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(CH) = Chord
(C) = Calculated
(M) = Measured
(P) = Plotted

- (A) = Planted
 (F) = Fruiting
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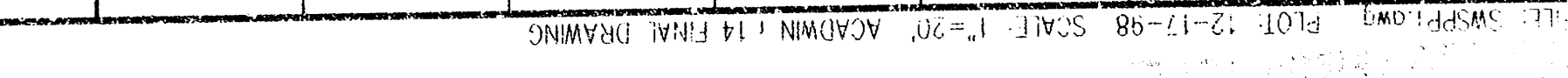
NOTE TO CONTRACTOR:

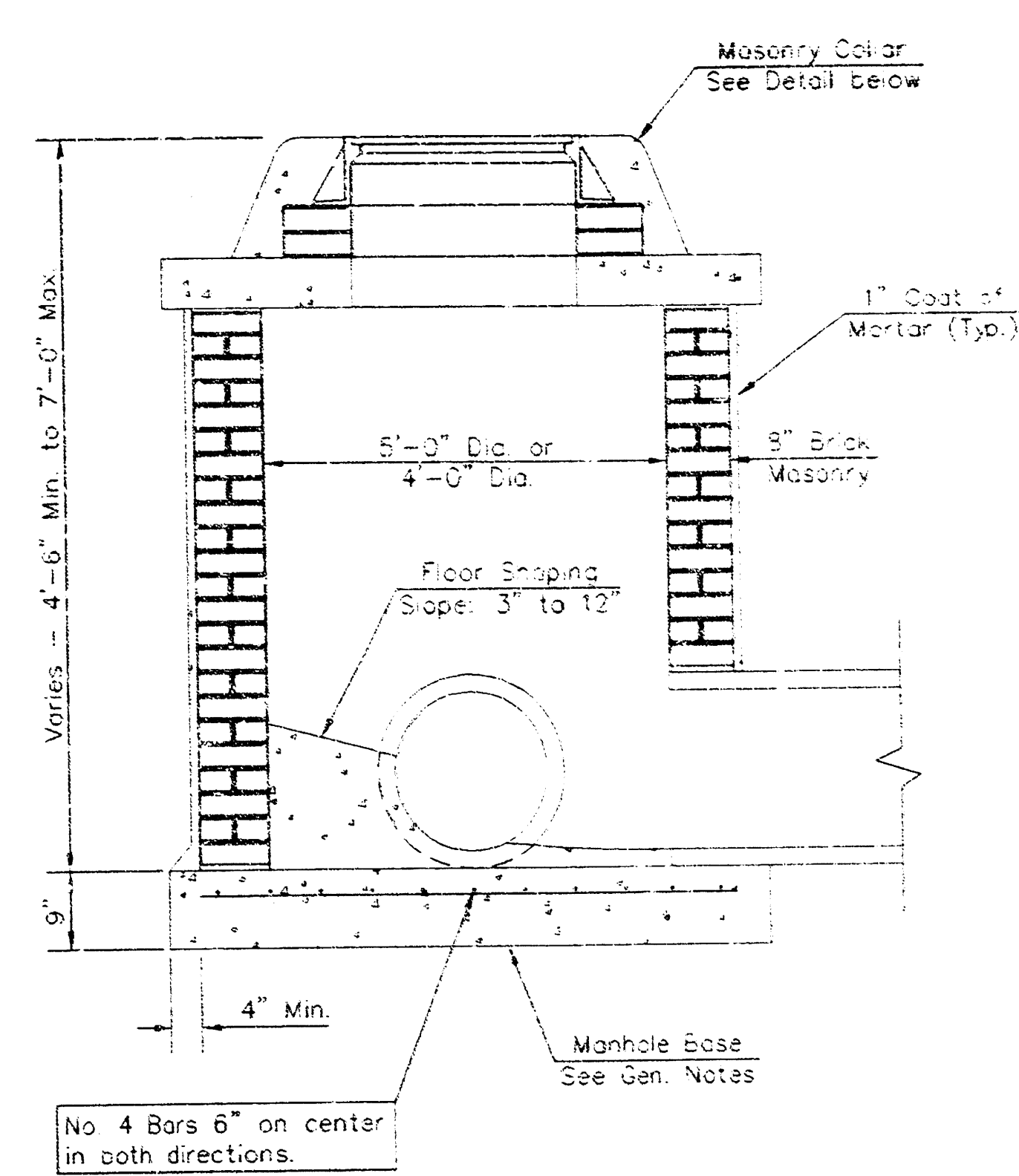
INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM UNDER CONTRACT WITH THE OWNER/DEVELOPER. SAID INSPECTION IS TO BE IN ACCORDANCE WITH THE CITY OF IOWA'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE CITY'S STANDARD SPECIFICATIONS FOR CONSTRUCTION. ENGINEERING PRACTICES AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY'S STANDARD SPECIFICATIONS FOR CONSTRUCTION. THE PUBLIC RIGHT-OF-WAY BY THE CITY ENGINEER SHALL BE MAINTAINED WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMPLETED WITHOUT SUCH INSPECTION OR PUBLIC RIGHT-OF-WAY BEING MAINTAINED. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY ENGINEER'S WRITTEN AUTHORIZATION BY THE CITY ENGINEER.

ENGINEERING PRACTICES AND
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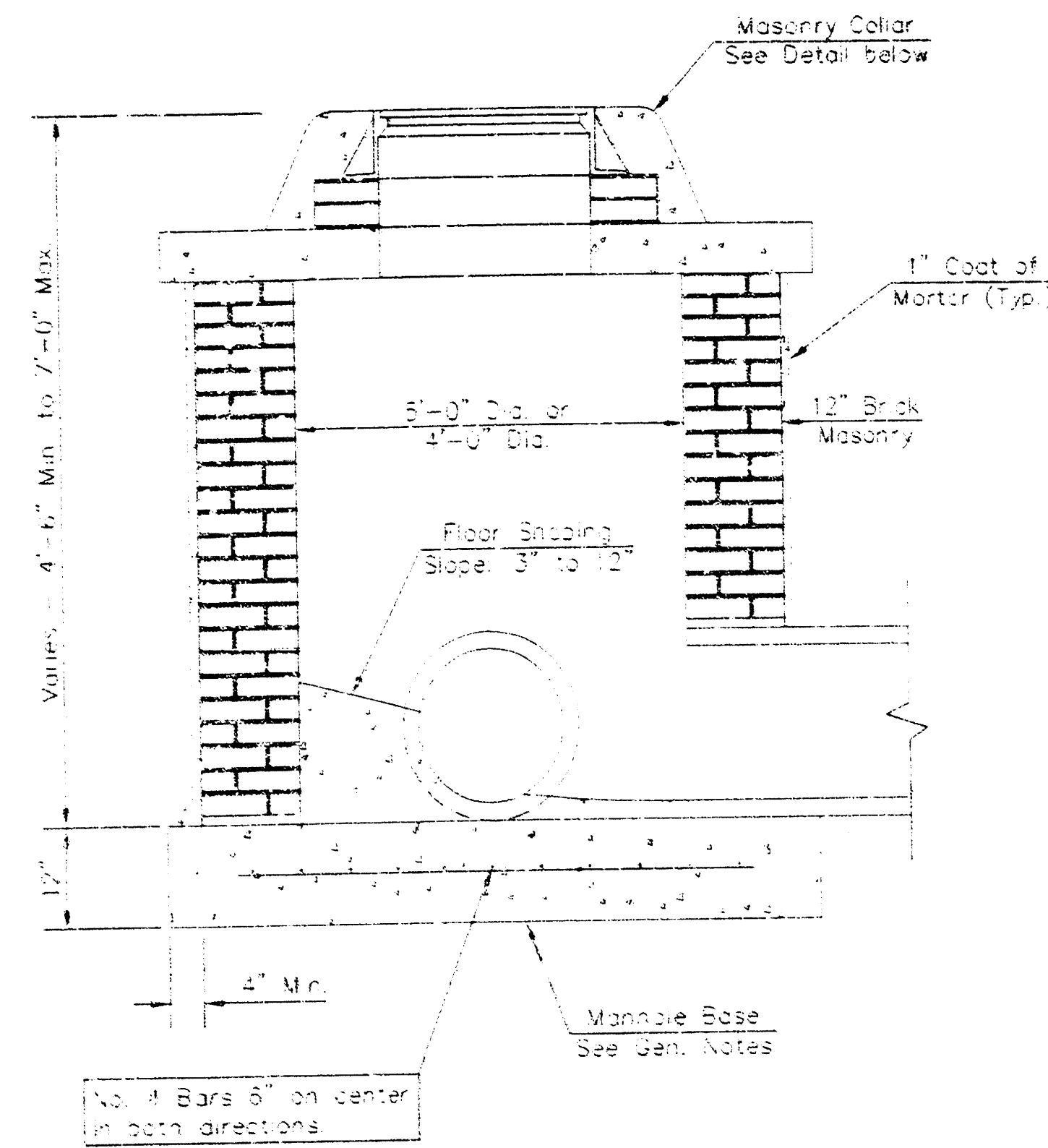
STORM SEWERS VR 4 12/23/98

