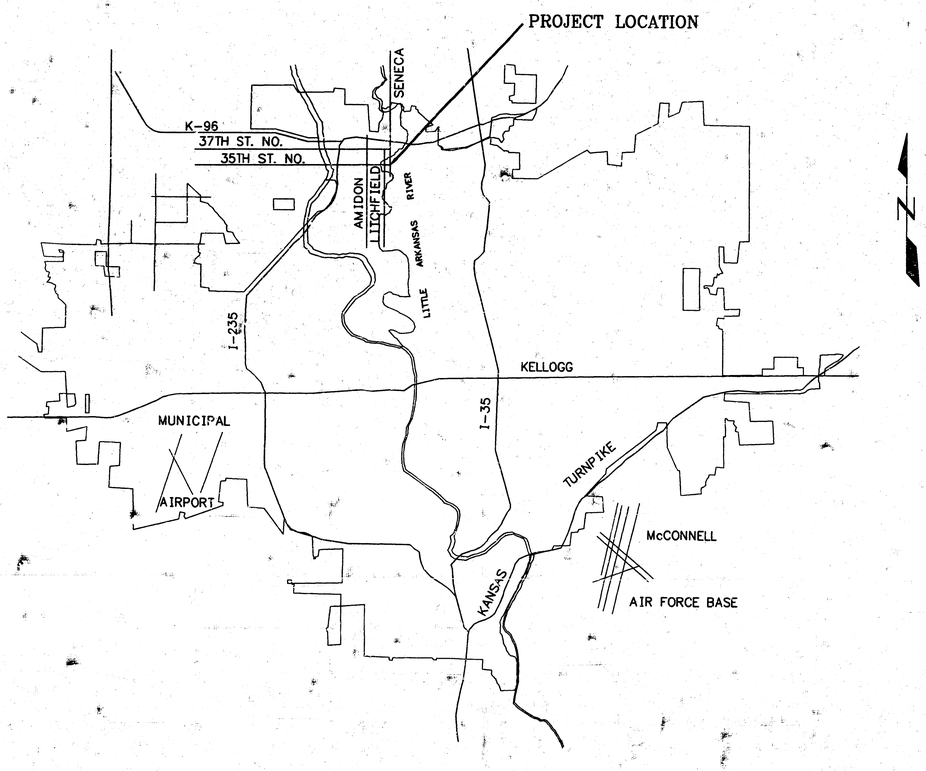
DRAINAGE SYSTEM IMPROVEMENTS

TO SERVE

SENECA AND 35TH ST. NO.

THE CITY OF WICHITA,
SEDGWICK COUNTY, KANSAS
MICHAEL E. LINDEBAK, P.E.-CITY ENGINEER

INDEX CODE - 660233
PROJECT NO. (FAMIS NO.) 561503



NOTE:

1. THE CITY WILL REMOVE ALL TREES AS NECESSARY WITHIN THE 20' DRAINAGE EASEMENT IN DECEMBER 1995 PRIOR TO CONSTRUCTION.
2. GRADE SOUTH ROADSIDE DITCH WEST OF 0+00 MANHOLE TO ALLOW FOR POSITIVE DRAINAGE TO THE EAST. (210 L.F. FROM END SECTION)
3. DO NOT REMOVE FENCE ALONG NORTH/SOUTH PROPERTY LINE EAST OF 36" RCP DURING CONSTRUCTION.
4. REMOVE EAST/WEST FENCES AT STA 0+08 AND 3+00 DURING CONSTRUCTION AND REPLACE UPON COMPLETION OF CONSTRUCTION.
5. GRADE SOUTH ROADSIDE DITCH, EAST OF STA 0+00 MANHOLE TO ALLOW FOR POSITIVE DRAINAGE TO THE WEST, INTO THE EAST END SECTION.
6. ALL COSTS OF PAVEMENT REMOVAL AND REPLACEMENT SHALL BE INCIDENTAL TO PIPE COSTS.
7. CONTRACTOR MUST NOTIFY ADJACENT PROPERTY OWNERS 5 DAYS PRIOR TO BEGINNING CONSTRUCTION.
8. CONTRACTOR MAY ONLY USE PRIVATE DRIVE FOR ACCESS WITH THE WRITTEN APPROVAL OE THE PROPERTY OWNER AND THE FIELD ENGINEER.
9. CONTRACTOR MUST MAINTAIN ACCESS FOR PROPERTY OWNER AT 1521 W. 35TH ST. NO. AT ALL TIMES DURING CONSTRUCTION UNLESS OTHERWISE AUTHORIZED BY THE FIELD ENGINEER.

