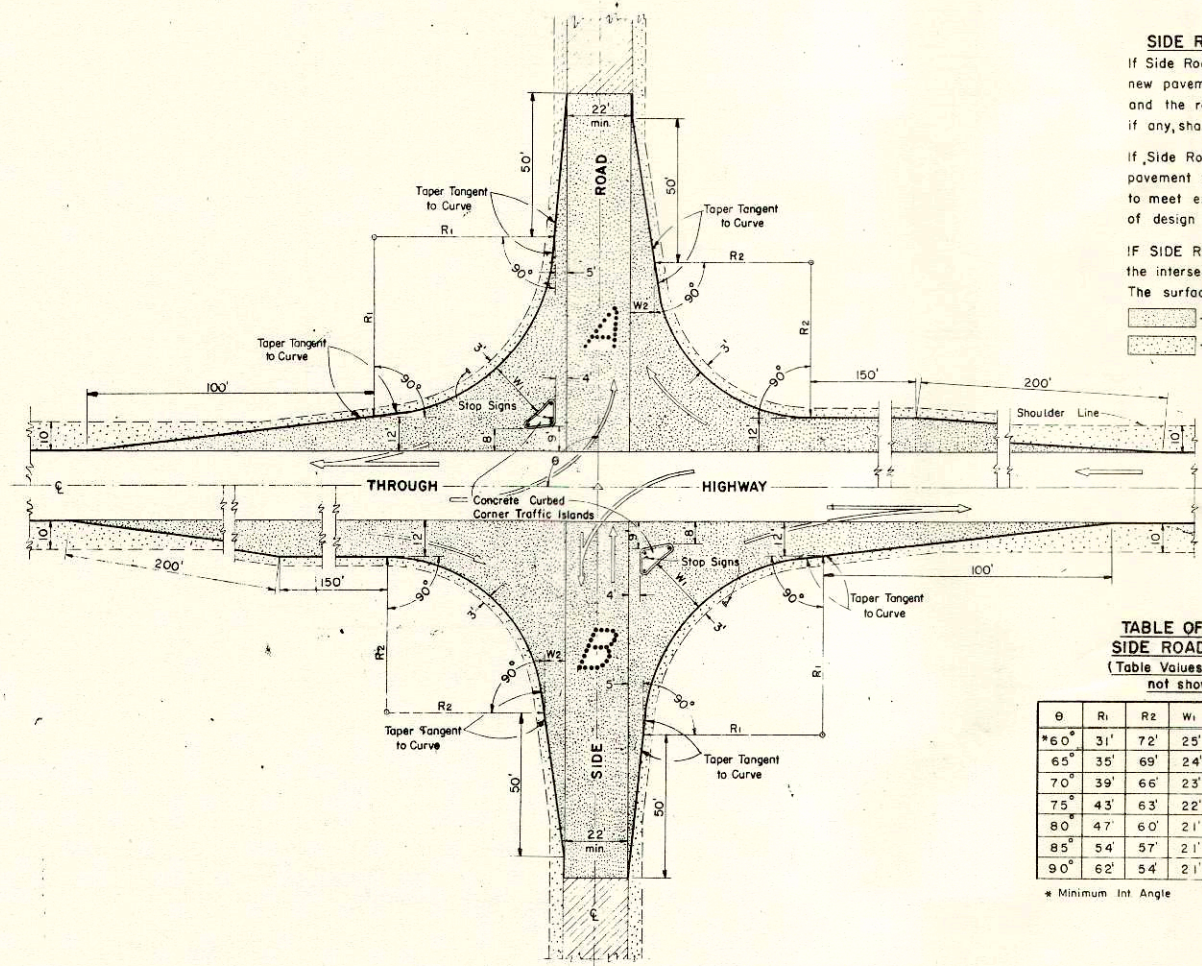


SECTION "B"- "B"

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:	
DATE: 2-5-63	J. S. Pitt ENGINEER OF DESIGN
APPROVED:	
DATE: 2/6/63	C. L. Rusten STATE HIGHWAY ENGINEER
PLATE NO. 8-2.1.4	

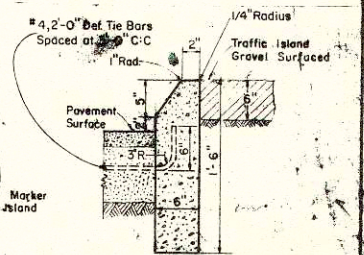
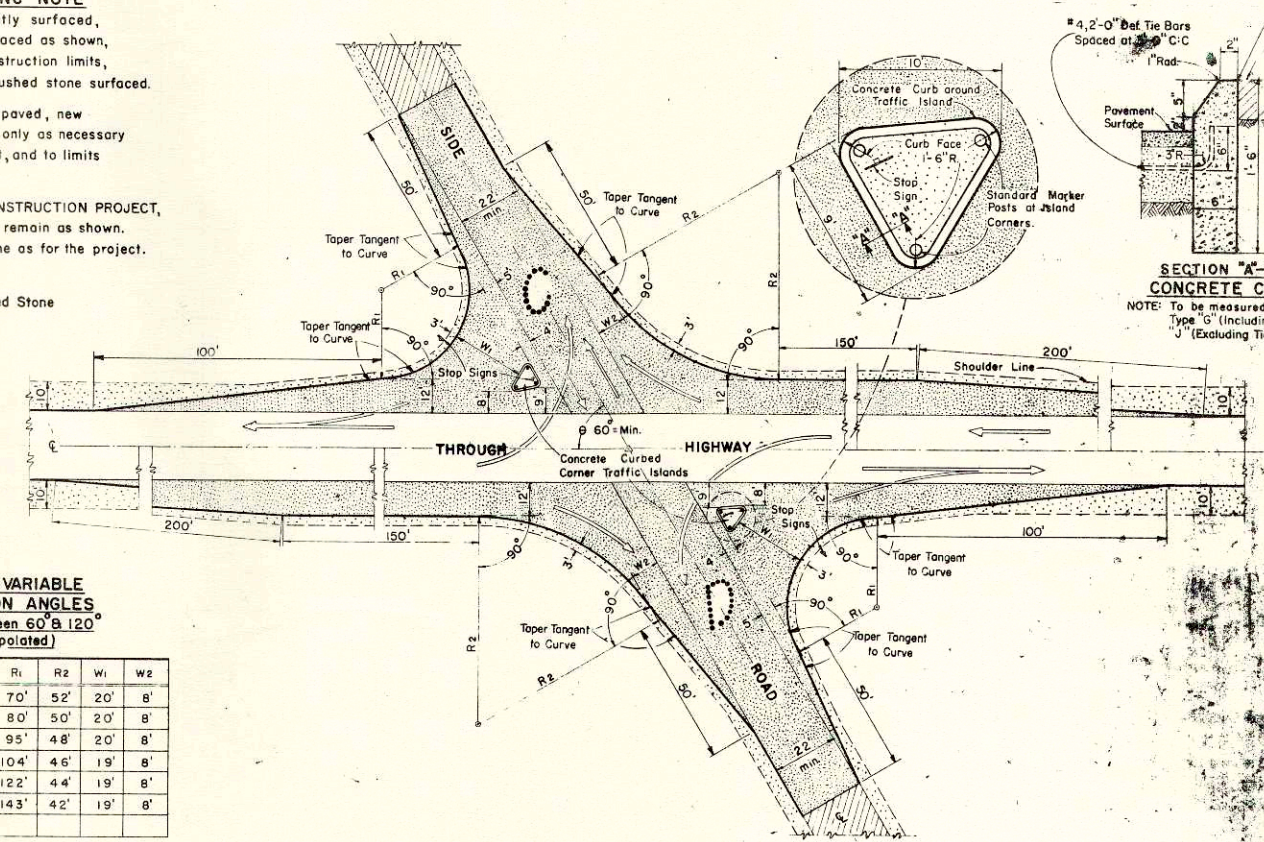


SIDE ROAD SURFACING NOTE
 If Side Road is not presently surfaced, new pavement shall be placed as shown, and the remainder to construction limits, if any, shall be gravel or crushed stone surfaced.
 If Side Road is presently paved, new pavement shall be placed only as necessary to meet existing pavement, 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.
 [Legend: 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	θ	R ₁	R ₂	W ₁	W ₂
60°	31'	72'	25'	10'	95°	70'	52'	20'	8'
65°	35'	69'	24'	9'	100°	80'	50'	20'	8'
70°	39'	66'	23'	8'	105°	95'	48'	20'	8'
75°	43'	63'	22'	8'	110°	104'	46'	19'	8'
80°	47'	60'	21'	8'	115°	122'	44'	19'	8'
85°	54'	57'	21'	8'	120°	143'	42'	19'	8'
90°	62'	54'	21'	8'					

* Minimum Int. Angle ** Maximum Int. Angle



SECTION "A-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

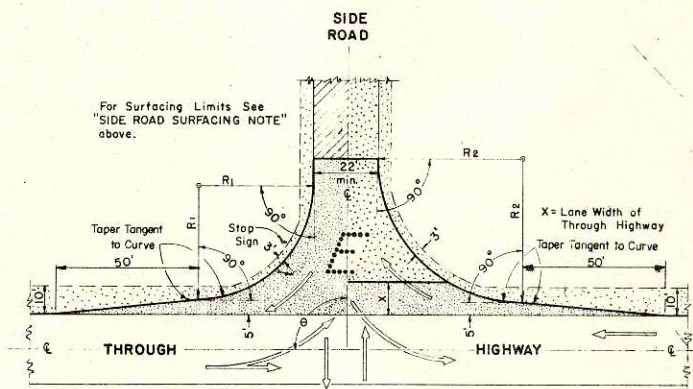


TABLE OF VALUES FOR VARIABLE SIDE ROAD INTERSECTION ANGLES
 (Table Values for Angles between 60° & 120° not shown shall be interpolated)

θ	R ₁	R ₂	θ	R ₁	R ₂
60°	40'	50'	95°	45'	49'
65°	40'	50'	100°	50'	48'
70°	40'	50'	105°	55'	47'
75°	40'	50'	110°	60'	46'
80°	40'	50'	115°	65'	45'
85°	40'	50'	**120°	70'	44'
90°	40'	50'			

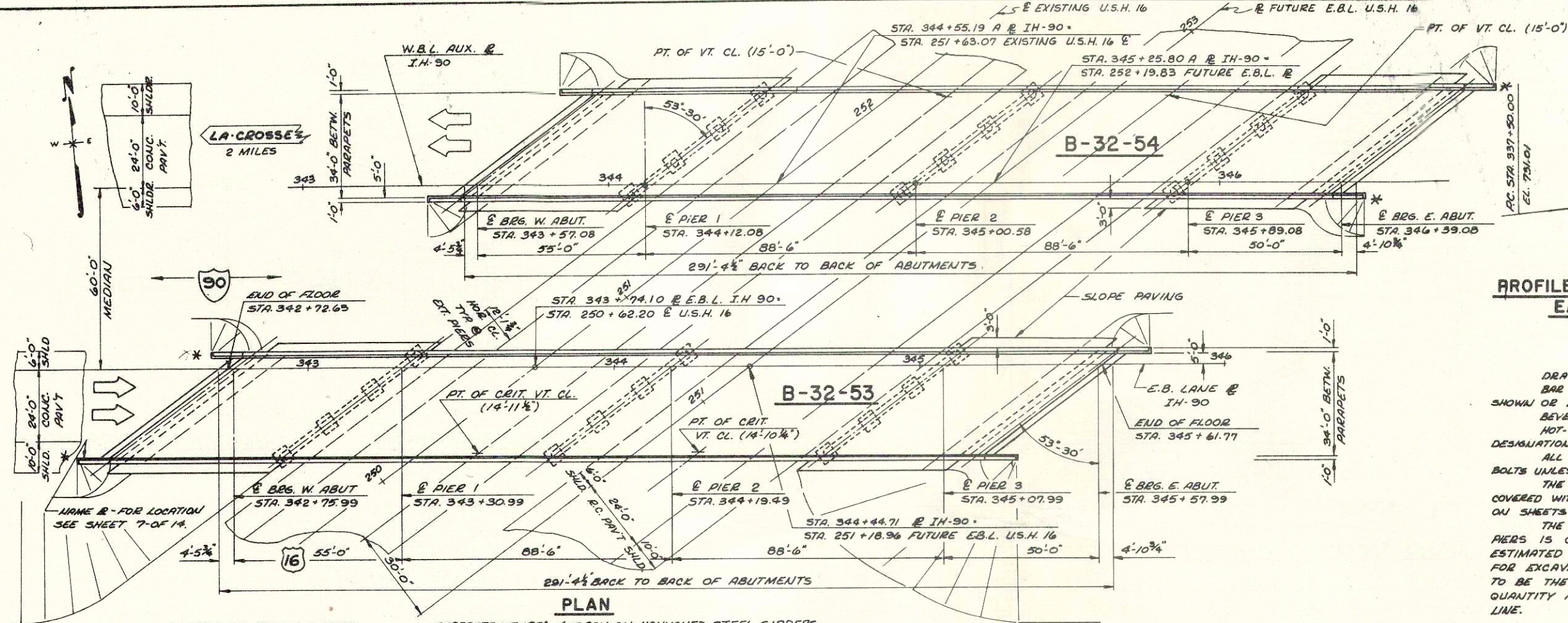
* Minimum Int. Angle ** Maximum Int. Angle

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 interchangeably in combination or separately for any one complete intersection depending upon Traffic Volume, Intersection Angle, and Surfacing of each approach roadway.
 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 AT GRADE INTERSECTIONS (RURAL IN CHARACTER)
 STATE HIGHWAY COMMISSION OF WISCONSIN
 RECOMMENDED FOR APPROVAL
 DATE: 2-5-63
 APPROVED: [Signature]
 DATE: 2/6/63
 PLATE: [Blank]

COUNTY & HIGHWAY	ROUTE & SECTION	CLASS & AGREEMENT	S. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
72.3 90.1		13.1	4	[90-1(4)5	9	40



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 1" UNLESS OTHERWISE SPECIFIED.

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

ALL FIELD CONNECTIONS SHALL BE MADE OF 3/4" 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

1. GENERAL PLAN	X35017
2. SUPERSTRUCTURE	X35018
3. SUPERSTRUCTURE	X35019
4. SUPERSTRUCTURE DETAILS	X35020
5. BEARING DETAILS	X35021
6. EXPANSION JT. & HOLD-DOWN DEVICE	X35022
7. RAIL PARAPET DETAILS	X35023
8. DETAILS FOR TYPE 'S' TUBULAR ALUMINUM & STEEL RAILING	X35024
9. WEST ABUTMENT	X35025
10. EAST ABUTMENT	X35026
11. ABUTMENT DETAILS	X35027
12. PIERS 1, 2 & 3	X35028
13. SUBSURFACE EXPLORATION	X35029
14. BILL OF BARS	X35030

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 3/4" AND UNDER $f_s = 27,000$ p.s.i.

OVER 3/4" TO 1 1/2" INCL. $f_s = 25,000$ p.s.i.

FOUNDATION:

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

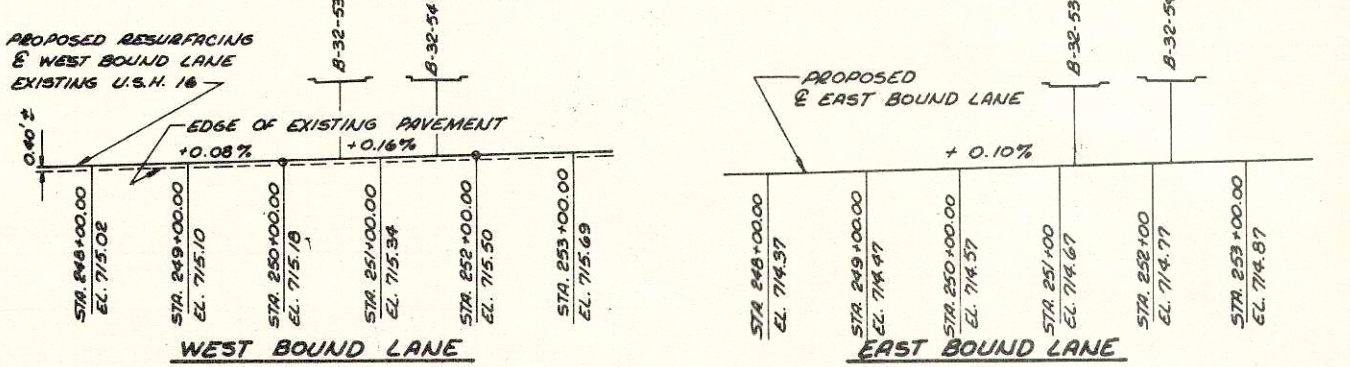
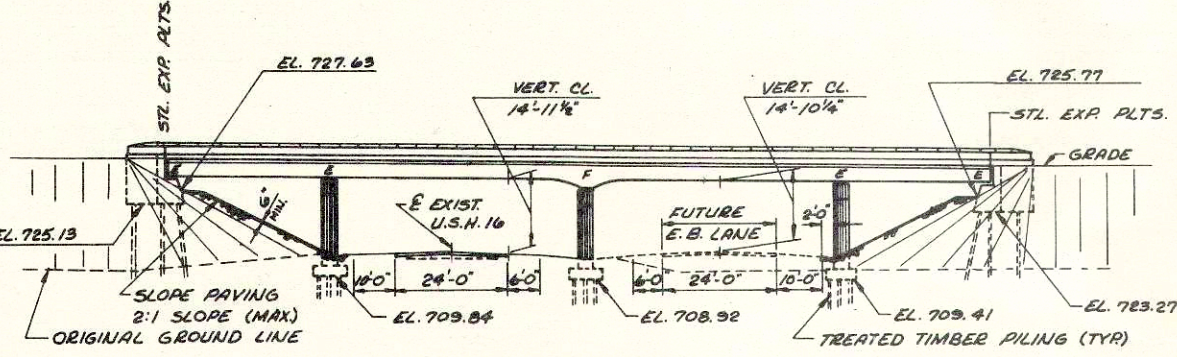
PIERS TO BE SUPPORTED ON TREATED TIMBER PILING WITH A MIN. BRG. CAPACITY OF 20 TONS/PILE, EST. 55'-0" LONG.

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.	295.1	80.5	56.1	53.1	55.1	82.4	622.3
BAR STEEL REINFORCEMENT	LB	94310	2580	6670	6180	6520	2580	119,780
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 - CRUSHED STONE	S.Y.		300				270	570
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.



TRAFFIC VOLUME

A.D.T. = 3,600 (1975 2-WAY)

D.H.V. = 1,440 (1975)

STATE HIGHWAY COMMISSION OF WISCONSIN

GENERAL PLAN

CO. LA-CROSSE

BY TH. MEDARY

343+74.10 STA. E.B.L.

SECTION 11 TOWN 16N RANGE 7W

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

DATE 5-26-64 DESIGN BY DRAWN BY C.K. J.C.K.

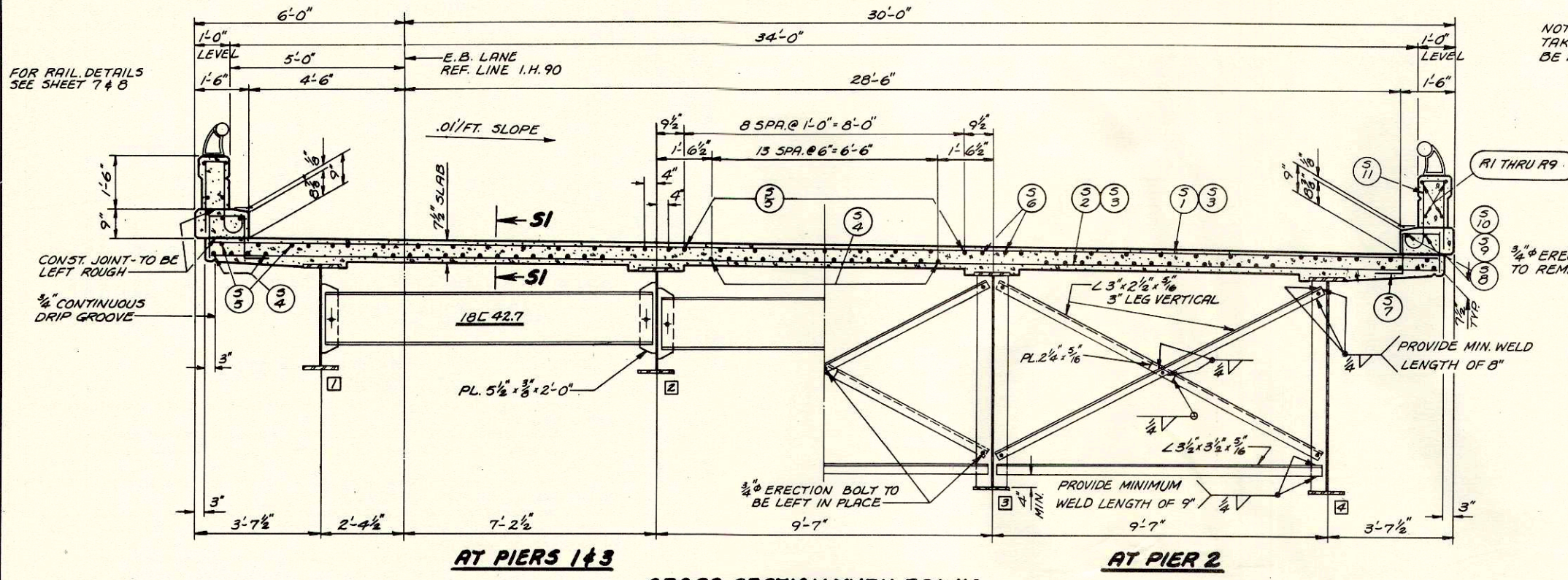
RECOMMENDED H.B. Schultze CHIEF BRIDGE ENGINEER

APPROVED J. Dumirets STATE HIGHWAY ENGINEER

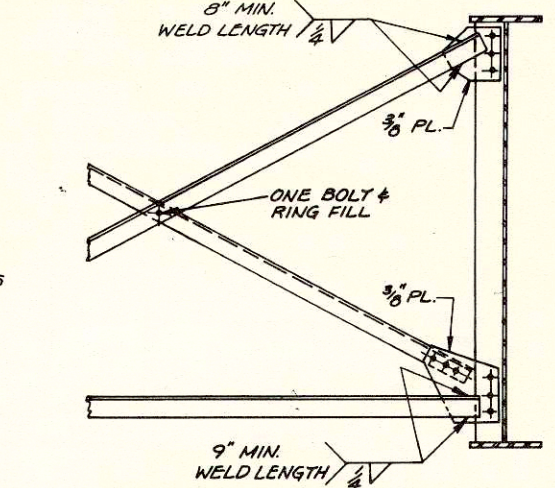
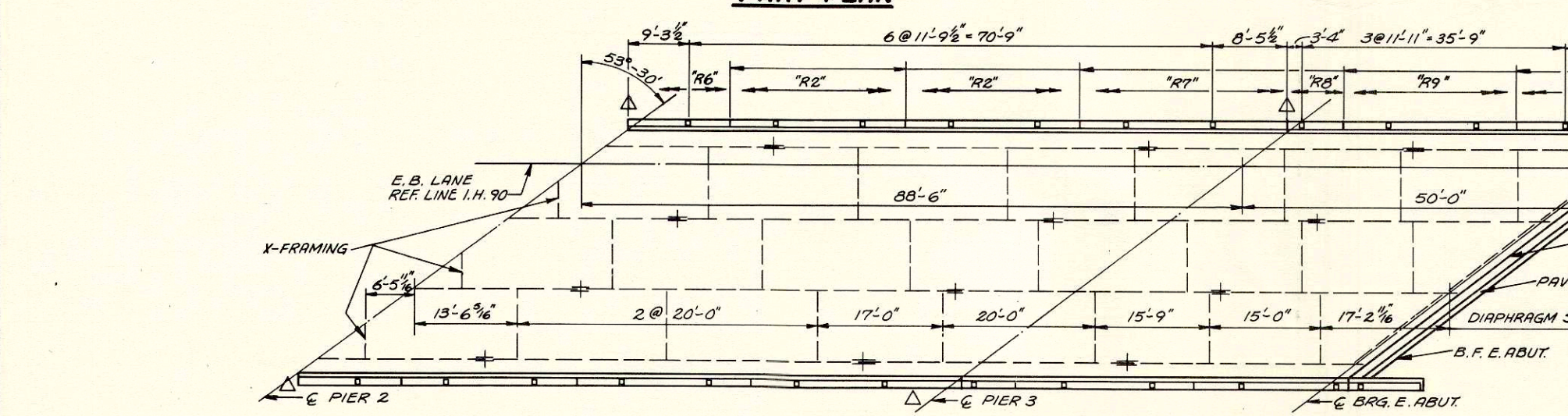
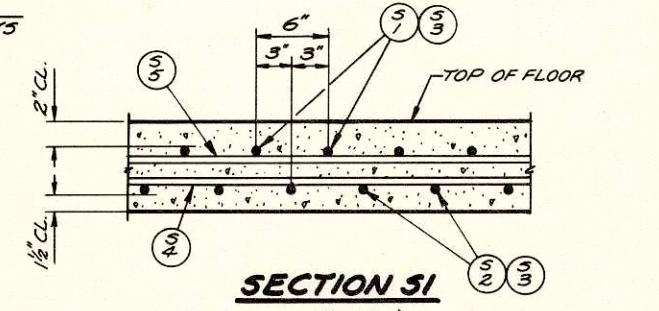
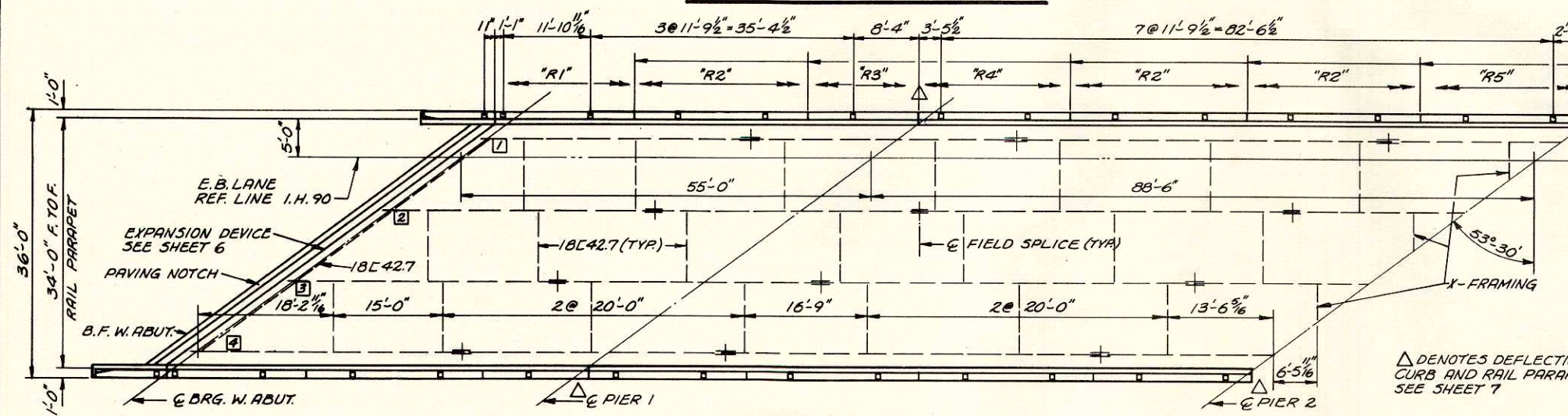
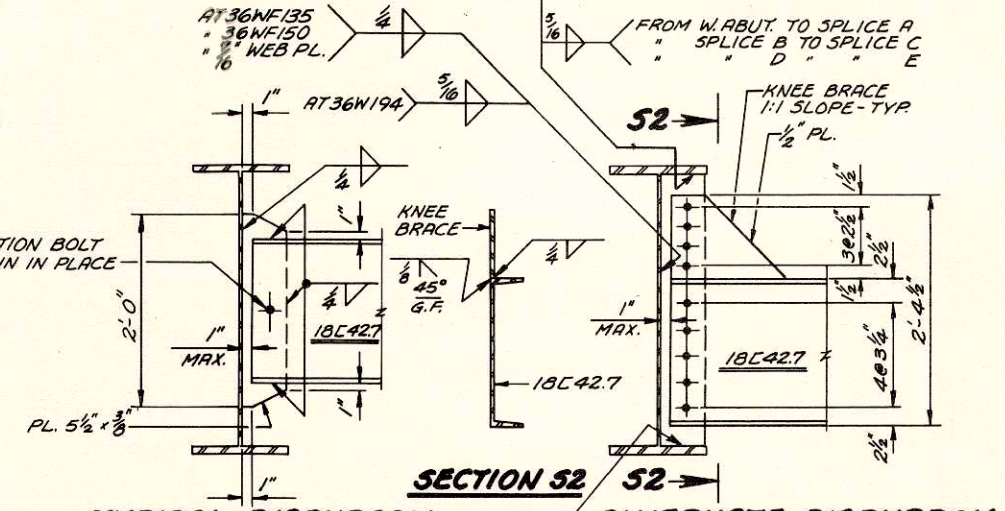
STRUCTURE B - 32 - 53 SHEET 1 OF 14

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.



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.

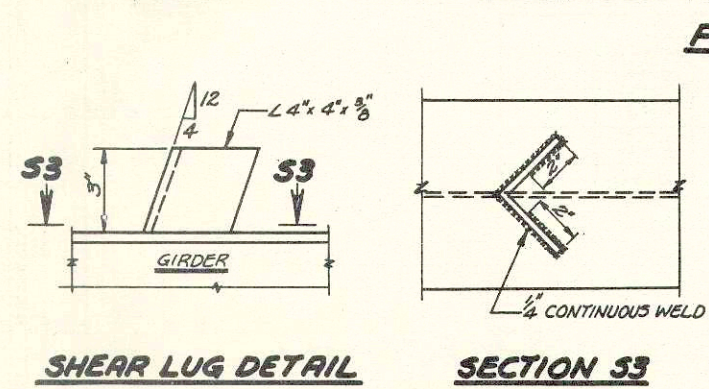
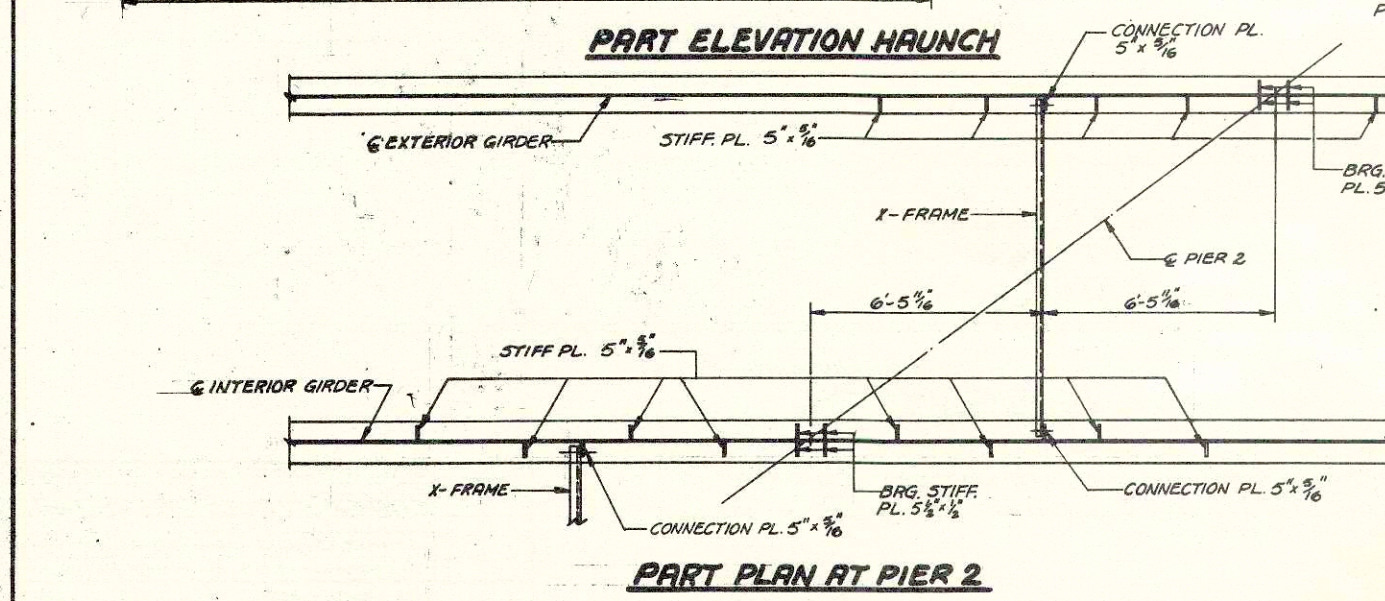
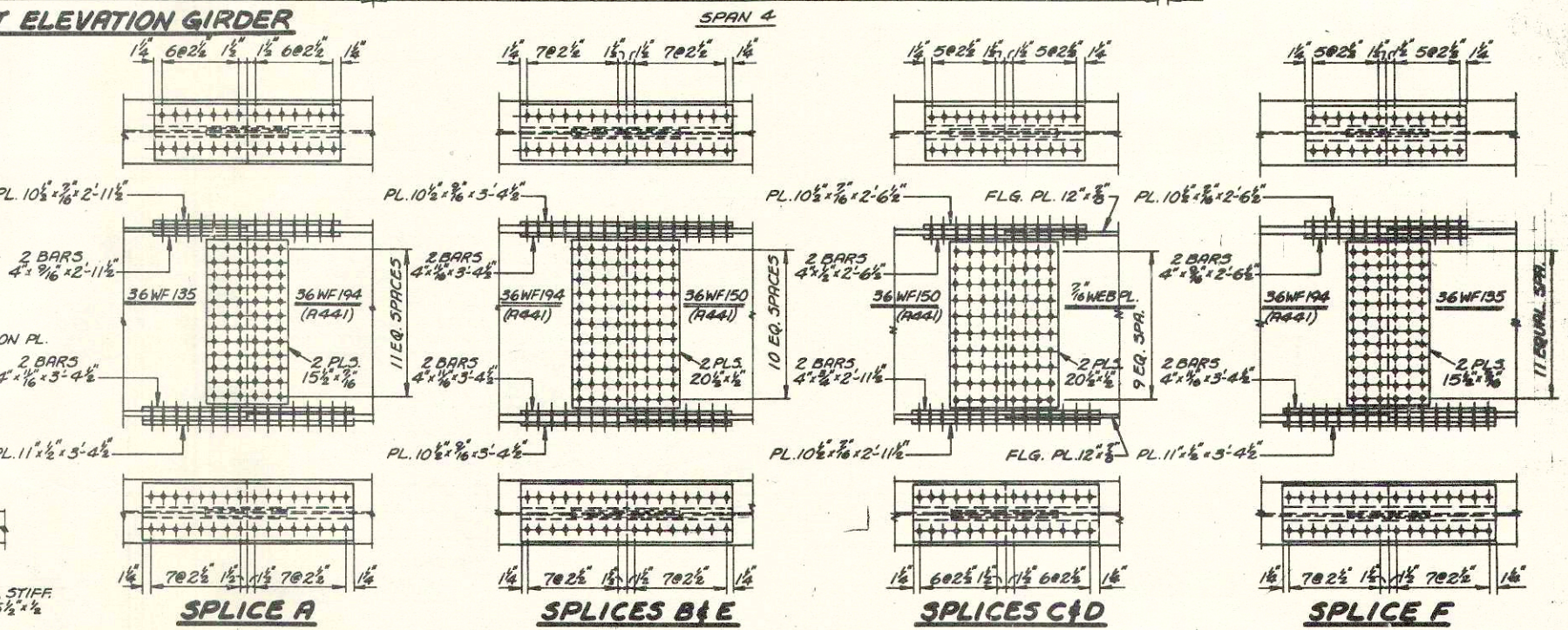
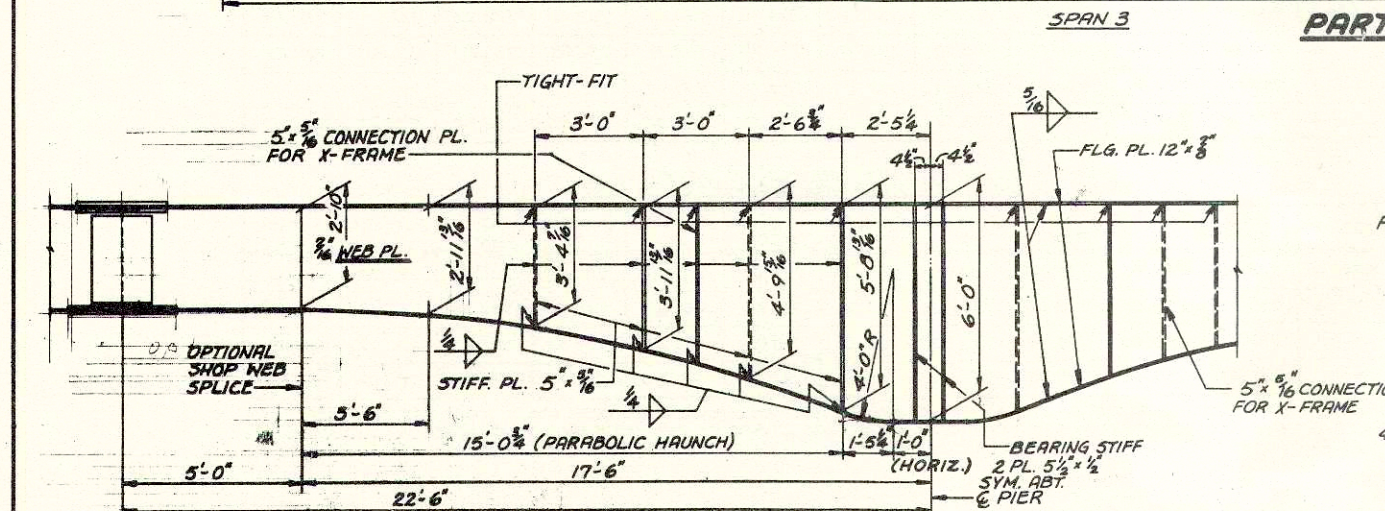
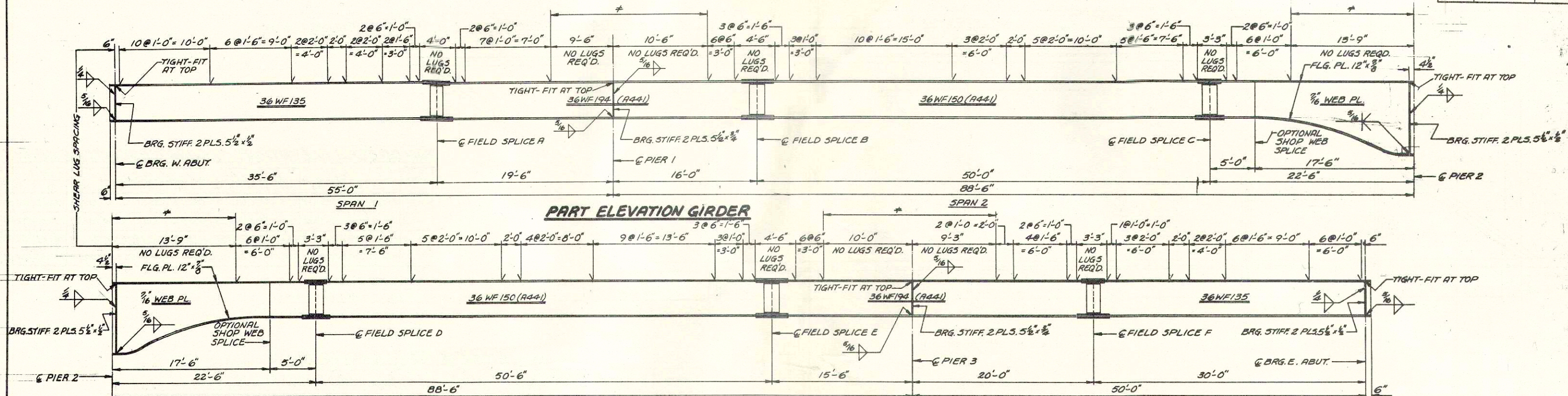


REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	SUPERSTRUCTURE
	DESIGN SPEC. A.A.S.H.O. 61
	LOADING HS20-MOD
	CONSTR. 1963
	DATE 5-24-66
	DESIGN J.S.B.
	DRAWN J.W.L.
	CHKD. J.C.K.
	STRUCTURE B-32-53
	SHEET 2 OF 14

X35018

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

* NO FIELD WELDING FOR CONSTRUCTION PURPOSES PERMITTED IN THIS AREA.

