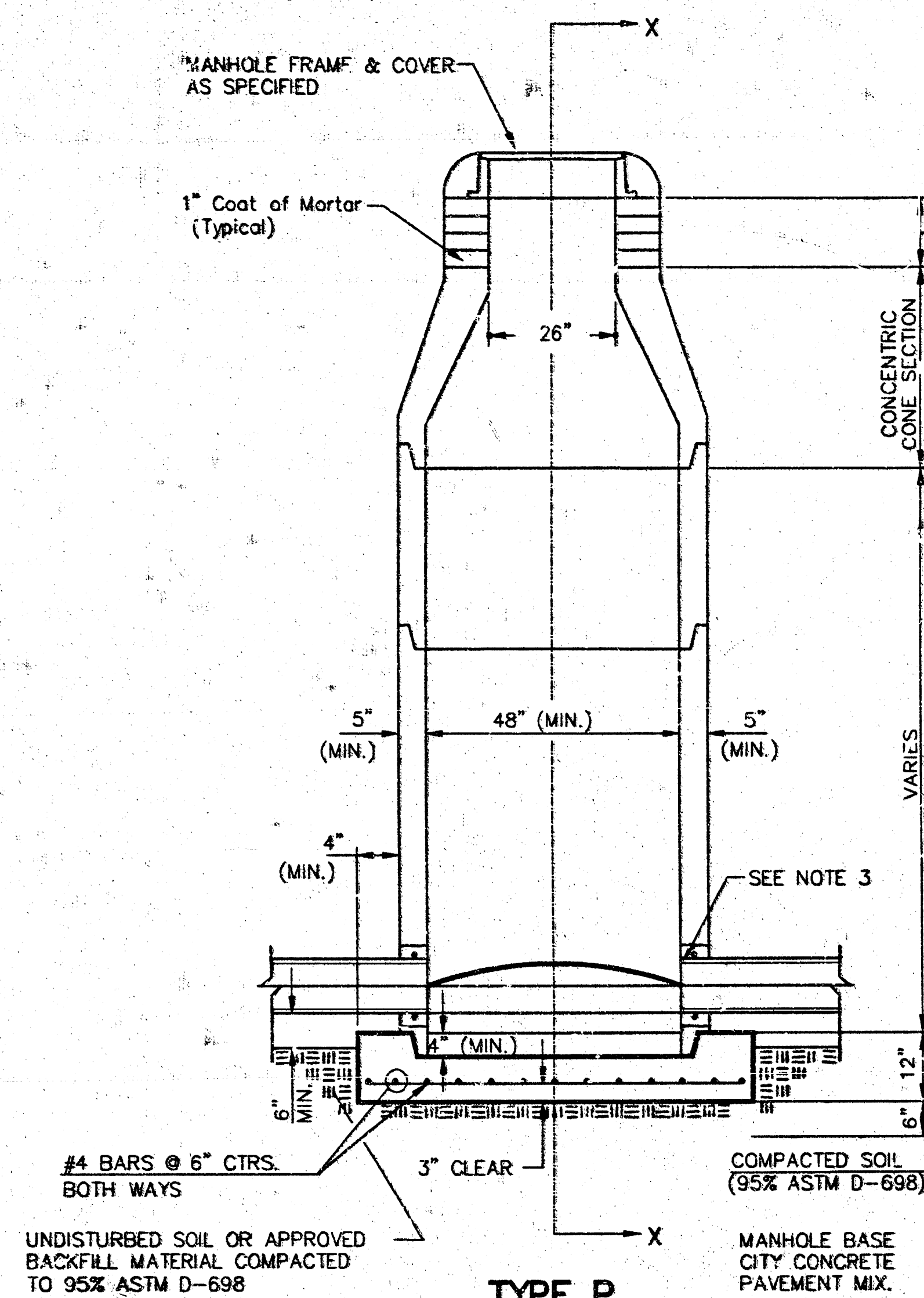
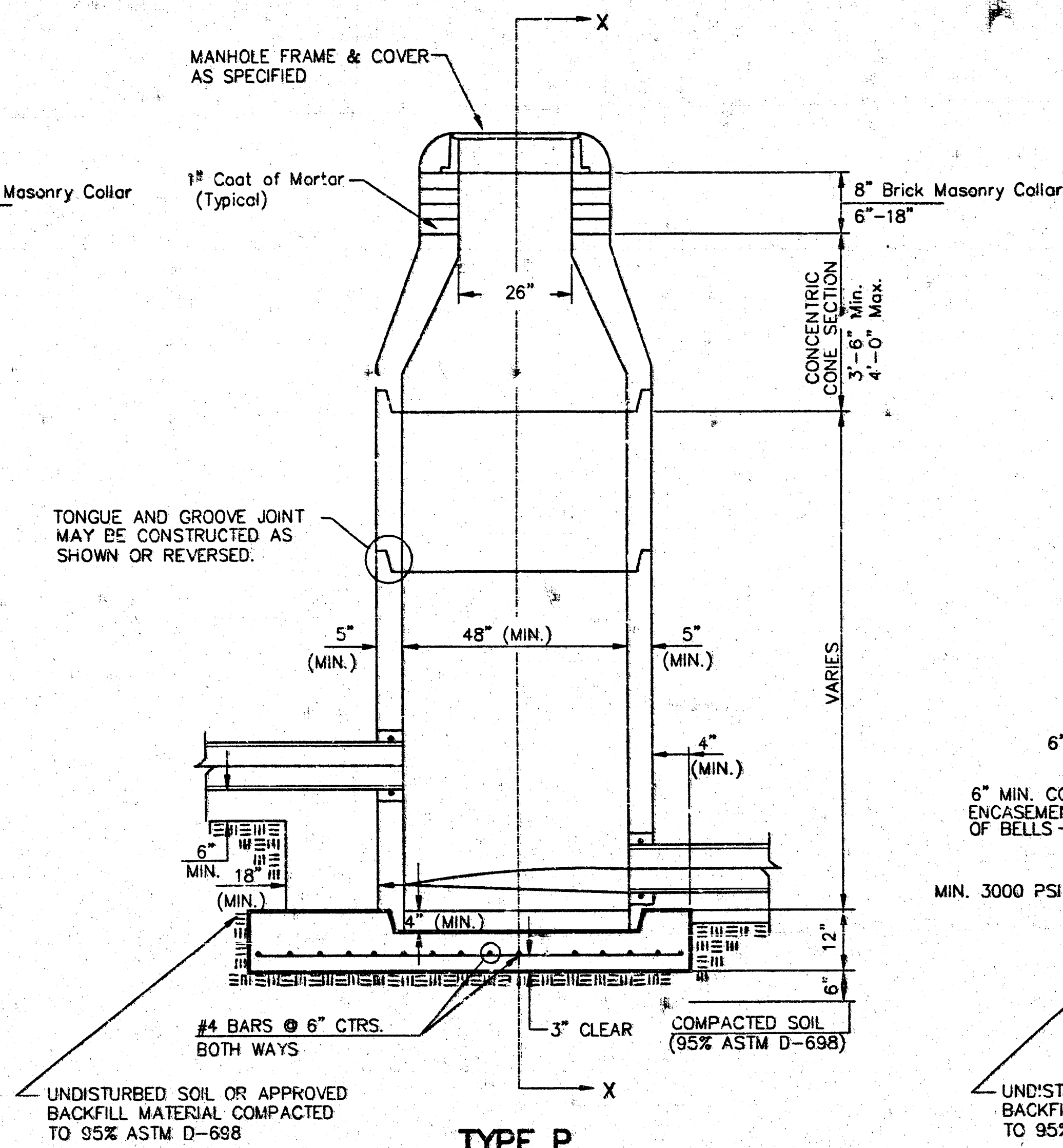


