

PAVING & INCIDENTAL DRAINAGE FOR
WILDERNESS THIRD ADDITION

WILDERNESS : FROM THE NORTH LINE OF RESERVE "A" IN WILDERNESS THIRD ADDITION TO SOUTH LINE OF WILDERNESS ADDITION
WILDERNESS COURT : FROM THE WEST LINE OF WILDERNESS TO AND INCLUDING THE CUL-DE-SAC

PROJECT NO.
472-76-245-81583-000-000-001

CITY OF WICHITA, KANSAS
 MICHAEL E. LINDEBAK, CITY ENGINEER

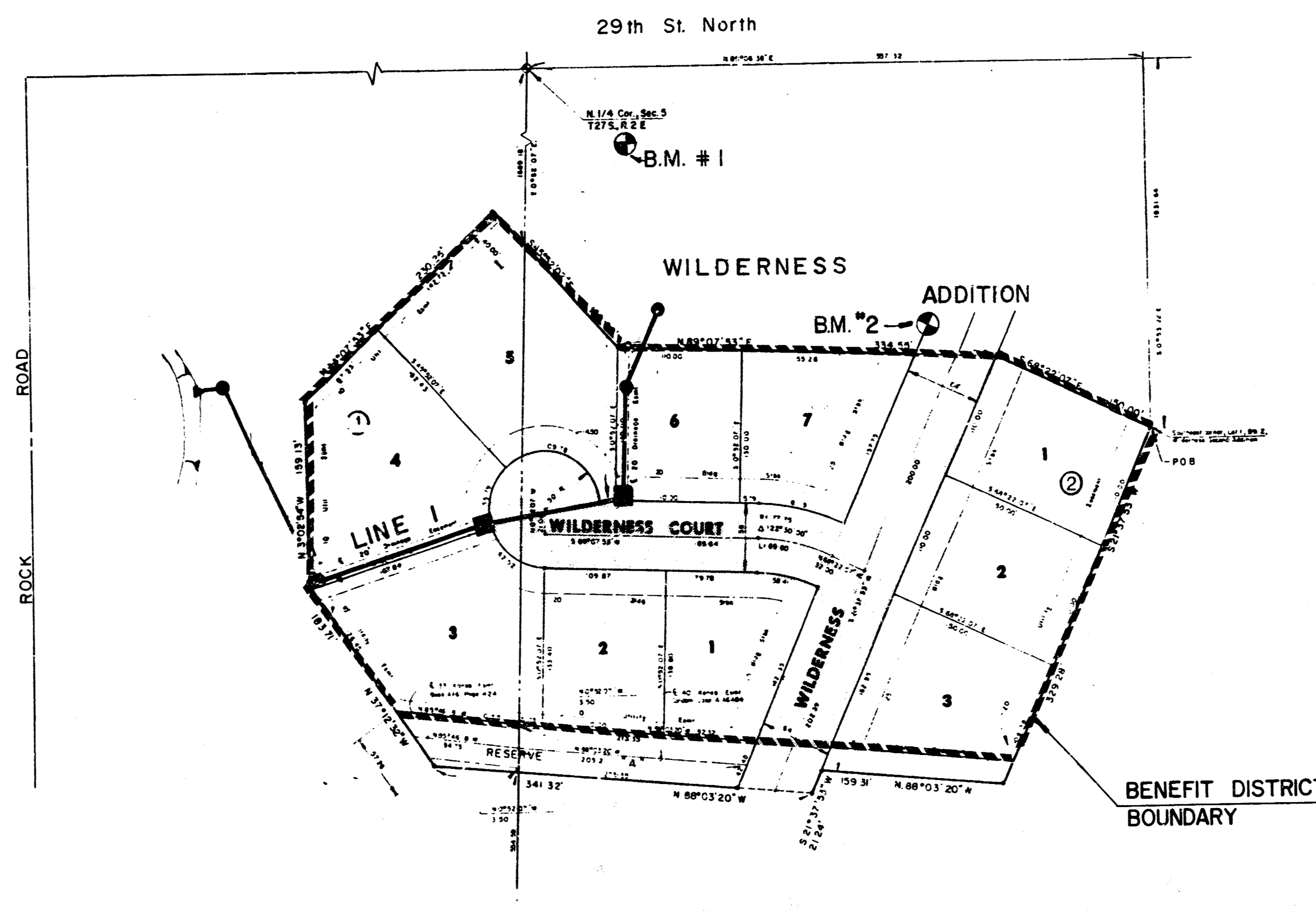
GENERAL NOTES

- CURB AND GUTTER WITH WIDENED GUTTER TO BE PAID AS COMBINED CURB AND GUTTER.
- 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.
- TRANSITION CURB FROM FULL HEIGHT COMBINATION CURB AND GUTTER TO ROLL TYPE COMBINATION CURB AND GUTTER IS TO BE PAID AS BID FOR LINEAR FEET COMBINED CURB AND GUTTER. (3 5/8" ROLL).
- CURB SHALL BE DEPRESSED THROUGH DRIVES (13"), WHERE ROLL TYPE CURB AND GUTTER IS CONSTRUCTED.
- 1-A INLET HOOKUPS TO BE BID EACH. SIZE VARIES.
- TREES SHOWN ON THESE PLANS ARE THERE AT THE TIME OF THE SURVEY. SINCE THAT TIME SOME OF THE TREES MAY HAVE BEEN REMOVED BY OTHER CONSTRUCTION ACTIVITY.
 TREES OUTSIDE THE LIMITS OF THE CURB SHALL BE REMOVED ONLY WITH THE CONSENT OF THE ENGINEER. THE BID OF CLEARING RIGHT-OF-WAY SHALL INCLUDE ALL TREES AND BRUSH TO BE REMOVED ON THIS PROJECT.
- ALL CONCRETE SHALL BE STANDARD PAVING MIX UNLESS OTHERWISE NOTED.
- 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 PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF TWENTY-FOUR (24) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

SOUTHWESTERN BELL TELEPHONE COMPANY 1-316-571-2611
 CABLEVISION 262-4270 or 263-2061
 KPL GAS SERVICE 263-7511
 KANSAS GAS & ELECTRIC 264-1141
 CITY OF WICHITA WATER DEPARTMENT 268-4908
 CITY OF WICHITA SEWER DEPARTMENT 268-4071
 ARKLA GAS COMPANY 942-8350 or 263-8161

BENCH MARKS

- B.M. #1 "□" cut on top curb at the N.E. corner of Lot 27, Block 3, Wilderness. Elev. = 212.46
 B.M. #2 "□" on top of West curb of Wilderness St. 40' North of the Wilderness 3rd Add. Elev. = 213.14

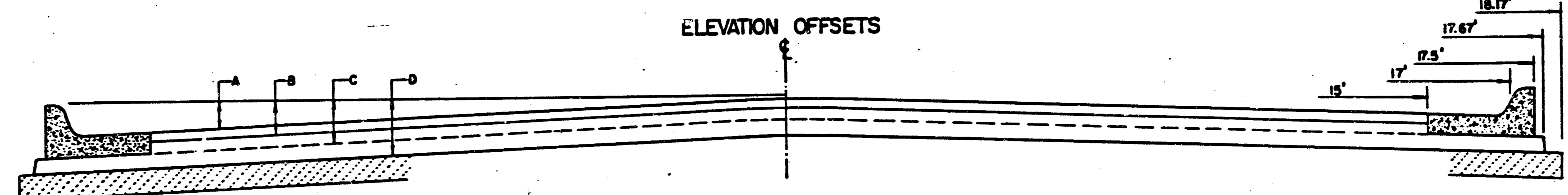
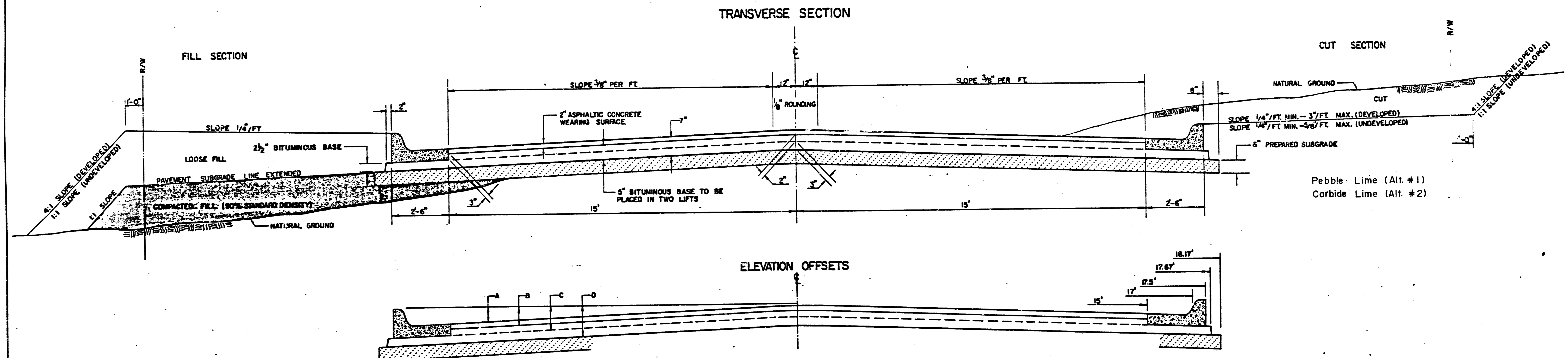


INDEX TO DRAWINGS

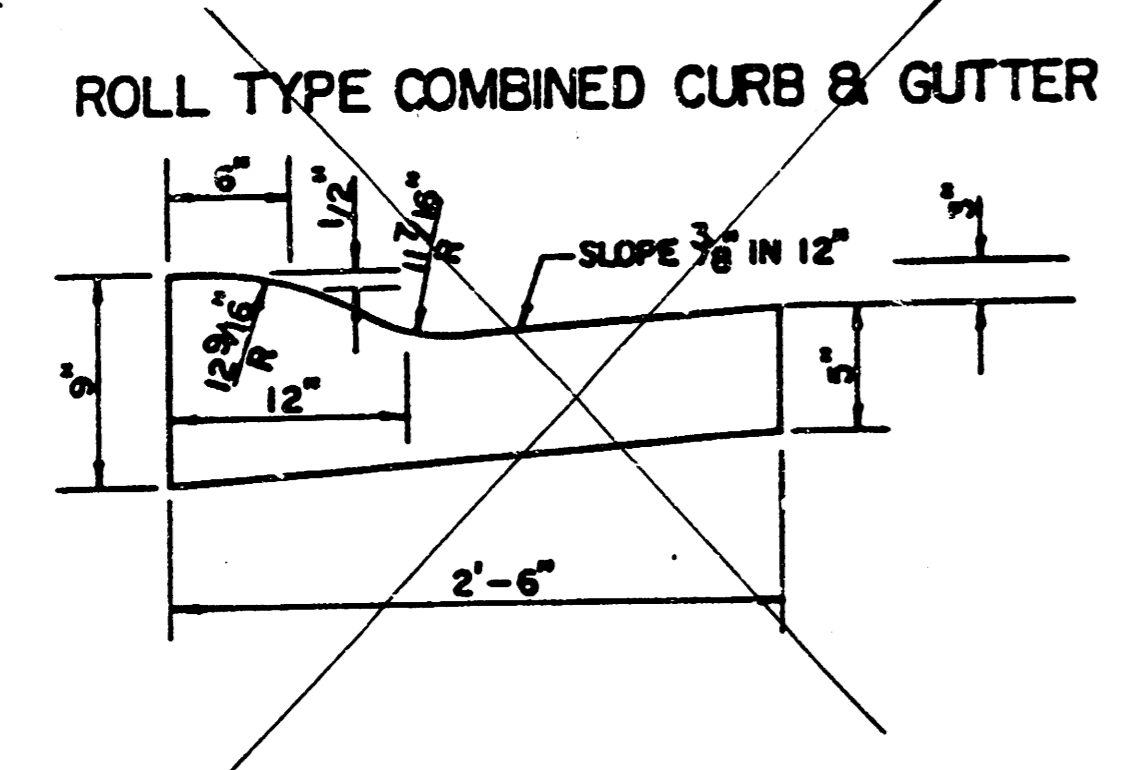
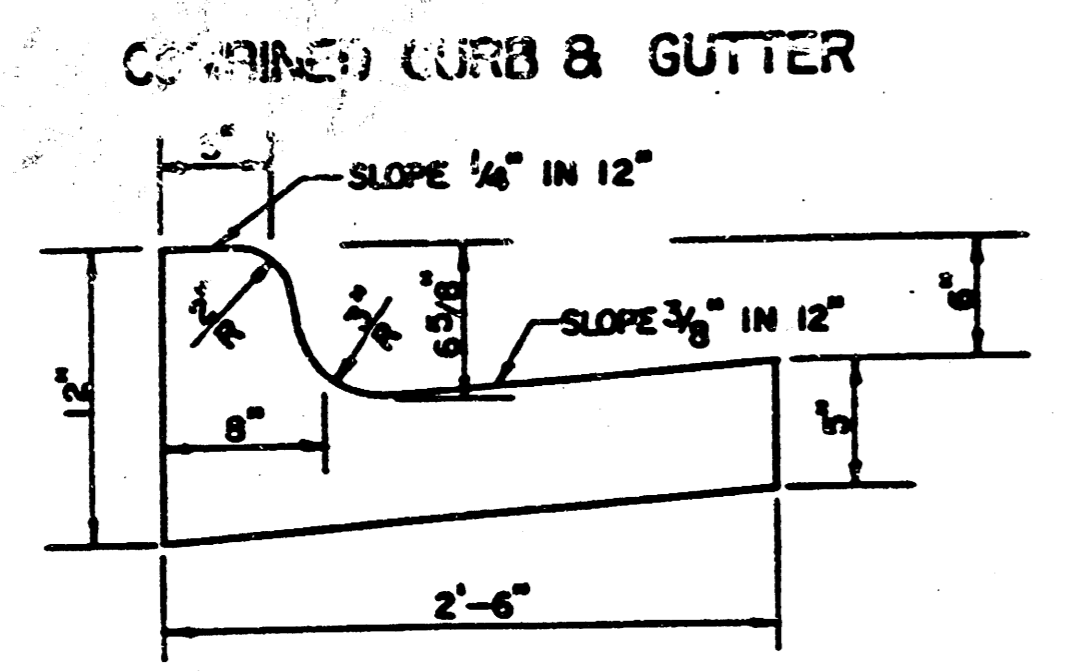
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-3	PAVING DETAILS
4	WILDERNESS
5	WILDERNESS COURT
6-7	CROSS SECTIONS
8-9	STORM WATER SEWER PLANS
10-11	STORM WATER SEWER DETAILS
12	FINAL PLAT