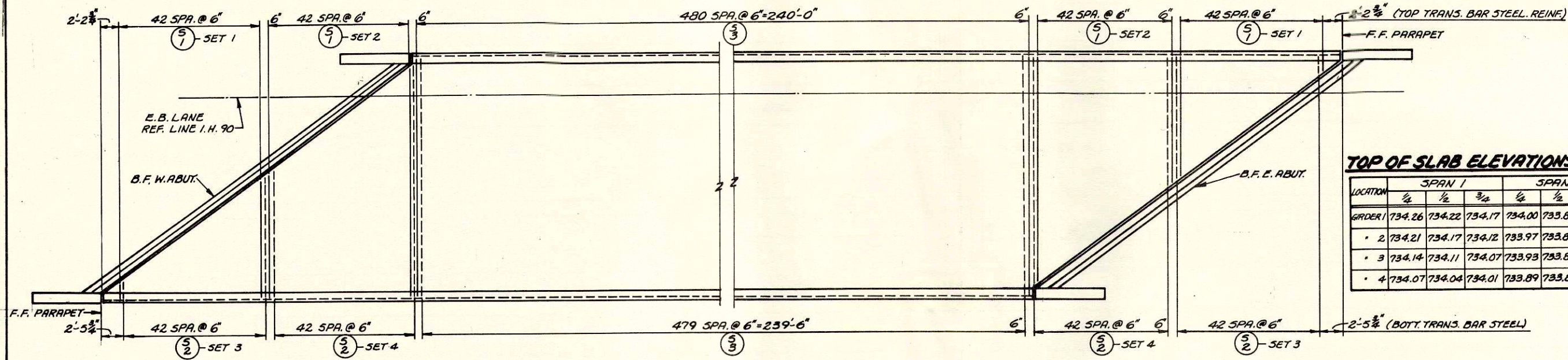


NOTE: PROVIDE FILL PLATES AS REQUIRED AT SPLICES. 1/8" MINIMUM THICKNESS.

REVISIONS	STATE HIGHWAY COMMISSION OF WISCONSIN
	SUPERSTRUCTURE
	DESIGN SPEC. R.R.S.H.Q. '61 LOADING MS20-MAX. CONCR. 1963
	DATE: 5-26-66 DESIGN: J.S.B. DRAWN: J.W. CKD: J.C.K.
STRUCTURE B-32-53	SHEET 9 OF 14

X35019

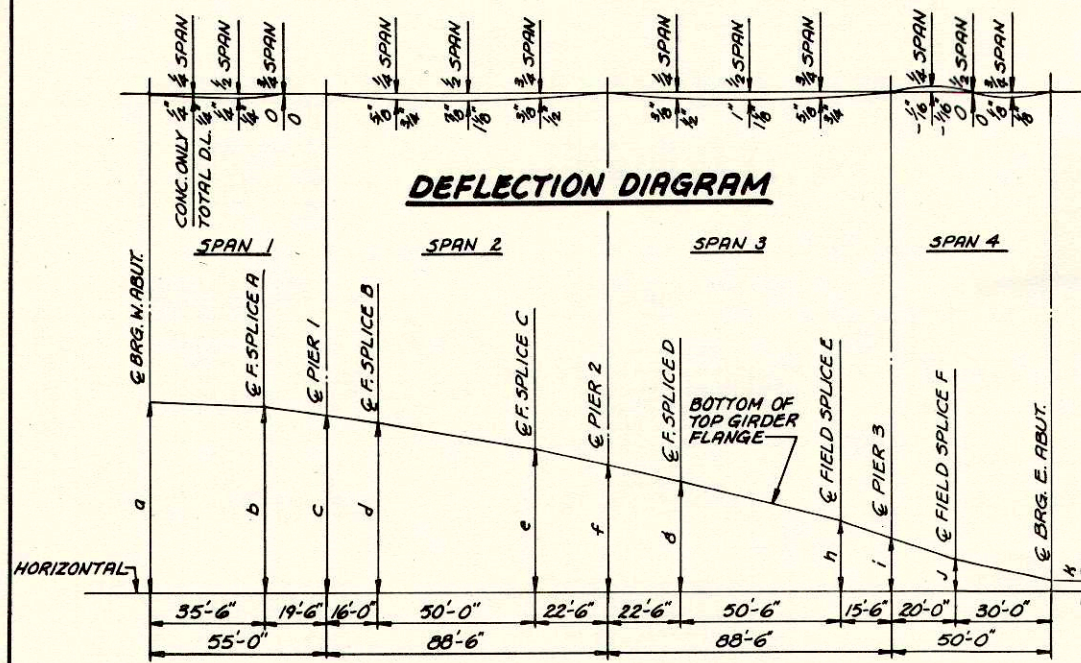
B. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	I 90-1(45)5	12	40



PLAN

TOP OF SLAB ELEVATIONS AT QUARTER POINTS OF SPANS

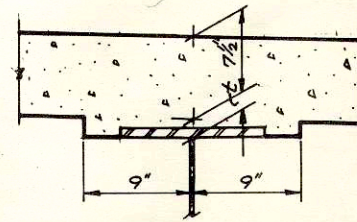
LOCATION	SPAN 1			SPAN 2			SPAN 3			SPAN 4		
	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4	1/4	1/2	3/4
GIRDER 1	734.26	734.22	734.17	734.00	733.88	733.74	733.41	733.22	733.02	732.66	732.52	732.39
" 2	734.21	734.17	734.12	733.97	733.86	733.73	733.42	733.24	733.04	732.70	732.57	732.43
" 3	734.14	734.11	734.07	733.93	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	733.06	732.77	732.65	732.52



DEFLECTION DIAGRAM

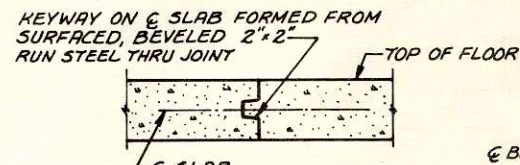
BLOCKING DIAGRAM

DIMENSION	a	b	c	d	e	f	g	h	i	j	k
GIRDER 1	2'-0 1/8"	1'-11 3/8"	1'-10 1/8"	1'-9 3/8"	1'-6 3/8"	1'-4 3/8"	1'-2 3/8"	0'-8 1/8"	0'-6 1/8"	0'-4 1/8"	0
" 2	1'-11 3/8"	1'-10 3/8"	1'-9 3/8"	1'-8 3/8"	1'-5 3/8"	1'-3 3/8"	1'-1 3/8"	0'-8 3/8"	0'-6 3/8"	0'-3 3/8"	0
" 3	1'-9 3/8"	1'-8 3/8"	1'-8 3/8"	1'-7 3/8"	1'-4 3/8"	1'-2 3/8"	1'-0 3/8"	0'-8 3/8"	0'-6 3/8"	0'-3 3/8"	0
" 4	1'-8 3/8"	1'-7 3/8"	1'-6 3/8"	1'-6 3/8"	1'-5 3/8"	1'-2 3/8"	1'-0 3/8"	0'-7 3/8"	0'-5 3/8"	0'-3 3/8"	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 \bar{C} OF BEARINGS, \bar{C} 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

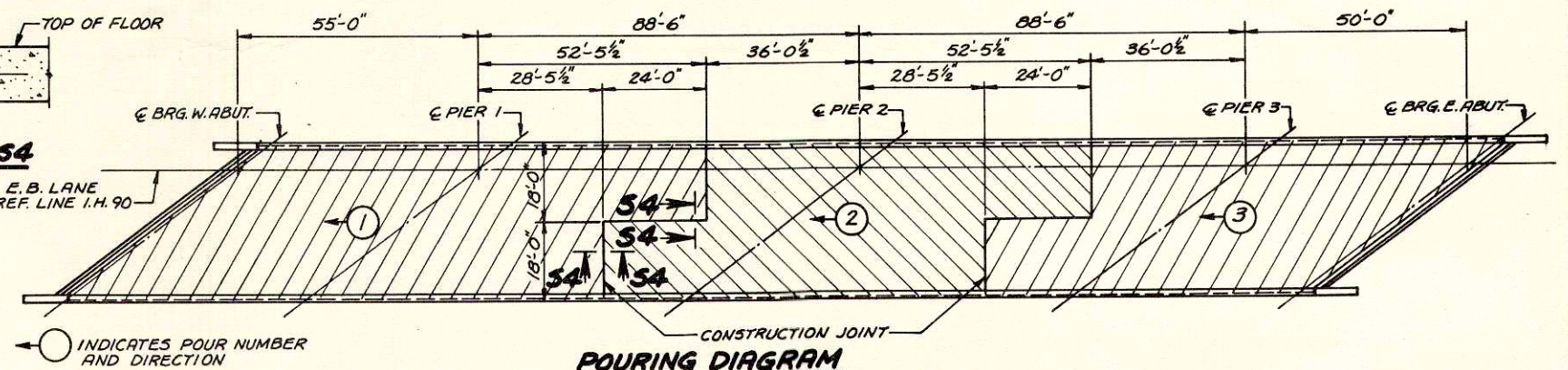
TOP OF SLAB ELEVATIONS

LOCATION	\bar{C} BRG. W. ABUT.	\bar{C} SPLICE A	\bar{C} PIER 1	\bar{C} SPLICE B	\bar{C} SPLICE C	\bar{C} PIER 2	\bar{C} SPLICE D	\bar{C} SPLICE E	\bar{C} PIER 3	\bar{C} SPLICE F	\bar{C} 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	732.23
" 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	\bar{C} BRG. W. ABUT.	\bar{C} SPLICE A	\bar{C} PIER 1	\bar{C} SPLICE B	\bar{C} SPLICE C	\bar{C} PIER 2	\bar{C} SPLICE D	\bar{C} SPLICE E	\bar{C} PIER 3	\bar{C} SPLICE F	\bar{C} BRG. E. ABUT.
GIRDER 1	733.65	733.60	733.48	733.46	733.13	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.

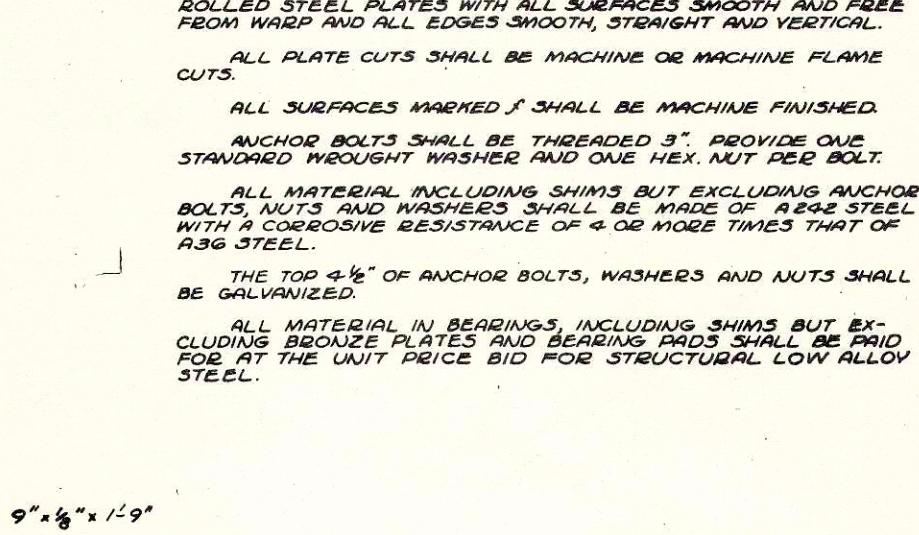
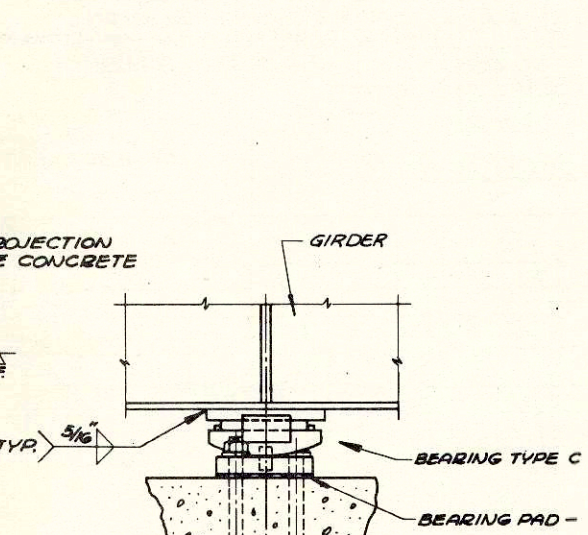
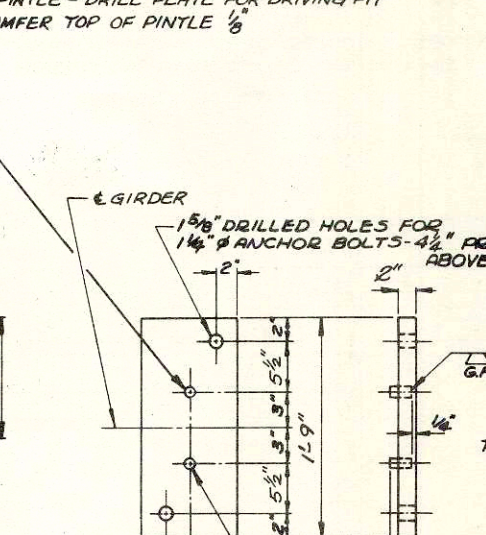
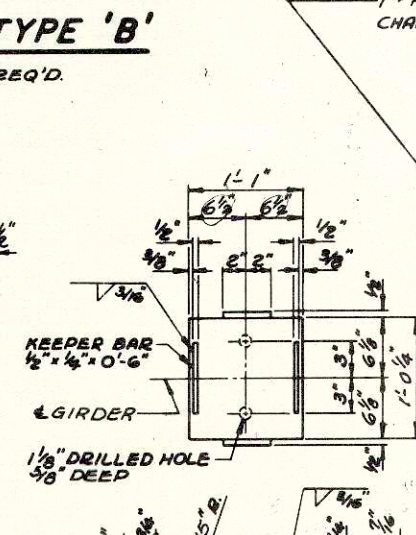
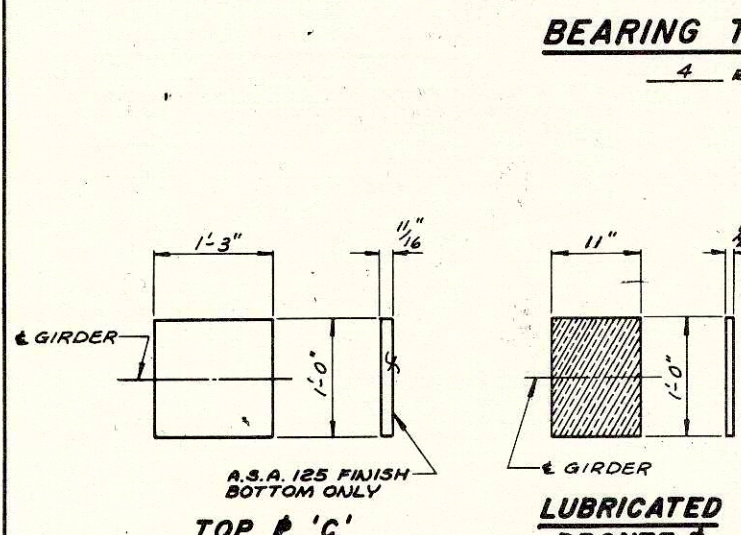
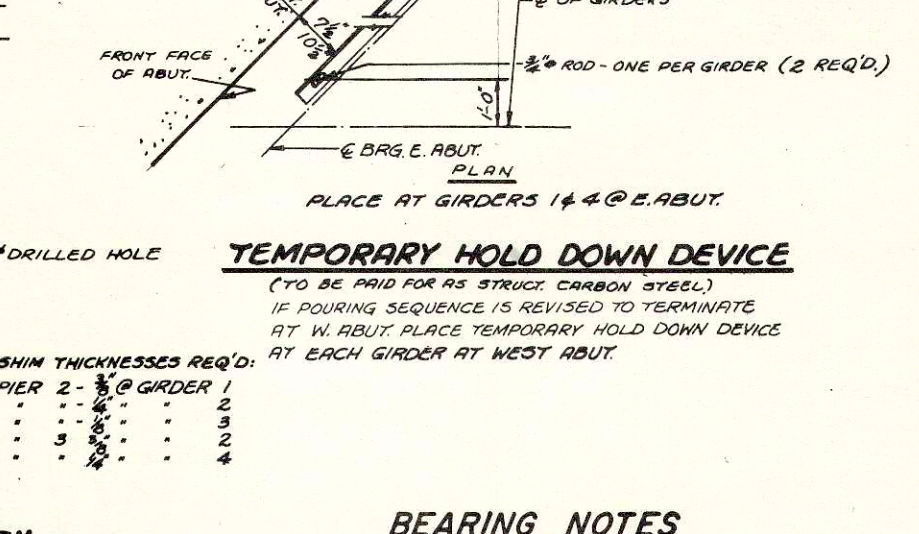
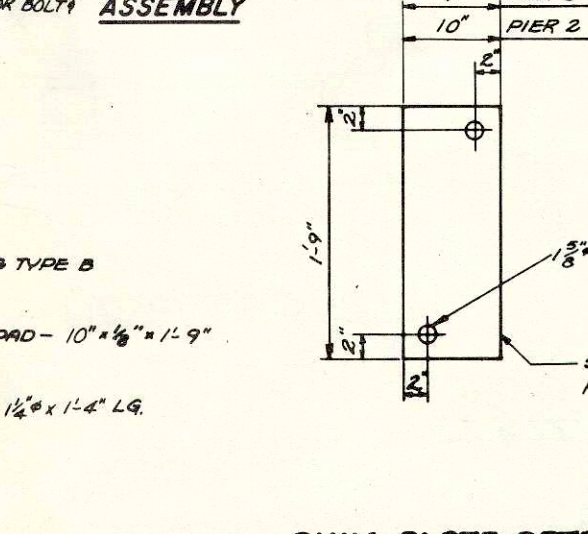
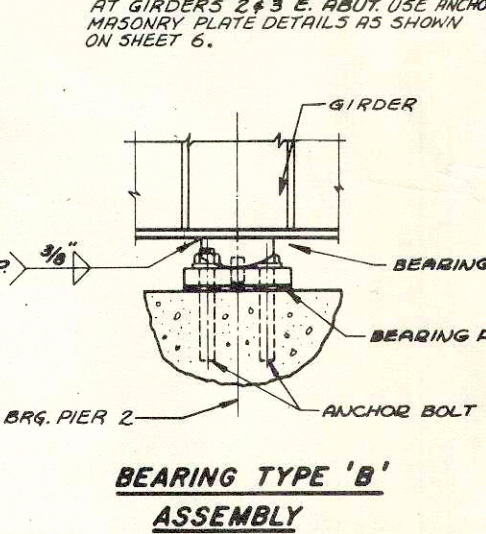
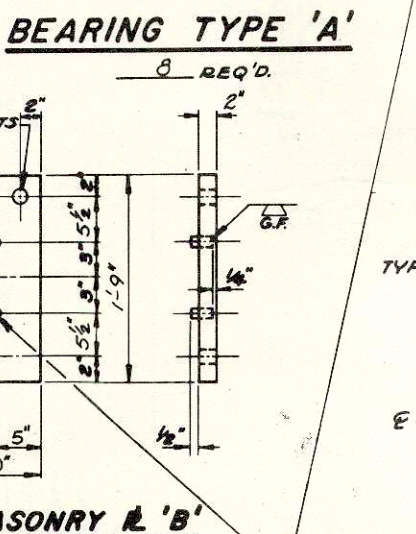
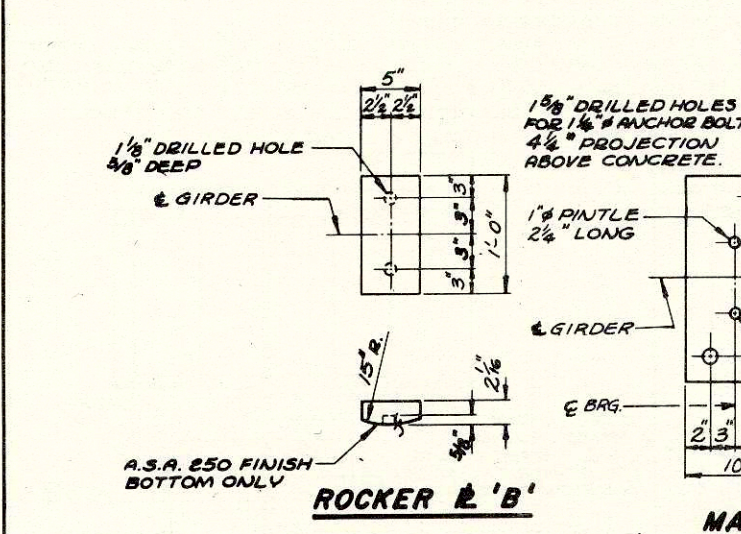
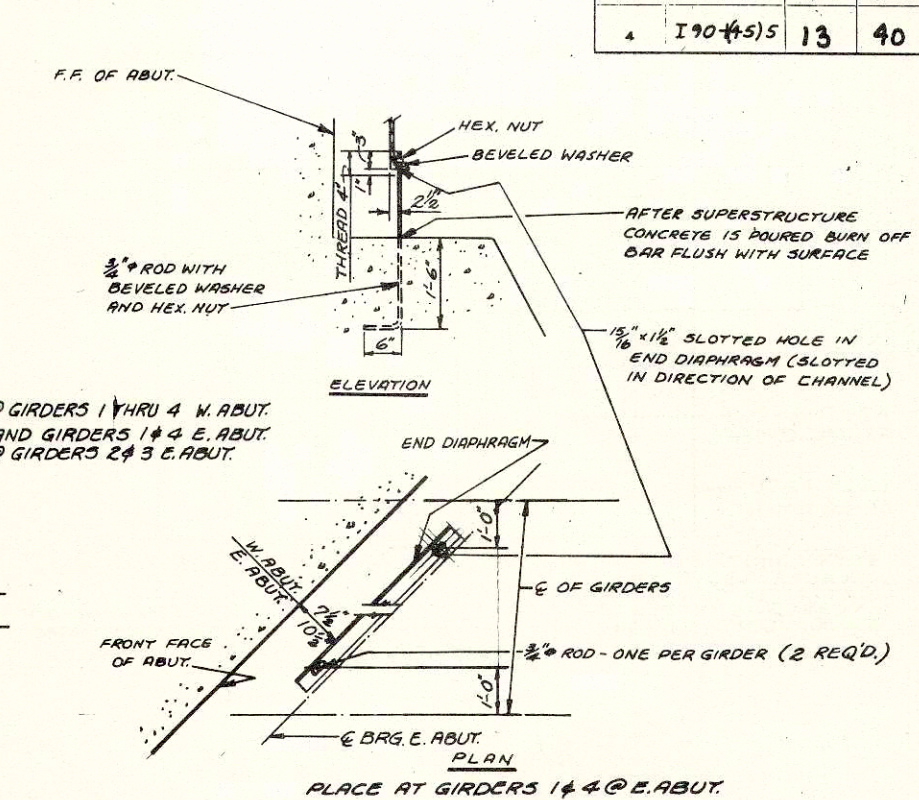
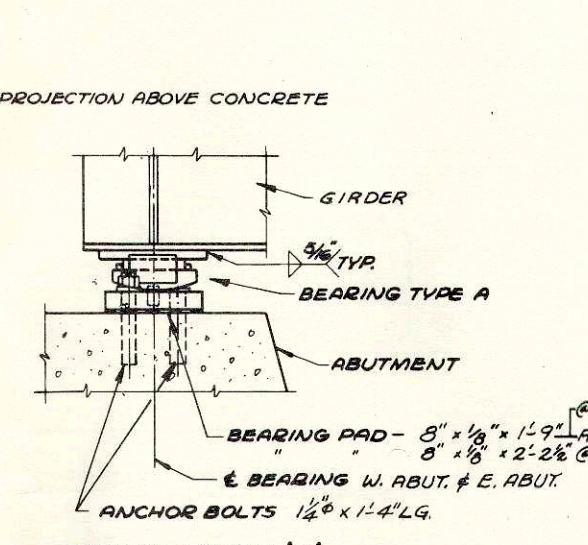
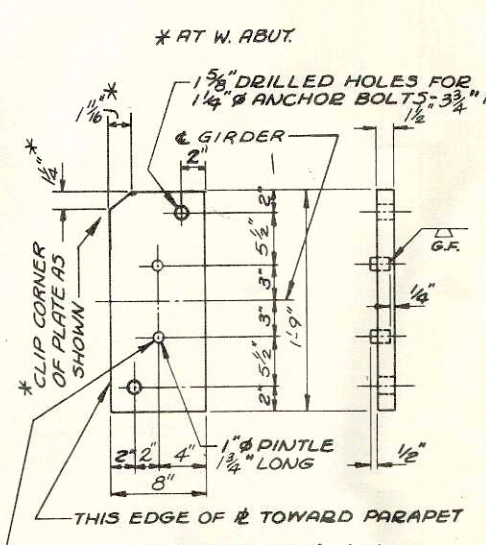
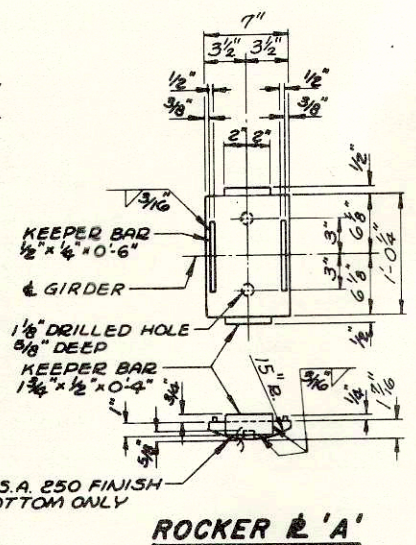
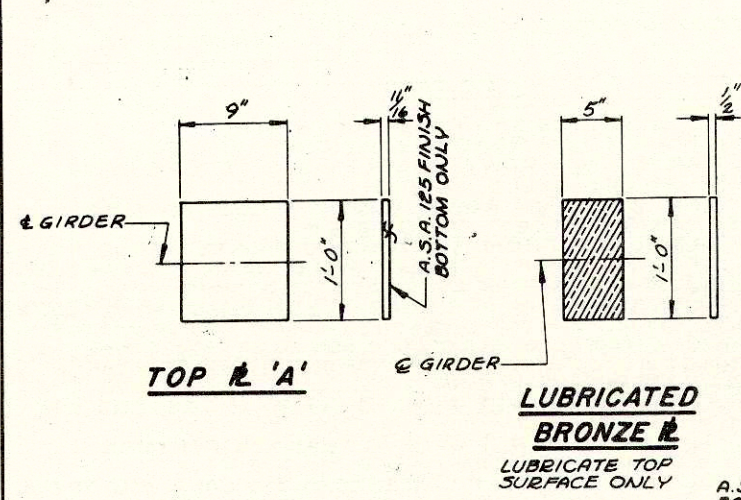


POURING DIAGRAM

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.R.S.H.O. 61	LOADING HS20-100	CONCR. SPEC. 1963
	DATE 5-24-66	DESIGN S.S.B.	DRAWN T.H.L. CRD. J.C.K.
STRUCTURE	B-32-53	SHEET	4 OF 14

S.F.P. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-455	13	40



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

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
BEARING DETAILS	
DESIGN SPEC. A.S.S.N.O. 61	LOADING
DATE 5-24-66	DESIGN
STRUCTURE B-32-53	SHEET 5 OF 14

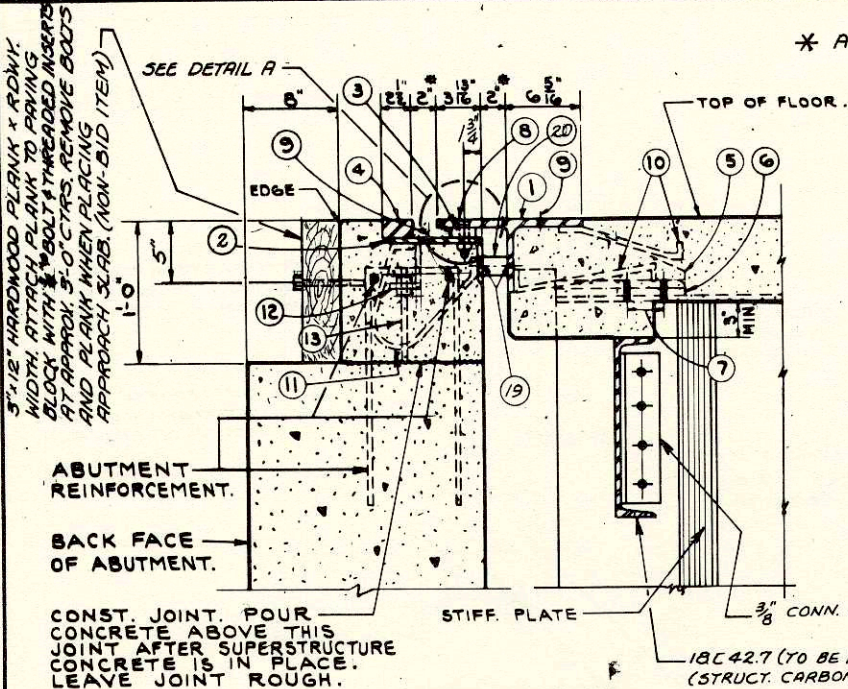
S.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	190-1(45)5	14	40

* AT 60° F.

