STORM SEWER PLANS FOR
PHASE II
BEACON VILLAGE
S.W.S. NO. 389
PROJECT NO.
468 - 81980

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

INDEX NO. 750141

JUNE 1990

GENERAL NOTES

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

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO REESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE REESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

3. 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.

4. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT (48) 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:

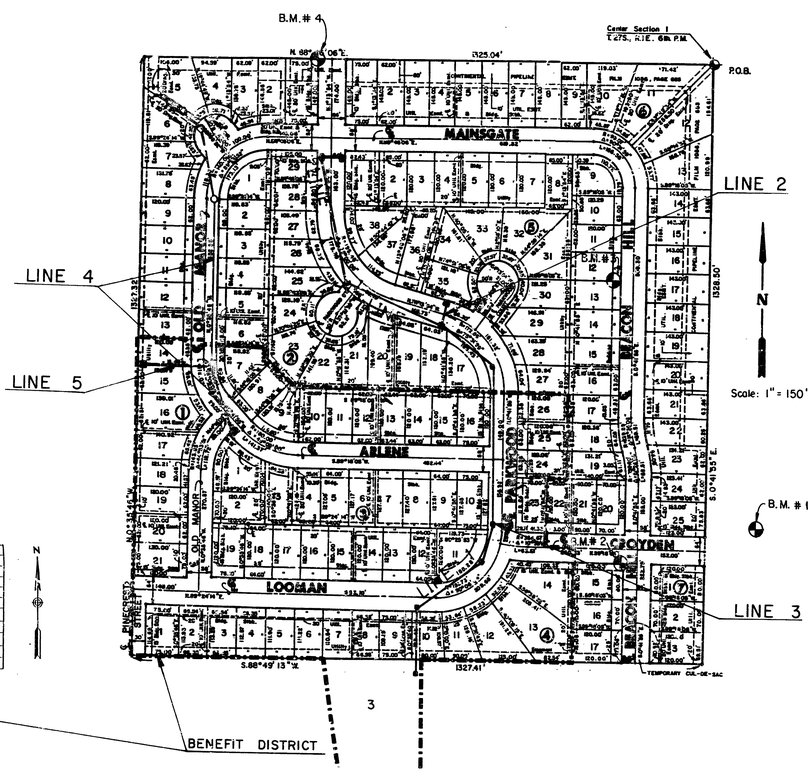
SOUTHWESTERN BELL TELEPHONE COMPANY	1-571-2115
CABLEVISION	262-4270 OR 263-2061
KPL GAS SERVICE COMPANY	263-7511
KANSAS GAS & ELECTRIC	264-1141
CITY OF WICHITA WATER DEPARTMENT	258-4908
CITY OF WICHITA SEWER MAINTENANCE	268-4071

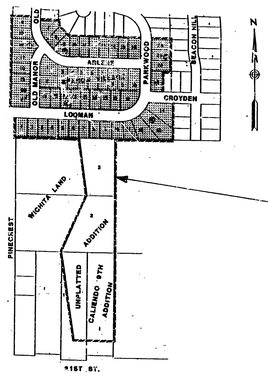
5. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED.

6. THE TOPS OF INLETS AND MANHOLES AS NOTED ON THE PLANS MAY VARY SO AS TO MEET PROPOSED TOP OF CURB ELEVATIONS OR PAVEMENT ELEVATIONS. THE FIELD ENGINEER SHALL LOCATE INLETS AND MANHOLES WITH REFERENCE TO PROPOSED PAVING PLANS OF THE PERTINENT STREETS. INLET DEPRESSIONS NEED TO BE TIED TO CURB, GUTTER, AND PAVING.

BENCH MARKS

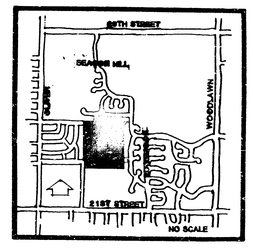
1. " □ " Cut on T.C. at North End Return
   N.W. Corner Ridgewood & Croyden
   Elev. = 184.21
2. "T" Post 5' + West of N.E. Corner
   Lot 15, Block 4
   Elev. = 186.54
3. "T" Post 5' + West of N.E. Corner
   Lot 13, Block 5
   (34' Left of CL Sta. 5+95 ±
   Elev. = 185.80
4. "□" NE corner area inlet at
   NE corner Lot 1, Block 1,
   Beacon Village
   Elev. = 173.92





INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-4	LINE 1
5	LINES 2 and 3, & SPEC. DITCH INLET TYPE 1A
6,7	LINES 4 and 5
8	STD. TYPE 1A CURB INLET DTL. OPENING = 6" x 5'-0"
9	STD. TYPE 1A CURB INLET DTL. OPENING=6" x 10'-0"
10	STD. TYPE "B" MANHOLE DTLS.
11	STD. DBL. WIDE DROP INLET DTL.
12	FINAL PLAT



LOCATION MAP

Booked
10-31-90
MG

GREGORY J. ALLEN
11153

MKEC

BEACON VILLAGE PHASE II
STORM WATER SEWER PLANS

Design GJA
Drawn by KSM
Checked by
Date JUNE, 1990
Job no

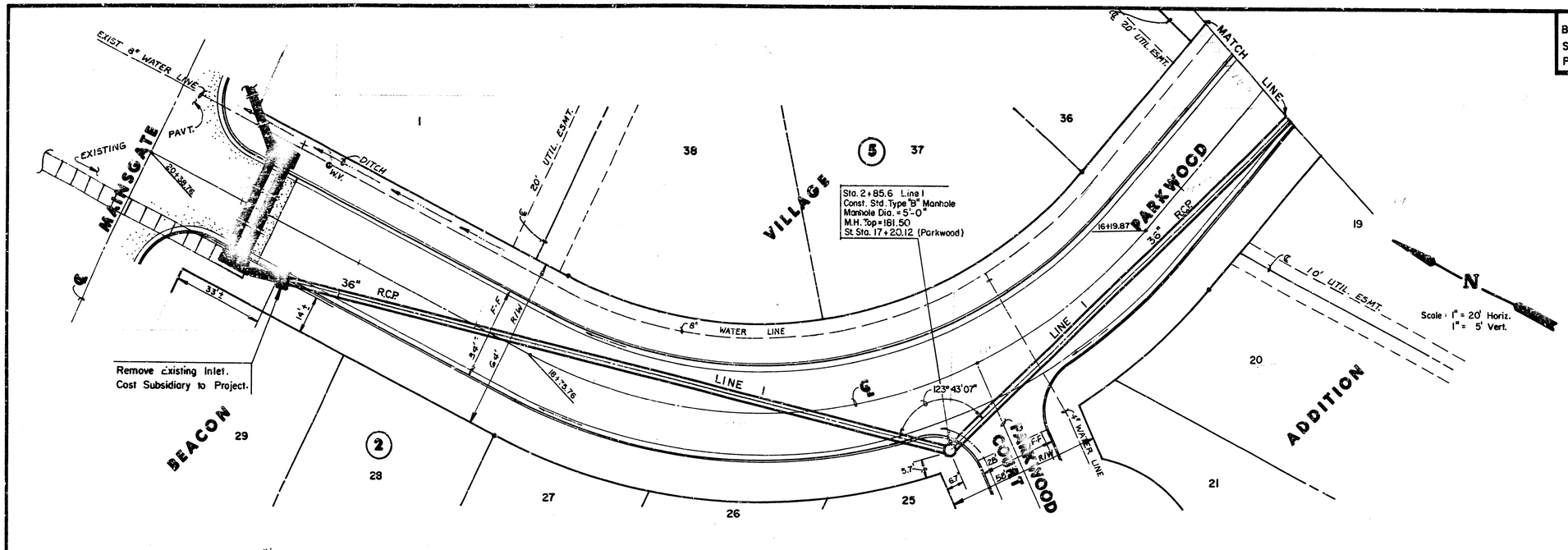
MID-KANSAS ENGINEERING CONSULTANTS PA
3500 NORTH ROCK ROAD
BUILDING #800
WICHITA, KANSAS 67226
636-5566

