

CITY OF WICHITA, KANSAS
 MICHAEL E. LINDEBAK, P.E., CITY ENGINEER
 STORM WATER SEWER NO. 321
 AUTUMN RIDGE ADDITION

CITY OF WICHITA PROJECT NO. 468-76-245-81615-000-000-001

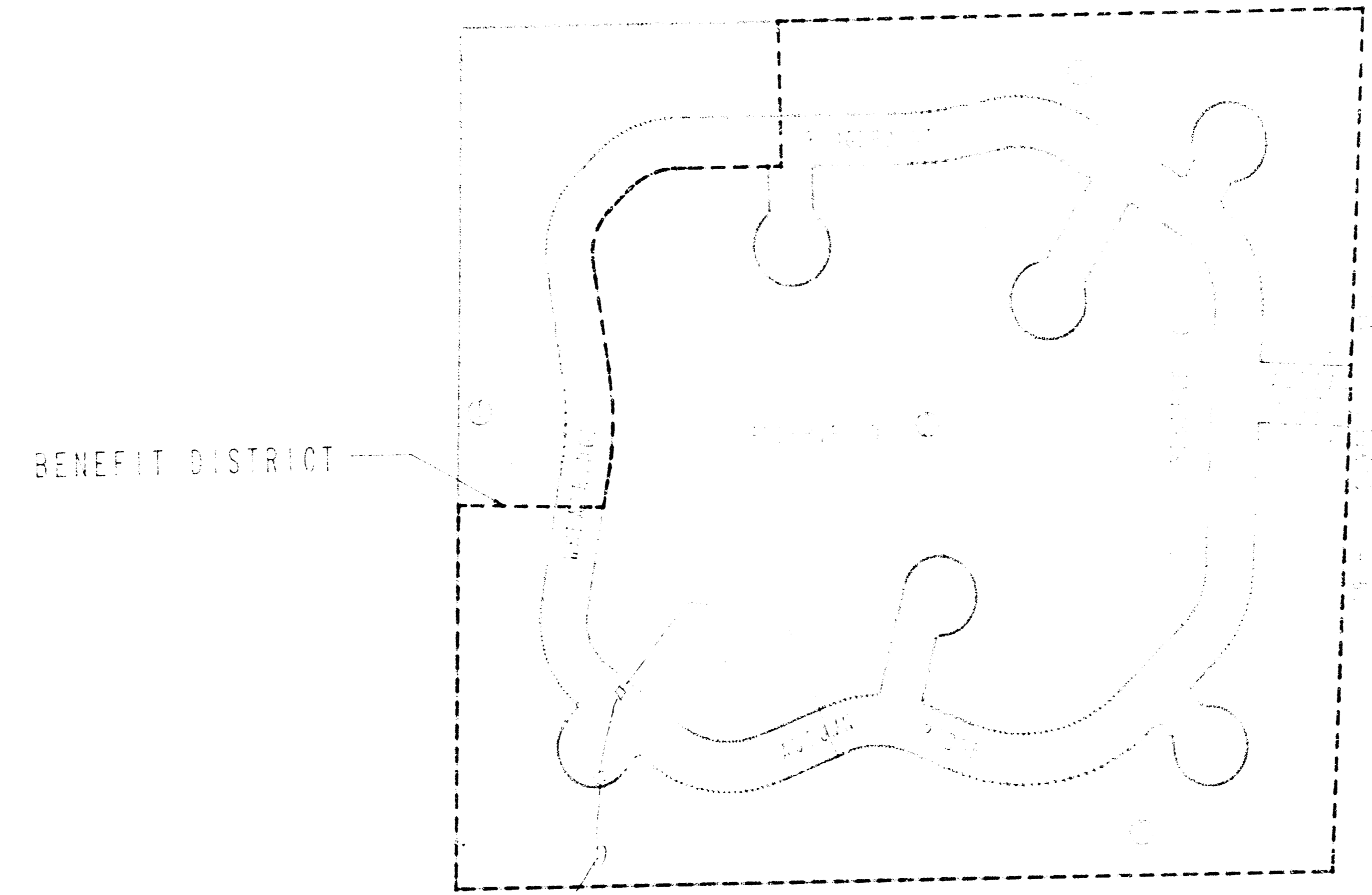
- INDEX OF SHEETS
- 8 DETAIL STANDARD TYPE IA CURB INLET (L: 6'-4")
 - 9 DETAIL STANDARD SHALLOW MANHOLE
 - 10 DETAIL STANDARD REINFORCED CONCRETE MANHOLE
 - 11 DETAIL MANHOLE FRAM. AND COVER
 - 12-15 CROSS-SECTIONS

PROJECT SURVEY CONTROL

VERTICAL DATUM	CITY OF WICHITA DATUM
DATUM BENCH MARK	CITY OF WICHITA BENCH MARK 0100100 WIDE EAST OF 1116 EAST 10TH AVENUE AND EAST STREET ONE NORTH OF 1116 EAST 10TH AVENUE AND NORTH OF HILL POLE KEYWAY AND 40' NORTH OF CENTERLINE 10TH STREET
BENCH MARK	1116 EAST 10TH AVENUE NORTH CURB 17TH STREET ELEV. 1158.73
BENCH MARK	1116 EAST 10TH AVENUE NORTH CURB 17TH STREET RETURN ELEV. 1154.73
BENCH MARK	1116 EAST 10TH AVENUE NORTH CURB ON OLD WICHITA ROAD 127.45' WEST OF SOUTH EAST CORNER OF AUTUMN RIDGE ADDITION ELEV. 1158.73

EARTHWORK (FOR INFORMATION ONLY)

SECTION	20271 00 420
SECTION	20272 00 420
SECTION	20273 00 420



THE OWNER SHALL HAVE FIRST RIGHT TO EXCESS EXCAVATED MATERIAL FROM THIS PROJECT.

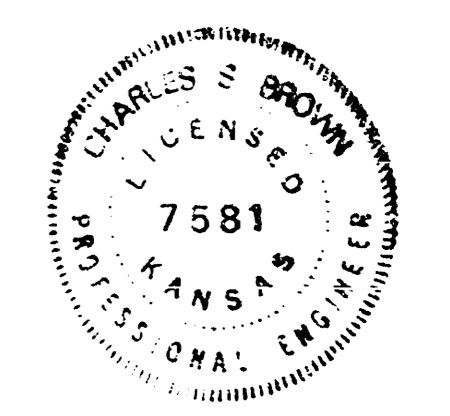
CONSTRUCTION.

- 6. Excavation for the detention pond shall be included in the lump sum price for "Detention Pond Grading". Quantities shown on this sheet are approximate only. Contractor shall satisfy himself of all quantities prior to bid.
- 7. The contractor shall fertilize, seed and mulch all disturbed areas within reserves "C" and "D" as directed by the engineer. This work shall be included in the lump sum price for "Detention Pond Grading". Said price shall be considered full compensation for all materials, labor, tools, equipment, and incidentals necessary to complete the work in accordance with C.O.W. standard specifications. The approximate quantity for this work is 2.3 acre.

*As Builts
5/87
GREENE*

JANUARY, 1987

PLANS PREPARED BY
 PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS



1/15

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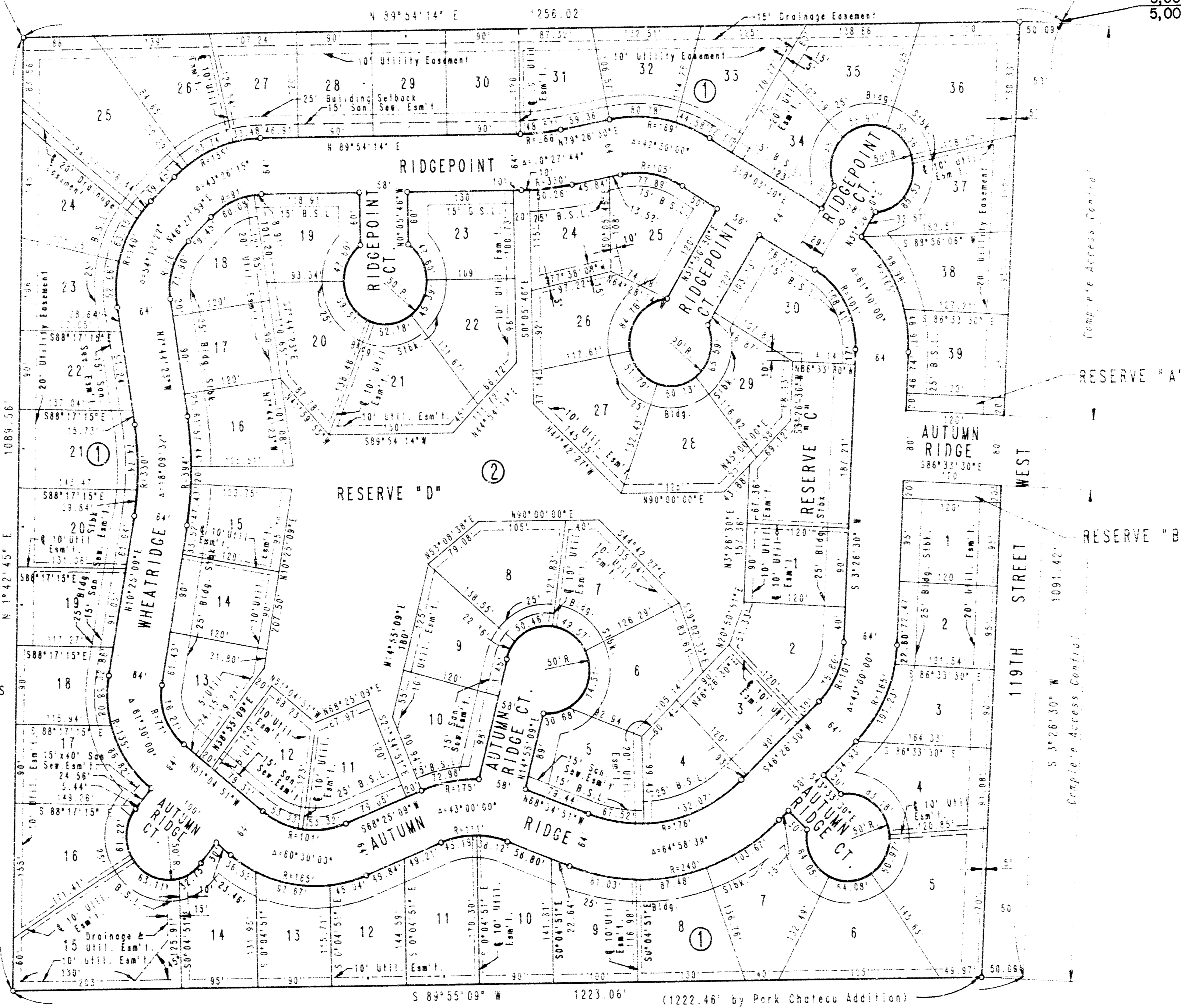
AUTUMN RIDGE TO WICHITA, SEDGWICK COUNTY, KANSAS

N.W. Cor. E 1/2 S.E. 1/4
Sec. 12, T27S, R2W
of the 5th P.M.

N.E. Cor. S.E. 1/4
Sec. 12, T27S, R2W
of the 5th P.M.
5,000.000000 N
5,000.000000 E

SCALE: 1" = 100'
O = IRON SET

3 M. 1/4 EAST OF 119TH STREET WEST
AND 11TH STREET, CITY OF WICHITA
BENCH MARK DISC ONE NORTH CORNER
7/4 SECTION CORNER, 9 FT. NORTH
OF 11TH POLE (EAST-WEST); AND
40.6 FT. NORTH OF CENTERLINE OF
11TH STREET.
ELEV. 1340.13 W.S.L. =
146.75 CITY DATUM.
MINIMUM PAD ELEVATION FOR LOTS 24,
25 AND 26 IN BLOCK 1 SHALL BE
1340.4 W.S.L. (153.0 CITY DATUM).
MINIMUM PAD ELEVATIONS FOR ALL LOTS
IN BLOCK 2 SHALL BE 1348.9 W.S.L.
(161.5 CITY DATUM).

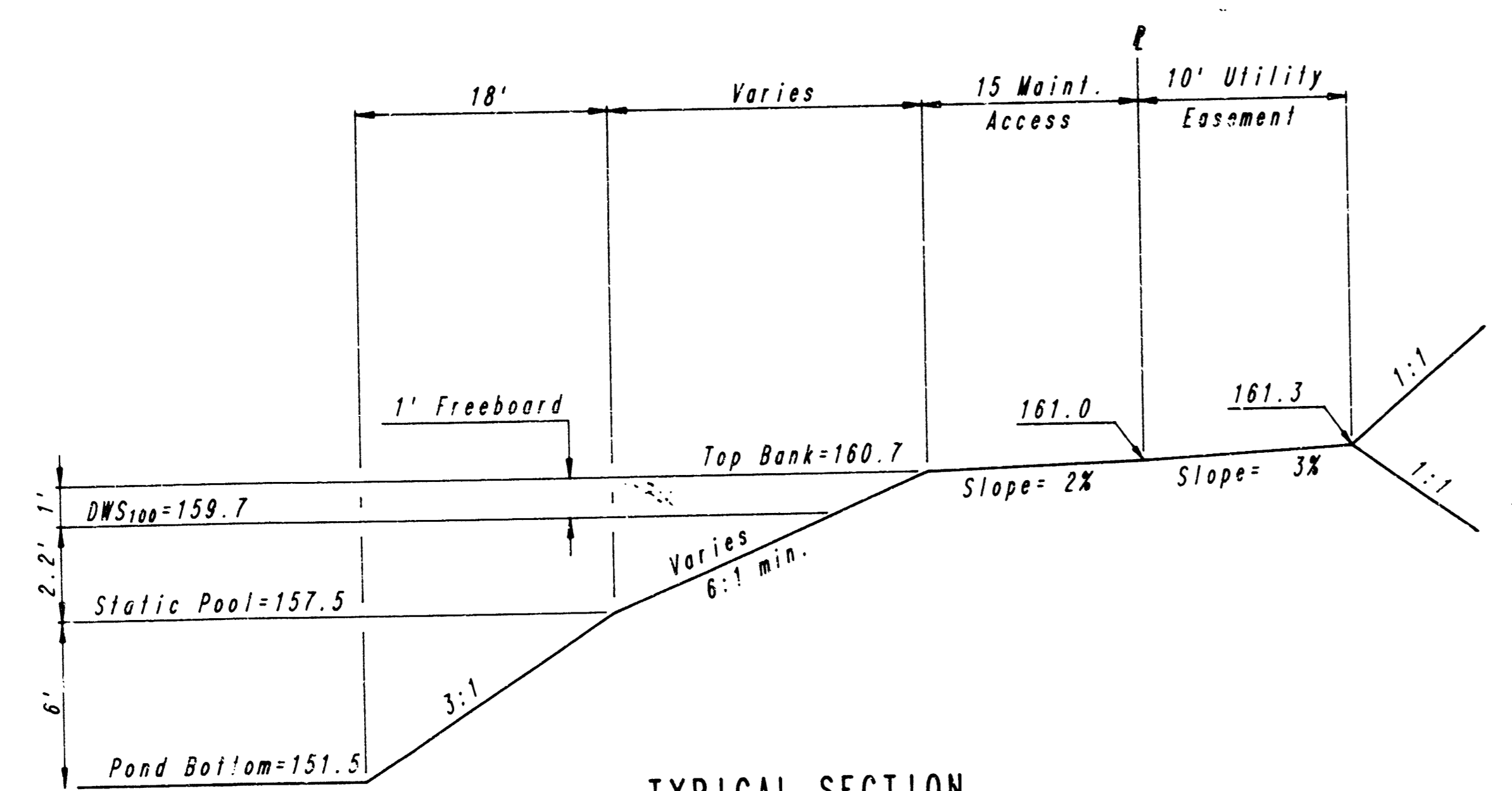


PLAT

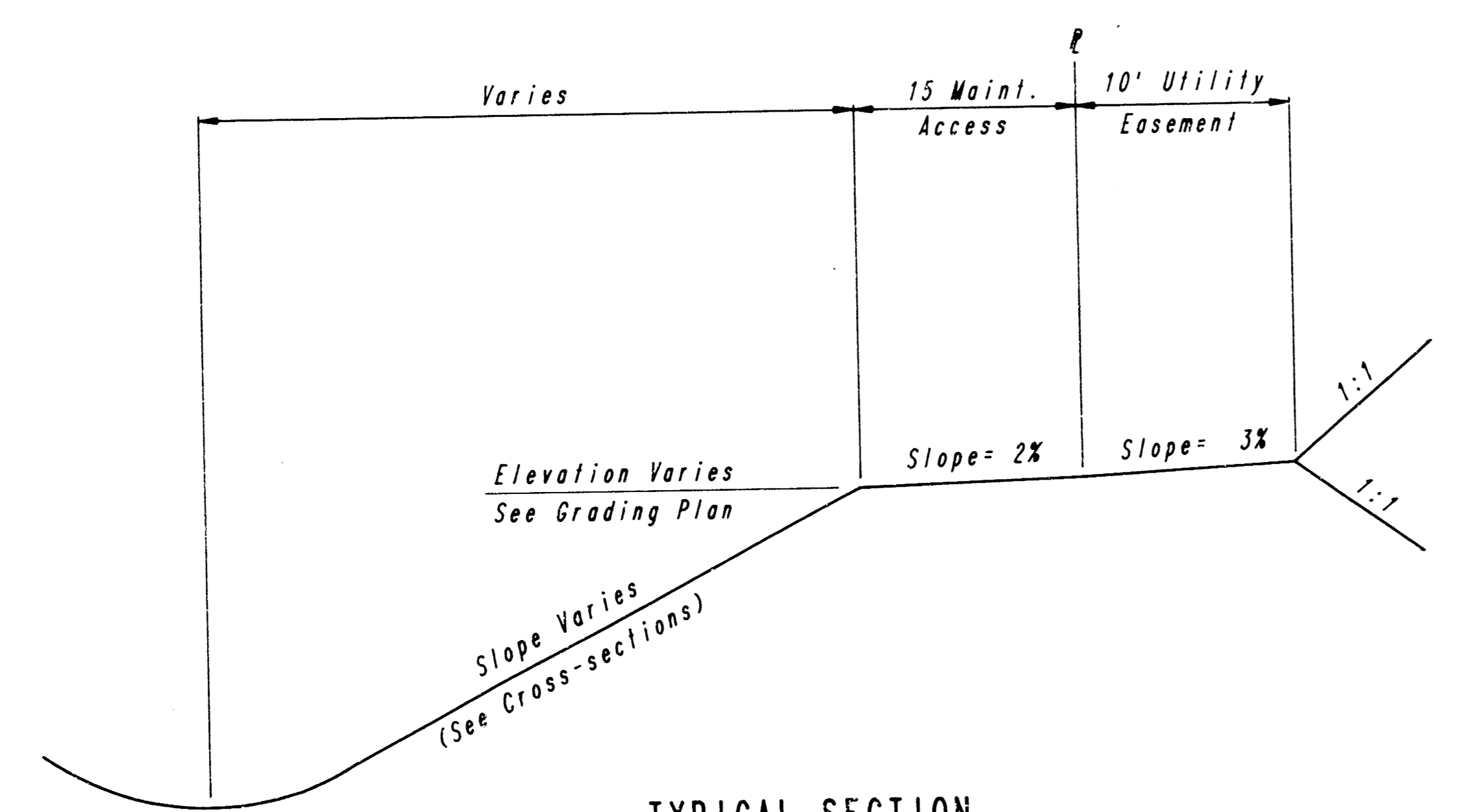
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

2/15

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TYPICAL SECTION
DETENTION POND



TYPICAL SECTION
RESERVE GRADING

IN CUT
IN FILL

IN CUT
IN FILL

TEST BORING LOG

AUTUMN RIDGE

BORING NO. 2 Loc. See Boring Location Plan

SCALE: 1" = 5' FT. BORING DATE: 11/15/87 BY: B.E. 1223 LEVELS BY: B.E. CHECKED: B.D.

