LOT 1, BLK. 1, VIA CHRISTI FAMILY PRACTICE ADDITION
SANTITARY SEWER & SWS
1364PPS (607861)

GENERAL NOTES

1. UNLESS SHOWN OR STATED OTHERWISE ON THESE DRAWINGS, MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS.

2. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF SEVENTY-TWO (72) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

   KANSAS ONE-CALL 1-800-344-7233
   or 687-2470 (LOCAL WICHITA)

   THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

SBC (TELEPHONE)	800-870-8390
COX COMMUNICATIONS (CABLE)	262-0661
KANSAS GAS SERVICE (GAS)	832-3101
CITY OF WICHITA WATER & SEWER	262-6000
WESTAR (ELECTRIC)	261-6512
AQUILA (GAS)	946-0098

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL 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.

4. 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.

5. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

6. COST OF EXCAVATION, HAULING, AND DUMPING OF EXCESS EXCAVATION SHALL BE SUBSIDIARY TO THE PROJECT.

7. A PORTION OF EXCESS EXCAVATED MATERIAL SHALL BE MOUNDED AROUND MANHOLES WHICH EXTEND MORE THAN ONE (1) FOOT ABOVE THE EXISTING GROUND. SUCH MOUNDS SHALL BE CONSTRUCTED WITH A SIX (6) FOOT DIAMETER FLAT TOP WITH 4 TO 1 SIDE SLOPES DOWN TO THE ORIGINAL GROUND. THE ELEVATION OF THE FLAT TOP OF THE MOUND SHALL BE 0.4 FOOT BELOW THE TOP OF THE MANHOLE.

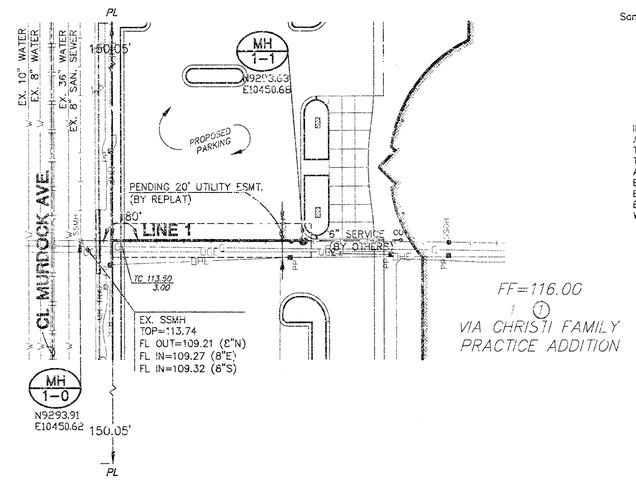
8. ALL STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE IN THE SAME MANNER AS RISERS.

9. CONNECTING TO EXISTING MANHOLES:
   PRIOR TO LAYING SEWER LINES USING EXISTING STUBS IN EXISTING MANHOLES, THE CONTRACTOR SHALL EXPOSE AND VERIFY THE ELEVATION, GRADE AND ALIGNMENT OF EXISTING STUBS AND NOTIFY THE ENGINEER OF ANY DEVIATION FROM THE PLAN. WHERE CONNECTION TO AN EXISTING MANHOLE THAT DOES NOT HAVE AN EXISTING STUB OR THE STUB IS UNUSABLE DUE TO ELEVATION GRADE OR ALIGNMENT, THE CONTRACTOR SHALL BORE CUT INTO EXISTING MANHOLE WALL TO MAKE CONNECTION USING APPROVED WATER STOP GASKET, AND RESHAPE THE EXISTING MANHOLE INVERT TO PROVIDE SMOOTH FLOW. THE COST OF CONNECTING TO EXISTING MANHOLES IS INCIDENTAL TO THE PROJECT.

10. TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.

11. ALL DISTURBED AREAS TO BE SEEDED WITH RYE GRASS AT A RATE OF 200 LBS. PER ACRE WITHIN 10 DAYS OF CONSTRUCTION. CONTRACTOR TO PREPARE GROUND PER CITY SPECIFICATIONS. COST IS SUBSIDIARY TO SITE PREPARATION AND RESTORATION.

SCALE: 1" - 40'



FF=116.00
1 ①
VIA CHRISTI FAMILY PRACTICE ADDITION

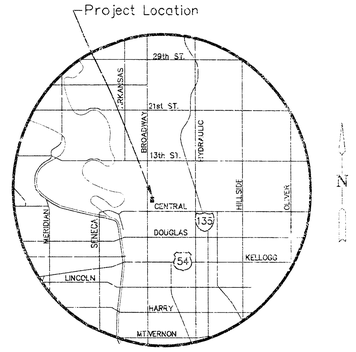
APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA &
BY WICHITA FIRE DEPARTMENT

Storm Sewers VRH 11/5/03

Sanitary Sewer VRH 11/5/03

NOTE TO CONTRACTOR

INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM UNDER CONTRACT WITH THE OWNER/DEVELOPER. SAID INSPECTION TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR THE PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.



LOCATION MAP

NOTE: SERVICE LINES TO BE INSTALLED BY OTHERS SUBJECT TO O.C.I. REVIEW.

NOTE: CONTRACTOR TO VERIFY DEPTH & LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

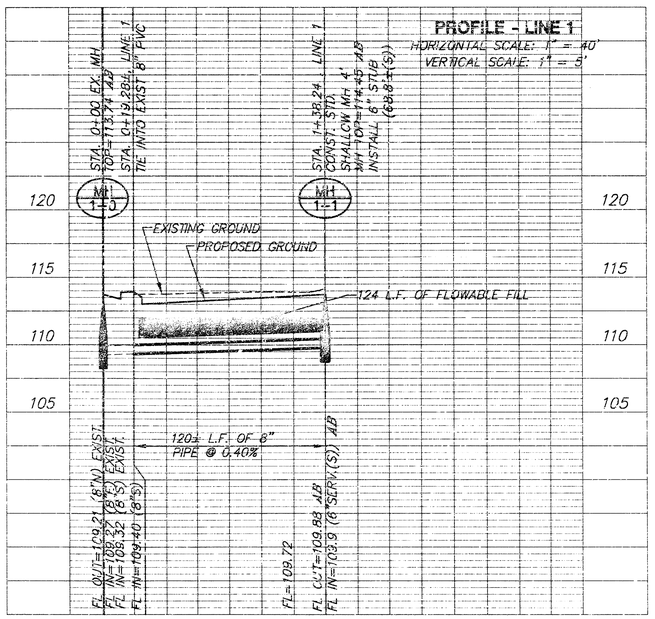
NOTE: ABANDON 8" SEWER IN PLACE. REMOVE OBSERVATION HOLES & MANHOLES.

BENCHMARKS

BM 1 113.86 "+" W SIDE OF POWER POLE ON BASE NE CORNER OF PINE & ST. FRANCIS

BM 2 112.48 "□" T.C. W OF RETURN @ SW CORNER PINE & EMPORIA.

BM 3 113.86 "+" E SIDE OF TRAFFIC SIGN BASE @ SE CORNER OF MURDOCK & TOPEKA



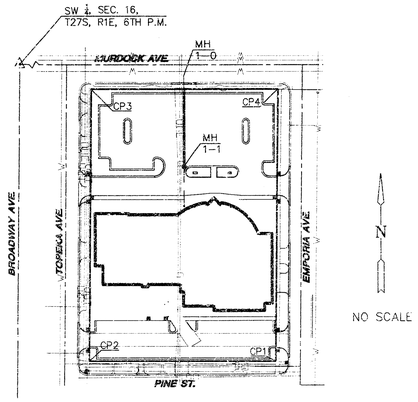
PLAN - LINE 1
SCALE: 1" = 40'

