

PLANS

SANITARY SEWER EXTENSIONS

KAPPELMAN'S BEL AIRE HEIGHTS

PROJECT NO. SE1880

BENCH MARKS

B. M. 1420.99 TOP IRON IN THIMBLE AT THE INTERSECTION OF 45TH ST. NO. AND THE WEST LINE OF THE NE 1/4 SECTION 25 - T26S - R1E

NOTE:
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 BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR OR A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS.

INDEX OF SHEETS

SHEET NO. 1	TITLE SHEET
2	MAIN 1
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4	LATERAL 1-A-1
4A	LATERAL 1-A-3
5	LATERALS 1-C, 1-D, 1-E, 1-F
6	OUTFALL A
7-9	MANHOLE DETAILS

NOTE:
ALL MANHOLES TO BE TYPE "A" OR "C"

7-15-82

APPROVED AS NOTED
By CITY ENGINEER OF WICHITA

Sanitary Sewers *[Signature]*

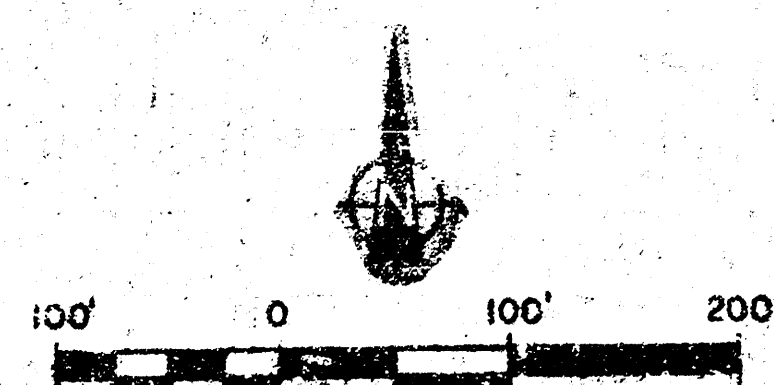
Storm Sewers *[Signature]*

Driveway Appra *[Signature]*

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 will prepay the City of Wichita for all costs of inspection.

REISS AND GOODNESS ENGINEERS
2160 W. 21ST WICHITA, KANSAS



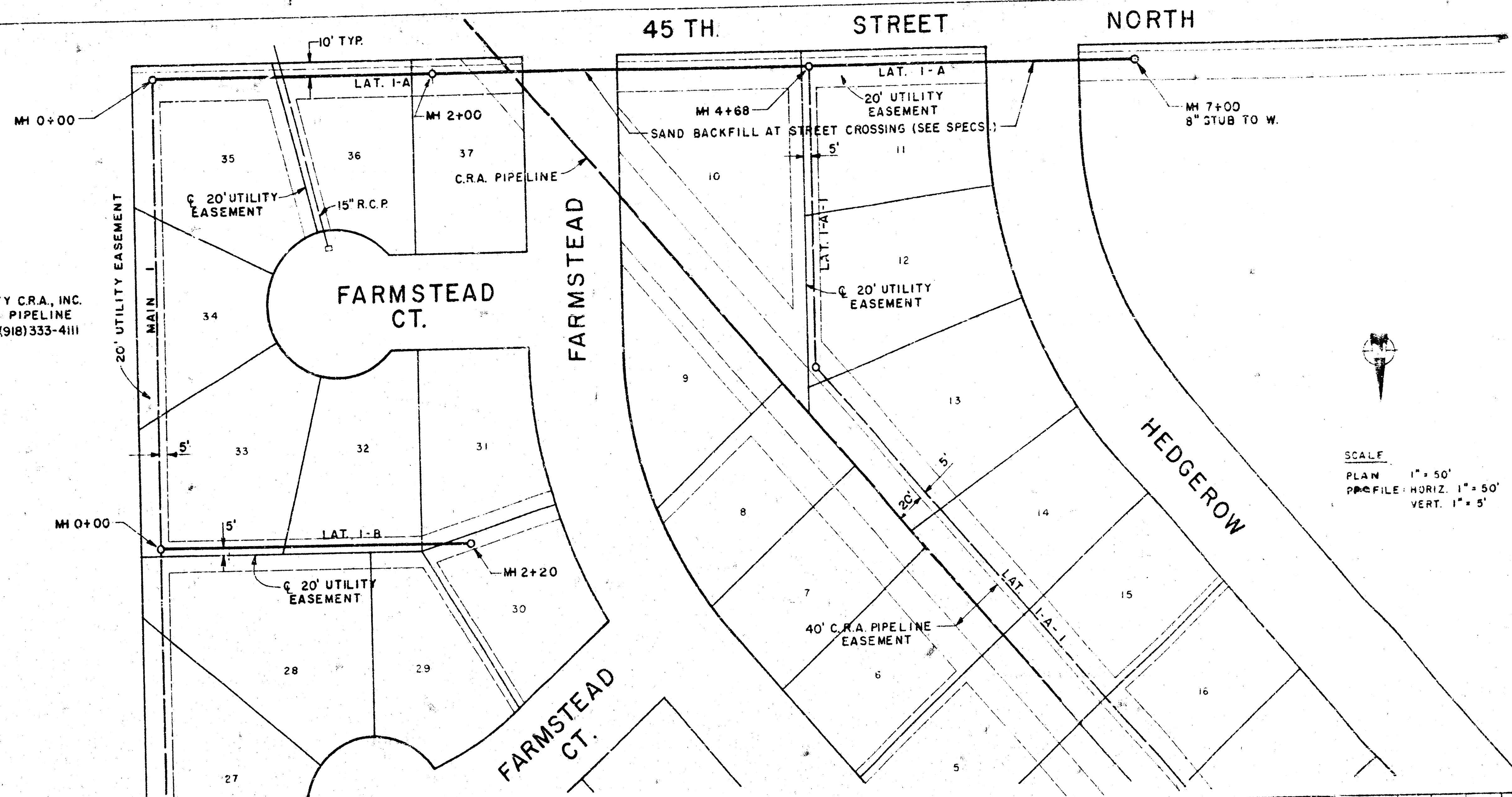
REVISED JUNE 18, 1982
JULY 12, 1982

SHEET 1 OF 9

FILMED FROM THE BEST AVAILABLE COPY

PLAN
 1/4" = 50'
 NOTE: BOUNDARY SURVEY BY
 11/17/81
 11/17/81
 11/17/81

NOTE:
 CONTRACTOR SHALL NOTIFY C.R.A., INC.
 PRIOR TO WORKING WITHIN PIPELINE
 EASEMENT. MR. ROY NICHOLS (918) 333-4111



SCALE
 PLAN 1" = 50'
 PROFILE HORIZ. 1" = 50'
 VERT. 1" = 5'

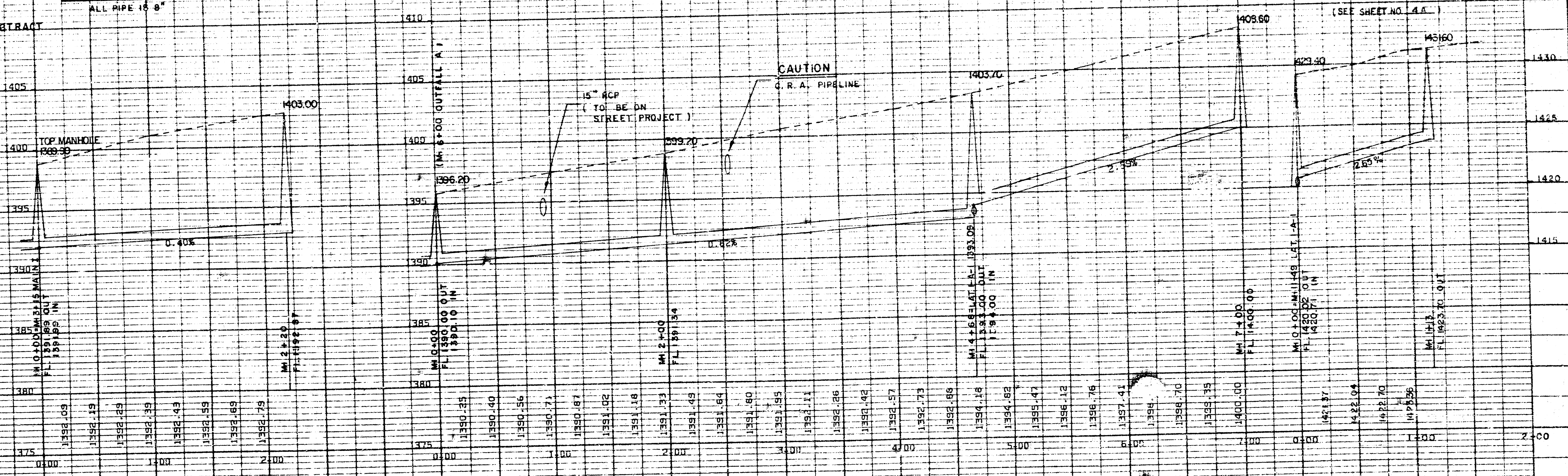
PROFILE
 1/4" = 50'
 NOTE: BOUNDARY SURVEY BY
 11/17/81
 11/17/81
 11/17/81

NOTE: ALL DATUM IS U.S.C.S. SUBTRACT
 1187.4' FOR CITY DATUM.

LATERAL I-B
 ALL PIPE IS 8"

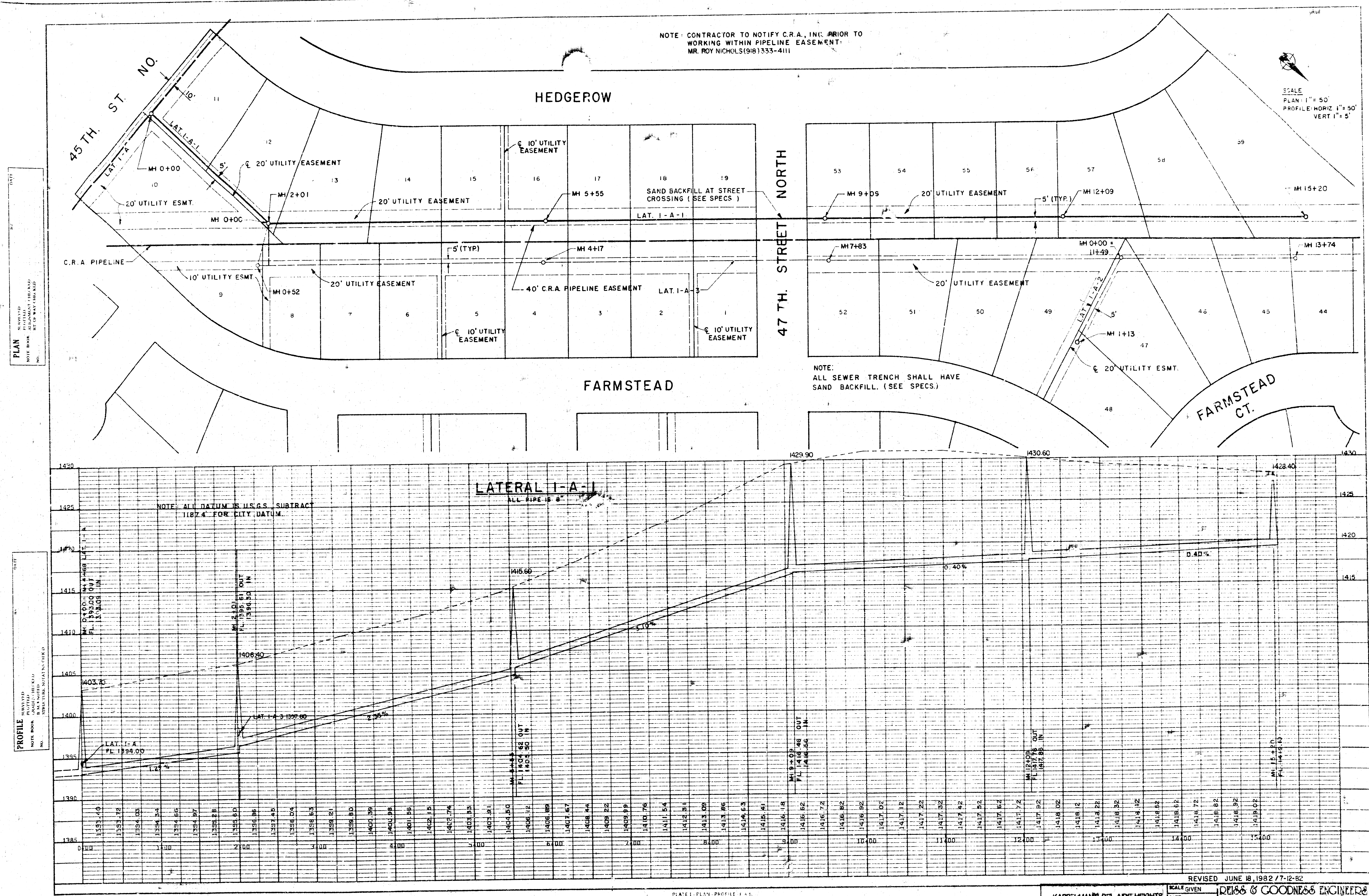
LATERAL I-A
 ALL PIPE IS 8"

LAT. I-A-2
 ALL PIPE IS 8"



REVISED JUNE 18, 1982 / 7-12-82
 KAPPELMAN'S DELAWARE HEIGHTS
 DATE 3-20-81
 PROJECT SE1890
 SHEET 5 OF 8
 2100 WEST 21ST STREET
 WICHITA, KANSAS 67204
 (316) 262-0222
 REISS & GOODNESS ENGINEERS
 3/10

FILMED FROM THE BEST



REVISOR: JUNE 18, 1982 / 7-12-82

KAPPELMAN'S BEL ARE HEIGHTS

DATE: 3-20-81

PROJECT: 2160 WEST 21ST STREET

SE: 1880

WIKIYA, KARAM 07204

SANITARY SEWER EXTENSIONS

SHEET 4 OF 9

DEISS & GOODNESS ENGINEERS

4/0

MADE FROM THE BEST

NOTE: CONTRACTOR TO NOTIFY C.R.A., INC. PRIOR TO WORKING WITHIN PIPELINE EASEMENT MR. ROY NICHOLS (918) 333-4111

SCALE
PLAN 1"=50'
PROFILE 1"=5'
VERT 1"=5'

HEDGEROW

47TH STREET NORTH

FARMSTEAD

FARMSTEAD CT.