EL. WATER LEVEL: 157.5 DATE: 11/15/87

DEPTH	LOG	REMARKS	LOG NO.	DATE
0.0	158.6	TOP OF R-2		
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TEST BORING LOG

AUTUMN RIDGE

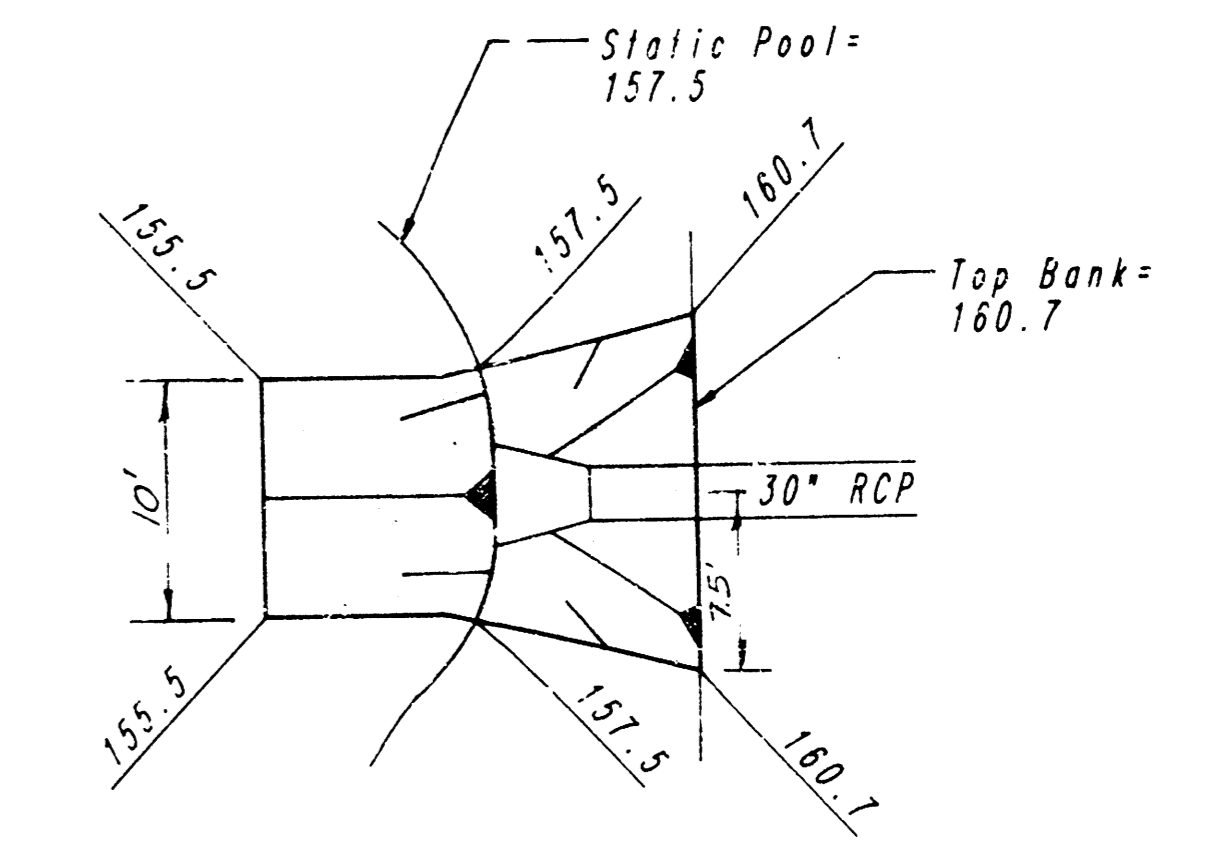
BORING NO. 1 Loc. See Boring Location Plan

SCALE: 1" = 5' FT. BORING DATE: 11/15/87 BY: B.E. 1223 LEVELS BY: B.E. CHECKED: B.D.

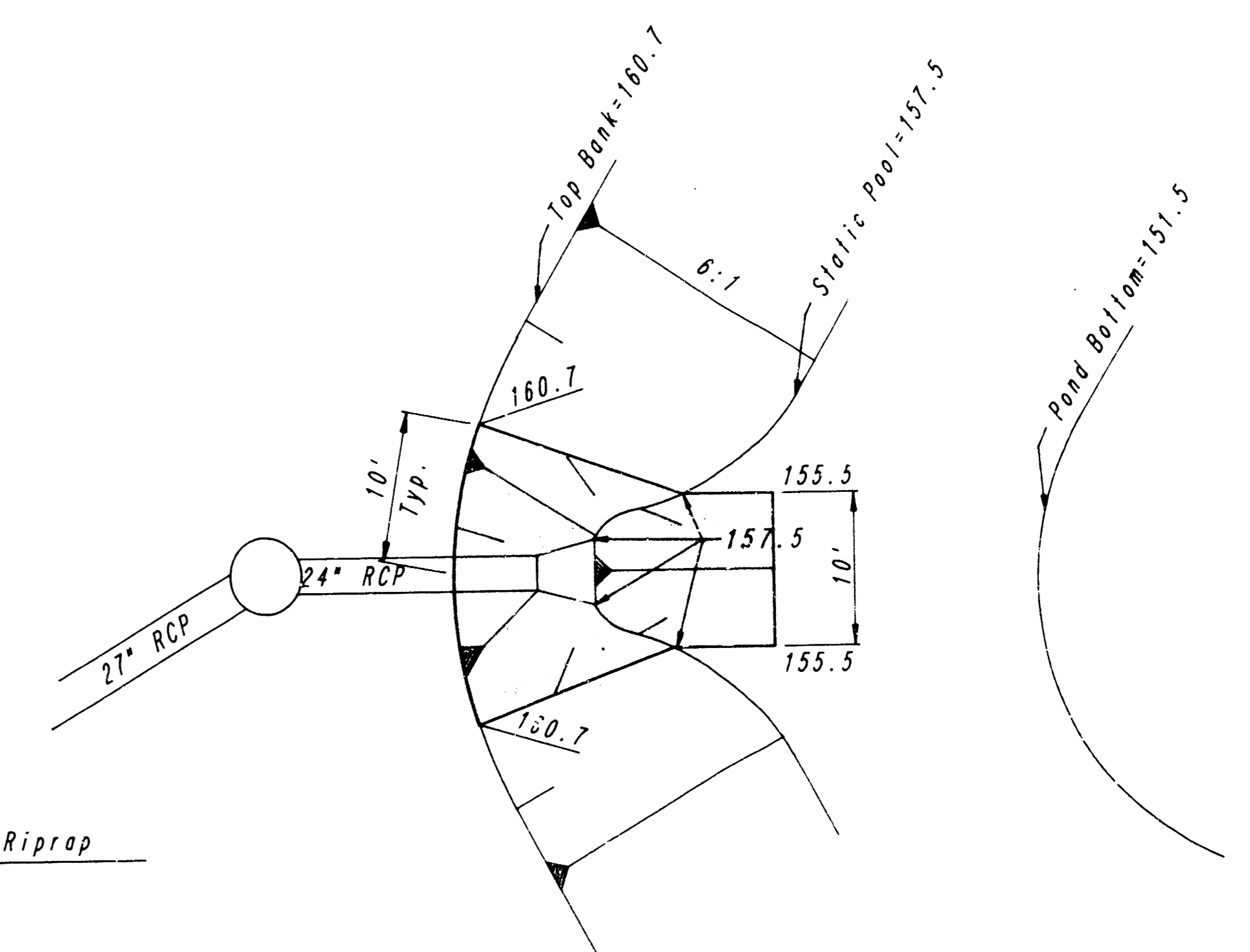
EL. WATER LEVEL: 157.5 DATE: 11/15/87

DEPTH	LOG	REMARKS	LOG NO.	DATE
0.0	163.3	TOP OF R-1		
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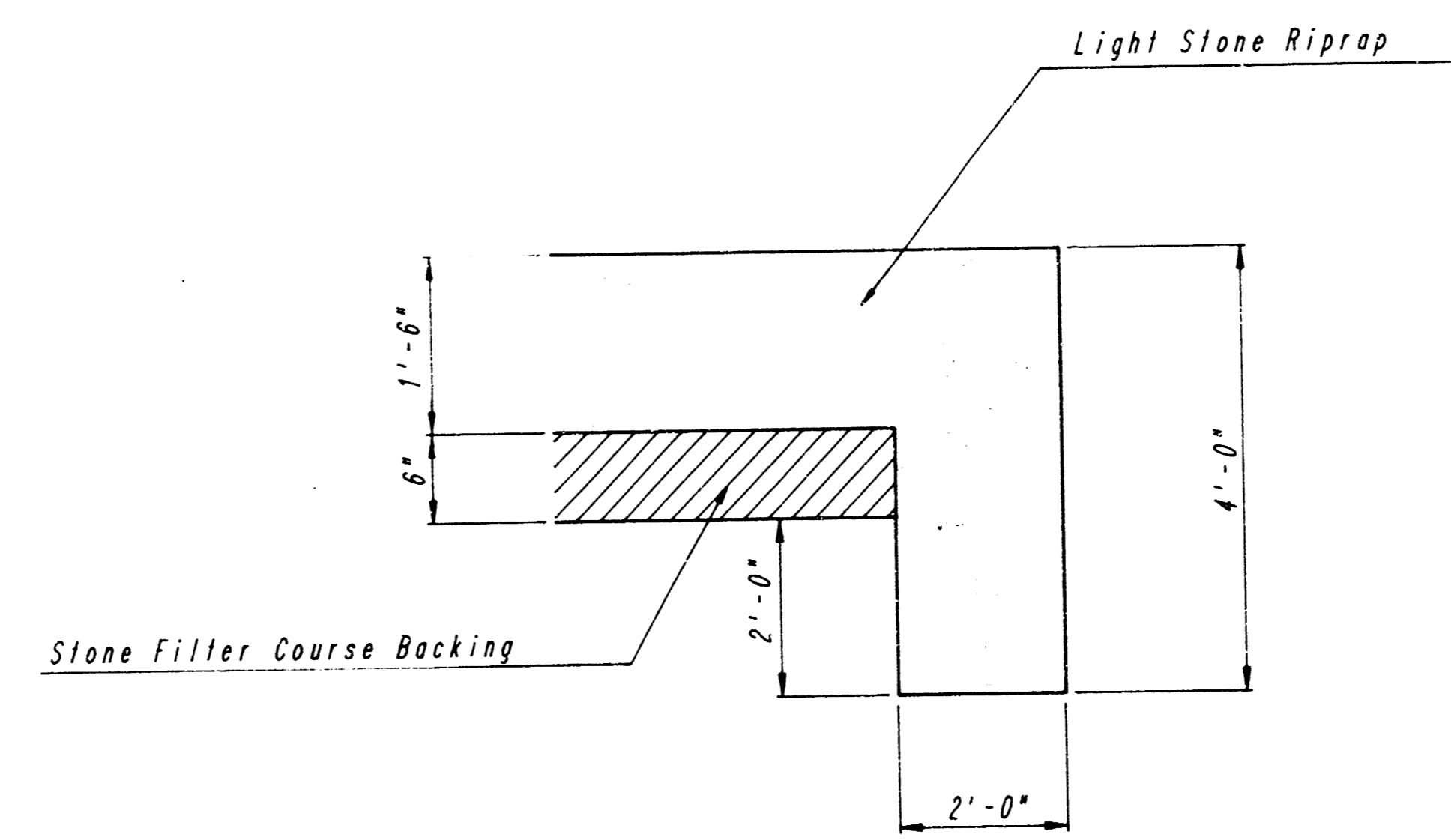
SOIL BORING LOGS
See Sheet 4 for Locations



RIPRAP DETAIL
Line No. 1
Scale: 1"=10'



RIPRAP DETAIL
Line No. 2
Scale: 1"=10'



TYPICAL SECTION THRU TOEWALL
NOTE: Toewalls shall be installed along all edges of stone riprap.

CITY OF WICHITA, KANSAS
AUTUMN RIDGE ADDITION
STORM WATER SEWER NO. 321

TYPICAL SECTIONS AND MISCELLANEOUS DETAILS

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

Designed by CSB
Drawn by DEP

Checked by
Date OCTOBER, 1988 Job No. 32-86356-4

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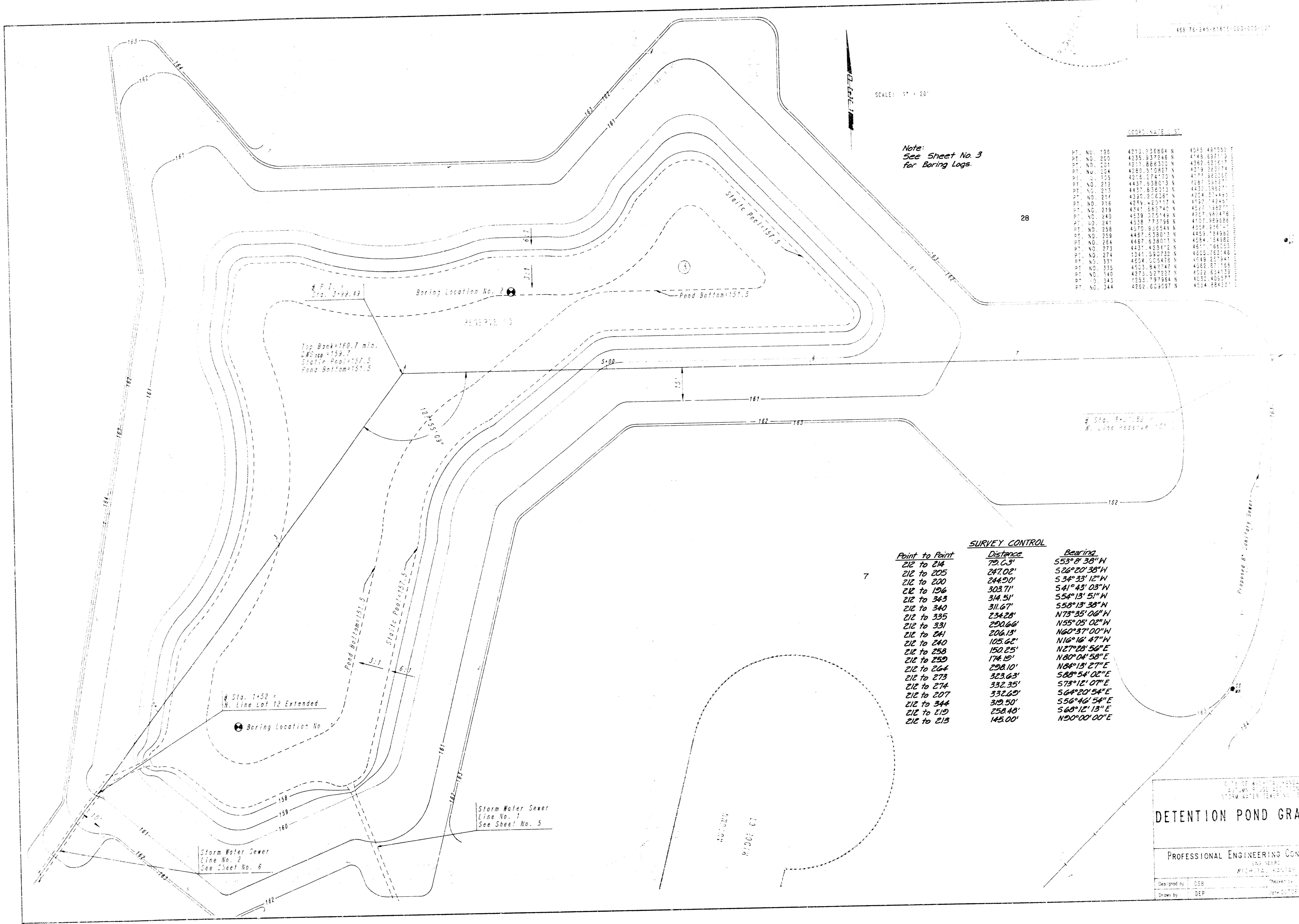
488 TO 240-81875-000-070107

SCALE: 1" = 20'

Note:
See Sheet No. 3
For Boring Logs.