Sheet 1 of 12

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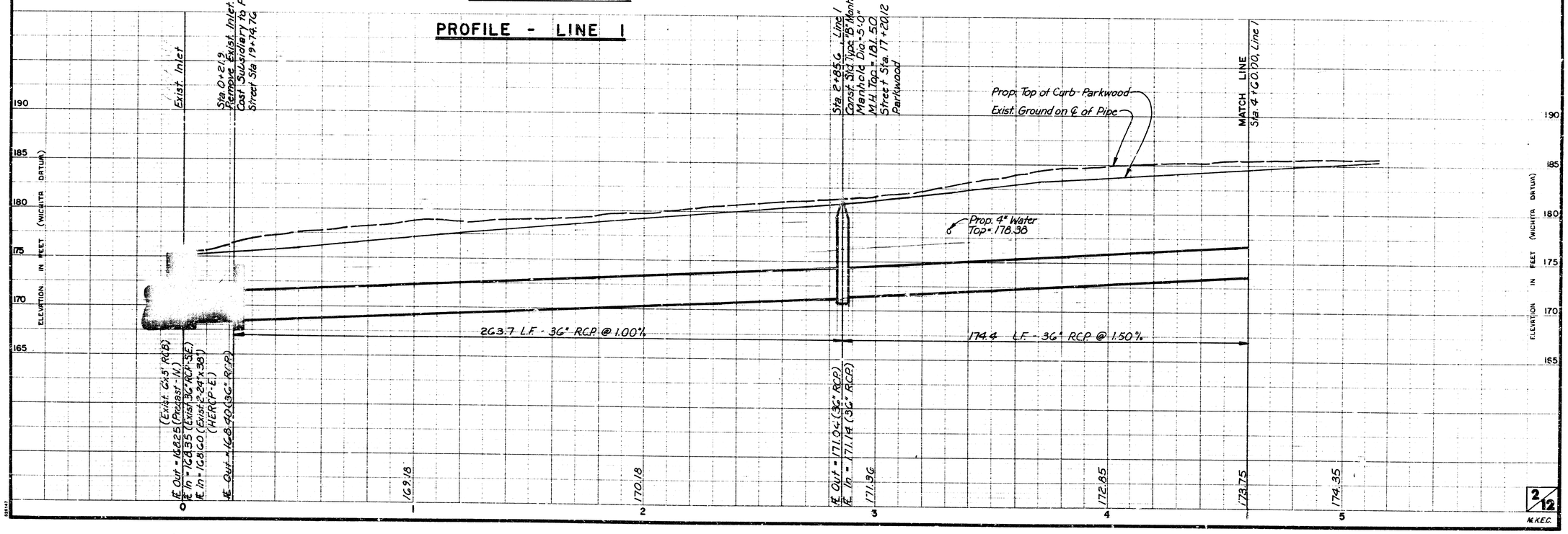
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BEACON VILLAGE - PHASE II
STORM WATER SEWER NO. 389
PROJ. NO. 468-81980



PLAN - LINE 1

PROFILE - LINE 1



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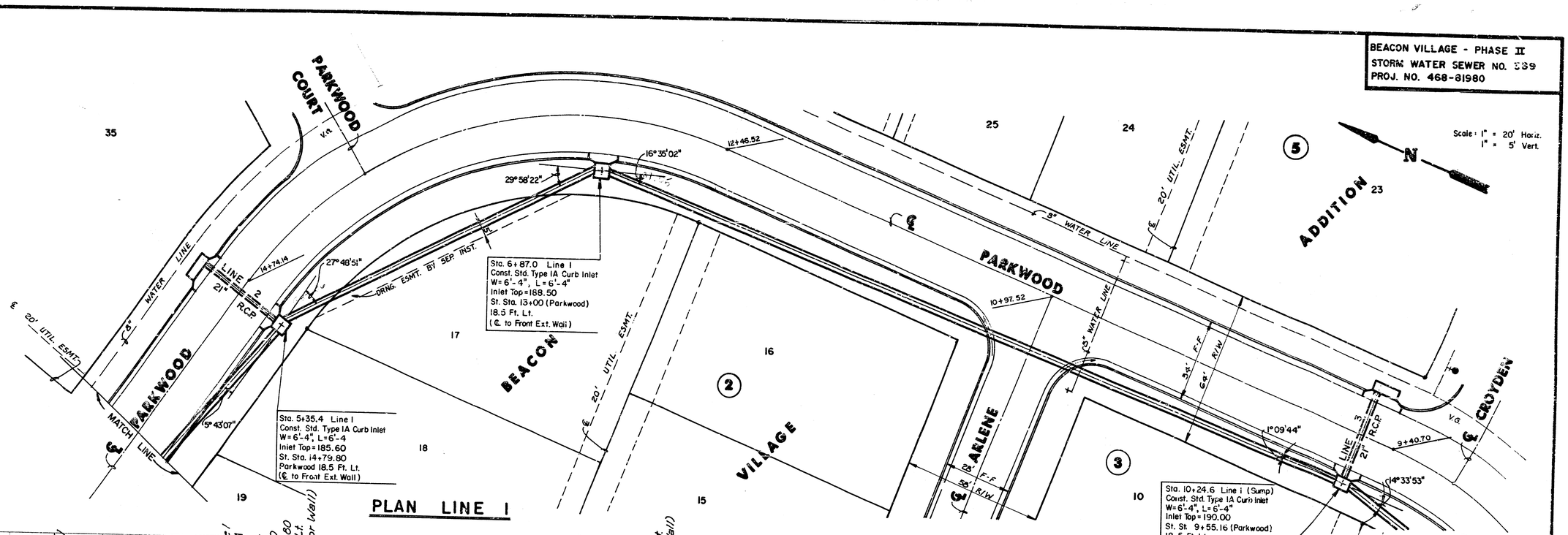
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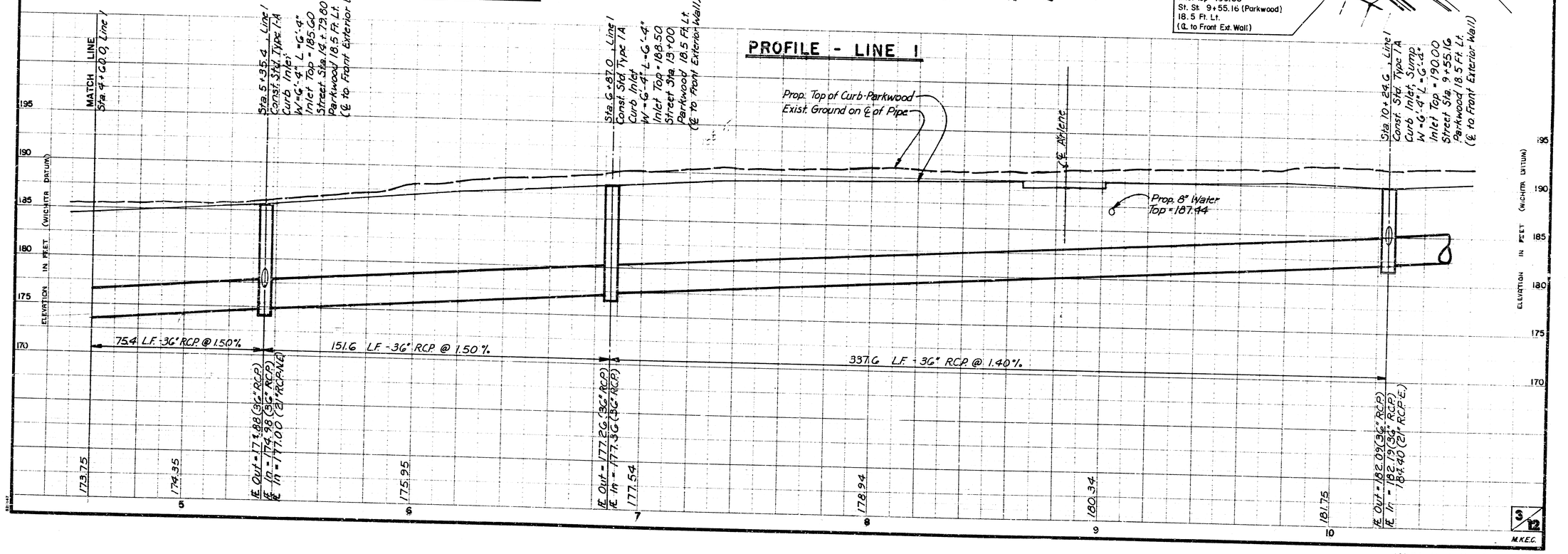
BEACON VILLAGE - PHASE II
STORM WATER SEWER NO. 339
PROJ. NO. 468-81980

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

PLAN LINE 1



PROFILE - LINE 1



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BEACON VILLAGE - PHASE II
STORM WATER SEWER NO. 389
PROJ. NO. 468 - 81980

Sta. 11+15.6 Line 1
Const. Std. Type 1A Curb Inlet
W=6'-4", L=6'-4"
Inlet Top = 190.90
St. Sta. 8+50.00 (Parkwood)
18.5 Ft. Lt.
(℄ to Front Ext. Wall)

NOTE: Trees vary in size from 1" to 5"
Tree removal shall be paid as "Site Preparation"

Sta. 14+43.5 Line 1 (
Const. Spec. Type 1A Ditch Inlet
(See Sheet No. 5
W= 5'-0", L= 5'-0"
Inlet Top = 195.5

Shape to drain to Ditch Inlet (Cost Subsidiary to Project)

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

Remove 36" Tree to be paid as "Site Preparation"

