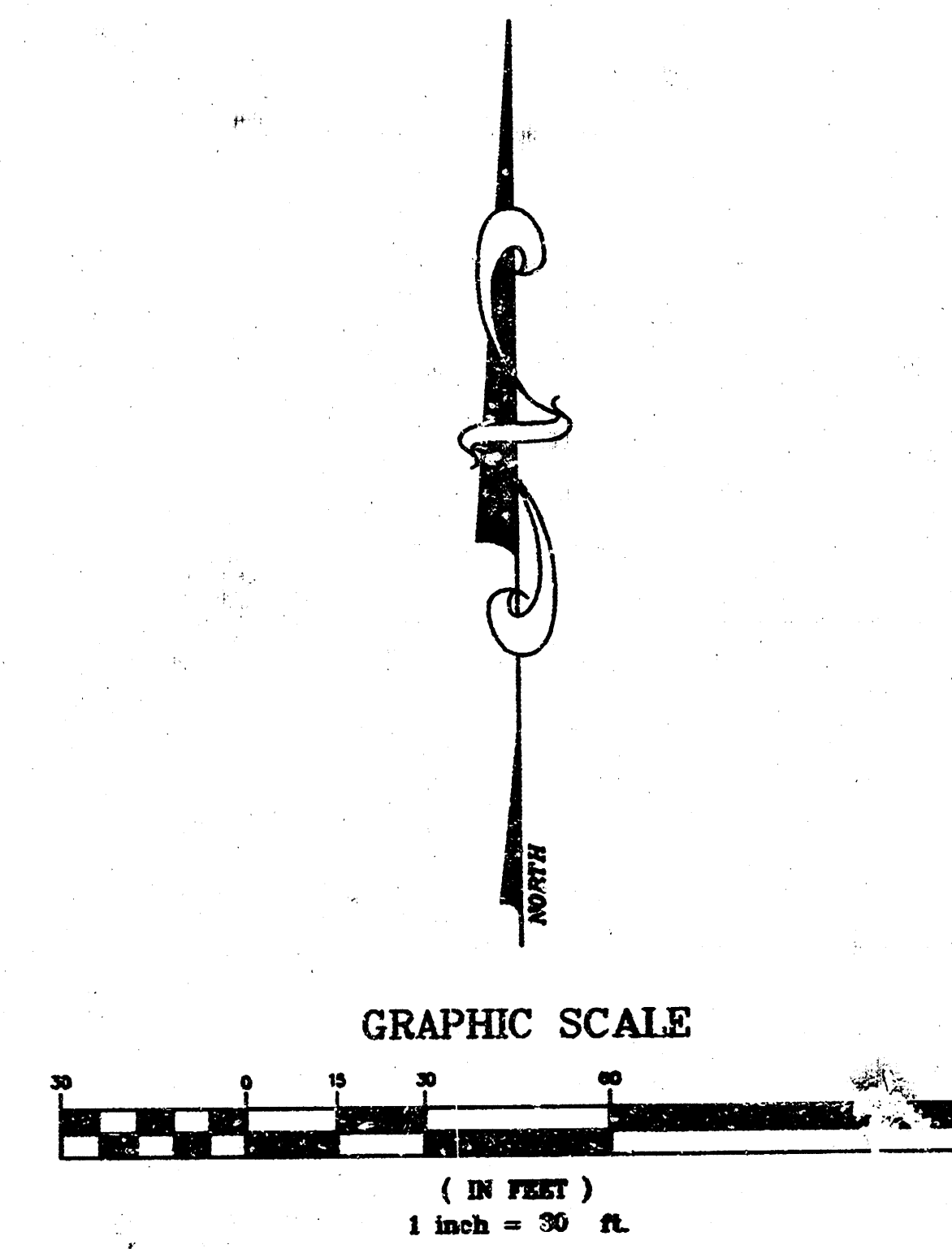




PUE PROPOSED PUBLIC UTILITY EASEMENT

0	12/10/02	INITIAL AS-BUILT SUBMITTAL
REV	DATE	DESCRIPTION

CHG	RUB	MTA
DSN	DWN	CHK

1277 PPS

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

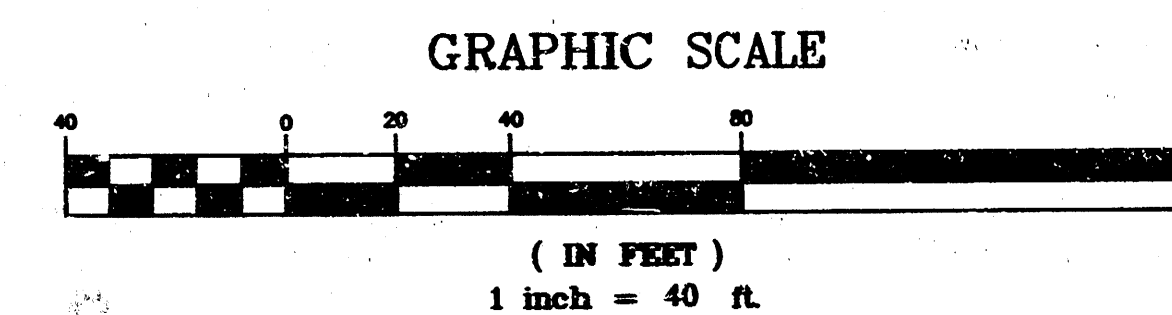
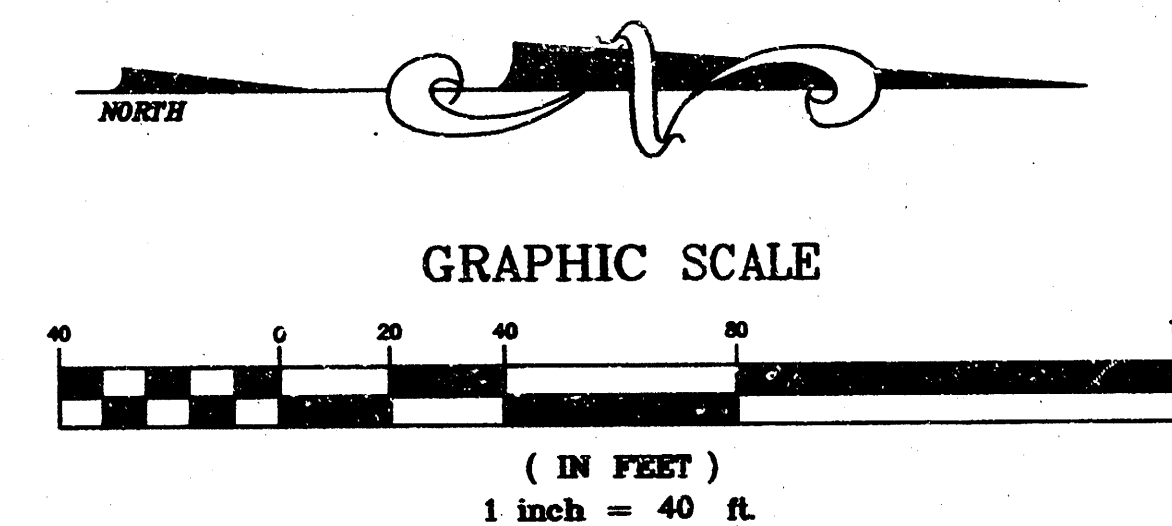
BOUNDARY COORDINATES

POINT NO.	NORTHING	EASTING
1	N: 4988.7065	E: 4108.0052
2	N: 4997.5585	E: 4027.1062
3	N: 4975.5585	E: 4027.7923
4	N: 4978.0074	E: 4088.7112
5	N: 4704.5104	E: 4087.7250
6	N: 4704.2290	E: 4022.7262
7	N: 4488.2086	E: 4024.0137
8	N: 4485.2141	E: 4074.0188
9	N: 4523.5295	E: 4073.7923
10	N: 4523.4291	E: 4067.0217
11	N: 4785.9755	E: 4235.4023
12	N: 4674.9183	E: 4121.0781

LINE "A" PLAN (STA. 10+00 TO 14+38.82)

