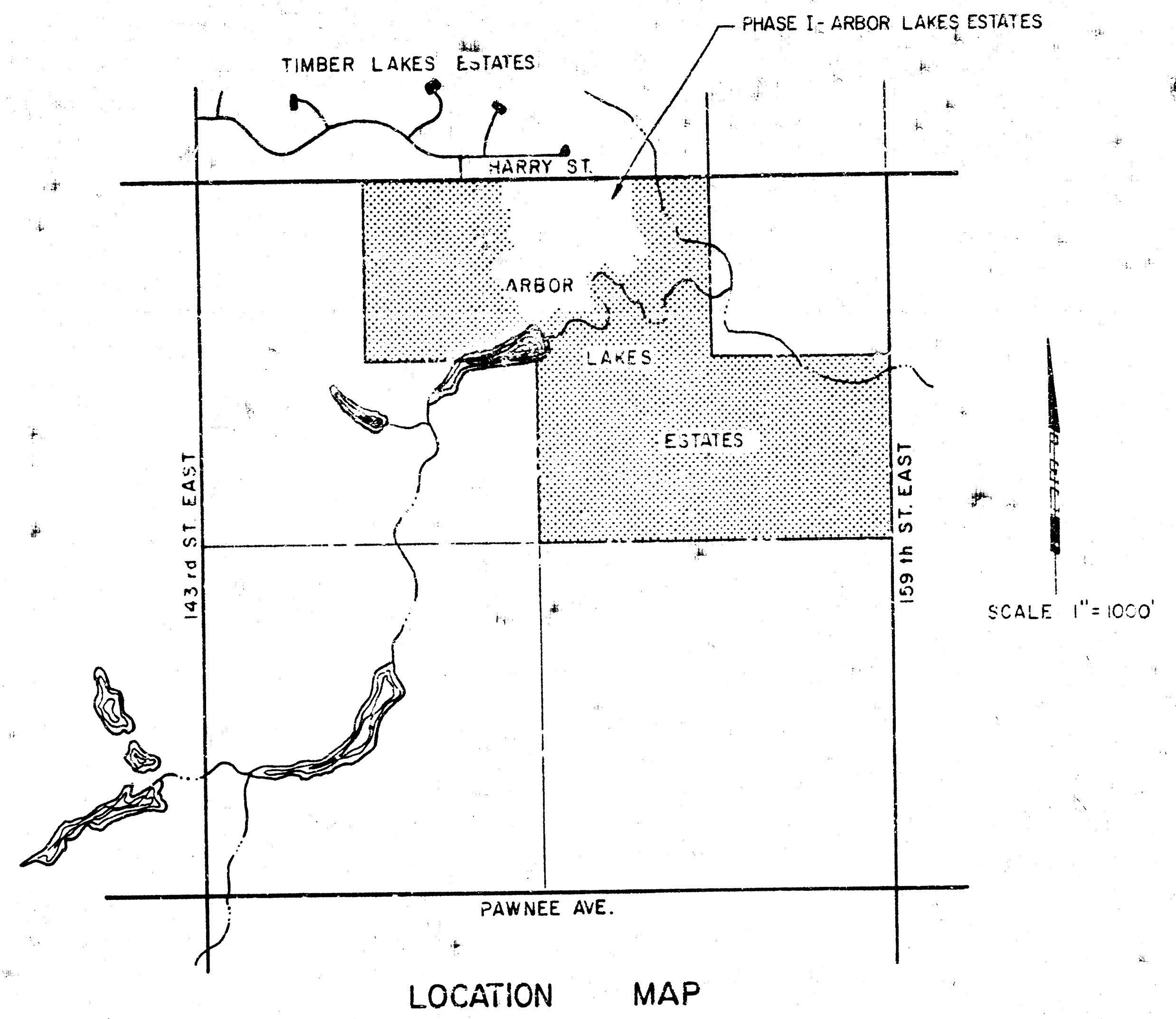


INDEX OF SHEETS

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	KEY MAP & SCHEDULE
SHEET NO. 3-4	SANITARY SEWER DETAILS
SHEET NO. 5-7	PLAN PROFILES



CONSTRUCTION PLANS FOR SANITARY SEWER IMPROVEMENTS IN ARBOR LAKES ESTATES TO SEDGWICK COUNTY, KANSAS

PHASE I
JAN. 1977

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

PROJECT NO. 30-76303-2-024

APPROVED
[Signature]
CITY ENGINEER OF WICHITA, KANSAS
DATE 1/5/78

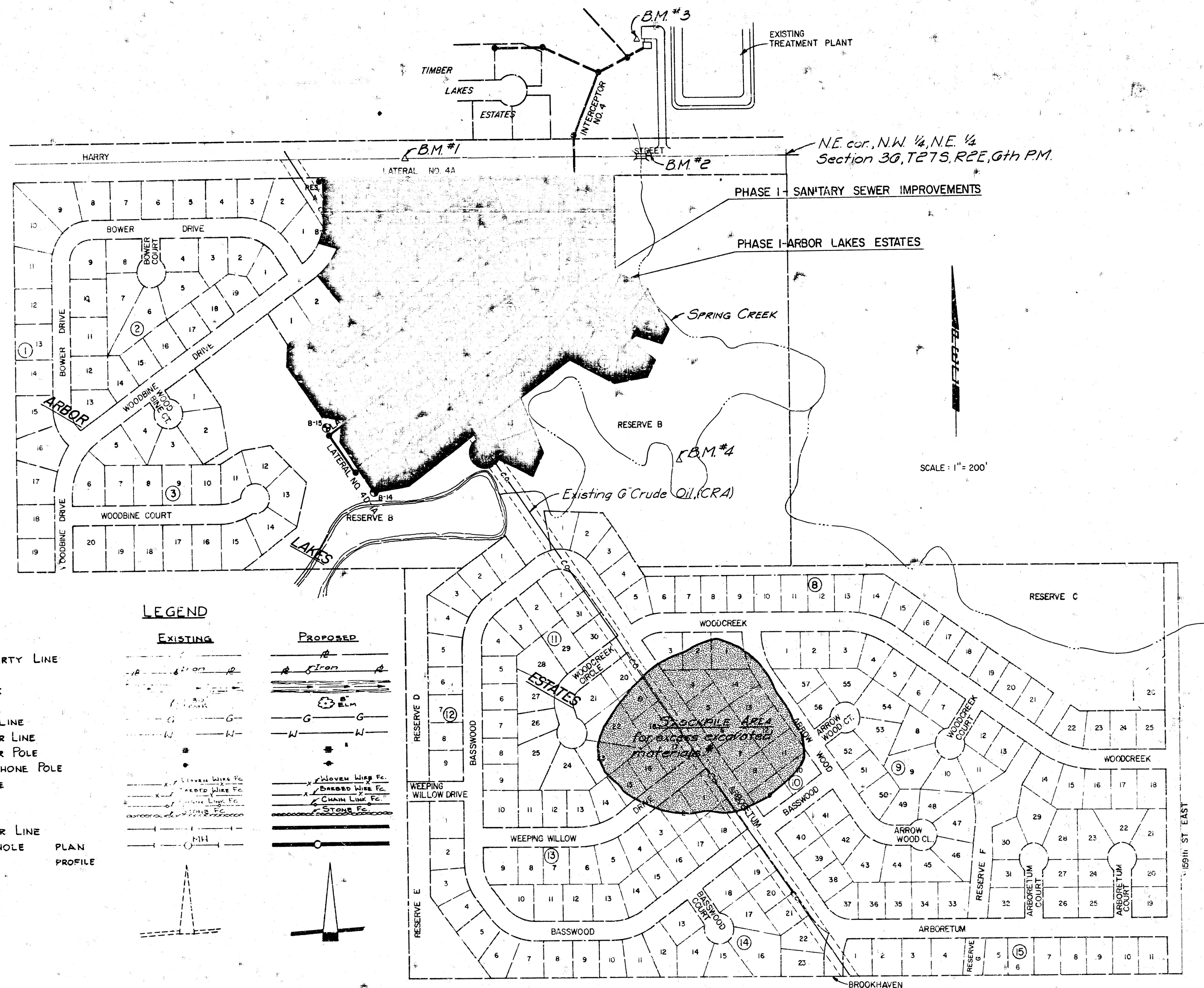
FILED
THE SEDGWICK COUNTY CLERK
[Signature] 1-12-78
COUNTY CLERK DATE

APPROVED
[Signature]
COUNTY ENGINEER/DIRECTOR OF PUBLIC WORKS
DATE 1-15-78

APPROVED
[Signature]
CHAIRMAN
BOARD OF COUNTY COMMISSIONERS

APPROVED
[Signature]
WICHITA SEDGWICK COUNTY,
DEPARTMENT OF COMMUNITY HEALTH

8/61 21 NVP
JAN 12 1978



SEWER LINE SCHEDULE	
LINE NO.	SHEET NO.
INTERCEPTOR NO. 4D	5
LATERAL NO. 4A	6
LATERAL NO. 4A-1	6
LATERAL NO. 4A-2	6
LATERAL NO. 4B	6
LATERAL NO. 4C	7
LATERAL NO. 4D	7
LATERAL NO. 4D-1	7
LATERAL NO. 4D-1A	7

GENERAL NOTES

1. THE CONTRACTOR SHALL CONTAIN HIS OPERATIONS TO PERMIT TRAFFIC THROUGH AND ACROSS CONSTRUCTION ON HARRY AT ALL TIMES. THE CONTRACTOR SHALL ERECT WARNING SIGNS, FLASHING LIGHTS, AND BARRICADES TO ENSURE SAFETY AS DIRECTED IN ARTICLE 18 OF THE GENERAL CONDITIONS. THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
2. THE CONTRACTOR WILL BE REQUIRED TO NOTIFY EACH OF THE FOLLOWING UTILITY COMPANIES PRIOR TO THE BEGINNING OF CONSTRUCTION AND SHOULD REQUEST THAT ANY EXISTING LINES BE FLAGGED.

KANSAS GAS & ELECTRIC COMPANY
1900 EAST CENTRAL
264-1111 (Ext. 248) JERRY LANE

GAS SERVICE COMPANY
1021 EAST 26TH STREET NORTH
263-7511 ENGINEERING DEPARTMENT

CITY OF WICHITA WATER DEPARTMENT
455 NORTH MAIN STREET
268-4557 BENNY GEGEN

SOUTHWESTERN BELL TELEPHONE COMPANY
154 NORTH BROADWAY
262-5500

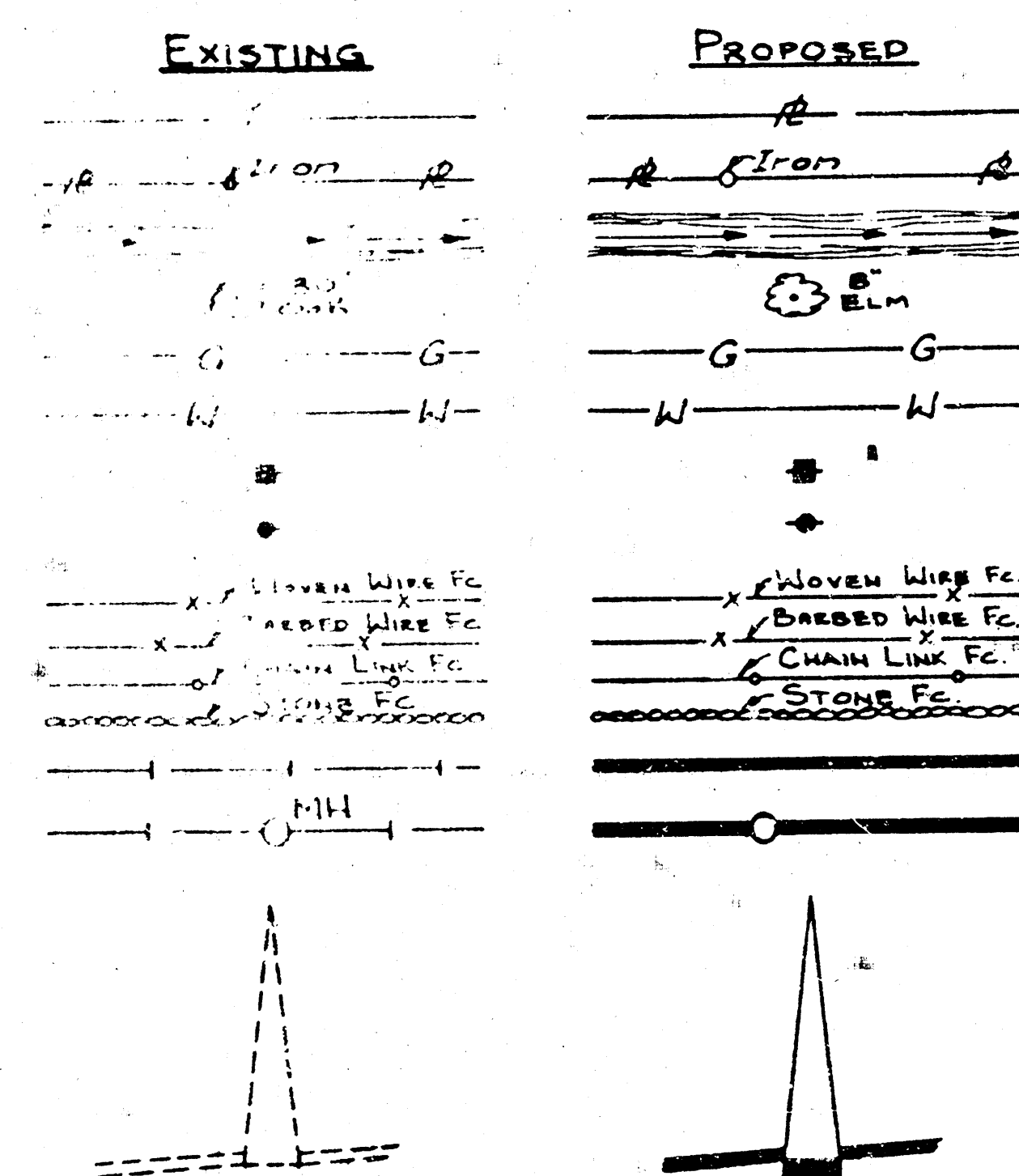
C.R.A., INC.
UNION CENTER BLDG.
276-4211 CASKELL STALLARD

3. THE CONTRACTOR MUST ALSO NOTIFY THE TELEPHONE COMPANY 24 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION WORK NEAR BURIED TELEPHONE LINES.