Sta. 10+24.6 Line 1 (Sump)
Const. Std. Type 1A Curb Inlet
W=6'-4", L=6'-4"
Inlet Top = 190.00
St. Sta. 9+55.16 (Parkwood)
18.5 Ft. Lt.
(℄ to Front Ext. Wall)

Sta. 13+03.8 Line 1
Const. Std. Type 1A Curb Inlet
W=6'-4", L=6'-4"
Inlet Top=193.50
St. Sta. 6+50.82 (Looman)
18.5' Ft. Rt.
(℄ to Front Ext. Wall)

PLAN LINE 1

PROFILE - LINE 1

Sta. 10+24.6, Line 1
Const. Std. Type 1A Curb Inlet, Sump
W=6'-4", L=6'-4"
Inlet Top = 190.00
Street Sta. 9+55.16
Parkwood 18.5 Ft. Lt.
(℄ to Front Exterior Wall)

Sta. 11+15.6, Line 1
Const. Std. Type 1A Curb Inlet
W=6'-4", L=6'-4"
Inlet Top = 190.90
Street Sta. 8+50.00
Parkwood 18.5 Ft. Lt.
(℄ to Front Exterior Wall)

Sta. 13+03.8, Line 1
Const. Std. Type 1A Curb Inlet
W=6'-4", L=6'-4"
Inlet Top=193.50
Street Sta. 6+50.82
Looman 18.5 Ft. Rt.
(℄ to Front Exterior Wall)

Sta. 14+43.5, Line 1
Const. Spec. Type 1A Ditch Inlet, Sump (See Sheet No. 5)
W=5'-0" L=5'-0"
Inlet Top = 195.5

Prop. Top of Curb-Parkwood
Exist. Ground on ℄ of Pipe

Prop. 8" Water Top = 189.94

ELEVATION IN FEET (WICHITA DATUM)

195
190
185
180

IE Out = 182.09 (36" RCP)
IE In = 182.19 (36" RCP)
IE In = 184.40 (24" R.C.P.E.)

182.94

IE Out = 183.10 (36" RCP)
IE In = 183.20 (36" RCP)

184.04

IE Out = 185.08 (36" RCP)
IE In = 185.18 (36" RCP)

186.14

IE Out = 186.58 (36" RCP)

910 L.F. - 36" R.C.P. @ 1.00%

188.2 L.F. - 36" R.C.P. @ 1.00%

139.7 L.F. - 36" R.C.P. @ 1.00%

10 11 12 13 14

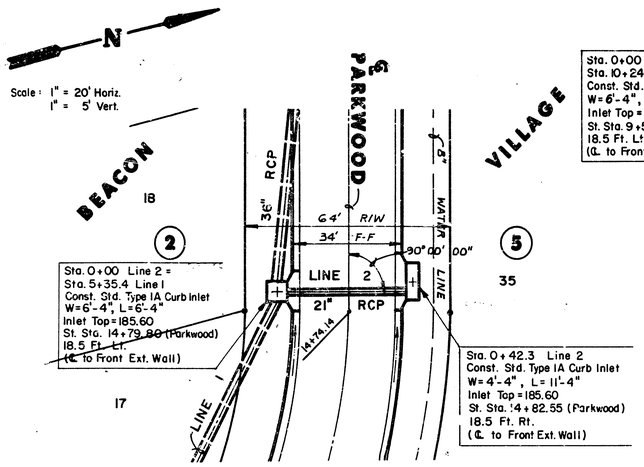
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MKEC.

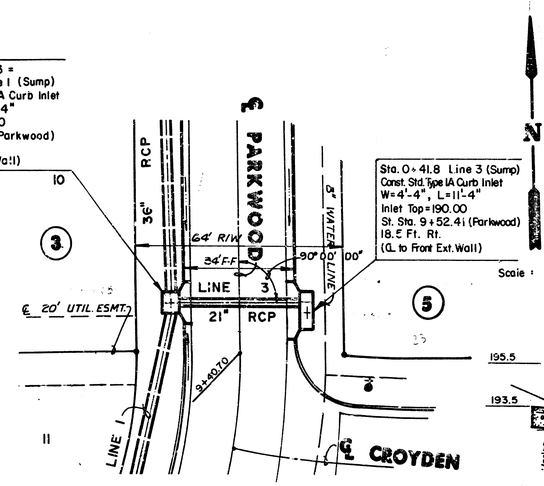
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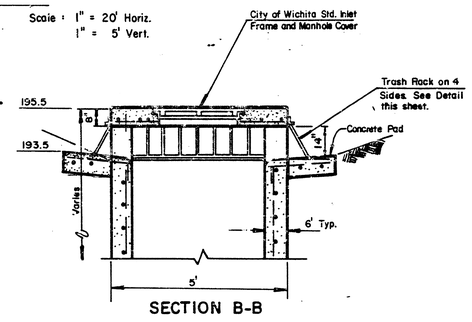
BEACON VILLAGE - PHASE II
STORM WATER SEWER NO. 389
PROJ. NO. 468 - 81980



PLAN & PROFILE - LINE 2

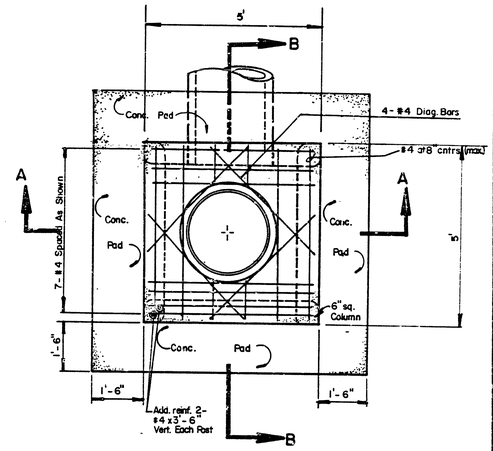


PLAN & PROFILE - LINE 3

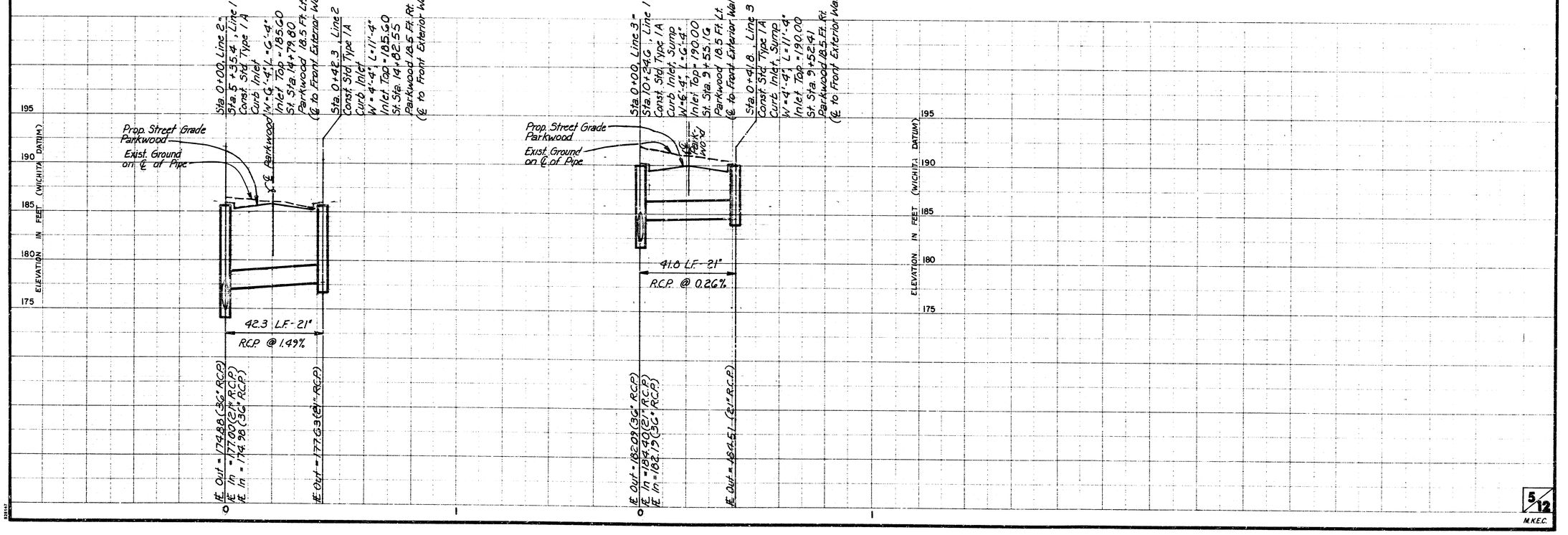


SECTION B-B

SPEC. DITCH INLET TYPE I-A



PLAN



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MKEC

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BEACON VILLAGE - PHASE II
STORM WATER SEWER NO. 389
PROJ. NO. 468 - 81980

N

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

2
Sta. 1+44 Line 4
Existing Manhole
Existing 24" Stub
St. Sta. 11+55.42

BEACON VILLAGE ADDITION

10' UTIL. ESMT.

