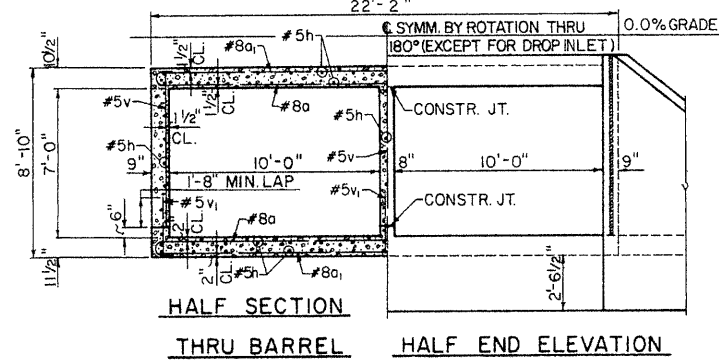
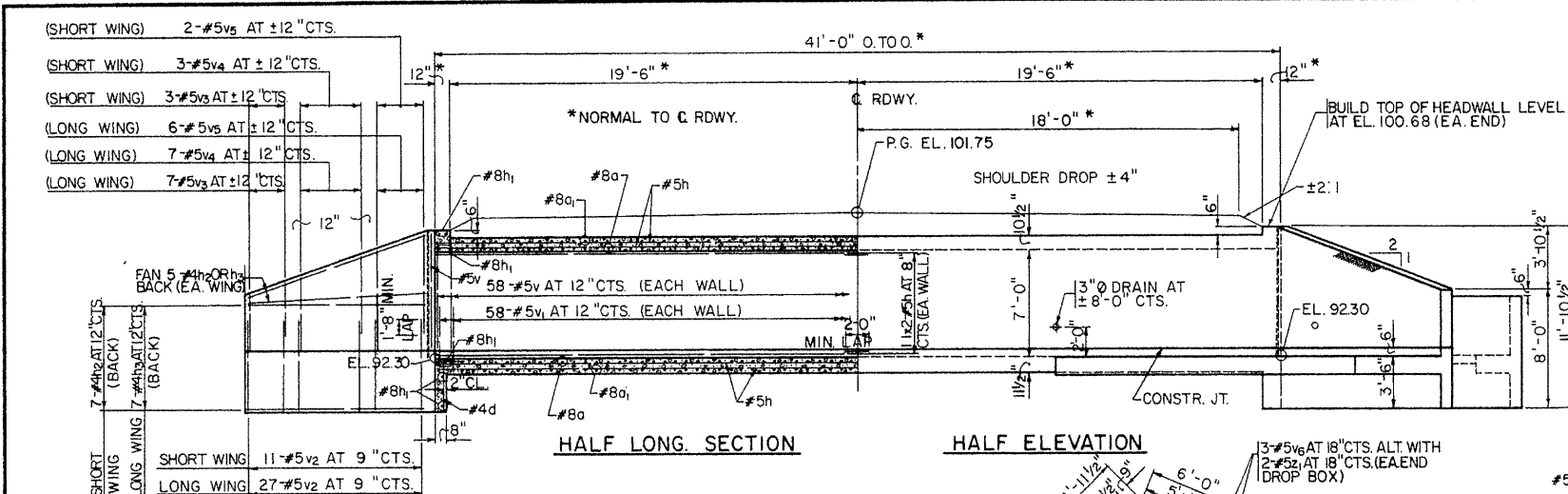
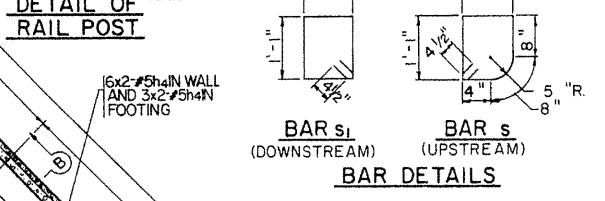
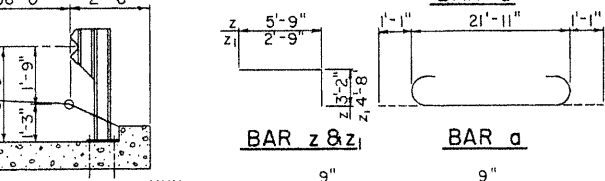
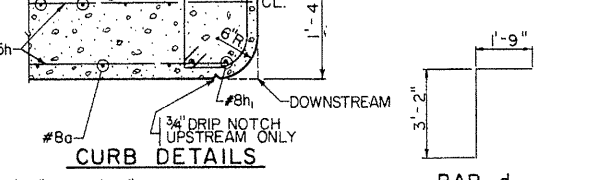
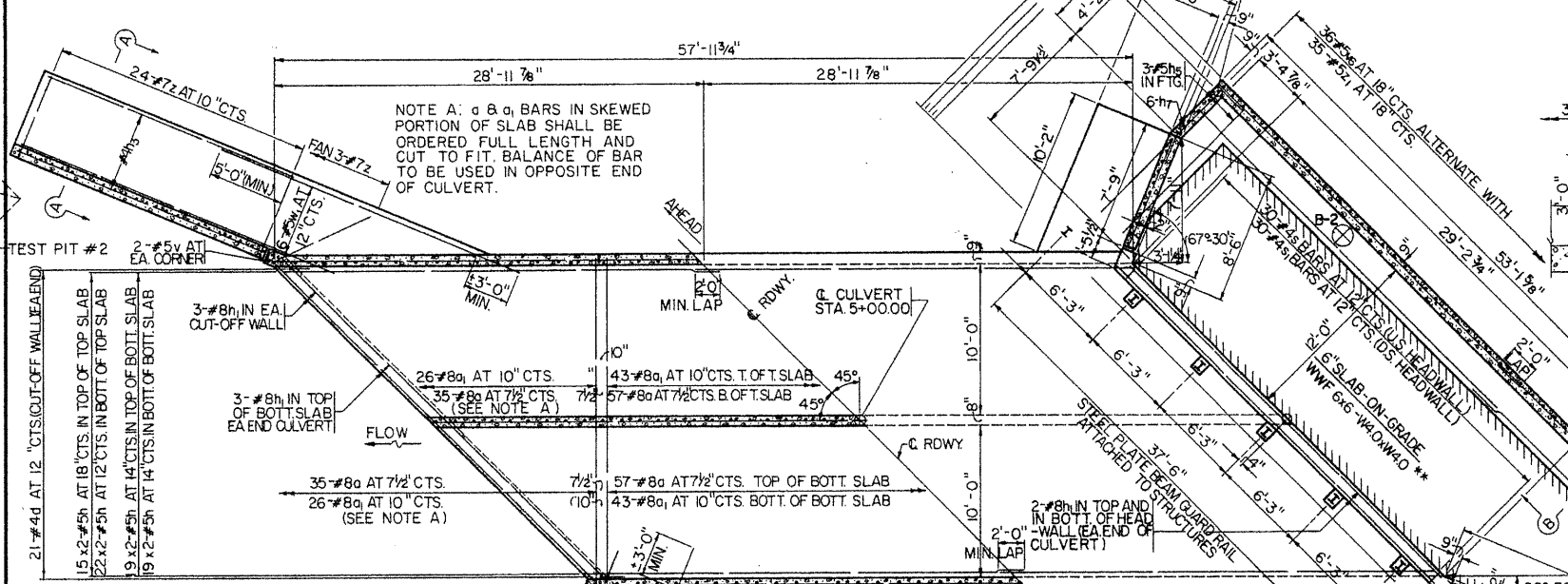


ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
82-00136-00 BR	MC LEAN			



- GENERAL NOTES**
1. CLASS X CONCRETE SHALL BE USED THROUGHOUT.
 2. EXPOSED EDGES SHALL BE BEVELED 3/4".
 3. FOR BACKFILLING AND EMBANKMENT, SEE STD. SPECIFICATIONS.
 4. TILT HOOK OF BARS IF NECESSARY TO OBTAIN 1 1/2" MINIMUM CLEARANCE AT TOP OF HOOK.
 5. FOR BORINGS, SEE PROPOSAL.

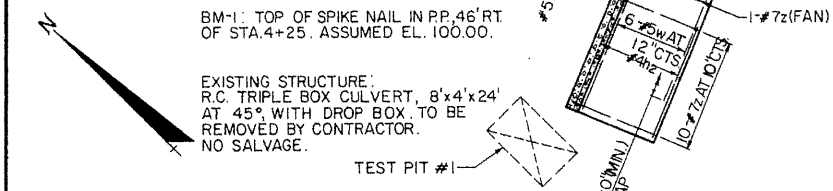


BARS h78 h8

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a	184	#8	24'-1 1/2"	
a1	138	#8	21'-11"	
d	42	#4	4'-11"	
h	216	#5	30'-0"	
h1	20	#8	29'-3"	
h2	28	#4	7'-6"	
h3	28	#4	19'-6"	
h4	18	#5	27'-6"	
h5	3	#5	11'-0"	
h6	3	#5	7'-6"	
h7	6	#5	9'-6"	
h8	6	#5	9'-6"	
s	30	#4	4'-3"	
s1	30	#4	4'-5"	
v	182	#5	7'-0"	
v1	174	#5	3'-0"	
v2	76	#5	6'-8"	
v3	20	#5	3'-10"	
v4	20	#5	5'-2"	
v5	16	#5	6'-6"	
v6	42	#5	7'-3"	
w	12	#5	12'-0"	
w1	12	#5	24'-0"	
z	76	#7	8'-11"	
z1	39	#5	7'-5"	