COORDINATE LIST

PT. NO.	Easting	Northing
PT. NO. 198	4010.316864	4325.491553
PT. NO. 200	4235.837248	4148.231773
PT. NO. 201	4210.868370	4369.202171
PT. NO. 204	4080.515827	4319.202171
PT. NO. 205	4226.074770	4177.982153
PT. NO. 212	4437.030013	4421.982153
PT. NO. 213	4407.832153	4421.982153
PT. NO. 217	4330.220381	4424.314447
PT. NO. 218	4259.421117	4150.424447
PT. NO. 219	4441.057442	4271.982153
PT. NO. 242	4259.421117	4271.982153
PT. NO. 241	4538.773786	4107.982153
PT. NO. 258	4570.835441	4359.424447
PT. NO. 259	4487.038013	4489.424447
PT. NO. 264	4487.038013	4584.488000
PT. NO. 273	4437.038013	4600.424447
PT. NO. 274	4341.038013	4600.424447
PT. NO. 331	4504.225472	4749.424447
PT. NO. 335	4503.840747	4602.071155
PT. NO. 340	4273.527227	4262.031155
PT. NO. 343	4503.840747	4232.424447
PT. NO. 344	4262.031155	4232.424447
PT. NO. 345	4262.031155	4232.424447



SURVEY CONTROL

Point to Point	Distance	Bearing
212 to 214	70.63'	553° 01' 38" W
212 to 205	247.02'	526° 20' 38" W
212 to 200	244.20'	534° 33' 12" W
212 to 196	303.71'	541° 43' 03" W
212 to 343	314.51'	554° 13' 51" W
212 to 340	311.67'	558° 13' 38" W
212 to 335	234.28'	N73° 35' 06" W
212 to 331	290.66'	N55° 05' 02" W
212 to 241	206.13'	N60° 37' 00" W
212 to 240	105.62'	N16° 16' 47" W
212 to 258	150.25'	N27° 28' 56" E
212 to 259	174.19'	N80° 04' 58" E
212 to 264	298.10'	N84° 13' 27" E
212 to 273	323.63'	588° 54' 02" E
212 to 274	332.35'	578° 12' 07" E
212 to 207	332.60'	564° 20' 54" E
212 to 344	319.50'	556° 46' 54" E
212 to 219	258.48'	568° 12' 13" E
212 to 218	145.00'	N00° 00' 00" E

Top Bank=160.7 min.
Static Pool=157.5
Pond Bottom=151.5

Sta. 1+52 =
N. Line Lot 12 Extended

Storm Water Sewer
Line No. 1
See Sheet No. 5

Storm Water Sewer
Line No. 2
See Sheet No. 6

STATE OF ARIZONA
DEPARTMENT OF WATER RESOURCES
WATER CONSTRUCTION DIVISION

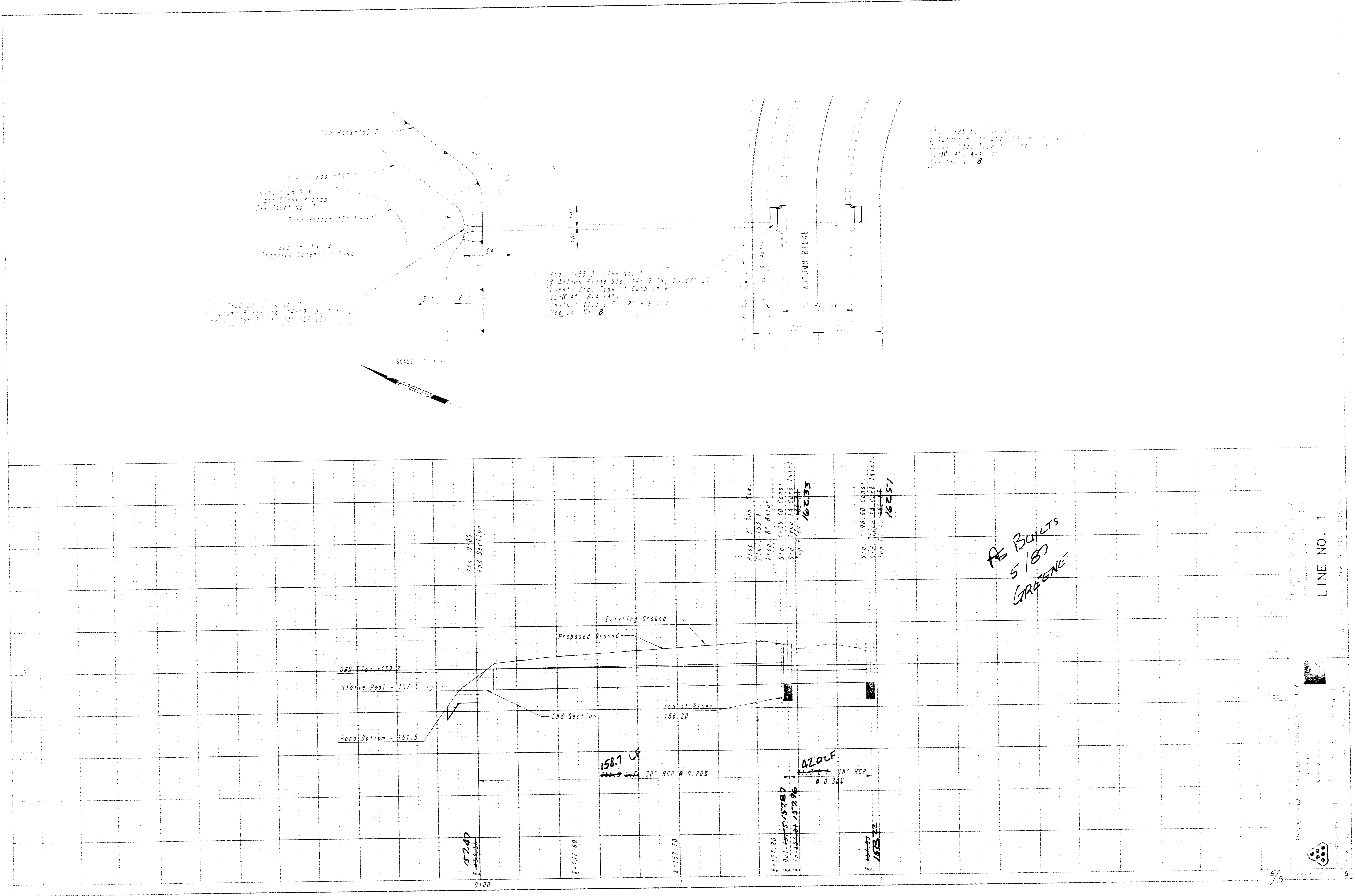
DETENTION POND GRADING PLAN

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
1000 N. CENTRAL AVENUE
PHOENIX, ARIZONA 85004

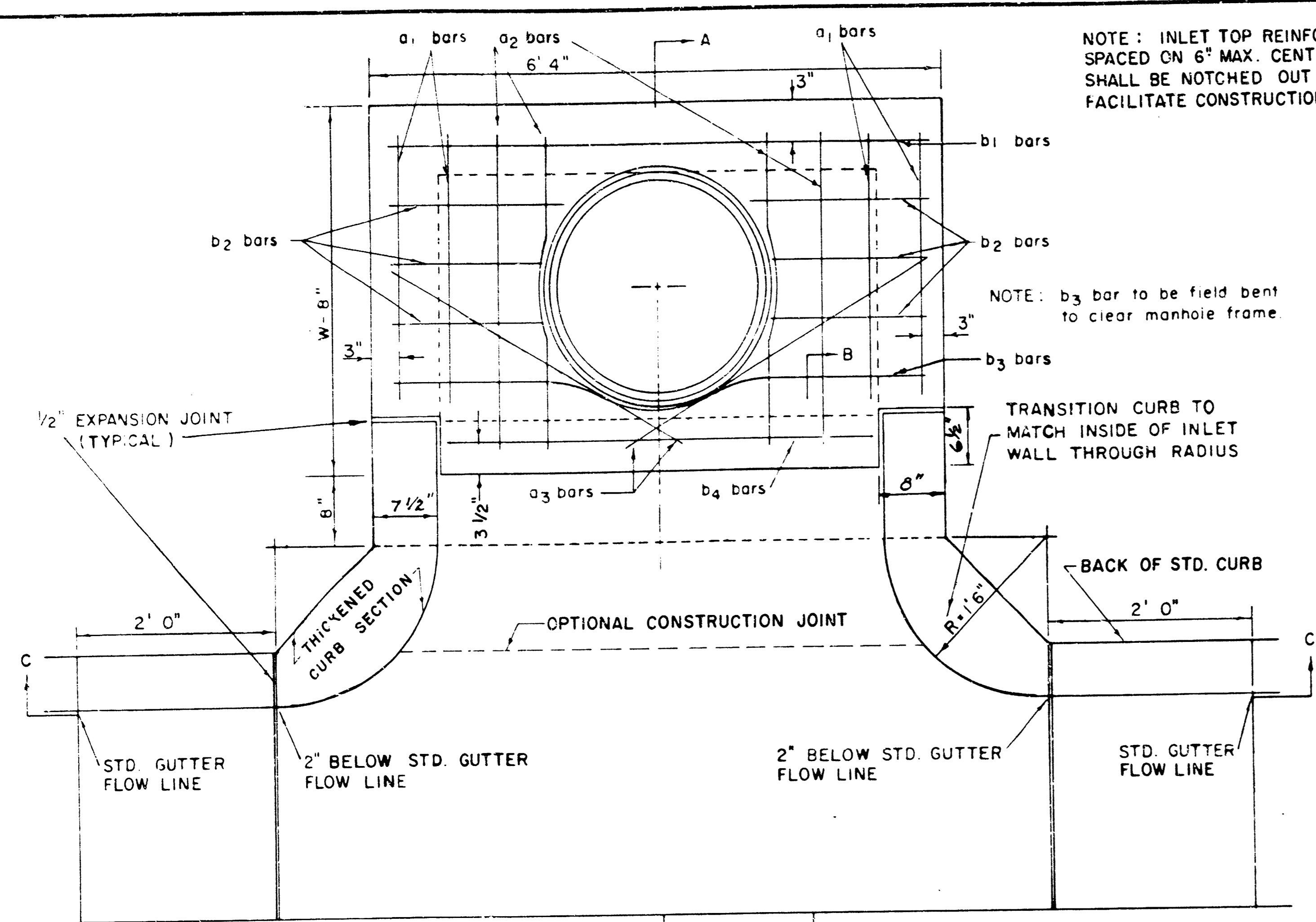
Designed by: DSB
Drawn by: DEP

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LINE NO. 1



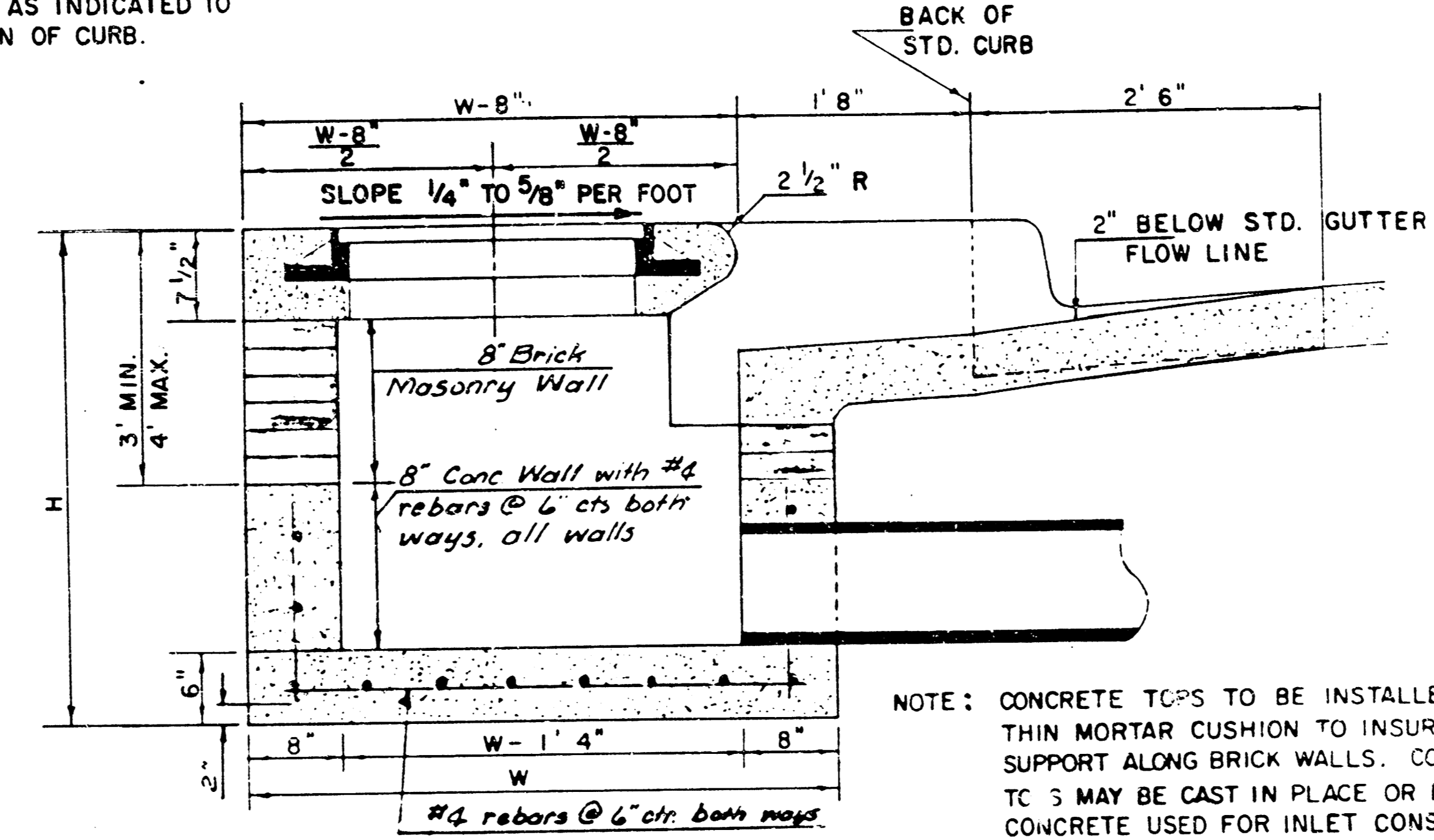
NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.

NOTE: b₃ bar to be field bent to clear manhole frame

TRANSITION CURB TO MATCH INSIDE OF INLET WALL THROUGH RADIUS

NOTE: EXPANSION JOINT ONLY IN CURB AREA WITH CONC. PAVEMENT.

PLAN



SECTION A-A

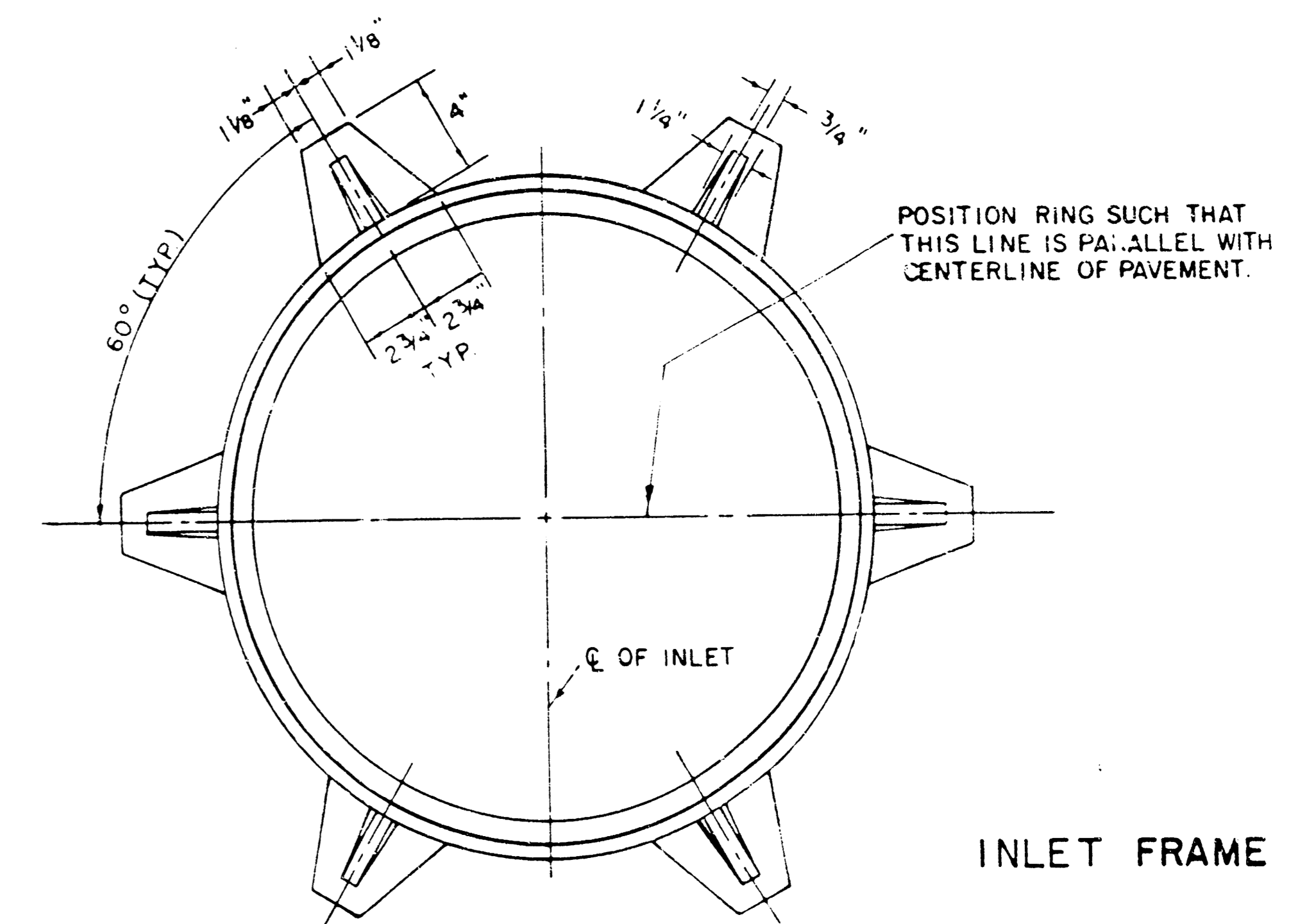
NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TC 3 MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL BE CONCRETE PAVEMENT MIX.

NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 6' 4" AND H = 7' 0" OR LESS.

ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET HOOKUP.

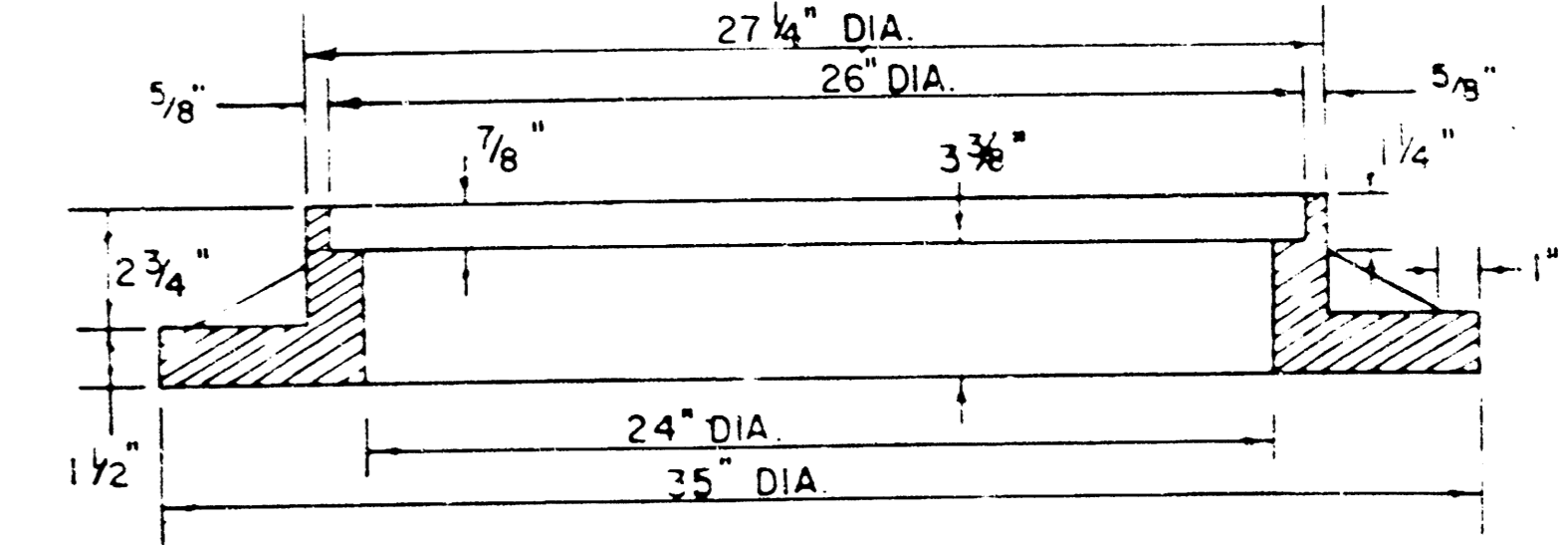
INLET INVERT SHALL BE SHAPED WITH 8 SACK S.A.D MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.