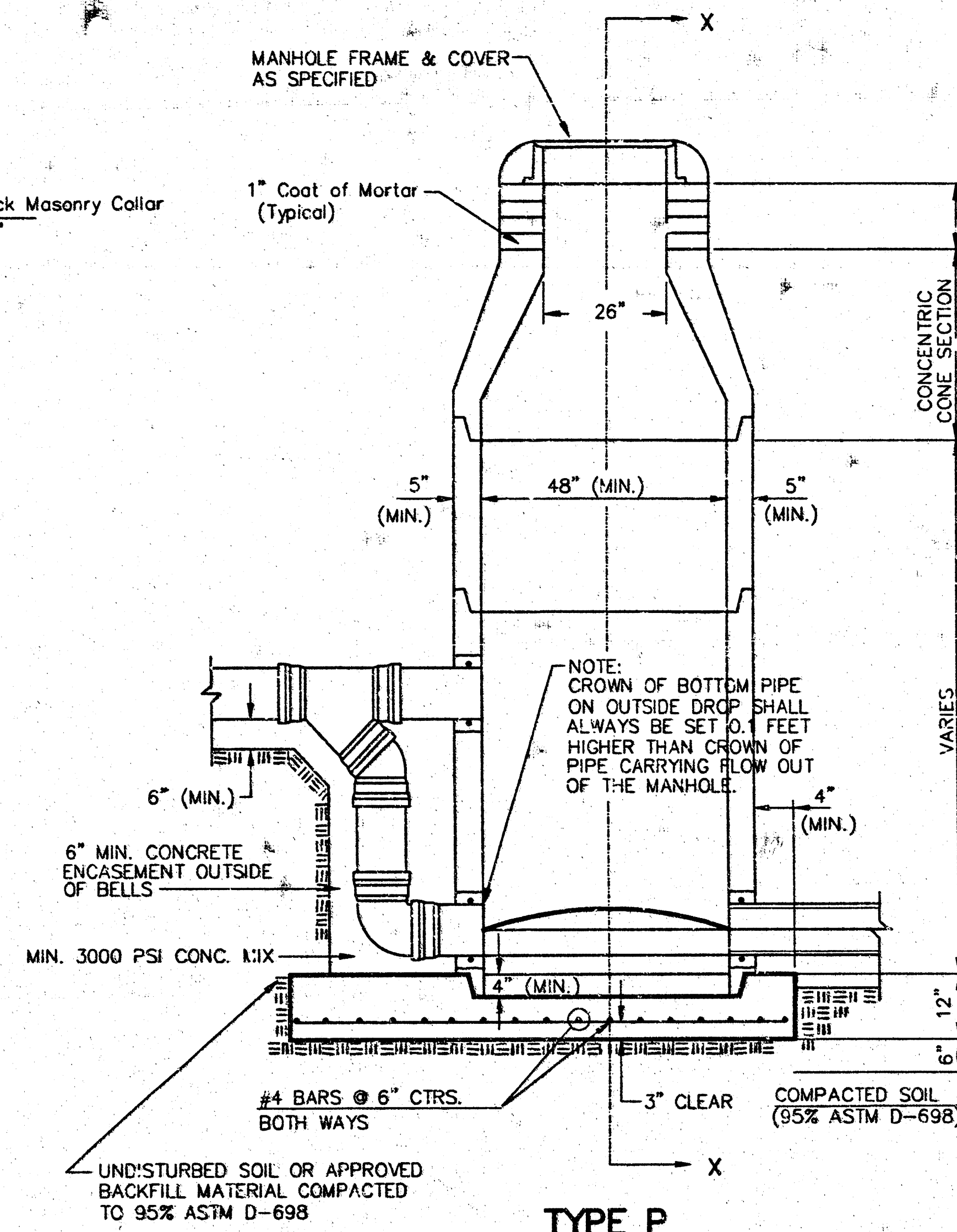
SEWER APPURTENANCES DETAILS



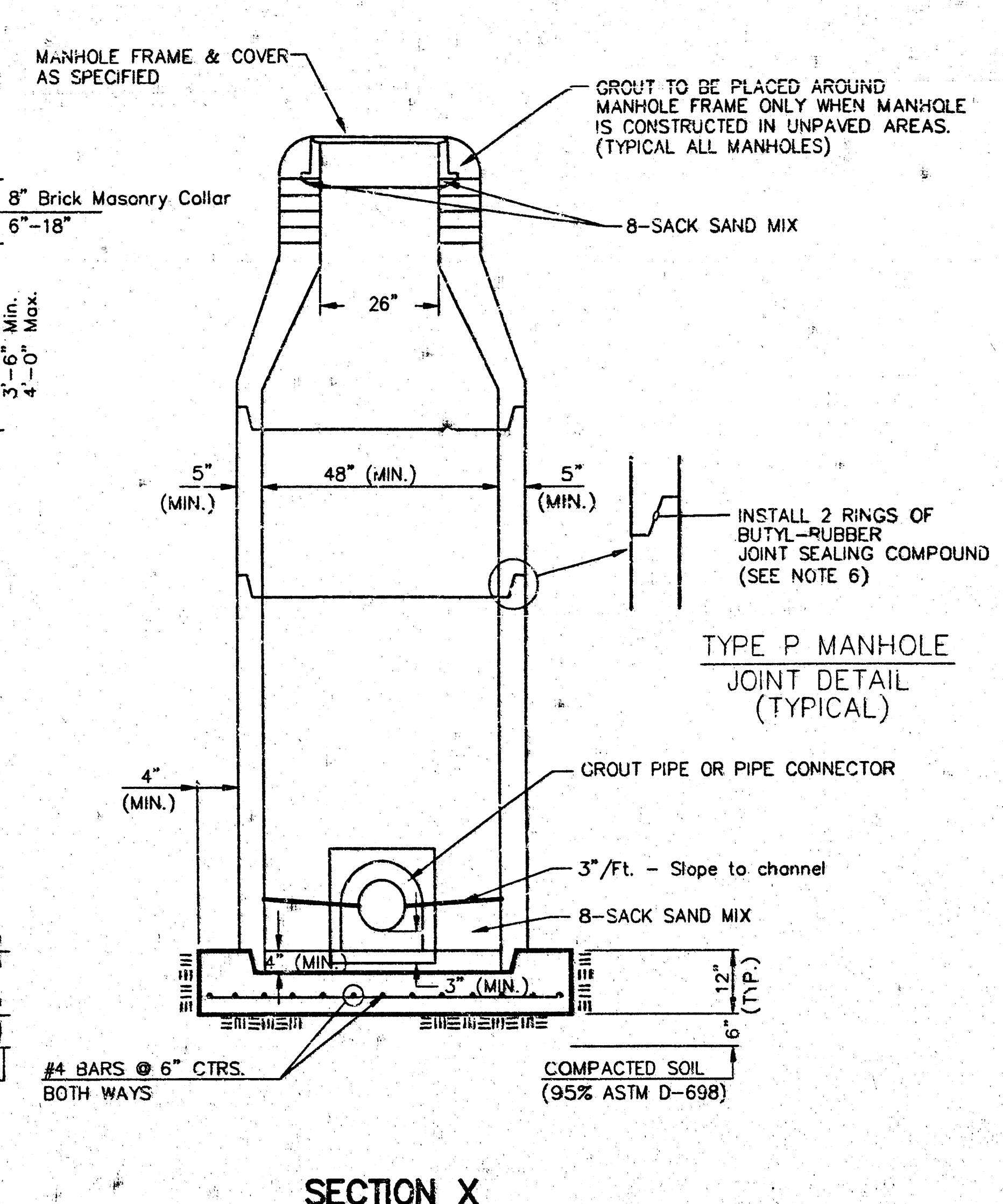
TYPE P STANDARD MANHOLE



TYPE P INSIDE DROP MANHOLE



TYPE P OUTSIDE DROP MANHOLE



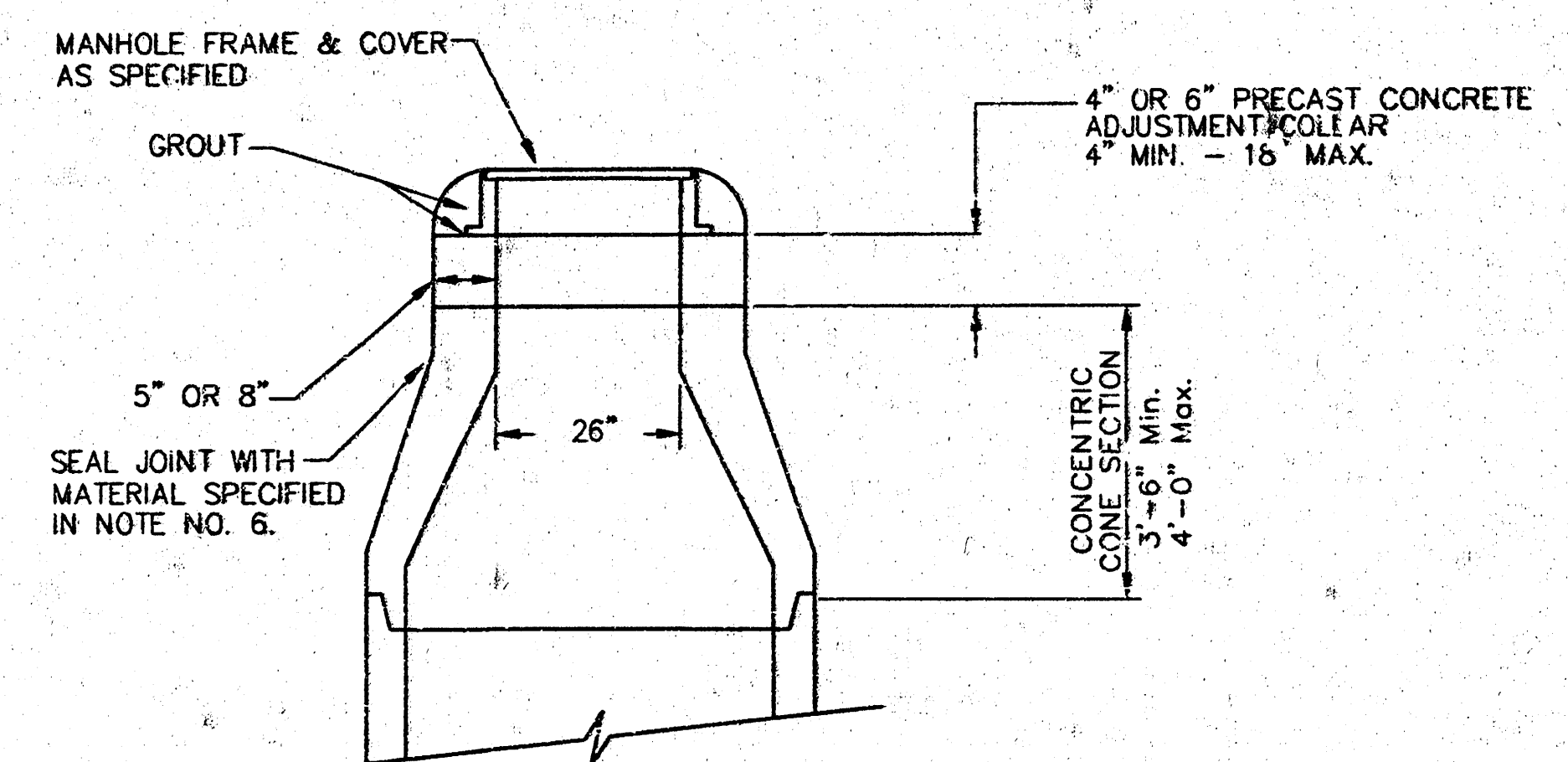
SECTION X (TYPICAL)

GENERAL NOTES

1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
3. 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 SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASUREMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS INMEC SERIES 66 H-BUILD EPOXYLINE, DRY THICKNESS OF 8 MILS (MIN.).
5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
6. JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
8. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
9. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
10. 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 ADMIXTURE. 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.

11. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
12. OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NON-SHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION; AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
13. 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 FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING 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 SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
14. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS 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.

