STORM SEWER PLANS FOR

GATEWOOD

S.W.S. NO. 327

PROJECT NO.

468·76·245·81649·000·000·001

CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, CITY ENGINEER
FEBRUARY , 1987

GENERAL NOTES

1. THE TOPS OF INLETS 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 WITH REFERENCE TO PROPOSED PAVING PLANS OF THE PERTINENT STREETS.

2. ALL CONCRETE SHALL BE STANDARD PAVING MIX UNLESS OTHERWISE NOTED.

3. 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.

4. TREES WHICH MAY REQUIRE REMOVAL ARE MARKED ⊗. TREES ARE A IMPORTANT ASSET IN THIS DEVELOPMENT. A PRECONSTRUCTION CONFERENCE SHALL BE HELD TO DETERMINE WHICH TREES, IF ANY, SHALL BE REMOVED. THE CONFERENCE SHALL INCLUDE THE DEVELOPER OR HIS AGENT.

5. 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.

6. CONSTRUCTION OF THE OUTLETS FOR LINES 1 AND 2 WILL REQUIRE LOWERING OF THE EXISTING LAKE INTO WHICH THESE LINES EMPTY OR CONSTRUCTION OF A COFFERDAM. THE PLAN SHEETS SHOWING THESE OUTLETS ALSO SHOW THE SURVEYED WATER LEVEL AND THE DATE OF THE SURVEY. PRESENT WATER LEVELS AND WATER LEVELS AT THE TIME OF CONSTRUCTION MAY VARY FROM THIS SURVEYED WATER LEVEL.

NOTE: NOTIFY THE FOLLOWING COMPANIES PRIOR TO ANY EXCAVATION:

ARKLA GAS COMPANY	942-8350
BELL TELEPHONE	1-316-671-2115
CABLEVISION	262-0661
KPL GAS SERVICE COMPANY	263-7511
KANSAS GAS & ELECTRIC	264-1141

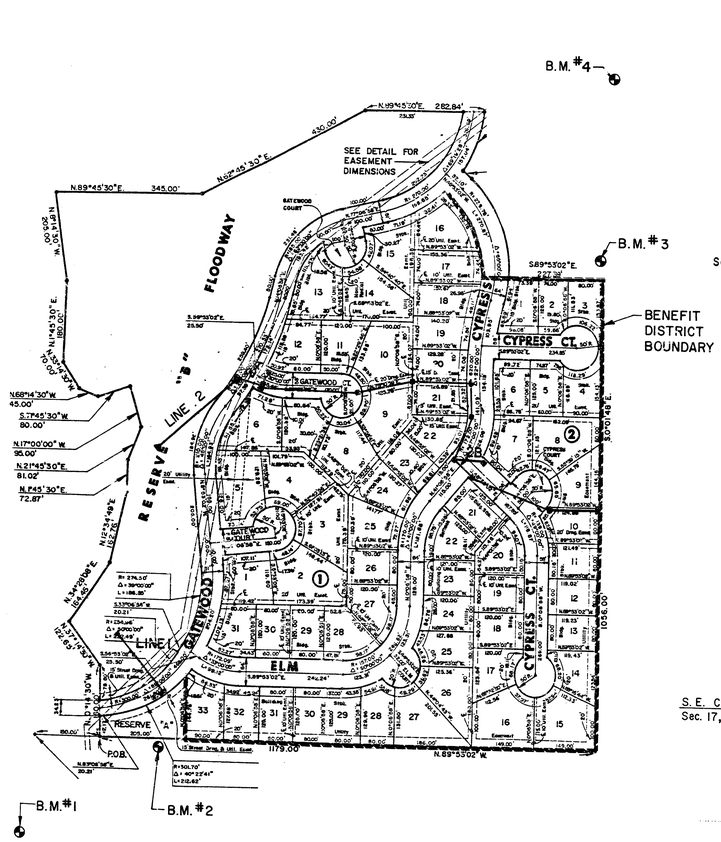
BENCH MARKS

B.M. #1 City Disk on N.E. corner R.C.B.C. at Central and Gypsum Creek
Elev. 157.24

B.M. #2 "+" Cut on most N.W. corner of Art Museum Parking Lot
Elev. 164.14

B.M. #3 40 "D" Nail in the W. Root of 20" Elm Tree 50' N and 10' W. of N.W. corner Minneha school lot
Elev. 176.09

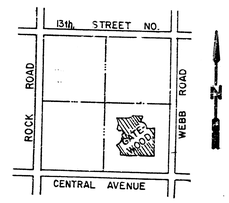
B.M. #4 City disc. 34' E. and 44' S. of ¼ sec. corner at 9th and Webb
Elev.=172.922



INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	Title
2	Plan & Profile Line 1
3	" " Line 2
4	" " Line 2 & Line 2A
5	" " Line 2
6	" " Line 2 & Line 2B
7	Type "C" Manhole
8	Type "P" Manhole
9-10	Type 1A Curb Inlet
11	Special Reinf. Conc. Manhole
12	Special Ditch Inlet
13	Gatewood Final Plat

As Builts
12/87
MCG





GATEWOOD STORM WATER SEWER PLANS

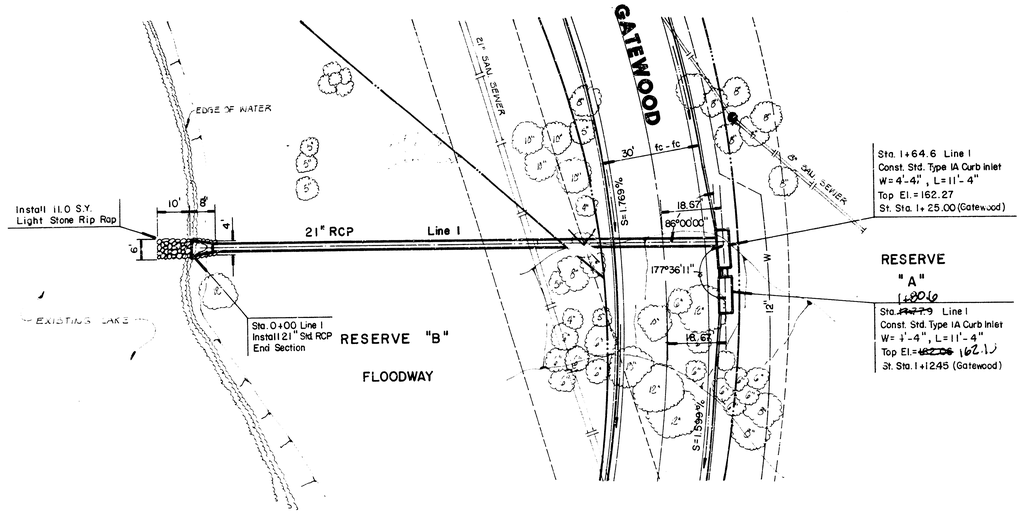
Design	FBN
Drawn by	MJV, DPR
Checked by	
Date	FEB. 1987
Job no.	

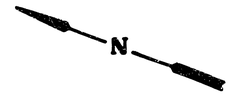
MID-KANSAS ENGINEERING CONSULTANTS PA
3500 NORTH ROCK ROAD
BUILDING #800
WICHITA, KANSAS 67226
682-6561

