

SANITARY SEWER PLANS
LAT. 46, MAIN 9, SANITARY SEWER 23
LEEWOOD VILLAGE AT NORTHROCK
PHASE II
PROJECT NO. 468-82198

CITY OF WICHITA, KANSAS

MICHAEL E. LINDEBAK, CITY ENGINEER

INDEX CODE 741595

GENERAL NOTES

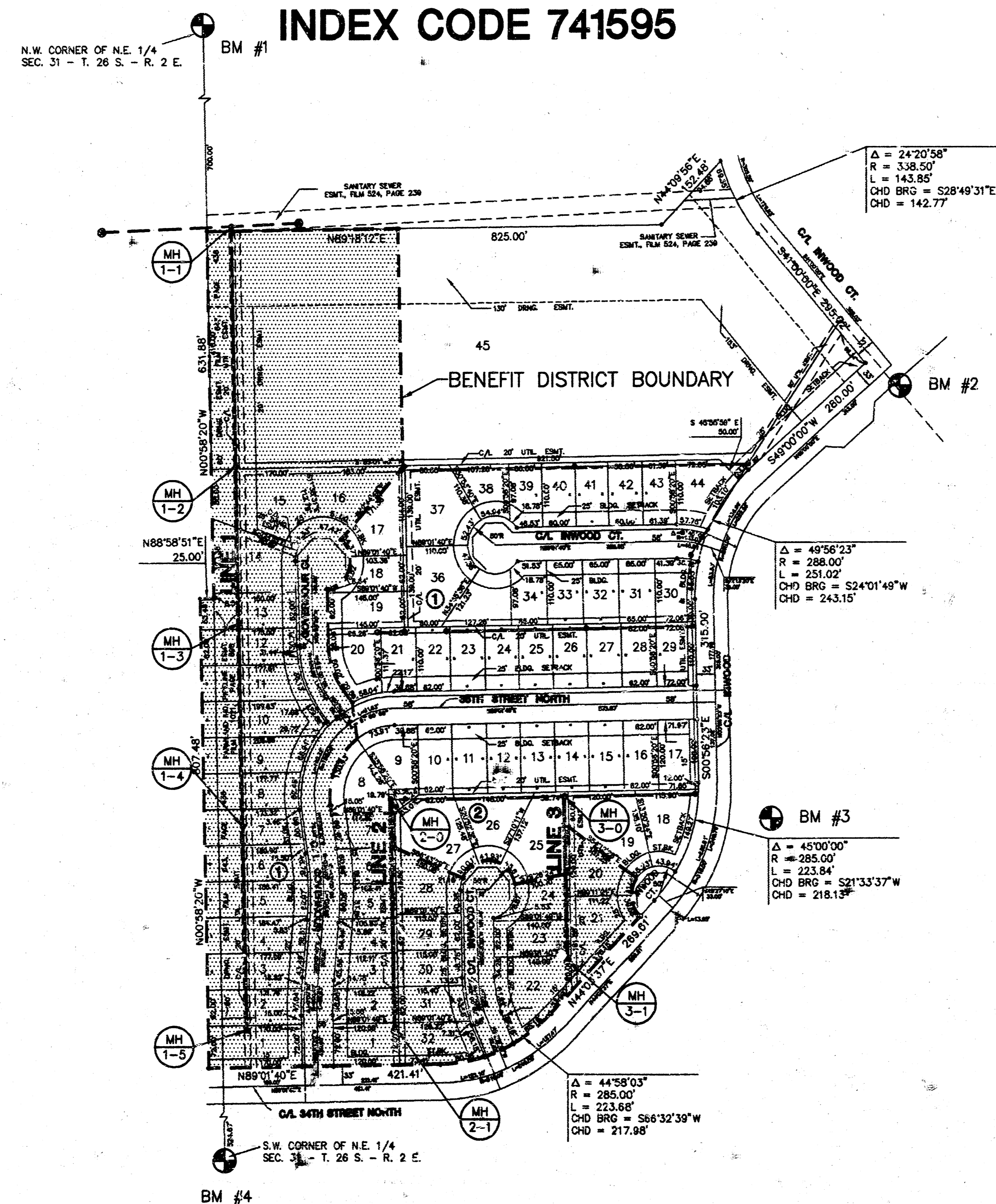
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
2. EXISTING 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 WICHITA)

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

SOUTHWESTERN BELL TELEPHONE COMPANY 1-571-2115
 CABLEVISION 262-0661
 KANSAS GAS & ELECTRIC (ELECTRIC) 264-1141
 KANSAS GAS & ELECTRIC (GAS) 832-3180 OR 832-3169
 CITY OF WICHITA SEWER MAINTENANCE 268-4908
 ARKLA GAS COMPANY 942-8350 OR 263-8161
 CITY OF WICHITA WATER DEPARTMENT 268-4808
 WILLIAMS PIPELINE COMPANY 1-918-588-4200

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 BURROW LOCATION.
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 MOUNDING 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.

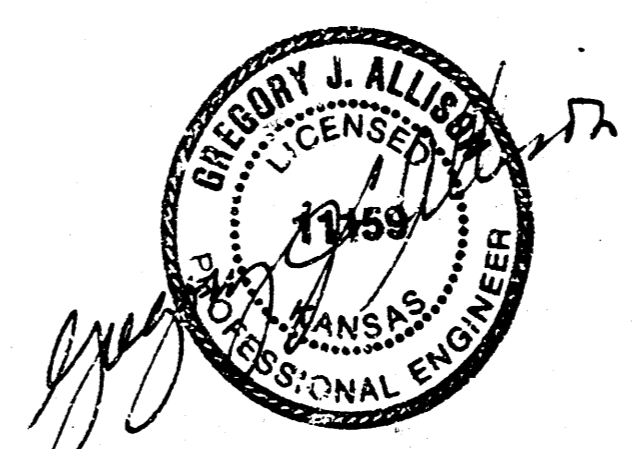
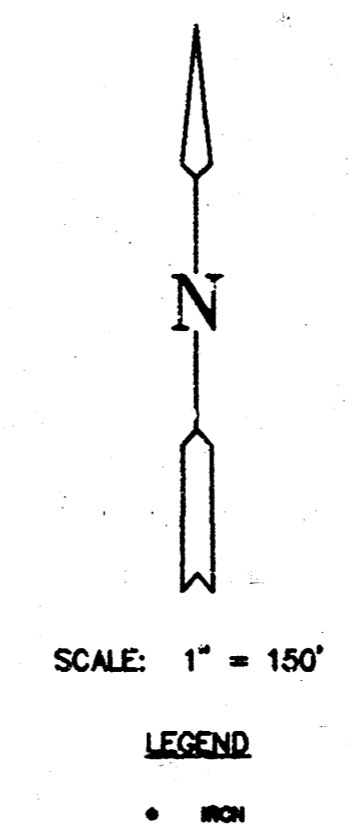


INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LINE 1
3	LINE 1
4	LINE 2 & 3
5	DETAILS
6	FINAL PLAT