CP1	N8993.39	E10596.06
CP2	N8993.46	E10296.10
CP3	N9413.63	E10300.62
CP4	N9413.63	E10600.73
MH 1-0	N9432.91	E10450.62
MH 1-1	N9293.63	E10450.68

Mies Construction - Contractor
Brian Lange, MKEC - Inspector
As-Built: May, 2004
Released: 11/9/04
.pdf by JDL 11/18/04



AS-BUILT MAY 2004



NO SCALE

G:\CIVIL\03186\DWG\SANY\As-built\03186B1.DWG

MKEC ENGINEERING CONSULTANTS
411 N. WEBB ROAD
WICHITA, KS. 67206
316 - 684 - 9600

SANITARY SEWER & STORM WATER SEWER TO SERVE LOT 1, BLK. 1 VIA CHRISTI FAMILY PRACTICE ADDITION
PROJECT NAME

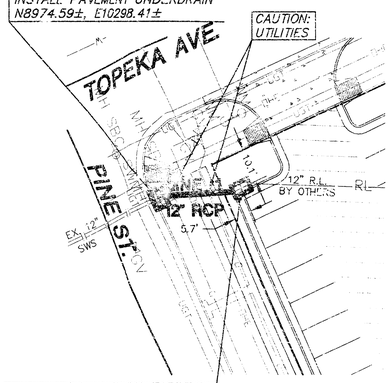
SANITARY SEWER PLANS
SHEET TITLE

JTC	DAC	JTC
DESIGN BY:	DRAWN BY:	CHECKED BY:
AUGUST 2003	03186	1 / 7
DATE	JOB NO.	SHEET/OF

LOT 1, BLK. 1, VIA CHRISTI FAMILY PRACTICE ADDITION
SANITARY SEWER & SWS
1364PPS (607861)

STA. 0+00, LINE 1
REMOVE & REPLACE EX. INLET
CONST. STD. TYPE 1 CURB INLET
(5' X 3'). TIE INTO EX. 12" PIPE
INLET TOP=113.28 AB
INSTALL PAVEMENT UNDERDRAIN
N8974.59±, E10298.41±

STA. 0+26.0, LINE 1
CONST. STD. TYPE 1 CURB INLET
(5' X 3'). INLET TOP=113.30 AB
INSTALL PAVEMENT UNDERDRAIN
~~N8999.13, E10306.23~~
N8999.00, E10305.77 AB

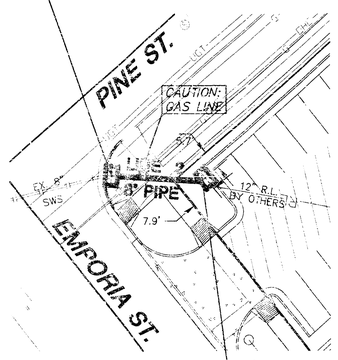


PLAN LINE 1

SCALE: 1"=20'

STA. 0+00, LINE 2
REMOVE & REPLACE EX. INLET
CONST. STD. TYPE 1 CURB INLET
(5'X 3'). TIE INTO EX. 8" PIPE
INLET TOP=112.37 AB
INSTALL PAVEMENT UNDERDRAIN
N8979.43±, E10610.52±

STA. 0+30.1, LINE 2
CONST. STD. TYPE 1 CURB INLET
(5' X 3'). INLET TOP=113.00 AB
INSTALL PAVEMENT UNDERDRAIN
~~N8999.08, E10588.23~~
N8999.05, E10588.58 AB