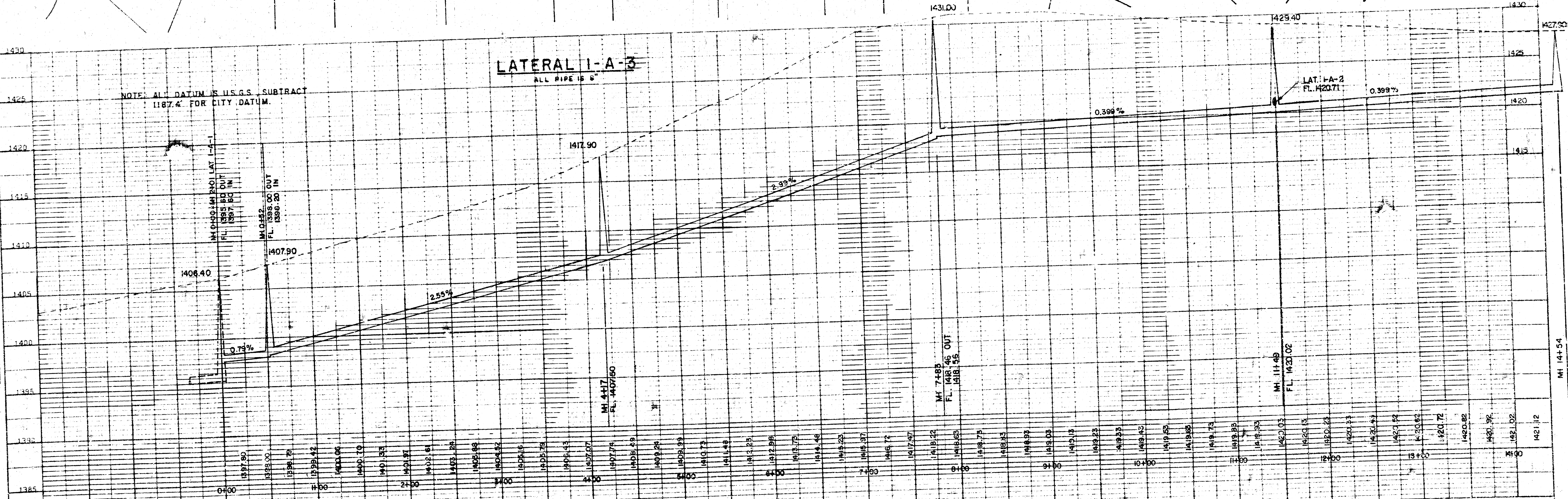
LATERAL 1-A-3
ALL PIPE IS 8"

NOTE: ALL DATUM IS U.S.G.S. SUBTRACT 1187.4' FOR CITY DATUM.

NOTE: ALL SEWER TRUNK SHALL HAVE SAND BACKFILL (SEE SPECS.)

PLAN

PROFILE
NOTE: BOOK CANNOT BE USED
FOR CONSTRUCTION PURPOSES

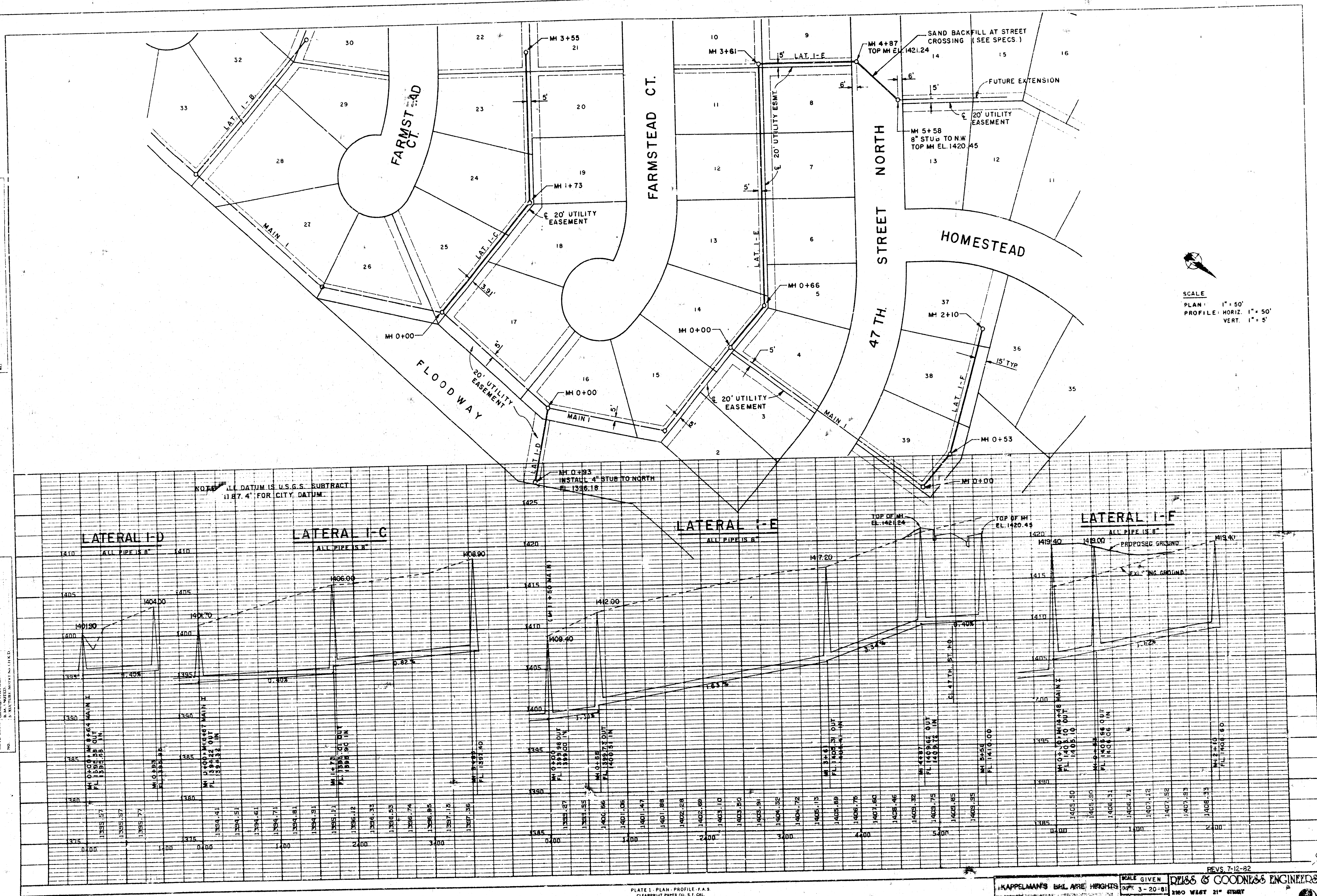


REVISED JUNE 18, 1982 / 7-12-82

KAPPELMAN'S BEL AIR HEIGHTS SANITARY SEWER EXTENSIONS	SCALE GIVEN	DEISS & GOODNESS ENGINEERS 2100 WEST 21ST STREET WICHITA, KANSAS 67204 (913) 838-0283
	DATE 3-20-81	
	PROJECT SE 1880	
	SHEET 4 OF 9	

PLAN
 SURVEYED
 ADJUSTMENT CHECKED
 NOTE BOOK
 RE OF WAY 10' S.D.P.
 NO.

PROFILE
 SURVEYED
 GRADE CHECKED
 NOTE BOOK
 S. MOUNTAIN DATA FILED
 NO.



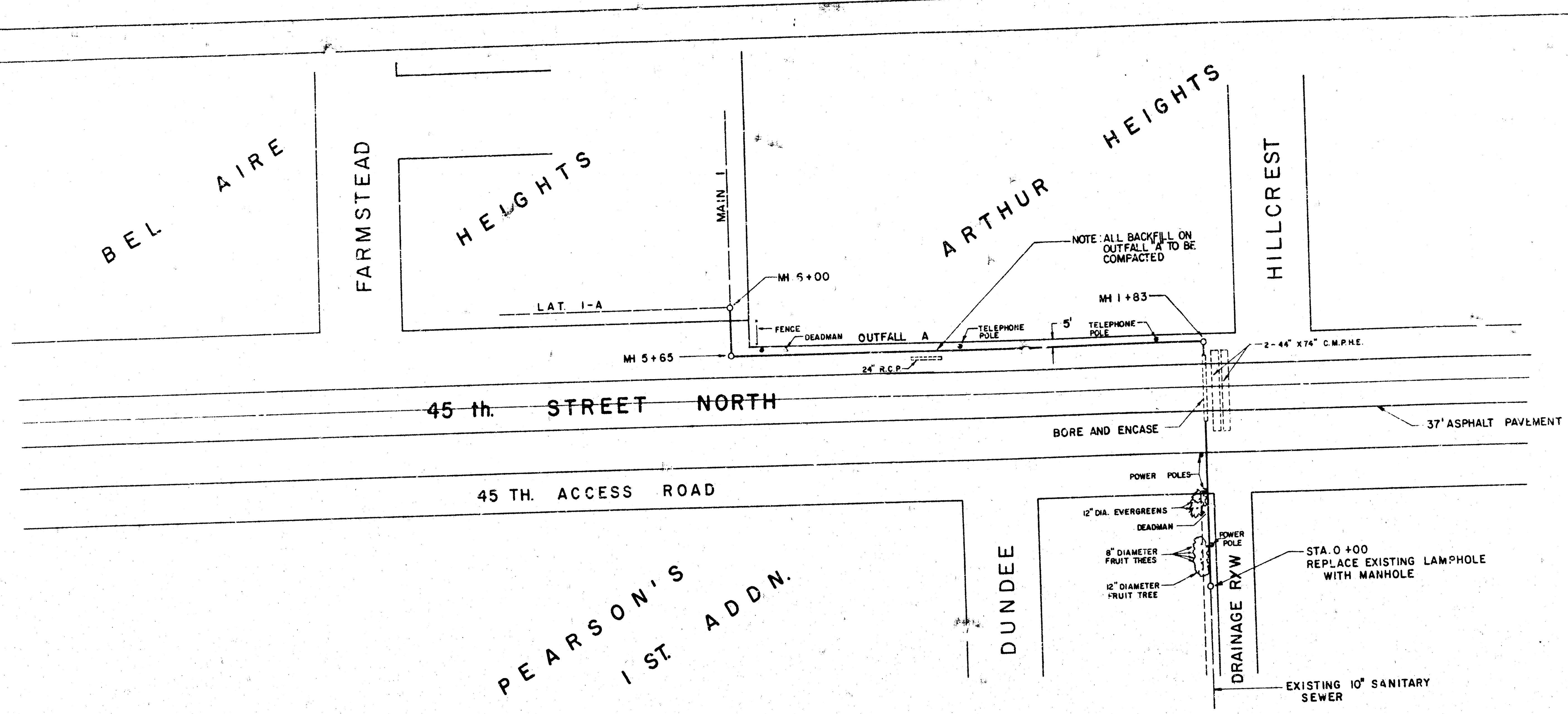
SCALE
 PLAN 1" = 50'
 PROFILE HORIZ. 1" = 50'
 VERT. 1" = 5'

PLATE 1. PLAN, PROFILE, F.A.S.
 CLEARPRINT PAPER CO. S.T. CAL.
 NO. 10001

KAPPELMAN'S BELL ARE HEIGHTS
 SCALE GIVEN
 3-20-81
 2100 WEST 21ST STREET
 WICHITA, KANSAS 67204
 (913) 632-0383

PLAN
SHEET NO. 6 OF 9
DATE 3-20-81
PROJECT 2100 4287 31" STREET
WICHITA, KANSAS 67203
REVISIONS 7-12-82

PROFILE
SHEET NO. 6 OF 9
DATE 3-20-81
PROJECT 2100 4287 31" STREET
WICHITA, KANSAS 67203
REVISIONS 7-12-82



SCALE
PLAN: 1" = 50'
PROFILE: HORIZ. 1" = 50'
VERT. 1" = 5'

