

GENERAL NOTES

1. 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.
2. 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.
3. 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 WCHITA)

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

SOUTHWESTERN BELL TELEPHONE COMPANY 1-571-2115
CABLEVISION 282-4270 OR 283-2081
P. GAS SERVICE COMPANY 283-7511
WISA GAS & ELECTRIC 284-1141
CITY OF BEL AIR 744-2451
A. J. GAS COMPANY 942-8350 OR 283-8161

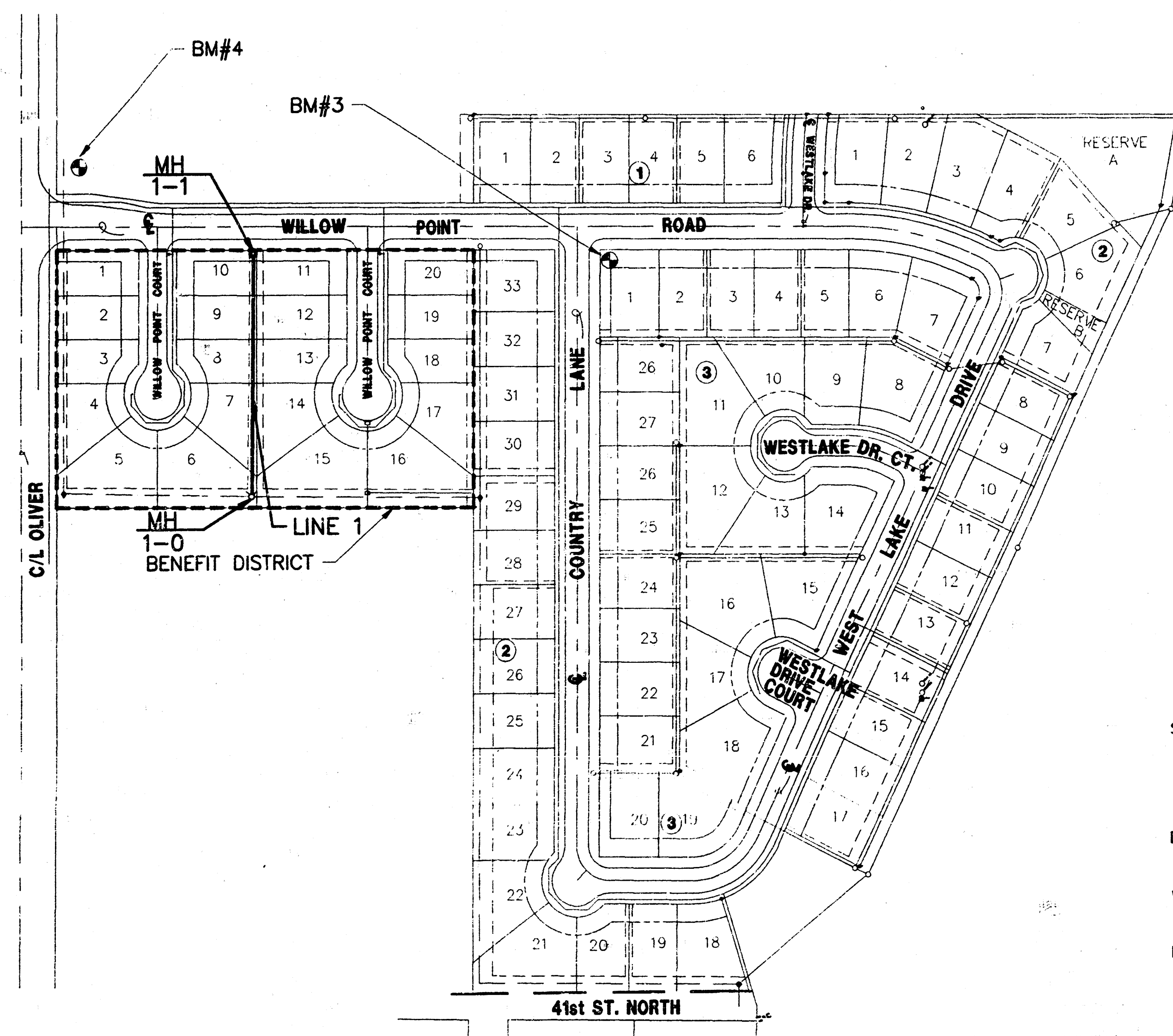
4. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, 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 LOCATIONS.
5. COST OF EXCAVATION, HAULING, AND DUMPING OF EXCESS EXCAVATION SHALL BE SUBSIDIARY TO THE PROJECT.
6. 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.
7. ALL STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE IN THE SAME MANNER AS RISERS.
8. 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 RESHAPE THE EXISTING MANHOLE INVERT TO PROVIDE SMOOTH FLOW. THE COST OF RESHAPING EXISTING MANHOLE INVERTS IS INCIDENTAL TO THE PROJECT.
9. 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. COST OF REMOVAL SHALL BE PAID AS SITE PREPARATION AND RESTORATION.

BENCH MARKS

B.M.#3 "I" POST 5' S. & E. OF THE N.W. CORNER OF LOT 1-3 WILLOW POINT ADDITION. ELEVATION = 1405.645

B.M.#4 RAILROAD SPIKE IN W. FACE TELEPHONE POLE 50' E. OF CL OLIVER & 147' N. OF CL WILLOW POINT ROAD. ELEVATION = 1406.56

SANITARY SEWER PLANS FOR WILLOW POINT COURTS CITY OF BEL AIR SEDGWICK COUNTY, KANSAS JUNE 1993



SCALE: 1"=150'

