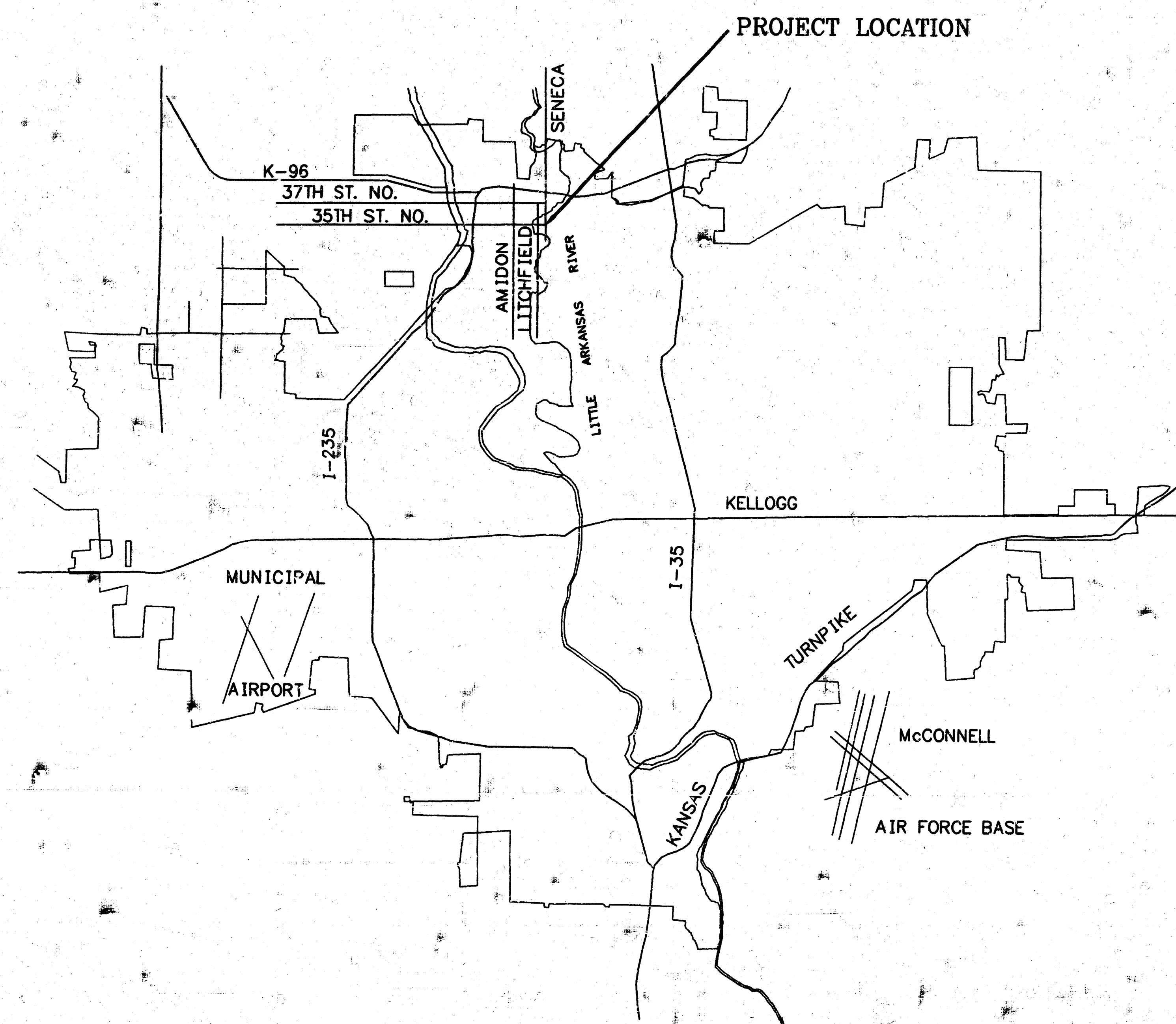


DRAINAGE SYSTEM IMPROVEMENTS TO SERVE

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



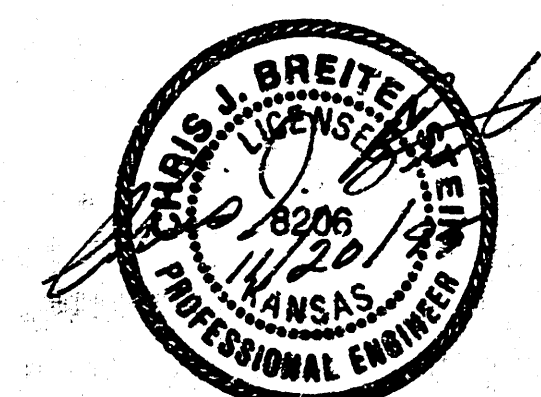
NOTE:

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 PAYEMENT 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 OF 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.

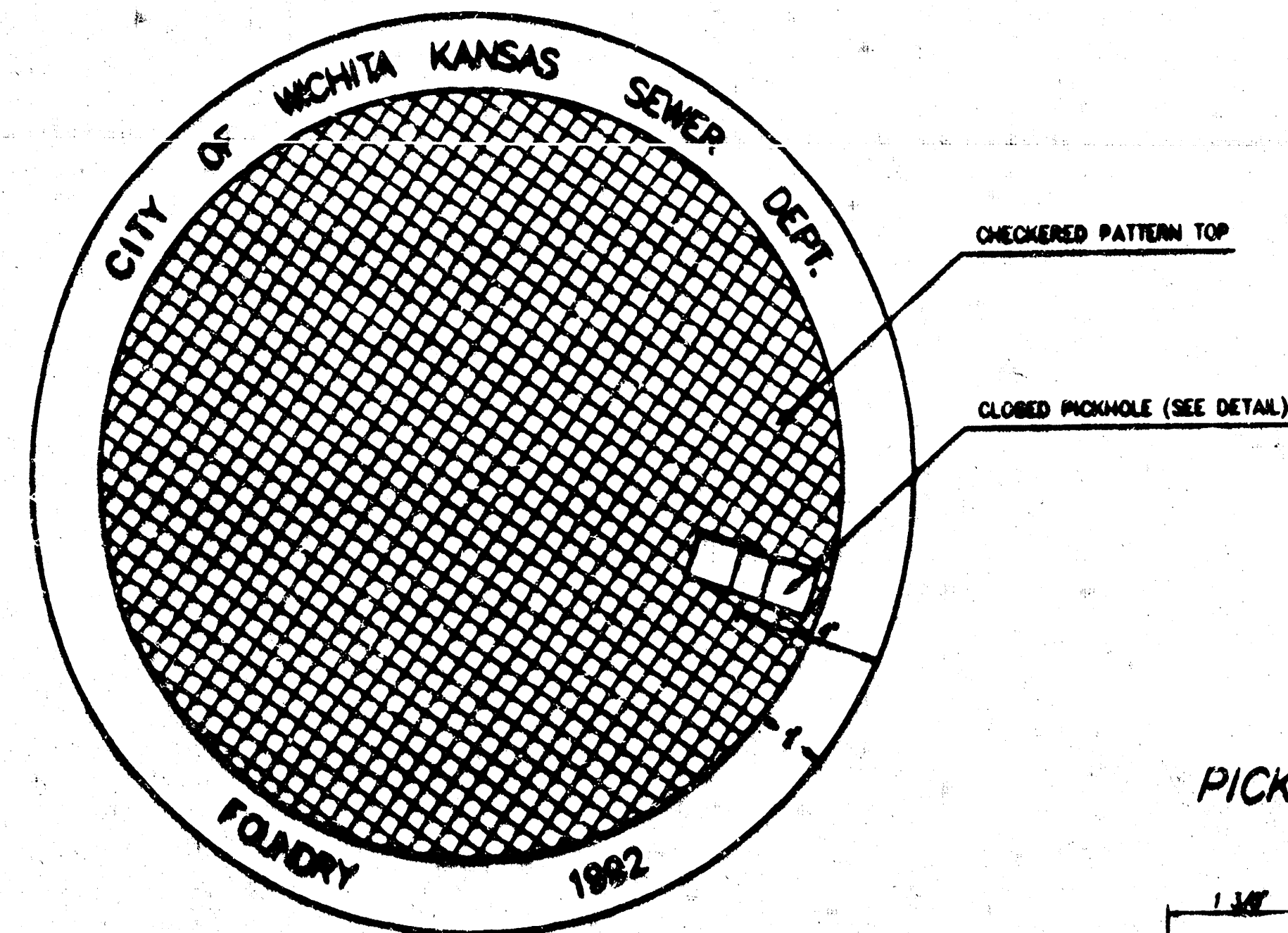
INDEX OF SHEETS

SHEET 1	TITLE SHEET
SHEET 2	PLAN SHEET
SHEET 3	MANHOLE WIDE FLANGED FRAME AND COVER \DETAIL
SHEET 4	REINFORCED CONC. MANHOLE DETAIL
SHEET 5	HEADWALL DETAIL