	WILDERNESS THIRD PAVING & INCIDENTAL DRAINAGE	Drawn by FF, DLM
		Checked by K.H.B.
MID-KANSAS ENGINEERING CONSULTANTS PA 3500 NORTH ROCK ROAD BUILDING #80J WICHITA, KANSAS 67226		Date _____ Job No. _____
Sheet 1 of 12		682-6561

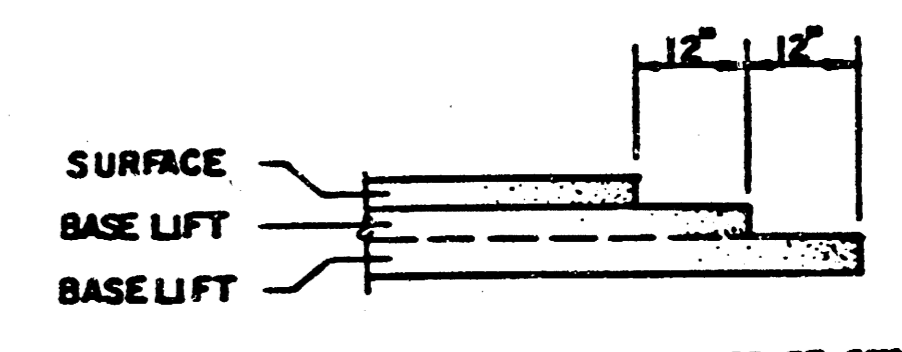
TYPICAL 35' PAVEMENT DETAILS



	DISTANCE FROM CENTERLINE (LT. & RT.)												
	0'	2'	4'	6'	8.5'	10'	12'	14'	15'	17'	17.5'	17.67'	18.17'
A: TOP OF CURBS TO TOP OF SURFACE LIFT	0.04	0.08	0.14	0.21	0.29	0.33	0.39	0.46	0.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.21	0.25	0.31	0.37	0.45	0.50	0.56	0.62	0.65	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	0.37	0.43	0.50	0.57	0.67	0.72	0.79	0.87	0.90	0.98	1.00	1.00	—
D: TOP OF CURBS TO TOP OF SUBGRADE	0.62	0.67	0.74	0.81	0.90	0.95	1.02	1.08	1.12	1.19	1.21	1.21	1.23



TRANSVERSE CONSTRUCTION JOINTS



TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINTS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 8\"/>

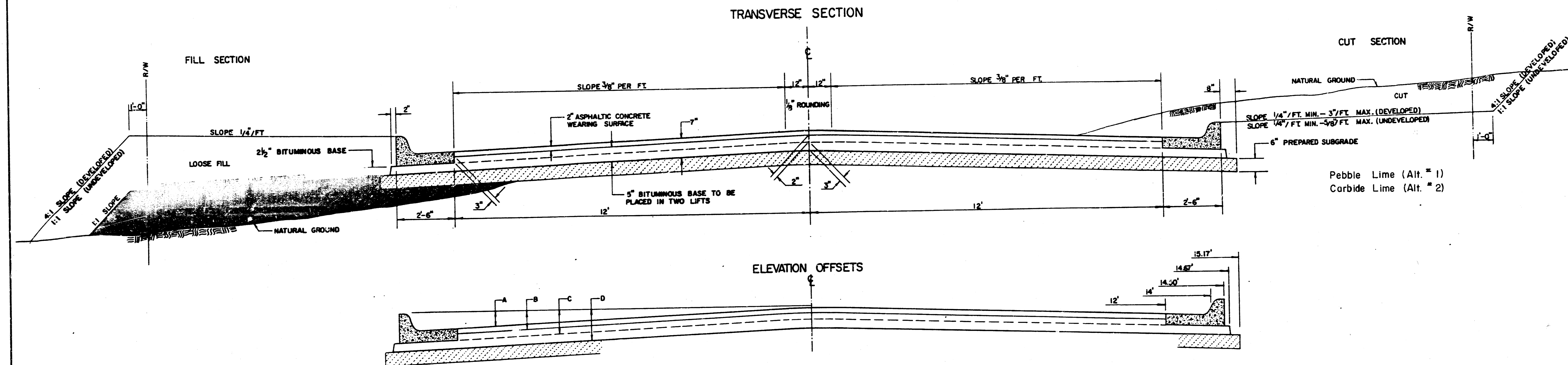
GENERAL NOTES

- 1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 7\"/>
- 2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 2 1/2\"/>
- 3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.
- 4) BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A JAYDOM MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.
- 5) CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.
- 6) CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

7 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 5 INCH BITUMINOUS BASE
CITY OF WICHITA, KANSAS

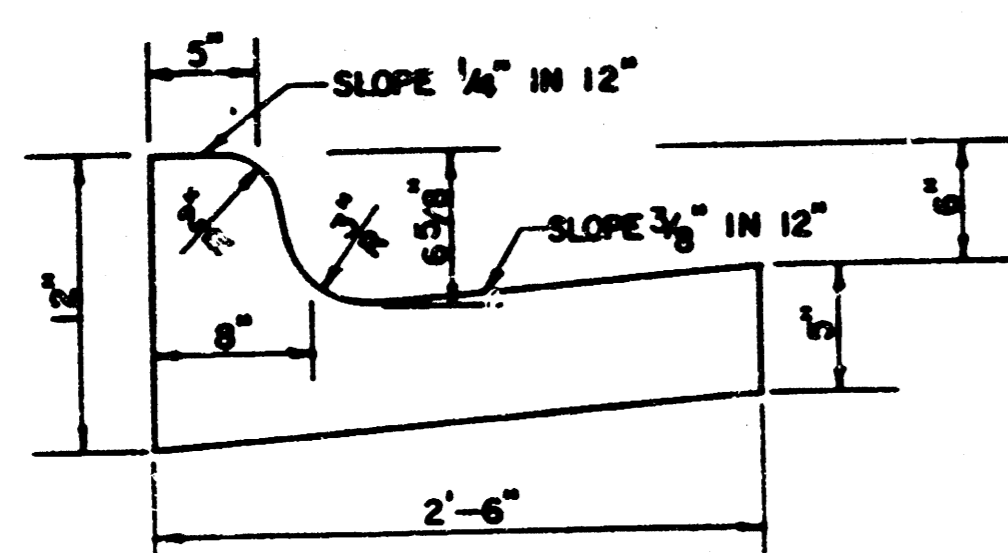
PROJECT NUMBER 472-76-245-81583-000-000-001 **2/12**

TYPICAL 29' PAVEMENT DETAILS

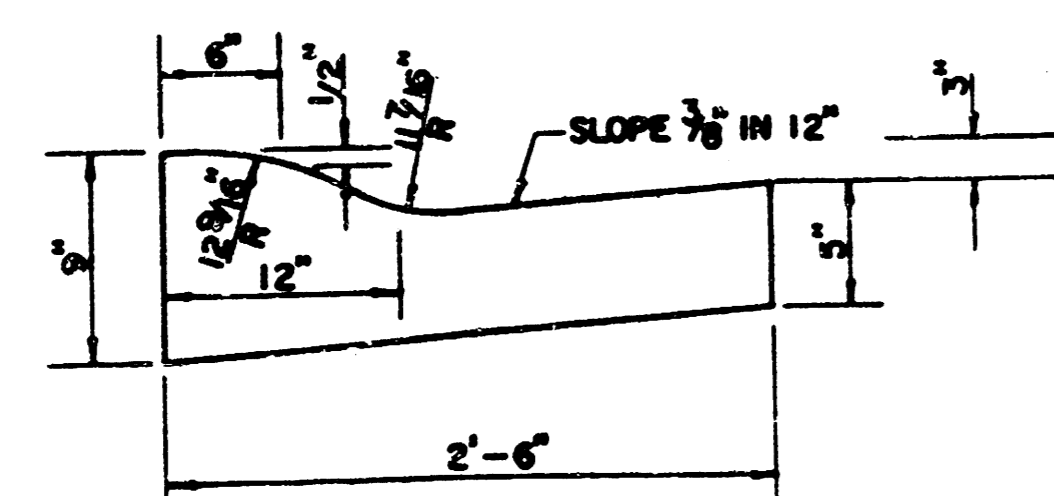


	DISTANCE FROM CENTERLINE (LT. & RT.)											
	0'	2'	4'	6'	7'	8'	10'	12'	14'	14.5'	14.67'	15.17'
A: TOP OF CURBS TO TOP OF SURFACE LIFT	0.13	0.18	0.24	0.30	0.33	0.36	0.43	0.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.30	0.35	0.41	0.47	0.50	0.53	0.60	0.66	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	0.47	0.52	0.60	0.68	0.71	0.75	0.83	0.90	0.98	1.00	1.01	—
D: TOP OF CURBS TO TOP OF SUBGRADE	0.72	0.77	0.84	0.91	0.94	0.98	1.05	1.12	1.19	1.21	1.21	1.23

COMBINED CURB & GUTTER



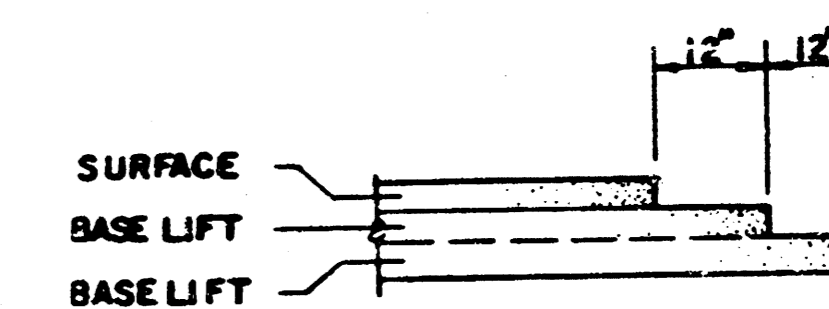
ROLL TYPE COMBINED CURB & GUTTER



GENERAL NOTES

- 1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).
- 2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 2 1/2" BITUMINOUS BASE.
- 3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.
- 4) BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.
- 5) CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.
- 6) CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONDUCTING THIS PROJECT.