BOOKED
6-18-96
D-297
MCG

INDEX OF SHEETS

CRAIG J. BREITENBACH LICENSED 8206 KANSAS PROFESSIONAL ENGINEER

SCALE 1" = 20'

B.M. NORTH BOLT FIRE HYDRANT AT NORTHWEST CORNER OF 35TH STREET NORTH AND SENECA. ELEVATION 133.80

REMOVE 35 LF. OF 18" CMP
INSTALL 42 LF 24" RCP AND CONNECT TO STA 0+00 MANHOLE
FL 128.45 IN, NORTH SIDE

INSTALL 30 L.F. OF 24" RCP W/FLARED END SECTION
FL @ END SECTION = 127.50

GRESS
1409 W. 35TH ST. NO.
A-14364

STA 3+10 CONSTRUCT HEADWALL WITH 36" FLAPGATE (LIGHT DUTY) WITH 18" LIGHT STONE RIPRAP STABILIZATION. (SEE DETAIL) FL ELEV. 122.0

STA 0+00 CONSTRUCT
REINFORCED CONCRETE MANHOLE
TOP ELEV = 130.75
FLO OUT 36" SOUTH = 123.05
FLO IN 24" EAST = 125.20
FLO IN 24" WEST = 125.20
FLO IN 24" NE = 125.20

INSTALL 300 L.F. OF 36" RCP

STA. 2+10 CONSTRUCT
SPECIAL DROP INLET WITH BEEHIVE GRATE
TOP ELEV = 126.00

20' DRAINAGE EASEMENT

APPROXIMATE WATER ELEVATION ON 11/8/95
109.0

ARKANSAS RIVER

SENECA

ASPHALT MAT

20' R/W

15" CMP

CONC. RIPRAP

REGRADE WITHIN EASEMENT TO DRAIN OLD SWALE TO GRATE INLET

REMOVE 29 LF. 24"CMP AND HEADWALL

REMOVE EXISTING 4'x5' INLET

30' R/W

GRAVEL DRIVE

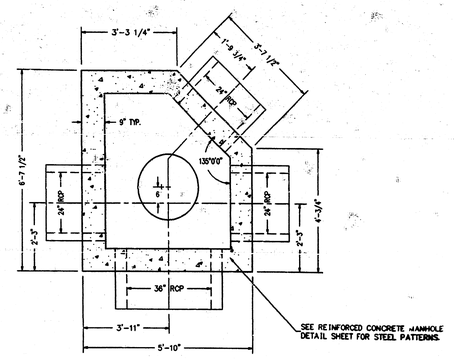
REMOVE DRIVEWAY PIPE
REPLACE WITH 40 L.F. 24" RCP W/FLARED END SECTION
FL IN 126.50, WEST OF DRIVEWAY

ALEXANDER
1521 W. 35TH ST. NO.
A-14423

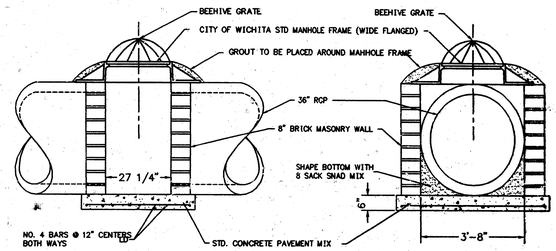
35TH ST. NO.