Sta. 4+98.1 Line 4
Const. Std. Type 1A Curb Inlet
W=5'-4", L=6'-4"
Inlet Top=183.30
St. Sta. 8+00 (Old Manor)
15.5 Ft. Rt.
(℄ to Front Ext. Wall

LINE 4
24" R.C.P.
4°12'24"
16°51'24"
15" R.C.P.
24°0'22"
LINE 5
24" R.C.P.
℄ OLD MANOR
58' R/W
28' F-F
20'
11+56.04
8+10.49
5+69.43
5+98.43
6+23.8

Sta. 6+65.5 Line 4
Const. Std. Type 1A Curb Inlet
W=4'-4", L=11'-4"
Inlet Top=186.5
St. Sta. 6+26.81 (Old Manor)
15.5 Ft. Lt.
(℄ to Front Ext. Wall)

PLAN LINE 4

PROFILE LINE 4

Existing Manhole
Existing 24" Stub
Street Sta. 11+55.42

Prop. Top of Curb - Old Manor

Existing Ground on ℄ of Pipe

Sta. 4+98.1 Line 4
Const. Std. Type 1A
Curb Inlet
W=5'-4", L=6'-4"
Inlet Top = 183.30
Street Sta. 8+00
Old Manor 15.5 Ft. Rt.
(℄ to Front Exterior Wall)

Sta. 6+65.5 Line 4
Const. Std. Type 1A
Curb Inlet
W=4'-4", L=11'-4"
Inlet Top = 186.5
Street Sta. 6+26.81
Old Manor 15.5 Ft. Lt.
(℄ to Front Exterior Wall)

ELEVATION IN FEET (WICHITA DATUM)

190
185
180
175
170
165

354.1 L.F. - 24" R.C.P. @ 1.70%

167.4 L.F. - 15" R.C.P. @ 1.70%

167.4

FE. In = 170.40 (24" R.C.P.)

FE. Out = 176.42 (24" R.C.P.N.)
FE. In = 177.17 (15" R.C.P. S.E.)
FE. In = 176.52 (24" R.C.P.W.)

FE. Out = 180.02

171.35
173.05
174.75
178.90

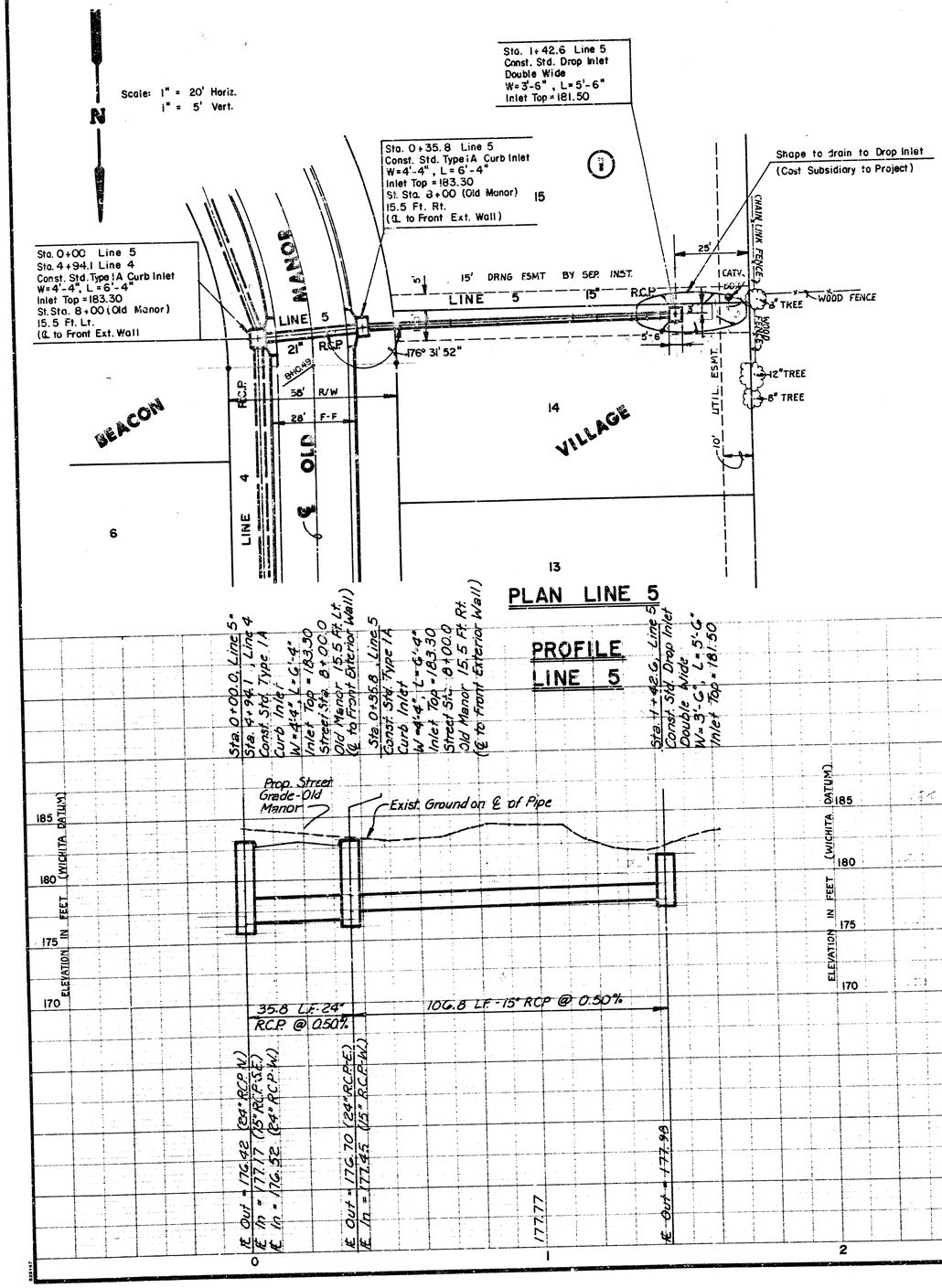
1+44 2 3 4 5 6 7

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M.K.E.C.

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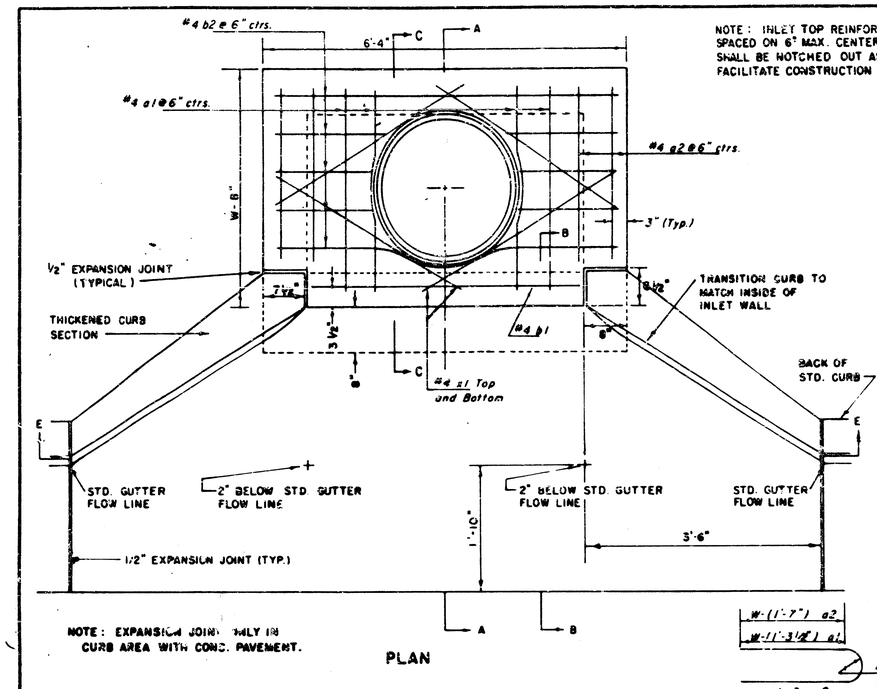
BEACON VILLAGE - PHASE II
STORM WATER SEWER NO. 389
PROJ. NO. 468 - 81980



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M.K.E.C.