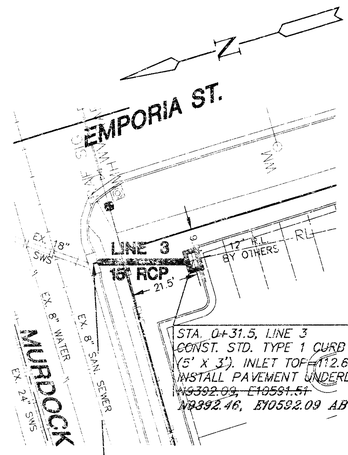


PLAN LINE 2

SCALE: 1"=20'

STA. 0+00, LINE 3
CONNECT INTO EXIST.
INLET. RESHAPE INVERT
AS REQ'D.
EX. TOP=113.08
~~N9392.09, E10591.51~~
N9422.37, E10599.71

STA. 0+31.5, LINE 3
CONST. STD. TYPE 1 CURB INLET
(5' X 3'). INLET TOP=112.60 AB
INSTALL PAVEMENT UNDERDRAIN
~~N9392.09, E10591.51~~
N9392.46, E10592.09 AB

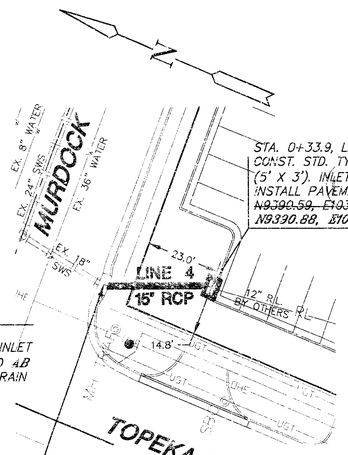


PLAN LINE 3

SCALE: 1"=20'

STA. 0+00, LINE 4
CONNECT INTO EXIST.
INLET. RESHAPE INVERT
AS REQ'D.
EX. TOP=113.10
N9422.32, E10303.73

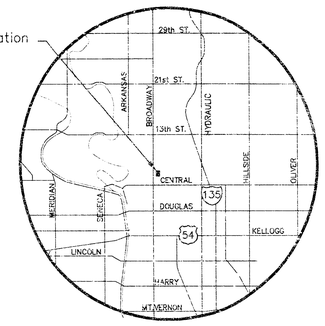
STA. 0+33.9, LINE 4
CONST. STD. TYPE 1 CURB INLET
(5' X 3'). INLET TOP=112.60 AB
INSTALL PAVEMENT UNDERDRAIN
~~N9390.59, E10315.14~~
N9390.88, E10315.23 AB



PLAN LINE 4

SCALE: 1"=20'

Project Location



LOCATION MAP

NOTE: SERVICE LINES TO BE INSTALLED BY OTHERS SUBJECT TO O.C.I. REVIEW.

NOTE: CONTRACTOR TO VERIFY DEPTH & LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

NOTE: CONTRACTOR TO COORDINATE REPLACEMENT OF PAVEMENT/SIDEWALK IN STREET R.O.W. W/CITY OF WICHITA

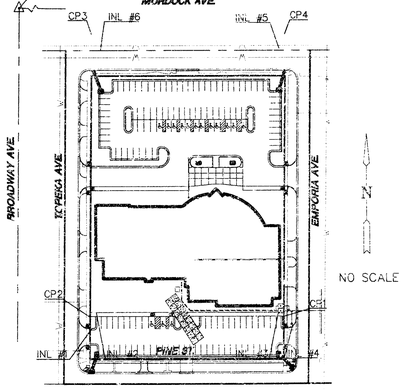
BENCHMARKS

BM 1 113.86 "+" W SIDE OF POWER POLE ON BASE NE CORNER OF PINE & ST. FRANCIS

BM 2 112.48 "□" T.C. W OF RETURN @ SW CORNER PINE & EMPORIA.

BM 3 113.86 "+" E SIDE OF TRAFFIC SIGN BASE @ SE CORNER OF MURDOCK & TOPEKA

SW 1, SEC. 16, T27S, R1E, 6TH P.M.