4. WHERE REMOVAL OF EXISTING FENCES PARALLEL TO THE CONSTRUCTION IS DEEMED NECESSARY BY THE CONTRACTOR, THE CONTRACTOR SHALL COORDINATE REMOVAL WITH ADJACENT PROPERTY OWNERS. ALL REMOVAL AND RESETTling OF FENCES WILL NOT BE PAID FOR SEPARATELY AND SHALL BE CONSIDERED SUBSIDIARY TO THE INSTALLATION OF THE PIPE.

LEGEND

PROPERTY LINE
IRON
CREEK
TREE
GAS LINE
WATER LINE
POWER POLE
TELEPHONE POLE
FENCE



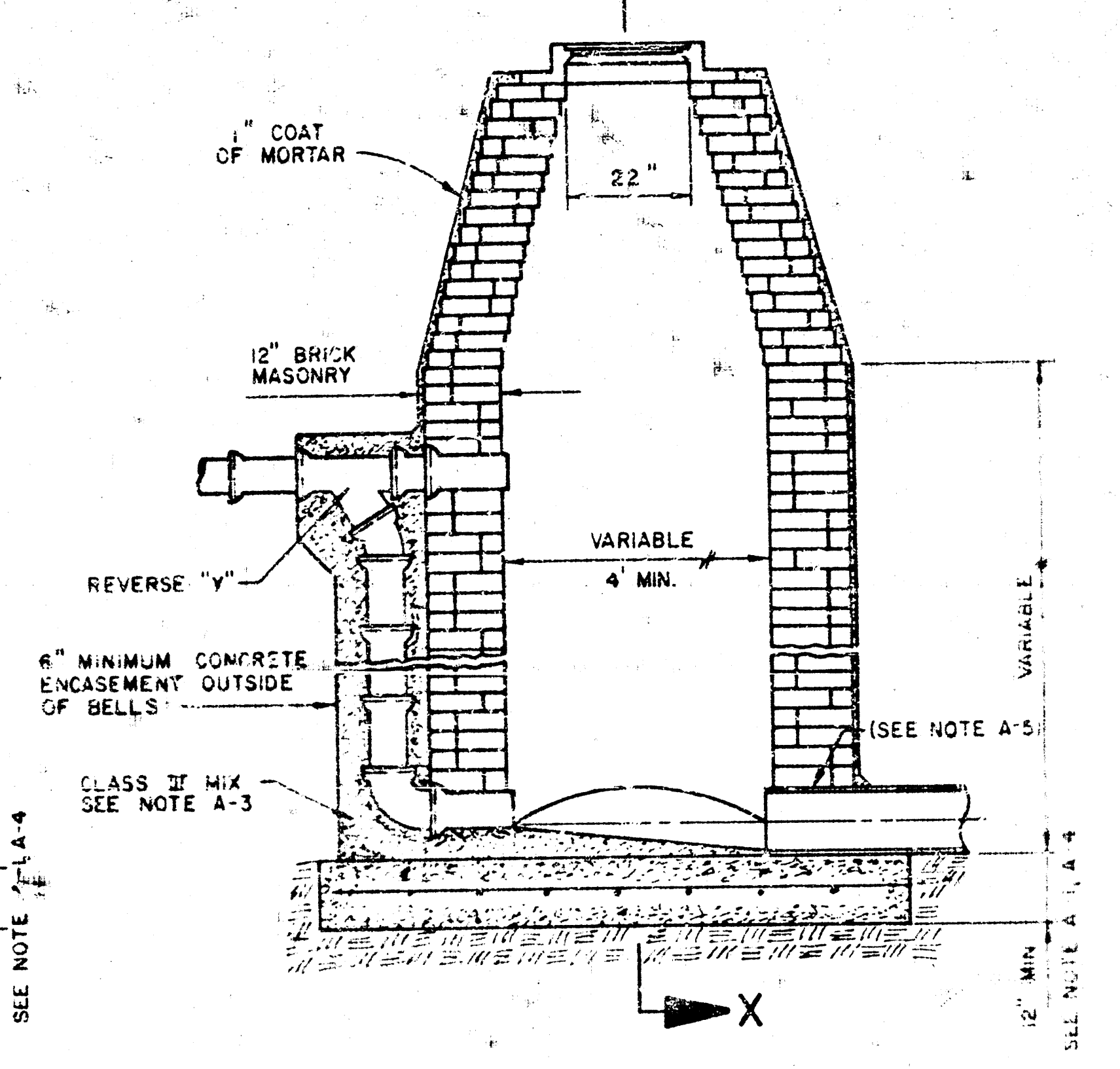
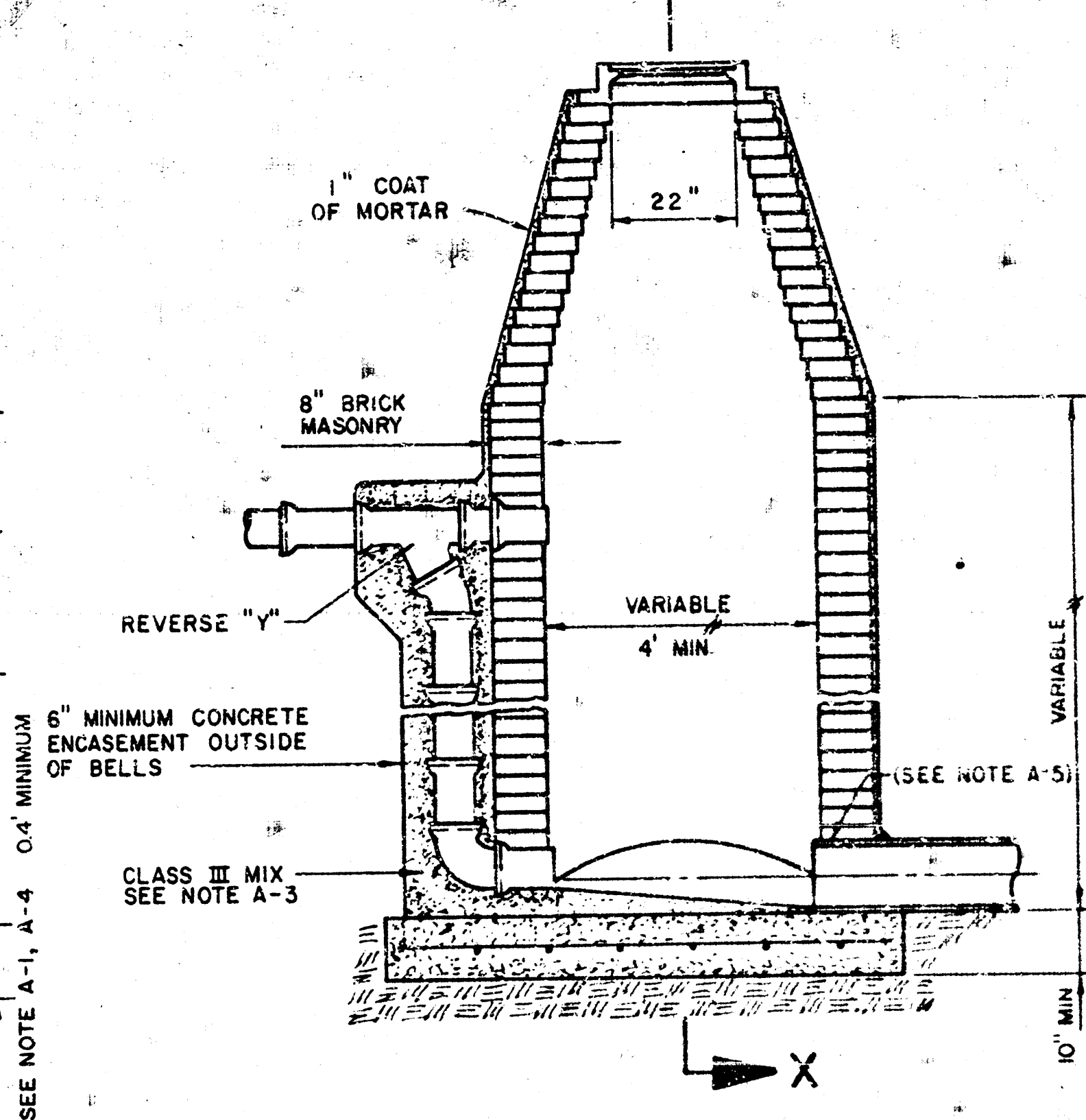
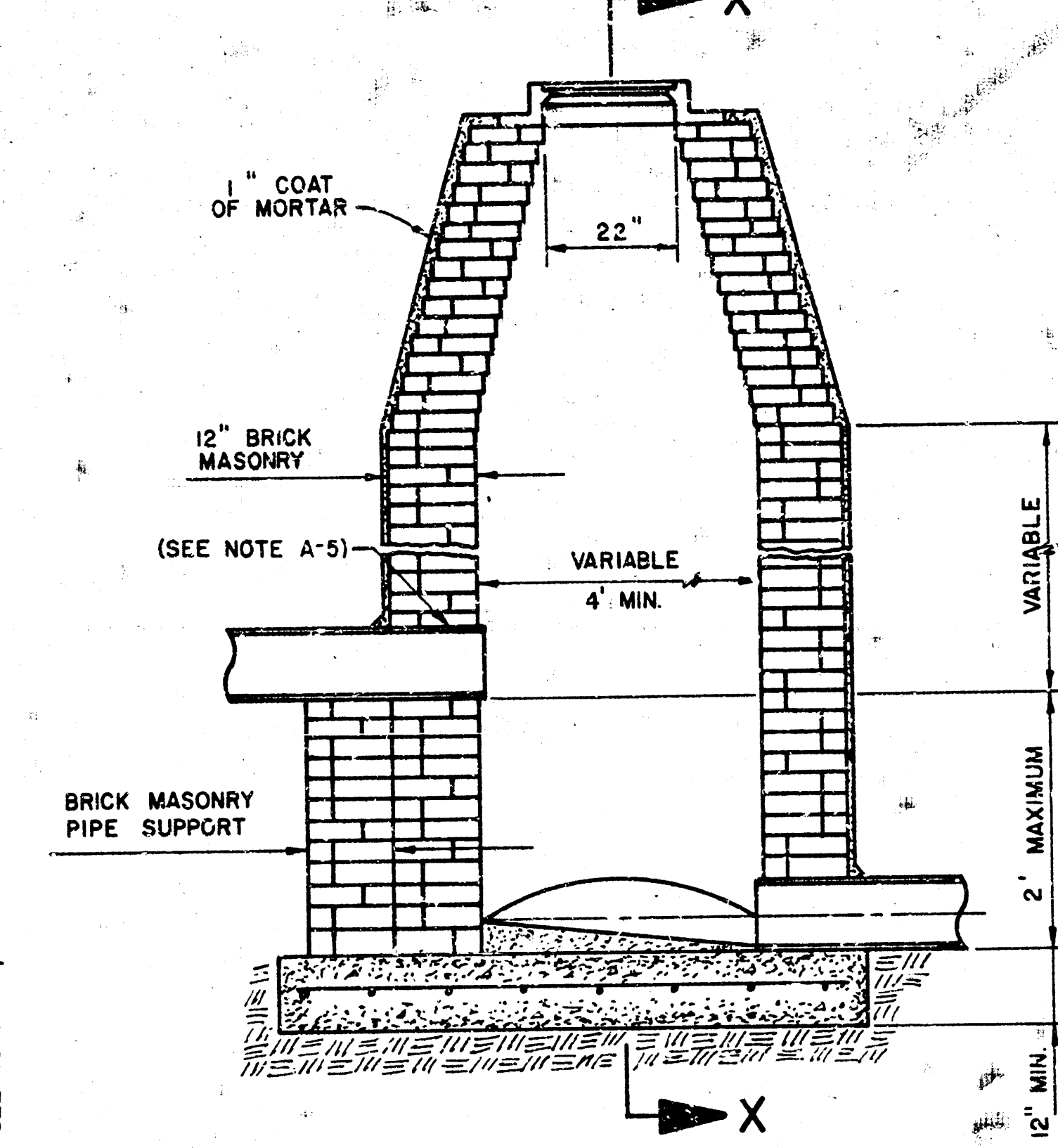
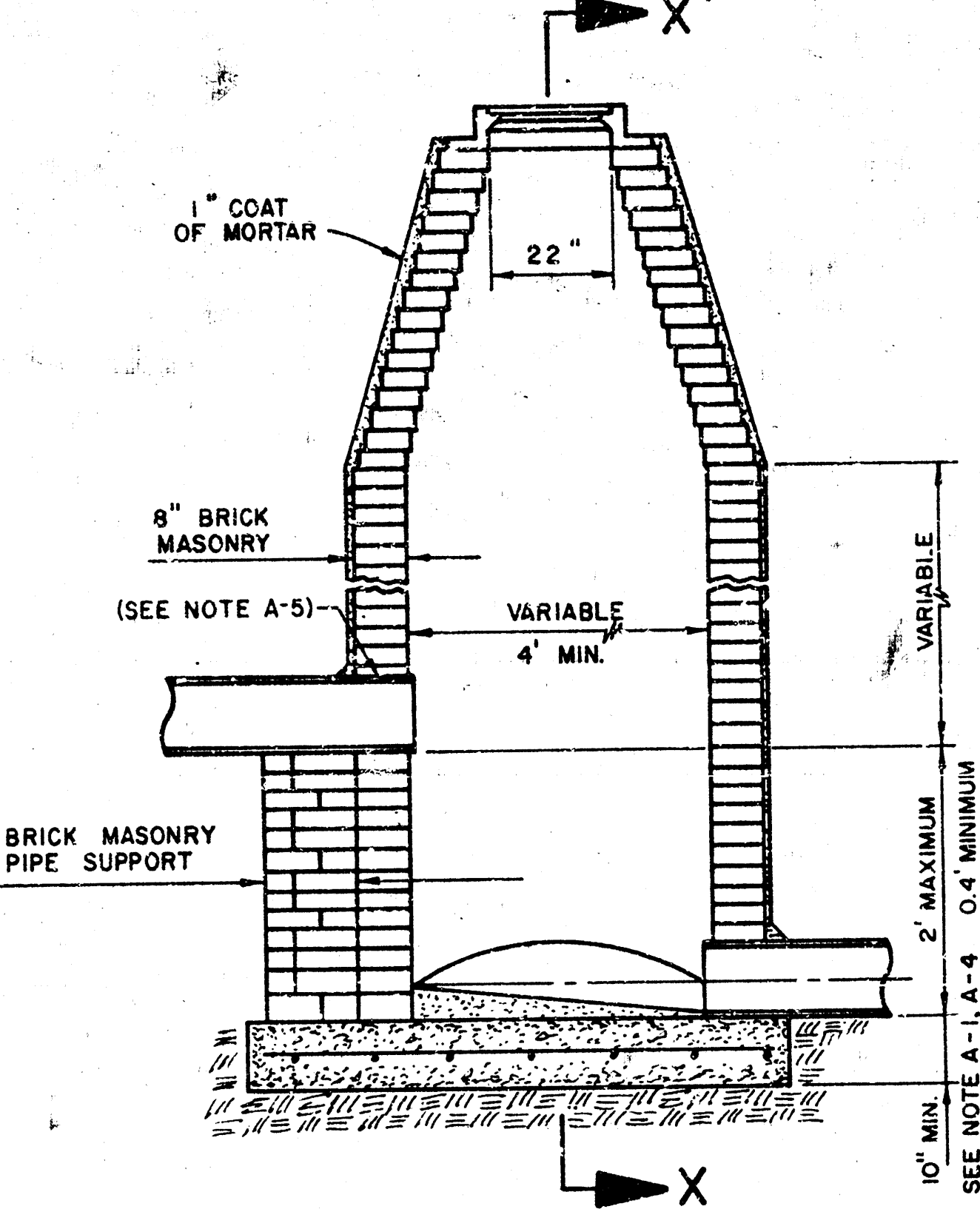
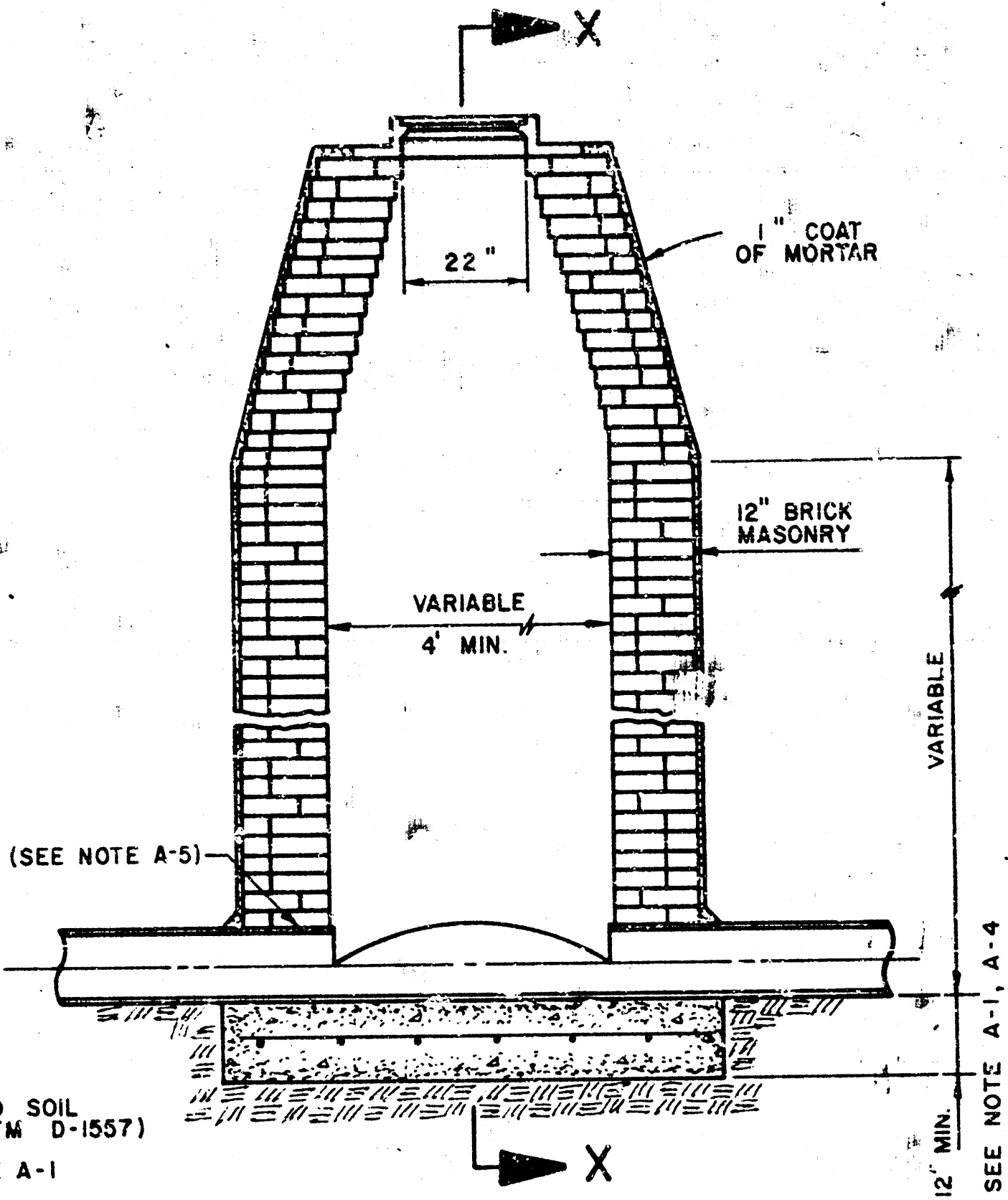
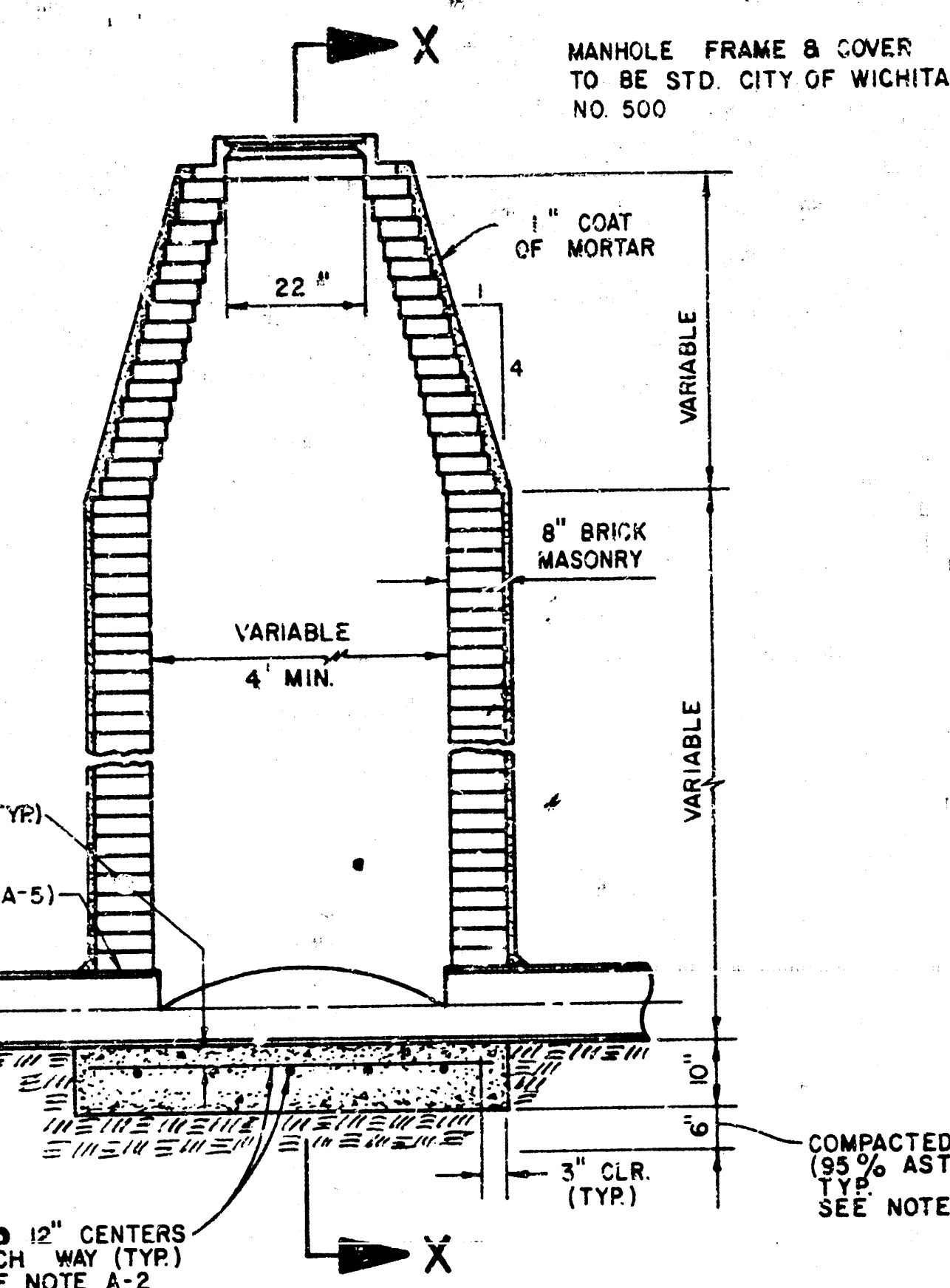
SEWER LINE
MANHOLE
PLAN
PROFILE