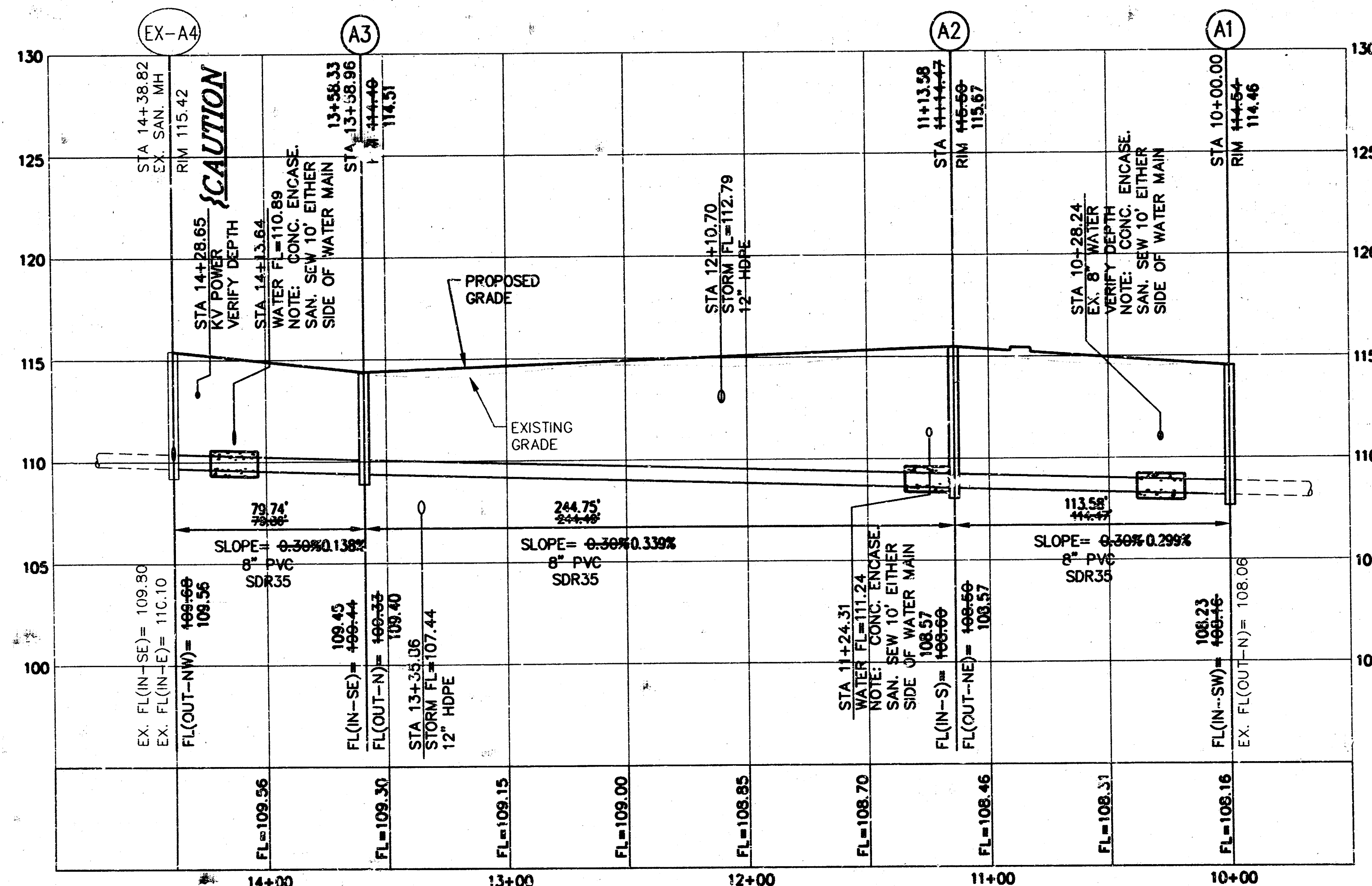
LEGEND

- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED STORM SEWER LINE
- PROPOSED STORM SEWER STRUCTURE
- PROPOSED SANITARY SEWER LINE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM SEWER STRUCTURE
- EXISTING STORM SEWER
- EXISTING WATER MAIN
- PUE PROPOSED PUBLIC UTILITY EASEMENT
- PROPOSED CLEANOUT

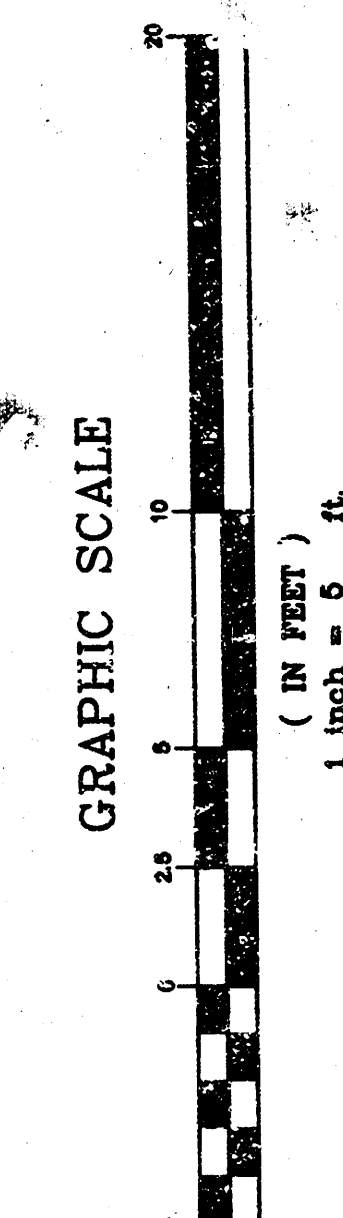


MH	DESCRIPTION
A1	STANDARD MANHOLE OVER EXISTING 8" LINE
A2, A3	TYPE "P" STANDARD MANHOLE
A4	EXISTING MANHOLE

NOTE:
CONTRACTOR TO CAREFULLY EXCAVATE
AND VERIFY DEPTH AND LOCATION OF KV POWER.



LINE "A" PROFILE (STA. 10+00 TO 14+38.82)



DICK'S SPORTING GOODS
4600 WEST KELLOGG DRIVE
WICHITA, KANSAS

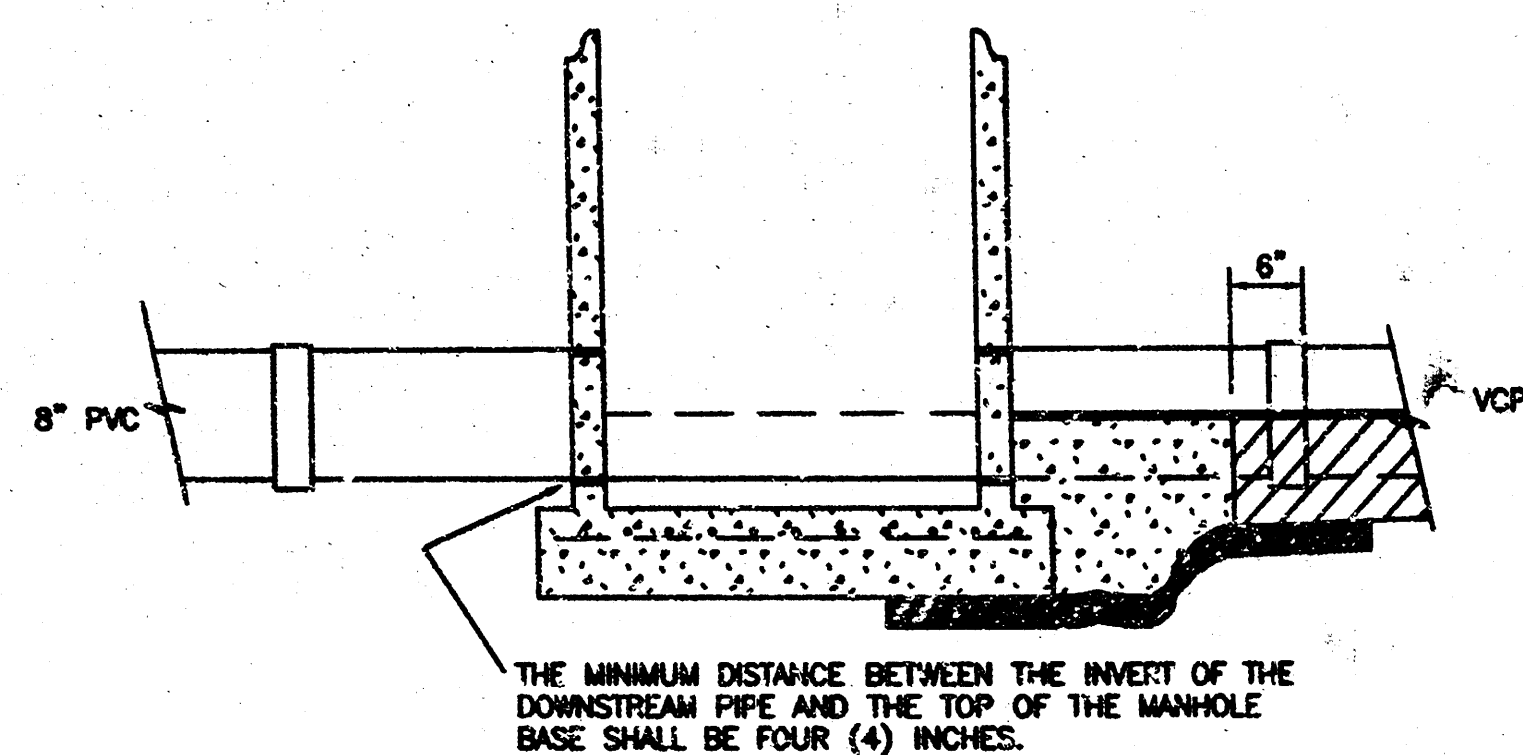
PROJ. NO.	02-00938
DATE	08/19/02
DESIGNER	CHG
DRAWN BY	CHG
CHECKED BY	CHG
DATE	02-SSPP
SHEET	3 OF 5