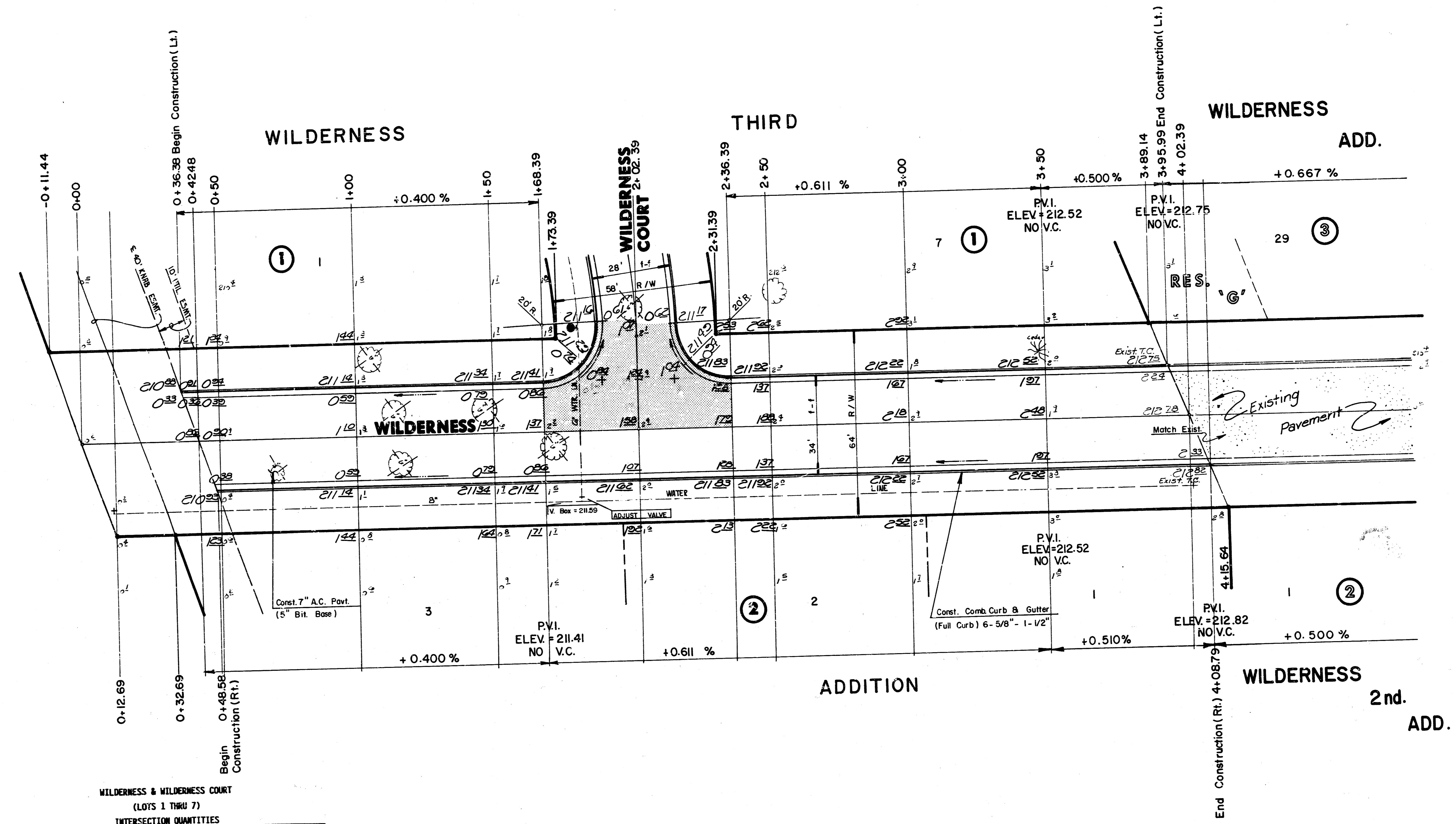
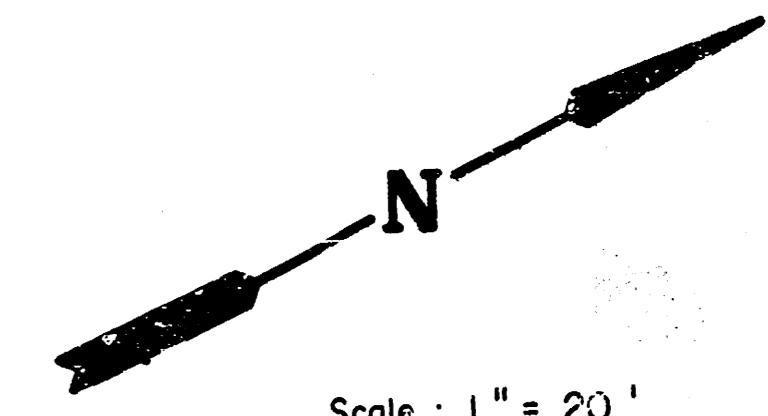
TRANSVERSE CONSTRUCTION JOINTS



TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

7 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 5 INCH BITUMINOUS BASE
 CITY OF WICHITA, KANSAS
 PROJECT NUMBER 472-76-245-81583-000-000-001

3/12



WILDERNESS & WILDERNESS COURT
(LOTS 1 THRU 7)
INTERSECTION QUANTITIES

—	S.Y.	—	Concrete Pavement
195.6	S.Y.	7	Asphaltic Conc. Pavement (5" Bituminous Base)
18.6	S.Y.	2 1/2	Bituminous Base
62.8	L.F.		Combined Curb & Gutter (6 5/8")
—	L.F.		Monolithic Edge Curb (6 5/8")
—	S.F.		4" Wheelchair Ramp
—	S.F.		4" Walk
—	C.Y.		Excavation
—	C.Y.		Compacted Fill
—	Lbs.		Reinforcing Steel
217.7	S.Y.		Manipulation
—	Tons		Lime or Cement
—	S.Y. V.G.	—	Concrete & — Asphaltic Concrete Base

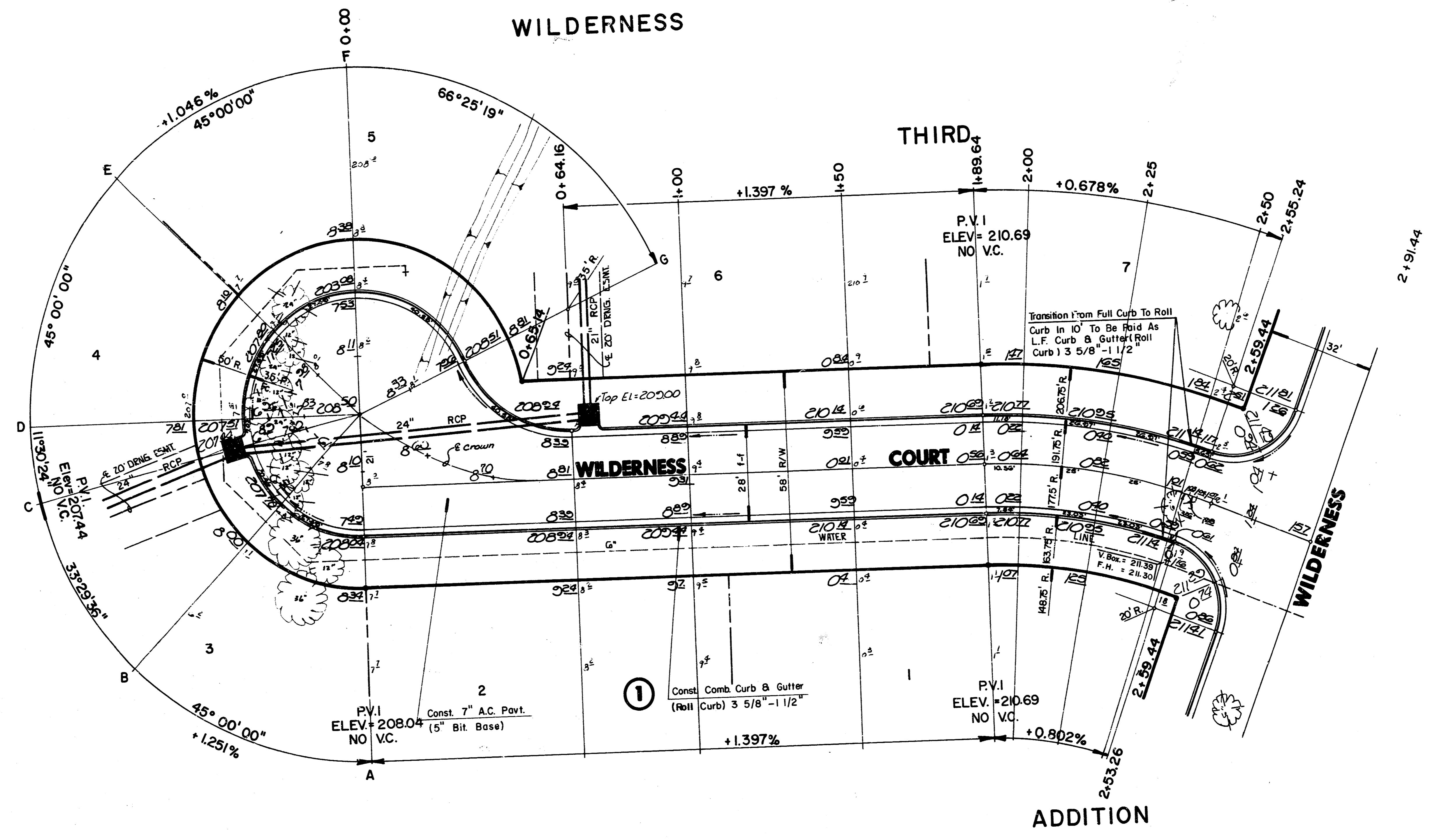
Excavation
10%
1040.1
104.0
1144.10 C.Y.
Manipulation = 2,770.60 S.Y.

	CITY OF WICHITA	Drawn by ALL Checked by K.H.B. Date 6-17-87 Job no.
	WILDERNESS PROJECT NO. 472-76-245-81583-000-000-001	Sheet 4 of 12 1/2
MID-KANSAS ENGINEERING CONSULTANTS PA 3500 NORTH ROCK ROAD BUILDING #800 WICHITA, KANSAS 67226		682-6561

NOTE:
Top Of Curb Elevations Shown For
Full Curb, Construct Combined Curb
& Gutter (Roll Type).



Scale: 1" = 20'

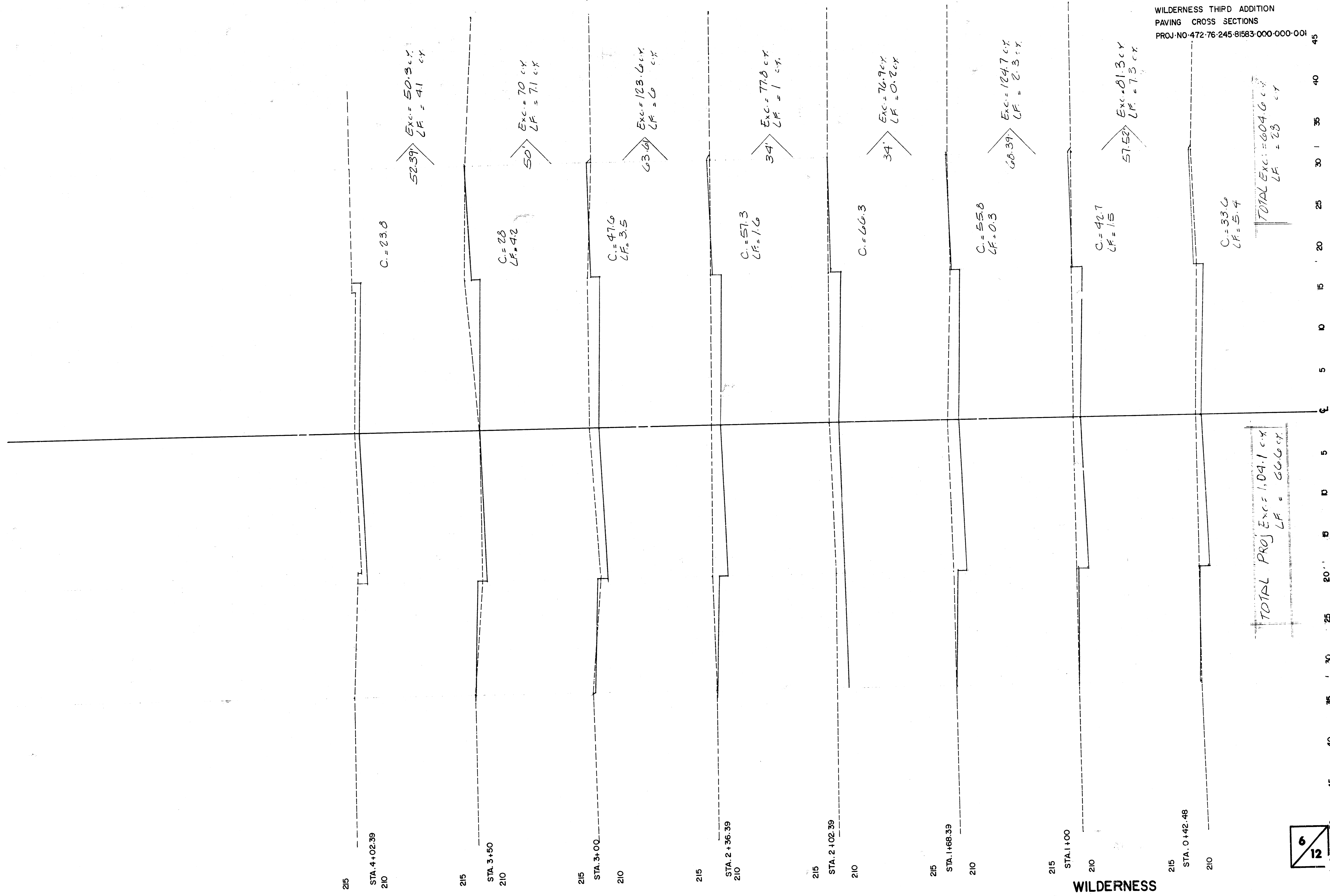


$\Delta = 22^{\circ}30'00''$ $R = 177.75'$ $T = 35.36'$ $L = 69.80'$ $LC = 69.35'$
CURVE DATA BASED ON Centerline $RAD. \Delta / 2 = 11^{\circ}15'00''$