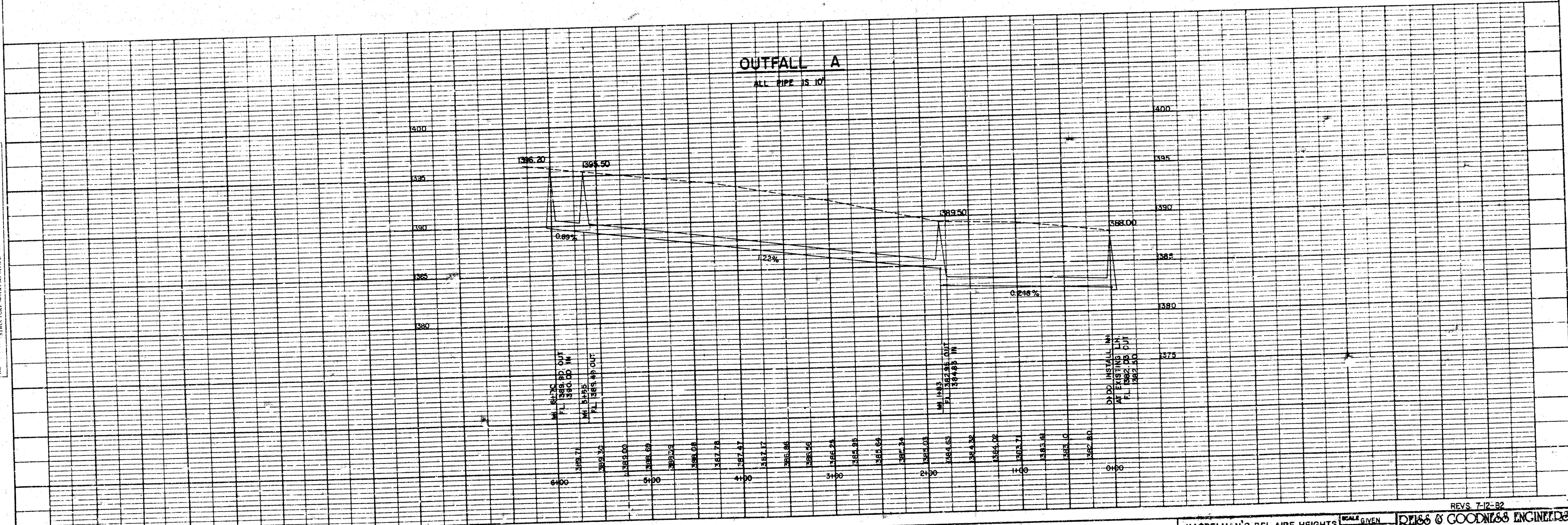
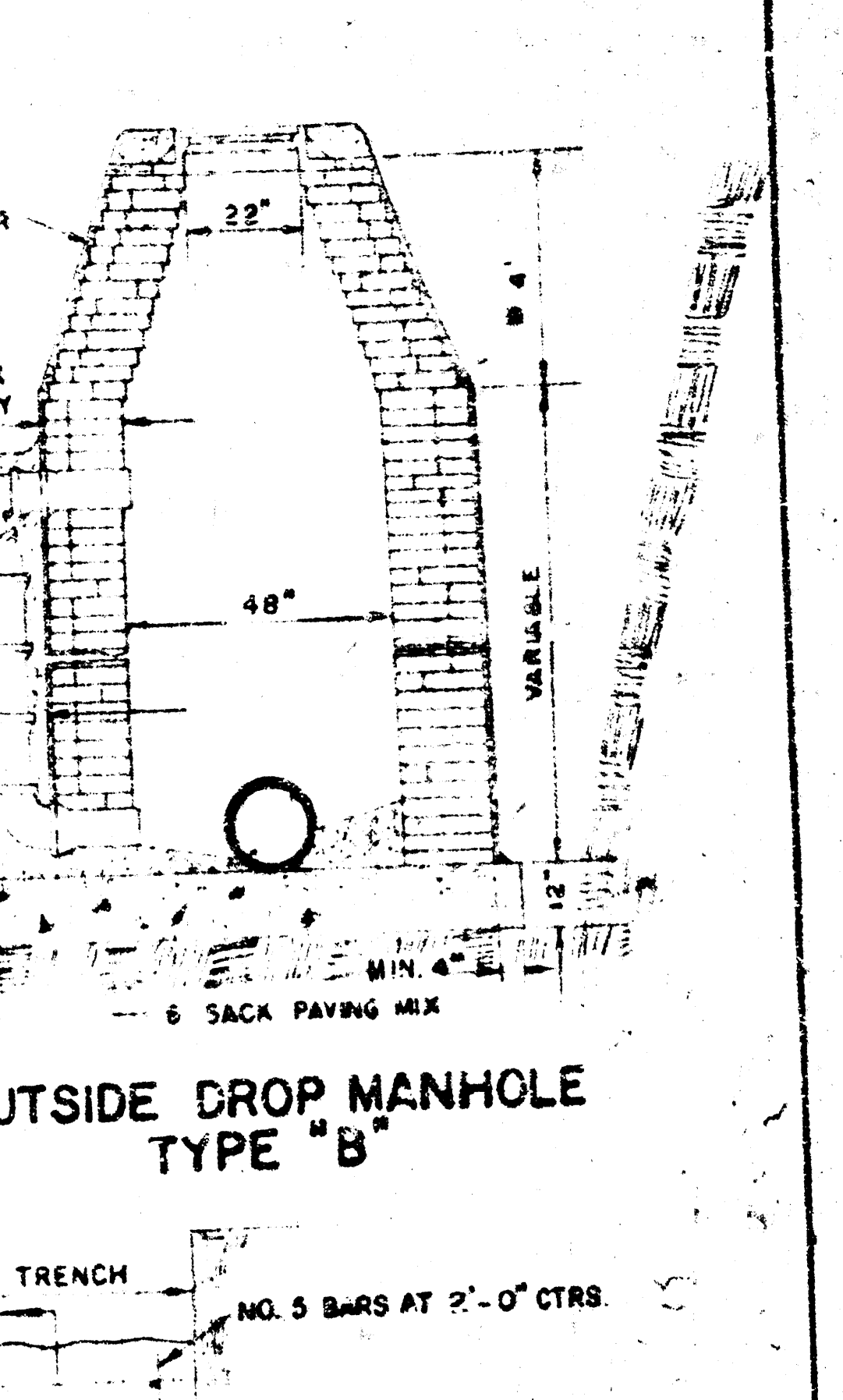
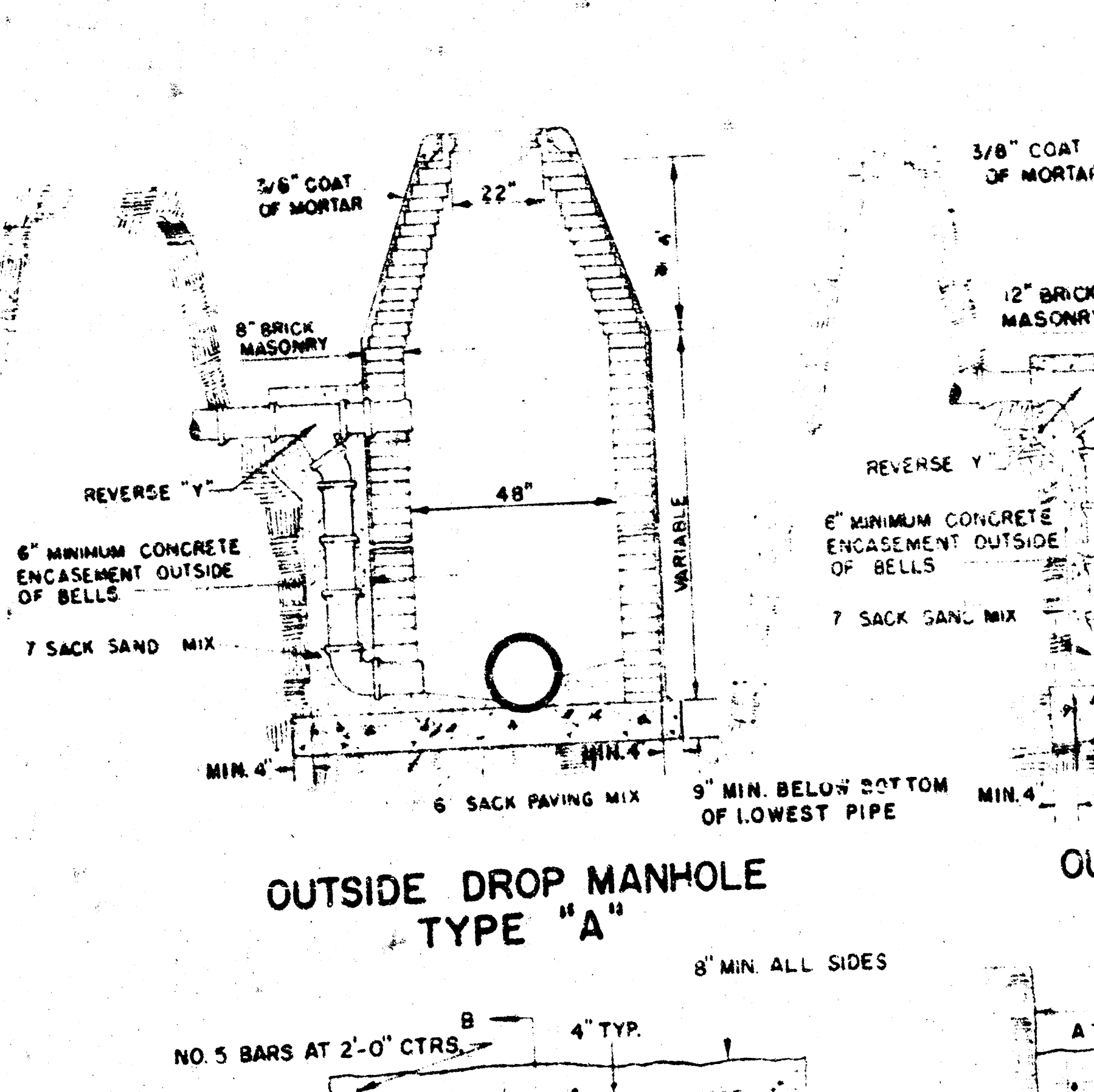
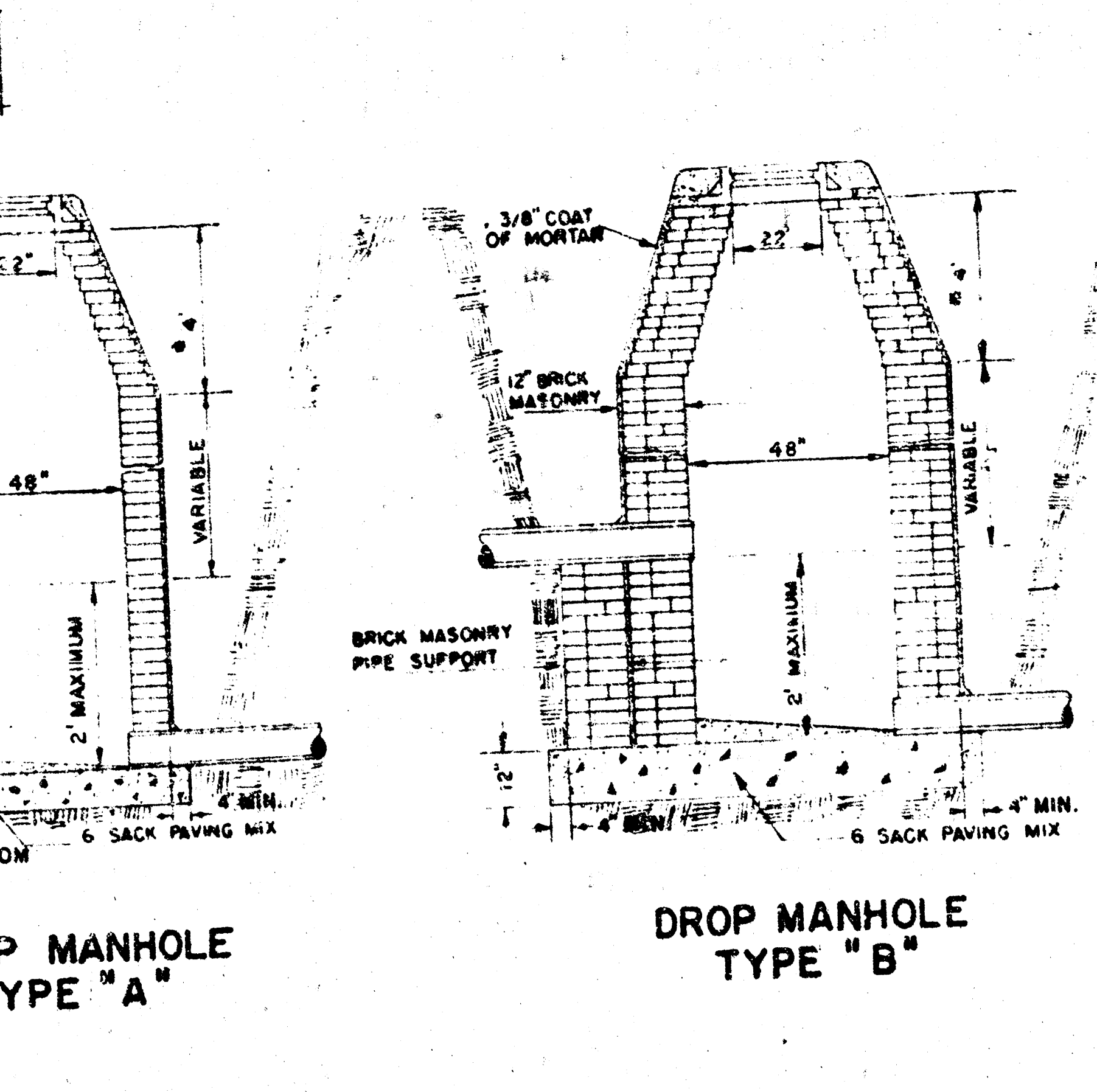
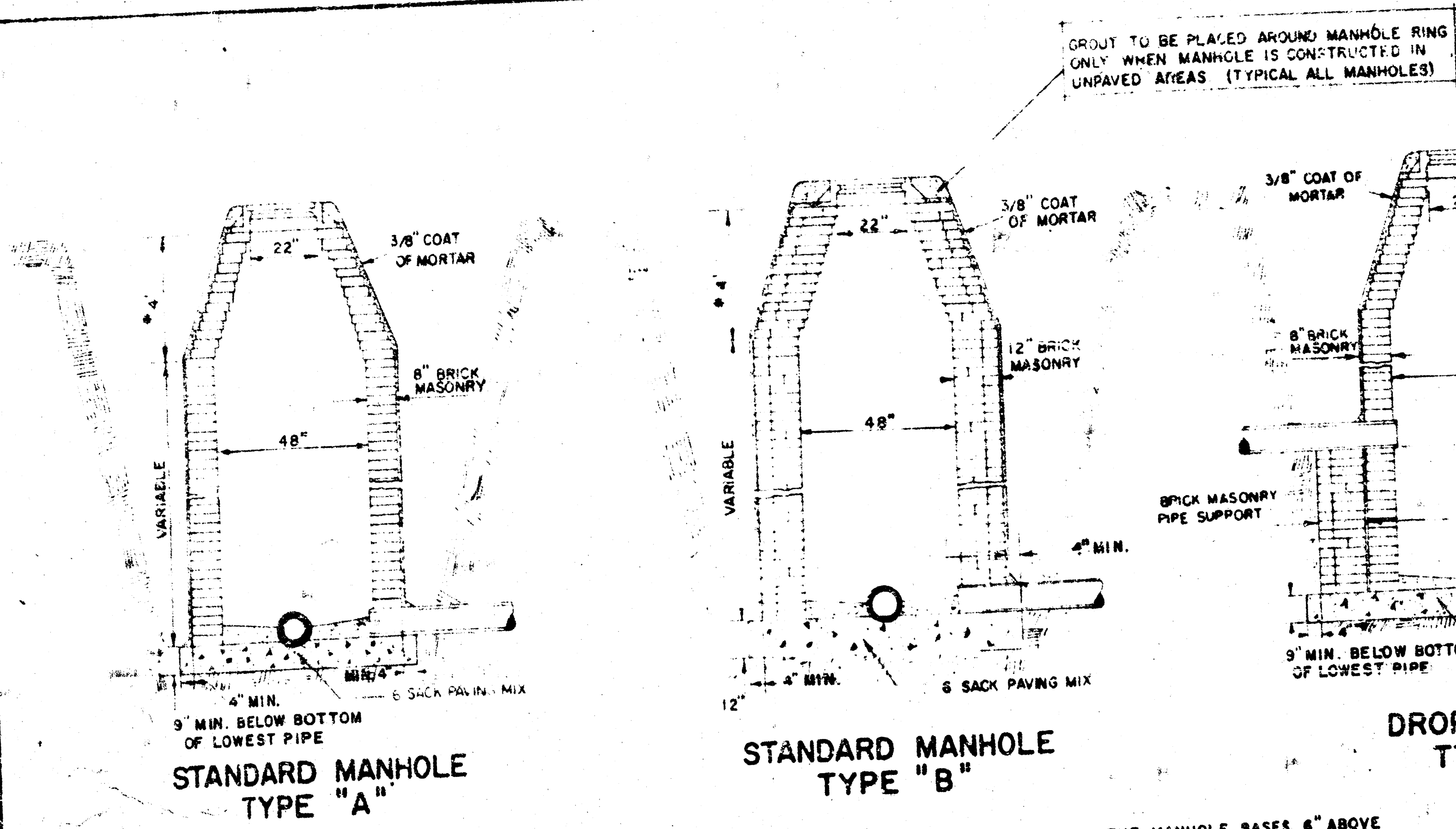