CITY OF WICHITA PROJECT NO: 875PPS (607861)

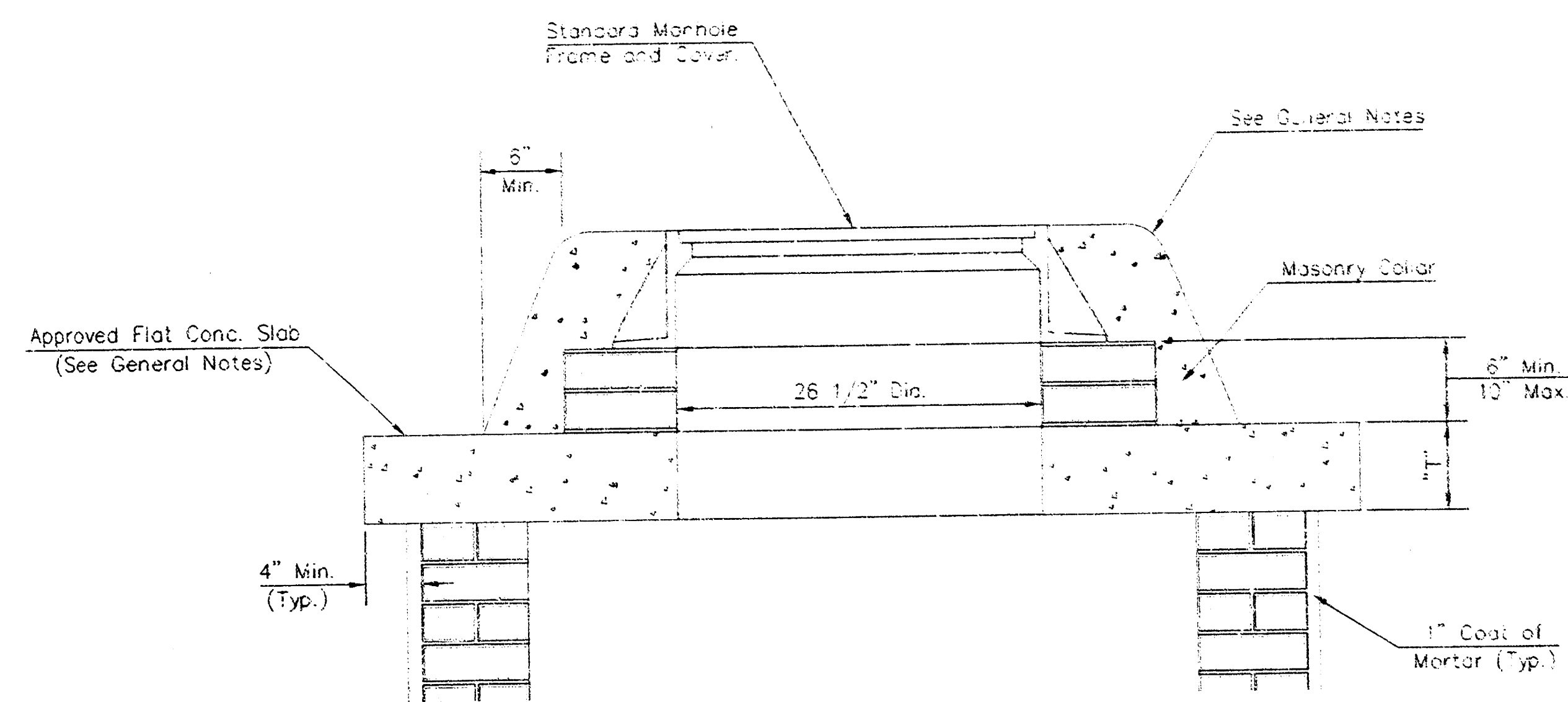




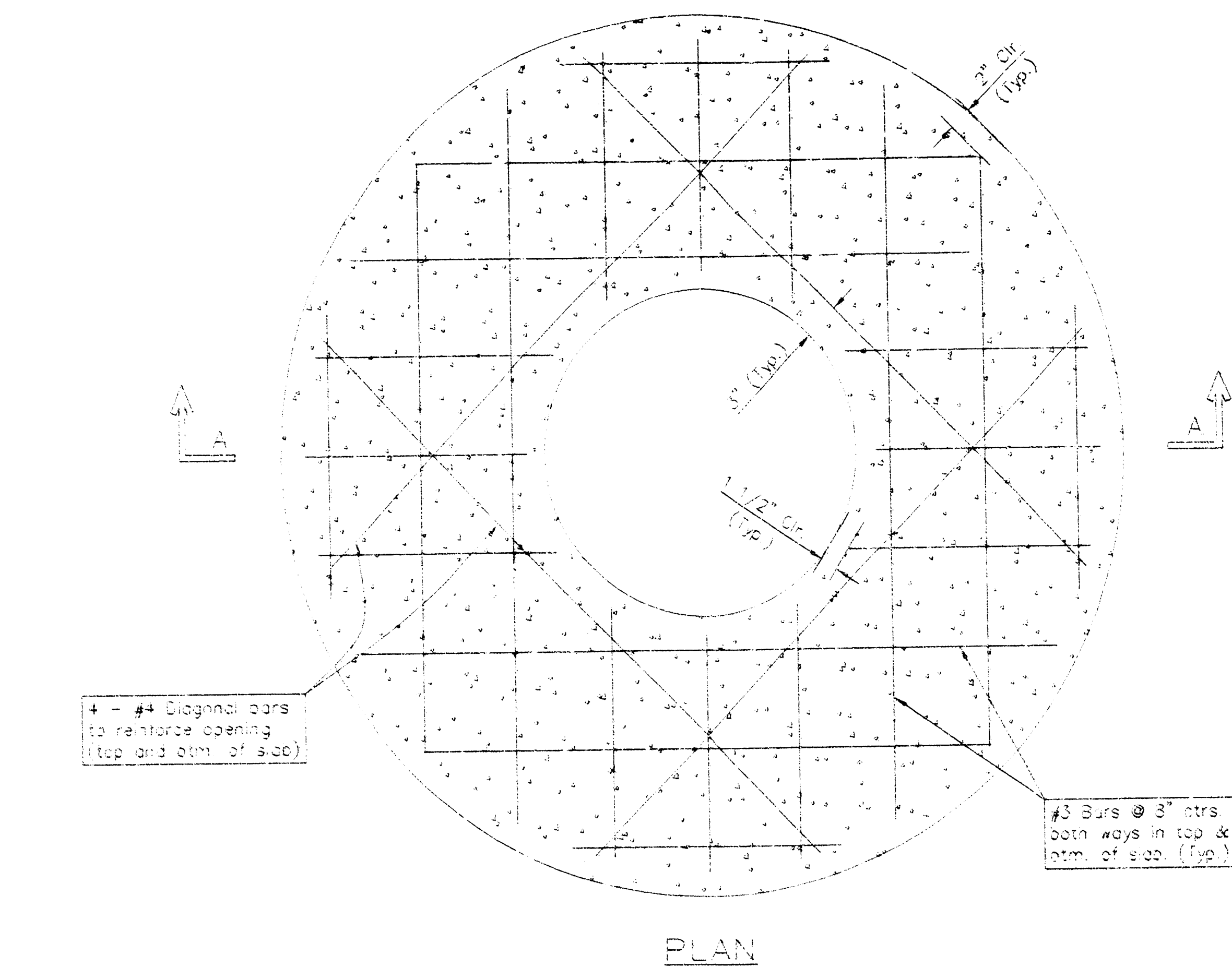
SHALLOW TYPE "A" MANHOLE