NO SCALE

CP1	N8993.39	E10596.06
CP2	N8993.46	E10296.10
CP3	N9413.63	E10300.62
CP4	N9413.63	E10600.73
INL#1	N8974.59±	E10298.41±
INL#2	N8999.13	E10306.23
INL#3	N8979.43±	E10610.52±
INL#4	N8999.08	E10588.23
INL#5	N9392.09	E10591.51
INL#6	N9390.88	E10315.14

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

STA. 0+00, LINE 1
CONST. STD. TYPE 1 CURB INLET
TOP=113.28 AB

GAS LINE CROSSING
TOP OF PIPE=112.7±

STA. 0+26.0, LINE 1
CONST. STD. TYPE 1 CURB INLET
TOP OF PIPE=109.63

STA. 0+30.0, LINE 1
CONST. STD. TYPE 1 CURB INLET
TOP=113.30 AB

EXIST. GROUND ON CL OF PIPE
PROP. GROUND
26.0 L.F. OF 12" RCP @ 0.55%

FL OUT= 111.20 AB
FL OUT= 111.36 (12"S)
FL IN= 111.86 (12"NE)
FL IN=111.53 AB

FL OUT= 111.67 AB
FL OUT= 111.83 (12"SW)
FL IN= 111.99 (12"NE)
FL IN=111.67 AB

PROFILE LINE 2
SCALE: HORIZ. 1"=20'
SCALE: VERT. 1"=5'

STA. 0+00, LINE 2
REMOVE & REPLACE EX. INLET
CONST. STD. TYPE 1 CURB INLET
INLET TOP=112.37 AB

STA. 0+30.1, LINE 2
CONST. STD. TYPE 1 CURB INLET
TOP=113.00 AB

GAS LINE CROSSING
TOP OF PIPE=108.2±

EXIST. GROUND ON CL OF PIPE
PROP. GROUND
30.1 L.F. OF 5" RCP @ 1.0%

FL OUT=110.32 AB
FL OUT=110.48 (18"SE)
FL IN=110.69 (18"NW)
FL IN=110.53 AB

FL OUT=110.42 AB
FL OUT=110.58 (12"SE)
FL IN=110.79 (12"NW)
FL IN=110.62 AB

PROFILE LINE 3
SCALE: HORIZ. 1"=20'
SCALE: VERT. 1"=5'

STA. 0+00, LINE 3
CONNECT INTO EXIST.
INLET. RESHAPE INVERT
EX. TOP=113.08

STA. 0+31.5, LINE 3
CONST. STD. TYPE 1 CURB INLET
TOP=112.60 AB

PROP. GROUND
EXIST. GROUND ON CL OF PIPE
31.5 L.F. OF 15" RCP @ 0.40%

FL OUT=105.69 (18"NE)
FL IN=106.02 (15"SW)

FL OUT=105.80 AB
FL OUT=106.21 (15"NE)
FL IN=106.31 (12"S)
FL IN=105.83 AB

PROFILE LINE 4
SCALE: HORIZ. 1"=20'
SCALE: VERT. 1"=5'

STA. 0+00, LINE 4
CONNECT INTO EXIST.
INLET. RESHAPE INVERT
EX. TOP=113.10

STA. 0+33.9, LINE 4
CONST. STD. TYPE 1 CURB INLET
TOP=112.60 AB

EXIST. GROUND ON CL OF PIPE
PROP. GROUND
33.9 L.F. OF 15" RCP @ 0.40%

FL OUT=104.80 (18"N)
FL IN=105.31 (15"S)

FL OUT=105.36 AB
FL OUT=105.45 (15"N)
FL IN=105.55 (12"S)
FL IN=105.04 AB



AS-BUILT MAY 2004

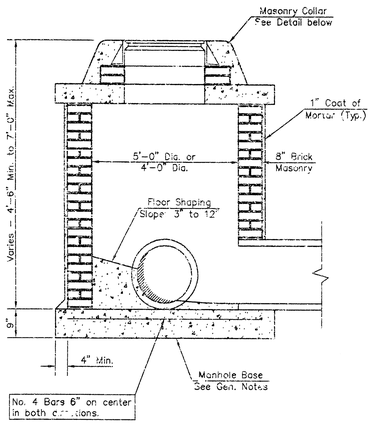
G:\CIVIL\03186\DWG\SWS\as-built\031860I.DWG

