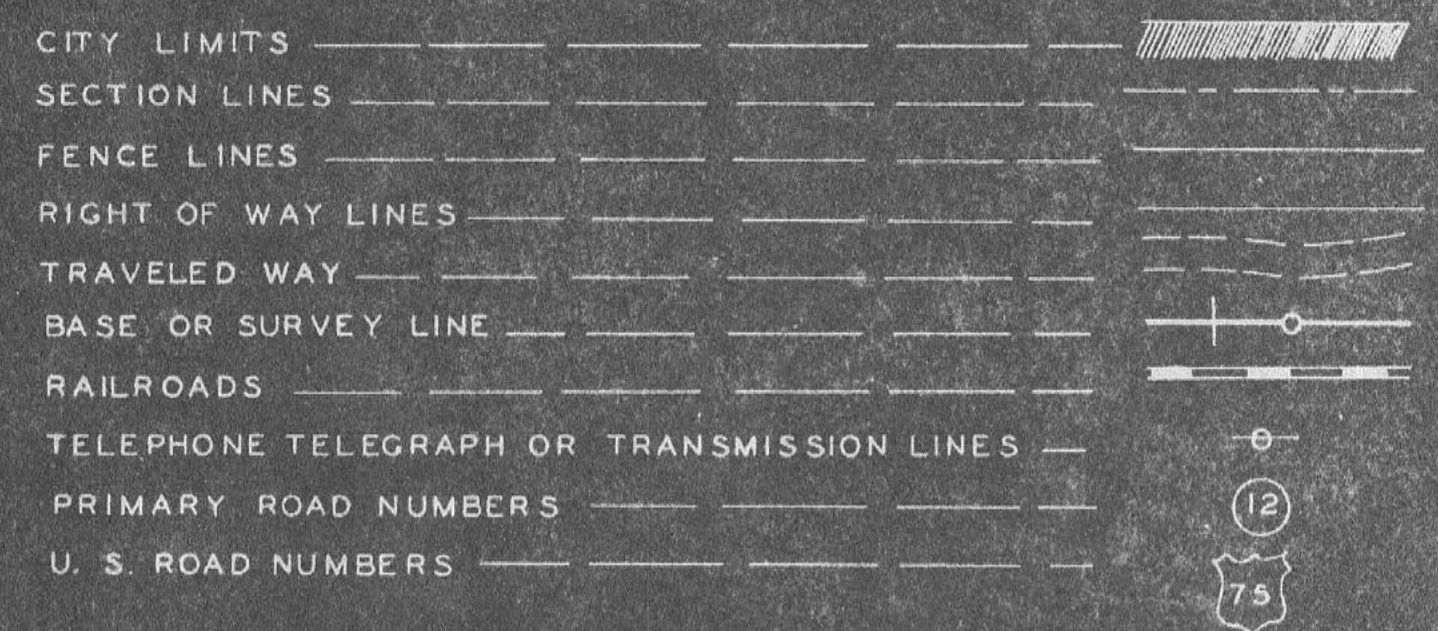


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IOWA	62-36 62-38	1962	1	4

CONVENTIONAL SIGNS



PLAN & PROFILE OF PROPOSED IMPROVEMENT ON THE SECONDARY ROAD SYSTEM CRAWFORD COUNTY

PROJECT NO. 62-36, 62-38

THE IOWA STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR CONSTRUCTION WORK, SERIES OF 1950, SHALL APPLY TO WORK ON THIS PROJECT

SCALES: PLAN 1 INCH = 100 FEET, PROFILE HOR. 1 INCH = 100 FT. VERT. 1 INCH = 10 FT.

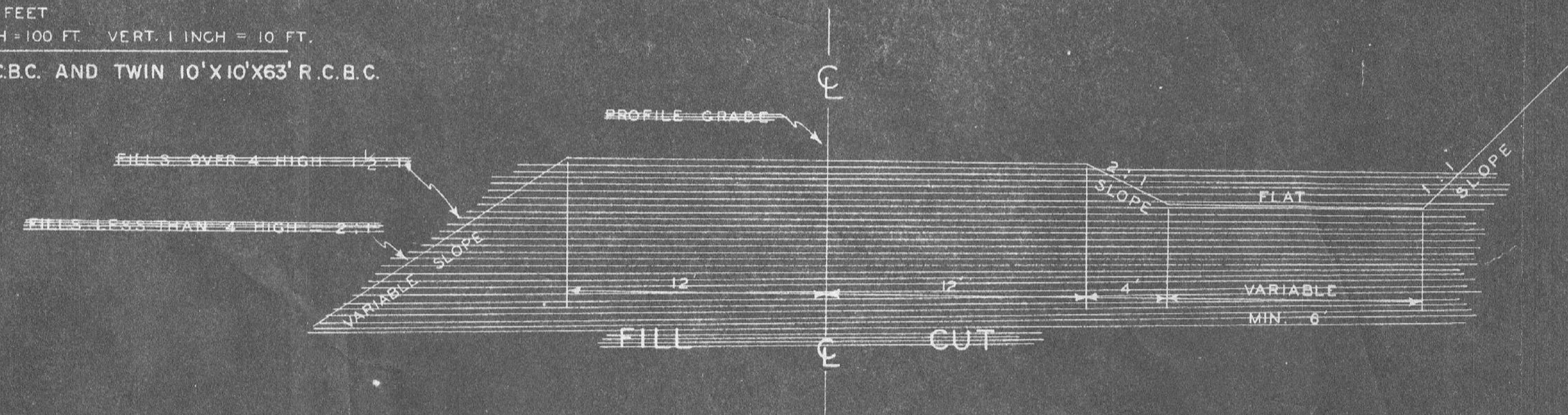
DESIGN FOR 8'X8'X44'-6" R.C.B.C. AND TWIN 10'X10'X63' R.C.B.C.