INLET FRAME

WEIGHT = 180 LBS.



SEE CITY OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE USED WITH INLET FRAME.

STEEL SCHEDULE

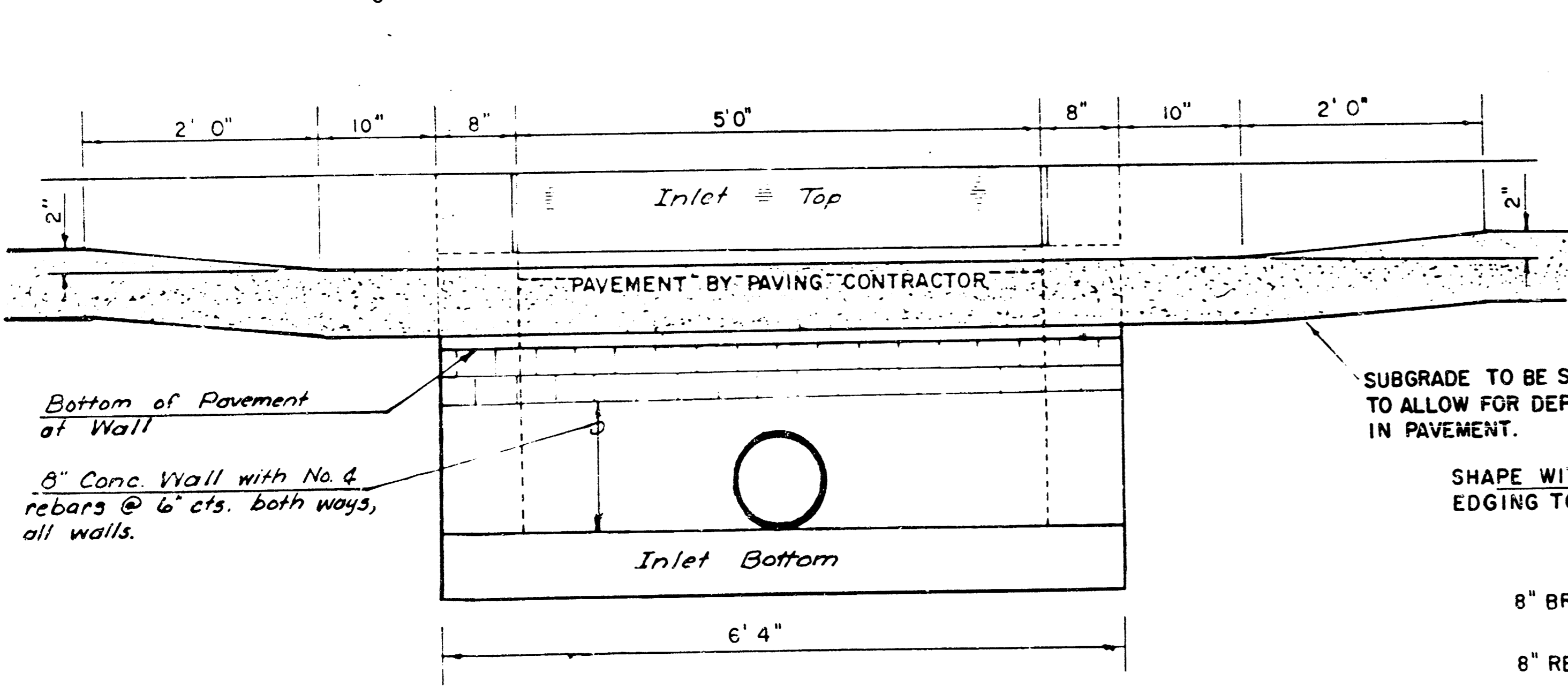
BAR NUMBER	a			b				b ₂	b ₃	b ₄	WT LBS.	
	a ₁	a ₂	a ₃	W=4'4"	W=5'4"	W=6'4"	W=7'4"					W=8'4"
4	4	2	1	3	5	7	9	6	1	1		
SIZE	"4	"4	"4	"4	"4	"4	"4	"4	"4	"6		
LENGTH	W=4'4"	5'7"	6'7"	4'0"	6'1"	-	-	-	1'9"	6'2"	4'8"	60±
	W=5'4"	7'7"	8'7"	5'0"	6'1"	-	-	-	1'9"	6'2"	4'8"	81±
	W=6'4"	9'7"	10'7"	6'0"	6'1"	-	-	-	1'9"	6'2"	4'8"	101±
	W=7'4"	11'7"	12'7"	7'0"	-	6'1"	-	-	1'9"	6'2"	4'8"	121±
	W=8'4"	13'7"	14'7"	8'0"	-	-	6'1"	-	1'9"	6'2"	4'8"	141±

* NOTE: a₃ BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER

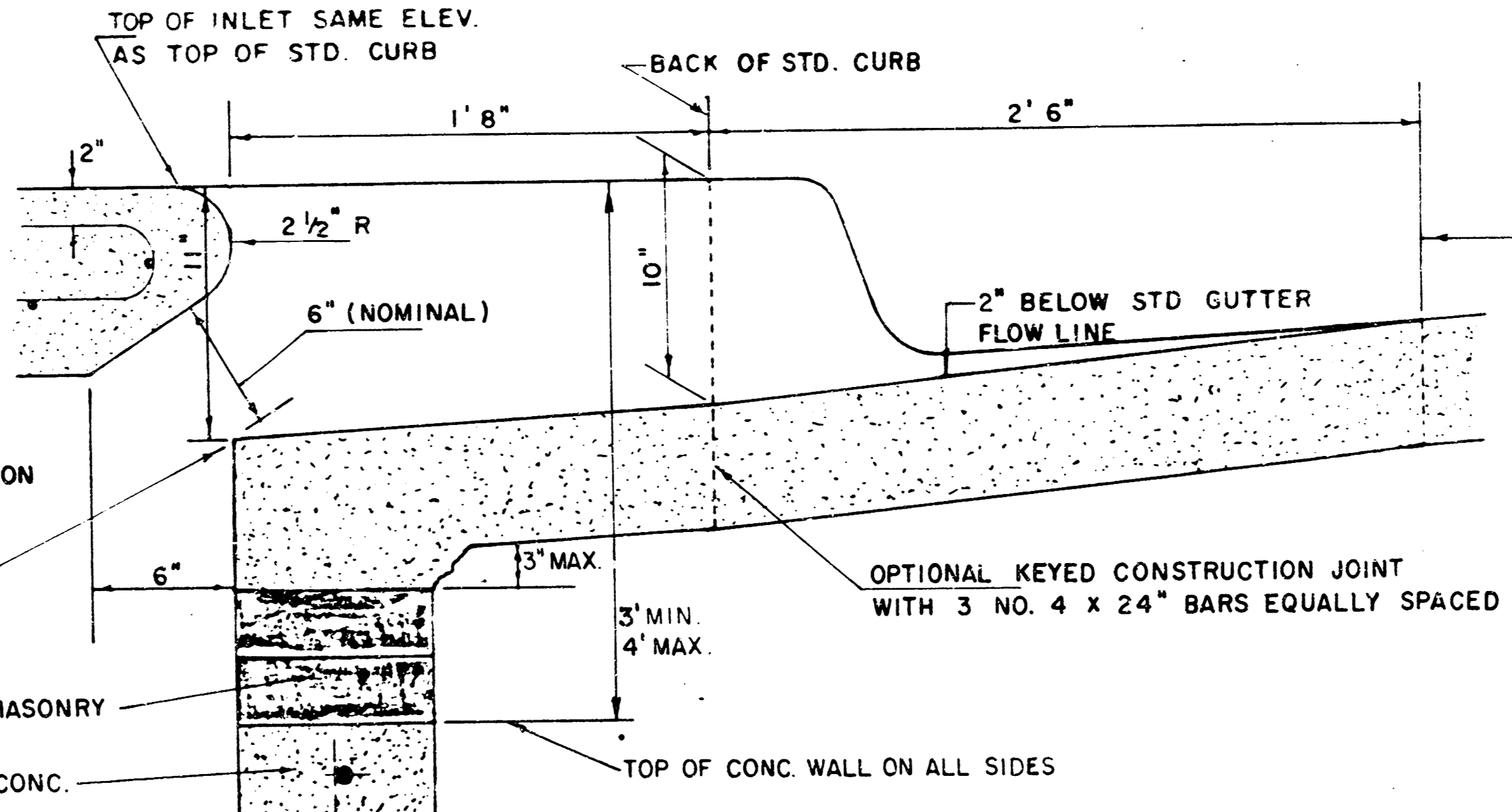
BENDING DIAGRAM

STANDARD CURB INLET PRECAST TOPS

W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4' 4"	3' 6" x 6' 4" x 7 1/2"	21" B SMALLER	0.38 ±
5' 4"	4' 8" x 6' 4" x 7 1/2"	24" B 30"	0.51 ±
6' 4"	5' 8" x 6' 4" x 7 1/2"	36" B 42"	0.64 ±
7' 4"	6' 8" x 6' 4" x 7 1/2"	48" B 54"	0.77 ±
8' 4"	7' 8" x 6' 4" x 7 1/2"	60" B 66"	0.90 ±



SECTION C-C



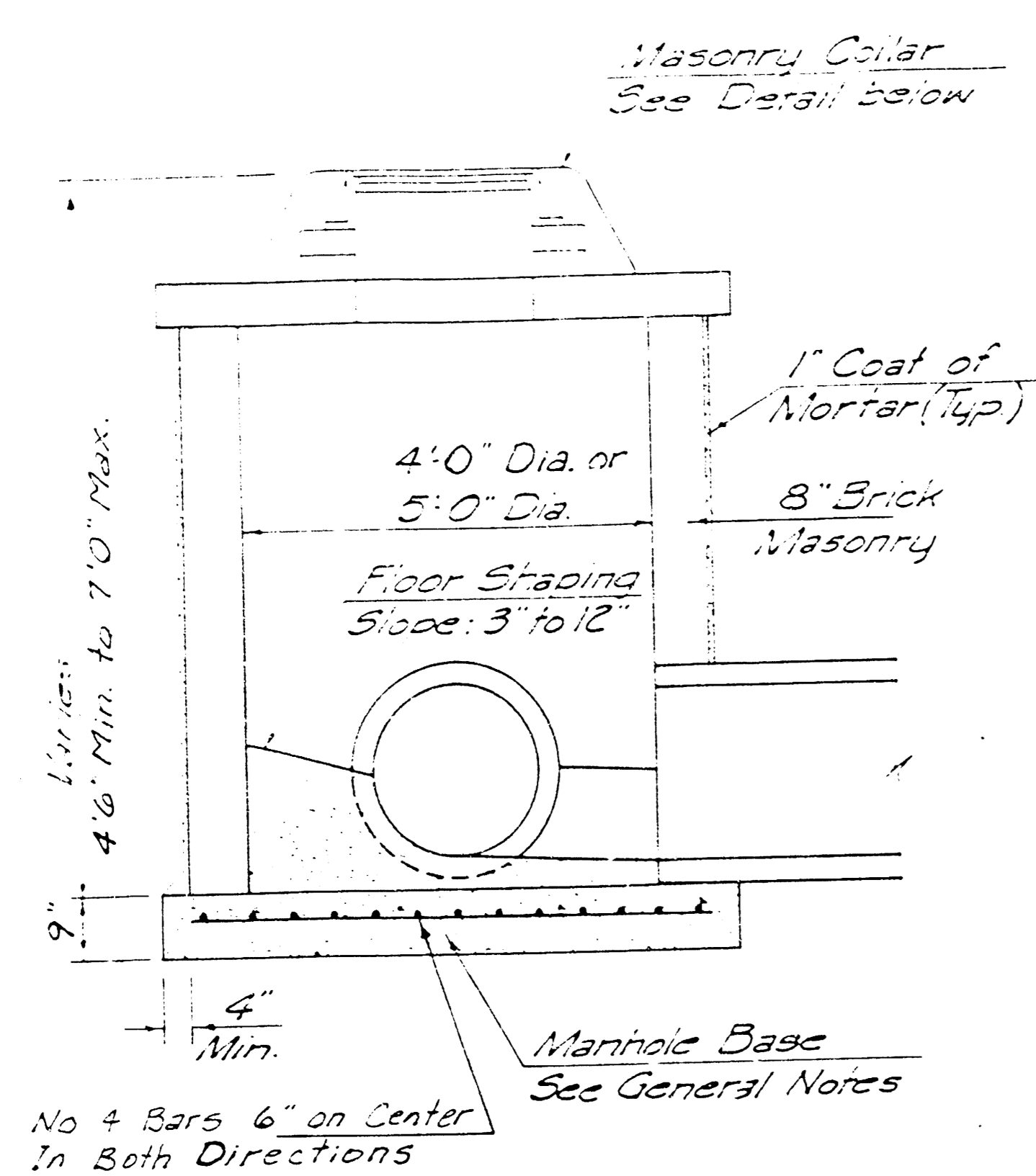
SECTION B-B

REVISED 12-21-1984 Proj. No. 468 76 245 81615 000 000 001

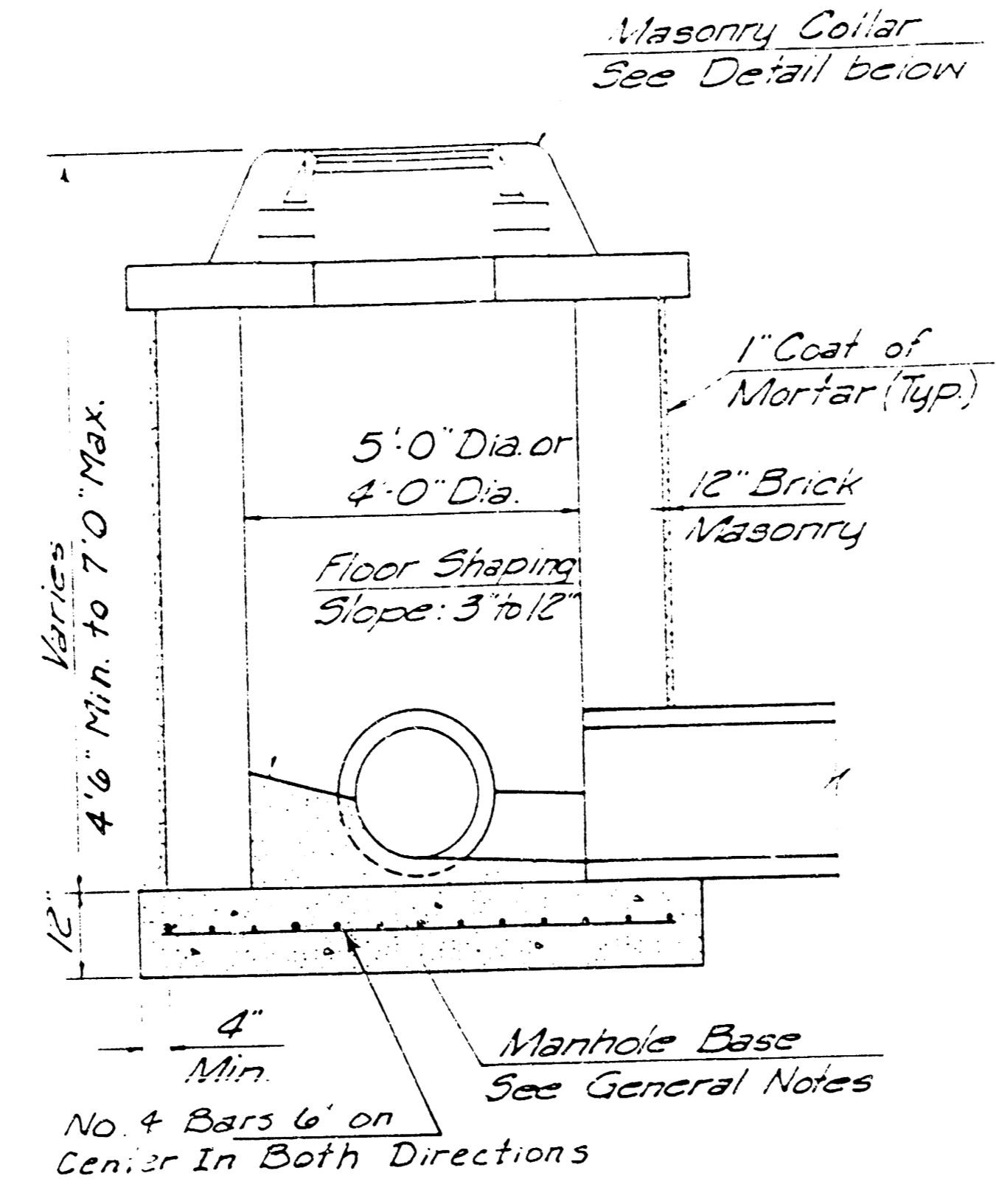
DETAIL STANDARD TYPE IA CURB INLET
CITY OF WICHITA, KANSAS
INLET OPENING = 6" x 5' 0"