MKEC ENGINEERING CONSULTANTS
111 N. WEBB ROAD
WICHITA, KS. 67206
316 - 684 - 9600

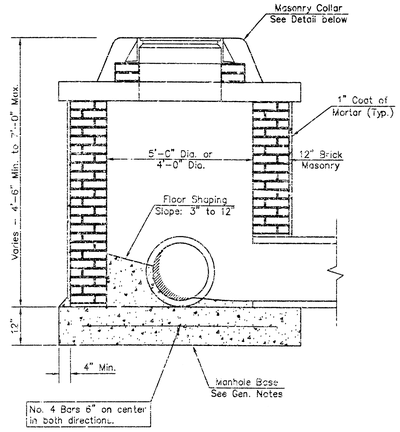
SANITARY SEWER & STORM WATER SEWER TO SERVE LOT 1, BLK. 1, VIA CHRISTI FAMILY PRACTICE ADDITION
PROJECT NAME

STORM SEWER PLANS
SHEET TITLE

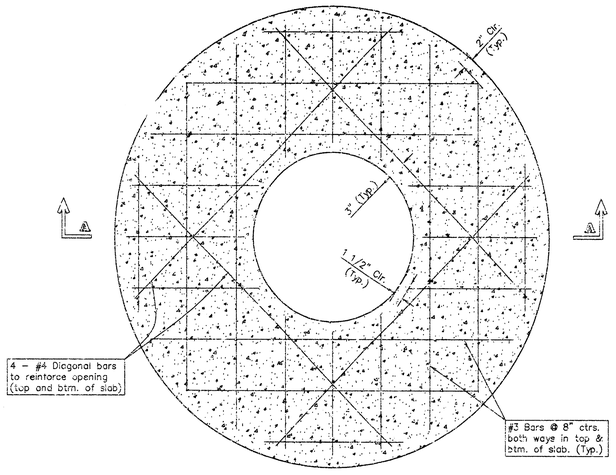
JTC	DAC	JTC
DESIGN BY:	DRAWN BY:	CHECKED BY:
AUGUST 2003	03186	2 / 7
DATE	JOB NO.	SHEET/OF



SHALLOW TYPE "A" MANHOLE



SHALLOW TYPE "B" MANHOLE



PLAN

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 cleani 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.

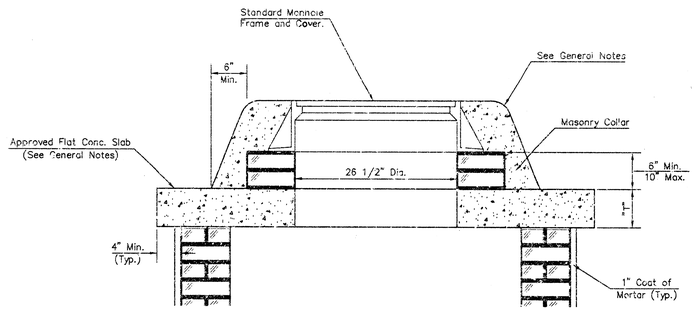
4. Pipes installed within the excavation made for the manhole shall be cradled with concrete to the limits of the manhole excavation. When clay pipe is used, the cradle shall extend to the first joint outside the manhole. The cradle shall be terminated at the clay pipe joint in a manner which will maintain 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.