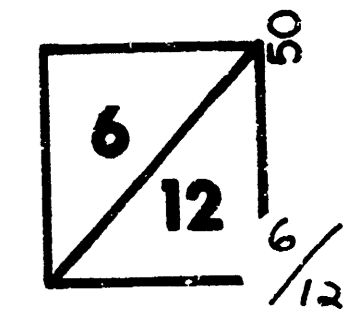
STATION	ARC	CHORD LENGTH		DEFLECTION	TOTAL DEFLECTION
		8' Off Ltcd	8' Off Rtcd		
1+89.64	-	-	-	-	0°00'00"
2+00.00	10.36'	11.64'	9.08'	01°40'11"	01°40'11"
2+25.00	25.00'	28.07'	21.89'	04°01'45"	05°41'56"
2+50.00	25.00'	28.07'	21.89'	04°01'45"	09°43'41"
2+53.26	3.26'	-	2.86'	00°31'31"	10°15'12"
2+56.24	2.98'	7.01'	2.51'	00°26'49"	10°44'01"
2+59.44	3.20'	-	-	00°30'59"	11°15'00"

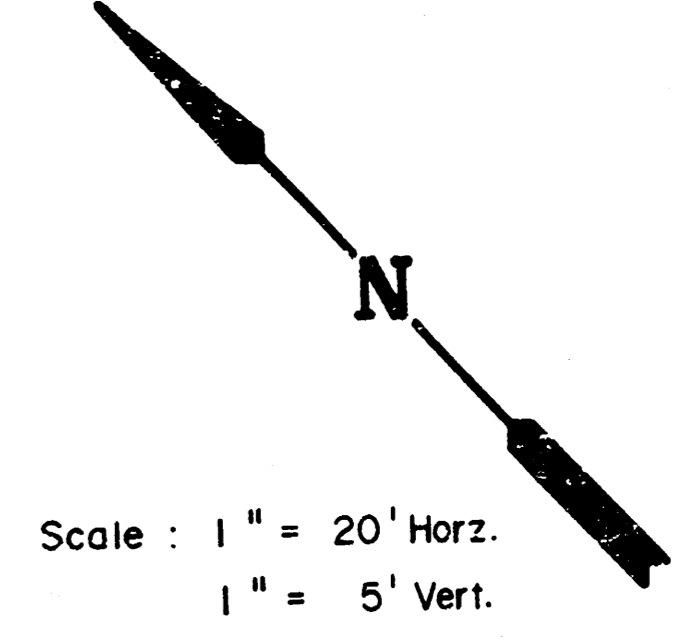
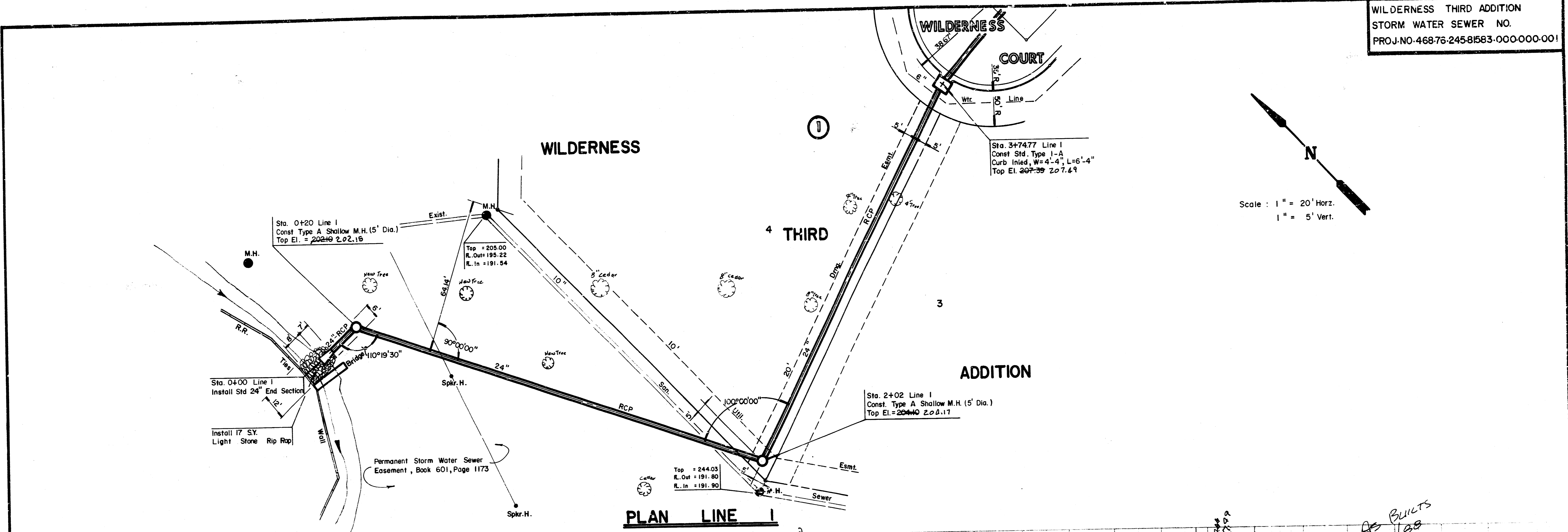
Def./Ft. = 9/67017 Min.

	CITY OF WICHITA	Design: F.F
	WILDERNESS COURT	Drawn by: ALL
	PROJECT NO. 472-76-245-81583-000-000-001	Checked by: KHB
MID-KANSAS ENGINEERING CONSULTANTS PA 3500 NORTH ROCK ROAD BUILDING #800 WICHITA, KANSAS 67226		Date: 6-17-87 100 No.
682-6561		Sheet: 5 of 12