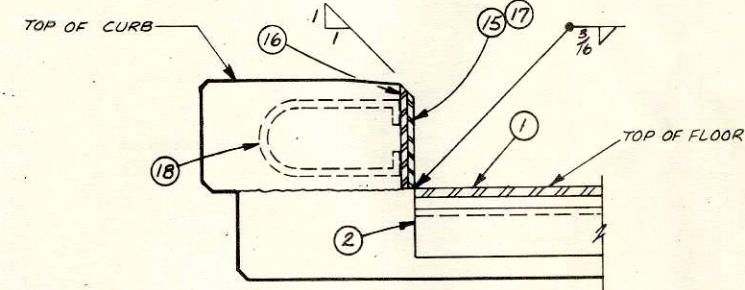
LONG. DIM. OF 1/8" x 1/8" SLOTTED HOLE PARALLEL TO REF. LINE

LEGEND

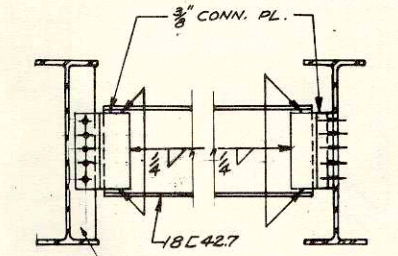
1. S.T. #1 6" W.F. 39.5# ROADWAY WIDTH.
2. L 8" x 4" x 1/2" ROADWAY WIDTH.
3. BAR 2" x 3/4" x RDWY. WIDTH. WELD TO L#2 WITH 2 LINES OF 1/4" FILLET WELD. 2 @ G.
4. BAR 2 1/2" x 1 1/2" x RDWY. WIDTH. WELD TO L#2 WITH 2 LINES OF 1/4" FILLET WELD. 2 @ G.
5. FABRICATE FROM 1/2" WELDED PLATE. WELD TO STEM & FLG. OF S.T.#1 WITH 1/4" FILLET WELD NEAR AND FAR SIDE.
6. 5" MIN. LAMINATED & SLOTTED SHIM.
7. DRILL HOLES IN STRINGER FLG. IN FIELD FOR 3/4" BOLTS.
8. 3/4" FLAT HD. CAP SCREW x 0-2 1/2" WITH SQ. NUT @ 4'-0" CTRS. GREASE FOR EASY REMOVAL. 1/2" x 1/4" KEEPER BAR - WELD TO L#2 TO KEEP SQ. NUT FROM TURNING.
9. 1 1/2" x 1/2" SLOTTED HOLE IN L#2. 1 1/2" HOLE CSK. 1/8" DEEP IN S.T.#1. 1/8" SLOT IN BAR #3 AS SHOWN. (HOLE IN L#2 PARALLEL TO GIRDERS) & L#2.
10. VENT HOLES. 1 1/2" PLACED AT 2'-0" CENTERS ON L#2 AND S.T.#1.
11. 5/8" BENT BAR @ 0'-9" ALTERNATE CENTERS BETWEEN GIRDERS. 1'-3" LONG. WELD TO S.T.#1.
12. 5/8" BENT BAR @ 1'-0" CENTERS. 2'-0" LONG. WELD TO L#2.
13. L 3" x 2 1/2" x 1/2" @ 3'-0" CENTERS. WELD TO L#2. PROVIDE 5/8" HOLE IN 2 1/2" LEG FOR BOLT #13.
14. 1/2" BOLT x 0'-9" LG & NUT. TACK WELD NUT TO L#12.
15. SUPPORT TEE - FABRICATE FROM 3/8" PL. WELD TO S.T.#1
16. 3/8" PL. - CHAMFER AS SHOWN
17. 3/8" PL. - CHAMFER AS SHOWN
18. 5/8" BENT BAR x 1'-3" LG. WELD TO PL#15 & PL#16 WITH 1 LINE OF 1/16" FILLET WELD. FIELD WELD TO BAR #4
19. PROVIDE 1/16" HOLES AT 3'-0" CTRS. FOR BOLT #20
20. BLOCK & BOLT FOR SHIPMENT WITH PIPE SLEEVE AND 1/2" BOLT PROVIDE 9/16" HOLES AT 3'-0" CTRS. IN S.T.#1 & L#2 FOR 1/2" BOLT.



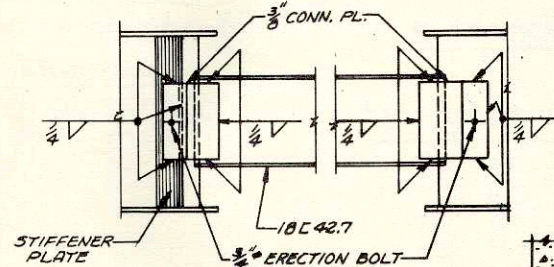
SECTION EI



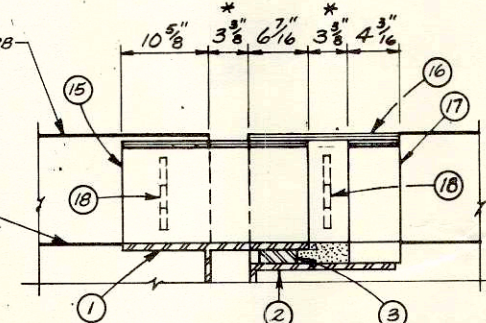
DETAIL AT CURB



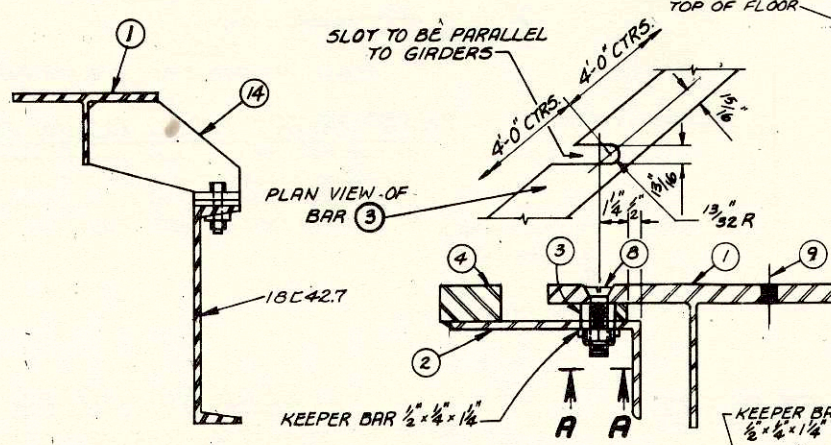
ALTERNATE DIAPHRAGM CONNECTION



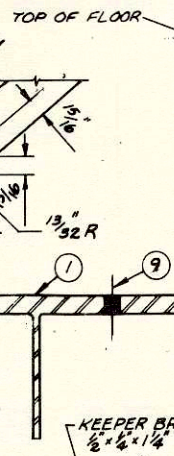
TYPICAL DIAPHRAGM CONNECTION



ELEV. CURB JOINT



SUPPORT TEE
(PLACE AT MIDPOINT OF CHANNELS)



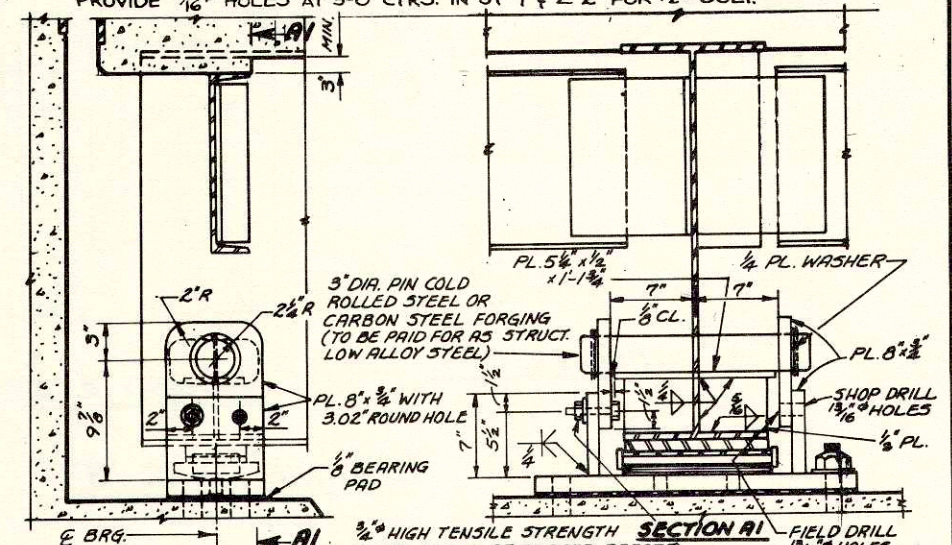
DETAIL A

NOTES

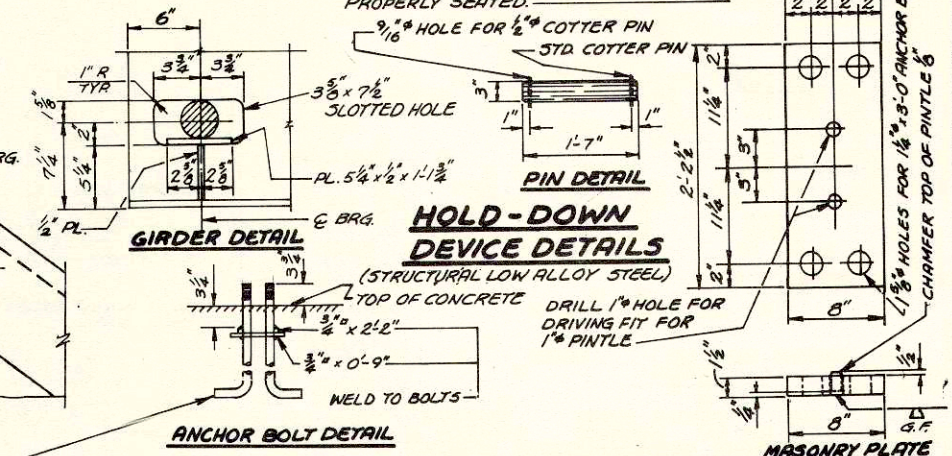
EXPANSION JOINT SHALL BE BUILT TO CONFORM TO RDWY. CROWN & GRADE. AFTER CONCRETE HAS SET REMOVE BOLTS NO. 8 AND FILL HOLES WITH HOT POURED ELASTIC TYPE JOINT SEALER.

AFTER CONCRETE HAS SET THE JOINT SHALL BE THOROUGHLY CLEANED. APPLY ± 1/8" COAT OF BITUMASTIC TO METAL SURFACES FORMING THE JOINT AND FILL WITH HOT POURED ELASTIC TYPE JOINT SEALER.

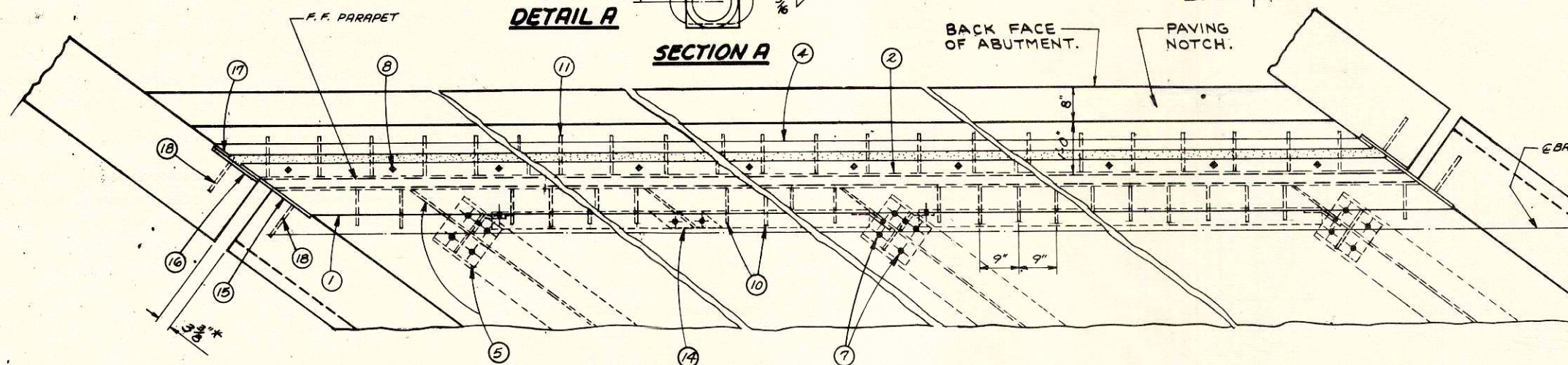
ONE FIELD SPLICE IS PERMITTED IN JOINTS OVER 30 FT. IN LENGTH. ALL MATERIAL IN EXPANSION JOINT SHALL BE PAID FOR AS STRUCTURAL CARBON STEEL.



ELEVATION



HOLD-DOWN DEVICE DETAILS
(STRUCTURAL LOW ALLOY STEEL)



PLAN
(AT WEST AND EAST ABUTS.)

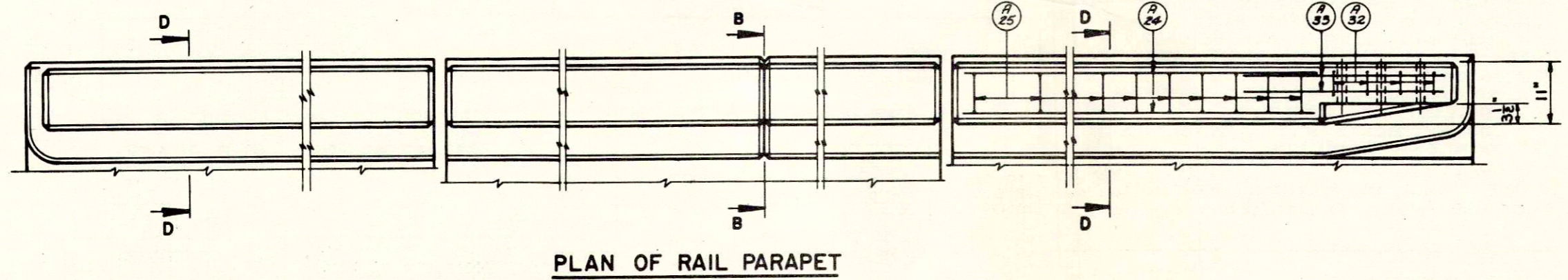
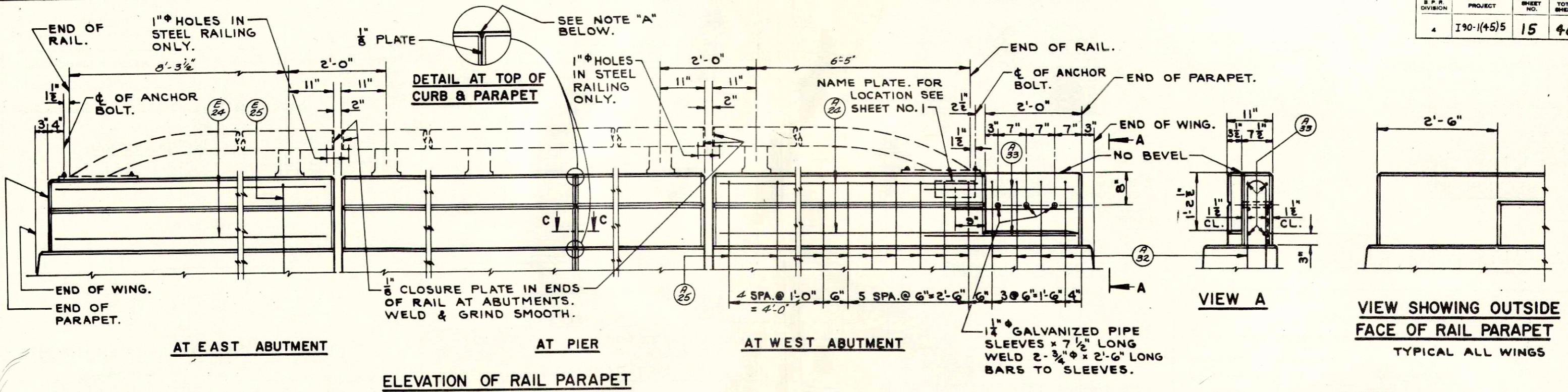
1/2" x 3'-0" PRESET ANCHOR BOLTS AT HOLD-DOWN DEVICES ONLY
3 3/4" PROJECTION ABOVE CONCRETE
90° BEND 4" LONG AT END OF BOLT

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

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	EXPANSION JOINT AND HOLD-DOWN DEVICE
DESIGN SPEC. A.A.S.H.O.'61	LOADING
DATE 5-28-66	DESIGN STD.
DRAWN J.M.	CHK. J.C.K.
STRUCTURE B-32-53	SHEET 6 OF 14

X35022

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



NOTES

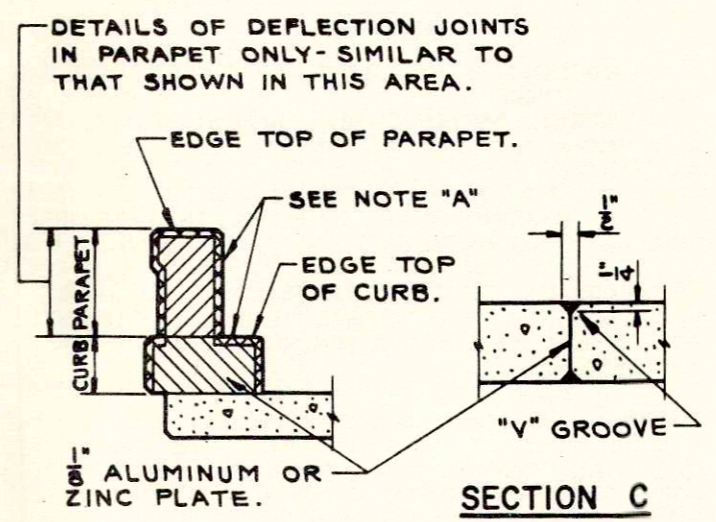
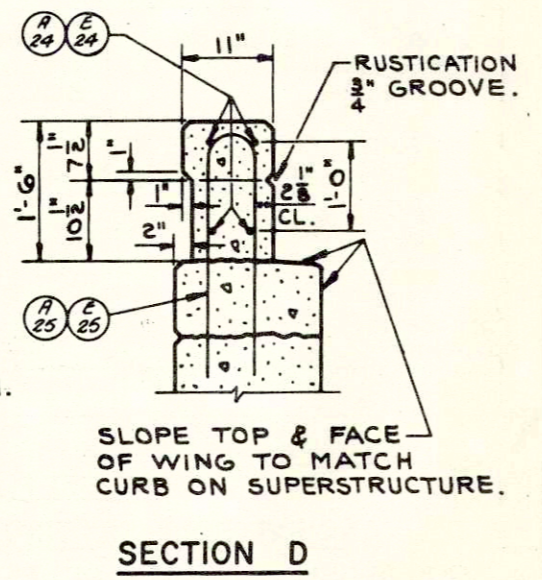
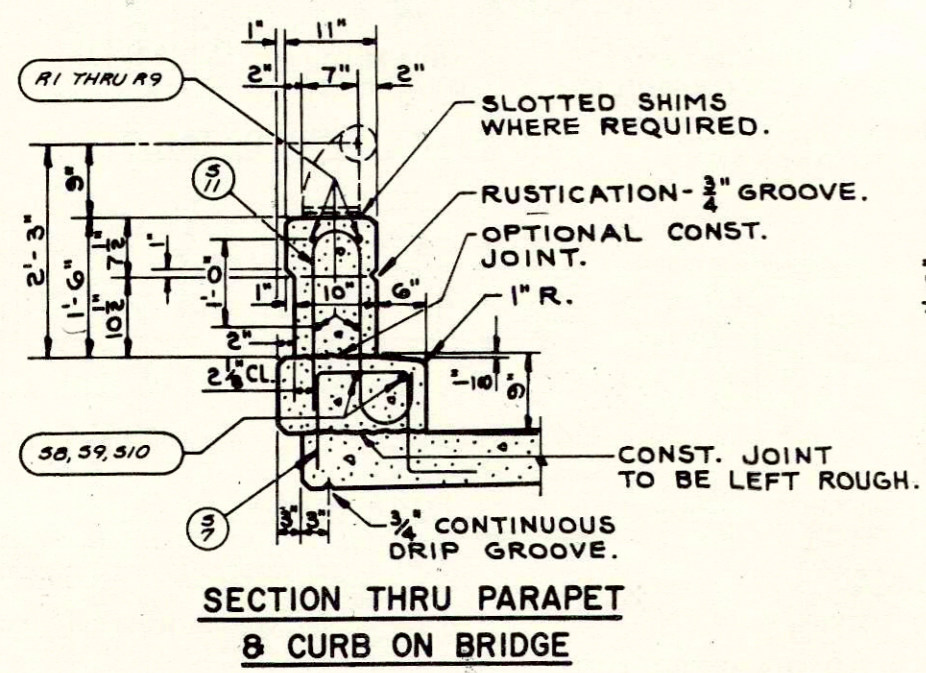
WHEN PARAPETS AND CURBS ARE POURED CONTINUOUSLY FROM END TO END THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/8" ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION "B" BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS AND CURBS ARE USED AT THE DEFLECTION JOINTS ONE SIDE OF JOINT SHALL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

COST OF 1 1/2" φ GALVANIZED PIPE SLEEVES AND 3/4" φ BARS TO BE INCLUDED IN UNIT PRICE BID FOR CONCRETE MASONRY.

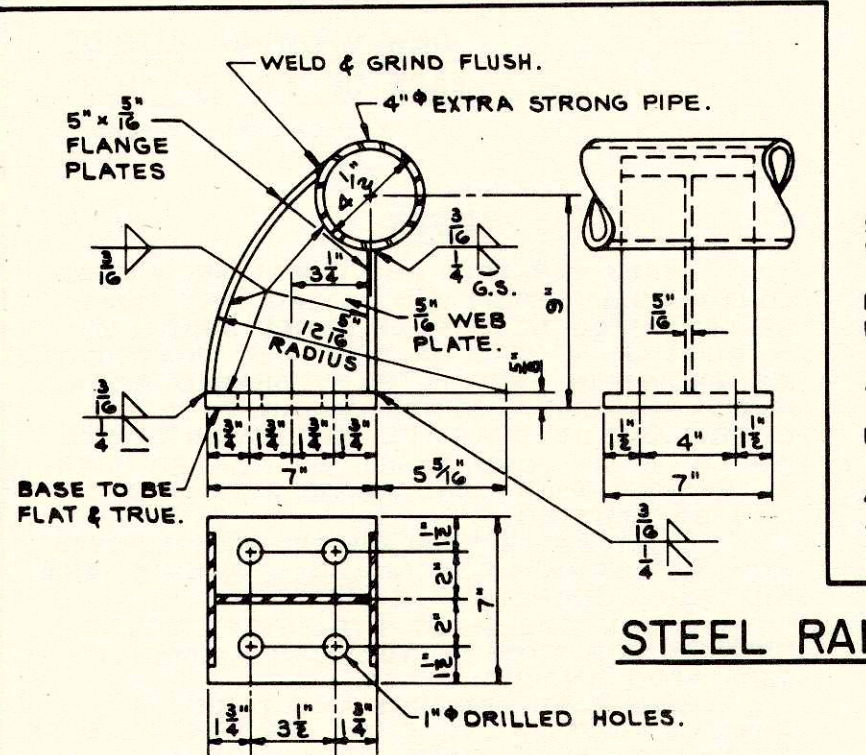
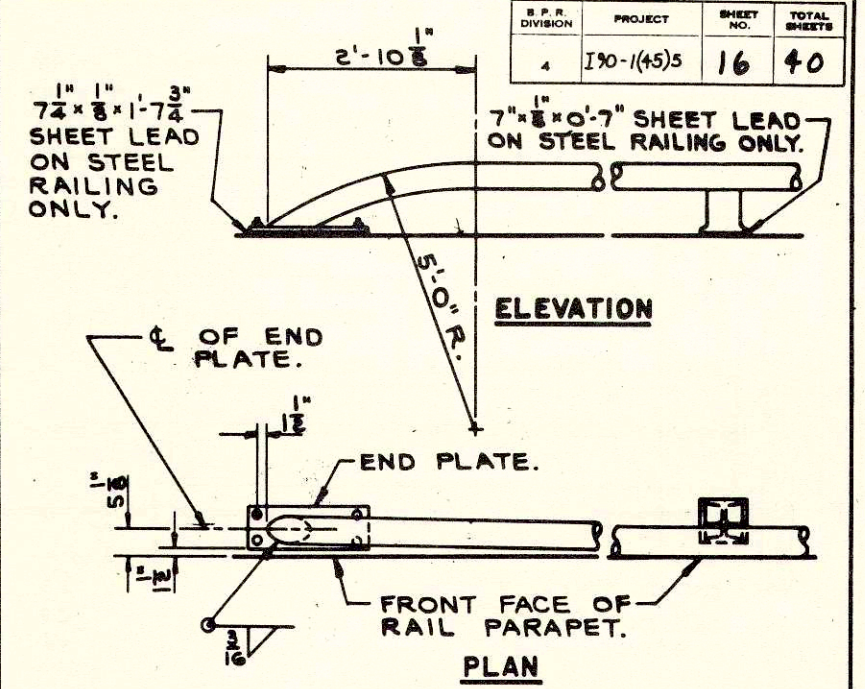
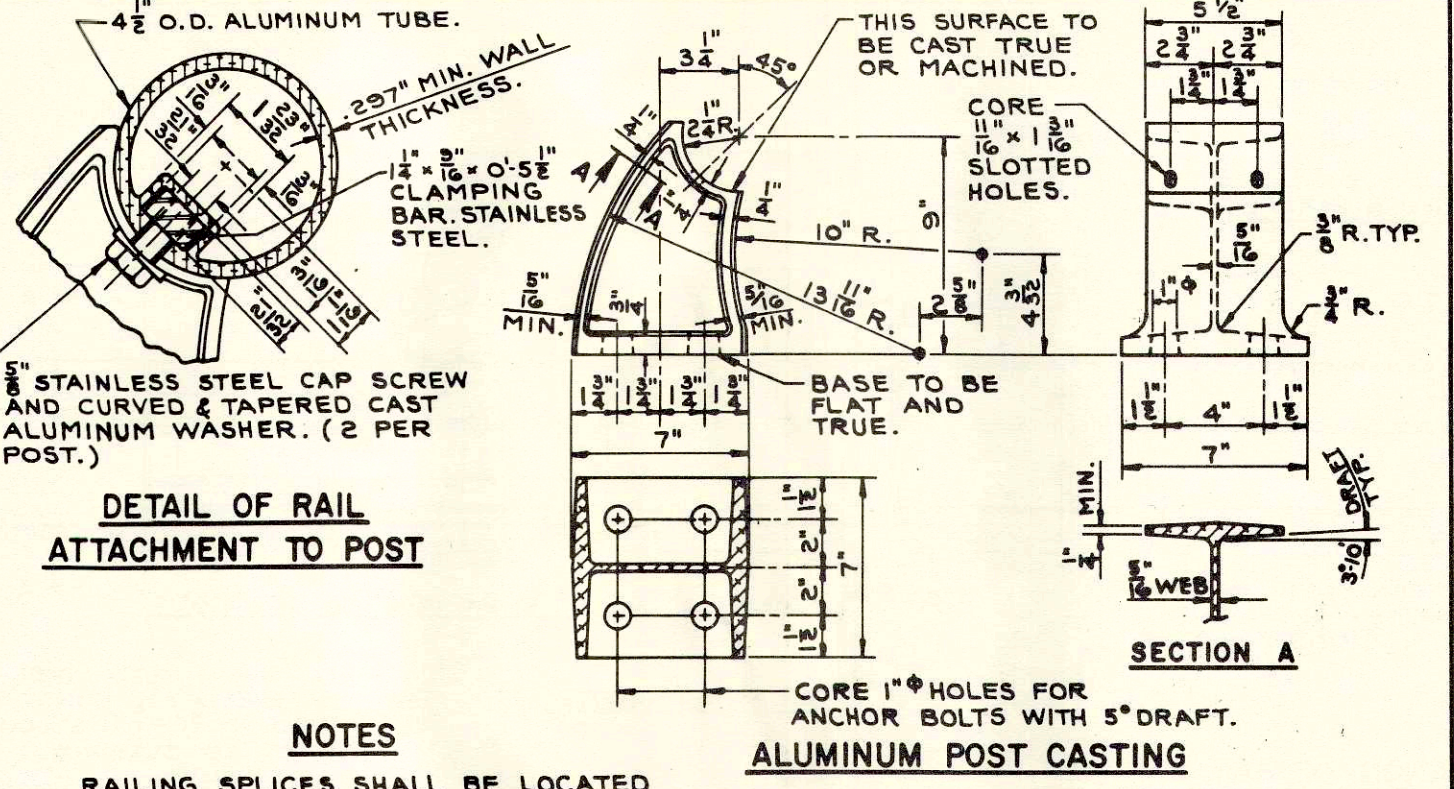
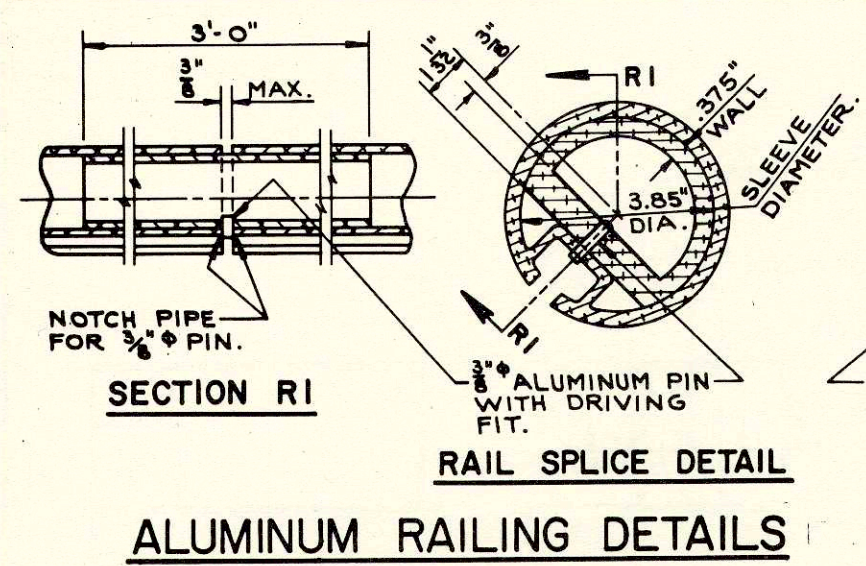
WORK THIS SHEET WITH SHEET TITLED "DETAILS FOR TYPE "G" TUBULAR ALUMINUM AND STEEL RAILING".

ALL POST SPACINGS ARE TAKEN HORIZONTALLY ALONG C 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.

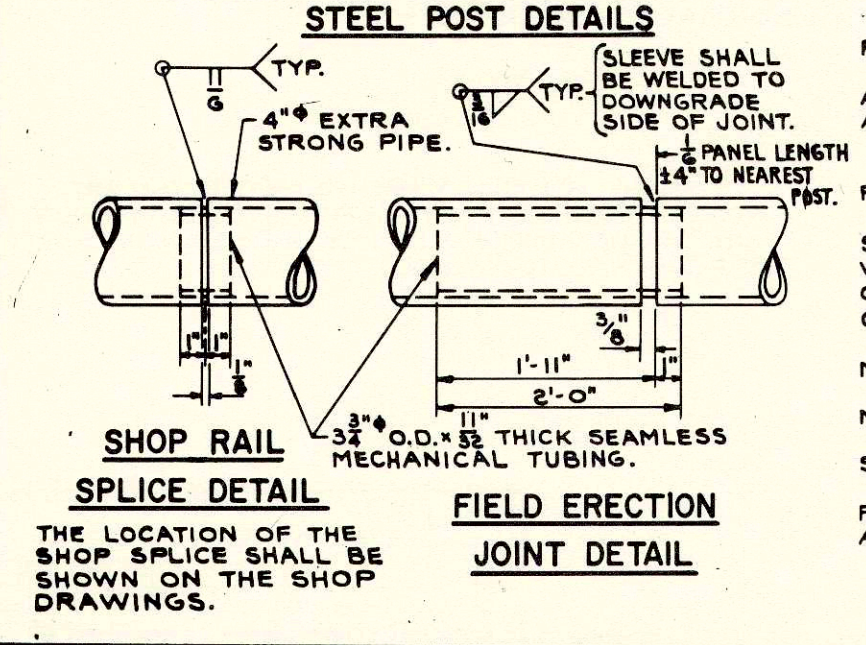


REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	RAIL PARAPET DETAILS		
DESIGN SPEC. R.A.S.H.O. 61	LOADING	CONSTR. 1963	
DATE 5-24-62	DESIGN	DRAWN J.W.	CHK. J.C.K.
STRUCTURE B-32-53			SHEET 7 OF 14



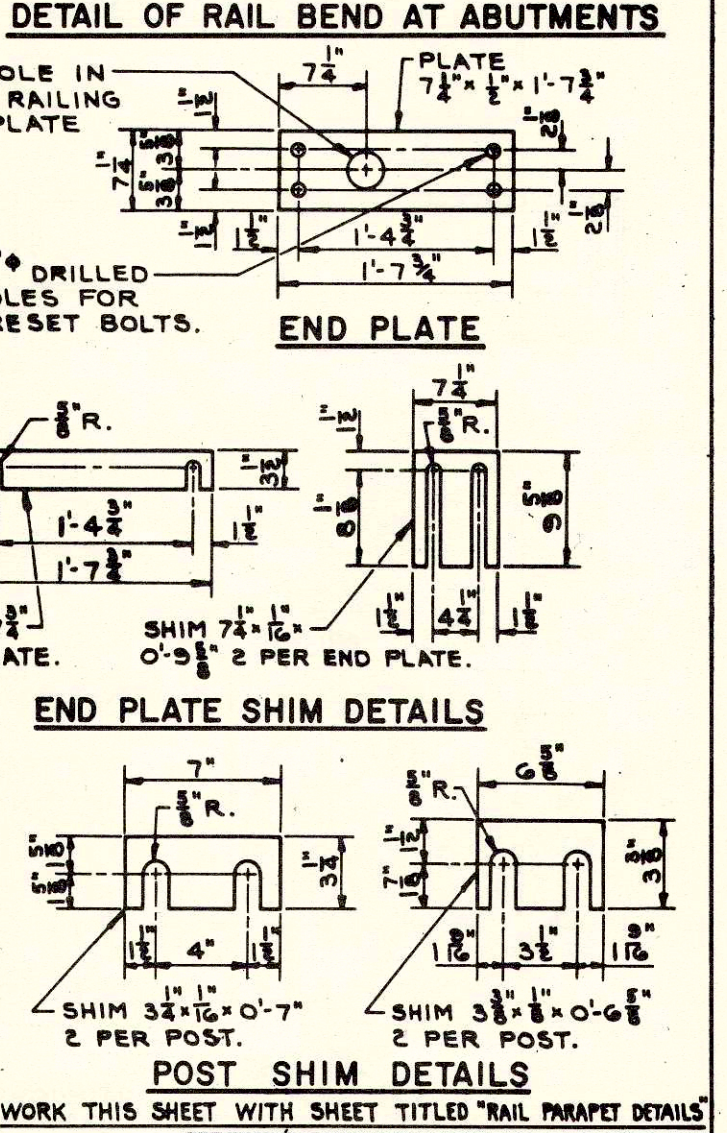
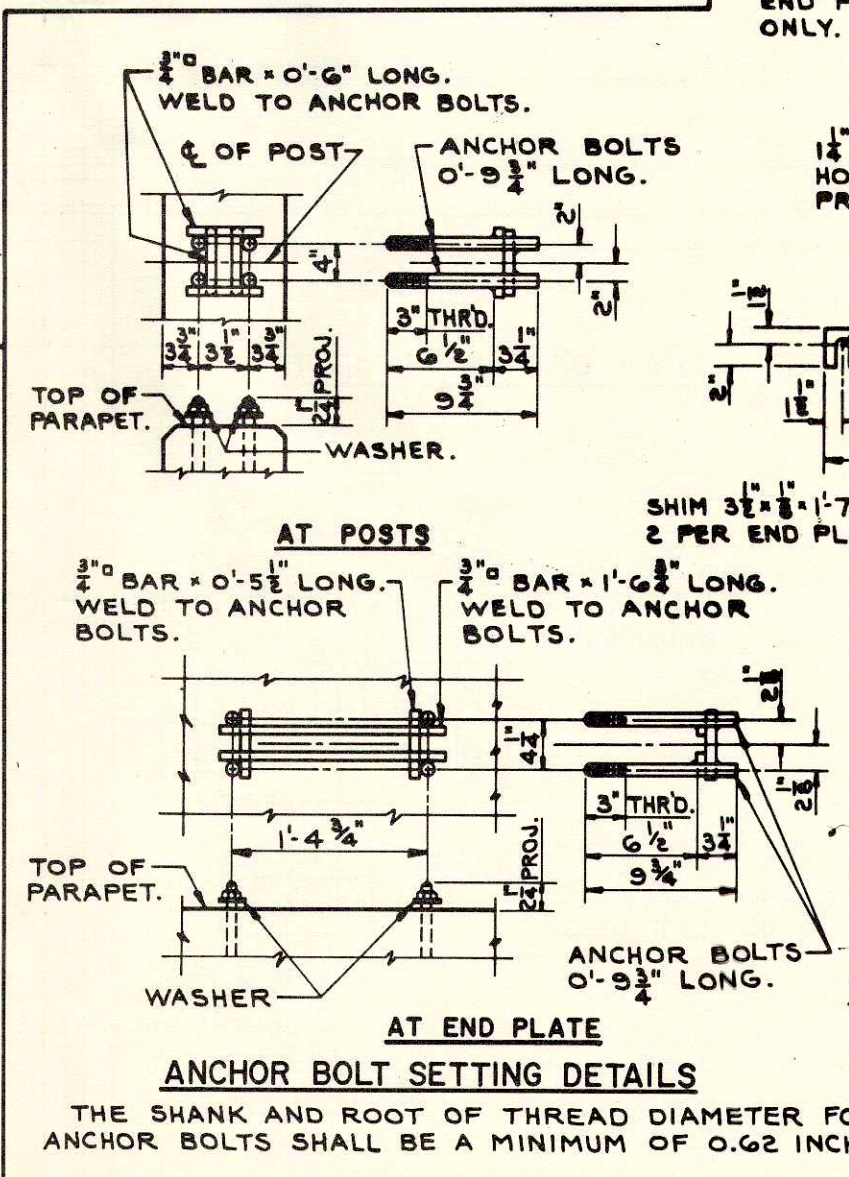
NOTES

RAILING SPLICES SHALL BE LOCATED SUCH THAT ϕ 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.