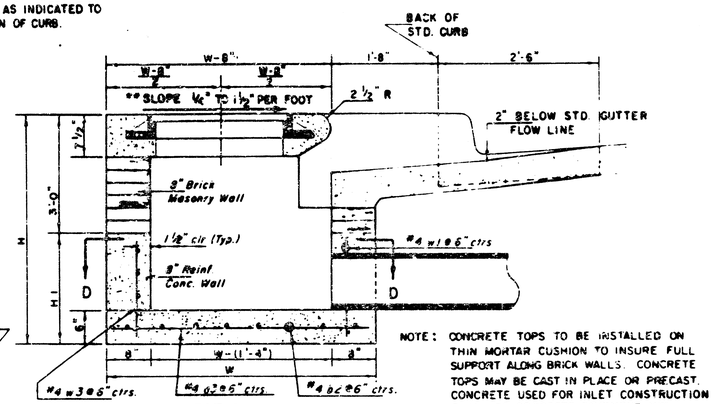
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NOTE: EXPANSION JOINT ONLY IN CURB AREA WITH CONC. PAVEMENT.

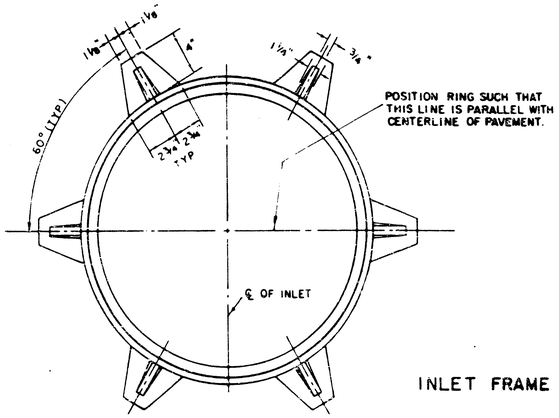
PLAN

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



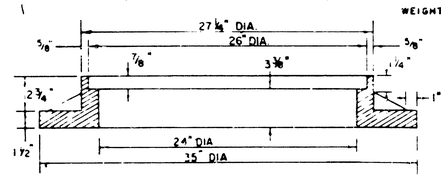
SECTION A-A

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 WITH AIR ENTRAINMENT.

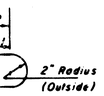


INLET FRAME

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 MAKEUP.

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

** NOTE: Slope of Inlet Tops to match Sidewalk or Parking Slopes within Limits indicated.

PRECAST 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	6	6'-7"	6	8'-7"	6	10'-7"	6	12'-7"	6	14'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	13	6'-1"	13	8'-1"	13	6'-1"	13	7'-1"	13	8'-1"
b1	#4	1	6'-9"	1	8'-9"	1	4'-9"	1	6'-9"	1	4'-9"
b2	#4	23	6'-1"	29	6'-1"	35	6'-1"	41	6'-1"	47	6'-1"
x1	#4	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"	8	5'-2"

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
w1	#4	(1)	6'-1"	(1)	8'-1"	(1)	6'-1"	(1)	6'-1"	(1)	8'-1"
w2	#4	(1)	4'-1"	(1)	5'-1"	(1)	6'-1"	(1)	7'-1"	(1)	8'-1"
w3	#4	32	(2)	36	(2)	40	(2)	44	(2)	48	(2)

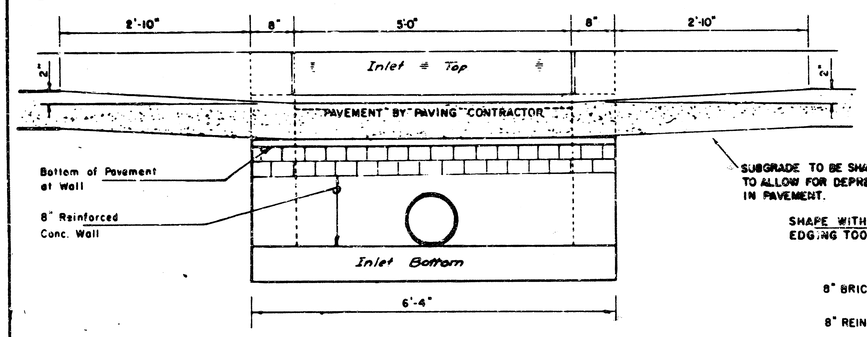
* Field bend or cut Reinforcing as required for clearance.

(1) 4(H1-12"); (H1-12") Round down to nearest 0.5'

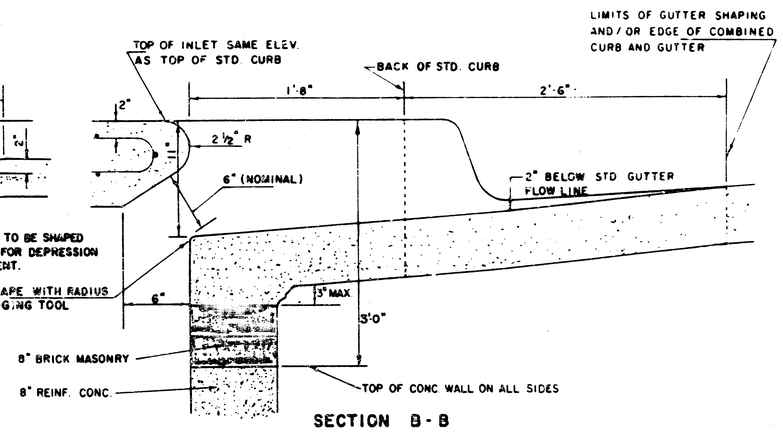
(2) H1-3"

STANDARD CURB INLET PRECAST TOPS

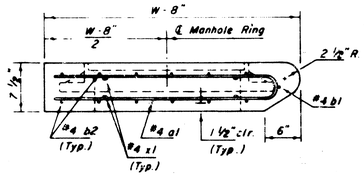
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4'-4"	3'8"± 6'4" ±7 1/2"	21" & SMALLER	0.38 ±
5'-4"	4'8"± 6'4" ±7 1/2"	24" & 30"	0.51 ±
6'-4"	5'8"± 6'4" ±7 1/2"	36" & 42"	0.64 ±
7'-4"	6'8"± 6'4" ±7 1/2"	48" & 54"	0.77 ±
8'-4"	7'8"± 6'4" ±7 1/2"	60" & 66"	0.90 ±



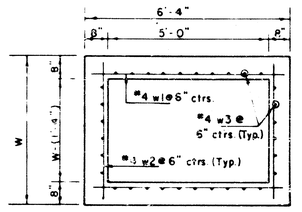
SECTION E-E



SECTION B-B



SECTION C-C



SECTION D-D

~~REVISED 11-30-1982~~

~~REVISED 12-6-1984~~ Revised 2-16-1989

DETAIL STANDARD TYPE IA CURB INLET

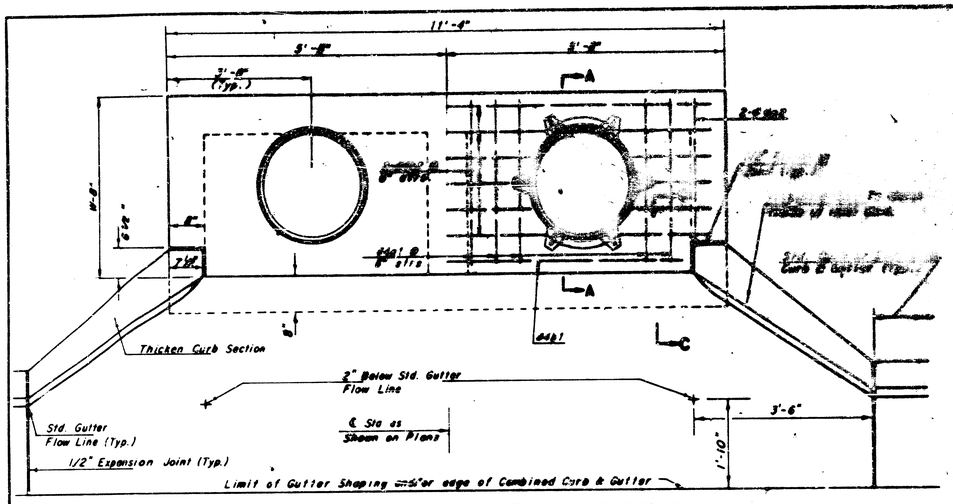
CITY OF WICHITA, KANSAS

INLET OPENING = 6" × 5'0"

JUNE 1984

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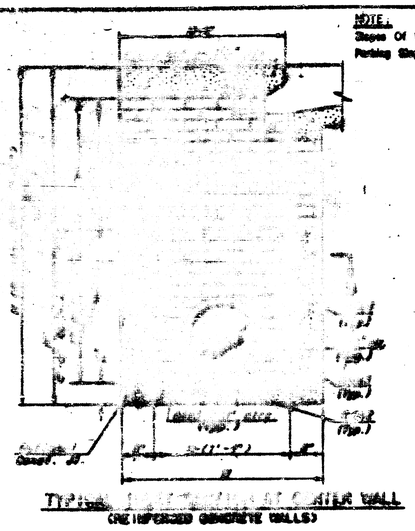
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SLAB REINFORCING NOT SHOWN — SHOWING SLAB REINFORCING

PLAN

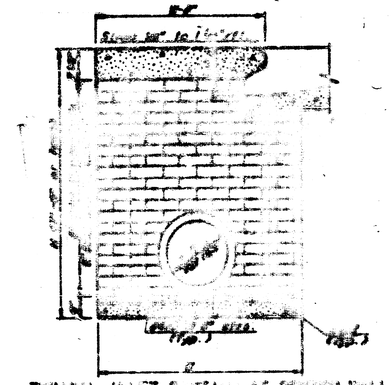
NOTE Expansion Joint only in Curb Area with Conc. Pavement.



