CUL-DE-SAC ON WATER STREET

SOUTH OF 10TH STREET
TO SERVE
MIDTOWN THIRD ADDITION

PROJECT NO.
422·60·160·80058·000·000·000

CITY OF WICHITA, KANSAS
MIKE LINDEBAK, CITY ENGINEER
FEBRUARY, 1986

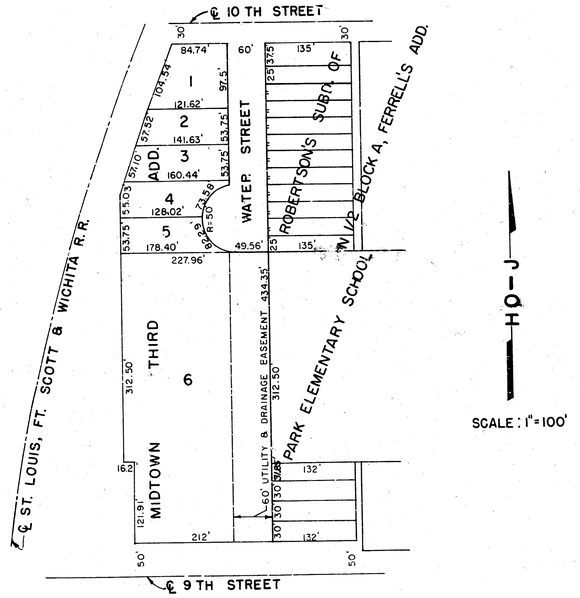
GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS TO COMPLY WITH CITY OF WICHITA STANDARDS.
2. CONCRETE SHALL BE STANDARD PAVING MIX UNLESS OTHERWISE NOTED.
3. AT LEAST 48 HOURS PRIOR TO BEGINNING EXCAVATION (EXCLUDING WEEKENDS AND HOLIDAYS), THE CONTRACTOR SHALL CONTACT THE KANSAS ONE-CALL SYSTEMS, A UTILITY LOCATION SERVICE AT (316) 687-2470 TO REQUEST THE FOLLOWING UTILITY COMPANIES TO LOCATE ANY EXISTING LINES WITHIN THE PROJECT AREA: ARKLA GAS COMPANY, K.P.& L. GAS SERVICE, K.G.& E., THE WICHITA WATER DEPARTMENT, AND AIR CAPITAL CABLEVISION.
4. THE CONTRACTOR MUST ALSO NOTIFY BELL TELEPHONE COMPANY AT (913) 571-2115 48 HOURS PRIOR TO BEGINNING EXCAVATION AND REQUEST THAT ANY LINES WITHIN THE PROJECT AREA BE FLAGGED.
5. EXISTING UTILITIES AND THEIR LOCATIONS AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR THEIR LOCATION. INFORMATION HAS BEEN OBTAINED FROM THE PARTIES OWNING THE LINES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR CONTACTS WITH THEIR FIELD LOCATIONS. THE PLANS LOCATIONS SHOWN ARE NOT GUARANTEED AND ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
6. CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR CONSTRUCTION SCHEDULING.
7. 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 BY A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS. ALL COST FOR THIS WORK SHALL BE SUBSIDARY TO THE OTHER ITEMS OF WORK.
8. DRIVEWAYS SHOWN TO BE REPLACED SHALL BE REPLACED TO ORIGINAL WIDTH WITH A 10' MINIMUM, WHICHEVER IS LARGER. ANY EXCESS WIDTH GREATER THAN THE ABOVE SHALL BE A PRIVATE CONTRACT BETWEEN THE PROPERTY OWNER AND THE CONTRACTOR. NO DRIVEWAY CONSTRUCTION SHALL COMMENCE UNTIL THE REQUIRED PAPERWORK IS COMPLETED.

