


STORM SEWER PLANS FOR WINDEMERE SECOND ADDITION

**S.W.S. NO. 393
PROJECT NO.
468-81999**

**CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK CITY ENGINEER
OCTOBER, 1990
INDEX NO. 750174**

GENERAL NOTES

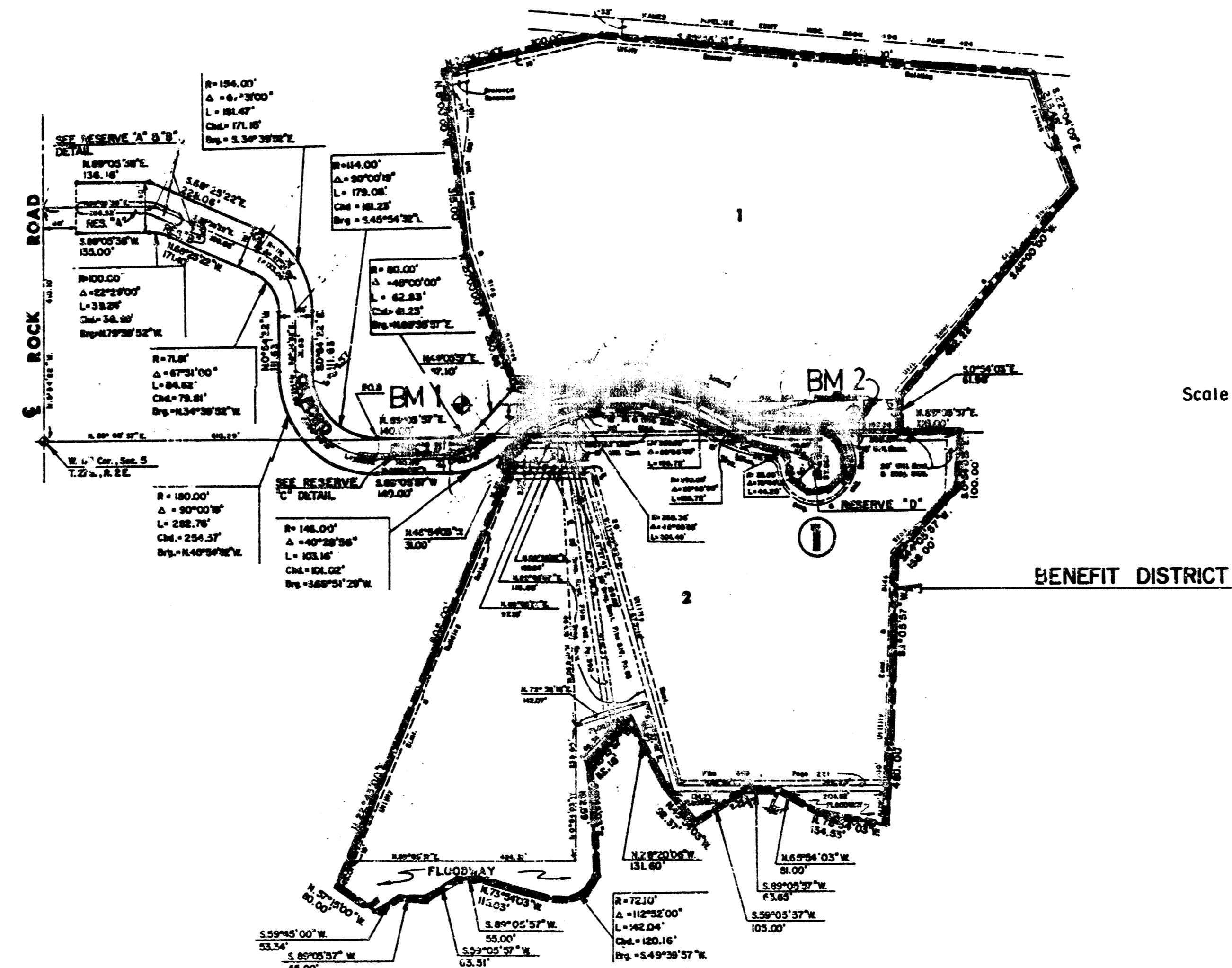
1. THE TIPS OF INLET AND MANHOLE AS NOTED ON THE PLANS MAY VARY SO AS TO MEET PROPOSED TOP OF CURB ELEVATIONS OR PAVEMENT ELEVATIONS. THE FIELD ENGINEER SHALL LOCATE INLETS AND MANHOLES WITH REFERENCE TO PROPOSED PAVING PLANS OF THE PERTINENT STREETS. INLET DEPRESSIONS NEED TO BE TIED TO CURB, GUTTER AND PAVING.
2. 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 IN ACCORDANCE WITH STATE LAWS.
3. TREES TO BE REMOVED ARE MARKED . ALL TREES WHICH IN THE OPINION OF THE FIELD ENGINEER CAN BE SAVED, SHALL BE SAVED.
4. ALL CONCRETE SHALL BE STANDARD PAVING MIX UNLESS OTHERWISE NOTED.
5. UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY "OLE LINE" ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATIONS AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT OF WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
6. THE CHANNEL AND ALL AREAS DISTURBED BY EXCAVATION OF THE CHANNEL ABOVE WATER SHALL BE SEED, FERTILIZED AND MULCHED PER CITY OF WICHITA SPECIFICATIONS.

NOTE: NOTIFY THE FOLLOWING COMPANIES PRIOR TO ANY EXCAVATION:

BELL TELEPHONE COMPANY	571-2115
CABLEVISION	262-0661
KP&L COMPANY	263-7511
KANSAS GAS & ELECTRIC	264-1141
KANSAS ONE-CALL	1-800-344-7233
CITY OF WICHITA WATER DEPT.	268-4908
CITY OF WICHITA SEWER MAINT.	268-4071

BENCH MARKS

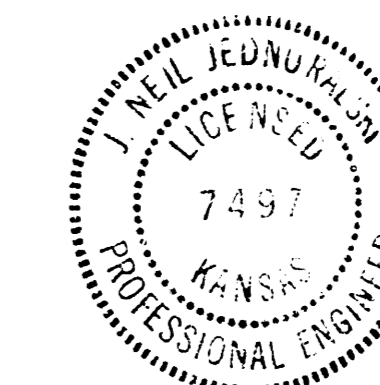
- BM #1 - Stepped Spike in S.W. Corner "Y"
Pole 650' + East of Rock Road
(2nd "Y" Pole East of Rock Road)
Elev. = 208.22
- BM #2 - Stepped Spike in N.W. Corner "Y"
Pole (3rd "Y" Pole East of Rock Rd.)
Elev. = 210.13




INDEX TO DRAWINGS

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3	PLAN & PROFILE - LINE 1
4	PLAN & PROFILE - LINE 2
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6	STD. TYPE 1-A CURB INLET DETAIL (10' OPENING)
7	STD. TYPE 1 CURB INLET DETAIL (5' OPENING)
8	REINFORCED CONCRETE AREA INLET
9	STD. SHALLOW MANHOLE DETAILS
10	STD. TYPE "A" MANHOLE DETAILS
11-12	FINAL PLAT

Booked: 3-18-91 MCG

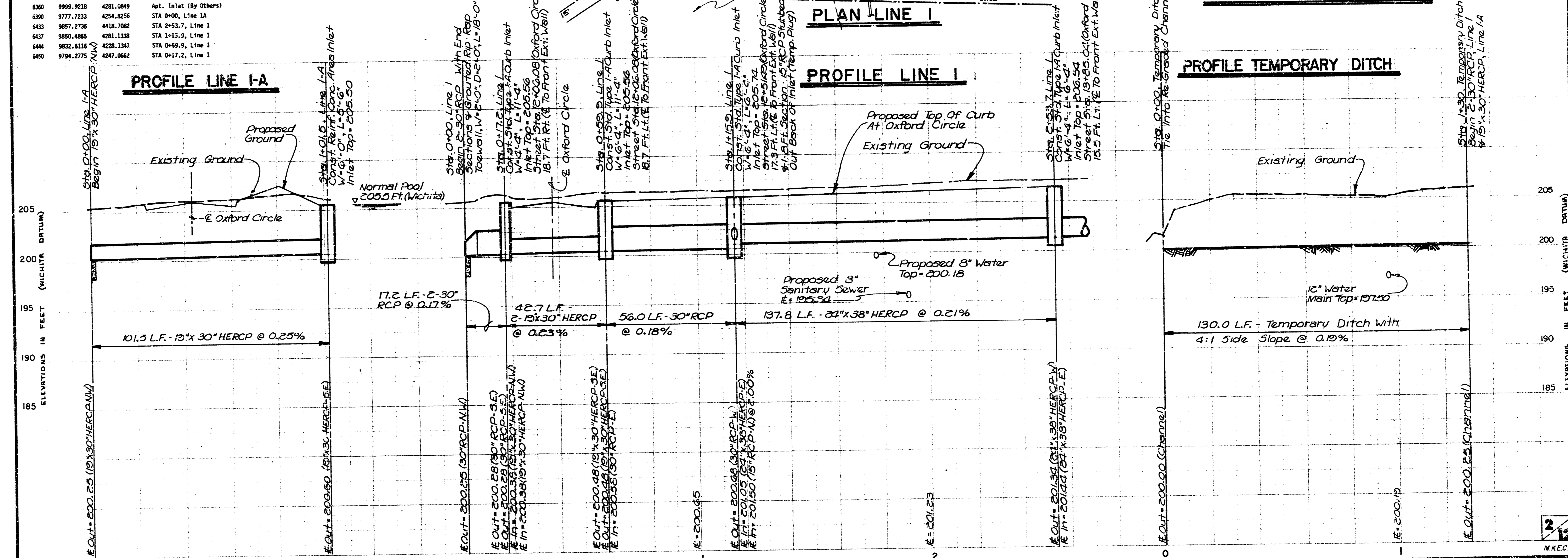
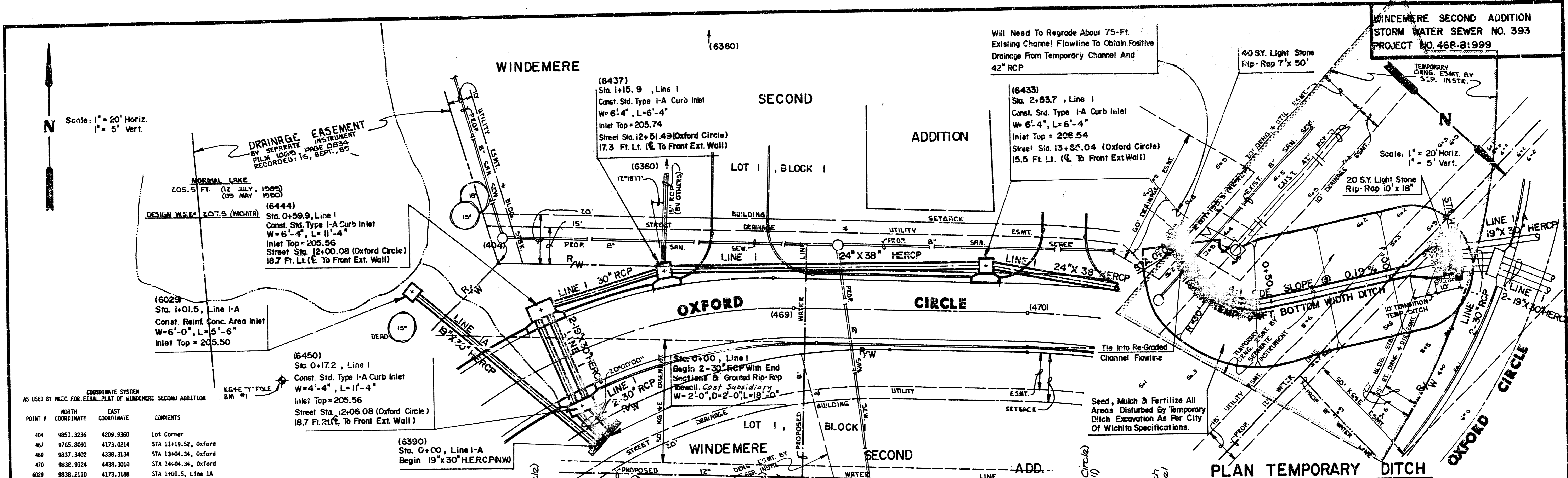


	WINDEMERE SECOND ADDITION	Drawn by JNL
	STORM WATER SEWER PLANS	Checked by DLM
		Date Oct, 1990

MID-KANSAS ENGINEERING CONSULTANTS PA 3500 NORTH ROCK ROAD BUILDING #800 WICHITA, KANSAS 67226	636-5566
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MKEC Proj. No. 89-35-101-D

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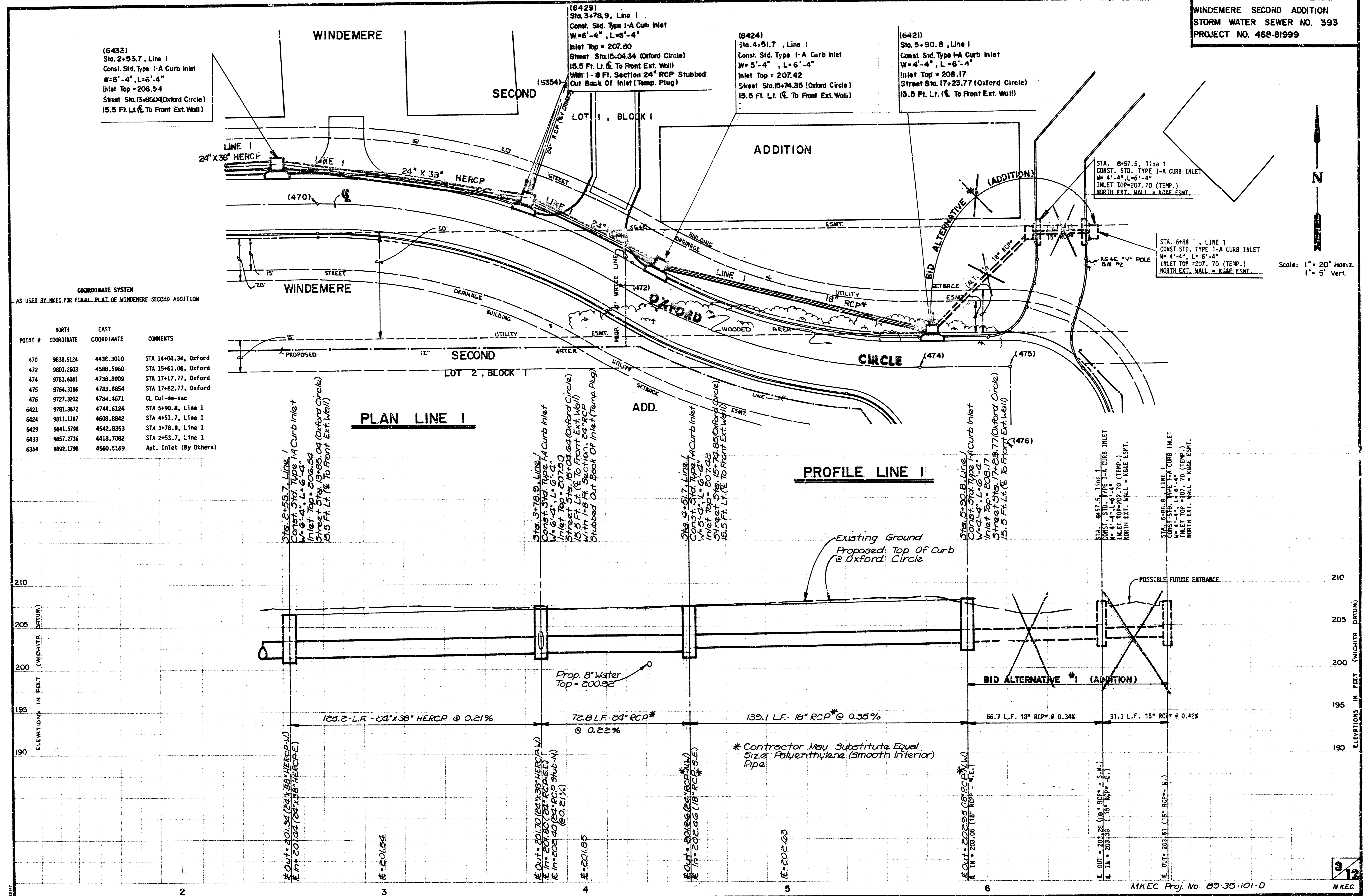


COORDINATE SYSTEM AS USED BY MKEC FOR FINAL PLAN OF WINDEMERE SECOND ADDITION

POINT #	NORTH COORDINATE	EAST COORDINATE	COMMENTS
404	9851.3236	4209.9360	Lot Corner
467	9765.8091	4173.0214	STA 11+19.52, Oxford
469	9837.3402	4338.3134	STA 13+04.34, Oxford
470	9838.9124	4438.3010	STA 14+04.34, Oxford
6029	9838.2110	4173.3188	STA 1+01.5, Line 1A
6360	9999.9218	4281.0849	Apt. Inlet (By Others)
6390	9777.7233	4254.8256	STA 0+00, Line 1A
6433	9857.2736	4418.7082	STA 2+53.7, Line 1
6437	9850.4885	4281.1338	STA 1+15.9, Line 1
6444	9832.6116	4228.1341	STA 0+59.9, Line 1
6450	9794.2775	4247.0662	STA 0+17.2, Line 1

MKEC Proj. No. 85-35-101-D

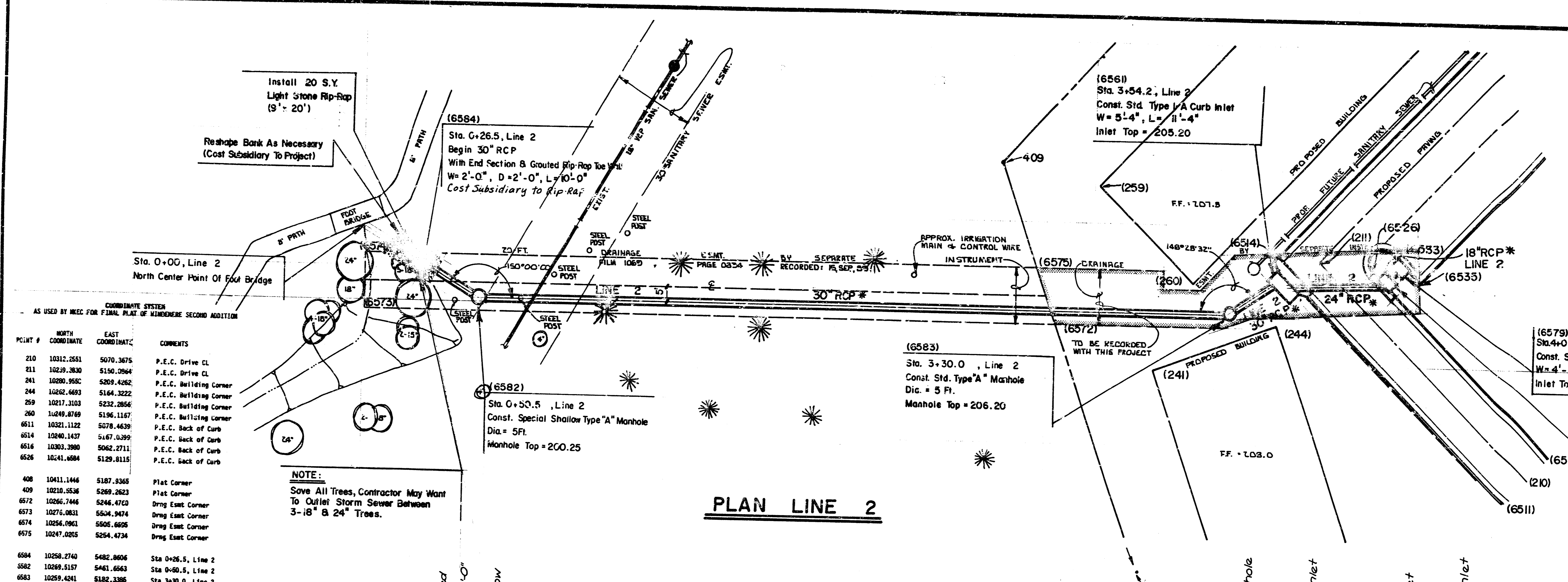
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Scale: 1" = 20' Horiz.
1" = 5' Vert.

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Scale: 1" = 20' Horiz.
 1" = 5' Vert.

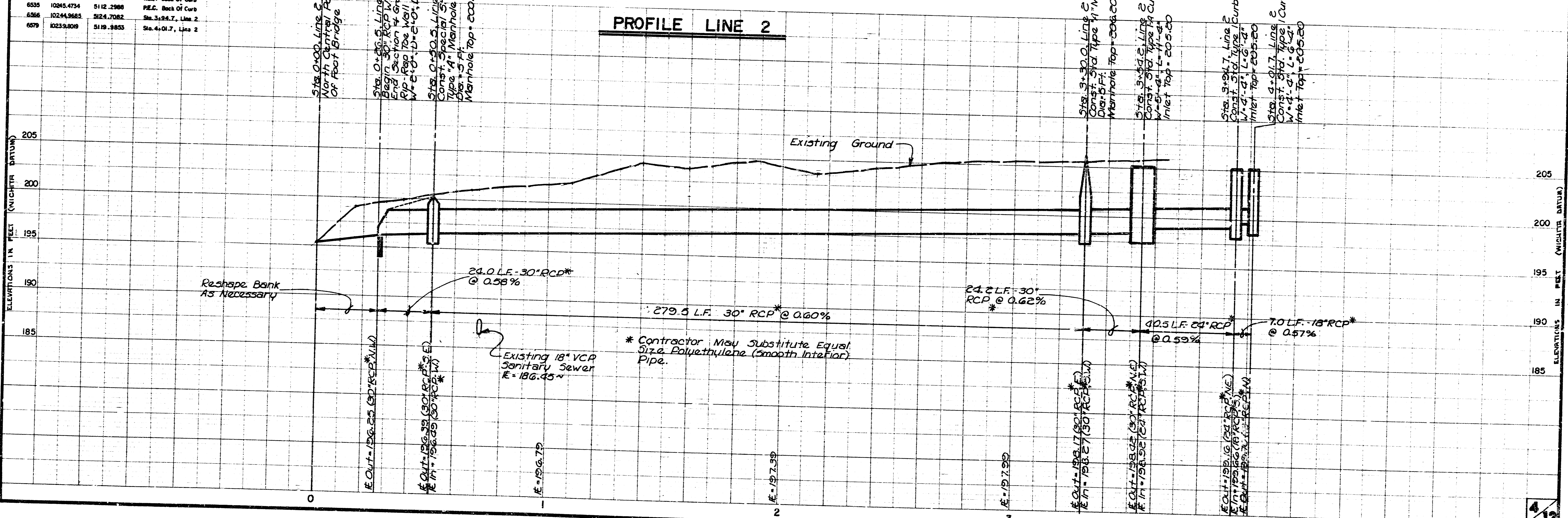


COORDINATE SYSTEM
 AS USED BY MKEC FOR FINAL PLAT OF WINDEMERE SECOND ADDITION

POINT #	NORTH COORDINATE	EAST COORDINATE	COMMENTS
210	10312.2551	5070.3675	P.E.C. Drive CL
211	10229.2630	5150.7964	P.E.C. Drive CL
241	10280.9550	5209.4262	P.E.C. Building Corner
244	10262.6693	5164.3222	P.E.C. Building Corner
259	10217.2103	5232.2656	P.E.C. Building Corner
260	10249.8769	5196.1167	P.E.C. Building Corner
6511	10321.1122	5078.4639	P.E.C. Back of Curb
6514	10240.1437	5167.0399	P.E.C. Back of Curb
6516	10303.3900	5062.2711	P.E.C. Back of Curb
6526	10241.6884	5129.8115	P.E.C. Back of Curb
408	10411.1446	5187.9365	Plat Corner
409	10210.5536	5269.2823	Plat Corner
6572	10266.7446	5244.4700	Drng East Corner
6573	10276.0831	5504.9474	Drng East Corner
6574	10256.0901	5505.6695	Drng East Corner
6575	10247.0205	5254.4734	Drng East Corner
6584	10258.2740	5482.8606	Sta. 0+26.5, Line 2
6582	10269.5157	5461.6563	Sta. 0+30.0, Line 2
6581	10259.4261	5182.3386	Sta. 3+30.0, Line 2
6583	10248.9208	5062.8772	Sta. 3+54.2, Line 2
6535	10235.0154	5123.7892	REC. Back of Curb
6536	10245.4754	5112.2989	P.E.C. Back of Curb
6566	10244.9685	5124.7082	Sta. 3+94.7, Line 2
6579	10233.8009	5119.9855	Sta. 4+01.7, Line 2

NOTE:
 Save All Trees, Contractor May Want
 To Outlet Storm Sewer Between
 3-18" & 24" Trees.