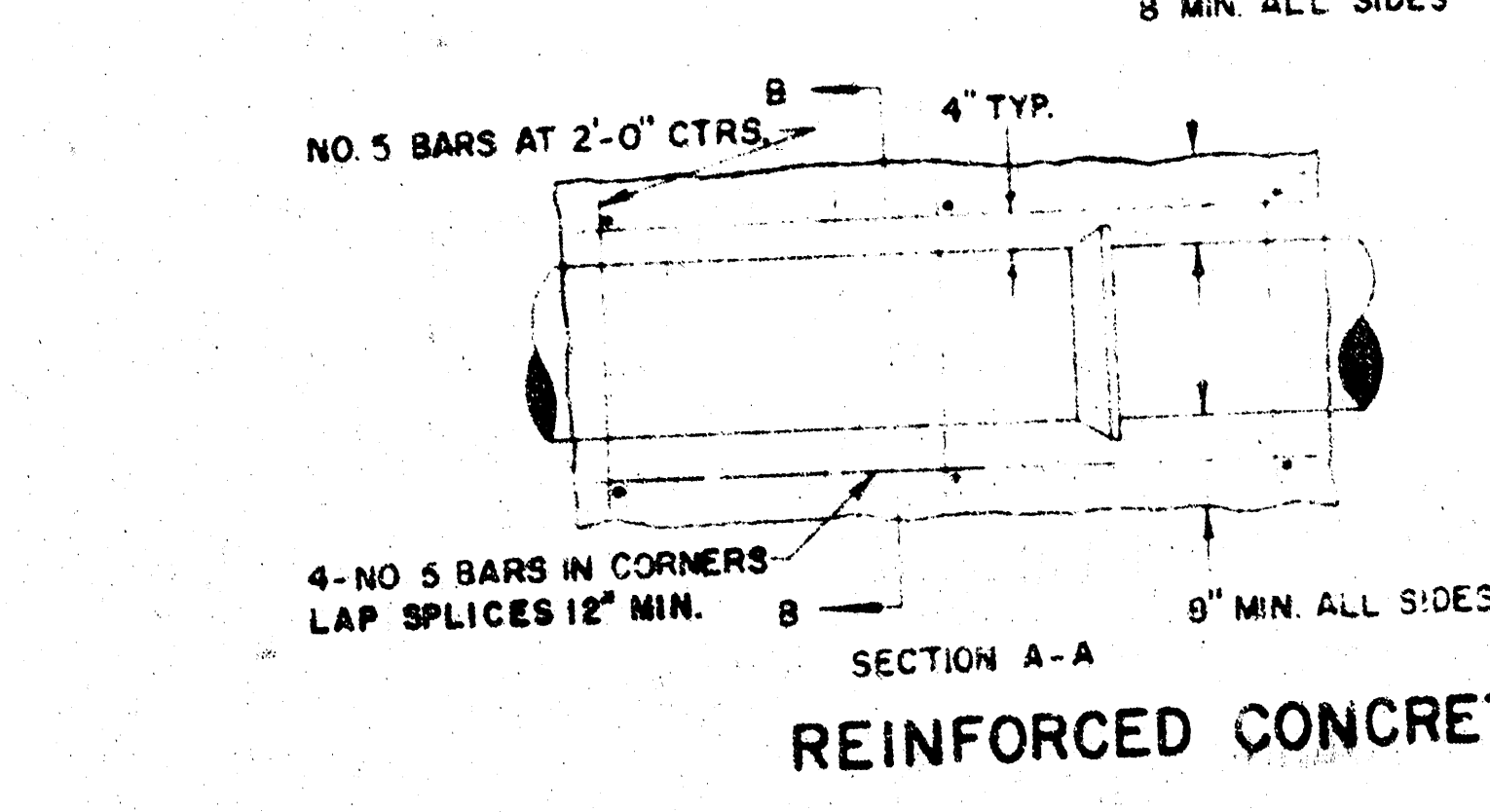
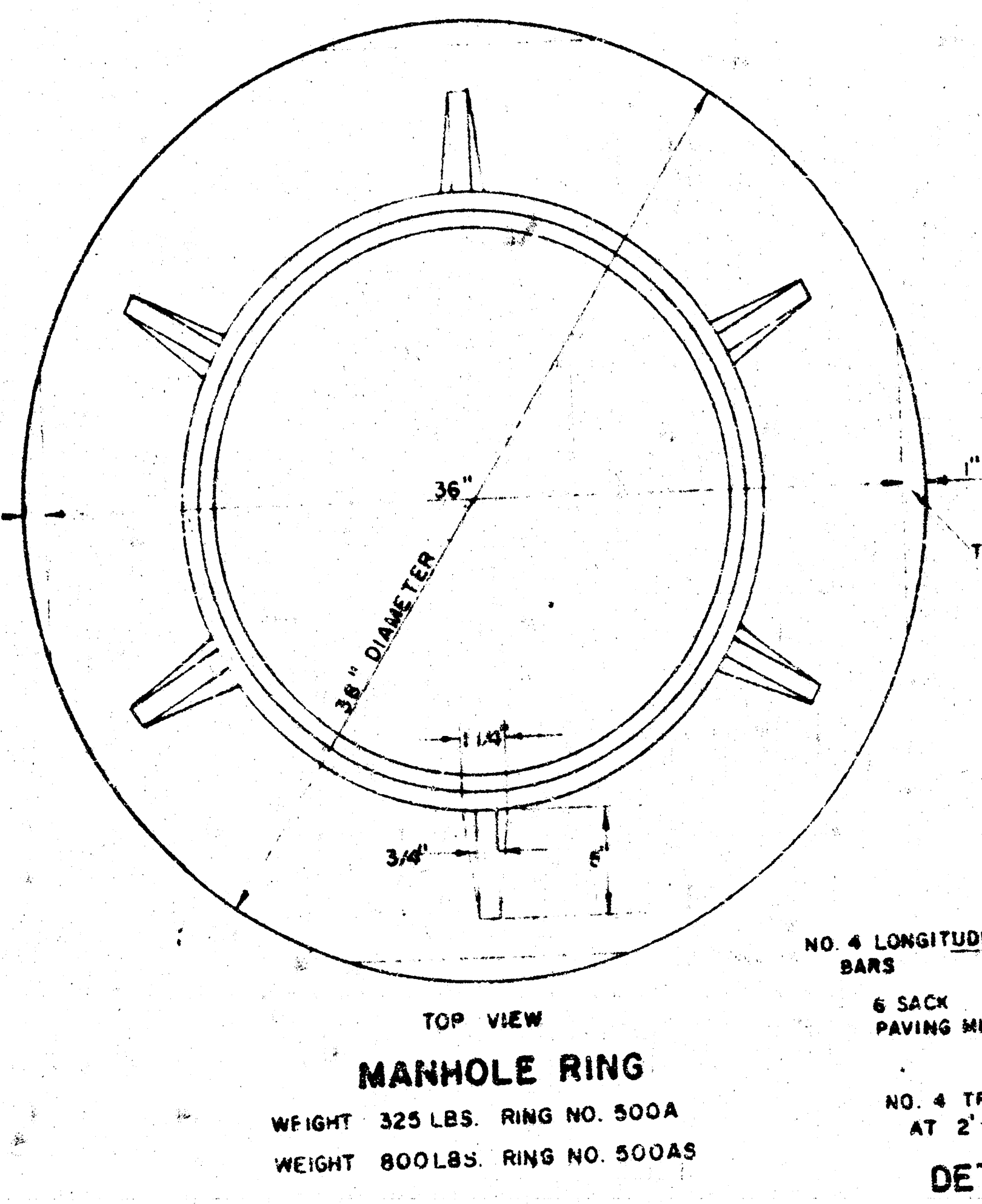
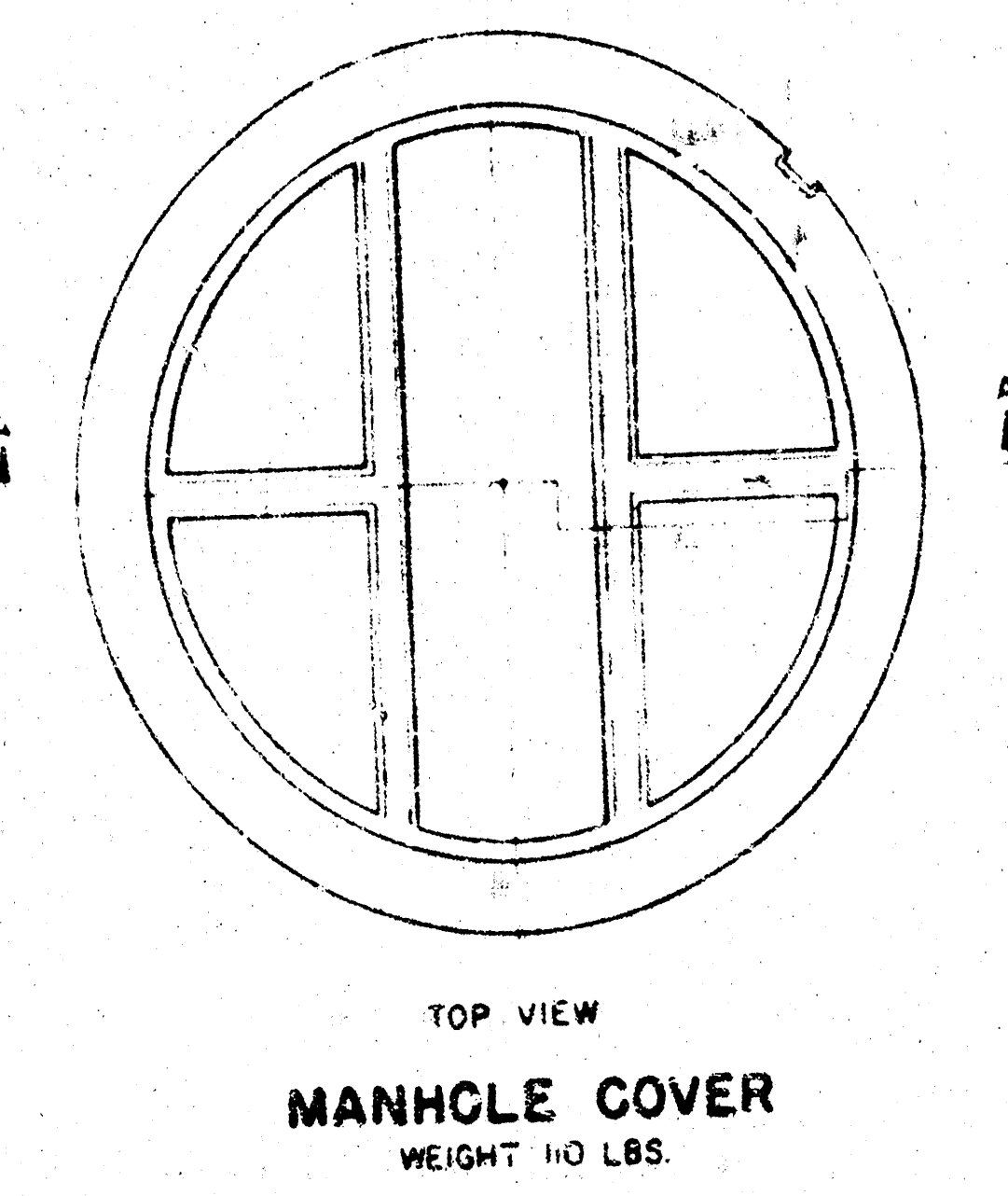
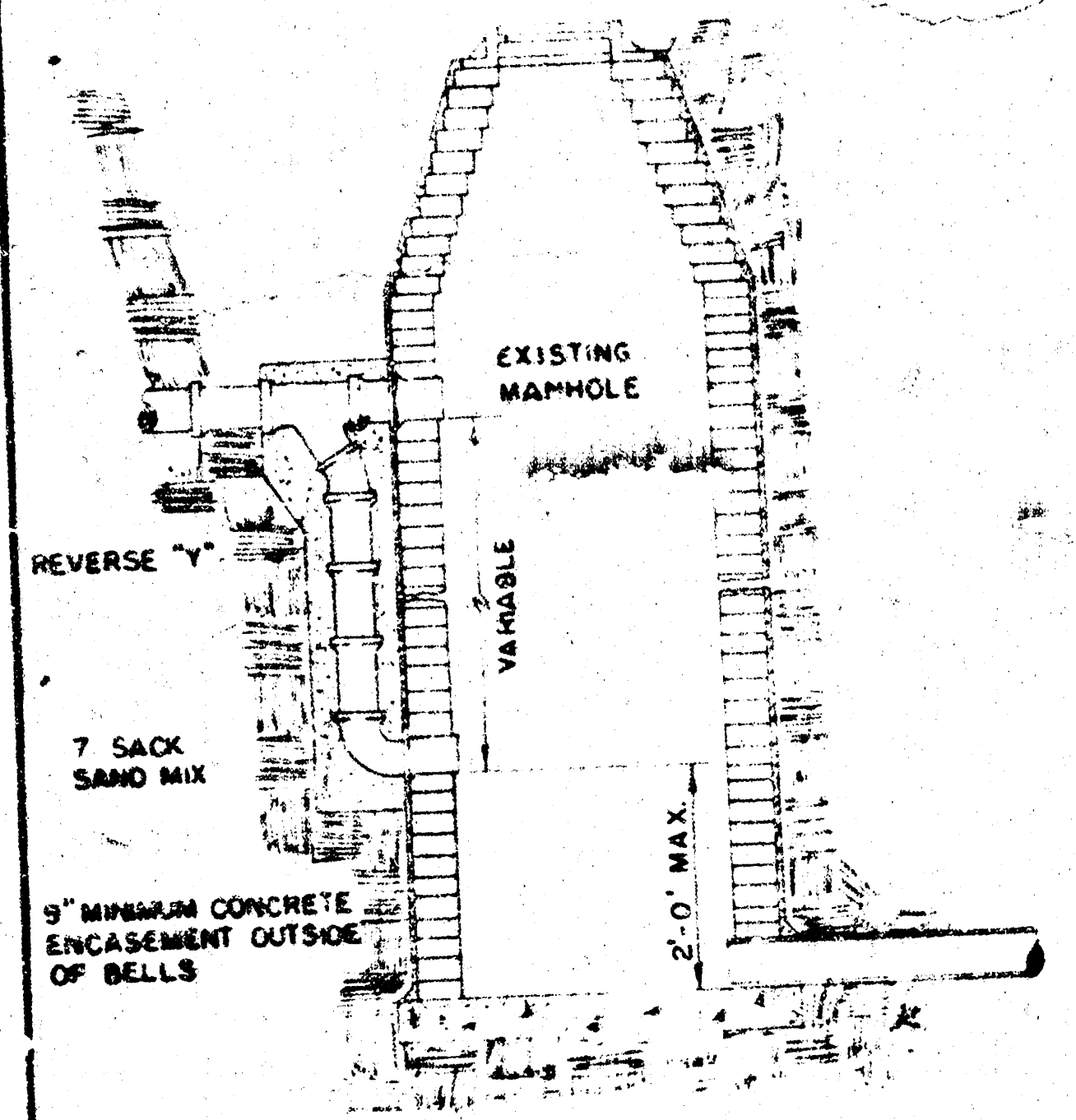
PLATE 1: PLAN, PROFILE, & S
CLEARPRINT PAPER CO. & F. CAL.
NO. 10001

KAPPELMAN'S BEL AIRE HEIGHTS
SANITARY SEWER EXTENSIONS
DATE 3-20-81
PROJECT 2100 4287 31" STREET
WICHITA, KANSAS 67203
SHEET 6 OF 9
REVISIONS 7-12-82
DRISS & GOODNESS ENGINEERS