BENCHMARKS

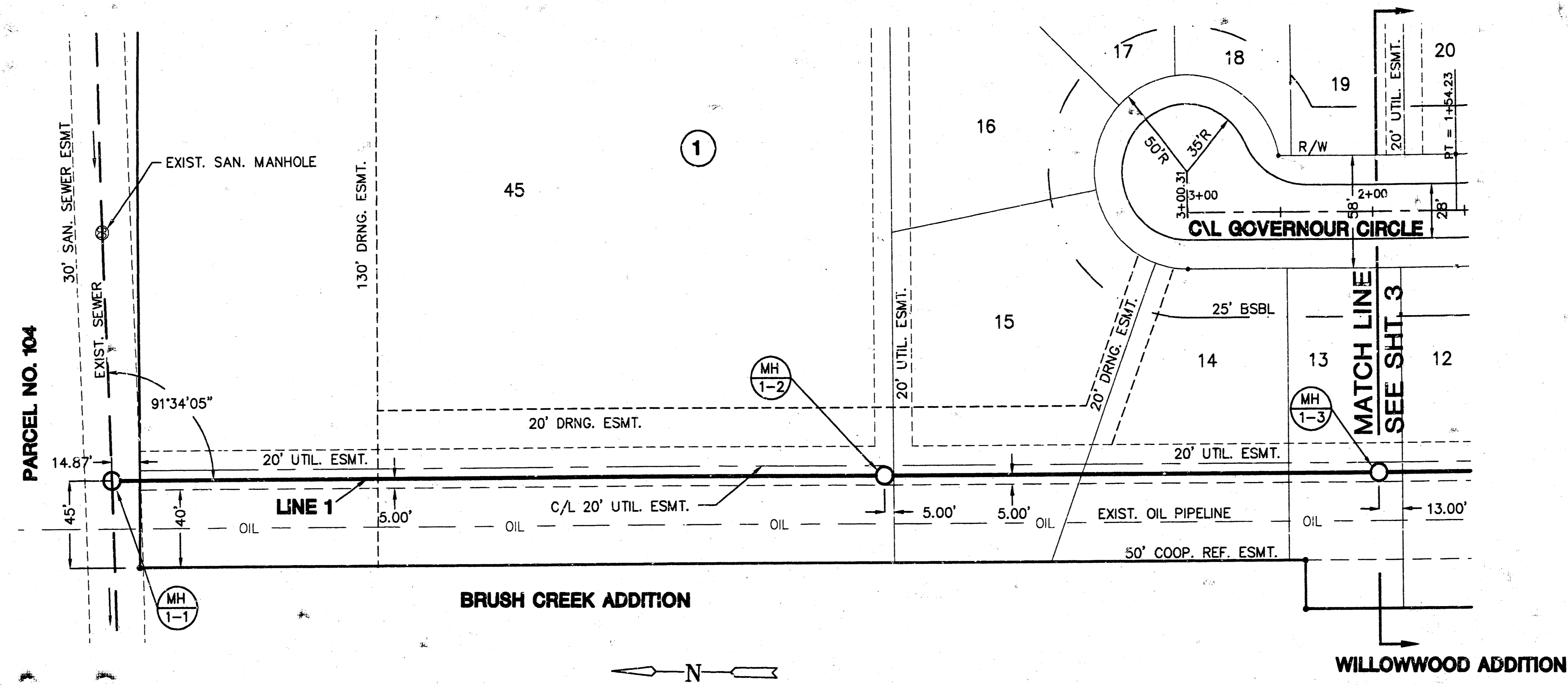
- BM #1 CITY DISC 30' N. & 34' W. OF 1/4 COR. 37TH ST. N. & GOVERNOR. ELEV. = 185.54
- BM #2 "T" CUT ON T.C. AT WEST END OF N.W. RETURN 36TH ST. N. & INWOOD. ELEV. = 183.53
- BM #3 TOP OF "T" POST 2' E. OF S.W. COR. LOT 1, BLK. 1 KILLARNEY PLAZA 2ND ELEV. = 192.00
- BM #4 CONC. NAIL DRIVEN ON N. EDGE OF MH 72' E. OF CTR. SECTION 31-T26S-2E ELEV. = 194.16



*Booked 11-24-93
 From As Buils*

As Buils 11-24-93

	LEEWOOD VILLAGE AT NORTHROCK	Drawn by G.J.A.
	PHASE II	Drawn by R.S.B.
SANITARY SEWER PLANS		Checked by G.J.A.
		Date 7/93
		Job no. 92-17-113-B
		Sheet 1
MID-KANSAS ENGINEERING CONSULTANTS INC. 3500 NORTH ROCK ROAD BUILDING #800 WICHITA, KANSAS 67226		(316) 636-5566 or 6

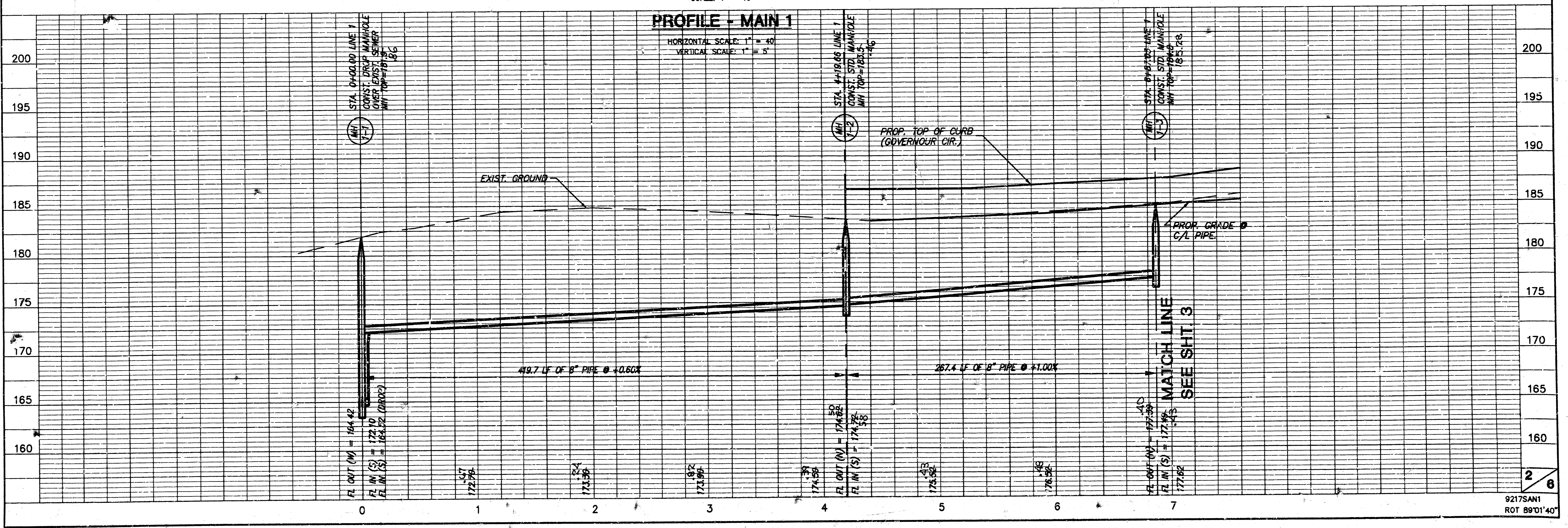


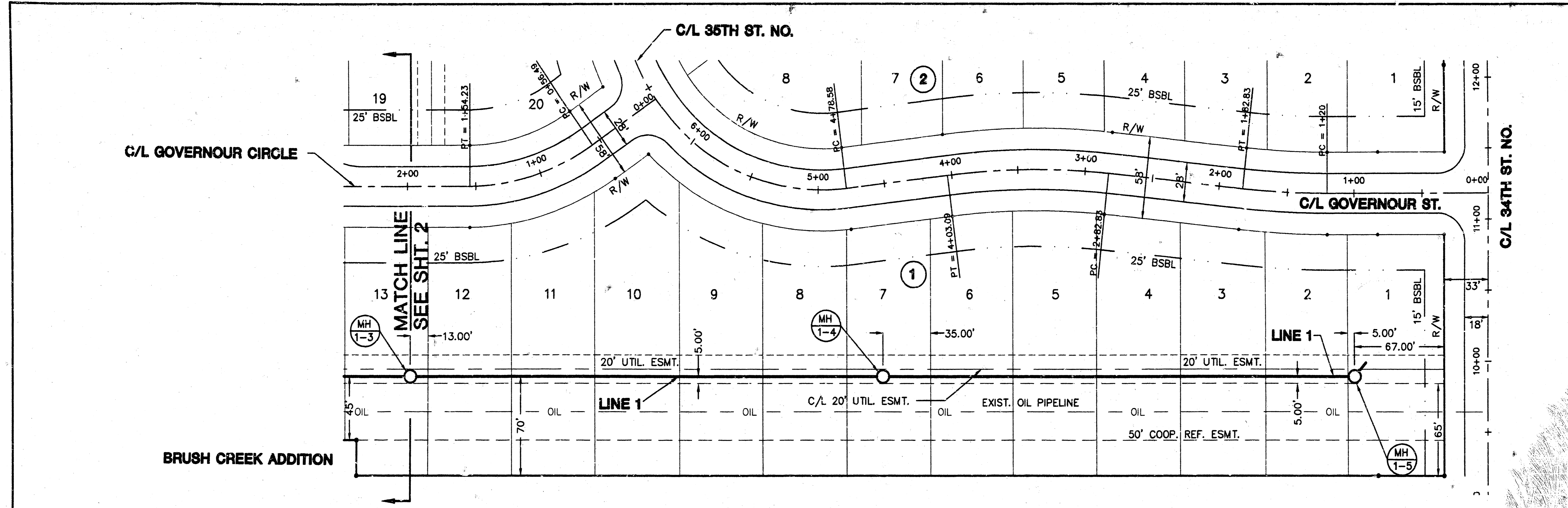
PLAN - MAIN 1

SCALE: 1" = 40'