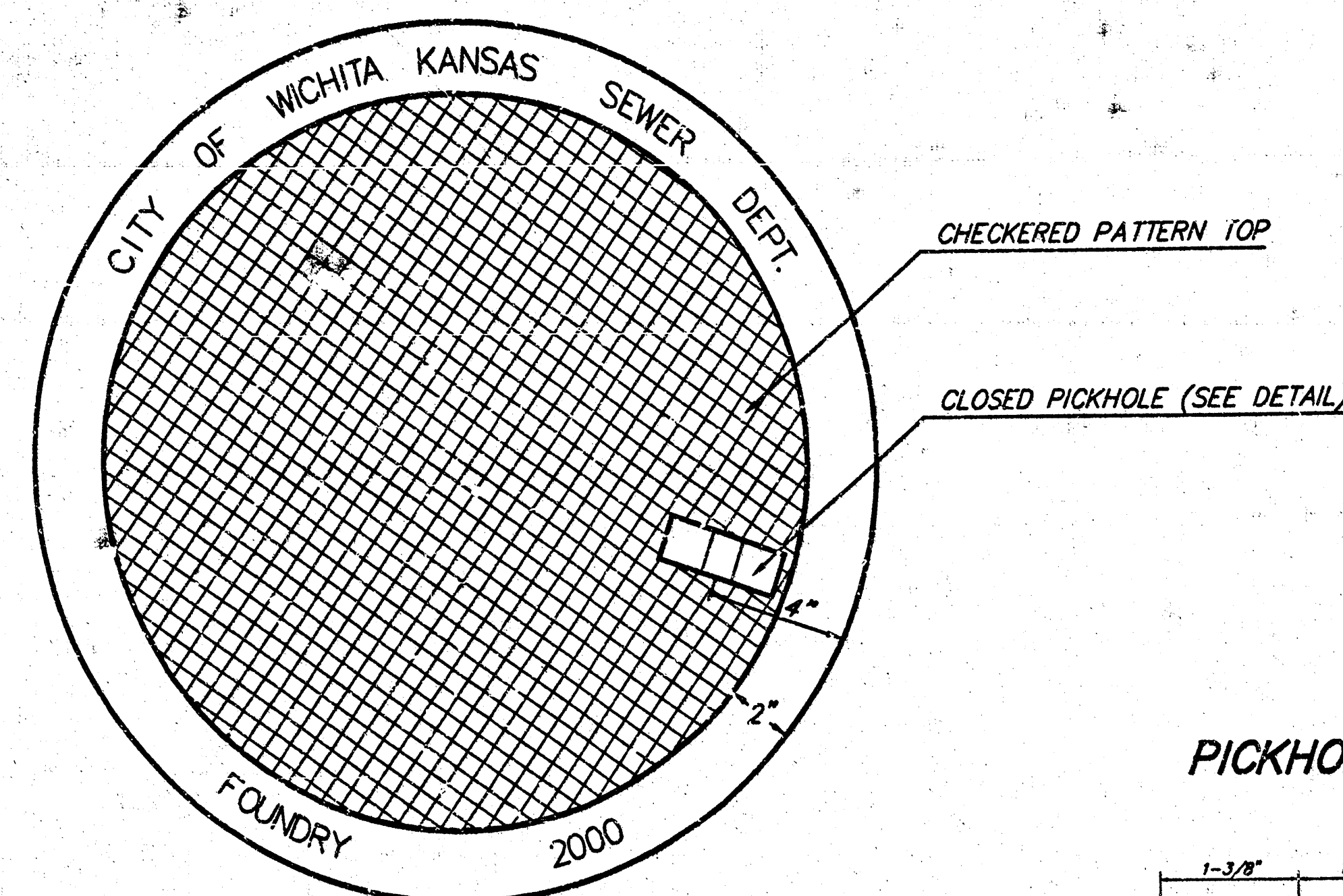
15. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
16. THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 2' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
17. STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
18. A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.



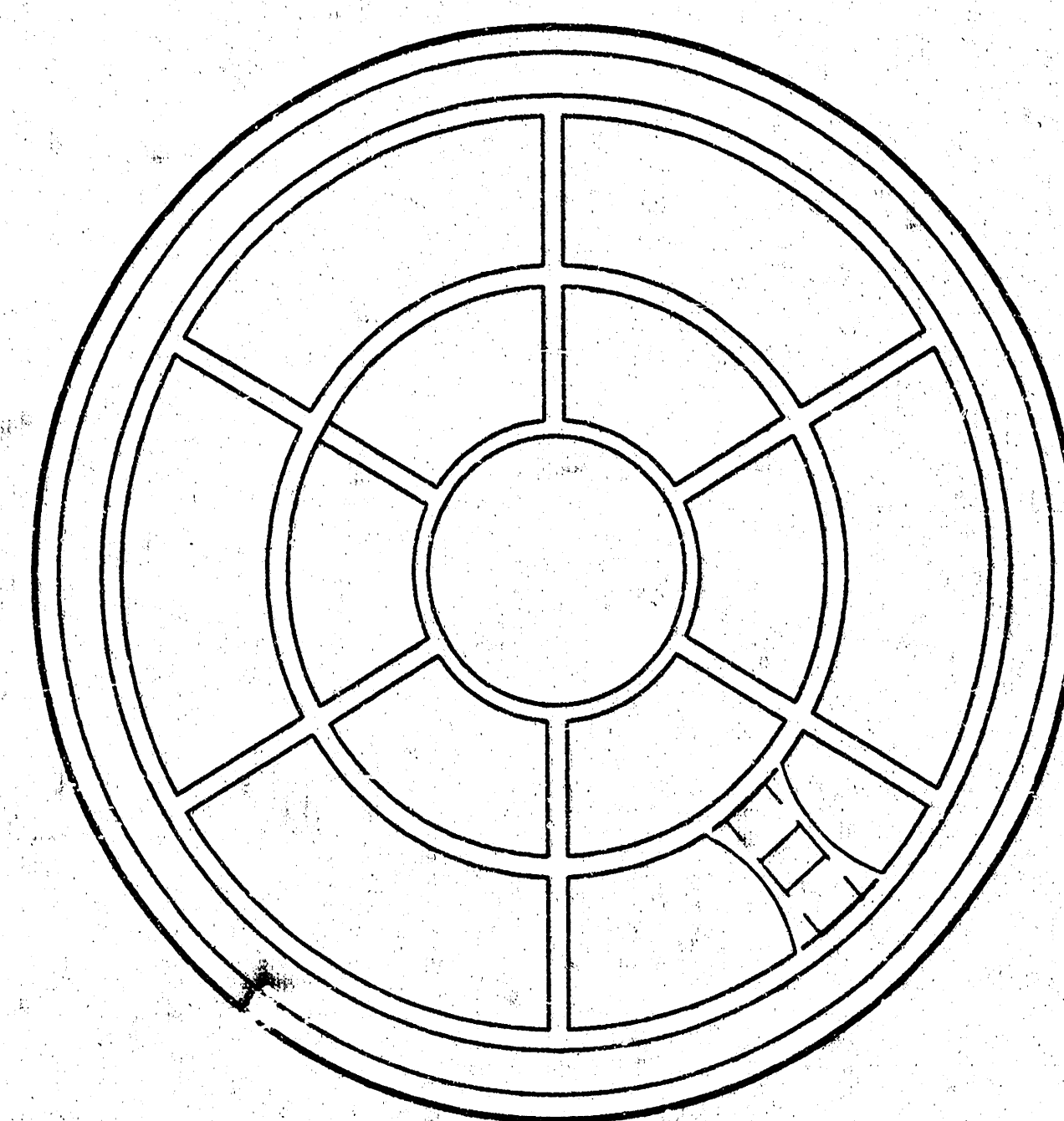
ALTERNATE CONSTRUCTION IN UNPAVED AREAS

CITY OF WICHITA					
STD. MANHOLE DETAILS					
SEWER APPURTENANCES					
BAUGHMAN COMPANY P.A.					
ENGINEERING, SURVEYING, & PLANNING					
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211					
PROJECT NUMBER					
993 PPS (807861)					
DESIGN	DRAWN	APPROVED	DATE	SCALE	SHEET
STAFF	STAFF			NONE	2 OF 4