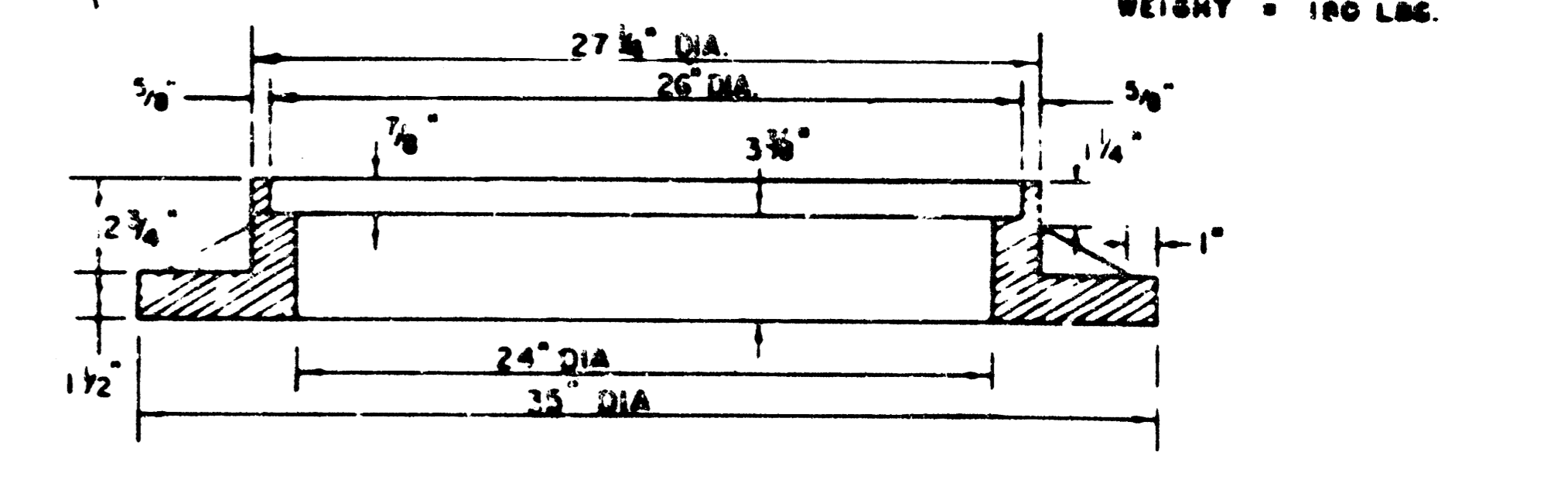
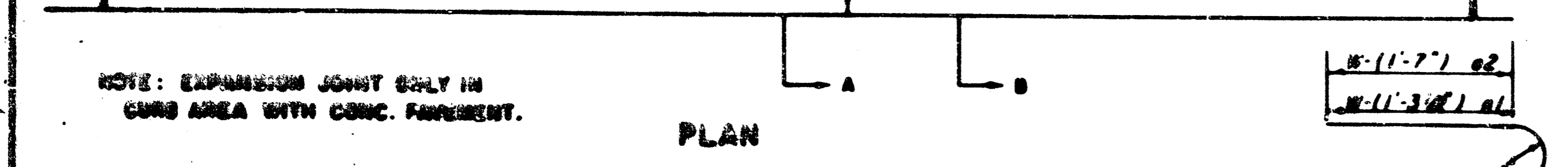
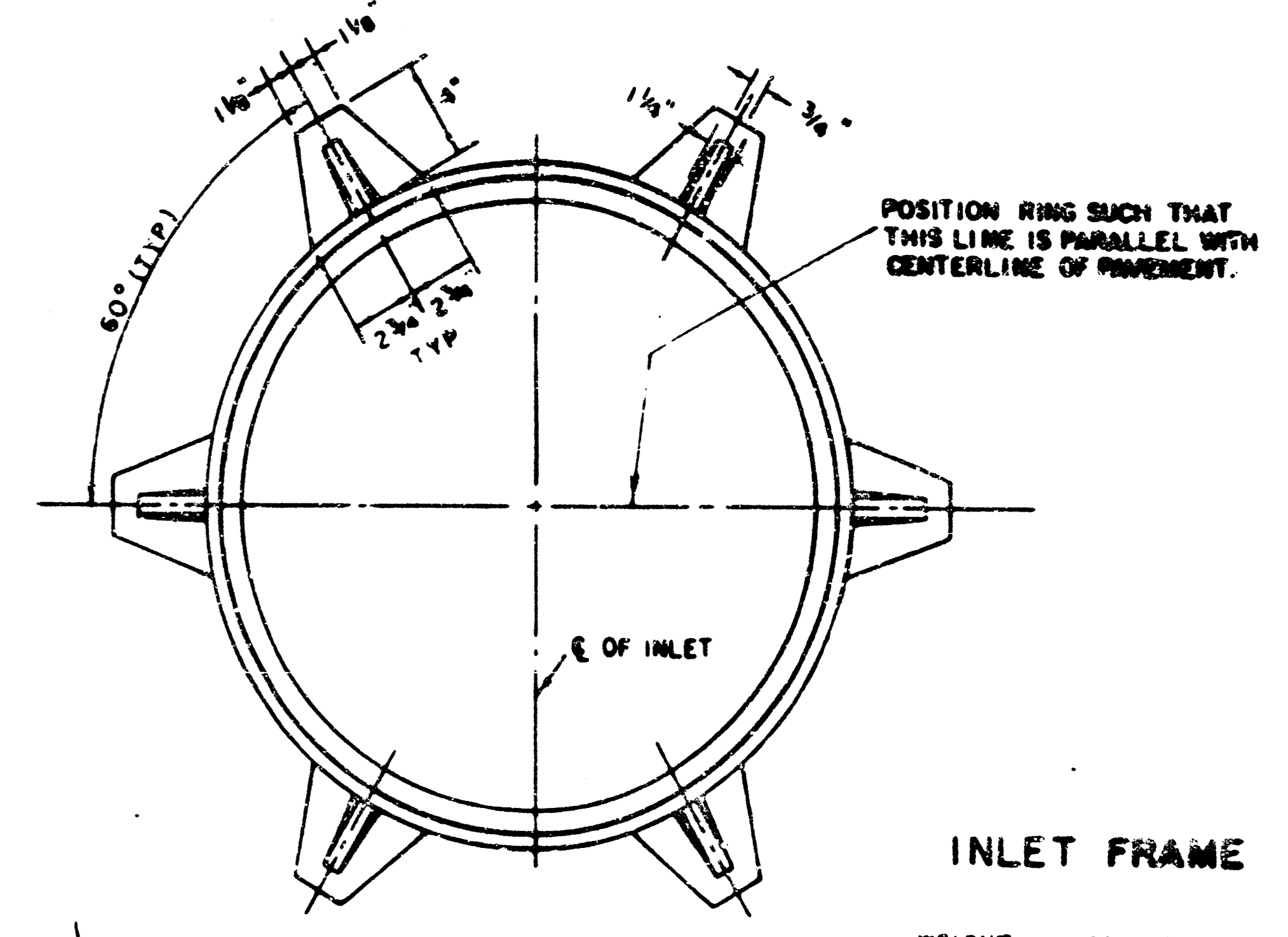
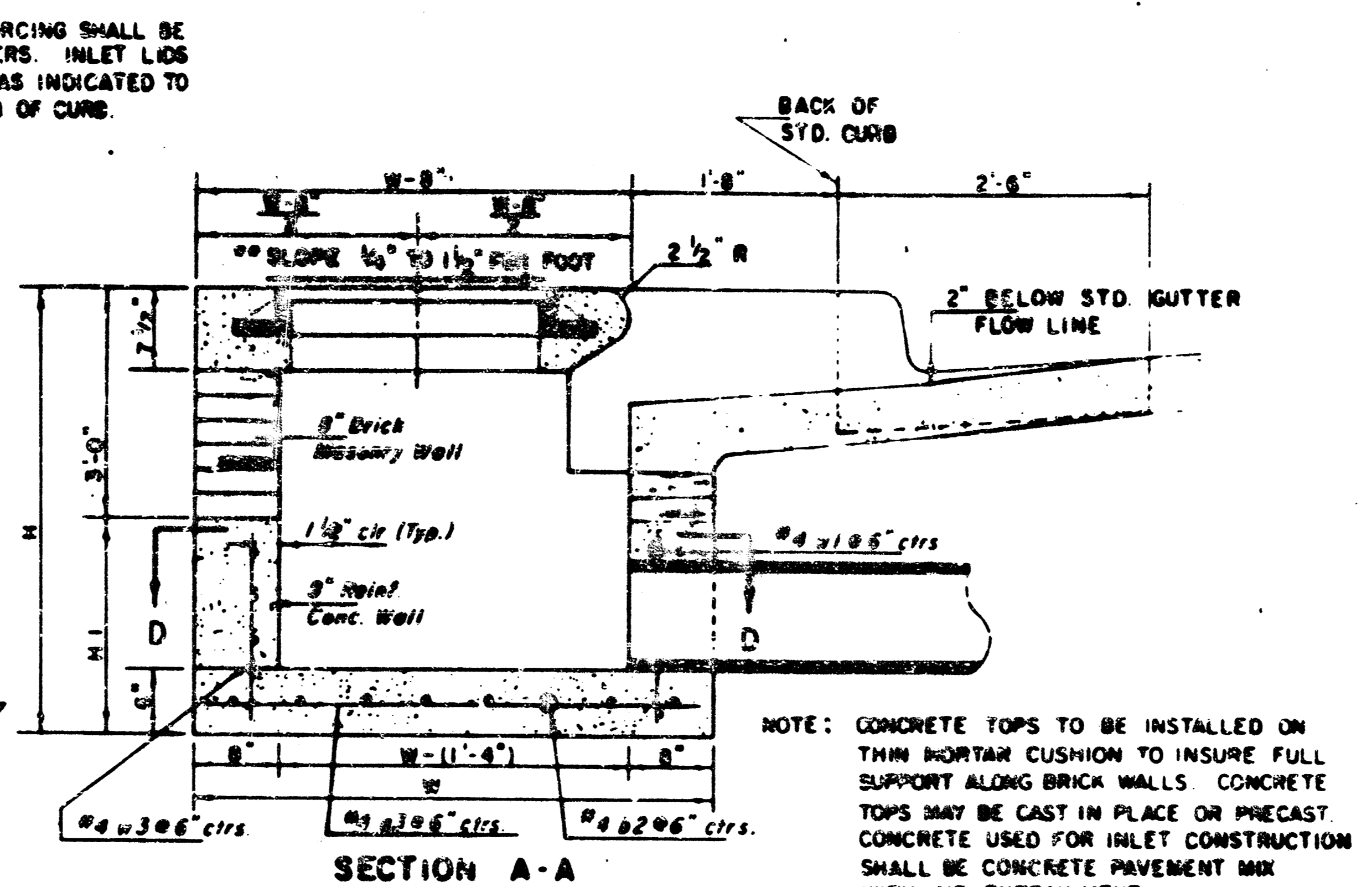
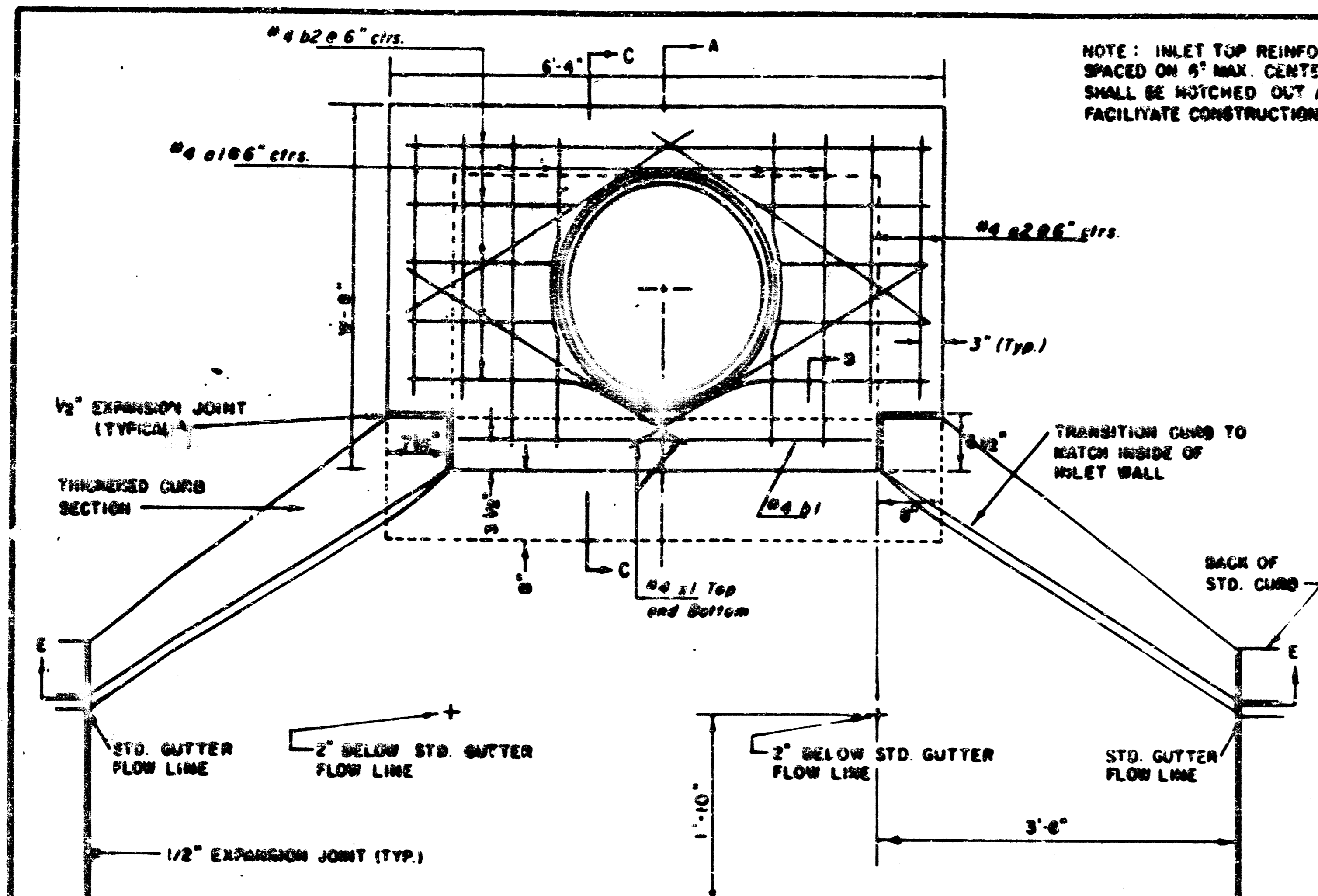
PLAN LINE 2



PROFILE LINE 2

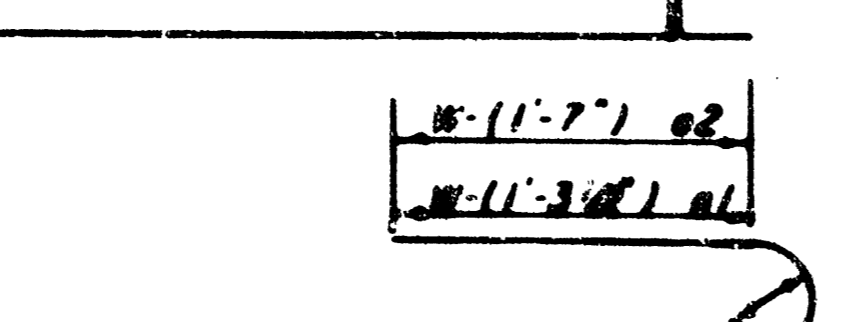
* Contractor May Substitute Equal
 Size Polyethylene (Smooth Interior)
 Pipe.

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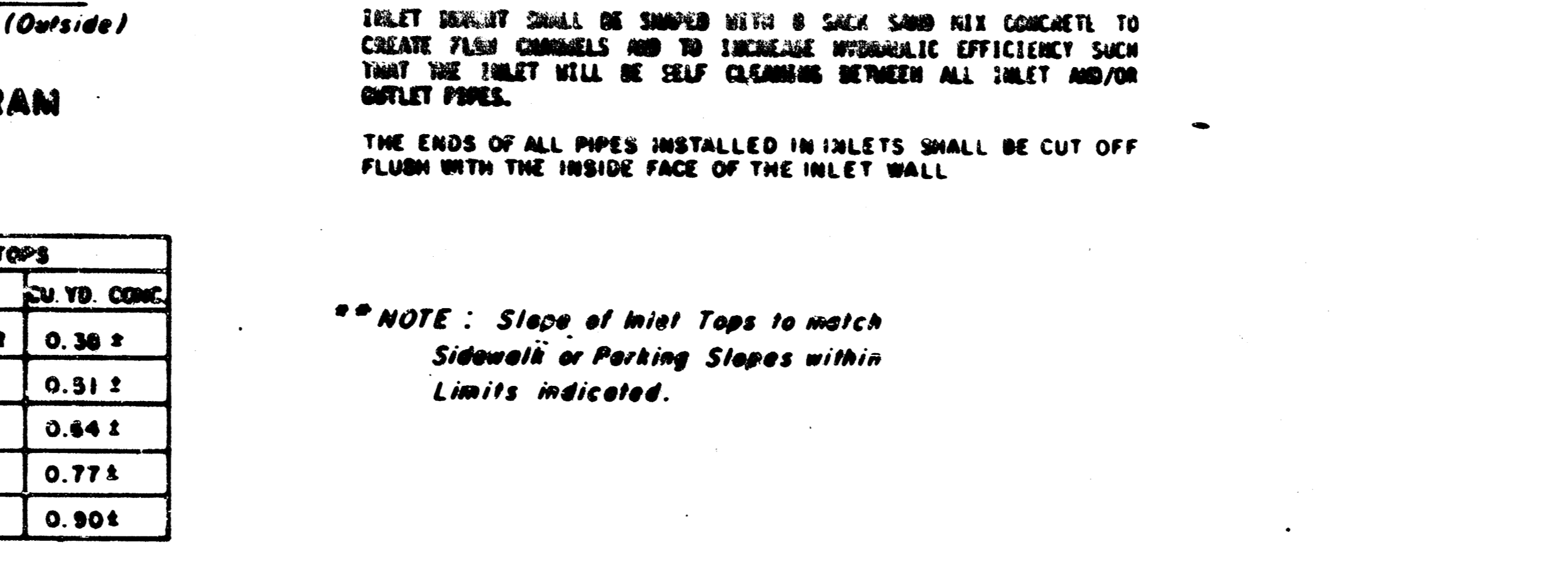
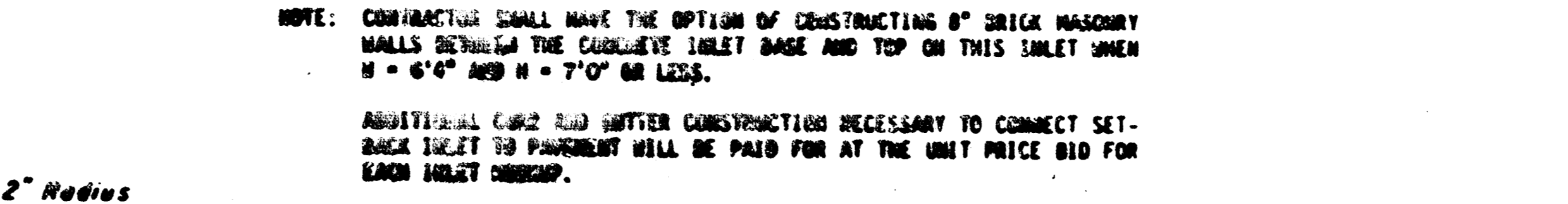
PRECAST SLAB AND FLOOR REINFORCING

W	L	W	L	W	L	W	L
2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"
2'-0"	2'-6"	2'-0"	3'-0"	2'-0"	3'-6"	2'-0"	4'-0"
2'-0"	4'-0"	2'-0"	4'-6"	2'-0"	5'-0"	2'-0"	5'-6"
2'-0"	6'-0"	2'-0"	6'-6"	2'-0"	7'-0"	2'-0"	7'-6"
2'-0"	8'-0"	2'-0"	8'-6"	2'-0"	9'-0"	2'-0"	9'-6"
2'-0"	10'-0"	2'-0"	10'-6"	2'-0"	11'-0"	2'-0"	11'-6"
2'-0"	12'-0"	2'-0"	12'-6"	2'-0"	13'-0"	2'-0"	13'-6"
2'-0"	14'-0"	2'-0"	14'-6"	2'-0"	15'-0"	2'-0"	15'-6"
2'-0"	16'-0"	2'-0"	16'-6"	2'-0"	17'-0"	2'-0"	17'-6"
2'-0"	18'-0"	2'-0"	18'-6"	2'-0"	19'-0"	2'-0"	19'-6"
2'-0"	20'-0"	2'-0"	20'-6"	2'-0"	21'-0"	2'-0"	21'-6"
2'-0"	22'-0"	2'-0"	22'-6"	2'-0"	23'-0"	2'-0"	23'-6"
2'-0"	24'-0"	2'-0"	24'-6"	2'-0"	25'-0"	2'-0"	25'-6"
2'-0"	26'-0"	2'-0"	26'-6"	2'-0"	27'-0"	2'-0"	27'-6"
2'-0"	28'-0"	2'-0"	28'-6"	2'-0"	29'-0"	2'-0"	29'-6"
2'-0"	30'-0"	2'-0"	30'-6"	2'-0"	31'-0"	2'-0"	31'-6"
2'-0"	32'-0"	2'-0"	32'-6"	2'-0"	33'-0"	2'-0"	33'-6"
2'-0"	34'-0"	2'-0"	34'-6"	2'-0"	35'-0"	2'-0"	35'-6"
2'-0"	36'-0"	2'-0"	36'-6"	2'-0"	37'-0"	2'-0"	37'-6"
2'-0"	38'-0"	2'-0"	38'-6"	2'-0"	39'-0"	2'-0"	39'-6"
2'-0"	40'-0"	2'-0"	40'-6"	2'-0"	41'-0"	2'-0"	41'-6"
2'-0"	42'-0"	2'-0"	42'-6"	2'-0"	43'-0"	2'-0"	43'-6"
2'-0"	44'-0"	2'-0"	44'-6"	2'-0"	45'-0"	2'-0"	45'-6"
2'-0"	46'-0"	2'-0"	46'-6"	2'-0"	47'-0"	2'-0"	47'-6"
2'-0"	48'-0"	2'-0"	48'-6"	2'-0"	49'-0"	2'-0"	49'-6"
2'-0"	50'-0"	2'-0"	50'-6"	2'-0"	51'-0"	2'-0"	51'-6"
2'-0"	52'-0"	2'-0"	52'-6"	2'-0"	53'-0"	2'-0"	53'-6"
2'-0"	54'-0"	2'-0"	54'-6"	2'-0"	55'-0"	2'-0"	55'-6"
2'-0"	56'-0"	2'-0"	56'-6"	2'-0"	57'-0"	2'-0"	57'-6"
2'-0"	58'-0"	2'-0"	58'-6"	2'-0"	59'-0"	2'-0"	59'-6"
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2'-0"	62'-0"	2'-0"	62'-6"	2'-0"	63'-0"	2'-0"	63'-6"
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2'-0"	92'-0"	2'-0"	92'-6"	2'-0"	93'-0"	2'-0"	93'-6"
2'-0"	94'-0"	2'-0"	94'-6"	2'-0"	95'-0"	2'-0"	95'-6"
2'-0"	96'-0"	2'-0"	96'-6"	2'-0"	97'-0"	2'-0"	97'-6"
2'-0"	98'-0"	2'-0"	98'-6"	2'-0"	99'-0"	2'-0"	99'-6"
2'-0"	100'-0"	2'-0"	100'-6"	2'-0"	101'-0"	2'-0"	101'-6"

