AS CONSTRUCTED

PLANS
FOR
SANITARY SEWER EXTENSIONS
FOR
CEDAR RIDGE MOBILE HOME PARK
WICHITA, KANSAS
1997

PRIVATE PROJECT NO. 762PPS (607861)

MIKE LINDEBAK, P.E. CITY ENGINEER

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APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

Sanitary Sewers VRH 2/9/98

Storm Sewers

Driveway Approaches

Water Mains

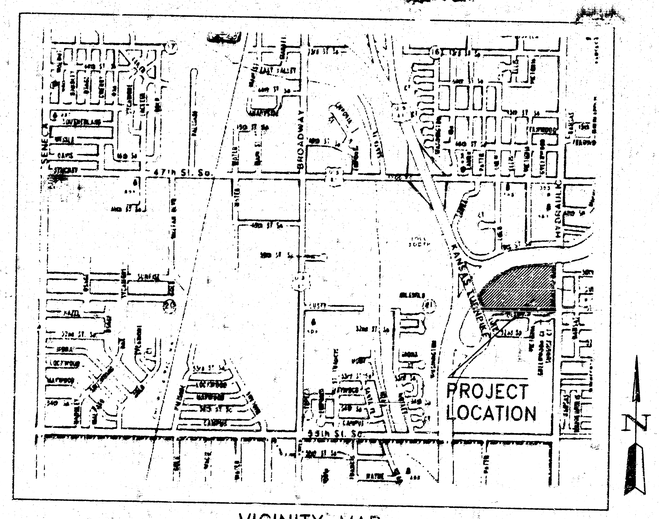
Paving

NOTE TO CONTRACTORS

Inspection and testing for this project are 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 public right-of-way by the Contractor without such inspection, nor shall any work be commenced without written authorization by the City Engineer.

BENCHMARK:

TOP OF STP SPK ON WEST SIDE P.P., 29 FEET NORTH OF SE CORNER OF PROPERTY AND 38.5' EAST OF ℄ HYDRAULIC. ELEV. 40.29 (CITY DATUM)



VICINITY MAP

GENERAL NOTES

1. ALL ELEVATIONS SHOWN ARE CITY OF WICHITA DATUM.
2. 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 263-7270

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

   MULTI-MEDIA CABLEVISION 263-7270
   K G & E - ELECTRIC AND GAS 284-5721
   SOUTHWESTERN BELL TELEPHONE CO. 865-1847
   CITY OF WICHITA WATER DEPARTMENT 268-4908
   CITY OF WICHITA SEWER MAINTENANCE 268-4908
3. UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
4. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED TO THE PROJECT AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION.
6. 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 IN ACCORDANCE WITH STATE LAWS. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO SITE RESTORATION.
7. THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, ENTRANCES, AND BANK LINES TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE.
8. INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA AND LOCAL BUSINESS OR RESIDENTIAL TRAFFIC GENERATED WITHIN THE PROJECT AREA ARE TO BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS.
9. 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 FLOODPLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
10. THE CONTRACTOR MUST EXAMINE THE CONSTRUCTION SITE PRIOR TO BIDDING AND BE SATISFIED AS TO THE WORK SHOWN FOR COMPLETION. AFTER BIDS HAVE BEEN RECEIVED, THE CONTRACTOR SHALL NOT ASSERT THAT THERE WAS A MISUNDERSTANDING OF THE QUANTITIES OF WORK OR THE NATURE OF THE WORK TO BE COMPLETED.
11. ALL LAWN/TURF AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE RESTORED WITH THE SAME GRASS/SOD AS EXISTING. RESTORATION OF DISTURBED AREAS SHALL INCLUDE, BUT NOT BE LIMITED TO, TOP SOIL PREPARATION, SEEDING, MULCH, AND/OR RESEEDING. ALL SEEDING/SODDING WORK SHALL BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD SPECIFICATIONS AND THE CITY OF WICHITA ADMINISTRATIVE REGULATION NO. AR76 WHICH GOVERNS CLEANUP AND RESTORATION OR REPLACEMENT FOLLOWING CONSTRUCTION. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO THE LUMP SUM PRICE BID FOR "SITE RESTORATION".
12. A SAW CUT OF AT LEAST ONE-HALF THE DEPTH OF EXISTING SURFACE COURSES OR ONE-FOURTH THE DEPTH OF THE EXISTING TOTAL PAVEMENT THICKNESS SHALL BE PROVIDED AT LOCATIONS WHERE PROPOSED CONSTRUCTION ABUTS AN EXISTING SURFACE COURSE OR PAVEMENT FOR WHICH PARTIAL REMOVAL OF THAT SURFACE OR PAVEMENT IS REQUIRED. SAWED JOINT TO FACILITATE REMOVAL WITHIN 3 FEET (3') OF EXISTING JOINTS WILL NOT BE PERMITTED AND FOR SUCH INSTANCES THE LIMITS OF REMOVAL SHALL EXTEND TO THE EXISTING JOINT. SUCH SAW CUTS WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE CONSIDERED AS SUBSIDIARY TO THE REMOVAL OF THE SURFACE OR PAVEMENT.
13. TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY AND EASEMENT 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.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS FLOW OF SEWAGE THROUGH CONSTRUCTION. CONTRACTOR'S PROPOSED METHOD FOR MAINTAINING SEWAGE FLOW SHALL BE APPROVED BY THE ENGINEER. COST OF MAINTAINING FLOW OF SEWAGE THROUGH CONSTRUCTION WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE CONSIDERED AS SUBSIDIARY TO THE OTHER PAY ITEMS OF WORK.
15. PAVEMENT REMOVAL AND/OR REPLACEMENT WILL BE MEASURED AND PAID FOR ON THE LINEAL FOOT BASIS AS MEASURED ALONG THE CENTERLINE OF THE SEWER REGARDLESS OF WIDTH OR THICKNESS. MINIMUM LIMITS OF SUCH PAVEMENT REMOVAL AND REPLACEMENT SHALL BE ONE FOOT BEYOND THE LIMITS OF THE EXCAVATION MADE FOR THE SEWER OR THE STRUCTURE, EXCEPT WHEN THE LINES OF REMOVAL ARE WITHIN THREE (3) FEET OF AN EXISTING JOINT THE LIMITS OF REMOVAL SHALL BE EXTENDED TO THE EXISTING JOINT. REMOVAL AND REPLACEMENT OF EXISTING PAVEMENT SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE CITY OF WICHITA STANDARD SPECIFICATIONS.