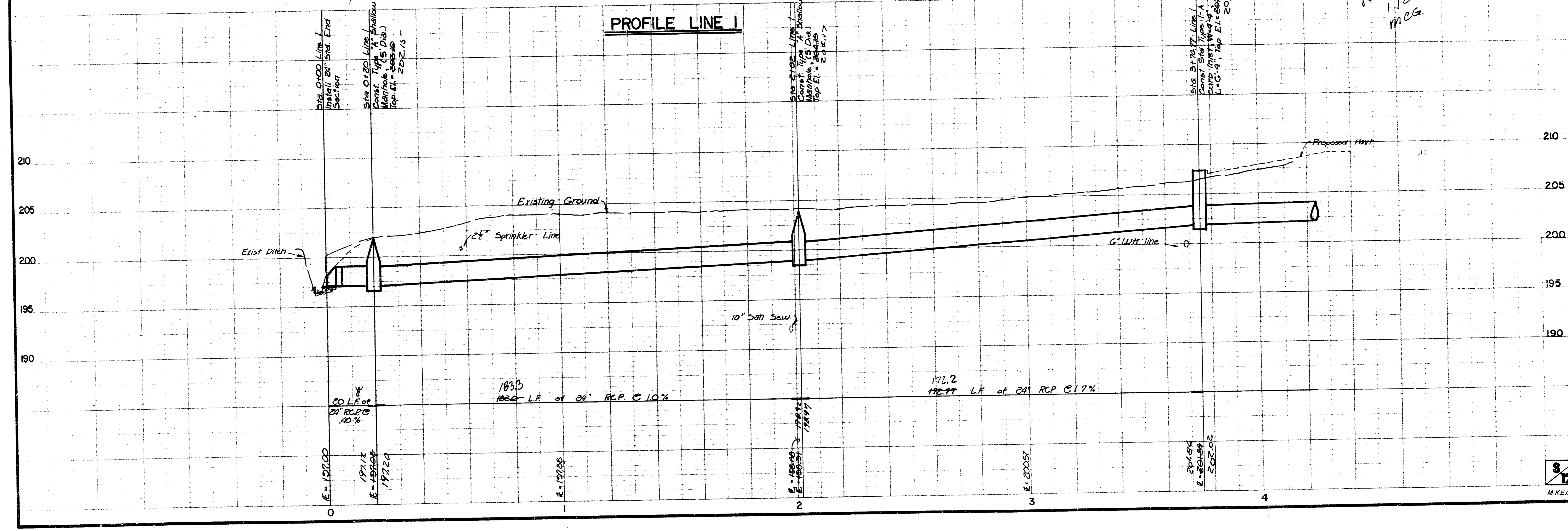


WILDERNESS



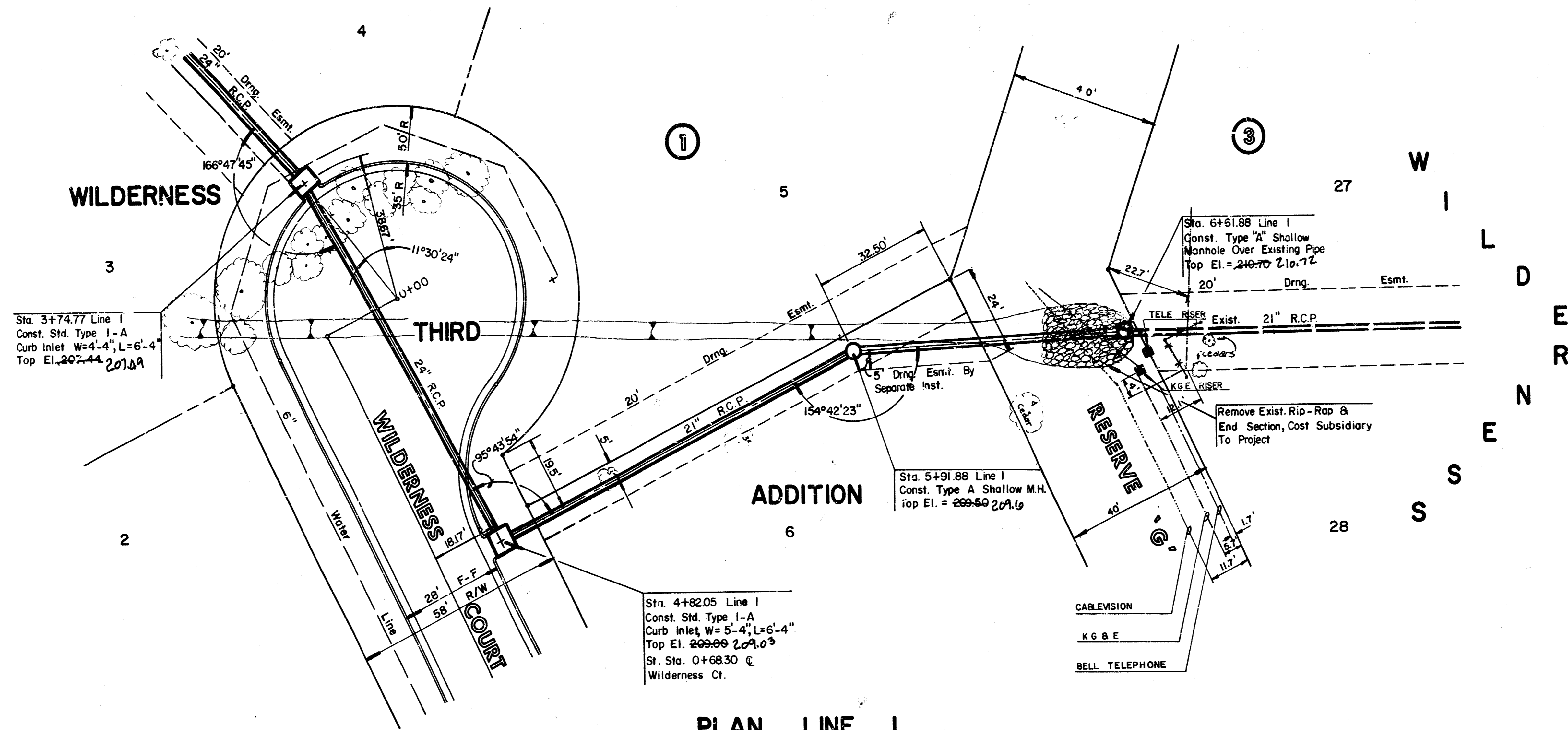


PLAN LINE 1

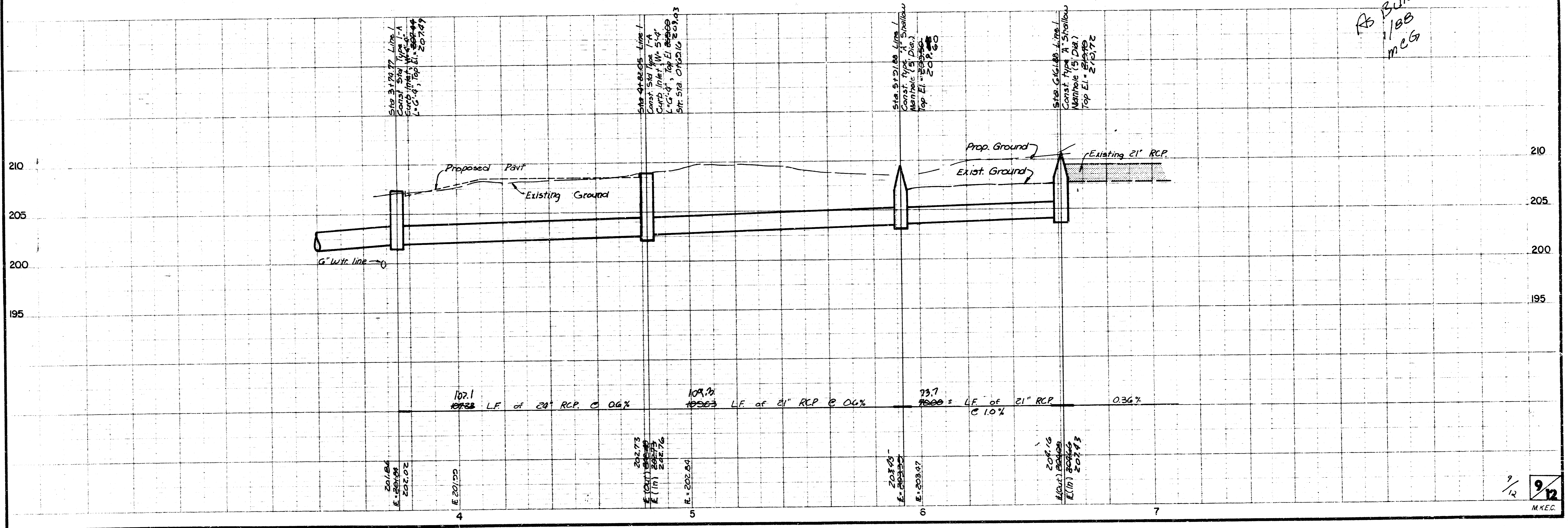


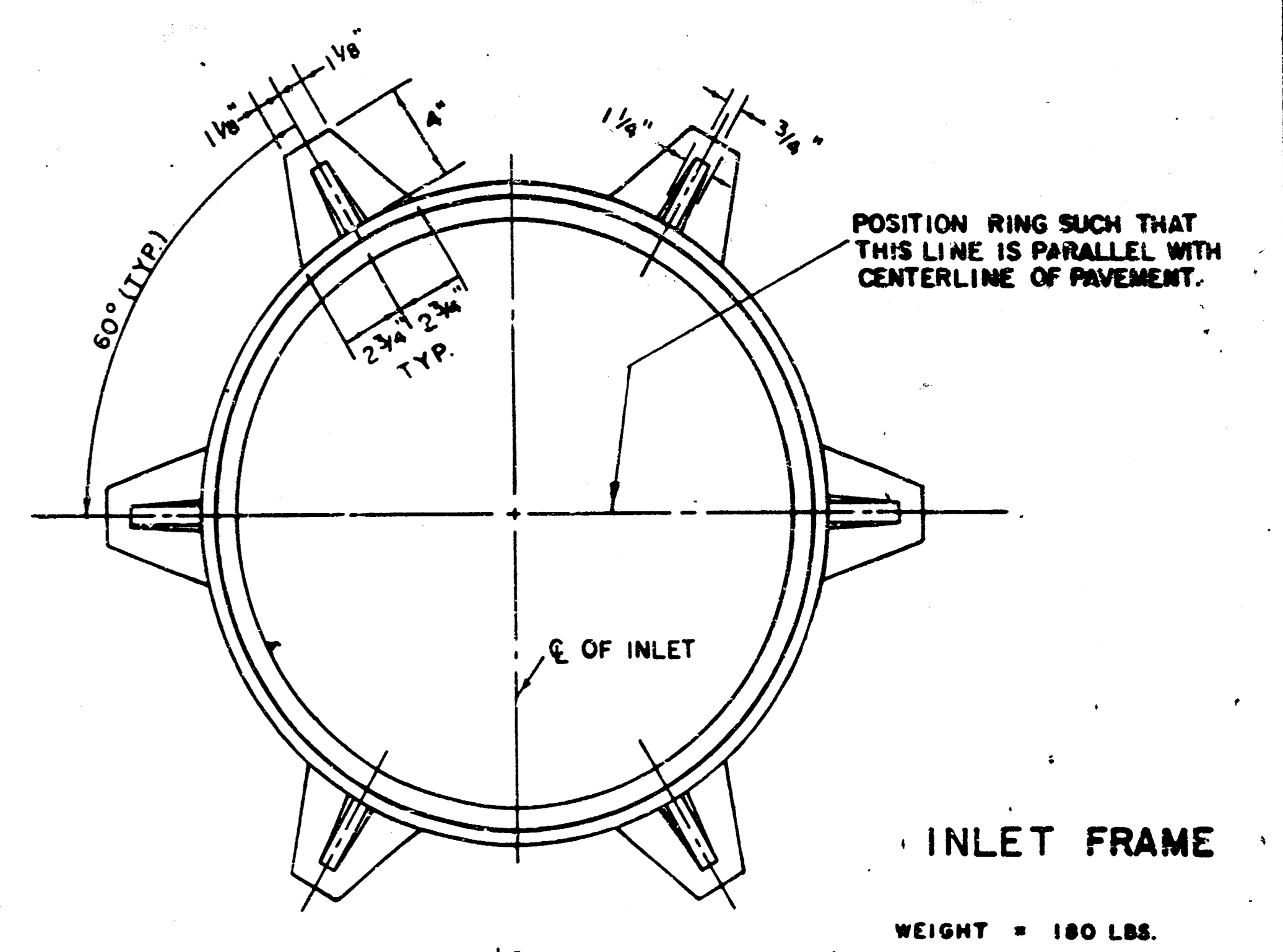
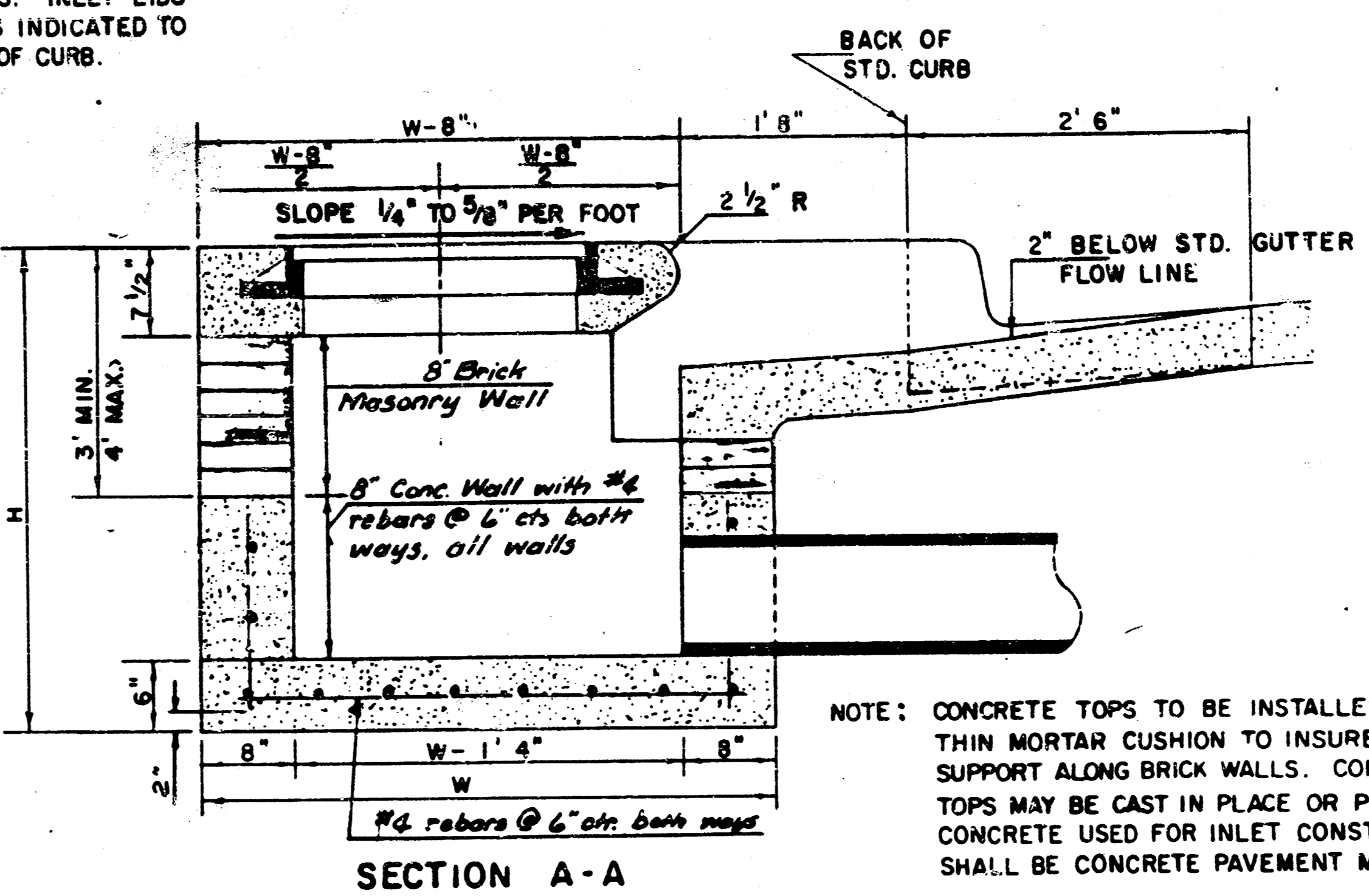
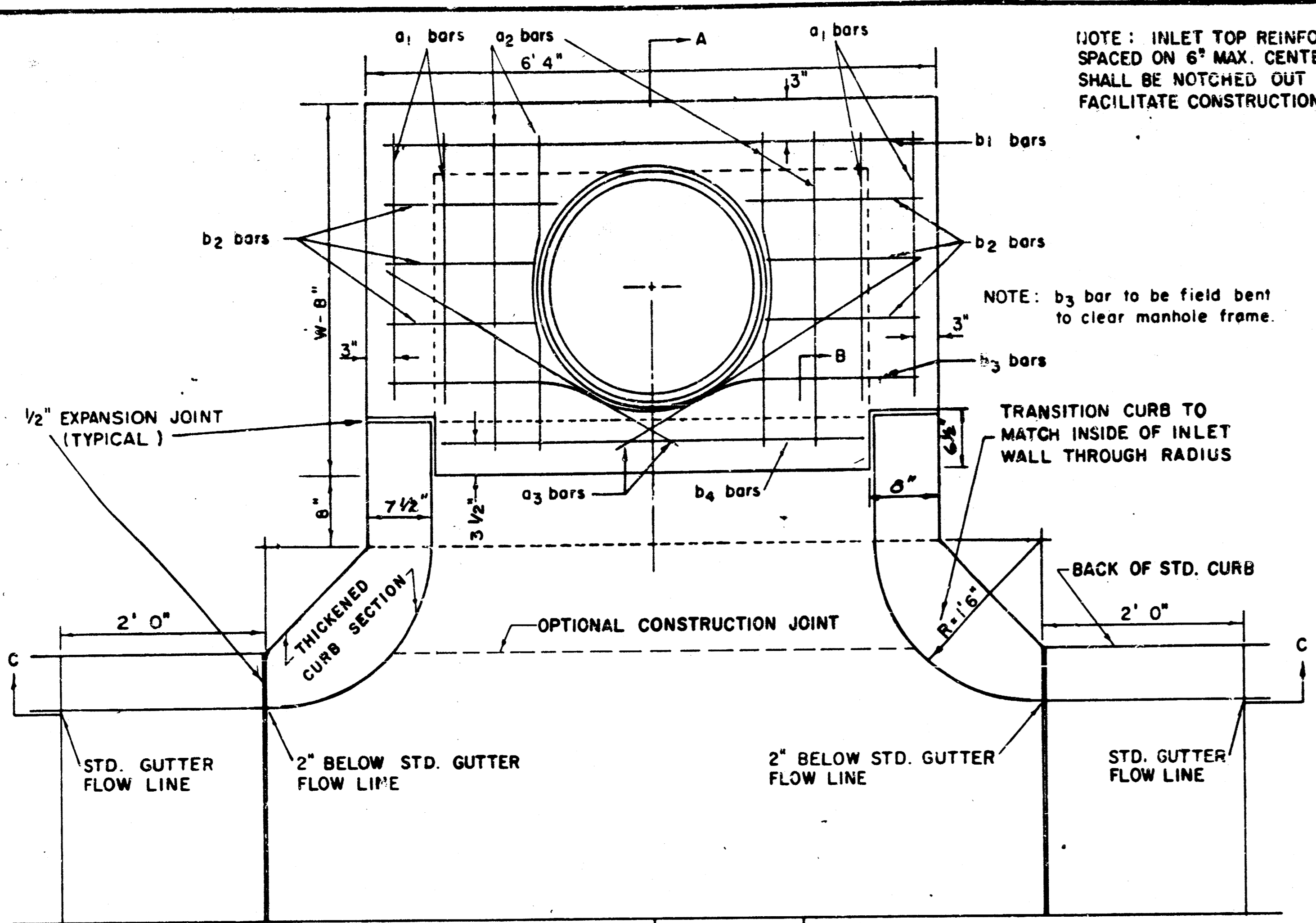
PROFILE LINE 1