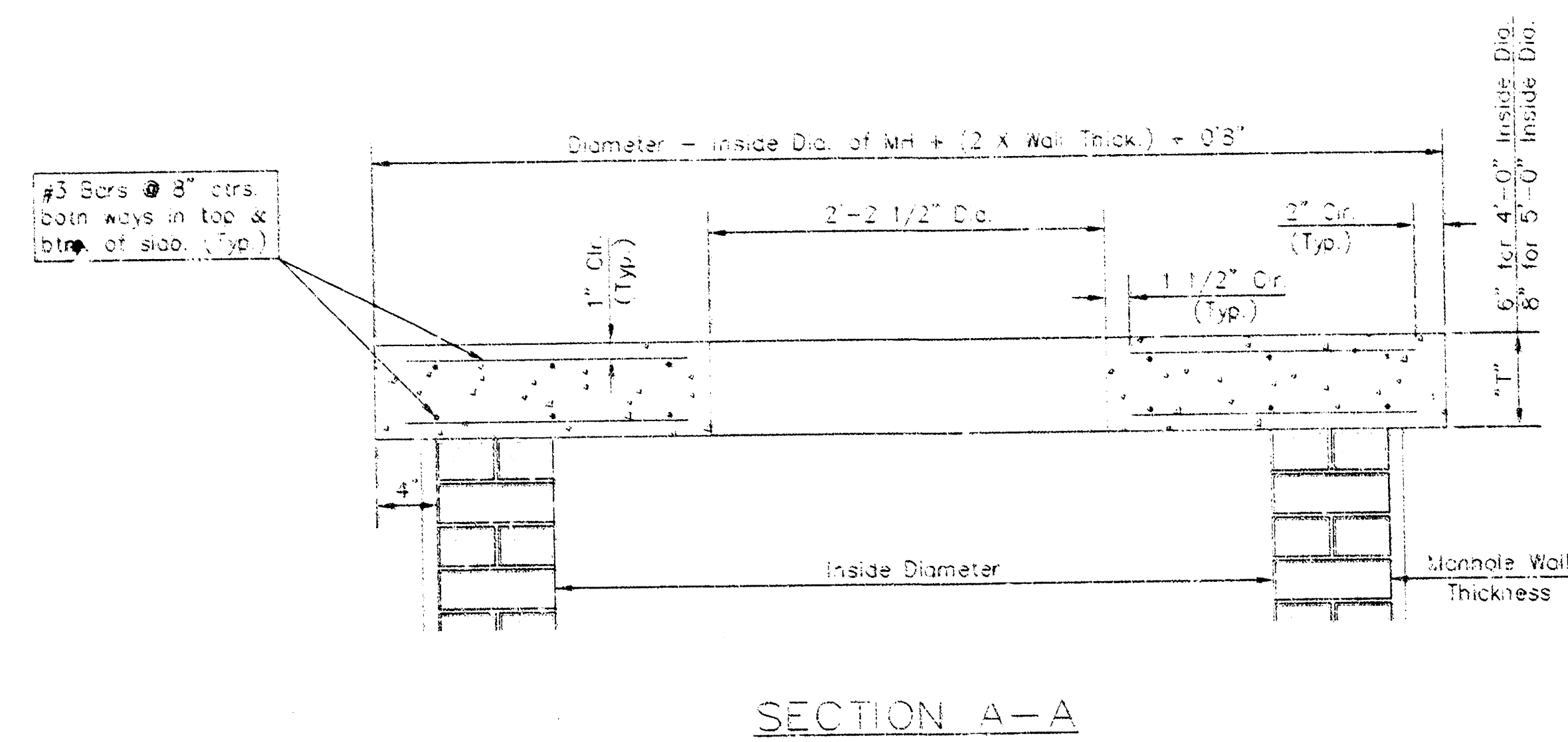
SHALLOW TYPE "B" MANHOLE



MASONRY COLLAR DETAIL

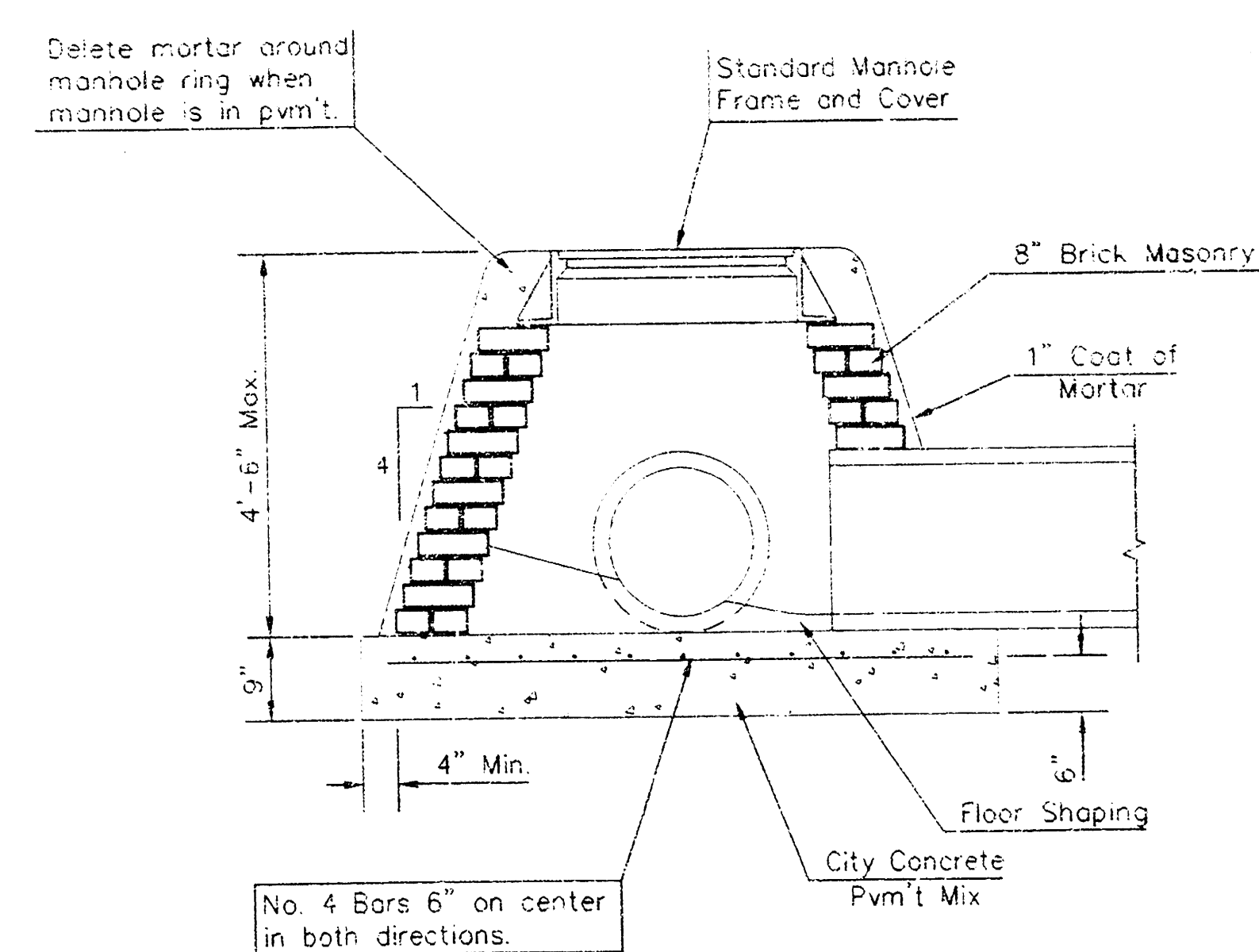


PLAN

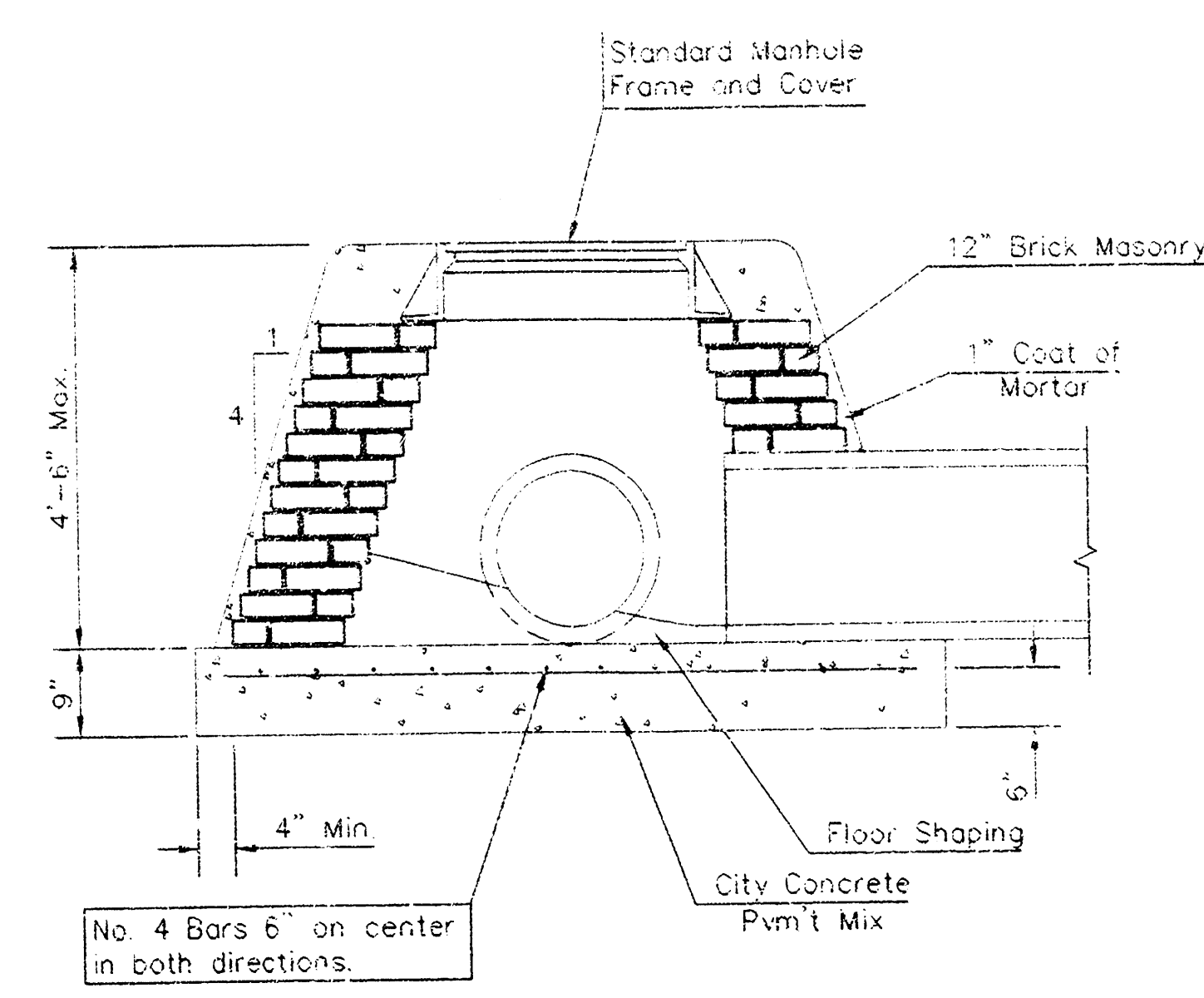