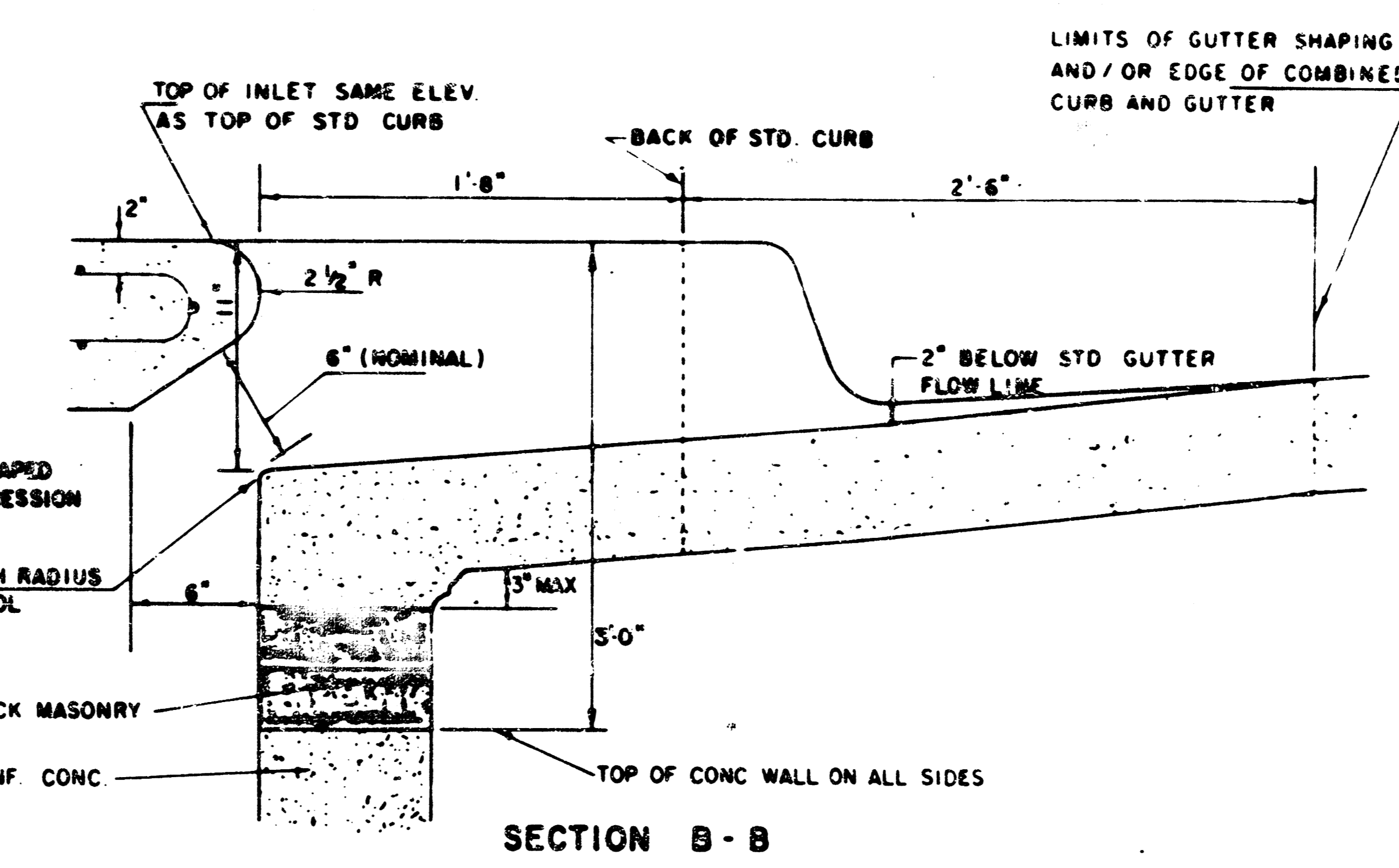
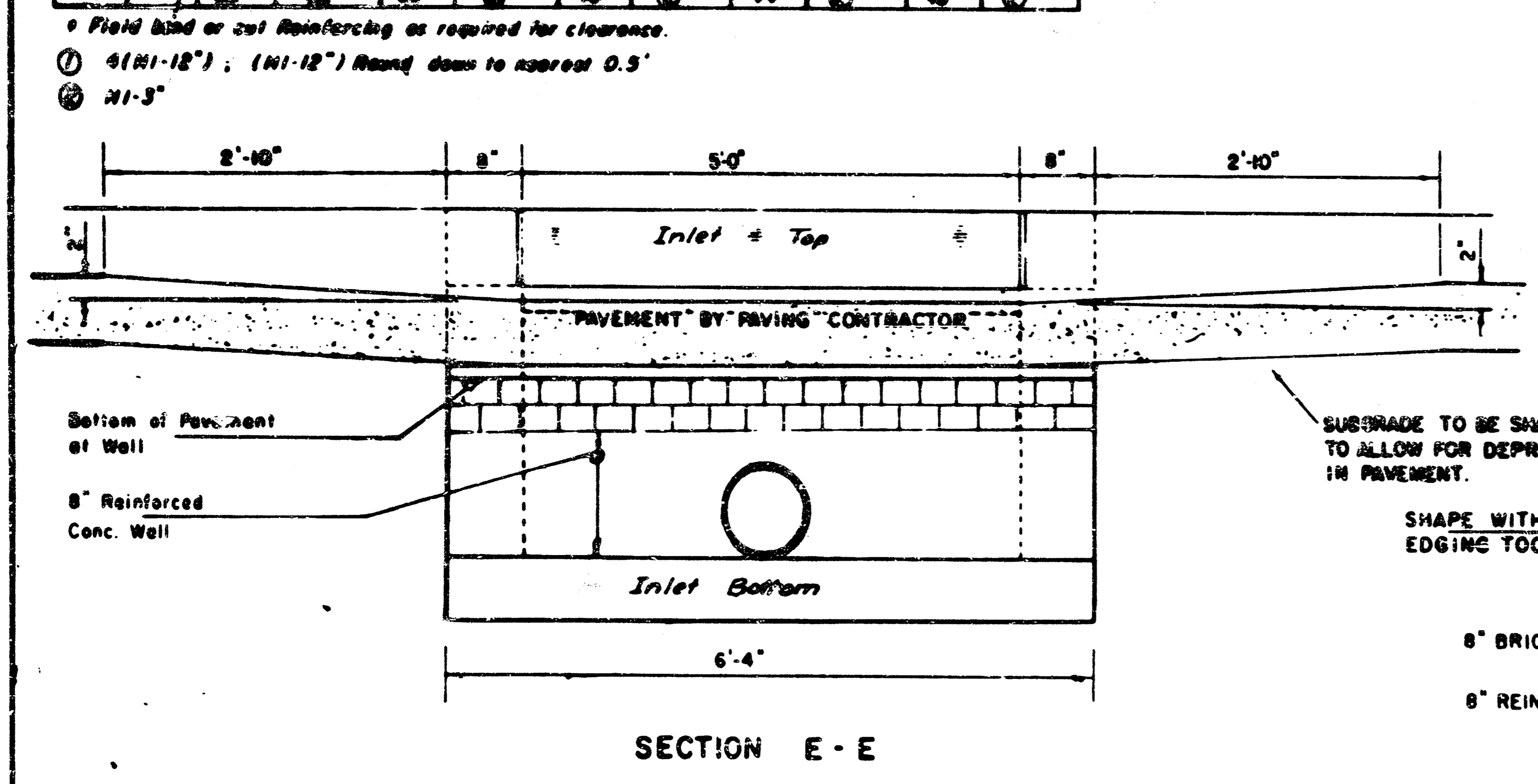
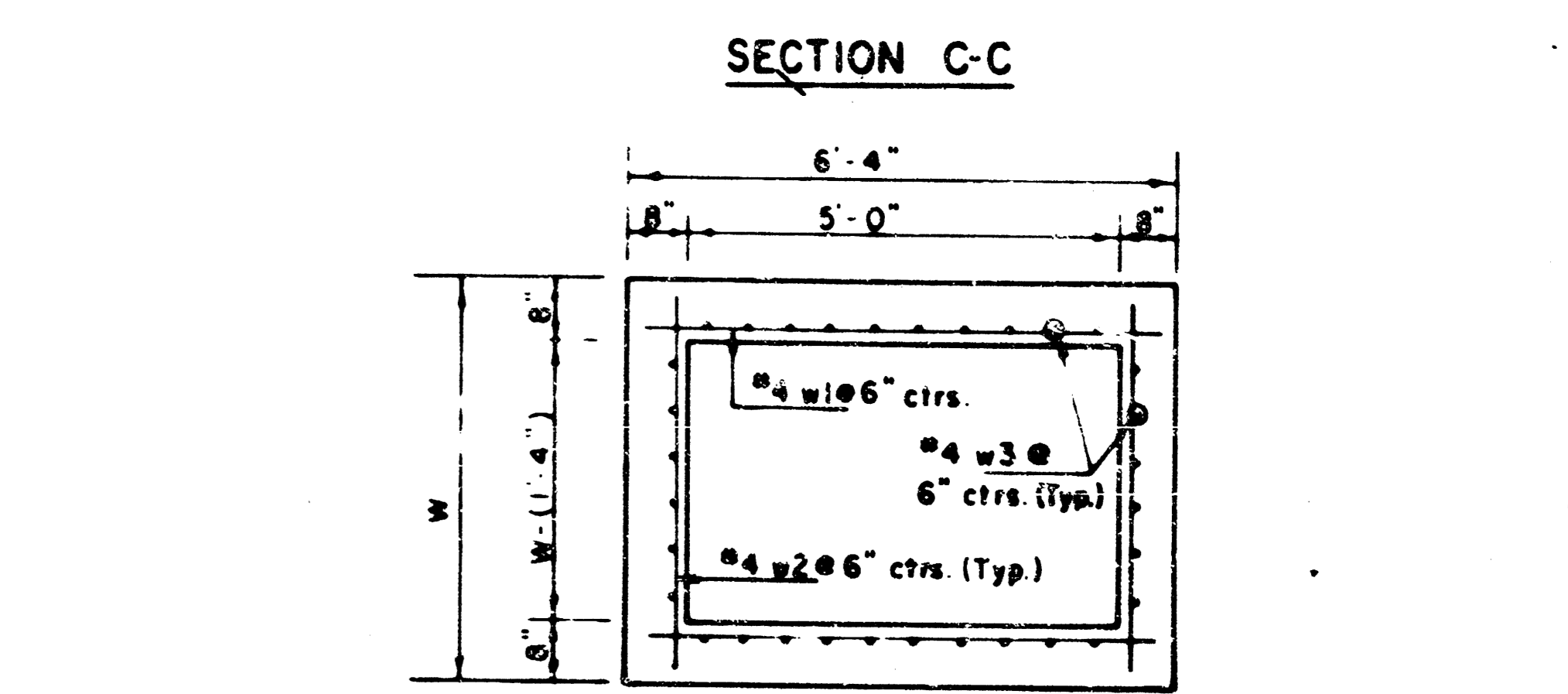
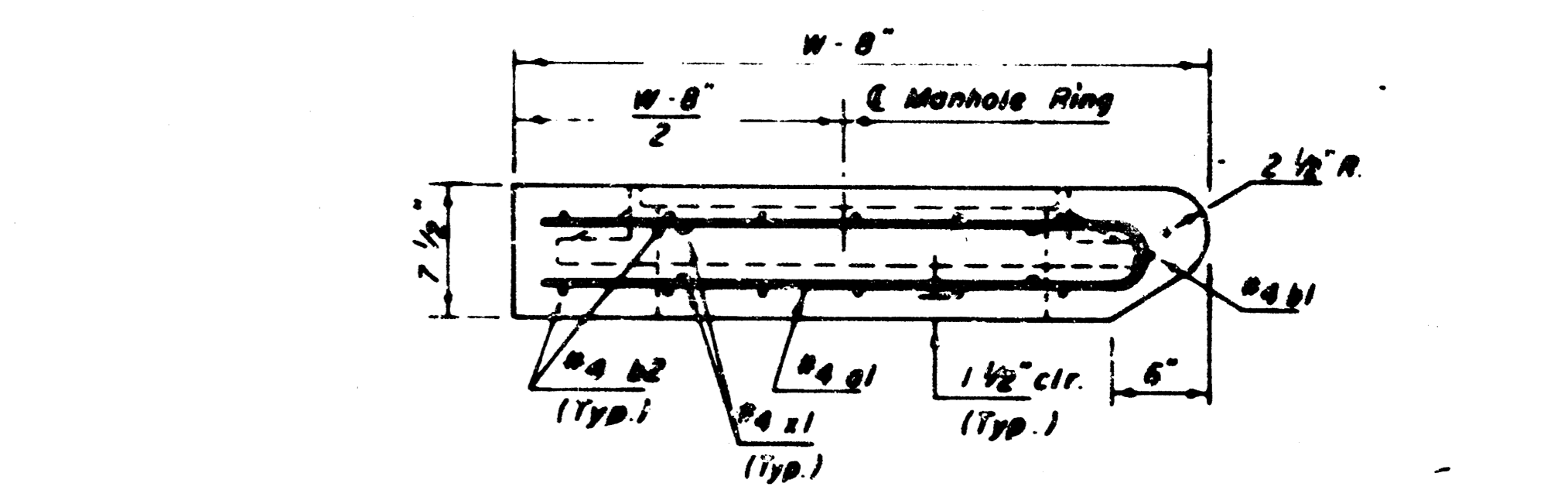


STANDARD CURB INLET PRECAST TOPS

W	L	PRE-CAST TOP SIZE	PIPE SIZE	CU YD. CONC.
6'-4"	2'-0"	6'-4" x 2'-0" x 7 1/2"	21" Ø SMALLER	0.36 ±
6'-4"	2'-6"	6'-4" x 2'-6" x 7 1/2"	24" Ø 30"	0.51 ±
6'-4"	3'-0"	6'-4" x 3'-0" x 7 1/2"	36" Ø 42"	0.64 ±
6'-4"	3'-6"	6'-4" x 3'-6" x 7 1/2"	48" Ø 54"	0.77 ±
6'-4"	4'-0"	6'-4" x 4'-0" x 7 1/2"	60" Ø 66"	0.90 ±



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

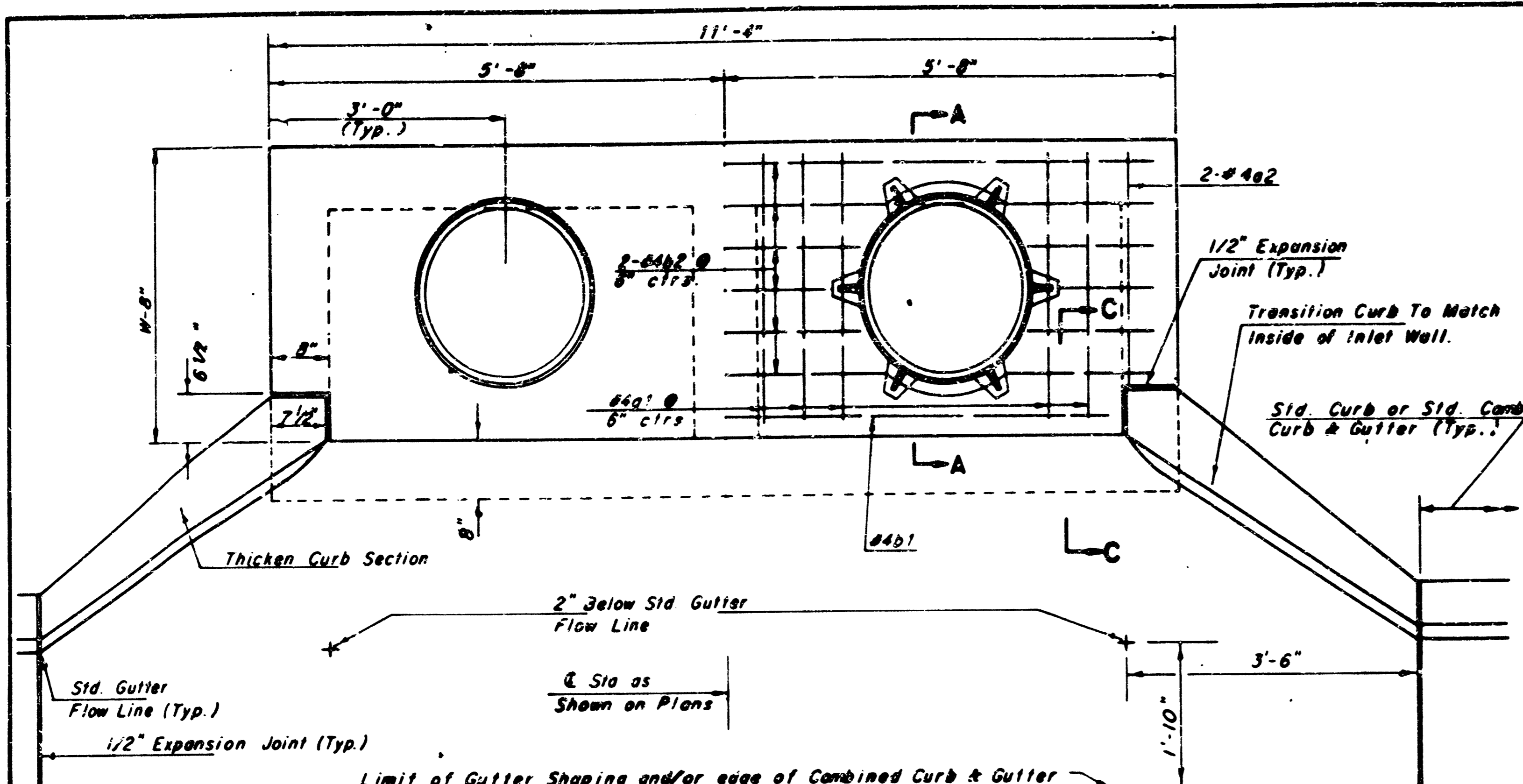


Revised 2-16-1989

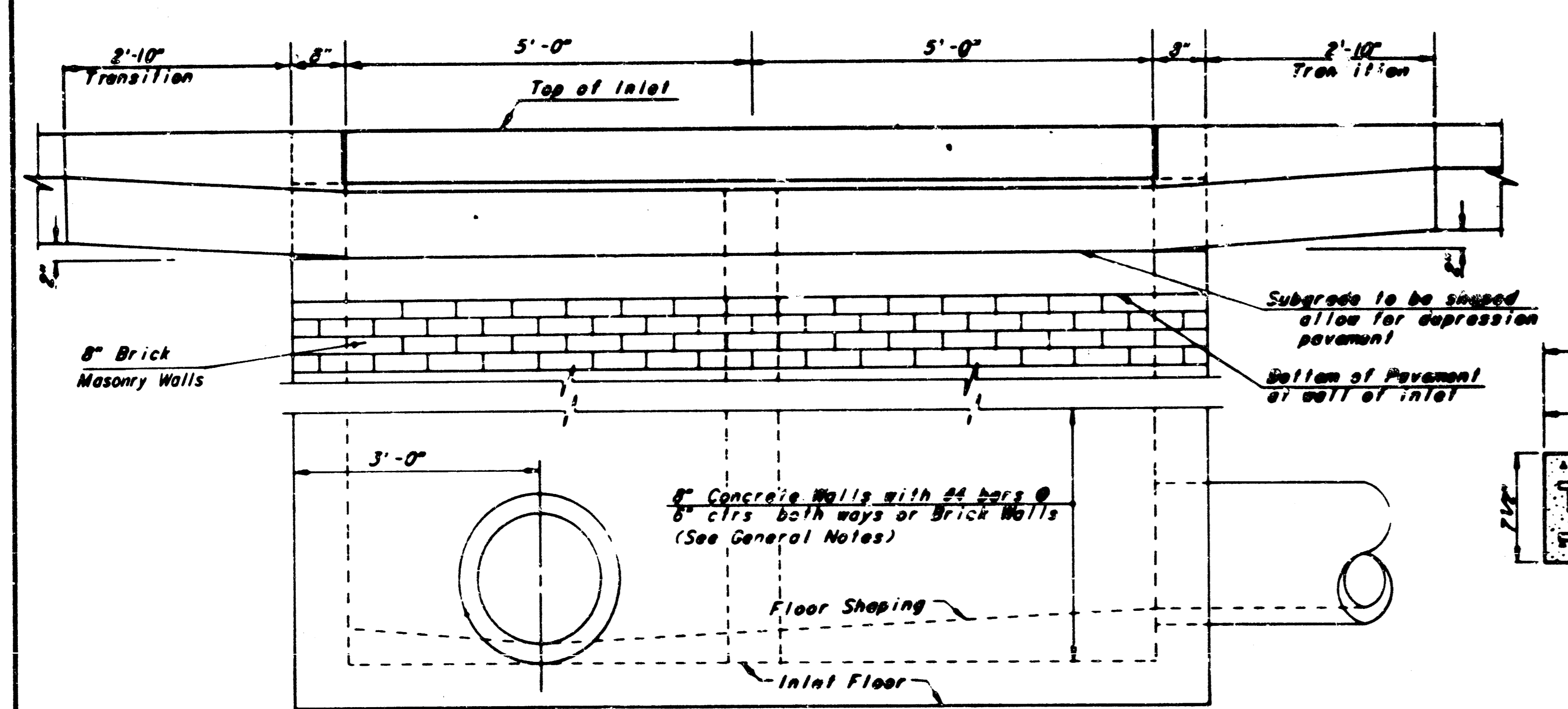
DETAIL STANDARD TYPE IA CURB INLET
 CITY OF WICHITA, KANSAS
 INLET OPENING = 6" x 5' 0"
 JUNE 1984