INDEX OF SHEETS

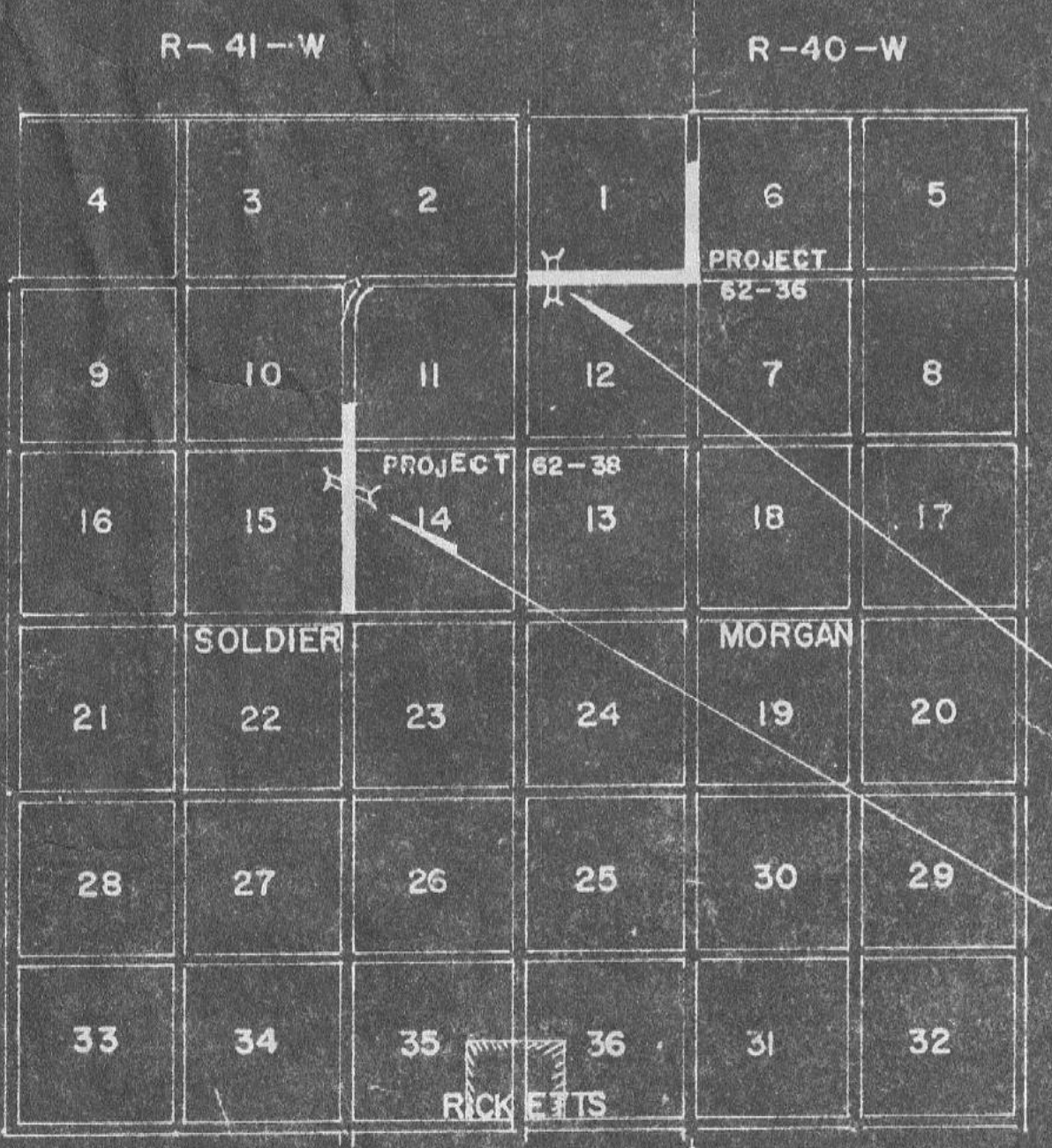
SHEET NO.	ITEM
1	TITLE SHEET
2-4	B ESTIMATE OF QUANTITIES DETAILS

MILEAGE SUMMARY

TYPICAL CROSS SECTION



CLASS 10 EXCAVATION OVERHAUL AND SPREADING PRESENT SURFACING MATERIAL	ROADWAY CHANNEL AND BORROW	RECLAIMING STOCKPILING AND SPREADING PRESENT SURFACING MATERIAL	ROADWAY PIPE CULVERTS LIN. FT.												CLASS 23 EXCAVATION	ENTRANCE PIPE CULVS LIN. FT.				REMOVAL OF EXISTING STRUCTURES	REMOVAL AND RE-LAYING OF PRESENT ROADWAY PIPE CULVERTS LIN. FT.				REMOVAL AND RE-LAYING OF PRESENT ENTRANCE PIPE CULVERTS LIN. FT.				50" REFLECTOR CROSSING SIGN ASSEMBLY	"NARROW BRIDGE" SIGN ASSEMBLY	CLEARING AND GRUBBING ESTIMATE							
			CONCRETE						CORRUGATED METAL							CONCRETE		CORRUGATED METAL			CONCRETE		CORRUGATED METAL															
			18	24	30	36	42	48	54	60	18	24	30	36	42	48	54	60	CU. YDS.	18	24	30	36	18	24	30	36	18	24	30	36	18	24	30	36	NO.	NO.	



ESTIMATE OF QUANTITIES

SIZE R.C.B.C.	PROJECT	CONCRETE	REINF. STEEL	CLASS "20" EXCAV	REMOVAL
8'X8'X44'-6"	62-36	79.60 C.Y.	8803 LBS.	117 C.Y.	LUMP SUM
TWIN 10'X10'X63'-0"	62-38	270.99 C.Y.	36,905 LBS.	805 C.Y.	LUMP SUM
	TOTAL	350.59 C.Y.	45,708 LBS.	922 C.Y.	