1/13

Sheet 1 of 13

GATEWOOD ADDITION
STORM WATER SEWER NO. 327
PROJ. NO. 468-76-245-8-8649-000-000-001

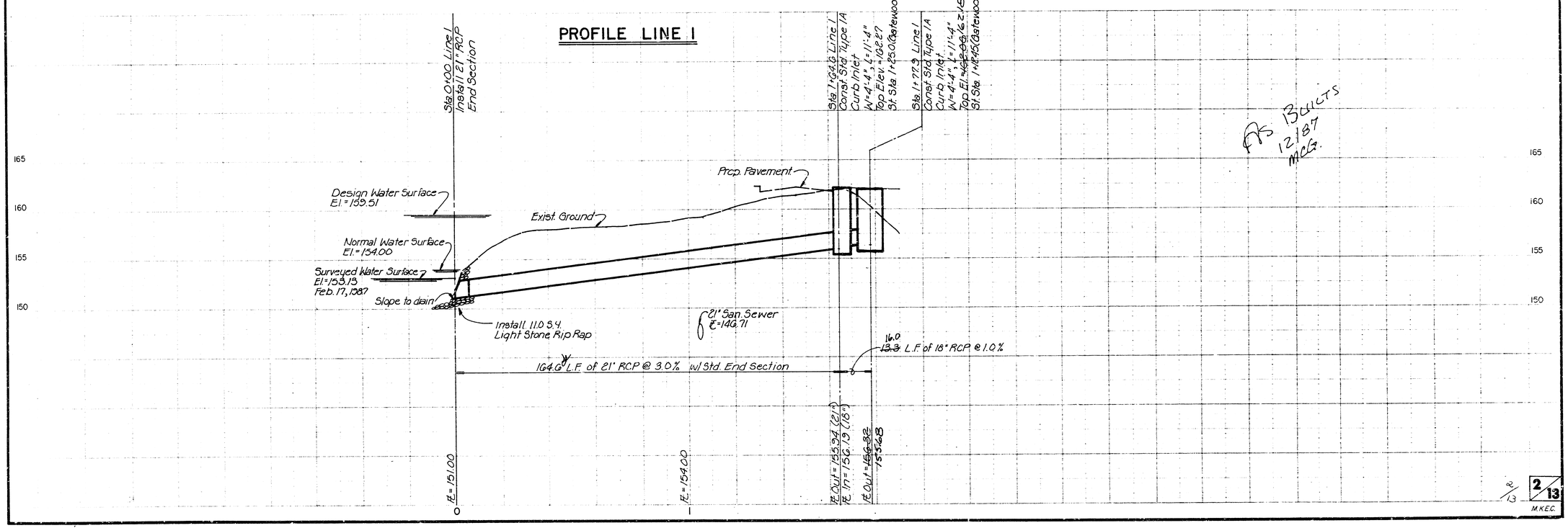




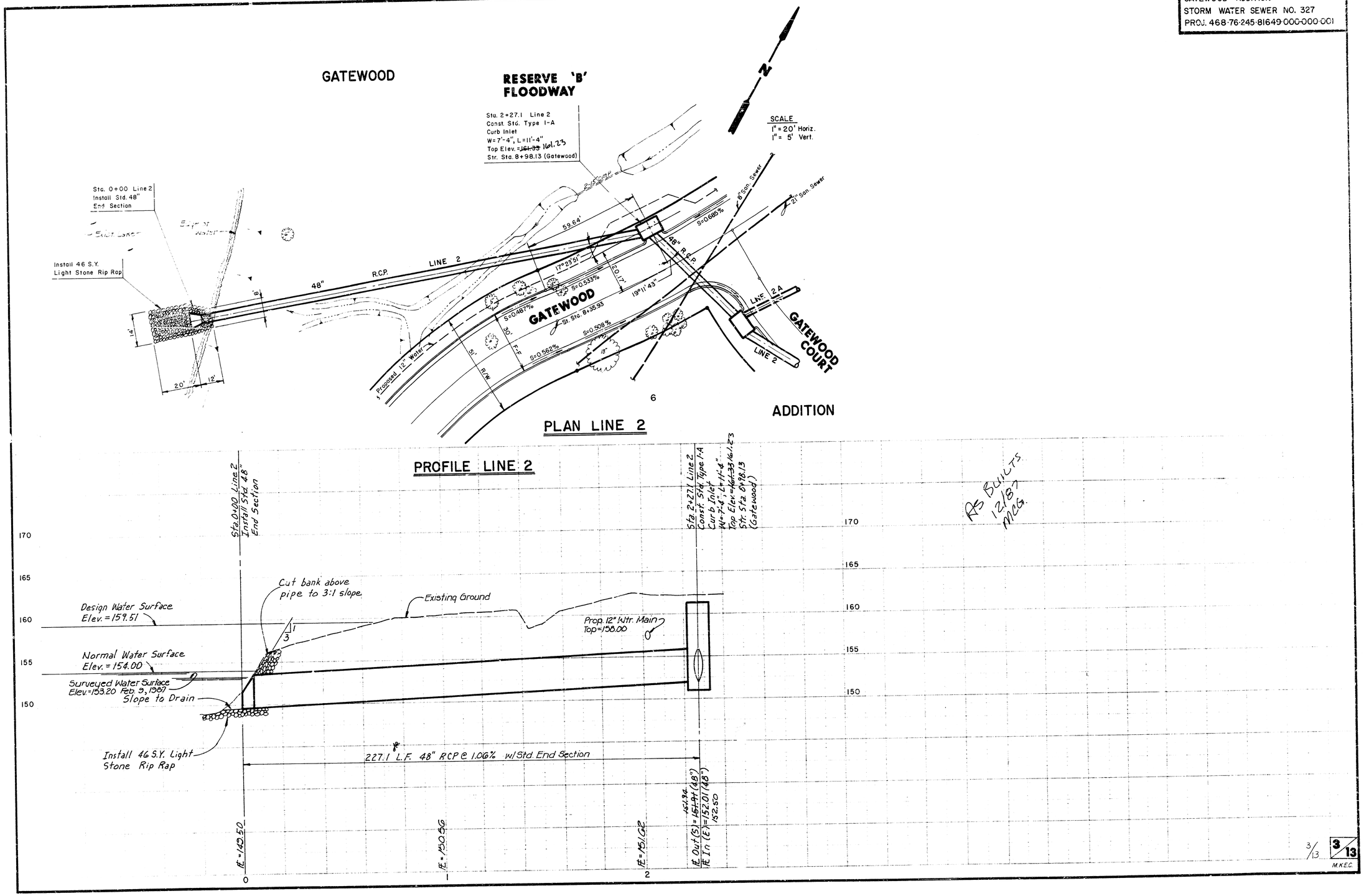
SCALE
1" = 20' Horiz.
1" = 5' Vert.

PLAN LINE 1

PROFILE LINE 1



GATEWOOD ADDITION
STORM WATER SEWER NO. 327
PROJ. 468-76-245-81649-000-000-001



AS BUILTS
12/87
MCG.

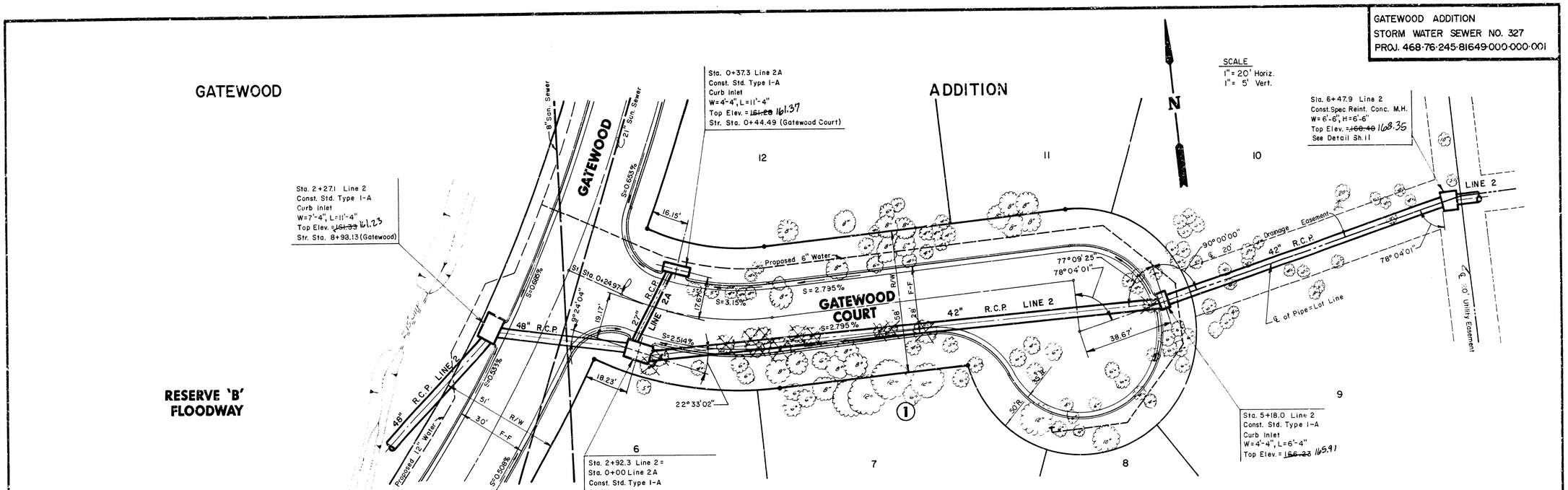
3/13

3/13
M.K.E.C.

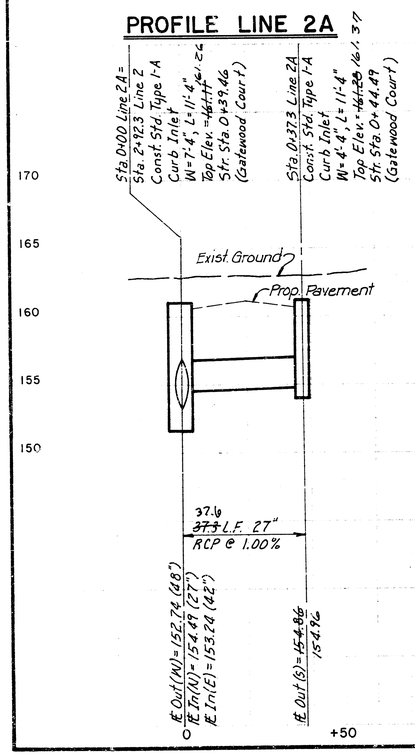
GATEWOOD ADDITION
STORM WATER SEWER NO. 327
PROJ. 468-76-245-81649-000-000-001

SCALE
1" = 20' Horiz.
1" = 5' Vert.

