COUNTY VERMILION 71 48 STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT •(10,92-8 HB-4)BR

CONTRACT NO. 70001

USE 4 EXPANSION BOLTS LARGEST OUTSIDE DIAMETER FOR CULVERTS SMALLER + 12" (300) THAN 24" (600 mm) LARGEST OUTSIDE DIAMETER + 12" (300)

USE 8 EXPANSION BOLTS FOR CULVERTS 24" (600 mm) AND LARGER

END VIEW

QUANTITIES FOR	CONCRETE PIPES
INSIDE DIAMETER	ESTIMATED
OF PIPE	CLASS SI CONCRETE
	REQUIRED
	20" (500 mm) WIDTH
INCH (mm)	CU. YD. (m3)
4" (100)	0.14 (0.11)
6" (150)	0.16 (0.12)
8" (200)	0.19 (0.14)
10" (250)	0.22 (0.17)
12" (300)	0.25 (0.19)
15" (375)	0.30 (0.23)
18" (450)	0.35 (0.27)
24" (600)	0.45 (0.35)
30" (750)	0.57 (0.43)
36'' (900)	0.69 (0.53)
42" (1050)	0.83 (0.63)
48" (1200)	0.97 (0.74)
54" (1350)	1.12 (0.86)
60'' (1500)	1.28 (0.98)

FOR CONNECTING TO

FOR CONNECTING 2 PIPES

OUTSIDE DIAMETER + 12" (300)

CONCRETE STRUCTURES -

6" (150)

DIAMETER

6" (150)

DIAMETER

INSIDE

(125)

(250)

V. V A.

SIDE VIEW

(125)

10"

(250)

CLASS SI CONCRETE

COLLAR

WIRE MESH WRAPPED AROUND PIPES

QUANTITIES FOR METAL PIPES		
INSIDE DIAMETER	ESTIMATED	
OF PIPE	CLASS SI CONCRETE	
	REQUIRED	
	20" (500 mm) WIDTH	
INCH (mm)	CU. YD. (m3)	
4" (100)	0.12 (0.09)	
6" (150)	0.14 (0.11)	
8" (200)	0.16 (0.12)	
10" (250)	0.19 (0.14)	
12" (300)	0.21 (0.16)	
15" (375)	0.25 (0.19)	
18" (450)	0.29 (0.22)	
24" (600)	0.38 (0.29)	
30" (750)	0.47 (0.36)	
36" (900)	0.59 (0.45)	
42" (1050)	0.69 (0.53)	
48" (1200)	0.81 (0.62)	
54" (1350)	0.93 (0.71)	
60" (1500)	1.05 (0.81)	

GENERAL NOTES

- 1. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
- 2. WHEN CONCRETE COLLARS ARE USED TO CONNECT PIPES OF DIFFERENT OUTSIDE DIAMETERS, THE CONCRETE COLLAR SHALL BE FORMED USING THE LARGEST OUTSIDE DIAMETER (SEE END VIEW).
- 3. THE WIRE MESH SHALL WEIGH NOT LESS THAN 54#/100 SQ. FT. (2.63 kg/m²).
- 4. WHEN CONCRETE COLLARS ARE CONSTRUCTED ADJACENT TO AN EXISTING CONCRETE STRUCTURE (HEADWALLS, ETC.) EXPANSION BOLTS, SHALL BE USED AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, EACH, FOR EXPANSION BOLTS OF THE SIZE SPECIFIED IN THE PLANS.
- 5. CONCRETE COLLARS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, PER CUBIC YARD (CUBIC METER), FOR CONCRETE COLLARS INCLUDING ALL MATERIAL AND LABOR SPECIFIED TO COMPLETE THE WORK IN PLACE.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DATE	REVISIONS	NAME	ILLINOIS DEPARTMENT OF TRANSPORTATION	
12/06	REPLACED DETAIL J-5.45	TJB	TELINOIS DEL SICHMENT OF TRANSFORTATION	
			CONCRETE COLLAR	
			CONCILL COLLAIN	
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			DISTRICT 5 DETAIL NO. 54248510	
			DISTRICT S DETAIL NO. 34240310	