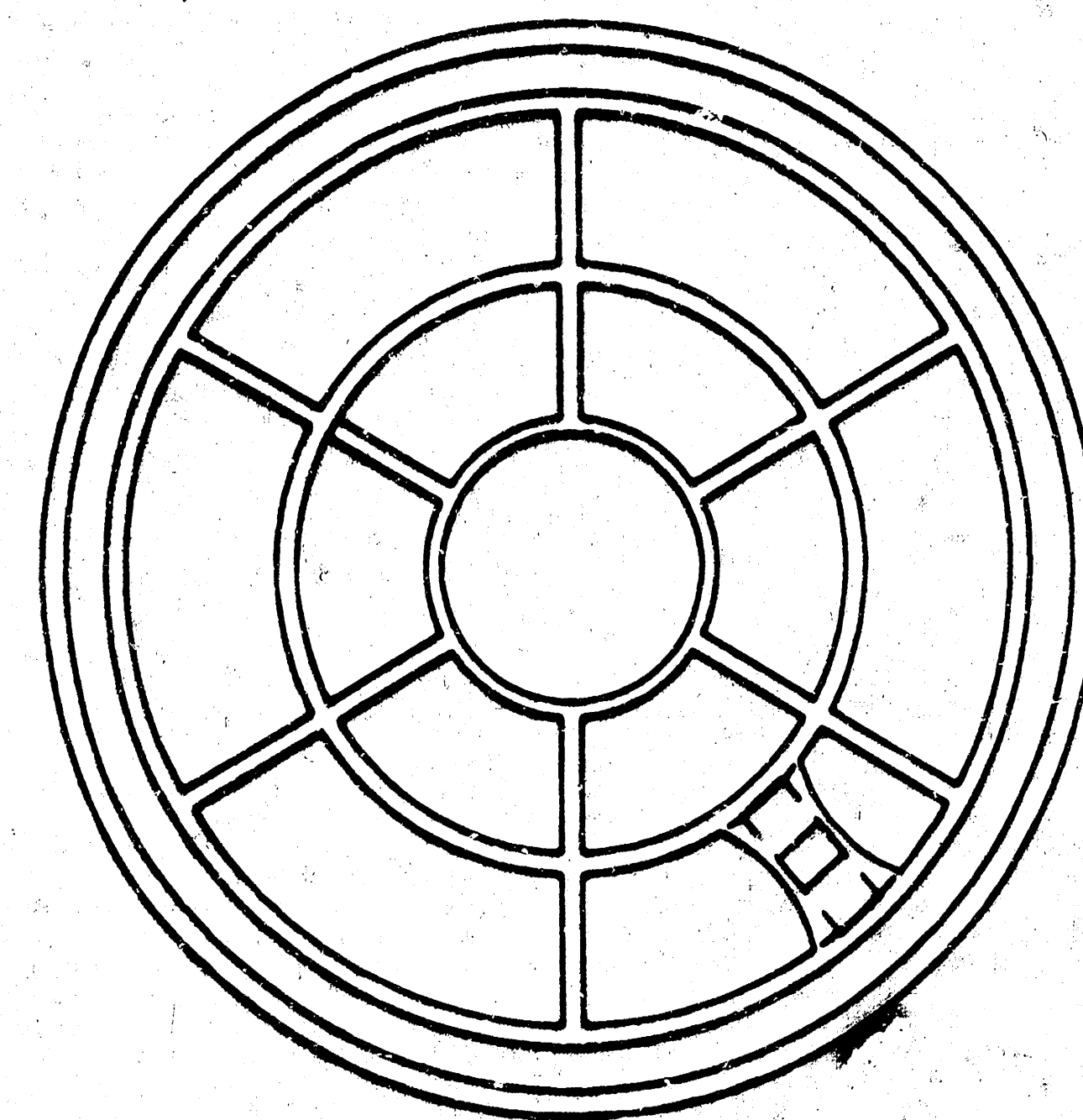
BOOKED
6-18-96
D-297
MCG



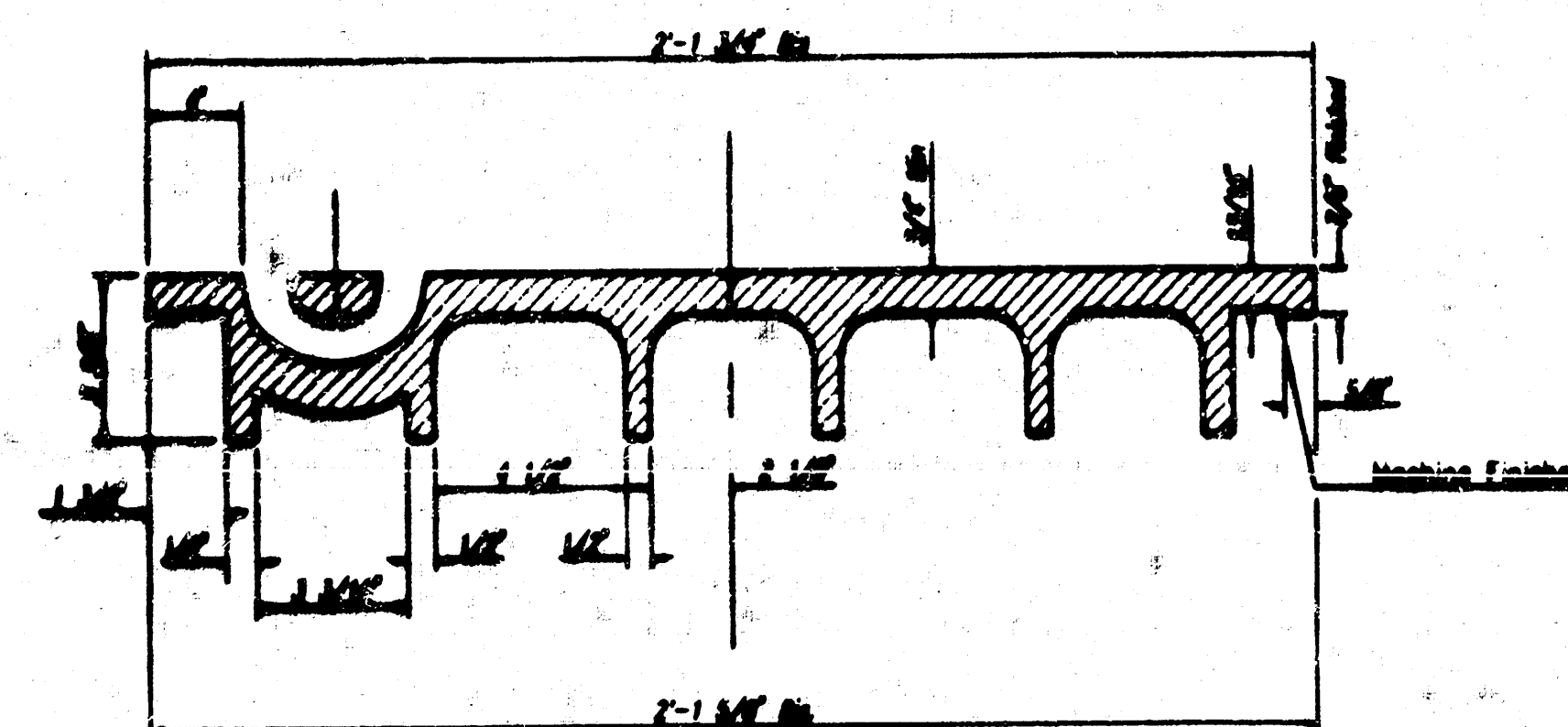
MANHOLE COVER
Weight = 180 Lbs.