KAW VALLEY ENGINEERING, INC. - CONSULTING ENGINEERS
14700 W. 114TH TERRACE
LENEXA, KANSAS 66215
913-894-5150
913-894-5151
WWW.KVE.COM
WEB SITE



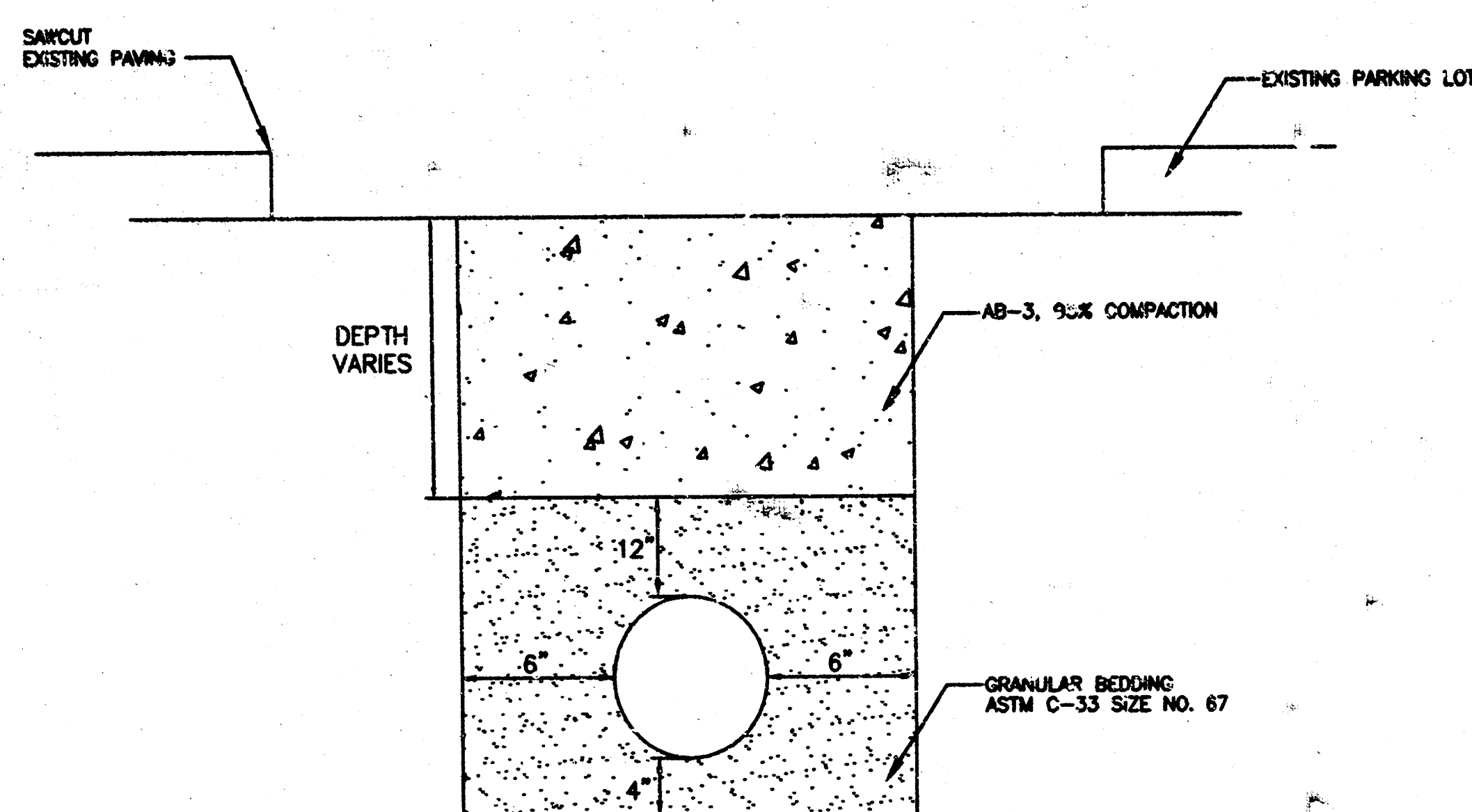
REV	DATE	DESCRIPTION
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0	12/10/02	INITIAL AS-BUILT SUBMITTAL

1277 PPS

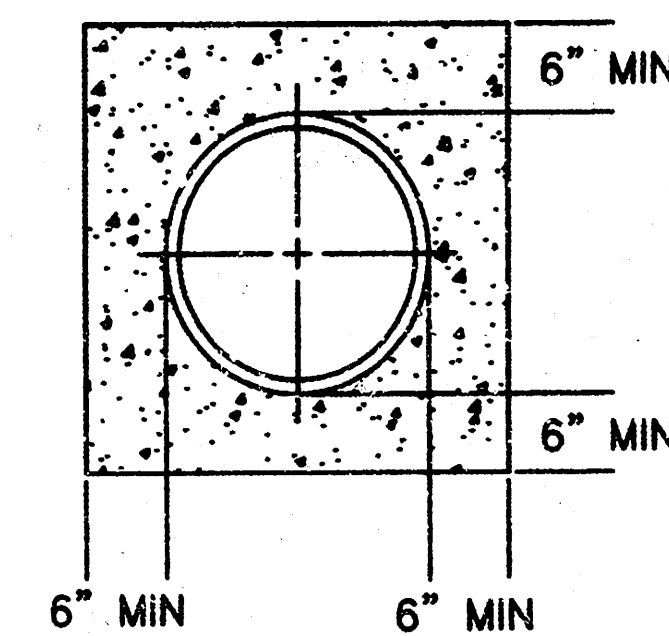


MANHOLE BASE SECTION
N.T.S.

- NOTES:
- 1ST JOINT OF PIPE SHALL BE EMBEDDED IN CONCRETE TO WITHIN 6" OF THE FIRST JOINT FOR RCP & VCP.
 - IF FLEXIBLE OR SEMI-FLEXIBLE PIPE IS USED, A FLEXIBLE WALL CONNECTOR MUST BE USED.