JUNE 1984 Sheet No. 7 of 15

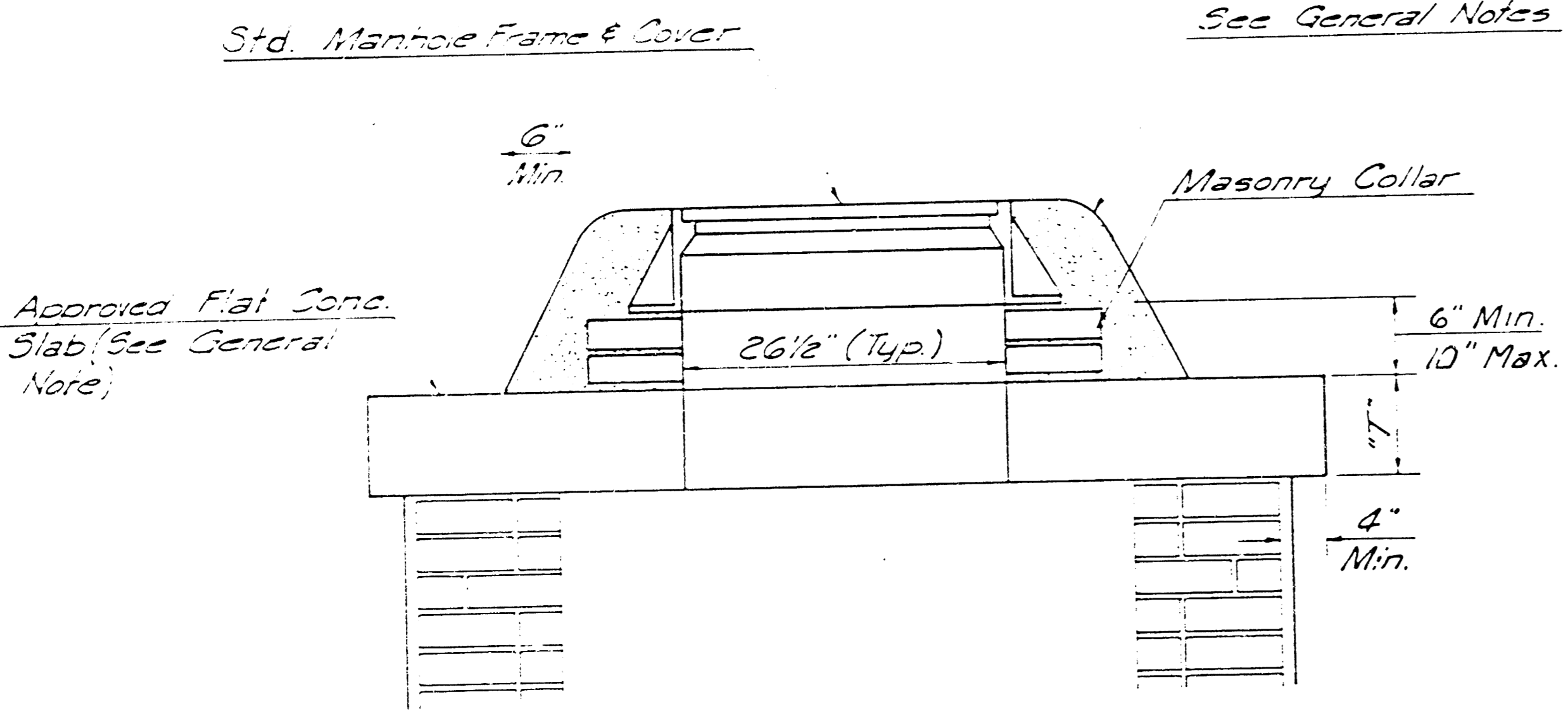
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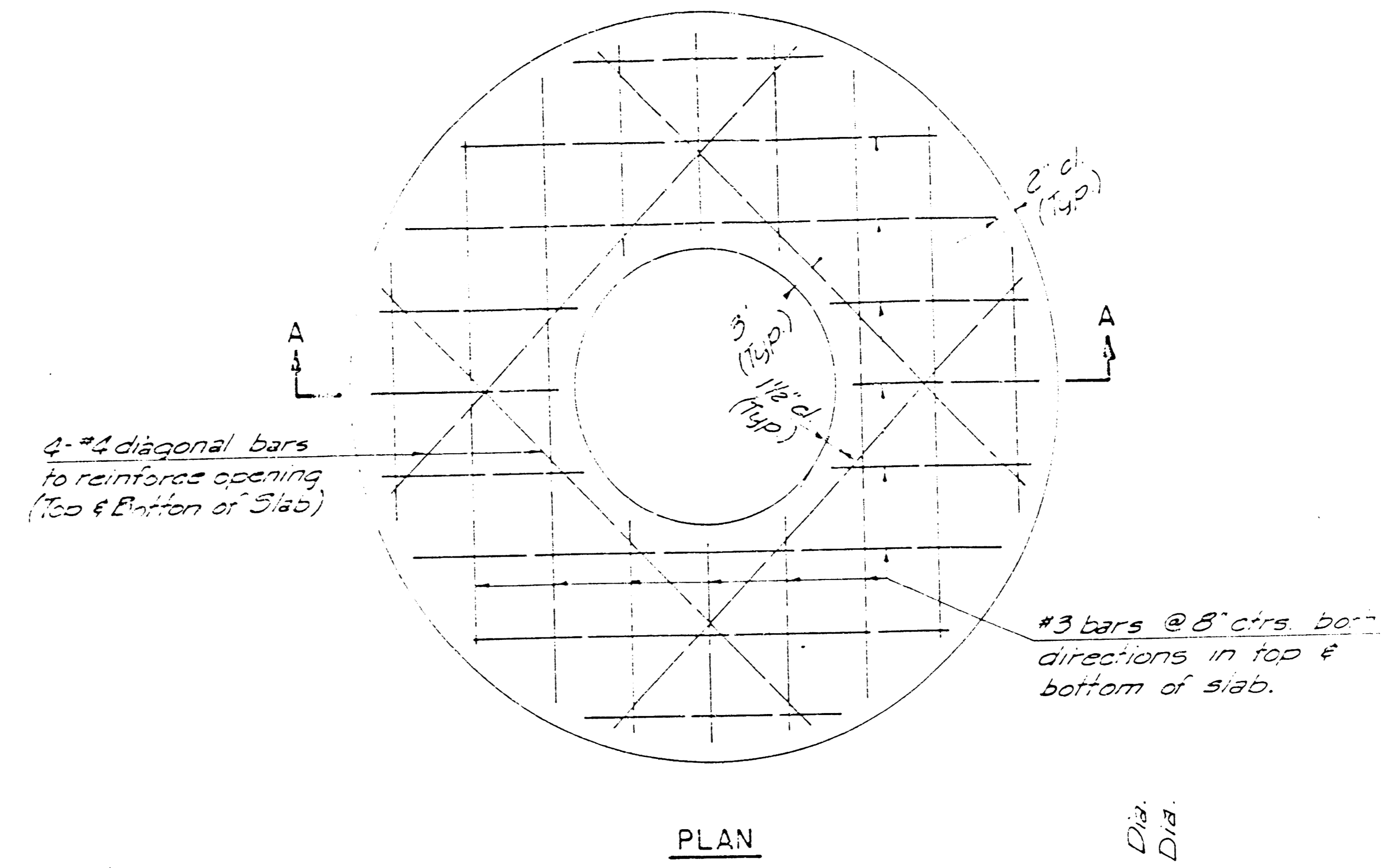
SHALLOW TYPE "A" MANHOLE



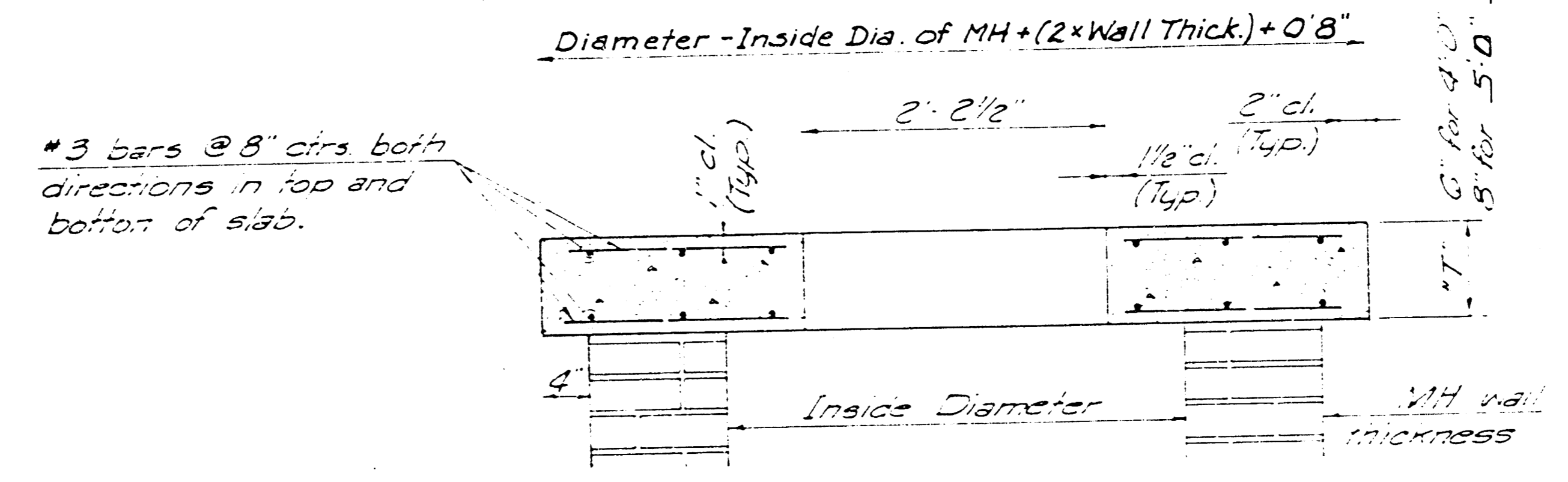
SHALLOW TYPE "B" MANHOLE



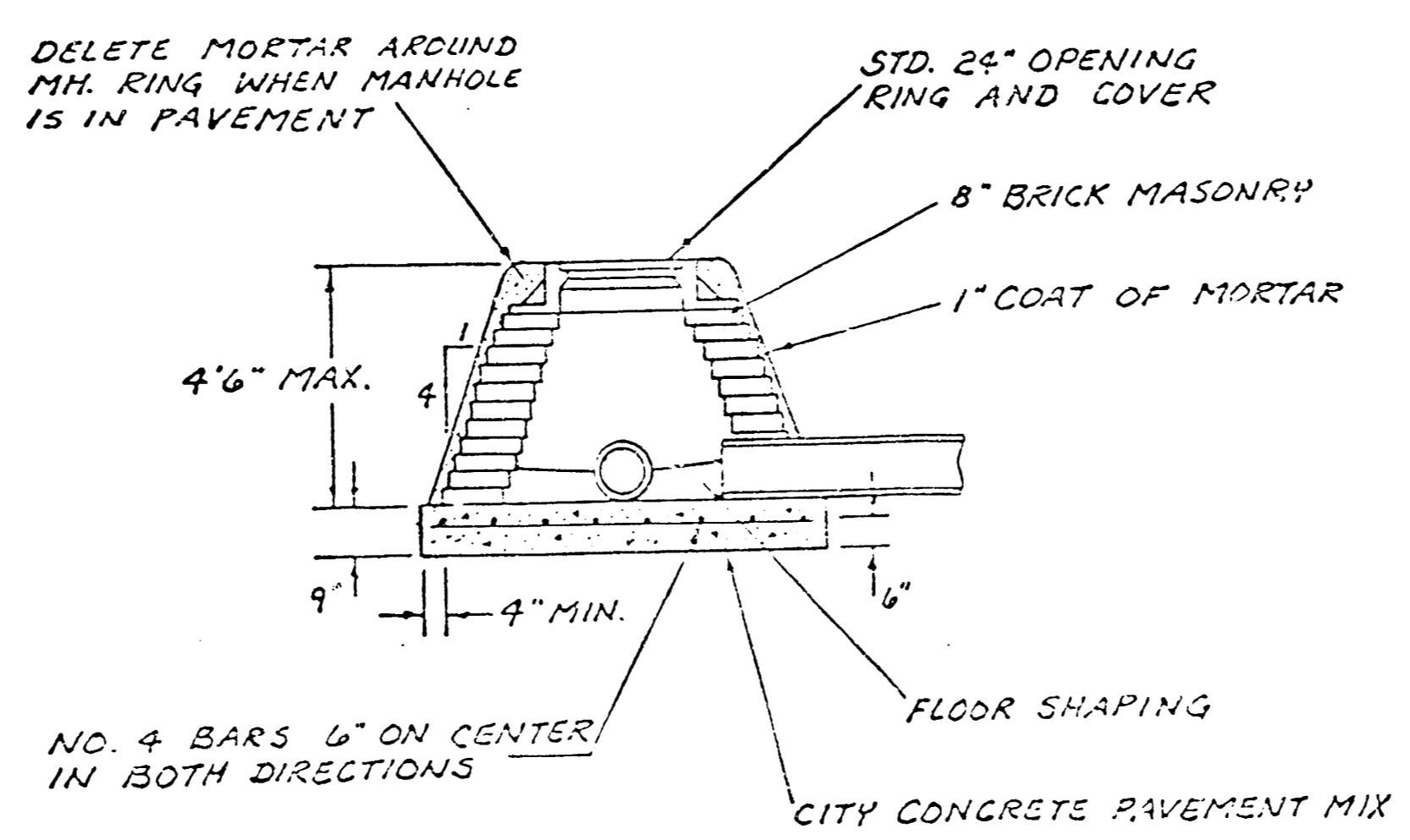
MASONRY COLLAR DETAIL



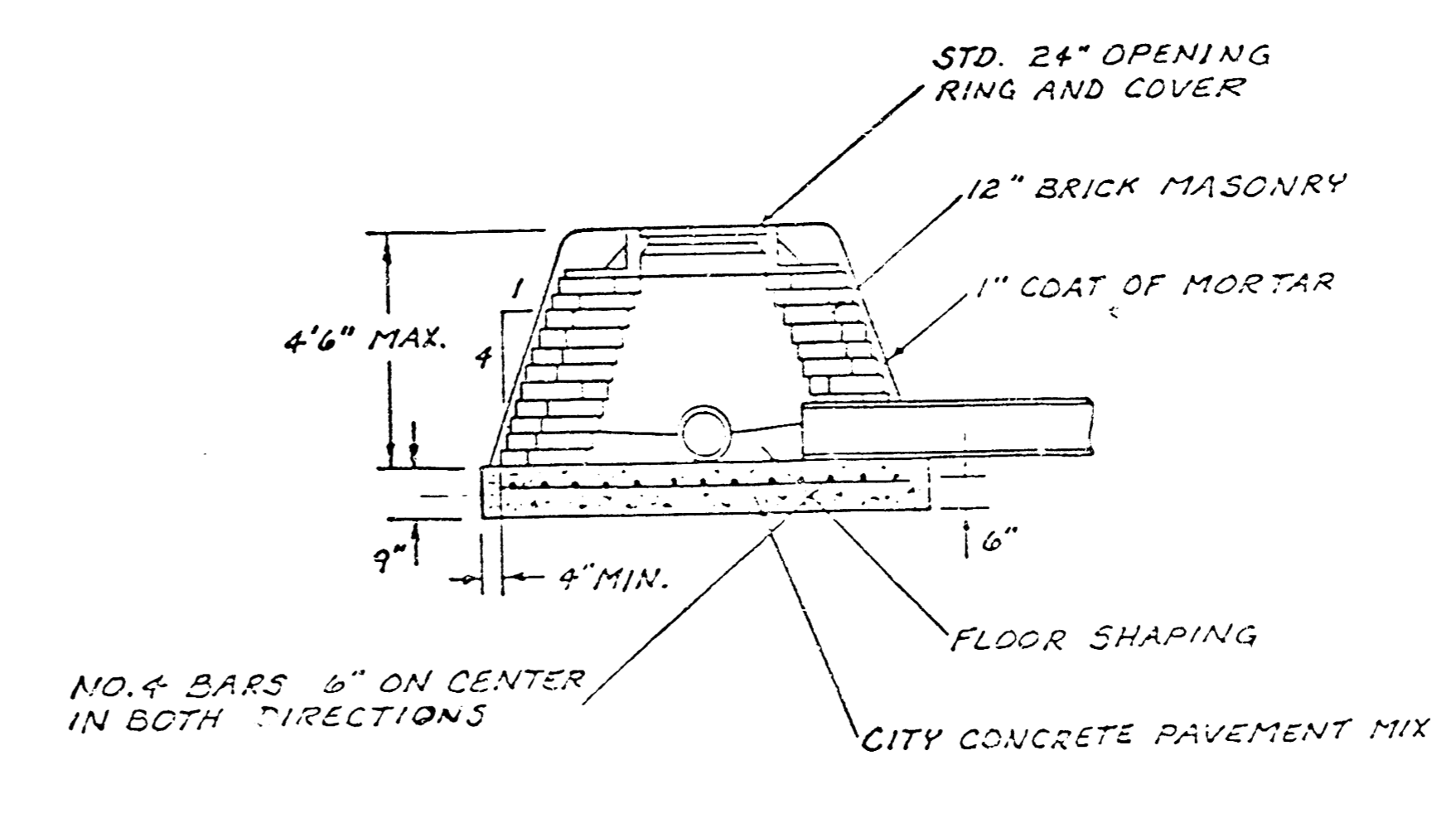
PLAN



SECTION A-A
FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE 'A' MANHOLE



SPECIAL SHALLOW TYPE 'B' MANHOLE

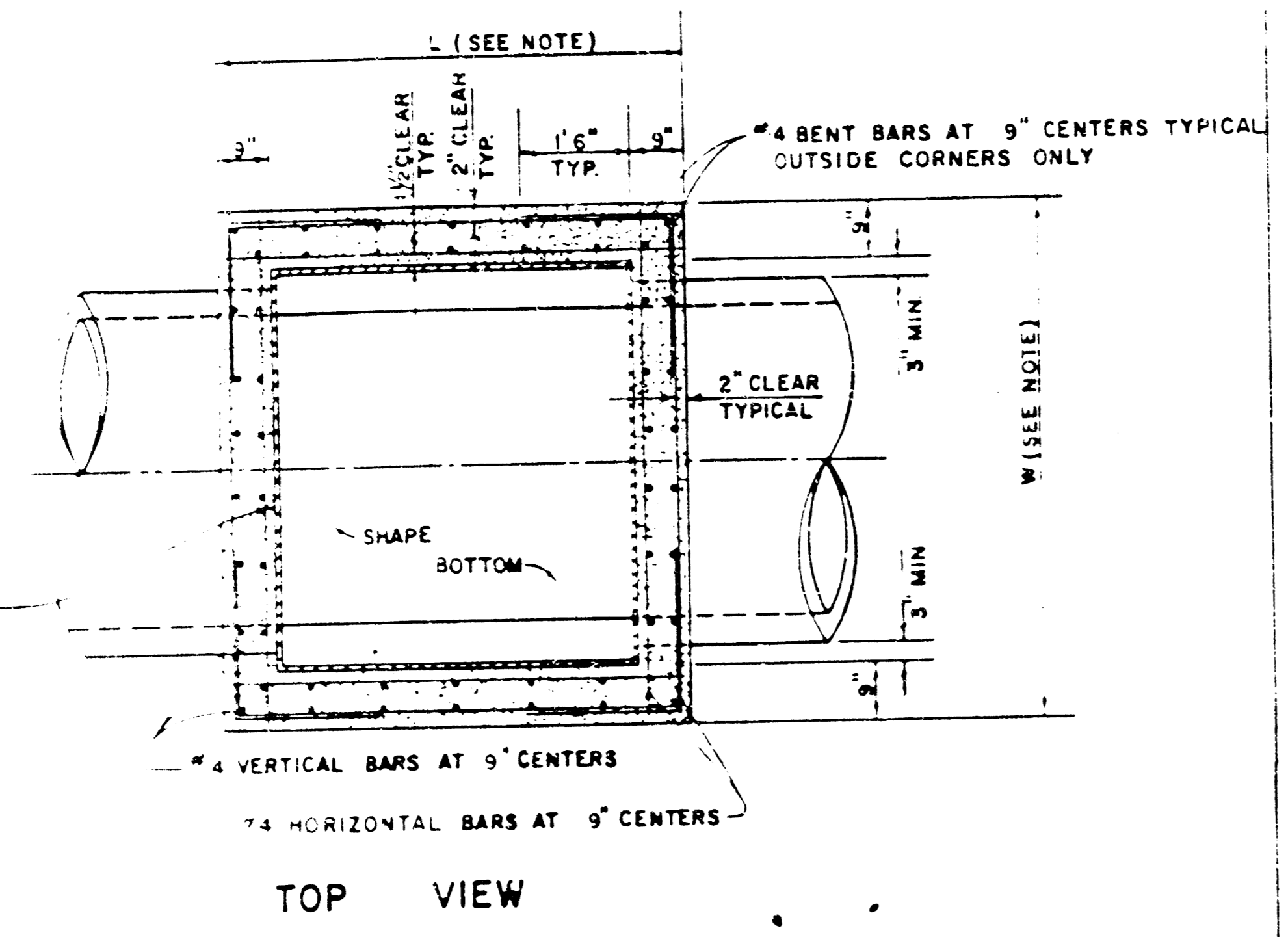
GENERAL NOTES

- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 BAGS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASIS SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE DEPEND 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 SIDEWALKS 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 BASE AND SHALL CONSIST OF NO. 4 BARS PLACED ON 8" 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 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 ON 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 NEAR 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 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.
- 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 CROWN 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.