BENCH MARK LIST

- B.M. #1 - TOP OF PIPE IN THIMBLE AT THE N.W. CORNER OF THE N.E. 1/4 OF SECTION 36, T27S, R2E OF THE 6TH P.M. ELEV. 1295.10 (MSL)
- B.M. #2 - S.E. CORNER OF N. WHEEL GUARD OF BRIDGE ON HARRY STREET OVER SPRING CREEK. ELEV. 1288.75 (MSL)
- B.M. #3 - R.R. SPIKE IN ROOT OF THE NORTHEASTERLY SIDE 42" DIA. COT. WOOD TREE AT THE W. SIDE TREATMENT PLANT AREA, 60' ± W.N.W. OF LIFT STATION. ELEV. 1289.24 (MSL)
- B.M. #4 - TOP OF PICNIC TABLE, MOST SOUTHERLY CORNER IMMEDIATELY NORTH OF E. END OF BRIDGE AT CONCESSION STAND ELEV. 1284.48 (MSL)

* Stockpile area shall provide for positive drainage as directed by the engineer

No.	Revision	By	Date
	SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS G.C. MCLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER		
KEY MAP & SCHEDULE			
SANITARY SEWER IMPROVEMENTS ARBOR LAKES ESTATES TO SEDGWICK COUNTY, KANSAS			
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.			
ENGINEERS WICHITA, KANSAS			
Designed by	WIK, MDS	Job No.	30-76303E
Drawn by	TS	Date	Oct. 1977
			Sht. 2 of 7