MKEC Proj. No. 89-35-101-D

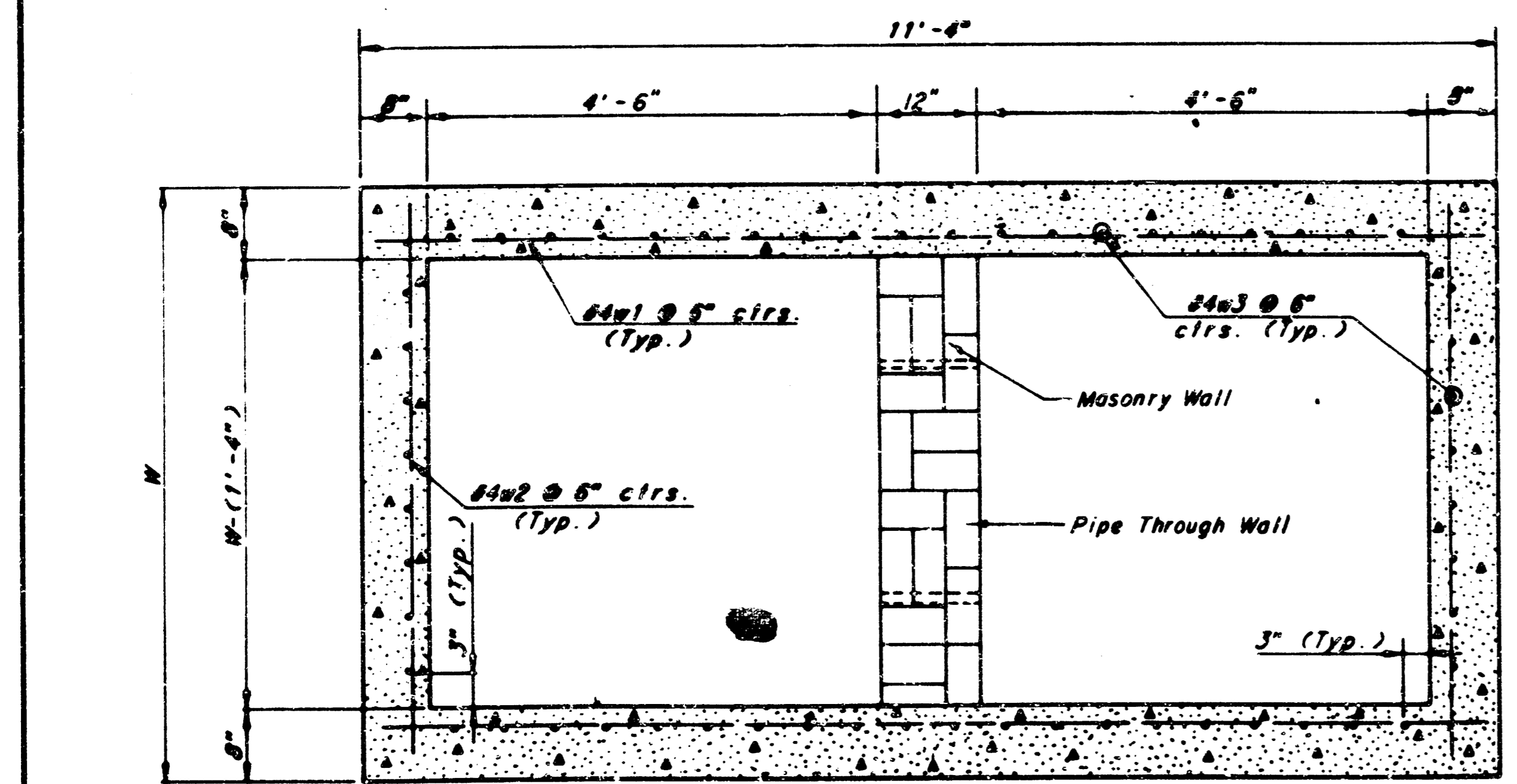
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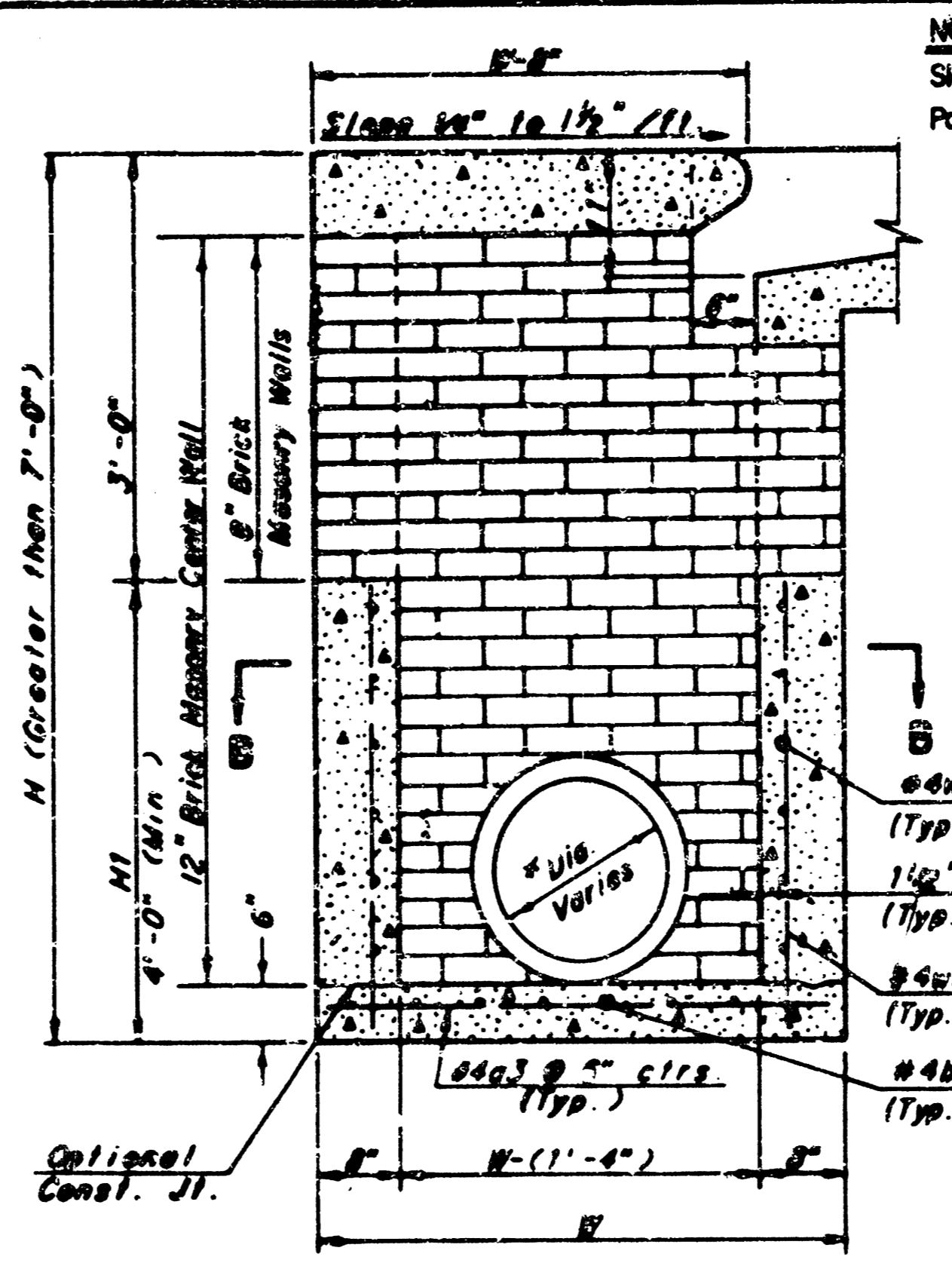
SLAB REINFORCING NOT SHOWN SHOWING SLAB REINFORCING NOTE Expansion Joint only in Curb Area with Conc Pavement.



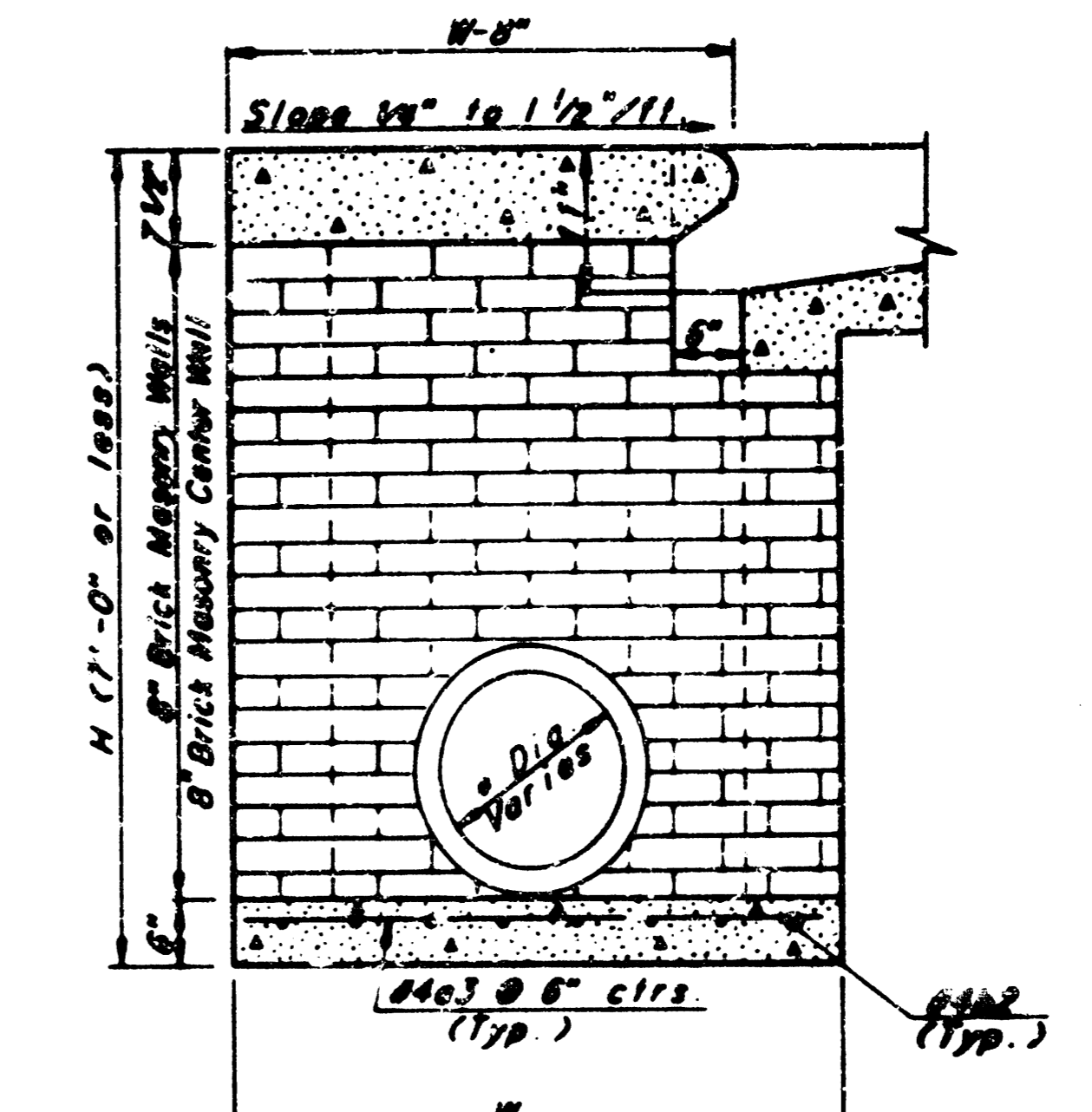
ELEVATION



SECTION B-B

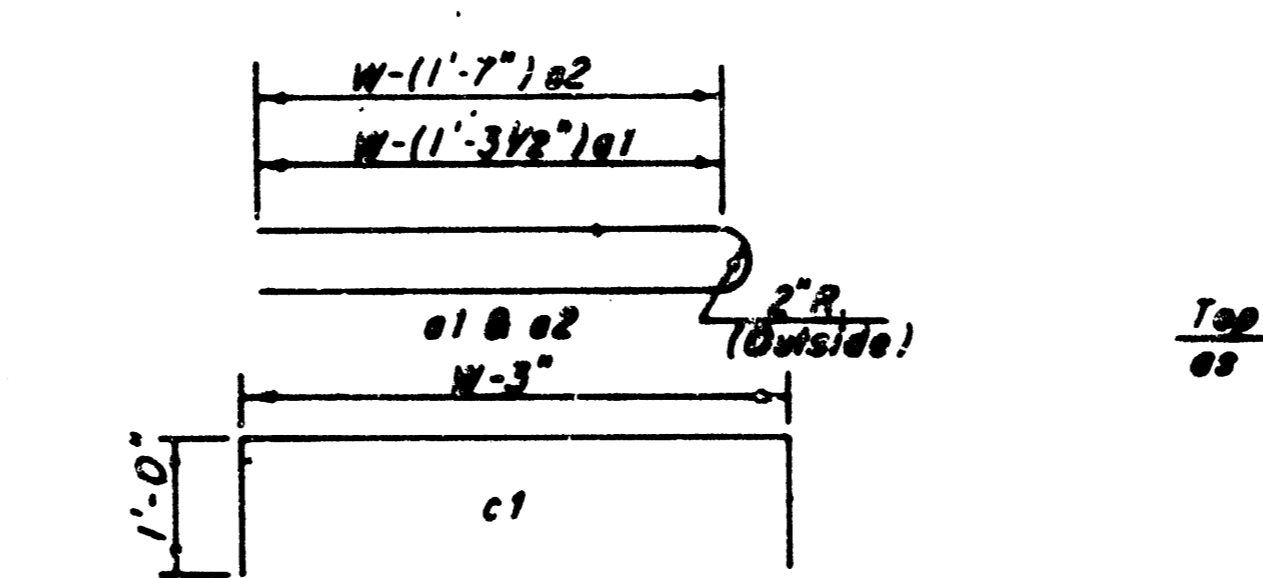


TYPICAL INLET SECTION AT CENTER WALL (REINFORCED CONCRETE WALLS)

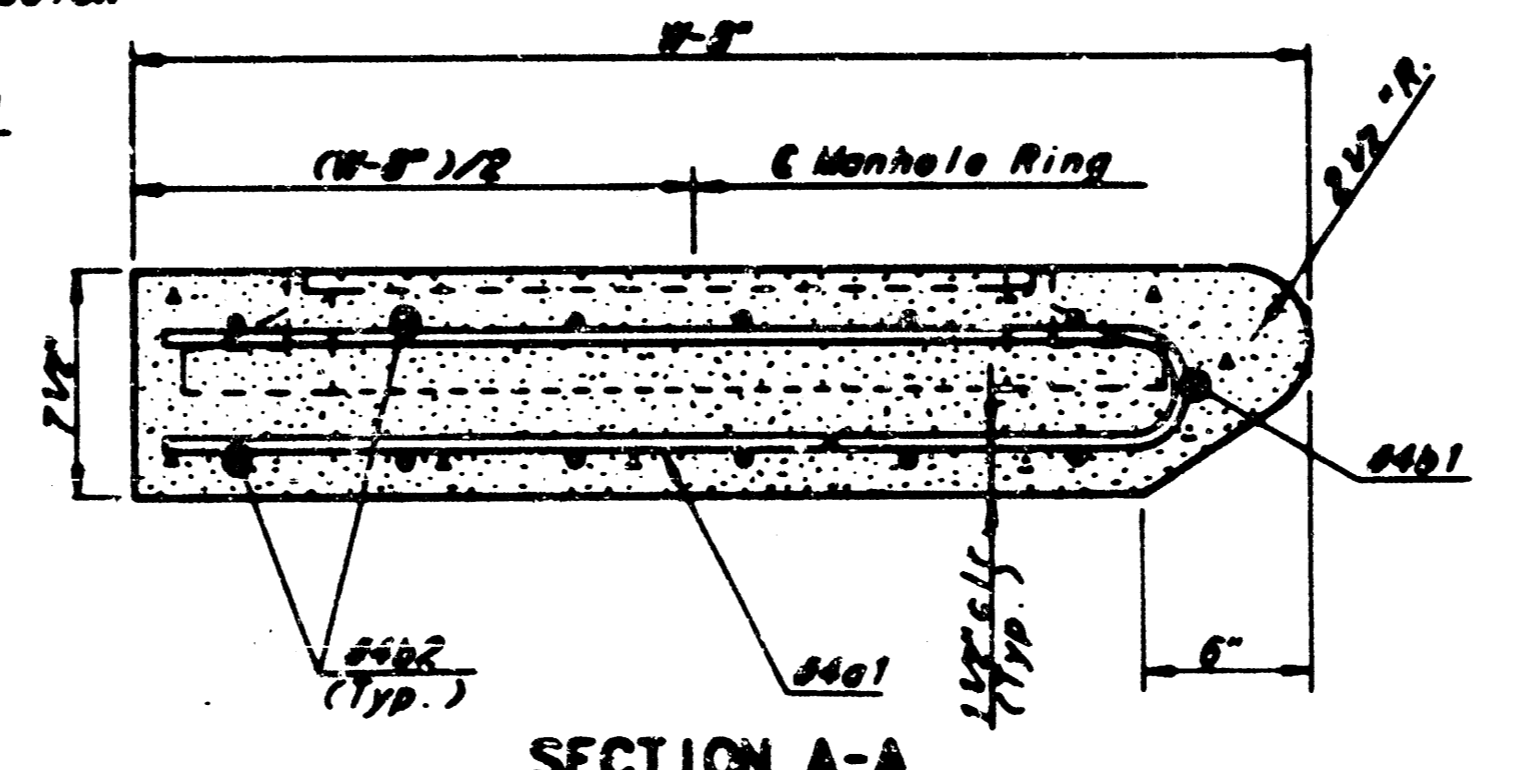


TYPICAL INLET SECTION AT CENTER WALL (MASONRY WALLS)

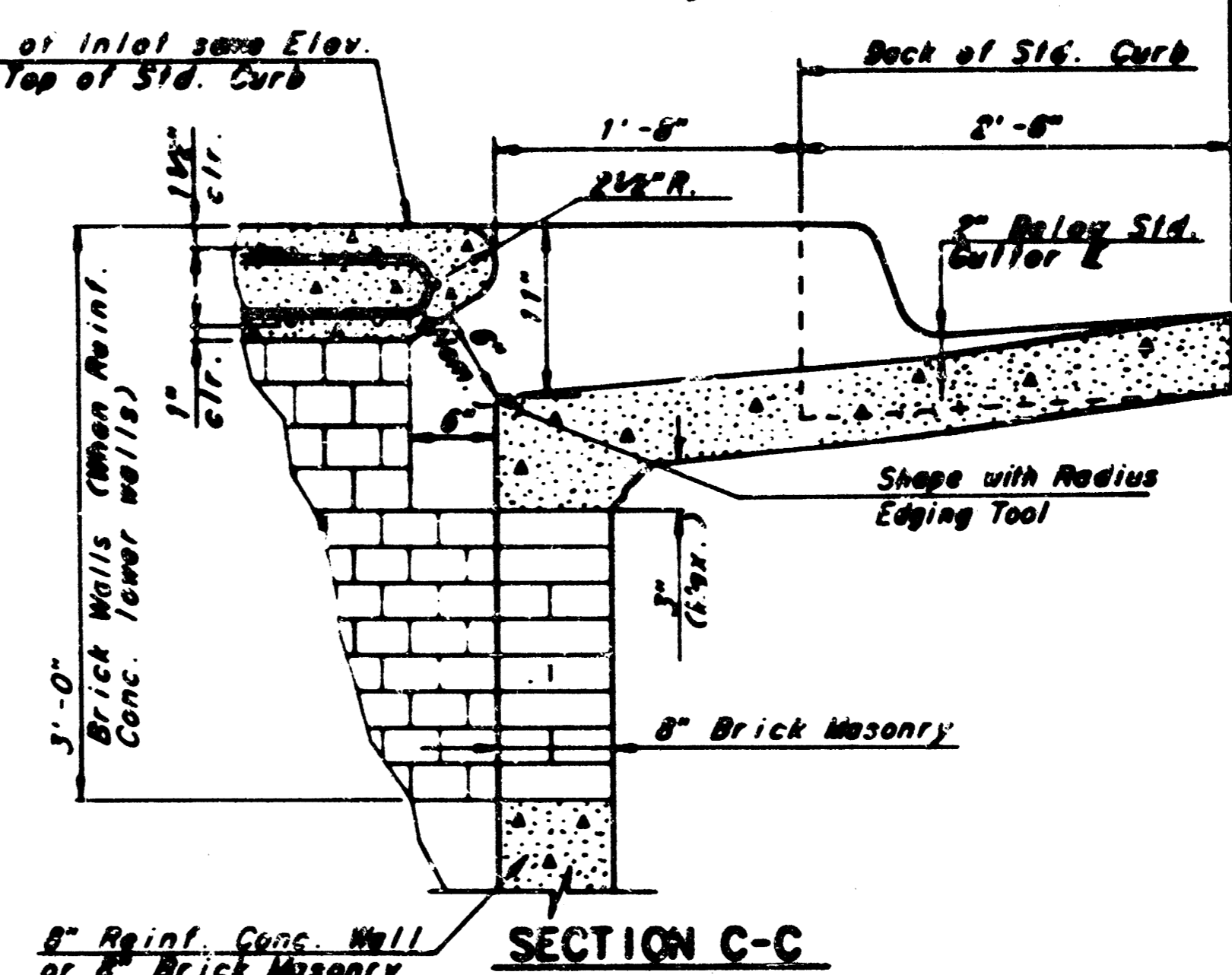
A center wall opening shall be provided by means of a section of reinforced concrete pipe. See Case I and Case II Below.



BENDING DIAGRAMS



SECTION A-A



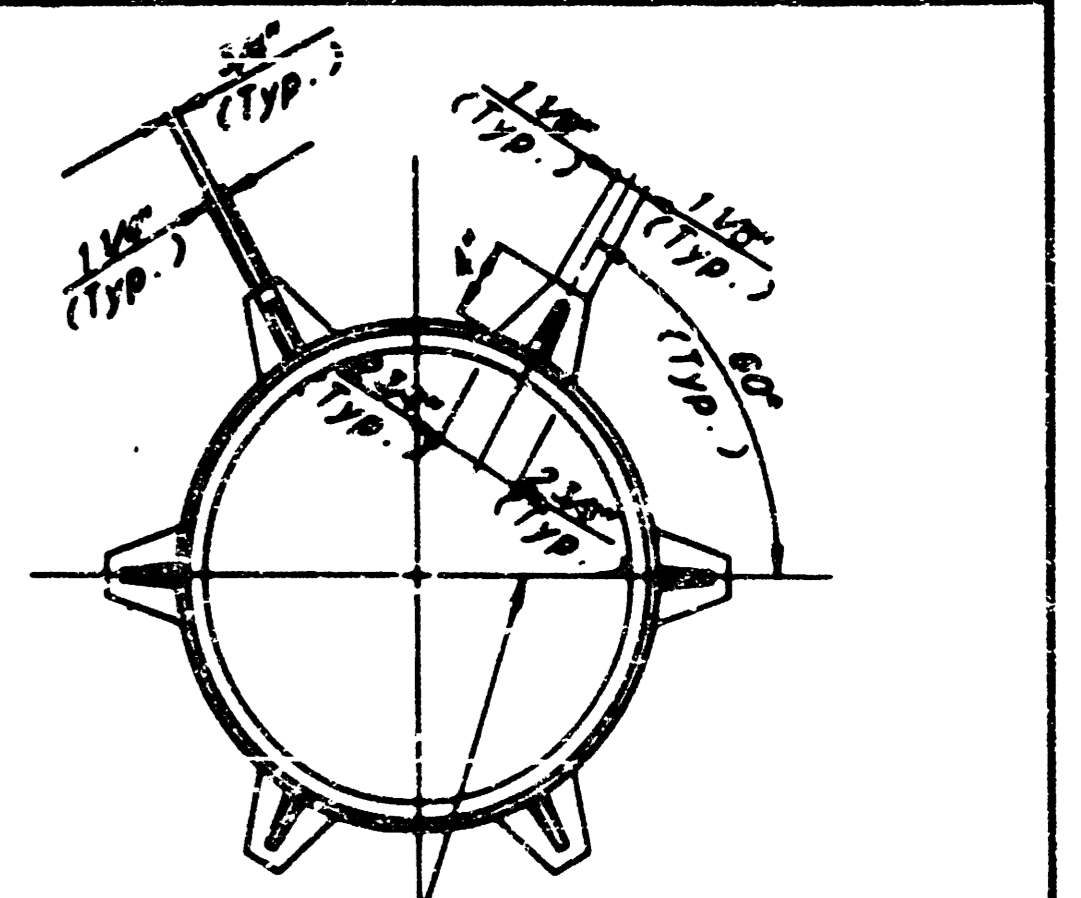
SECTION C-C

GENERAL NOTES

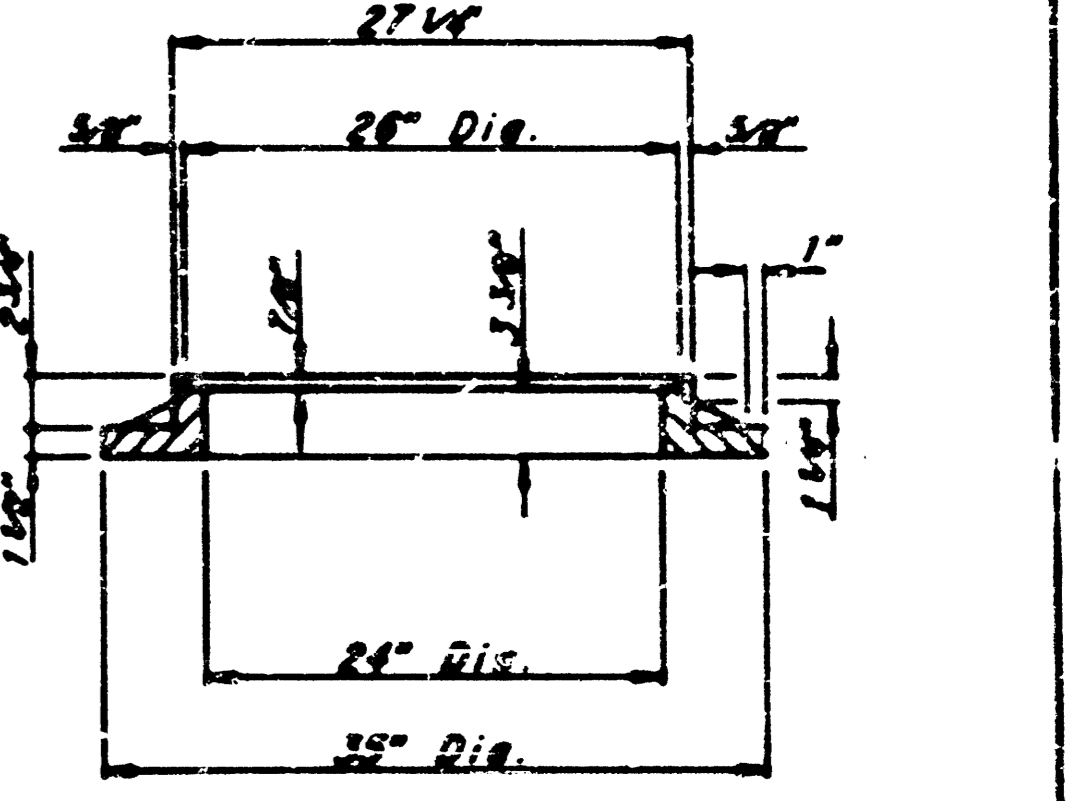
- THE CONTRACTOR SHALL BE REQUIRED TO CONSTRUCT 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W=0'-4" OR LESS AND H=7'-0" OR LESS. WHEN W IS GREATER THAN 8'-0" AND H IS LESS THAN 7'-0" THE CURB SIDE INLET WALLS BELOW THE BRICK STACK SHALL BE REINFORCED CONCRETE CONSTRUCTION AND THE CENTER WALL SHALL BE OF MASONRY CONSTRUCTION AS SHOWN FOR THE MASONRY WALL OPTION.
- INLET INVERT SHALL BE SHAPED WITH A SACK SAND 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.
- CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL BE CONCRETE PAVEMENT MIX.
- INLET TOP REINFORCING SHALL BE SPACED ON 8" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB SLOPES IN INLET TOP TO BE FIELD BENT OR CUT TO CLEAR MANHOLE RING.
- THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	SIDE OR INTERIOR WALL PIPE SIZE	CU. YD. CONC.
4'-4"	5'-0" x 11'-4" x 7 1/2"	21" & SMALLER	0.83 ±
5'-4"	4'-8" x 11'-4" x 7 1/2"	24" & 30"	1.09 ±
6'-4"	5'-8" x 11'-4" x 7 1/2"	36" & 42"	1.35 ±
7'-4"	6'-8" x 11'-4" x 7 1/2"	48" & 54"	1.61 ±
8'-4"	7'-8" x 11'-4" x 7 1/2"	60" & 66"	1.87 ±