BENCH MARKS

B.M. # 1 — Top of Iron in Thimble @ Centerline of 9th & Water St. Elev.= 115.94

B.M.# 2 — Top of Iron in Thimble @ Centerline of 10th & Water St. Elev.= 117.08

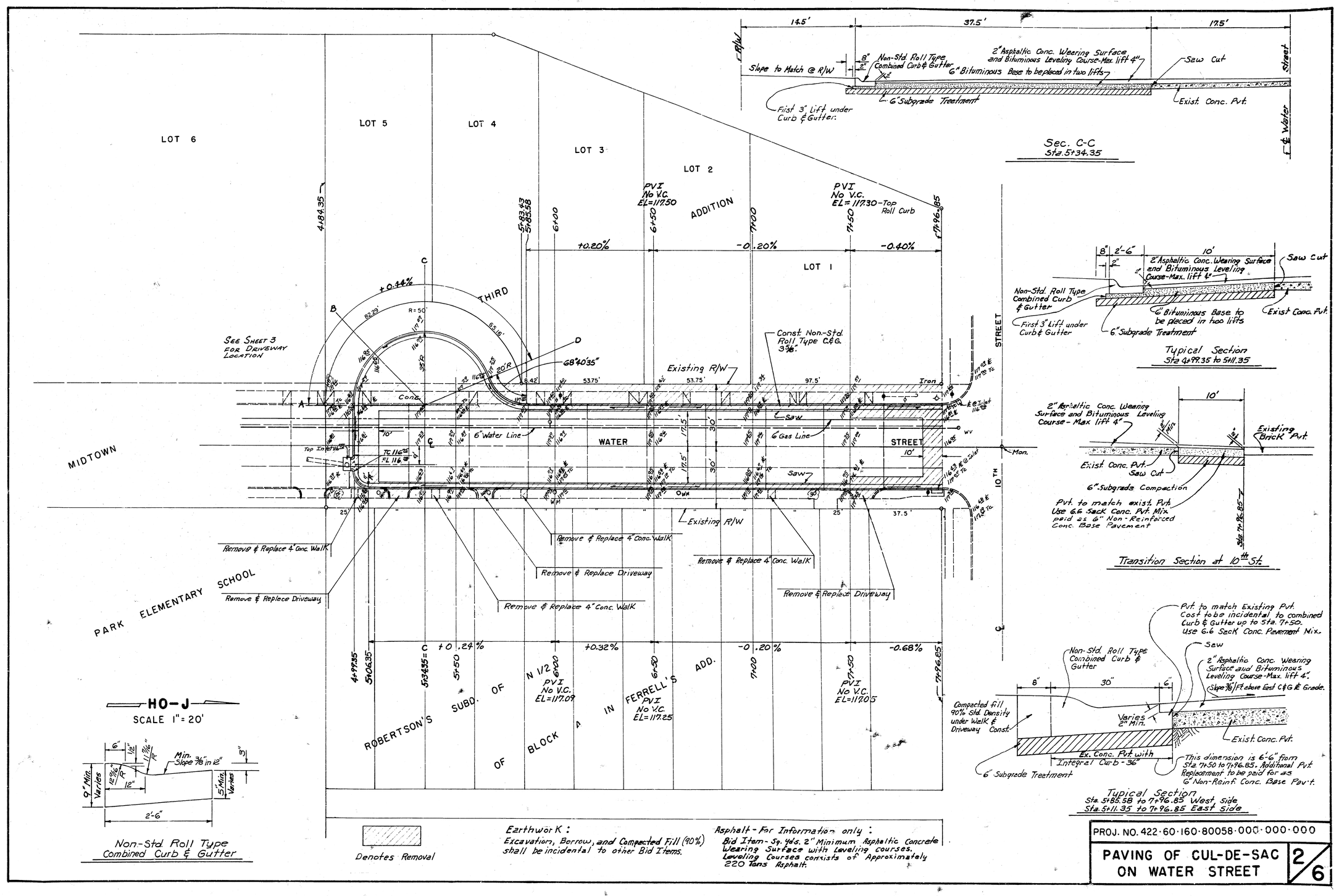


INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1.	TITLE SHEET
2.	PAVING PLAN
3.	DRAINAGE PLAN
4.	INLET DETAIL
5.	MANHOLE DETAIL
6.	CROSS SECTIONS

BILL H. OTTEN LICENSED NO. 1793 KANSAS PROFESSIONAL ENGINEER

HO — J	PAVING PLANS FOR CUL-DE-SAC ON WATER STREET	DESIGN B.H.O. / DRAWN BY B.H.O. / CHECKED BY J.B. / JOB NO. / DATE
HO-J ENGINEERING 1542 SOUTH ST. FRANCIS WICHITA, KANSAS 67211 264-0341		SHEET 1 OF 6



PROJ. NO. 422·60·160·80058·000·000·000

PAVING OF CUL-DE-SAC ON WATER STREET 2/6

HO-J

SCALE: 1" = 20' HORIZ.
1" = 5' VERT.

