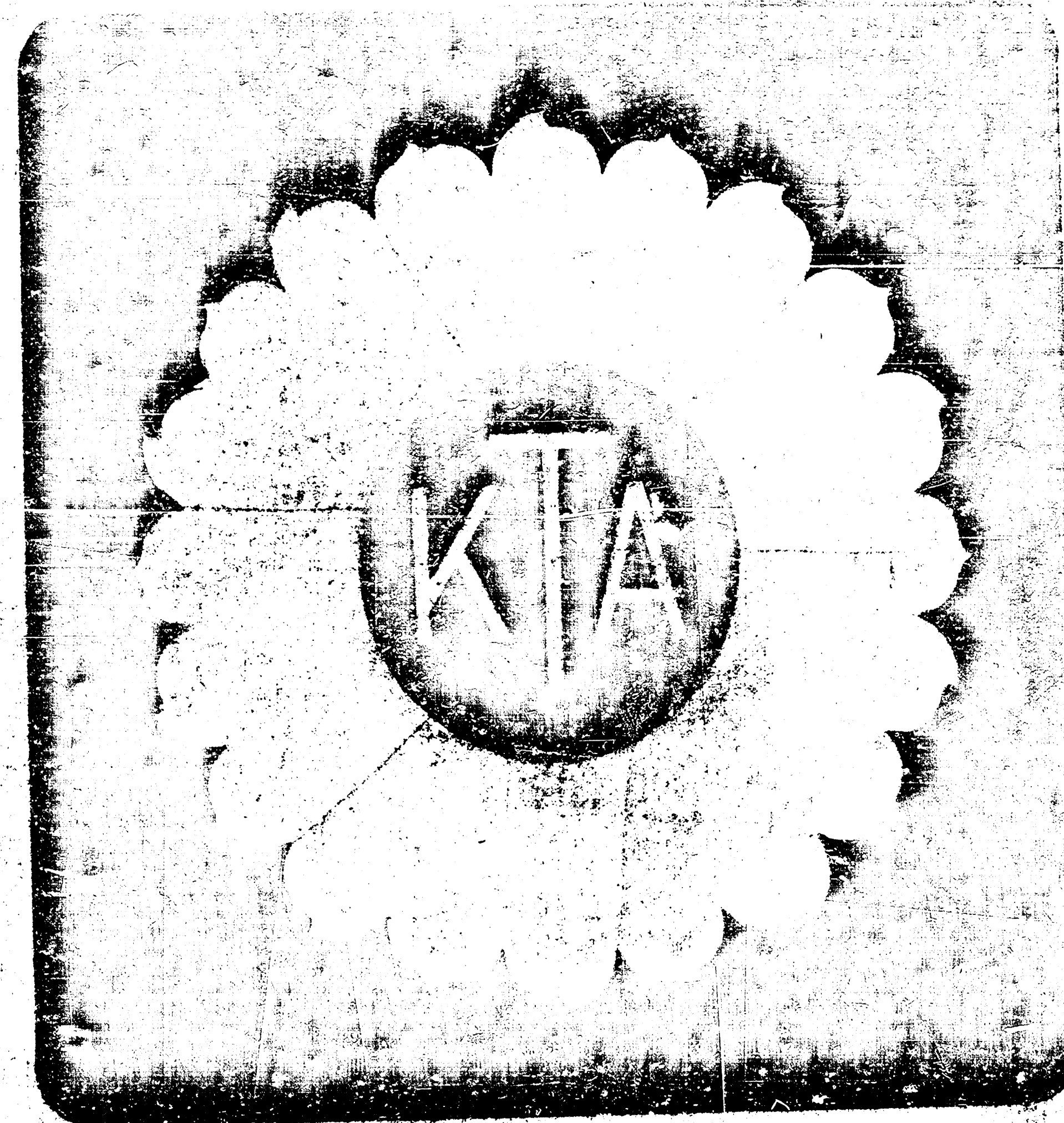




NOTE TO CONTRACTOR
This project will be constructed under the supervision of the CITY ENGINEER and conforming to the SPECIFICATIONS of the CITY OF WICHITA.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED DURING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RE-ESTABLISHMENT OF ANY DAMAGED OR DESTROYED SURVEY MONUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RE-ESTABLISHMENT OF ANY DAMAGED OR DESTROYED ENGINEER IN ACCORDANCE WITH STATE LAWS.

KANSAS TURNPIKE AUTHORITY
KANSAS TURNPIKE

APPROVED AS NOTED
By CITY ENGINEER OF WICHITA
Sanitary Sewers YASUN 2-15-83
Storm Sewers _____
Driveway Approaches _____