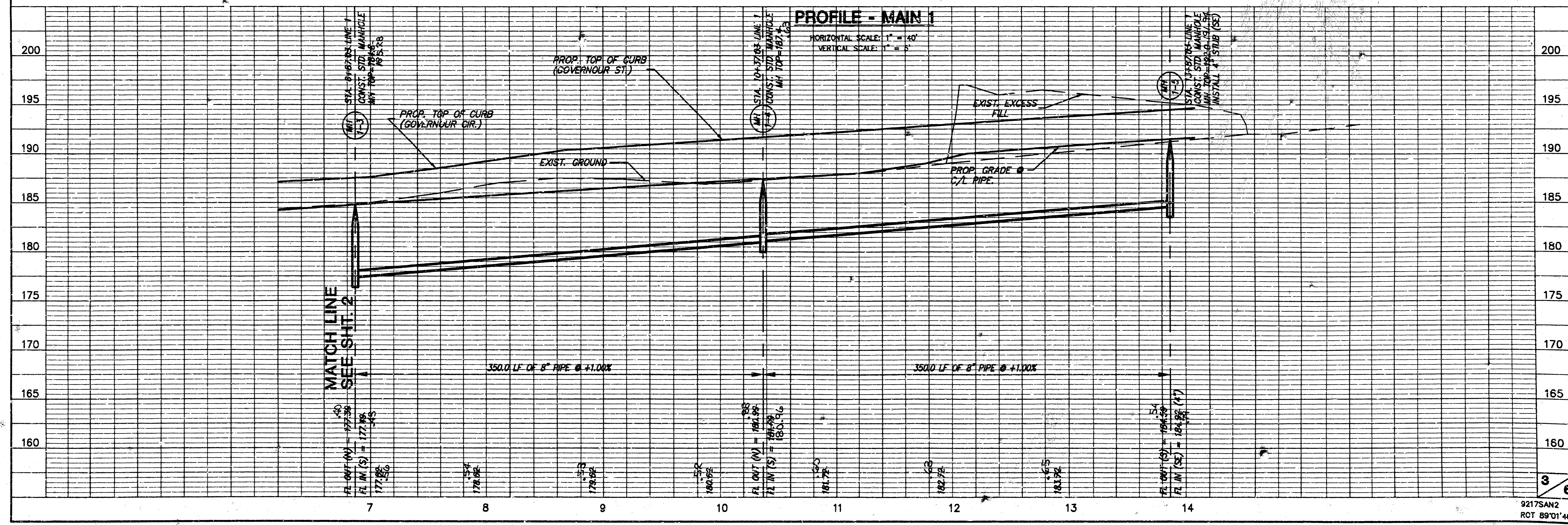
PROFILE - MAIN 1

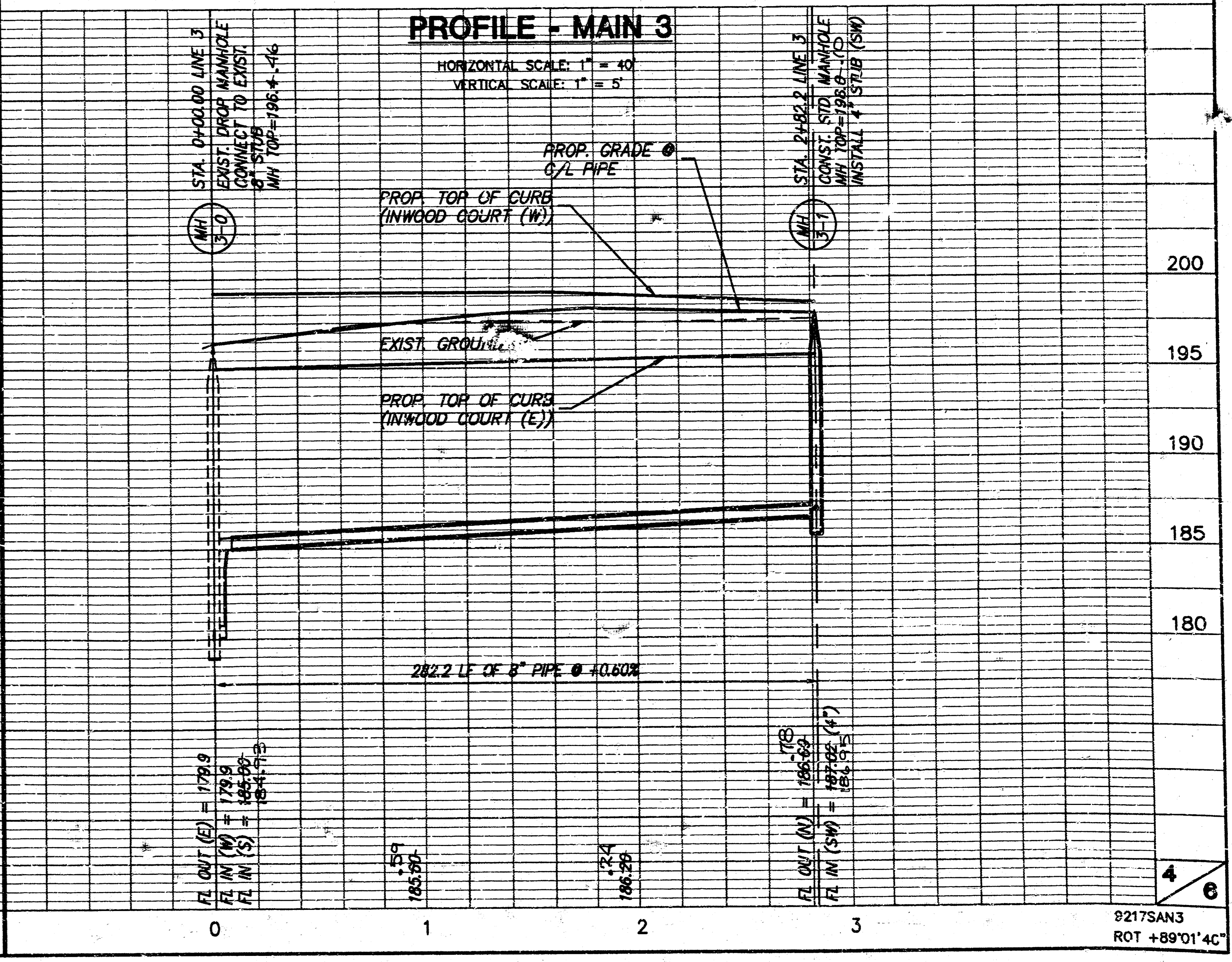
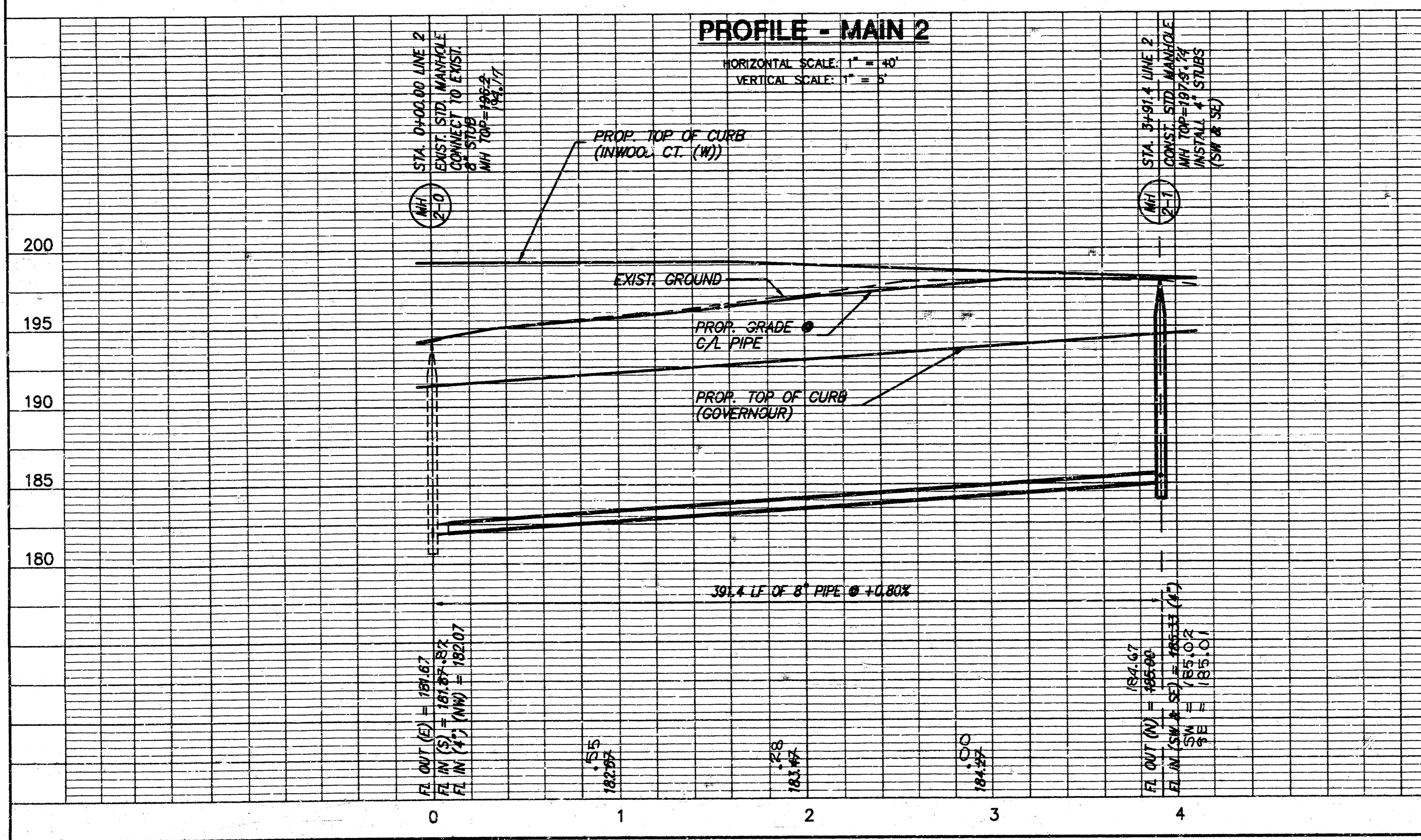