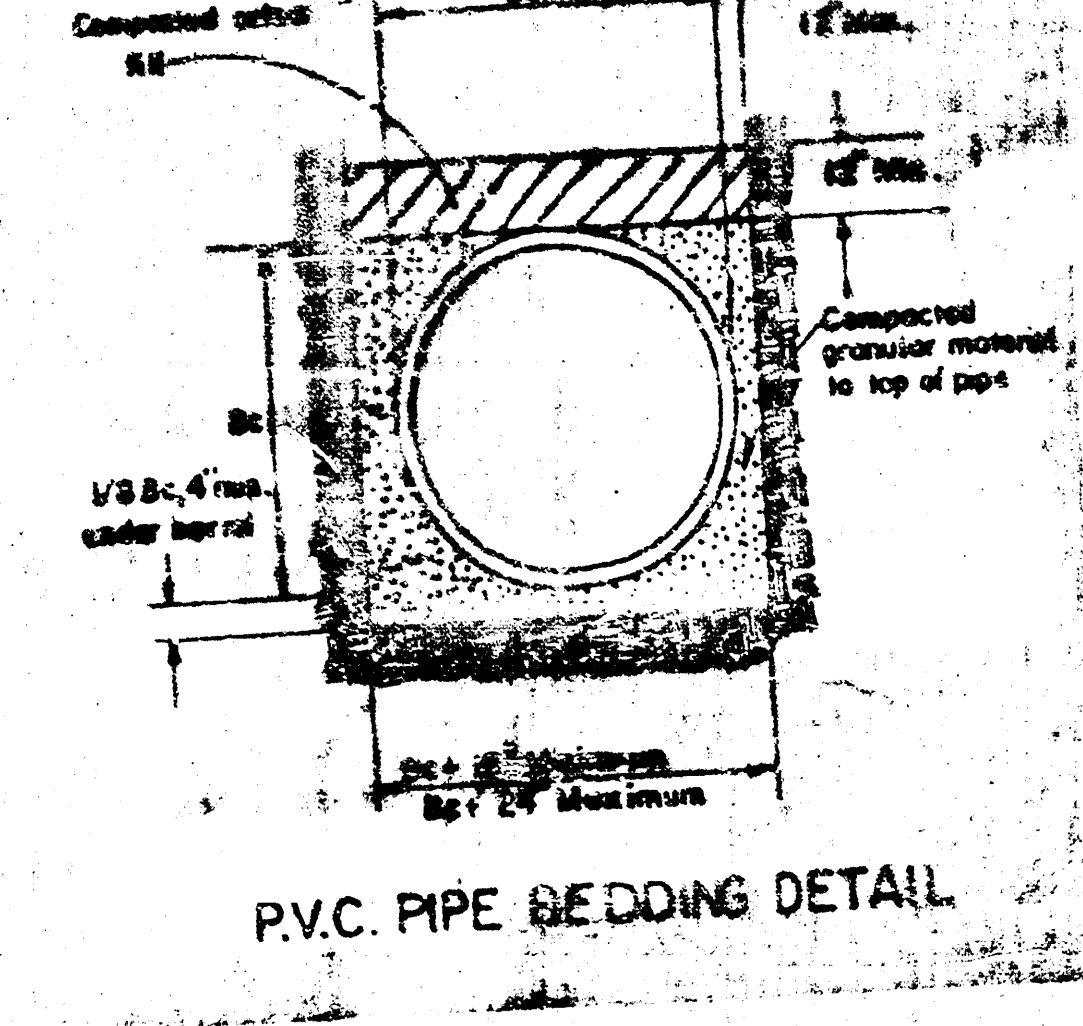
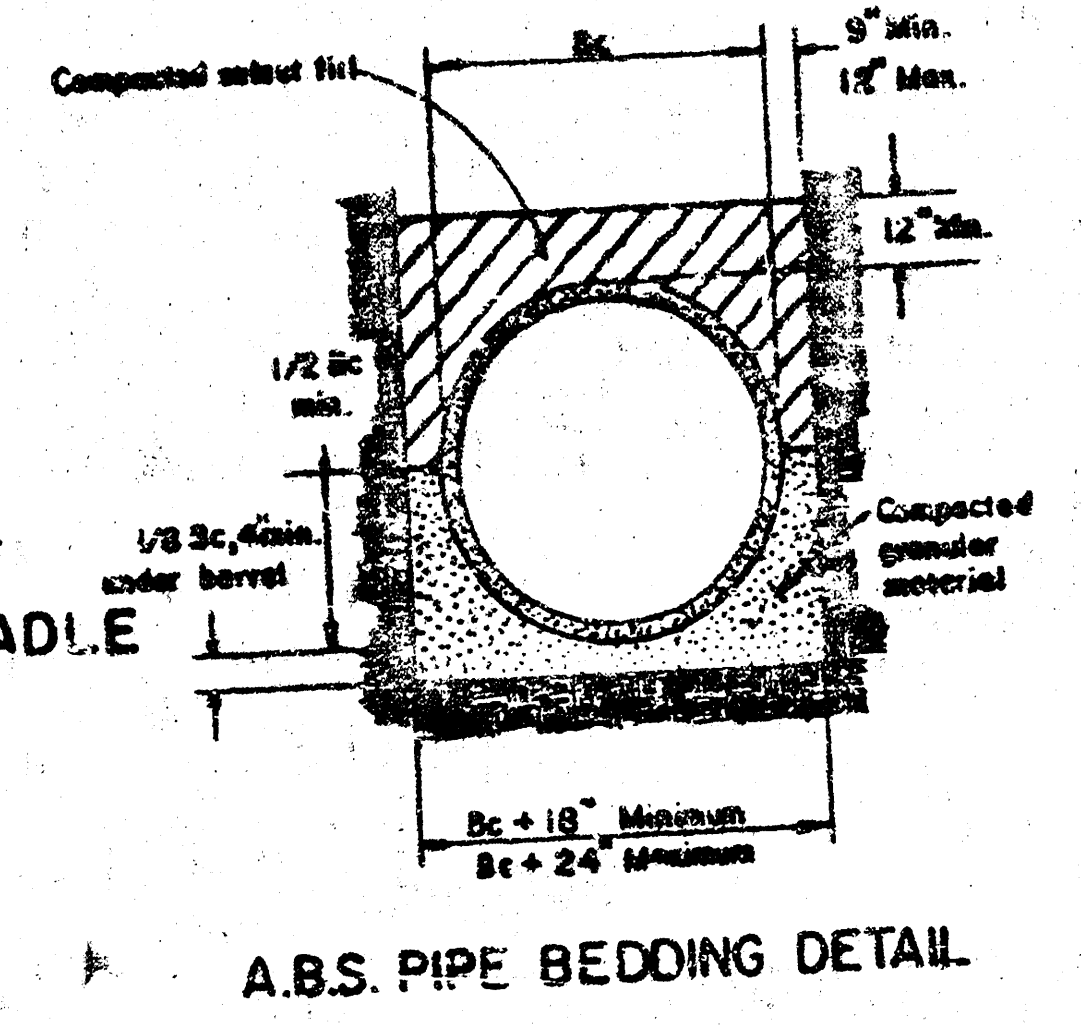
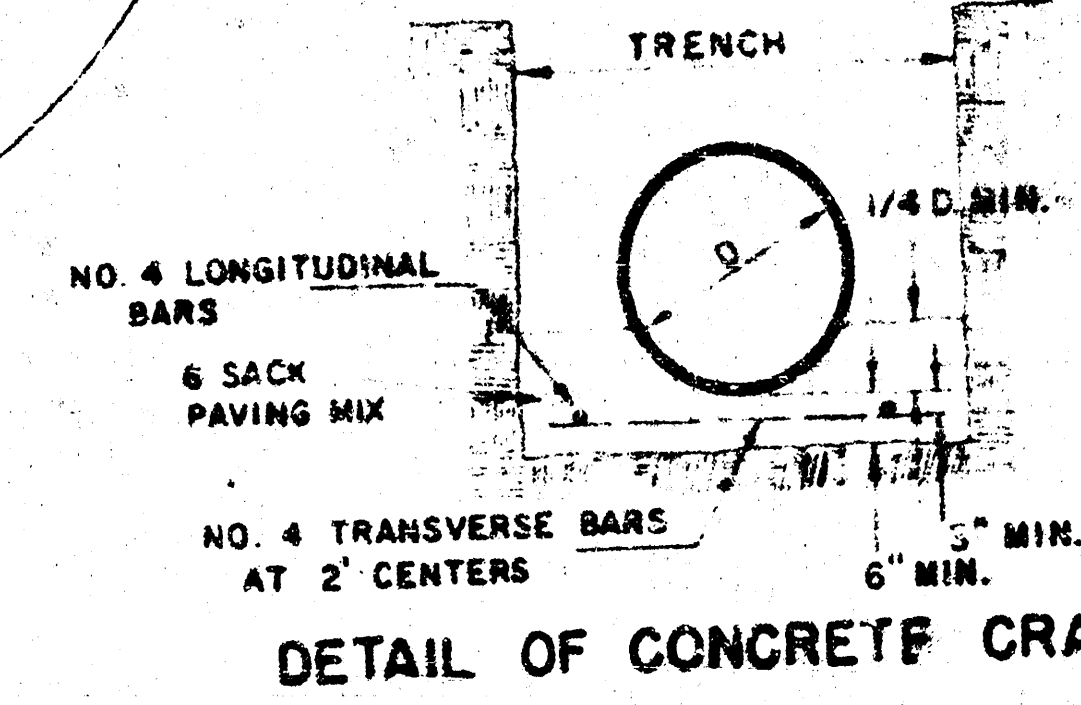


* DRAW = 6" ON 5' DIA. M.H.

NOTE: REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES 6" ABOVE THE BOTTOM. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE COST OF REINFORCING STEEL IS TO BE INCLUDED IN THE PRICE BID FOR THE MANHOLE.

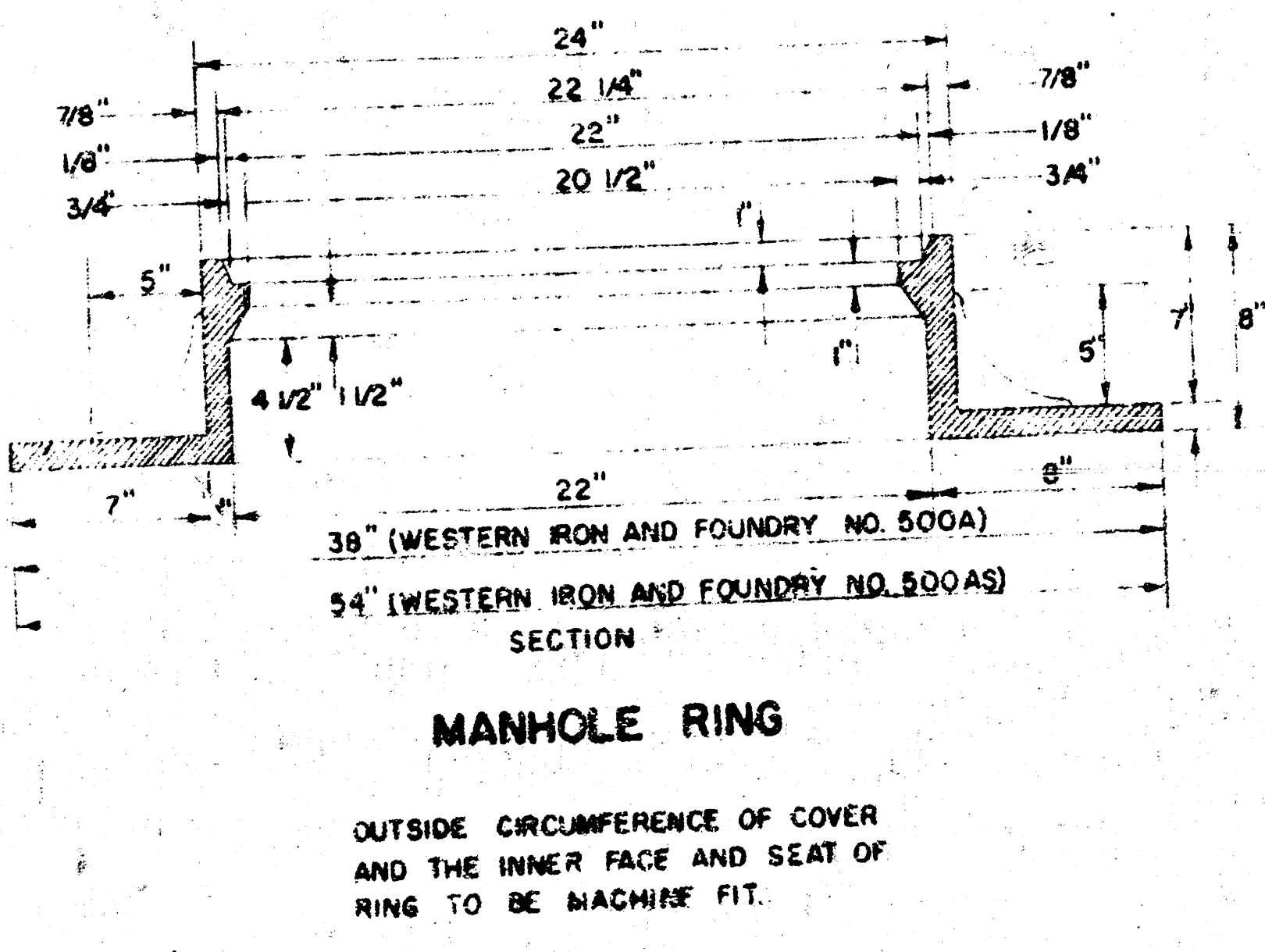
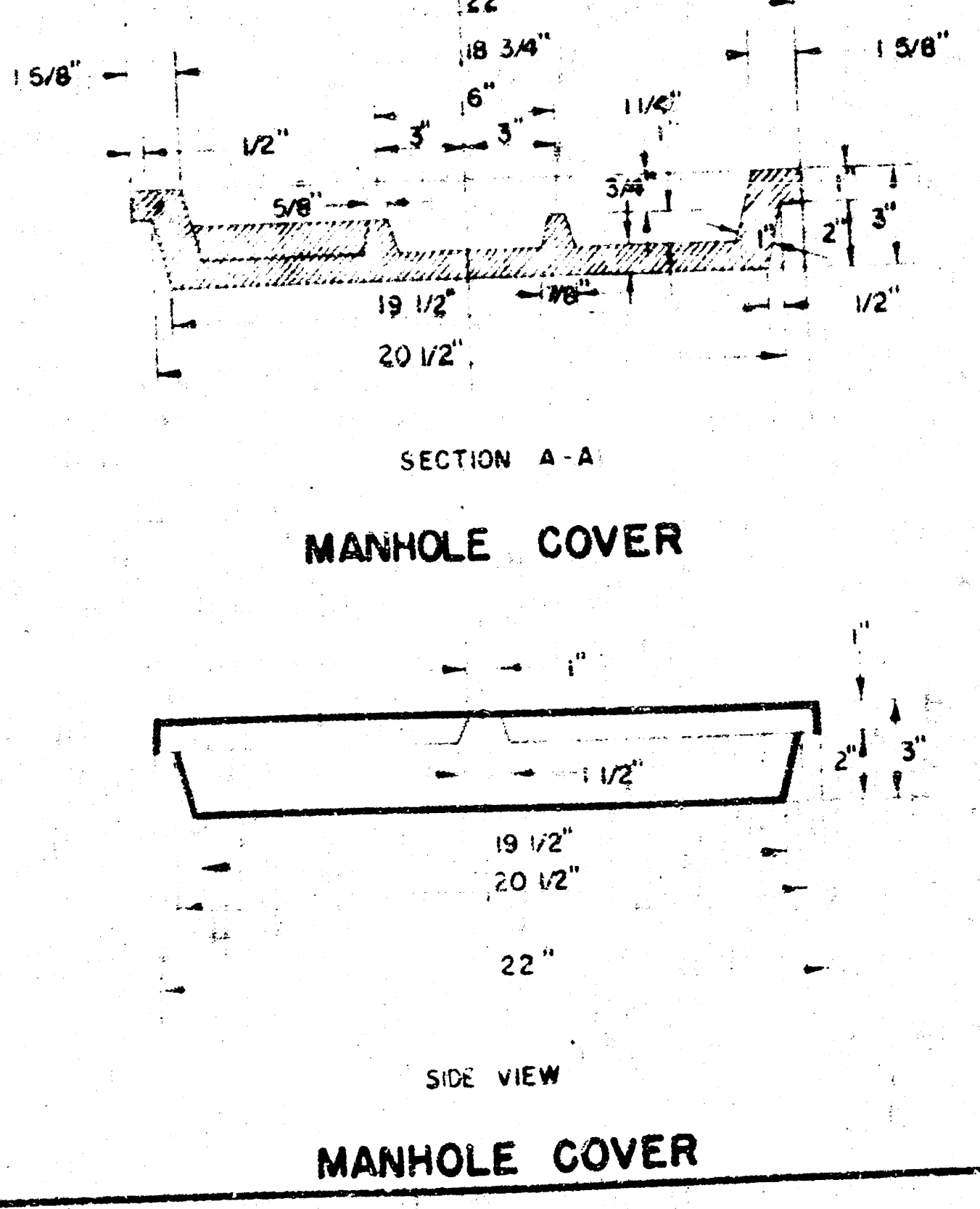


NOTE: CONCRETE ENCASEMENT AND CONCRETE CRADLE SHALL BEGIN AND END AT A JOINT WHEN CLAY PIPE IS USED. MINIMUM CONCRETE COVERAGE OF REGAR TO BE 3".