*AS BUILTS
 1/88
 MEG.*



PLAN LINE 1





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

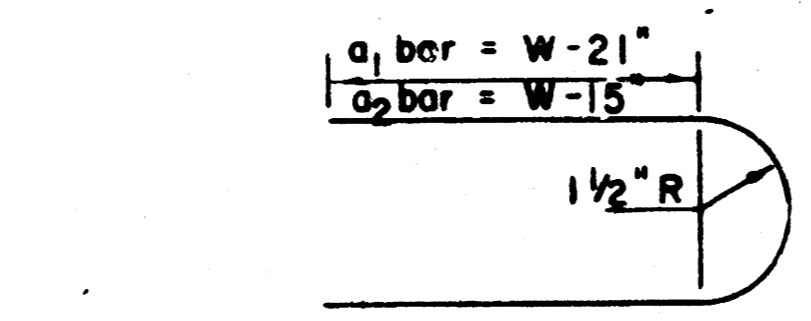
PLAN

STEEL SCHEDULE

BAR NUMBER	a ₁		a ₂		a ₃		b ₁		b ₂		b ₃		b ₄		WT. LBS.
	4	4	2	1	3	5	7	9	6	1	1				
SIZE	"4	"4	"4	"4	"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"	81±			
	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



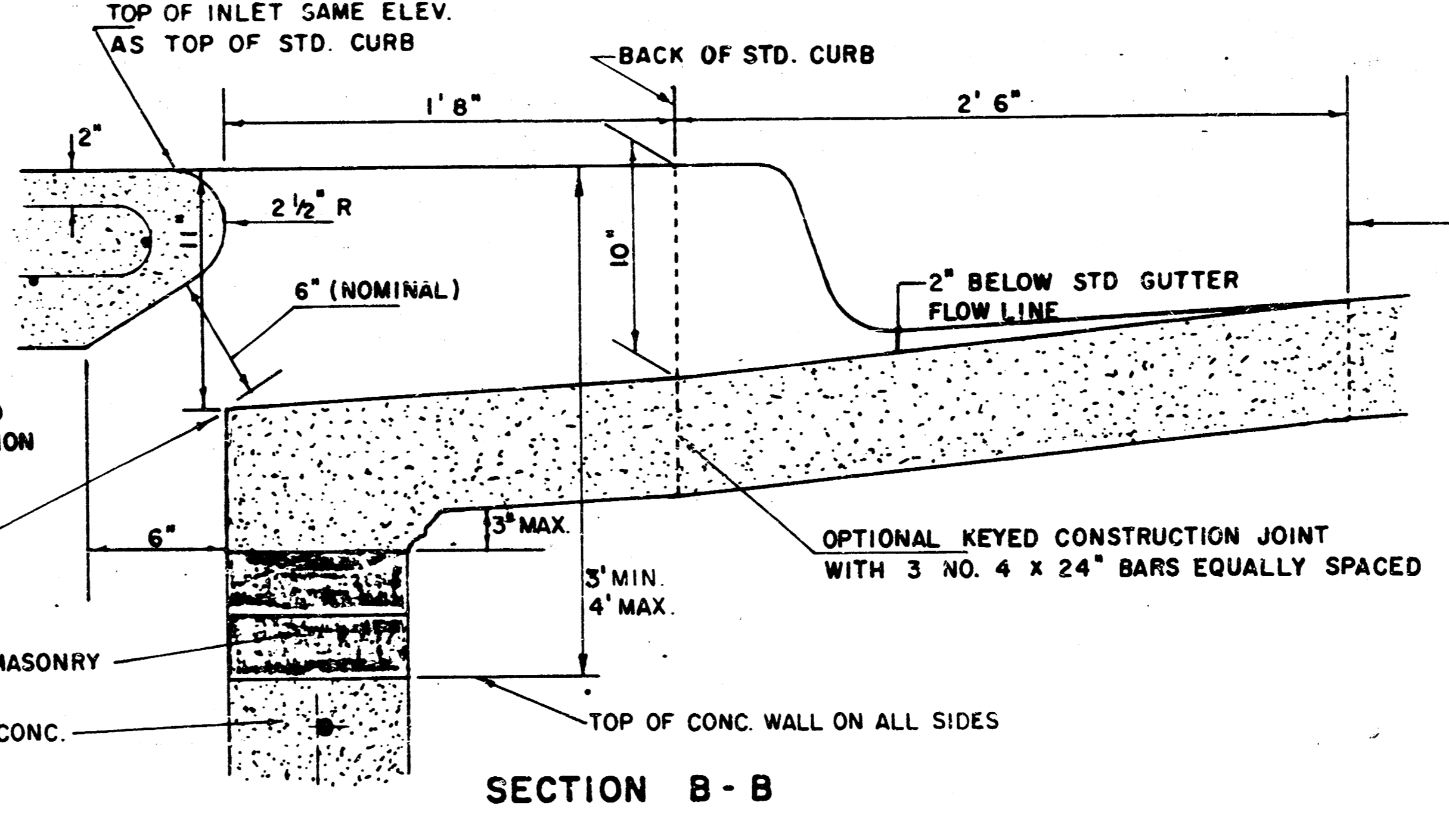
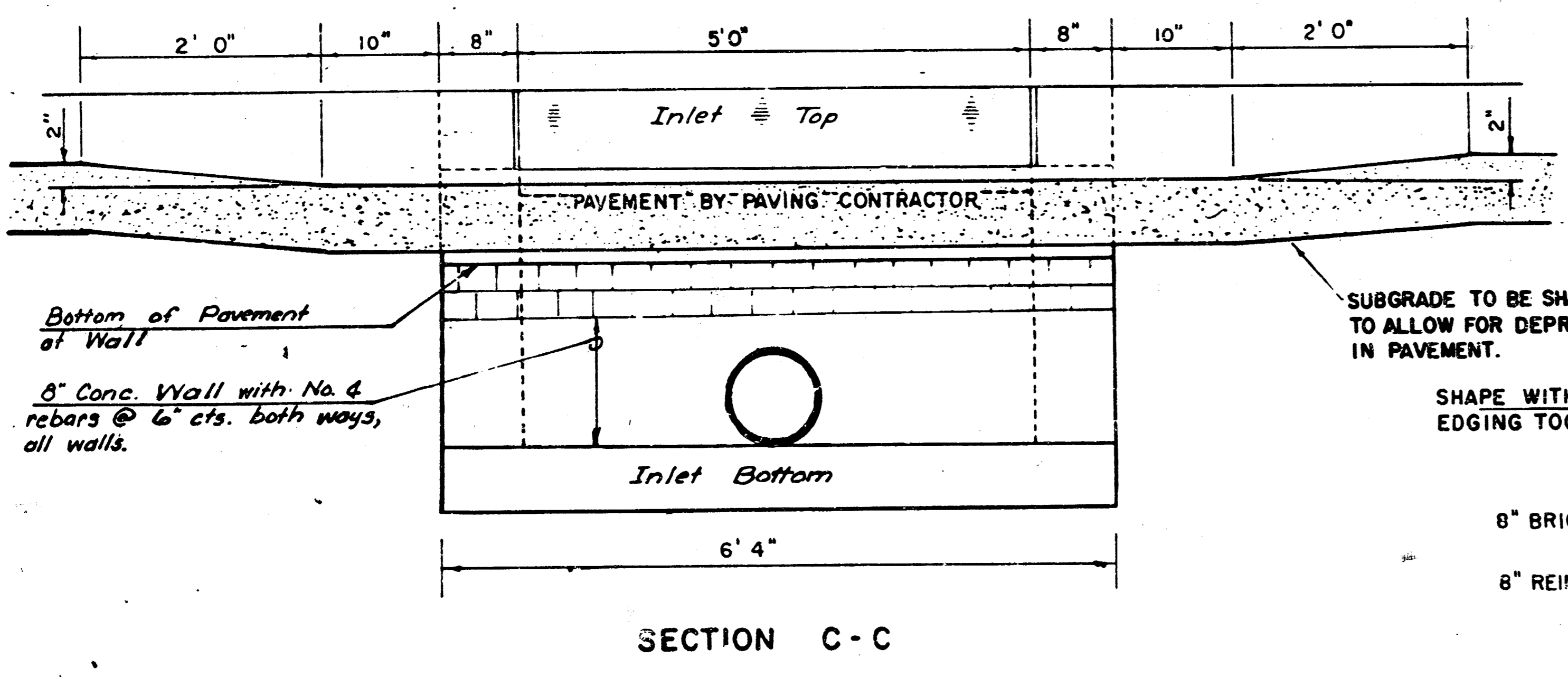
STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4' 4"	5'8" x 6'4" x 7 1/2"	21" B.S.	0.38 ±
5' 4"	6'8" x 6'4" x 7 1/2"	24" B.S.	0.51 ±
6' 4"	7'8" x 6'4" x 7 1/2"	36" B.S.	0.64 ±
7' 4"	8'8" x 6'4" x 7 1/2"	48" B.S.	0.77 ±
8' 4"	9'8" x 6'4" x 7 1/2"	60" B.S.	0.90 ±

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.

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 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.