SECTION A-A

FLAT CONCRETE SLAB DETAILS



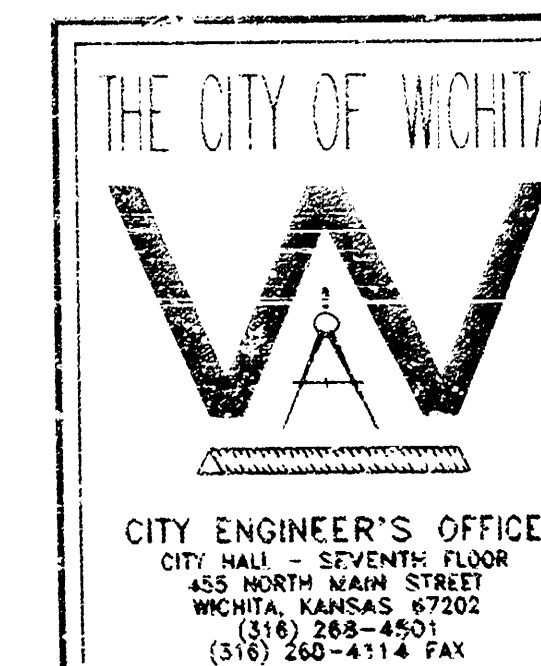
SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