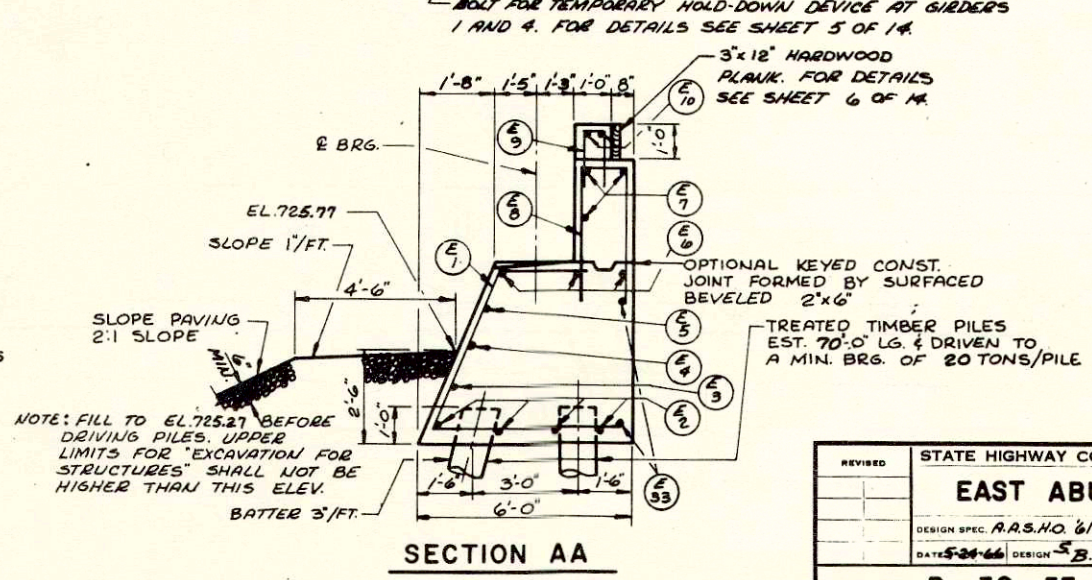
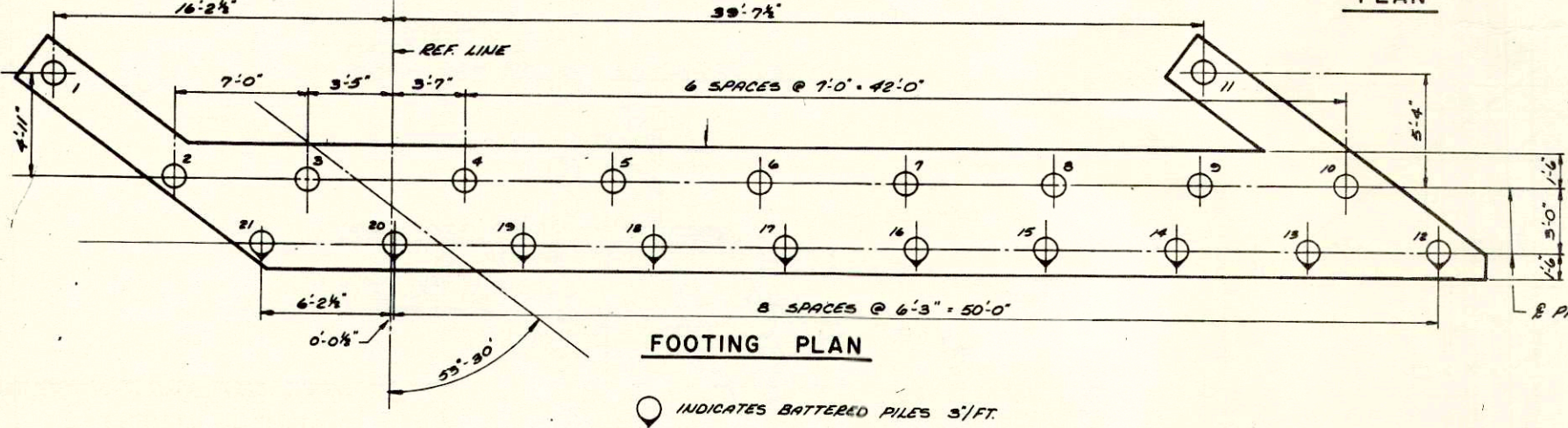
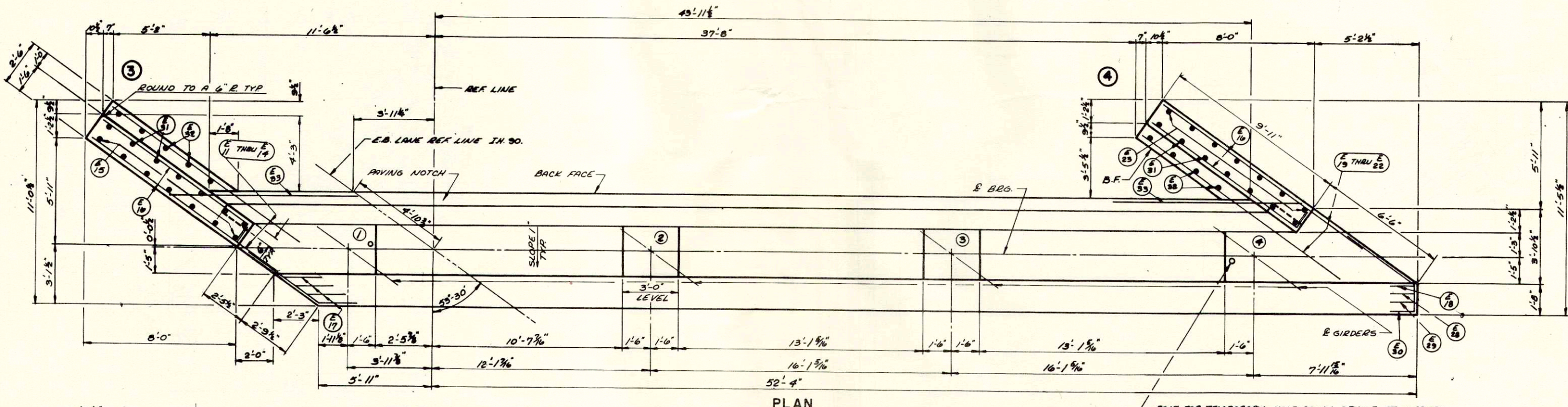
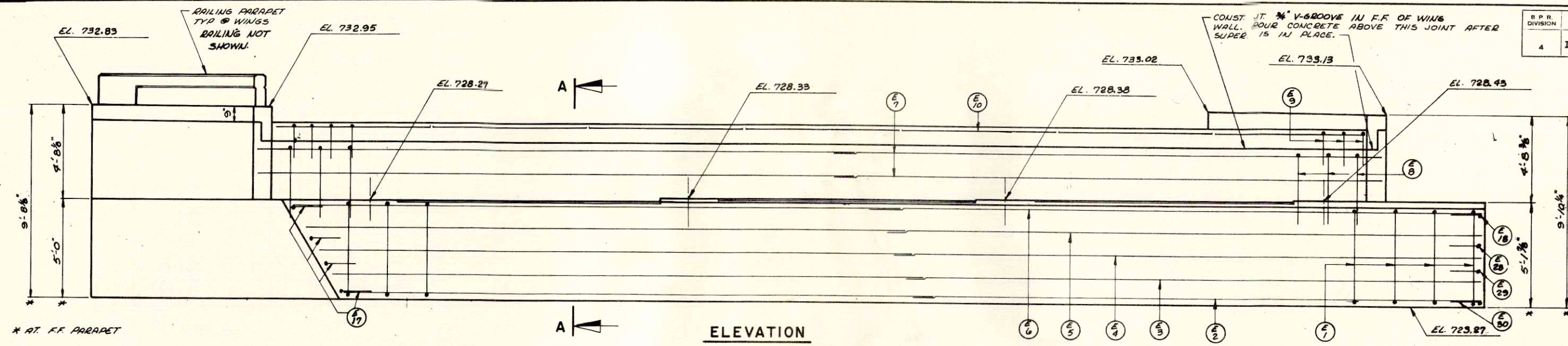
NOTES

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" EXTRA STRONG PIPE CONFORMING TO ASTM DESIGNATION A53, GRADE B. SLEEVES SHALL BE 3 3/4" O.D. x 1 1/32" 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.



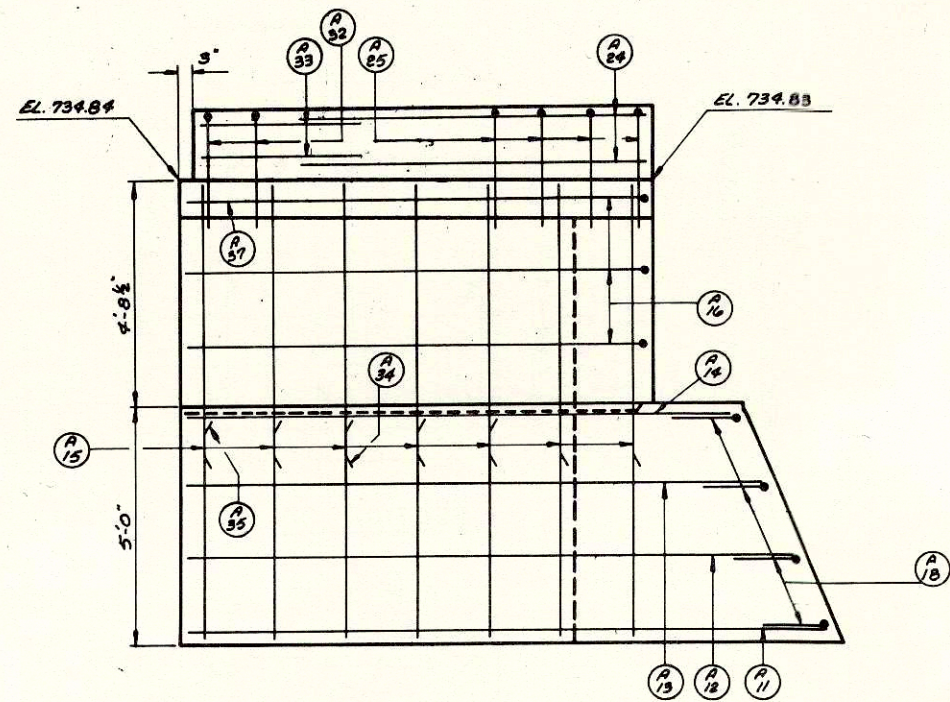
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	DETAILS FOR TYPE "G" TUBULAR ALUMINUM & STEEL RAILING		
	DESIGN SPEC. A.R. 3.H.D. 61	LOADING	CONTR. SPEC. 1963
	DATE 7-28-66	DESIGN	DRAWN J.C.K.
STRUCTURE	B-32-53	SHEET	8 OF 14

DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)	10	40

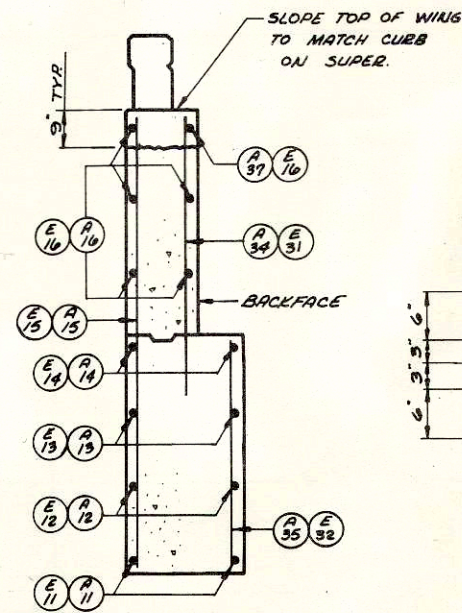


REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	EAST ABUTMENT		
DESIGN SPEC. R.A.S. NO. 61	LOADING MOD. H580	CONST. 1963	
DATE 5-24-66	DESIGN S.B.	DRAWN E.T.D.	CKD. J.C.K.
STRUCTURE B-32-53		SHEET 10 OF 14	

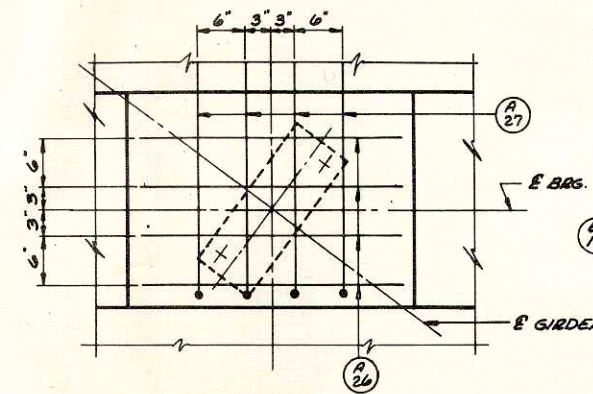
S. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
A	I90-1(45)5	19	40



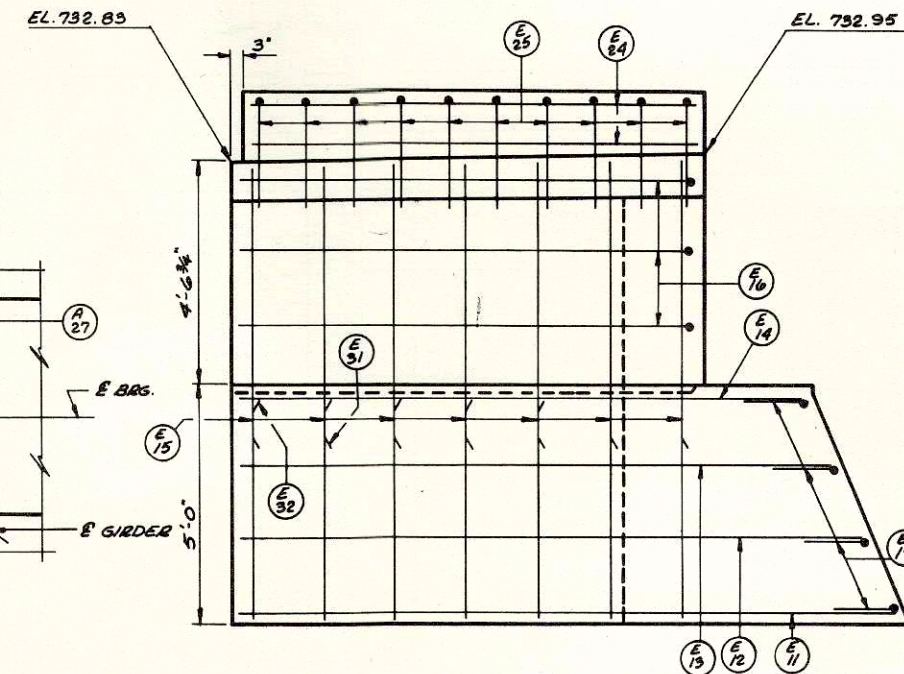
WING 1



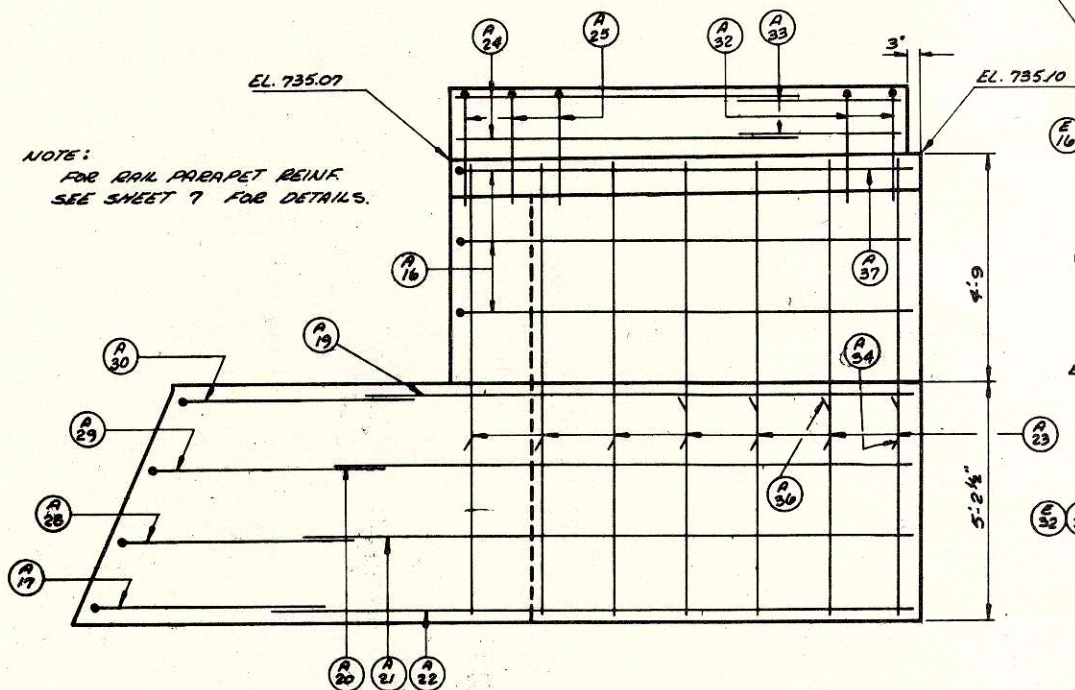
SECTION THRU WINGS 1 & 3



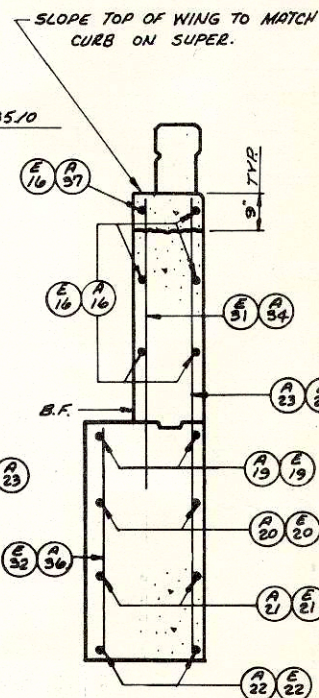
GRID DETAIL (WEST ABUTMENT)



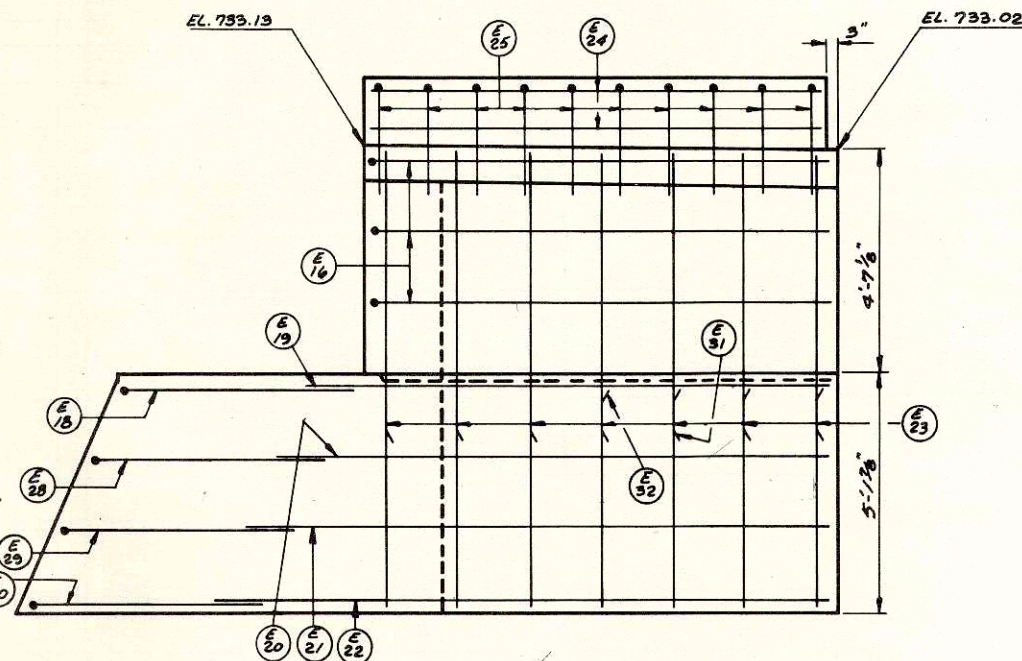
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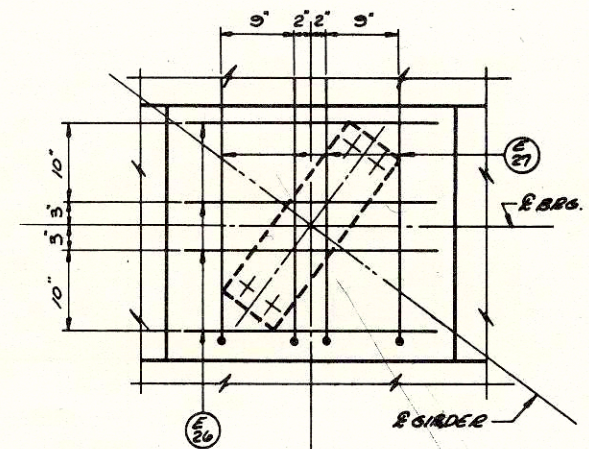
WING 2



SECTION THRU WINGS 2 & 4



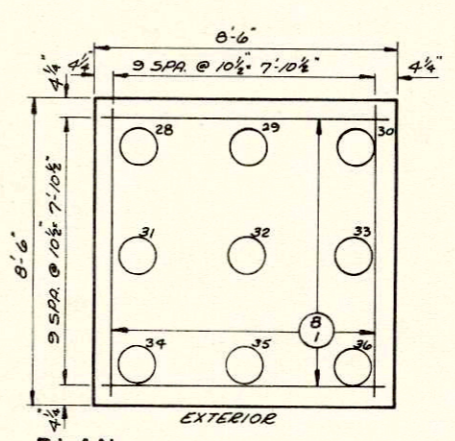
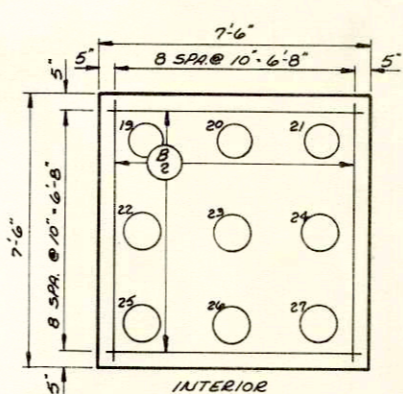
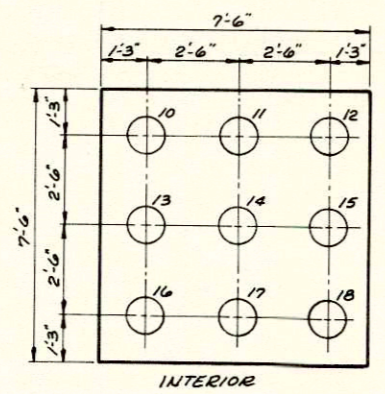
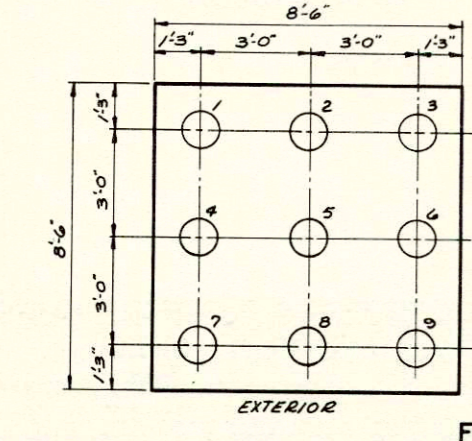
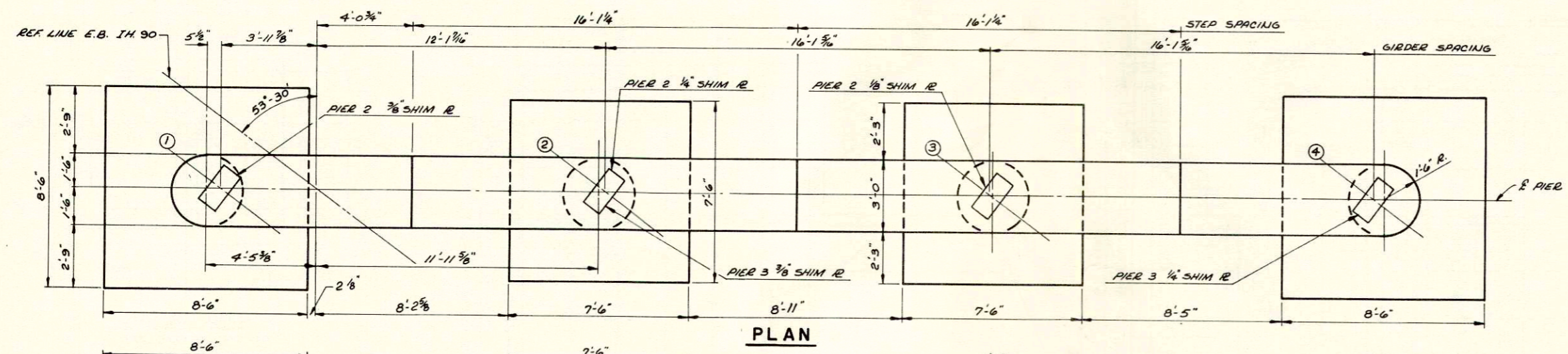
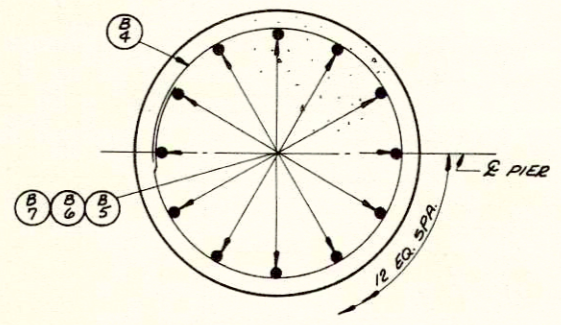
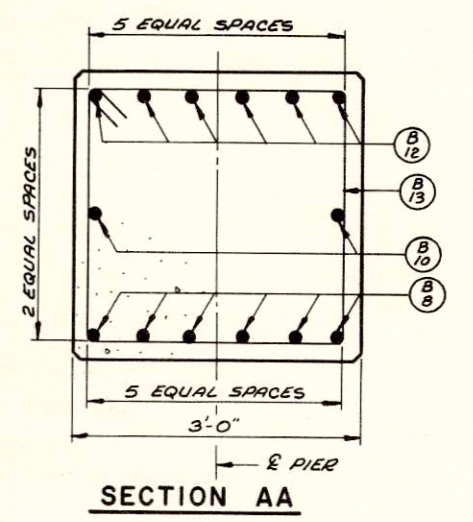
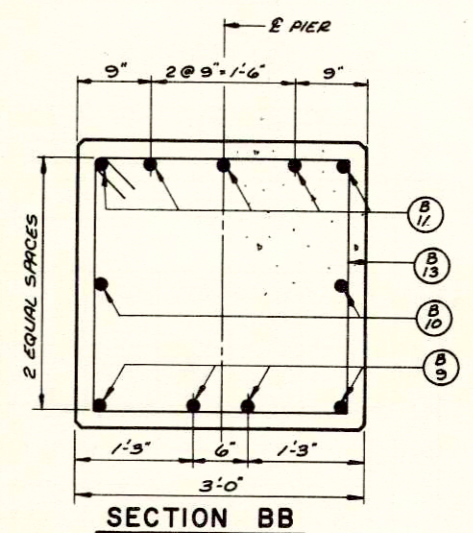
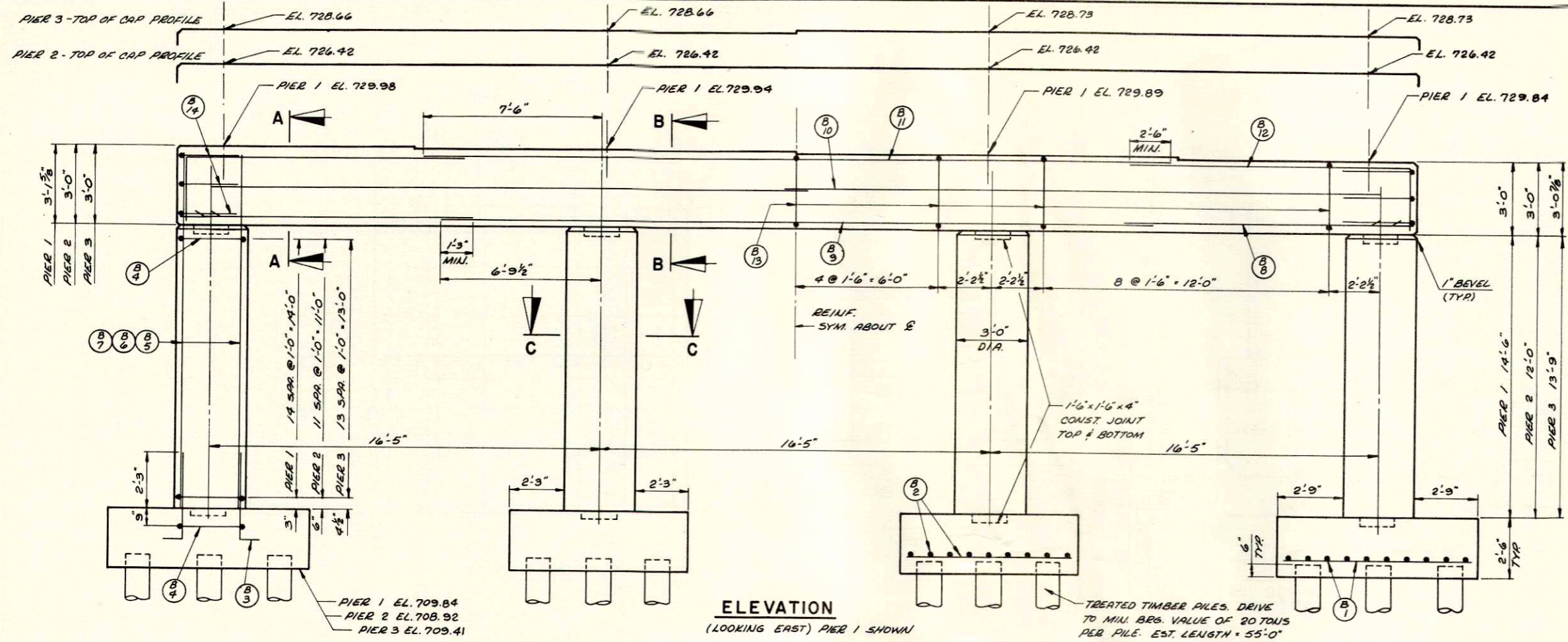
WING 4



GRID DETAIL (EAST ABUTMENT)

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	ABUTMENT DETAILS		
	DESIGN SPEC. <i>A.P.S.N.Q. 6</i>	LOADING <i>MS 30</i>	CONST. SPEC. <i>1965</i>
	DATE <i>5-24-66</i>	DESIGN <i>SR</i>	DRAWN <i>RTG</i> Ckd. <i>J.C.K.</i>
STRUCTURE B-32-53		SHEET 11 OF 14	

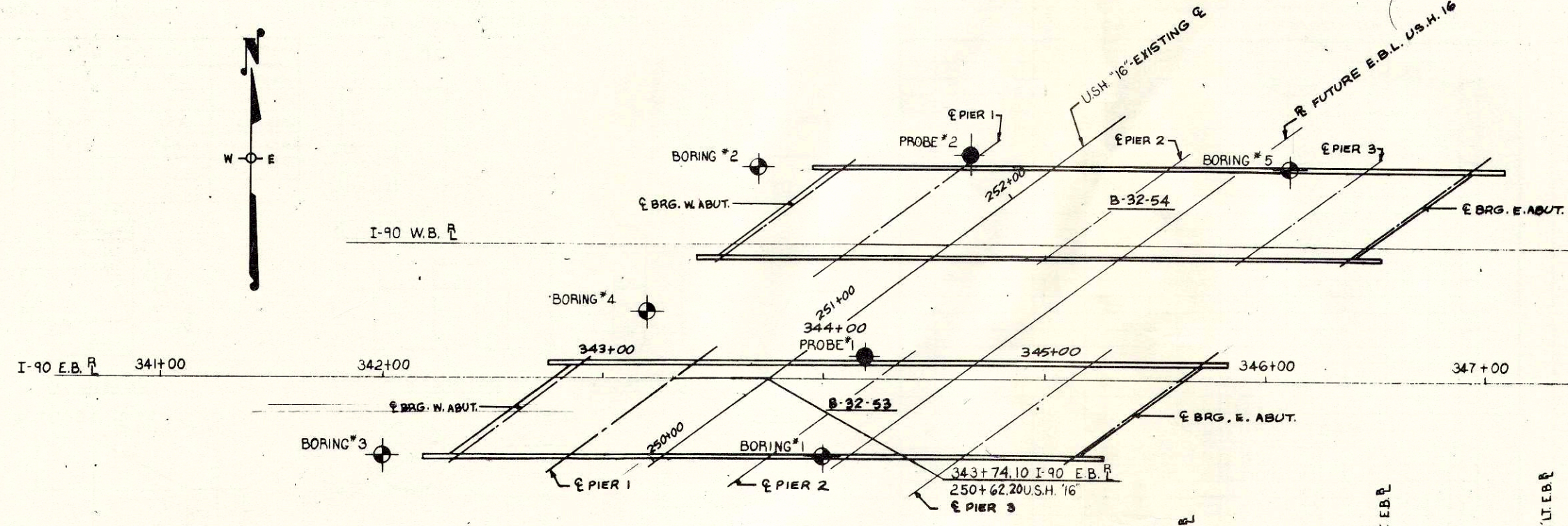
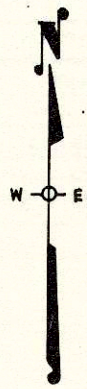
B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)5	20	40



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.