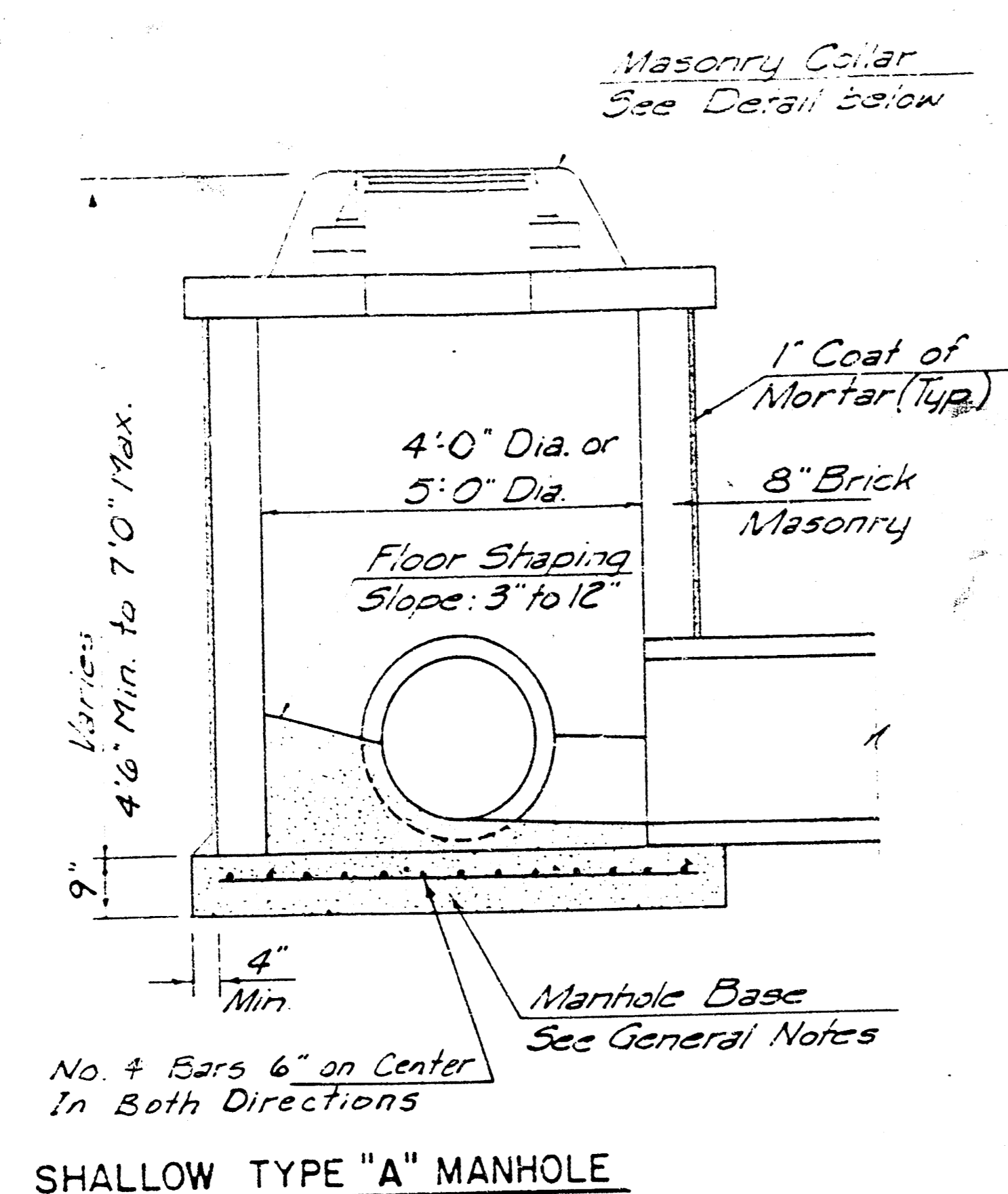
LIMITS OF GUTTER SHAPING AND/OR EDGE OF COMB. CURB AND GUTTER

REVISED 12-21-1984

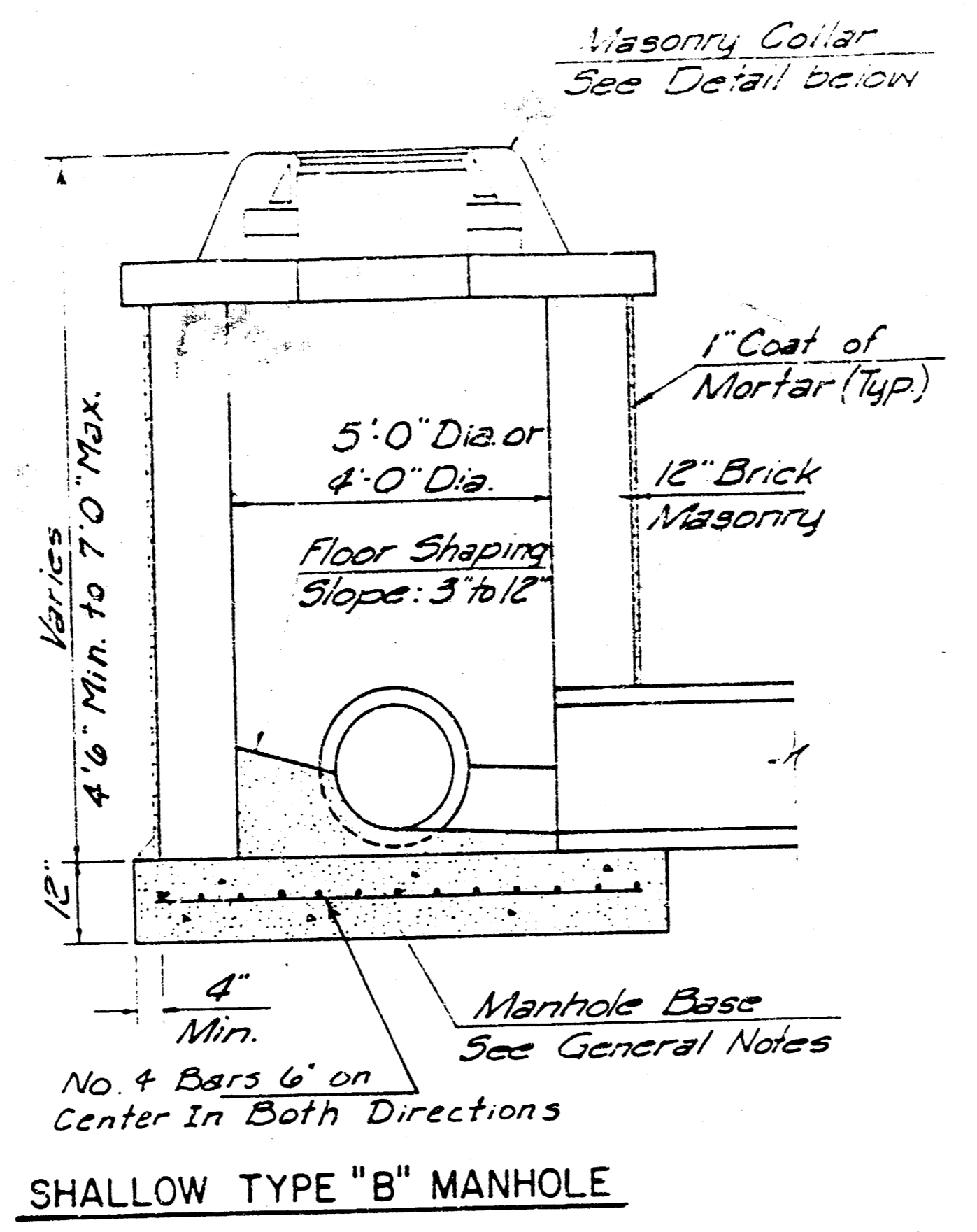
DETAIL STANDARD TYPE IA CURB INLET
CITY OF WICHITA, KANSAS
INLET OPENING = 6" x 5' 0"