PLUG NORTH END EXISTING 11" CI PIPE

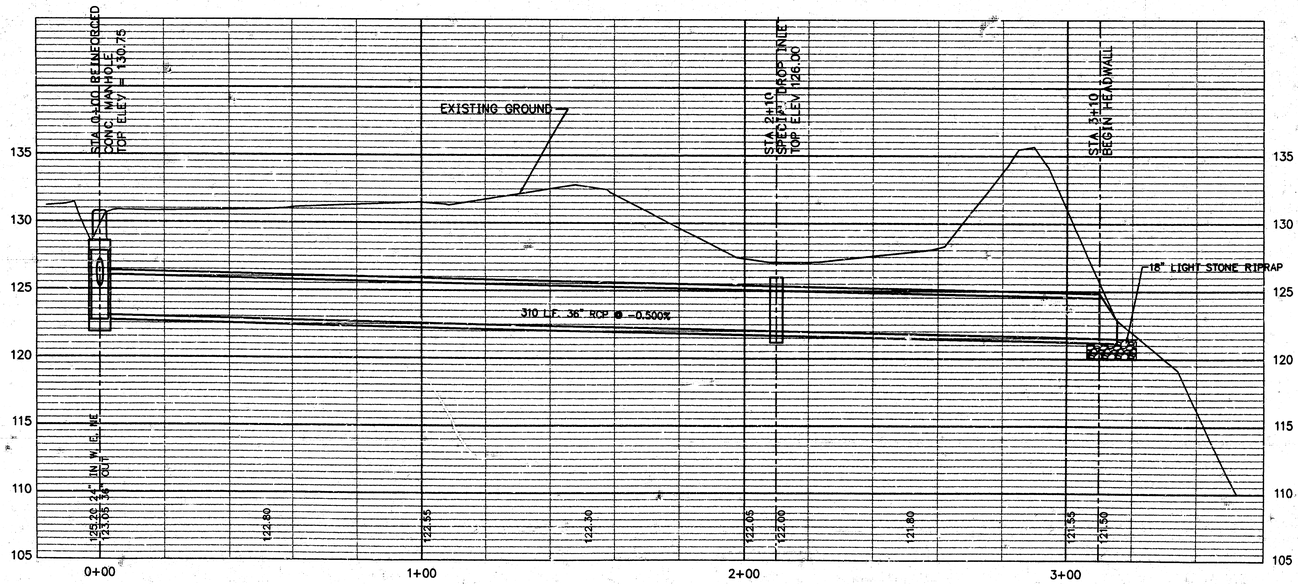
REMOVE EXISTING 12" CMP
REPLACE WITH 24 L.F. 18"x11" CMPA
FL 127.30 IN, NORTH SIDE
FL 127.00 OUT, SOUTH SIDE



STA 0+00 REINFORCED CONCRETE MANHOLE



STA 2+10 SPECIAL DROP INLET



CITY OF WICHITA
DRAINAGE IMPROVEMENTS

SENECA AND 35TH ST. NO.
DITCH/PIPE MODIFICATIONS

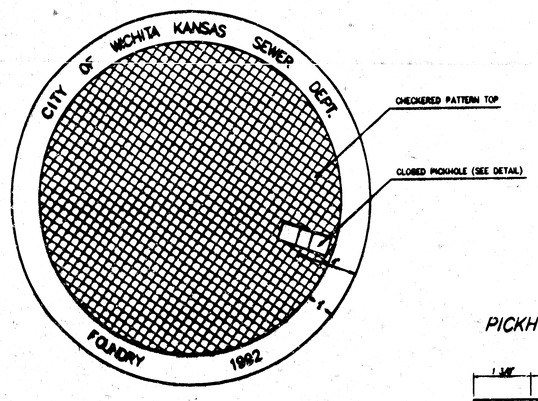
M. E. LINDEBAK
CITY ENGINEER
CITY OF WICHITA, KANSAS

INDEX NO. 660233
FAMIS NO. 561503
SHEET NO. 2 OF 5

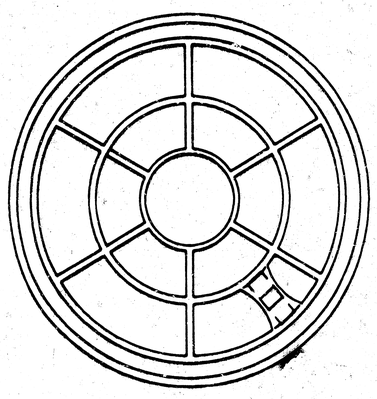
MANHOLE FRAME AND COVER DETAIL
(WIDE FLANGED FRAME)

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE COVER
Weight = 180 Lbs.