REMOVAL OF EXIST. STRUCTURE EACH 1
 CLASS X CONCR. BOX CULVERT CU.YD. 179.8
 REINFORCEMENT BARS LBS. 34,900
 NAME PLATES EACH 1
 STEEL PLATE BEAM GUARDRAIL ATTACHED TO STRUCTURES LIN.FT. 75



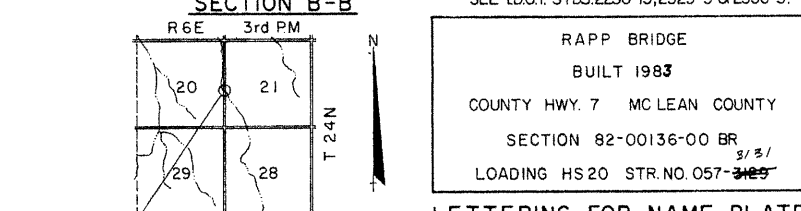
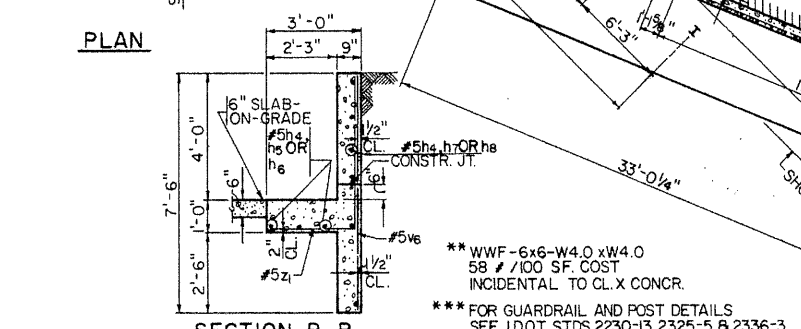
WATERWAY DATA

DRAINAGE AREA = 1.8 SQ.MI.		LOW GRADE EL. = 99.8		AT STA. 10+00			
FLOOD	FREQ.	Q.	OPENING SQ. FT.	NAT. H.W.E.	HEAD-FT.	HEADWATER EL.	
	YR.	C.F.S.	EXIST. PROP.	H.W.E.	EXIST. PROP.	EXIST. PROP.	
DESIGN	U.S.	20	492	N/A	N/A	99.2	99.2
	D.S.	20	492	96	100	97.3	97.3
BASE	U.S.	100	704	N/A	N/A	99.5	99.5
	D.S.	100	704	96	118	98.2	98.2

WATERWAY DATA

DRAINAGE AREA = 1.8 SQ.MI.		LOW GRADE EL. = 99.8		AT STA. 10+00			
FLOOD	FREQ.	Q.	OPENING SQ. FT.	NAT. H.W.E.	HEAD-FT.	HEADWATER EL.	
	YR.	C.F.S.	EXIST. PROP.	H.W.E.	EXIST. PROP.	EXIST. PROP.	
DESIGN	U.S.	20	492	N/A	N/A	99.2	99.2
	D.S.	20	492	96	100	97.3	97.3
BASE	U.S.	100	704	N/A	N/A	99.5	99.5
	D.S.	100	704	96	118	98.2	98.2

* NEGLIGIBLE DUE TO PROPERTIES OF WEIR, DROP INLET & BARREL



RAPP BRIDGE
 BUILT 1983
 COUNTY HWY. 7 MC LEAN COUNTY
 SECTION 82-00136-00 BR
 LOADING HS 20 STR. NO. 057-3425

DESIGN STRESSES (NOTE: x2 DESIGNATES 2 LENGTHS)

fs = 20,000 P.S.I.
 fc = 1,400 P.S.I. (BARREL)
 v = 1,000 P.S.I. (WINGS)
 n = 5.6 P.S.I.
 n = 8.5

COMP. MAX. SOIL PRESSURE = 2600 P.S.F.
 LOADING HS 20-44

LETTERING FOR NAME PLATE
 (SEE I.D.O.T. STD 2113)
 (LOCATE AT S.E. CORNER OF BRIDGE)



CULVERT

DESIGNED BY	JCC	CHECKED BY	JCC JR
DATE	4-7-83	SHEET	8221