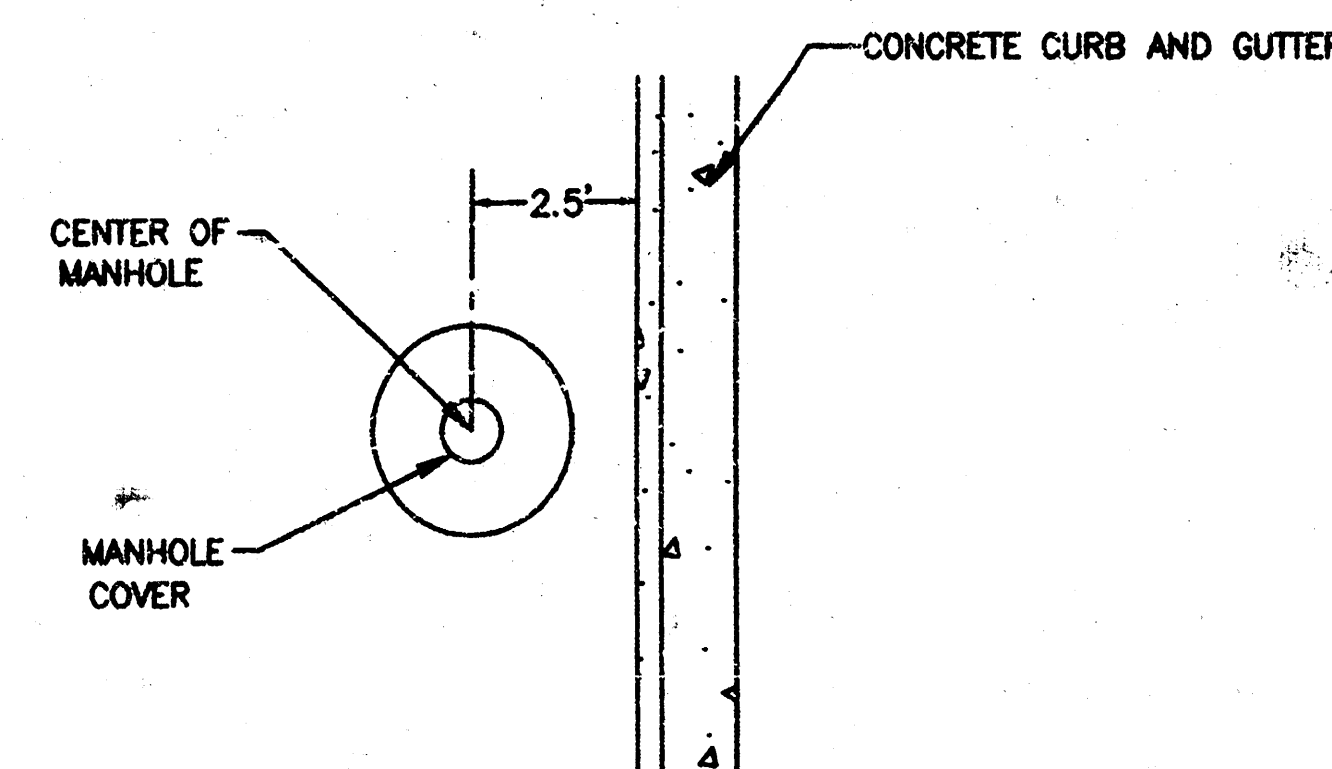


TRENCH DETAILS
N.T.S.

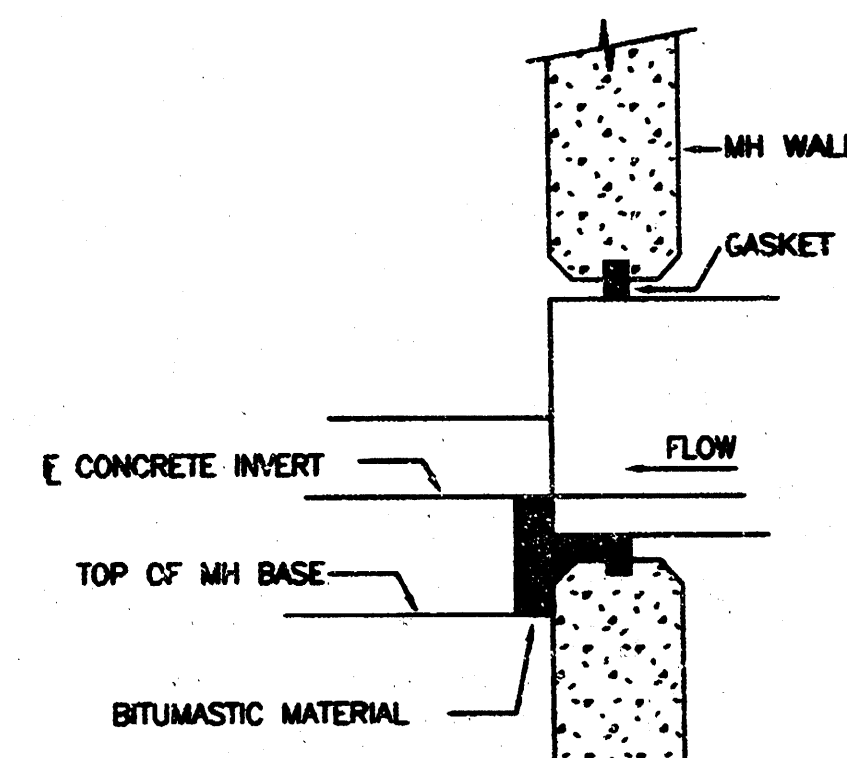


ENCASEMENT SHALL BE NON-REINFORCED CONCRETE, CLASS A (7 SACK) MIX. SECTION TO BE ENCASED SHALL BE SUPPORTED ON CONCRETE BRICKS.

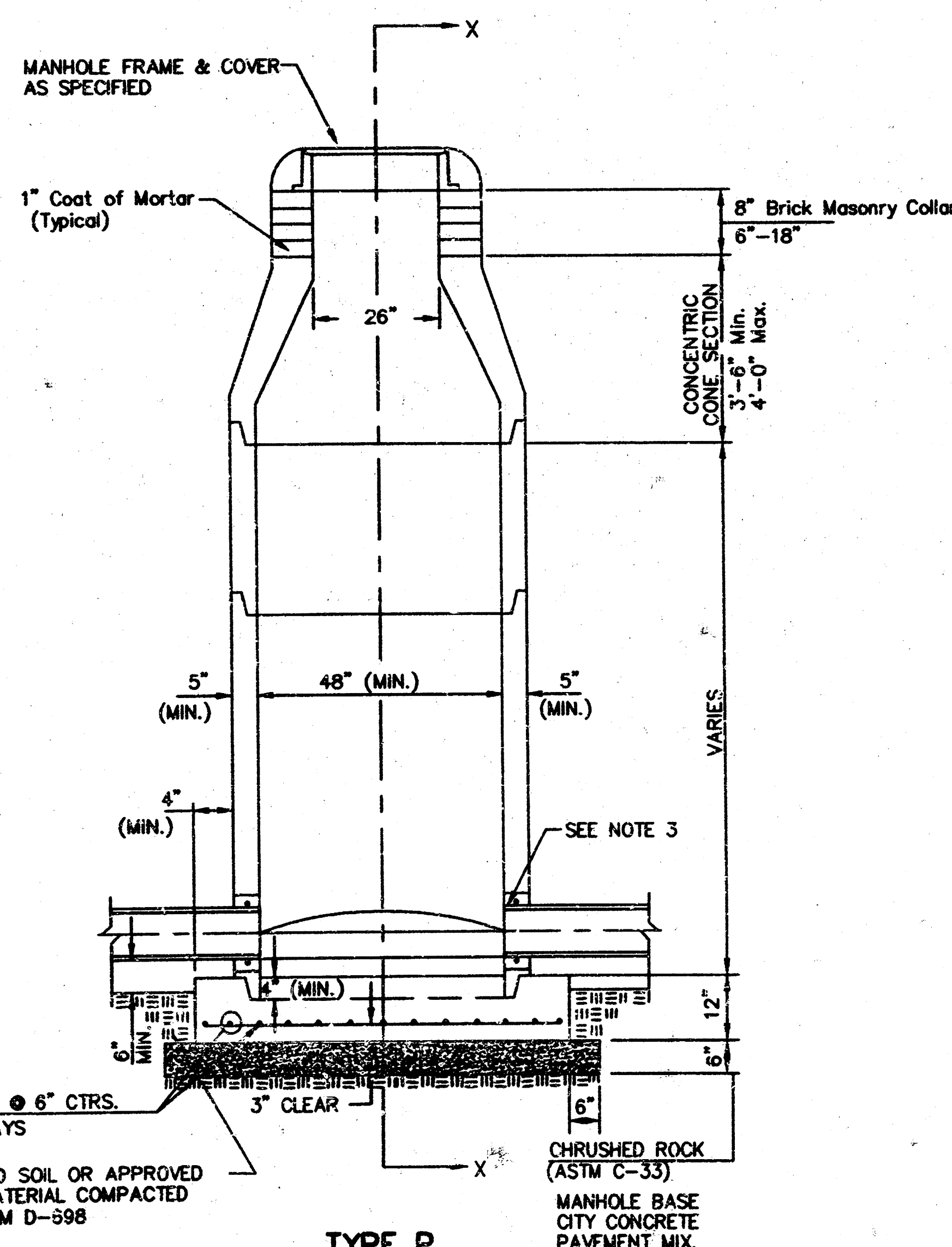
CONCRETE ENCASEMENT
N.T.S.