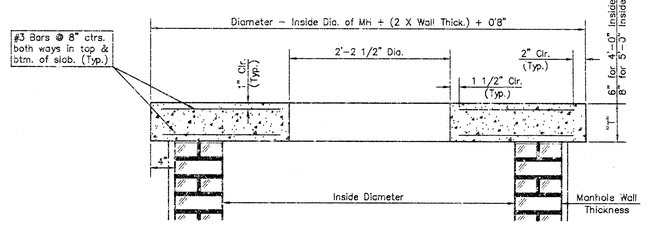
6. The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.

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.

8. All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.

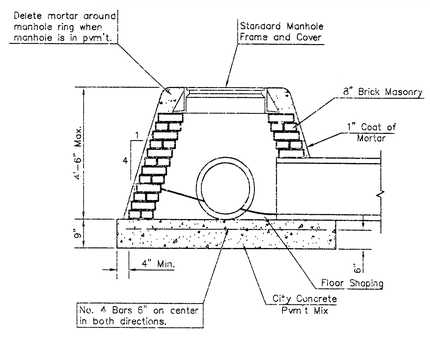


MASONRY COLLAR DETAIL

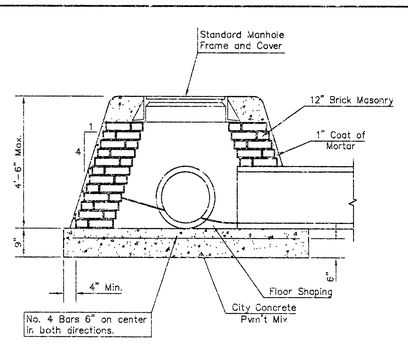


SECTION A--A

FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

REV. 1/05/01, MCG

JEFFREY A. SAMWRIGHT
14371
01-4-01
KANSAS
PROFESSIONAL ENGINEER

THE CITY OF WICHITA

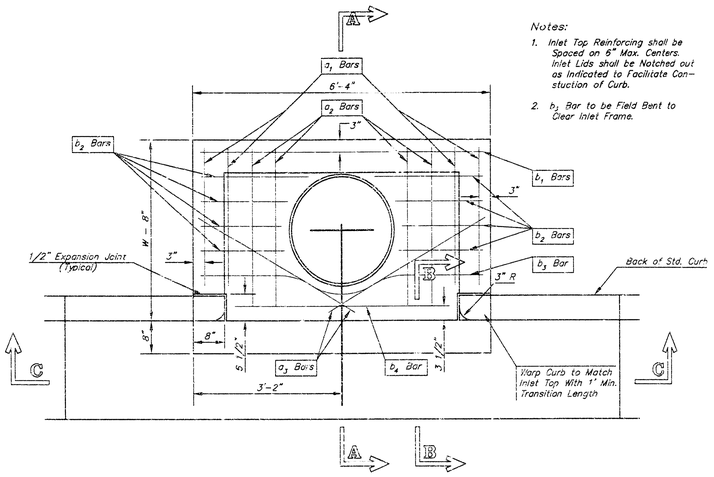
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4422
(316) 268-4174 FAX

STANDARD/SPECIAL SHALLOW MANHOLES TYPE 'A' & 'B'

NEIL D. CABLE, P.E. - CITY ENGINEER

PROJECT NUMBER	INDEX CODE
979PPW	607853
DATE: MAR 98	SHEET 4 OF 7

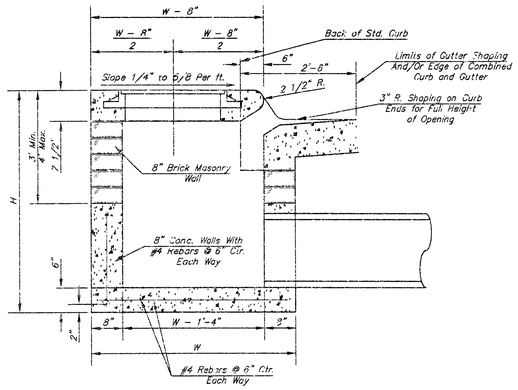
G:\CIVIL\03186\DWG\SAM\03186D1.DWG
Special Shallow MH Type A & B.DWG