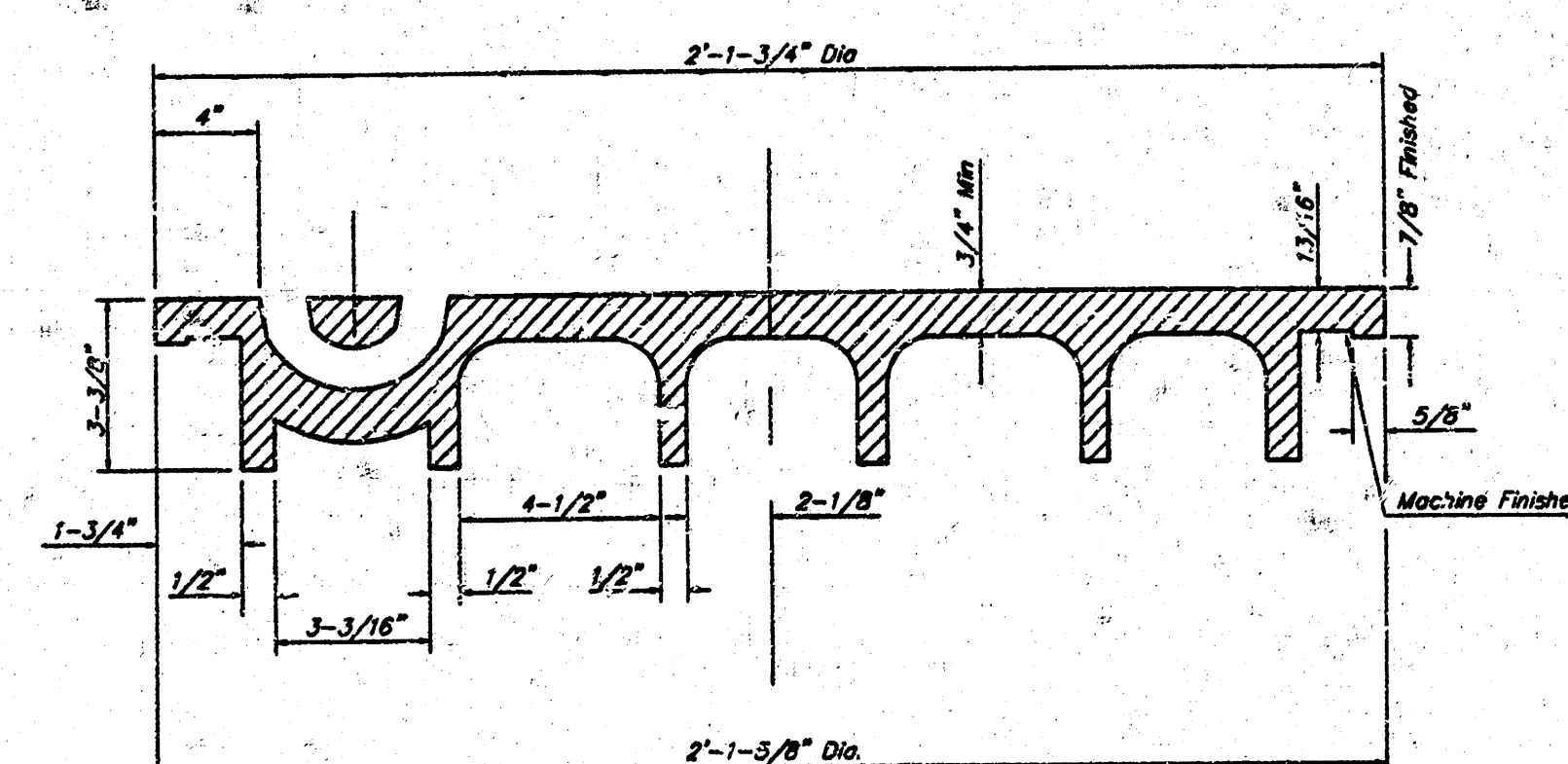
MANHOLE COVER
Weight = 180 Lbs.