MANHOLE PLACEMENT DETAIL
N.T.S.



FLEXIBLE WALL CONNECTION
N.T.S.



**TYPE P
STANDARD MANHOLE**
MH A2, MH A3

- GENERAL NOTES
1. PRECAST MANHOLE NOTES

ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.

NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.

APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER PIPE SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.

ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS THEMEC SERIES 66 HI-BUILD EPOXYLINE, DRY THICKNESS OF 3 MILS (MIN.).

EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.

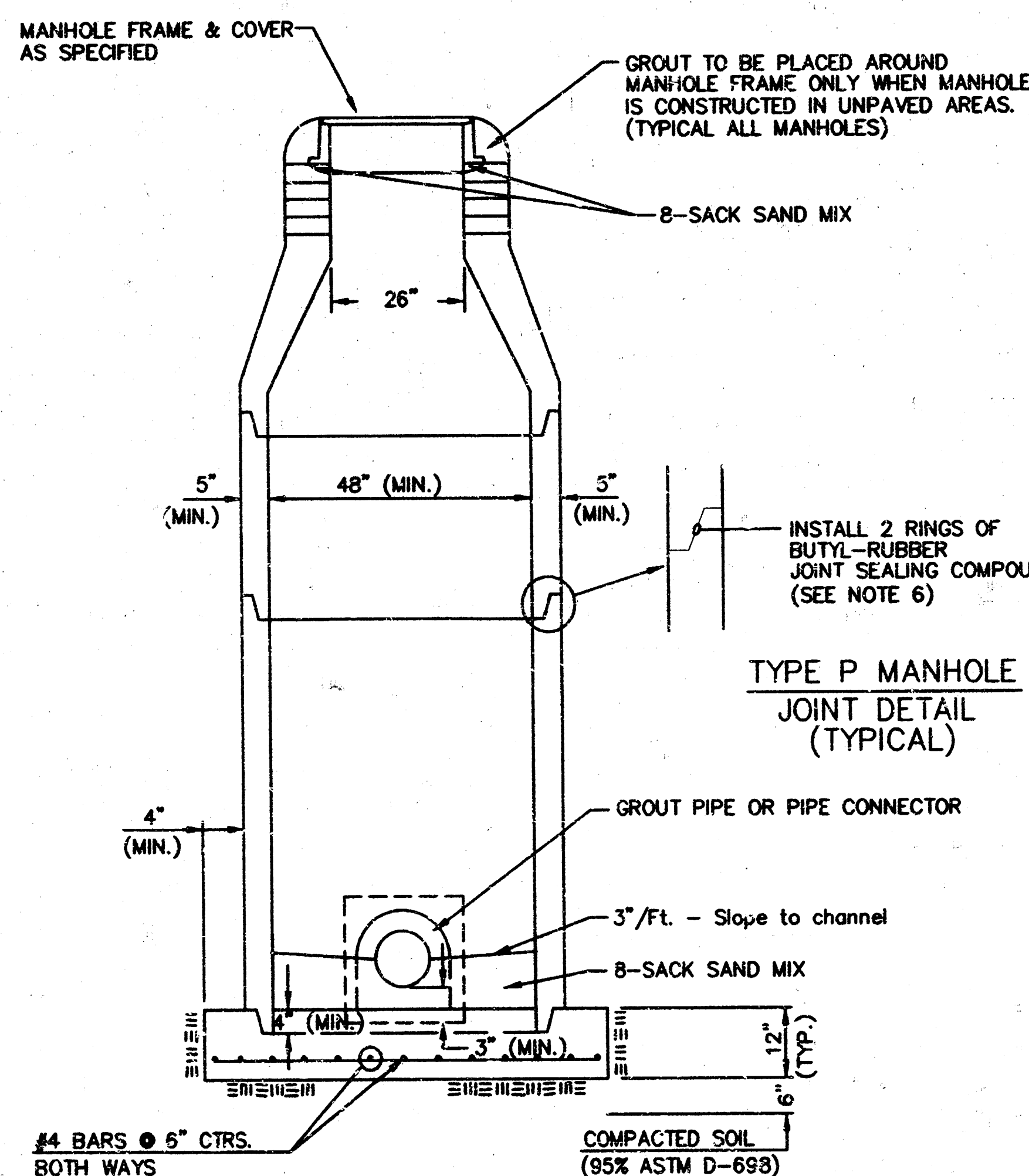
JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.

PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.

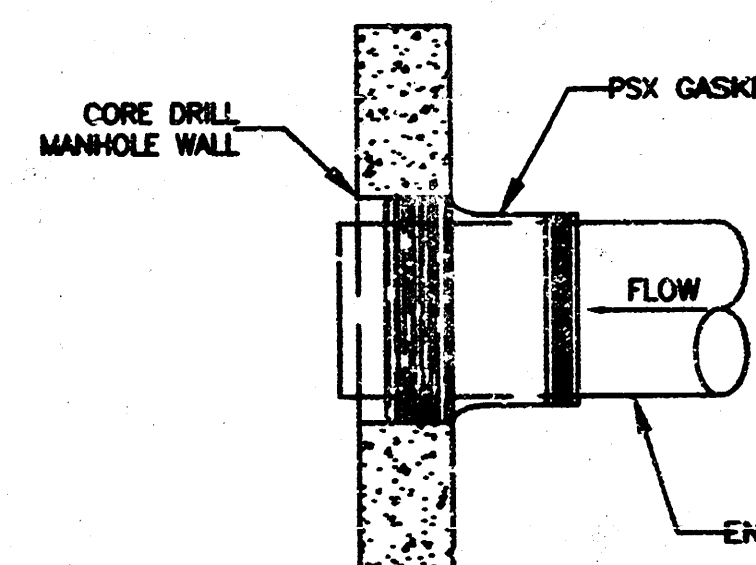
TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOWLINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.

LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.

MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES 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 ENTRAINING AD MIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4". MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5". COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.



**SECTION X
(TYPICAL)**



CONCRETE MANHOLE ADAPTER
N.T.S.
(USE FOR PIPES ENTERING EXISTING MANHOLE WALLS)