Booked P-91 RDL 8-11-99

ADOLF E. REISS 2119 KANSAS PROFESSIONAL ENGINEER

AS CONSTRUCTED 2-15-99

REISS & GOODNESS ENGINEERS
280 WEST 21st STREET
WICHITA, KANSAS 67203
(316) 832-0213

REVISION	DIRECTORY	DRAWN BY	FILE NAME	CHECKED BY	DESIGNED BY	PROJECT
	SURVEYOR/ENGR	L.M.	SHCOVER	R.P.	R.P.	
	SCALE					CUSTOMER

SCALE: NOTED | PROJECT NO. 9E1006
DATE: 01/08/98 | SHEET: 1 OF 10

PC 76-4

LIBRARY COPY
SEDGWICK COUNTY, KANSAS
REGISTER OF DEEDS
LARRY CONSOLVER

LEGAL DESCRIPTION

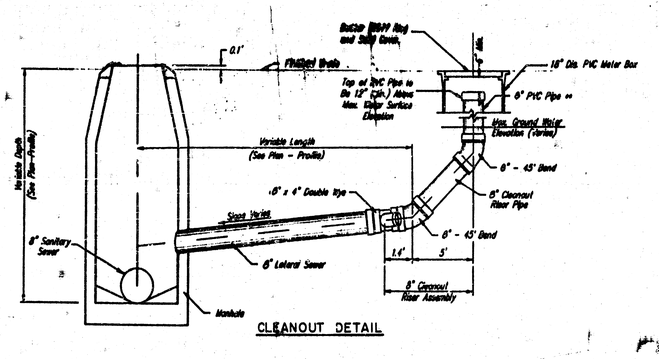
A replat of Pinewood Estates II, Wichita, Sedgwick County, Kansas, and Lot 30, Block B, Pinewood Estates, Wichita, Sedgwick County, Kansas.

STATE OF KANSAS)
) SS
COUNTY OF SEDGWICK)

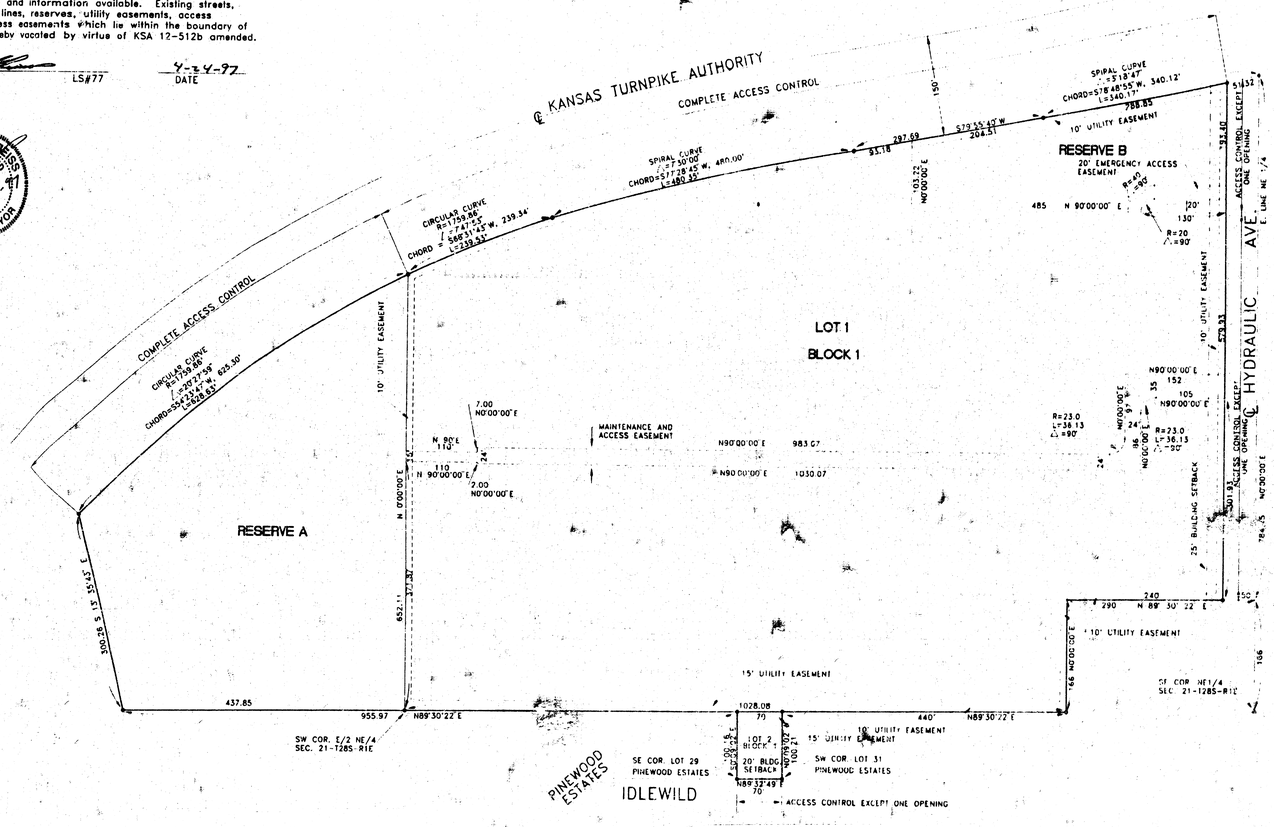
I, Adolf E. Reiss, being a duly licensed professional land surveyor in said County and State, do hereby certify that I have caused the tract of land as set forth in the Legal Description to be surveyed and platted and that said survey and the accompanying exhibit are true and correct to the best of my knowledge and information available. Existing streets, building setback lines, reserves, utility easements, access control, and access easements which lie within the boundary of this plat are hereby vacated by virtue of KSA 12-512b amended.