TOP VIEW

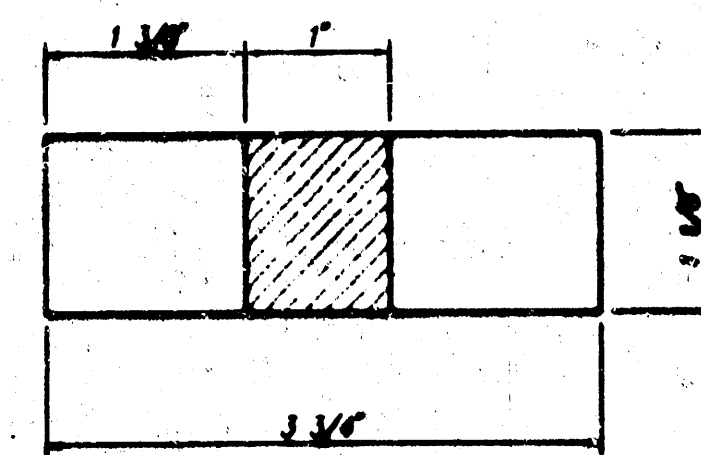


BOTTOM VIEW

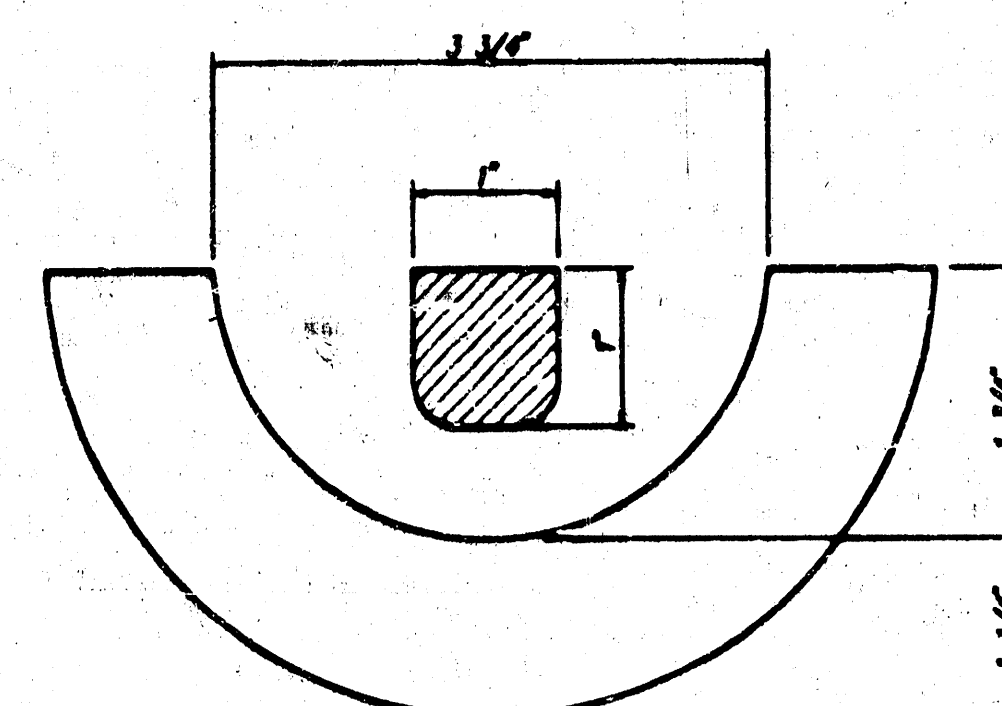


SECTION VIEW

PICKHOLE DETAIL



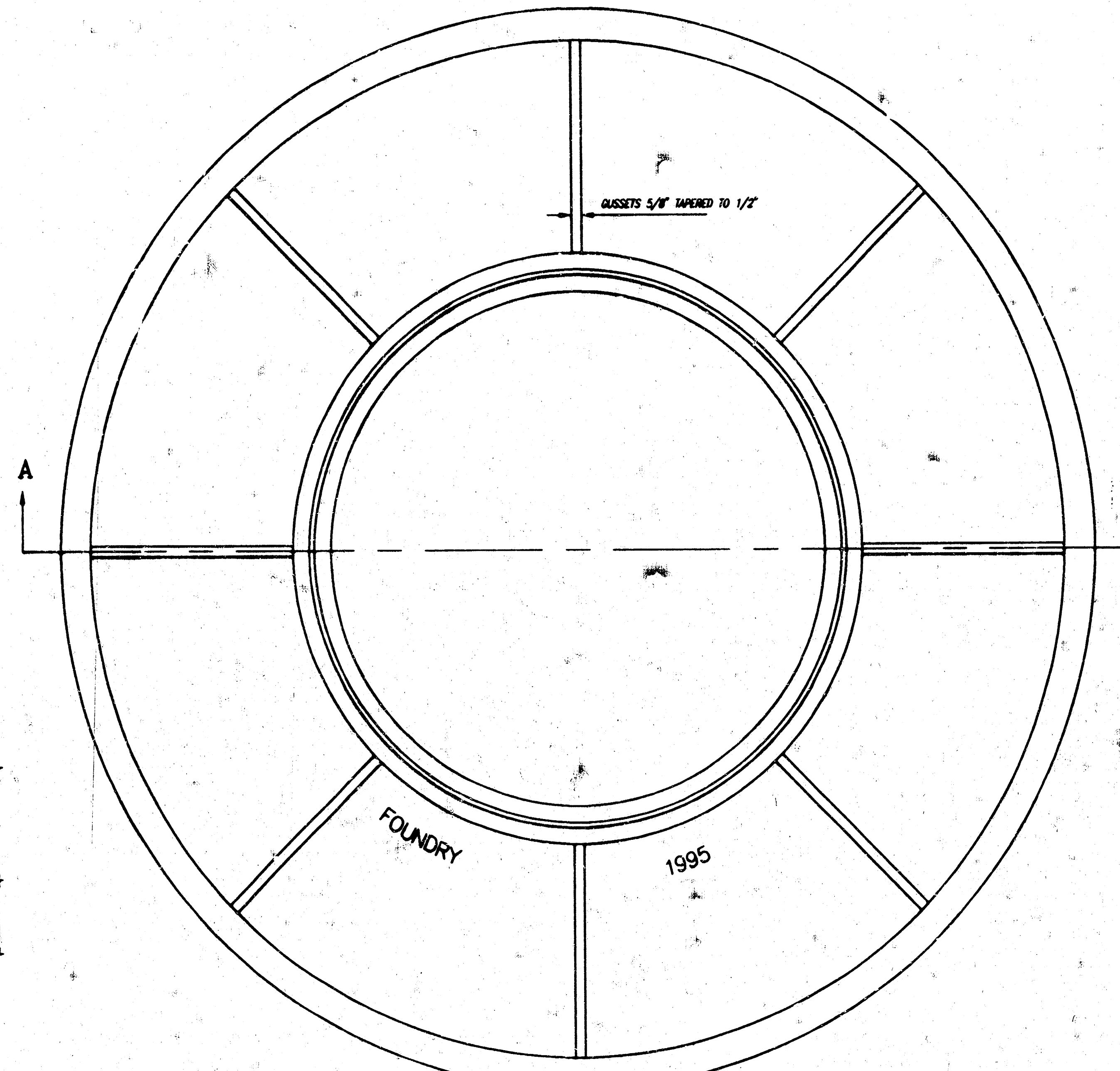
TOP VIEW



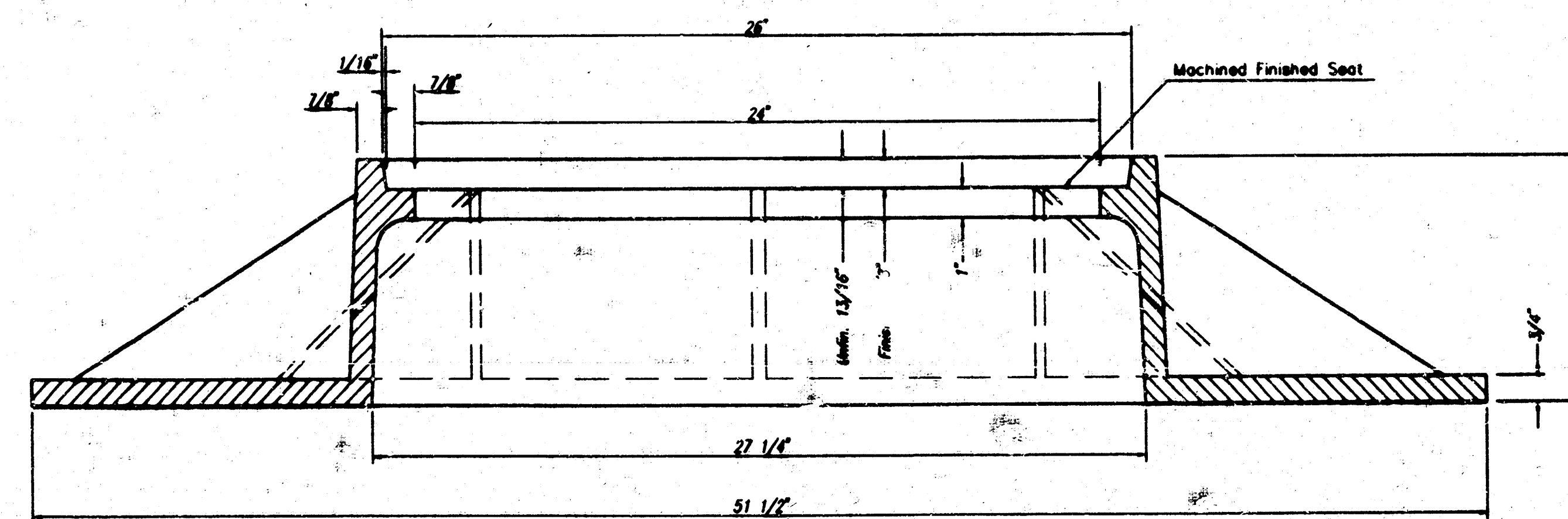
SECTION VIEW

MANHOLE FRAME AND COVER DETAIL (WIDE FLANGED FRAME) ADOPTED AS STANDARD DESIGN BY CITY OF WICHITA, KANSAS