PROJECT NO.	SHEET NO.	TOTAL SHEETS

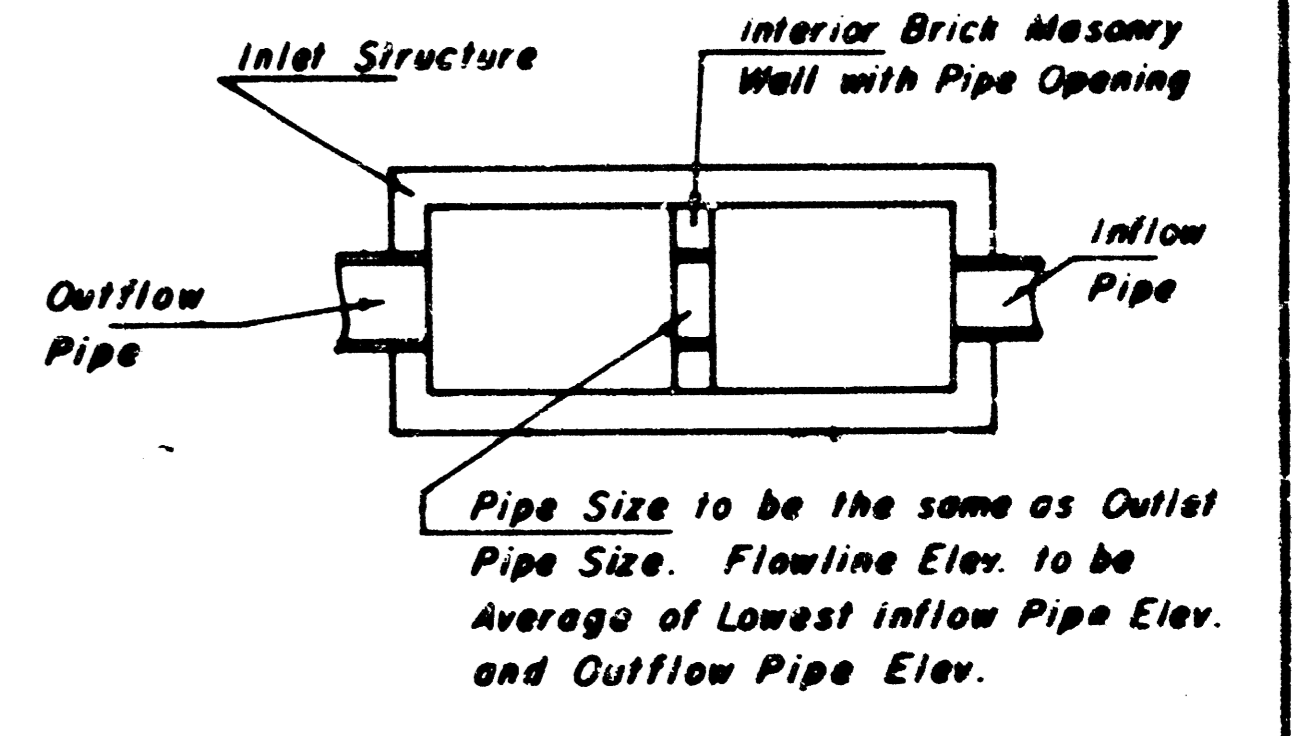


CAST IRON INLET RING W1-180 lbs.

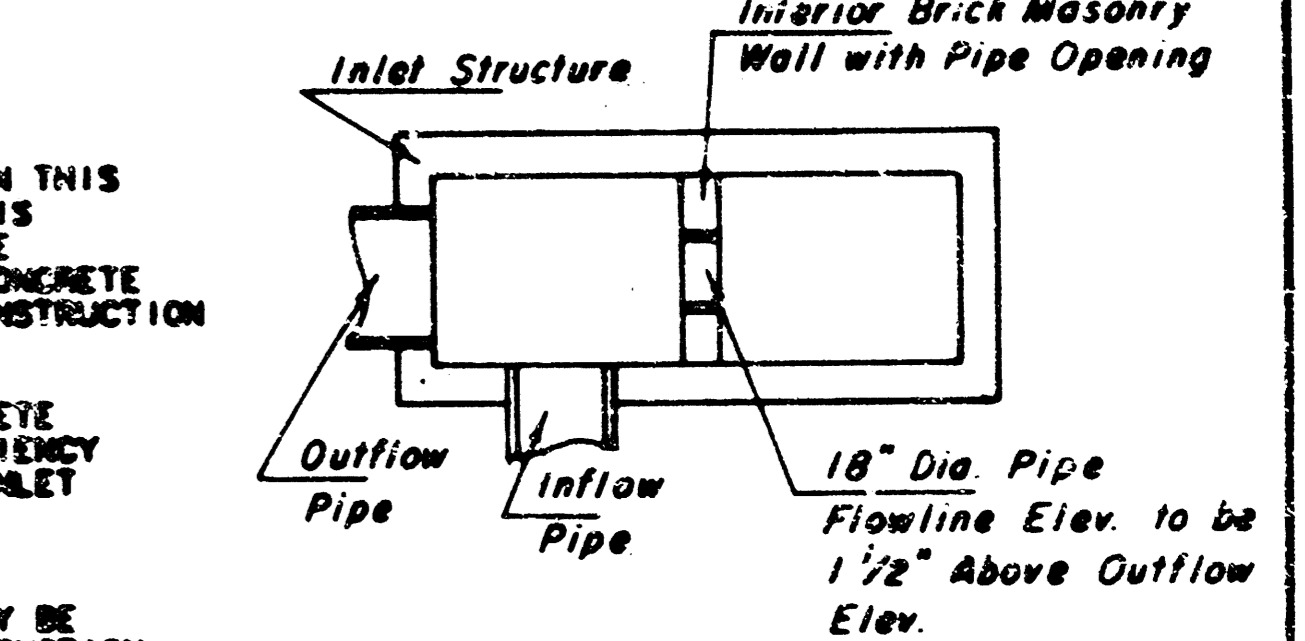


CAST IRON INLET RING W1-180 lbs.

See City of Wichita Standard Manhole Frame and Cover Detail Sheet for Cover Details to be used with Inlet Frame.



CASE I



CASE II

NOTE Center Wall Pipe Size shall be as Specified in Inlet Construction Note on the Plan/Profile Sheets for those Cases not shown here.

SLAB AND FLOOR REINFORCING											
MARK	SIZE	W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
a1	#4	13	6'-7 1/4"	13	8'-7 1/4"	13	10'-7 1/4"	13	12'-7 1/4"	13	14'-7 1/4"
a2	#4	2	8'-0"	2	8'-0"	2	10'-0"	2	12'-0"	2	14'-0"
a3	#4	20	4'-1"	20	5'-1"	20	6'-1"	20	7'-1"	20	8'-1"
b1	#4	1	9'-8"	1	9'-8"	1	9'-8"	1	9'-8"	1	9'-8"
a22	#4	18	11'-1"	24	11'-1"	30	11'-1"	36	11'-1"	42	11'-1"

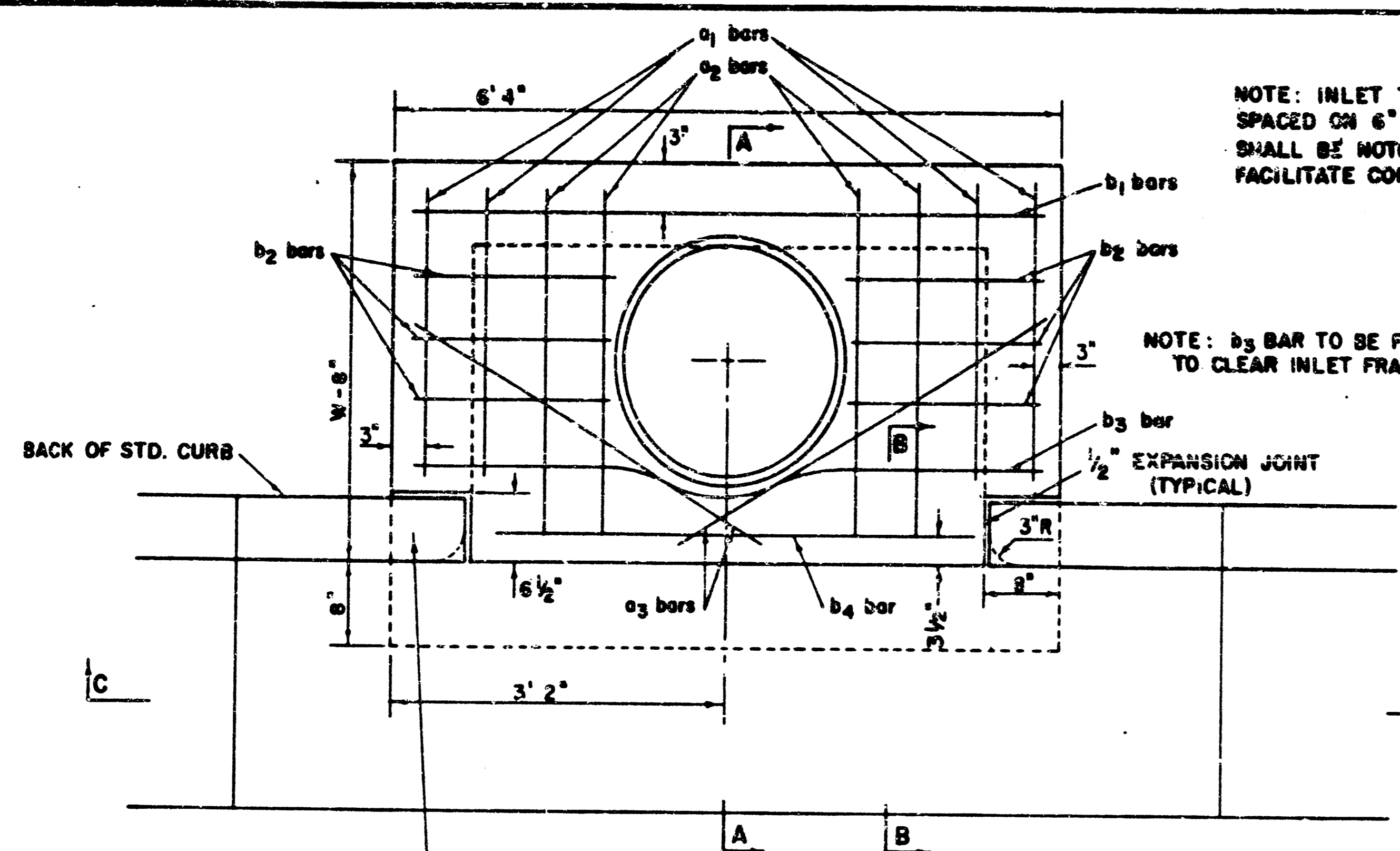
WALL REINFORCING											
MARK	SIZE	W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
c1	#6	4	6'-1"	4	7'-1"	4	8'-1"	4	9'-1"	4	10'-1"
w1	#4	1	11'-1"	1	11'-1"	1	11'-1"	1	11'-1"	1	11'-1"
w2	#4	1	4'-1"	1	5'-1"	1	6'-1"	1	7'-1"	1	8'-1"
w3	#4	2	11'-1"	2	11'-1"	2	11'-1"	2	11'-1"	2	11'-1"

* Field bend or cut Reinforcing as required for clearance
 ① 4(N1-8")x4 (N1-8") Rounded down to nearest 0.5'
 ② 40-4(W-16") ③ N1-(8")

STANDARD TYPE 1A CURB INLET
 INLET OPENING = 8" x 10'-0"

WICHITA, KANSAS			
Designed by	REV. F.J.S. AMB	Checked by	AMB
Drawn by	JAP	Date	Nov., 1982

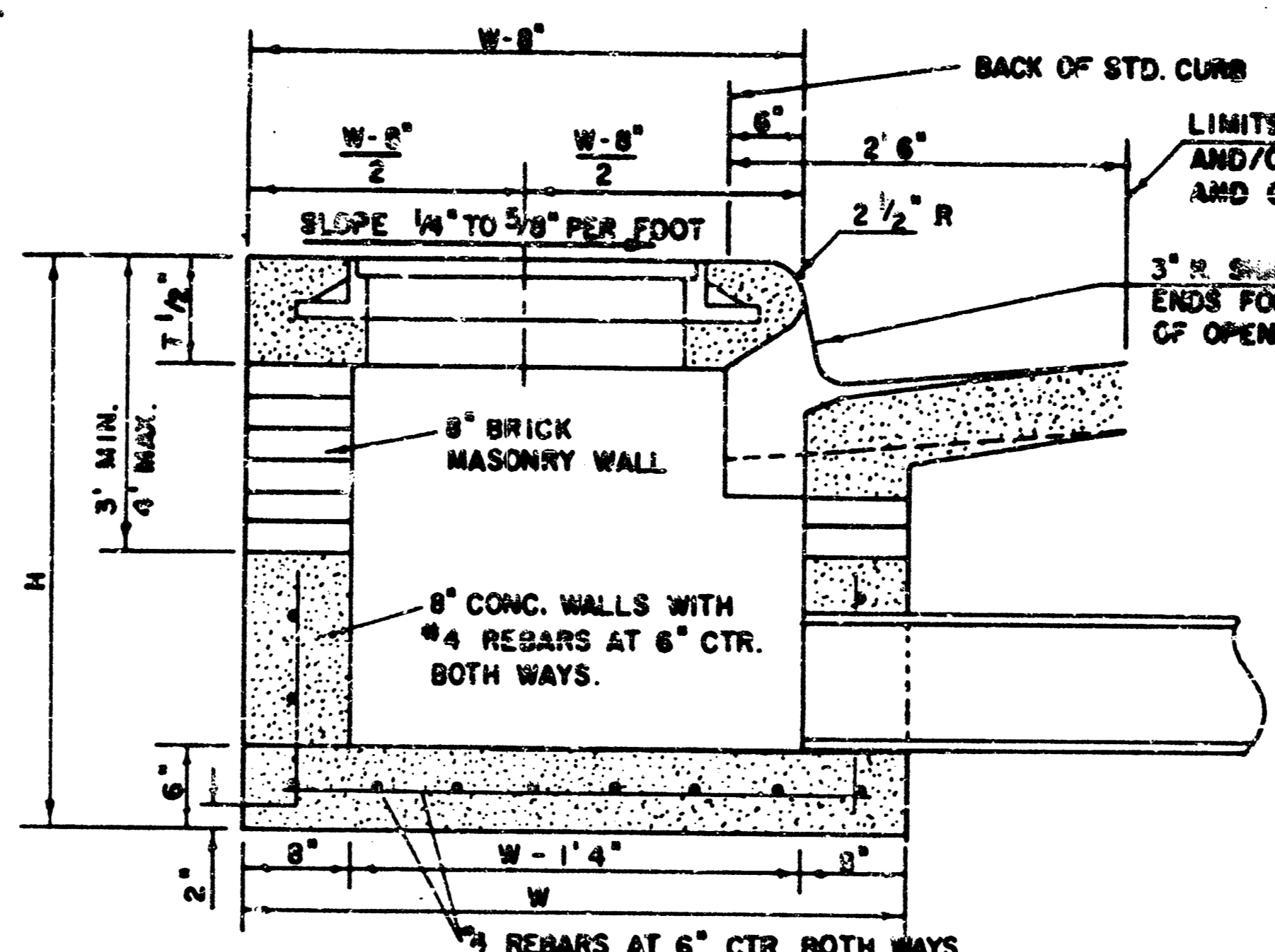
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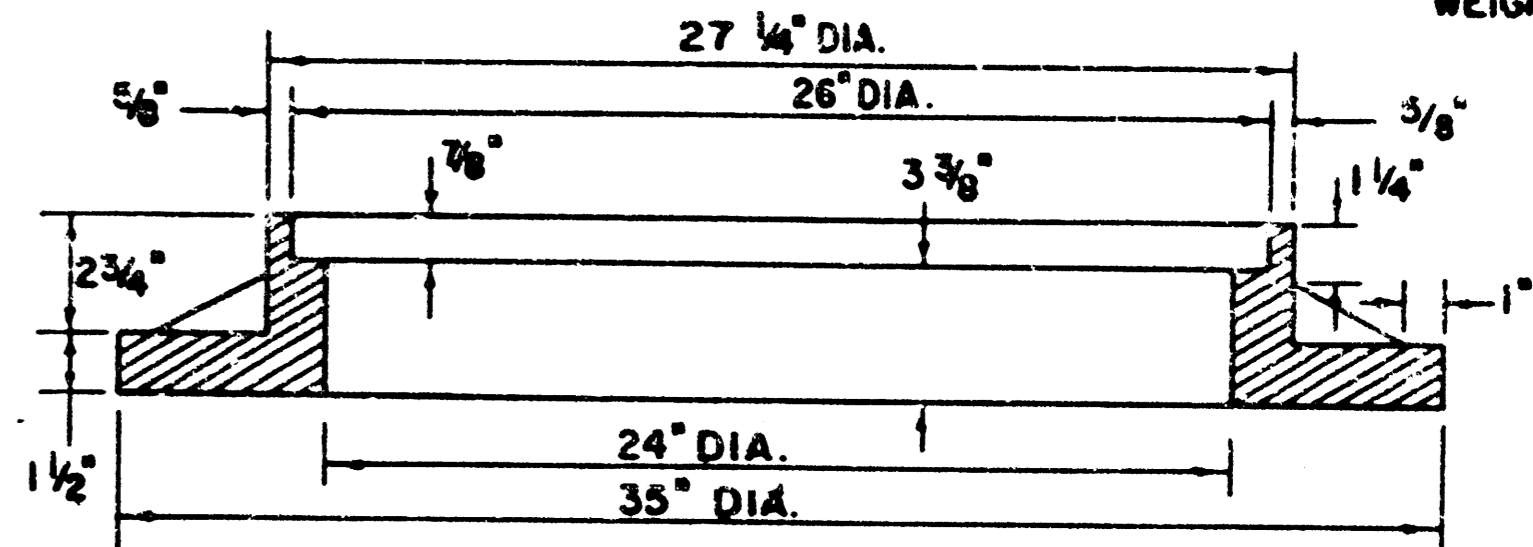
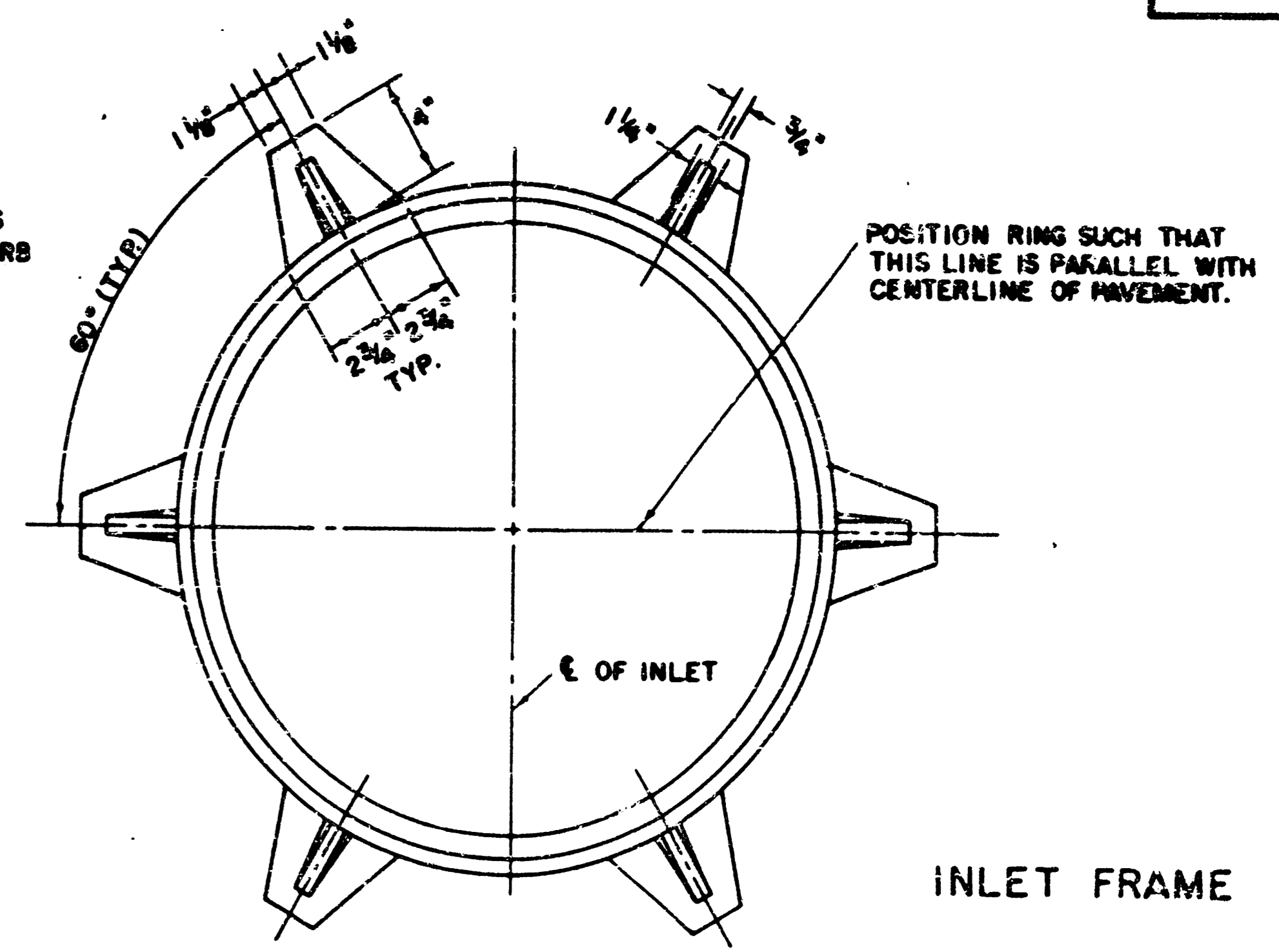
WARP CURB TO MATCH INLET TOP WITH 1' MIN. TRANSITION LENGTH

PLAN

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



SECTION A-A



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

STEEL SCHEDULE

BAR	a ₁	a ₂	a ₃	b ₁				b ₂	b ₃	b ₄	WT. LBS.	
NUMBER	4	4	2	1	3	5	7	9	6	1		
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6		
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.