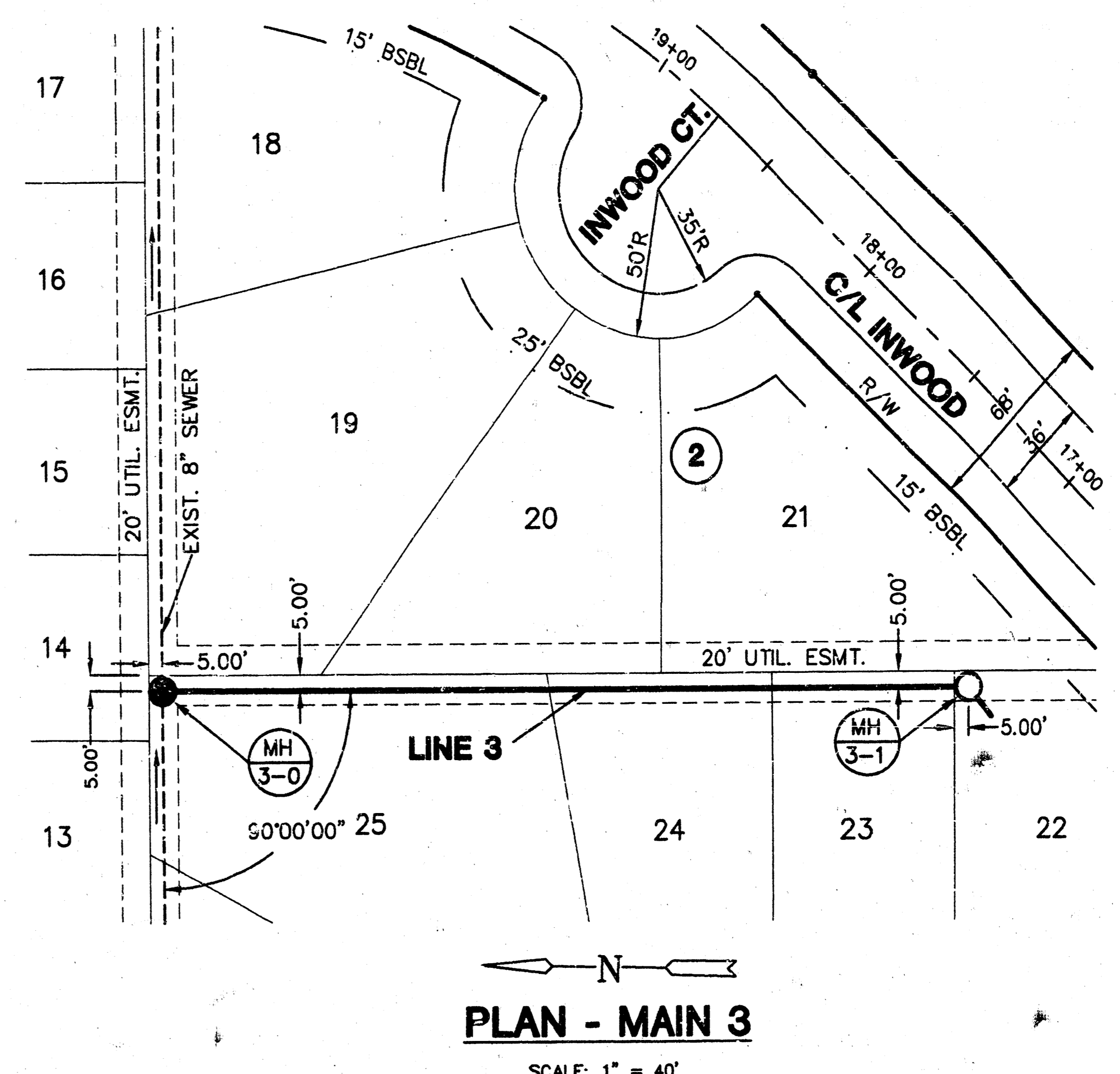
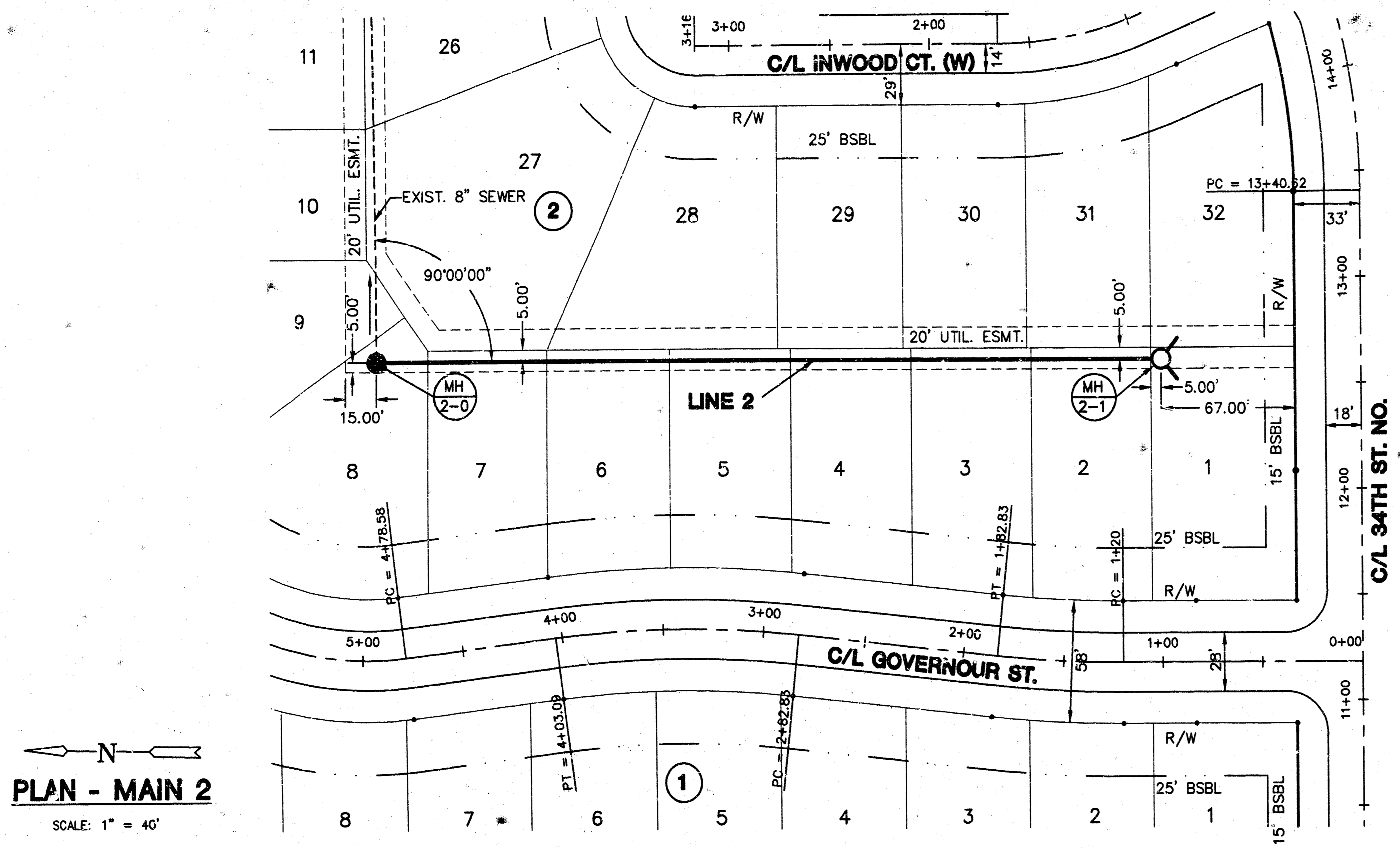
HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 5'