GENERAL NOTES

- Mortar used in masonry construction shall contain 3 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 cement 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. Type "A" shallow manholes can be used on sewers when the manhole is not located within public street pavement. 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.
- 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 6" 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.
- 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 an inlet pipe to the outlet pipe. Flow channels shall be formed to match the bottom halves of the flowing pipes and the outflowing pipe as shown by the drawings. 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 rest 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.
- Pipes installed within the excavation made for the manhole shall be braced with concrete to the limits of the manhole excavation. When play pipe is used, the cradle shall extend to the first joint outside the manhole. The cradle shall be terminated at the play pipe joint in a manner which will maintain the flexibility of the joint. Cost of cradle within manhole excavation or to play pipe joints adjacent to manhole shall be included in the unit price bid for the manhole.
- 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 drawings.
- The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.
- Standard shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type and diameter indicated. Standard special shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.
- All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.



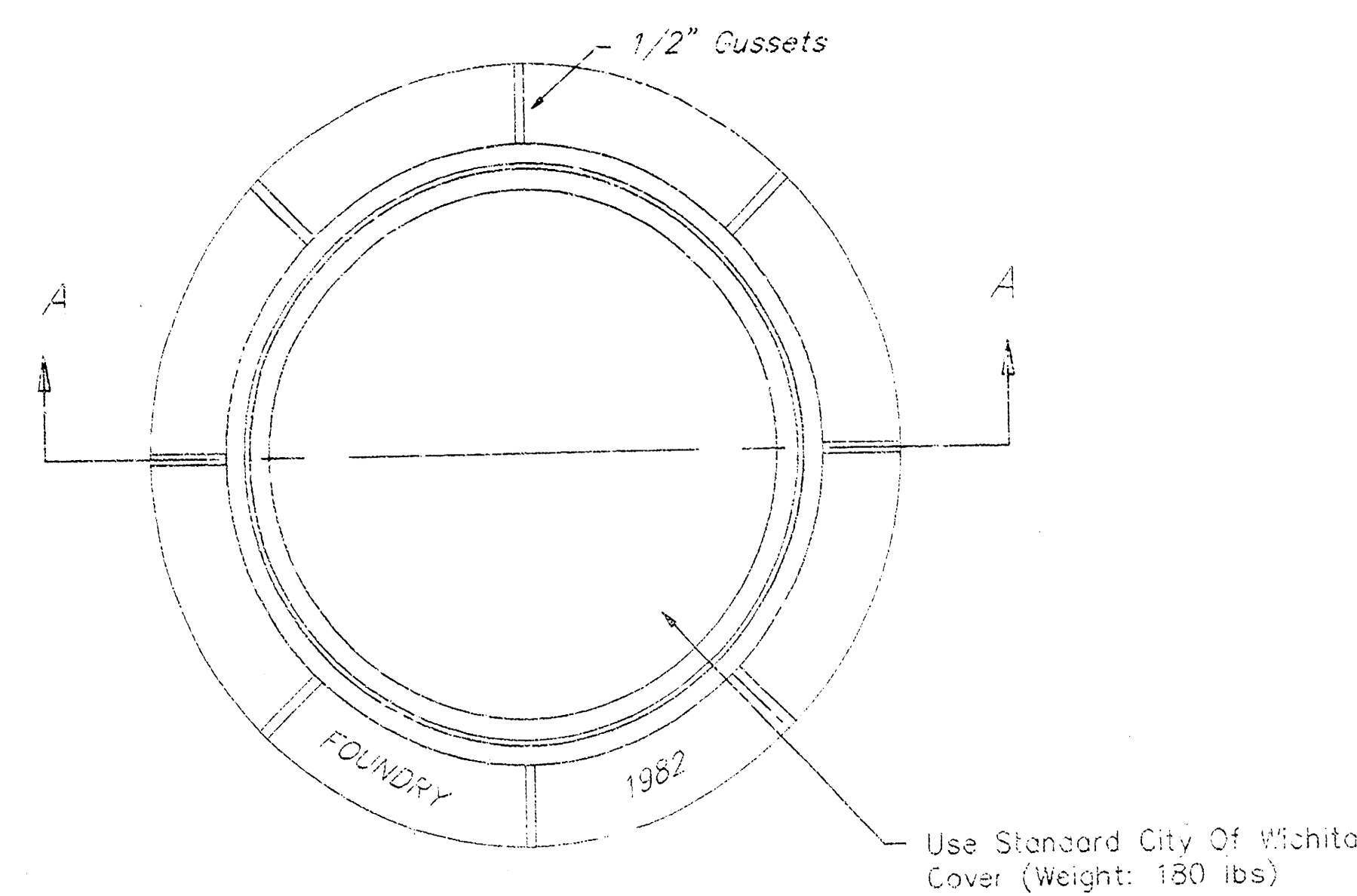
STANDARD/SPECIAL
SHALLOW MANHOLES
TYPE 'A' & 'B'