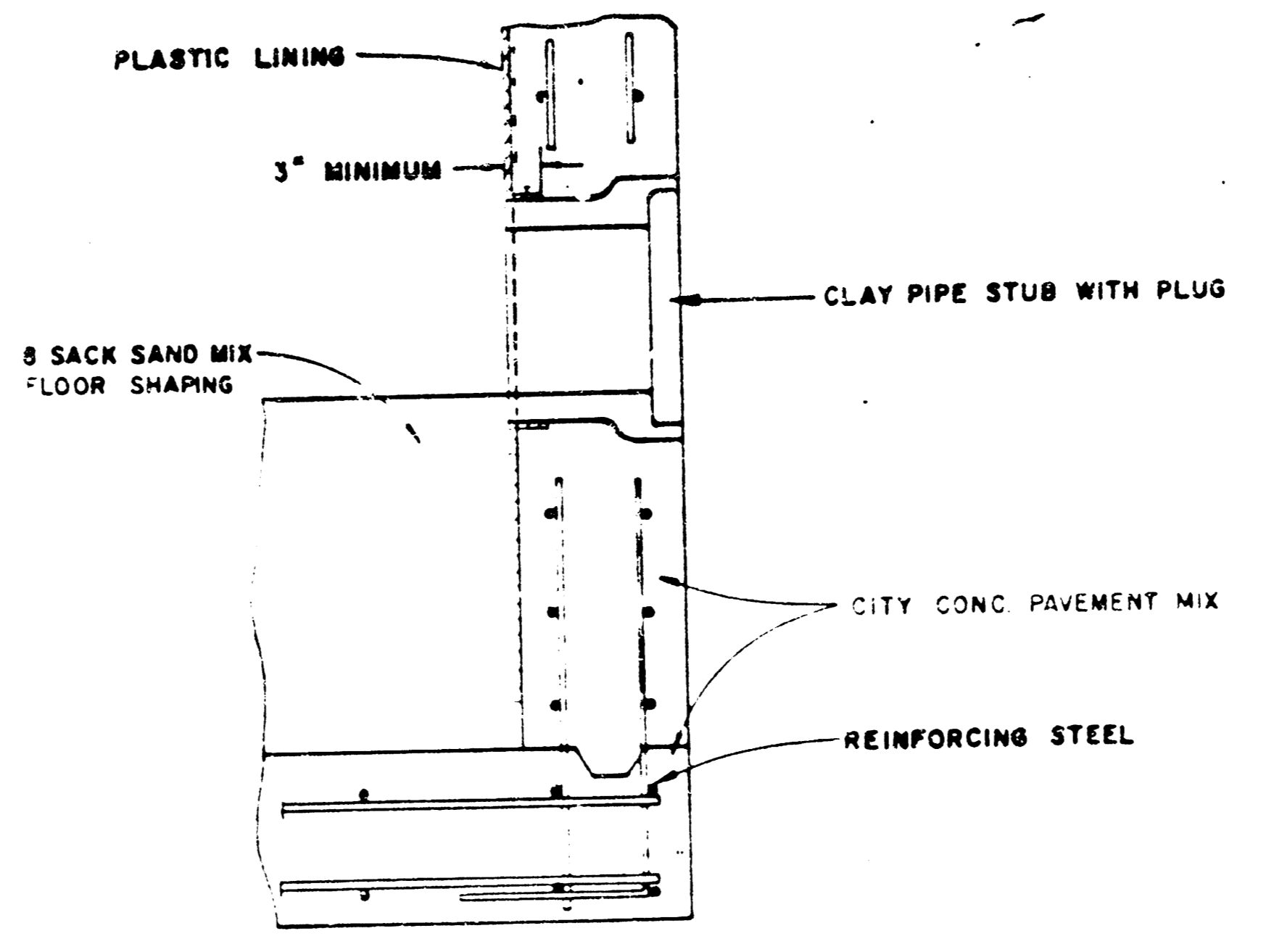
CITY OF WICHITA, KANSAS
STANDARD SHALLOW MANHOLES
TYPE 'A' AND TYPE 'B'

Proj. No. 468 76 245 81615 000 000 001

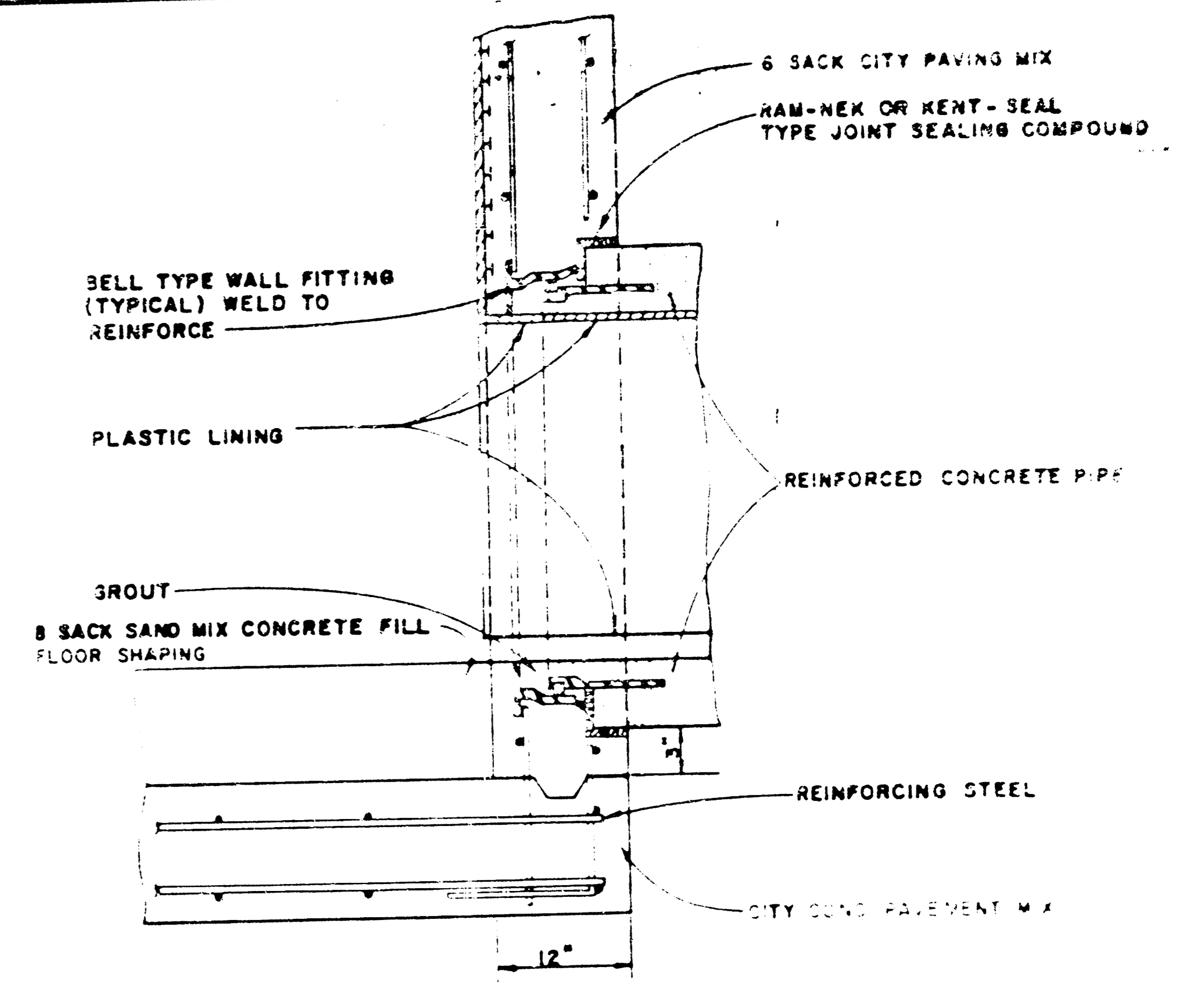
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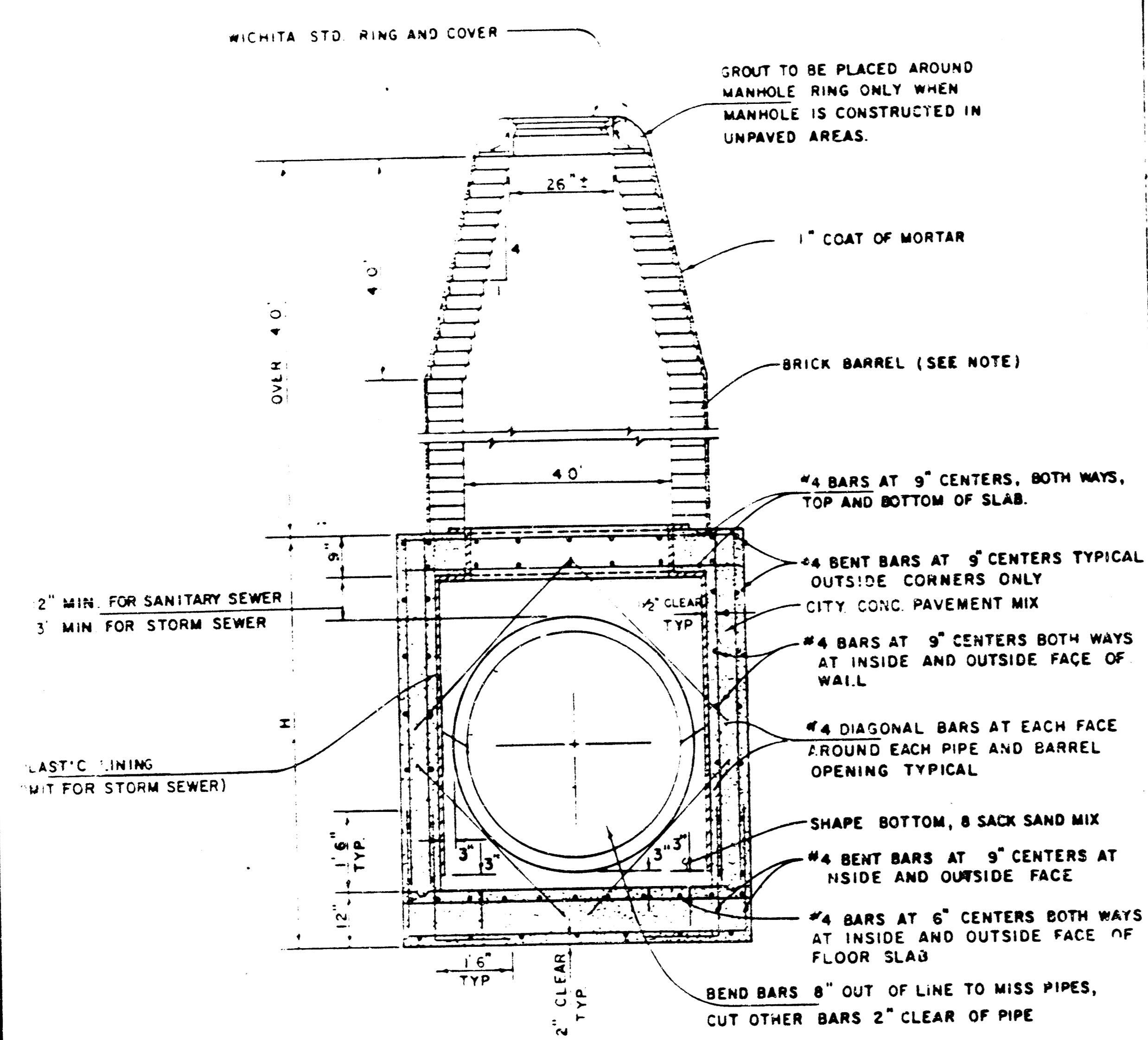
TOP VIEW