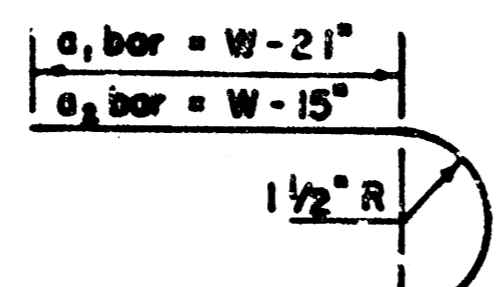
STANDARD CURB INLET PRECAST TOPS

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

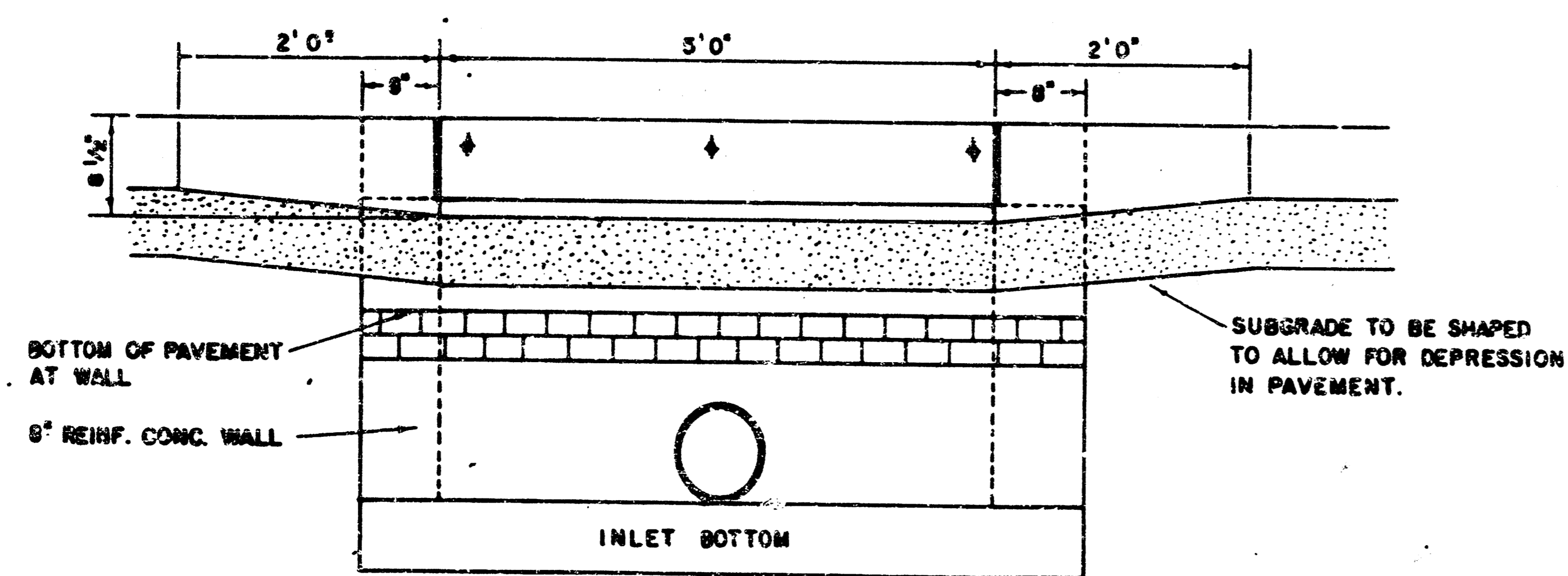
NOTE CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 6' 4" AND H = 7' 0" OR LESS.

INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND 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.

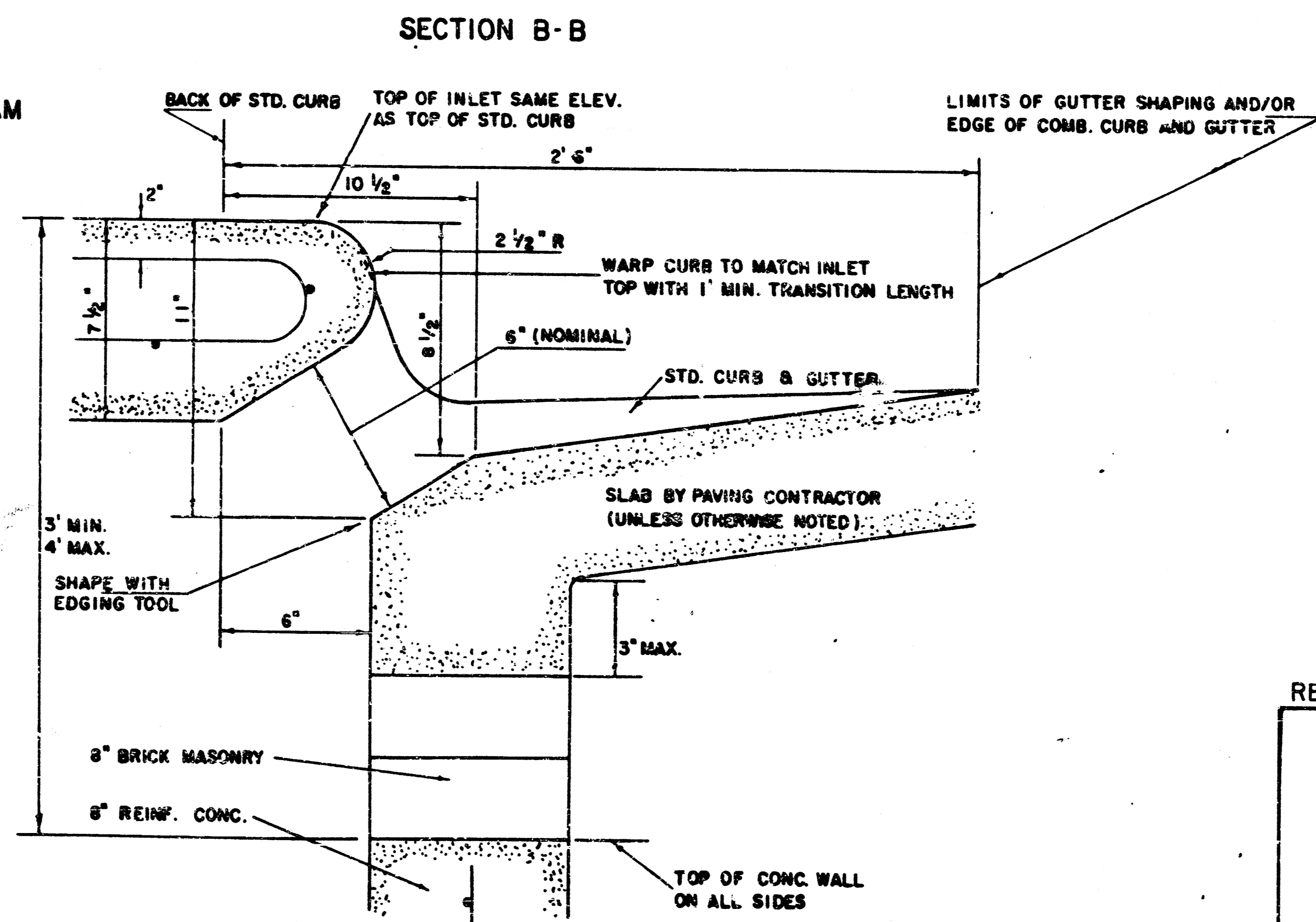
THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.



BENDING DIAGM



SECTION C-C



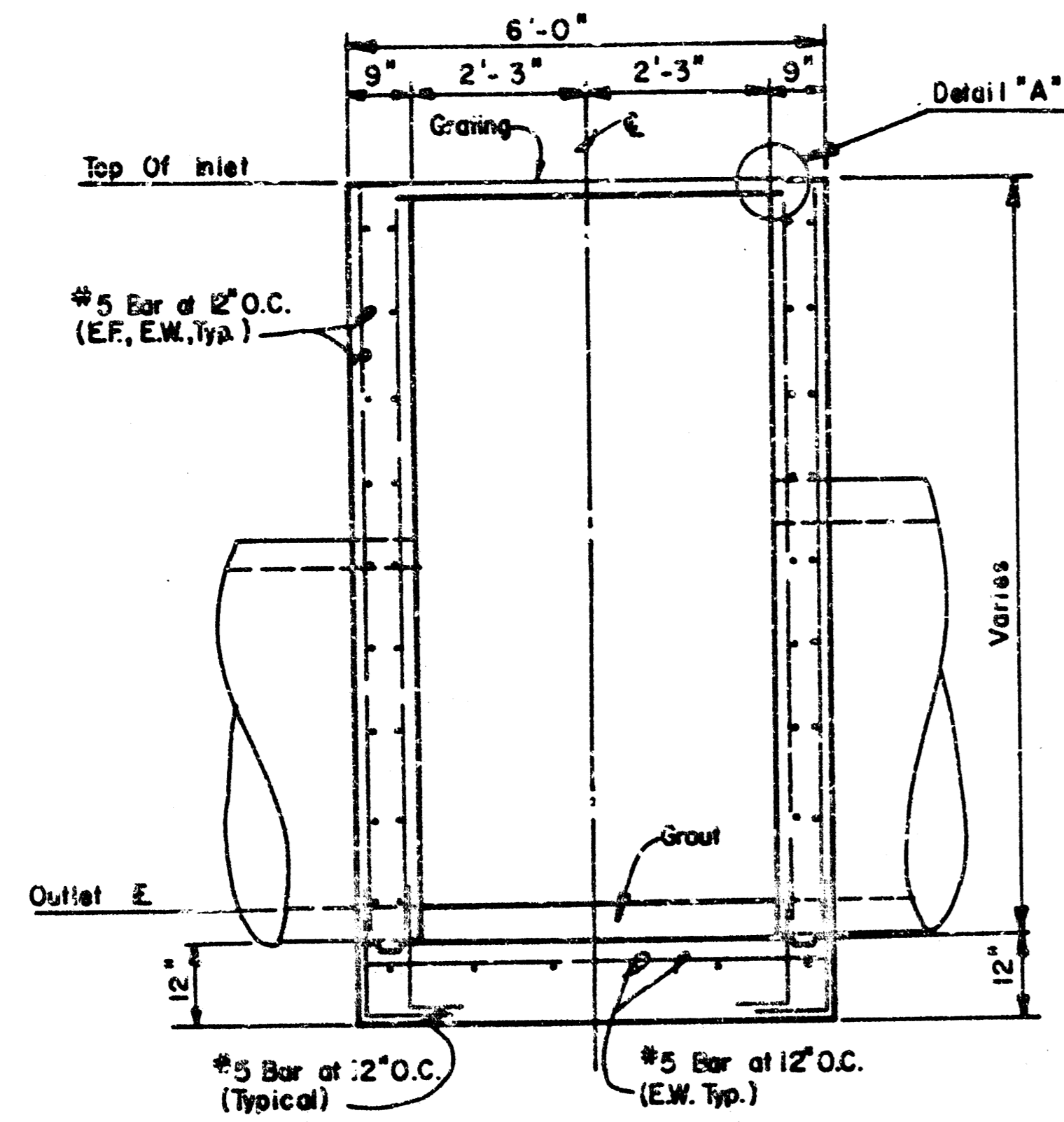
SECTION B-B

REVISED 12-21-1984

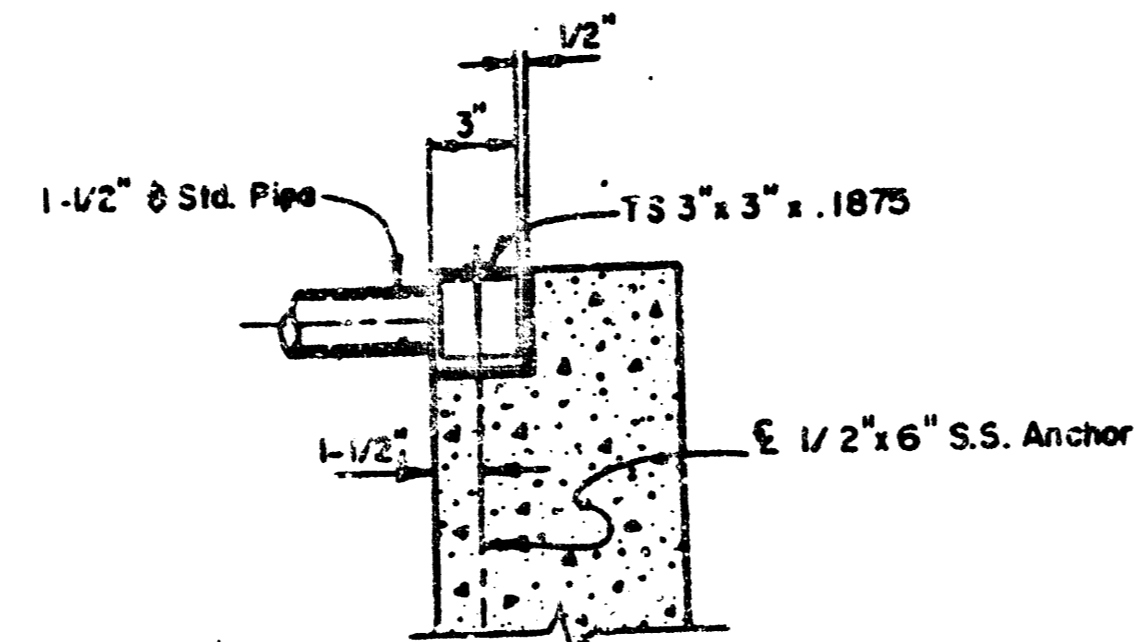
DETAIL STANDARD TYPE I CURB INLET
CITY OF WICHITA, KANSAS
INLET OPENING = 6" x 5' 0"

JUNE 1984

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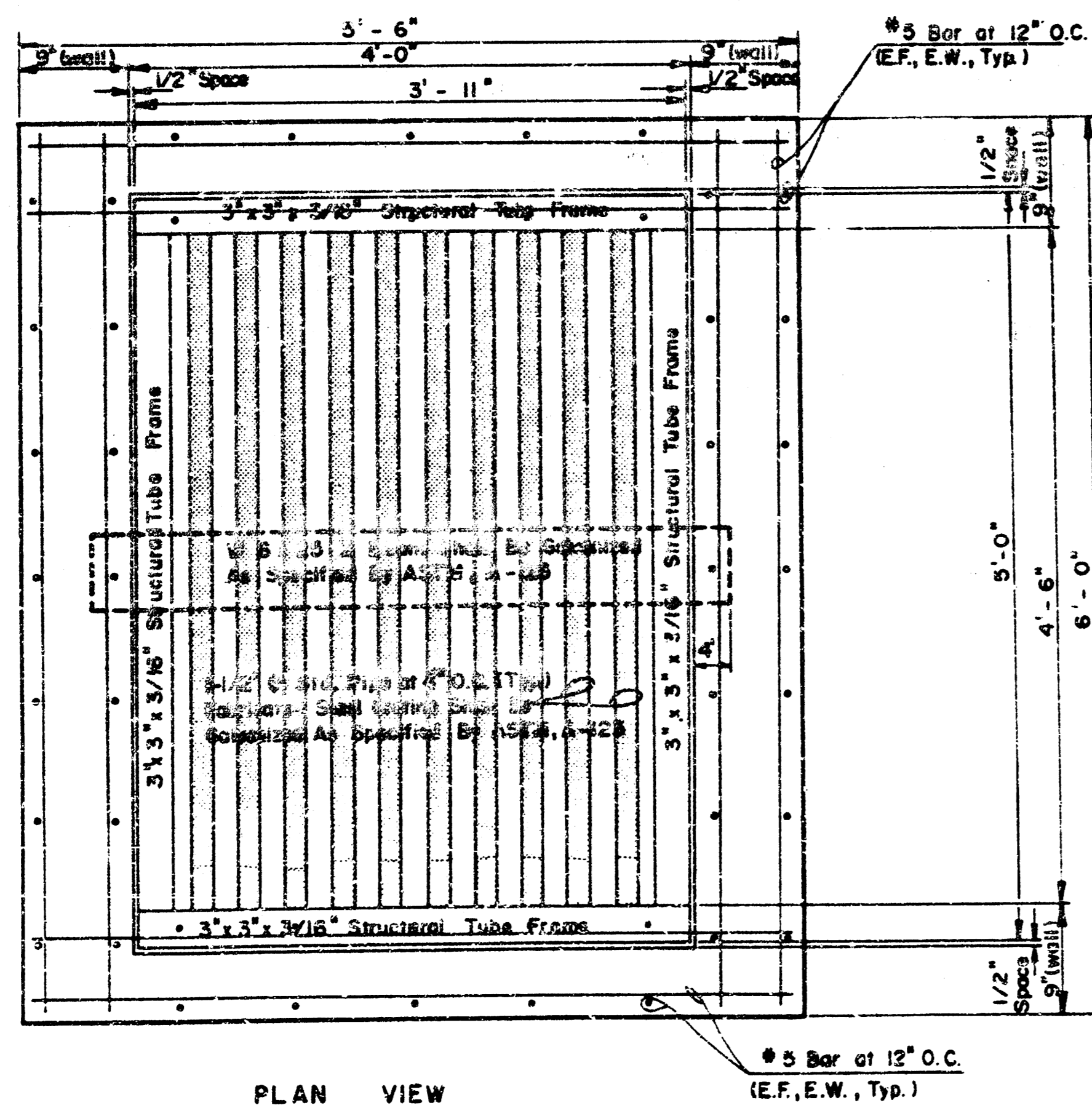


REINFORCED CONCRETE AREA INLET

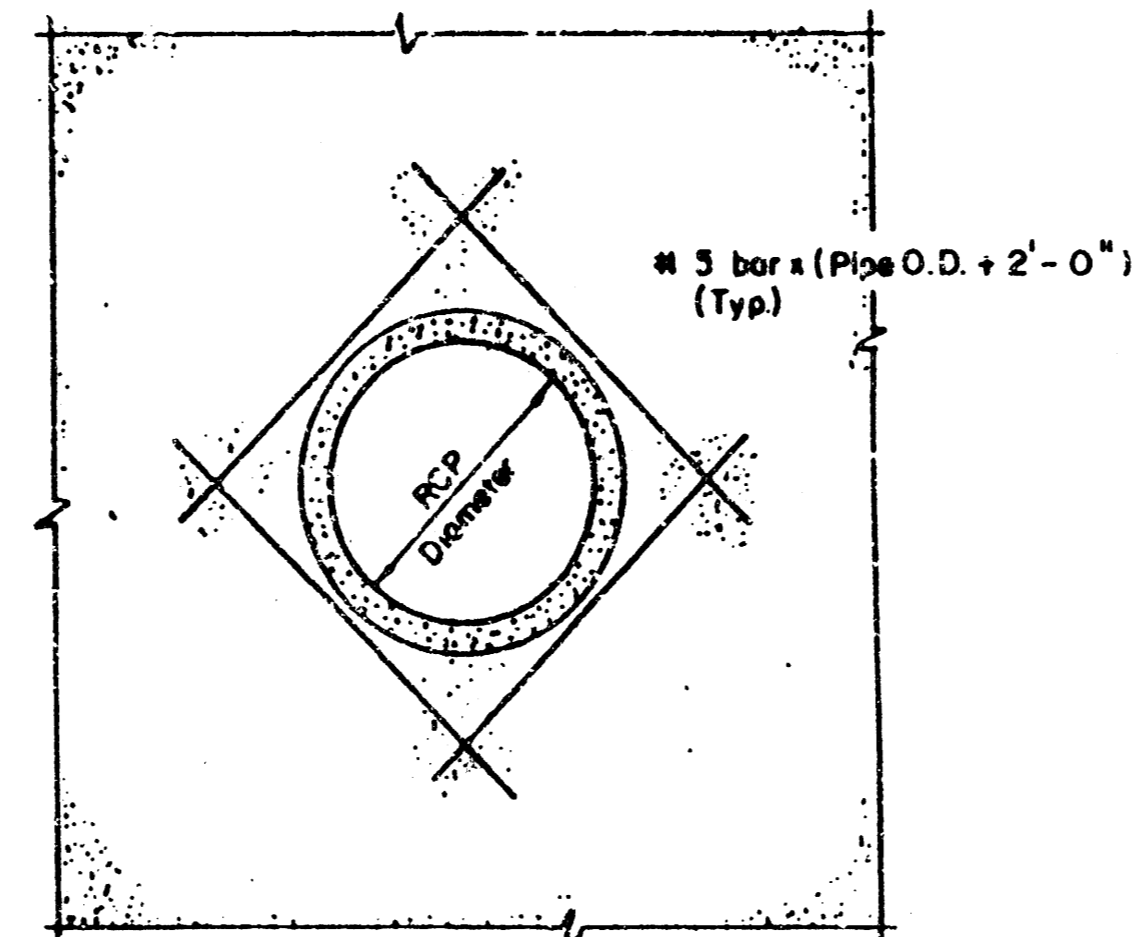


NOTE:
Fabricated Steel Grating Shall
Be Galvanized As Specified By ASTM A123

DETAIL "A"