ADOLF E. REISS LS#77 — 4-24-97 DATE

ADOLF E. REISS LS. 77 KANSAS LAND SURVEYOR



CLEANOUT DETAIL



NOTE:
MINIMUM BUILDING PAD ELEVATION = 1268.4 m.s.l.
(81 CITY DATUM)

B.M.: TOP OF STP SPK ON WEST SIDE P.P., 29 FEET NORTH OF SE CORNER OF PROPERTY AND 38.5' EAST OF ℄ HYDRAULIC. ELEV. 80.29 (CITY DATUM)

LEGEND
• MONUMENT SET OR FOUND

SCALE: 1" = 100'

FINAL PLAT
CEDAR RIDGE MOBILE HOME PARK
WICHITA, SEDGWICK COUNTY, KANSAS

REISS & GOODNESS ENGINEERS
2180 WEST 21st STREET
WICHITA, KANSAS 67203
(316) 832-0213

1997

Know all men by these presents that Alan D. McClure and Marilyn McClure have caused the tract of land as set forth in the legal description to be surveyed and platted into lots, a block, and Reserves to be known as Cedar Ridge Mobile Home Park, Wichita, Sedgwick County, Kansas. Easements are hereby granted as indicated for the construction and maintenance of all public utilities. The maintenance access easement is granted for the additional purpose of access to Reserve A. The emergency access easement is hereby granted for the purpose of providing secondary access from Hydraulic Avenue to Lot 1, Block 1, Cedar Ridge Mobile Home Park. This emergency access easement shall remain unencumbered at all the times and any improvements including, but not limited to, driving surface and gates shall be to the standards determined by the City's Fire Department. Reserve A as platted, is for drainage improvements, utility construction and maintenance, recreation and open space. Reserve B, as platted, is for maintenance and storage and utility construction and maintenance. Reserves A and B shall be owned and maintained by the owner of Lot 1, Block 1, Cedar Ridge Mobile Home Park. Access control as indicated on the face of the plat is hereby granted to the appropriate governing body. No building in Lot One (1) shall be constructed below a minimum first floor elevation of 1268.4 mean sea level (81 city datum).

ALAN D. McCLURE

MARILYN McCLURE

STATE OF KANSAS)
) SS
COUNTY OF SEDGWICK)

The foregoing instrument was acknowledged before me this 24th day of April, 1997, by Alan D. McClure and Marilyn McClure, husband and wife.

Rose Mary Saunders, Notary Public
Rose Mary Saunders
My Appointment Expires: 9-24-97

ROSE MARY SAUNDERS
Notary Public - State of Kansas
My Appt. Expires 9-24-97

This plat of Cedar Ridge Mobile Home Park, Wichita, Sedgwick County, Kansas has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated 24th Day of April, 1997

WICHITA-SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION

Richard E. Hopkins, Chairman
MARVIN KROUT, Secretary

SEAL — WICHITA-SEDGWICK COUNTY METROPOLITAN PLANNING COMMISSION — KANSAS

This plat approved and all dedications shown hereon, if any, accepted by the Board of City Commissioners of the City of Wichita, Kansas, this 13th day of MAY 1997.

BOB KNIGHT, Mayor
PAT BURNETT, City Clerk

CLERK OF SEDGWICK COUNTY

Entered on transfer record this 13th day of June. 1997.