Install 76' of Non-Std. Comb. C&G.

Sta. 0+00

9th St.

6" Gas Line

At New 15" RCP @ Inlet = 114.43

Sta. 0+27 Const. Std. Shallow Manhole. Type A.

Remove or abandon and Plug 8" Pipe as reqd. by new Construction

Remove Inlet

Install 43 Lin. Ft. of 15" RCP @ 6.0%

Lot 6

Addition

Third

Midtown

Sta. 4+95.35 Const. Std. Type 1A Curb Inlet

60' Utility & Drainage Easement

Construct 18' Wide Radius Ramp Type Drive Approach 8" Thick. Owner is the Wichita Board of Education.
Drive to be charged to the project.

MON

WM

WMO

WV

6" Gas line

6" Water Line

18" RCP

Water Service Line

15'

9'

℄ Water St.

60'

21'

Existing R/W

434.35'

Existing 18" S.W.S.

℄ Water St. Extended for Port Cont. No. 80

18" RCP

25'

Existing 21" S.W.S.

6" Water Line

6" Gas Line

50'

Remove Inlets

Install 250 Sq. Ft. of 4" Sidewalk.

Sta. 0-15.5 Existing Manhole. Rework Invert to accomodate New 18" Pipe. Cost to be incidental to Project.

171.82'

Abandon 8" Pipes & Plug

NW SE ¼ SEC 11

Park

Elementary

School

6" CIP Roof Drain

New 2" Asphaltic Conc. Overlay. Thickness may vary at tie in with existing

Water Meter Vault

6" CIP Roof Drain

Existing Asphaltic Conc. Overlay

Saw

Slope Varies

5"

8"

6"

3"

4"

8"

Variable 12" Min.

Non-Std. Combined Curb & Gutter

Existing Brick Pavement

Fill this area with 6.6 Sack Unreinforced Conc. Pavement. Cost to be incidental to Bid Item-Non Std. Combined Curb & Gutter

6"

12"

2'-6"

6" Subgrade Treatment - Compact to 95% Std. Density.

Sta. 4+84.35'

Denotes Removal

Typical Section A-A
@ 9th Street

Sta 0+15.5 Exist. M.H.

Sta 0+27 Const. Std. Shallow M.H. Type A. Top Elev 116.90

Sta 4+95.35 Const. Std. Type 1A Curb Inlet W = 4'-4" Top El. 116.15

Top of Existing Conc. Pavement over ℄ of Pipe

Proposed Finished Grade @ ℄ of 60' Utility & Drainage Easement. Slope to Top of Removed Curb on East & R/W on West. Compact to 90% of Standard Density. Approx. 910 C.Y.s

Top of Proposed 18" RCP

115

110

105

42.5 Lin. Ft. of 18" RCP @ 0.40%

468.35 Lin. Ft. of 18" RCP @ 0.35%

10865 ℄ 21" East
108.90 ℄ 18" N.W.

10964 ℄ 18" West
109.79 ℄ 8" N.W.

110.07 ℄ 18" S.E.
110.17 ℄ 18" N.

111.85 ℄ 15" W.