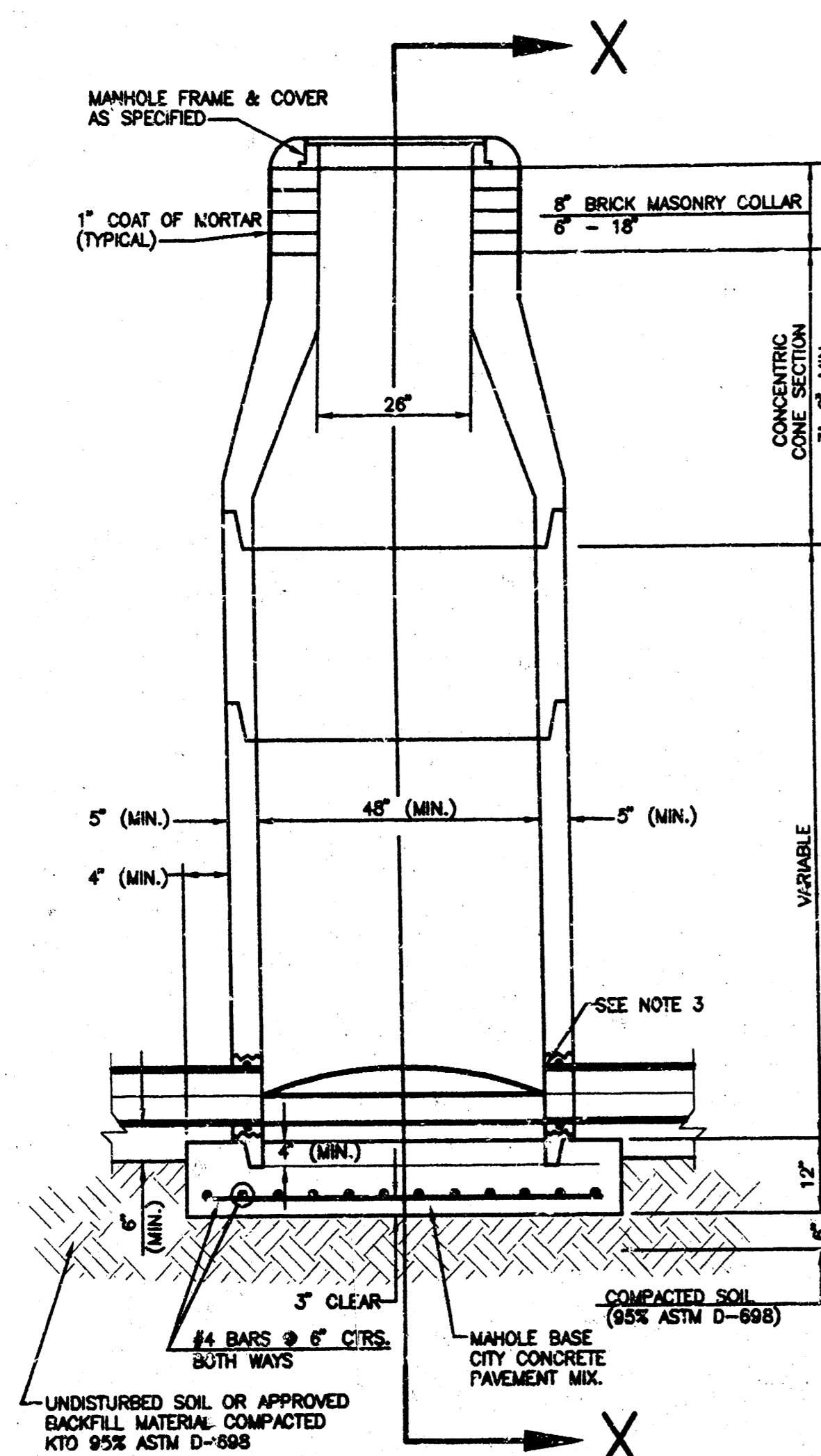
WILLOWOOD ADDITION
 PLAN - MAIN 1
 SCALE: 1" = 40'