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

SANITARY SEWERS _____
STORM SEWERS _____
DRIVEWAY APPROACHED _____
WATER MAINS _____
PAVING _____

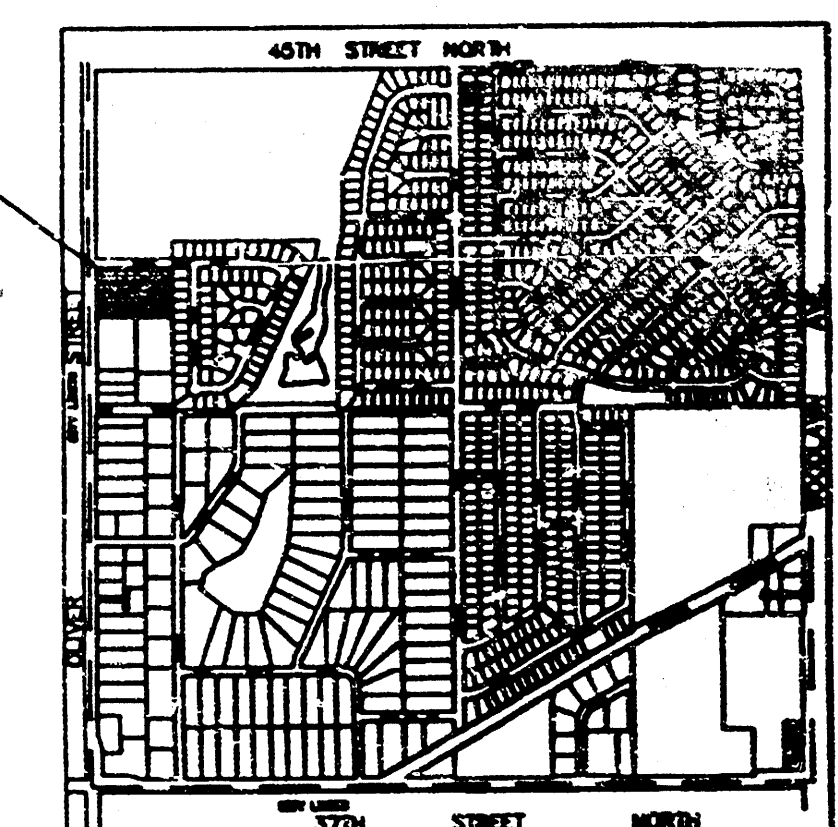
NOTE TO CONTRACTOR

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.

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DETAILS
3	PLAN & PROFILE
4	FINAL PLAT

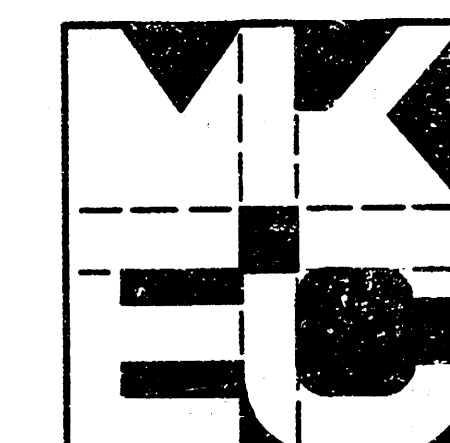
PROJECT SITE



LOCATION MAP

CITY OF WICHITA

PRIVATE PROJECT # 398PPSI607861
AS BUILT - 9/7/93



**WILLOW POINT
COURTS
SANITARY
SEWER PLANS**

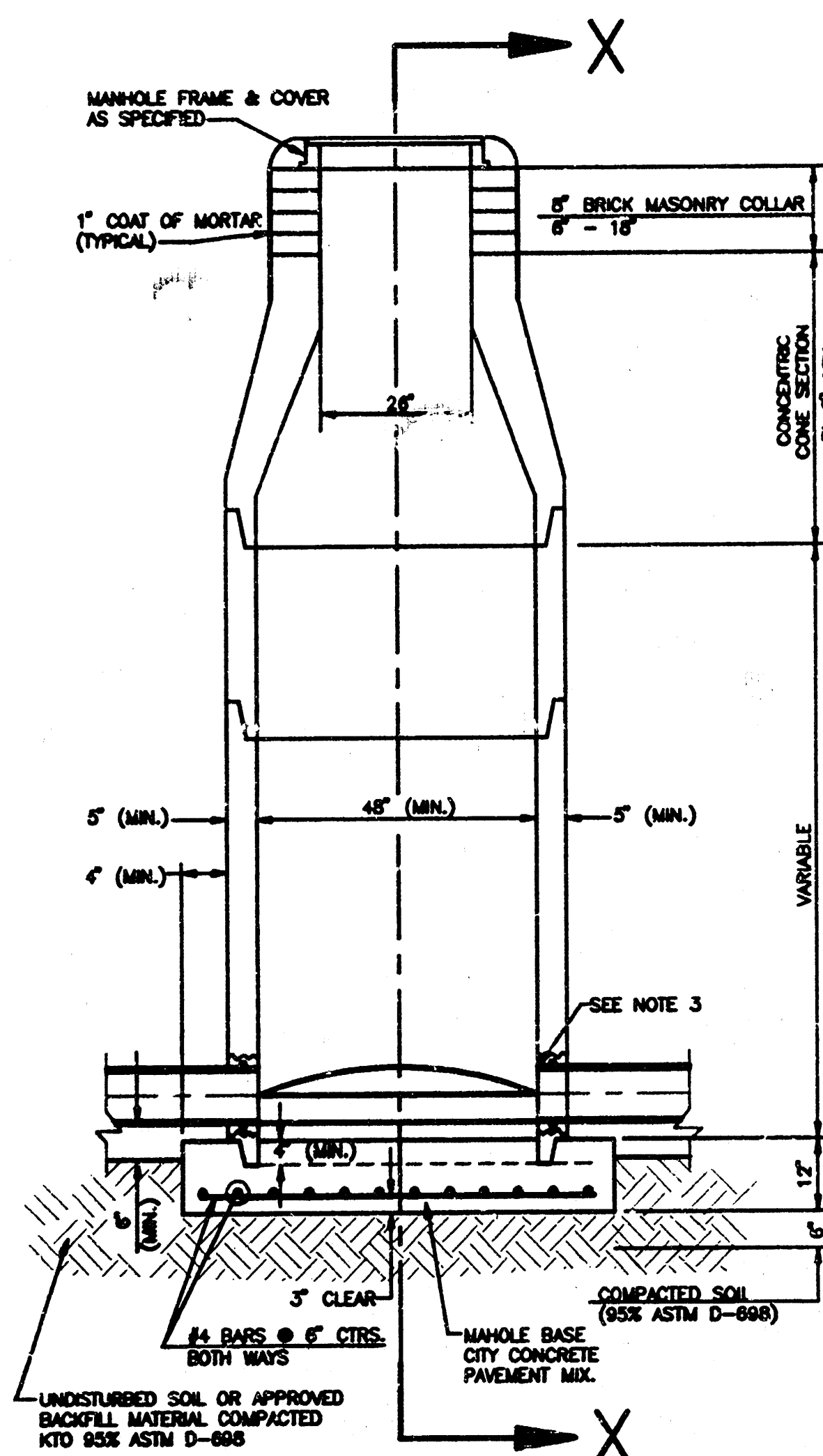
MID-KANSAS ENGINEERING CONSULTANTS INC.
3500 NORTH ROCK ROAD
BUILDING #800
WICHITA, KANSAS 67226
(316) 636-5566