STANDARD MANHOLE
TYPE A

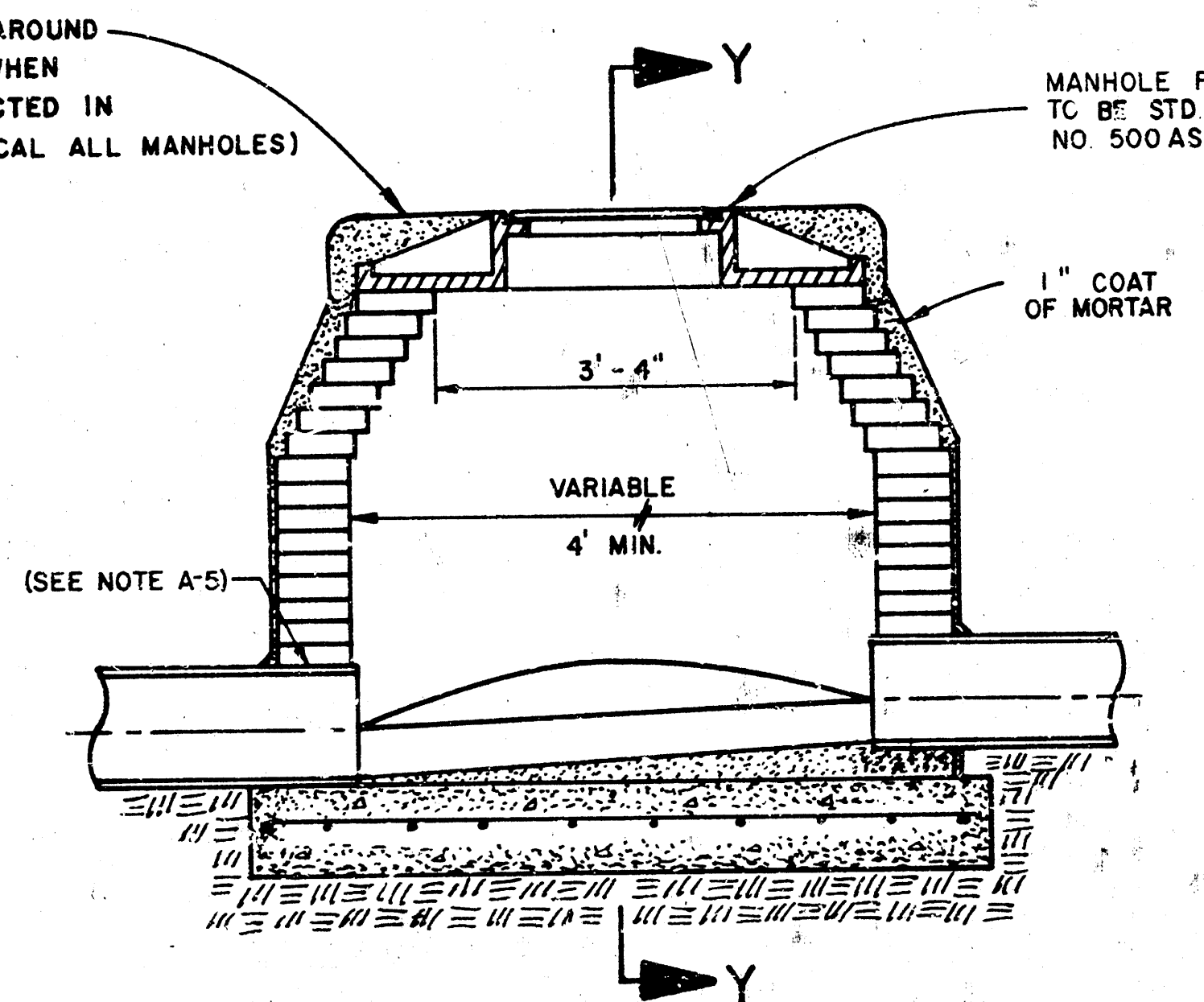
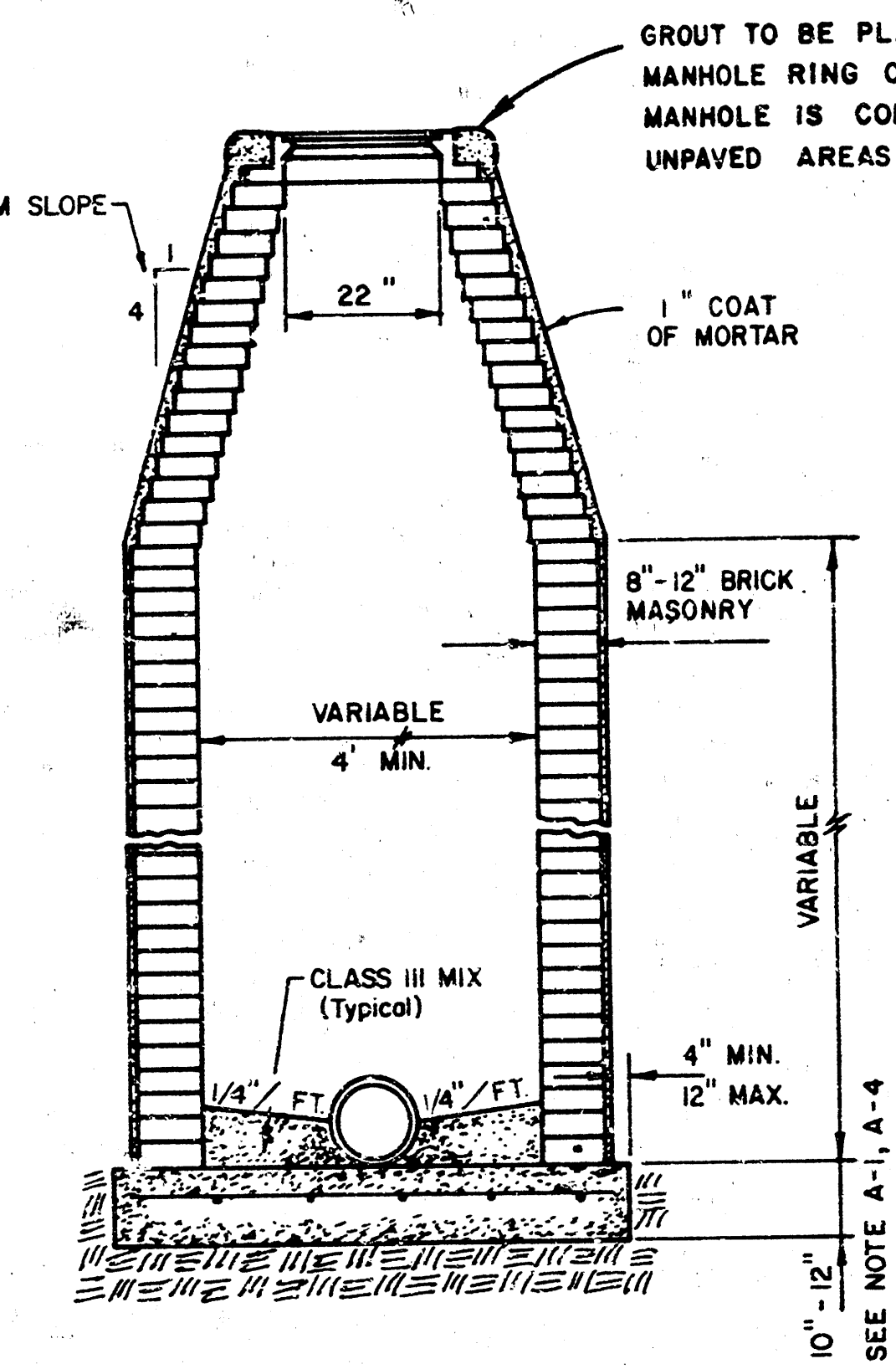
STANDARD MANHOLE
TYPE AA