CITY OF WICHITA PRIVATE PROJECT NO. 488 - 76 - 245 - 80000 - 000 - 000 - 008

CONTRACT NO. 535

**SANITARY SEWER EXTENSION TO SERVE THE KTA EMPLOYEE FACILITY
AT 917 E. 47TH STREET SOUTH**

APPROVED BY:
[Signature]
CHIEF ENGINEER - MANAGER

DATE 2/14/83



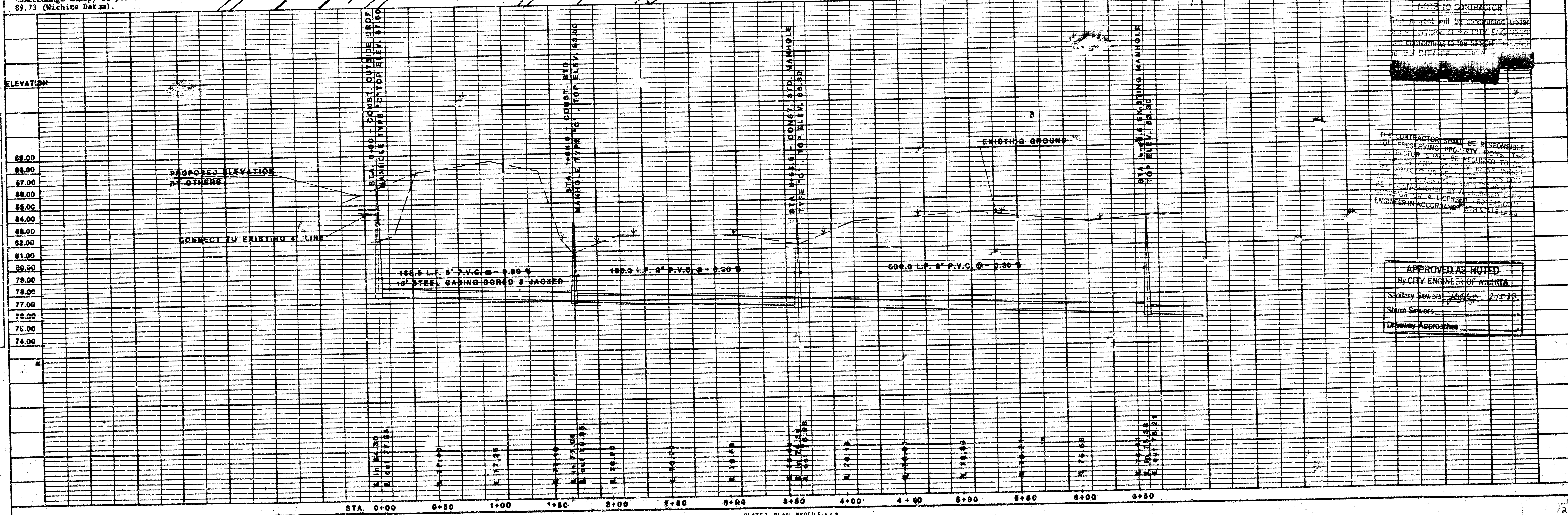
PLAN	DATE	BY
	REVISION	BY
	NOTE BOOK	CHANGED
	NO.	BY

PROFILE	DATE	BY
	REVISION	BY
	NOTE BOOK	CHANGED
	NO.	BY

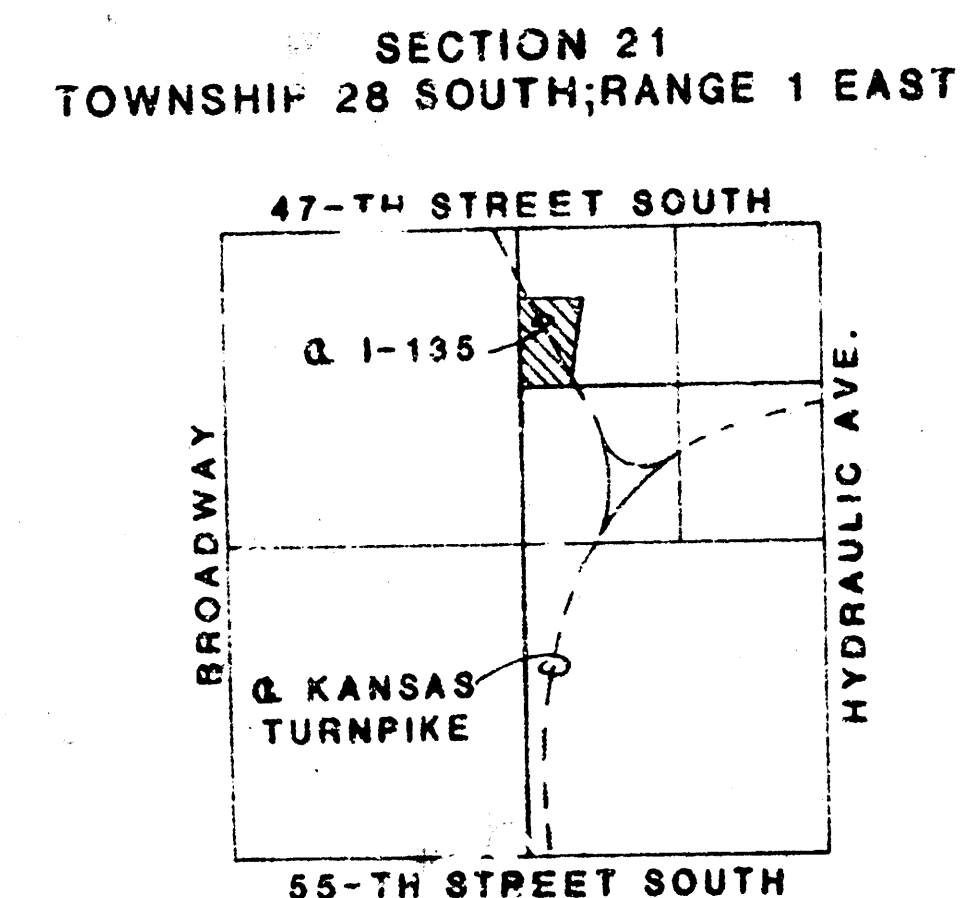
BENCH MARK NOTES

B.M. City Dac 2' South and 6' East of the N.E. Corner of Ida & 47th Street South. ELEVATION 82.53 (Wichita Datum).

B.M. "x" Oak in the N.W. Corner of the Interchange Canopy Support. ELEVATION 89.73 (Wichita Datum).



LOCATION MAP
SCALE: 1"=2000'



LEGEND

- KTA RIGHT-OF-WAY LINE
- SANITARY SEWER LINE
- STORM SEWER LINE
- BUILDING SETBACK LINE
- EASEMENT LINE
- EXISTING SANITARY SEWER M.H.
- NEW SANITARY SEWER M.H.
- EXISTING STORM SEWER INLET
- LIGHT POLE
- PUBLIC TELEPHONE
- ELECTRICAL MANHOLE

NOTES TO CONTRACTOR

The project will be constructed under the supervision of the City Engineer, according to the specifications of the City of Wichita.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES.

APPROVED AS NOTED
By CITY ENGINEER OF WICHITA
Sanitary Sewers
Storm Sewers
Drainage Approaches

City of Wichita, Kansas

Technical drawing of a manhole structure, showing dimensions and materials. The drawing includes a cross-section of the manhole walls and base, with various layers and materials indicated.