MANHOLE FRAME
Weight = 525 Lbs.



TOP 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 FOUNDRY 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\"/>

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)

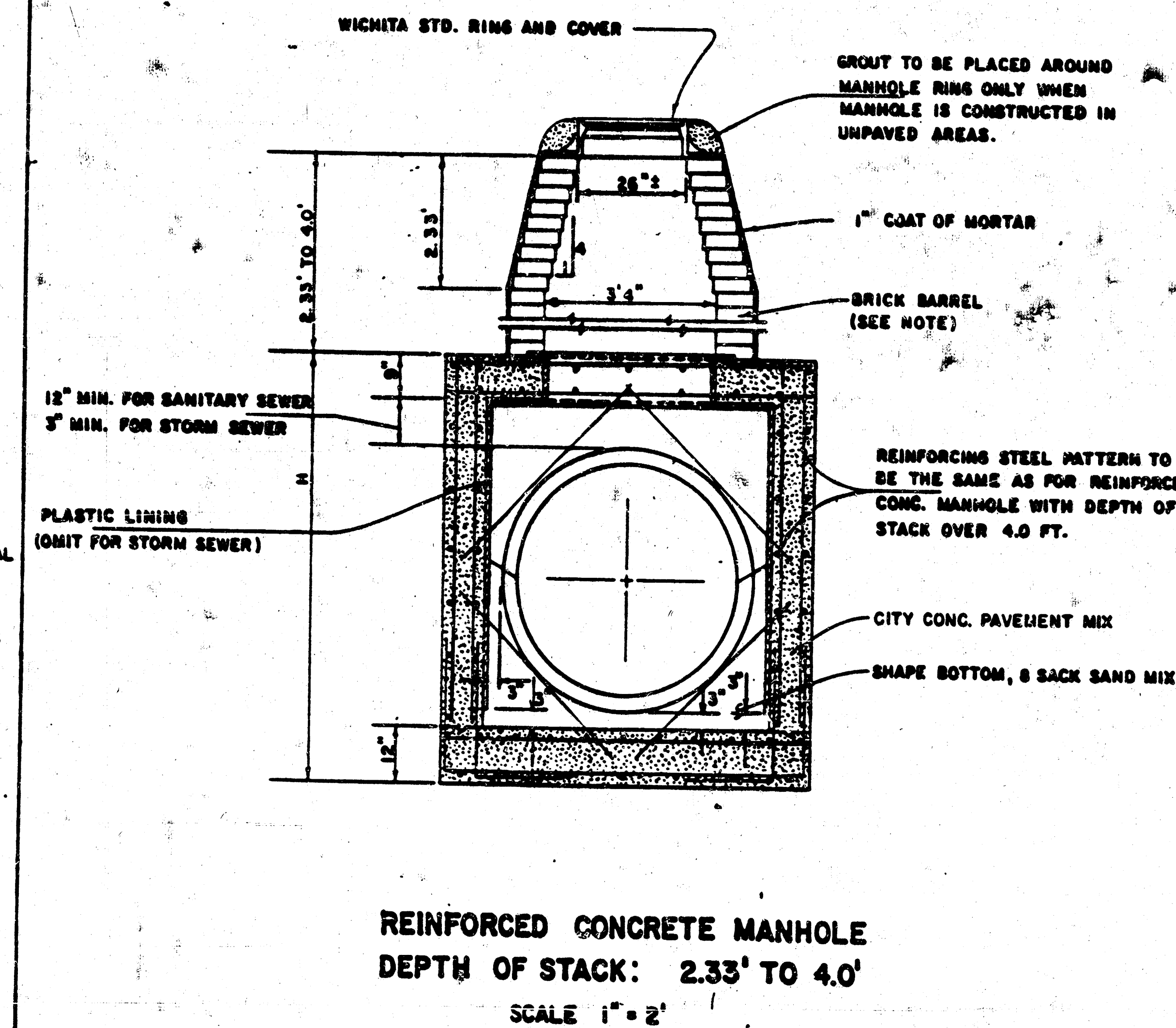
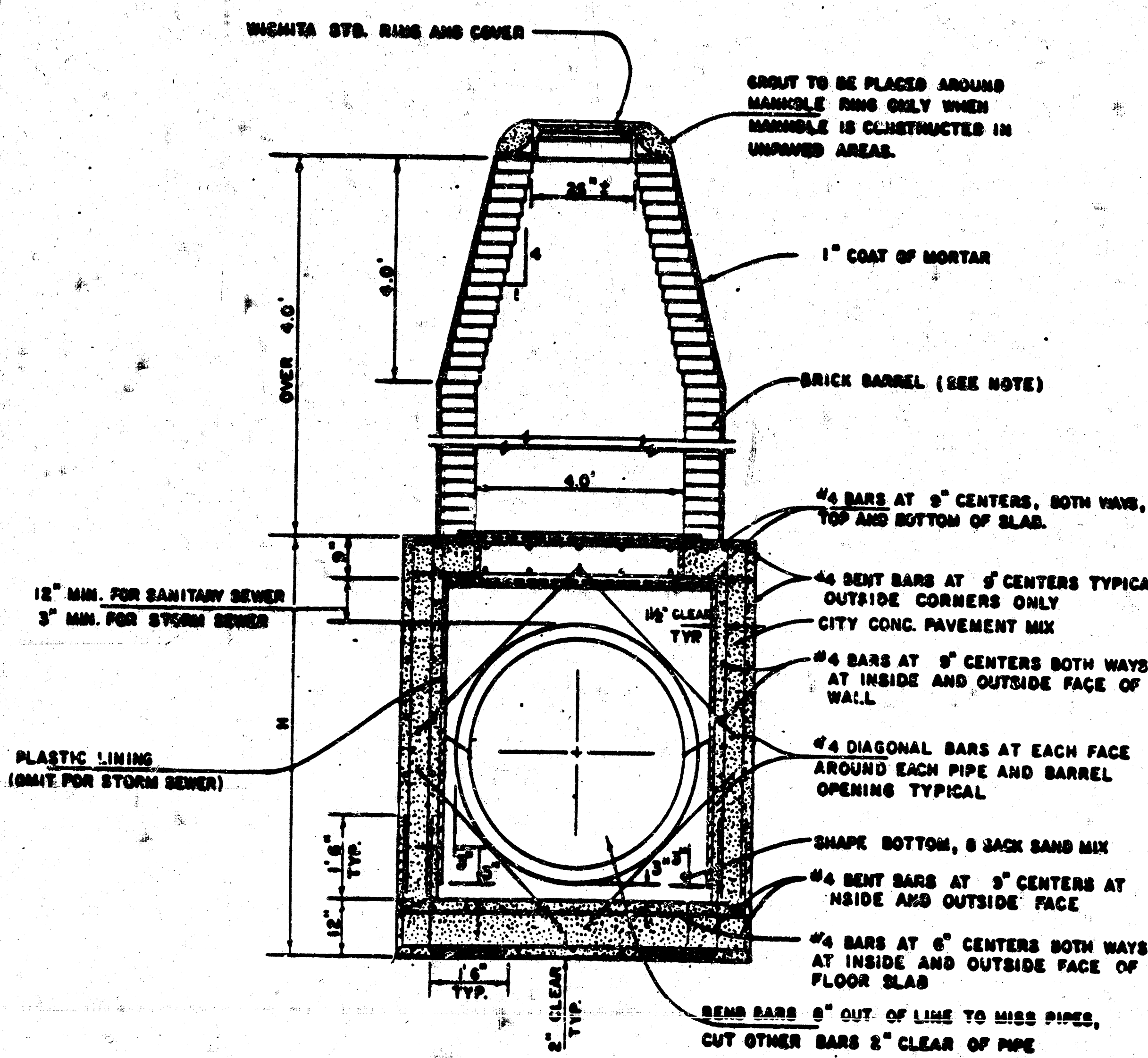
CITY OF WICHITA, KANSAS
M. E. LINDBAK - CITY ENGINEER