DROP MANHOLE
TYPE B

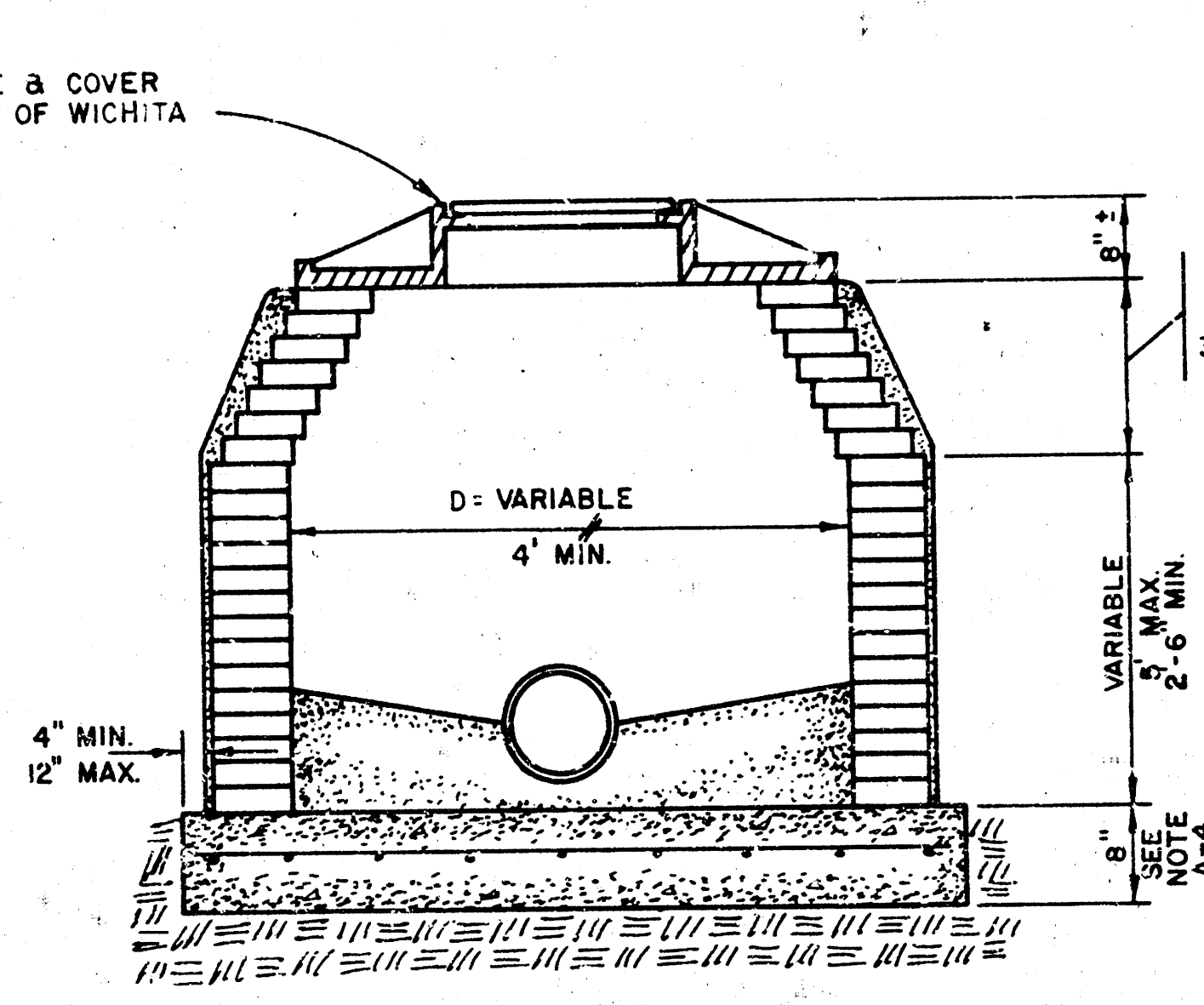
DROP MANHOLE
TYPE BB

OUTSIDE DROP MANHOLE
TYPE C

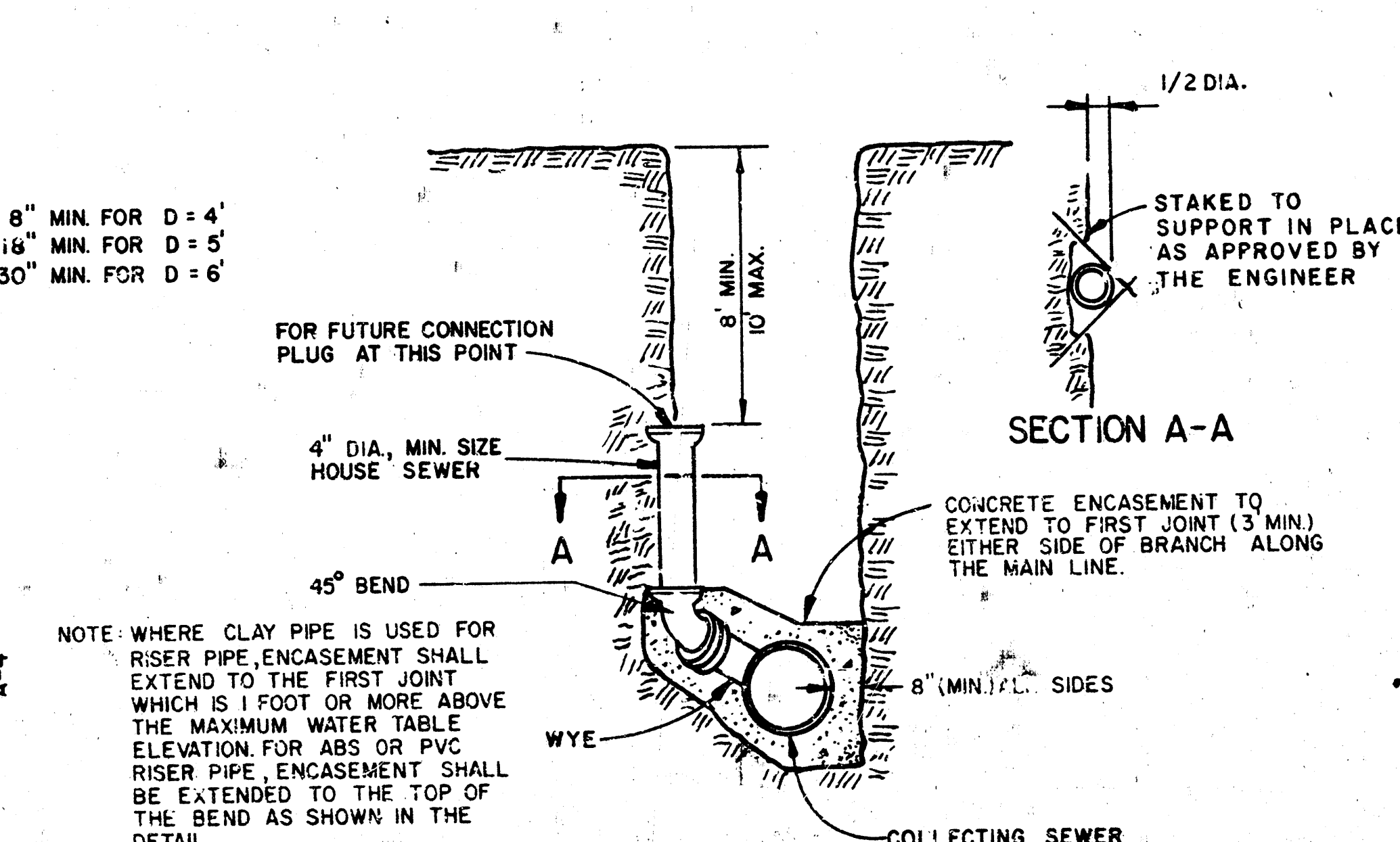
OUTSIDE DROP MANHOLE
TYPE CC



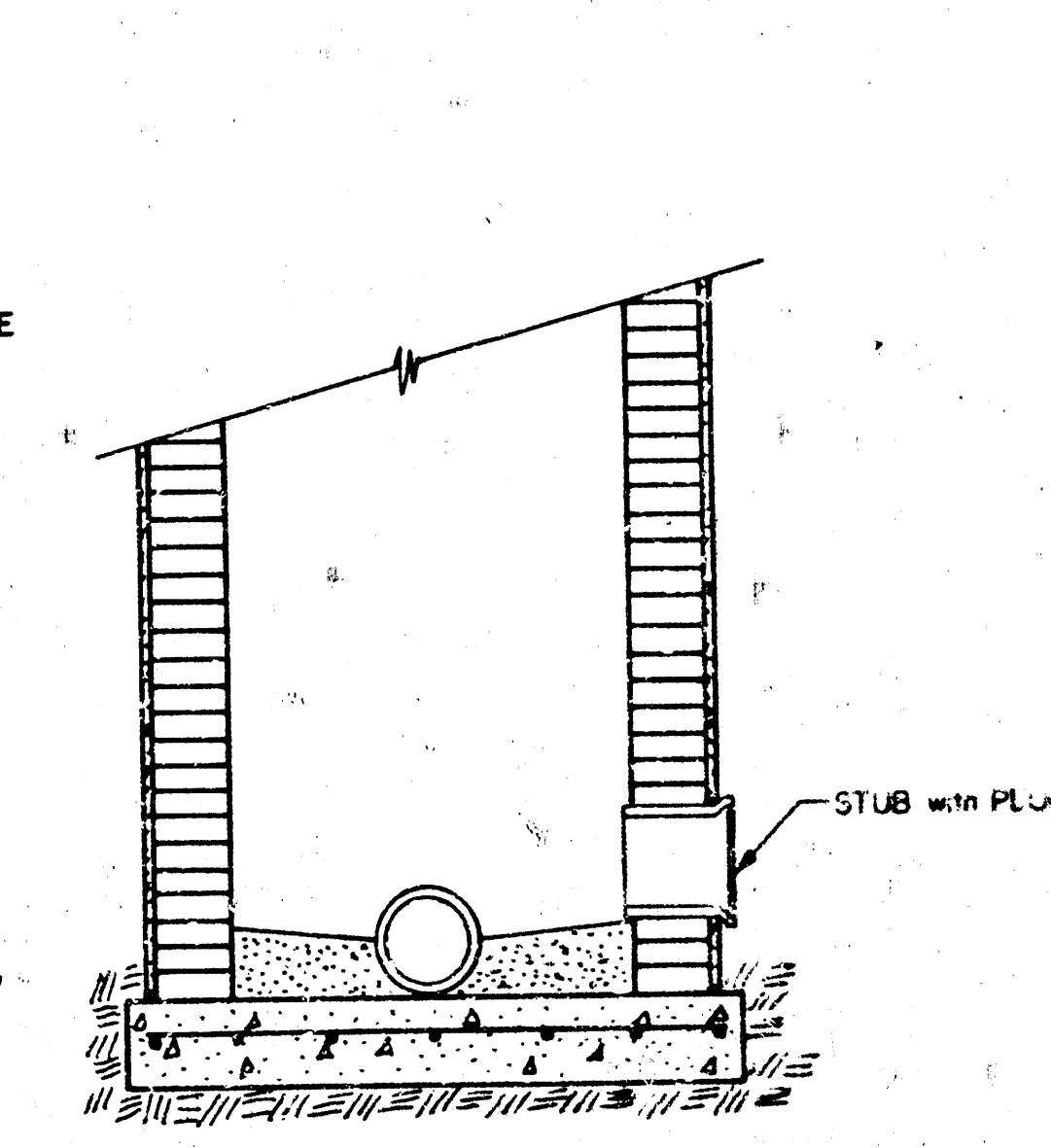
SHALLOW MANHOLE
TYPE D



SECTION Y



RISER DETAIL



STUB DETAIL

NOTES

- MANHOLES
- IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR HAS THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
- STEEL REINFORCING IS REQUIRED IN ALL MANHOLE BASES.
- MORTAR USED IN MASONRY CONSTRUCTION TO BE CLASS III MIX.
- ALL MANHOLE BASES TO BE CLASS I MIX.
- APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE, POLYETHYLENE PIPE, OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER EXTENDING FROM MANHOLES SHALL BE SUPPORTED WITH CONCRETE TO THE FIRST JOINT OF PIPE FROM THE MANHOLE WALL. CONCRETE SUPPORTS MAY BE DELETED PROVIDED AN APPROVED FLEXIBLE WATERSTOP GASKET IS INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL.
- PIPE PLUGS SHALL BE AS MANUFACTURED BY PIPE SUPPLIER WHEN AVAILABLE.

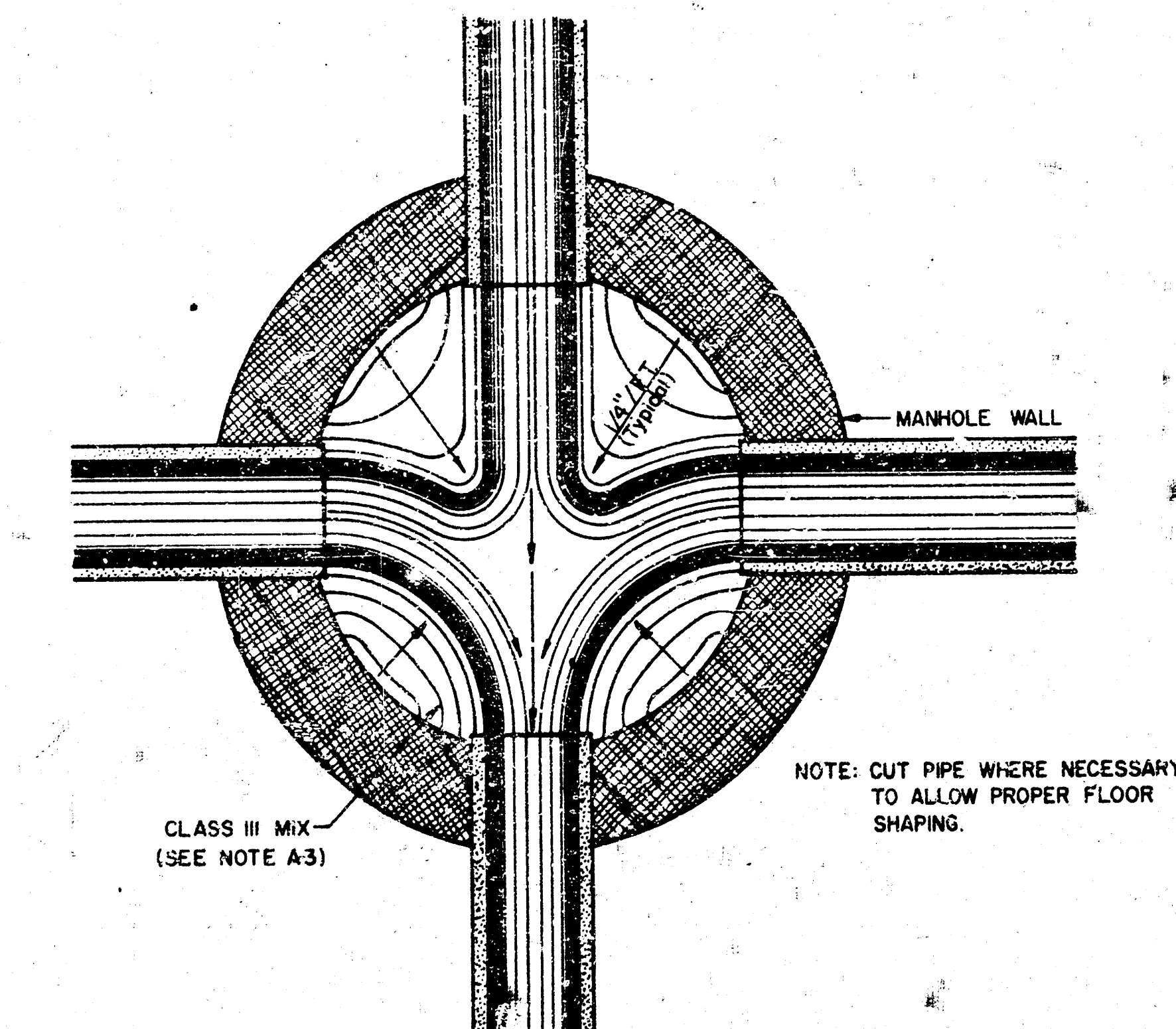
SECTION X

RISER LOCATION TABLE

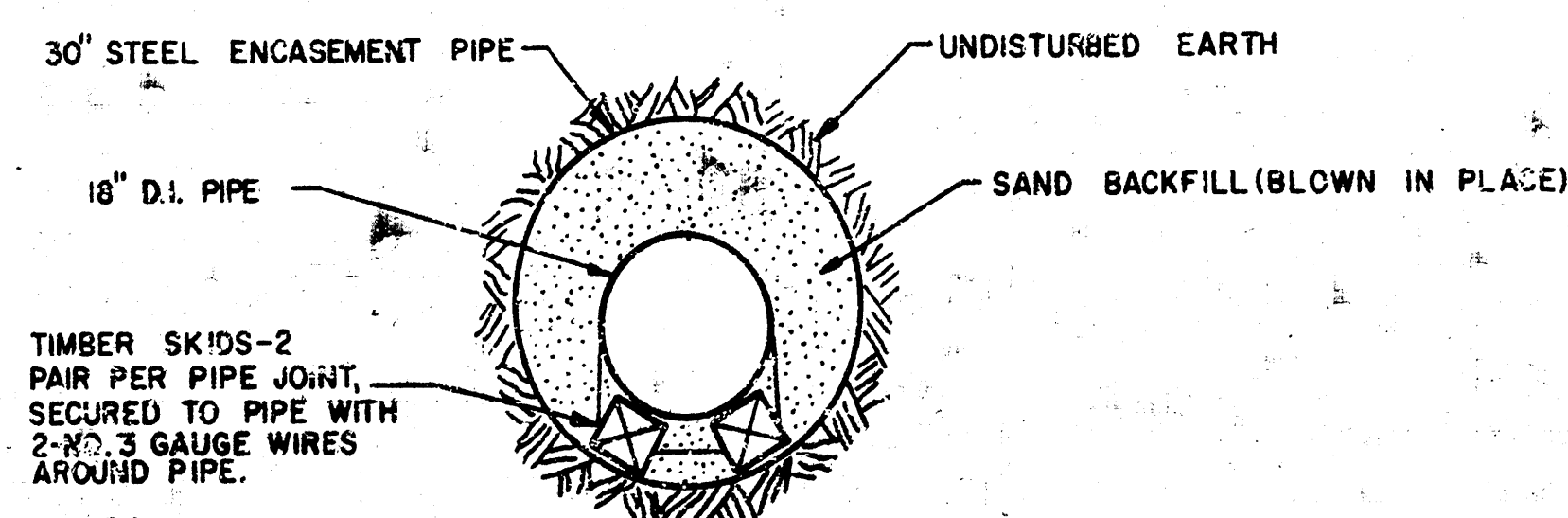
WYE NO.*	LOCATION			PIPE RISER (L.F.)	DISTANCE FROM MANHOLE**	
	LAT.NO.	STATION	DIRECTION		UPSTREAM	DOWNSTREAM
1	4C	1+10±	LEFT	5.0		
2	4D	0+80±	LEFT	10.0		
3	4D	2+65±	LEFT	7.0		
4	4D	2+70±	RIGHT	7.0		
5	4D	3+90±	LEFT	11.0		
6	4D	3+95±	RIGHT	8.0		
7	4D	5+70±	LEFT	6.0		
8	4D	5+75±	RIGHT	6.0		
9	4D-1	1+35±	LEFT	6.0		
10	4D-1	1+40±	RIGHT	11.0		

*ALL WYES SHALL BE 4" x 8" UNLESS OTHERWISE NOTED.

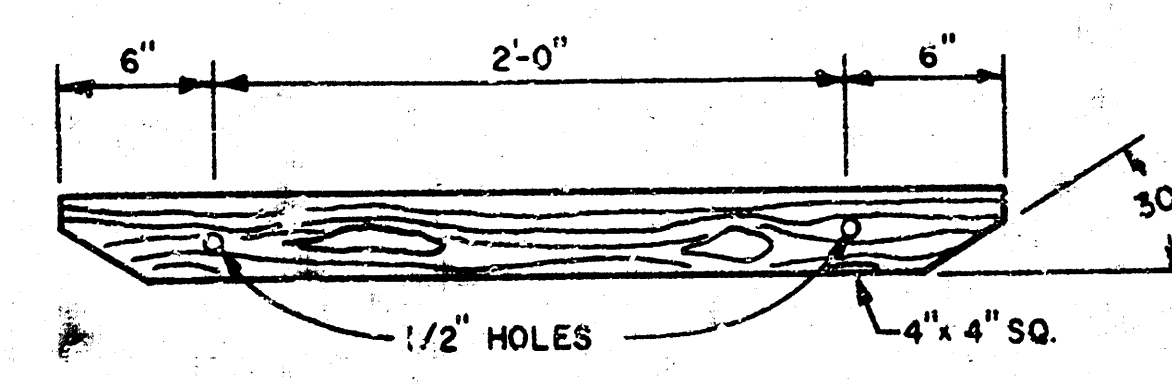
**THIS ITEM TO BE COMPLETED BY THE RESIDENT INSPECTOR AT TIME OF INSTALLATION.