JAMES ALFORD, County Clerk

STATE OF KANSAS)
) SS
COUNTY OF SEDGWICK)

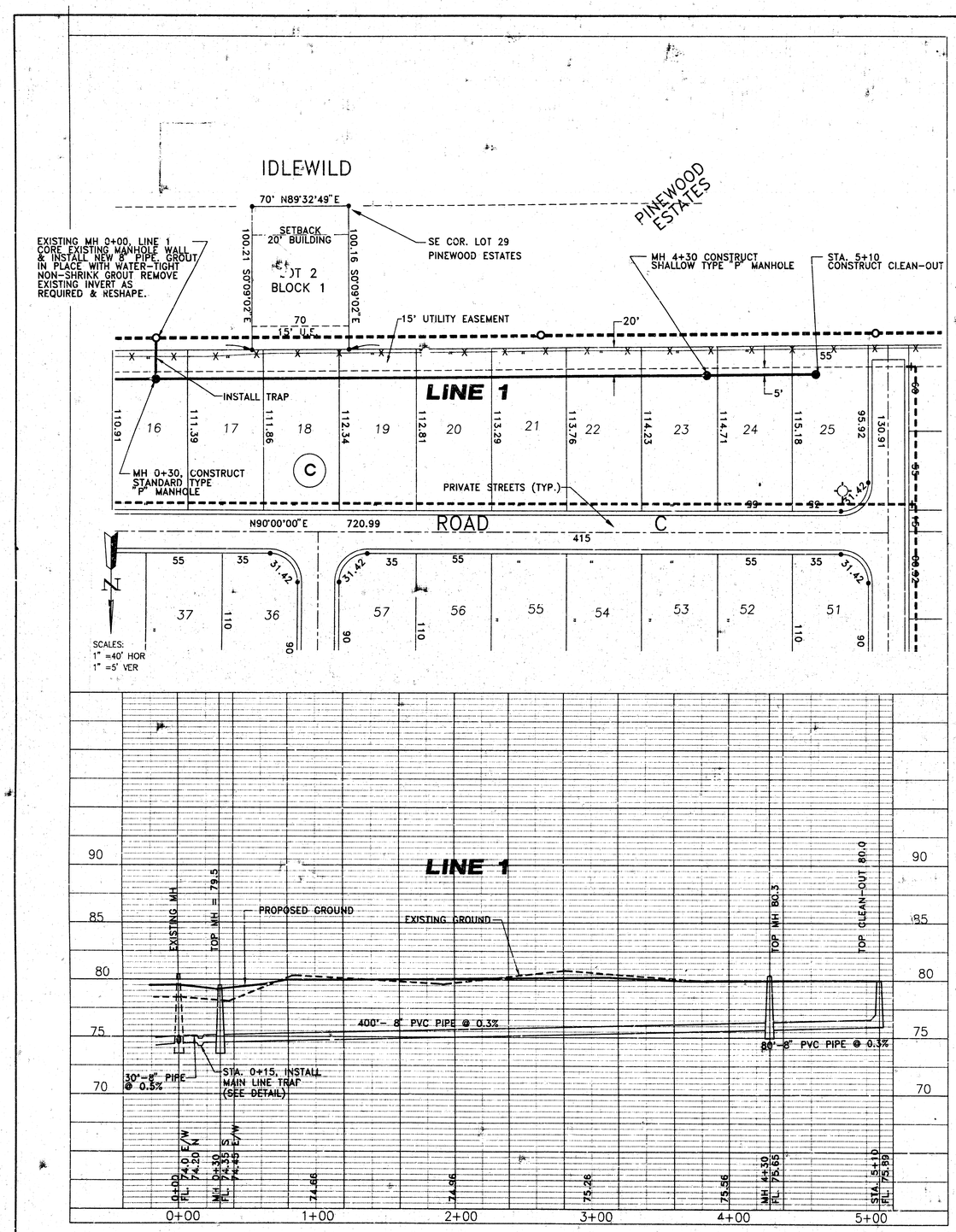
This is to certify that this instrument was filed for record in the Register of Deeds Office at 9:00 o'clock A M. on this 13th day of June, 1997.

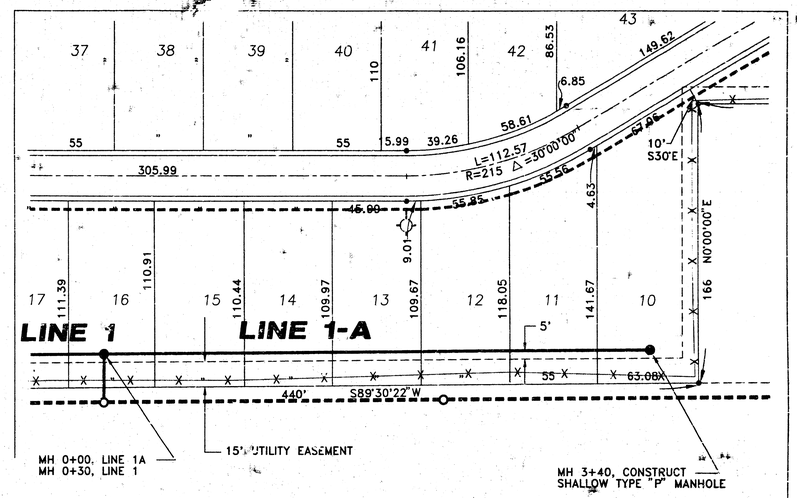
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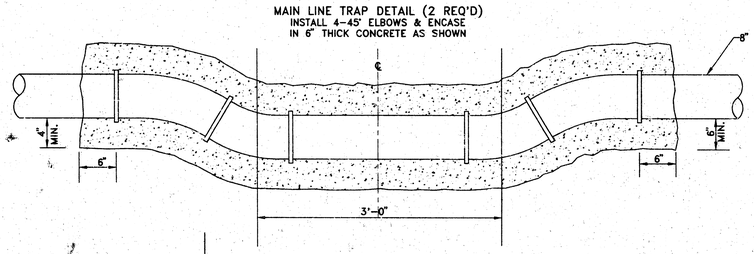
LARRY CONSOLVER, Register of Deeds
MICHAEL D. HURTT, Deputy