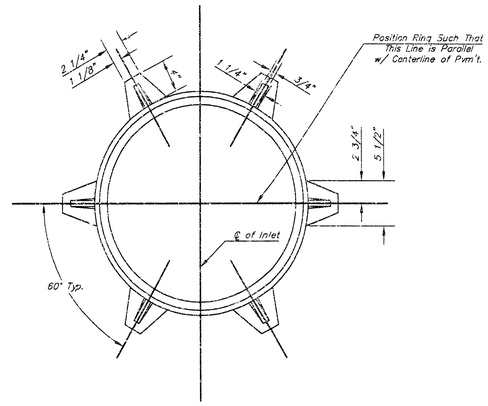
PLAN

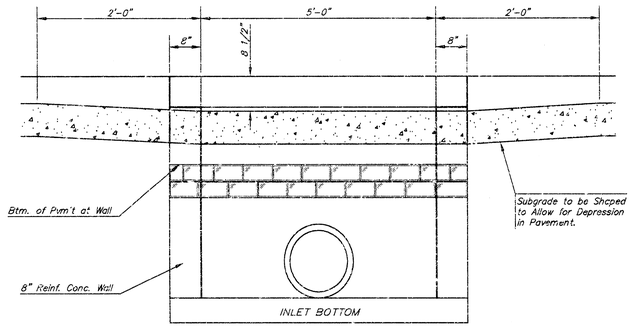
Notes:

1. Inlet Top Reinforcing shall be Spaced on 6" Max. Centers. Inlet Lids shall be Notched out as Indicated to Facilitate Construction of Curb.
2. b_3 Bar to be Field Bent to Clear Inlet Frame.

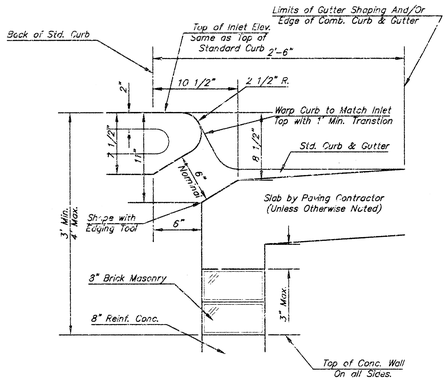


SECTION A-A

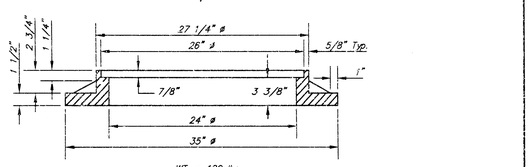




SECTION C-C



SECTION B-B



WT. = 180 lbs.

MANHOLE RING AND COVER

*See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used With Inlet Frame.

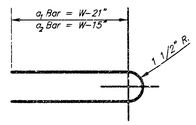
STEEL SCHEDULE

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"	6'-4" 7 1/2"	21" & SMALLER	0.38±
5'-4"	4'-8"	6'-4" 7 1/2"	24" & 30"	0.51±
6'-4"	5'-8"	6'-4" 7 1/2"	36" & 42"	0.64±
7'-4"	6'-8"	6'-4" 7 1/2"	48" & 54"	0.77±
8'-4"	7'-6"	6'-4" 7 1/2"	60" & 66"	0.90±



BENDING DIAGRAM

GENERAL NOTES

1. 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.
2. 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.
3. 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.
4. The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall.



THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL – SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4400
(316) 268-4114 FAX

STANDARD TYPE 1 CURB INLET OPENING = 6" x 5'-0"

NEIL D. CABLE, P.E. – CITY ENGINEER

PROJECT NUMBER	INDEX CODE
1364 FPS	607861
DATE: MAR 96	SHEET 5 OF 7

STYP1-S.DWG