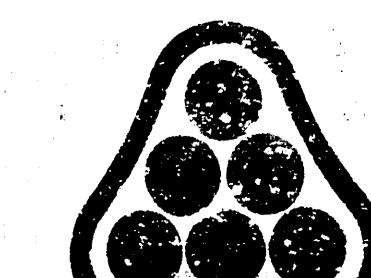
TYPICAL MANHOLE
FLOOR SHAPING



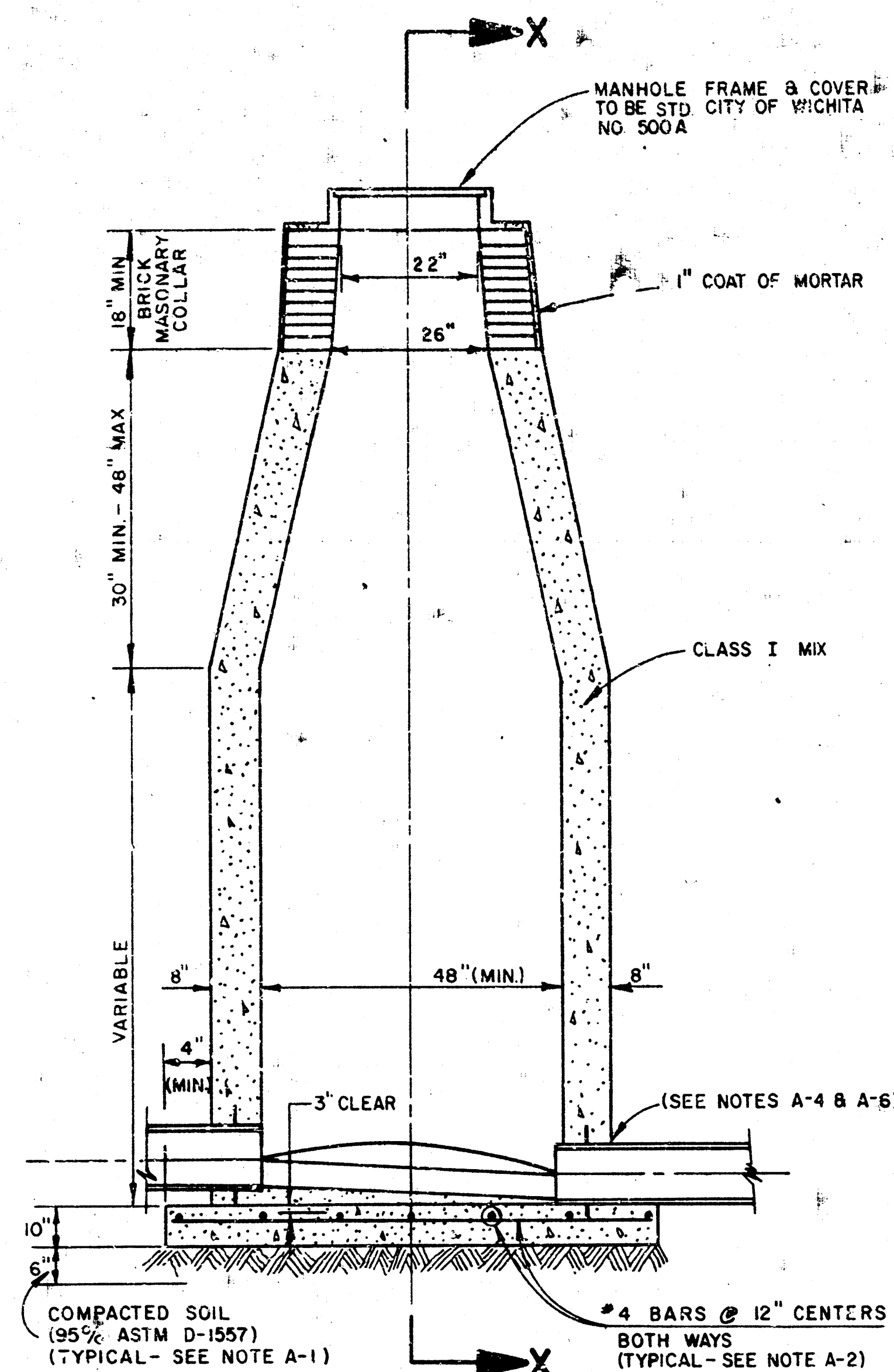
BORING ENCASEMENT DETAIL



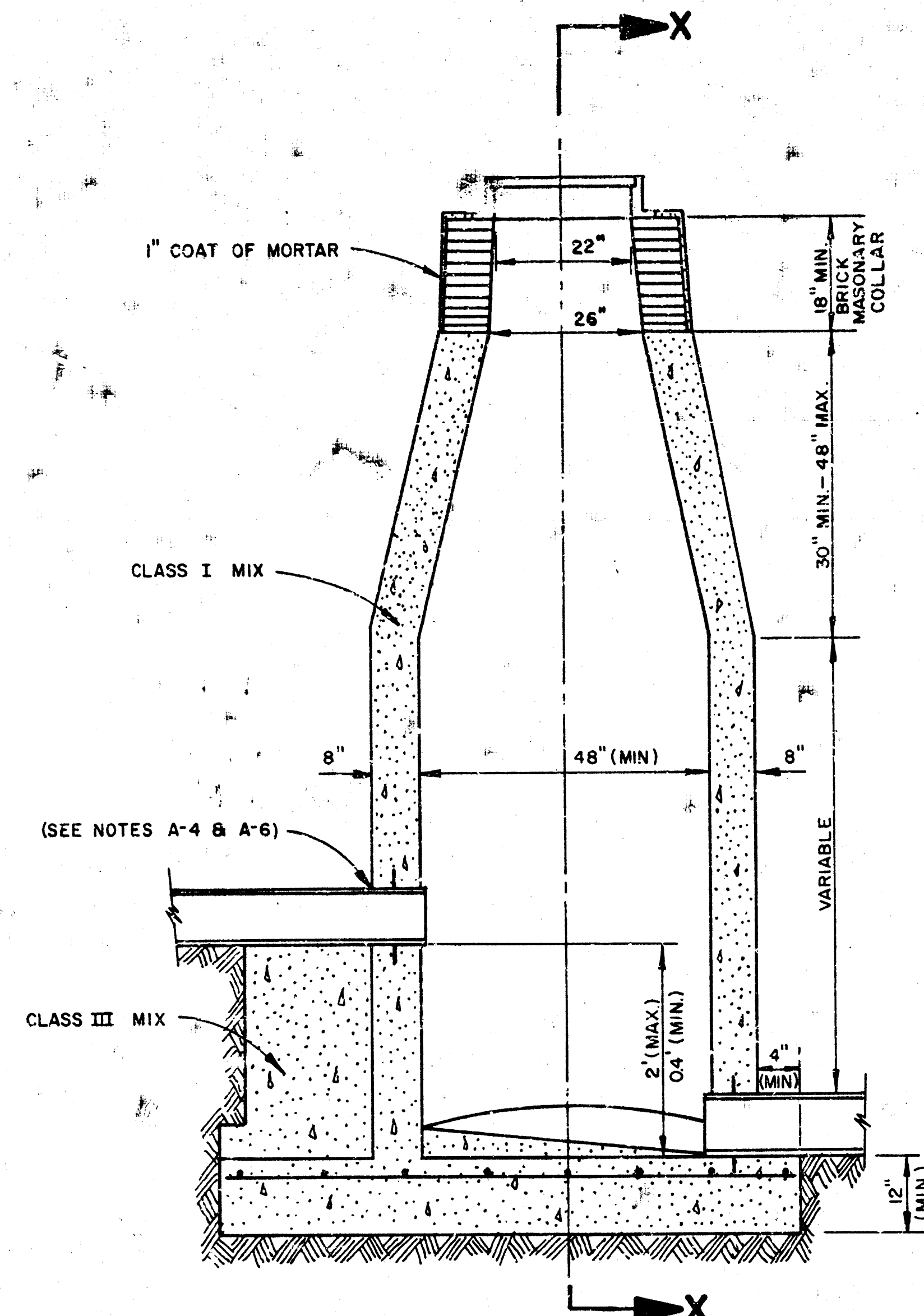
TIMBER SKID DETAIL



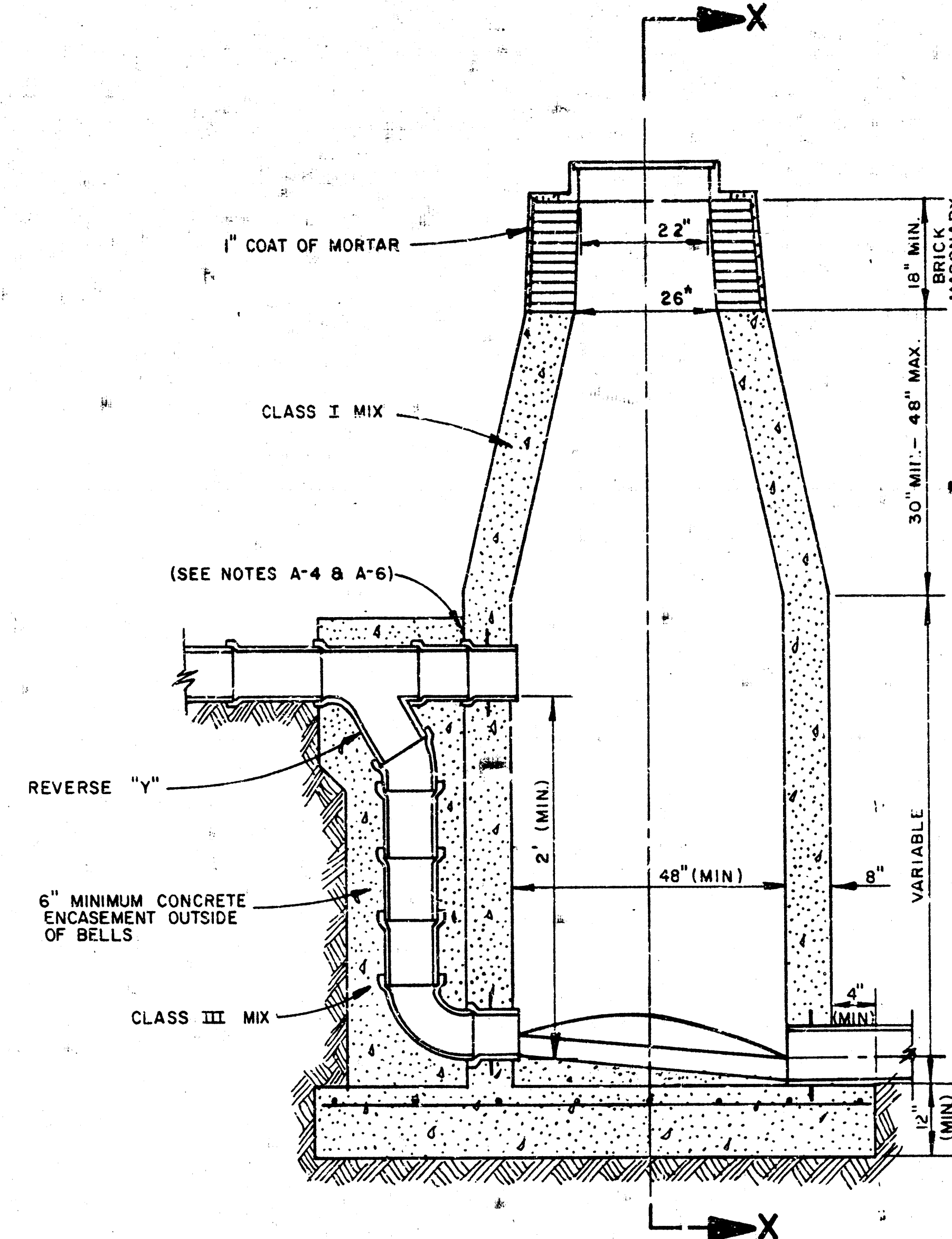
No.	Revision	By	Date
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS G.C. McLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER SANITARY SEWER DETAILS SANITARY SEWER IMPROVEMENTS ARBOR LAKES ESTATES TO SEDGWICK COUNTY, KANSAS PROFESSIONAL ENGINEERING CONSULTANTS, P.A. ENGINEERS WICHITA, KANSAS Designed by: <i>LWH, MDG</i> Job No: <i>30-76303-2</i>			
			Sh. 3 of 7



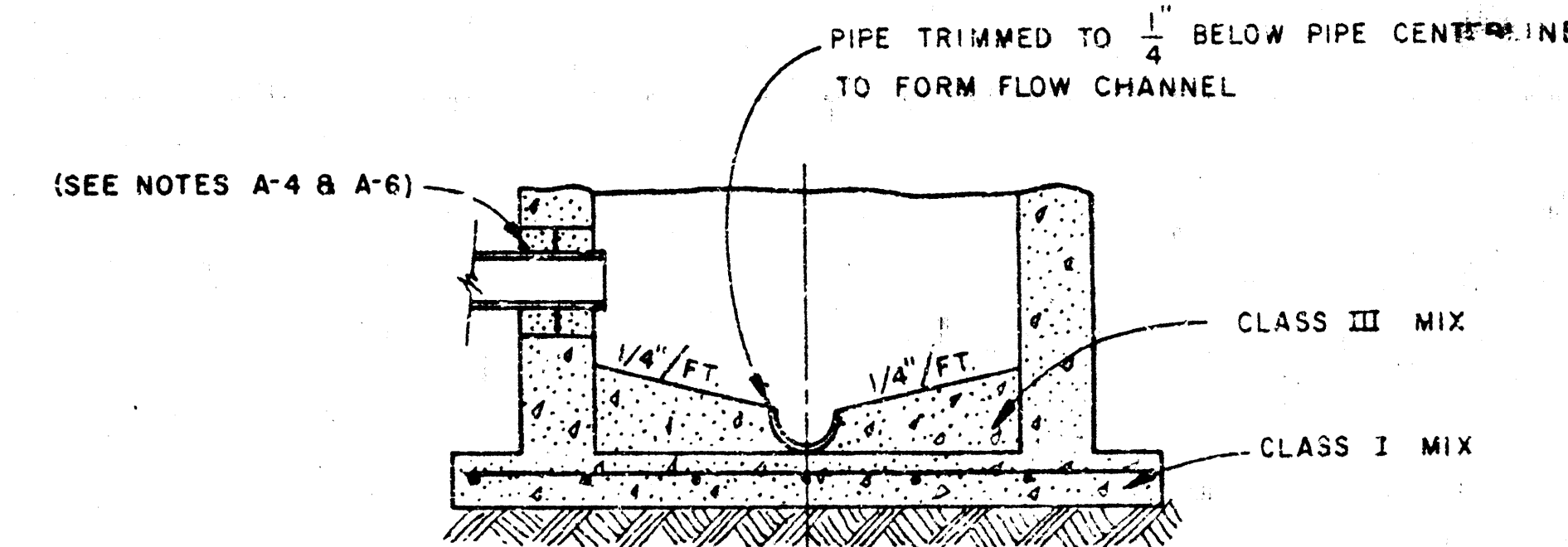
CAST IN PLACE
STANDARD MANHOLE
TYPE "E-A"



CAST IN PLACE
DROP MANHOLE
TYPE "E-B"



CAST IN PLACE
OUTSIDE DROP MANHOLE
TYPE "E-C"