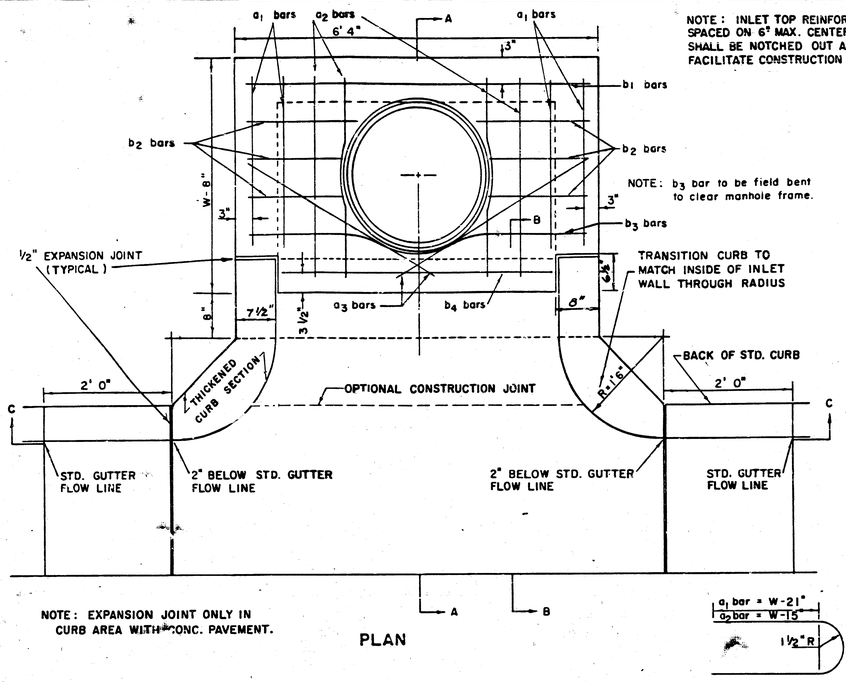
111.81 ℄ 18" ℄ Inlet

-15.5 0 +27 1 110.43 2 110.78 3 111.13 4 111.48 +85.35 5

PROJ. NO. 422-60-160-80058-000-000-000

DRAINAGE OF CUL-DE-SAC ON WATER STREET

3/6

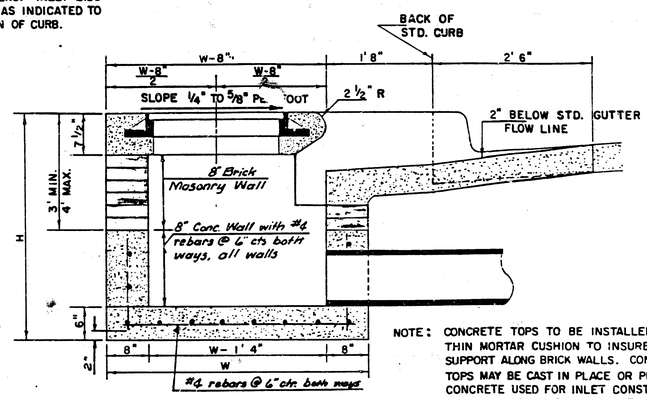


NOTE: EXPANSION JOINT ONLY IN CURB AREA WITH CONC. PAVEMENT.

PLAN

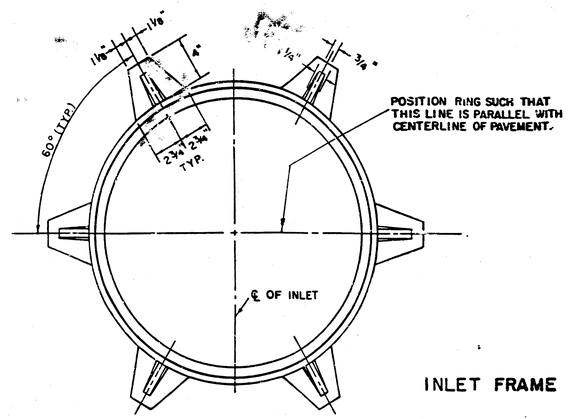
NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.

NOTE: b_3 bar to be field bent to clear manhole frame.



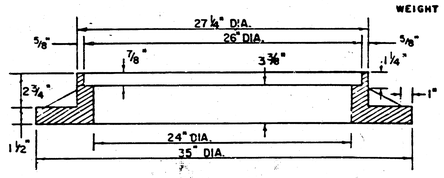
SECTION A-A

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.



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.

BENDING DIAGRAM

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.

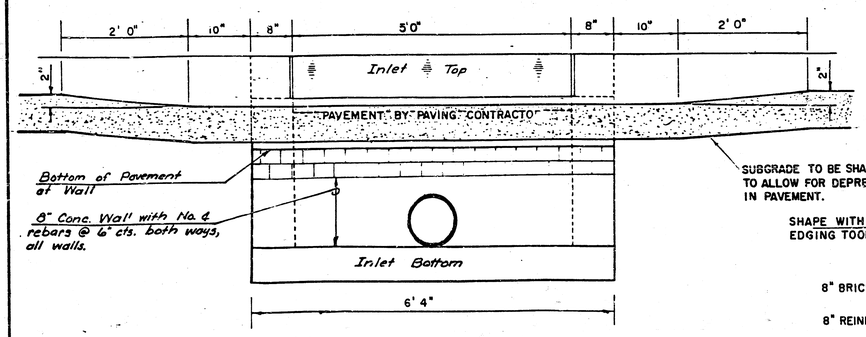
THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