APPROVED _____ DATE _____

CHAIRMAN

APPROVED _____ DATE _____

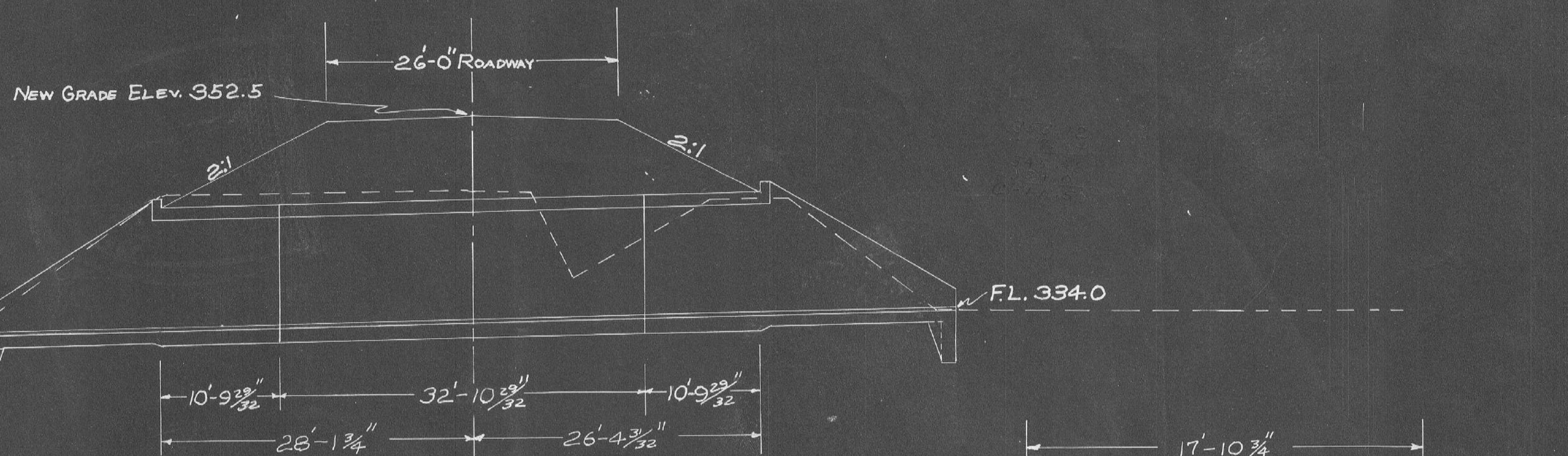
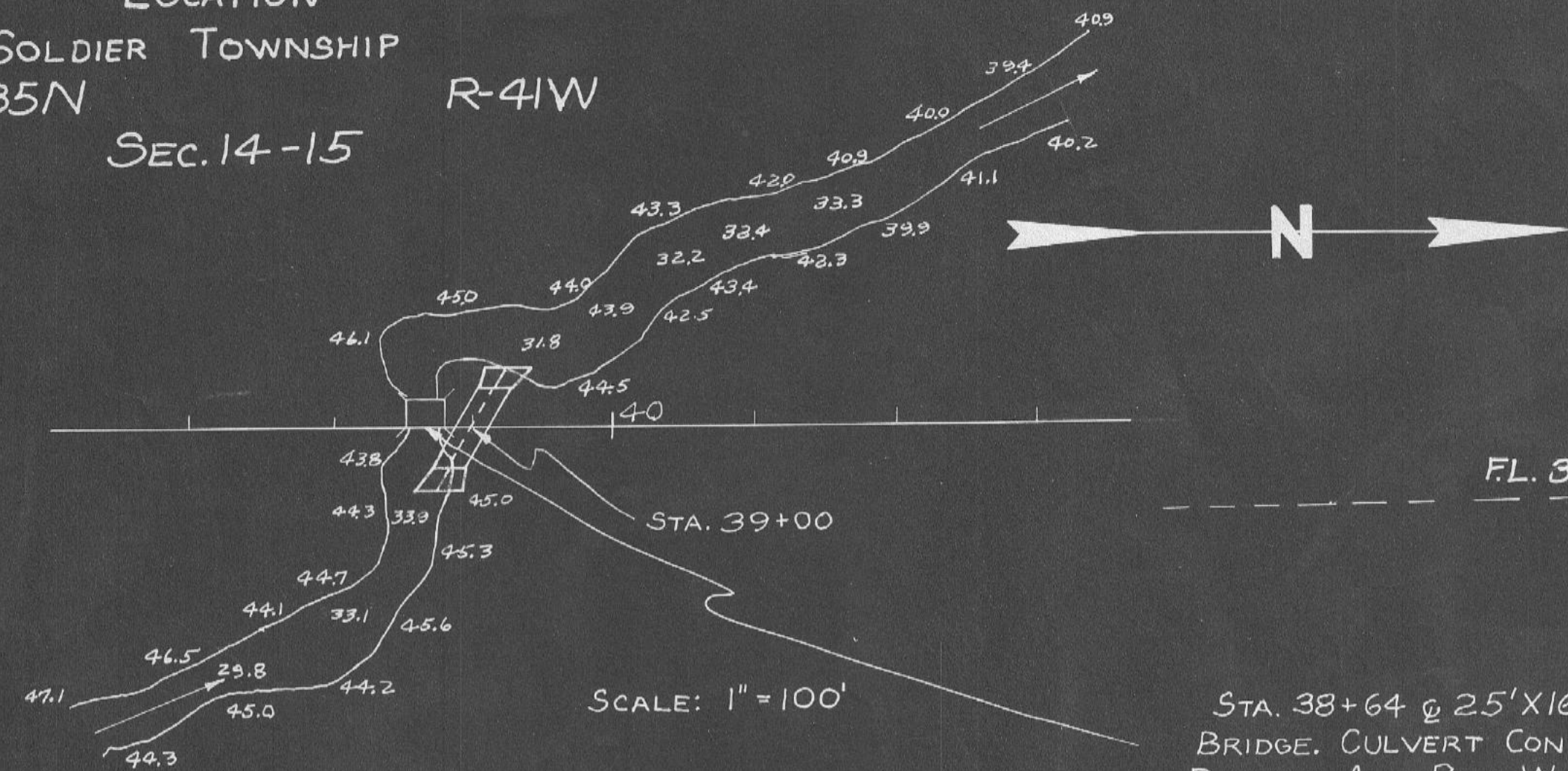
DISTRICT ENGINEER IOWA HIGHWAY COMMISSION

APPROVED _____ DATE _____

BOARD OF SUPERVISORS

COUNTY ENGINEER *Edward M. ...* 3-15-62 DATE

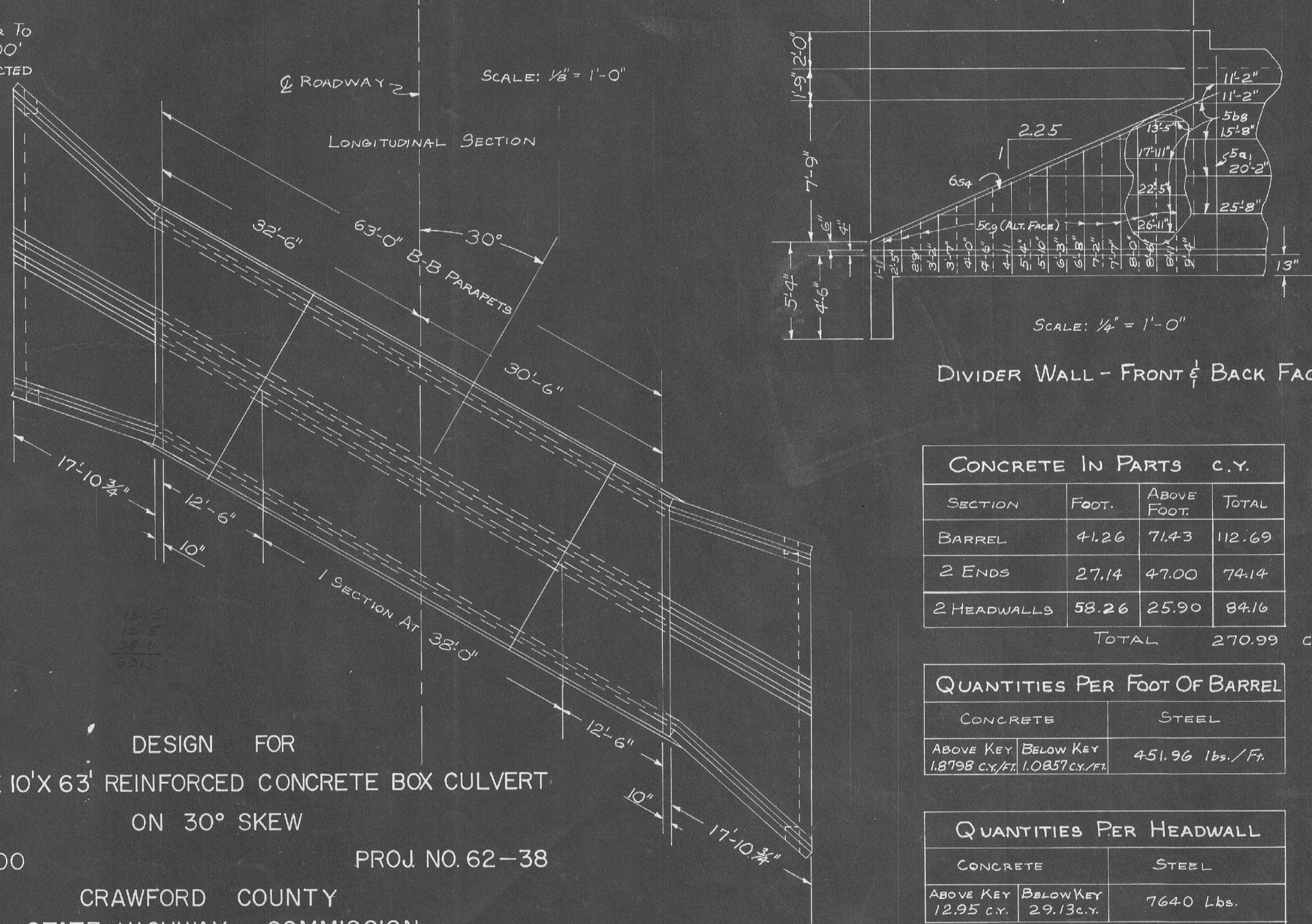
LOCATION
SOLDIER TOWNSHIP
T-85N R-41W
SEC. 14-15