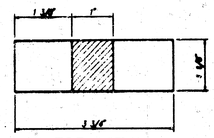


TOP VIEW

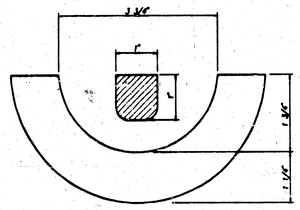


BOTTOM VIEW

PICKHOLE DETAIL

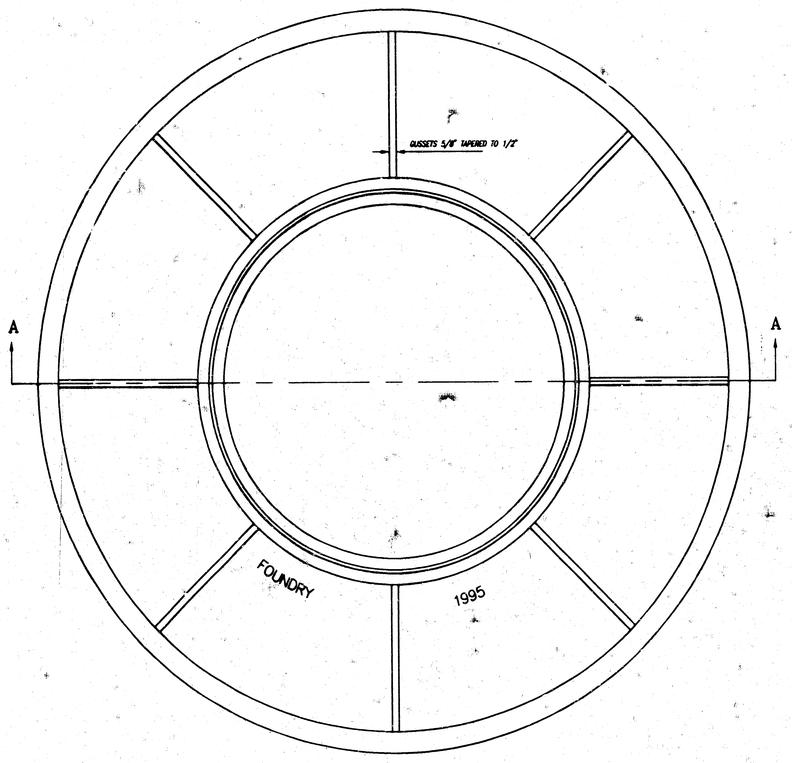


TOP VIEW

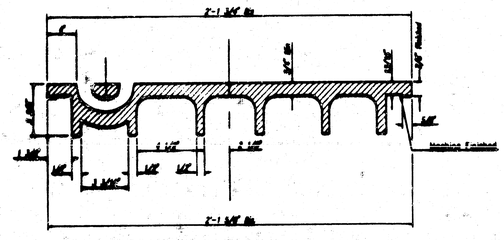


SECTION VIEW

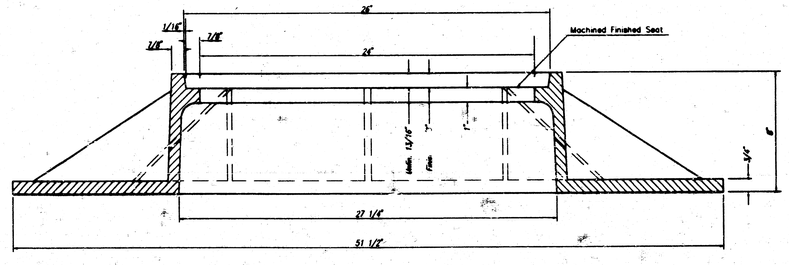
MANHOLE FRAME
Weight = 525 Lbs.