REVISED
6/23/96

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

SHEET
3

OF
5

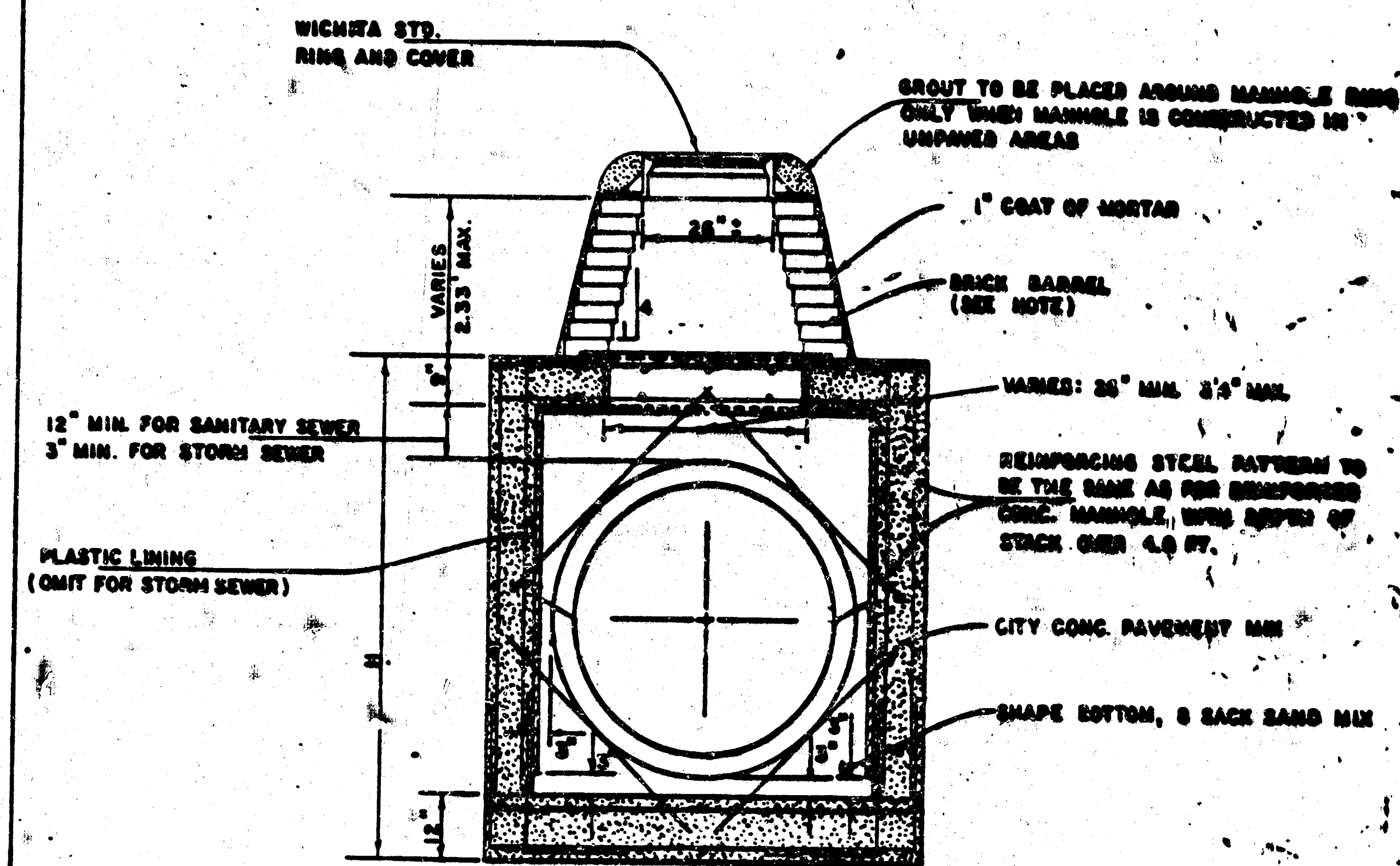


REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: 2.33' TO 4.0'
SCALE 1" = 2'

**R.C.P. CONNECTION DETAIL
SANITARY SEWER ONLY**

Labels in the drawing include:

- CITY CONC. PAVEMENT MIX
- RAM-MIX OR BENT-SEAL TYPE JOINT SEALING COMPOUND
- BELL TYPE WALL FITTING (TYPICAL) WELD TO REINFORCEMENT
- GROUT
- PLASTIC LINING
- REINFORCED CONCRETE PIPE
- GROUT
- 6 SACK SAND MIX CONCRETE FILL FLOOR SHAPING
- REINFORCING STEEL
- CITY CONC. PAVEMENT MIX
- 12"