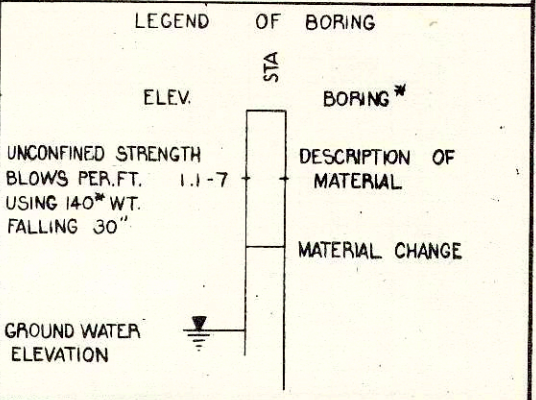
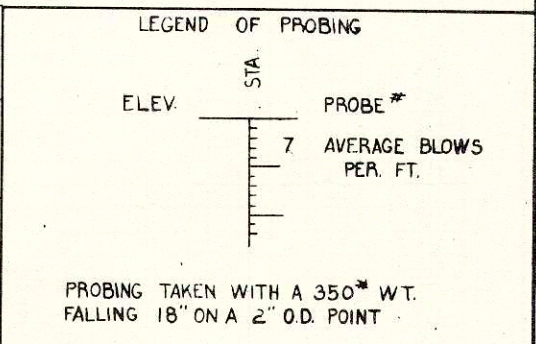
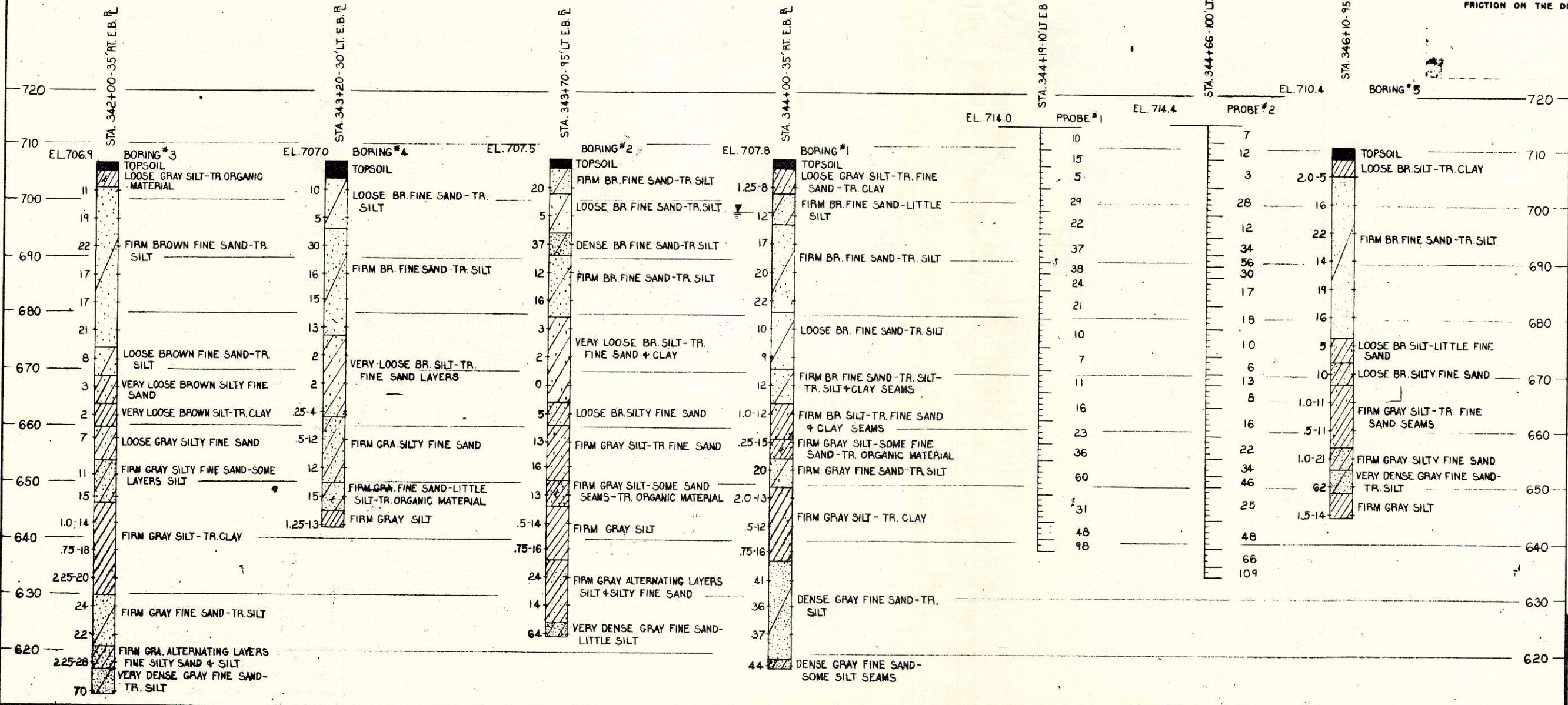
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	PIERS 1, 2, & 3		
	DESIGN SPEC. A.A.S.H.O. 6/	LOADING 1920	CONST. 1963
	DATE 5-24-66	DESIGN S.B.	DRAWN R.T.G. CKD. J.C.K.
STRUCTURE B-32-53		SHEET 12 OF 14	



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" O.D. x 1.4" I.D. 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 CAGED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.



REVISION	STATE HIGHWAY COMMISSION OF WISCONSIN		
	SUBSURFACE EXPLORATION		
DESIGN SPEC.	AASHO '61	LOADING	HS20
DATE	5-24-64	DESIGN	—
		DRAWN	DB
		CHECKED	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	10†		Footings-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 #

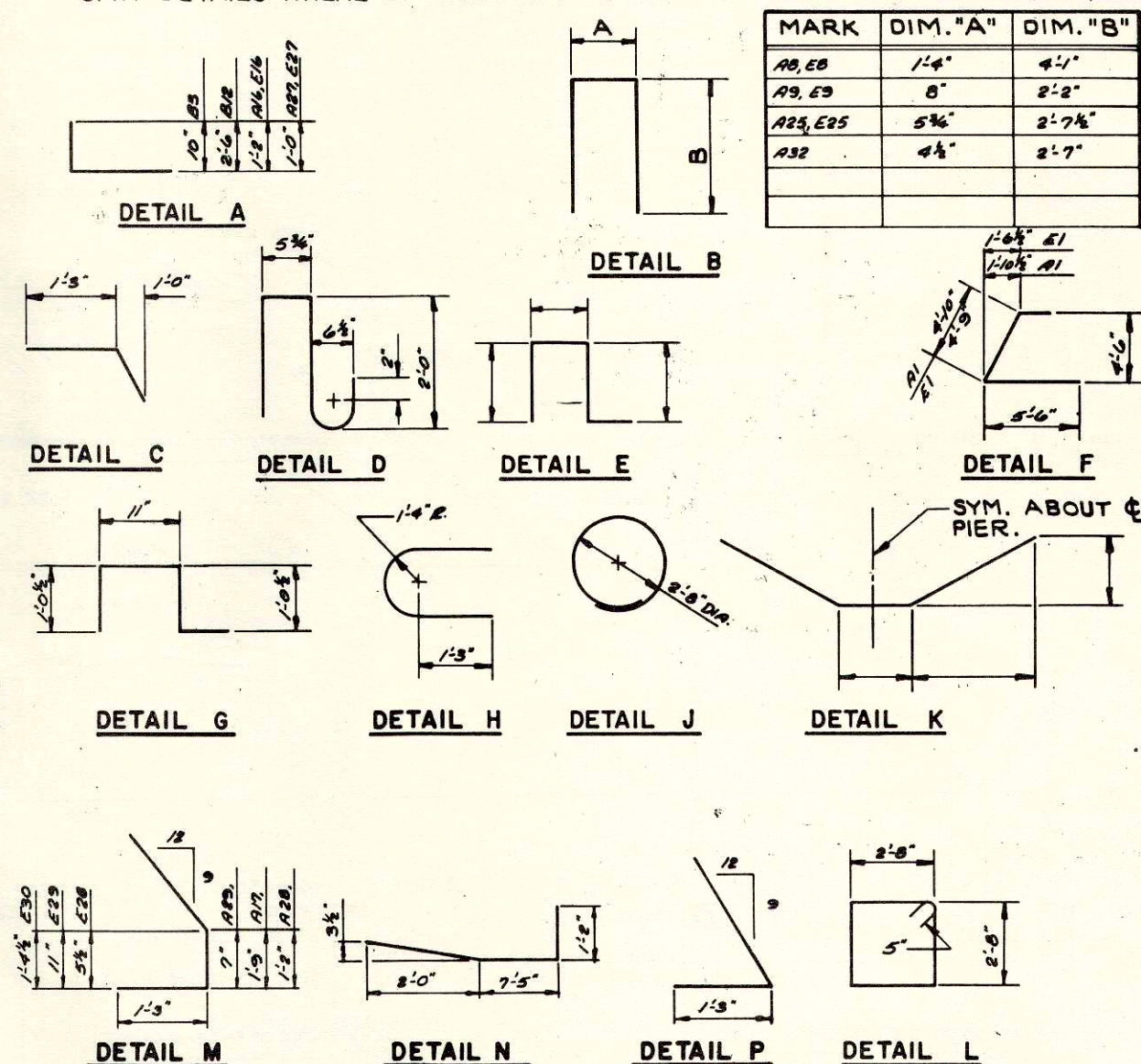
POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
E 1	29	4	13-9	2-0		Body-Space to Miss Piling	F
E 2	8	4	29-6	Shown		" " Horizontal	
E 3	2	4	30-0	"		" " "	
E 4	2	4	30-6	"		" " "	
E 5	2	4	30-9	"		" " "	
E 6	6	6	31-0	"		" " "	
E 7	6	4	30-0	"		Parapet-Horizontal	
E 8	38	5	9-6	1-6		Body & Parapet	B
E 9	56	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	

BAR BENDING DETAILS

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

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

MARK	DIM. "A"	DIM. "B"
A8, E8	1'-4"	4'-1"
A9, E9	8"	2'-2"
A23, E23	5'-6"	2'-7 1/2"
A32	4'-6"	2'-7"



MARK & CUT ALL BARS ALONG THIS LINE. MAKE ALL CUTS NORMAL TO BAR AXIS.

"H" IS NUMBER OF BARS, BEFORE CUTTING.

MARK	C	D	E	F	G	H	SETS REQ'D.
51	SET 1	17'-6"	35'-9"	2'-1"		43	2
	SET 2	18'-1"			33'-8"		2
52	SET 3	17'-10"	36'-0"	2'-4"		43	2
	SET 4	18'-2"			33'-8"		2

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

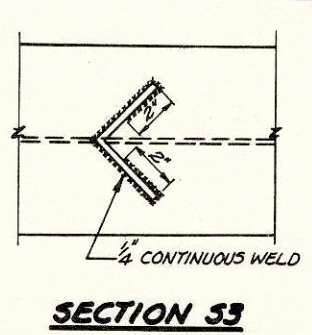
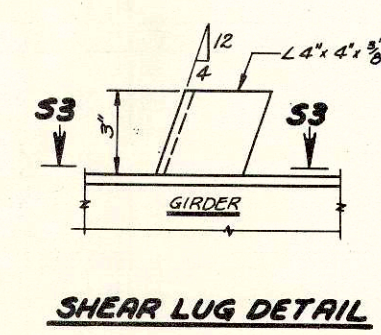
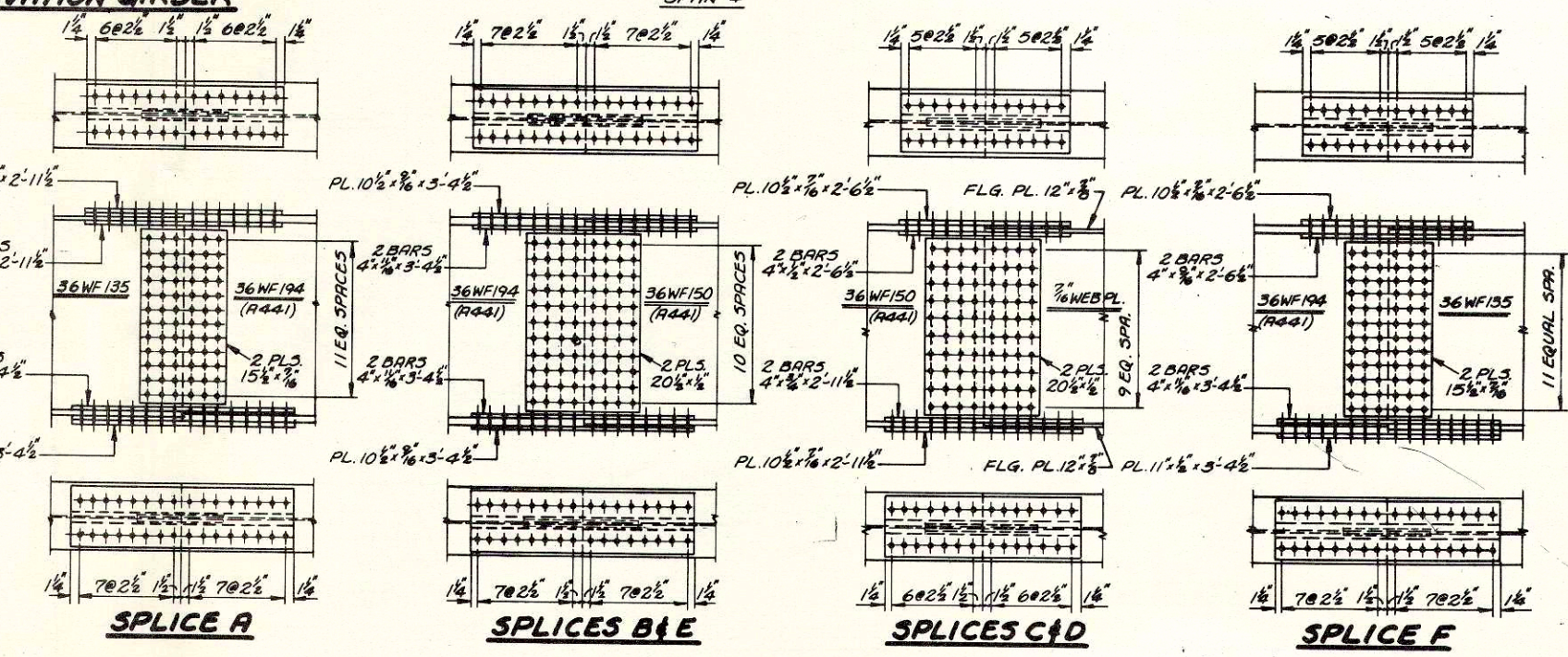
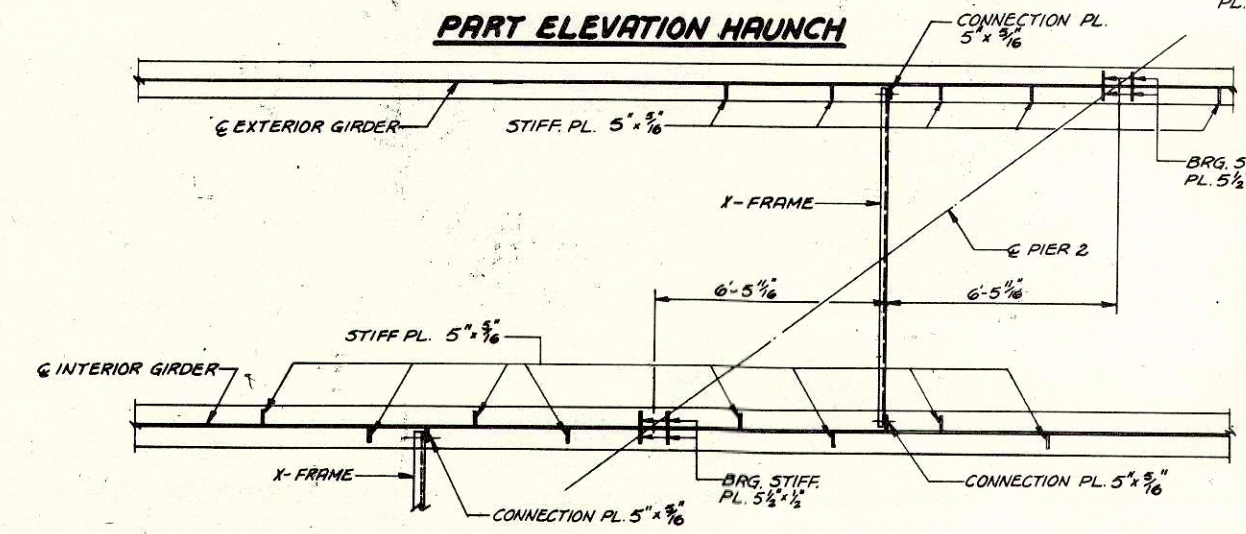
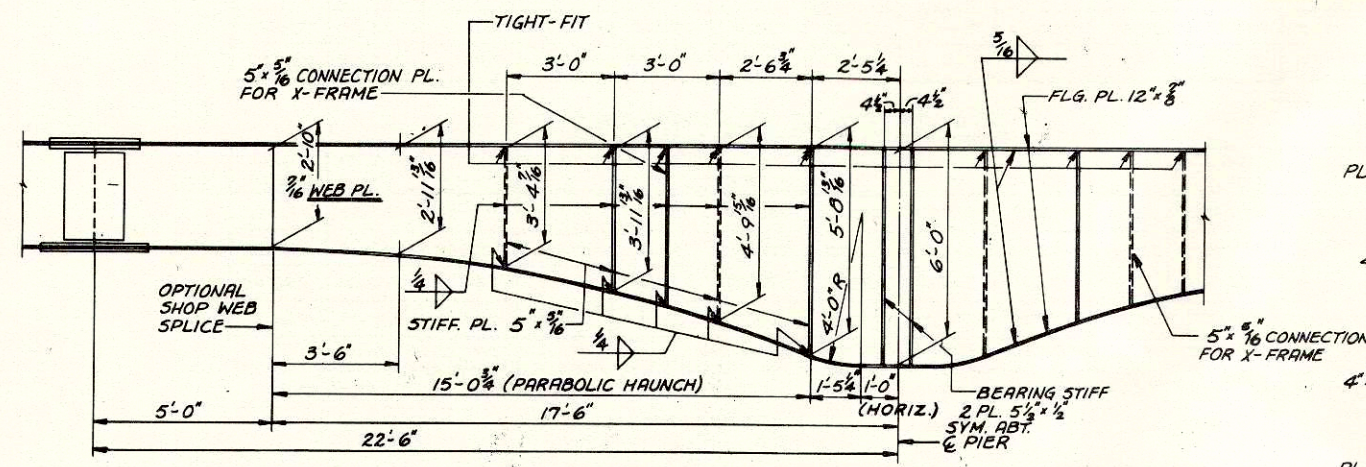
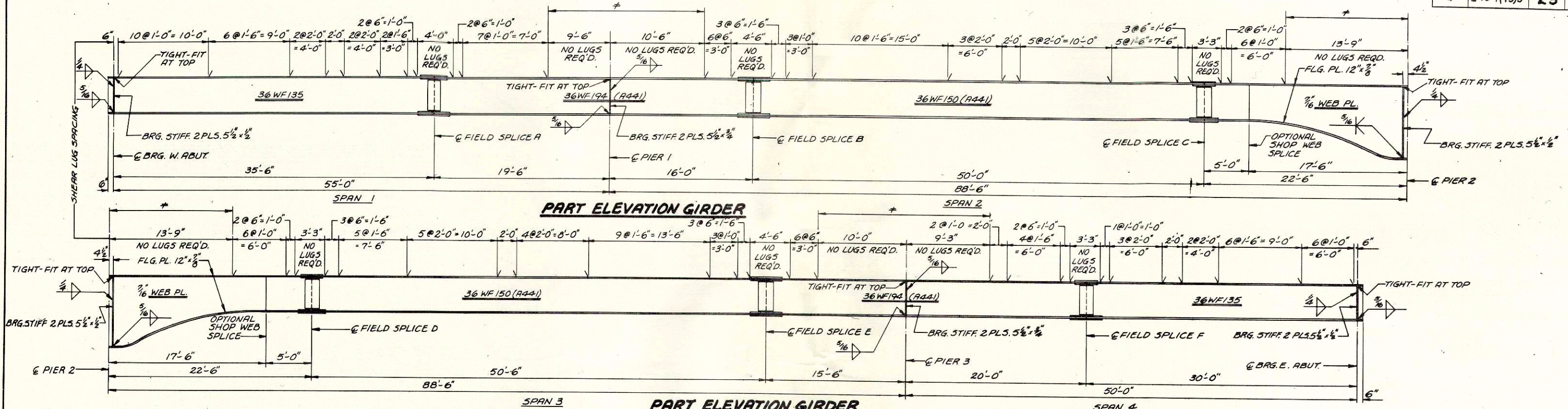
BENT BARS, IF USED, IN CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.

† CUTTING DIAGRAM

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
BILL OF BARS	
DESIGN SPEC. A.R.S.H.O. 61	LOADING 1420
DATE 5-24-66	DESIGN S.B.
DRAWN 4/16	CKD J.C.K.
STRUCTURE B-32-53	SHEET 14 OF 14

B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-(45)5	25	40

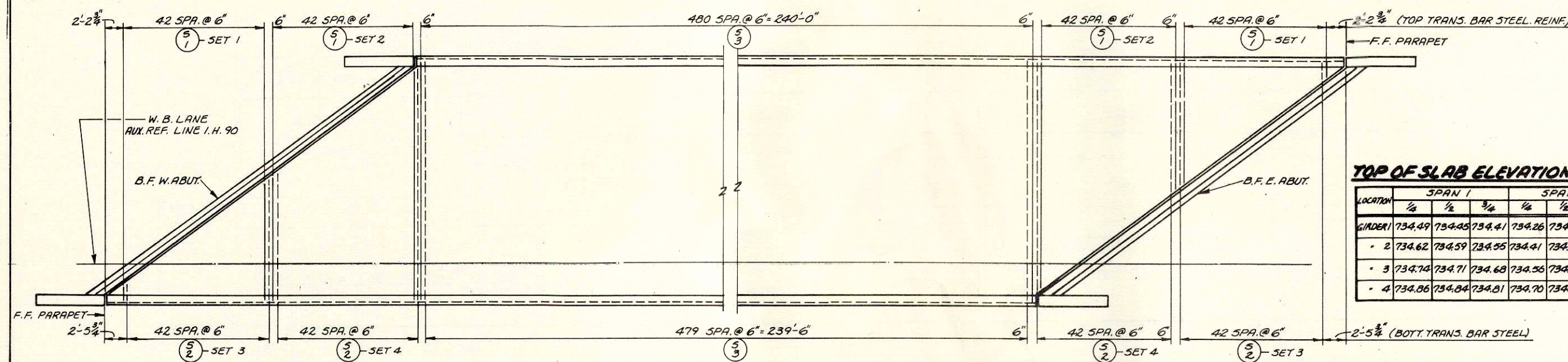
* NO FIELD WELDING FOR CONSTRUCTION PURPOSES PERMITTED IN THIS AREA.



NOTE: PROVIDE FILL PLATES AS REQUIRED AT SPLICES. 1/8" MINIMUM THICKNESS.

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	SUPERSTRUCTURE		
	DESIGN SPEC. A.R.S.H.G. '61	LOADING 1520-MAX	CONST. SPEC. 1963
	DATE 6-9-66	DESIGN J.S.B.	DRAWN W.W. CKD. J.C.K.
STRUCTURE	B-32-54	SHEET	3 OF 13

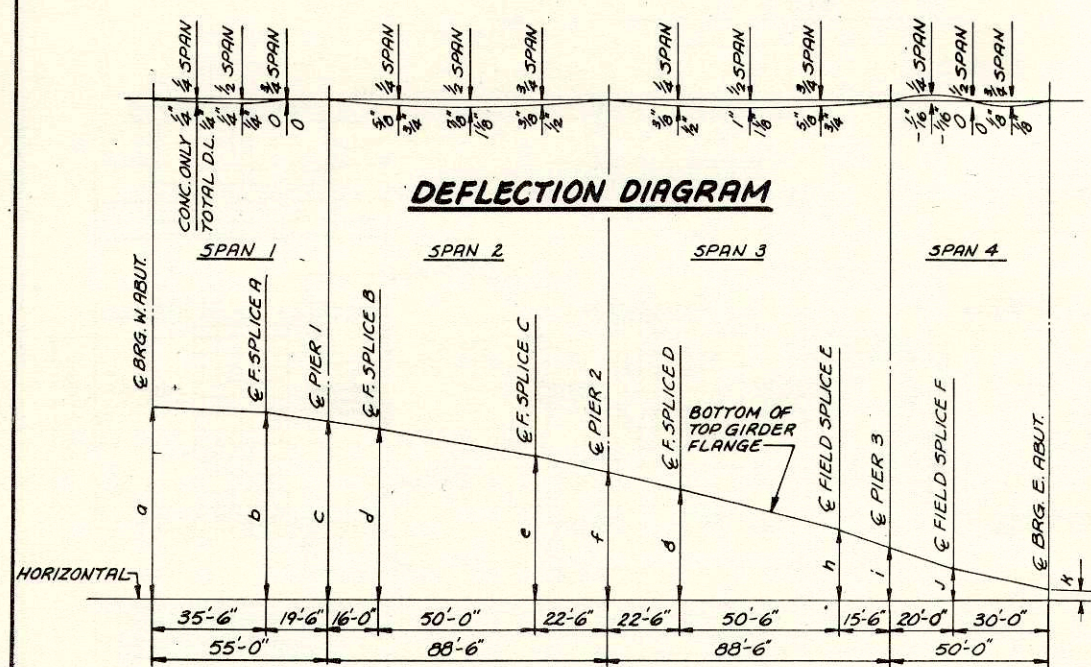
S. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	I90-1 (45)5	26	40



PLAN

TOP OF SLAB ELEVATIONS AT QUARTER POINTS OF SPANS

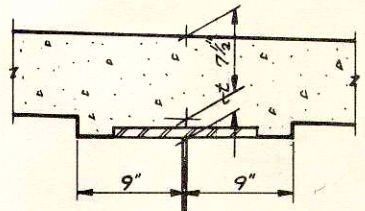
LOCATION	SPAN 1		SPAN 2		SPAN 3		SPAN 4					
	1/4	3/4	1/4	3/4	1/4	3/4	1/4	3/4				
GIRDER 1	734.49	734.45	734.41	734.26	734.15	734.05	733.72	733.57	733.59	733.07	732.95	732.82
" 2	734.62	734.59	734.55	734.41	734.31	734.20	733.92	733.76	733.59	733.29	733.17	733.05
" 3	734.74	734.71	734.68	734.56	734.47	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	734.14	733.98	733.71	733.60	733.49



DEFLECTION DIAGRAM

BLOCKING DIAGRAM

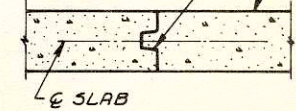
DIMENSION	a	b	c	d	e	f	g	h	i	j	k
GIRDER 1	1'-10 1/8"	1'-8 3/8"	1'-7 3/8"	1'-7 3/8"	1'-4 1/8"	1'-2 3/8"	1'-0 3/8"	0'-7 3/8"	0'-5 3/8"	0'-3 3/8"	0
" 2	1'-8 3/8"	1'-7 1/8"	1'-6 3/8"	1'-6 3/8"	1'-3 3/8"	1'-1 1/8"	1'-0 3/8"	0'-7 3/8"	0'-5 3/8"	0'-3 3/8"	0
" 3	1'-7 3/8"	1'-6 1/8"	1'-5 3/8"	1'-5 3/8"	1'-2 3/8"	1'-1 1/8"	0'-11 1/8"	0'-7 3/8"	0'-5 3/8"	0'-3 3/8"	0
" 4	1'-6 3/8"	1'-5 3/8"	1'-4 3/8"	1'-4 3/8"	1'-1 3/8"	1'-0 3/8"	0'-11 1/8"	0'-6 3/8"	0'-5 3/8"	0'-3 3/8"	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 C. OF BEARINGS, C. 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

KEYWAY ON C. SLAB FORMED FROM SURFACED, BEVELED 2" x 2" RUN STEEL THRU JOINT



SECTION S4

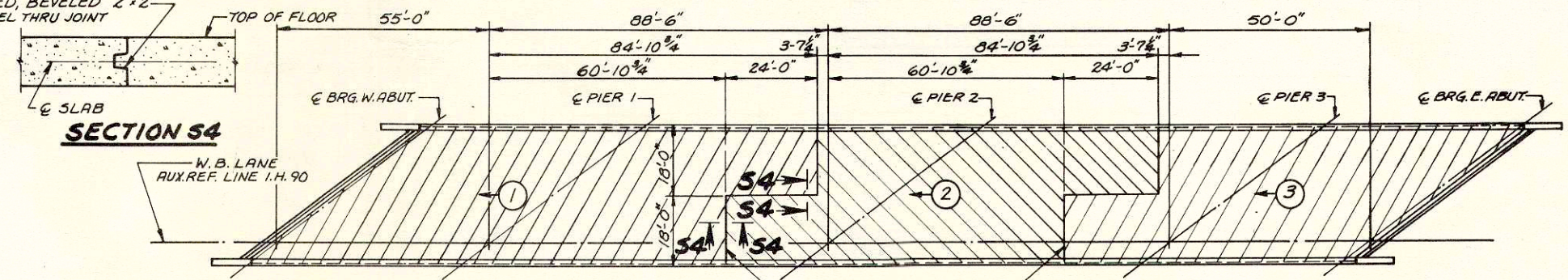
TOP OF SLAB ELEVATIONS

LOCATION	C. BRG. W. ABUT.	C. SPLICE A	C. PIER 1	C. SPLICE B	C. SPLICE C	C. PIER 2	C. SPLICE D	C. SPLICE E	C. PIER 3	C. SPLICE F	C. BRG. E. ABUT.
GIRDER 1	734.53	734.43	734.36	734.29	734.03	733.89	733.73	733.33	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	733.93	733.81	733.65	733.37

TOP OF STEEL ELEVATIONS

LOCATION	C. BRG. W. ABUT.	C. SPLICE A	C. PIER 1	C. SPLICE B	C. SPLICE C	C. PIER 2	C. SPLICE D	C. SPLICE E	C. PIER 3	C. SPLICE F	C. BRG. E. ABUT.
GIRDER 1	733.87	733.84	733.73	733.71	733.42	733.23	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.

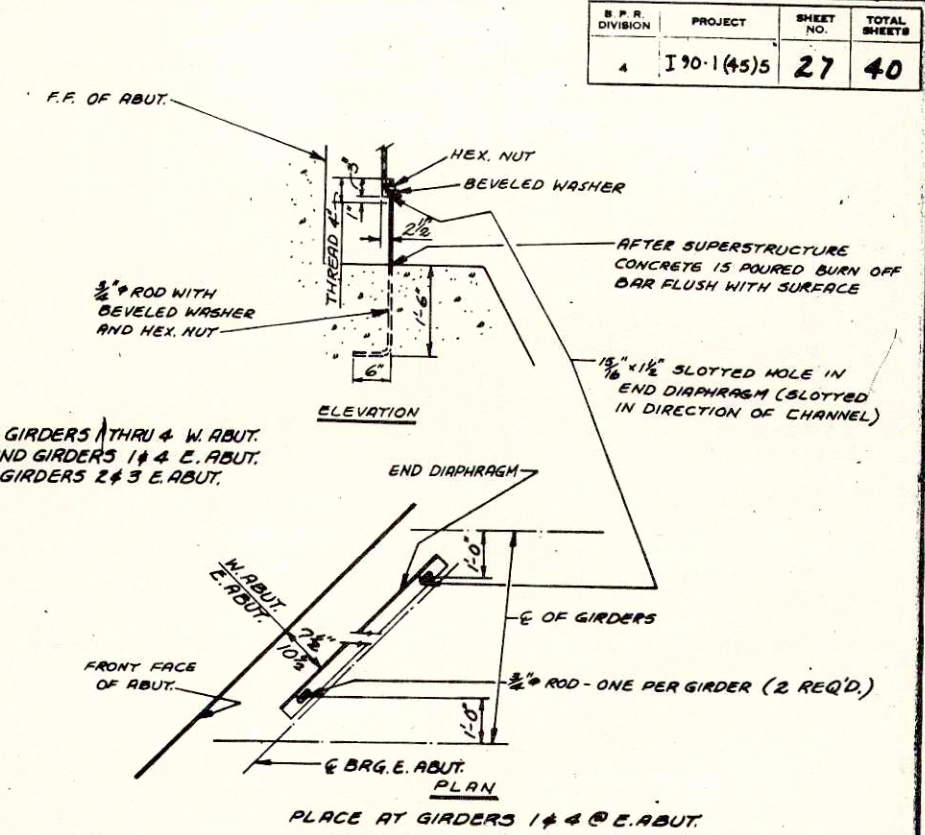
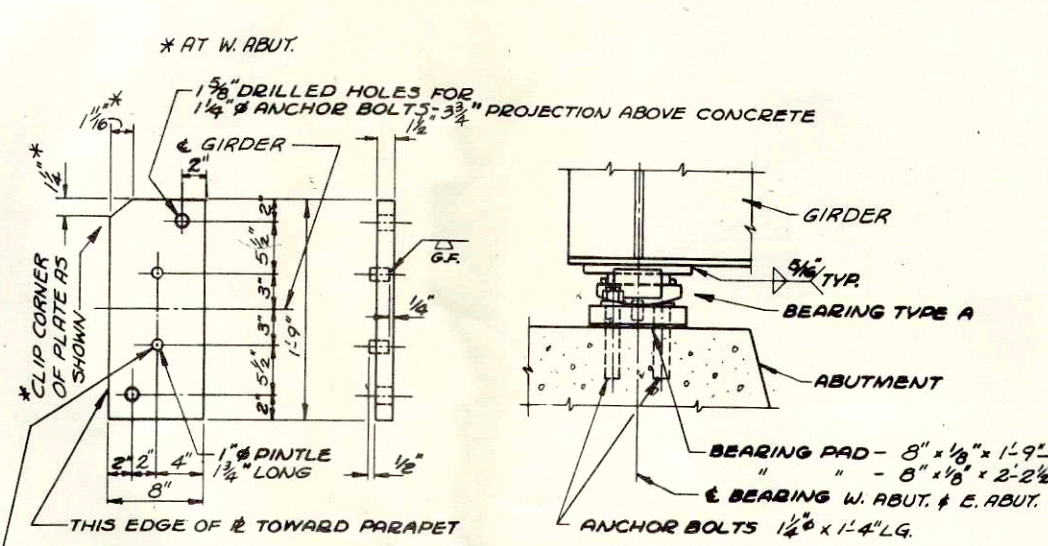
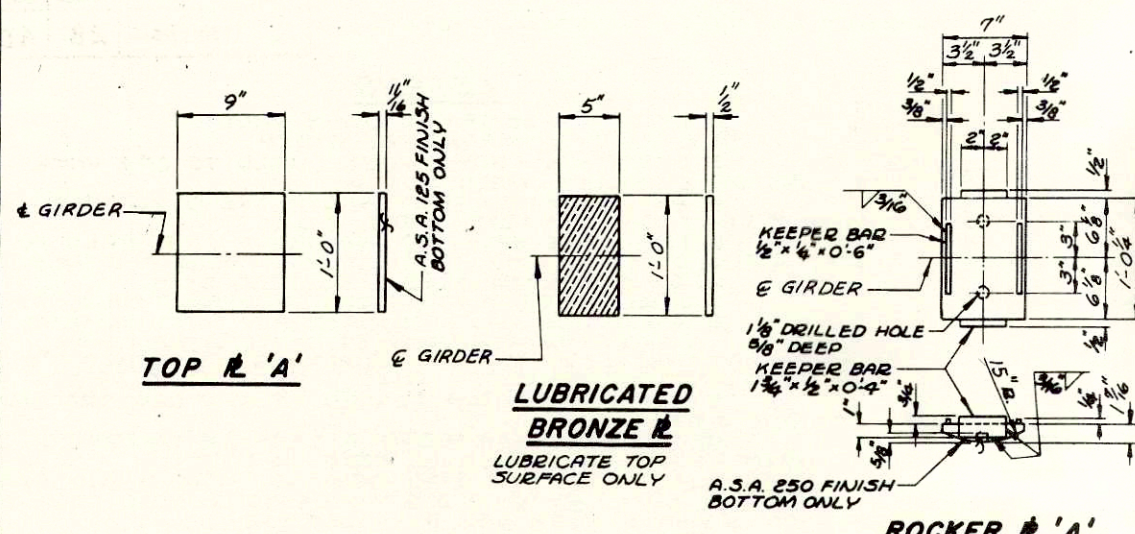