M. E. LINDEBAK P.E. - CITY ENGINEER

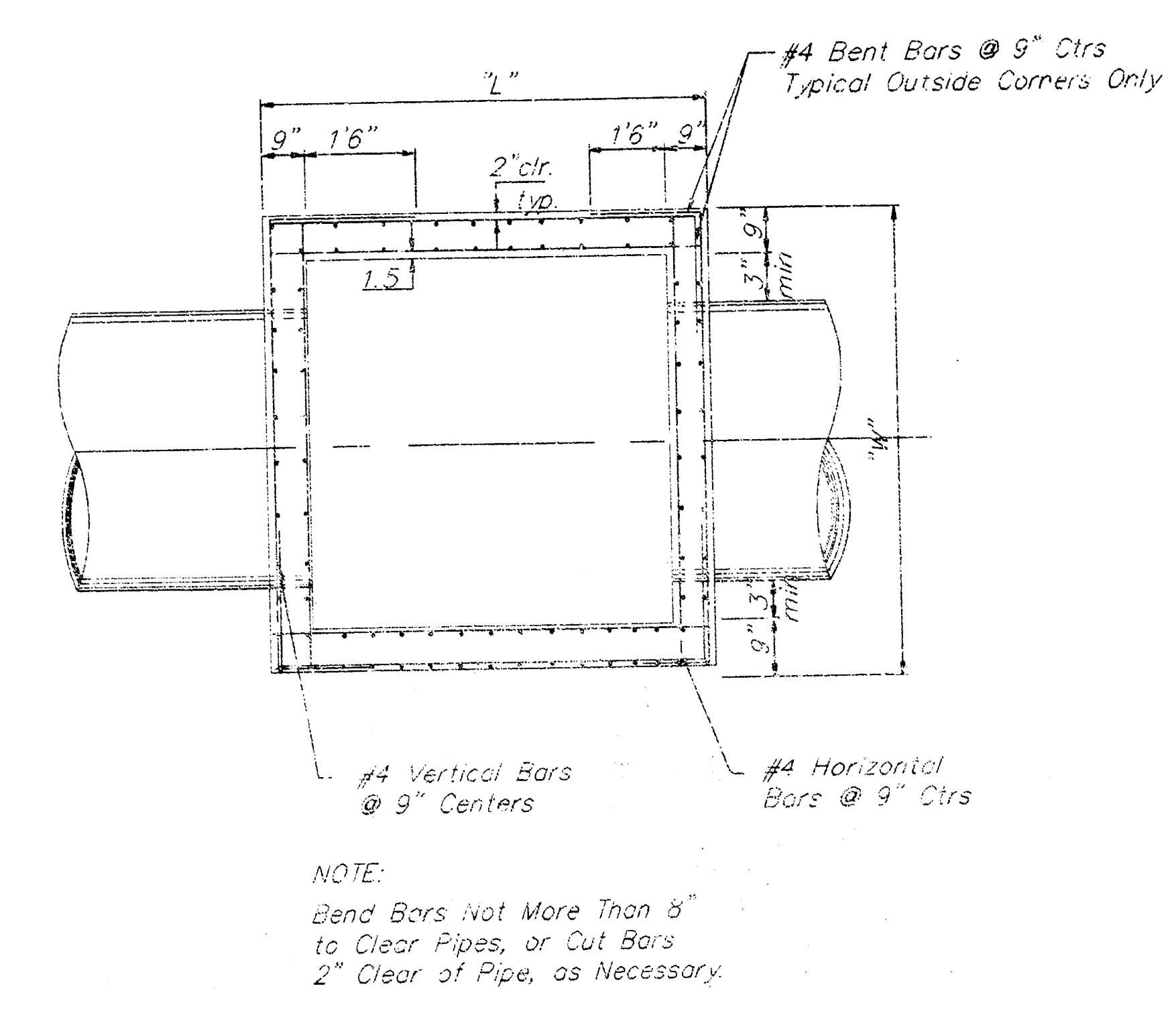
PROJECT NUMBER XXX-XXXX INDEX CODE XXXXXX

DATE MAR 96 SHEET 02 OF 3

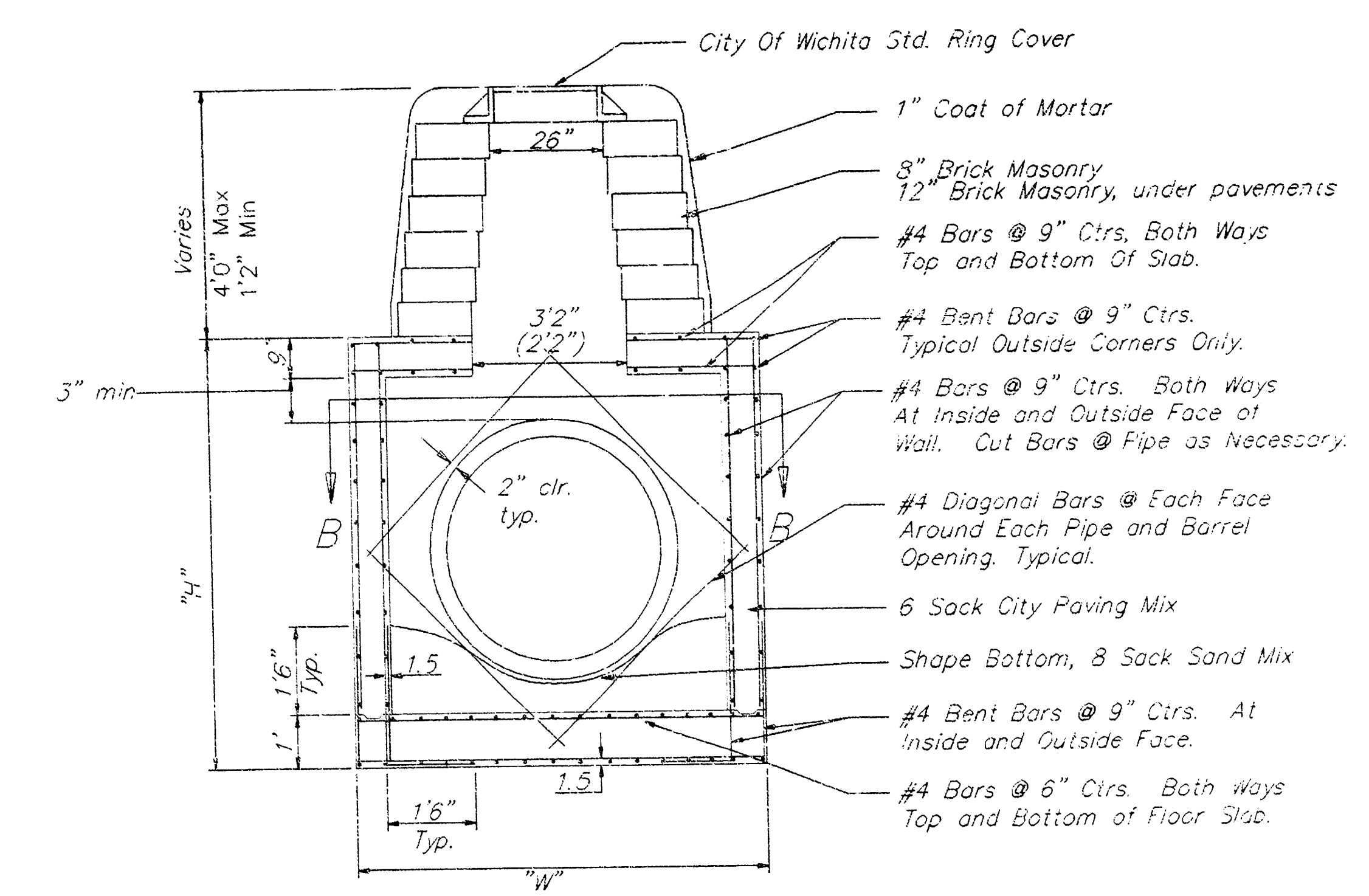
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
405 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4401
(316) 268-4114 FAX