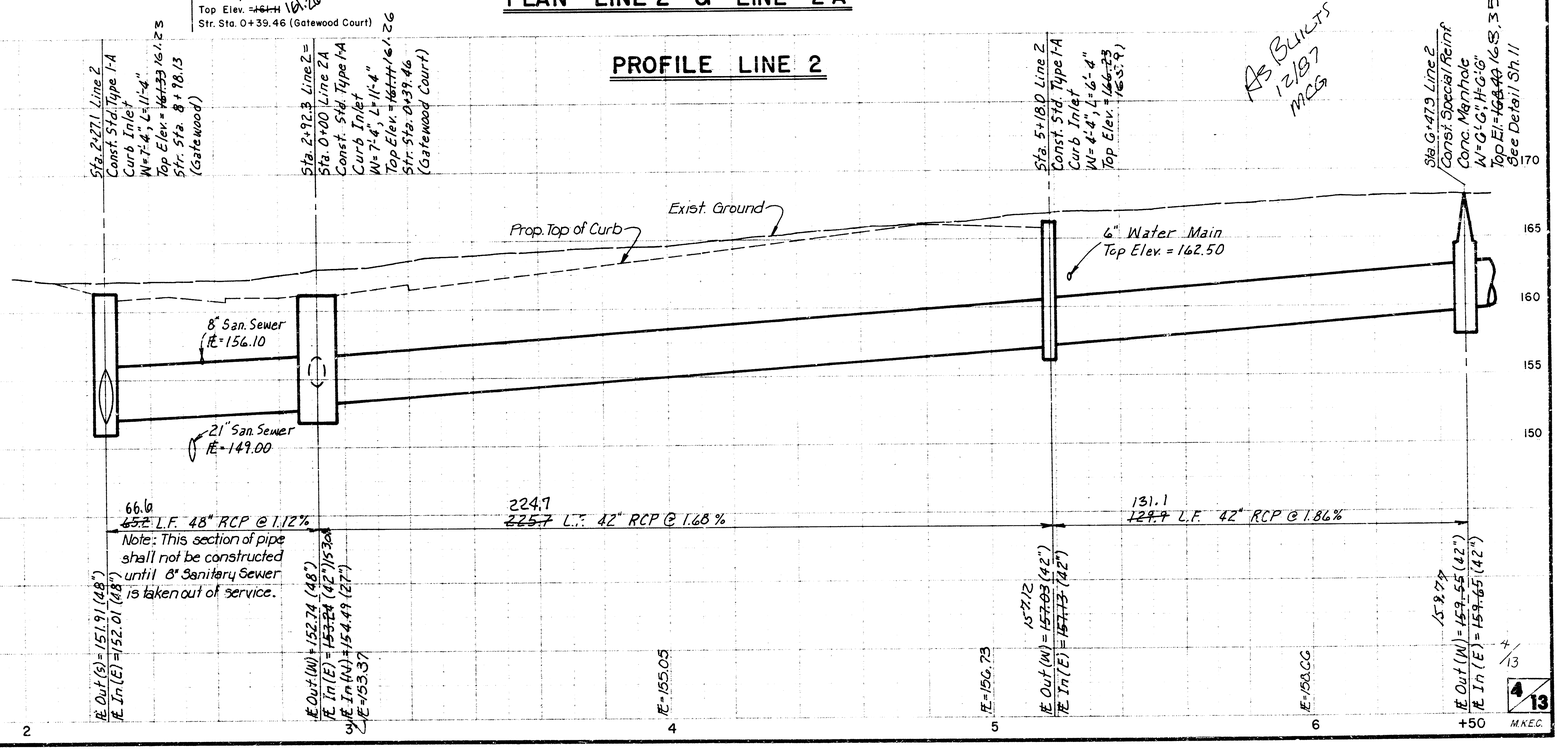
PLAN LINE 2 & LINE 2A



PROFILE LINE 2A



PROFILE LINE 2

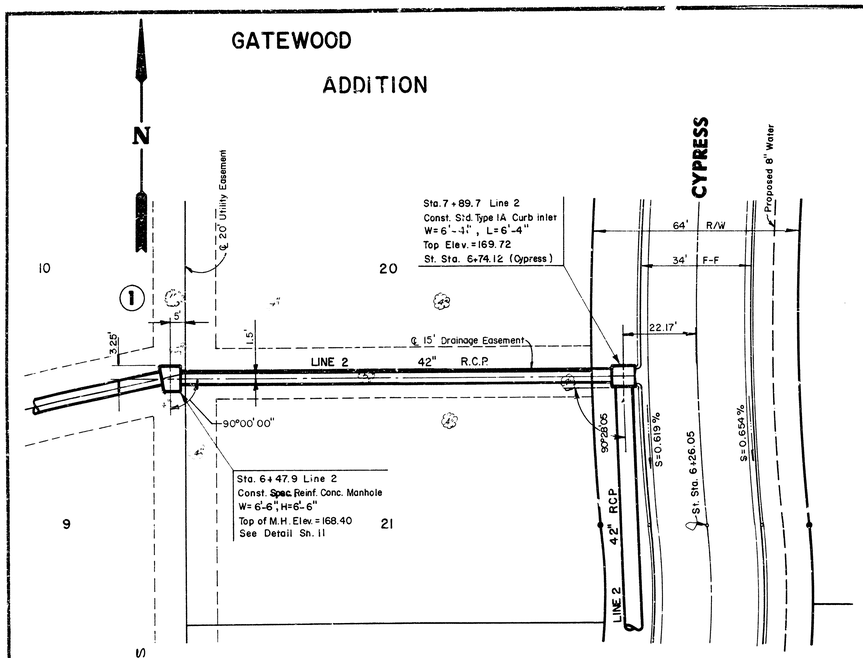


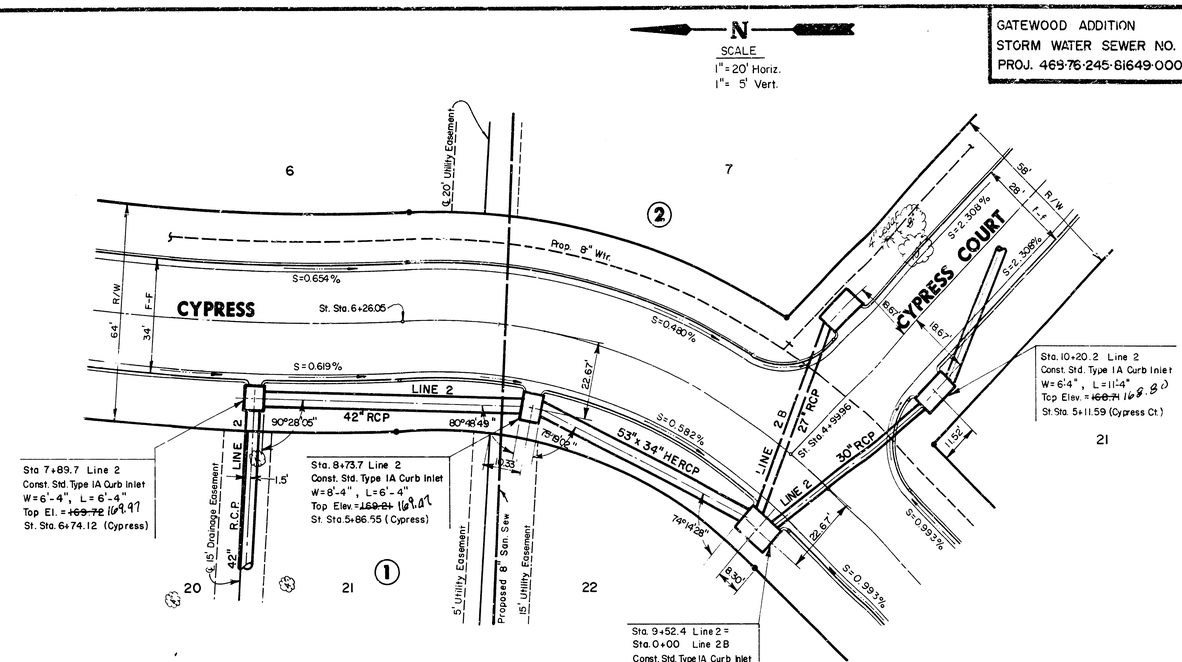
4/13

GATEWOOD ADDITION
STORM WATER SEWER NO. 327
PROJ. 469-76-245-81649-000-000-001

GATEWOOD ADDITION

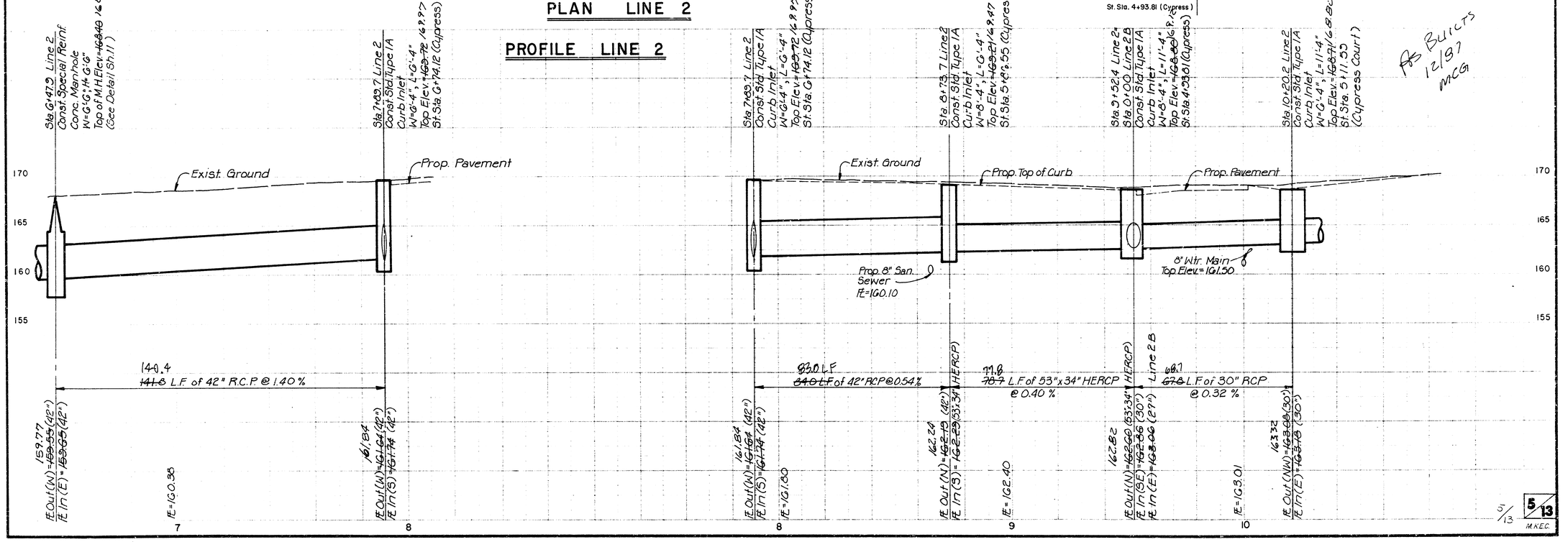
SCALE
1" = 20' Horiz.
1" = 5' Vert.





PLAN LINE 2

PROFILE LINE 2



As Builts
12/97
MCG

GATEWOOD ADDITION
STORM WATER SEWER NO. 327
PROJ. 468-75-245-81649-000-000-001

GATEWOOD

Sta. 0+00, Line 2B=
Sta. 9+52.4, Line 2
Const. Std. Type 1-A
Curb Inlet.
W=8'-4", L=11'-4"
Top Elev.=~~168.80~~ 169.12
Str. Sta. 4+93.81
(Cypress)

Sta. 0+68.8, Line 2C
Const. Std. Type 1-A
Curb Inlet.
W=5'-4", L=11'-4"
Top Elev.=~~168.59~~ 168.60
St. Sta. 5+31.10 (Cypress Ct.)

Sta. 12+10.6, Line 2
Const. Std. Type "C"
or "P" Manhole (5' Dia.)
Top Elev.=~~172.00~~ 172.10

Sta. 13+23.2 Line 2
Const. Special Ditch Inlet
W=3'-0", L=10'-8", H=7'-11"
Top Elev.=~~176.32~~ 176.08
See Detail Sh. 12

Sta. 10+20.2, Line 2
Const. Std. Type 1-A
Curb Inlet.
W=6'-4", L=11'-4"
Top Elev.=~~168.71~~ 168.80
Str. Sta. 5+11.59
(Cypress Court)

Install 9.0 S.Y.
Light Stone Rip Rap

CYPRESS COURT

CYPRESS

20 ADDITION

SCALE
1"=20' Horiz.
1"= 5' Vert.