TOP VIEW



SECTION VIEW



SECTION A-A

GENERAL NOTES

MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDARY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH AS THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1 INCH IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

MANHOLE CASTINGS SHALL WEIGH A MINIMUM OF 180 POUNDS ON THE SOLID COVER AND 240 POUNDS ON THE MANHOLE RING. THIS IS A TOTAL OF 420 POUNDS ON A RING AND COVER SET. CASTINGS WEIGHING LESS THAN THE MINIMUM SPECIFICATIONS WILL NOT BE ACCEPTED.

TO INSURE CONFORMANCE TO TENSILE STRENGTH REQUIREMENTS ALL CASTINGS SHALL BE JULIAN HEAT DATED WITH THE FOLLOWING REQUIREMENTS:

TWO TEST BAR SPECIMENS MUST BE POURED WHEN PRODUCING CITY OF WICHITA CASTINGS. ONE OF THE TEST BAR SPECIMENS SHALL BE SENT TO AN INDEPENDENT LABORATORY FOR TENSILE STRENGTH VERIFICATION TESTING. A TEST REPORT SHALL ACCOMPANY EACH SHIPMENT OF CASTINGS. THE HEAT DATE(S) ON THE CASTINGS SHALL RESPOND TO THE TENSILE STRENGTH REPORT(S). THE TEST REPORT WILL BE PAID FOR BY THE SUPPLIER. THE REMAINING TEST BAR SPECIMEN WILL BE SHIPPED TO SEWER MAINTENANCE AT 715 W. HARRY, WICHITA, KANSAS 67213.

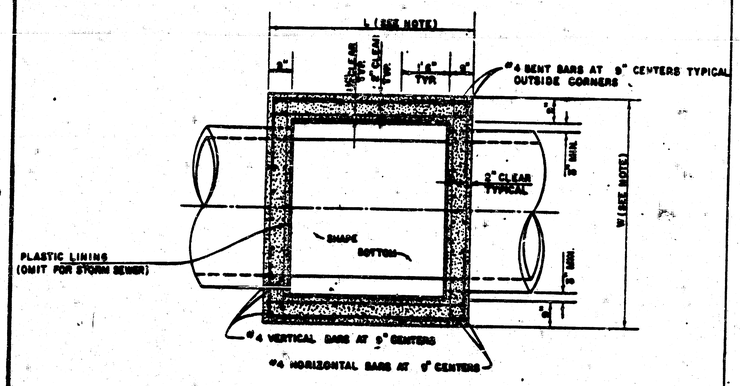
MANHOLE FRAME AND COVER DETAIL
(WIDE FLANGED FRAME)