TOP VIEW

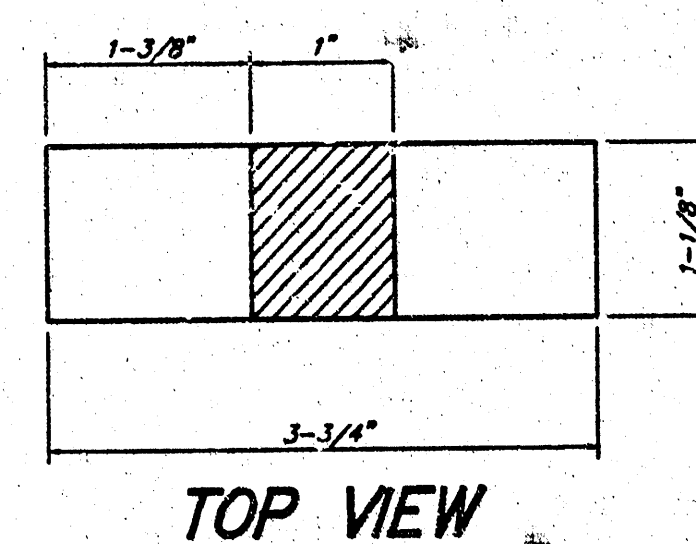


BOTTOM VIEW

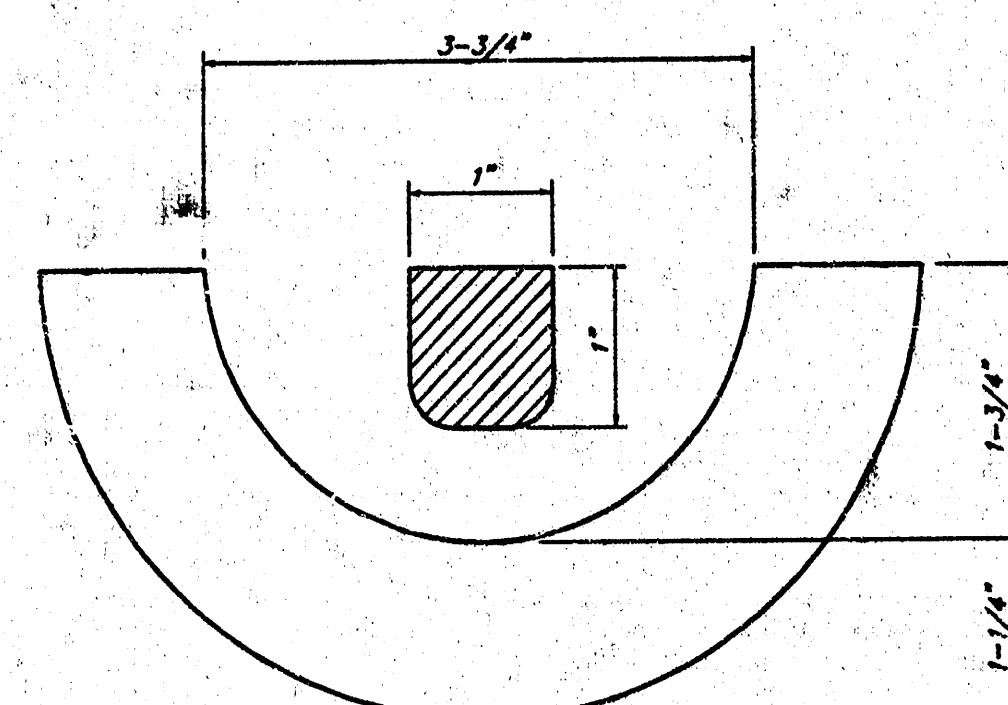


SECTION VIEW

PICKHOLE DETAIL



TOP VIEW

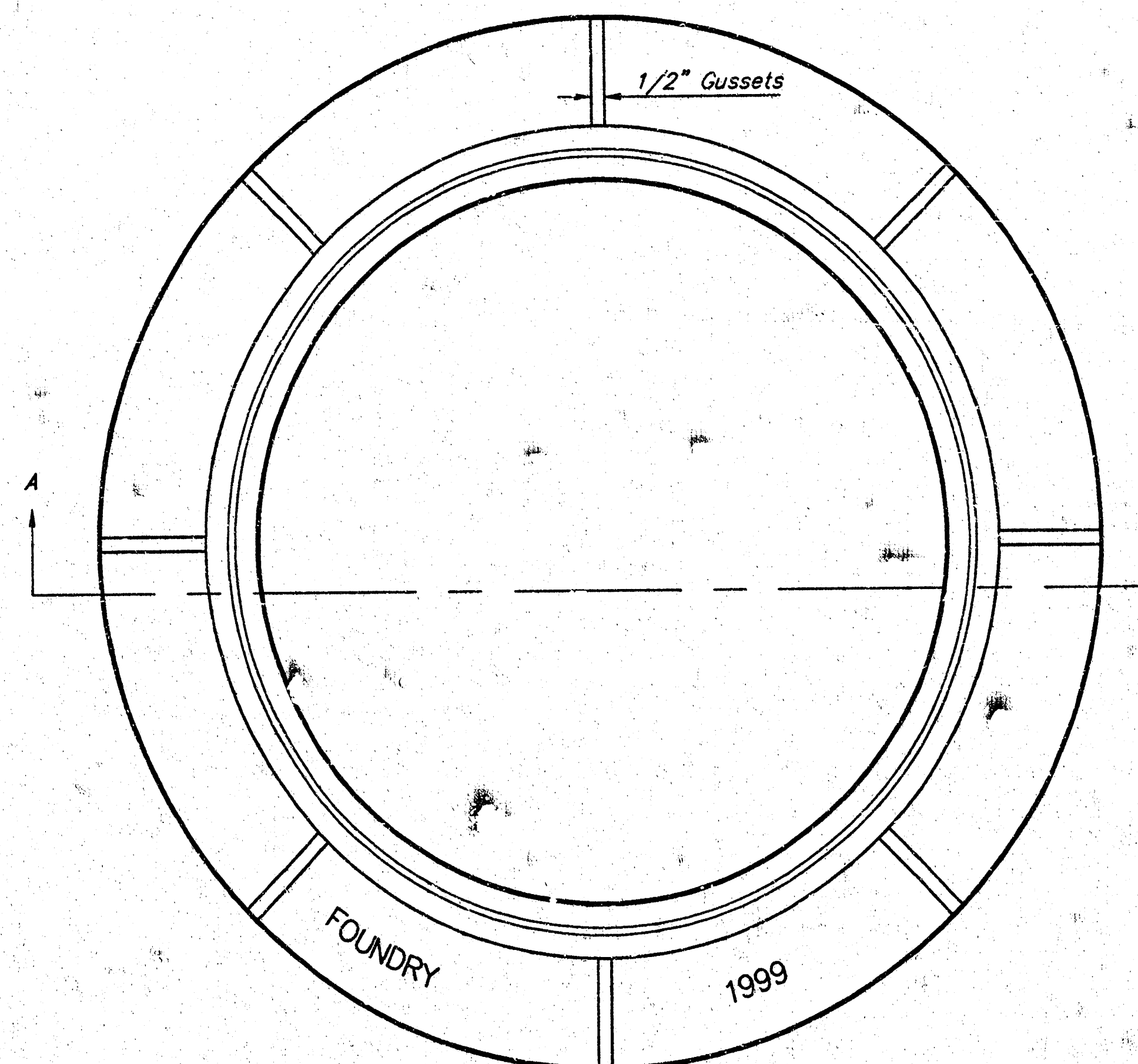


SECTION VIEW

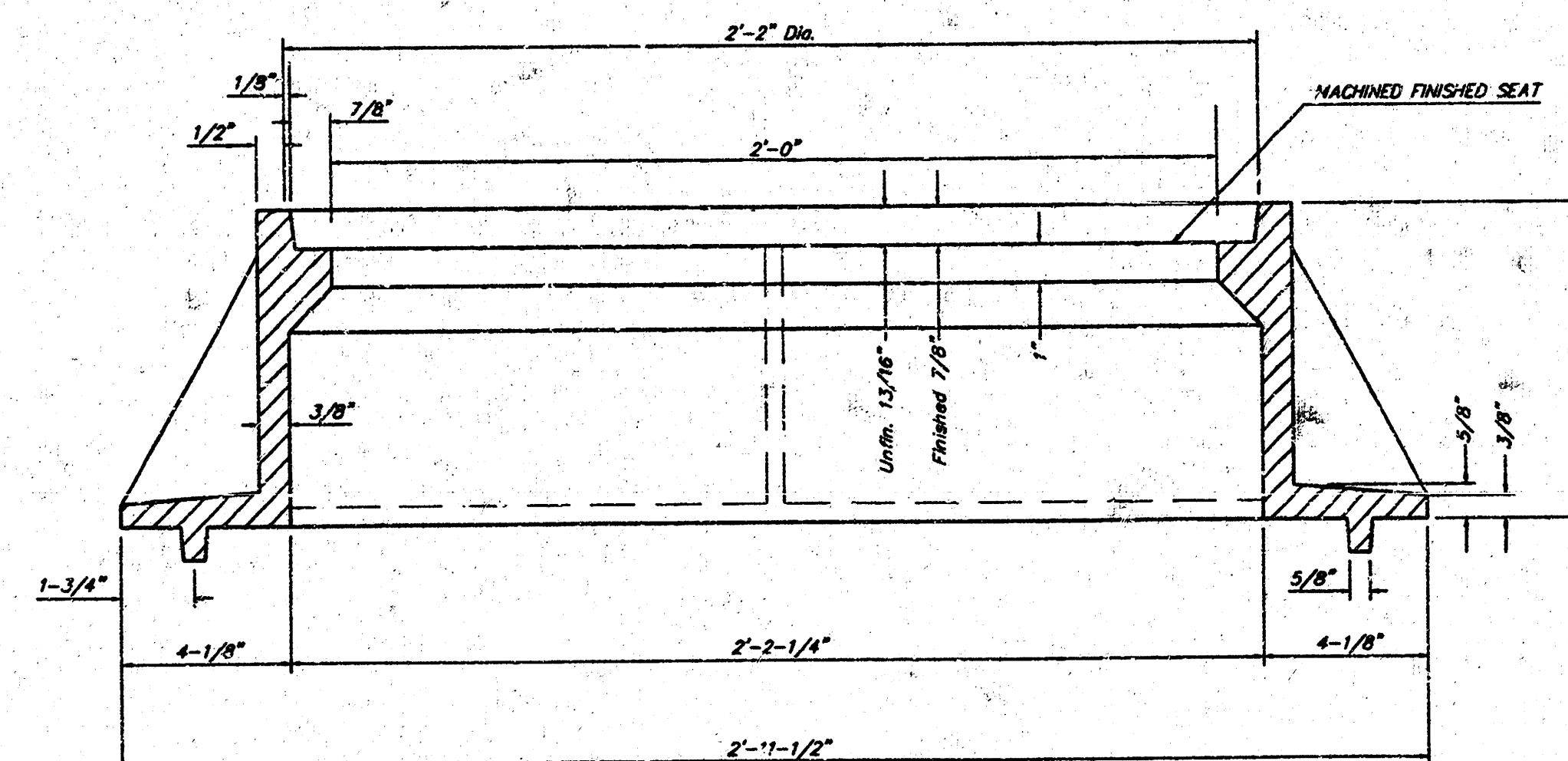
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE FRAME
Weight = 145 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 COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.