PLAN LINES 2 & 2B

PROFILE LINE 2B

Sta. 0+00, Line 2B=
Sta. 9+52.4, Line 2
Const. Std. Type 1-A
Curb Inlet.
W=8'-4", L=11'-4"
Top Elev.=~~168.80~~ 169.12
Str. Sta. 4+93.81
(Cypress)

℄ Out (1) = 162.60 (53"x34" HERCP)
℄ In (E) = 163.06 (27")
℄ In (E) = 162.86 (30")

68.7 L.F. 27" RCP @ 0.40 %
~~68.8~~

℄ = 163.34

Sta. 0+68.8, Line 2B
Const. Std. Type 1-A
Curb Inlet
W=5'-4", L=11'-4"
Top Elev.=~~168.59~~ 168.60
Str. Sta. 5+31.10 (Cypress Ct.)

℄ = 163.87

Sta. 10+20.2, Line 2
Const. Std. Type 1-A
Curb Inlet
W=6'-4", L=11'-4"
Top Elev.=~~168.71~~ 168.80
Str. Sta. 5+11.59
(Cypress Court)

℄ Out (W) = 163.08 (30")
℄ In (E) = 163.18 (30")

192.4 L.F. 30" RCP @ 0.86 %
~~190.4~~

℄ = 164.73

Sta. 12+10.6, Line 2
Const. Std. Type "C" or
"P" Manhole (5' Dia.)
Top Elev.=~~172.00~~ 172.10

℄ Out (W) = ~~164.93~~ 165.30 (30")
℄ In (E) = ~~164.69~~ 165.09 (27")

111.4 L.F. 27" RCP @ 2.50 %
~~112.6~~

℄ = 167.31

Sta. 13+23.2, Line 2
Const. Special Ditch
Inlet. W=3'0",
L=10'-8", H=7'-11"
Top Elev.=~~176.32~~ 176.08
See Detail, Sht. 12

℄ Out (W) = ~~167.29~~ 167.78
℄ In (Ditch) = 174.55

Existing Ground
Proposed Pavement
Prop. Pavement
Exist. Ground
Exist. 2-3" V.C.P.
Install 9.0 S.Y.
Light Stone Rip-Rap
4" Water Main
Top Elev. = 168.14
8" Water Main
Top Elev. = 162.84
Prop. 8" Wtr. Main
Top Elev. = 161.50
8" San. Sewer
℄ Elev. = 163.33

As Builts
12/87
MCG

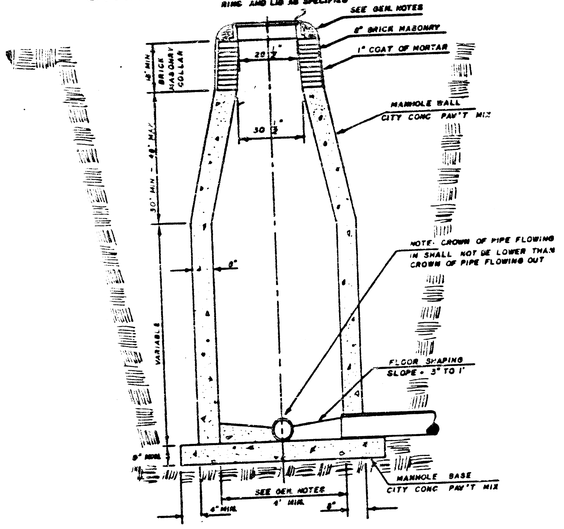
6/13
6/13
M.K.E.C.

SEWER APPURTENANCES DETAILS

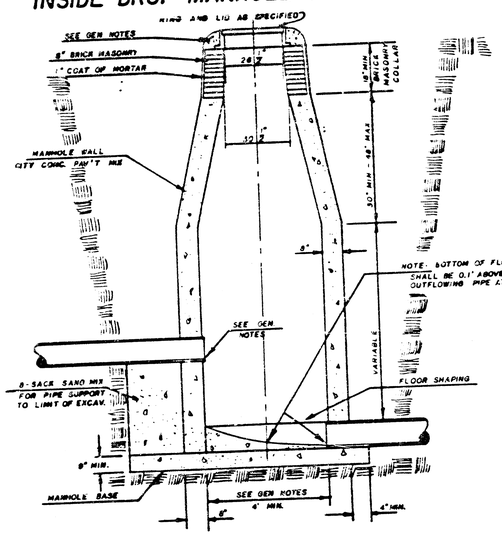
ADOPTED AS STANDARD DESIGN
BY

City of Wichita, Kansas

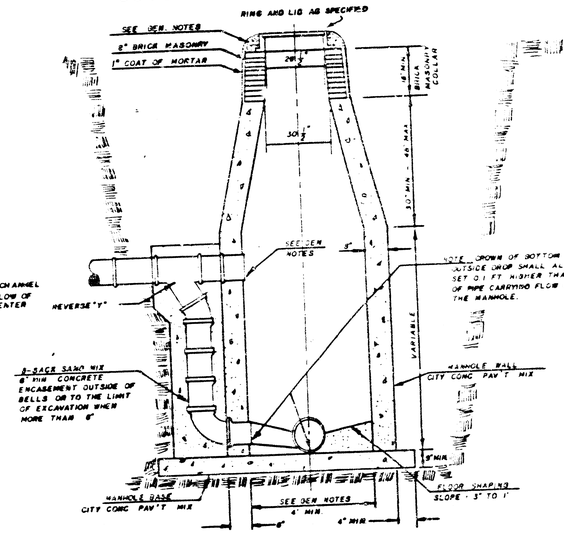
STANDARD MANHOLE TYPE "C"



INSIDE DROP MANHOLE TYPE "C"



OUTSIDE DROP MANHOLE TYPE "C"



GENERAL NOTES

1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE WALLS AND 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 WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. TYPE "C" MANHOLES CAN BE CONSTRUCTED ONLY WHERE PIPE SIZES ARE 8" OR SMALLER. THE INSIDE DIAMETER OF TYPE "C" MANHOLES SHALL BE 4'. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.

2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASE. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. REINFORCING STEEL SHALL BE PLACED 6" ABOVE THE BOTTOM OF THE MANHOLE BASE. COST OF FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

3. AN OPENING SHALL BE CUT IN THE MANHOLE WALL FOR THE UPPER INLET PIPE FOR INSIDE AND OUTSIDE DROP MANHOLES. THE UPPER INLET PIPE SHALL BE GROUTED INTO THIS OPENING WITH NON-SHRINK GROUT. THE EXTERIOR OF THIS COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT.

4. 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 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 MANHOLE SHALL HAVE THE TOP HALF REMOVED TO MEET 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.

5. 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.

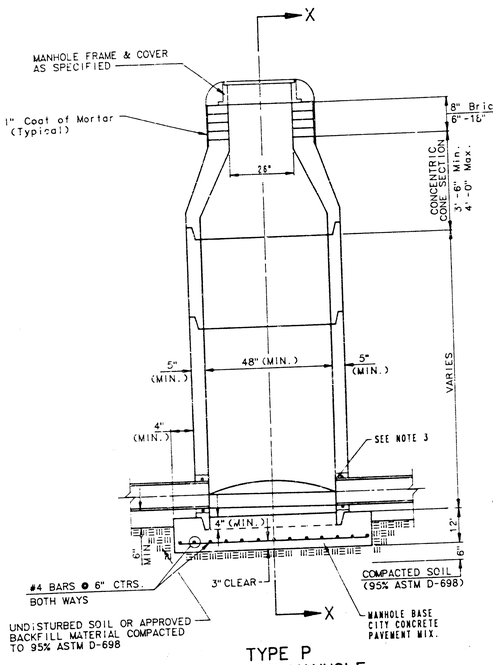
6. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.

7. 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.

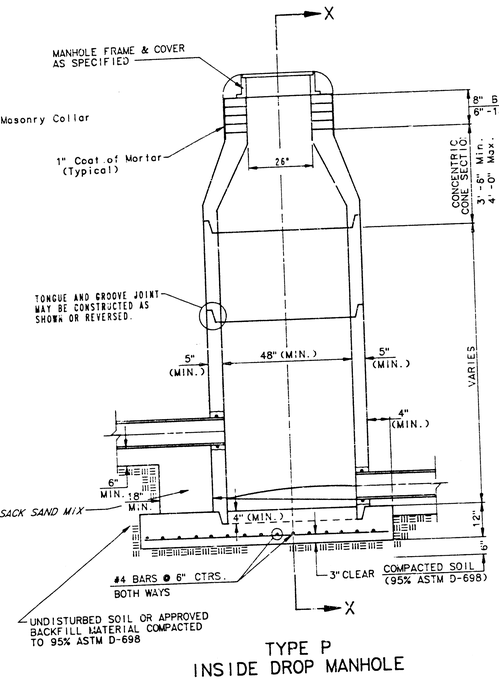
8. STANDARD MANHOLES TYPE "C" AND STANDARD INSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.