POURING DIAGRAM

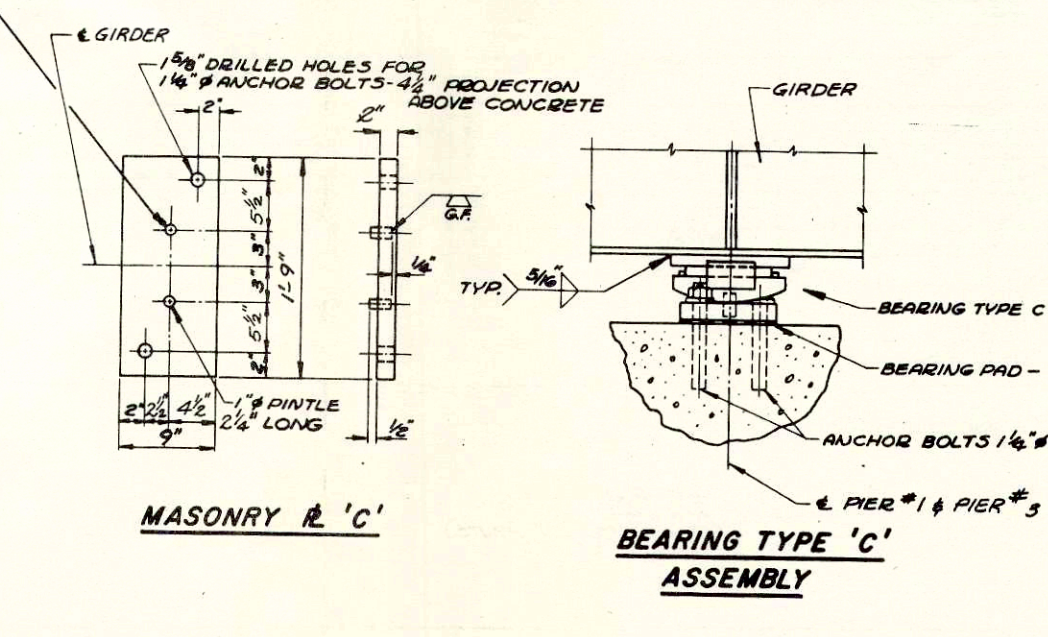
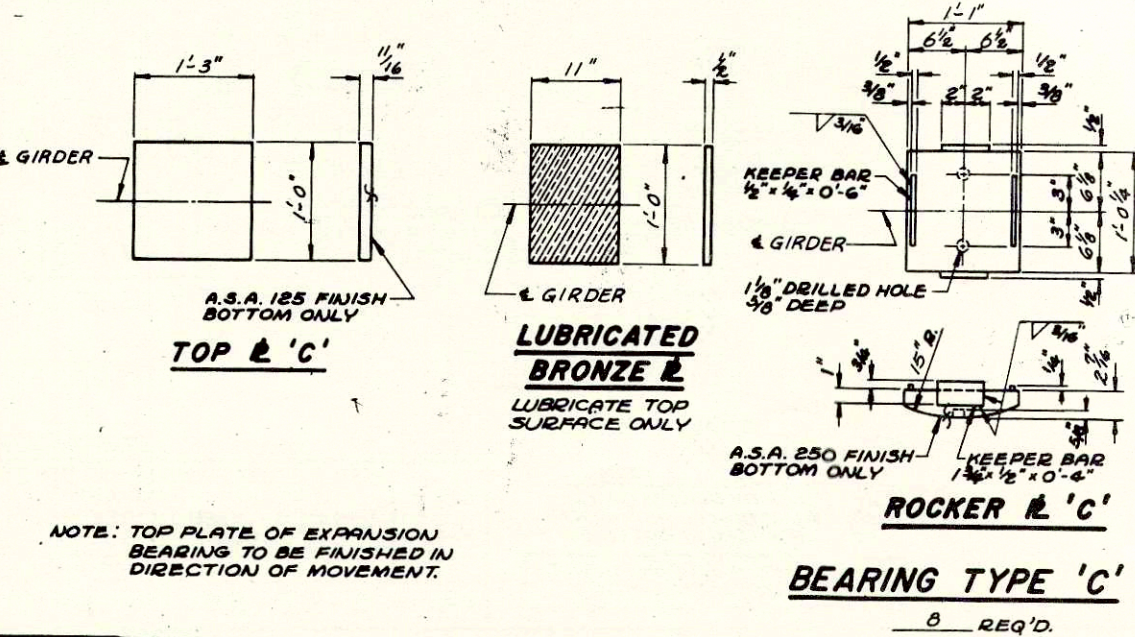
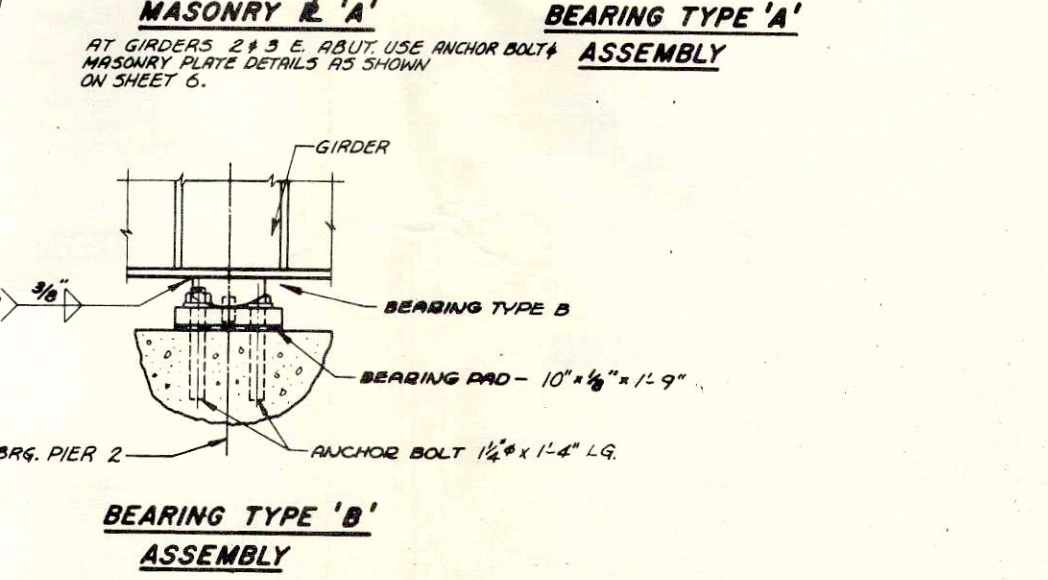
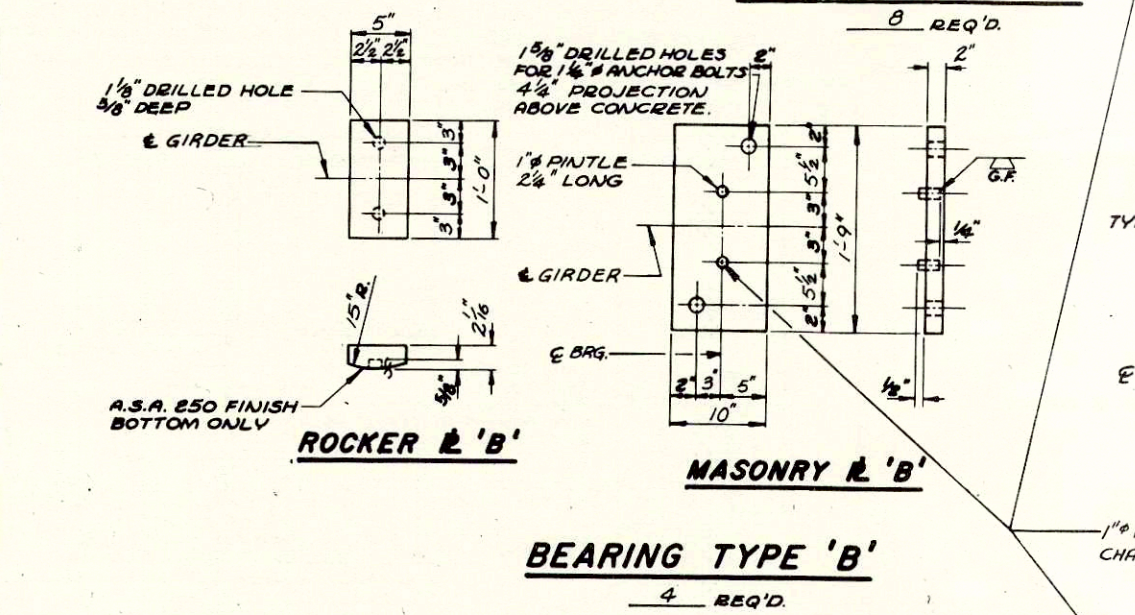
NOTE: TWO OR MORE POURS MAY BE COMBINED AND THE TRANSVERSE CONSTRUCTION JOINTS OMITTED IF THE POUR FOR AN ENTIRE SPAN OR THE PORTION OF A SPAN TO A CONSTRUCTION JOINT CAN BE COMPLETED WITHIN FOUR HOURS AFTER CONCRETE OVER THE ADJACENT PIER IS PLACED. DIRECTION OF POUR MAY BE REVERSED IF PORTION OF POUR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

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	SUPERSTRUCTURE DETAILS
DESIGN SPEC. A.R.S.H.O. 61	LOADING H.5.20-MOD CONST. 1963
DATE 6-9-64	DESIGN S.S.B. DRAWN W.H. CKD. J.C.K.
STRUCTURE B-32-54	SHEET 4 OF 13

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



TEMPORARY HOLD DOWN DEVICE
 (TO BE PAID FOR AS STRUCTURAL CARBON STEEL)
 IF POURING SEQUENCE IS REVISED TO TERMINATE AT W. ABUT. PLACE TEMPORARY HOLD DOWN DEVICE AT EACH GIRDER AT WEST ABUT.

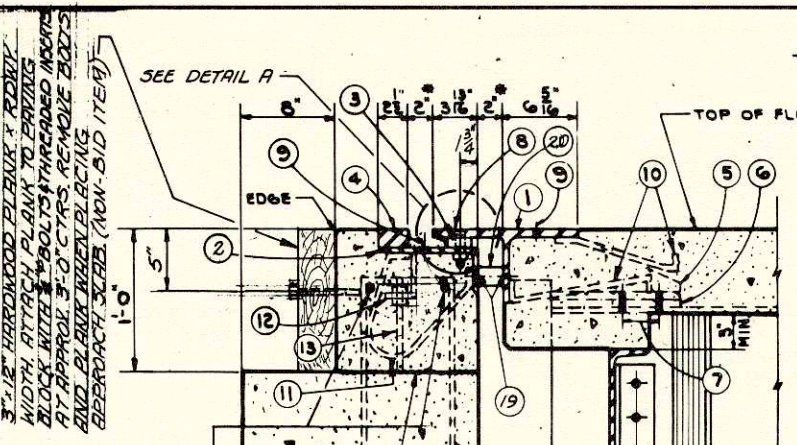


NOTE: TOP PLATE OF EXPANSION BEARING TO BE FINISHED IN DIRECTION OF MOVEMENT.

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 'F' 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 232 STEEL WITH A CORROSIVE RESISTANCE OF 4.08 OR MORE TIMES THAT OF A36 STEEL.
- THE TOP 4 1/2" OF ANCHOR BOLTS, WASHERS AND NUTS SHALL BE GALVANIZED.
- ALL MATERIAL IN BEARINGS, INCLUDING SHIMS 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.S.S. NO. 6/	LOADING	CONCRETE SPEC. 1963	
DATE 6-9-66	DESIGN	DRAWN TWC	CHK. J.C.K.
STRUCTURE B-32-54		SHEET 5 OF 13	



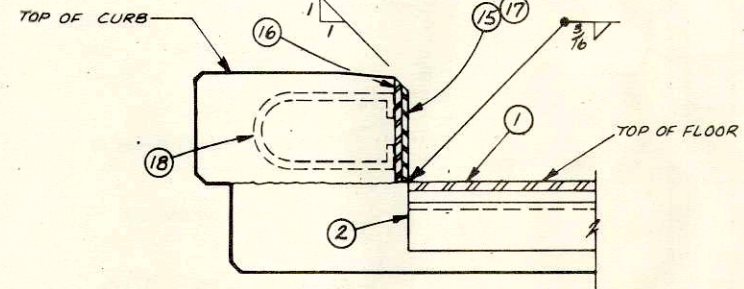
* AT 60° F.

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

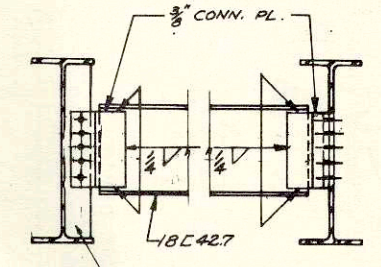
DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	190-1(45)5	28	40

LEGEND

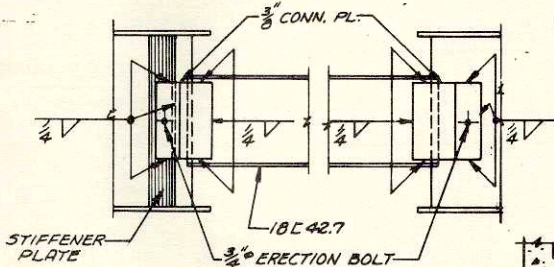
1. S.T. 6" W.F. 39.5# ROADWAY WIDTH.
2. L 8" x 4" x 7/16" ROADWAY WIDTH.
3. BAR 2" x 3/4" x RDWY. WIDTH. WELD TO L#2 WITH 2 LINES OF 1/2" FILLET WELD, 2 @ G.
4. BAR 2 1/2" x 1 1/2" x RDWY. WIDTH. WELD TO L#2 WITH 2 LINES OF 1/2" FILLET WELD, 2 @ G.
5. FABRICATE FROM 3/8" WELDED PLATE. WELD TO STEM & FLG. OF S.T.#1 WITH 1/2" FILLET WELD NEAR AND FAR SIDE.
6. 3/8" MIN. LAMINATED & SLOTTED SHIM.
7. DRILL HOLES IN STRINGER FLG. IN FIELD FOR 3/8" BOLTS.
8. 3/4" FLAT HD. CAP SCREW x 0-2 1/2" WITH SQ. NUT @ 4'-0" CTRS. GREASE FOR EASY REMOVAL. 1/2" x 1/4" KEEPER BAR - WELD TO L#2 TO KEEP SQ. NUT FROM TURNING.
9. VENT HOLES. 1 1/2" PLACED AT 2'-0" CENTERS ON L#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 L#2.
12. L 3" x 2 1/2" x 3/8" @ 3'-0" CENTERS. WELD TO L#2. PROVIDE 9/16" HOLE IN 2 1/2" LEG FOR BOLT #13.
13. 1/2" BOLT x 0'-9" LG & NUT. TACK WELD NUT TO L#12.
14. SUPPORT TEE - FABRICATE FROM 3/8" PL. WELD TO S.T.#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 1/2" FILLET WELD.
18. 5/8" BENT BAR x 1'-3" LG. WELD TO PL #15 & PL #16 WITH 1/2" FILLET WELD. FIELD WELD TO BAR #19.
19. PROVIDE 9/16" HOLES AT 3'-0" CTRS. FOR BOLT #20
20. BLOCK & BOLT FOR SHIPMENT WITH PIPE SLEEVE AND 1/2" BOLT PROVIDE 9/16" HOLES AT 3'-0" CTRS. IN S.T.#1 & L#2 FOR 1/2" BOLT.



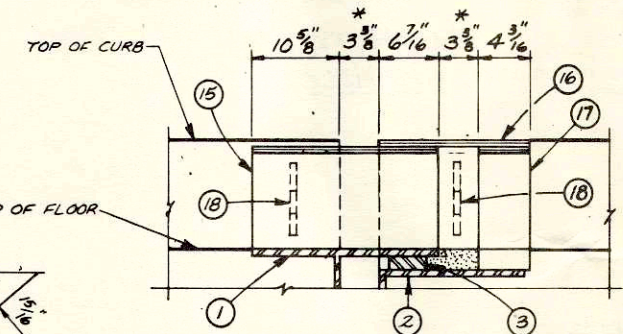
DETAIL AT CURB



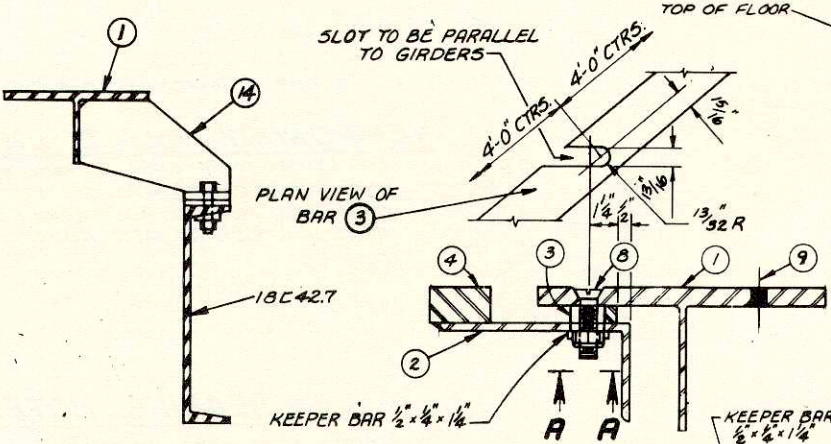
ALTERNATE DIAPHRAGM CONNECTION



TYPICAL DIAPHRAGM CONNECTION



ELEV. CURB JOINT



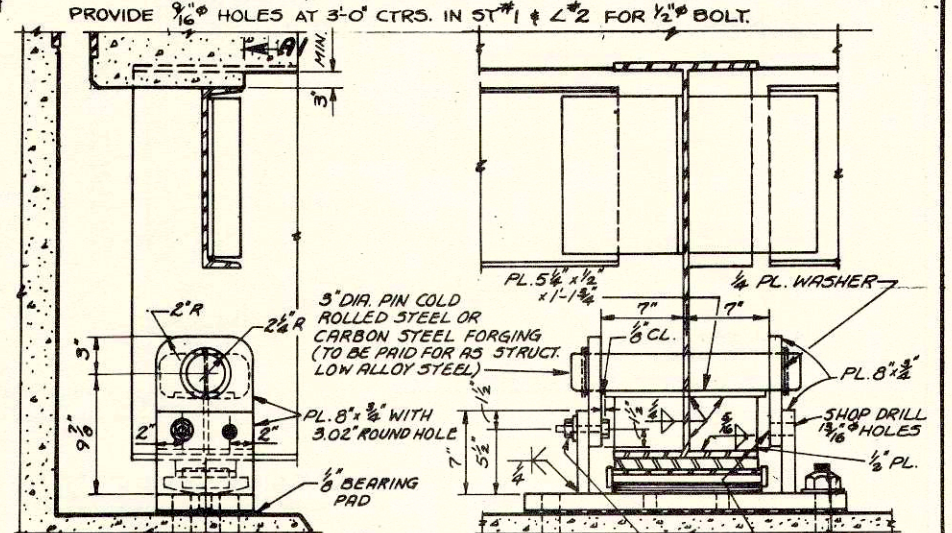
SUPPORT TEE (PLACE AT MIDPOINT OF CHANNELS)

NOTES

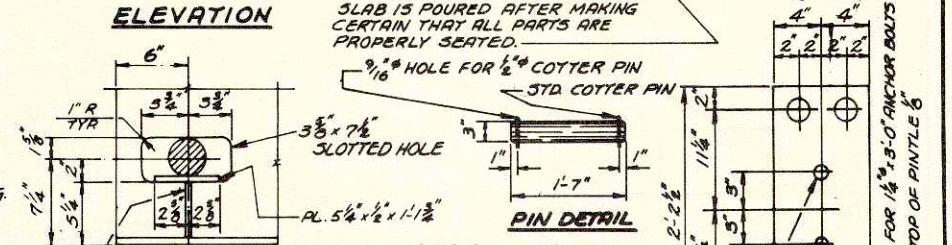
EXPANSION JOINT SHALL BE BUILT TO CONFORM TO RDWY. CROWN & GRADE. AFTER CONCRETE HAS SET REMOVE BOLTS NO. 6 AND FILL HOLES WITH HOT POURED ELASTIC TYPE JOINT SEALER.

AFTER CONCRETE HAS SET THE JOINT SHALL BE THOROUGHLY CLEANED. APPLY ± 1/8" 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.

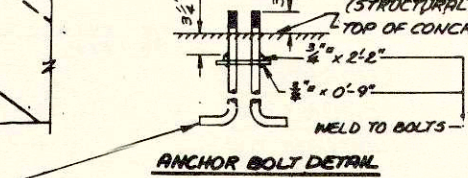


ELEVATION

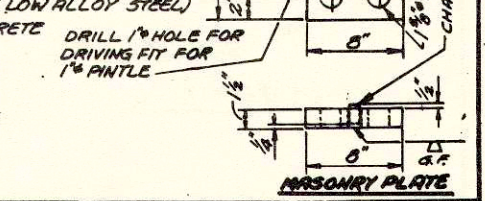


GIRDER DETAIL

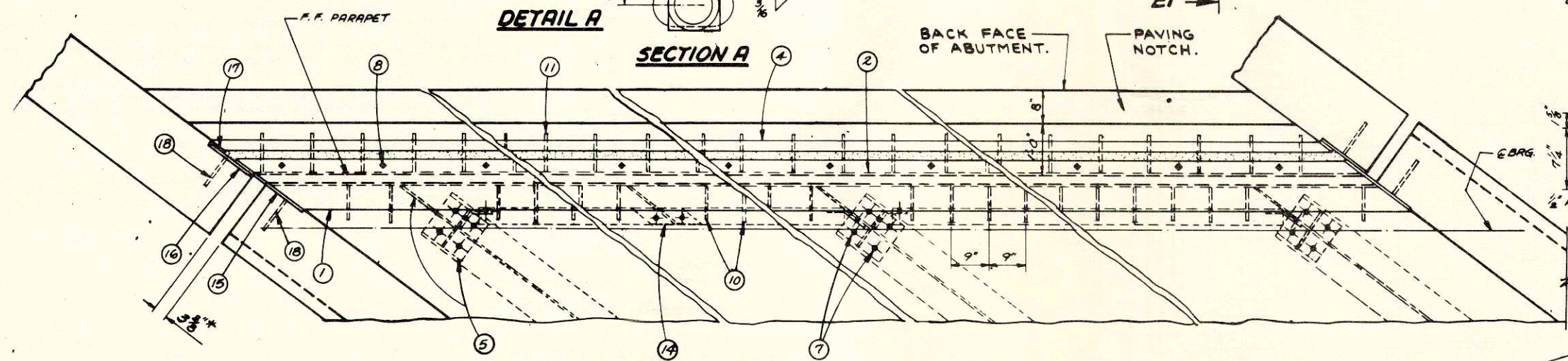
HOLD-DOWN DEVICE DETAILS (STRUCTURAL LOW ALLOY STEEL)



ANCHOR BOLT DETAIL



MASONRY PLATE



PLAN (AT WEST AND EAST ABUTS.)

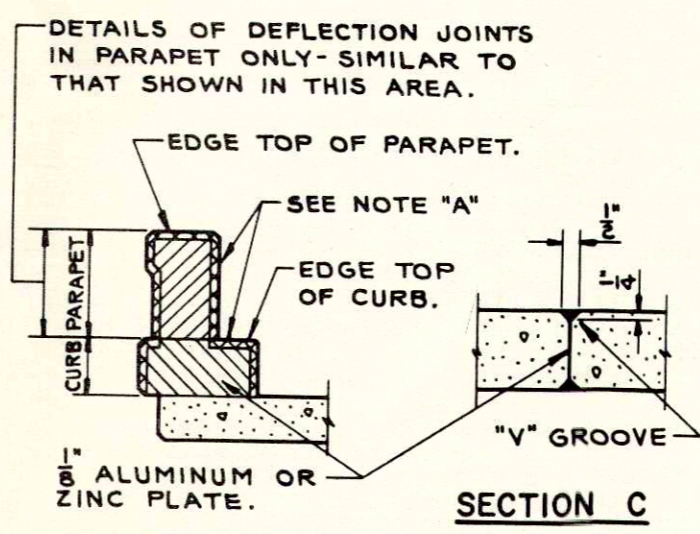
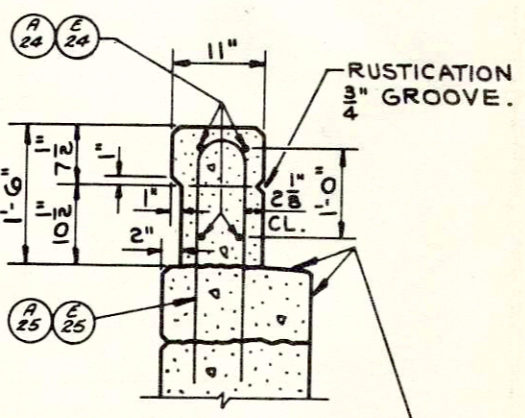
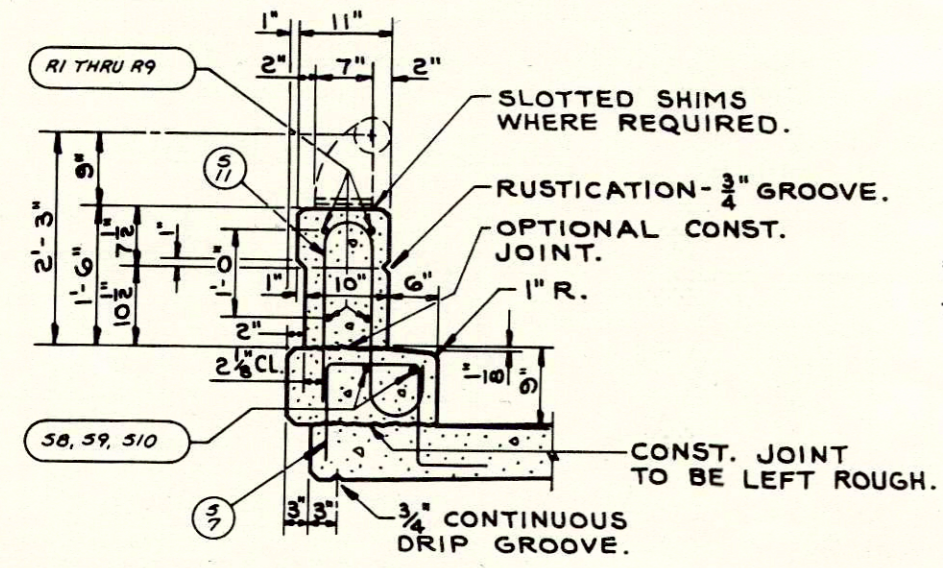
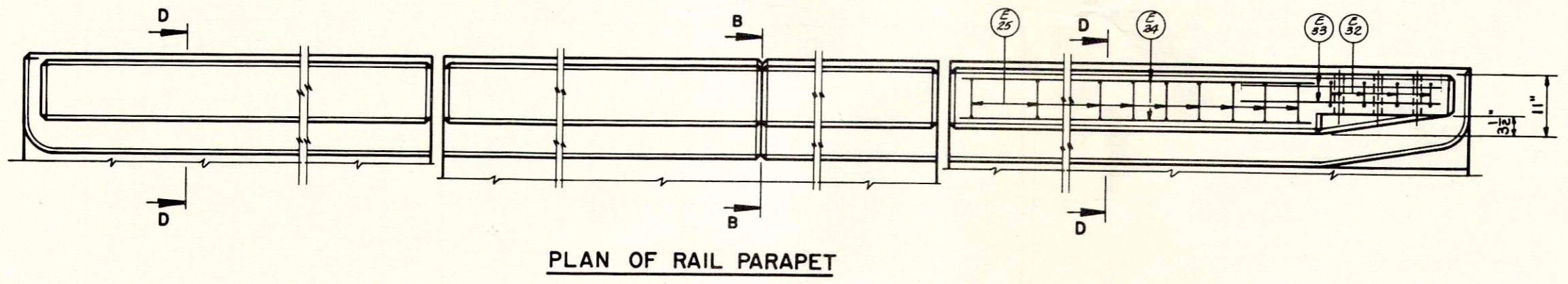
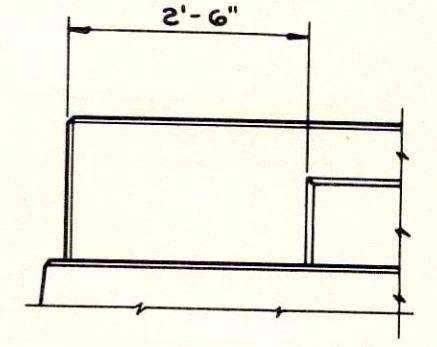
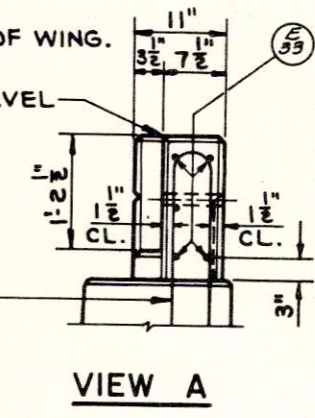
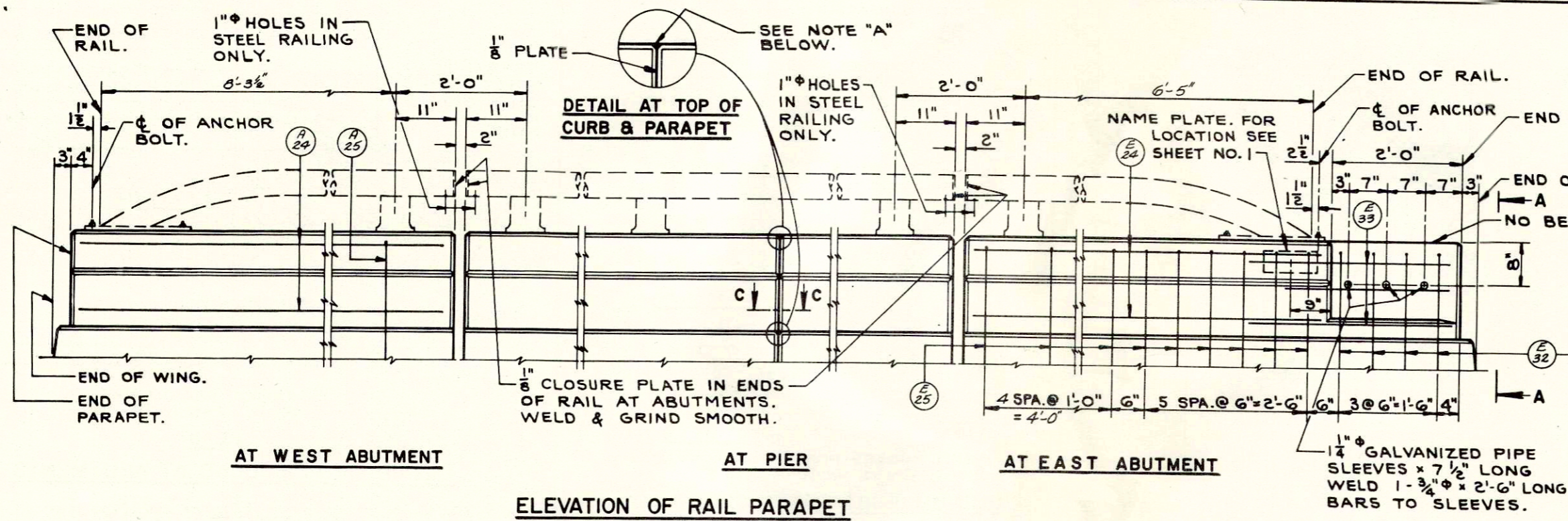
1/2" x 3'-0" PRESET ANCHOR BOLTS AT HOLD-DOWN DEVICES ONLY
 3 3/4" PROJECTION ABOVE CONCRETE
 90° BEND 4' LONG AT END OF BOLT

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

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
EXPANSION JOINT AND HOLD-DOWN DEVICE	
DESIGN SPEC. A.A.S.H.O. 61	CONTRACT SPEC. 1963
DATE 6-9-66	DESIGN STD. DRAWN J.C.K.
STRUCTURE B-32-54	SHEET 6 OF 13

X 35231

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

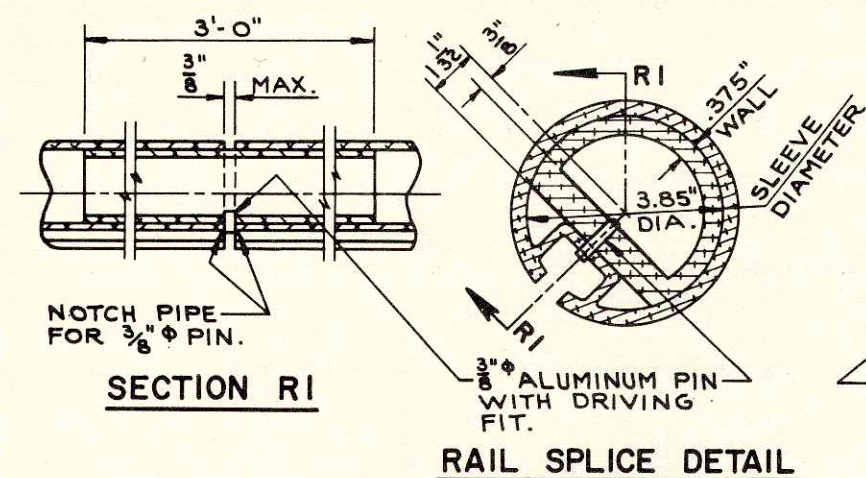
WORK THIS SHEET WITH SHEET TITLED "DETAILS FOR TYPE "G" TUBULAR ALUMINUM AND STEEL RAILING".

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

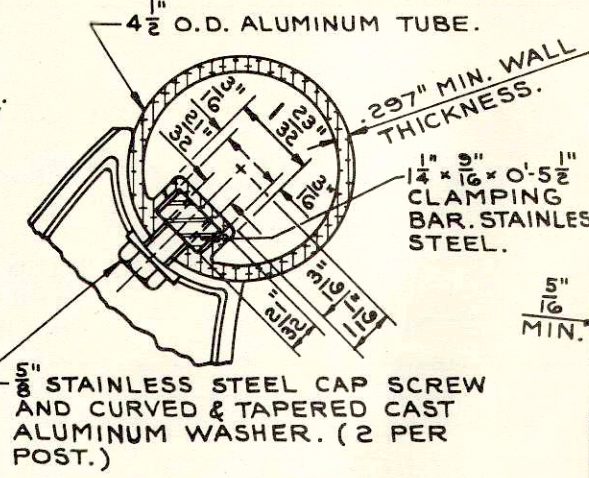
NOTE "A": FILL WITH NON-STAINING GRAY TWO COMPONENT POLYSULFIDE LIQUID POLYMER (GUN GRADE) WITH SURFACE PRIMER, CONFORMING TO A.S.A.-A-116.1-1960.