Dimensions:

- Top section: 26" (width), 30" (height)
- Wall thickness: 8" (top), 6" (middle), 8" (bottom)
- Base dimensions: 4" MIN., 4" MIN., 8"
- Overall height: 30" MIN. - 48" MAX.
- Variable dimension: VARIABLE

Materials and Construction:

- 8" BRICK MASONRY (top section)
- 1" COAT OF MORTAR (top section)
- MANHOLE WALL CITY CONC. PAV'T MIX (main wall)
- MANHOLE BASE CITY CONC. PAV'T MIX (base)

Notes:

- SEE GEN. NOTES (top)
- NOTE: CROWN OF PIPE FLOWING IN SHALL NOT BE LOWER THAN CROWN OF PIPE FLOWING OUT (pointing to the base of the manhole)
- FLOOR SHAPING SLOPE = 3" TO 1" (pointing to the base of the manhole)

CROSS-SECTION VIEW:

- RING AND LID AS SPECIFIED
- SEE GEN. NOTES
- 8" BRICK MASONRY
- 1" COAT OF MORTAR
- MANHOLE WALL CITY CONC. PAV'T MIX
- 30" MIN. - 48" MAX.
- BRICK COLLAR
- 8"
- NOTE: BOTTOM OF FLOW CHANNEL SHALL BE 0.1' ABOVE FLOW OF OUTFLOWING PIPE AT CENTER
- VARIABLE
- FLOOR SHAPING
- 8-SACK SAND MIX FOR PIPE SUPPORT TO LIMIT OF EXCAV.
- SEE GEN. NOTES
- 9" MIN.
- MANHOLE BASE
- SEE GEN. NOTES
- 4" MIN.
- 4" MIN.

ELEVATION VIEW:

- 8'-6" ENC BEL OF MG

SEE GEN. NOTES

8" BRICK MASONRY

1" COAT OF MORTAR

26 1/2"

30 1/2"

18" MIN. BRICK MASONRY COLLAR

30" MIN. - 42" MAX.

8"

SEE GEN. NOTES

REVERSE "Y"

BACK SAND MIX

MIN. CONCRETE SETBACK OUTSIDE OF CURBS OR TO THE LIMIT EXCAVATION WHEN DEPTH IS MORE THAN 6'

NOTE: CROWN OF BOTTOM PIPE ON OUTSIDE DROP SHALL ALWAYS BE SET 0.1 FT. HIGHER THAN CROWN OF PIPE CARRYING FLOW OUT OF THE MANHOLE.

VARIABLE

MANHOLE WALL CITY CONC. PAVT. MIX

8" MIN.

MANHOLE BASE CITY CONC. PAVT. MIX

SEE GEN. NOTES

4" MIN.

8" MIN.

FLOOR CHAMBER SLOPE 1" TO 1"

1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 BAGS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE WALLS AND RINGS SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR-ENTRAPPING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. TYPE "M" POLYMER PORTLAND CEMENT SHALL BE CONSTRUCTED ONLY WHERE PIPE SIZES ARE 6" OR SMALLER. THE INSIDE DIAMETER OF TYPE "M" MANHOLES SHALL BE 4". COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE SHAFT. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. REINFORCING STEEL SHALL BE PLACED 6" ABOVE THE BOTTOM OF THE MANHOLE SHAFT. COST OF FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
3. AN OPENING SHALL BE CUT IN THE MANHOLE WALL FOR THE UPPER INLET PIPE FOR INSIDE AND OUTSIDE DROP MANHOLES. THE UPPER INLET PIPE SHALL BE GROUTED INTO THIS OPENING WITH NON-SHRINK GROUT. THE EXTERIOR OF THIS COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT.
4. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF-CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE. ALL INLET PIPES TO THE OUTSIDE PIPE, FLOW CHANNELS AND THE UNDERFLOW PIPE AS SHOWN BY THE DRAWINGS INCLUDING THE RINGS AND THE UNDERFLOW PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES, FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS

5. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRAWLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CRADLE PIPES ARE USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

7. THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.

8. STANDARD MANHOLES TYPE "C" AND STANDARD INSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE."

MANHOLE FRAME AND COVER DETAIL

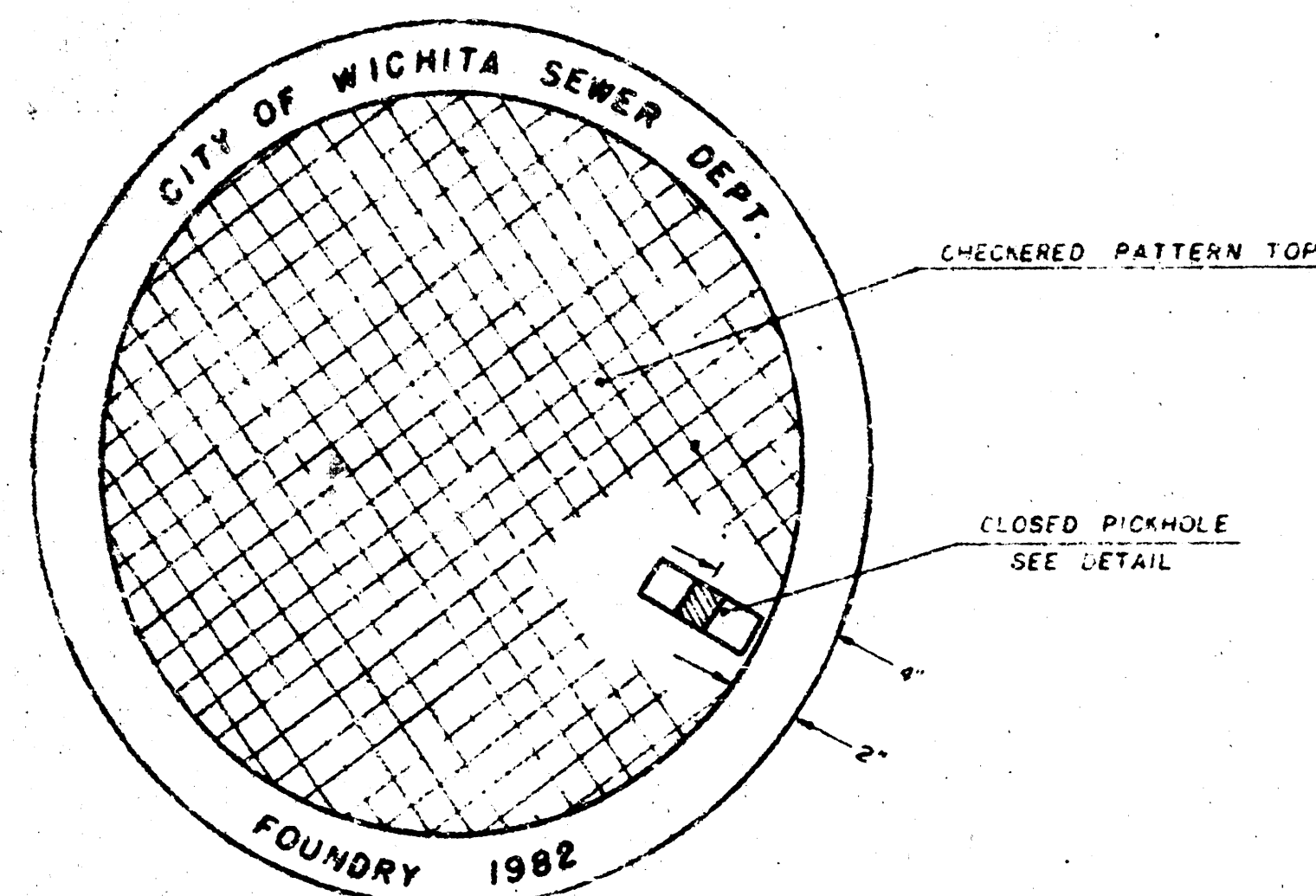
ADOPTED AS STANDARD DESIGN

BY

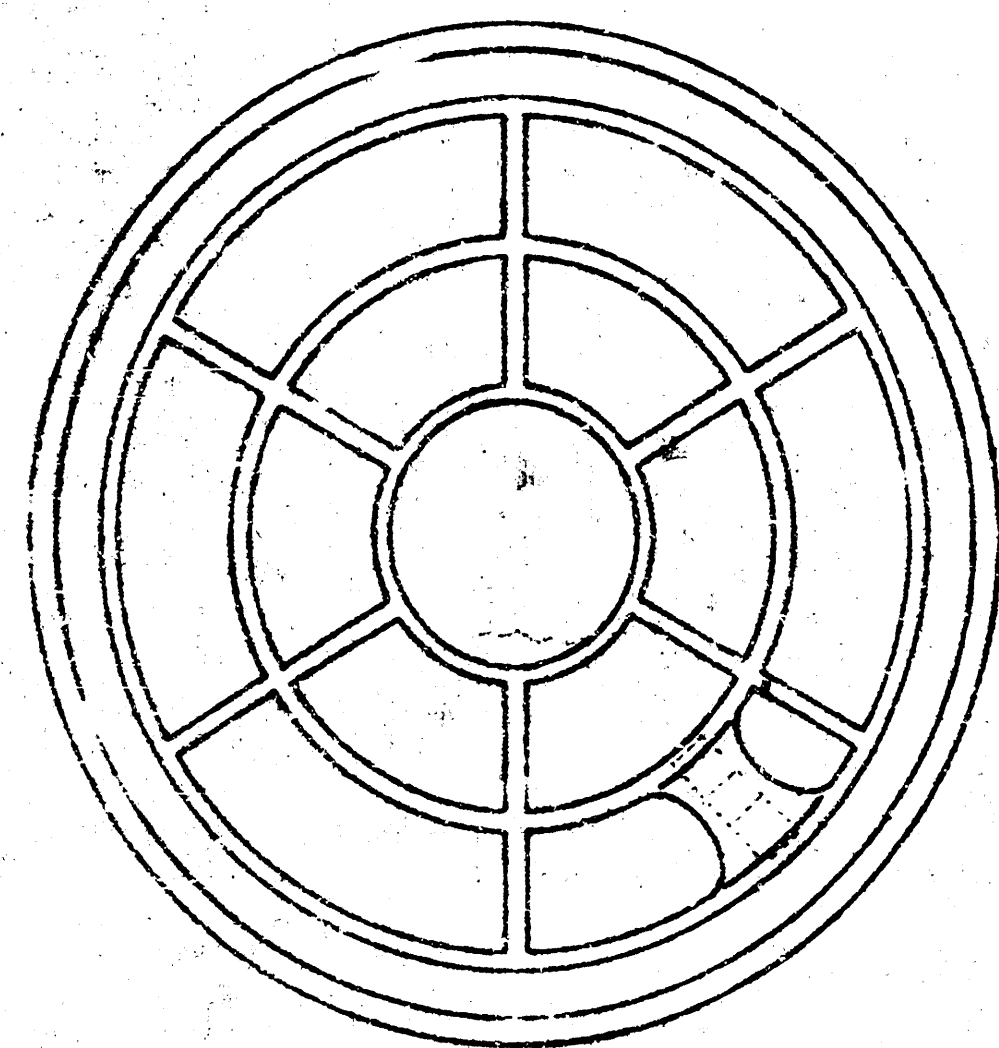
City of Wichita, Kansas

MANHOLE COVER

Weight: 180 Lbs.