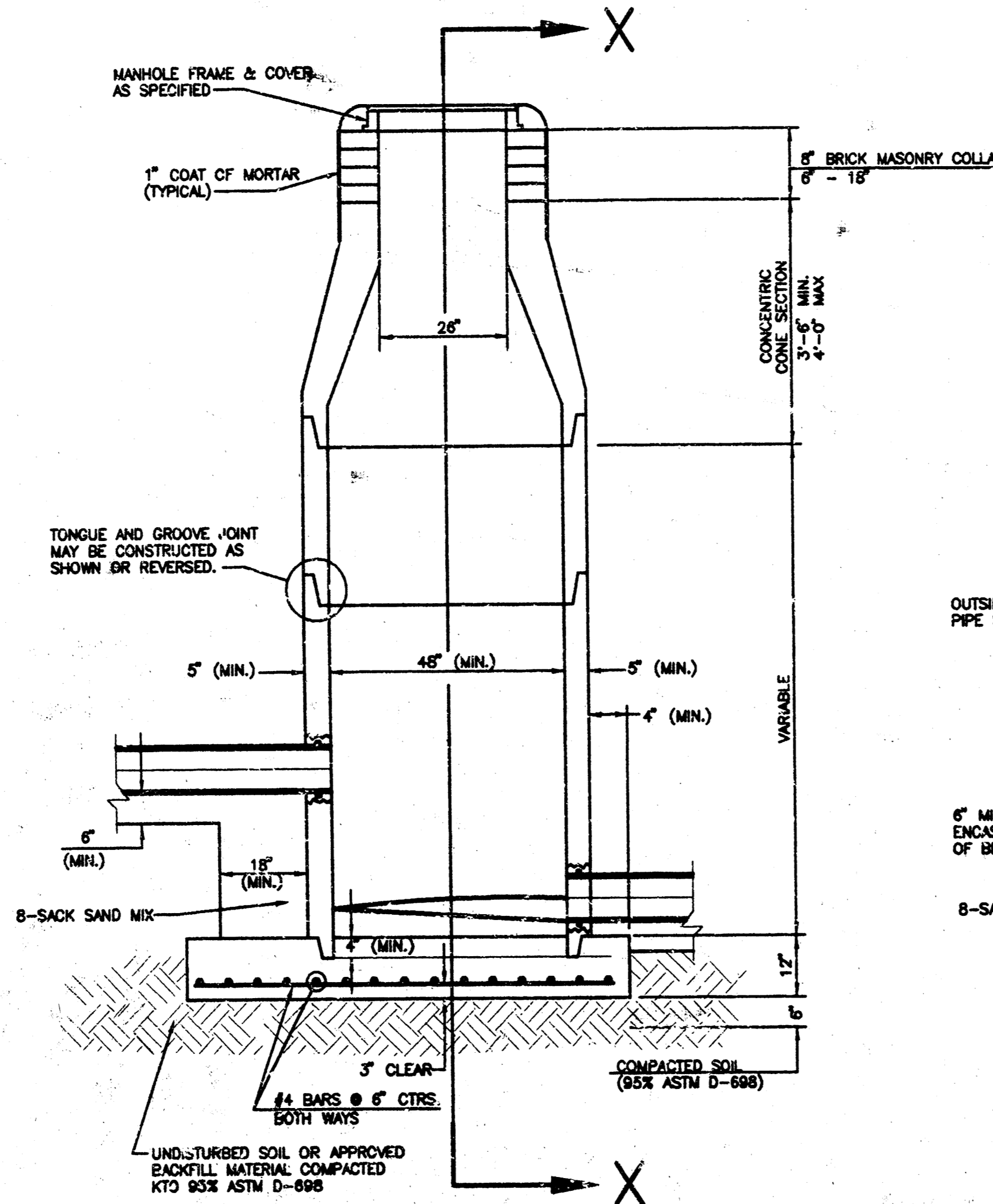


SEWER APPURTENANCES DETAILS

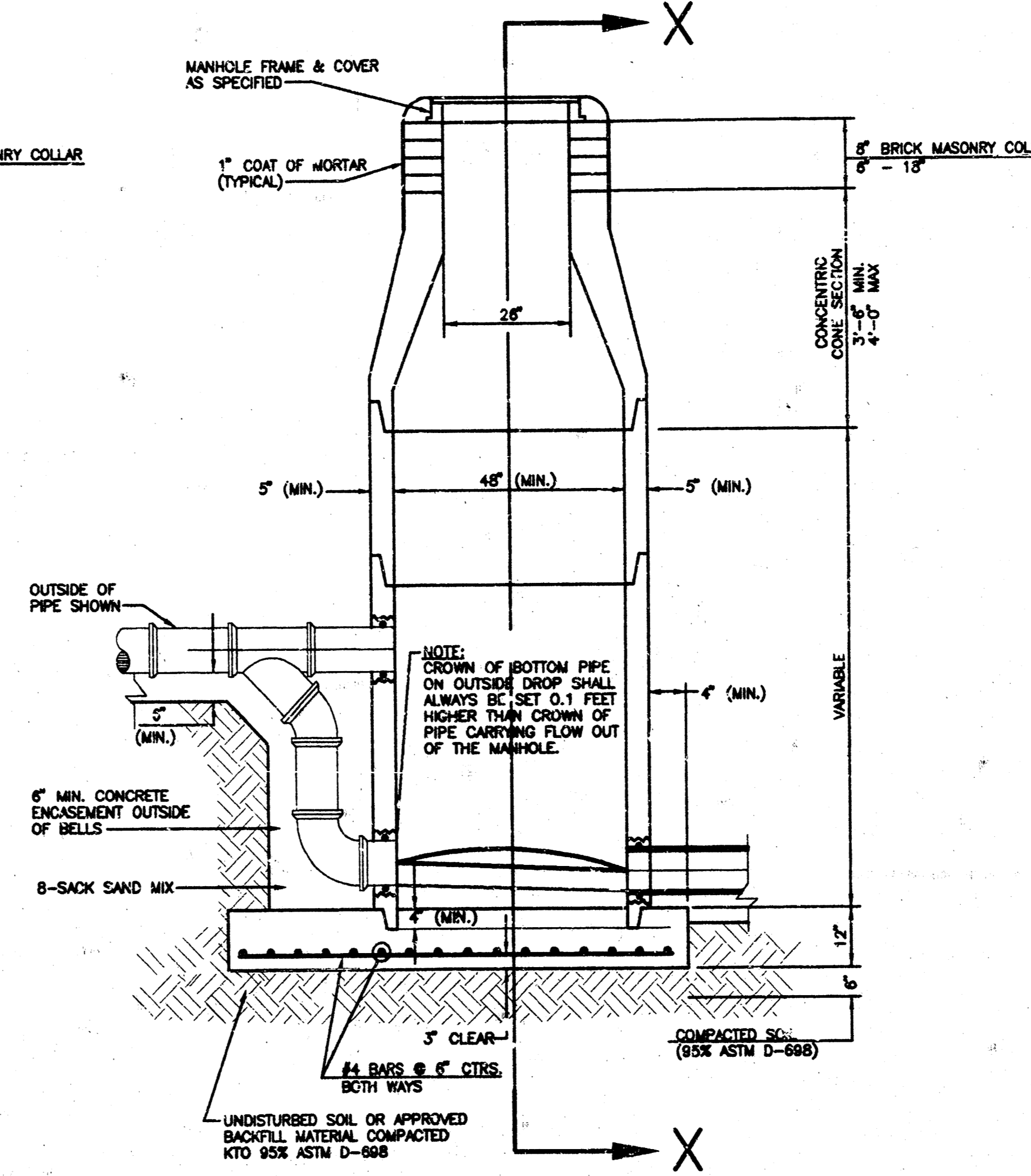
ADOPTED AS STANDARD DESIGN
BY
CITY OF WICHITA



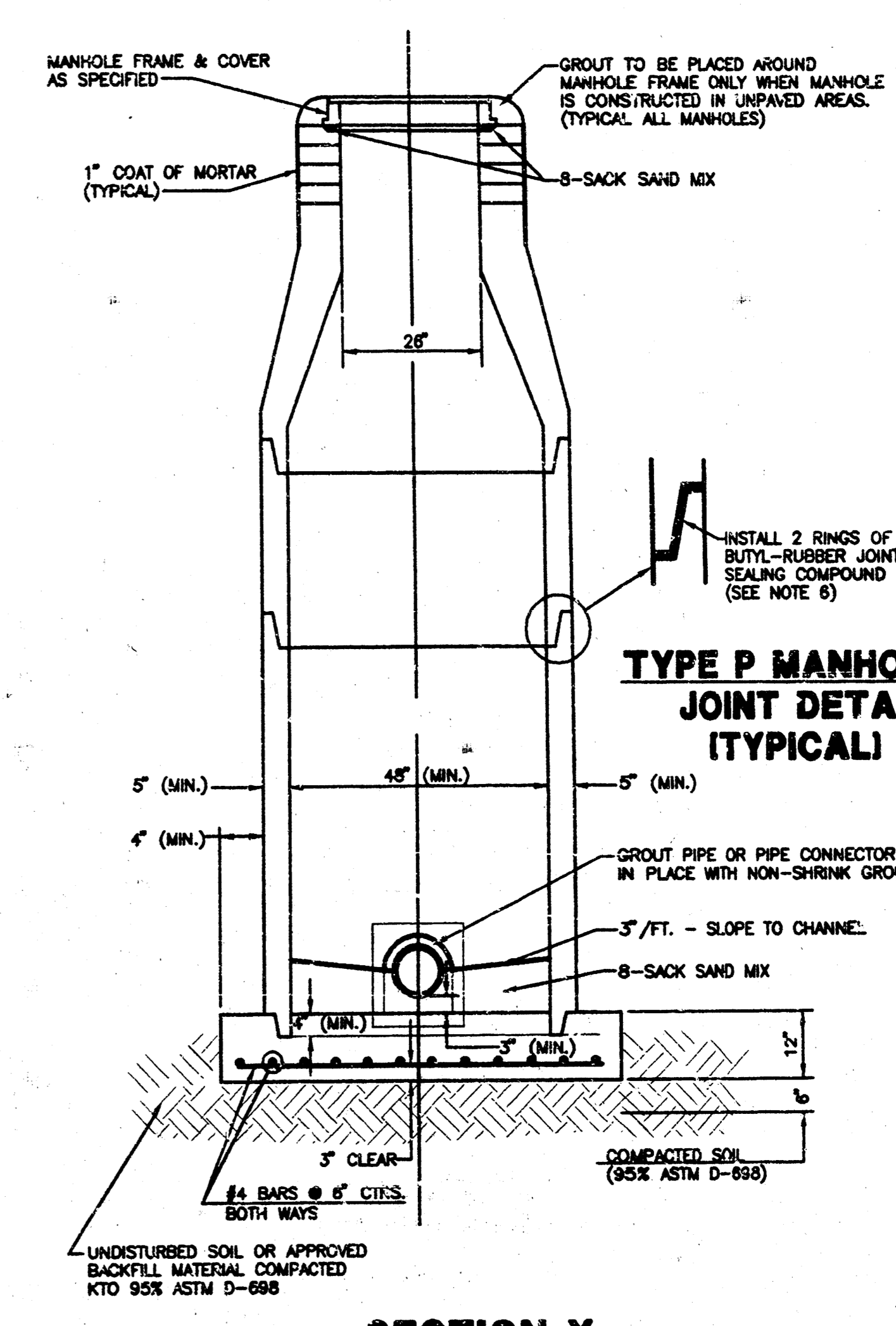
**TYPE P
STANDARD MANHOLE**



**TYPE P
INSIDE DROP MANHOLE**



**TYPE P
OUTSIDE DROP MANHOLE**



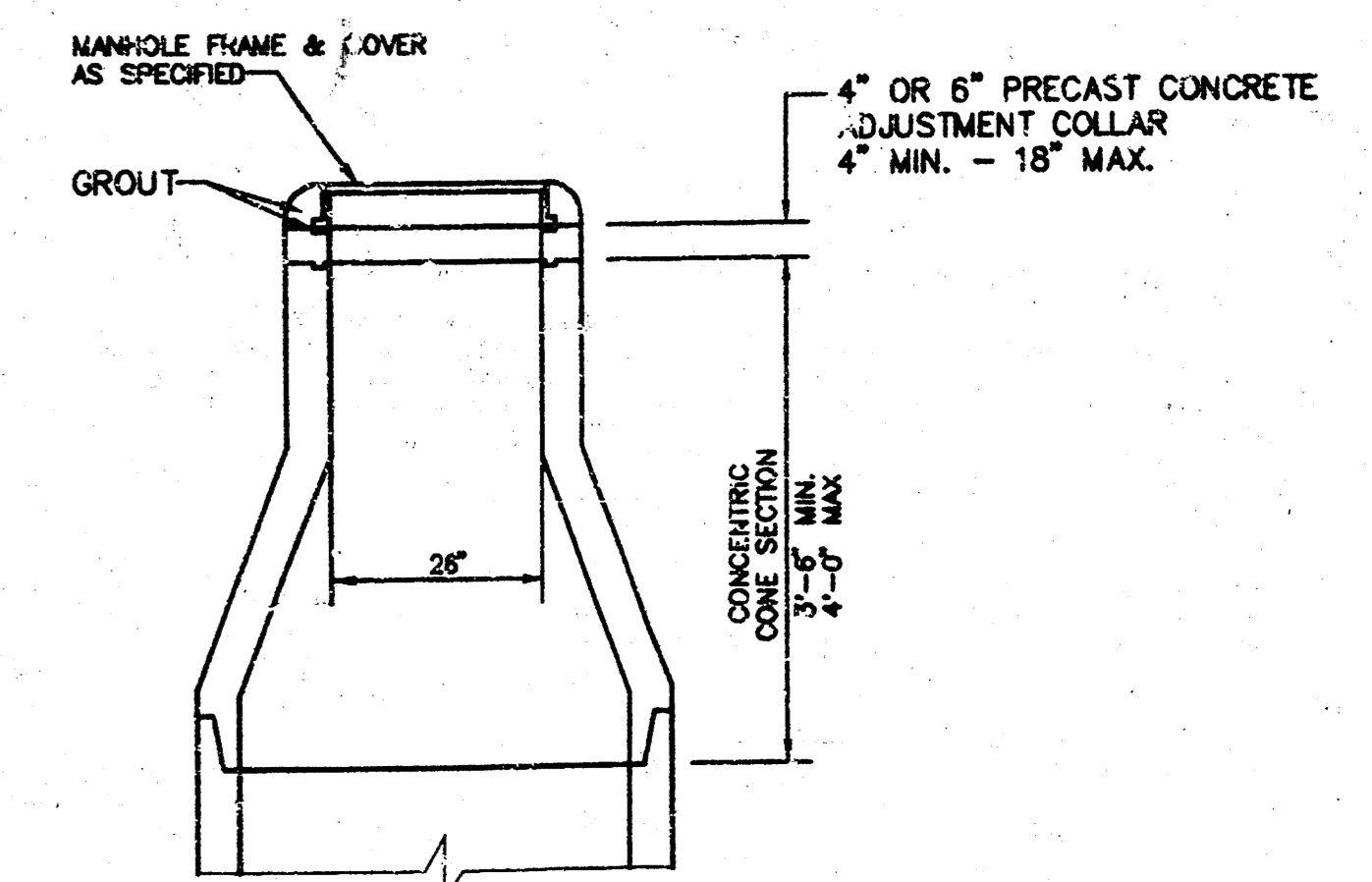
**SECTION X
(TYPICAL)**

GENERAL NOTES

- 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 CASSETS 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 TNEEC 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 UNPAED 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.