STEEL SCHEDULE

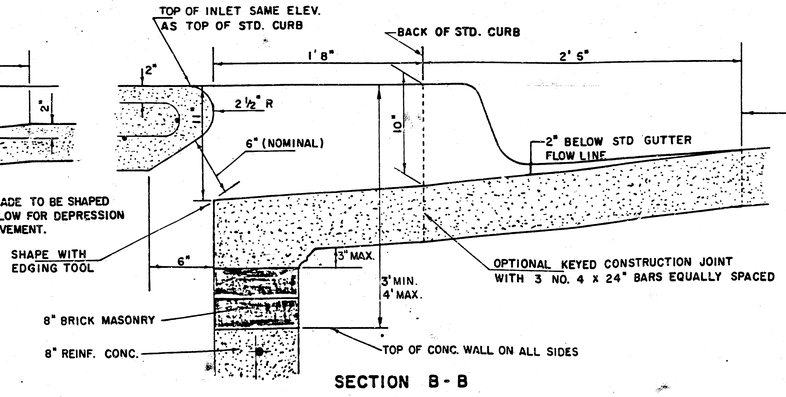
BAR		a_1	a_2	a_3*	b_1 W=4'4"	b_1 W=5'4"	b_1 W=6'4"	b_1 W=7'4"	b_1 W=8'4"	b_2	b_3	b_4	WT. LBS.
NUMBER		4	4	2	1	3	5	7	9	6	1	1	
SIZE		#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH	W=4'4"	5'7"	6'7"	4'0"	6' 1"	–	–	–	–	1' 9"	6'2"	4'8"	60±
	W=5'4"	7'7"	8'7"	5'0"	–	6' 1"	–	–	–	1' 9"	6'2"	4'8"	81 ±
	W=6'4"	9'7"	10'7"	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: a_3 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 6'4" x7 1/2"	21" & SMALLER	0.38 ±
5' 4"	4'8"x 6'4" x7 1/2"	24" & 30"	0.51 ±
6' 4"	5'8"x 6'4" x7 1/2"	36" & 42"	0.64 ±
7' 4"	6'8"x 6'4" x7 1/2"	48" & 54"	0.77 ±
8' 4"	7'8"x 6'4" x7 1/2"	60" & 66"	0.90 ±



SECTION C-C



SECTION B-B

REVISED 12-2-1984

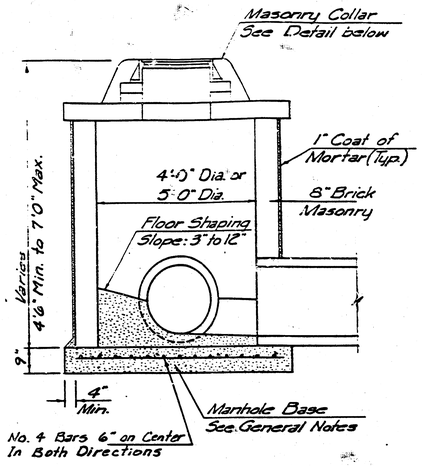
DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

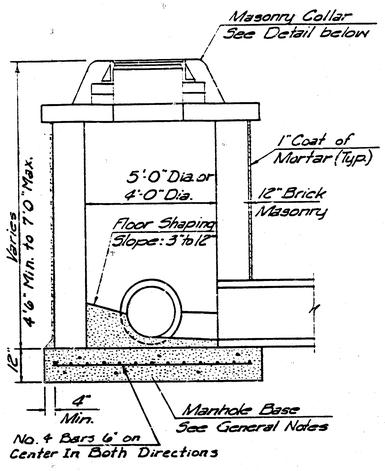
INLET OPENING = 6" × 5' 0"