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	RAIL PARAPET DETAILS		
DESIGN SPEC.	A.S.H.O. 81	LOADING	CONCRETE 1963
DATE	6-9-66	DESIGN	DRAWN J.M. CKD J.C.K.
STRUCTURE	B-32-54	SHEET 7 OF 13	

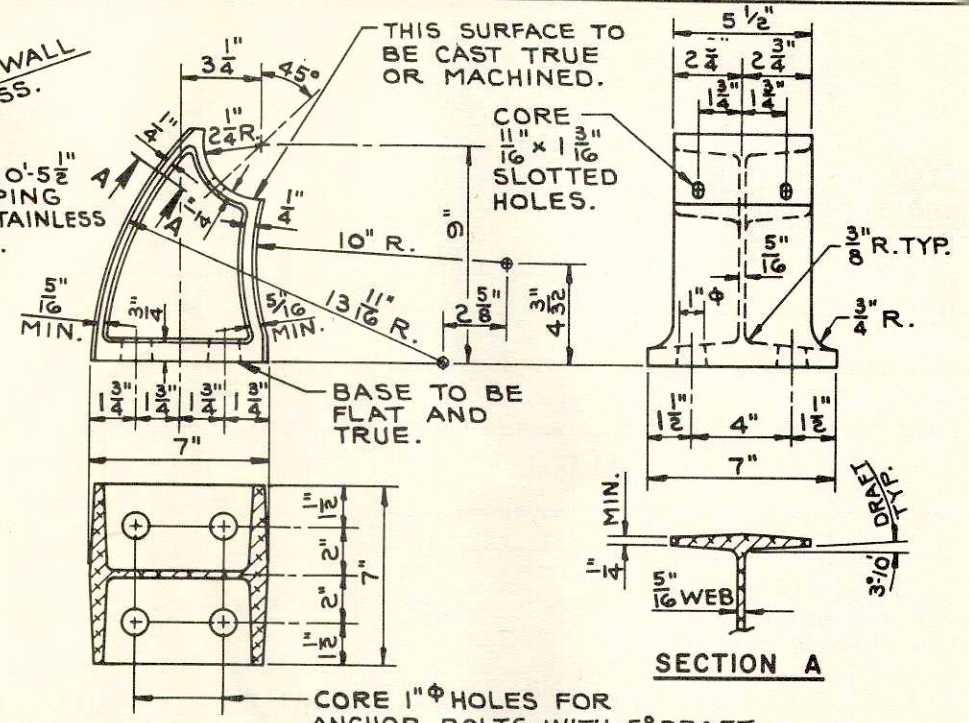
B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)5	30	40



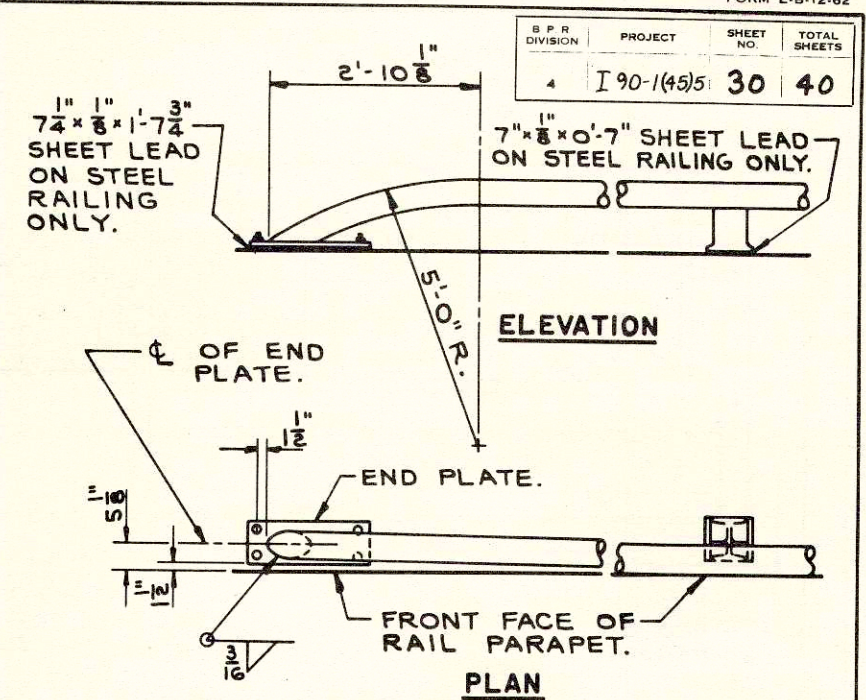
SECTION R1
RAIL SPLICE DETAIL
ALUMINUM RAILING DETAILS



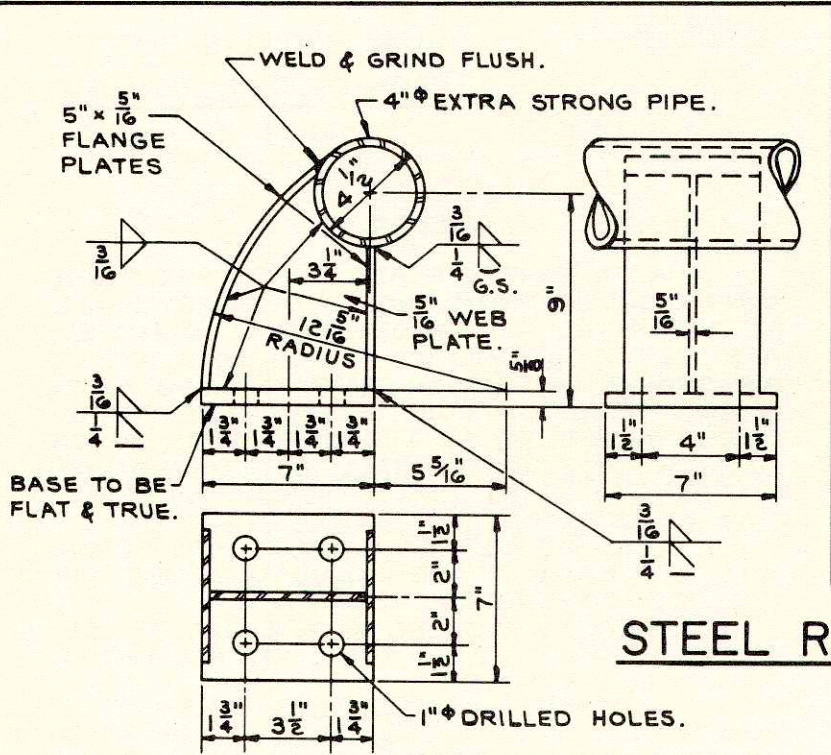
DETAIL OF RAIL ATTACHMENT TO POST



SECTION A
ALUMINUM POST CASTING



ELEVATION
PLAN
DETAIL OF RAIL BEND AT ABUTMENTS



STEEL RAILING DETAILS

NOTES

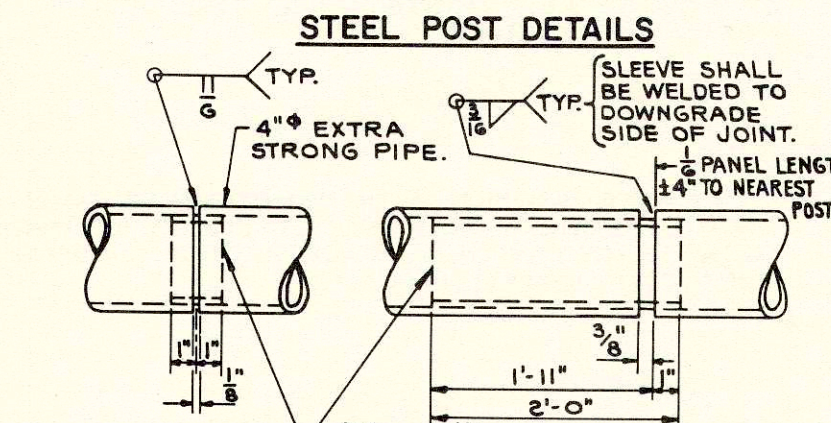
RAILING SPLICES SHALL BE LOCATED SUCH THAT C OF SPLICE IS 1/6 PANEL LENGTH ± 4" OFF NEAREST POST.

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 POST DETAILS

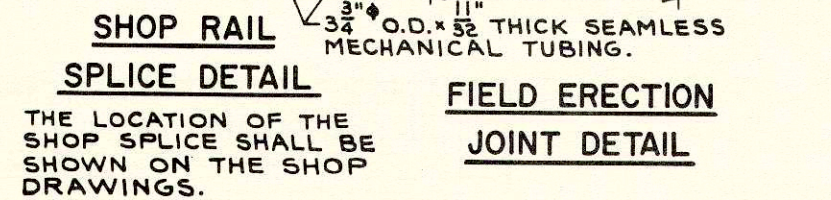
NOTES

RAILING SHALL BE FABRICATED IN 2 & 3 PANEL LENGTHS.

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

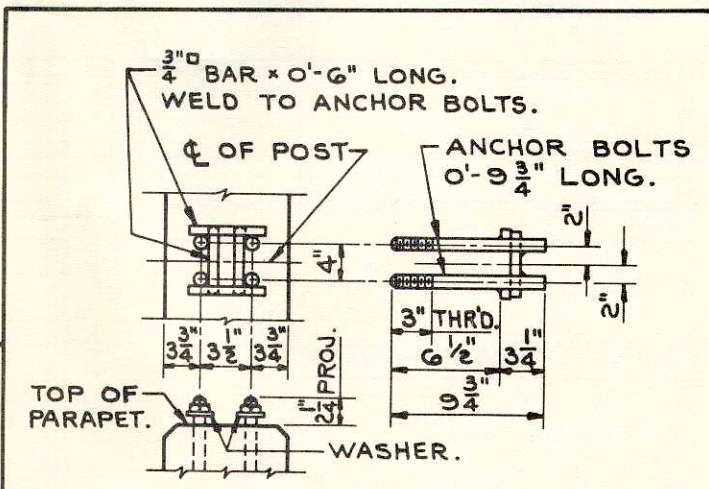
THE FOLLOWING MATERIALS SHALL BE USED:

- RAILING SHALL BE 4" EXTRA STRONG PIPE CONFORMING TO ASTM DESIGNATION A53, GRADE B.
- SLEEVES SHALL BE 3 3/4" O.D. x 1 1/2" 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.

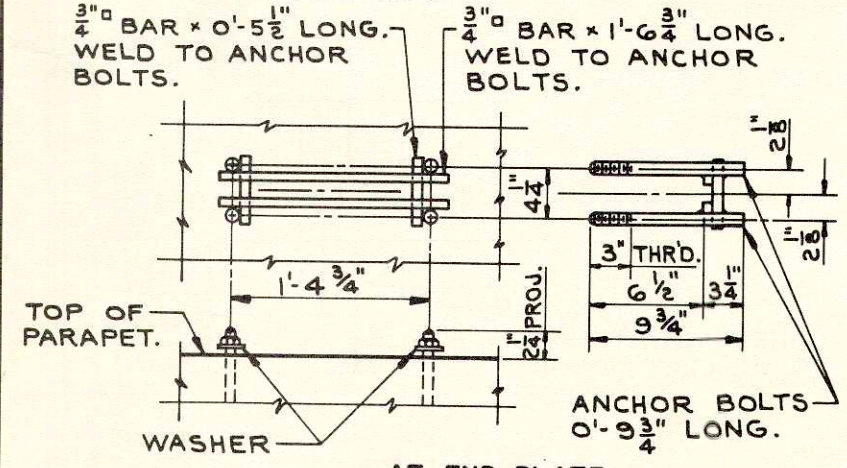


SHOP RAIL
SPLICE DETAIL
FIELD ERECTION
JOINT DETAIL

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



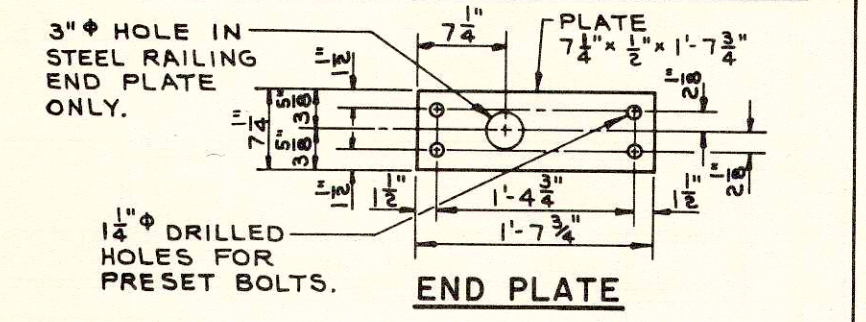
AT POSTS



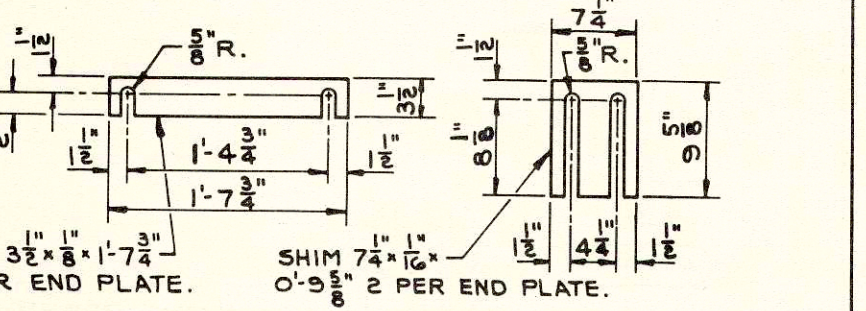
AT END PLATE

ANCHOR BOLT SETTING DETAILS

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



END PLATE



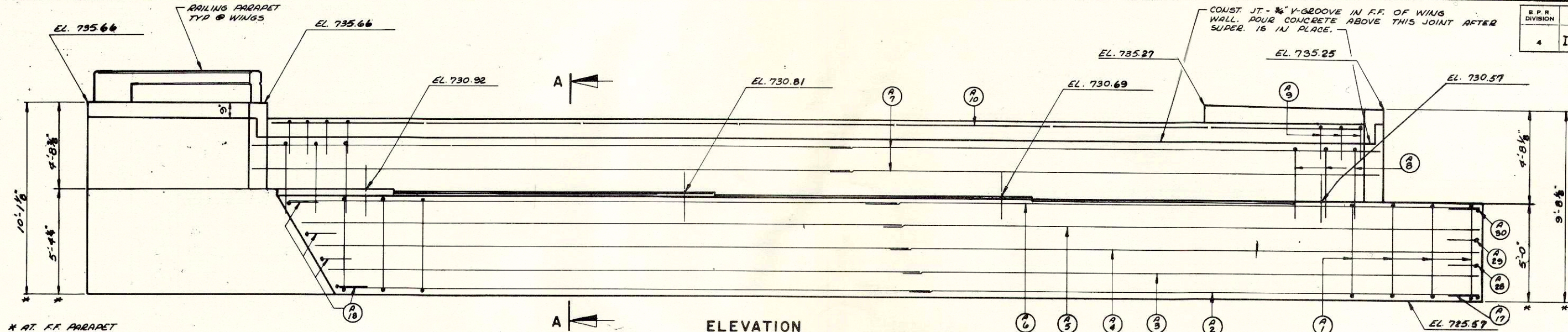
END PLATE SHIM DETAILS

POST SHIM DETAILS

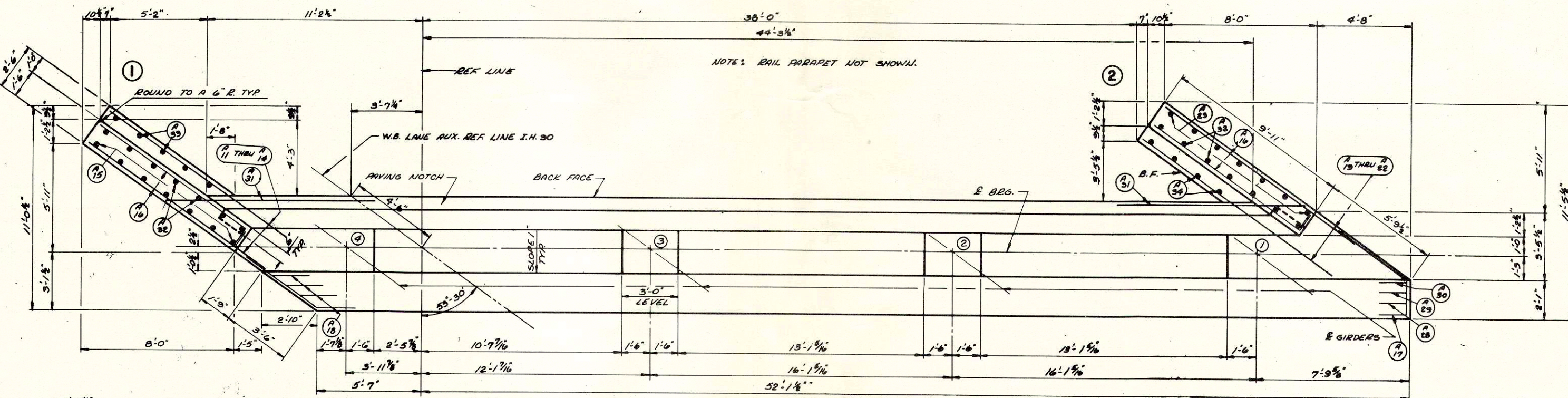
WORK THIS SHEET WITH SHEET TITLED "RAIL PARAPET DETAILS"

REVISION	STATE HIGHWAY COMMISSION OF WISCONSIN
	DETAILS FOR TYPE "G" TUBULAR ALUMINUM & STEEL RAILING
DESIGN SPEC. A.A.S.H.O. 67	LOADING
DATE 6-9-66	DESIGN
	CONTRACT 1963
	COMET SPEC.
	DATE 6-9-66
	DESIGN
	DRAWN J.W.
	CHK. J.C.K.
STRUCTURE	B-32-54
SHEET	8 OF 13

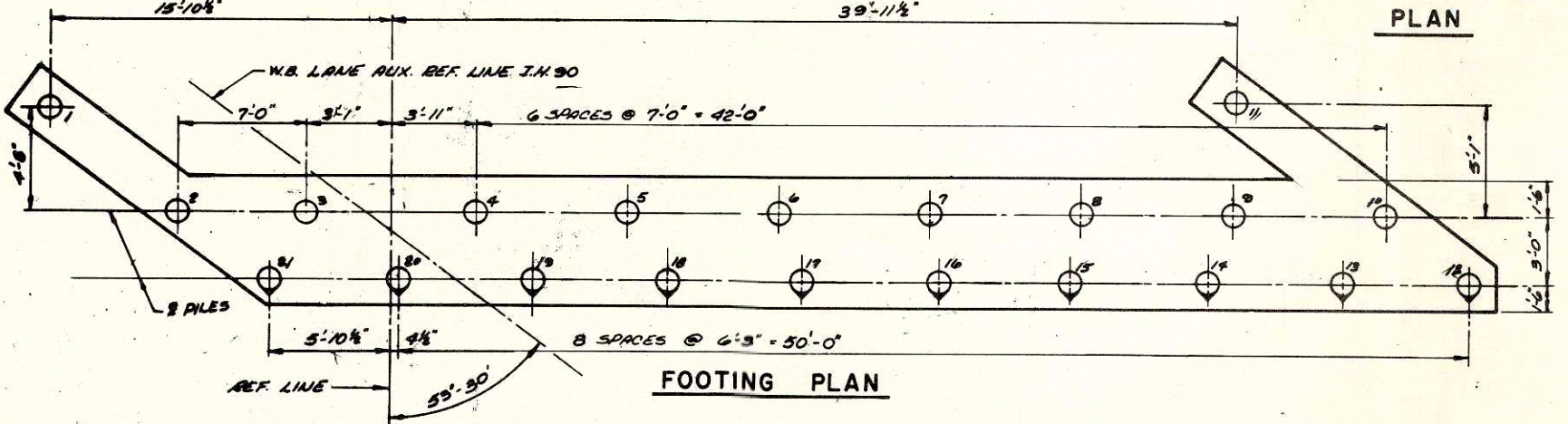
S.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)5	31	40



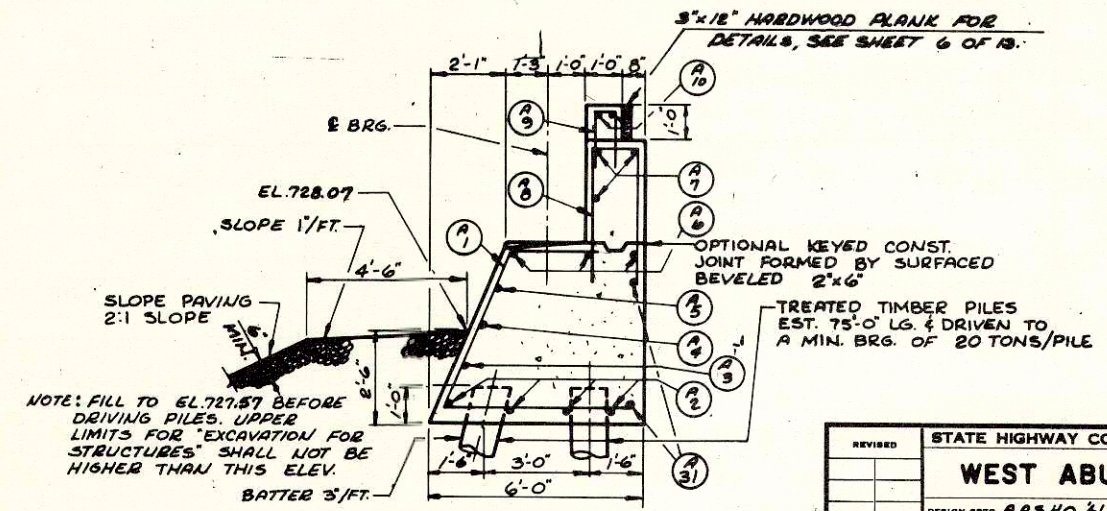
ELEVATION



PLAN



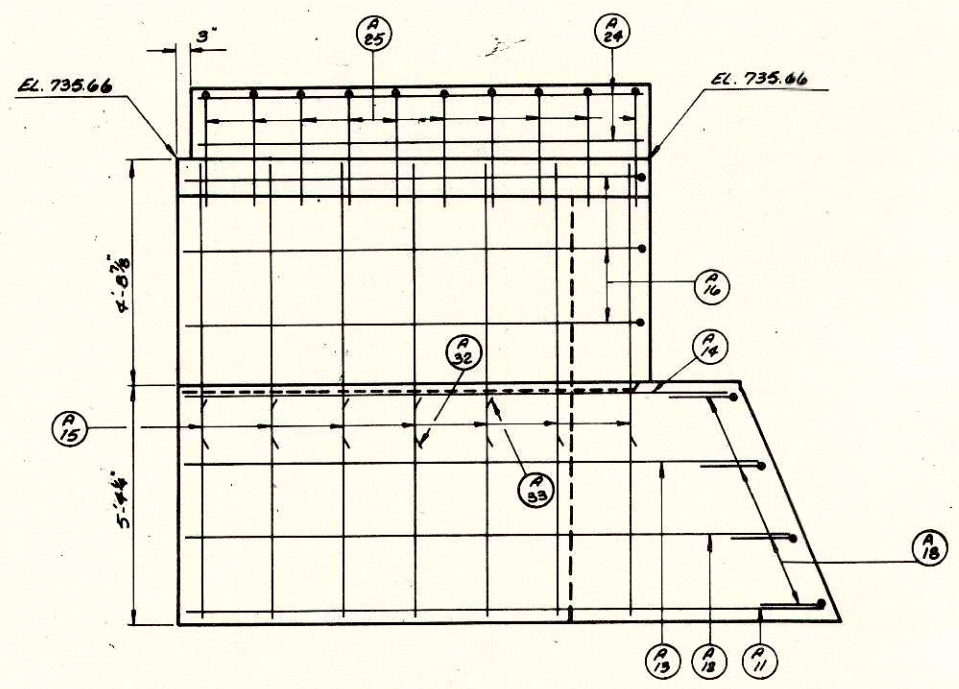
FOOTING PLAN



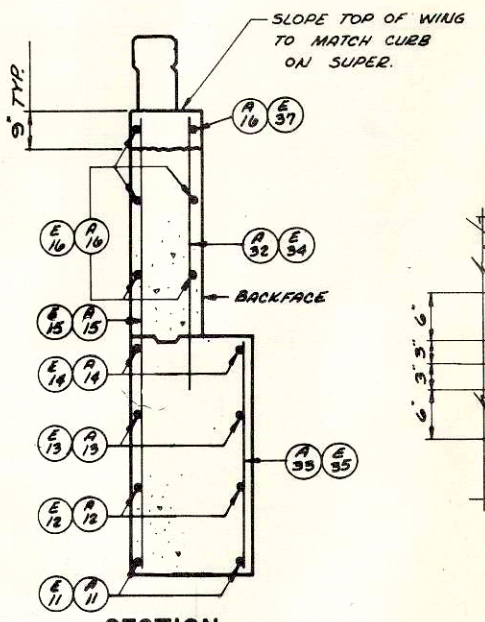
SECTION AA

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	WEST ABUTMENT		
	DESIGN SPEC. A.R.S.H.O. 6/1	LOADING 14500	CONTR. 1963
	DATE 6-9-66	DESIGN S.B.	DRAWN E.T.G. CKD. J.C.K.
	STRUCTURE B - 32 - 54		SHEET 9 OF 13

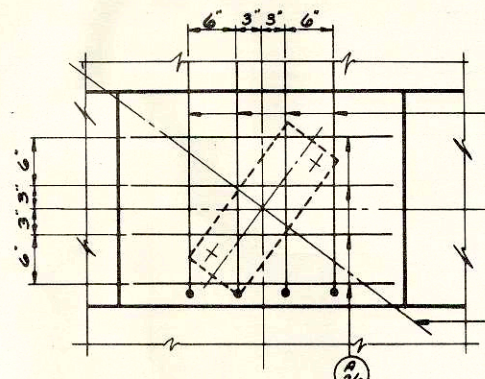
B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I 90-1(45)5	33	40



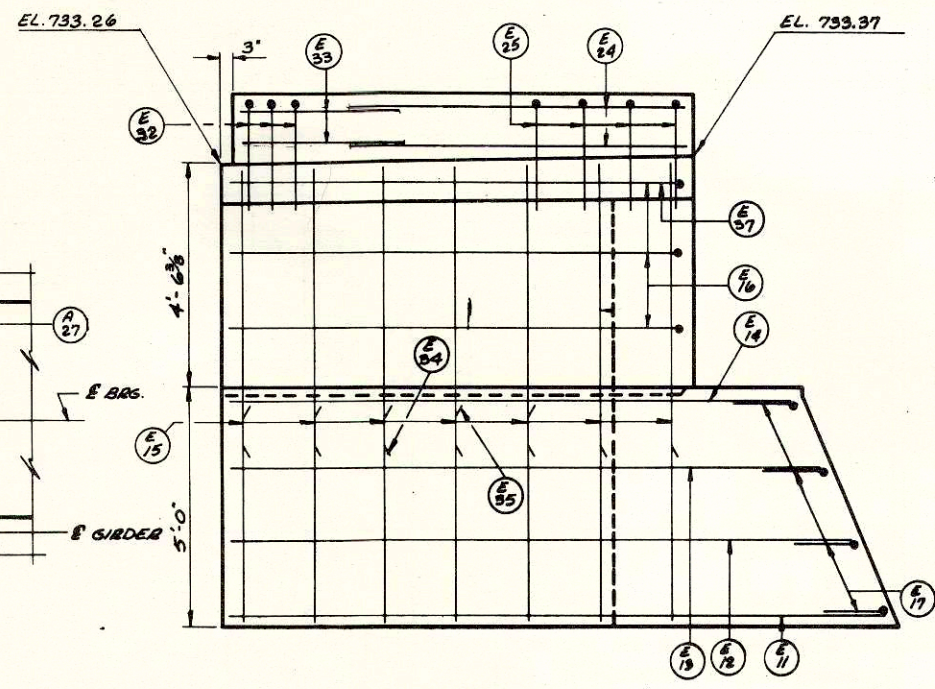
WING 1



SECTION THRU WINGS 1 & 3

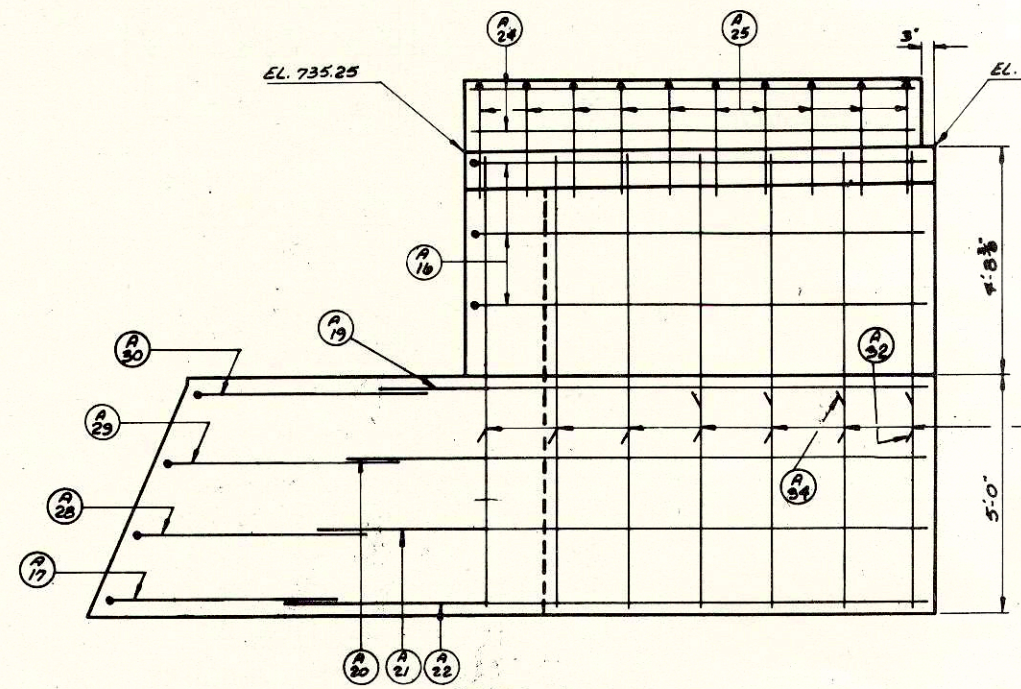


GRID DETAIL (WEST ABUTMENT ONLY)

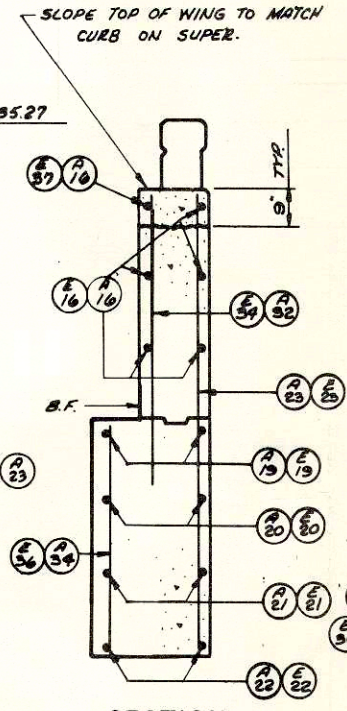


WING 3

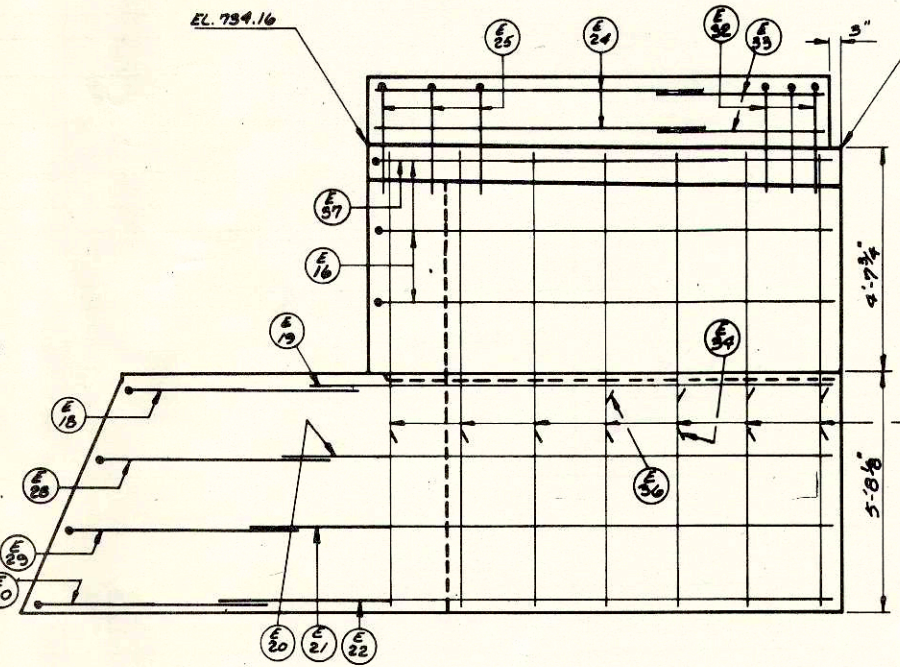
NOTE: FOR RAIL PARAPET REINF. DETAILS SEE SHT. 7 OF 13.