PRECAST MANHOLE NOTES

- 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 5" CLEAR 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 UNPAED AREAS**



MANHOLE DETAILS

MID-KANSAS ENGINEERING CONSULTANTS INC.
3500 NORTH ROCK ROAD
BUILDING #800
WICHITA, KANSAS 67226

(316) 636-5566

Drawn by	GA
Checked by	AN
Date	7/92
Job No.	MHDTLS
Sheet	5
Total	6

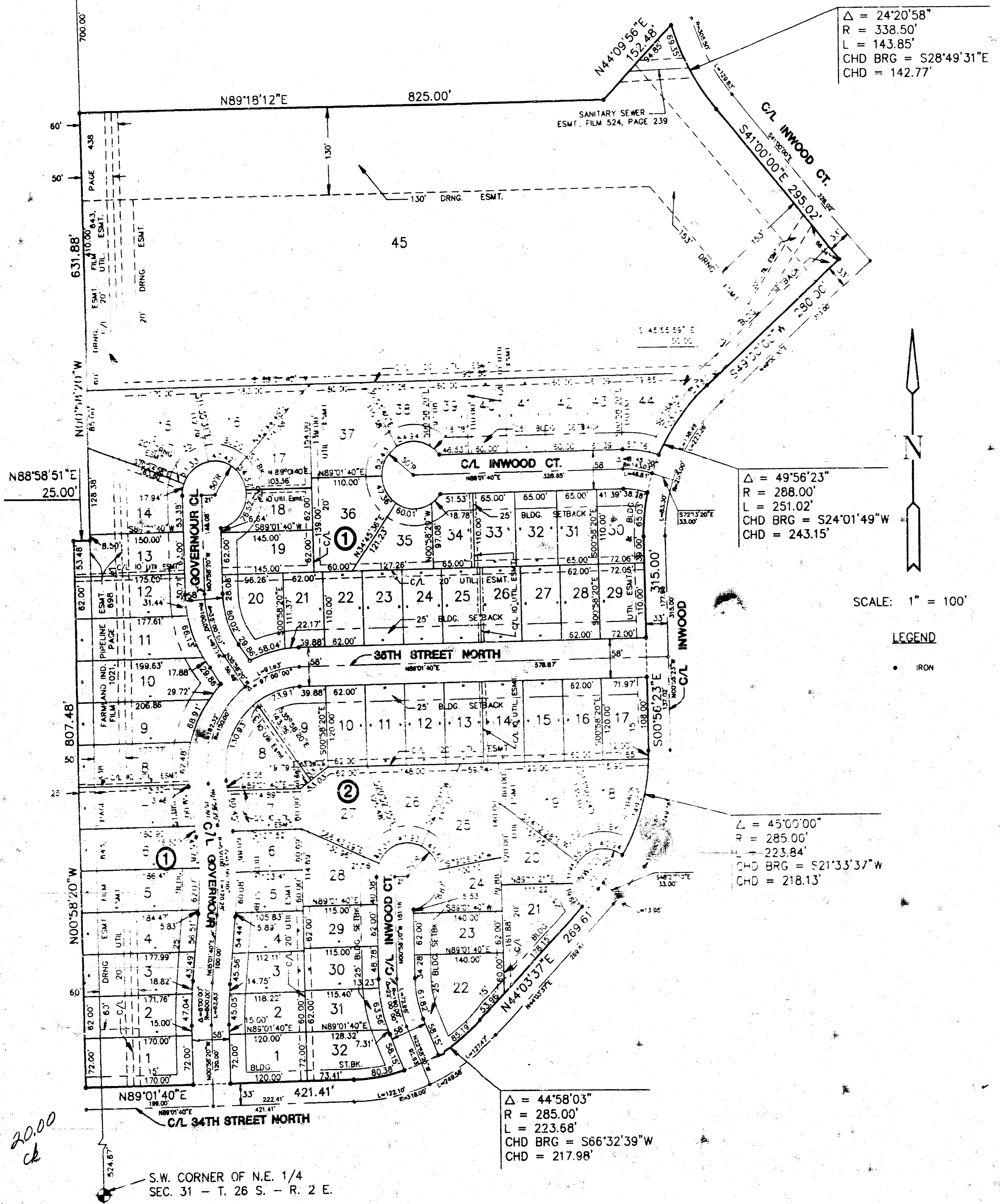
8-80 JD

N.W. CORNER OF N.E. 1/4
SEC. 31 - T. 26 S. - R. 2 E.