J.L JAN. 1982

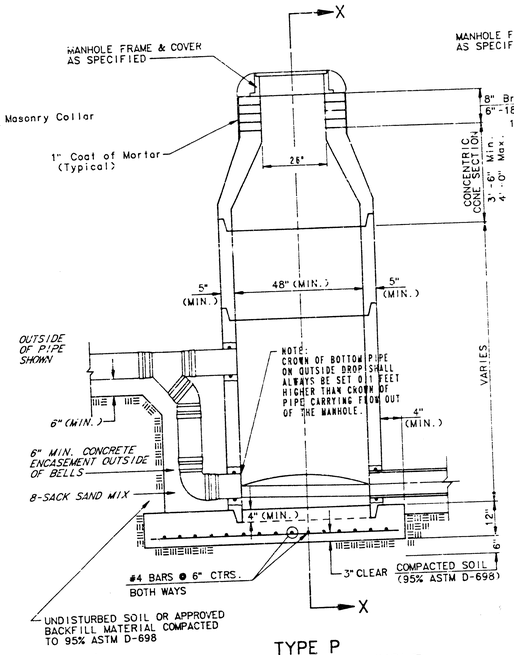
SEWER APPURTENANCES DETAILS
ADOPTED AS STANDARD DESIGN
BY
CITY OF WICHITA



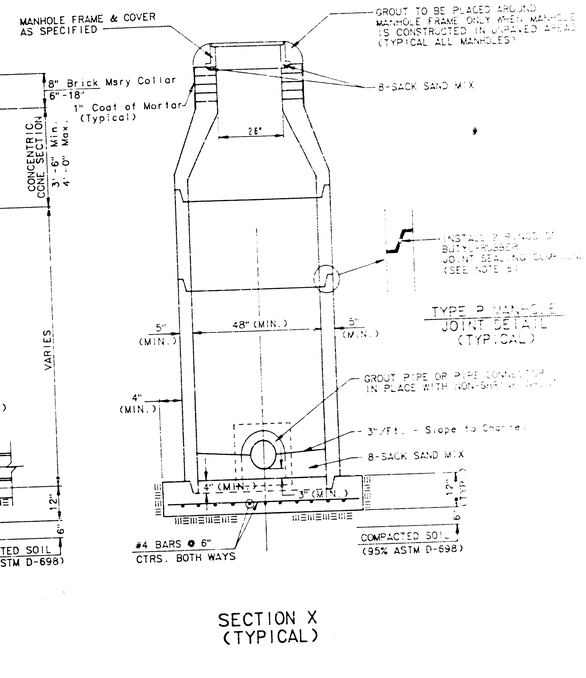
TYPE P
STANDARD MANHOLE



TYPE P
INSIDE DROP MANHOLE



TYPE P
OUTSIDE DROP MANHOLE



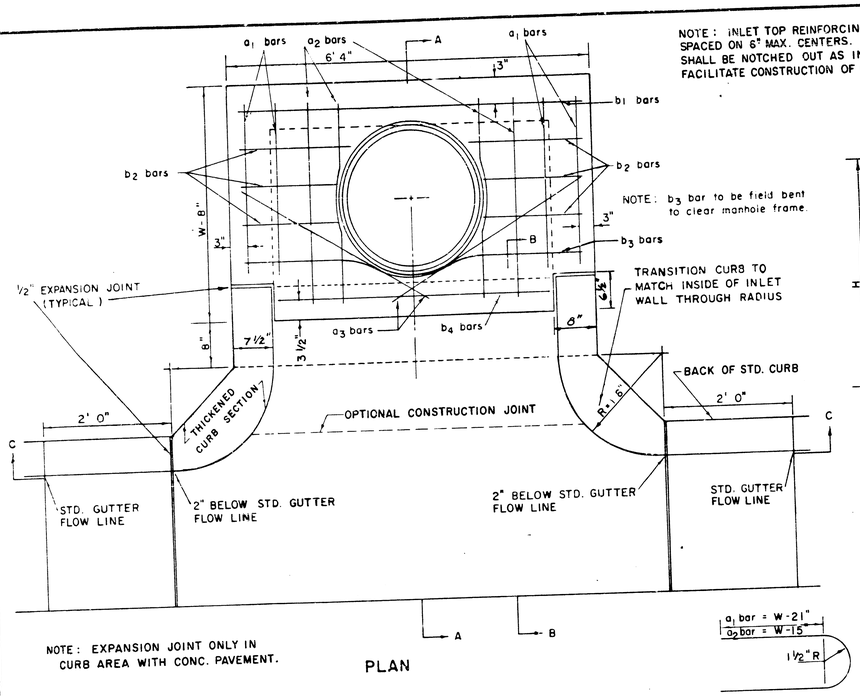
SECTION X
(TYPICAL)

GENERAL NOTES

PRECAST MANHOLE NOTES

1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
3. APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT, A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS TNEMEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINUS COATING.
6. JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
8. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
9. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
10. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 6 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 WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. 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.
11. 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 AT LEAST 3" 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.
12. 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 P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUTED INTO 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. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
13. 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 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 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.
14. 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.
15. 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.
16. 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.
17. STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
18. A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR.

Revised: June 19, 1995

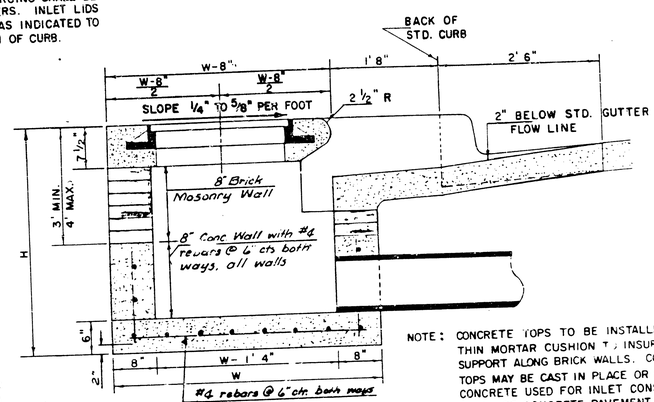


NOTE: EXPANSION JOINT ONLY IN CURB AREA WITH CONC. PAVEMENT.

PLAN

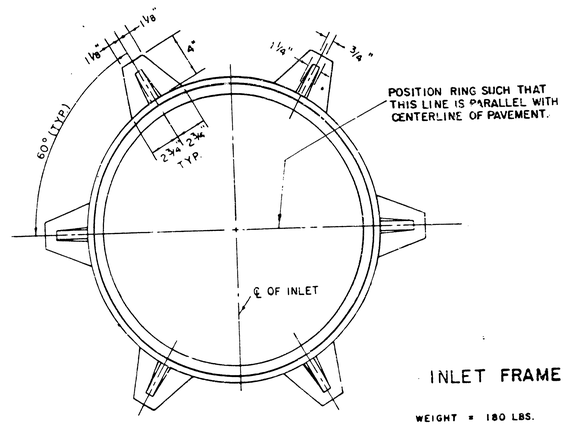
NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.

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



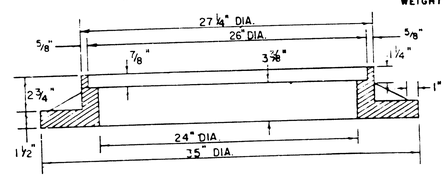
SECTION A-A

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.

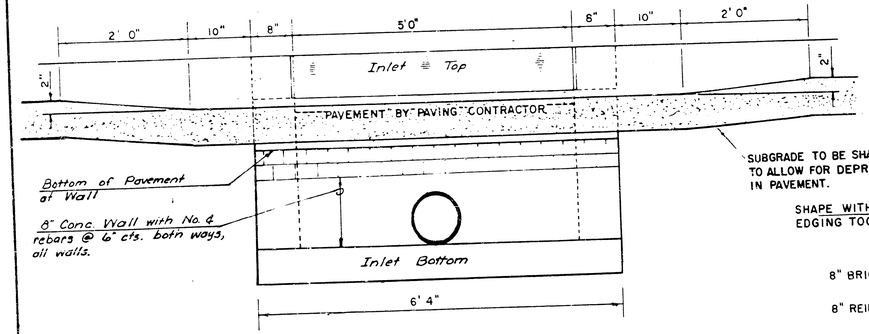
BENDING DIAGRAM

STEEL SCHEDULE

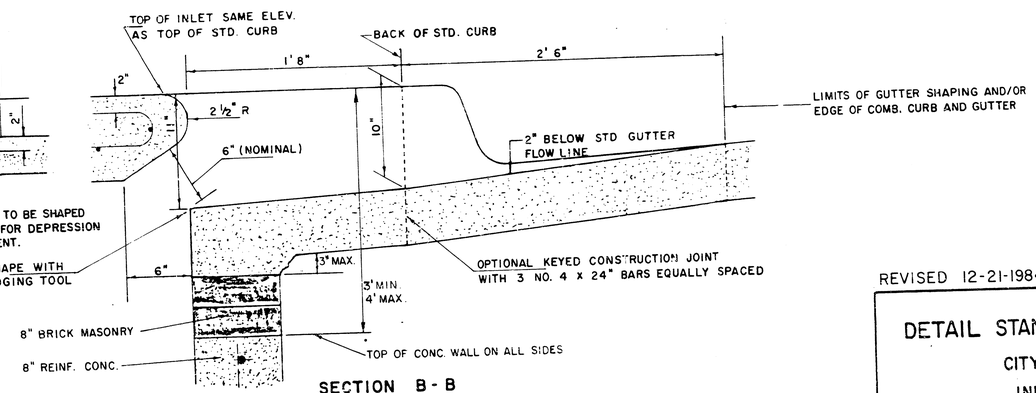
BAR		a_1	a_2	a_3*	b_1 W=4'4"	b_1 W=5'4"	b_1 W=6'4"	b_1 W=7'4"	b_1 W=8'4"	b_2	b_3	b_4	WT. LBS.
NUMBER		4	4	2	1	3	5	7	9	6	1	1	
SIZE		#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH	W=4'4"	5'7"	6'7"	4'0"	6'1"	–	–	–	–	1'9"	6'2"	4'8"	60±
	W=5'4"	7'7"	8'7"	5'0"	–	6'1"	–	–	–	1'9"	6'2"	4'8"	81±
	W=6'4"	9'7"	10'7"	6'0"	–	–	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

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.