ADOLF E. REISS 8119 12-4-96 KANSAS PROFESSIONAL ENGINEER

SHEET 2 OF 10
PROJ. NO. SE1096

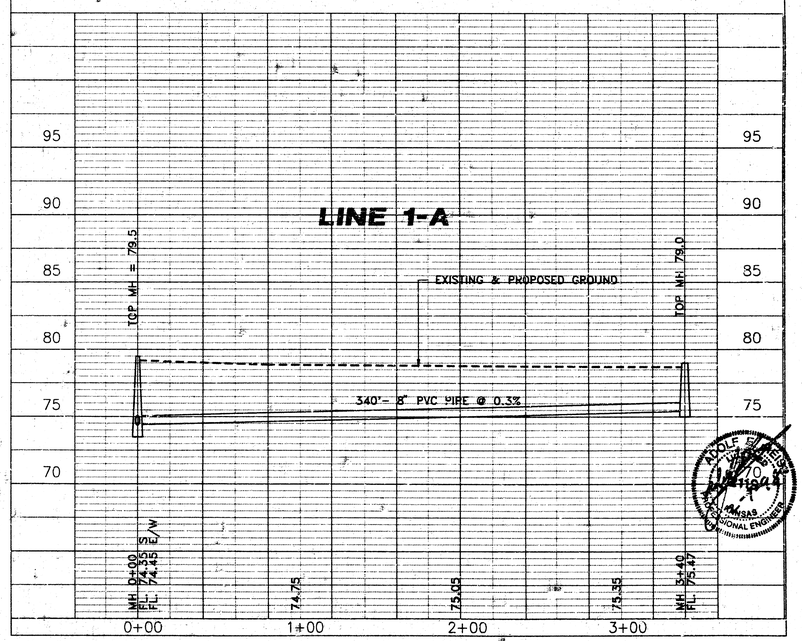








SCALES:
1" =40' HOR
1" =5' VER



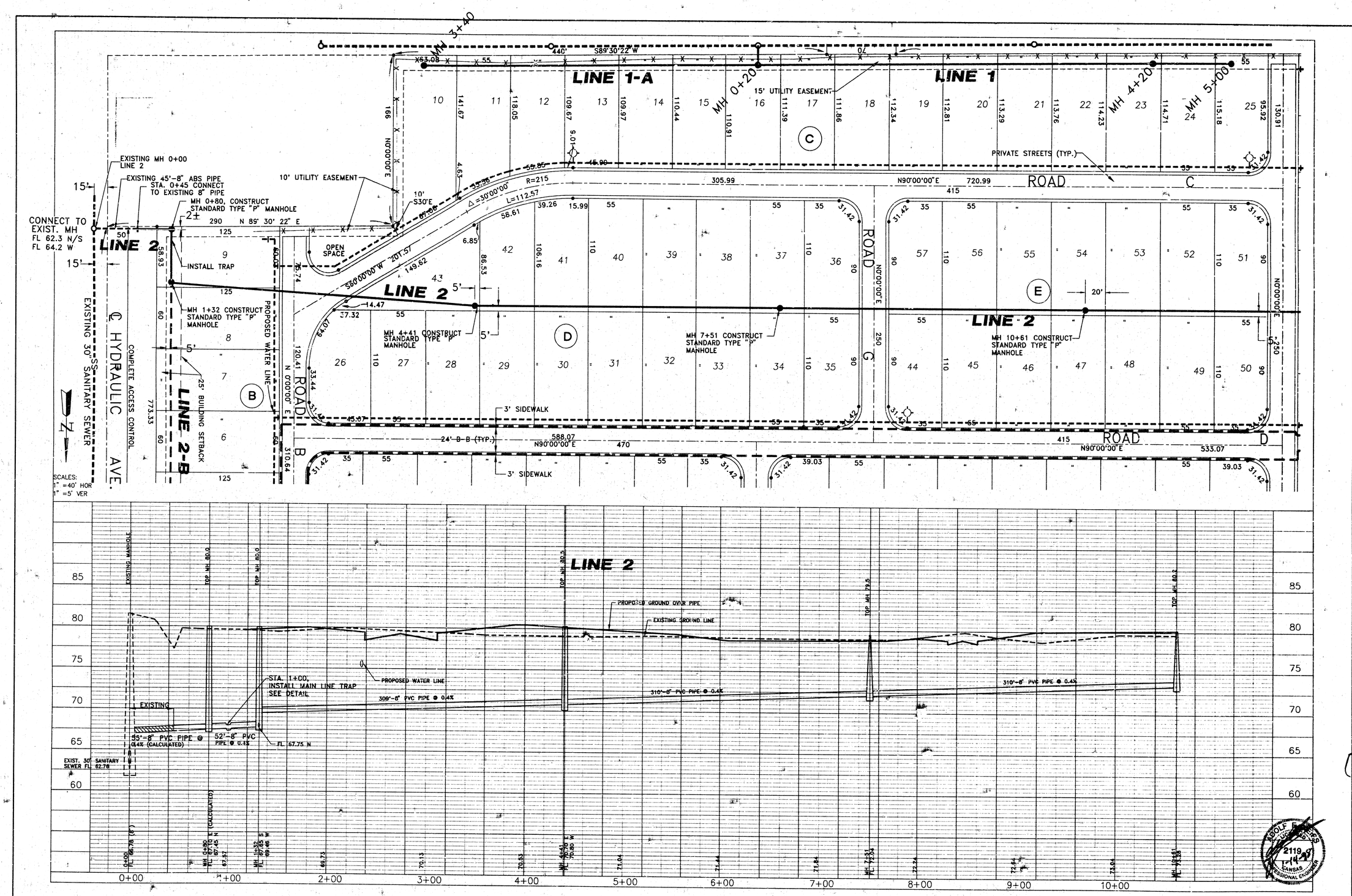
AS CONSTRUCTED 2-15-99

REISS & GOODNESS ENGINEERS
2160 WEST 21st STREET
WICHITA, KANSAS - 67203
(316) 832-0213

REVISION	DIRECTORY	DRAWN BY	FILE NAME	CHECKED BY	DESIGNED BY	PROJECT
	BOB\WICHITA\CEDAR RIDGE	A.M.	SHT1	R.P.	R.P.	LINE 1 / LINE 1-A CEDAR RIDGE MHP

CUSTOMER: CITY OF WICHITA PRW 762PPS (607861)