STA. 38+64 @ 25'X16' WOOD BRIDGE. CULVERT CONTRACTOR TO REMOVE AND PILE WITHIN 300' OF BRIDGE SITE AS DIRECTED BY COUNTY ENGINEER.

REINFORCING STEEL							
MARK	LOCATION	SHAPE	SIZE	NO.	SPACE	LENGTH	WEIGHT
5a ₁	WALLS - VERT. F.F. CENTER WALL BOTH FACES		5	128	37'-0" WALL F.F. ALTS. FACE	12'-2"	1624
4a ₂	WALLS - VERT. B.F. (EXTERIOR)		4	168	0'-9"	8'-9"	983
4b ₁	WALLS - HORIZ. - WING - B.F.		4	18	1'-0"	VAR.	218
4b ₂	" " S. WING "		4	18	1'-0"	"	186
5b ₃	WALLS - HORIZ. - EXT. WALLS B.F.		5	18	1'-0" ALT. FACE	37'-8"	707
5b ₄	" " END. SEC. B.F.		5	18	"	16'-2"	304
4b ₅	" " L. WING F.F.		4	18	1'-0"	VAR.	218
5b ₆	" " S. WING "		6	18	"	"	186
5b ₇	CENTER WALL CTR. SEC. B.F.		5	9	1'-0" ALT. FACE	37'-8"	354
5b ₈	" " END. SEC. B.F.		5	9	"	VAR.	258
5c	WINGS VERT. L. WING B.F.		5	32	1'-0"	"	244
5c ₁	" " " " "		5	12	"	"	52
5c ₂	" " BOTH WINGS B.F.		5	18	"	9'-0"	169
5c ₃	" " S. WING "		5	22	"	VAR.	305
5c ₄	" " " " "		5	10	"	"	46
4c ₅	" " " " F.F.		4	32	"	"	166
5c ₆	" " BOTH WINGS B.F.		5	18	"	10'-6"	197
4c ₇	" " L. WING F.F.		4	44	"	VAR.	236
4c ₈	" " BOTH WINGS F.F.		4	16	"	6'-0"	45
5c ₉	CENTER WALL - VERT - BOTH		5	36	1'-0" ALT. FACE	VAR.	210
4d	FLOOR - L. WING		4	2	SHOWN	22'-0"	29
4d ₁	" " S. WING		4	2	"	16'-0"	21
4d ₂	APRON - BOTTOM		4	14	"	VAR.	118
5e ₁	SLAB - LONG - CENTER - BOTTOM		5	18	1'-3"	37'-8"	707
5e ₂	" " ENDS "		5	36	"	VAR.	493
4e ₃	" " CENTER - TOP		4	8	2'-4"	37'-8"	201
4e ₄	" " ENDS "		4	16	"	VAR.	140
5f ₁	FLOOR " CENTER "		5	18	1'-3"	37'-8"	707
5f ₂	" " ENDS "		5	36	"	VAR.	418
4f ₃	" " CENTER - BOTTOM		4	8	2'-4"	37'-8"	201
4f ₄	" " ENDS "		4	16	"	VAR.	119
4i	PARAPET - VERT		4	48	1'-0"	1'-8"	53
5j	" " HORIZ.		5	4	"	25'-11"	108
8k ₁	SLAB - BOTTOM - TRANS - CENTER		8	80	0'-7 1/2"	22'-5"	4788
6k ₂	" " FLOOR CORNERS		6	340	0'-9"	8'-0"	4087
9k ₃	" " TOP - TRANS		9	85	"	"	2298
8m ₁	FLOOR " " CENTER		8	80	0'-7 1/2"	22'-11"	4895
8k ₄	SLAB - BOTTOM - TRANS - ENDS		8	42	"	VAR.	1485
9m ₂	FLOOR - BOTTOM - CENTER		9	85	0'-9"	8'-0"	2298
5m ₃	" " ENDS "		5	24	1'-0"	VAR.	623
8m ₄	" " TOP "		8	80	0'-8"	"	4831
7p	CURTAIN - TOP & BOTTOM		7	8	"	35'-5"	579
6s	WING SLOPE - B.F. L. WING		6	4	"	25'-6"	153
6s ₁	" " F.F. " "		6	2	"	"	77
6s ₂	" " B.F. S. WING		6	4	"	21'-1"	127
6s ₃	" " F.F. " "		6	2	"	"	63
6s ₄	" " CENTER F.F. B.		6	4	"	21'-4"	128
5t	CURTAIN		5	52	1'-3"	4'-6"	244
5u	" "		5	12	"	6'-6"	81
5v	SLAB DOWELS		5	48	1'-0"	2'-8"	125
						TOTAL	36,905