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.

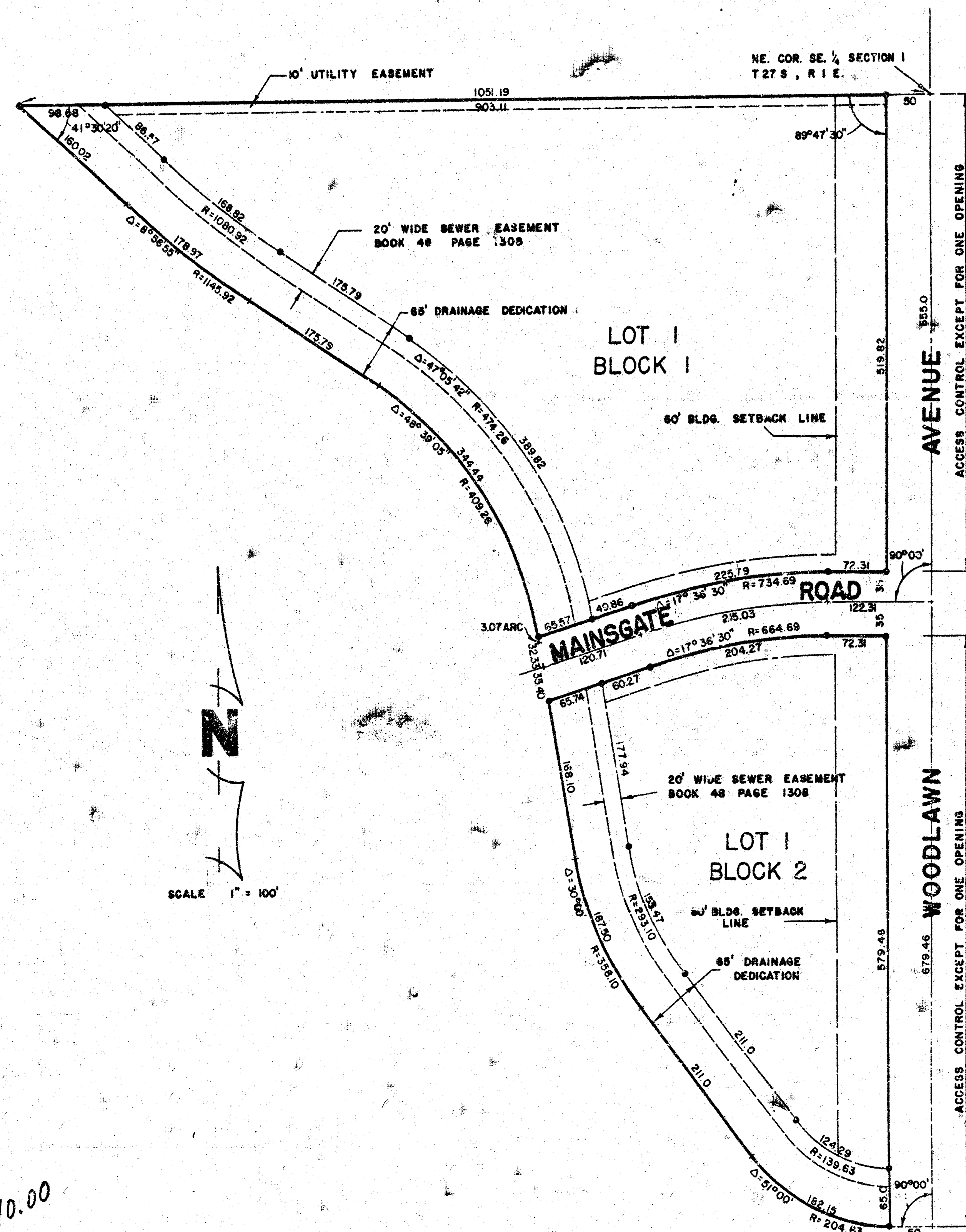
THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING 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 FRAME AND COVER DETAIL					
ADOPTED AS STANDARD DESIGN BY CITY OF WICHITA, KANSAS					
BAUGHMAN COMPANY P.A.					
ENGINEERING, SURVEYING, & PLANNING					
315-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211					
PROJECT NUMBER 999 PPS (607881)					
DESIGN STAFF	DRAWN STAFF	APPROVED	DATE 9/99	SCALE NONE	SHEET 3 OF 4