TYPICAL [illegible] OF [illegible] WALL

(REINFORCED CONCRETE WALLS)

NOTE:
Slopes Of Inlet Tops To Match Sidewalk Or Parking Slopes Within Limits Indicated.

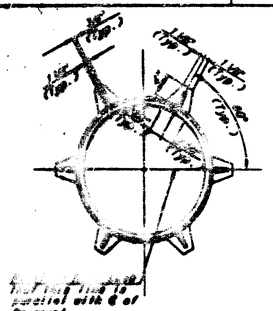


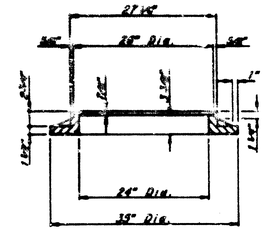
TYPICAL [illegible] OF [illegible] WALL

(MASONRY WALLS)

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

PROJECT NO.	SHEET NO.	TOTAL SHEETS

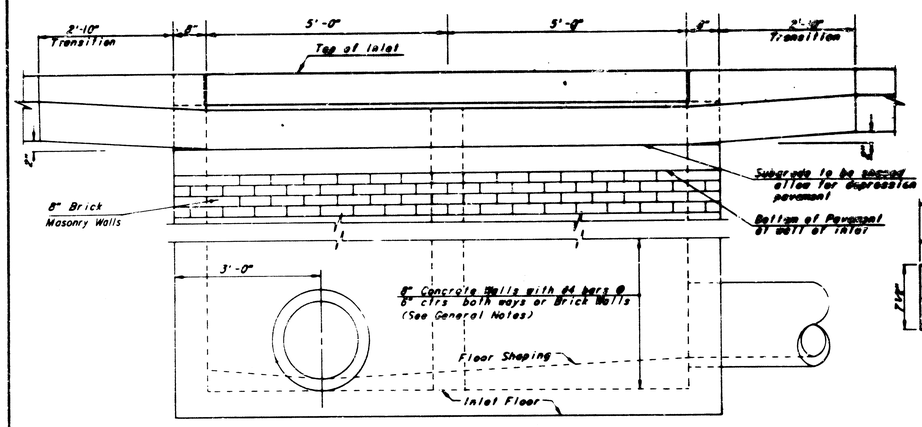




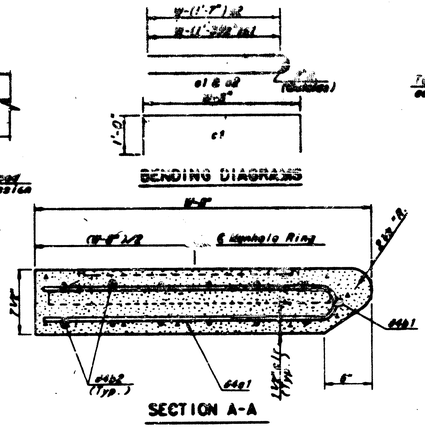
CAST IRON INLET RING

Wt.-180 lbs.

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

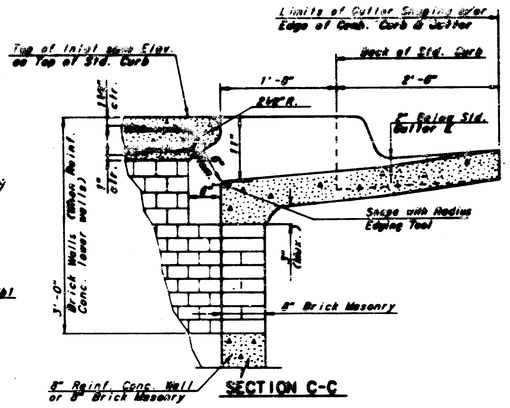


ELEVATION

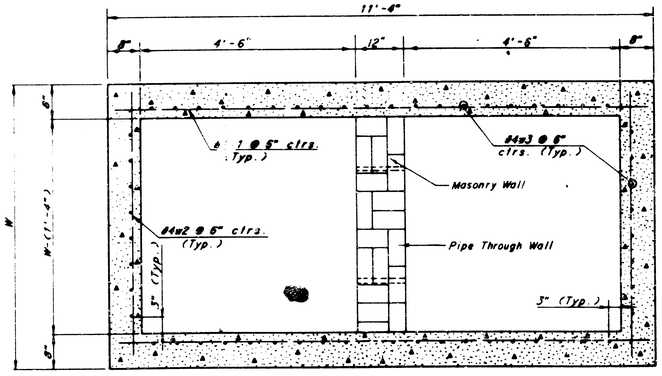


BENDING DIAGRAMS

SECTION A-A



SECTION C-C



SECTION B-B

SLAB AND FLOOR REINFORCING

		W=4'-6"		W=5'-3"		W=6'-0"		W=7'-4"		W=8'-4"	
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
a1	#4	13	6'-7"*	13	8'-7"*	13	10'-7"*	13	12'-7"*	13	14'-7"*
a2	#4	2	6'-6"	2	8'-6"	2	10'-6"	2	12'-6"	2	14'-6"
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

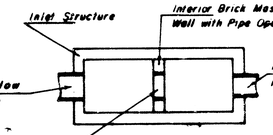
		W=4'-6"		W=5'-3"		W=6'-0"		W=7'-4"		W=8'-4"	
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
c1	#6	4	6'-1"	4	7'-1"	4	8'-1"	4	9'-1"	4	10'-1"
w1	#4	①	11'-1"	①	11'-1"	①	11'-1"	①	11'-1"	①	11'-1"
w2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
w3	#4	②	③	②	③	②	③	②	③	②	③

* Field bend or cut Reinforcing as required for clearance

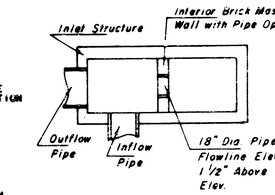
① 4(N1-8")+4 (N1-6") Rounded down to nearest 0.5".

② 40+4(W - 16") ③ N1+(8")

CASE I



CASE II



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

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=8'-6" OR LESS AND W1'-9" OR LESS WHEN W IS GREATER THAN 8'-6" AND W-11 LESS THAN 7'-8". THE OUTSIDE INLET WALLS FALLING THE BRICK STAGE 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 A SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
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.

STANDARD CURB INLET PRECAST TOPS

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

REVISED 12-5-80 ~~REVISED 12-21-84~~

STANDARD TYPE 1A CURB INLET

INLET OPENING = 6" x 10'-0"

WICHITA, KANSAS

Designed by	BCR, KJS, MMB	Checked by	MMB	9
Drawn by	JSP	Date	Nov., 1984	Job No. 12

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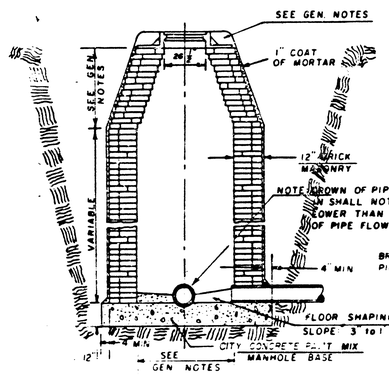
REVISED MAY 1981
REVISED JAN. 1982