* INCLUDES 20 DIAMETER LAP



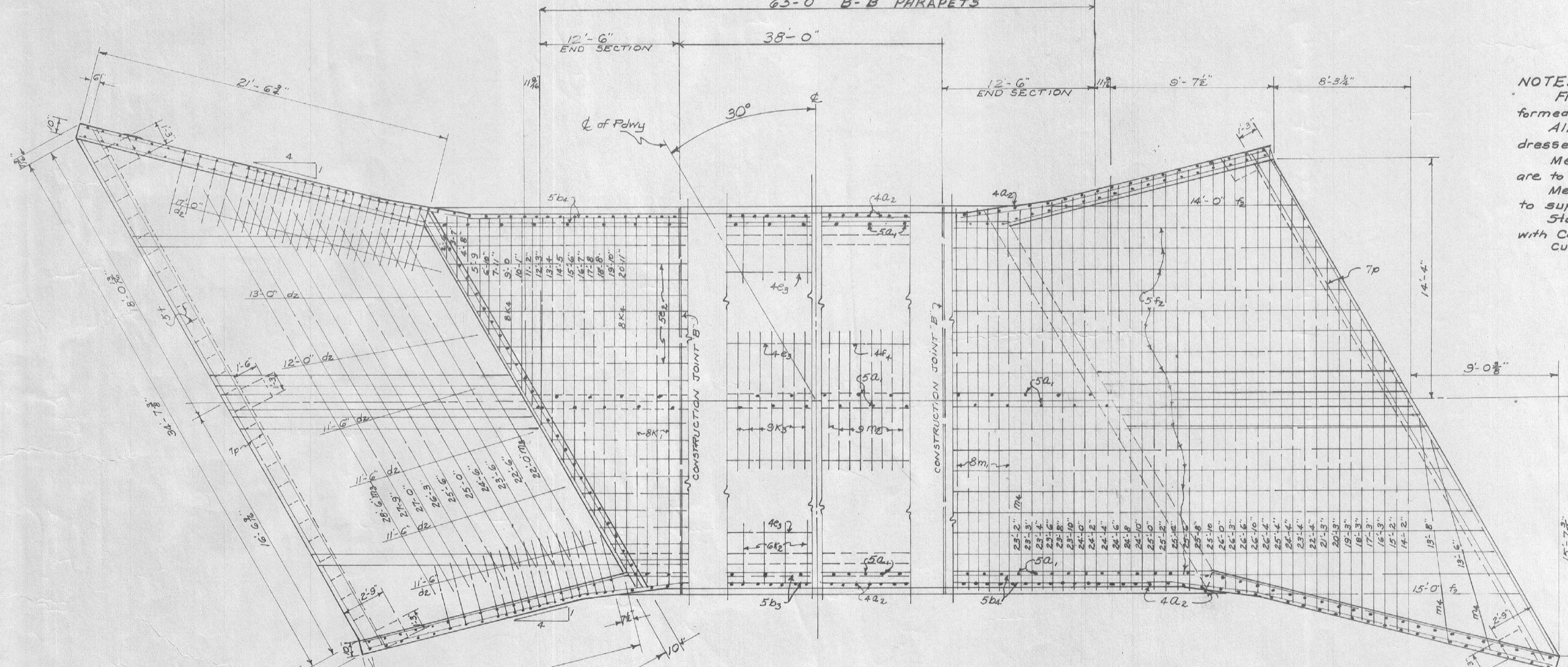
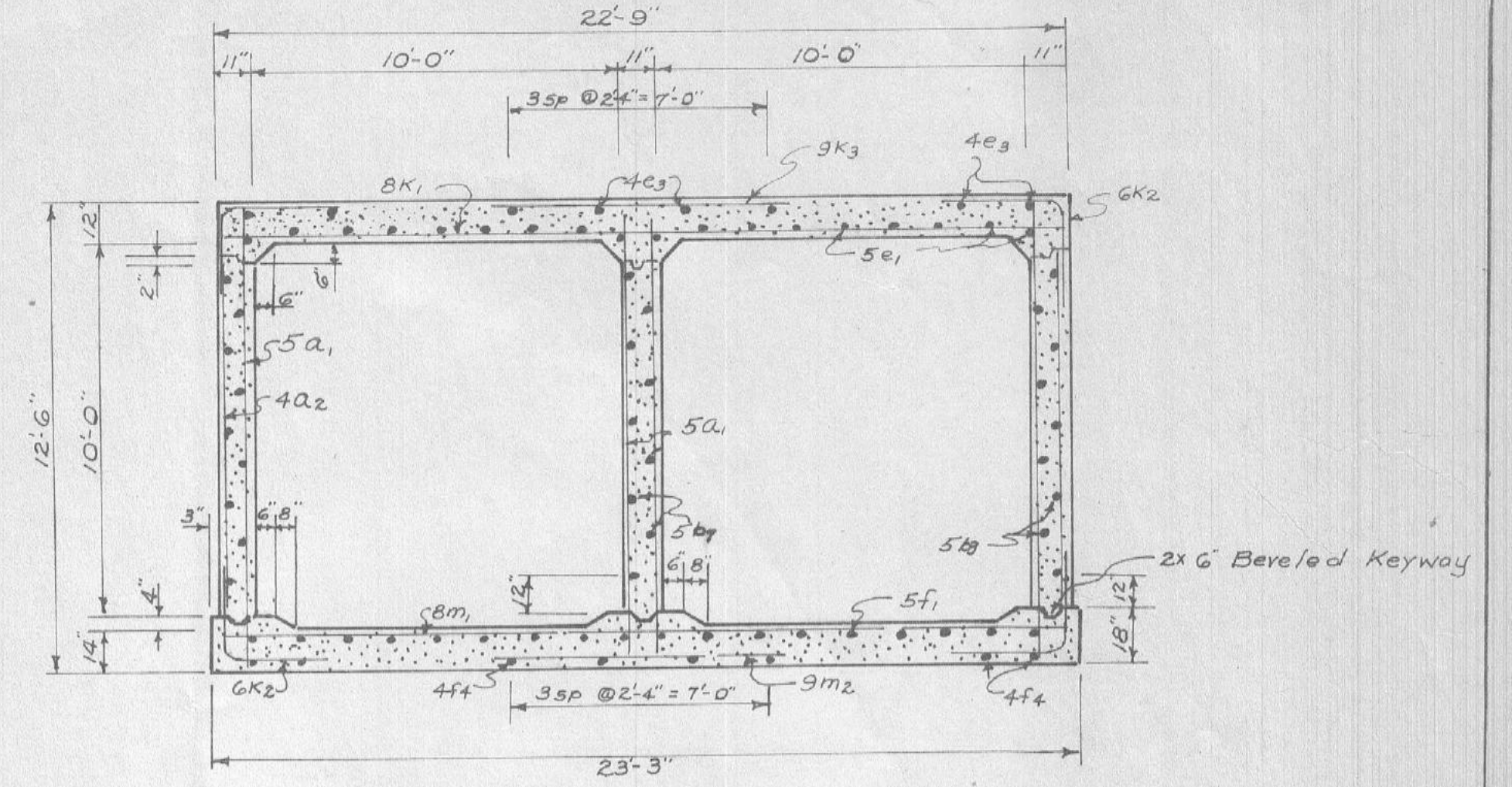
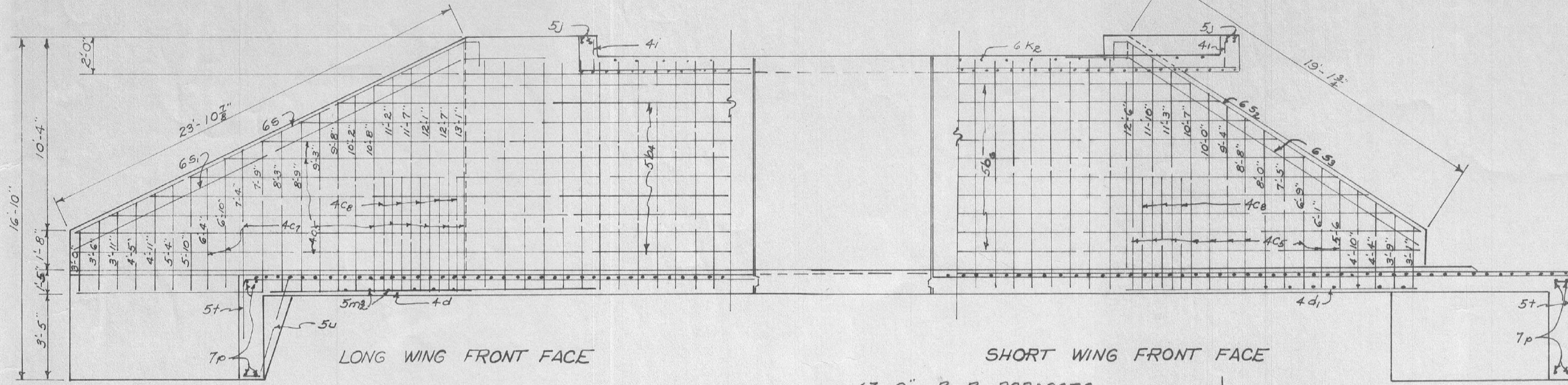
DESIGN FOR
TWIN 10' X 10' X 63' REINFORCED CONCRETE BOX CULVERT
ON 30° SKEW
STA. 39+00 PROJ. NO. 62-38
CRAWFORD COUNTY
IOWA STATE HIGHWAY COMMISSION