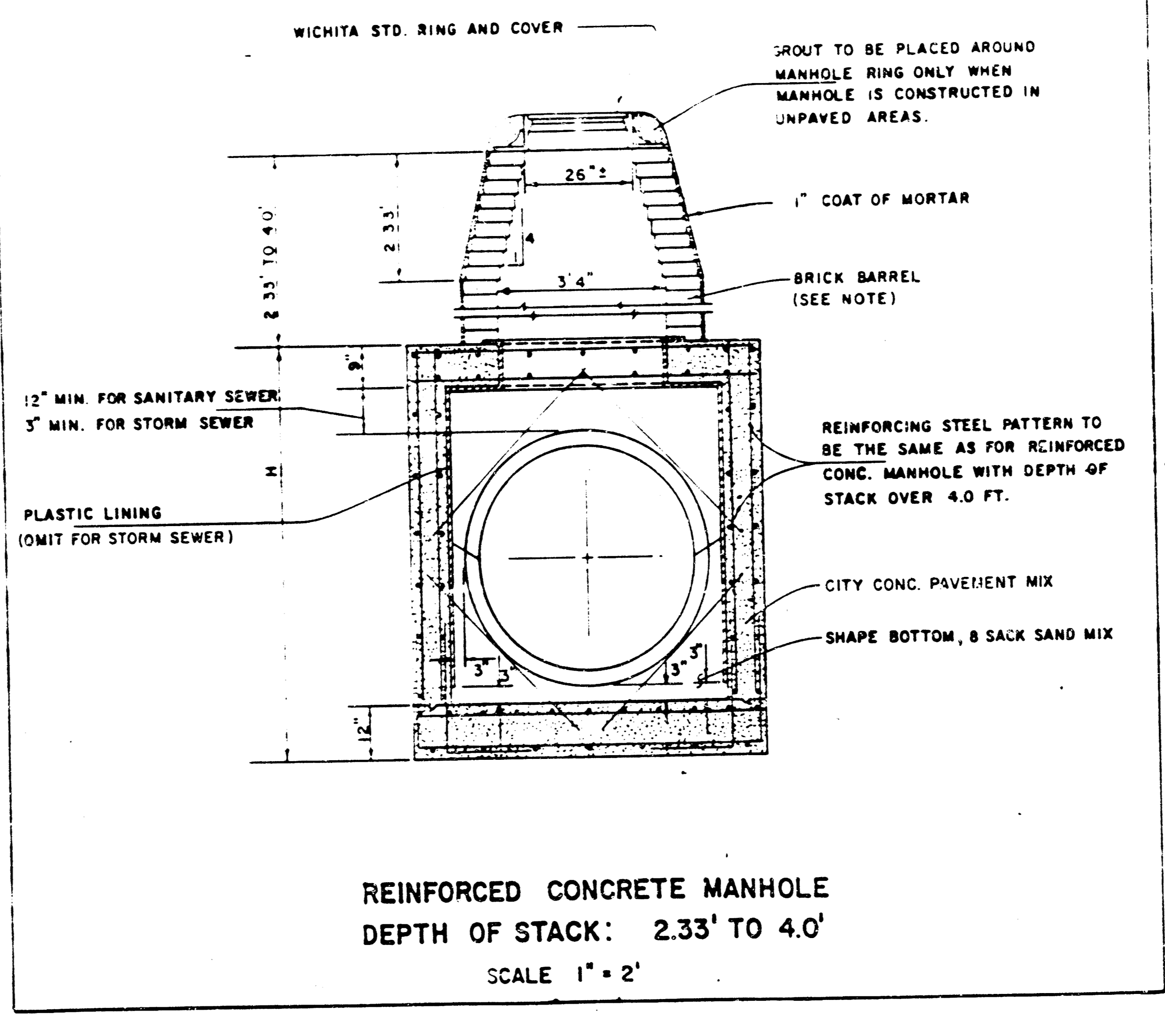
V.C.P. CONNECTION DETAIL
SANITARY SEWER ONLY



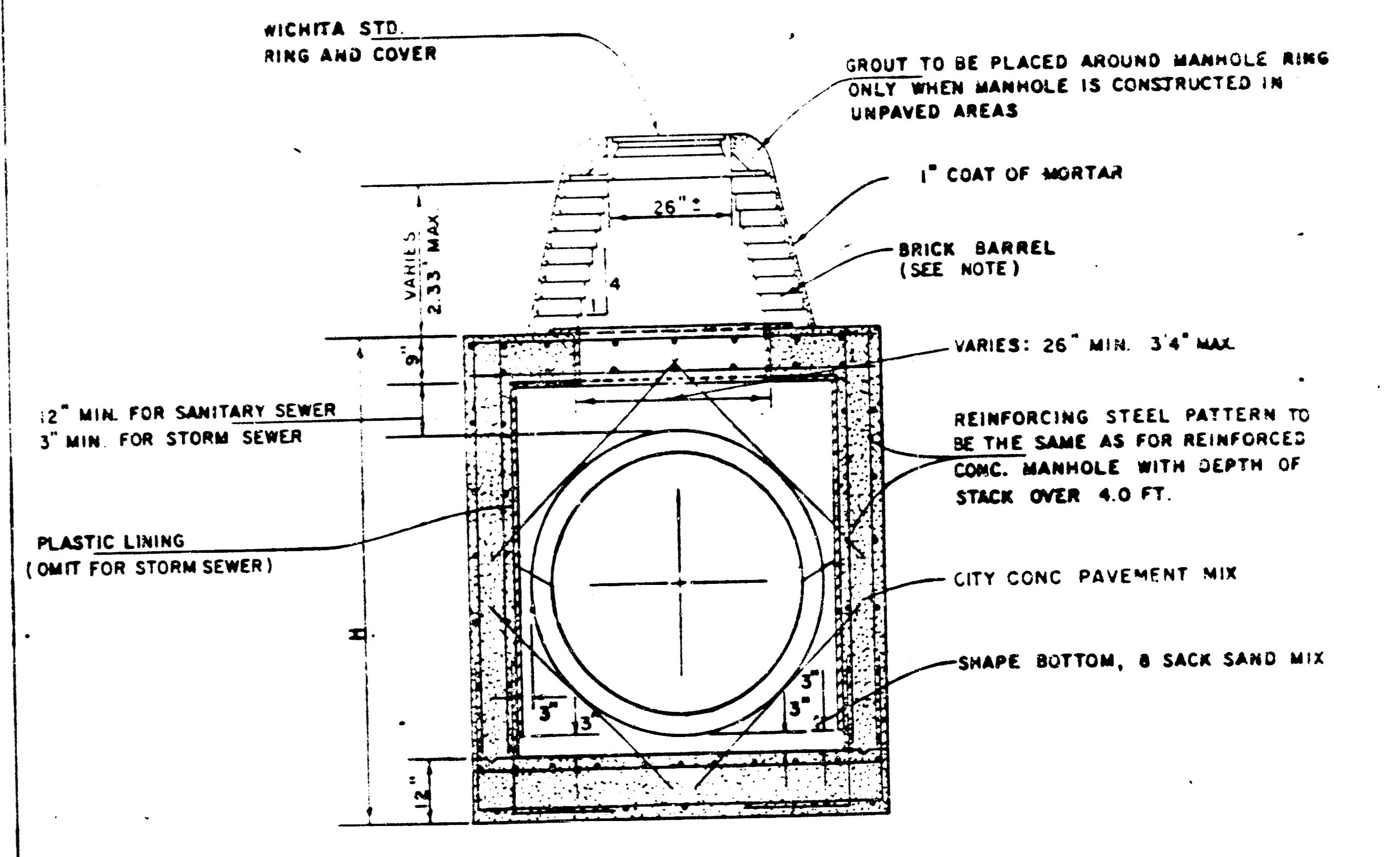
R.C.P. CONNECTION DETAIL
SANITARY SEWER ONLY



REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: OVER 4.0'
SCALE 1" = 2'



REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: 2.33' TO 4.0'
SCALE 1" = 2'



REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: 0' TO 2.33'
SCALE 1" = 2'

NOTE:
BRICK BARRELS LESS THEN 16' DEEP SHALL HAVE 8" WALLS EXCEPT WHEN LOCATED WITHIN PUBLIC STREET OR ALLEY PAVEMENT THEN THE WALL SHALL BE 12". BRICK BARRELS MORE THEN 16' DEEP SHALL HAVE 12" WALLS. THE "L" AND "W" DIMENSIONS SHALL BE A MINIMUM OF 5'6" FOR BRICK BARRELS WITH 8" WALLS AND 6'2" FOR BRICK BARRELS WITH 12" WALLS WHEN THE BRICK BARRELS ARE OVER 4 FT. IN HEIGHT.

Proj. No. 46876 245 81615 000 000 001

STANDARD DETAILS
REINFORCED CONCRETE MANHOLES
CITY OF WICHITA
FEBRUARY 1984 Sheet No. 10 of 15

10 1 1 15

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MANHOLE FRAME AND COVER DETAIL

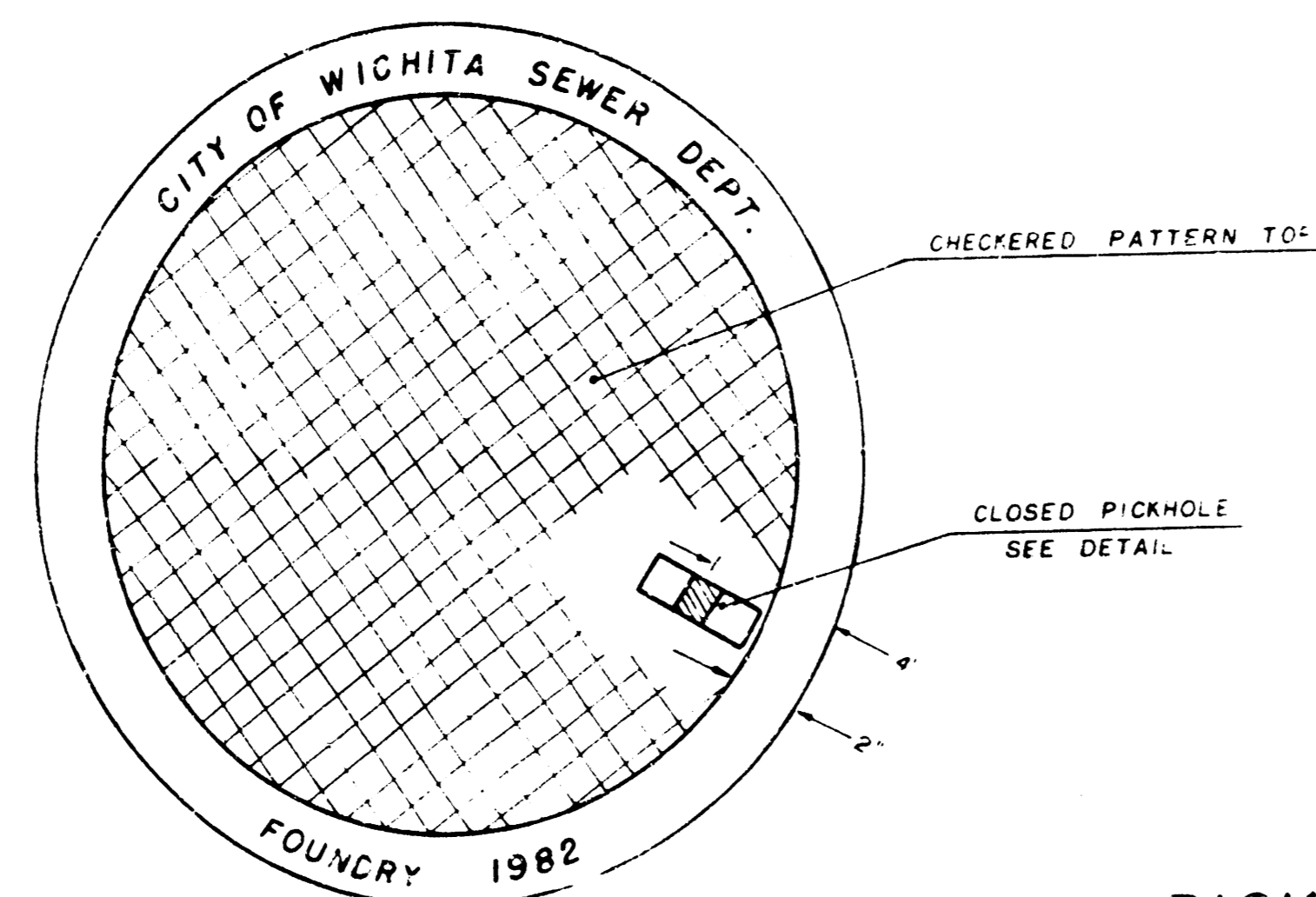
ADOPTED AS STANDARD DESIGN

BY

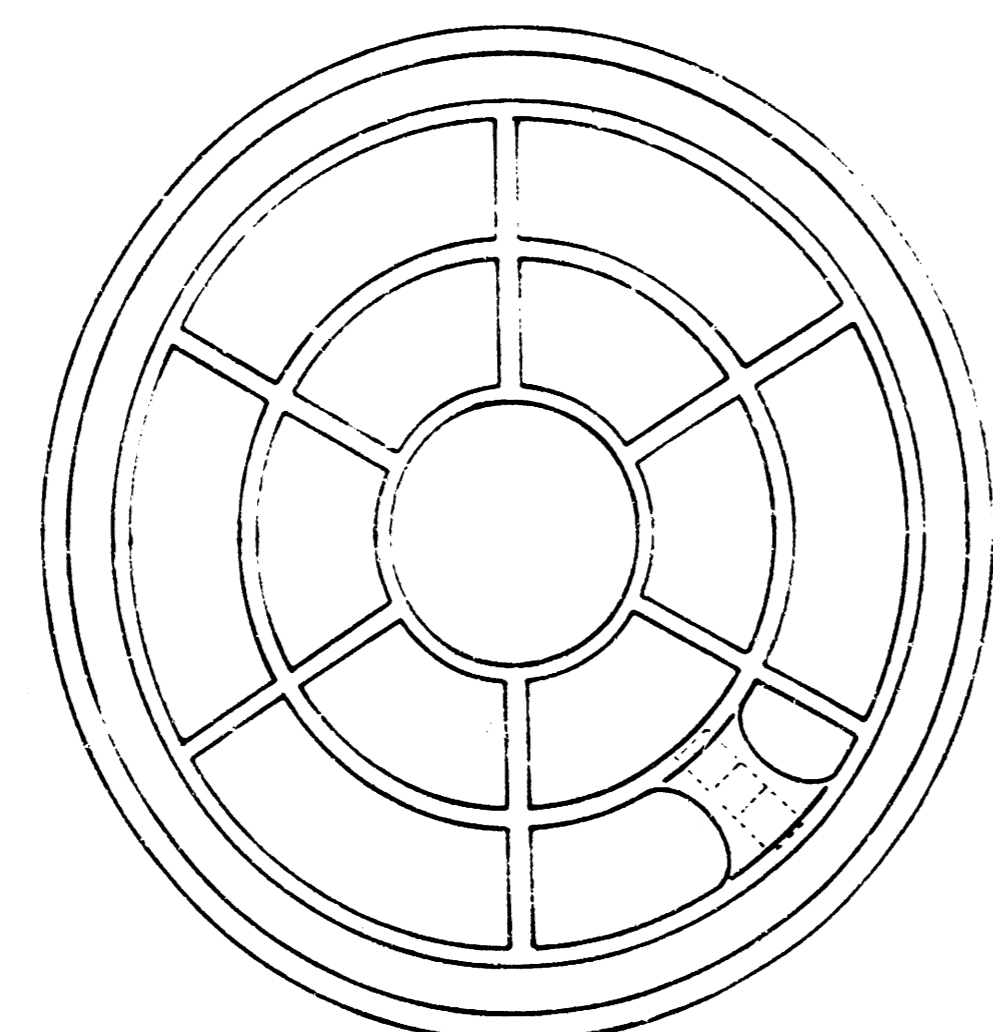
City of Wichita, Kansas

MANHOLE COVER

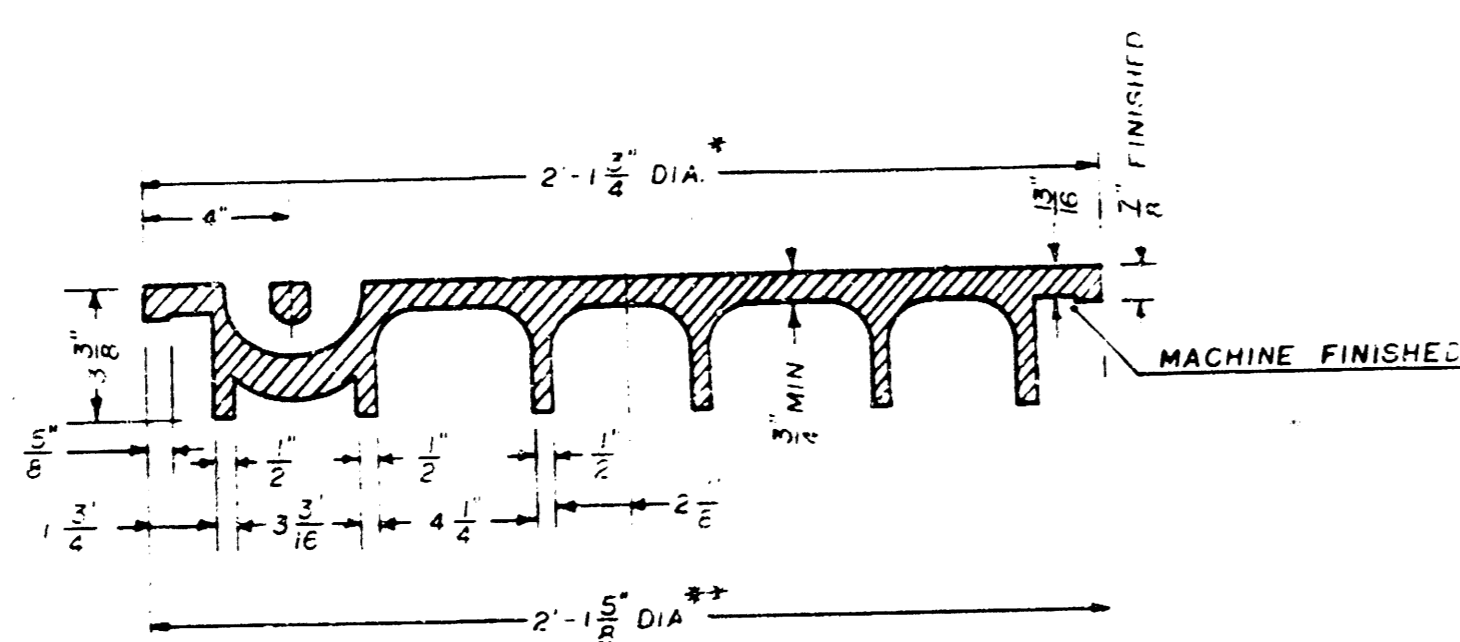
Weight: 180 Lbs.