CITY OF WICHITA, KANSAS
M. E. LINDEBAK - CITY ENGINEER

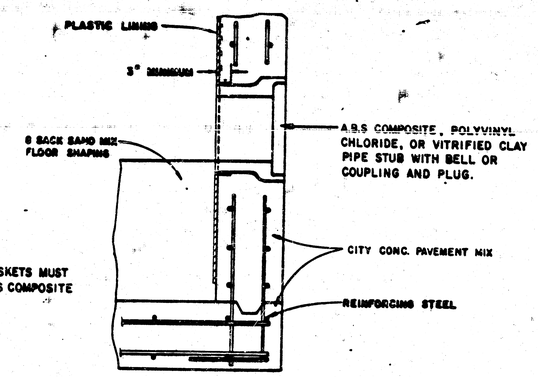
REVISED 6/21/96

PROJ. NO. 468-76-246- -000-000-001

SHEET 3 OF 5

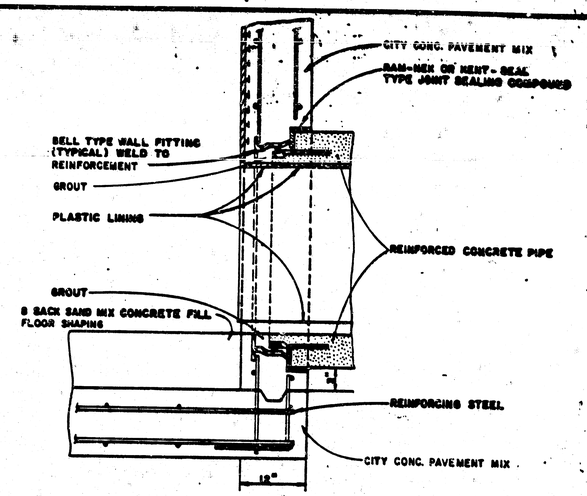


TOP VIEW

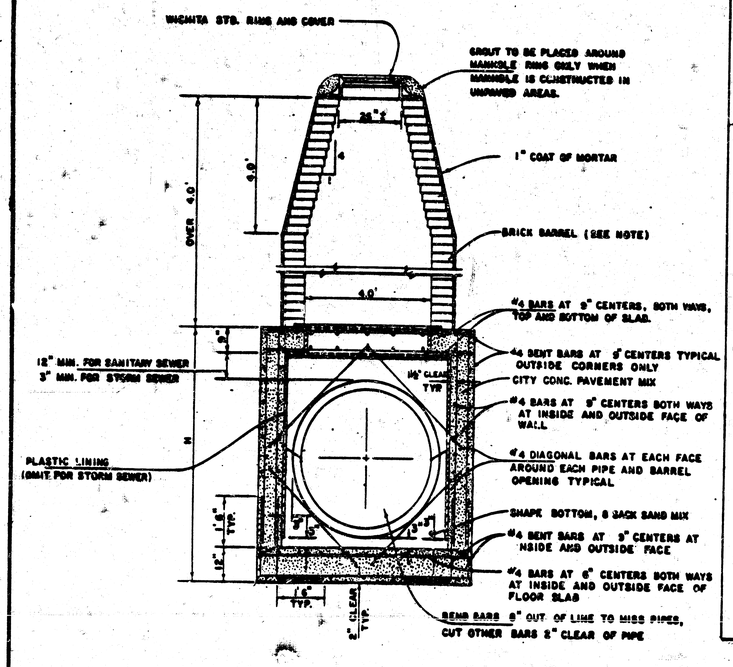


NOTE: WATERSTOP GASKETS MUST BE USED WITH A.B.S COMPOSITE OR P.V.C. PIPE.