Drawn by GJA
Checked by RSB
Designed by GJA
Date 6/93
Job 9241SWRT

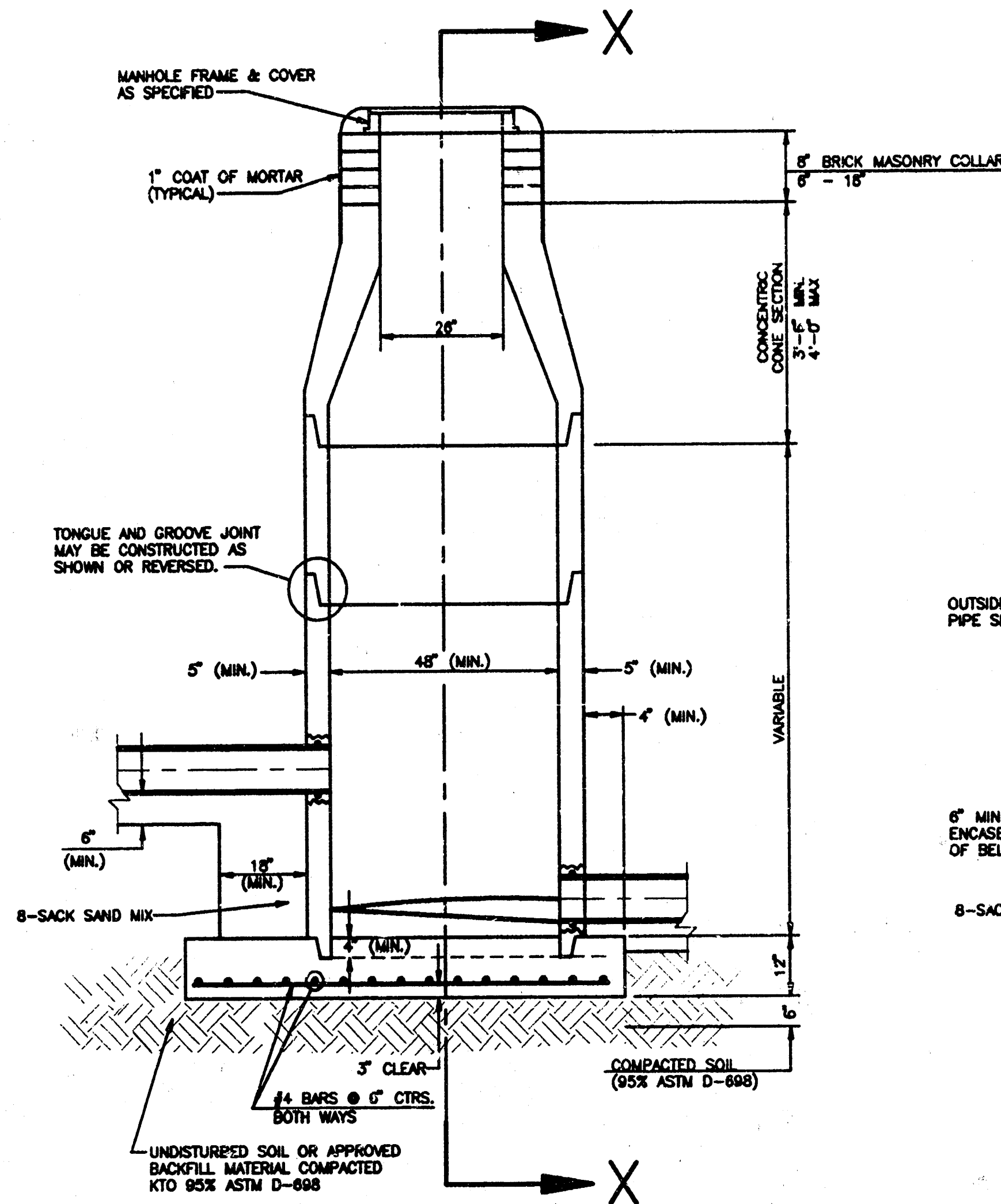
1
4

SEWER APPURTENANCES DETAILS

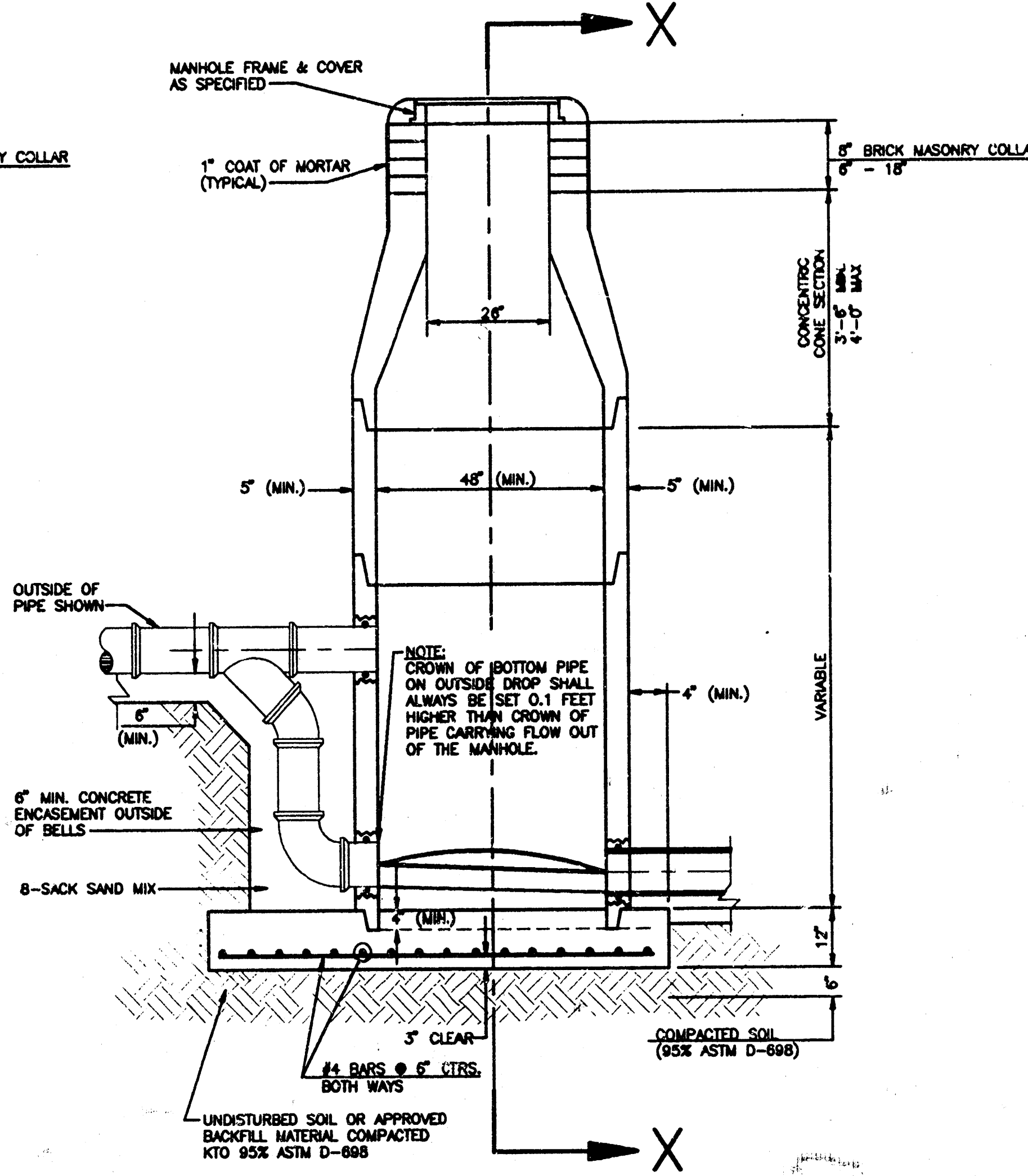
ADOPTED AS STANDARD DESIGN
BY
CITY OF WICHITA



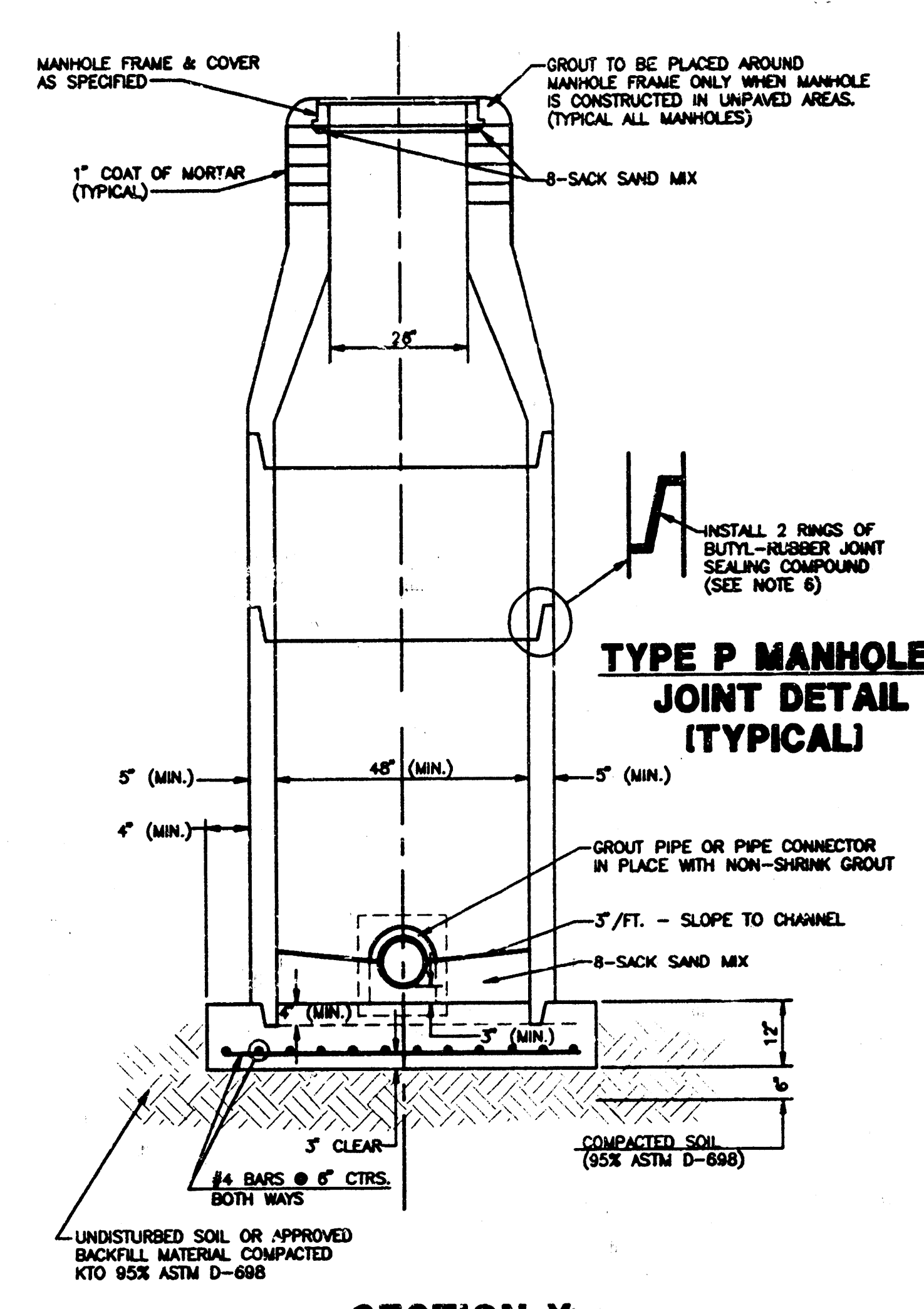
**TYPE P
STANDARD MANHOLE**



**TYPE P
INSIDE DROP MANHOLE**



**TYPE P
OUTSIDE DROP MANHOLE**



**SECTION X
(TYPICAL)**

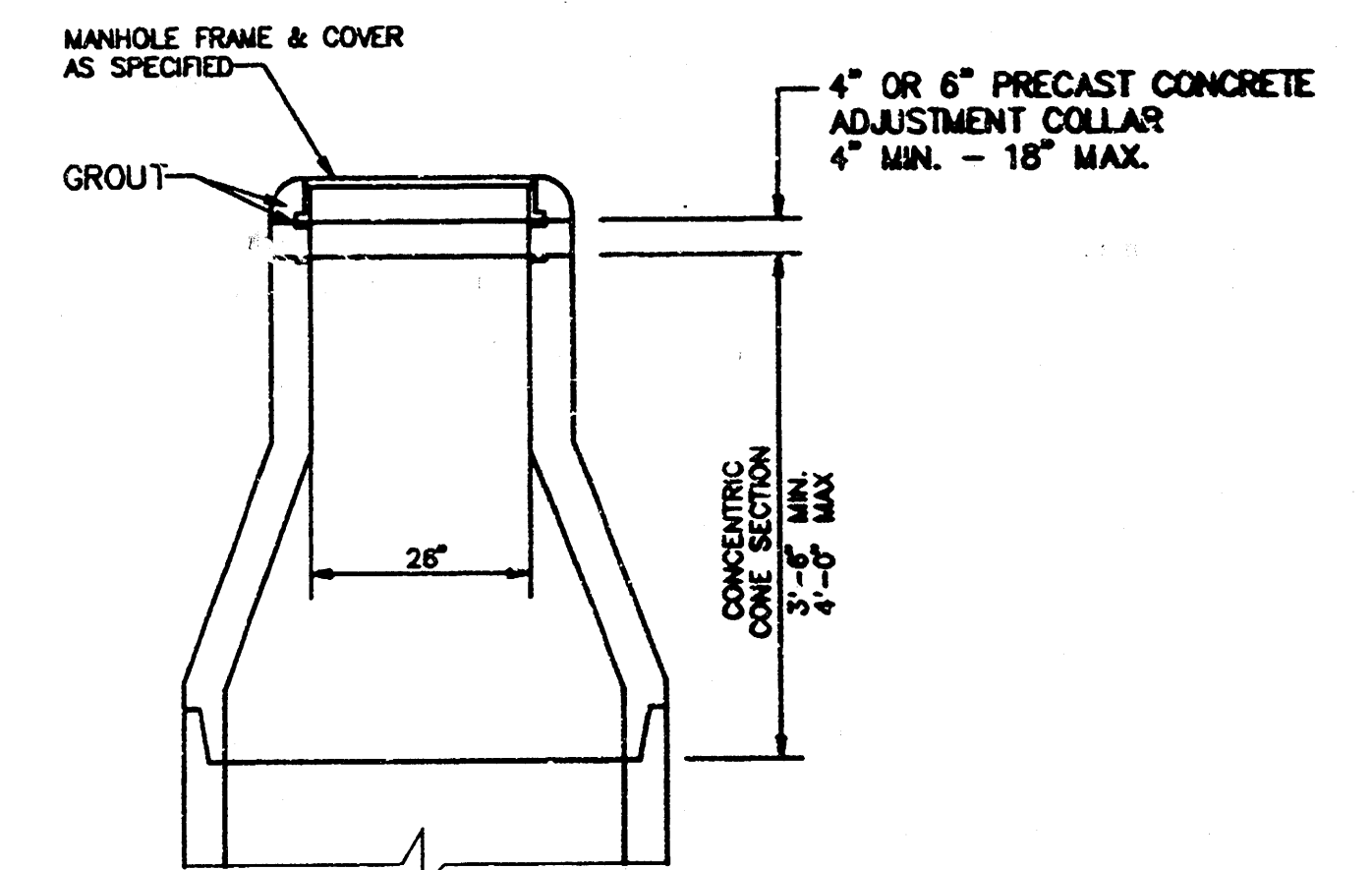
GENERAL NOTES

PRECAST MANHOLE NOTES

- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
- NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
- 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.
- ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS TNEPEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
- EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINUS COATING.
- JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
- PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
- 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.
- LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
- 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 PAVEMENT MIX WITHOUT AIR ENTERING 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.

- 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.
- 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.
- 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.

- 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.
- 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.
- 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.
- STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES SHALL BE BID 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.
- 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.