FINAL PLAT OF

LEEWOOD VILLAGE AT NORTHROCK

AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS



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 "LEEWOOD VILLAGE AT NORTHROCK", 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:

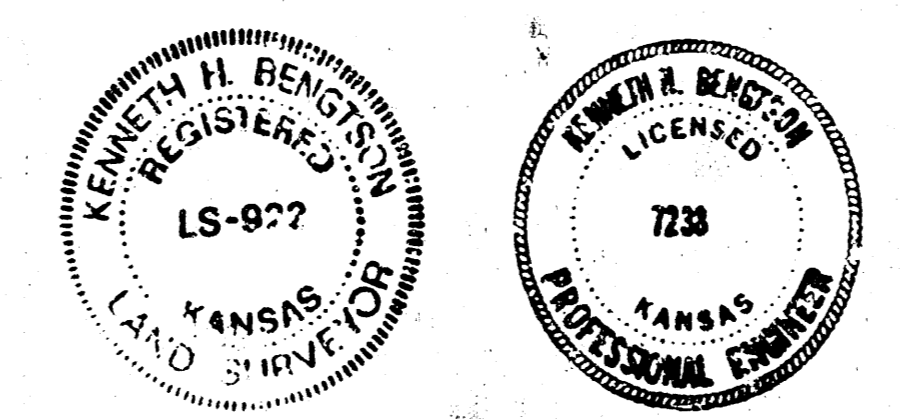
A tract of land lying in the Northeast and Northwest Quarters, Section 31, Township 26 South, Range 2 East of the 6th P.M., Sedgwick County, Kansas, more particularly described as follows:

Beginning at the Southwest corner of PARCEL NO. 104, an addition to Wichita, Sedgwick County, Kansas; thence N 89° 18' 12" E, 825.00 feet along the South line of said addition; thence N 44° 09' 56" E, 152.48 feet to a point on a curve to the left, said point also being the West line of 37TH ROCK ADDITION, an addition to Wichita, Sedgwick County, Kansas, thence along said curve and said West line, 142.85 feet, said curve having a central angle of 24° 20' 58", a radius of 338.50 feet, and a long chord of 142.77 feet, bearing S 28° 49' 31" E; thence continuing along said West line, S 41° 00' 00" E, 295.02 feet to the intersection of the right of way of Inwood and 36th Street North; thence S 49° 00' 00" W, 280.00 feet along Inwood as platted in KILLARNEY PLAZA SECOND ADDITION, an addition to Wichita, Sedgwick County, Kansas, to a point on a curve to the left; thence along said curve 251.02 feet, said curve having a central angle of 49° 56' 23", a radius of 288.00 feet, and a long chord of 243.15 feet, bearing S 24° 01' 49" W; thence S 00° 56' 23" E, 315.00 feet to a point on a curve to the right; thence along said curve 223.84 feet, said curve having a central angle of 45° 00' 00", a radius of 285.00 feet, and a long chord of 218.13 feet, bearing S 21° 33' 37" W; thence S 44° 03' 37" W, 269.61 feet to a point on a curve to the right; thence along said curve 223.63 feet, said curve having a central angle of 44° 58' 03", a radius of 285.00 feet, and a long chord of 217.98 feet, bearing S 66° 32' 39" W; thence S 89° 01' 40" W, 421.41 feet to a point on the East line of WILLOWOOD, an addition to Wichita, Sedgwick County, Kansas; thence N 00° 58' 20" W, 807.48 feet along said East line to the Northeast corner of said WILLOWOOD; thence W 89° 58' 51" E, 25.00 feet along the extended North line of said WILLOWOOD, to the Southeast corner of the North Half of the Northwest Quarter of said Section 31; thence N 00° 58' 20" W, 631.88 feet along the East line of said Northwest Quarter, to the point of beginning.

The drainage easements recorded on Film 679, Page 774 and Film 954, Page 164 located within the above described property are being 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 21st day of February, 1992.

Kenneth H. Bengtson
 Kenneth H. Bengtson, P.E., R.L.S. #922
 Mid-Kansas Engineering Consultants, Inc.
 3500 W. Rock Road, Building #800
 Wichita, KS 67225



Know all men by these presents that we 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, blocks, and streets the same to be known as "LEEWOOD VILLAGE AT NORTHROCK", 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 as indicated on the accompanying plat, are hereby granted.

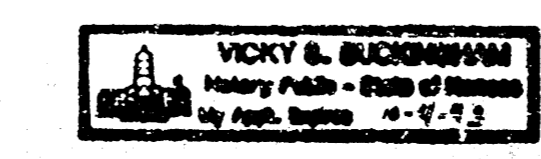
LEEWOOD HOMES, INC.
Joe H. Lee
 BY: Joe H. Lee, President

STATE OF KANSAS) ss.
 SEDGWICK COUNTY)

BE IT REMEMBERED, that on this 21st day of February, 1992, before me the undersigned, a Notary Public in and for the County and State aforesaid, came Joe H. Lee, President of Leewood Homes, 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.

Walter S. Buckingham
 NOTARY PUBLIC
 WCKY S. BUCKINGHAM
 My appointment expires: 10-4-93



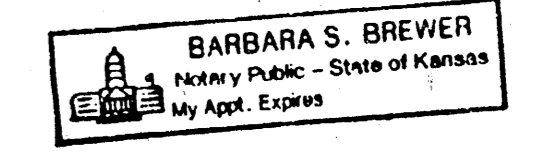
We, BANK IV WICHITA, N.A., mortgagees on the above described property, do hereby consent to the plat of "LEEWOOD VILLAGE AT NORTHROCK".

BANK IV WICHITA, N.A.
Randy S. Brehm
 BY: Randy S. Brehm
 STATE OF KANSAS) ss.
 SEDGWICK COUNTY)

BE IT REMEMBERED, that on this 21st day of February, 1992, before me the undersigned, a Notary Public in and for the County and State aforesaid, came Randy S. Brehm for BANK IV WICHITA, N.A., 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.

Barbara S. Brewer
 Notary Public BARBARA S. BREWER
 My appointment expires: 1/9/96



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

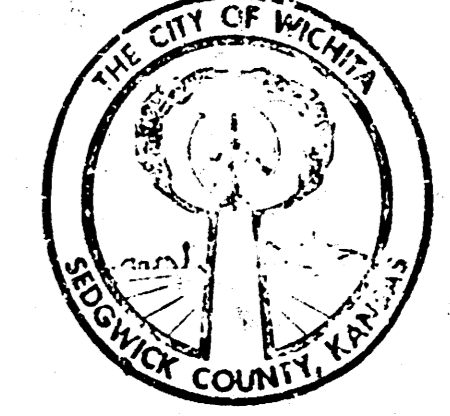
Dated this 30th day of January, 1992.

WICHITA-SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION
Christopher C. Good CHAIRMAN
Marvin S. Krout SECRETARY
 Christopher C. Good
 Marvin S. Krout



This plat approved and all dedications shown hereon, if any, accepted by the City Council of the City of Wichita, Kansas, this 24 day of March, 1992.

Bob Knight MAYOR
Pat Burnett DEPUTY CITY CLERK
 Bob Knight
 Pat Burnett
 Enter on transfer record this 11 day of May, 1992.



Ed Rea 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 11th day of May, 1992, at 2:39 P.M.

Pat Kettler REGISTER OF DEEDS
Ed Rea DEPUTY

148-5-3