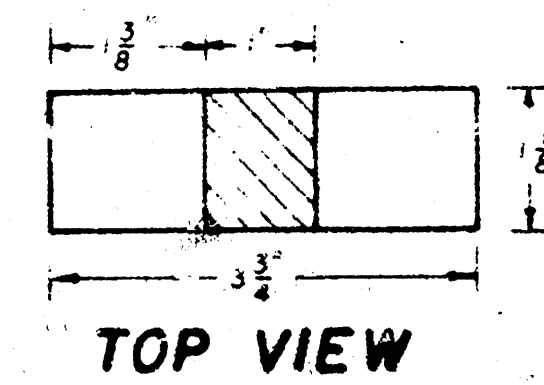


TOP VIEW

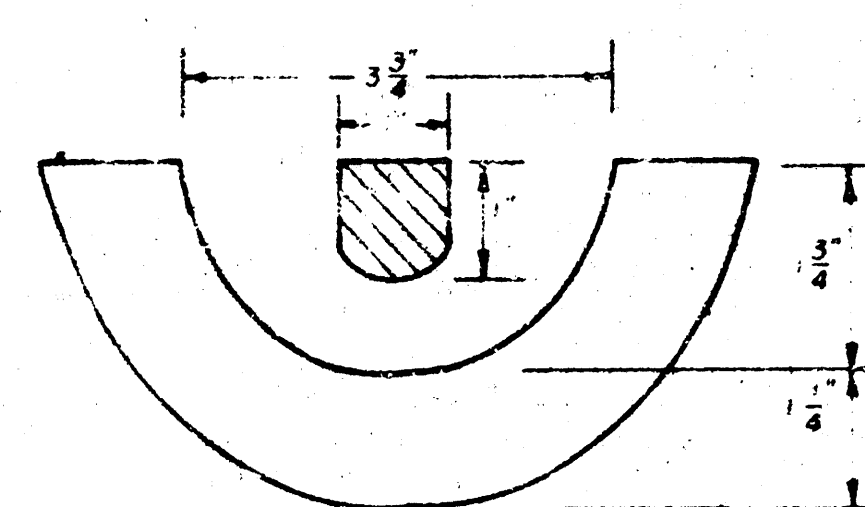


BOTTOM VIEW

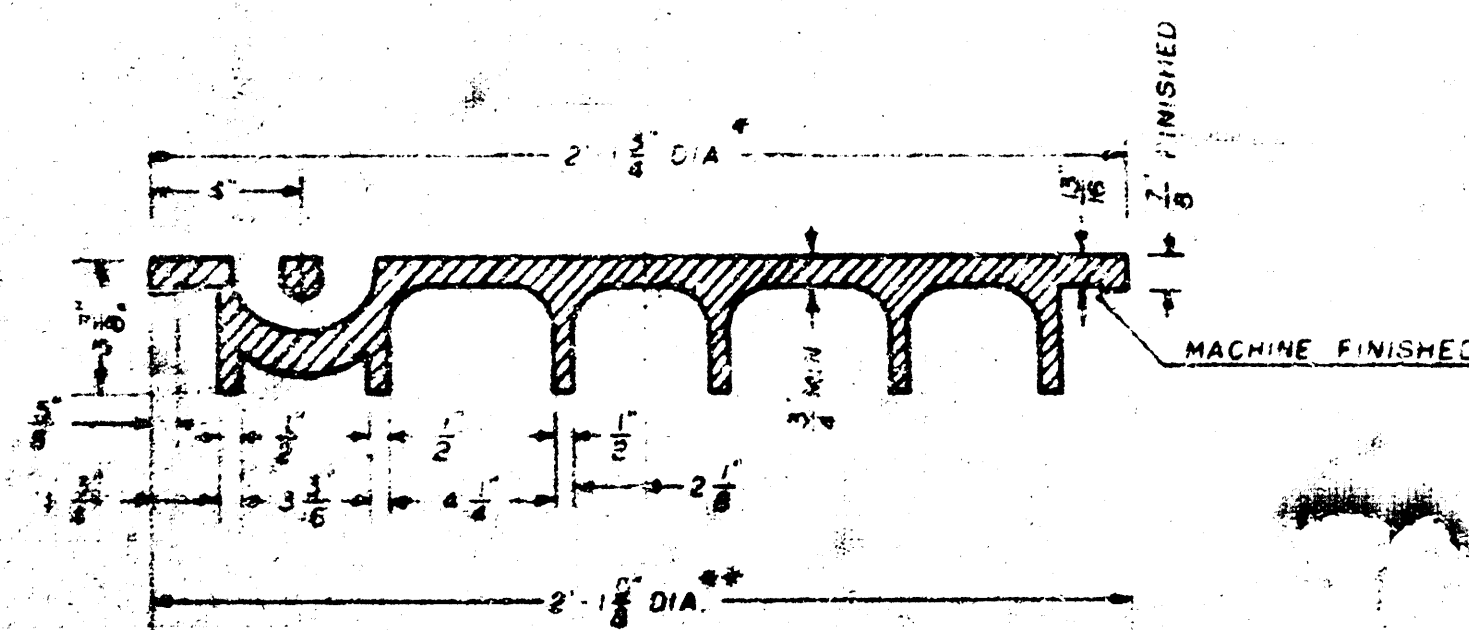
PICKHOLE DETAIL



TOP VIEW



SECTION VIEW