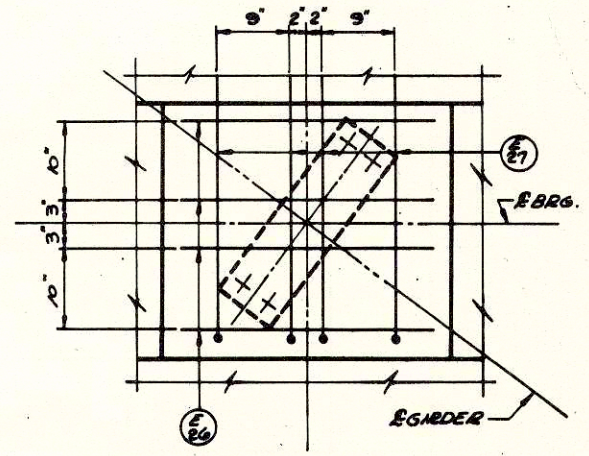
WING 2



SECTION THRU WINGS 2 & 4



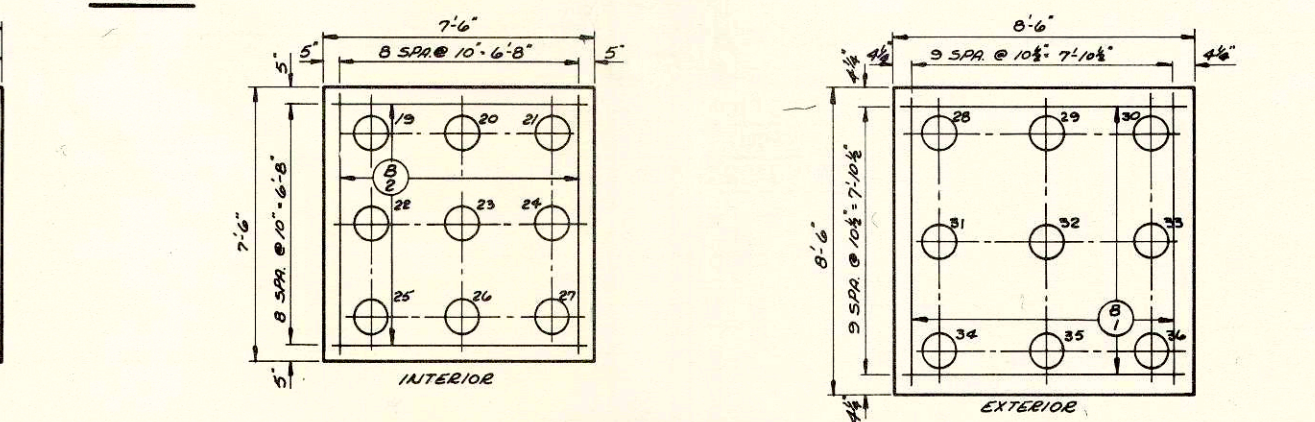
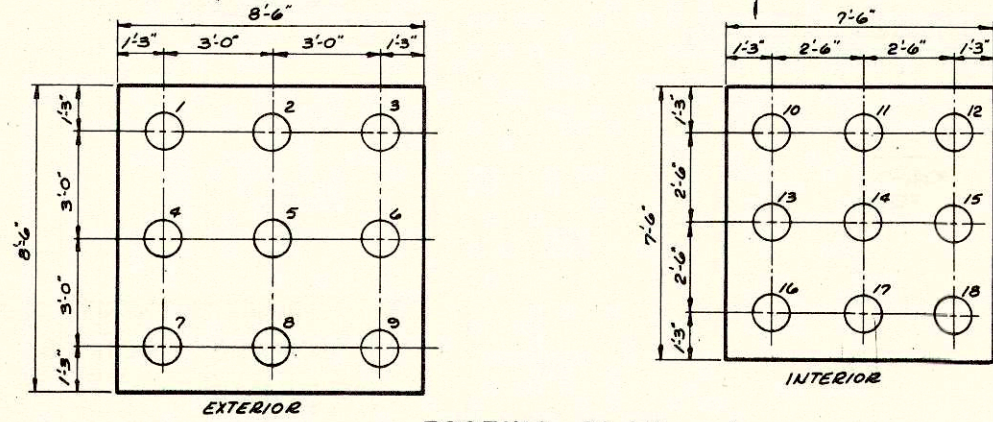
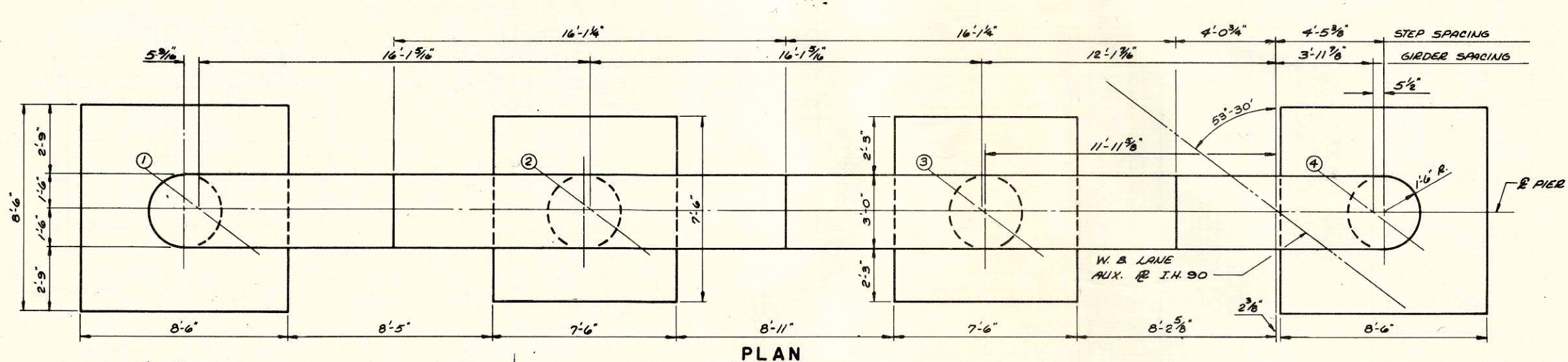
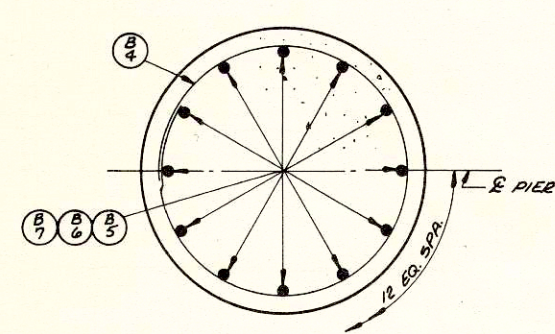
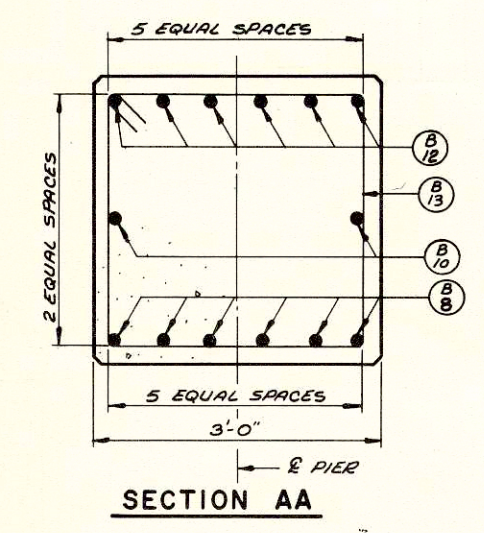
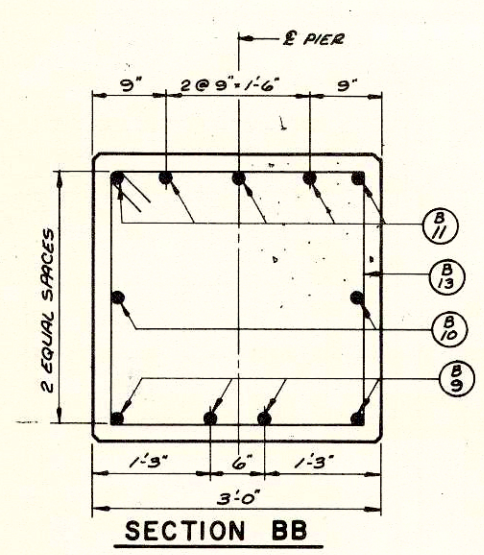
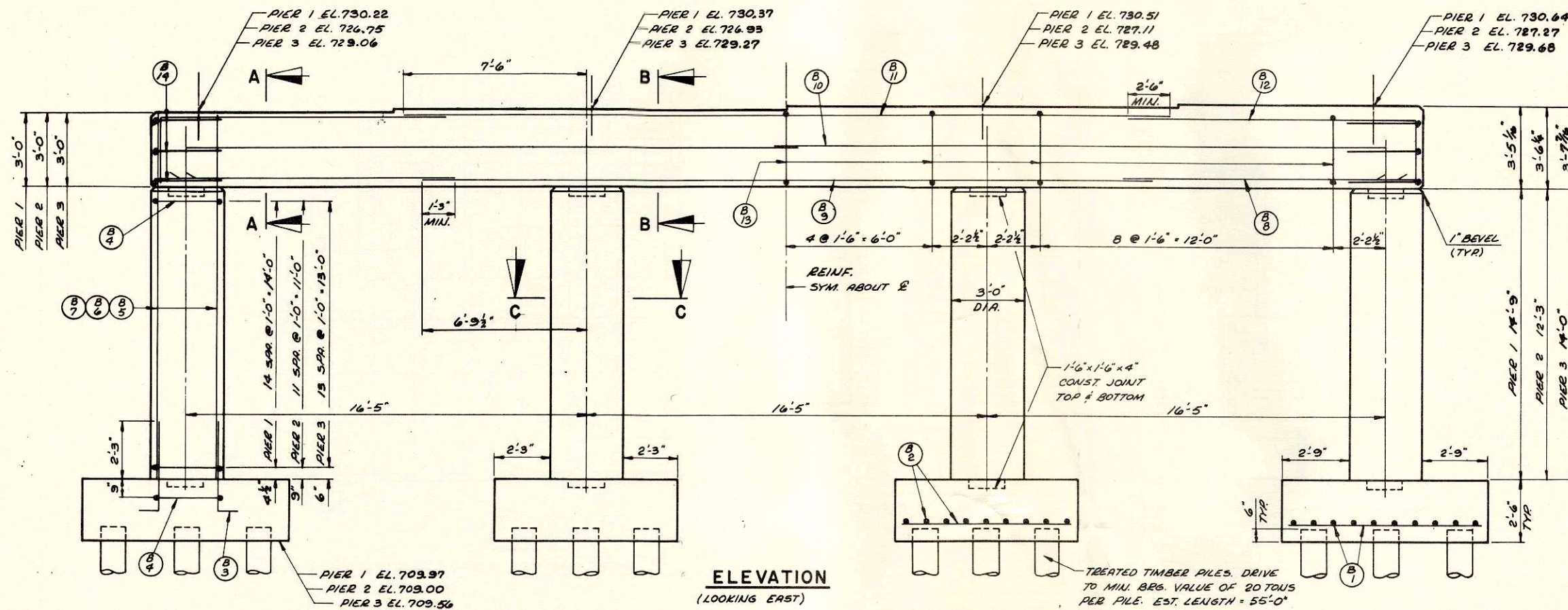
WING 4



GRID DETAIL (EAST ABUTMENT)

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	ABUTMENT DETAILS
DESIGN SPEC. R.R.S.H.C. 6	LOADING AASHTO MOD. CONST. SPEC. 1963
DATE 6-9-66	DESIGN 3 DRAWN 4/76 CKD. J.C.K.
STRUCTURE B-32-54	SHEET 11 OF 13

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



CONCRETE MASONRY

	PIER 1	PIER 2	PIER 3
FOOTINGS	23.3 C.Y.	23.3 C.Y.	23.3 C.Y.
COLUMNS	15.4 C.Y.	12.8 C.Y.	14.7 C.Y.
CAPS	18.4 C.Y.	18.7 C.Y.	18.9 C.Y.
TOTAL	57.1 C.Y.	54.8 C.Y.	56.9 C.Y.

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	PIERS 1, 2, & 3		
	DESIGN SPEC. A.A.S.H.O. '61	LOADING A520 MOD.	CONST. 1963 SPEC.
	DATE 6-9-64	DESIGN E.B.	DRAWN R.T.S. CKD. J.C.K.
STRUCTURE B-32-54	SHEET 12 OF 13		

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 ϵ 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	4	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		" " "	
A13	2	4	12-3	1-6		" " "	
A14	2	6	11-3	1-6		" " "	
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		" " " "	C
A19	2	6	12-3	1-6		" " " "	
A20	2	4	13-3	1-6		" " " "	
A21	2	4	14-3	1-6		" " " "	
A22	2	4	15-3	1-6		" " " "	
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		" " " "	M
A30	1	4	5-6	1-6		" " " "	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	10 $\frac{1}{2}$		Footings-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 #

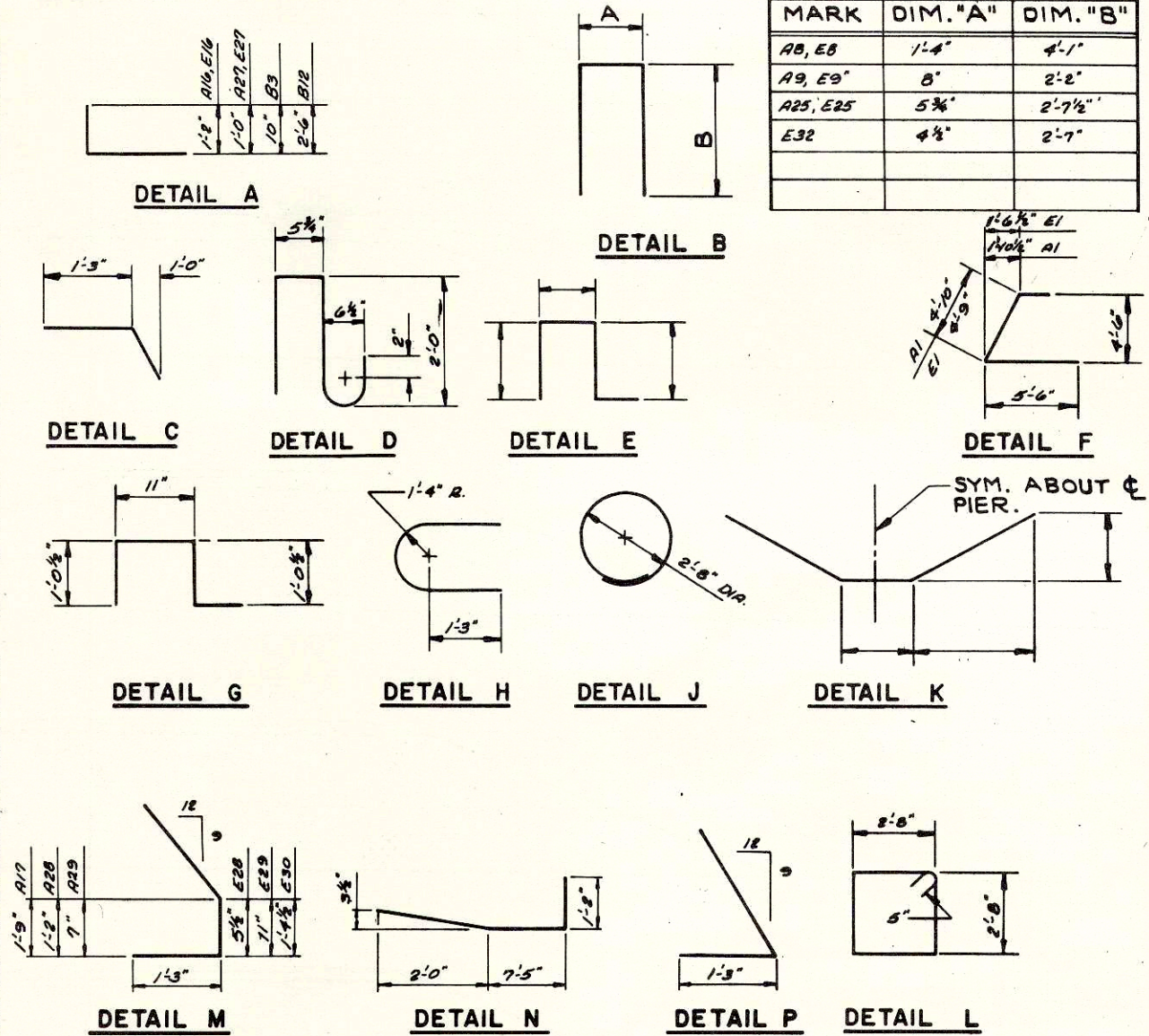
POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
E 1	29	4	13-9	2-0		Body-Space to Miss Piling	F
E 2	8	4	29-6	Shown		" Horizontal	
E 3	2	4	30-0	"		" " "	
E 4	2	4	30-6	"		" " "	
E 5	2	4	30-9	"		" " "	
E 6	6	4	31-0	"		" " "	
E 7	6	4	30-0	"		Parapet-Horizontal	
E 8	38	5	9-6	1-6		Body & Parapet	B
E 9	56	5	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.

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

MARK	DIM. "A"	DIM. "B"
AB, EB	1'-4"	4'-1"
A9, E9	8"	2'-2"
A25, E25	5'- $\frac{3}{4}$ "	2'-7 $\frac{1}{2}$ "
E32	4'- $\frac{1}{2}$ "	2'-7"



MARK & CUT ALL BARS ALONG THIS LINE. MAKE ALL CUTS NORMAL TO BAR AXIS.

"H" IS NUMBER OF BARS, BEFORE CUTTING.

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

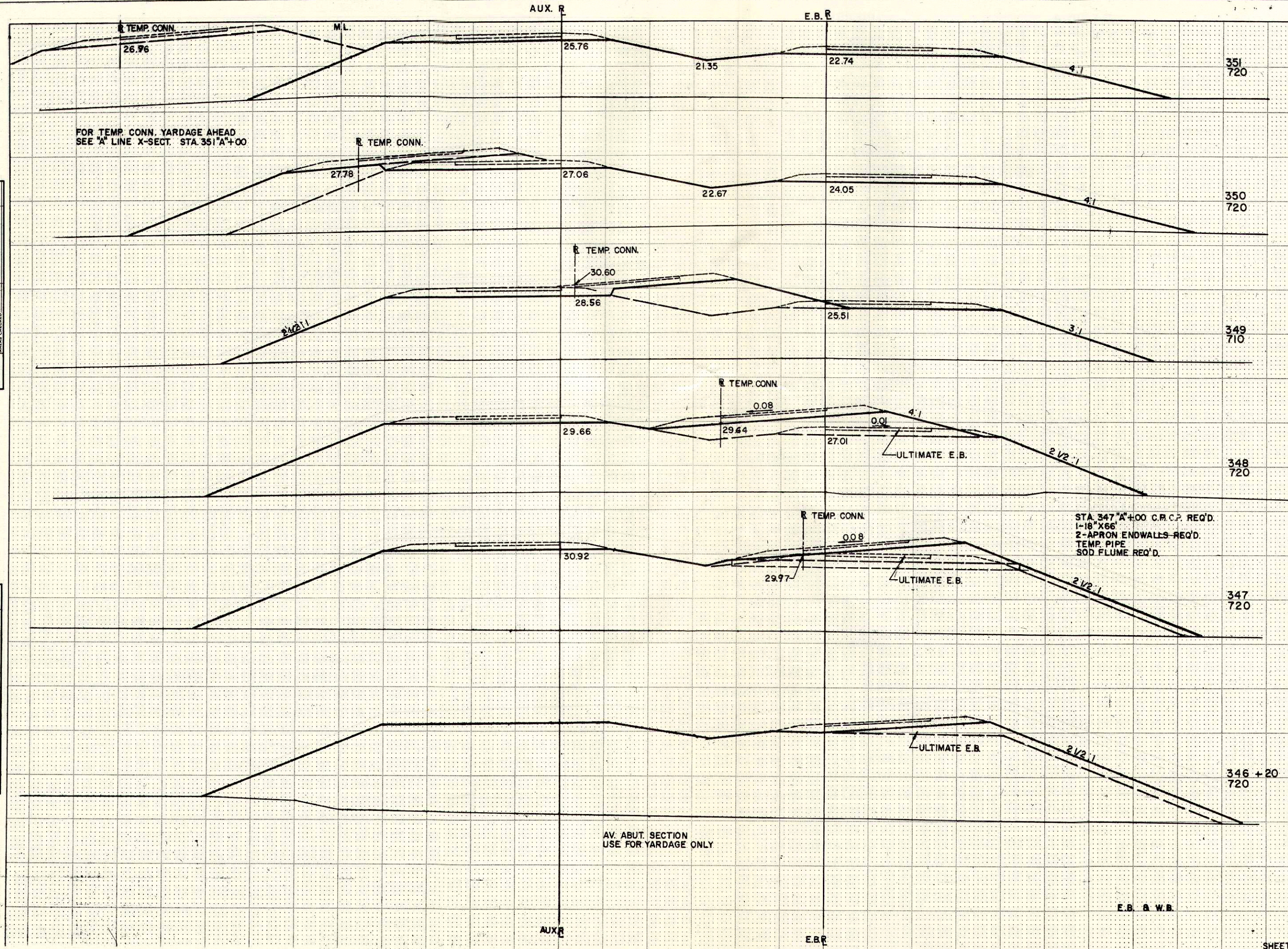
CUT, BUNDLE & MARK. (MARK WITH BAR NO. & SET NO.)

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	R.R.S.H.O. 66	LOADING	NBSO MOD
DATE	6-9-66	DESIGN	S.B.
DRAWN	E.T.G.	CHKD	J.C.K.
STRUCTURE B - 32 - 54		SHEET 13 OF 13	

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



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
351	720		
350	720		
346	+20		8168
347			9902
349	710		11,241
348			9629
349			8926
350	720		7296
351			
347	720		
346	+20		
346	720		
SHEET TOTAL			55,862

NOTE BOOK TEMPLATE NO. 1000

NOTE BOOK TEMPLATE NO. 1000

E.B. & W.B.

AUX. R

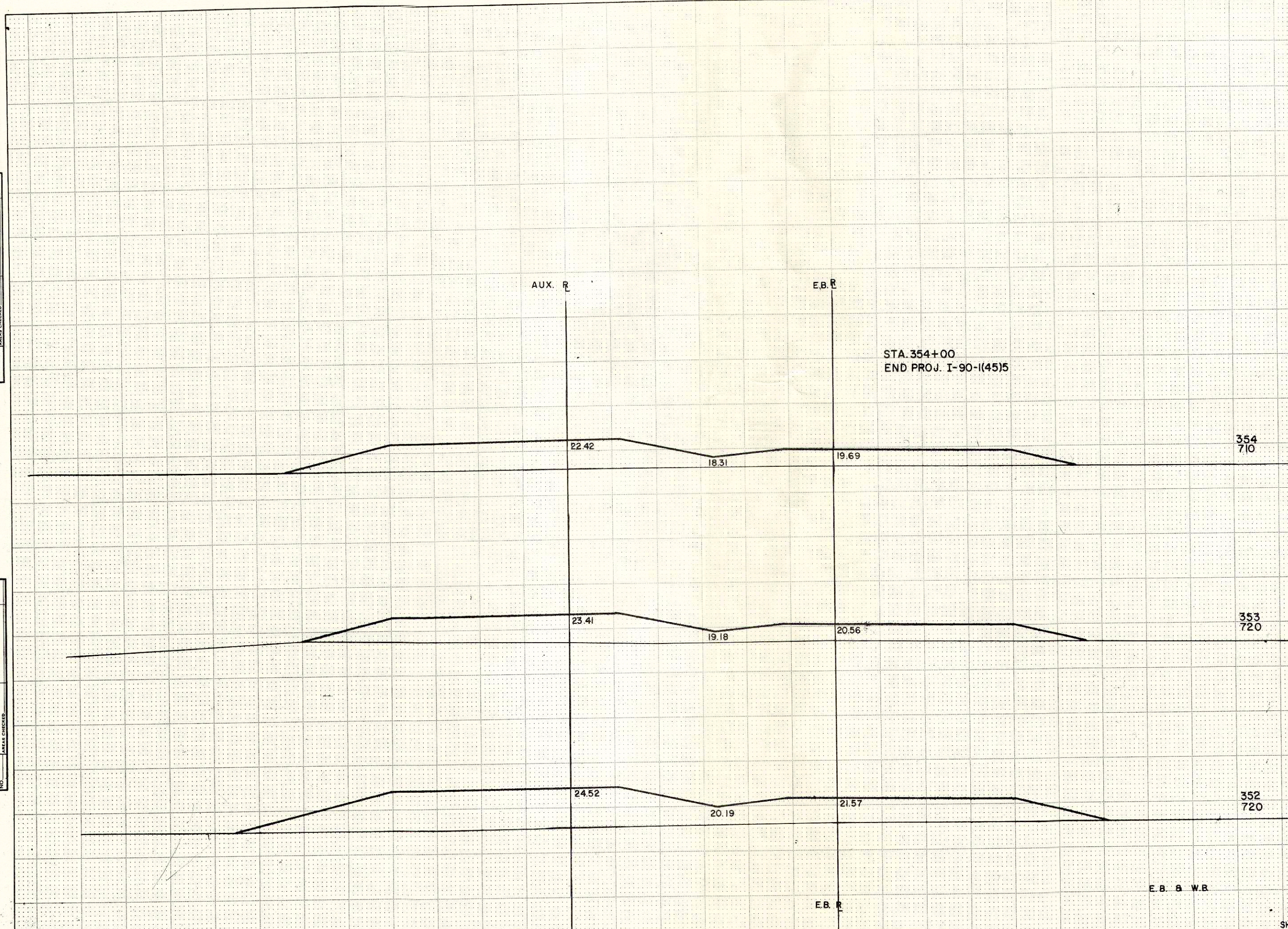
E.B. R

SHEET TOTAL

55,862

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

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
351			5,630
352			3,556
353			2,808
354			1,417
SHEET TOTAL			13,409



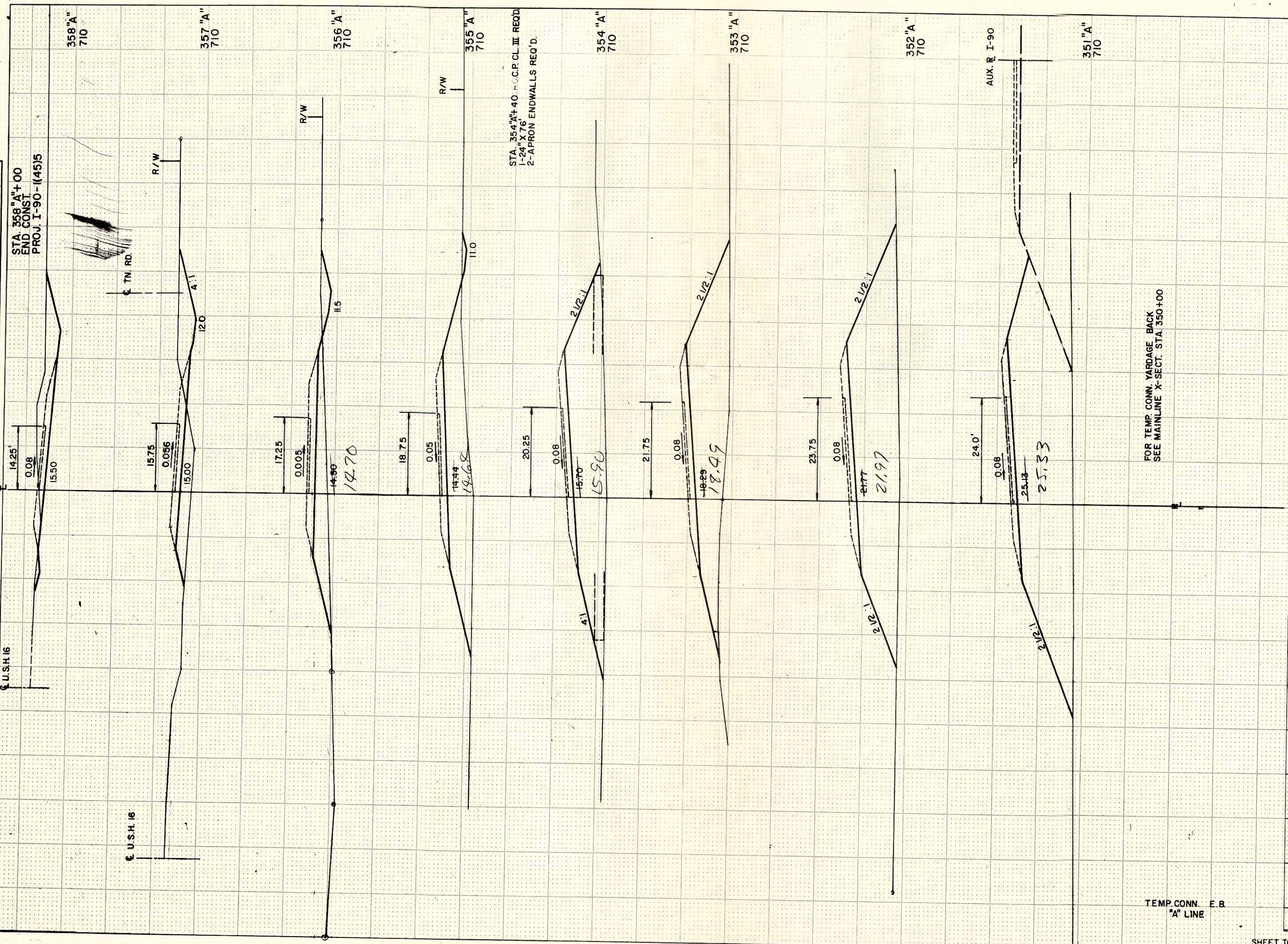
NOTE BOOK NO. AREAS CHECKED

NOTE BOOK NO. AREAS CHECKED

B.P.R. REGION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	I-90-(45)5	38	40

NOTE BOOK TEMPLATE NO. AREAS CHECKED

NOTE BOOK TEMPLATE NO. AREAS CHECKED

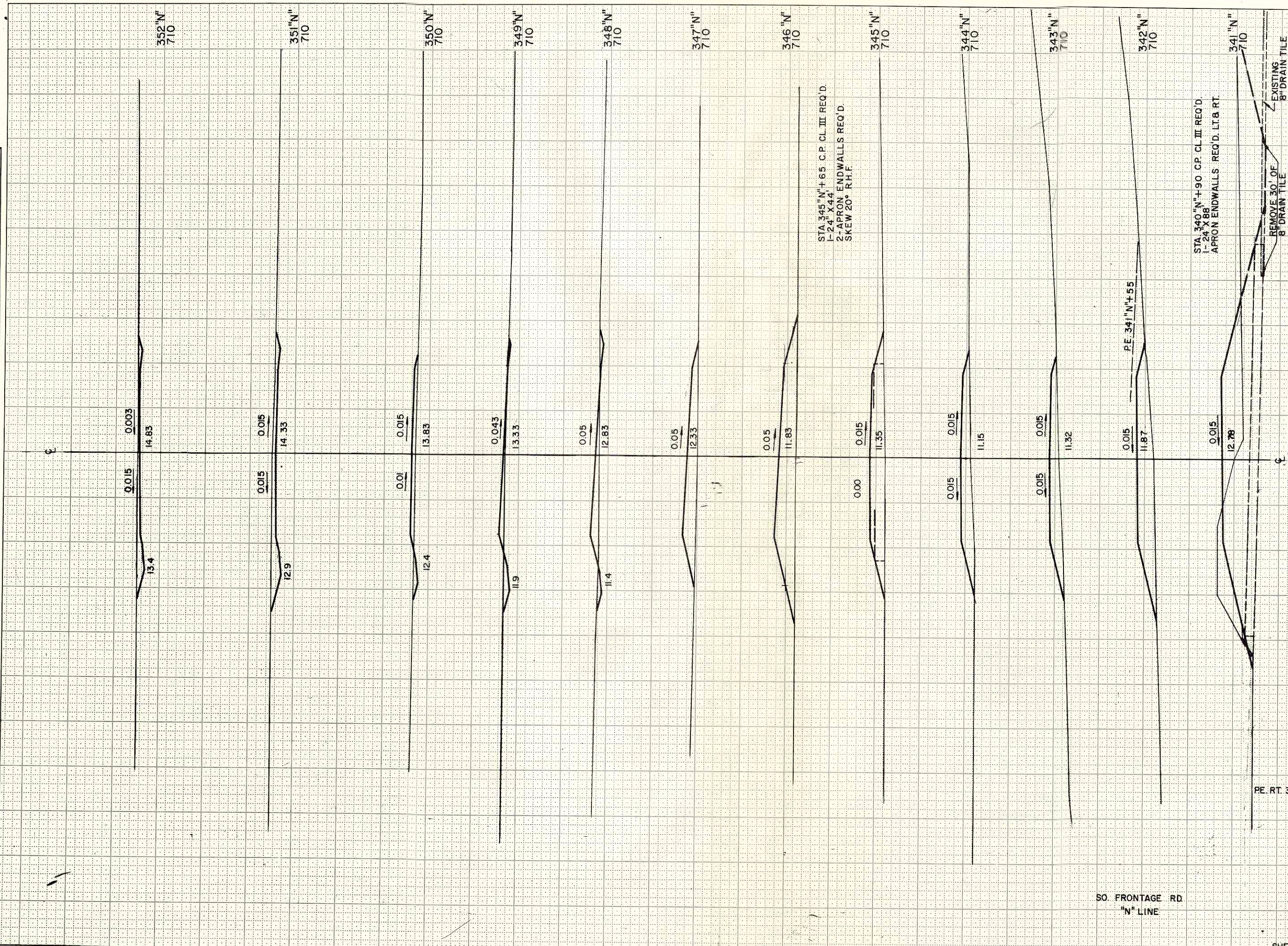


STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
UNCL.			
350 "A"			2445
351 "A"			3315
352 "A"			2445
353 "A"			2019
354 "A"			1648
355 "A"	19		898
356 "A"	56		435
357 "A"	185		167
358 "A"	389		
SHEET TOTAL		649	13372

TEMP. CONN. E.B
"A" LINE

FINAL SURVEY
 DATE
 BY
 CHECKED
 NO.

ORIGINAL SURVEY
 DATE
 BY
 CHECKED
 NO.



STA. 345 "N" + 65 C.P. CL III REQ'D
 1-24' X 44'
 2-APRON ENDWALLS REQ'D
 SKEW 20° R.H.F.

STA. 340 "N" + 90 C.P. CL III REQ'D
 1-24' X 66'
 APRON ENDWALLS REQ'D. LT & RT.

EXISTING 8" DRAIN TILE
 REMOVE 30' OF B DRAIN TILE

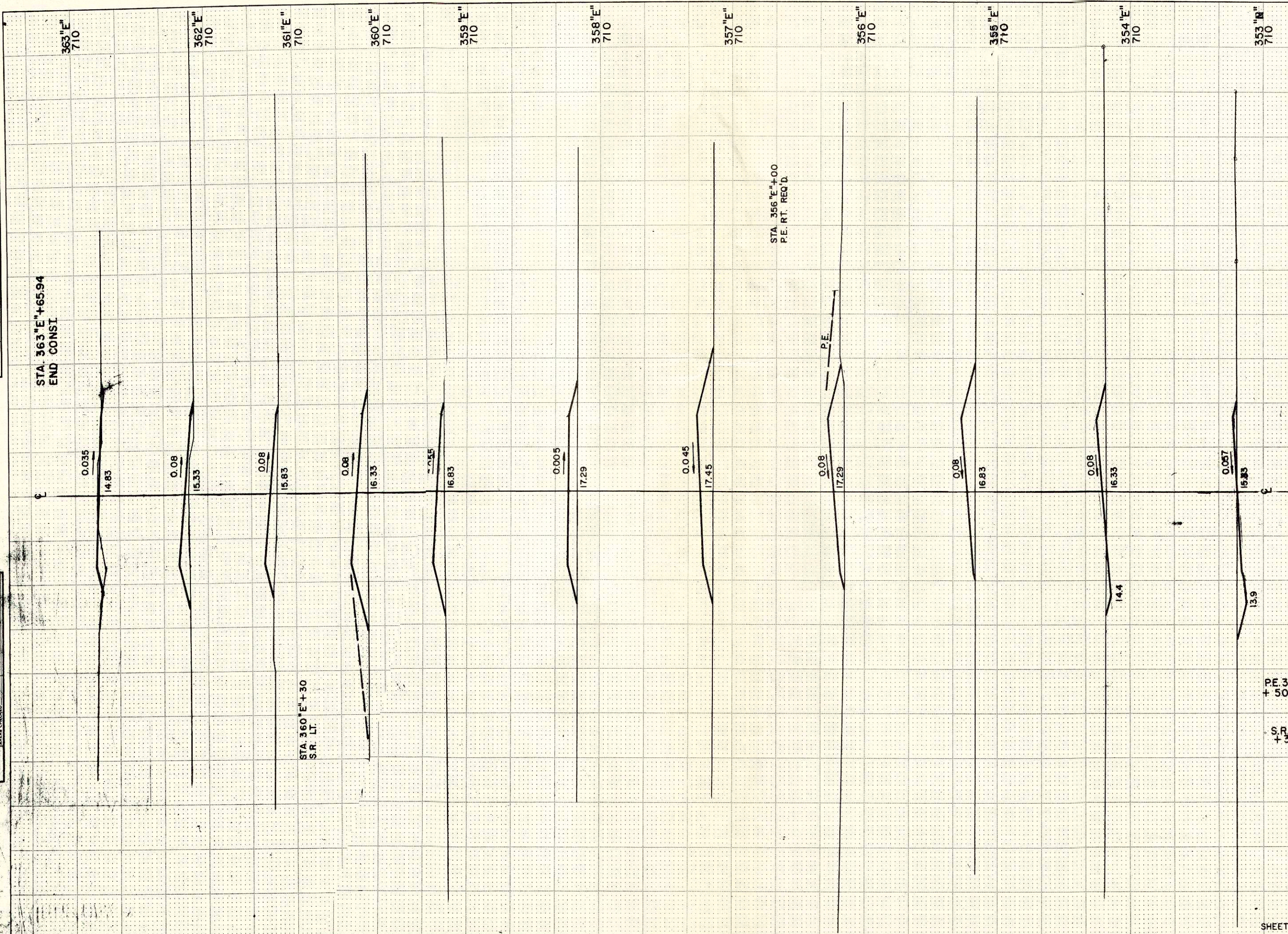
SO. FRONTAGE RD.
 "N" LINE

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

STATION	DISTANCE	YARDAGE	
		UNCL.	FILL
341 "N"	67		98
342 "N"	167		585
343 "N"	0		525
344 "N"			378
345 "N"			465
346 "N"			661
347 "N"			581
348 "N"	9		267
349 "N"	28		115
350 "N"	28		106
351 "N"	130		65
352 "N"	191		0
PE. RT. 341 "N" + 52			35
SHEET TOTAL	620		3,881

NOTE BOOK NO. _____
 TEMPLATE NO. _____
 AREAS CHECKED

NOTE BOOK NO. _____
 TEMPLATE NO. _____
 AREAS CHECKED



B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	I-90-1(495)	40	40

STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
352+00	135		19
353+00	93		96
354+00	28		230
355+00	0		357
356+00	0		474
357+00	0		437
358+00	0		287
359+00	0		313
360+00	9		272
361+00	9		148
362+00	9		93
363+00			50
PE 356+00 + 50 RT.			60
S.R. 360+00 + 30 RT.			60

SHEET TOTAL 283