DICK'S SPORTING GOODS
4600 WEST KELLOGG DRIVE
WICHITA, KANSAS

**SANITARY SEWER PLANS
DETAIL SHEET**

PROJ NO.	C0200938
DATE	08/19/02
DESIGNER	CHG
DRAWN BY	JS
CHECKED	CHG
SHEET	4 OF 5



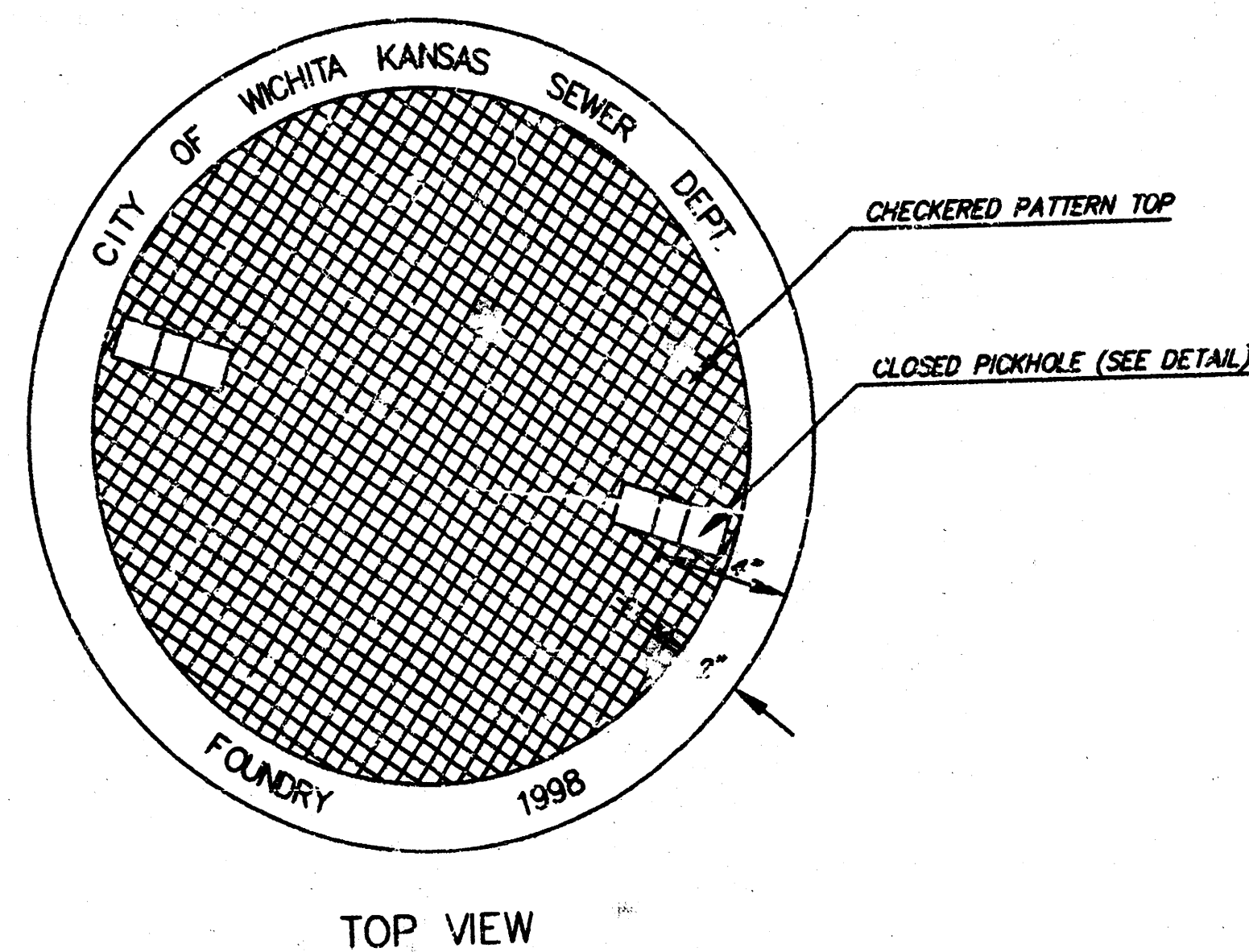
KAW VALLEY ENGINEERING, INC. - CONSULTING ENGINEERS
Office: Junction City, Mo. Kansas City, Mo. Lenexa, Mo.



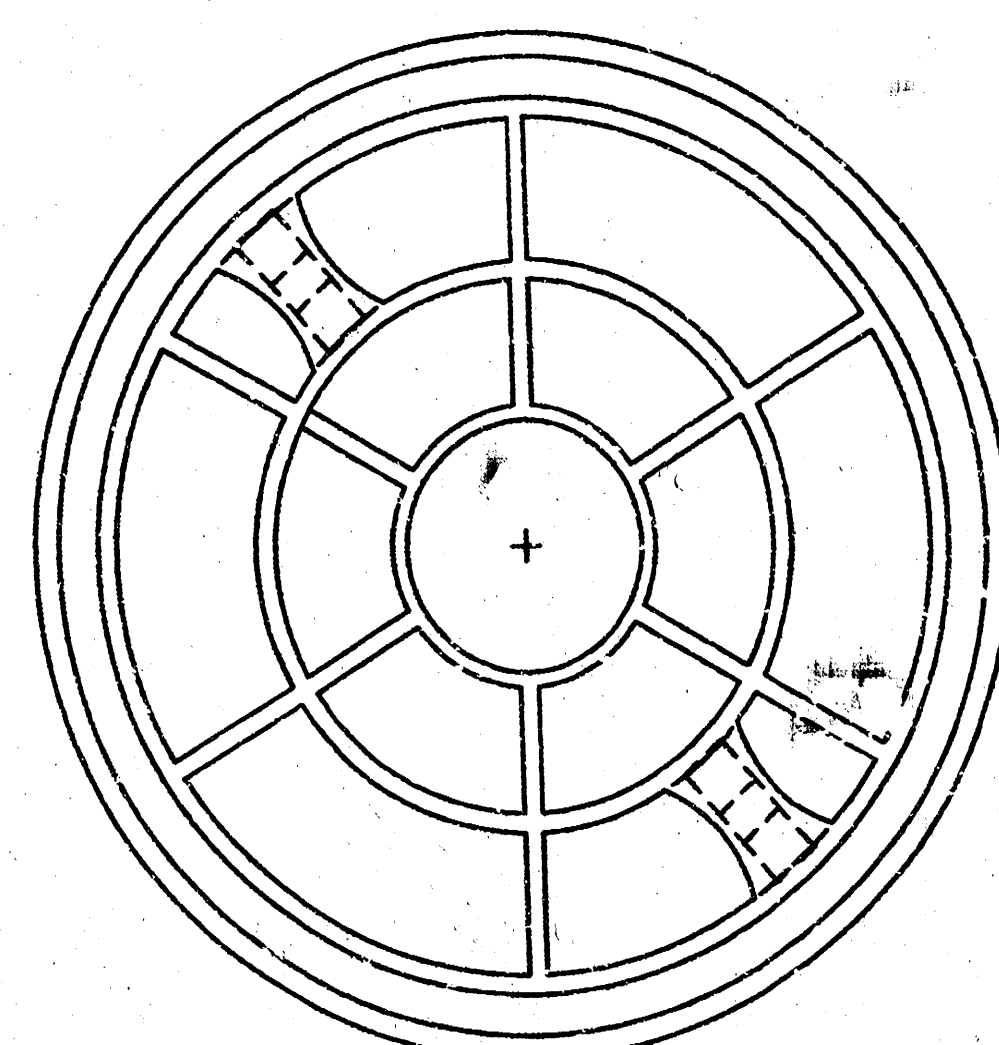
KAW VALLEY ENGINEERING, INC. - CONSULTING ENGINEERS
Office: Junction City, Mo. Kansas City, Mo. Lenexa, Mo.

REV	DATE	DESCRIPTION	CHK
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0			CHG
0			DSN
0			DWN
0			MTA

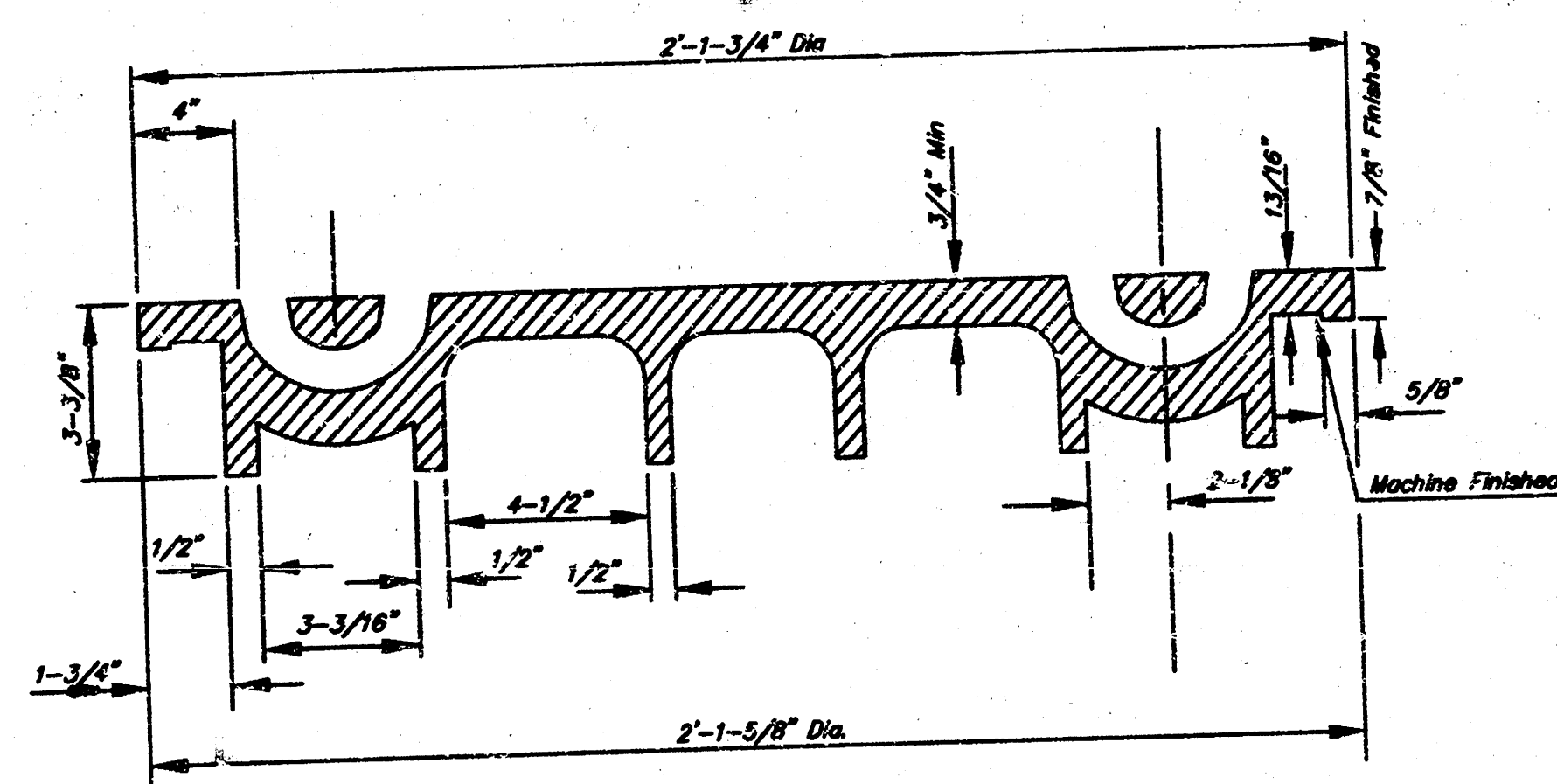
MANHOLE COVER
Weight = 180 Lbs.