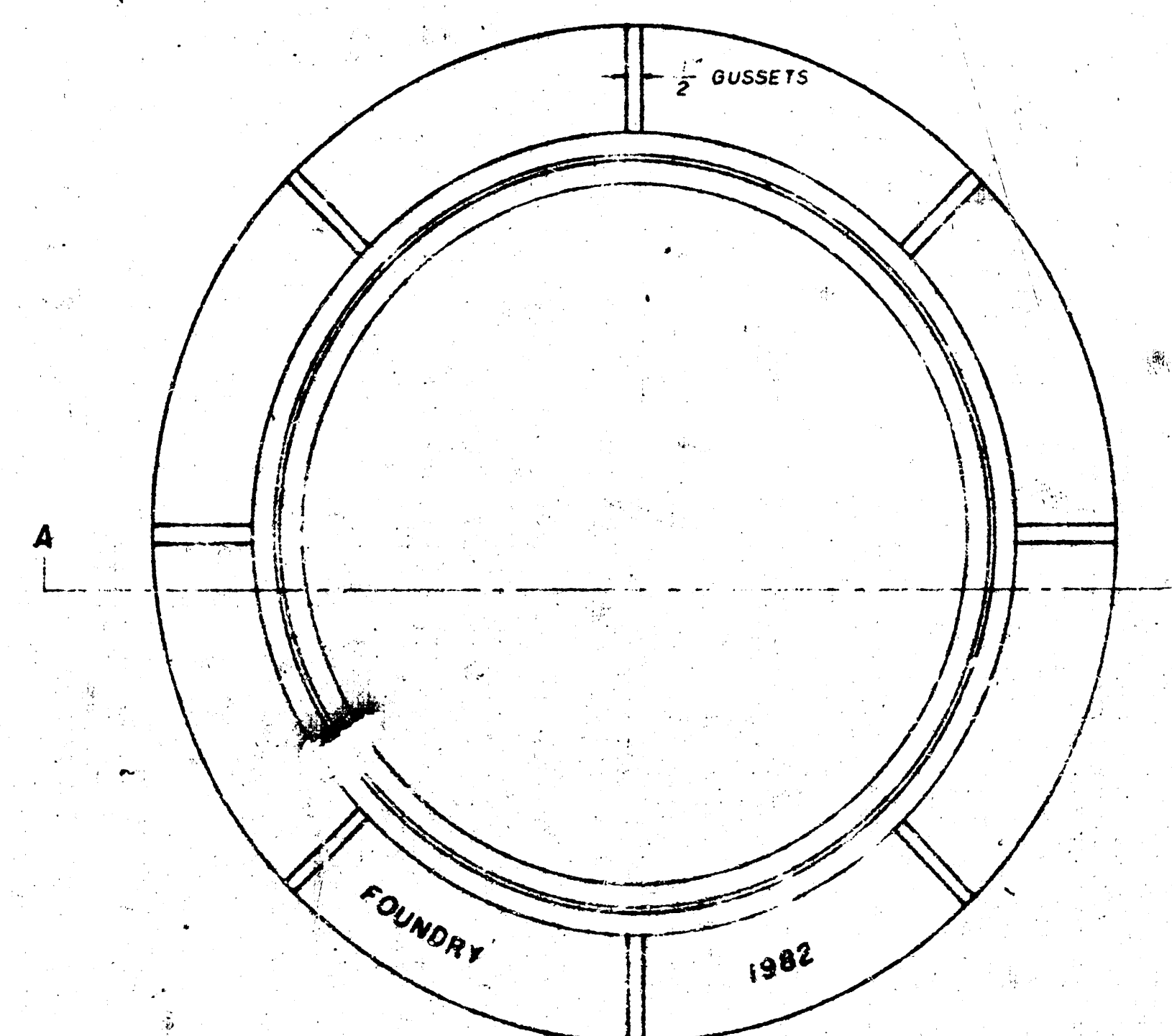


SECTION VIEW

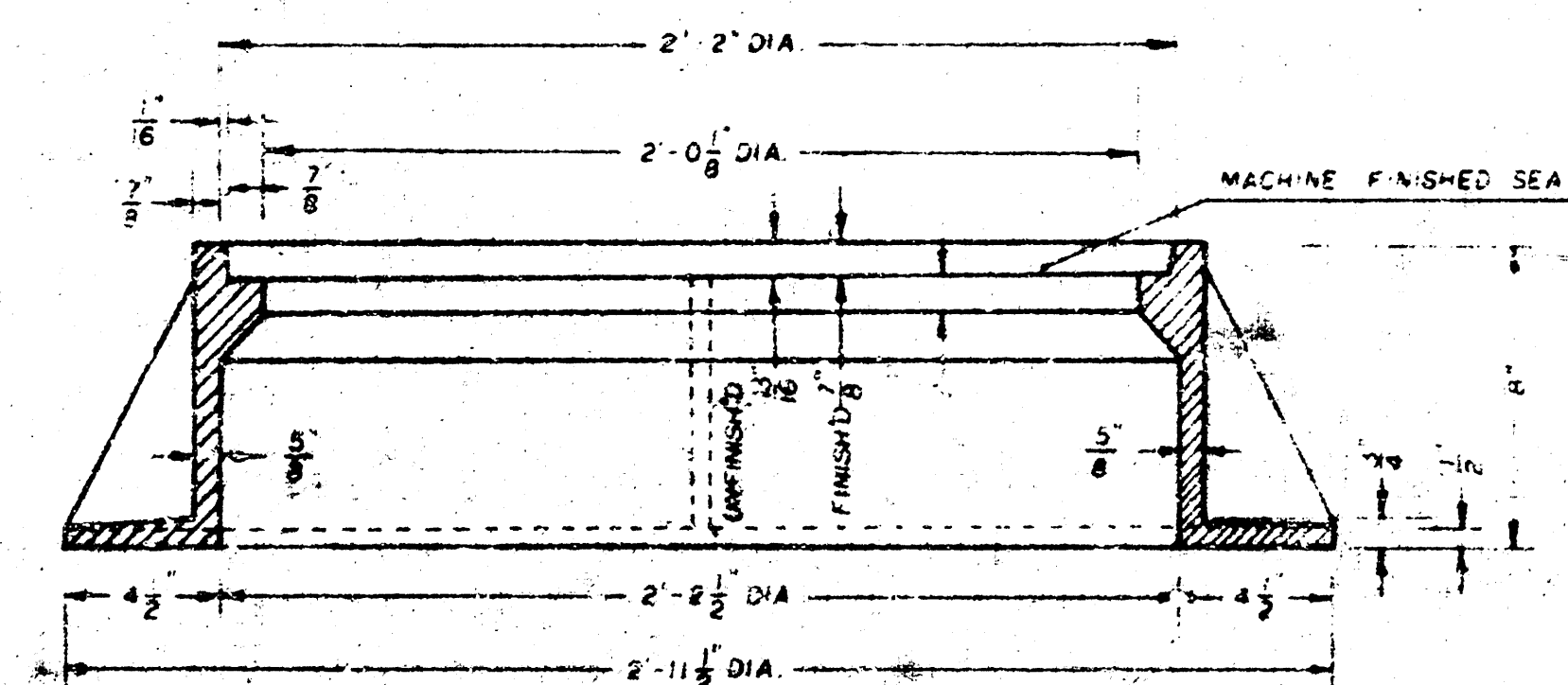
* OUTSIDE DIA. TOP OF COVER
** OUTSIDE DIA. BOTTOM OF COVER

MANHOLE FRAME

Weight: 240 Lbs.