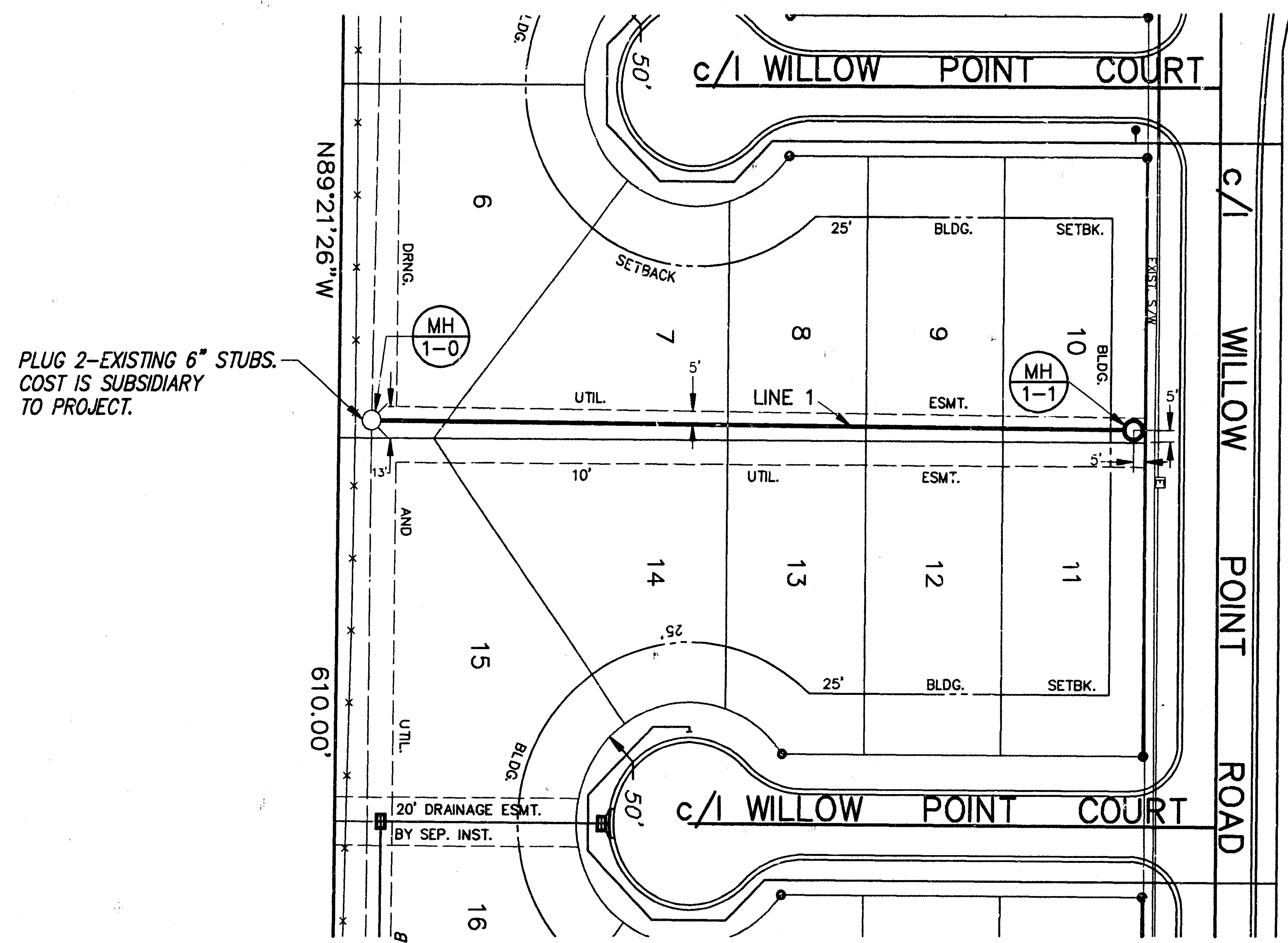


**ALTERNATE CONSTRUCTION
IN UNPAVED AREAS**

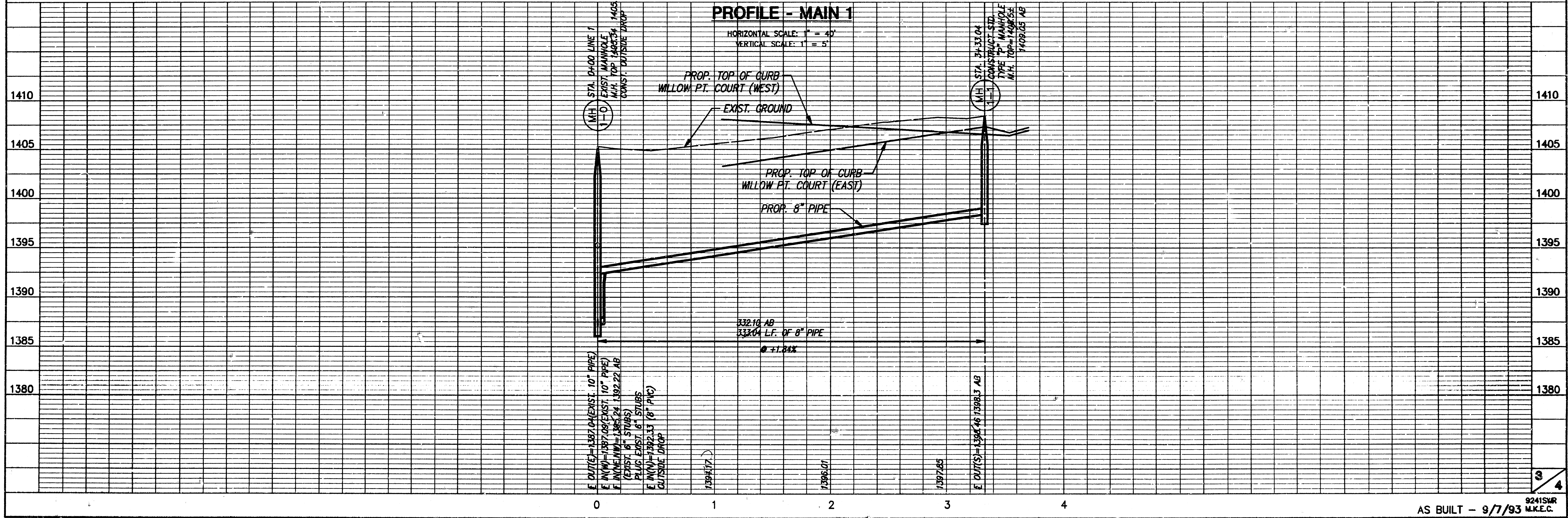
AS BUILT 9/7/93

	MANHOLE DETAILS		Design GA
			Drawn by AM
			Checked by GA
			Date 6/92
MID-KANSAS ENGINEERING CONSULTANTS INC. 3500 NORTH ROCK ROAD BUILDING #800 WICHITA, KANSAS 67226		(316) 636-5566	Sheet 2 of 4

