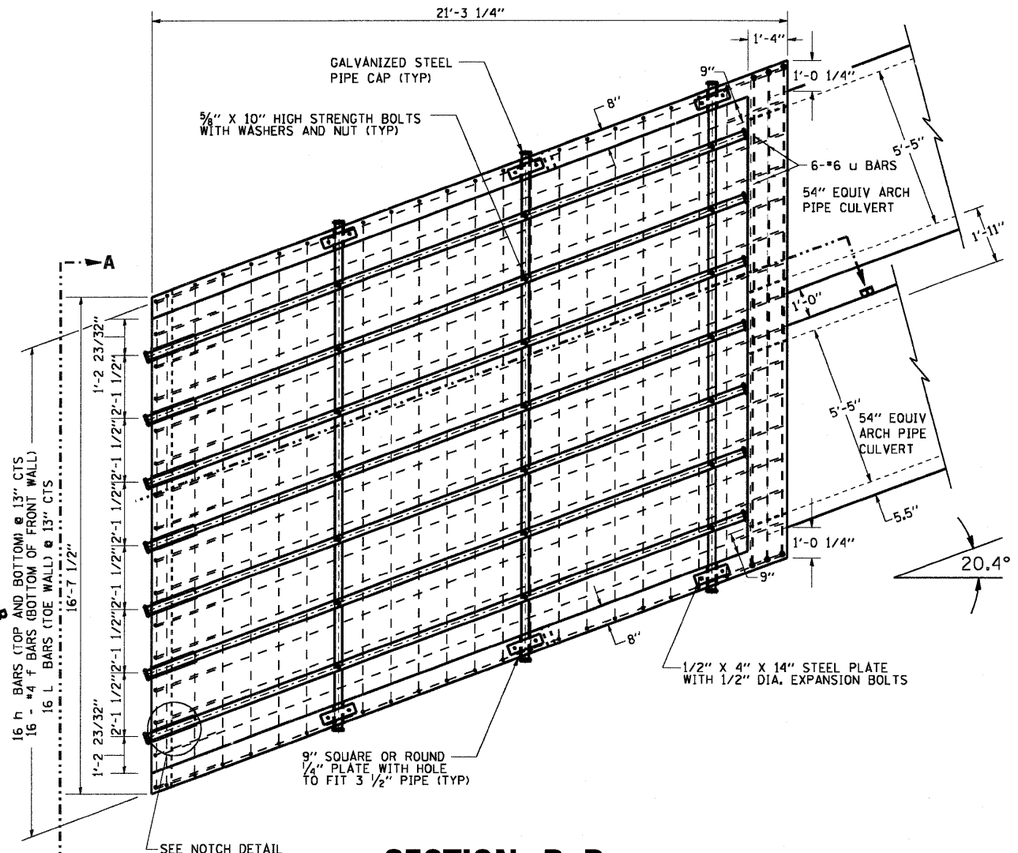
GRATED CULVERT EXTENSION NO. 4

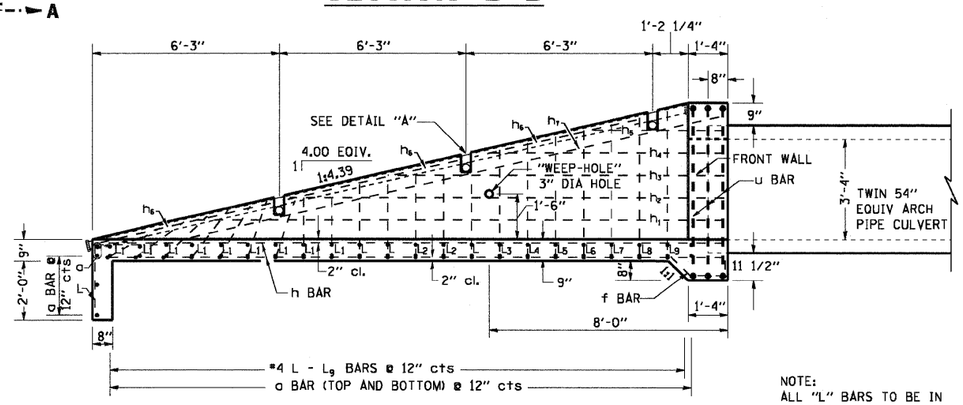
SN 043–1070 – LT STA. 501+14.74 (IL RTE 78)

CULVERT @ 20.4° SKEW TO RDWY

PLAN



SECTION B–B



NOTE:
ALL "L" BARS TO BE IN OUTSIDE FACE OF WALL

BILL OF MATERIALS
(FOR INFORMATION ONLY)

