

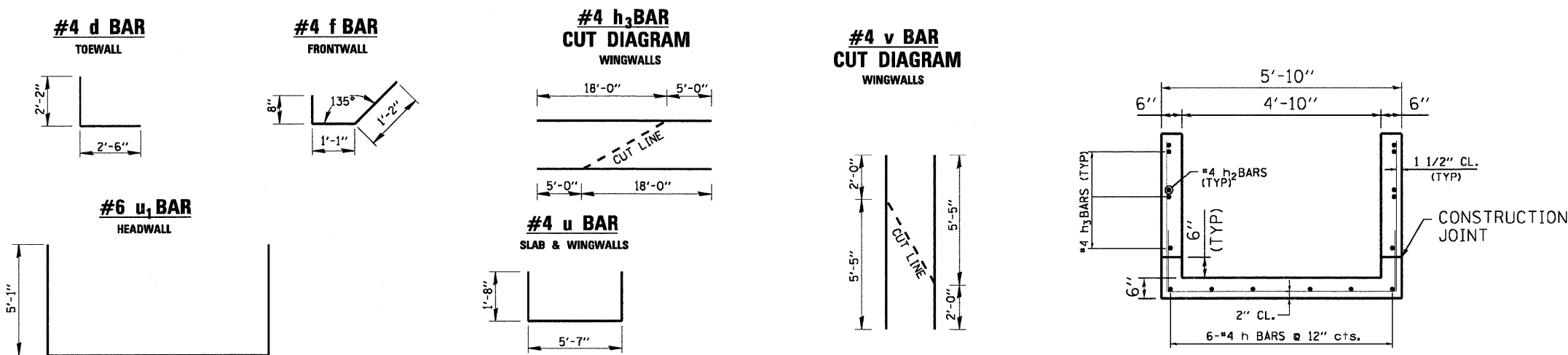
GRATED CULVERT EXTENSION NO. 2

SN 043-1068 - RT STA 448+28.40 (IL RTE 78)

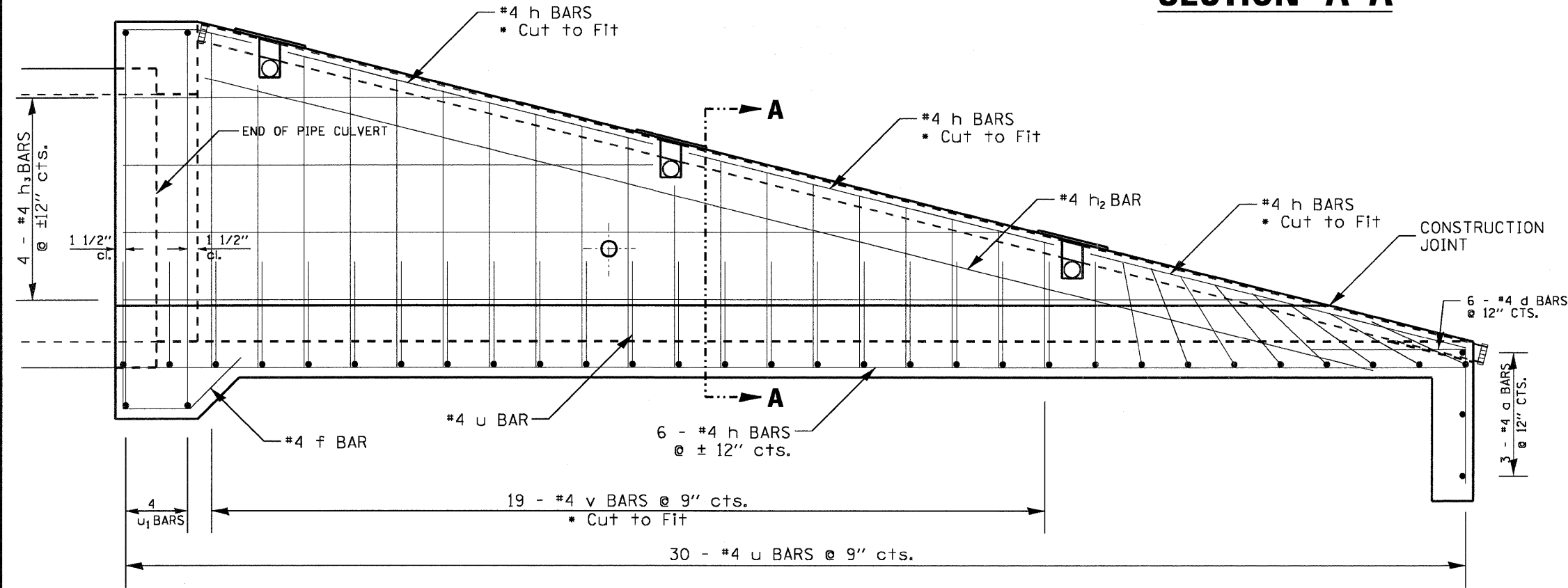
BILL OF MATERIALS (FOR INFORMATION ONLY)

BAR	NO.	SIZE	LENGTH	SHAPE
d	3	#4	5' - 7"	—
d	6	#4	4' - 8"	L
f	6	#4	2' - 11"	L
h	8	#4	21' - 9"	—
h ₁	4	#4	2' - 10"	—
h ₂	4	#4	19' - 9"	—
h ₃	4	#4	23' - 0"	—
u	30	#4	8' - 11"	—
u ₁	4	#6	15' - 9"	—
v	19	#4	7' - 5"	—

DESCRIPTION	UNIT	QTY
CLASS "SI" CONCRETE	CU YD	6.0
REINFORCEMENT BARS	LB	650
3" GALVANIZED STEEL PIPE	FOOT	2 @ 6'-2"
	FOOT	2 @ 21'-6"
3" GALV PIPE CAPS	EACH	10
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	6
EXPANSION BOLTS 1/2"Ø	EACH	12



SECTION A-A



**SIDE VIEW
(REINFORCEMENT DETAIL)**

GENERAL NOTES:

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER "EACH" FOR **GRATED CULVERT EXTENSION NO. 2**. THIS WORK SHALL INCLUDE THE GALVANIZED PIPE, ANCHOR PLATES, & CAPS, CLASS SI CONCRETE, REINFORCEMENT BARS, BOLTS, NUTS, WASHERS, INSTALLATION ON THE PROPOSED CULVERT, EARTH EXCAVATION AND DIVERTING WATER WHERE REQUIRED, PIPE GRATING, 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".

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

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

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

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

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.