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

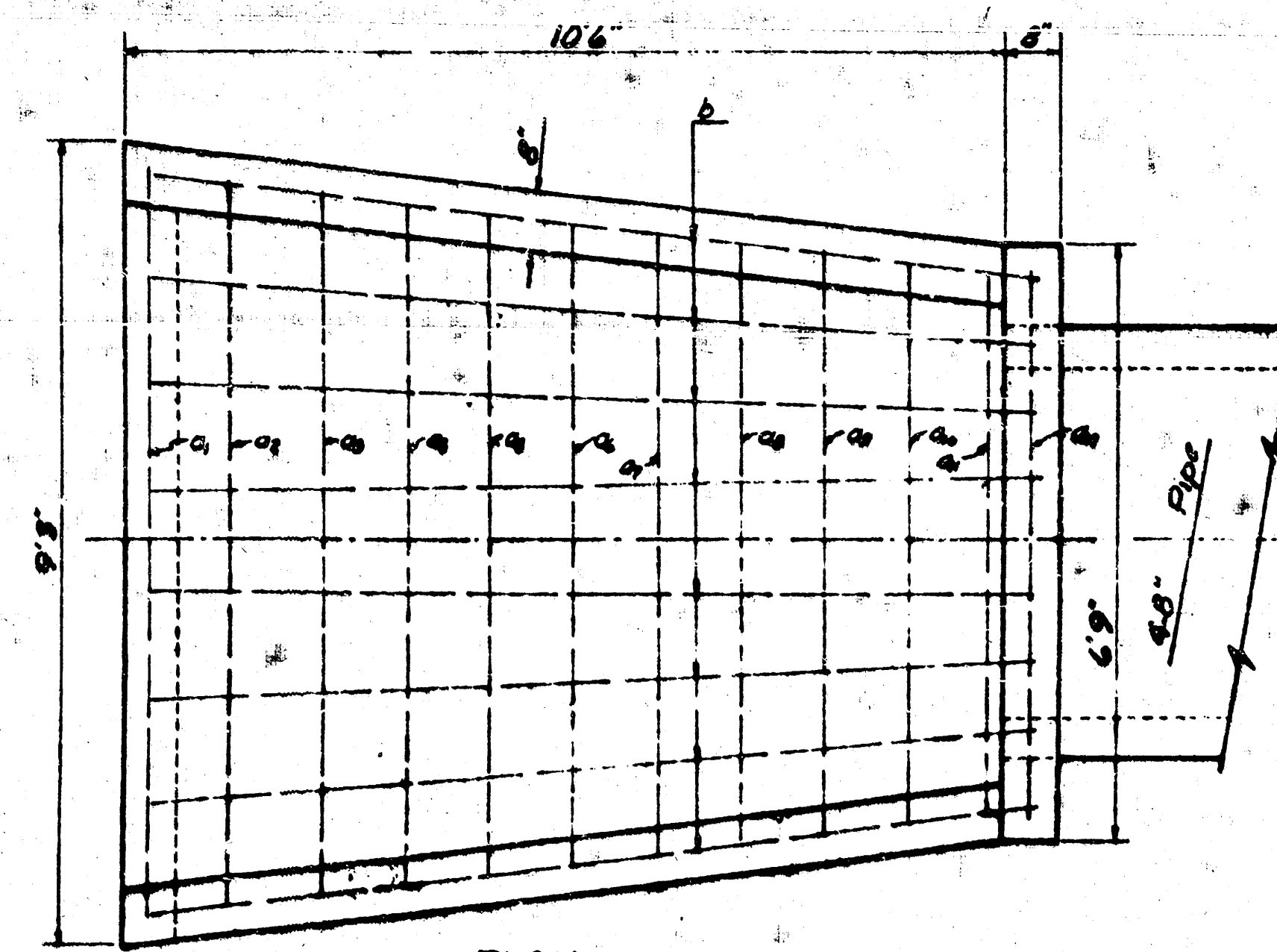
REVISIED 1-7-85

Seneca 435th No.
Sheet 4 of 5

STANDARD DETAILS REINFORCED CONCRETE MANHOLES

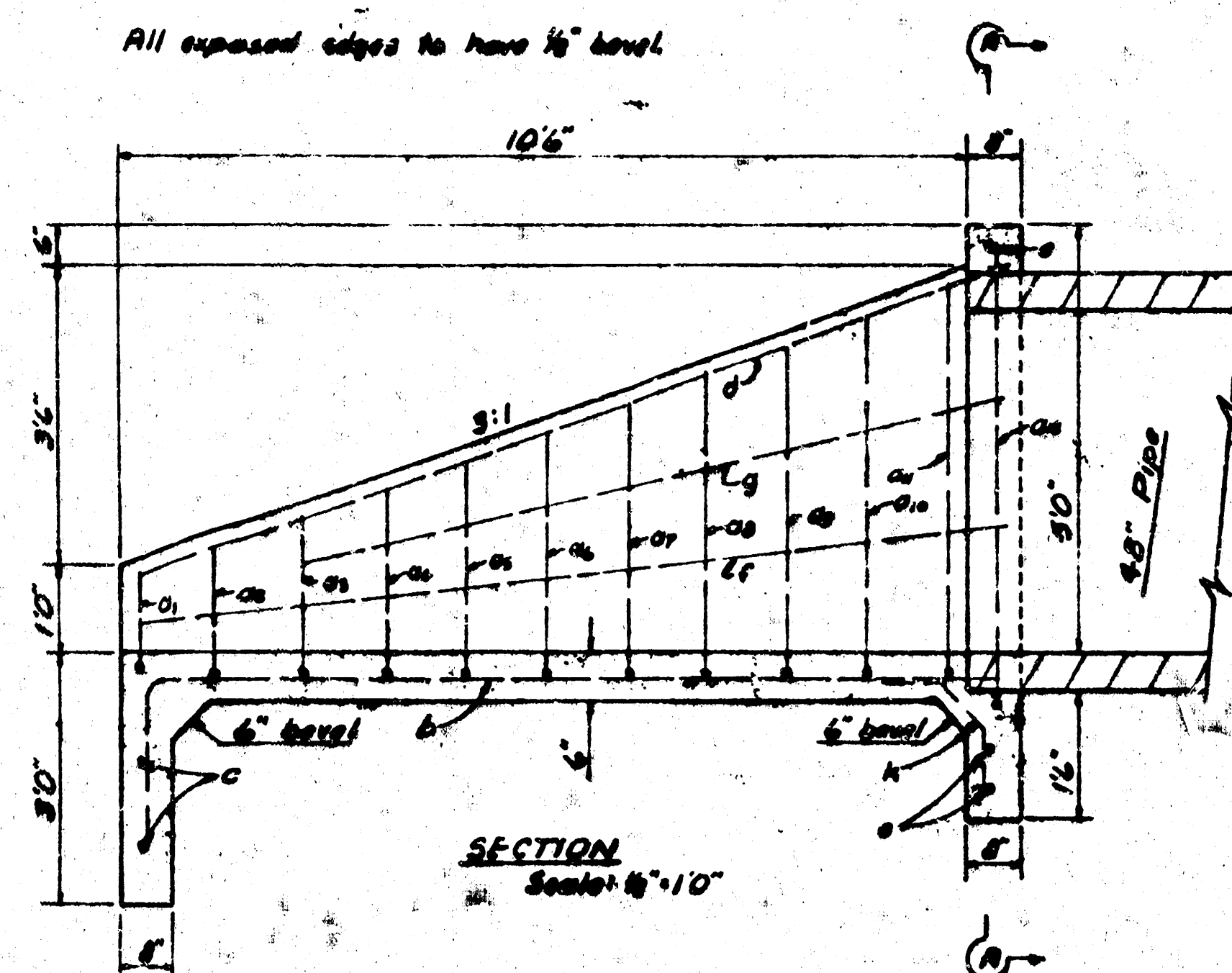
CITY OF WICHITA