CONCRETE IN PARTS C.Y.			
SECTION	FOOT.	ABOVE FOOT.	TOTAL
BARREL	41.26	71.43	112.69
2 ENDS	27.14	47.00	74.14
2 HEADWALLS	58.26	25.90	84.16
TOTAL			270.99 C.Y.

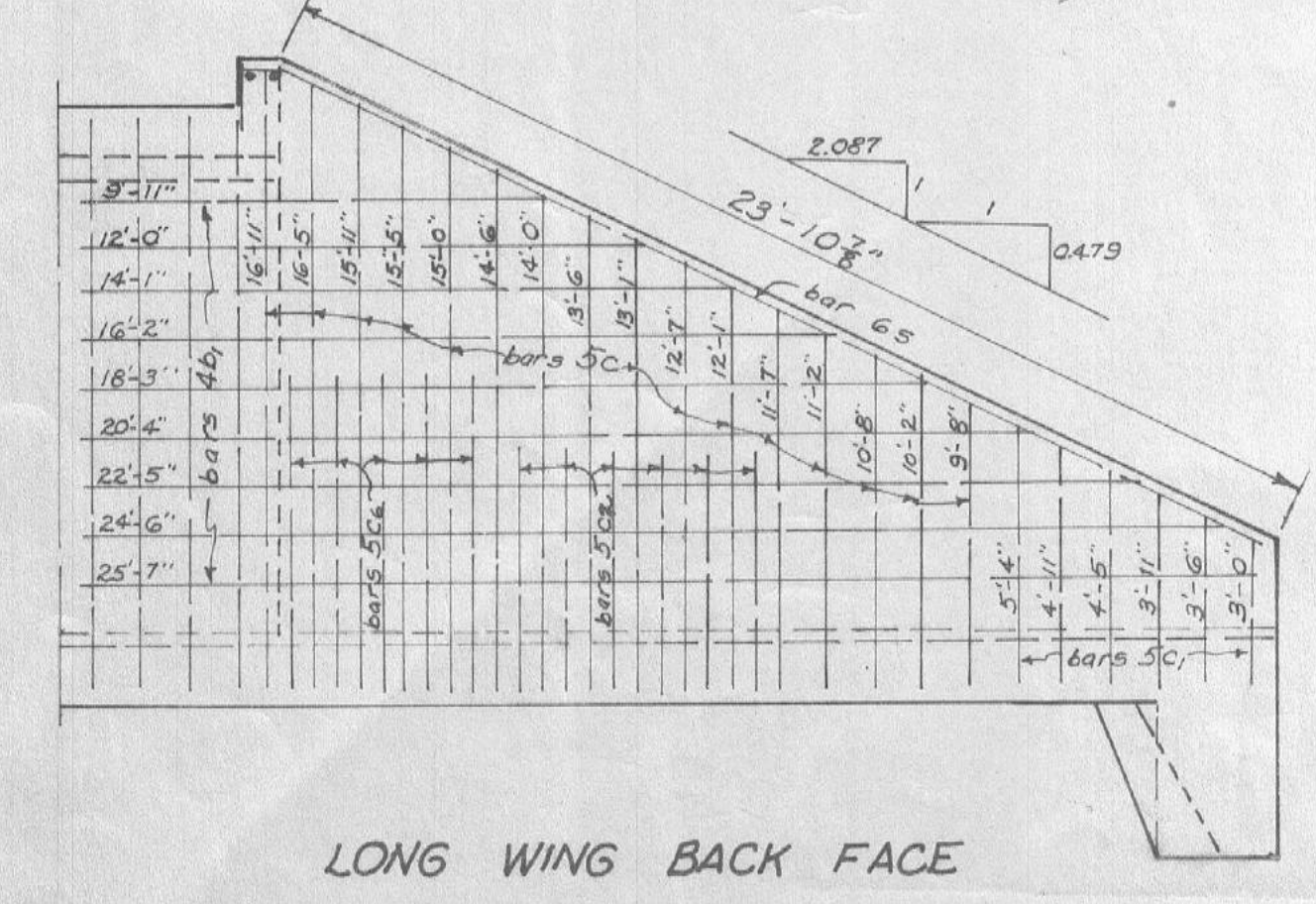
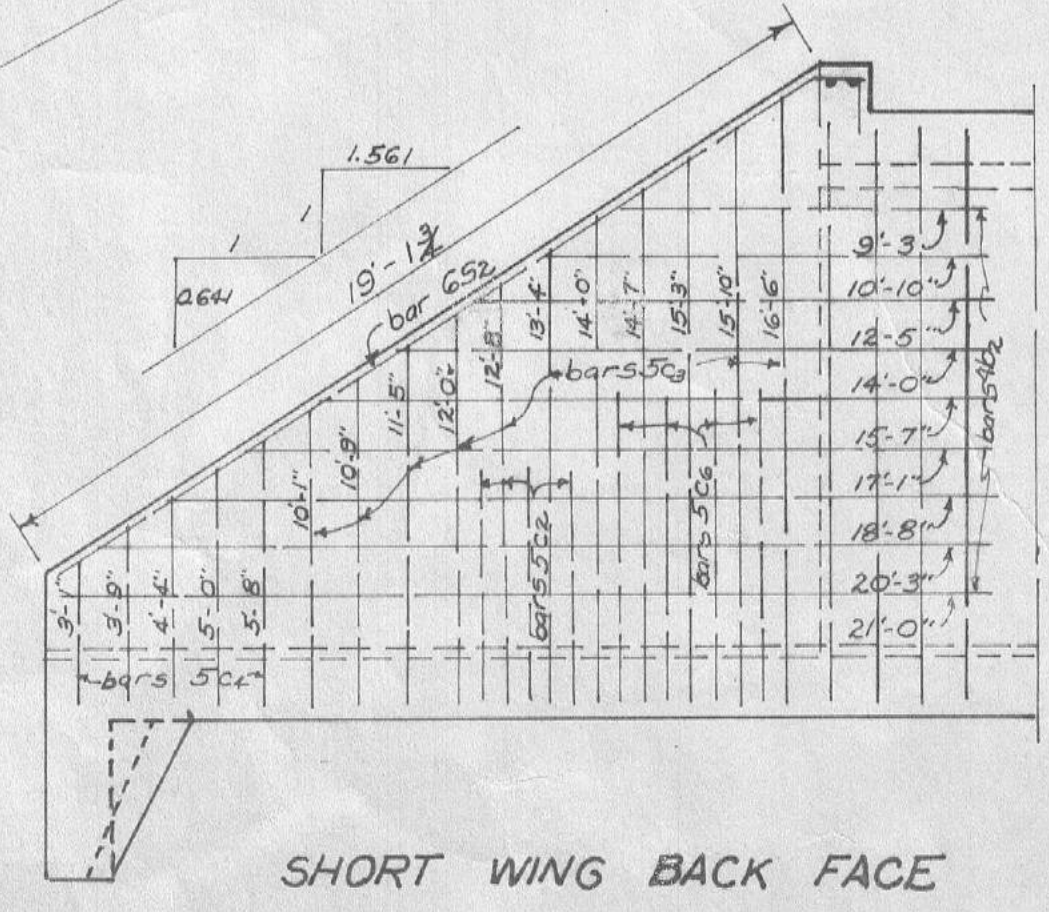
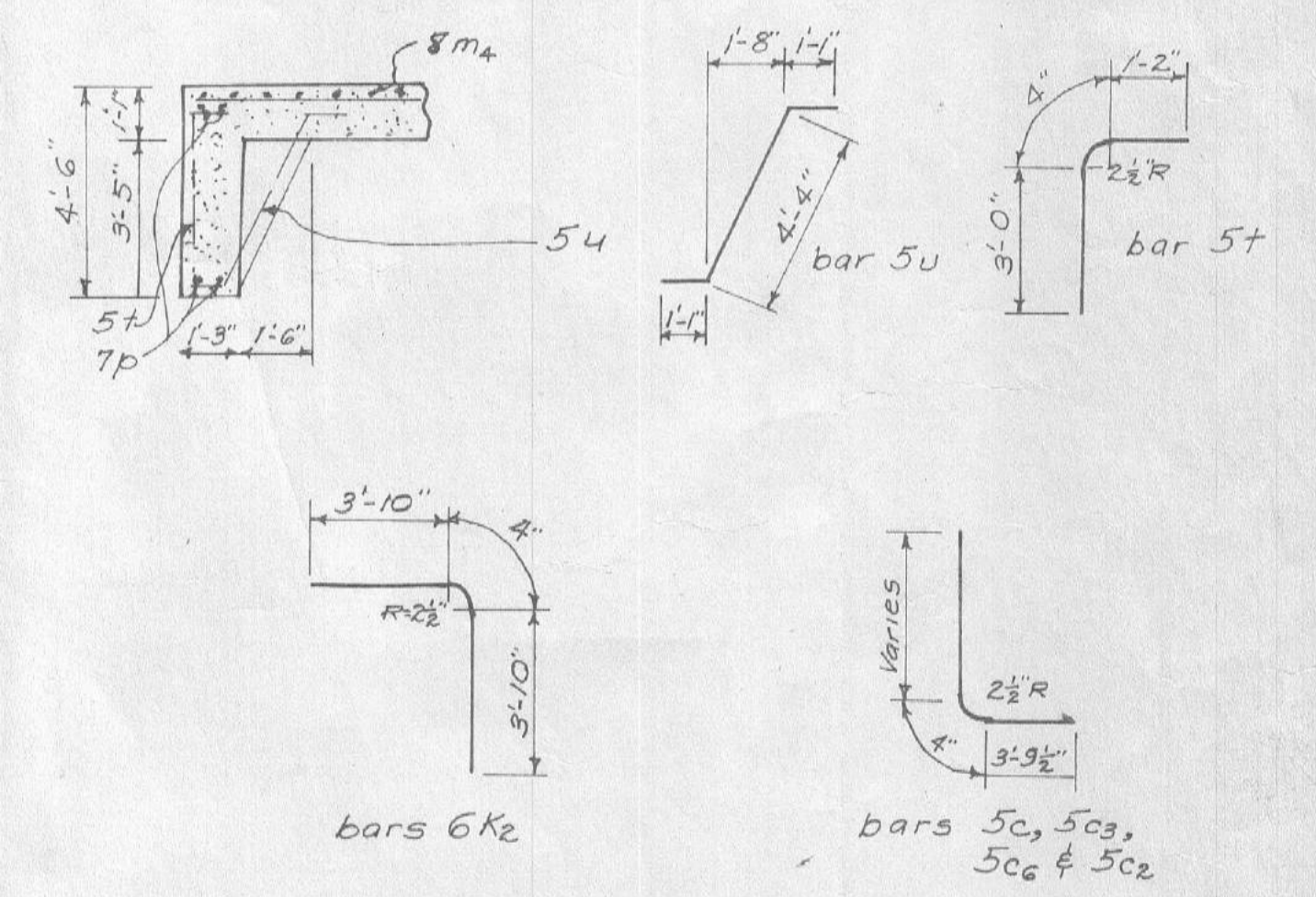
QUANTITIES PER FOOT OF BARREL		
CONCRETE		STEEL
ABOVE KEY	BELOW KEY	451.96 lbs./Ft.
1.8798 C.Y./FT.	1.0857 C.Y./FT.	

