

CASTING AA-S114. SELF SEALING GASKET AND
 CONSEALED LIFT HOLE OR APPROVED EQUAL
 FOR SANITARY SEWER. VENT HOLES ARE NOT
 PERMITTED ON SANITARY SEWERS

GRADE RINGS

CLASS "C" CONCRETE
 ENCASEMENT. SEE NOTE #9

18" MAX. FROM TOP OF
 MANHOLE COVER TO TOP OF
 PRECAST SECTION UNLESS
 OTHERWISE NOTED.

#4 BARS SPACED EQUALLY ALONG
 VERTICAL AXIS. ENDS TO BE
 OVERLAPPED 10" (TYP).

6" MIN. (TYP.)

NOTES:

1. JOINTS SHALL BE AS SPECIFIED UNDER 604.06.
2. BACKING SHALL BE CLASS "A" CONCRETE.
3. MANHOLE RISERS MUST BE IN ACCORDANCE WITH ASTM C-478.
4. ADEQUATELY REINFORCE UNIT TO RESIST ALL WORKING TRANSPORTATION & HANDLING STRESSES IN ACCORDANCE WITH ASTM C-76.
5. SUBMIT SHOP DRAWINGS FOR APPROVAL.
6. EXTRA STEPS SHALL BE PROVIDED FOR BASE.
7. TYPE "F" MANHOLE MUST BE USED WHERE NO CHANGE IN PIPE SIZE, DIRECTION OR SLOPE OCCURS, AND NO LATERAL SEWERS ENTER THE MANHOLE BELOW THE RISER SECTION.
8. SEE SHEET 2 OF 2 PLAN VIEW OF REINFORCING BARS FOR 72"Ø AND LARGER PIPE.
9. CONCRETE ENCASEMENT FOR SANITARY MANHOLES ONLY UNLESS OTHERWISE NOTED.
10. NO STEPS ARE TO BE INSTALLED BELOW THE SPRING LINE.

RISER SECTIONS
 IN MULTIPLES
 OF STEP SPACING

48" DIA.
 STEPS PER
 AA-S119
 4 1/2"

LONGITUDINAL BARS FULL
 LENGTH OF PIPE
 (FOR 72" AND LONGER)

SAME CLASS PIPE
 AS MAIN SEWER

TRENCH
 WALL

SPRING
 LINE

CONCRETE
 BACKING

BEDDING PER
 CMS 901.11

ELEVATION

O.D./10

CITY OF COLUMBUS, OHIO
 DEPARTMENT OF PUBLIC UTILITIES
 DIVISION OF SEWERAGE & DRAINAGE

TYPE "F" MANHOLE

STANDARD DRAWING
 AA-S105

REVISED 7/9/12

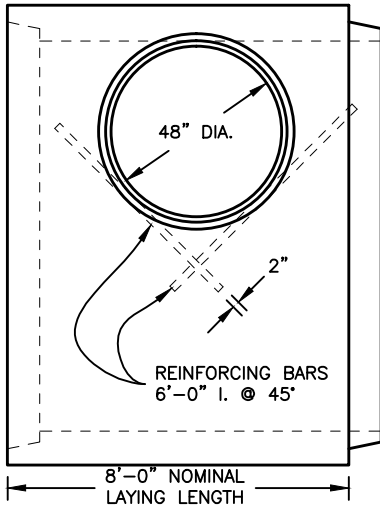
SSS MANAGER

John J. Newsome

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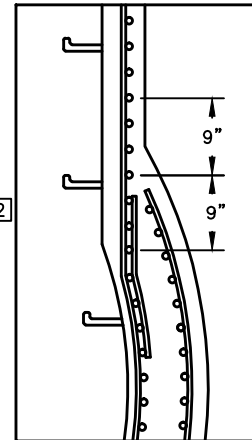
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2



PLAN
(REINFORCING BARS FOR 72"Ø AND LARGER PIPE.)