TOP VIEW



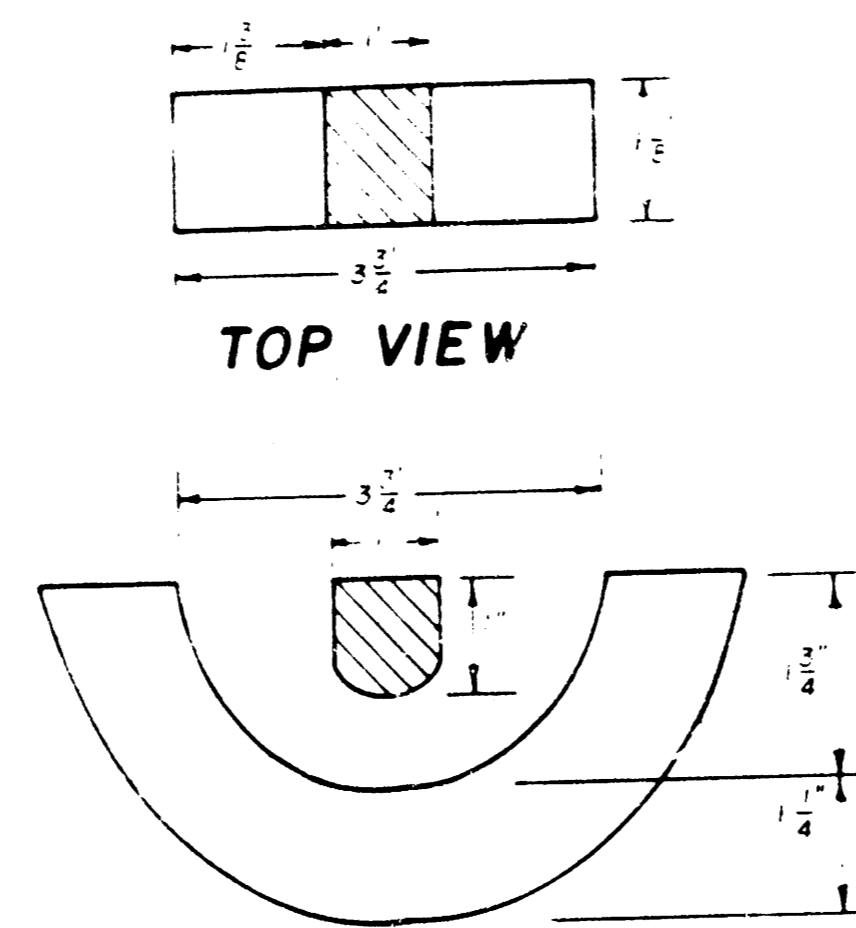
BOTTOM VIEW



SECTION VIEW

* OUTSIDE DIA TOP OF COVER
** OUTSIDE DIA BOTTOM OF COVER

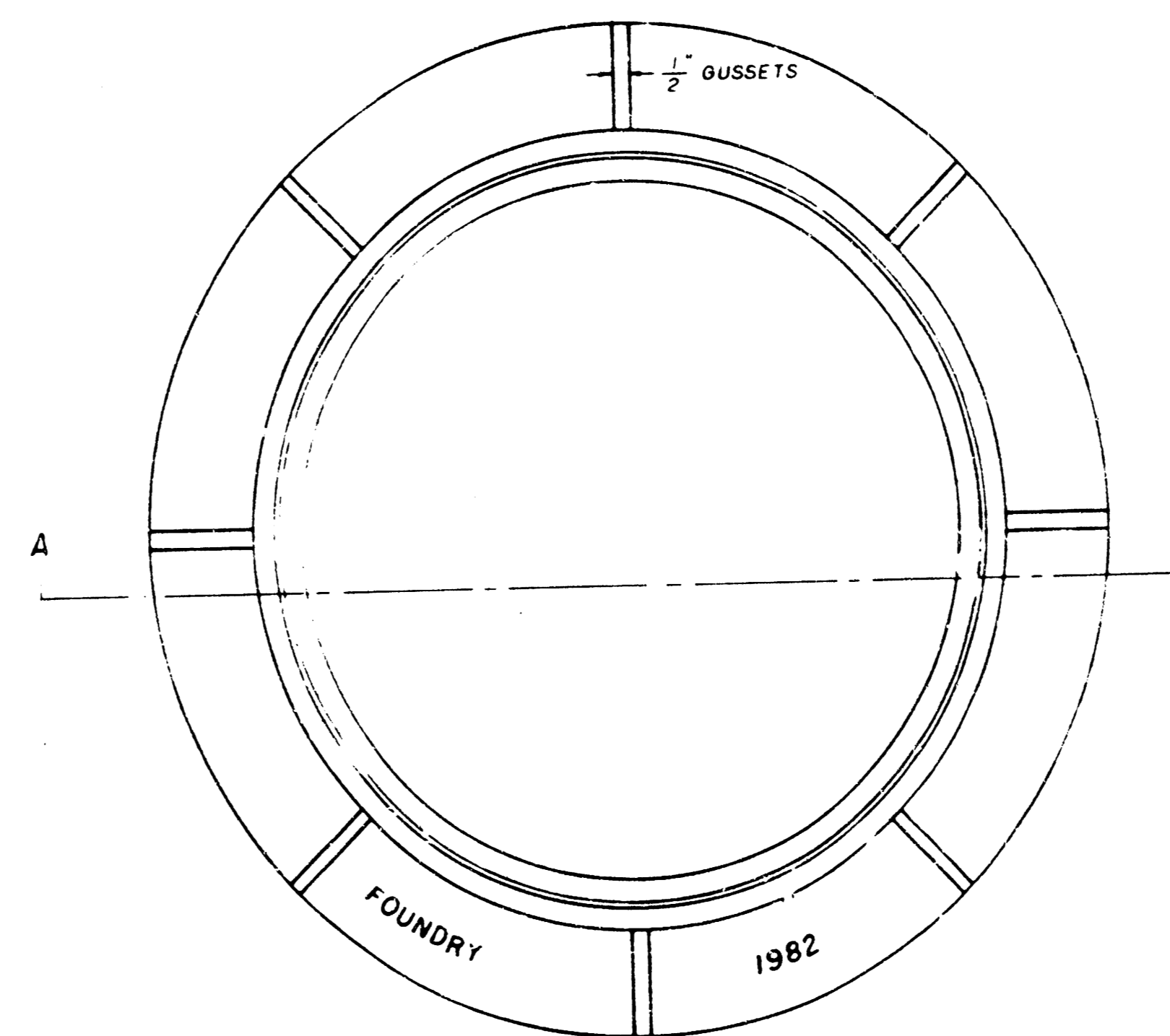
PICKHOLE DETAIL



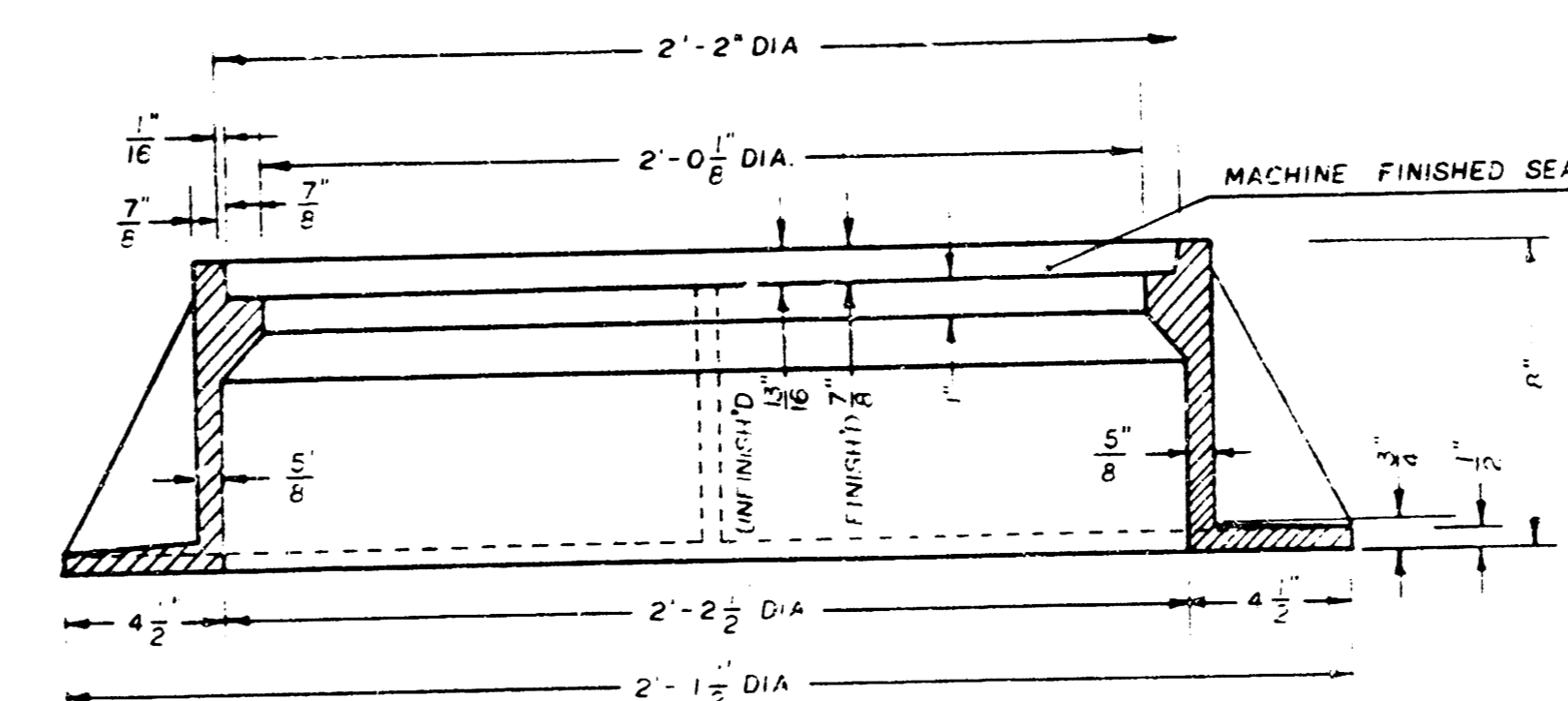
SECTION VIEW

MANHOLE FRAME

Weight 240 Lbs.



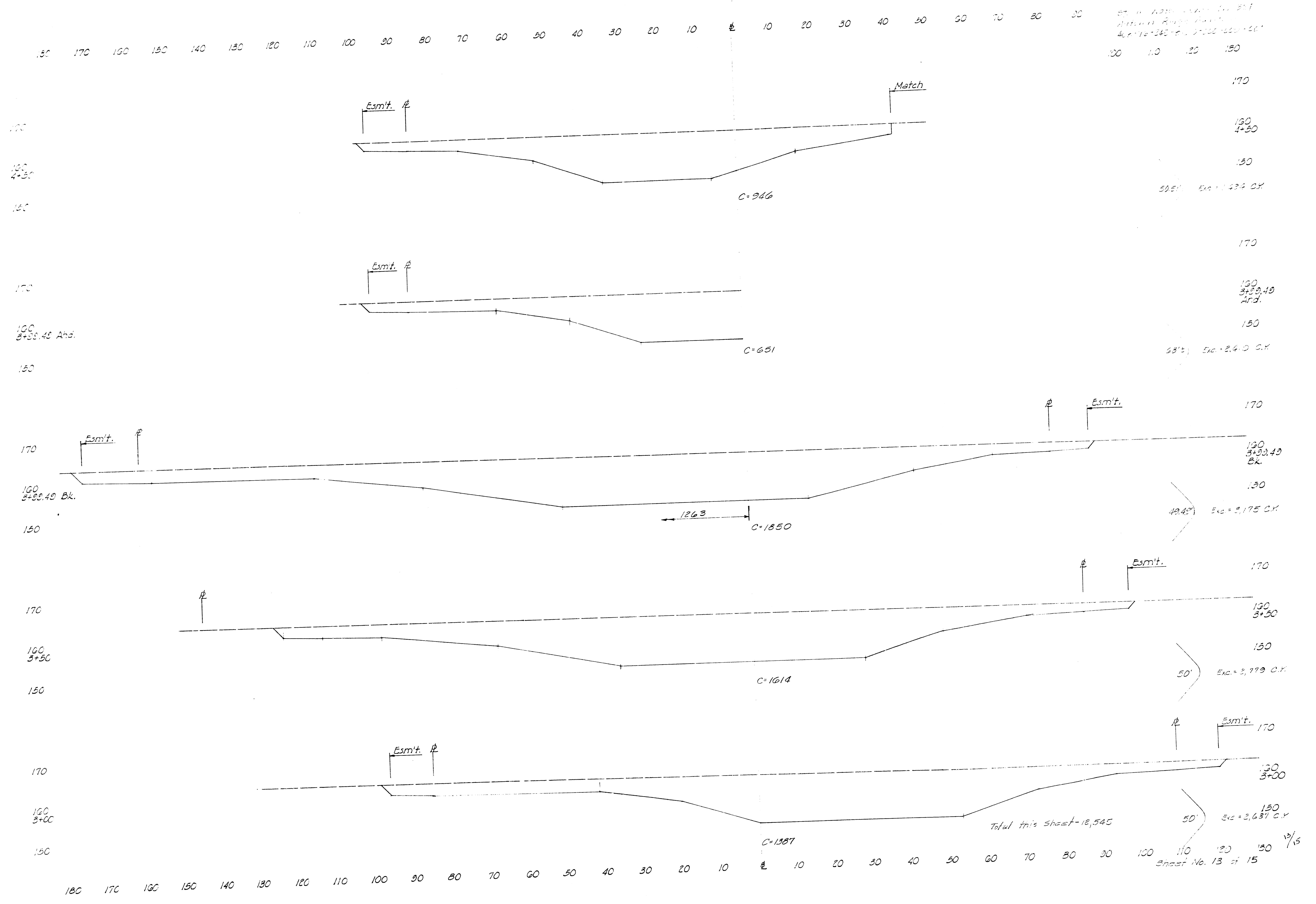
TOP VIEW



SECTION A-A

GENERAL NOTE

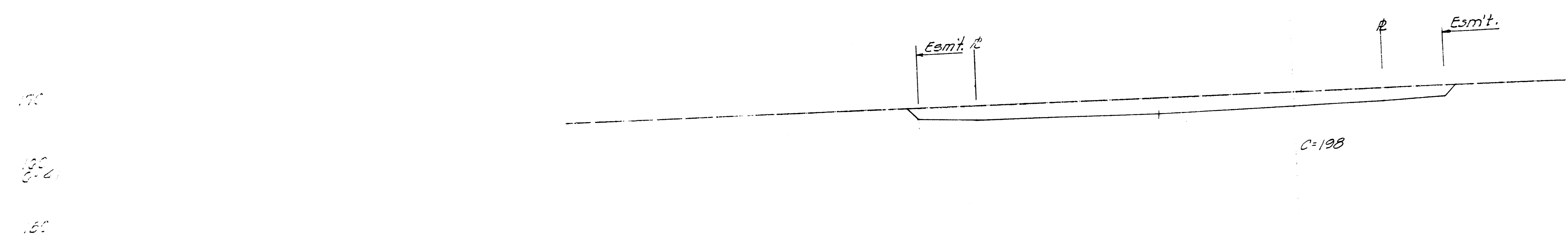
- MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.P.T.M. DESIGNATION A-4. DIMENSIONS AND WEIGHTS SHOWN ON THE UN-TAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATION FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTION OR OTHER DEFECTS.
- MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, DURE 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 TOLERANCE 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 THAT 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" IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE SEWER 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.



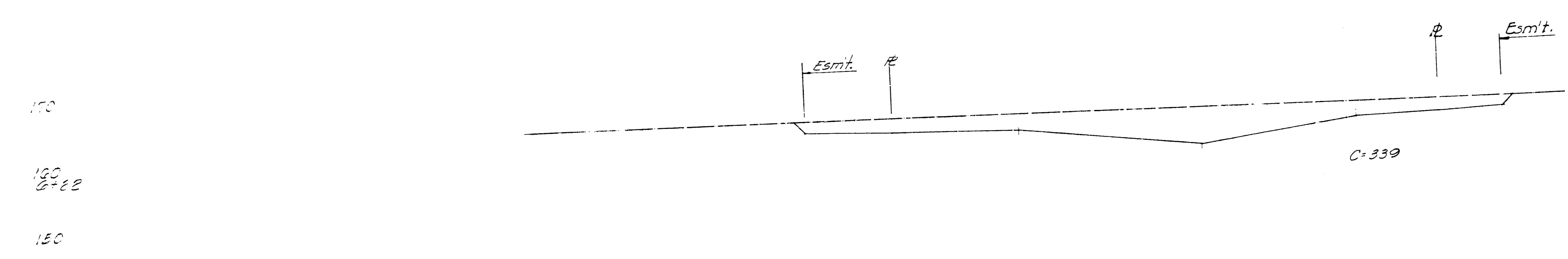
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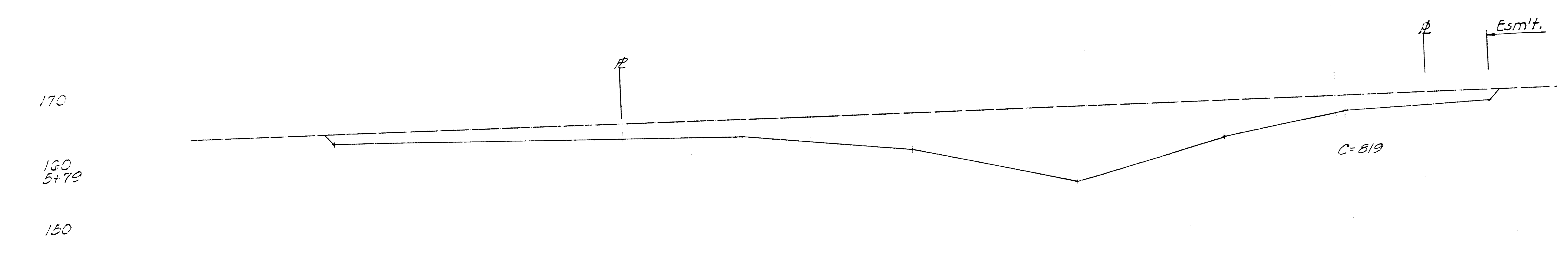
170
130
150
Exc. = 189 C.Y.
170
130
150
Exc. = 222 C.Y.
170
130
150
Exc. = 132 C.Y.
170
130
150
Exc. = 1495 C.Y.
170
130
150
Exc. = 1550 C.Y.
14/15
Sheet No. 14 of 15



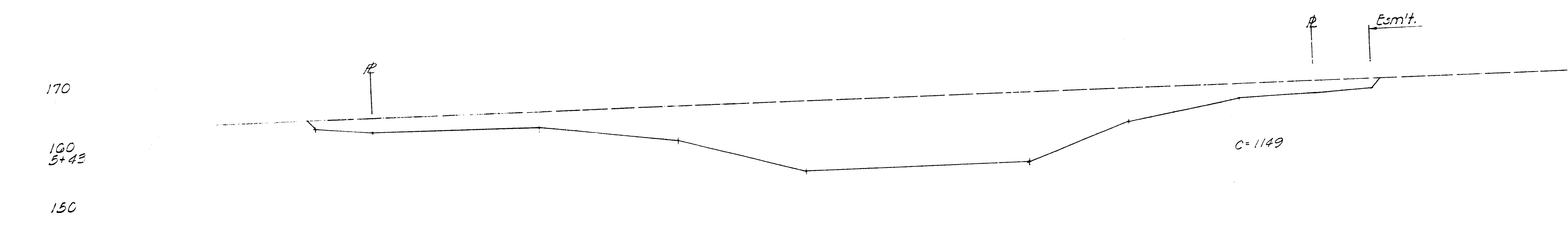
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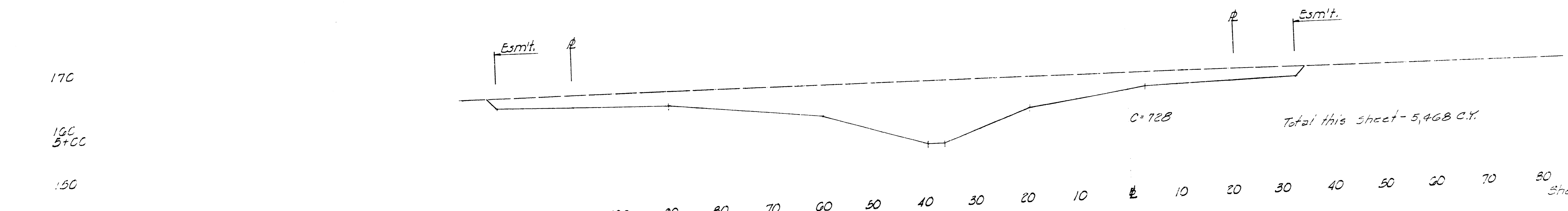
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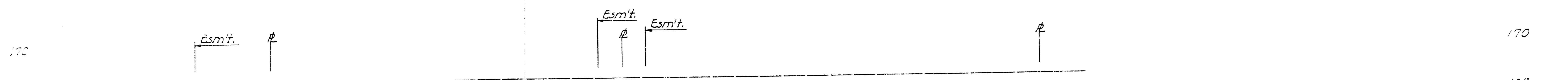


170
130
150
Exc. = 1550 C.Y.
14/15
Sheet No. 14 of 15

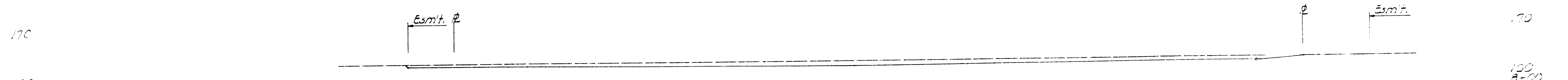
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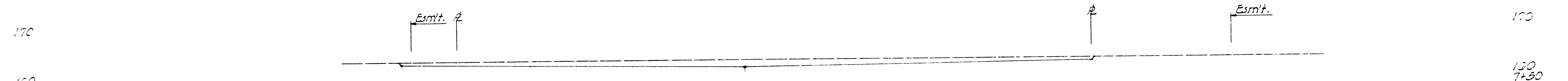
PLAN VIEW OF ROAD
SECTION 8+00 TO 8+50
Exc. = 240 C.Y.



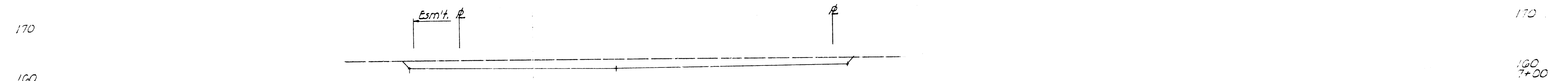
170
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8+41.52
150
Exc. = 114 C.Y.



170
160
8+50
C=147
150
Exc. = 280 C.Y.



170
160
7+50
C=155
150
Exc. = 394 C.Y.



170
160
7+00
C=163
150
Exc. = 334 C.Y.



170
160
6+50
C=198
150
Exc. = 166 C.Y.

Total this sheet - 1,088 C.Y.

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

Sheet No. 15 of 15

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