PLAN VIEW

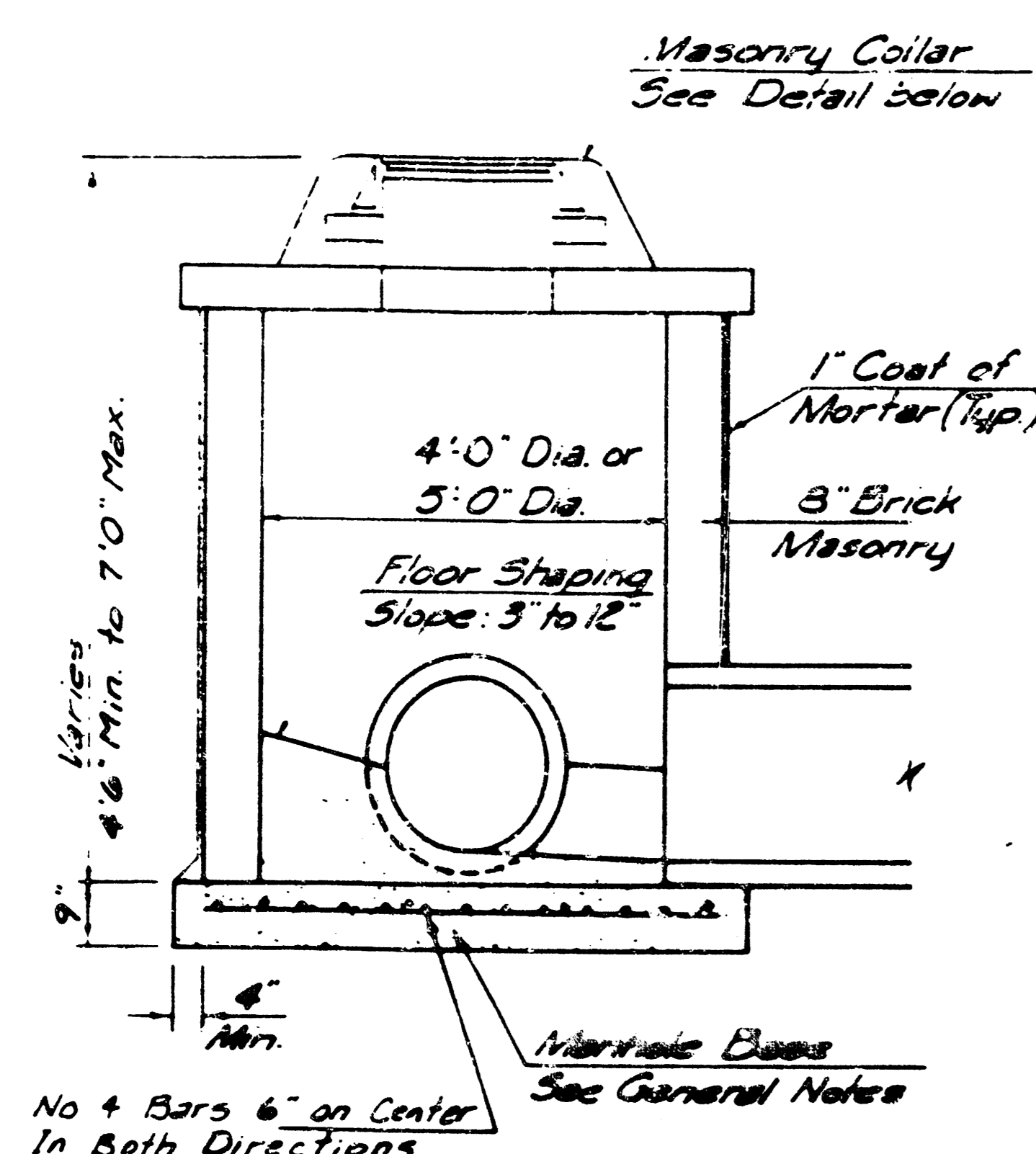


TYPICAL REINFORCING AT PIPE

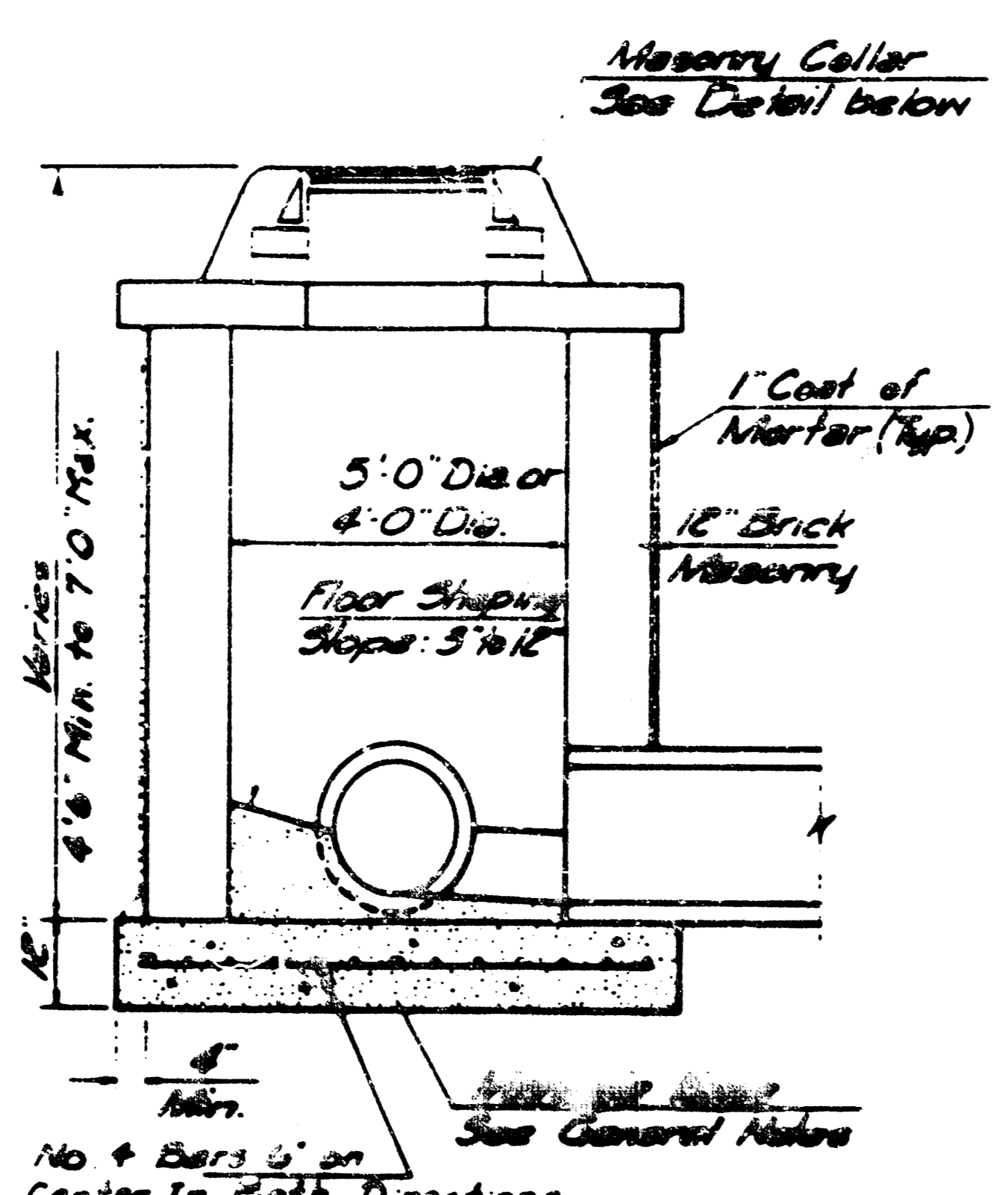
NOTE: Cut reinforcing as required to clear RCP

	REINFORCED CONCRETE AREA INLET		Design Drawn by Checked by Date Scale
	MID-KANSAS ENGINEERING CONSULTANTS PA 3500 NORTH ROCK ROAD BUILDING #800 WICHITA, KANSAS 67226		Sheet 8 of 12

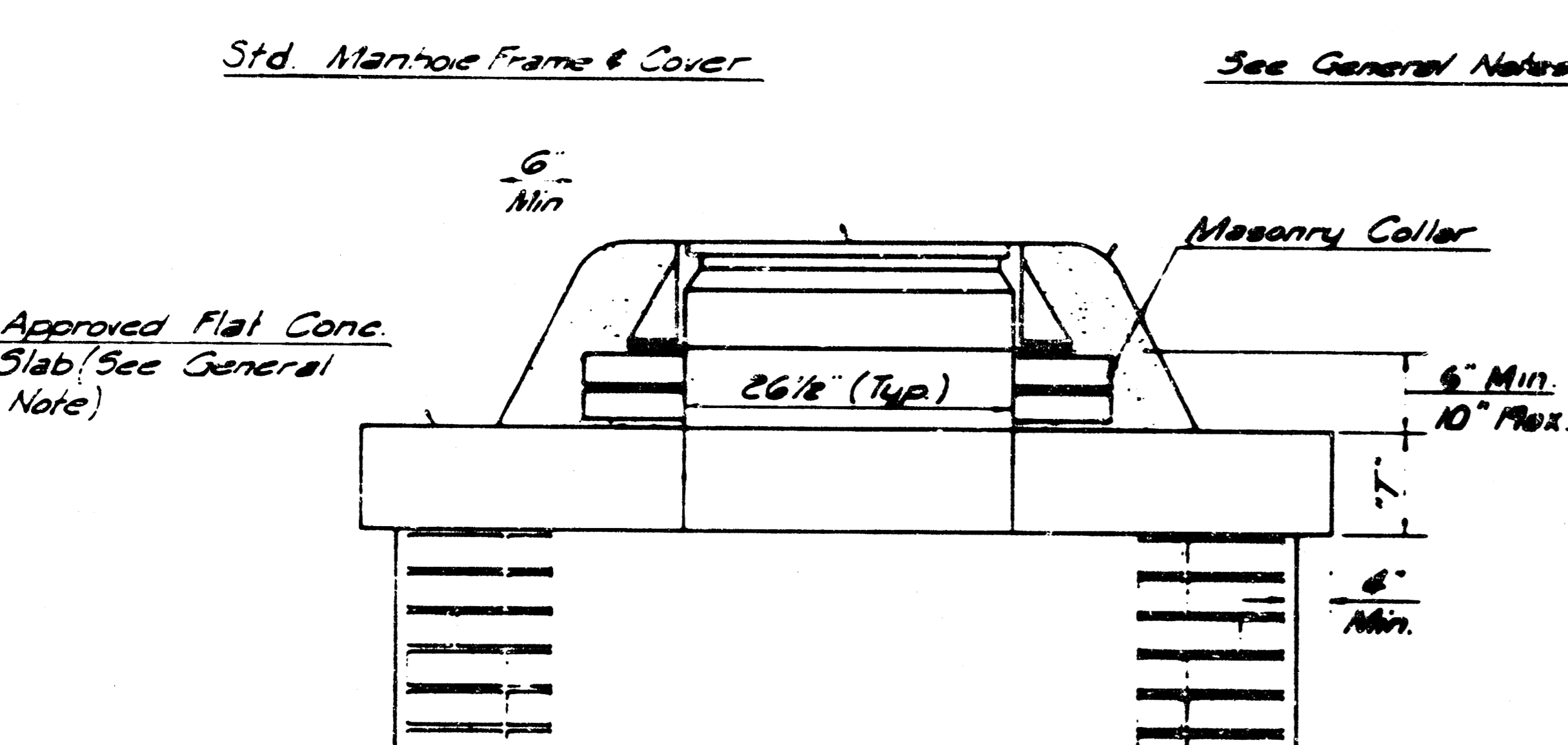
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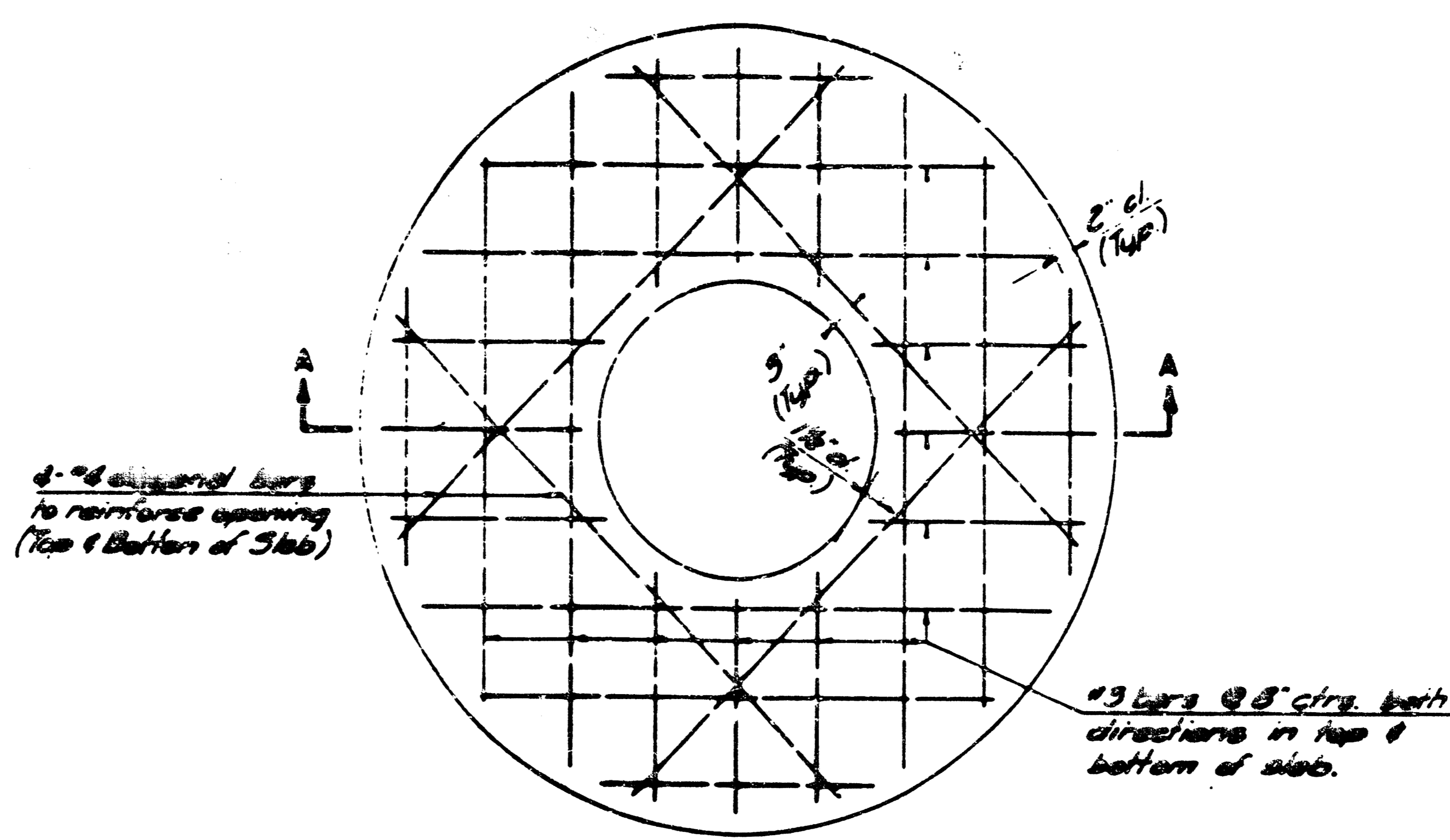
SHALLOW TYPE "A" MANHOLE



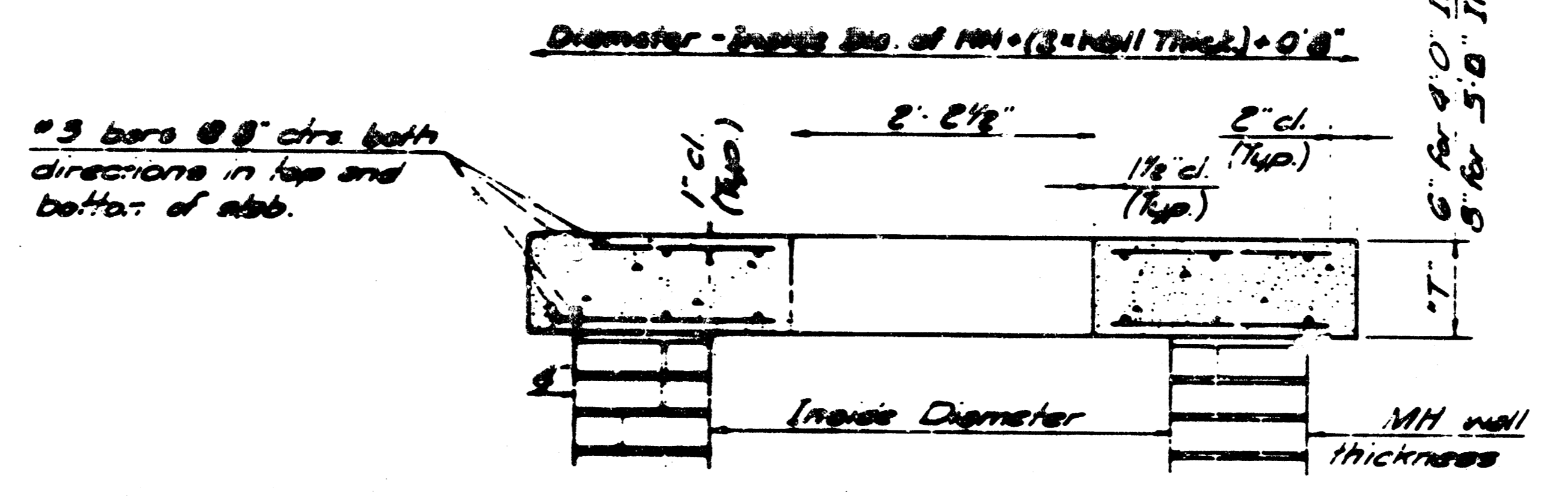
SHALLOW TYPE "B" MANHOLE



MASONRY COLLAR DETAIL

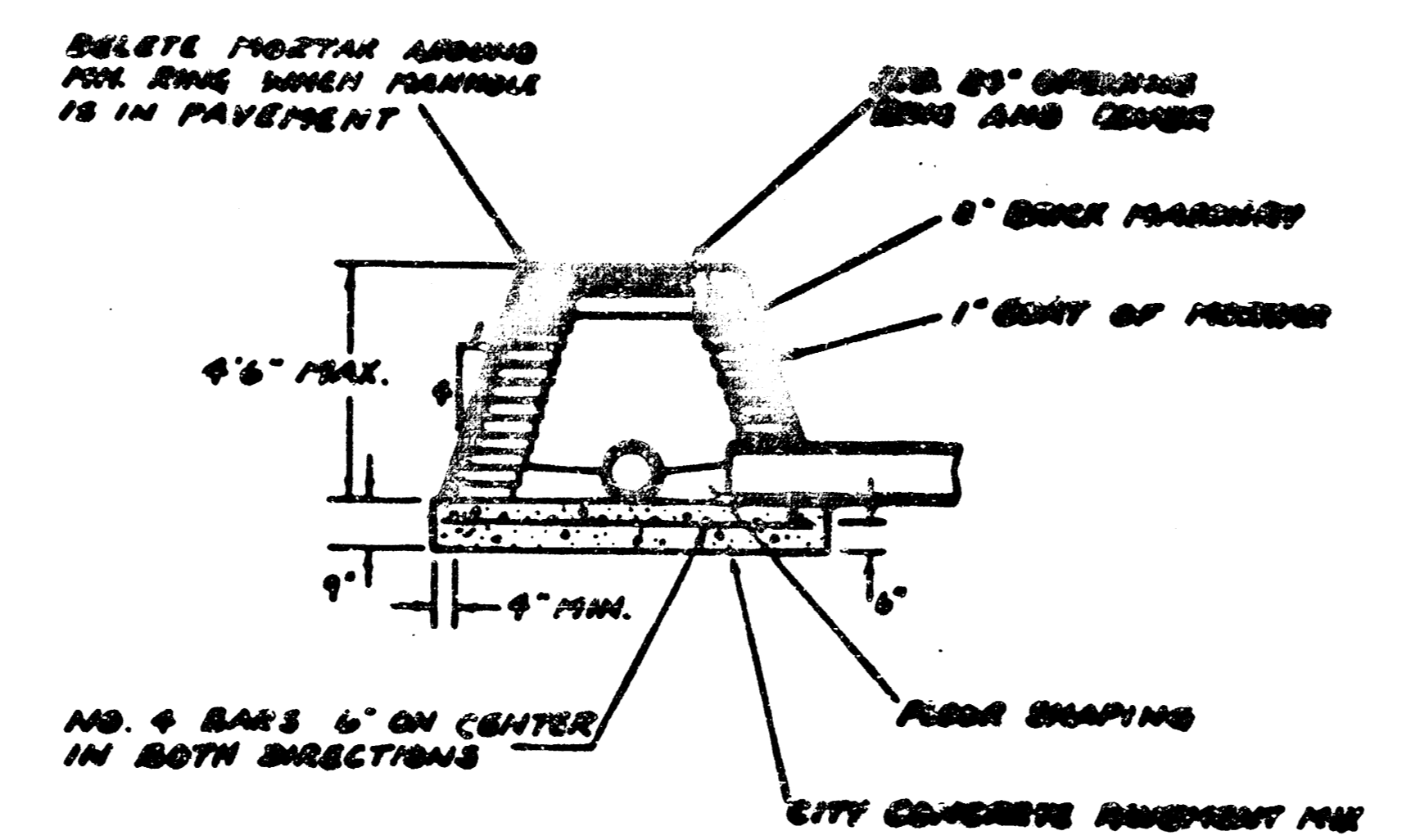


PLAN

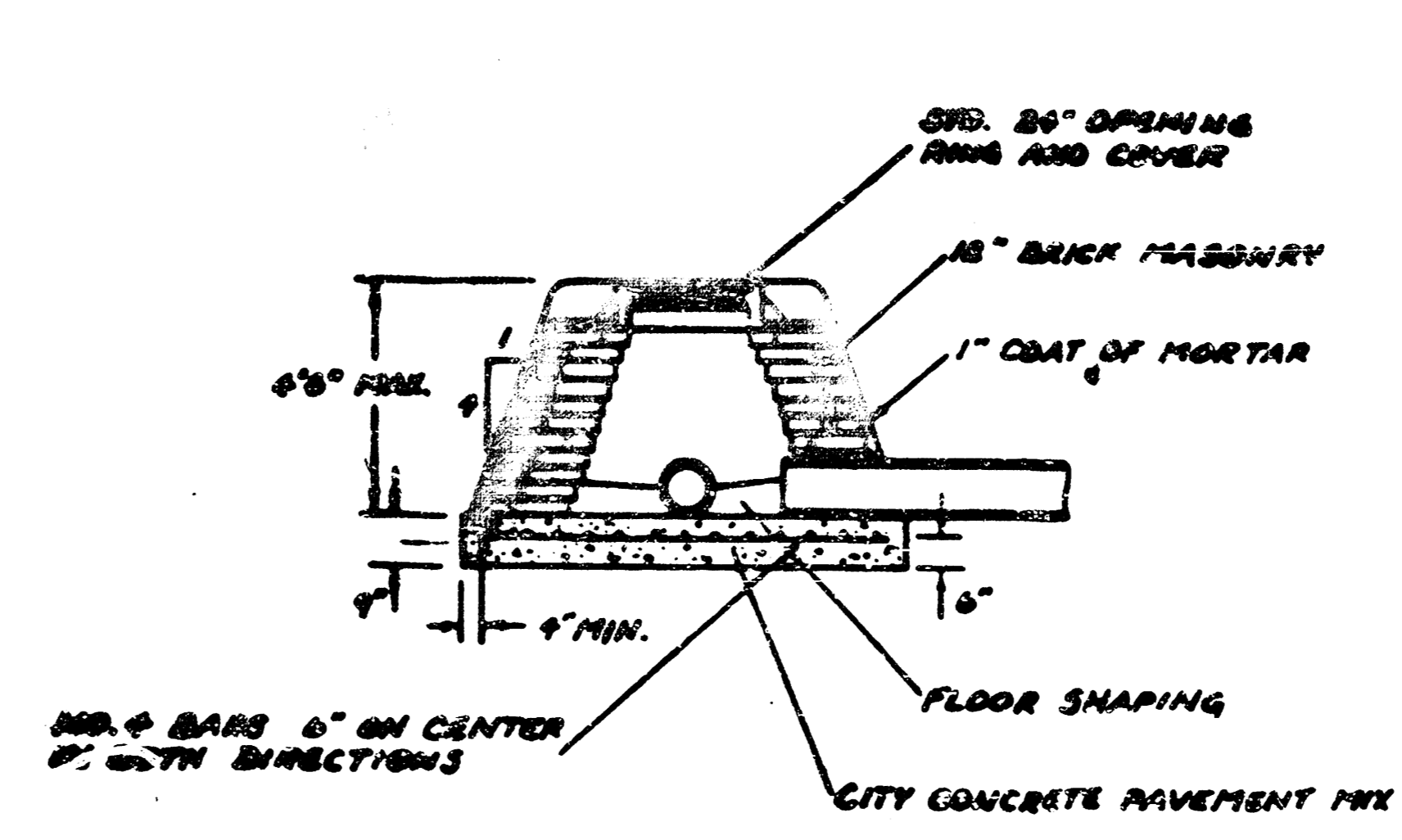


SECTION A-A

FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

GENERAL NOTES

1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 BAGS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BODIES SHALL CONFORM TO THE REQUIREMENTS OF SPECIFICATIONS FOR CONCRETE MASONRY CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS. CITY CONCRETE CEMENT AND MIXTURES FOR REINFORCING PURPOSES. MORTAR SHALL BE PLACED AROUND THE MANHOLE BODIES AND COVER ON THE EXISTING JOINT MANHOLES AND CONSTRUCTED IN UNPAVED AREAS. TYPE "A" SHALLOW MANHOLES CAN BE USED IN AREAS WHERE THE MANHOLE IS NOT LOCATED WITHIN PUBLIC STREET PAVEMENT. MANHOLES CONSTRUCTED UNDER PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 24". MANHOLES CONSTRUCTED UNDER PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 30". COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BODIES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BODIES REINFORCING SHALL BE PLACED 6" ABOVE THE BOTTOM OF THE MANHOLE BODIES. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
3. THE FLOOR OF ALL MANHOLES SHALL BE FINISHED WITH FLOW CHANNELS SUCH THAT THE MANHOLE SHALL BE SELF-CLEANING AND FREE OF ANY OBSTACLES WHICH WOULD BE IMPEDIMENT AS SMALL PIPES THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE MANHOLE BODY. FLOW CHANNELS SHALL BE PLACED TO MATCH THE SLOPE OF THE INLET PIPES AND TO MATCH THE SLOPE OF THE MANHOLE BODY. THE CHANNELS SHALL BE 1/2" DEEP AND 1/2" WIDE. THE CHANNELS SHALL BE FINISHED WITH A SLOPE OF 1/2" PER FOOT TO THE MANHOLE BODIES. THE CHANNELS SHALL BE FINISHED WITH A SLOPE OF 1/2" PER FOOT TO THE MANHOLE BODIES. PIPES AND MANHOLE BODIES SHALL MAKE THE TOP HALF REMAIN TO BEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL BE FINISHED WITH A SLOPE OF 1/2" PER FOOT TO THE MANHOLE BODIES.
4. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CONFORM WITH CODES TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CHANNEL SHALL BE FINISHED TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CHANNEL SHALL BE FINISHED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CHANNEL WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
5. 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.
6. THE GRADE OF INFLUENCING PIPES SHALL NEVER BE SET LOWER THAN THE LEGS OF THE OUTFLOWING PIPE.
7. 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'

9	12
Designed by	Checked by
Drawn by	Scale
	Job No.