SEWER APPURTENANCES DETAILS

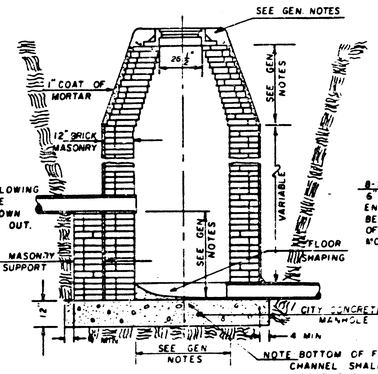
ADOPTED AS STANDARD DESIGN BY

City of Wichita, Kansas

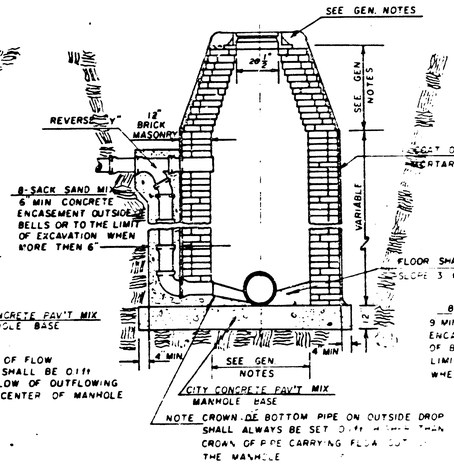
TYPE "B" MANHOLE



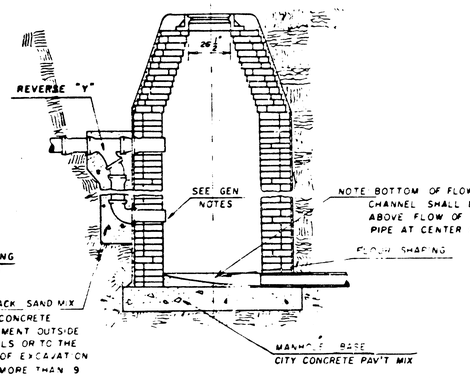
TYPE "B" INSIDE DROP MANHOLE



TYPE "B" OUTSIDE DROP MANHOLE



DETAIL OF OUTSIDE DROP CONSTRUCTED ON EXISTING MANHOLE



GENERAL NOTES

1. 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. TYPE "B" MANHOLES CAN BE USED ON SEWERS HAVING DEPTHS GREATER THAN 16' OR WHEN THE MANHOLE IS LOCATED IN PUBLIC STREET PAVEMENT. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4'. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5'. THE HEIGHT OF THE CORBELS ON 4' DIAMETER MANHOLES SHALL BE 4'. MANHOLES HAVING A DIAMETER OF 5' SHALL HAVE CORBELS 6' IN HEIGHT. 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. 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. THE VERTICAL DROP FROM THE LOWER PIPE ON SUCH OUTSIDE DROP CONNECTIONS SHALL NOT EXCEED 4' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES SIZED LARGER THAN 12", EXCEPT THE CROWN OF THE LOWER PIPE SHALL NEVER BE SET BELOW THE CROWN OF ANY LARGER OUTFLOWING PIPE. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.

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 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.

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.

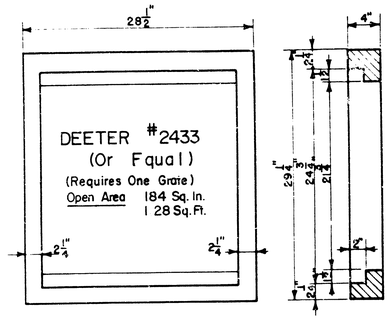
6. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.

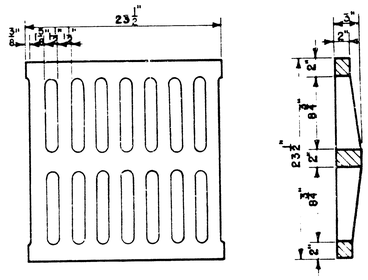
7. THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.

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

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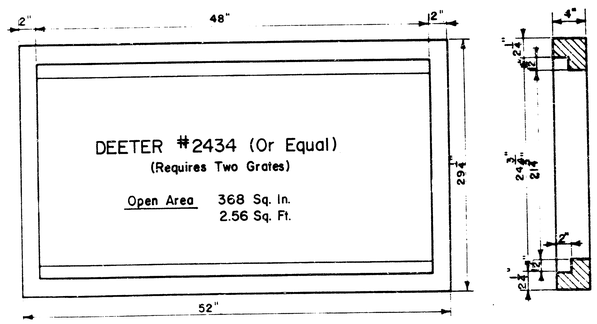
NOTE: Grates shall be imprinted on the top surface with "CITY OF WICHITA" using letters at least 1" in height. Other marking methods may be used only if approved by the engineer.