TO WICHITA SEDGWICK COUNTY KANSAS

ENGINEER: REISS AND GOODNESS ENGINEERS
2160 E. DOUGLAS WICHITA - KANSAS



STATE OF K
COUNTY OF

I, CHARLES K. SURVEYED AND NORTHEAST COR 1234.46 FEET A DISTANCE OF 204.63 FEET AN ARC OF 114.15 FEET TO A POINT OF TANGENCY; THENCE CONTINUING ON SAID TANGENT A DISTANCE OF 211.0 FEET TO A POINT OF CURVE; THENCE ON A CURVE TO THE RIGHT HAVING A DELTA ANGLE OF 30°06' AND A RADIUS OF 358.10 FEET AN ARC DISTANCE OF 187.50 FEET TO A POINT OF TANGENCY; THENCE CONTINUING ON SAID TANGENT A DISTANCE OF 185.63 FEET TO A POINT OF CURVE; THENCE ON A CURVE TO THE LEFT HAVING A DELTA ANGLE OF 17°27' AND A RADIUS OF 178.97 FEET AN ARC DISTANCE OF 178.97 FEET TO A POINT OF TANGENCY; THENCE CONTINUING ON SAID TANGENT A DISTANCE OF 175.79 FEET TO A POINT OF CURVE; THENCE ON A CURVE TO THE RIGHT HAVING A DELTA ANGLE OF 8°56'15" AND A RADIUS OF 1145.92 FEET AN ARC DISTANCE OF 178.97 FEET TO A POINT OF TANGENCY; THENCE CONTINUING ON SAID TANGENT A DISTANCE OF 160.02 FEET TO A POINT ON THE NORTH LINE OF SAID SOUTHEAST QUARTER OF SECTION 1; THENCE ON A CURVE TO THE POINT OF BEGINNING OF SAID SOUTHEAST QUARTER OF SECTION 1, A DISTANCE OF 160.02 FEET TO THE POINT OF BEGINNING OF SAID SOUTHEAST QUARTER OF SECTION 1, T 27 S, R 1 E OF THE 6TH P.M., CK COUNTY, KANSAS SAID POINT BEING 555.0 FEET SOUTH OF THE NORTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE WEST PERP. AR TO THE EAST LINE OF SAID SOUTHEAST QUARTER A DISTANCE OF 122.31 FEET TO A POINT OF CURVE; THENCE ON A CURVE TO THE LEFT HAVING A DELTA ANGLE OF 37°48'30" AND A RADIUS OF 699.69 FEET AN ARC DISTANCE OF 122.31 FEET TO A POINT OF CURVE; THENCE CONTINUING ON SAID TANGENT A DISTANCE OF 120.71 FEET TO A POINT OF CURVE; THENCE ON A CURVE TO THE RIGHT OF WAY EXTENDING TO THEIR INTERSECTION WITH THE WESTERLY LINE OF THE ABOVE DESCRIBED PROPERTY. THE TOTAL AREA OF THE ABOVE DESCRIBED PROPERTY BEING 13.9 ACRES MORE OR LESS. THE ACCOMPANYING PLAT IS A TRUE AND CORRECT EXHIBIT OF THE PROPERTY SURVEYED.

Charles M. Goodness
Charles M. Goodness, P. E.

KNOW ALL MEN BY THESE PRESENTS:

THAT WE, FIDELITY DEVELOPMENT, INC., A CORPORATION, BY ITS PRESIDENT, H. MARVIN BASTIAN and ~~SECRETARY, R. M. WOODMAN~~, HAVE CAUSED THE LAND DESCRIBED IN THE ENGINEER'S CERTIFICATE TO BE PLATTED INTO BLOCKS, LOTS AND A STREET. RESERVE RIGHTS ARE HEREBY GRANTED AS INDICATED FOR UTILITY AND DRAINAGE CONSTRUCTION AND MAINTENANCE. THE 65' WIDE DRAINAGE DEDICATION IS HEREBY DEDICATED FOR CONSTRUCTION, OPERATION, MAINTENANCE AND REPAIRING SUCH DRAINAGE SYSTEM. THE STREETS ARE HEREBY DEDICATED TO AND FOR THE USE OF THE PUBLIC. ALL AMBITER'S RIGHTS OF ACCESS TO OR FROM WOODLAWN AVENUE OVER AND ACROSS THE EAST LINE OF LOT 1, BLOCK 1 OR THE EAST LINE OF LOT 1, BLOCK 2 ARE HEREBY GRANTED TO THE APPROPRIATE GOVERNING BODY EXCEPT THAT LOT 1, BLOCK 1 AND LOT 1, BLOCK 2 SHALL EACH HAVE ONE OPENING TO WOODLAWN AS SHALL BE DETERMINED BY THE CITY ENGINEER OF THE CITY OF WICHITA.

FIDELITY DEVELOPMENT, INC.

H. Martin Bastian
H. Martin Bastian
H. M. McClure
H. M. McClure
PRESIDENT
SECRETARY
(SEAL)

STATE OF KANSAS)
COUNTY OF SEDGWICK) ss.

BE IT REMEMBERED THAT ON THIS 28th DAY OF OCTOBER, 1975, BEFORE ME, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, CAME FIDELITY DEVELOPMENT, INC., A CORPORATION, BY ITS PRESIDENT, H. MARVIN BASTIAN AND SECRETARY, H. M. McCLURE TO ME KNOWN TO BE THE SAME PERSONS WHO EXECUTED THE FOREGOING INSTRUMENT OF WRITING AND DULY ACKNOWLEDGED THE SAME AS THEIR VOLUNTARY ACT AND DEED. IN TESTIMONY WHEREOF I HAVE HERETO SET MY HAND AND AFFIXED MY NOTARIAL SEAL THE DAY AND YEAR ABOVE WRITTEN.

MY COMMISSION EXPIRES October 12, 1977.

Shirley R. Ward NOTARY PUBLIC
SHIRLEY R. WARD (SEAL)

THIS PLAT OF WOODLAWN PLACE 2ND ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS HAS BEEN SUBMITTED TO AND APPROVED BY THE WICHITA SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION, WICHITA, KANSAS.

DATED THIS 23RD DAY OF OCTOBER, 1975.

WICHITA-SEDGWICK COUNTY METROPOLITAN
AREA PLANNING COMMISSION

David Bayouth
David Bayouth CHAIRMAN

Robert A. Lakin
Robert A. Lakin TREASURER

THIS PLAT APPROVED AND THE DEDICATIONS SHOWN HEREON ACCEPTED BY THE CITY COMMISSIONERS OF THE CITY OF WICHITA, KANSAS.

THIS 9 DAY OF DEC., 1975

SEAL
COMMISSIONERS OF THE CITY OF WICHITA, KANSAS
Donald C. Giazek

Mayor
Donald A. Peters

Donald C. Giazek

Donald C. Giazek
CITY CLERK

THIS PLAT APPROVED AND THE DEDICATIONS SHOWN HEREON ACCEPTED BY THE BOARD OF COUNTY COMMISSIONERS OF SEDGWICK COUNTY, KANSAS

THIS 23rd DAY OF December, 1975

COUNTY COMMISSIONERS OF SEDGECOCK COUNTY, KANSAS
 Earl G. Risch
 Earl G. Risch
 John Hulse
 John Hulse
 Tom Scott
 George Pierce
 George Pierce

CLERK
 CLERK
 COMMISSIONER
 COMMISSIONER
 COUNTY CLERK

Entered on Transfer Record this 23rd day of December 1975

STATE OF KANSAS)
COUNTY OF SEDGWICK) ss.

THIS IS TO CERTIFY THAT THIS INSTRUMENT WAS FILED FOR RECORD IN THE REGISTER OF DEEDS OFFICE AT 9:30 A.M. -- P.M. ON THE 23 DAY OF DECEMBER, 1975

Bette F. McCart REGISTER OF DEEDS
Bette F. McCart

Pat Kettler DEPUTY
PAT KETTLER

40 05 08 18