QUANTITIES PER HEADWALL		
CONCRETE		STEEL
ABOVE KEY	BELOW KEY	7640 Lbs.
12.95 C.Y.	29.13 C.Y.	

CLASS 10 EXCAVATION CHANNEL NONE	C.Y.
CLASS 20 EXCAVATION	805 C.Y.

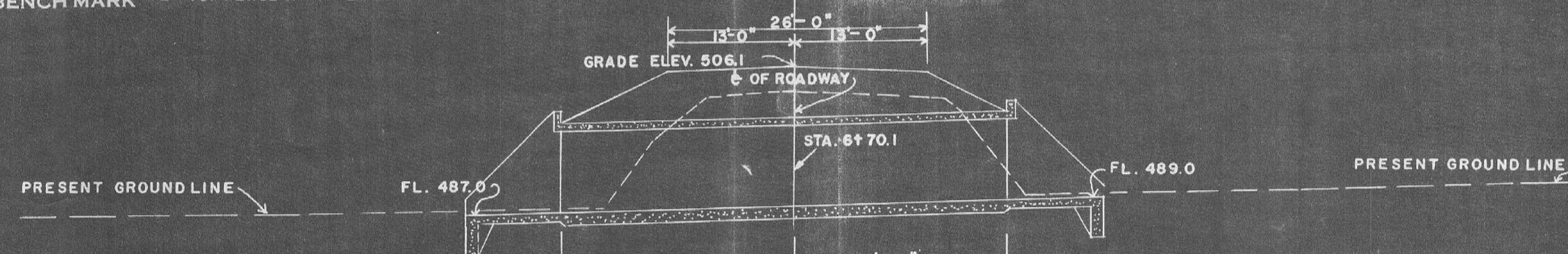


NOTES:
 Floor of barrel to be finished smooth. Sides of footing are to be formed to insure correct line and grade.
 All exposed corners 90° or sharper are to be filleted with 3/4" dressed bevelled strip
 Metal bar chairs spaced not over 3' centers in either direction are to be used to support the lower layer of the top slab bars.
 Metal bar high chairs spaced not over 3' centers are to be used to support the e_3 bars in the top slab
 Standard Specifications, Series 1960, of Iowa Highway Commission with Current Special Provisions will apply
 Curtain Walls shall be Formed & Forms shall be left in Place.