MKEC Proj. No. 82-35-101-D

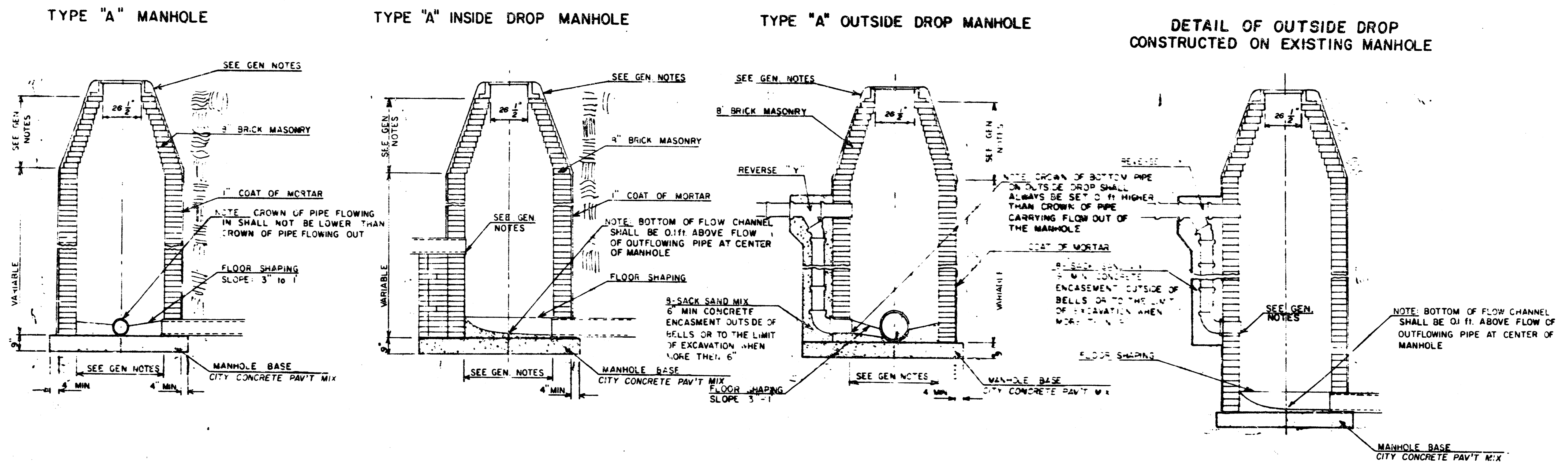
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SEWER APPURTENANCES DETAILS

REVISED SEPTEMBER 1980
REVISED DECEMBER 1981

ADOPTED AS STANDARD DESIGN
BY

CITY of WICHITA, KANSAS



GENERAL NOTES

- 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. TYPE "A" MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. TYPE "A" MANHOLES CAN BE USED ON SEWERS UP TO 16" IN DEPTH 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". THE HEIGHT OF THE CORRELS ON 4" DIAMETER MANHOLES SHALL BE 4". MANHOLES HAVING A DIAMETER OF 5" SHALL HAVE CORRELS 6" IN HEIGHT. 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 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.
- 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 THE OPENING USING AN APPROVED NONSHRINK 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. THE VERTICAL DROP FROM THE LOWER PIPE ON SUCH OUTSIDE DROP CONNECTIONS SHALL NOT EXCEED 4' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES SIZED LARGER THAN 12". EXCEPT THE CROWN OF THE LOWER PIPE SHALL NEVER BE SET BELOW THE CROWN OF ANY LARGER OUTFLOWING PIPE. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING 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 SOLUTION COULD BE DEPOSITED AS STUCK FLOORS 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 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 STILL MAINTAINS THE FLEXIBILITY OF THE JOINT. COST OF THE 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 DRAWING.
- THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4' 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.
- STANDARD MANHOLES TYPE "A" AND STANDARD INSIDE DROP MANHOLES TYPE "A" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES TYPE "A" SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4" UNLESS INDICATED OTHERWISE.

10
12

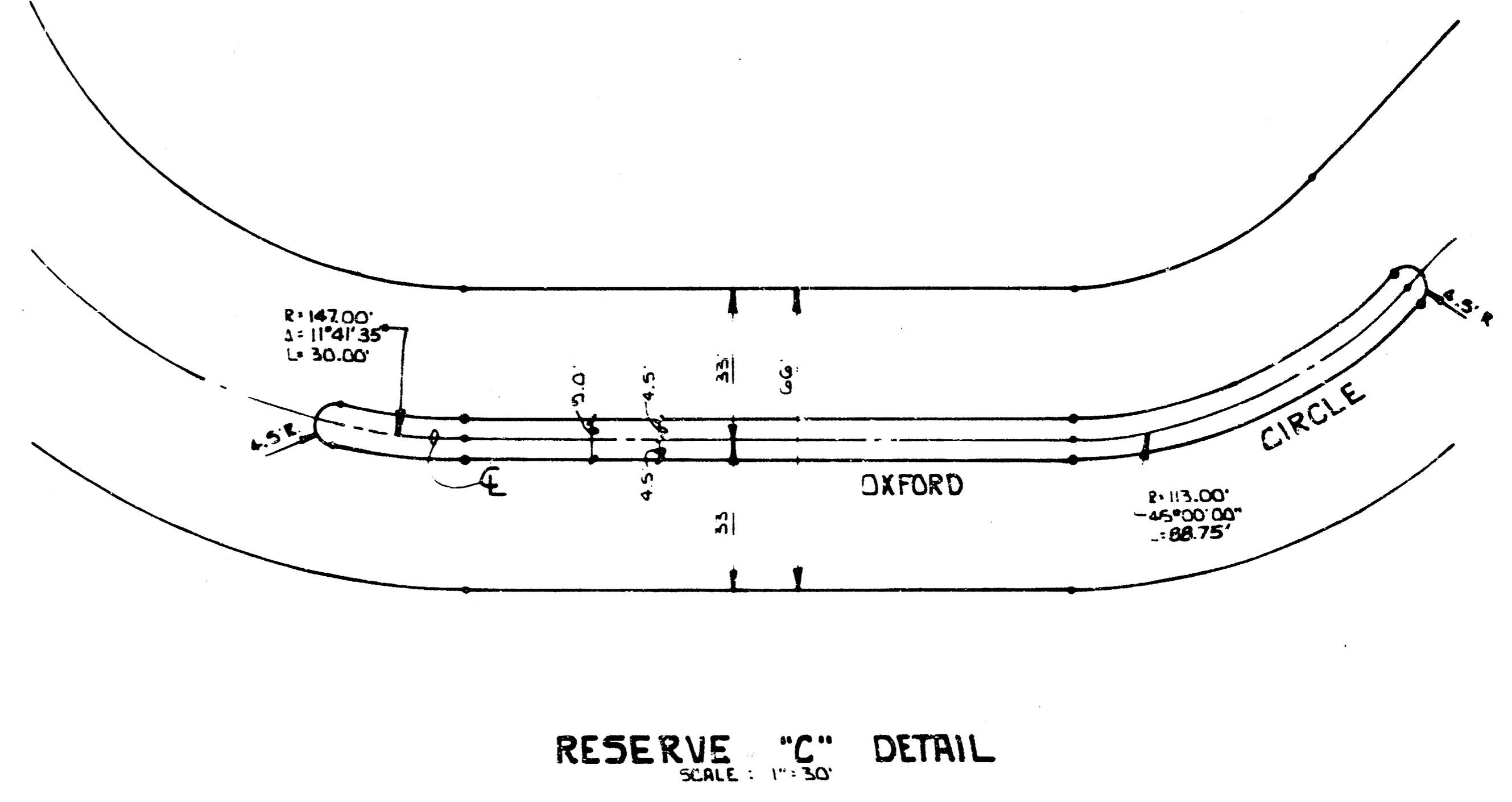
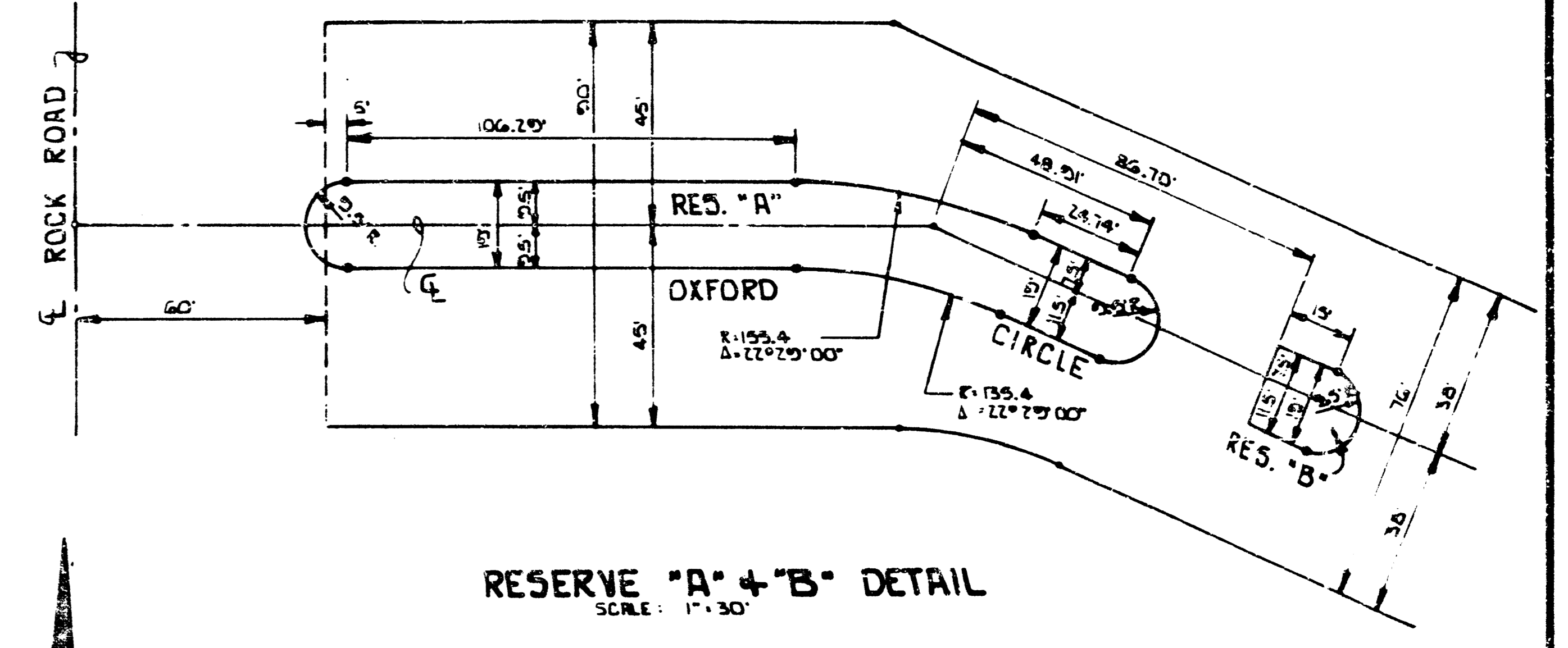
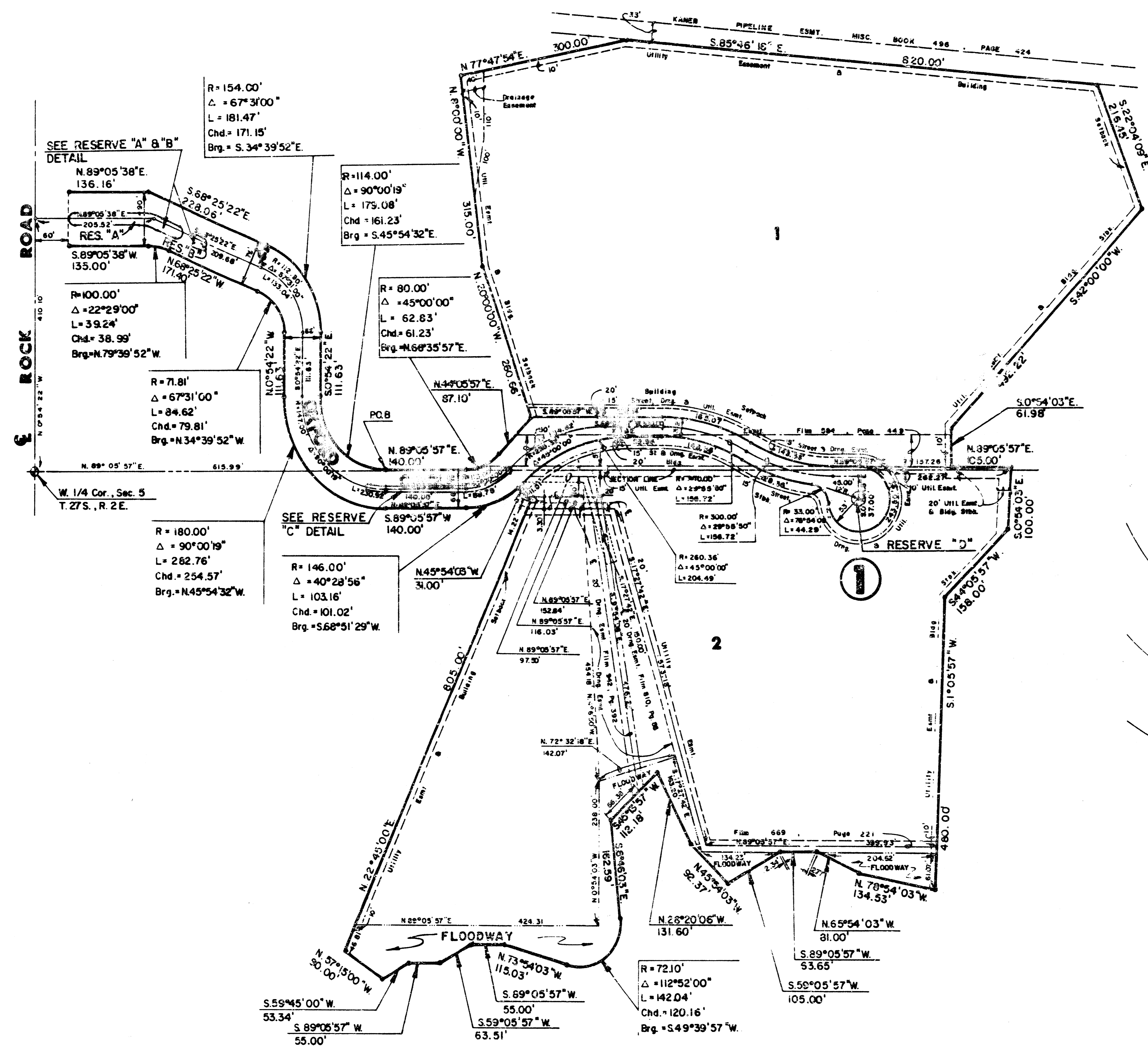
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46-908

FINAL PLAT OF WINDEMERE SECOND ADDITION

AN ADDITION TO WICHITA, SEDGWICK COUNTY KANSAS



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86-978

FINAL PLAT OF WINDEMERE SECOND ADDITION AN ADDITION TO WICHITA, SEDGWICK COUNTY KANSAS


I, Kenneth H. Bengtson, a Civil Engineer and Registered Land Surveyor in Kansas, do hereby certify that I have been in responsible charge of surveying and platting of "WINDEMERE SECOND ADDITION" an addition to Wichita, Sedgwick County, Kansas, into Lots, Blocks, Reserves, and Streets, the same being accurately set forth in the accompanying plat and described herein:

All of Reserve A, in "SILVERLEAF" an addition to Wichita, Sedgwick County, Kansas, and a tract of land lying in the Northwest and Southwest Quarters, Section 5, Township 27 South, Range 2 East of the 6th P.M., Sedgwick County, Kansas, more particularly described as follows:


Commencing at the Northwest corner of the said Southwest Quarter, thence N 89° 05' 57" E, 615.99 feet along the North line of said Southwest Quarter to the point of beginning; thence N 89° 05' 57" E, 140.00 feet along said North line to a point on a curve to the left; thence along said curve 62.83 feet, said curve having a central angle of 45° 00' 00", a radius of 80.00 feet, and a long chord of 61.23 feet, bearing S 66° 35' 57" E; thence N 44° 05' 57" E, 87.10 feet; thence N 20° 00' 00" W, 260.66 feet; thence N 08° 00' 00" W, 315.00 feet; thence N 77° 47' 54" E, 300.00 feet to the South line of a 33.00 foot K.A.N.E.B. pipeline easement; thence S 85° 46' 18" E, 820.00 feet along said South line; thence S 22° 04' 09" E, 216.46 feet; thence S 42° 00' 00" W, 492.22 feet; thence S 00° 54' 03" E, 61.98 feet to a point lying 5.00 feet North of the North line of said Southwest Quarter; thence N 89° 05' 57" E, 105.00 feet; thence S 00° 54' 03" E, 100.00 feet; thence S 44° 05' 57" W, 158.00 feet; thence S 01° 05' 57" W, 480.00 feet; thence N 73° 54' 03" W, 134.53 feet; thence N 65° 54' 03" W, 81.00 feet; thence S 89° 05' 57" W, 63.65 feet; thence S 59° 05' 57" W, 105.00 feet; thence N 45° 54' 03" W, 92.37 feet; thence N 28° 20' 06" W, 131.60 feet; thence S 45° 13' 57" W, 112.18 feet; thence S 06° 46' 03" E, 162.59 feet to a point on a curve to the right; thence along said curve 142.04 feet, said curve having a central angle of 112° 52' 00", a radius of 72.10 feet, and a long chord of 120.16 feet, bearing S 49° 39' 57" W; thence N 73° 54' 03" W, 115.03 feet; thence S 89° 05' 57" W, 55.00 feet; thence S 59° 05' 57" W, 63.51 feet; thence S 89° 05' 57" W, 55.00 feet; thence S 59° 45' 00" W, 53.34 feet; thence N 57° 15' 00" W, 80.00 feet; thence N 22° 45' 00" E, 805.00 feet; thence N 45° 54' 03" W, 31.00 feet to a point on a curve to the right; thence along said curve 103.16 feet, said curve having a central angle of 40° 38' 56", a radius of 146.00 feet, and a long chord of 101.02 feet, bearing S 68° 51' 29" W; thence S 89° 05' 57" W, 140.00 feet, to the intersection of the Easterly line of said "SILVERLEAF" and the South line of Reserve A of said "SILVERLEAF"; thence N 00° 54' 21" W, 66.00 feet to the point of beginning.

All Lots, Blocks, Streets, Floodway, and Easements are hereby vacated and replatted by virtue of K.S.A. 12-512(b).

I hereby certify that the details of this plat are correct to the best of my knowledge and belief this 22nd day of August, 1989.



Kenneth H. Bengtson, P.E., K.L.S., #922
Mid-Kansas Engineering Consultants, P.A.
3500 N. Rock Road, Building #900
Wichita, KS 67226

Know all men by these presents that we the undersigned property owners of the land as above set forth in the Civil Engineer's Certificate, have caused the same to be surveyed and platted into Lots, Blocks, Reserves, and Streets, the same to be known as "WINDEMERE SECOND ADDITION", an addition to Wichita, Sedgwick County, Kansas. The streets are hereby dedicated to and for the use of the public. Reserve A is platted for landscaping and entry identification. Reserves B, C, and D are platted for landscaping. The Reserves shall be owned and maintained by the owner of Lot 1, Block 1, Windemere Second Addition. Easements for the construction and maintenance of public utilities, drainages and streets as indicated on the accompanying plat, are hereby granted to the public. The floodway shall be the responsibility of the owners until such time as the governing body exercising jurisdiction elects to assume the responsibility for the maintenance and improvement of the drainage, provided however, that no structure shall be constructed on or within said floodway, nor shall any fill, change of grade, creation of channel or other work be carried on without the permission of the City Engineer.

SLANSON INVESTMENT CORPORATION
By: 
Larry A. Chambers, President

STATE OF KANSAS)
SEDGWICK COUNTY) ss:


Be it remembered that on this 23rd day of August, 1989, before me a Notary Public in and for said State and County, came Slanson Investment Corporation, by Larry A. Chambers, President, to me personally known to be the same person who executed the foregoing instrument of writing and duly acknowledged the execution of the same. In testimony whereof I have hereunto set my hand and affixed my notarial seal the day and year above written.


Lindo S. Graham
My Appointment Expires: 2/2/90



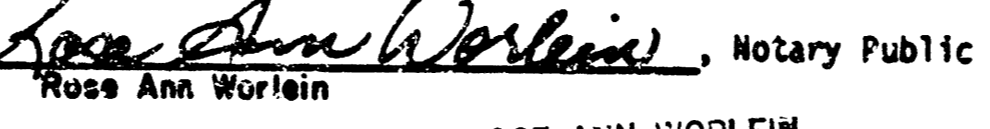
#1030418

We, The Mission Bank, mortgagee on the above described property, do hereby consent to the plat of "WINDEMERE SECOND ADDITION".

THE MISSION BANK, Mission, Kansas
By: 
Glen W. Porter, Vice President



STATE OF KANSAS)
COUNTY OF JOHNSON) ss:

Be it remembered that on this 24th day of August, 1989, before me, a Notary Public in and for said State and County, came The Mission Bank, Mission, Kansas, by Glen W. Porter, Vice President to me personally known to be the same person who executed the foregoing instrument of writing and duly acknowledged the execution of the same. In testimony whereof I have hereunto set my hand and affixed my notarial seal the day and year above written.




Rose Ann Worlein
My Appointment Expires: _____
ROSE ANN WORLEIN
NOTARY PUBLIC
STATE OF KANSAS
My App. Exp. Expires 10/30/91


This plat of "WINDEMERE SECOND ADDITION" has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this 17th day of August, 1989.

WICHITA-SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION

Sue L. Crockett, Chairman

Marvin S. Kroat, Secretary


This plat approved and all dedications shown hereon, if any, accepted by the City Council of the City of Wichita, Kansas, this 22nd day of September, 1989.


Bob Knight, Mayor

John Molt, City Clerk

Entered on transfer record this 26th day of September, 1989.

Don Wright, County Clerk

STATE OF KANSAS)
SEDGWICK COUNTY) ss:

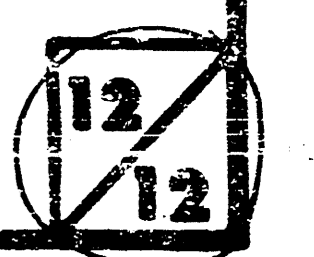
This is to certify that this instrument was filed for record in the Register of Deeds office this 26th day of September, 1989.


Pat Kettler, Register of Deeds
Ed Resa, Deputy



40 ee

MKEC Proj. No. 89-35-101-D



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