SECTIONAL ELEVATION-INVERT

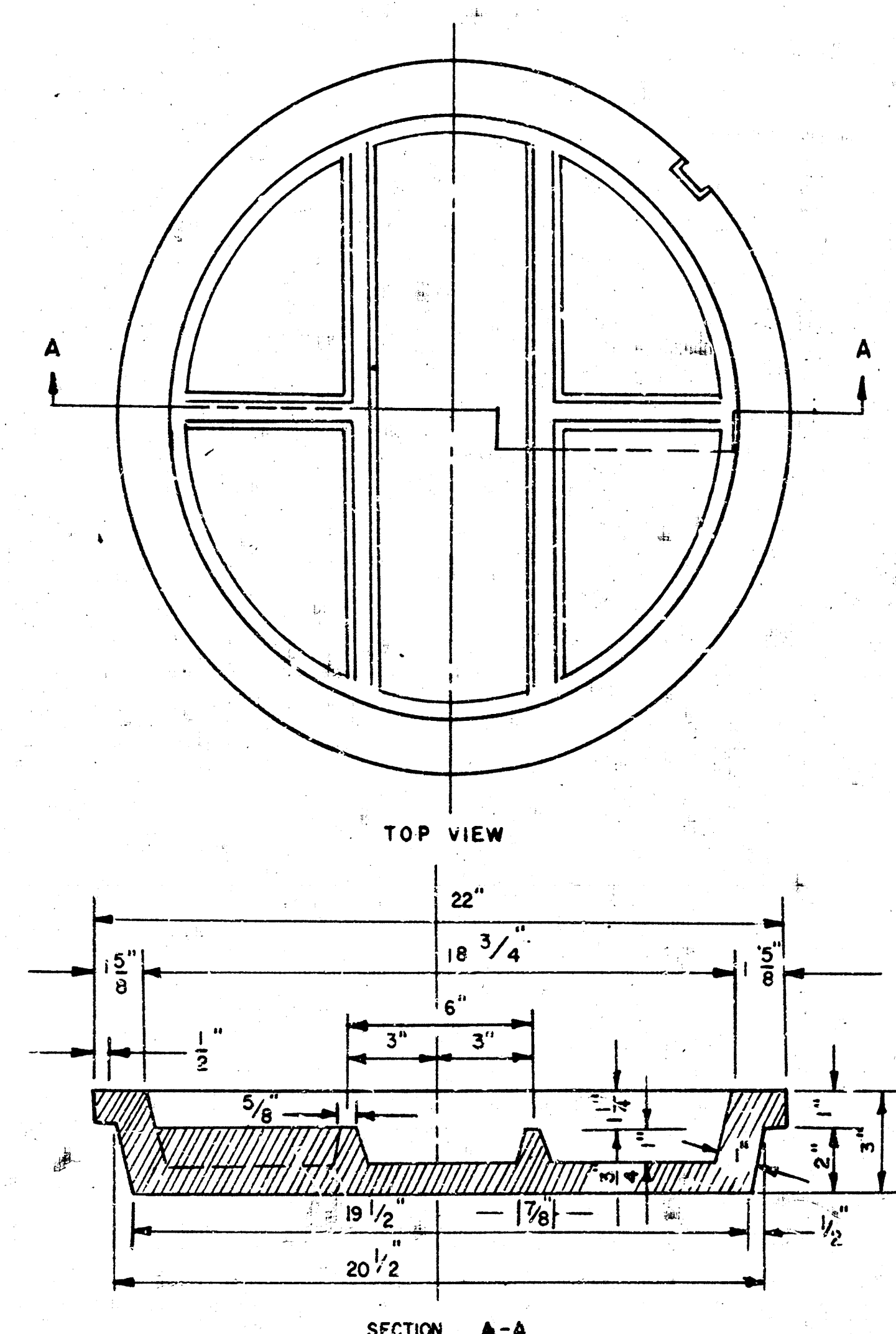
PRECAST MANHOLES

PRECAST MANHOLES MAY BE SUBSTITUTED FOR THE 8" THICK CAST-IN-PLACE MANHOLES. THE MANHOLE BASE AND OUTSIDE MANHOLE PIPE SUPPORTS FOR PRECAST MANHOLES WILL BE THE SAME AS SHOWN FOR CAST-IN-PLACE MANHOLES.

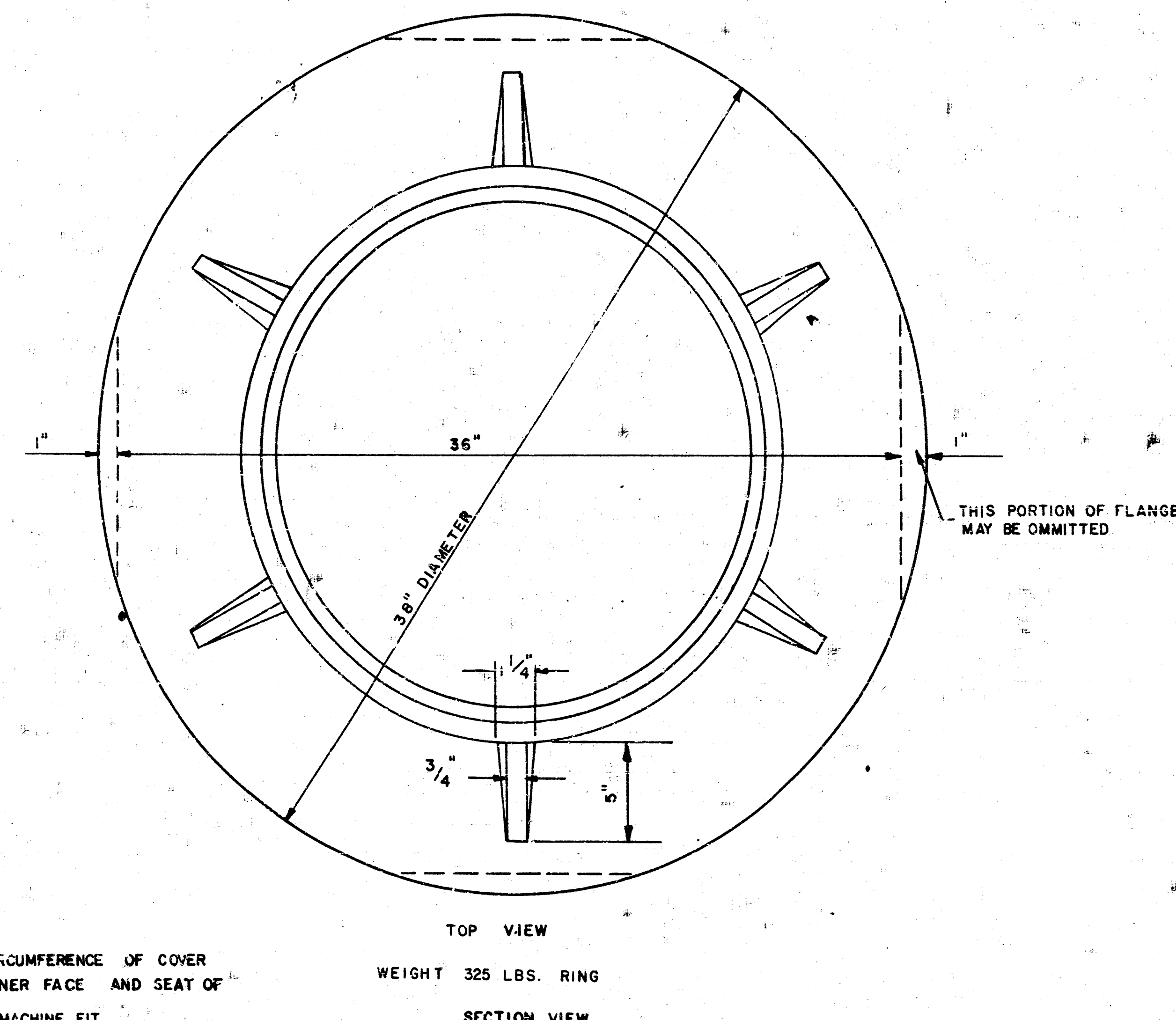
NOTES

1. IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR HAS THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
2. STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
3. MORTAR USED IN MASONRY CONSTRUCTION TO BE CLASS III MIX.
4. WHEN OPENINGS ARE CUT IN MANHOLE WALL FOR PIPE, THE PIPE WILL BE GROUTED IN PLACE WITH NON-SHRINKING GROUT. EXTERIOR OF COMPLETED CONNECTION TO BE SEALED WITH APPROVED COMPOUNDS.
5. CAST-IN-PLACE CIRCULAR CONCRETE MANHOLES ARE TO BE CONSTRUCTED ONLY ON SEWERS NOT SUBJECT TO DETEIORATION DUE TO FORMATION OF HYDROGEN SULFIDE GAS AND IN LOCATIONS WHERE IT IS OBVIOUS THAT ANY ADJUSTMENT OF THE MANHOLE TOP ELEVATION WHICH MAY BE NECESSARY WILL NOT REQUIRE MODIFICATION OF THE CONCRETE BARS.
6. APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE, POLYETHYLENE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER EXTENDING FROM MANHOLES SHALL BE SUPPORTED WITH CONCRETE TO THE FIRST JOINT OF PIPE FROM THE MANHOLE WALL. CONCRETE SUPPORTS MAY BE DELETED PROVIDED AN APPROVED FLEXIBLE WATERSTOP GASKET IS INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL.
7. PRECAST MANHOLES SHALL BE SET 4 INCHES INTO THE MANHOLE BASE.

STANDARD MANHOLES TYPE "E-A", "E-B", AND "E-C" MAY BE BID IN LIEU OF STANDARD MANHOLES "A and AA", "B and BB", AND "C and CC", RESPECTIVELY.



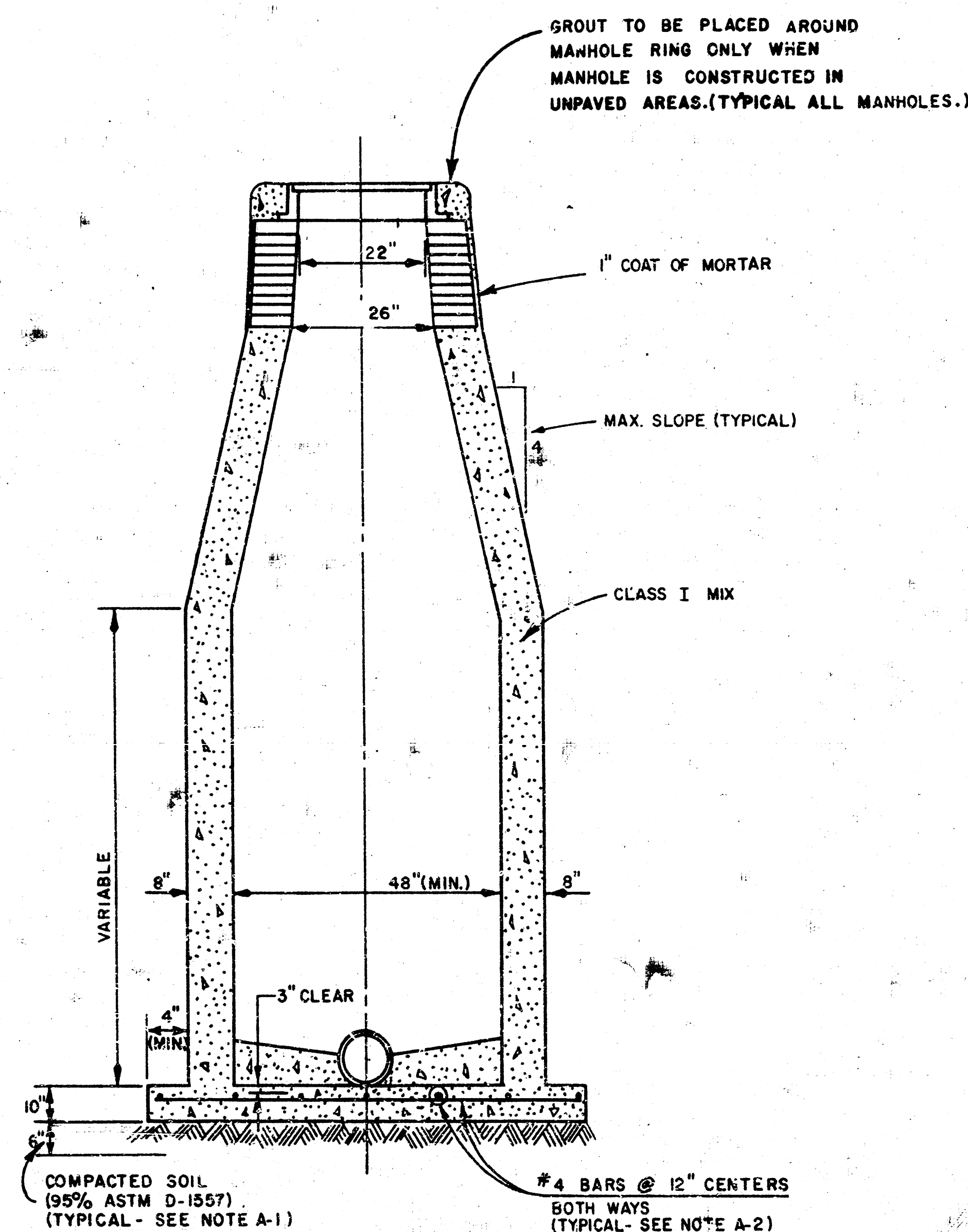
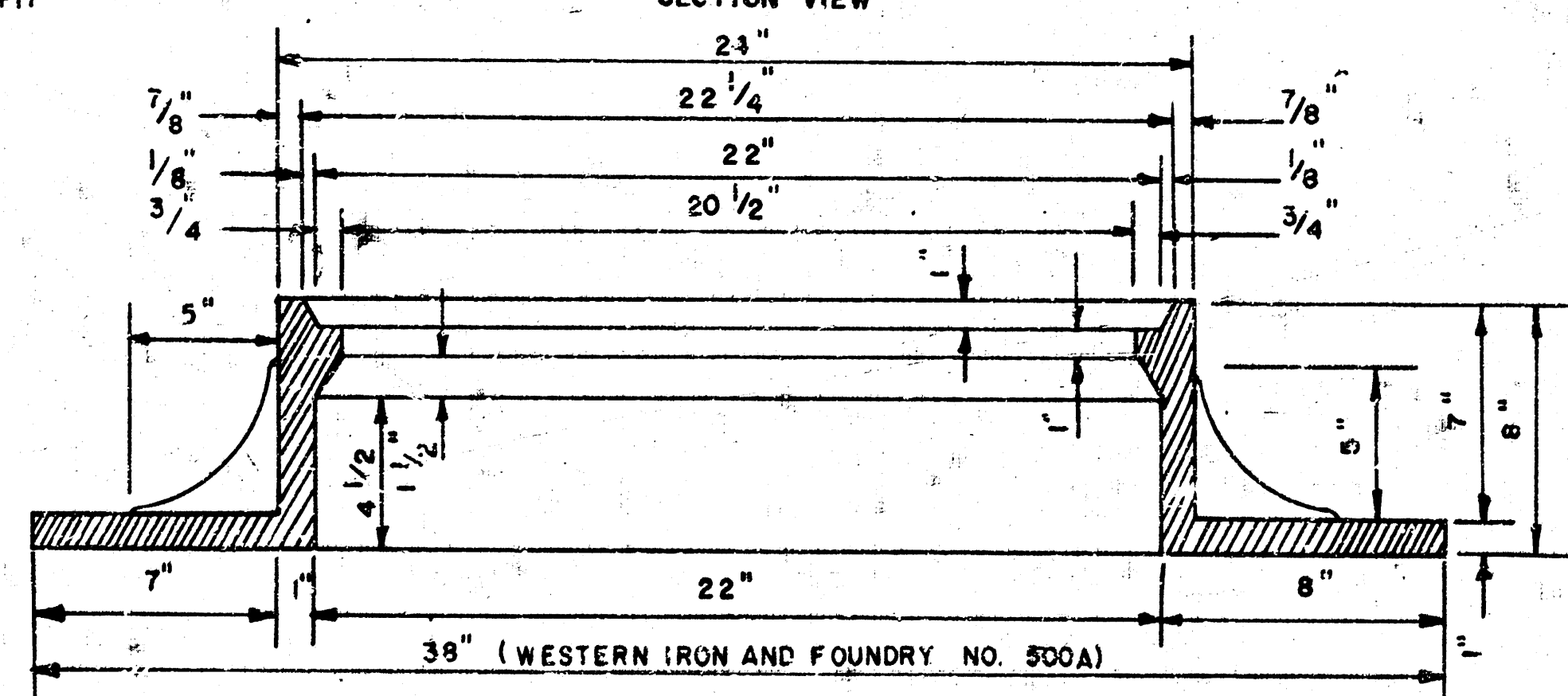
MANHOLE COVER
WEIGHT 110 LBS.
SIDE VIEW