REVISED 12-21-1984

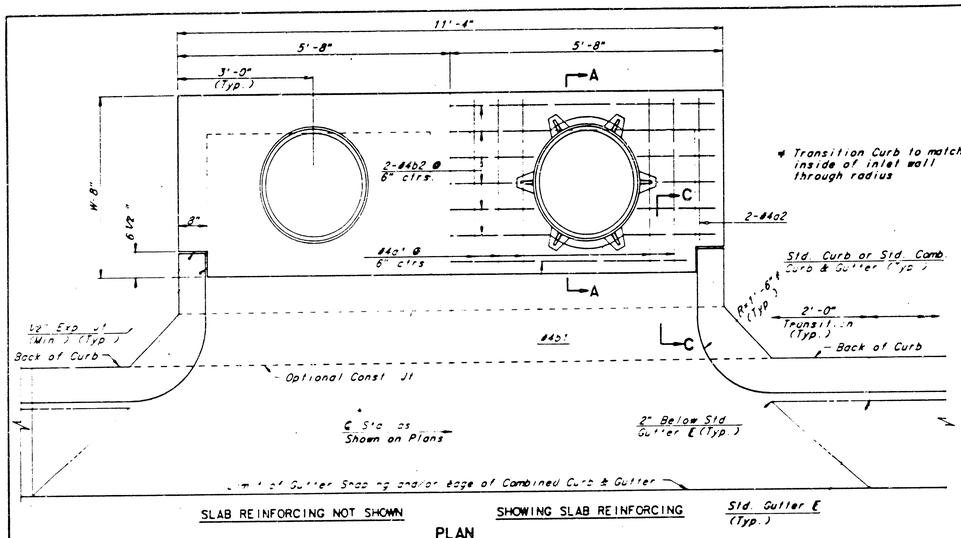
DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

INLET OPENING = 6" x 5' 0"

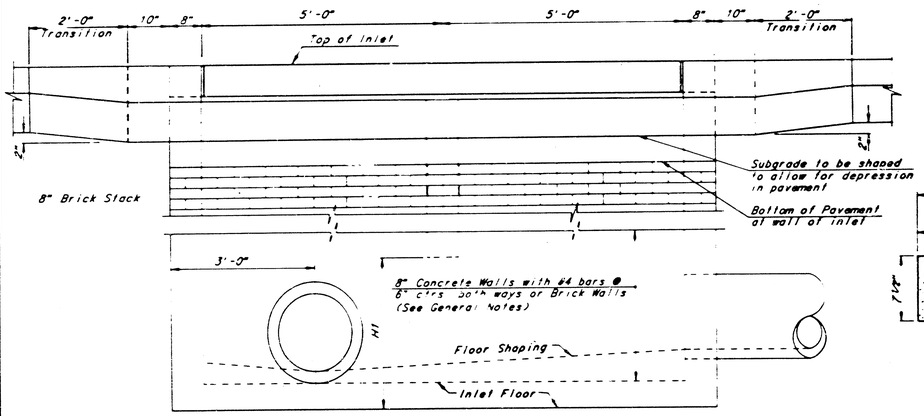
JUNE 1984

9/13

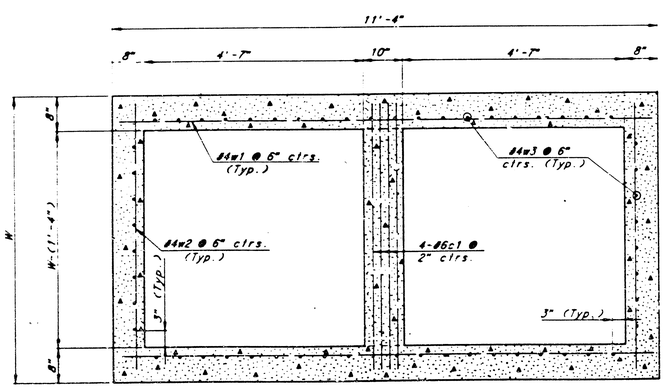


SLAB REINFORCING NOT SHOWN — SHOWING SLAB REINFORCING

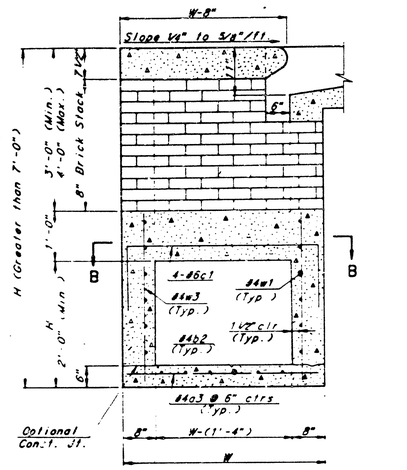
PLAN



ELEVATION

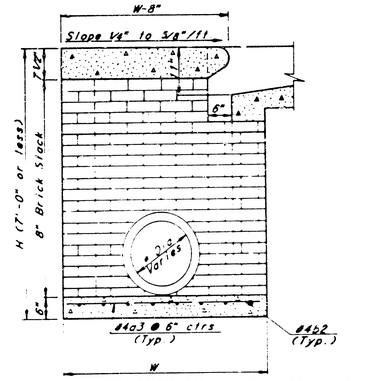


SECTION B-B



TYPICAL INLET SECTION AT CENTER WALL

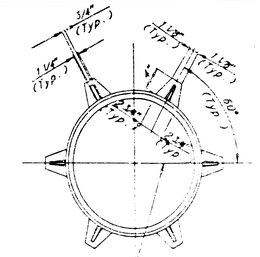
(REINFORCED CONCRETE WALLS)

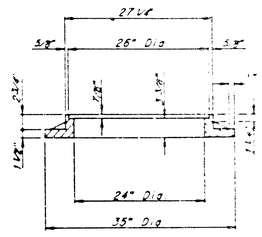


TYPICAL INLET SECTION AT CENTER WALL

(MASONRY WALLS)

* A center wall opening shall be provided by means of a section of reinforced concrete pipe. The minimum diameter used shall be that of the outlet pipe.

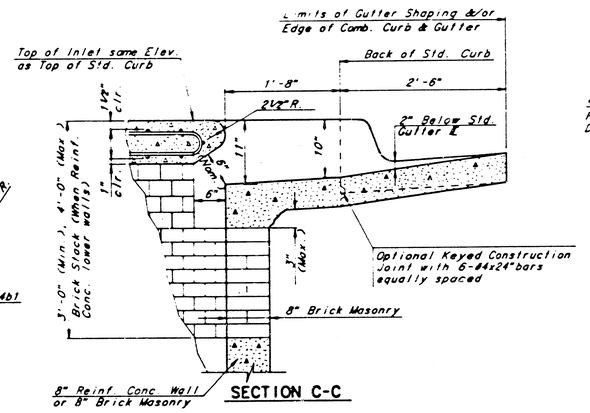




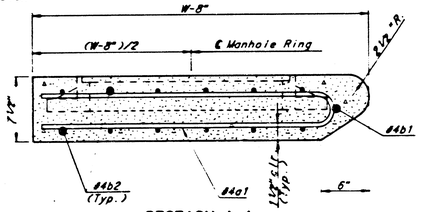
CAST IRON INLET RING

Wt.=180 lbs.

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



SECTION C-C



SECTION A-A

GENERAL NOTES

1. THE CONTRACTOR SHALL BE REQUIRED TO CONSTRUCT 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W=6'-4" OR LESS AND H=7'-0" OR LESS. WHEN W IS GREATER THAN 6'-4" AND H IS LESS THAN 7'-0", THE OUTSIDE 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.
2. 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.
3. 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.
4. INLET TOP REINFORCING SHALL BE SPACED ON 8" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB. BARS IN INLET TOP TO BE FIELD BENT OR CUT TO CLEAR MANHOLE RING.
5. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

SLAB AND FLOOR REINFORCING

		W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
a1	#4	13	6'-7½"	13	8'-7½"	13	10'-7½"	13	12'-7½"	13	14'-7½"
a2	#4	2	6'-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"
ab2	#4	18	11'-1"	24	11'-1"	30	11'-1"	36	11'-1"	42	11'-1"

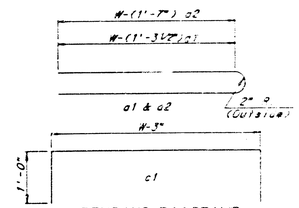
WALL REINFORCING

		W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
MARK	SIZE	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	③	②	③	②	③	②	③	②	③

* Field bend or cut Reinforcing as required for clearance

① 4(H1-6")+4 (H1-6") Rounded down to nearest 0.5'

② 40+4(W - 16") ③ H1+(9")



BENDING DIAGRAMS

REVISED 12-27-84

STANDARD TYPE 1A CURB INLET

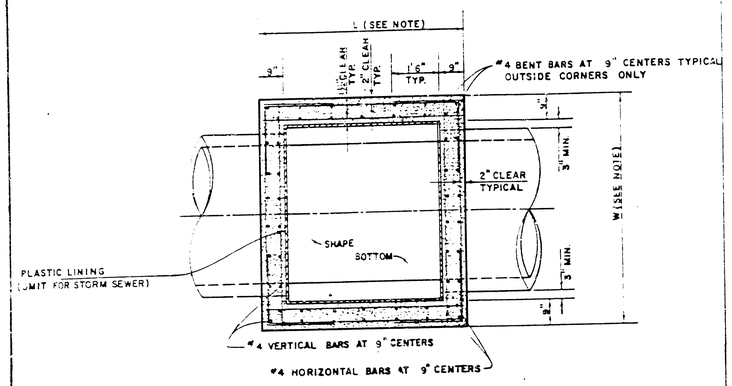
INLET OPENING = 6" x 10'-0"