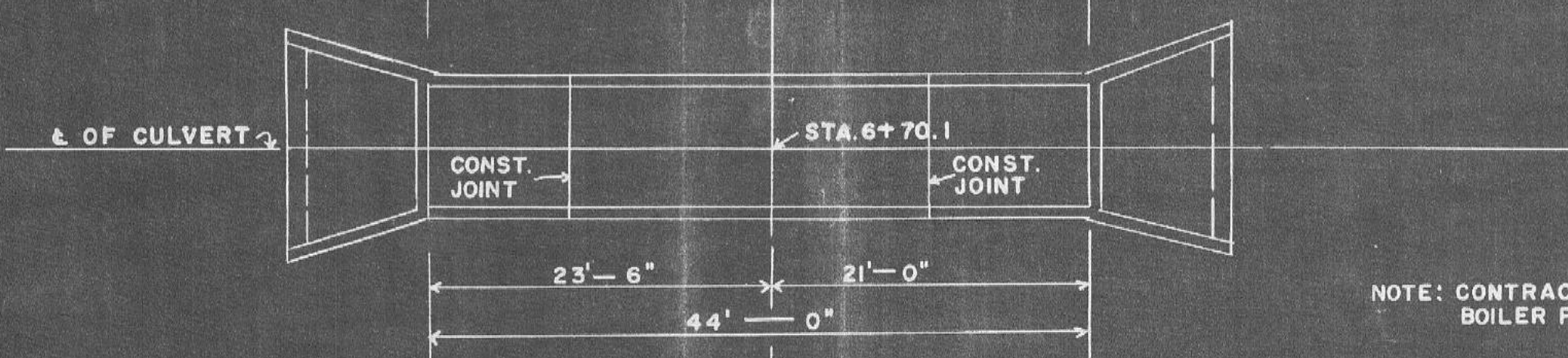


DESIGN FOR
 TWIN 10'x10'x63'-0" BOX CULVERT - SKEW 30°
 REINFORCED CONCRETE
 Station 39+00 Project 62-38
 CRAWFORD COUNTY
 Scale: 1" = 4'-0"

BENCH MARK 2- TOP FENCE P. 115' LT. STA. 5+60.4 — EL. 499.44



LOCATION	FOOTING	ABOVE FOOTING	TOTAL
BARREL SECTION	19.22	30.79	50.01
2 HEAD WALLS	18.50	11.08	29.58



NOTE: CONTRACTOR TO REMOVE 96" x 42' BOILER PLATE PIPE IN PLACE

CURTAIN WALLS TO BE POURED AGAINST WOODEN FORMS

DETAILS TO BE LIKE IOWA STATE HIGHWAY COMMISSION STANDARDS

DRAINAGE AREA	350 AC.	SECTION	BET. 1 & 12
SIZE AND TYPE	8' x 8' x 44'-6"	TOWNSHIP	SOLDIER
DEPTH OF FILL	5'	COUNTY	CRAWFORD
PIPE	20" LIN. FT.	STATION	6+70.1
ESTIMATED QUANTITIES	EXCAVATION 117 C. Y.	PROJECT	62-36
	CONCRETE 79.6 C. Y.	DATE	MARCH 1962
	REINFORCING 8803 LBS.	DESIGN NO.	

DETAILS TO BE LIKE IOWA STATE HIGHWAY COMMISSION STANDARDS

DRAINAGE AREA		SECTION	
SIZE AND TYPE		TOWNSHIP	
DEPTH OF FILL		COUNTY	
PIPE		STATION	
ESTIMATED QUANTITIES	EXCAVATION C. Y.	PROJECT	
	CONCRETE C. Y.	DATE	
	REINFORCING LBS.	DESIGN No.	

BENCH MARK

BENCH MARK

DETAILS TO BE LIKE IOWA STATE HIGHWAY COMMISSION STANDARDS

DRAINAGE AREA		SECTION	
SIZE AND TYPE		TOWNSHIP	
DEPTH OF FILL		COUNTY	
PIPE		STATION	
ESTIMATED QUANTITIES	EXCAVATION C. Y.	PROJECT	
	CONCRETE C. Y.	DATE	
	REINFORCING LBS.	DESIGN No.	

DETAILS TO BE LIKE IOWA STATE HIGHWAY COMMISSION STANDARDS

DRAINAGE AREA		SECTION	
SIZE AND TYPE		TOWNSHIP	
DEPTH OF FILL		COUNTY	
PIPE		STATION	
ESTIMATED QUANTITIES	EXCAVATION C. Y.	PROJECT	
	CONCRETE C. Y.	DATE	
	REINFORCING LBS.	DESIGN No.	

BENCH MARK

BENCH MARK

BENCH MARK

BENCH MARK

DETAILS TO BE LIKE IOWA STATE HIGHWAY COMMISSION STANDARDS

DRAINAGE AREA		SECTION	
SIZE AND TYPE		TOWNSHIP	
DEPTH OF FILL		COUNTY	
PIPE		STATION	
ESTIMATED QUANTITIES	EXCAVATION C. Y.	PROJECT	
	CONCRETE C. Y.	DATE	
	REINFORCING LBS.	DESIGN No.	

DETAILS TO BE LIKE IOWA STATE HIGHWAY COMMISSION STANDARDS

DRAINAGE AREA		SECTION	
SIZE AND TYPE		TOWNSHIP	
DEPTH OF FILL		COUNTY	
PIPE		STATION	
ESTIMATED QUANTITIES	EXCAVATION C. Y.	PROJECT	
	CONCRETE C. Y.	DATE	
	REINFORCING LBS.	DESIGN No.	

DETAILS TO BE LIKE IOWA STATE HIGHWAY COMMISSION STANDARDS

DRAINAGE AREA		SECTION	
SIZE AND TYPE		TOWNSHIP	
DEPTH OF FILL		COUNTY	
PIPE		STATION	
ESTIMATED QUANTITIES	EXCAVATION C. Y.	PROJECT	
	CONCRETE C. Y.	DATE	
	REINFORCING LBS.	DESIGN No.	

DETAILS TO BE LIKE IOWA STATE HIGHWAY COMMISSION STANDARDS

DRAINAGE AREA		SECTION	
SIZE AND TYPE		TOWNSHIP	
DEPTH OF FILL		COUNTY	
PIPE		STATION	
ESTIMATED QUANTITIES	EXCAVATION C. Y.	PROJECT	
	CONCRETE C. Y.	DATE	
	REINFORCING LBS.	DESIGN No.	