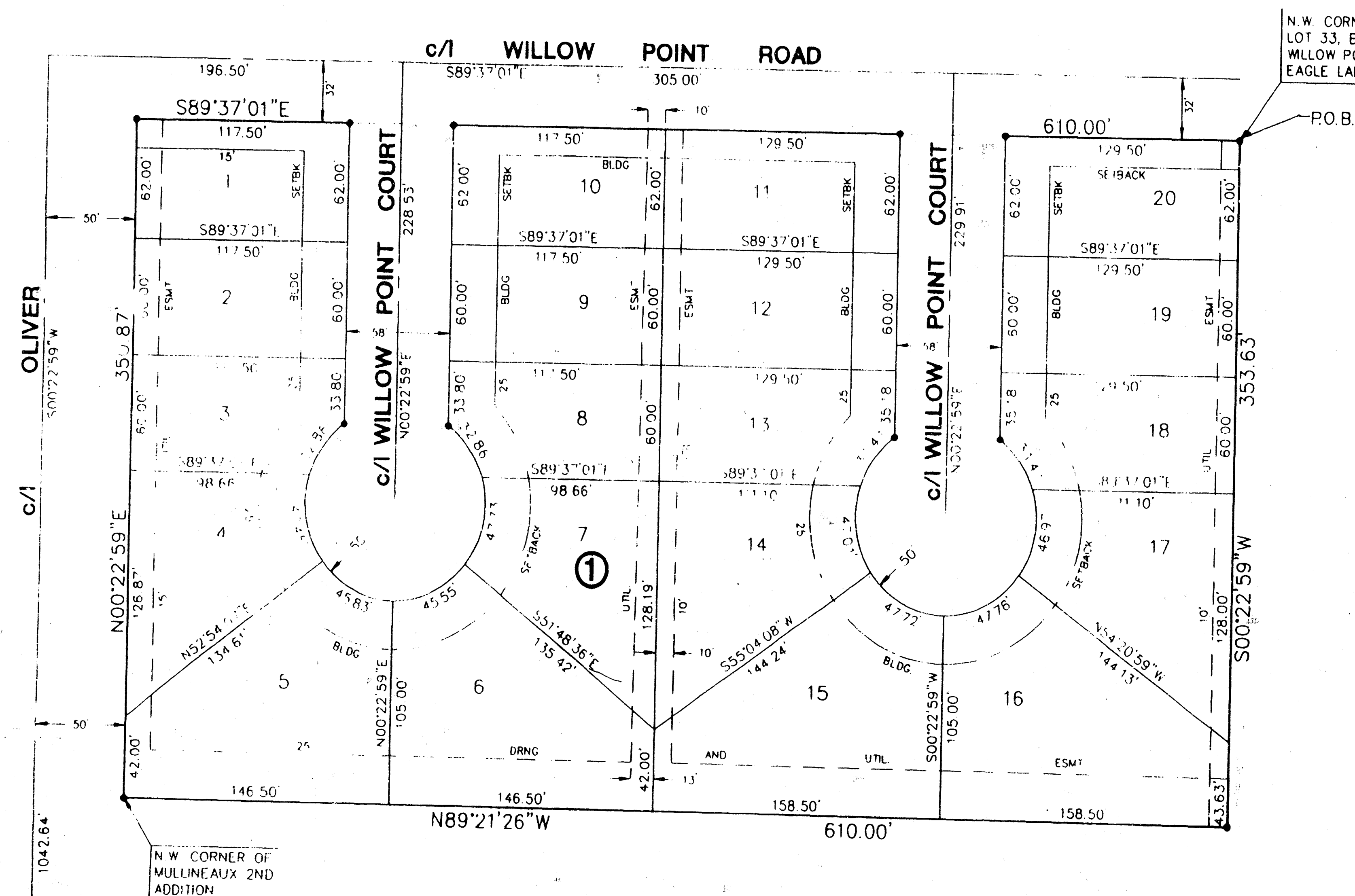
WILLOW POINT COURT



PROFILE - MAIN 1



FINAL PLAT OF WILLOW POINT COURTS ADDITION AN ADDITION TO BEL AIRE, SEDGWICK COUNTY, KANSAS



We, First National Bank of Derby, mortgagees on the above described property, do hereby consent to the plat of WILLOW POINT COURTS ADDITION.

FIRST NATIONAL BANK OF DERBY

Robert O. Noller
Robert O. Noller
STATE OF KANSAS)
SEDGWICK COUNTY)

SS.

BE IT REMEMBERED, that on this 14th day of October 1992, before me the undersigned, a Notary Public in and for the County and State aforesaid, came Robert O. Noller, personally known to me to be the same person who executed the foregoing instrument of writing and duly acknowledged the execution of the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.