OUTSIDE CIRCUMFERENCE OF COVER AND THE INNER FACE AND SEAT OF RING TO BE MACHINE FIT

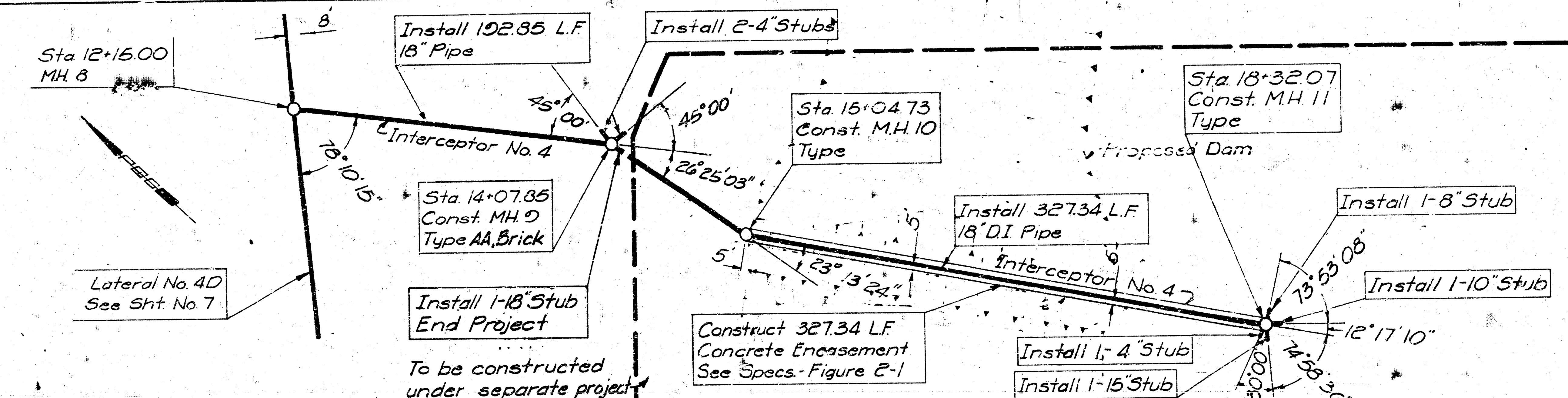
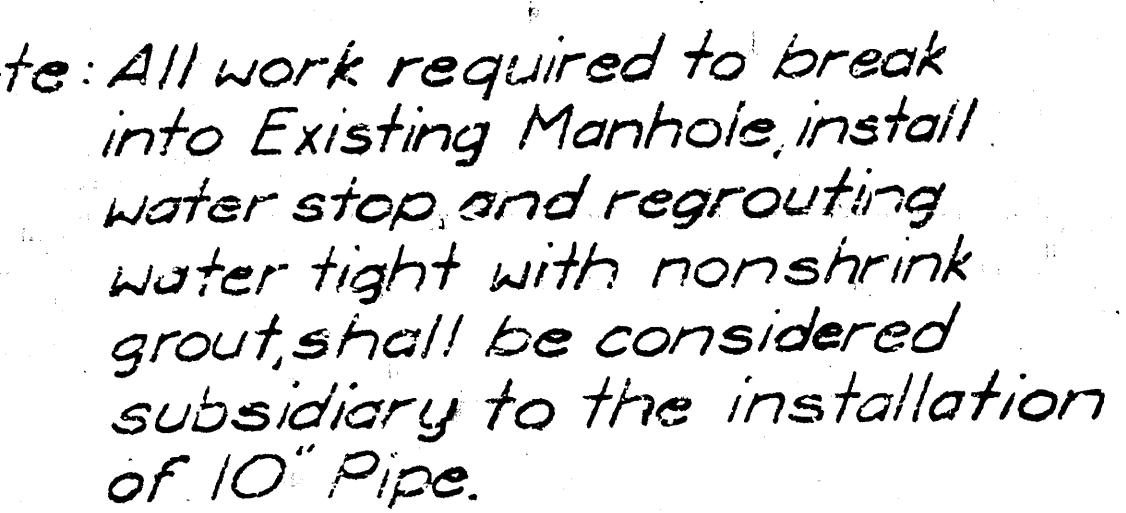
WEIGHT 325 LBS. RING

SECTION VIEW



SECTION X

No.	Revision	By	Date
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS G.C. MCLURE, JR., P.E. DIRECTOR & COUNTY ENGINEER			
SANITARY SEWER DETAILS SANITARY SEWER IMPROVEMENTS ARBOR LAKES ESTATES TO SEDGWICK COUNTY, KANSAS PROFESSIONAL ENGINEERING CONSULTANTS, P.A. ENGINEERS WICHITA, KANSAS			

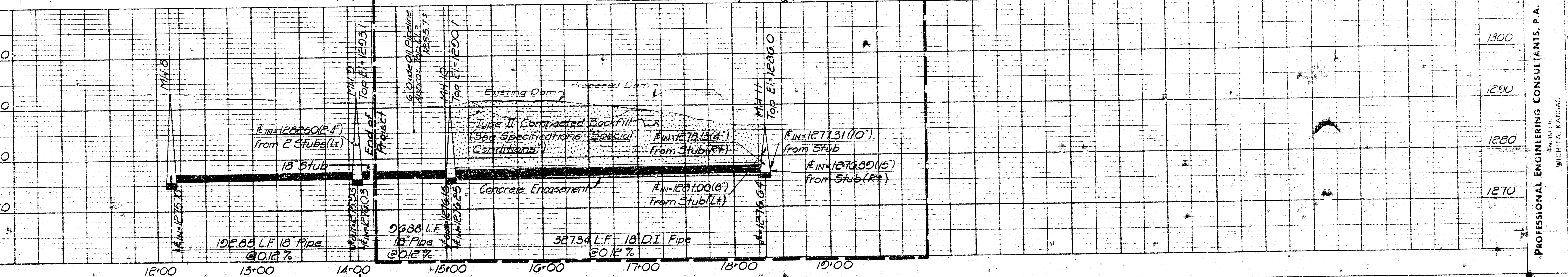
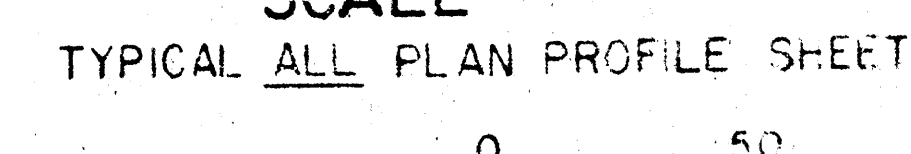


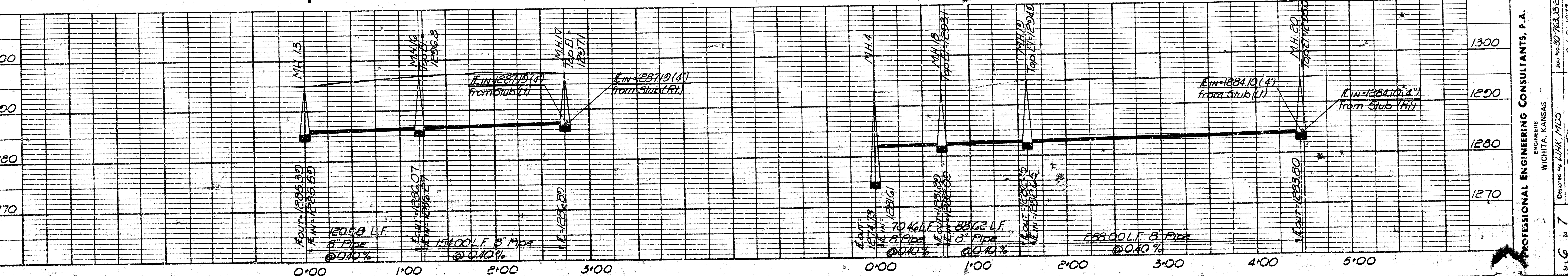
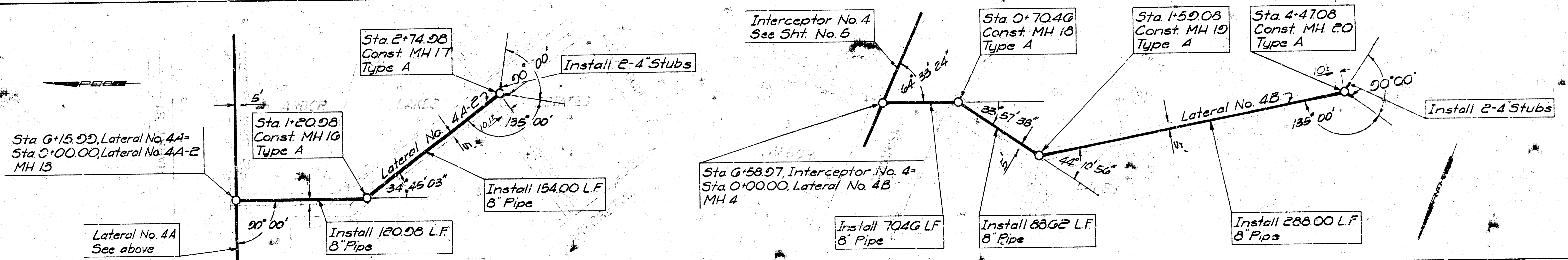
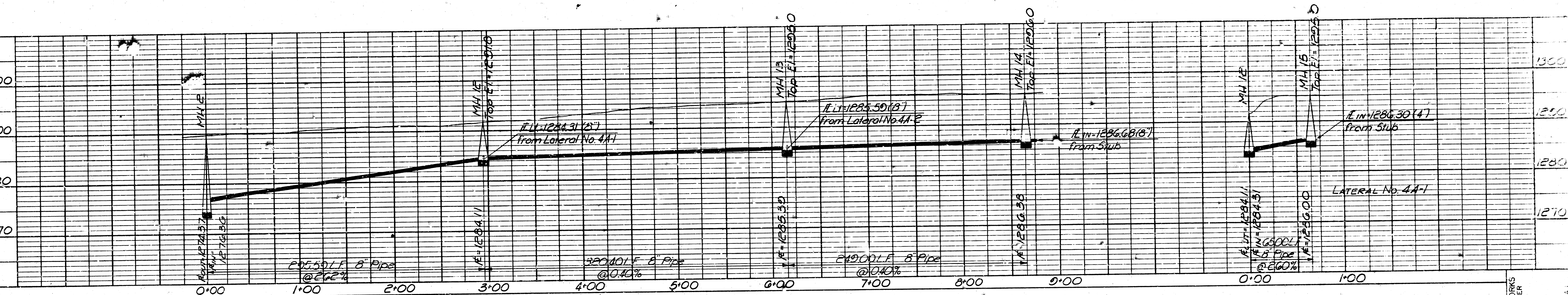
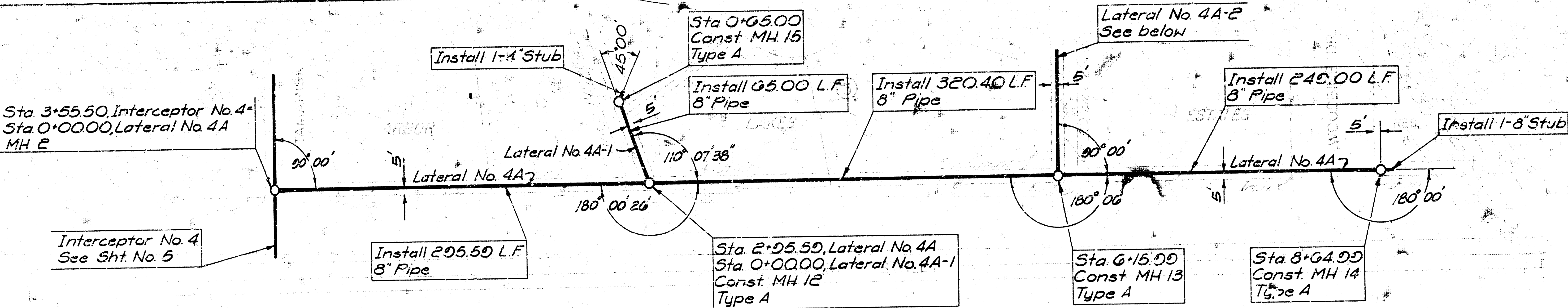
SCALE

TYPICAL ALL PLAN PROFILE SHEETS

PLAN: Lat & Long.

PROFILE: Horiz. same as above
Vertical





SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS
G.C. McJURE, JR., P.E. DIRECTOR & COUNTY ENGINEER

LATERAL NO. 4A, 4A-1, 4A-2, 8, 4B

SANITARY SEWER IMPROVEMENTS
ARTIFICIAL LATERALS ESTABLISHED TO SERVED AREA

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by L.H.K. M.D.S.
Drawn by R.E.J. T.S.
Date Oct. 5, 1977

Sheet No. 30-763052
Sheet 6 of 7