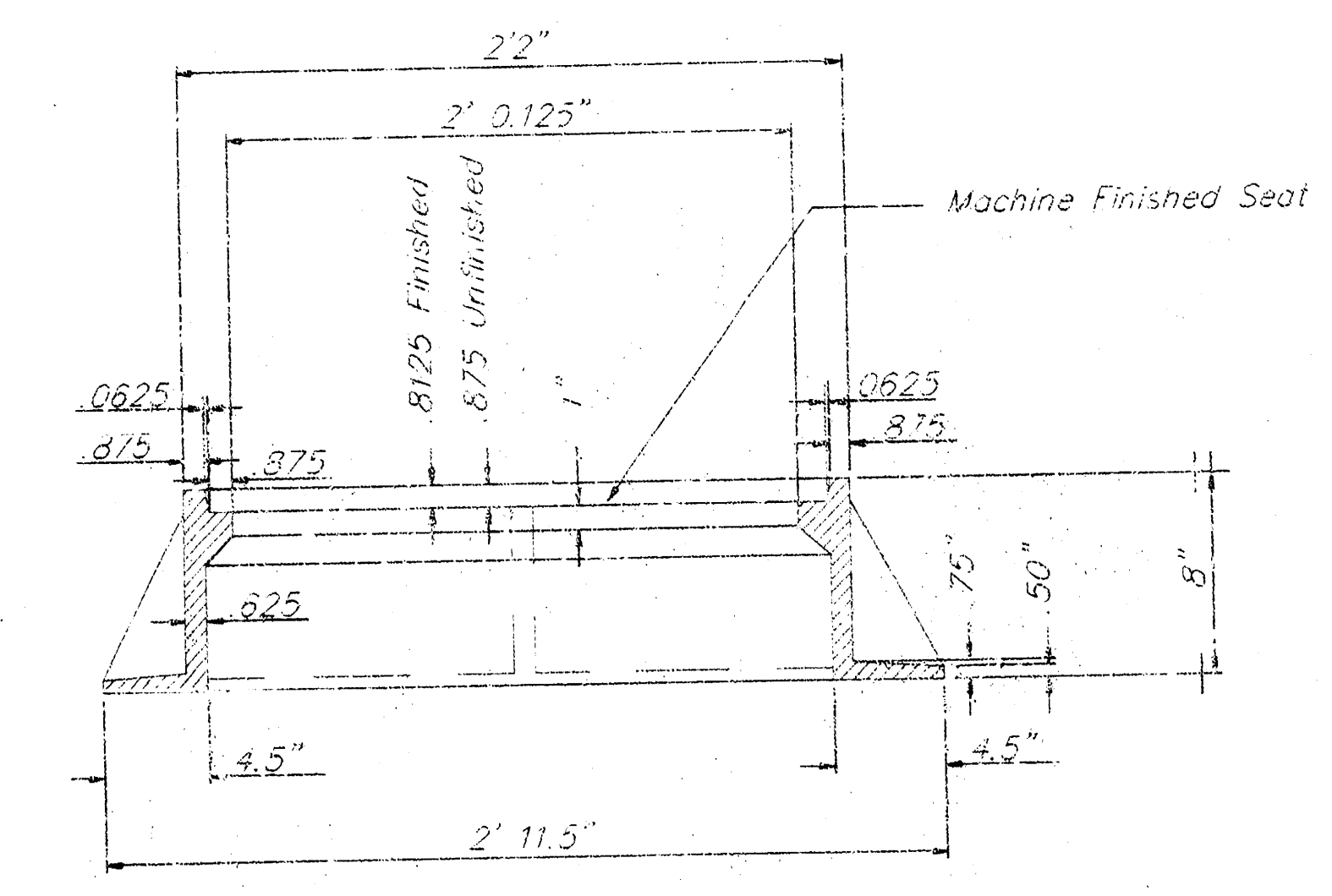
TOP VIEW



SECTION B-B

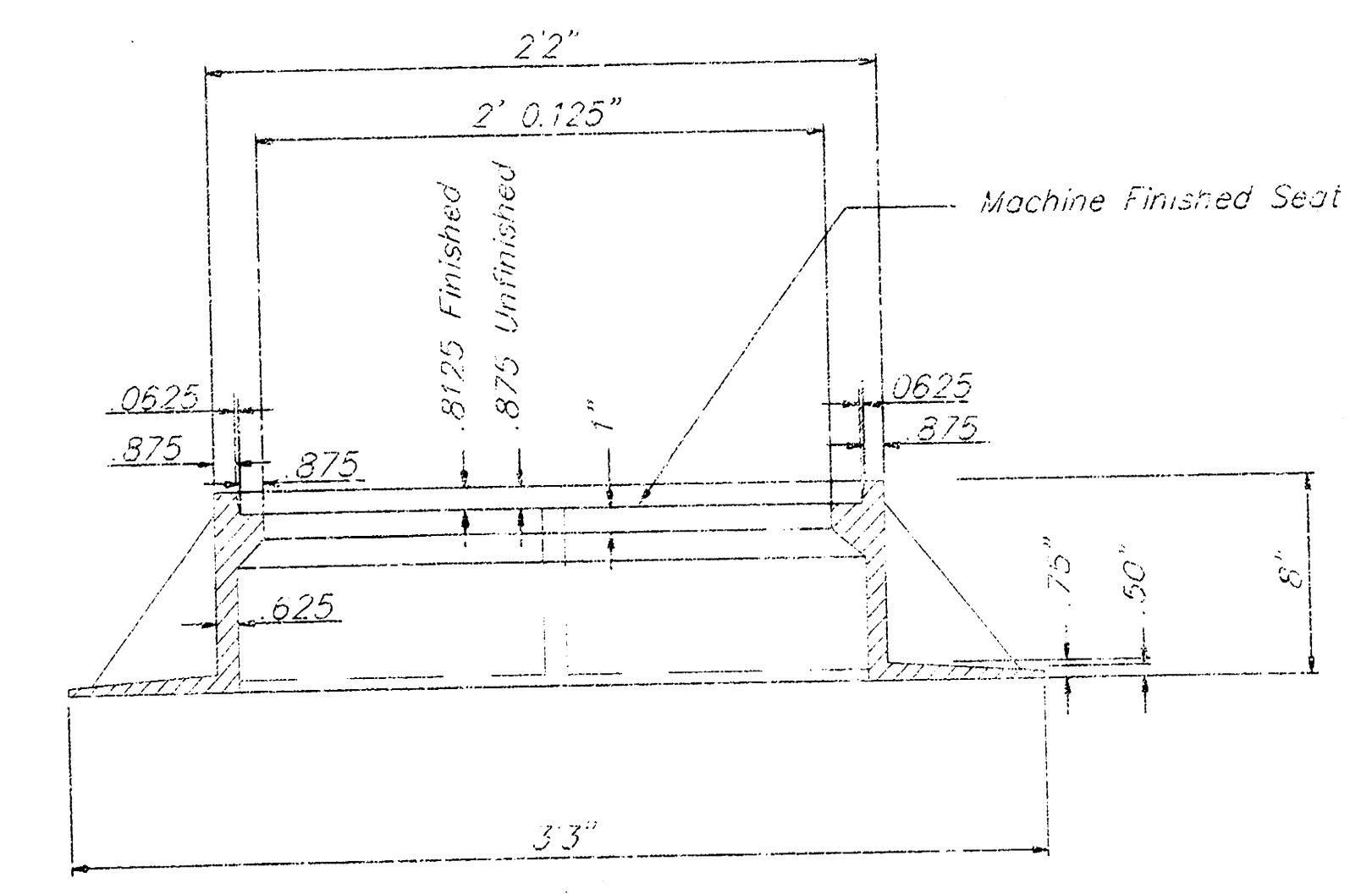


REINFORCED CONCRETE MANHOLE
STACK 2.33' TO 4'0"