JUNE 1984

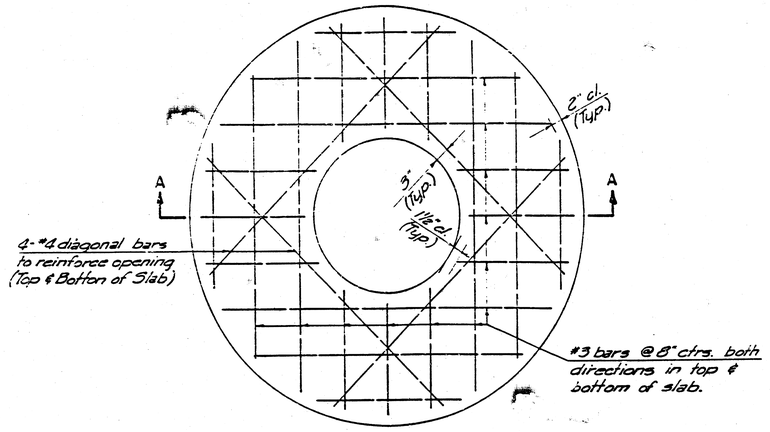
4/6



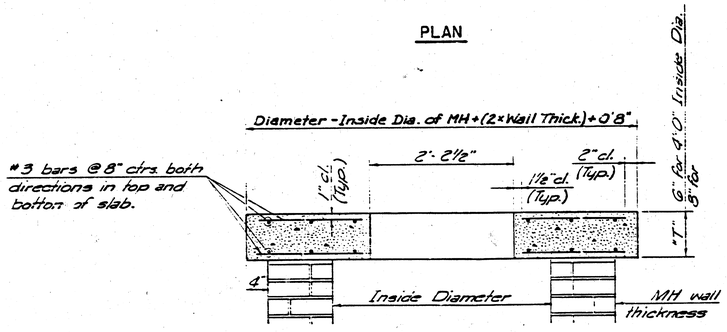
SHALLOW TYPE "A" MANHOLE



SHALLOW TYPE "B" MANHOLE

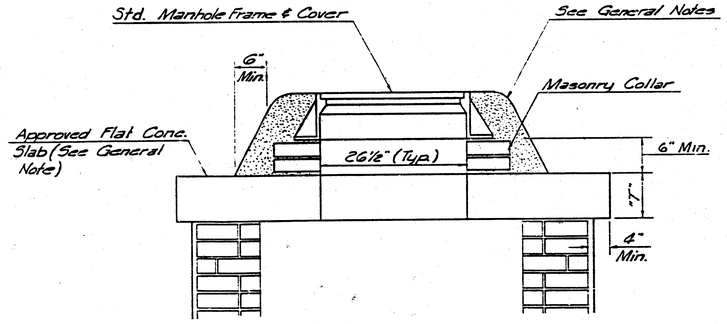


PLAN



SECTION A-A

FLAT CONCRETE SLAB DETAILS



MASONRY COLLAR DETAIL

GENERAL NOTES

1. 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 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 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.

2. 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.

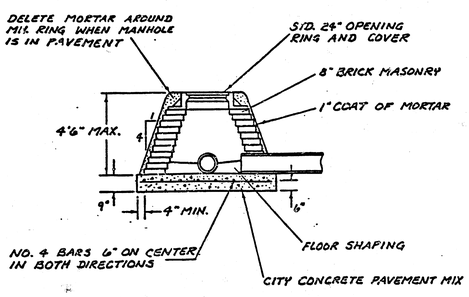
3. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE 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 SLOPED 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.

4. 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.

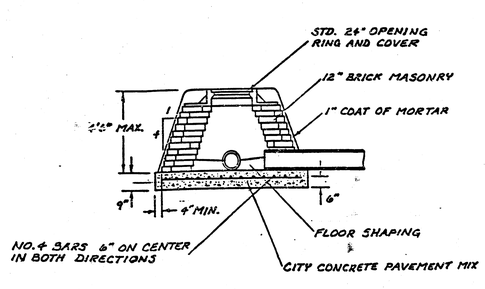
5. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWINGS.

6. THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN 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.



SPECIAL SHALLOW TYPE 'A' MANHOLE

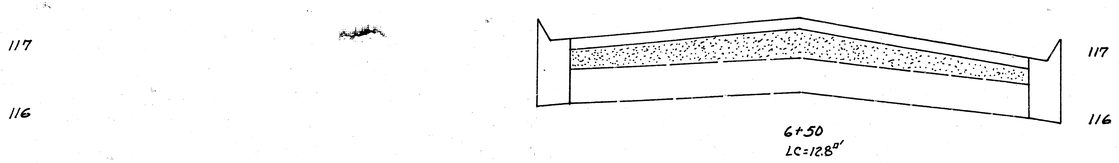


SPECIAL SHALLOW TYPE 'B' MANHOLE

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

5/6

Designed by		Checked by	
Drawn by		Date	Job No.



PROJ. NO. 422·60·160·80058·000·000·000

CROSS SECTIONS 6/6