JUNE 1984

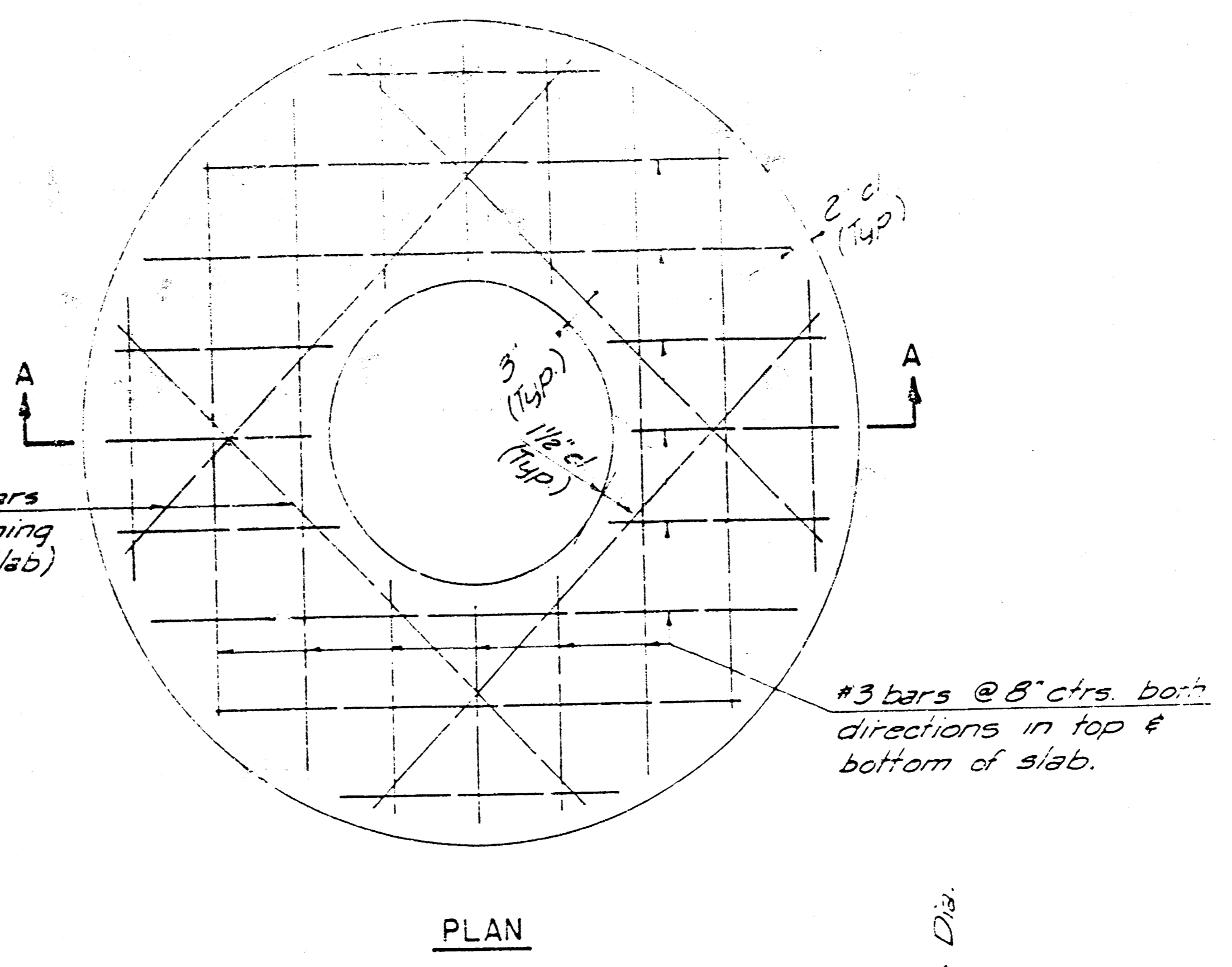
10/12



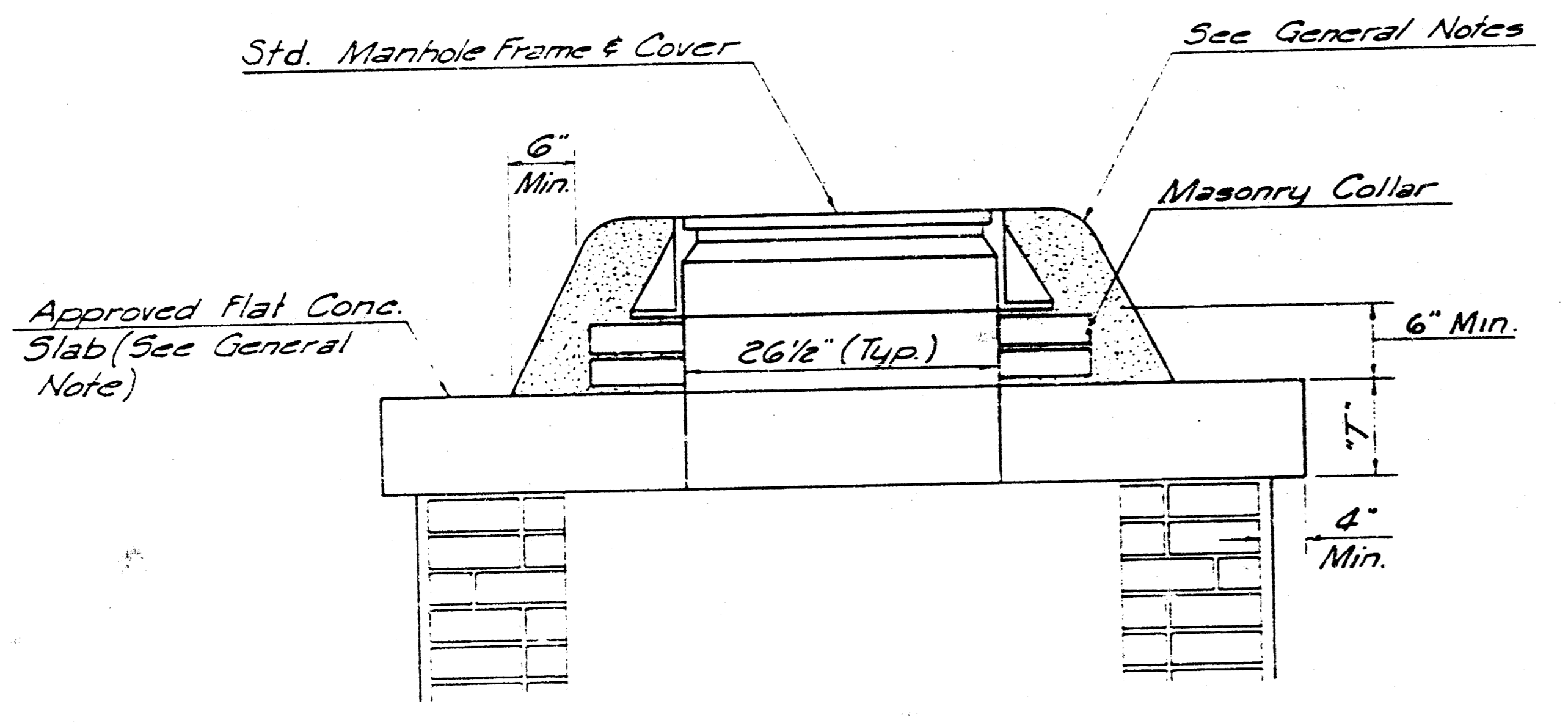
SHALLOW TYPE "A" MANHOLE



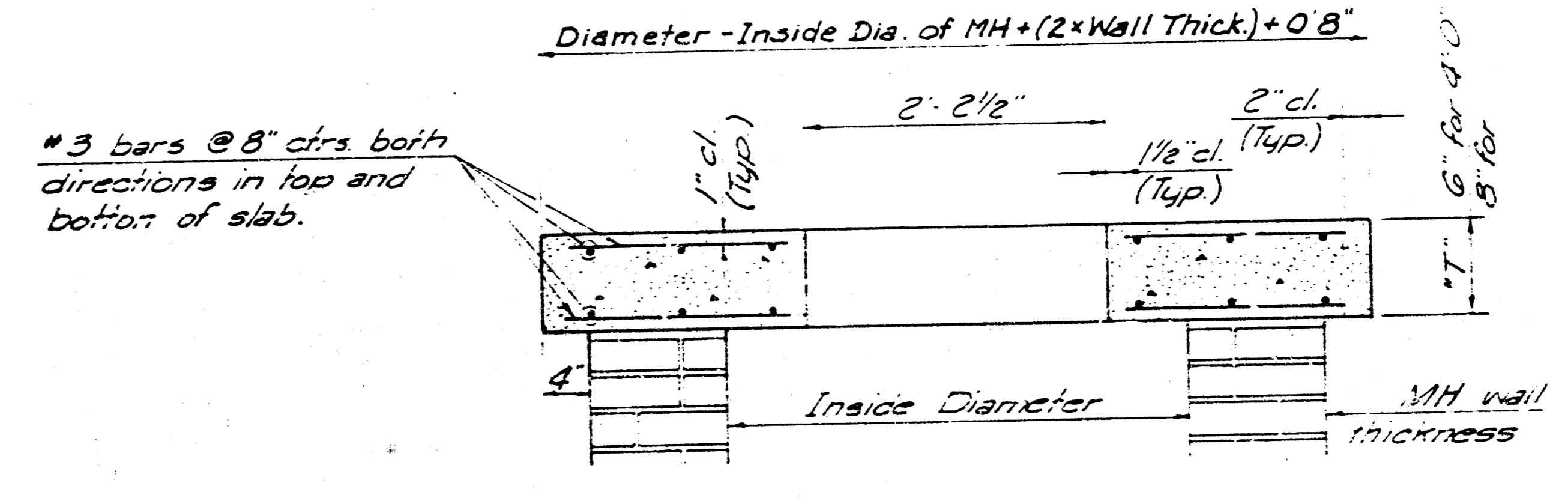
SHALLOW TYPE "B" MANHOLE



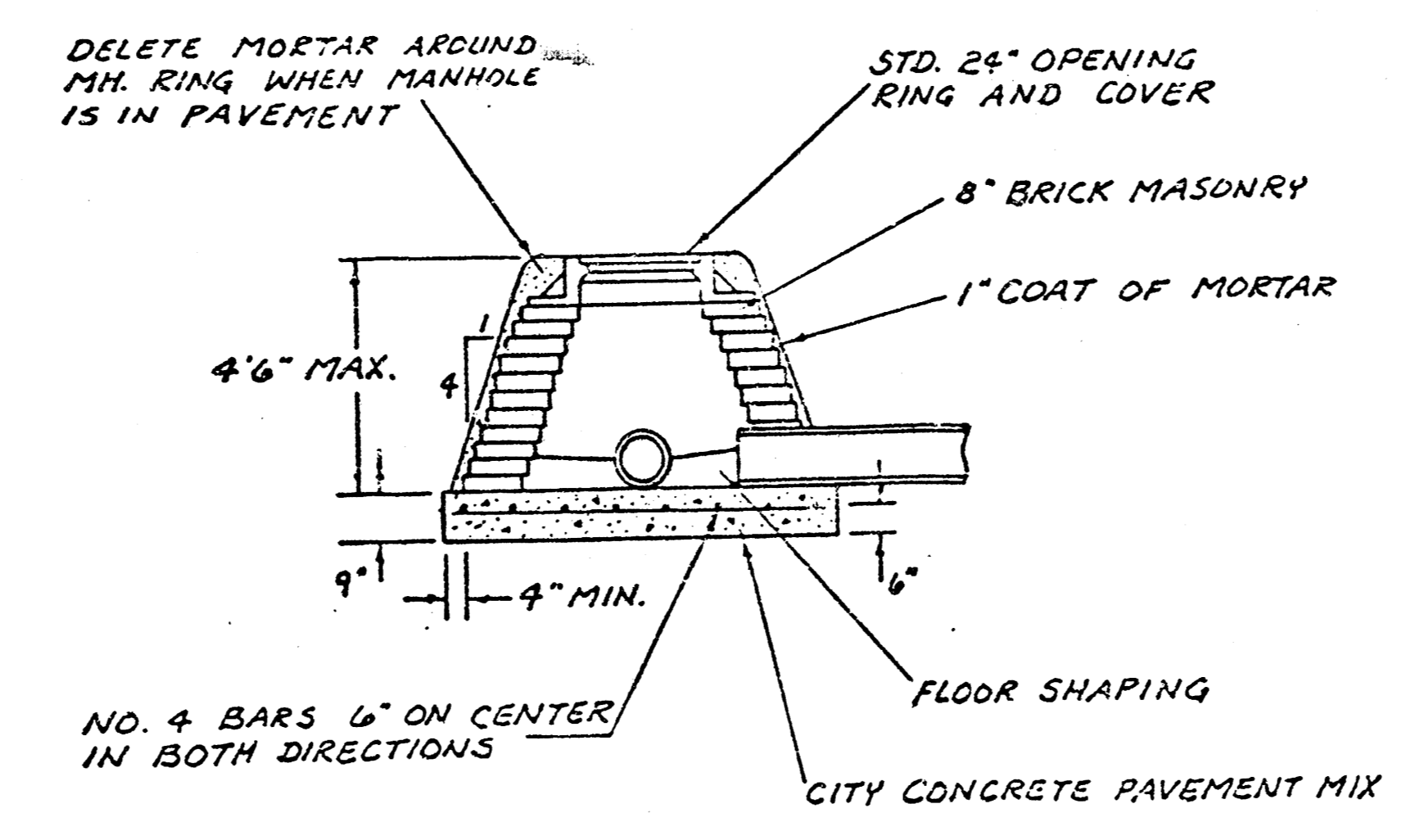
PLAN



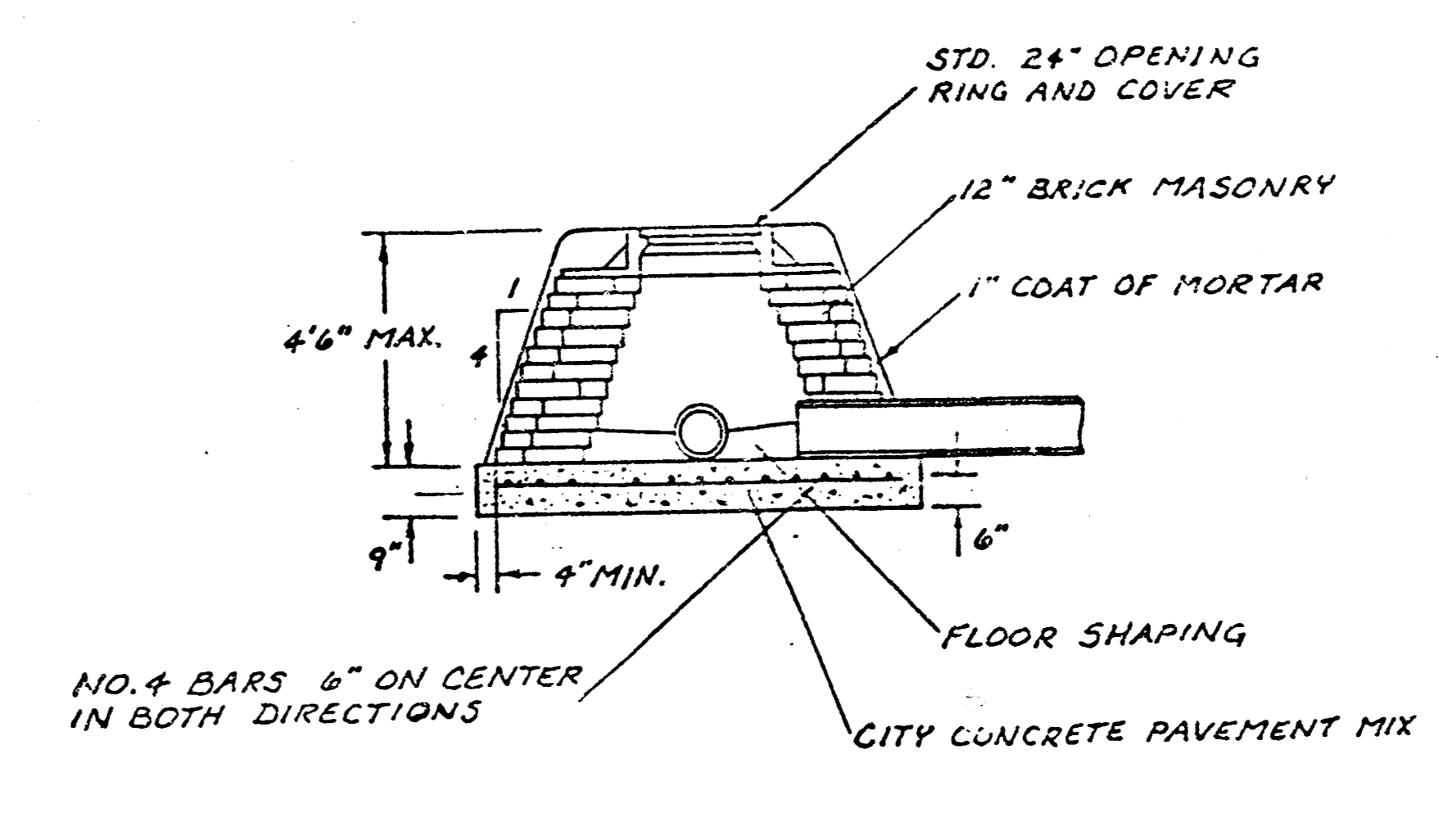
MASONRY COLLAR DETAIL



**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 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE CEMENT MIX WITHOUT AIR ENTRAINING AD MIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. TYPE "A" SHALLOW MANHOLES CAN BE USED ON SEWERS WHEN THE MANHOLE IS NOT LOCATED WITHIN PUBLIC STREET PAVEMENT. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4". MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5". COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
- REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED 6" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM 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. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPES TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT 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 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 CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
- STANDARD SHALLOW MANHOLES TYPE "A" AND "B" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE AND DIAMETER INDICATED. STANDARD SPECIAL SHALLOW MANHOLES TYPE "A" AND "B" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE INDICATED. ALL STANDARD SHALLOW MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.

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

11/12

Designed by	Checked by
Date	Date
Drawn by	Job No.