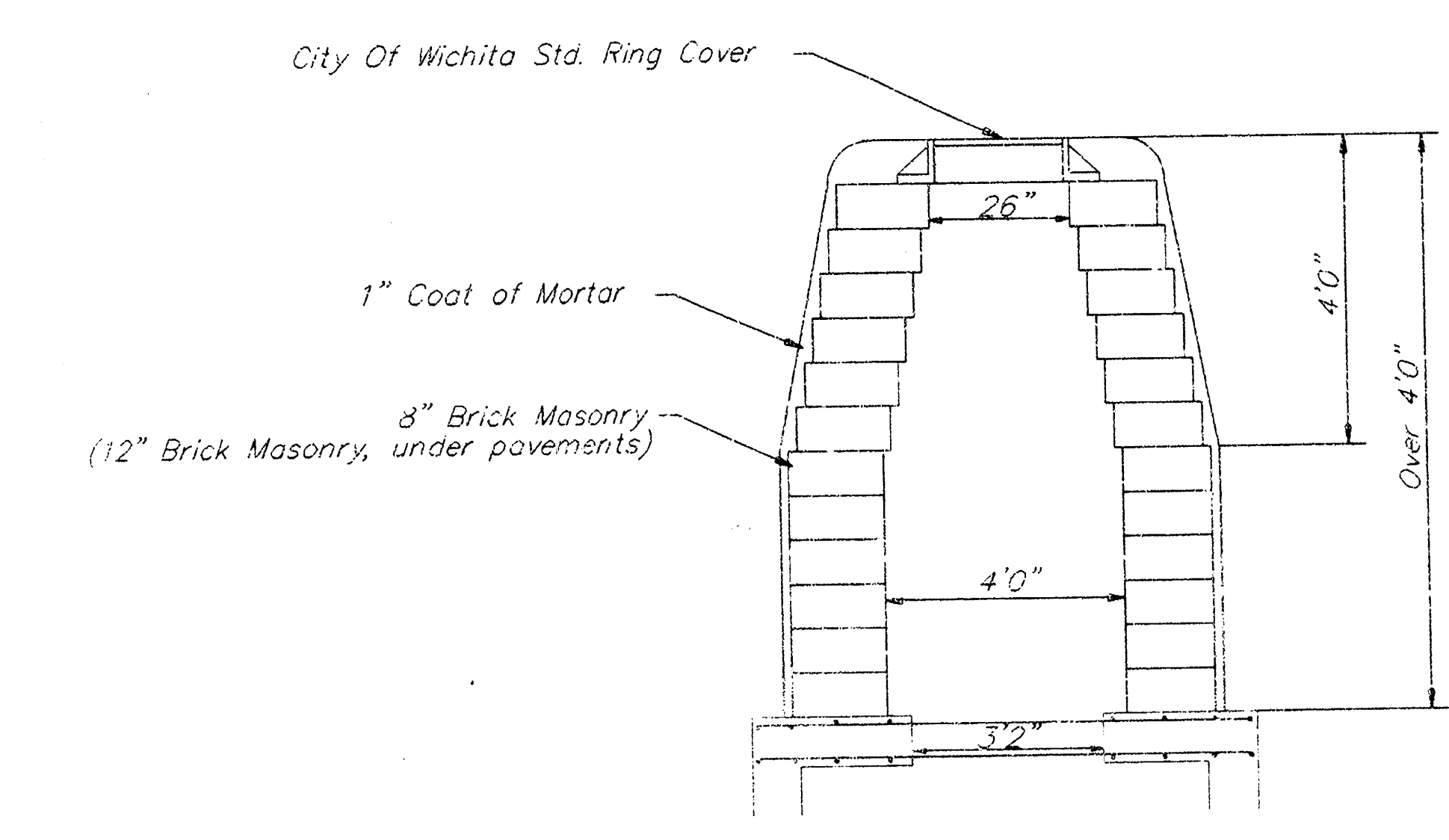
SECTION A-A

MANHOLE FRAME
Weight: 240 Lbs.

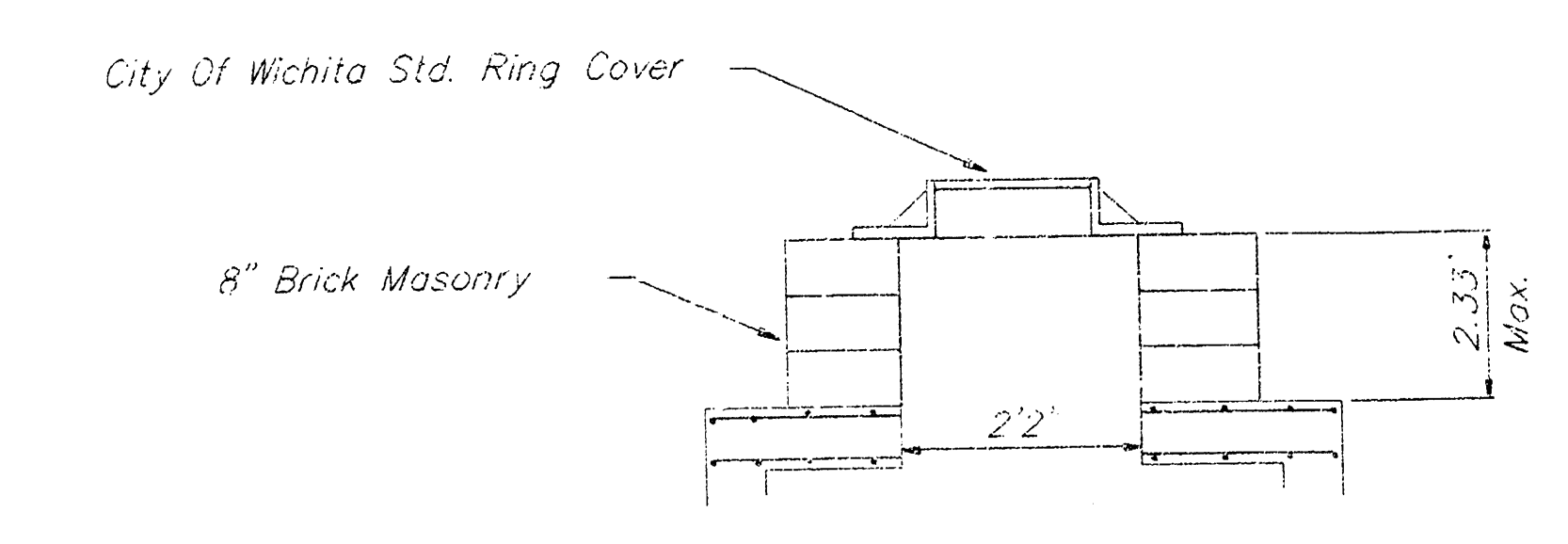


WIDE FLANGE RING
Weight: 725 Lbs.

- GENERAL NOTES:
1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE WALLS AND BASES SHALL CONFORM TO THE REQUIREMENTS 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. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
 2. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING. USING 8-SACK SAND MIX CONCRETE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS.
 3. 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.
 4. THE ENDS OF ALL PIPES IN MANHOLES SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF MANHOLE WALL.



MANHOLE STACK OVER 4'0"



MANHOLE STACK LESS THAN 2.33'

		REINFORCED CONCRETE MANHOLE	
M. E. LINDEBAK P.E. - CITY ENGINEER			
PROJECT NUMBER XXX-XXXX		INDEX CODE XXXXXX	
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