SCALE: NOTED
DATE: 01/09/98
PROJECT NO. SE1088
SHEET: 5 OF 10



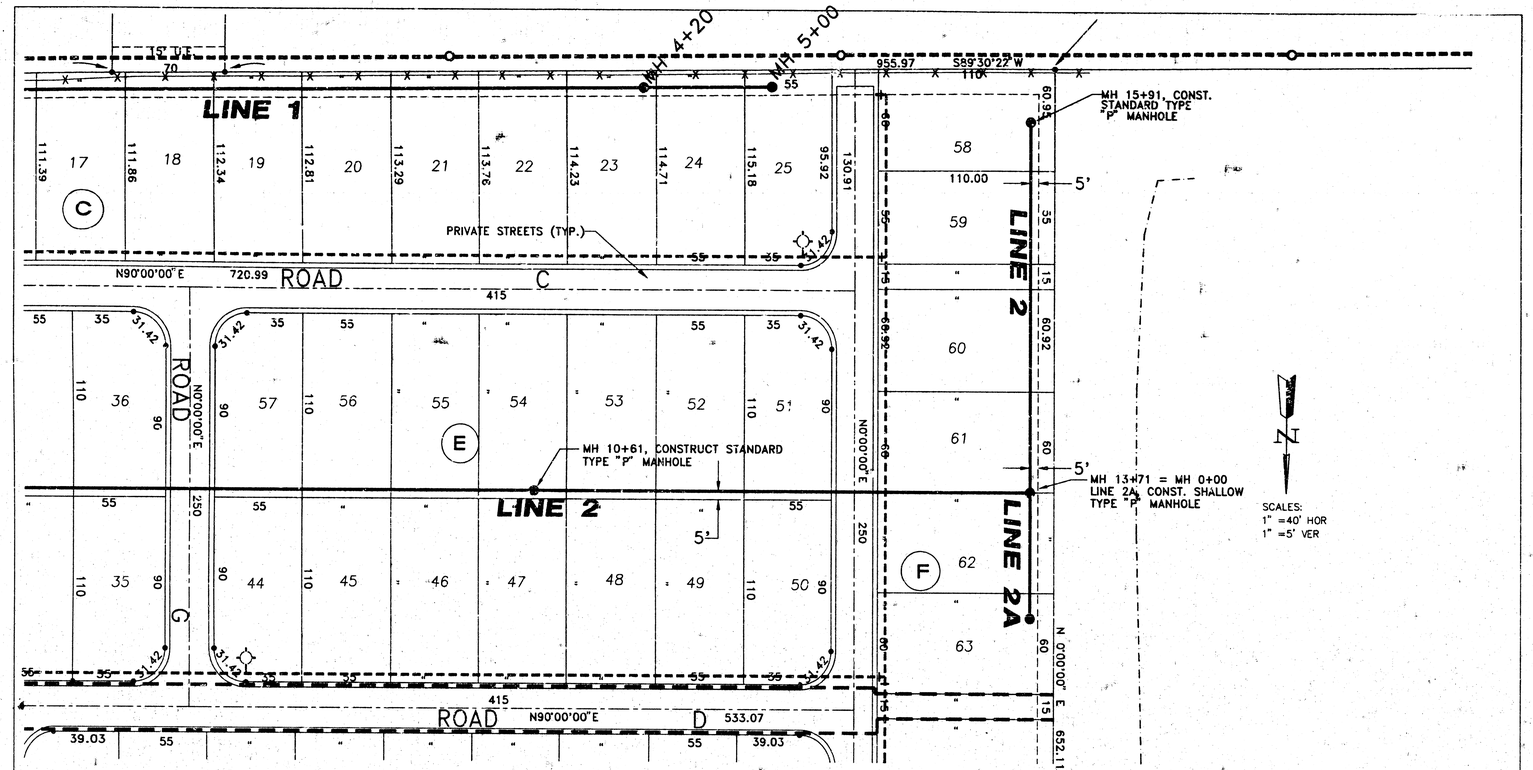
AS CONSTRUCTED 2-15-99

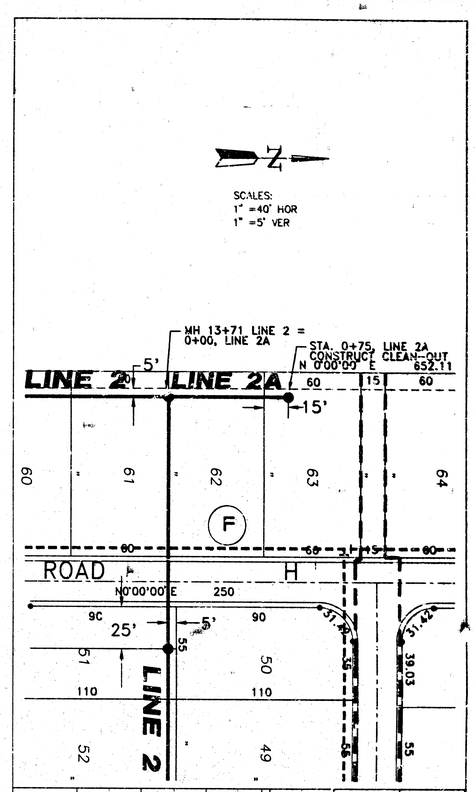