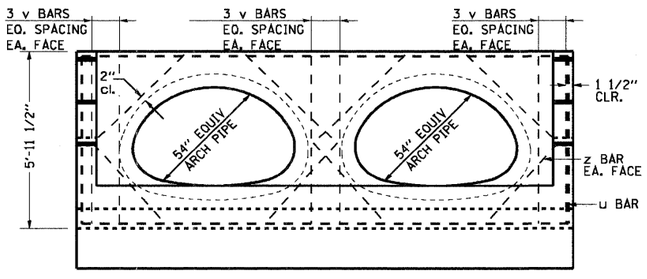
BAR	SIZE	NO.	LENGTH	SHAPE
a	#4	48	16'-4"	
f	#4	16	3'-6"	
h	#4	32	22'-4"	
h_1	#4	2	17'-10"	
h_2	#4	2	14'-6"	
h_3	#4	2	11'-3"	
h_4	#4	2	7'-11"	
h_5	#4	2	4'-8"	
h_6	#4	6	5'-10"	
h_7	#4	2	16'-0"	
L	#4	22	4'-7"	
L_1	#4	18	4'-2"	
L_2	#4	4	5'-1"	
L_3	#4	2	5'-9"	
L_4	#4	2	6'-0"	
L_5	#4	2	6'-2"	
L_6	#4	2	6'-5"	
L_7	#4	2	6'-7.5"	
L_8	#4	2	6'-10"	
L_9	#4	2	7'-1"	
u	#6	6	23'-10"	
v	#4	18	7'-2"	
z	#4	8	7'-11"	

DESCRIPTION	UNIT	QTY
CLASS "SI" CONCRETE	CU YD	16.8
REINFORCEMENT BARS	LB	1690

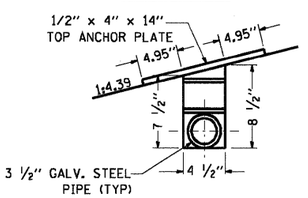
BILL OF MATERIALS
(FOR INFORMATION ONLY)

DESCRIPTION	UNIT	QTY.
3 1/2" GALVANIZED STEEL PIPE	FOOT	7 @ 22'-0"
	FOOT	3 @ 17'-0 5/8"
3 1/2" GALV PIPE CAPS	EACH	20
1/4" GALV. STEEL PLATE (9" NOMINAL)	EACH	6
1/2" x 4" x 14" GALV. STEEL PLATE	EACH	6
5/8" x 9" GALV. STEEL BOLTS	EACH	21
EXPANSION BOLTS 1/2"Ø	EACH	12

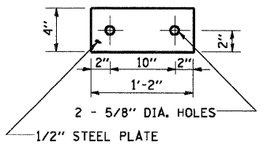
SECTION A–A



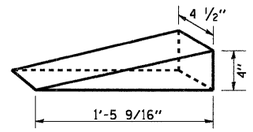
DETAIL "A"



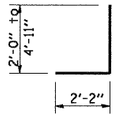
TOP ANCHOR PLATE



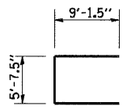
NOTCH DETAIL



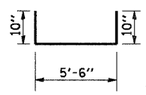
#4 L TO L_9 BAR WINGWALLS



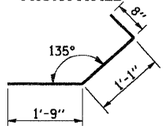
#6 u BAR HEADWALL



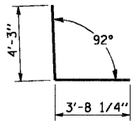
#4 v BAR HEADWALL



#4 f BAR FRONTWALL



#4 z BAR HEADWALL



GENERAL NOTES:

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER "EACH" FOR **GRATED CULVERT EXTENSION NO. 4.** THIS WORK SHALL INCLUDE THE GALVANIZED PIPE, ANCHOR PLATES, & CAPS, CLASS SI CONCRETE, REINFORCEMENT BARS, BOLTS, NUTS, WASHERS, INSTALLATION ON THE PROPOSED CULVERT, PIPE GRATING, EARTH EXCAVATION AND DIVERTING WATER WHERE REQUIRED, AND ANY NECESSARY GRADING TO FIT THE GRATED CULVERT EXTENSION AS SHOWN IN THE CROSS SECTIONS OR TO SLOPE.

CLASS SI CONCRETE SHALL BE USED THROUGHOUT. EXPOSED EDGES SHALL BE BEVELED 3/4 ".

SLOPE FLOW LINE FOR END SECTION IS THE SAME RATE AS THE FLOW LINE OF THE PIPE.

BOLTS, NUTS, AND WASHERS SHALL BE IN ACCORDANCE WITH ARTICLE 1006.08 OF THE STANDARD SPECIFICATION AND SHALL BE GALVANIZED.

STEEL PIPES SHALL CONFORM TO A.S.T.M. A-53 (TYPE E OR S) GRADE B, SCHEDULE 40, AND SHALL BE GALVANIZED CONFORMING TO A.S.T.M. A-120. CONTRACTOR SHALL FIELD VERIFY PIPE LENGTH.

STEEL PLATES SHALL CONFORM TO AASHTO M-183 AND SHALL BE GALVANIZED CONFORMING TO AASHTO M-111.

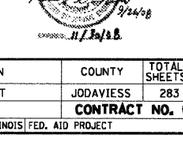
REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706 GR. 60 (IL MODIFIED).

SEE PLAN AND PROFILE SHEET FOR MORE INFORMATION.

SEE CROSS SECTION SHEET FOR MORE INFORMATION INCLUDING INVERT ELEVATIONS.

GRATING DESIGN CONFORMS TO AASHTO ROADSIDE DESIGN GUIDE ART. 3.4.2.1.

TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES".



FILE NAME =	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1:50	CHECKED -	REVISED -
	PLOT DATE = $DATE$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GRATED CULVERT EXTENSION NO. 4 – LT STA. 501+14.74

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
642	(10, 11)T	JODAVIESS	283	94
		CONTRACT NO. 64D07		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		