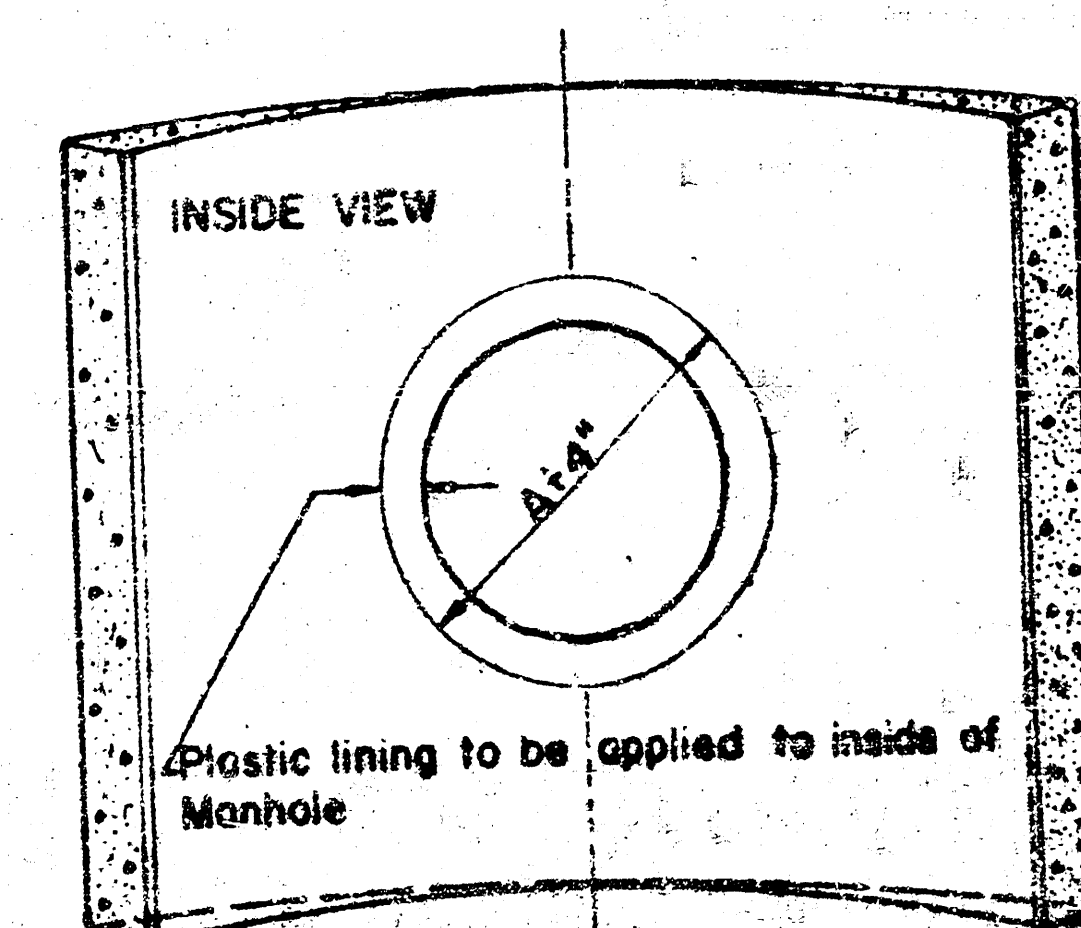
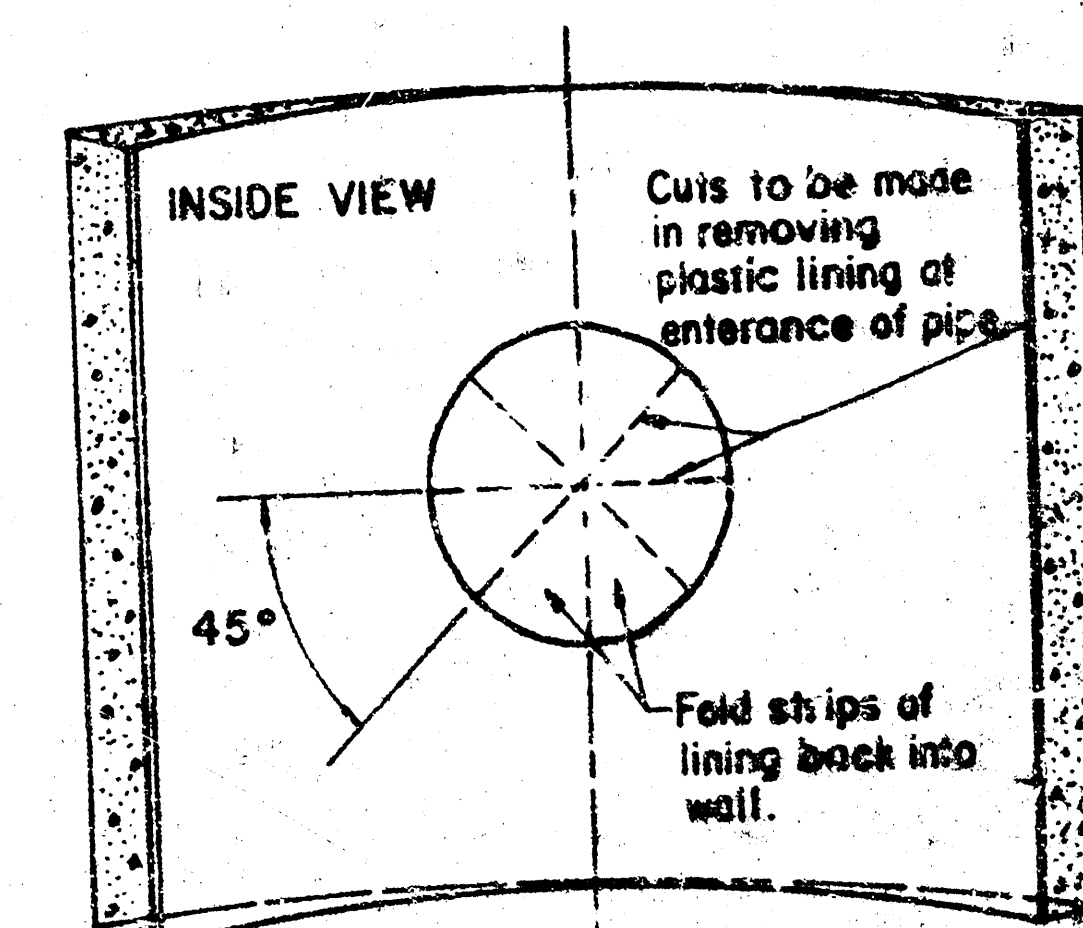
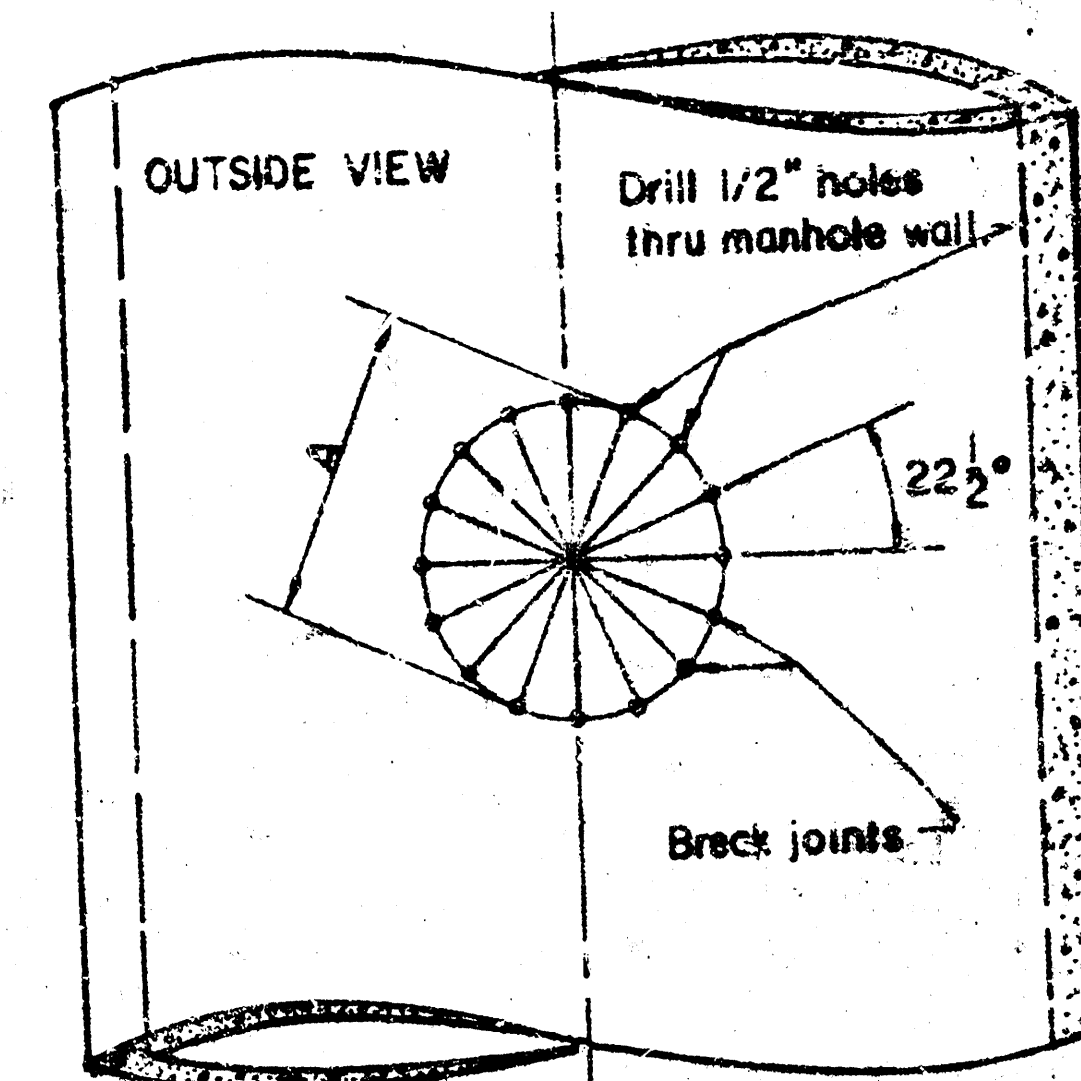
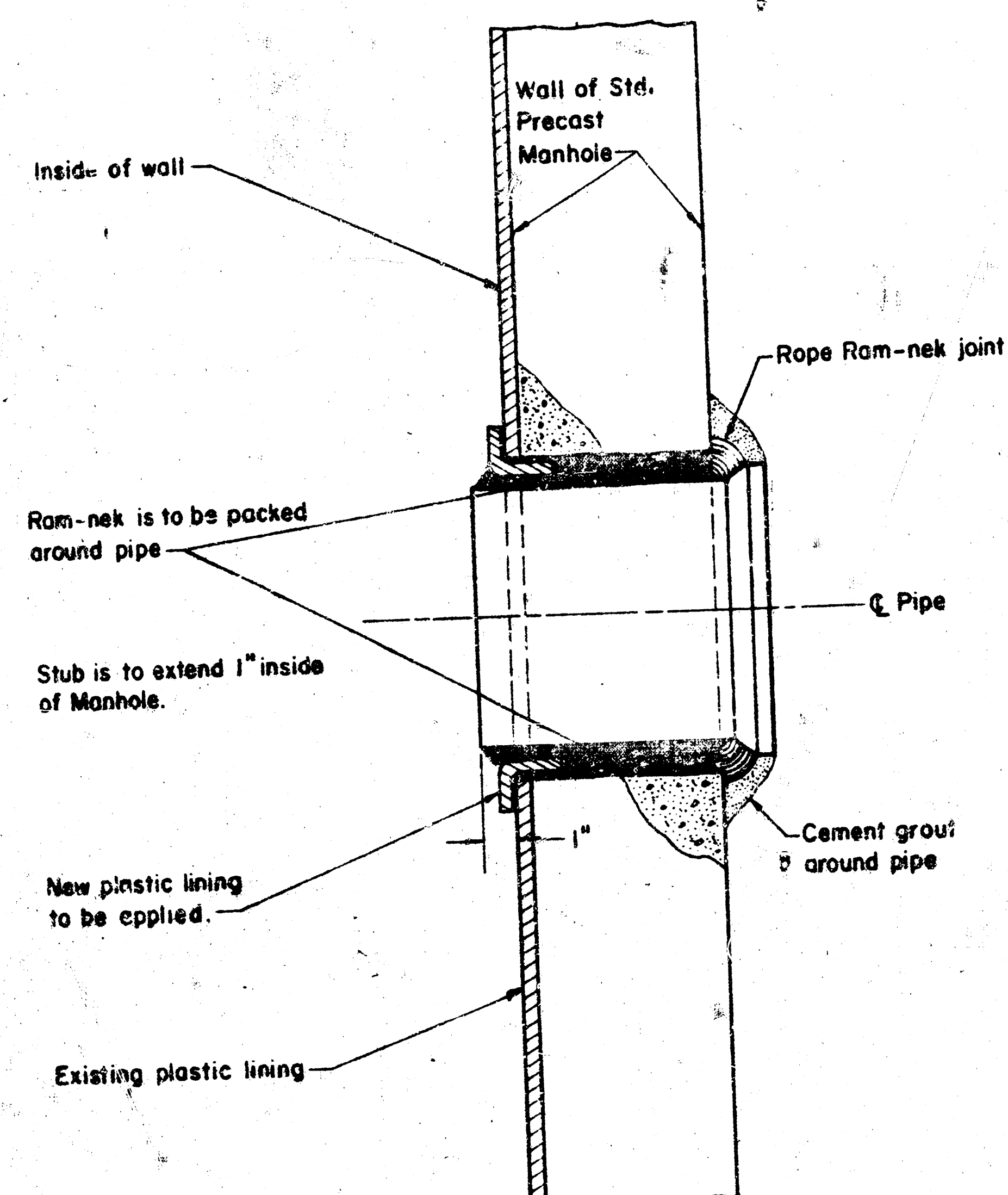
TOP VIEW



SECTION A-A

GENERAL NOTES

1. 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 DETAIL 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.
2. MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.
3. 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.
4. 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 THAT THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.
5. 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" 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.



3005
 A = OUTSIDE DIAMETER OF PIPE 12"

DRAWN BY 1978
 DETAIL OF PIPE CONNECTION
 TO STRUCTURAL TEE MANHOLE
 CITY OF WICHITA, KANSAS