GENERAL NOTES

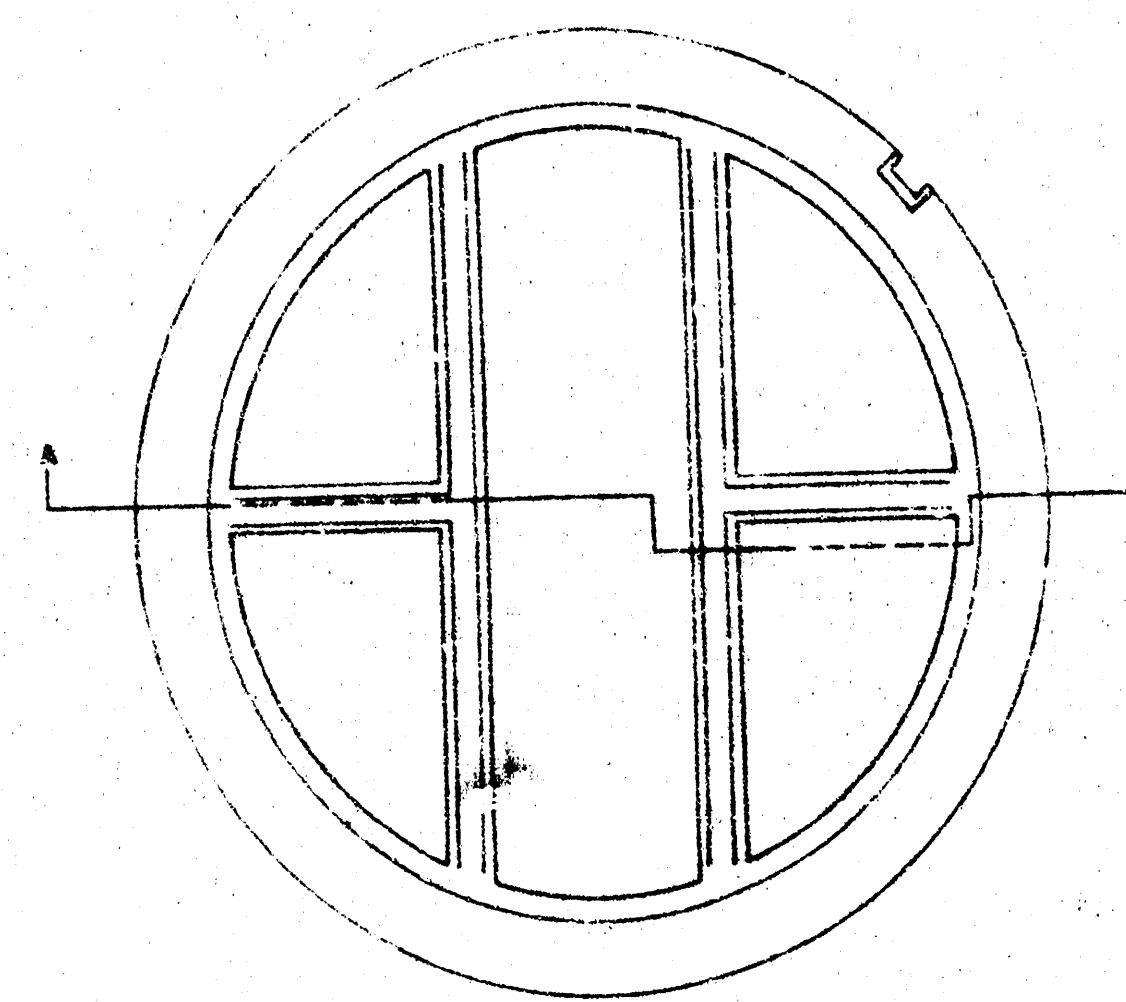
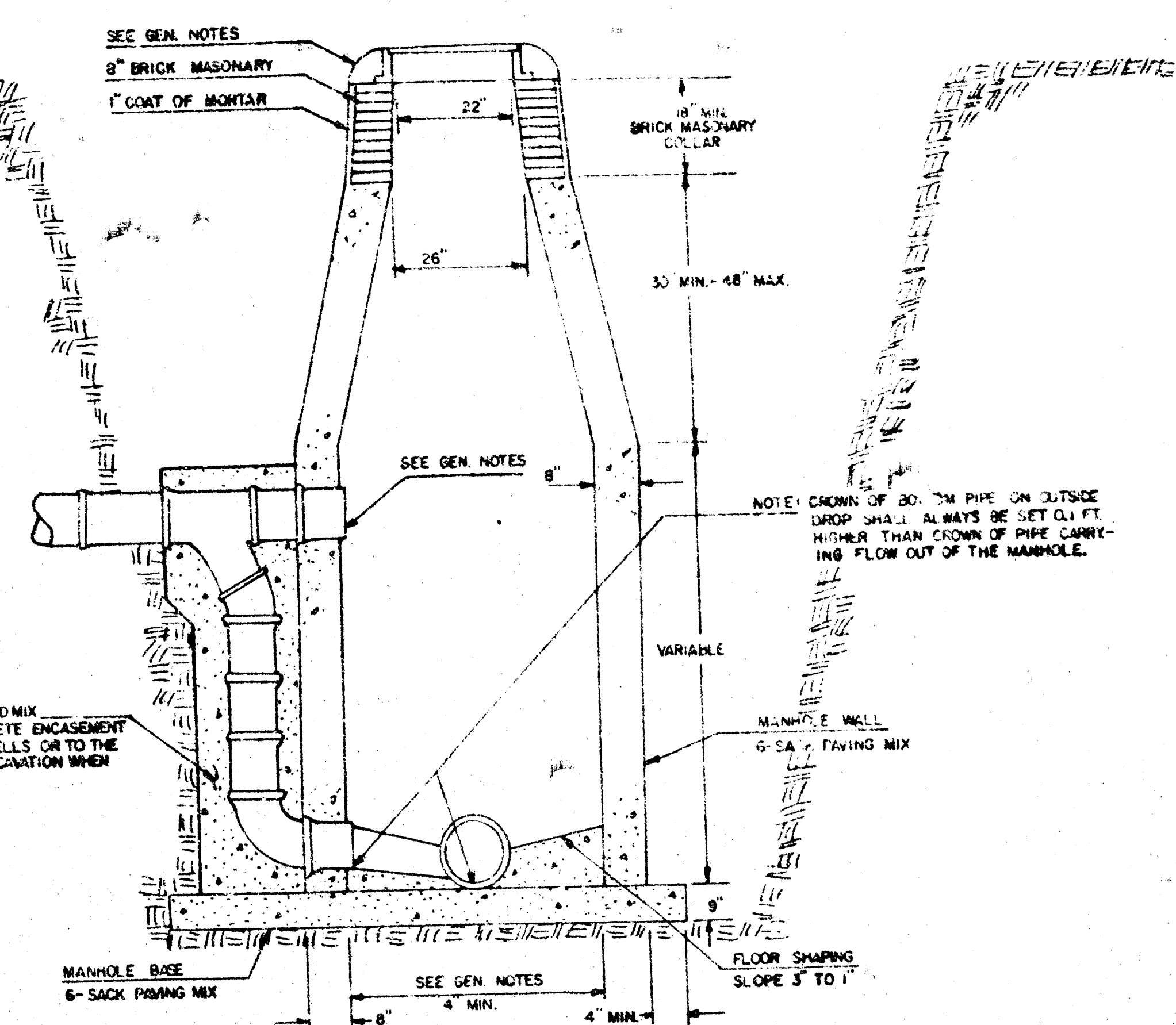
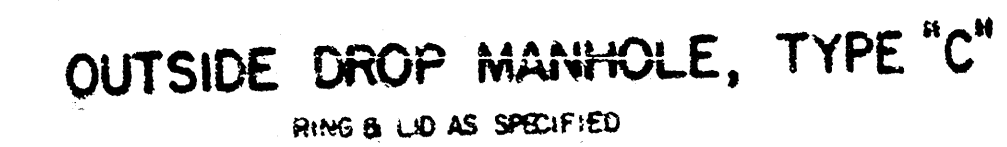
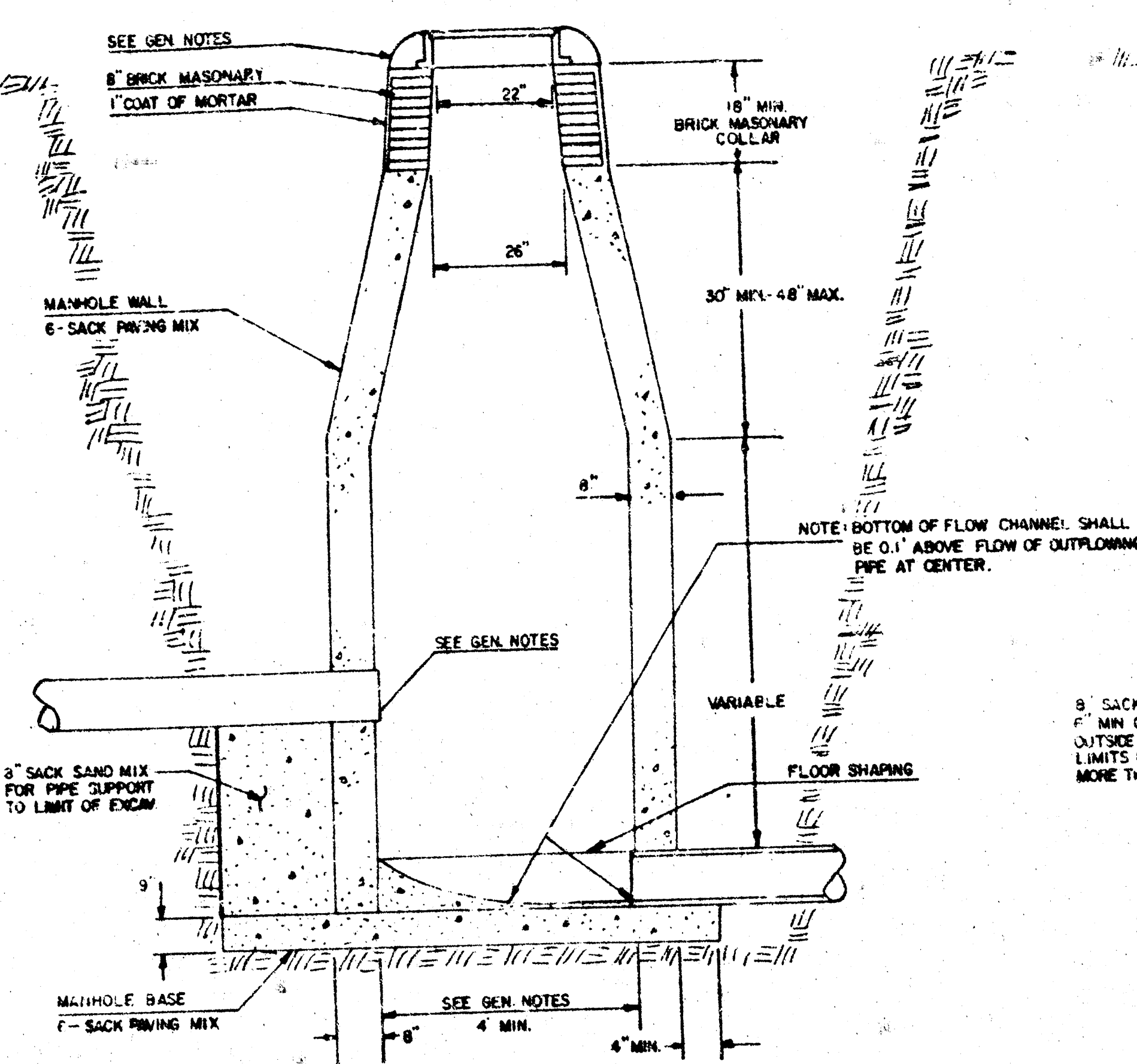
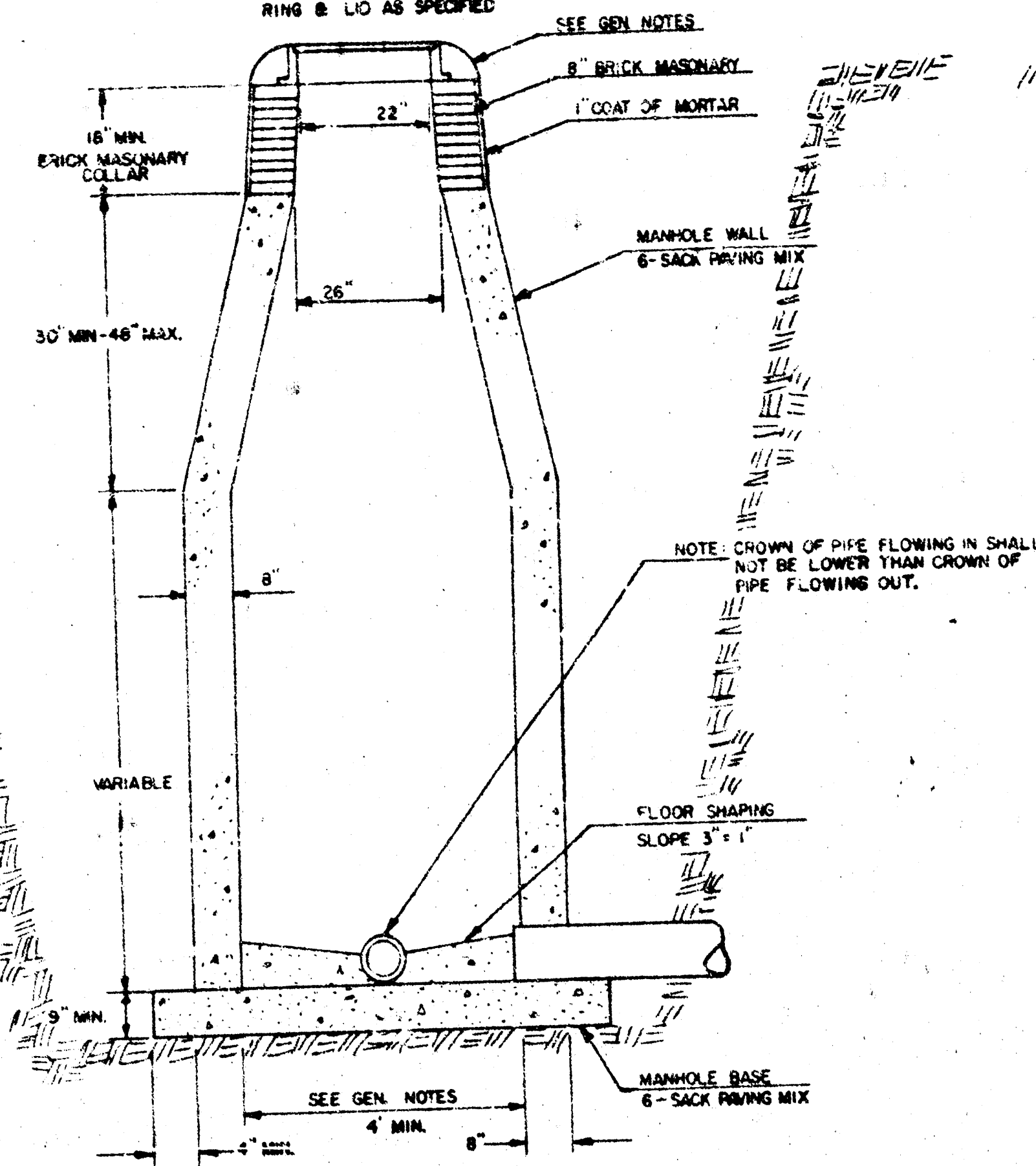
- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD.
- STANDARD MANHOLES TYPE "A" OR TYPE "B" AND STANDARD DROP MANHOLES TYPE "A" OR TYPE "B" SHALL BE BID PER LINEAR FOOT OF MANHOLES CONSTRUCTED.
- OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
- MANHOLES WITH PIPE SIZES LARGER THAN 24" SHALL BE 5' DIAMETER.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED TO INCREASE HYDRAULIC EFFICIENCY USING 8 SACK SAND MIX CONCRETE.
- PIPES INSTALLED WITHIN THE MANHOLE EXCAVATION SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. COST OF CRADLE WITHIN MANHOLE EXCAVATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR MANHOLES CONSTRUCTED. CRADLE SHALL EXTEND TO FIRST JOINT OUTSIDE OF MANHOLE WHEN CLAY PIPE IS USED.