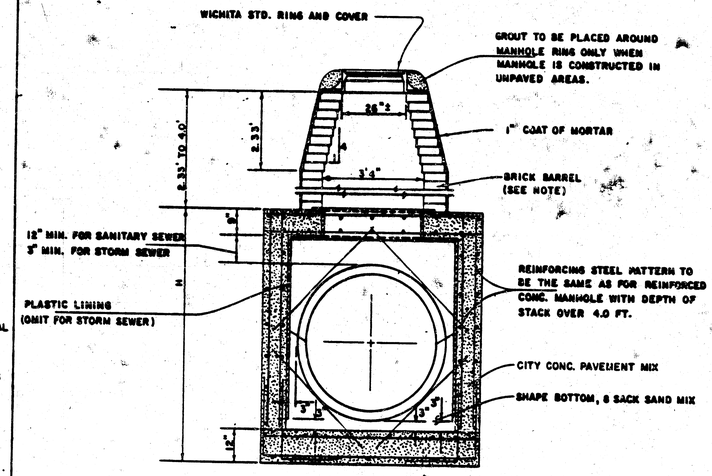
PIPE STUB DETAIL
SANITARY SEWER ONLY



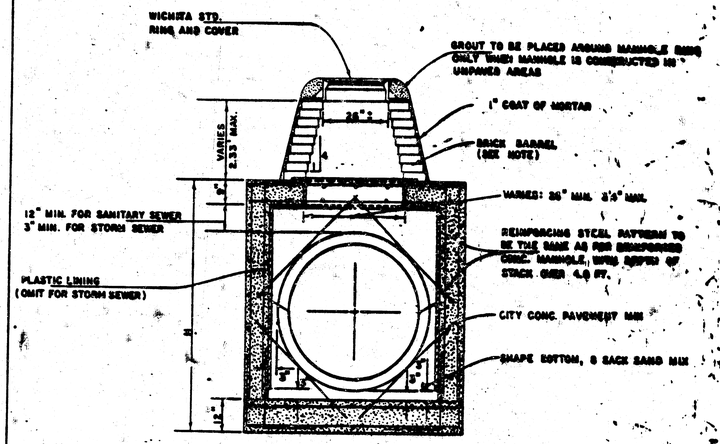
R.C.P. CONNECTION DETAIL
SANITARY SEWER ONLY



REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: OVER 4.0'
SCALE 1" = 2'



REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: 2.33' TO 4.0'
SCALE 1" = 2'



REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: 0' TO 2.33'
SCALE 1" = 2'

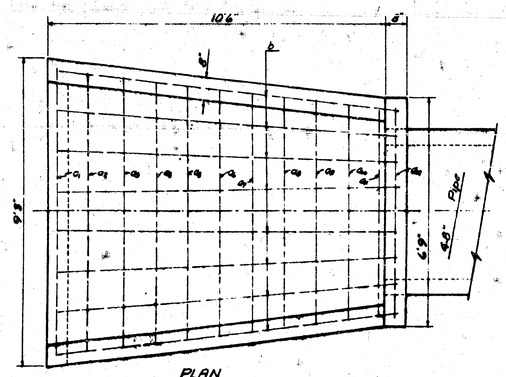
NOTE:
BRICK BARRELS LESS THEN 16' DEEP SHALL HAVE 8" WALLS EXCEPT WHEN LOCATED WITHIN PUBLIC STREET OR ALLEY PAVEMENT THEN THE WALL SHALL BE 12" BRICK BARRELS MORE THEN 16' DEEP SHALL HAVE 12" WALLS. THE "L" AND "W" DIMENSIONS SHALL BE A MINIMUM OF 5'6" FOR BRICK BARRELS WITH 8" WALLS AND 6'2" FOR BRICK BARRELS WITH 12" WALLS WHEN THE BRICK BARRELS ARE OVER 4 FT. IN HEIGHT. COMLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATERTIGHT.

REVISIED 1-7-85

Seneca & 35th No.
Sheet 4 of 5

STANDARD DETAILS
REINFORCED CONCRETE MANHOLES
CITY OF WICHITA

FEBRUARY 1984

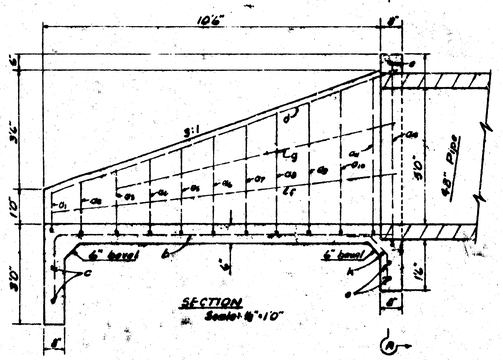


PLAN
Scale: ½"=1'0"

TABLE OF QUANTITIES				
BAR	NUMBER	LENGTH	SHAPE	WEIGHT
a_1	1	10'10"		7.24
a_2	1	11'3"		7.52
a_3	1	11'8"		7.79
a_4	1	12'1"		8.07
a_5	1	12'6"		8.35
a_6	1	13'0"		8.68
a_7	1	13'5"		8.96
a_8	1	13'10"		9.24
a_9	1	14'3"		9.52
a_{10}	1	14'8"		9.80
a_{11}	1	15'2"		10.13
a_{12}	1	16'10"		11.24
b	6	12'7"		67.25
c	2	8'4"		11.36
d	2	11'6"		15.34
e	3	6'5"		12.91
f	2	10'9"		14.36
g	2	9'0"		12.02
h_1	4	1'2"		3.12
h_2	4	8"		1.78
j	4	3'3"		8.68
k	7	2'6"		11.69
Rebars (lbs)				265.07
Concrete (C.Y.)				4.75