WICHITA, KANSAS

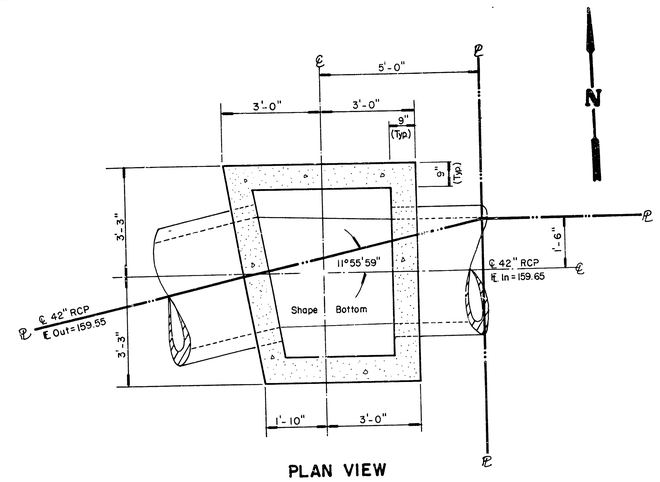
10/13

10/13

Designed by	BER, KJS, LMB	Checked by	LMB
Drawn by	JDP	Date	NOV. 1984

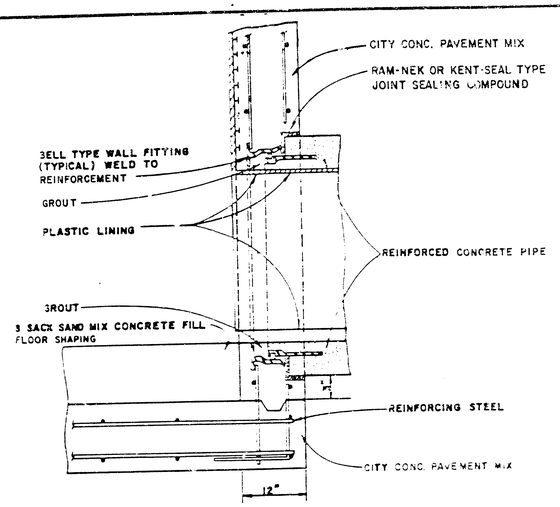


TOP VIEW

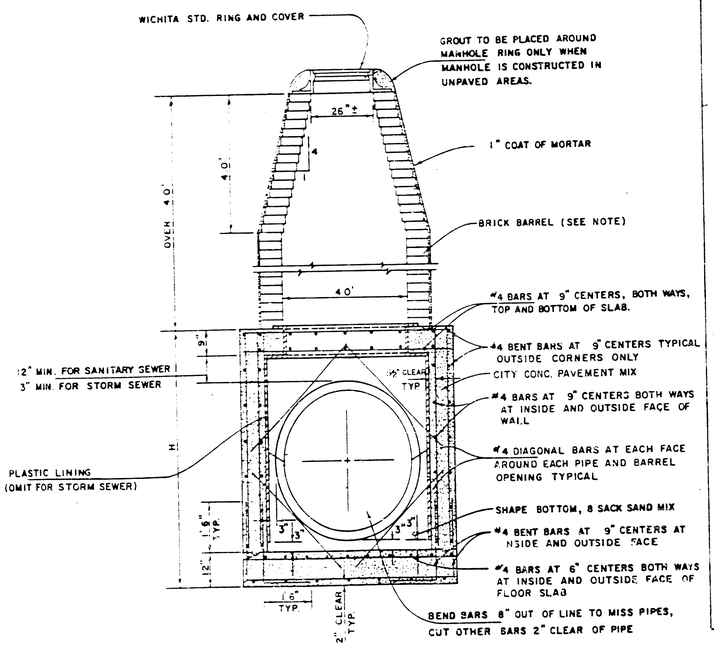


PLAN VIEW

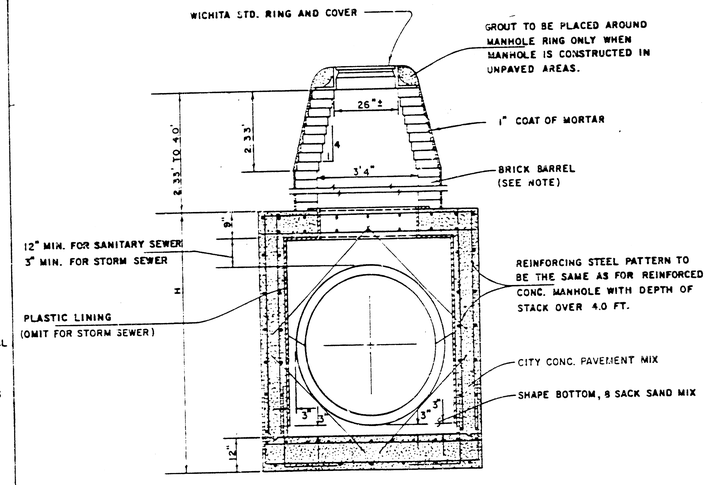
NOTE: REINFORCING STEEL NOT SHOWN FOR SAKE OF CLARITY. REINF. STEEL TO BE AS SHOWN IN C.O.W. STD. REINF. CONC. MANHOLE, SHOWN LEFT & BELOW



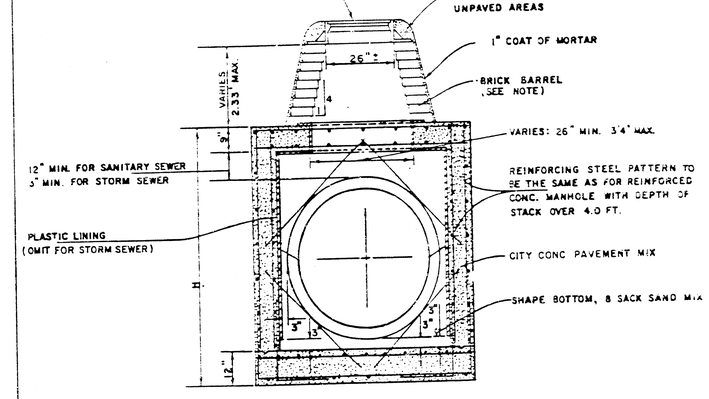
P.C.P. CONNECTION DETAIL
SANITARY SEWER ONLY



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



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



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

NOTE :
BRICK BARRELS LESS THEN 16' DEEP SHALL HAVE 8" WALLS EXCEPT WHEN LOCATED WITHIN PUBLIC STREET OR ALLEY PAVEMENT THEN THE WALL SHALL BE 12". BRICK BARRELS MORE THEN 16' DEEP SHALL HAVE 12" WALLS. THE "L" AND "W" DIMENSIONS SHALL BE A MINIMUM OF 5'6" FOR BRICK BARRELS WITH 8" WALLS AND 6'2" FOR BRICK BARRELS WITH 12" WALLS WHEN THE BRICK BARRELS ARE OVER 4 FT. IN HEIGHT. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATERTIGHT.

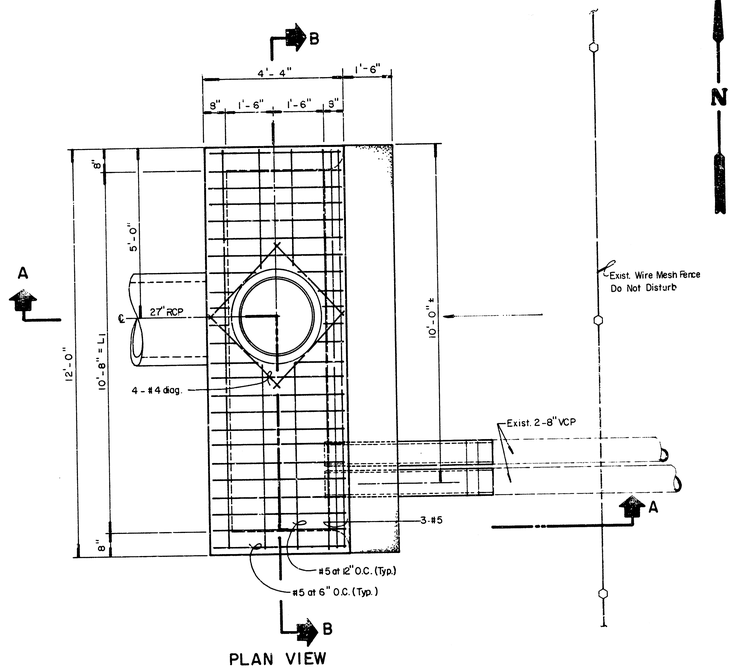
REVISED 1-7-85

SPECIAL
REINFORCED CONCRETE MANHOLES

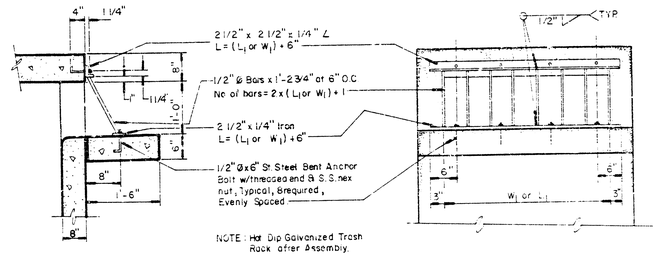
CITY OF WICHITA
STA. 6+47.9 LINE 2
FEBRUARY 1984

11/13

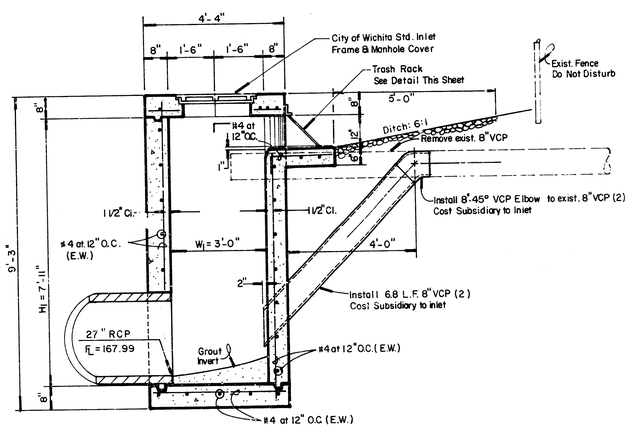
11/13



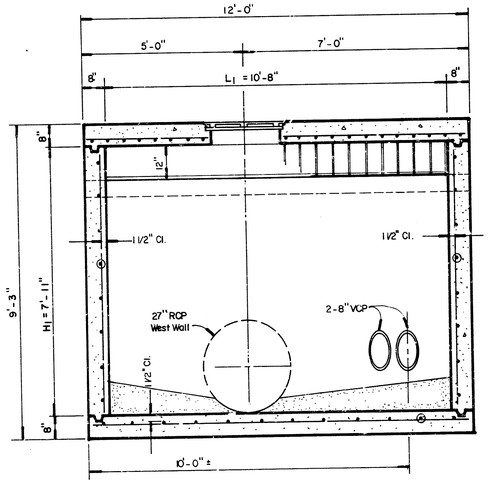
PLAN VIEW



TRASH RACK DETAIL



SECTION A-A



SECTION B-B

SPECIAL DITCH INLET

GATEWOOD

SPECIAL DITCH INLET

STA. 13+23.2 Line 2

Design	
Drawn by	
Checked by	
Date	
Job no.	