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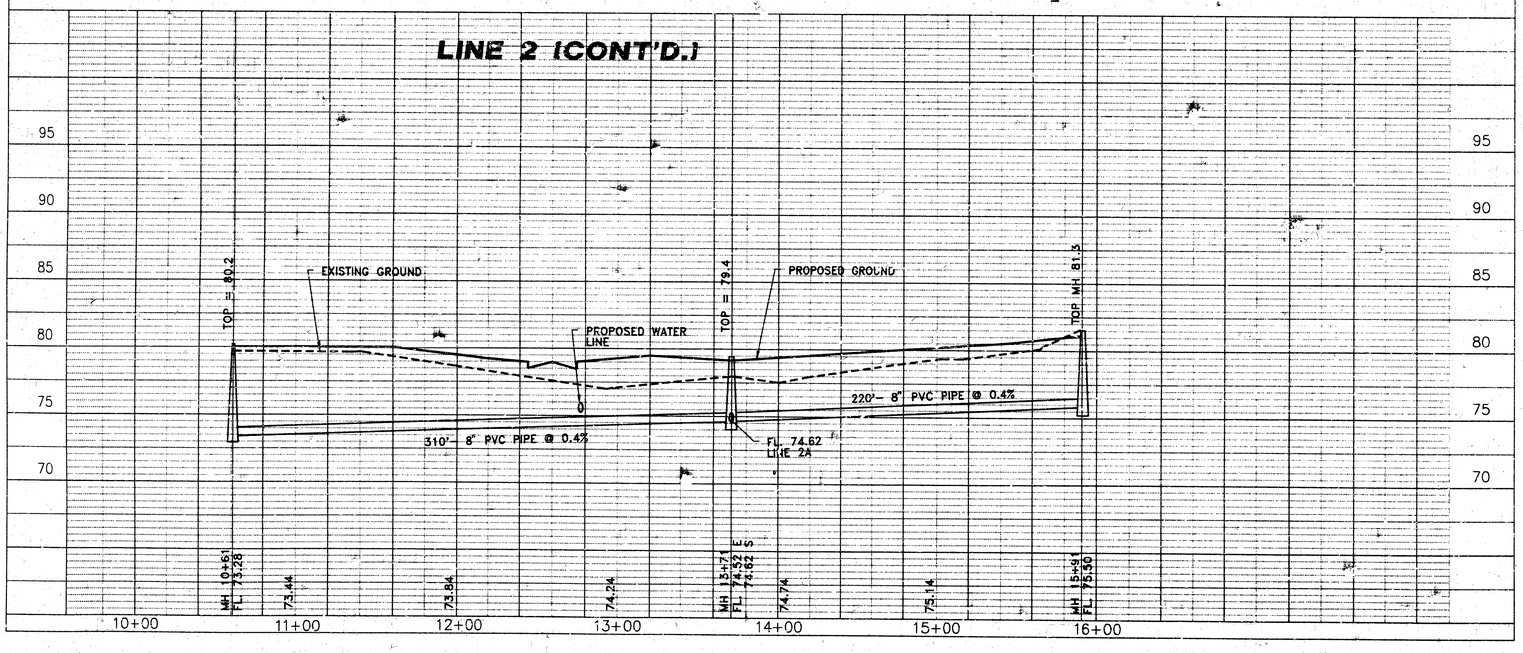
CUSTOMER: CITY OF WICHITA PPW 762PPS (607861)