CASTING DETAILS



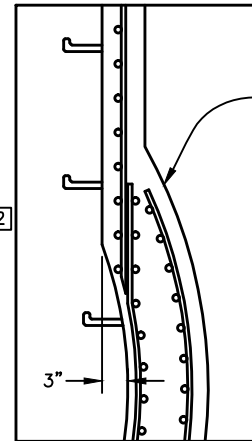
[2]

FOR ELEVATION VIEW

TABLE 1

D-LOAD	1000			1350			2000			3000		
	LONGITUDINAL BARS			LONGITUDINAL BARS			LONGITUDINAL BARS			LONGITUDINAL BARS		
DIA.	SIZE	LENGTH	NO. REQ'D.	SIZE	LENGTH	NO. REQ'D.	SIZE	LENGTH	NO. REQ'D.	SIZE	LENGTH	NO. REQ'D.
72"	#5	7'-5"	4	#5	7'-5"	4	#5	7'-5"	4	#5	7'-5"	4
78"	#6	7'-5"	4	#6	7'-5"	4	#6	7'-5"	4	#6	7'-5"	4
84"	#6	7'-5"	4	#6	7'-5"	4	#6	7'-5"	4	#6	7'-5"	4
90"	#6	7'-5"	4	#6	7'-5"	4	#6	7'-5"	4	#6	7'-5"	4
96"	#6	7'-5"	4	#6	7'-5"	4	#6	7'-5"	4	#6	7'-5"	4
102"	#6	7'-5"	4	#6	7'-5"	4	#6	7'-5"	4	#6	7'-5"	4
108"	#6	7'-5"	4	#6	7'-5"	4	#6	7'-5"	4	#6	7'-5"	4
114"	#5	7'-5"	6	#5	7'-5"	6	#5	7'-5"	6	#5	7'-5"	6
120"	#7	7'-5"	4	#7	7'-5"	4	#7	7'-5"	4	#7	7'-5"	4
126"	#7	7'-5"	4	#7	7'-5"	4	#7	7'-5"	4	#7	7'-5"	4
132"	#7	7'-5"	4	#7	7'-5"	4	#7	7'-5"	4	#7	7'-5"	4
144"	#7	7'-5"	4	#7	7'-5"	4	#7	7'-5"	4	#7	7'-5"	4

INTEGRALLY CAST



WELD TOGETHER STEEL REINFORCING CAGES OF RISER AND MAINLINE PIPE BEFORE PLACING CONCRETE OVER EXPOSED STEEL

[2]

FOR PLAN VIEW

TABLE 2

D-LOAD	1000		1350		2000		3000	
	DIAG. BARS	DIAG. BARS	DIAG. BARS	DIAG. BARS	DIAG. BARS	DIAG. BARS	DIAG. BARS	
DIA.	SIZE	NO. [3] REQ'D.	SIZE	NO. [3] REQ'D.	SIZE	NO. [3] REQ'D.	SIZE	NO. [3] REQ'D.
72"	#5	2	#5	2	#5	4	#5	4
78"	#5	2	#5	2	#5	4	#6	4
84"	#5	2	#4	4	#5	4	#6	4
90"	#5	2	#4	4	#5	4	#6	4
96"	#5	2	#4	4	#5	4	#7	4
102"	#4	4	#5	4	#6	4	#7	4
108"	#4	4	#5	4	#6	4	#7	4
114"	#4	4	#5	4	#6	4	#7	4
120"	#5	4	#5	4	#6	4	#6	6
126"	#5	4	#5	4	#6	4	#6	6
132"	#5	4	#5	4	#7	4	#7	6
144"	#5	4	#6	4	#7	4	#7	6

PLANT FABRICATED

LEGEND

- [1] IF REQUIRED BY CONDUIT SPECIFICATION SEE SHEET 1 OF 2.
- [2] ON ALL SIZES EXCEPT 48".
- [3] ONE-HALF OF THE REQUIRED NUMBER TO EACH SIDE OF HOLE.

NOTES:

- 1. #3 x 18" REINFORCEMENT BAR TO SPLICE CAGES. BEND TO SUIT. MINIMUM OF EIGHT PLACES REQUIRED.

CITY OF COLUMBUS, OHIO
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John J. Newson

SSES MANAGER

TYPE "F" MANHOLE

STANDARD DRAWING
AA-S105

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PAGE

2

2