All rebars to be #6

All exposed edges to have ½" bevel



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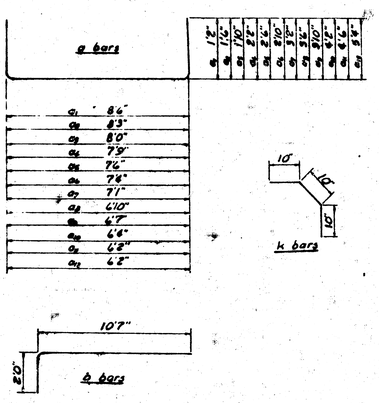
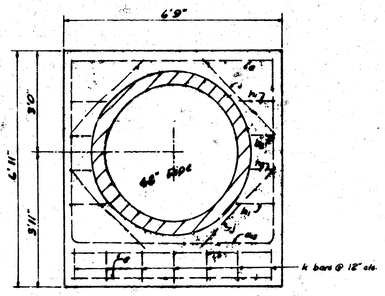
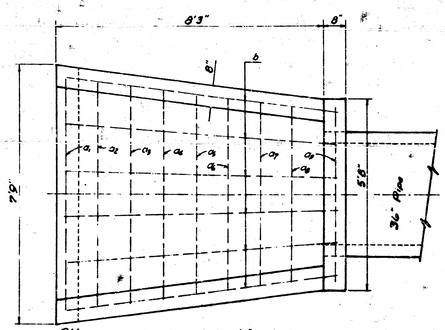




SECTION A-A
Scale: ½"=1'0"

HEADWALL FOR 48" PIPE

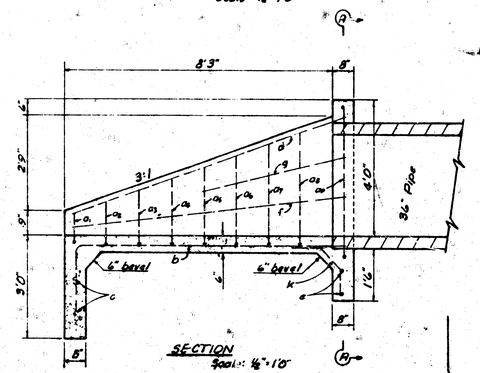


All exposed edges to have ½" bevel

PLAN
Scale: ½"=1'0"

TABLE OF QUANTITIES				
BAR	NUMBER	LENGTH	SHAPE	WEIGHT
a_1	1	8'7"		5.73
a_2	1	9'0"		6.01
a_3	1	9'7"		6.40
a_4	1	10'0"		6.68
a_5	1	10'5"		6.96
a_6	1	10'10"		7.24
a_7	1	11'3"		7.52
a_8	1	11'10"		7.90
a_9	1	12'0"		8.35
b	6	10'6"		41.62
c	2	7'0"		9.35
d	2	9'0"		12.02
e	3	5'4"		10.69
f	2	8'5"		11.26
g	2	4'7"		6.12
h_1	4	1'6"		4.01
h_2	4	10"		2.23
j	4	3'0"		8.02
k	6	2'6"		10.02
Total Rebars, lbs.				178.91
Conc. C.Y.				3.20

All Rebars to be #6



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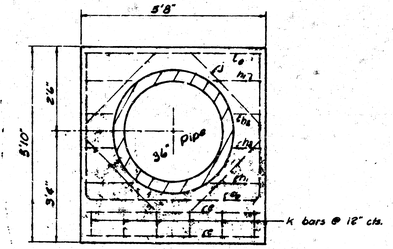

SECTION A-A
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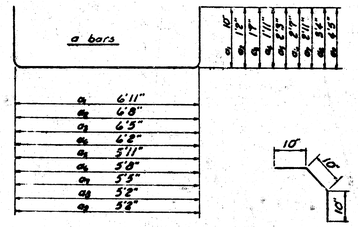

HEADWALL FOR 36" PIPE

Seneca # 35½ No.
Sheet 5 of 5

14-3-5-8