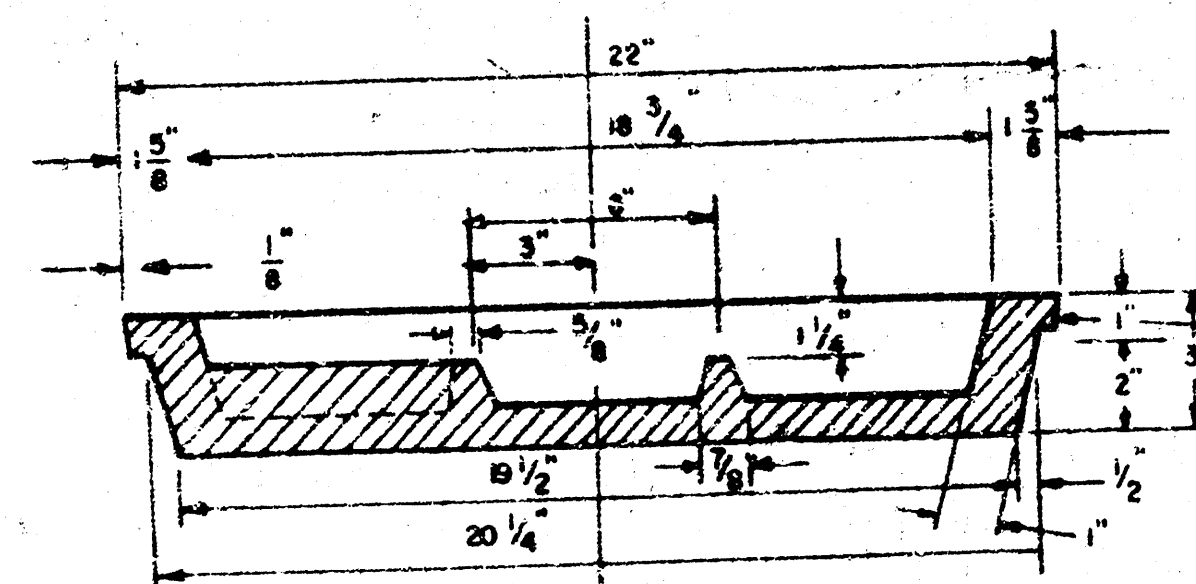
DETAILS OF
SEWER APPURTENANCES
ADOPTED AS STANDARD DESIGN
BY
ENGINEERING DIVISION
CITY OF WICHITA, KANSAS
R. W. LINN CITY ENGINEER

KAPPELMAN'S BEL AFB HEIGHTS
SANITARY SEWER EXTENSIONS
DATE 3-20-81
PROJECT SE 1880
SHEET 3 OF 9
MISS & GOODNESS ENGINEERS
2100 WEST 21ST AVENUE
WICHITA, KANSAS 67204
(913) 832-0285

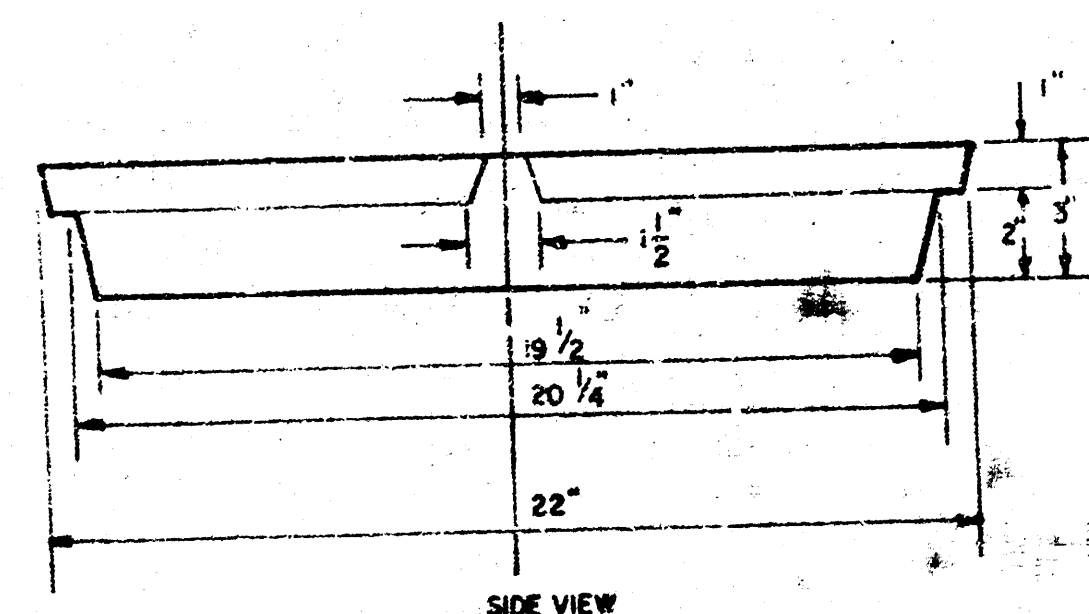
FILMED FROM THE BEST



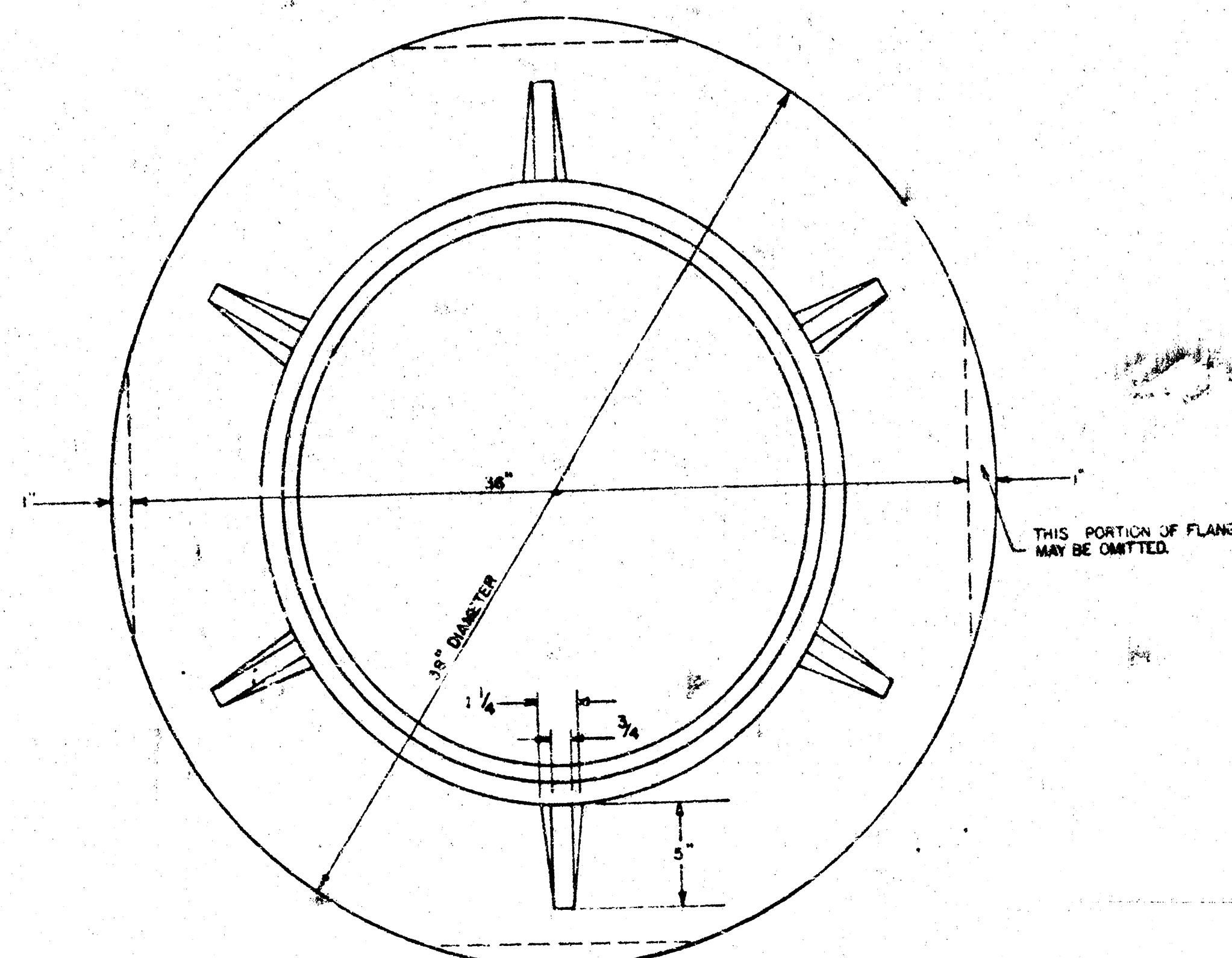
MANHOLE COVER
WEIGHT 110 LBS.