FEBRUARY 1964

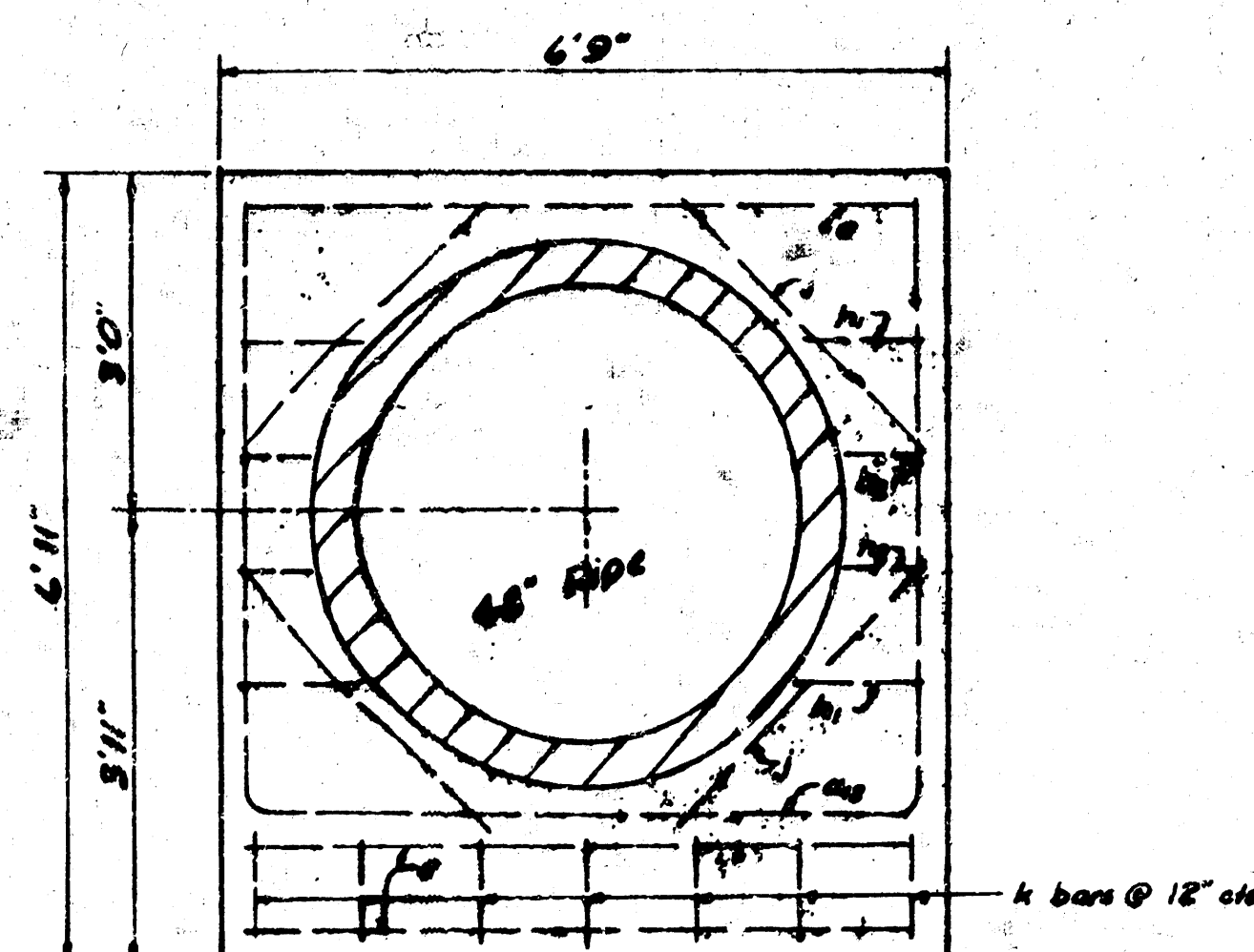


PLAN
Scale: 1/4"=1'-0"

All exposed edges to have 1/8" bevel



SECTION
Scale: 1/4"=1'-0"



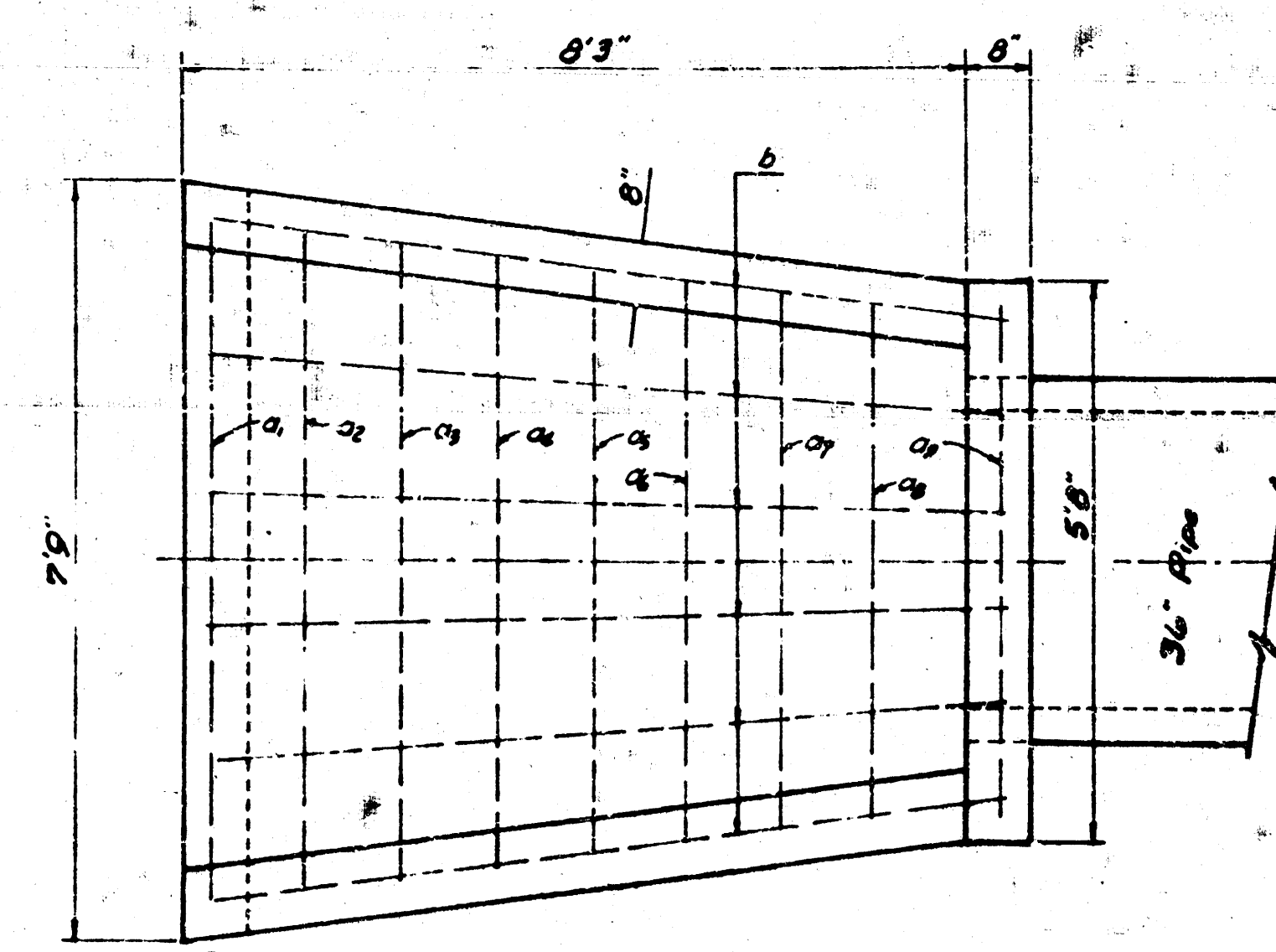
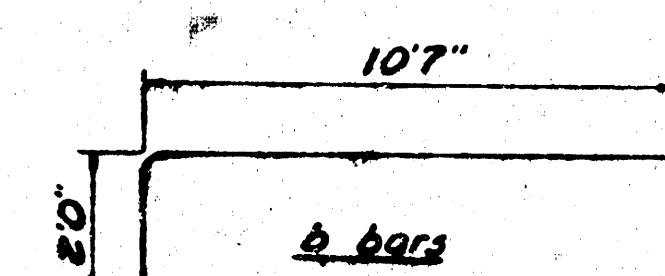
SECTION A-A
Scale: 1/4"=1'-0"