TOP VIEW

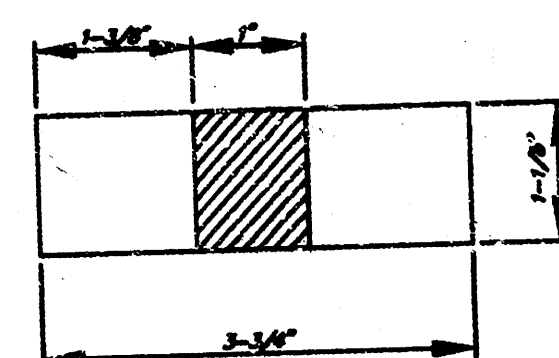


BOTTOM VIEW

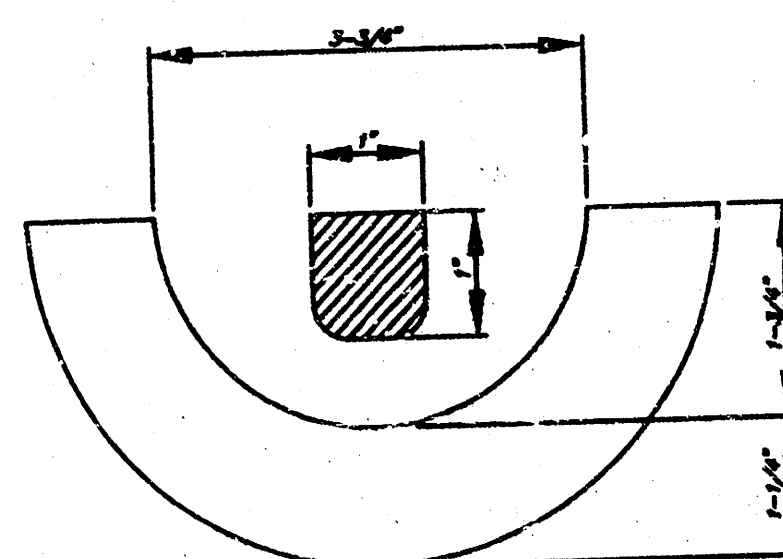


SECTION VIEW

PICKHOLE DETAIL



TOP VIEW



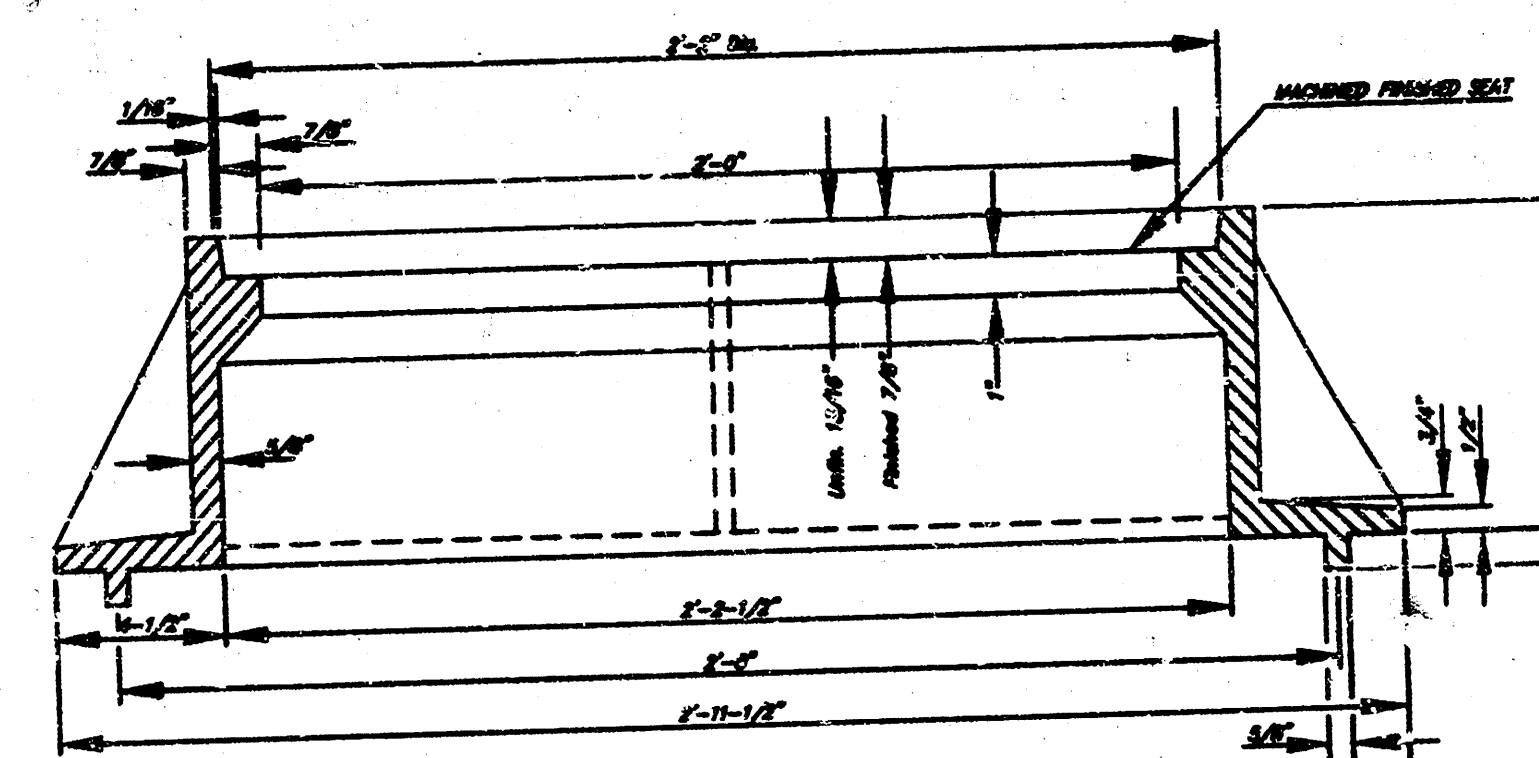
SECTION VIEW

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

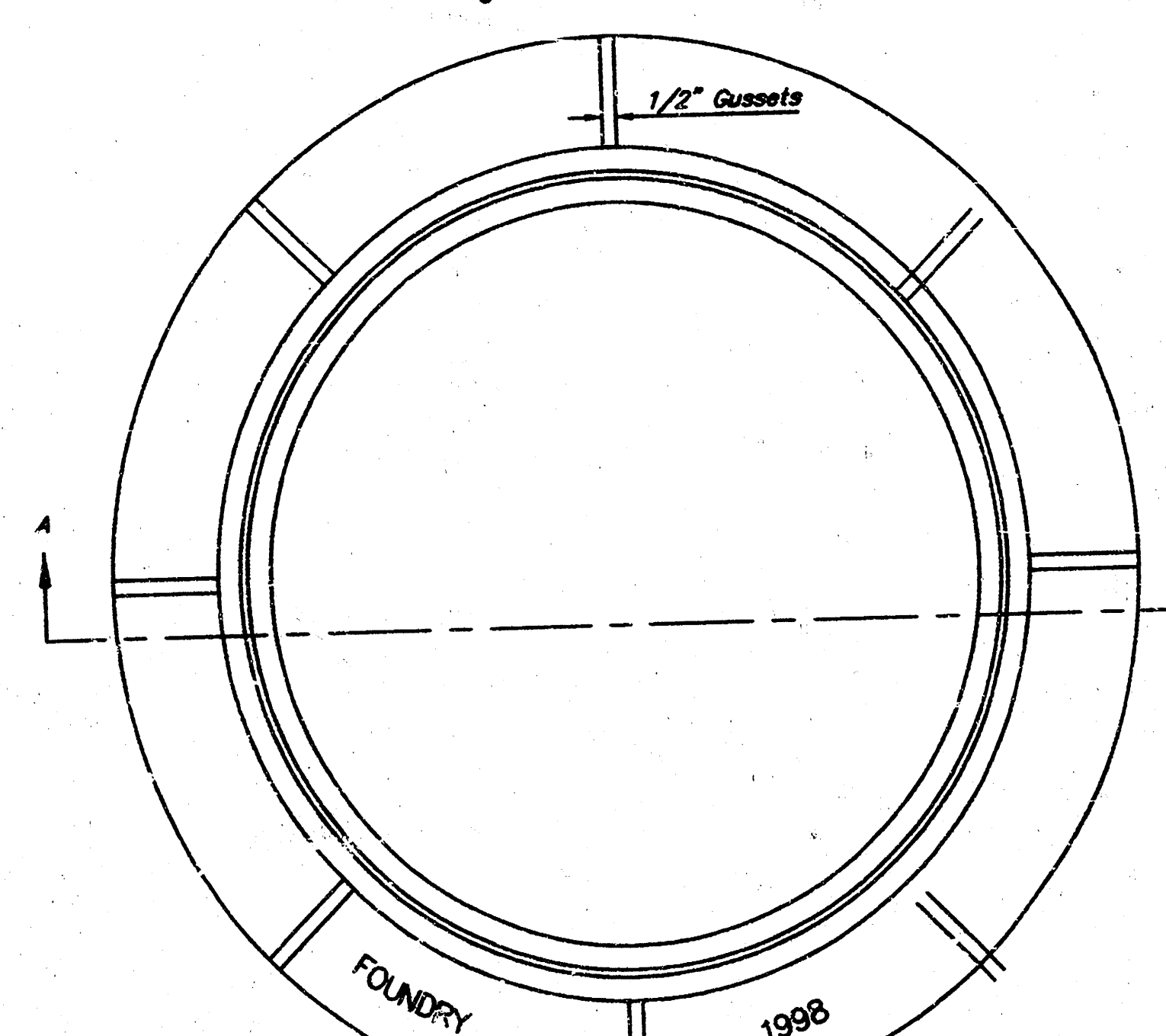
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

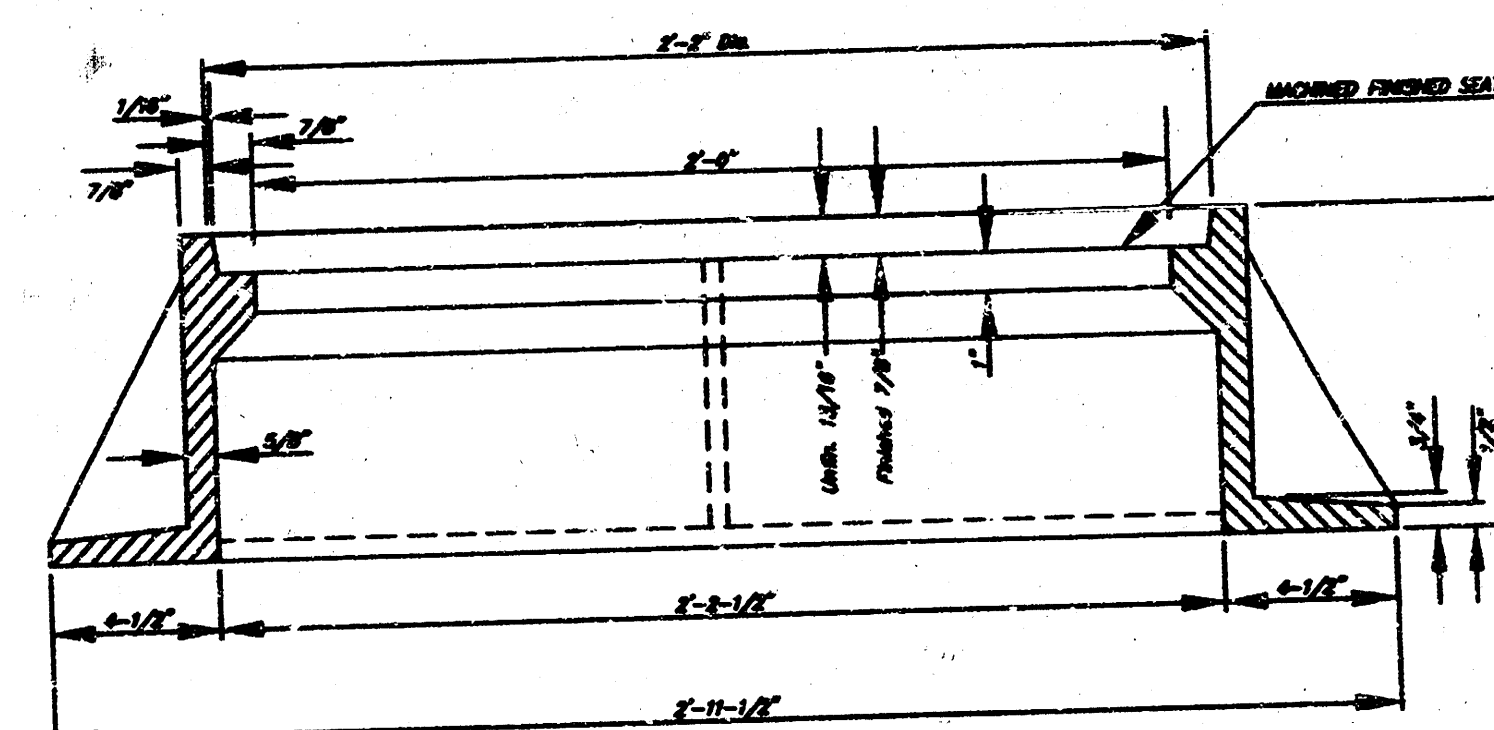


SECTION A-A
MUD RING

MANHOLE FRAME
Weight = 240 Lbs.



TOP VIEW



SECTION A-A

DICK'S SPORTING GOODS
4600 WEST KELLOGG DRIVE
WICHITA, KANSAS

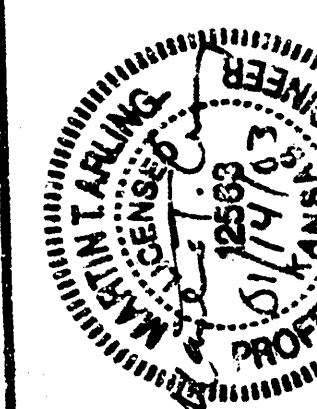
PROJ NO
00000000
DATE
08/19/02
DESIGNER
HTA
DRAWN
JMS
CHK
JMS
SHEET
0

SANITARY SEWER PLANS - AS-BUILT
DETAIL SHEET

14700 W. 114TH TERRACE
LENEXA, KANSAS 66215
913-884-5977
E-MAIL info@kve.com
WEB SITE www.kve.com



KAW VALLEY ENGINEERING, INC. CONSULTING ENGINEERS
Office: 14700 W. 114th Terrace, Lenexa, KS 66215



REV DATE DESCRIPTION
0 12/10/02 INITIAL AS-BUILT SUBMITTAL

DSN DWN CHK
0 0 0