MANHOLE COVER



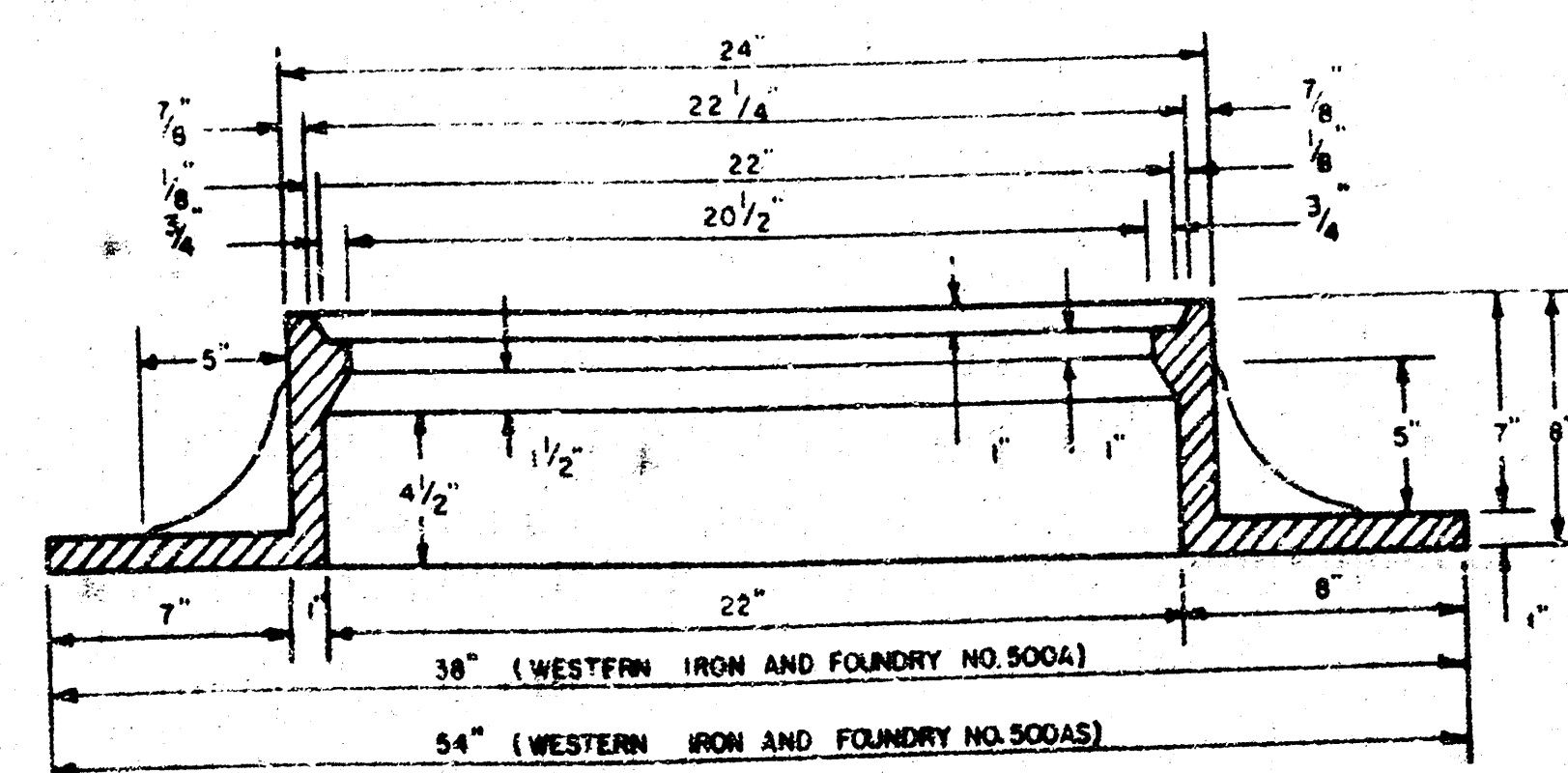
MANHOLE COVER



MANHOLE RING

325 LBS. RING NO. 500A
WEIGHT 800 LBS. RING NO. 500AS

WEIGHT 800 LBS. RING NO. 500AS



MANHOLE RING

- GENERAL NOTES
1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 BAGS OF CEMENT PER CUBIC YARD. CONCRETE TAVERNISHED IN MANHOLE WALLS AND BASES SHALL CONFORM TO THE REQUIREMENTS IF CONCRETE. CONCRETE TAVERNISHED CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD HAVING SPECIFICATIONS USING 6 BAGS OF CEMENT PER CUBIC YARD WITHOUT AIR ENTRAINING ADDED. MANHOLE SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. TYPE C MANHOLES CAN BE CONSTRUCTED ONLY WHERE PIPE SIZES ARE 24" OR SMALLER. THE INSIDE DIAMETER OF TYPE C MANHOLES SHALL BE LIMITED ONLY WHERE PIPE SIZES ARE 24" OR SMALLER. THE INSIDE DIAMETER OF TYPE C MANHOLES SHALL BE LIMITED ONLY WHERE PIPE SIZES ARE 24" OR SMALLER. THE INSIDE DIAMETER OF TYPE C MANHOLES SHALL BE LIMITED ONLY WHERE PIPE SIZES ARE 24" OR SMALLER.
 4. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
 2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASE. 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 BASE. COST OF FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR MANHOLES CONSTRUCTED.
 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 INSTALLED INTO THIS OPENING WITH NON-SHRINKING 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 SHAPE 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 WALLS 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 DRAWINGS. FLOW CHANNELS FOR INSIDE DROP MANHOLES 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 MEET LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPE AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
 5. 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 ABOVE 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 MANHOLES CONSTRUCTED.
 6. THE OUTSIDE CIRCUMFERENCE OF MANHOLE COVERS, THE INSIDE CIRCUMFERENCE OF MANHOLE RINGS, AND THE SEATING FACES BETWEEN THE COVER AND THE RING SHALL BE ADJUSTED TO THE DIMENSIONS INDICATED SO THE MANHOLE COVER WILL FIT INTO THE RING SUCH THAT THE CLEARANCE BETWEEN THE COVER AND THE RING WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE RING AND THE COVER SHALL BE ADJUSTED SUCH THAT THESE SURFACES WILL MAKE CONTACT FOR THEIR FULL CIRCUMFERENCE WITHOUT ROCKING. A PICK HOLE SHALL BE FABRICATED AT THE LOCATION IN THE OUTER CIRCUMFERENCE OF THE COVER TO FACILITATE REMOVAL OF THE COVER. THE PICK HOLE SHALL BE FABRICATED IN SUCH A MANNER THAT WILL PERMIT AN OPENING THROUGH WHICH SUCH A PICK COULD BE INSERTED INTO THE MANHOLE.
 7. THE VERTICAL SPACING OF THE COVER SHALL NOT EXCEED 2' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE SPACING OF INFLOWING PIPES SHALL NEVER BE LESS THAN THE CROWN OF THE LARGEST PIPE.

SANITARY SEWER EXTENSIONS
KAPPELMAN'S BEL AIRE HEIGHTS

KAPPELMAN'S BEL AIRE HEIGHTS

NO	12-3-80	REVISION	10-10-80	BY	DATE
SEDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS					

S'EDGWICK COUNTY DEPARTMENT OF PUBLIC WORKS

CONCRETE MANHOLE DETAILS
(TYPE C MANHOLES)

(TYPE C MANHOLES)

DEISS & GOODNESS ENGINEERS

2100 WEST 21ST STREET

2180 WEST 21st STREET
WICHITA, KANSAS 67204
(316) 833-0213

(316) 822-0213

DESIGNED BY CITY OF WICHITA	JOB NO. SE 1280	SHT. 8 OF 9
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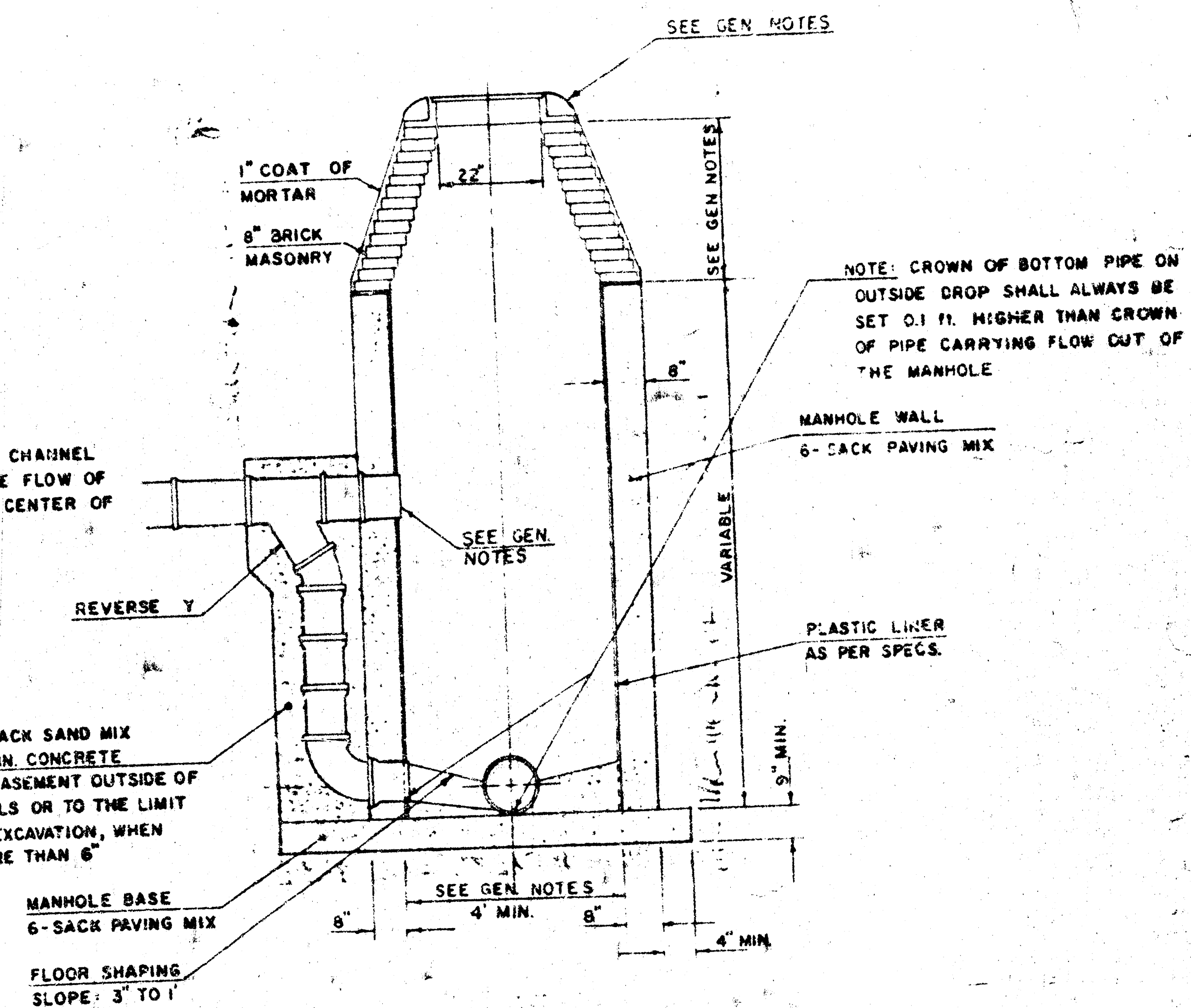
DRAWN BY T.G.	DATE 3-20-81
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SEWER APPURTENANCES DETAILS

GENERAL NOTES

- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 4 BAGS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE WALLS AND BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING 6 BAGS OF CEMENT PER CUBIC YARD WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. PLASTIC LINING INSIDE THE MANHOLE SHALL CONFORM TO THE REQUIREMENTS SPECIFIED IN THE STANDARD SPECIFICATIONS FOR PLASTIC LINING FOR REINFORCED CONCRETE PIPE FOR SANITARY SEWER CONSTRUCTION. ALL INSIDE DIMENSIONS OF TYPE "D" MANHOLES SHALL BE USED ON PIPE SIZES 10" TO 36" WHEN THE MANHOLE DEPTH EXCEEDS THE REQUIRED CORREL HEIGHT BY 1" PLUS THE OUTSIDE DIAMETER OF THE LARGEST PIPE IN THE MANHOLE. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 10" SHALL HAVE A DIAMETER OF 4". MANHOLES CONSTRUCTED WHERE THE PIPE SIZES ARE 10" OR LARGER SHALL HAVE A DIAMETER OF 5". THE HEIGHT OF THE CORNELS IN 4" DIAMETER MANHOLES SHALL BE 4". MANHOLES HAVING A DIAMETER OF 5" SHALL HAVE CORNELS 6" IN HEIGHT. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
- REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASE. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 4" CENTERS IN BOTH DIRECTIONS. REINFORCING STEEL SHALL BE PLACED 4" ABOVE THE BOTTOM OF THE MANHOLE BASE. COST OF FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR MANHOLES CONSTRUCTED.
- 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 ROUTED INTO THIS OPENING WITH NON-SHRINK GROUT. THE EXTERIOR OF THIS COMPLETED CONSTRUCTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONSTRUCTION WILL BE WATER TIGHT. THE INTERIOR PLASTIC LINING SHALL BE SEALED AROUND THE INLET PIPE OPENING IN SUCH A MANNER THAT WILL EFFECTIVELY MAINTAIN THE INTEGRITY OF THE PROTECTIVE PLASTIC LINER.

TYPE "D" OUTSIDE DROP 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 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 REINFORCED TO NEAR LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SEALED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
- 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 EXCELLENCE 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 MANHOLES CONSTRUCTED.
- THE OUTSIDE CIRCUMFERENCE OF MANHOLE COVERS, THE INSIDE CIRCUMFERENCE OF MANHOLE RINGS, AND THE SEATING SURFACES BETWEEN THE COVER AND THE RING SHALL BE MACHINED TO THE DIMENSIONS INDICATED SO THE MANHOLE COVER WILL FIT INTO THE RING SUCH THAT THE CLEARANCE BETWEEN THE COVER AND THE RING WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE RING AND COVER SHALL BE MACHINED SUCH THAT THEIR SURFACES WILL MAKE CONTACT FOR THEIR FULL CIRCUMFERENCE WITHOUT RICKING. A PICK HOLE SHALL BE FABRICATED AT ONE LOCATION IN THE OUTER CIRCUMFERENCE OF THE COVER TO FACILITATE REMOVAL OF THE COVER. THE PICK HOLE SHALL BE FABRICATED IN SUCH A MANNER THAT WILL PRECLUDE AN OPENING THROUGH WHICH STORM WATER COULD ENTER INTO THE MANHOLE.
- THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 2' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 3' FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
- STANDARD MANHOLES TYPE D AND STANDARD INSIDE DROP MANHOLES TYPE D SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
- PLASTIC LINING SHALL BE AMBER-PLATE, T-LOCK, OR APPROVED EQUAL.

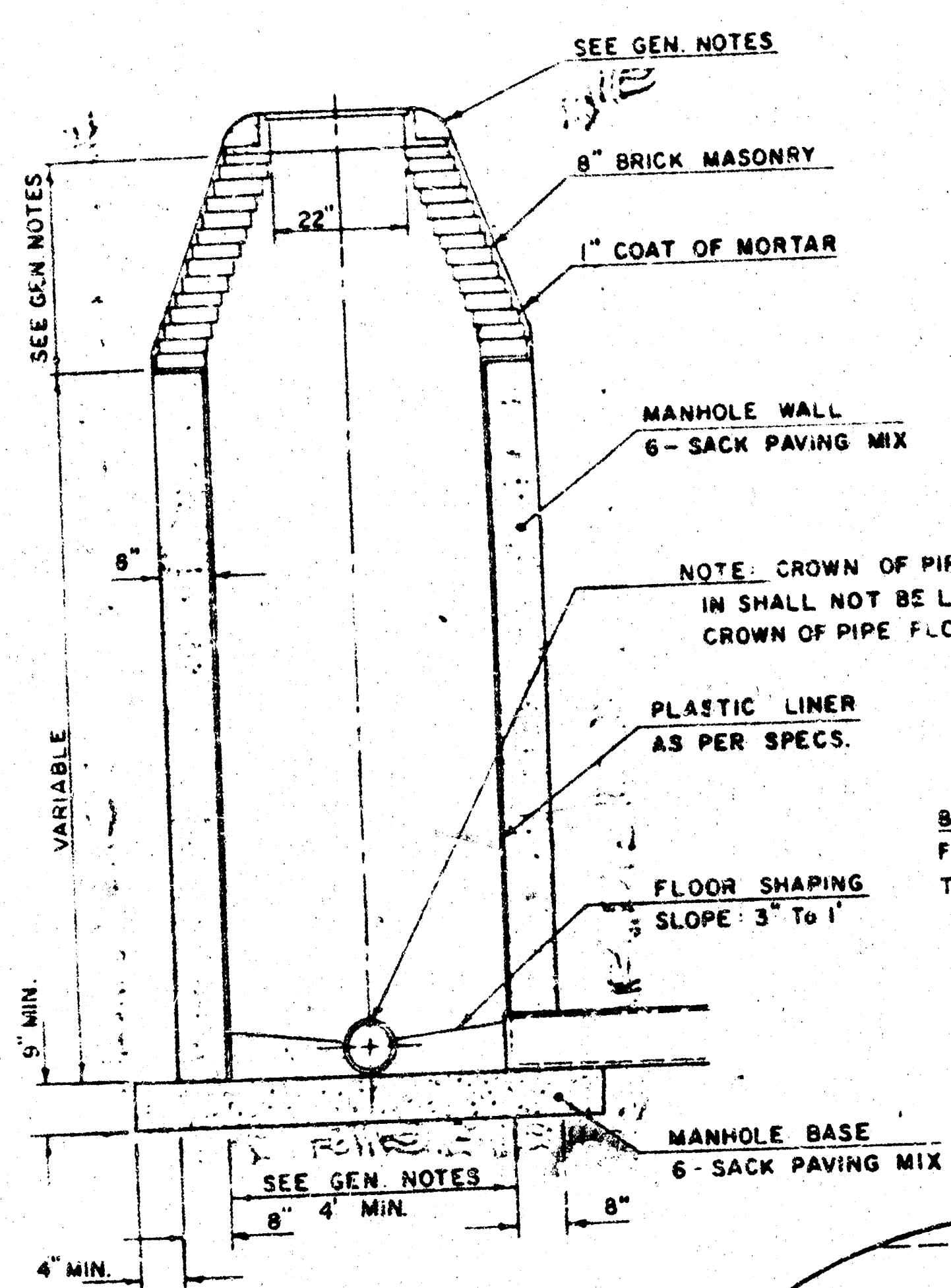
KAPPLMAN'S BEL AIR HEIGHTS
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2160 WEST 21ST STREET
SCOTTSDALE, ARIZONA 85264
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JUNE, 1980

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FILMED FROM THE BEST AVAILABLE COPY...

TYPE "D" MANHOLE



MANHOLE RING