HEADWALL FOR 48" PIPE

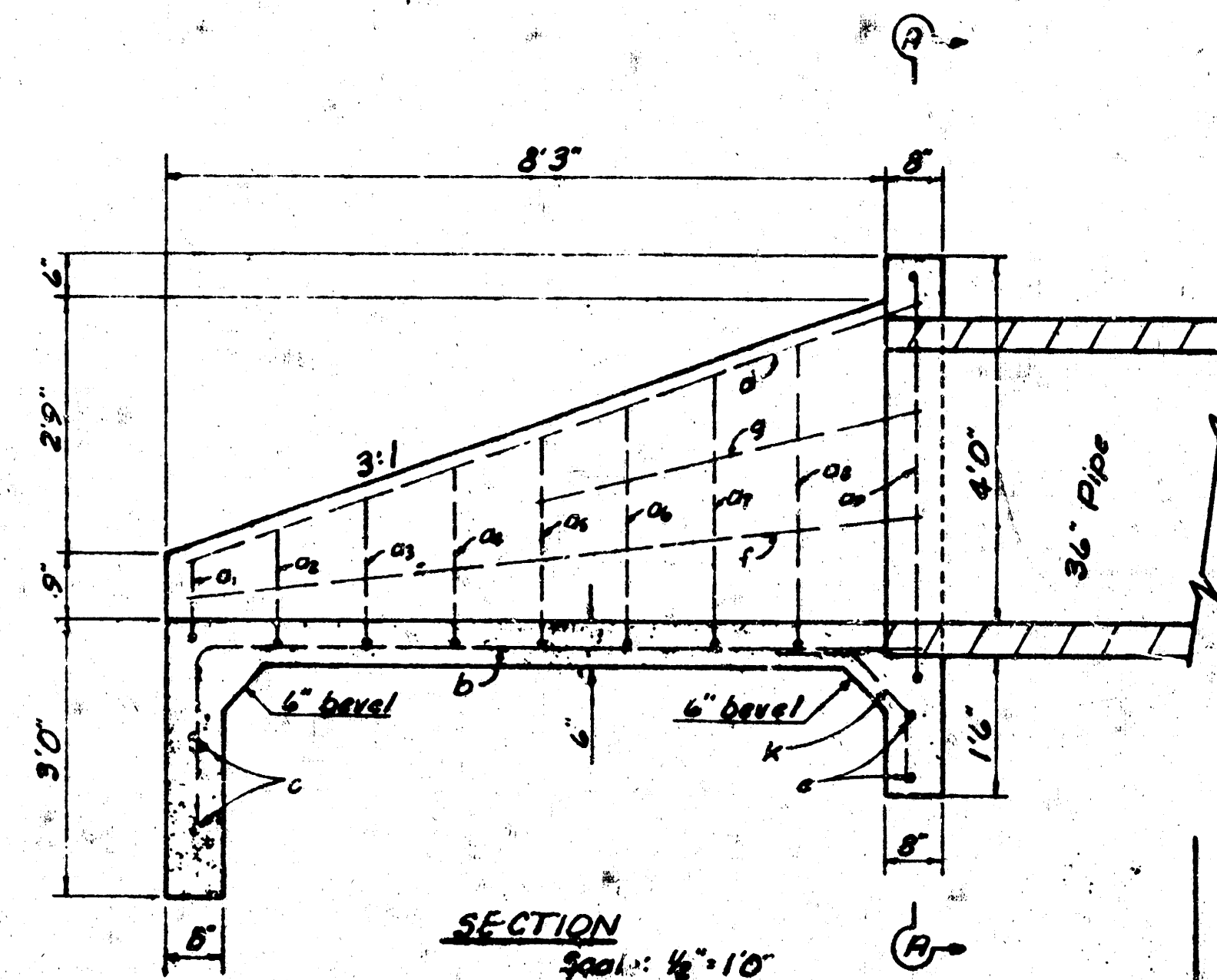
BAR	NUMBER	LENGTH	SHAPE	WEIGHT
a ₁	1	10'10"		7.24
a ₂	1	11'3"		7.52
a ₃	1	11'8"		7.79
a ₄	1	12'1"		8.07
a ₅	1	12'6"		8.35
a ₆	1	13'0"		8.63
a ₇	1	13'5"		8.91
a ₈	1	13'10"		9.19
a ₉	1	14'5"		9.47
a ₁₀	1	14'10"		9.75
a ₁₁	1	14'10"		9.75
a ₁₂	1	14'10"		9.75
a ₁₃	1	14'10"		9.75
a ₁₄	1	14'10"		9.75
b	2	18'7"		27.25
c	2	8'6"		11.36
d	2	11'6"		15.34
e	3	6'3"		12.91
f	2	10'9"		14.44
g	2	9'0"		12.02
h ₁	4	1'2"		3.12
h ₂	4	8"		1.78
j	4	3'3"		8.48
k	7	2'6"		11.69
Rebars (lbs)				265.09
Concrete (C.Y.)				4.75

All rebars to be #4

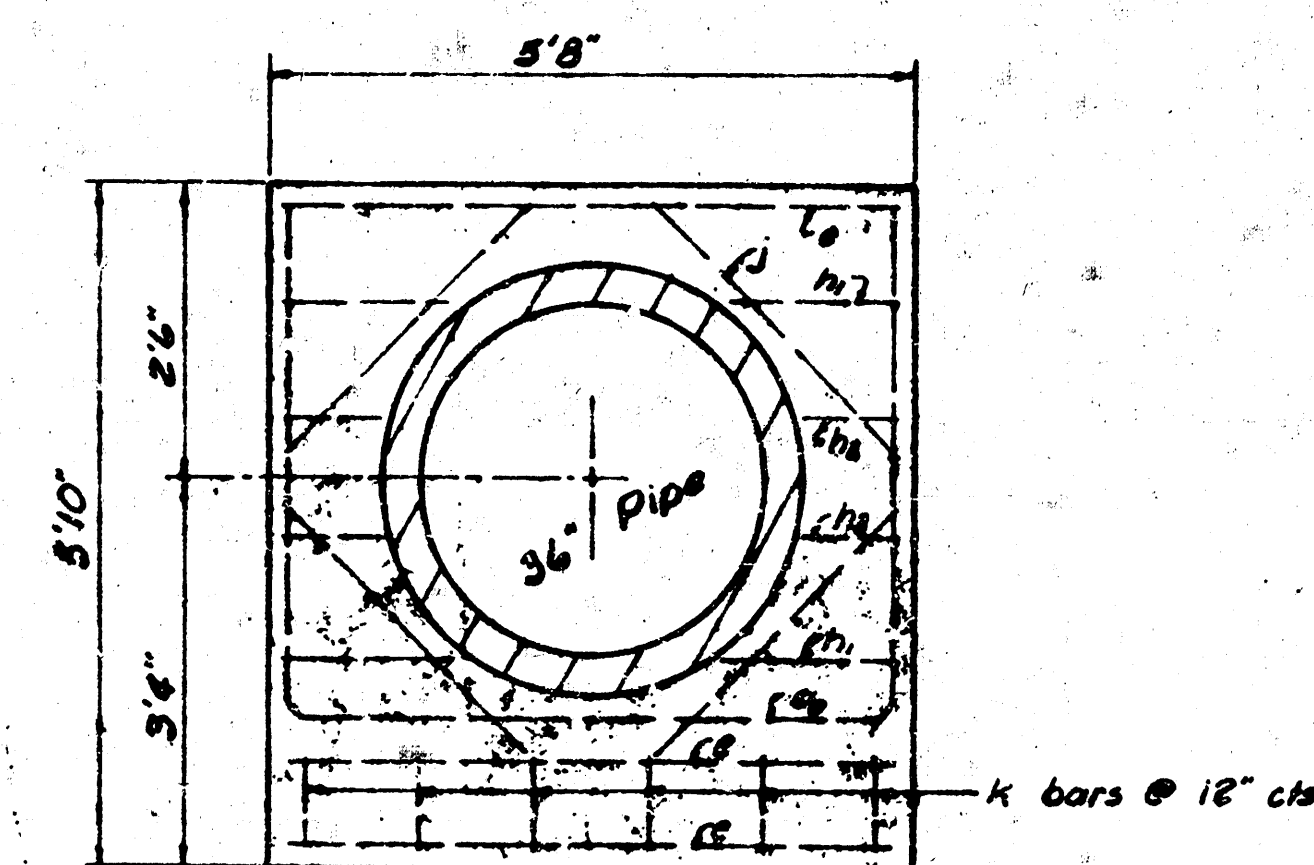
BAR	NUMBER	LENGTH	SHAPE	WEIGHT
a ₁	1	10'10"		7.24
a ₂	1	11'3"		7.52
a ₃	1	11'8"		7.79
a ₄	1	12'1"		8.07
a ₅	1	12'6"		8.35
a ₆	1	13'0"		8.63
a ₇	1	13'5"		8.91
a ₈	1	13'10"		9.19
a ₉	1	14'5"		9.47
a ₁₀	1	14'10"		9.75
a ₁₁	1	14'10"		9.75
a ₁₂	1	14'10"		9.75
a ₁₃	1	14'10"		9.75
a ₁₄	1	14'10"		9.75



PLAN
Scale: 1/4"=1'-0"



SECTION
Scale: 1/4"=1'-0"



SECTION A-A
Scale: 1/4"=1'-0"

HEADWALL FOR 36" PIPE

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"		7.80
a ₉	1	14'0"		9.35
b	2	10'6"		21.48
c	2	7'0"		9.35
d	2	9'0"		12.02
e	3	5'4"		10.65
f	2	8'3"		11.24
g	2	4'9"		6.12
h ₁	4	1'6"		4.01
h ₂	4	1'0"		2.63
j	4	3'0"		8.08
k	6	2'6"		10.02
Total Rebars, lbs				178.91
Concrete (C.Y.)				3.20

All Rebars to be #4

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"		7.80
a ₉	1	14'0"		9.35