MID-KANSAS ENGINEERING CONSULTANTS PA
3500 NORTH ROCK ROAD
BUILDING #800
WICHITA, KANSAS 67226
682-6561

12/13

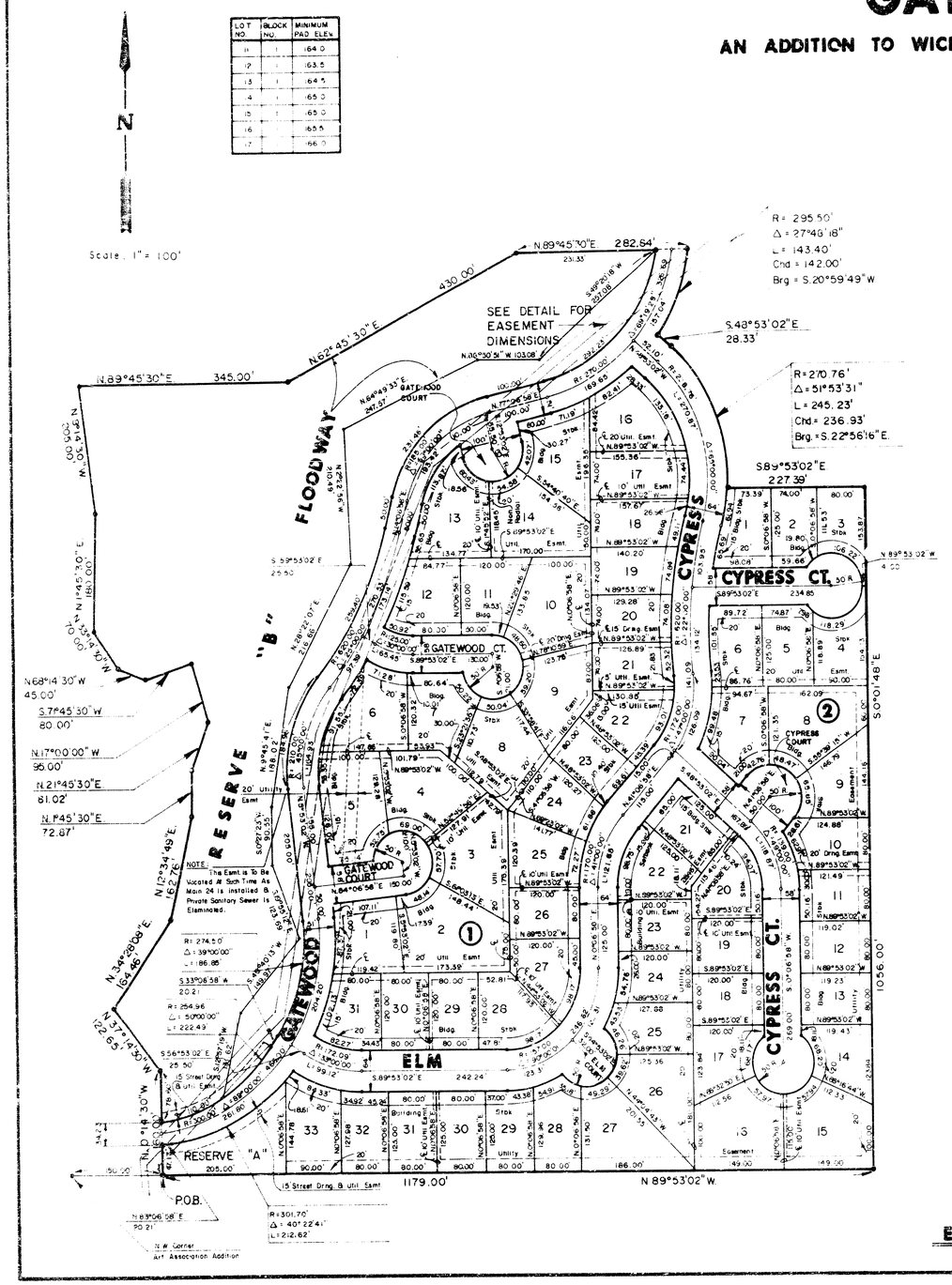
Sheet 12 of 13

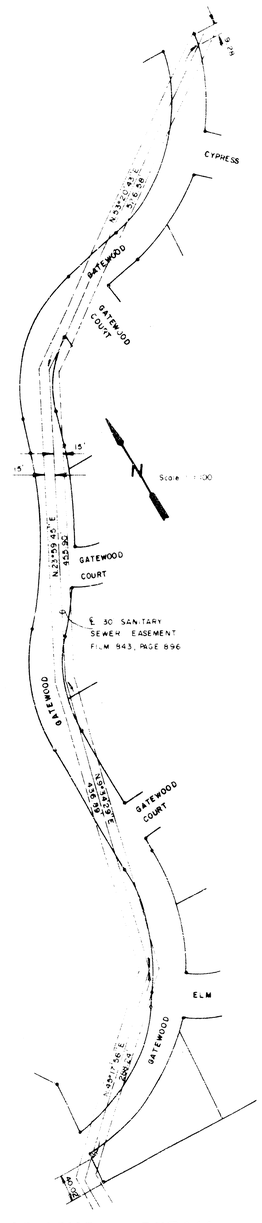
FINAL PLAT OF

GATEWOOD

AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

LOT NO.	BLOCK NO.	MINIMUM PAD ELEV.
11	1	164.0
12	1	163.5
13	1	164.5
14	1	165.0
15	1	165.0
16	1	165.5
17	1	166.0





EASEMENT DETAIL

I, Kenneth W. Bengtson, a Civil Engineer in Kansas, do hereby certify that I have been in responsible charge of surveying and platting of "GATEWOOD" an addition to Wichita, Sedgwick County, Kansas, that all blocks, Reserves, and Streets, the same being accurately set forth in the accompanying plat and described herein:

A tract of land lying in the Southeast Quarter of Section 15, Township 27 South, Range 2 East of the 6th P.M., more particularly described as follows:

Beginning at a point on the North line of Arts Association Addition to Wichita, Sedgwick County, Kansas; said point lying 1056.00 feet Easterly from the Northwest corner of said addition, said point also lying on the East line of Woodland Estates, an addition to Wichita, Sedgwick County, Kansas; thence Northerly along the East boundary of said Woodland Estates: thence N 0° 14' 30" W, 160.00 feet; thence N 37° 14' 30" W, 122.65 feet; thence N 34° 28' 08" E, 164.46 feet; thence N 17° 34' 49" E, 162.76 feet; thence N 1° 45' 30" E, 72.87 feet; thence N 21° 45' 30" E, 81.02 feet; thence N 17° 00' 00" W, 95.00 feet; thence S 71° 45' 30" W, 80.00 feet; thence N 68° 14' 30" W, 45.00 feet; thence N 33° 14' 30" W, 70.00 feet; thence N 1° 45' 30" E, 180.00 feet; thence N 8° 14' 30" W, 205.00 feet; thence N 89° 45' 30" E, 345.00 feet; thence N 62° 45' 30" E, 430.00 feet; thence N 89° 45' 30" E, 282.64 ft to a point on a curve to the left; thence along said curve 143.40 feet, said curve having a central angle of 27° 48' 18", a radius of 295.50 feet, and a long chord of 142.00 feet, bearing S 20° 59' 49" W; thence S 48° 53' 02" E, 28.33 feet to a point on a curve to the left; thence along said curve 245.23 feet, said curve having a central angle of 51° 53' 31", a radius of 270.76 feet, and a long chord of 236.93 feet, bearing S 22° 56' 16" E; thence S 89° 53' 02" E, 227.39 feet; thence S 0° 01' 48" E, 1056.00 feet to a point on the North line of said Arts Association Addition extended Easterly; thence N 89° 53' 02" W, 1179.00 feet along said North line to the point of beginning.

I hereby certify that the details of this plat are correct to the best of my knowledge and belief this 13 day of November, 1986.

Kenneth W Bengtson

Kenneth W. Bengtson, P.E.
Mid-Kansas Engineering Consultants, P.A.
3500 N. Rock Road, Building #800

Know all men by these presents that we the undersigned property owners of the land as above set forth in the Civil Engineers Certificate, have caused the same to be surveyed and platted into lots, blocks, streets and reserves, the same to be known as "GATEWOOD" an addition to Wichita, Sedgwick County, Kansas. The streets are hereby dedicated to and for the use of the public. Easements for the construction and maintenance of street, drainage and public utilities as indicated on the accompanying plat are hereby granted. Reserves "A", & "B" are being platted for construction and maintenance of public utilities, drainage, landscaping, walks, open space and entry monuments. Reserve "B" is also platted for a floodway, and 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 further, 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. Reserve "B" is also platted for gazebos and exercise paths. The Reserves shall be owned and maintained by the Homeowners Association. Minimum pad elevation on Lots 11 through 17 inclusive, Block 1 shall be as indicated on the face of the plat.

LAKEPOINT COMPANY, a Kansas general partnership
By Ritchie Associates, Inc.,
managing partner of said partnership

By: Jack D. Ritchie, President

STATE OF KANSAS
SS:
SEDGWICK COUNTY

Be it remembered that on this 4th day of December, 1986, before me a Notary Public in and for said State and County, came Ritchie Associates, Inc., by Jack D. Ritchie, 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.

Teresa A. Niles, Notary Public
TERESA A. NILES
Appointment Expires: 3-20-93

This plat of "GATEWOOD" has been submitted to and approved by the Sedgwick County Metropolitan Area Planning Commission this ____ day of _____, 19__.

_____, Chairman

_____, Secretary

This plat approved and all dedications shown hereon accepted by the City Commission of the City of Wichita, Kansas, this ____ day of _____, 19__.

Tony Cascio, Mayor

Donald D. Klaser, City Clerk

Entered on transfer record this ____ day of _____, 19__.

Don Wright, County Clerk

STATE OF KANSAS
SS:
SEDGWICK COUNTY

This is to certify that this instrument was filed for record in the Register of Deeds office this ____ day of _____, 19__ at _____ o'clock ____ M. and duly recorded in Book _____ Page _____.

Pat Rettiger, Register of Deeds

Ed Kesa