Betty J. Chapman
Notary Public Betty J. Chapman
My appointment expires: 8-12-95

SCALE: 1" = 100'

LEGEND

• IRON

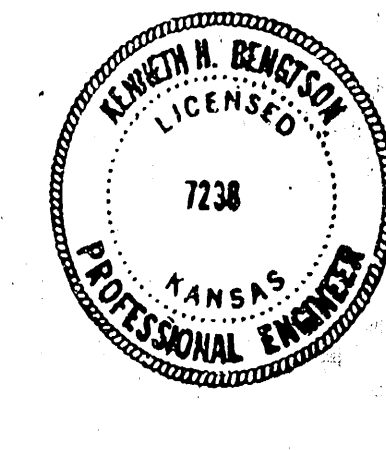
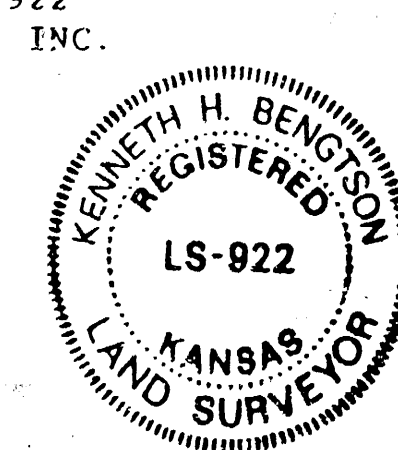
I, Kenneth H. Bengtson, a Civil Engineer and Registered Land Surveyor in Kansas, do hereby certify that I have been in responsible charge of surveying and platting of "WILLOW POINT COURTS ADDITION", an addition to Bel Aire, Sedgwick County, Kansas, into lots, a block, and streets the same being accurately set forth in the accompanying plat and described herein:

A tract of land lying in the Northwest Quarter of Section 25, Township 26 South, Range 1 East of the 6th P.M., Sedgwick County, Kansas, more particularly described as follows:

Beginning at the Northwest corner of Lot 33, Block 2, WILLOWPOINT AT EAGLE LAKE, an addition to Bel Aire Sedgwick County, Kansas; thence South 333.63 feet along the West line of said addition to the Northeast corner of MULLINEAUX SECOND ADDITION; an addition to Bel Aire, Sedgwick County, Kansas; thence West 610.00 feet along the North line of said MULLINEAUX SECOND; thence North 350.87 feet parallel and 50' East of the West line of said Northwest Quarter, to the South line of Willow Point Road; thence East 610.00 feet along said South 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 12 day of October 1992.

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



Know all men by these presents that the undersigned property owners of the land as above set forth in the Civil Engineer's and Registered Land Surveyor's Certificate, have caused the same to be surveyed and platted into lots, a block, and streets the same to be known as "WILLOW POINT COURTS ADDITION", an addition to BEL AIRE, Sedgwick County, Kansas. The streets are hereby dedicated to and for the use of the public. Easements for the construction and maintenance of public utilities and drainage as indicated on the accompanying plat, are hereby granted. All abutters rights of access to or from Oliver over and across the West line of Lots 1 through 5, inclusive, Block 1, are hereby granted to the City of Bel Aire.

BEL AIRE DEVELOPMENT, INC.

William D. Cox
BY: William D. Cox, President

STATE OF KANSAS)

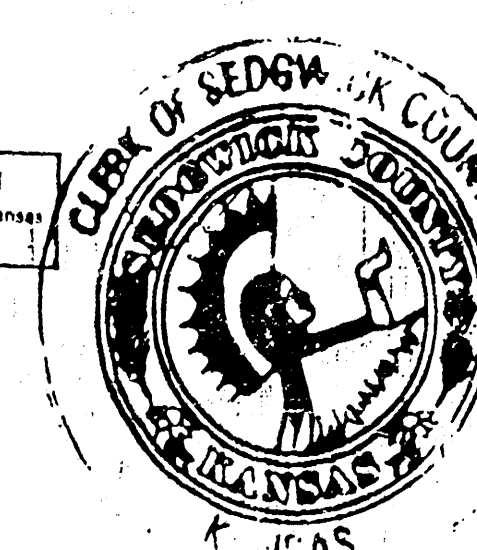
SEDGWICK COUNTY)

SS.

BE IT REMEMBERED, that on this 22nd day of October 1992, before me the undersigned, a Notary Public in and for the County and State aforesaid, came William D. Cox, President, Bel Aire Development, Inc., personally known to me to be the same persons who executed the foregoing instruments of writing and duly acknowledged the execution of the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.

Kelly S. Porter
Notary Public Kelly S. Porter
My appointment expires: 2-4-96



Mario Porter
BY: Mario Porter, Vice President

STATE OF KANSAS)

SEDGWICK COUNTY)

SS.

BE IT REMEMBERED, that on this 22nd day of October 1992, before me the undersigned, a Notary Public in and for the County and State aforesaid, came Mario Porter, Vice President for Bel Aire Development, Inc., personally known to me to be the same person who executed the foregoing instrument of writing and duly acknowledged the execution of the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.

Kelly S. Porter
Notary Public Kelly S. Porter

My appointment expires: 2-4-96

K.C. "Buck" Alley
BY: K.C. "Buck" Alley, Secretary

STATE OF KANSAS)

SEDGWICK COUNTY)

SS.

BE IT REMEMBERED, that on this 22nd day of October 1992, before me the undersigned, a Notary Public in and for the County and State aforesaid, came K.C. "Buck" Alley, Secretary for Bel Aire Development, Inc., personally known to me to be the same person who executed the foregoing instrument of writing and duly acknowledged the execution of the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.

Kelly S. Porter
Notary Public Kelly S. Porter

My appointment expires: 2-4-96

This plat of WILLOW POINT COURTS ADDITION has been submitted to and approved by the Bel Aire Planning Commission, BEL AIRE, Kansas.

Dated this 10th day of August 1992.

BEL AIRE PLANNING COMMISSION

Beverly K. Dunning
Beverly K. Dunning

CHAIRMAN

Betty L. Martine
Betty L. Martine

SECRETARY

This plat approved and all dedications shown hereon, if any, accepted by the City Commissioners of the City of Bel Aire, Kansas, this 3rd day of November 1992.

Harold Smith
Harold Smith

MAJOR

Sherry L. Cutter
Sherry L. Cutter

CITY CLERK

Enter on transfer record this 16 day of December 1992.

Don Wright
Don Wright

COUNTY CLERK

STATE OF KANSAS)

SEDGWICK COUNTY)

SS.

This is to certify that this instrument was filed for record in the Register of Deeds office this 17th day of DECEMBER 1992. AT 3:15 PM

Pat Kettler
Pat Kettler

REGISTER OF DEEDS

Pat Kettler
Pat Kettler

DEPUTY

48-13-5-10