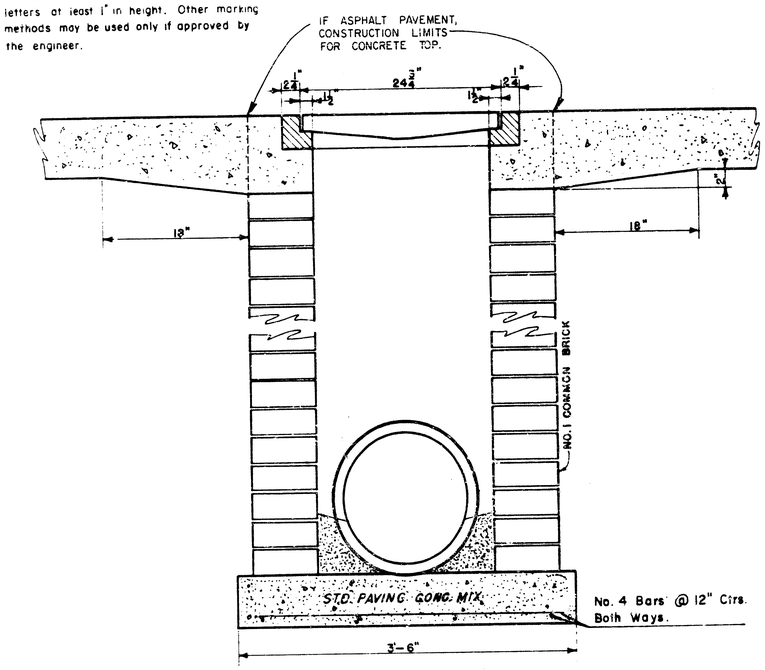


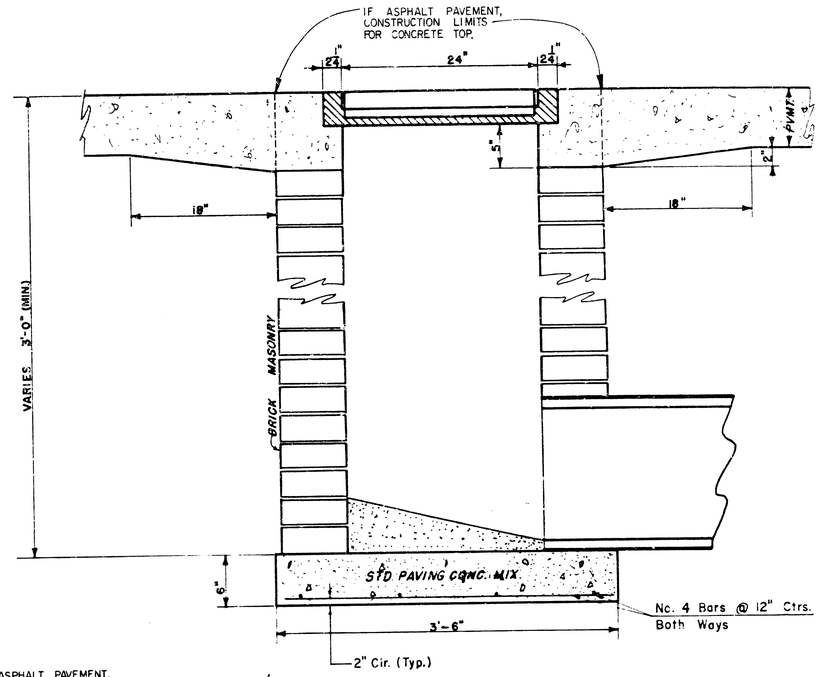
GRATE

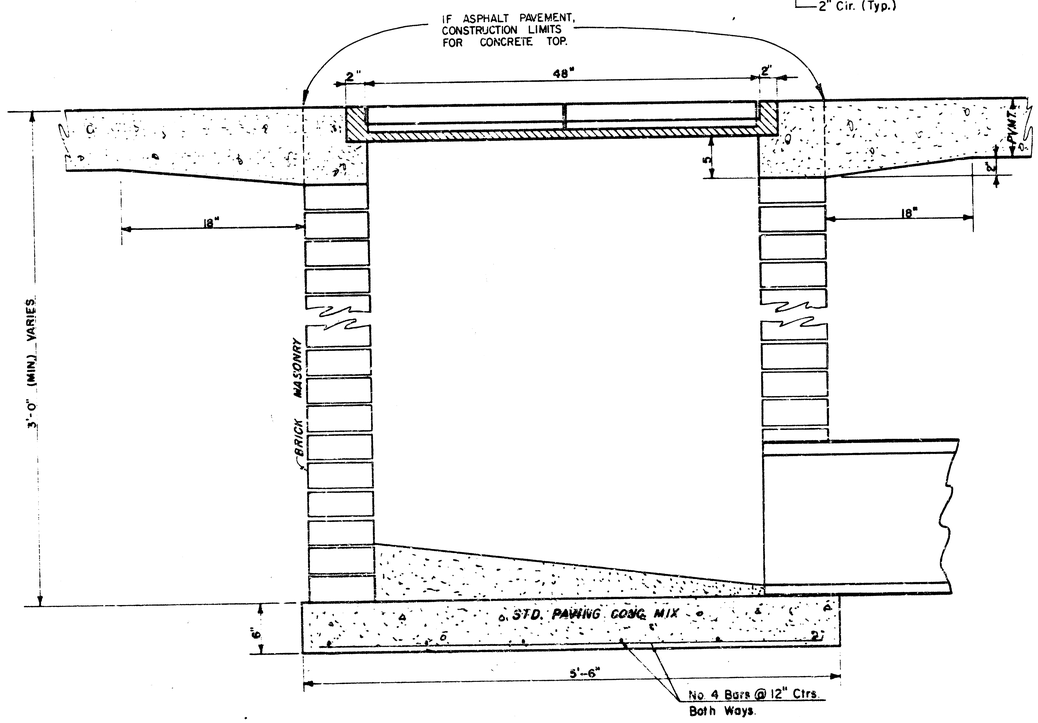
24"x24" Frame & Grate Detail



Double 24"x24" Frame Detail







ORIFICE EQUATION		
$Q = CA\sqrt{2gh}$ C = 0.60		
h (Depth	#2433 (single)	#2434 (double)
0.1	1.95 cfs	3.89 cfs
0.2	2.75 cfs	5.50 cfs
0.3	3.37 cfs	6.74 cfs
0.4	3.89 cfs	7.78 cfs
0.5	4.35 cfs	8.70 cfs
0.6	4.77 cfs	9.53 cfs
0.7	5.15 cfs	10.30 cfs
0.8	5.50 cfs	11.01 cfs
0.9	5.84 cfs	11.67 cfs
1.0	6.15 cfs	12.30 cfs

REVISED: 8 MAY 1990 JNJ

DROP INLET DETAILS

M.E. Lindebak, City Engineer

City of Wichita, Kansas

Project

Project No.

Date:

Scale: 1-1/2" = 1'-0"

11/12

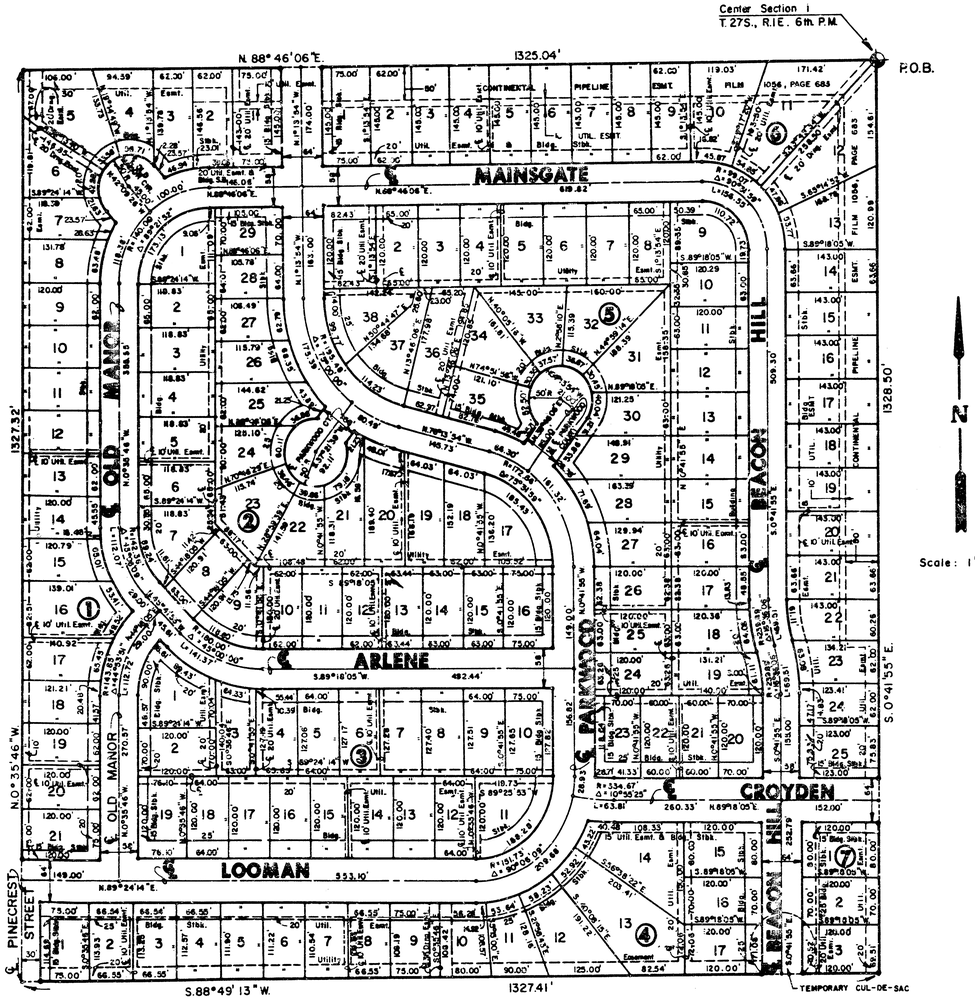
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PC 5-14

FINAL PLAT OF

BEACON VILLAGE

AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS



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

The East Half of the North Half of the Southwest Quarter of Section 1, Township 27 South, Range 1 East of the 6th P.M., Sedgwick County, Kansas, more particularly described as follows:

Beginning at the Northeast corner of said Southwest Quarter; thence S 00° 41' 55" E, 1328.50 feet along the East line of said Southwest Quarter, said line being the West line of Woodlawn Place 5th Addition, an addition to Wichita, Sedgwick County, Kansas; thence S 88° 49' 13" W, 1327.41 feet along the North line of Wichita Land Addition; an addition to Wichita, Sedgwick County, Kansas; thence N 00° 35' 46" W, 1327.32 feet along the East line of Prairie Hills 2nd Addition, an addition to Wichita, Sedgwick County, Kansas to a point on the North line of said Southwest Quarter; thence N 88° 46' 06" E, 1325.04 feet along the South line of Beacon Hill an addition to Wichita, Sedgwick County, Kansas to the point of beginning.

The drainage easement found on Film 621, Page 290 shall be vacated by virtue of K.S.A. 12-512 (b)

I hereby certify that the details of this plat are correct to the best of my knowledge and belief this 25 day of May, 1989.

Kenneth H. Bengtson
Kenneth H. Bengtson, P.E., R.L.S. #922
Mid-Kansas Engineering Consultants, P.A.
3500 N. Rock Road, Building #800
Wichita, Kansas 67226

KENNETH H. BENGTSON REGISTERED LS-922 KANSAS LAND SURVEYOR

Know all men by these presents that we the undersigned property owners of the land as above set forth in the Land Surveyor's and Civil Engineers Certificate, have caused the same to be surveyed and platted into lots, blocks and streets, the same to be known as "BEACON VILLAGE" 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 drainage and public utilities are hereby granted. The temporary cul-de-sac for Beacon Hill is hereby granted, however, at such time as Beacon Hill is extended to the south the cul-de-sac shall be automatically vacated.

LEEWOOD HOMES, INC.

By: Joe H. Lee, President

STATE OF KANSAS)
SS:
SEDGWICK COUNTY)

Be it remembered that on this 23rd day of May, 1989, before me a Notary Public in and for said State and County, came Joe H. Lee, President of Leewood Homes, Inc., 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.

Jerry Fritz, Notary Public

My Appointment Expires: March 24, 1991

JERRY FRITZ NOTARY PUBLIC STATE OF KANSAS My Appt. Exp. 3-24-91

#10194438

We, Bank IV, Wichita, National Association, mortgagees on the above described property, do hereby consent to the plat of "BEACON VILLAGE".

BANK IV, WICHITA, NATIONAL ASSOCIATION

By: Gary K. Brown, Senior Vice President

STATE OF KANSAS)
SS:
SEDGWICK COUNTY)

Be it remembered that on this 23rd day of MAY, 1989, before me a Notary Public in and for said State and County, came Gary K. Brown on benalf of Bank IV, Wichita, National Association, 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.

Jerry Fritz, Notary Public

My Appointment Expires: March 24, 1991

JERRY FRITZ NOTARY PUBLIC STATE OF KANSAS My Appt. Exp. 3-24-91

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

Dated this 11th day of May, 1989.

WICHITA-SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION

Sue L. Crockett, Chairman
Sue L. Crockett

Marvin S. Krout, Secretary
Marvin S. Krout

This plat approved and all dedications shown hereon, if any, accepted by the City Commission of the City of Wichita, Kansas, this 17th day of July, 1989.

Bob Knight, Mayor
Bob Knight

John Moir, City Clerk
John Moir

Entered on transfer record this 21 day of July, 1989.

Don Wright, County Clerk
Don Wright

STATE OF KANSAS)
SS:
SEDGWICK COUNTY)

This is to certify that this instrument was filed for record in the Register of Deeds office this 21st day of JULY, 1989.

Pat Kettler, Register of Deeds
Pat Kettler

Ed Resa, Deputy
Ed Resa

MKEC Proj. No. 85-28-113

12
12

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