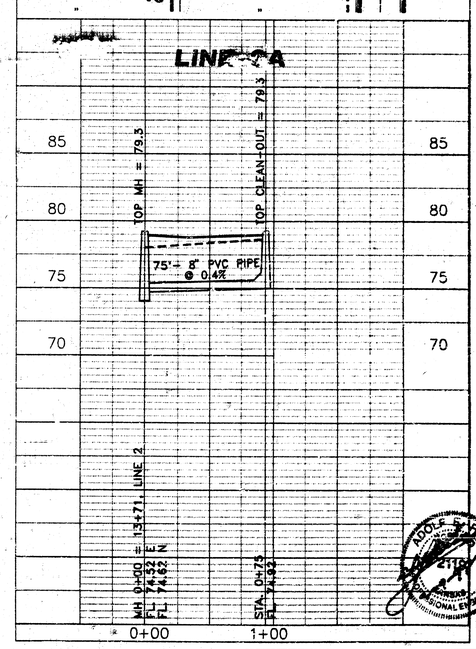
REISS & GOODNESS ENGINEERS
2100 WEST 21st STREET
WICHITA, KANSAS 67203
(316) 832-0213

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DATE: 01/09/98	SHEET: 5 OF 10







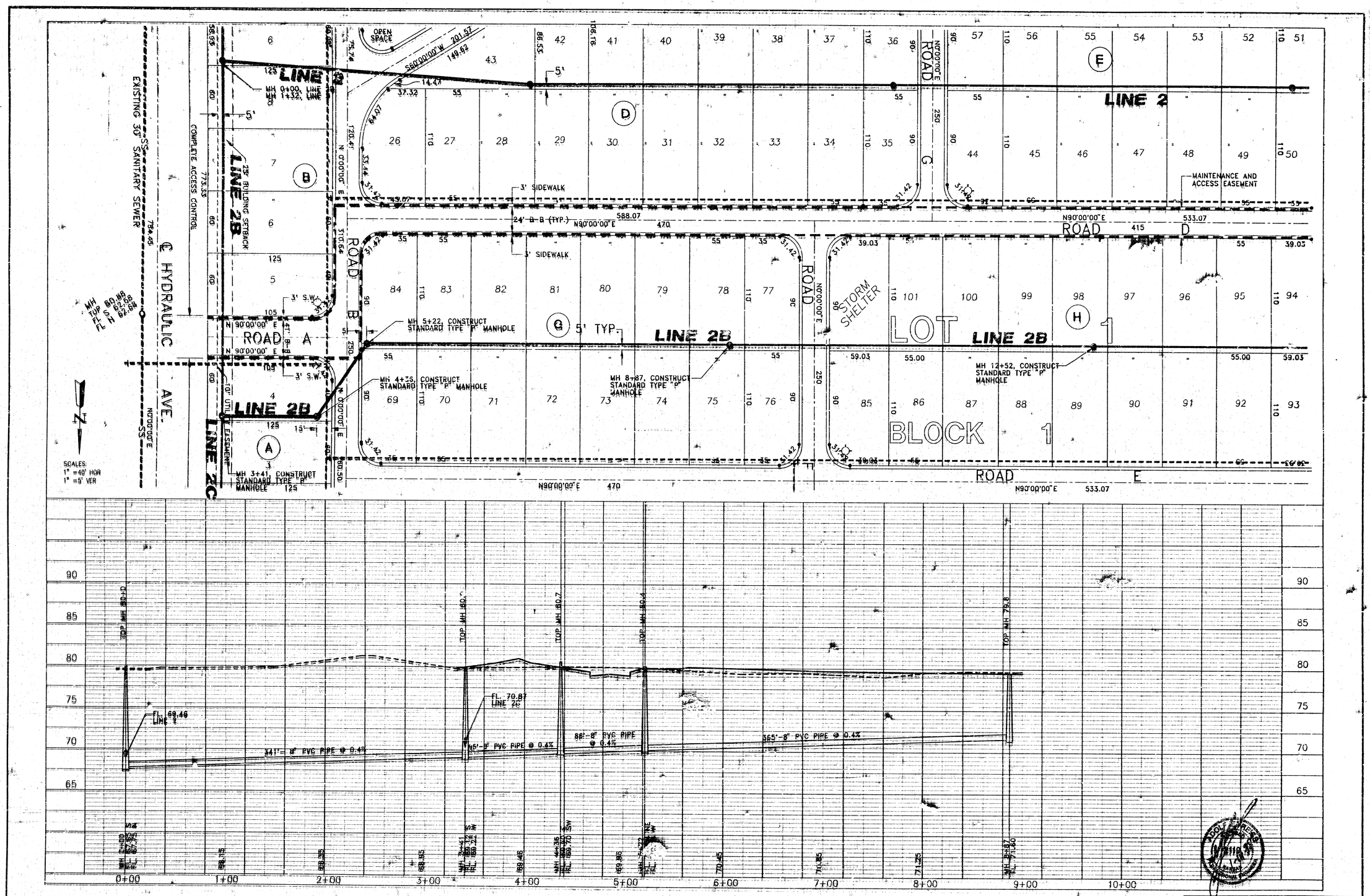


REVISION	DIRECTORY	DRAWN BY	FILE NAME	CHECKED BY	DESIGNED BY	PROJECT	CUSTOMER
	ROOT\WICHITA\CEDAR SEWER	A.M.	SHT3	R.P.	R.P.	LINE 2/ LINE 2A / CEDAR RIDGE MHP	CITY OF WICHITA PPW 762PPS (607861)

AS CONSTRUCTED 2-15-99

REISS & GOODNESS ENGINEERS
2160 WEST 21st STREET
WICHITA, KANSAS 67203
(316) 832-0213

SCALE: NOTED | PROJECT NO. SE1C99
DATE: 01/08/99 | SHEET: 5 OF 10



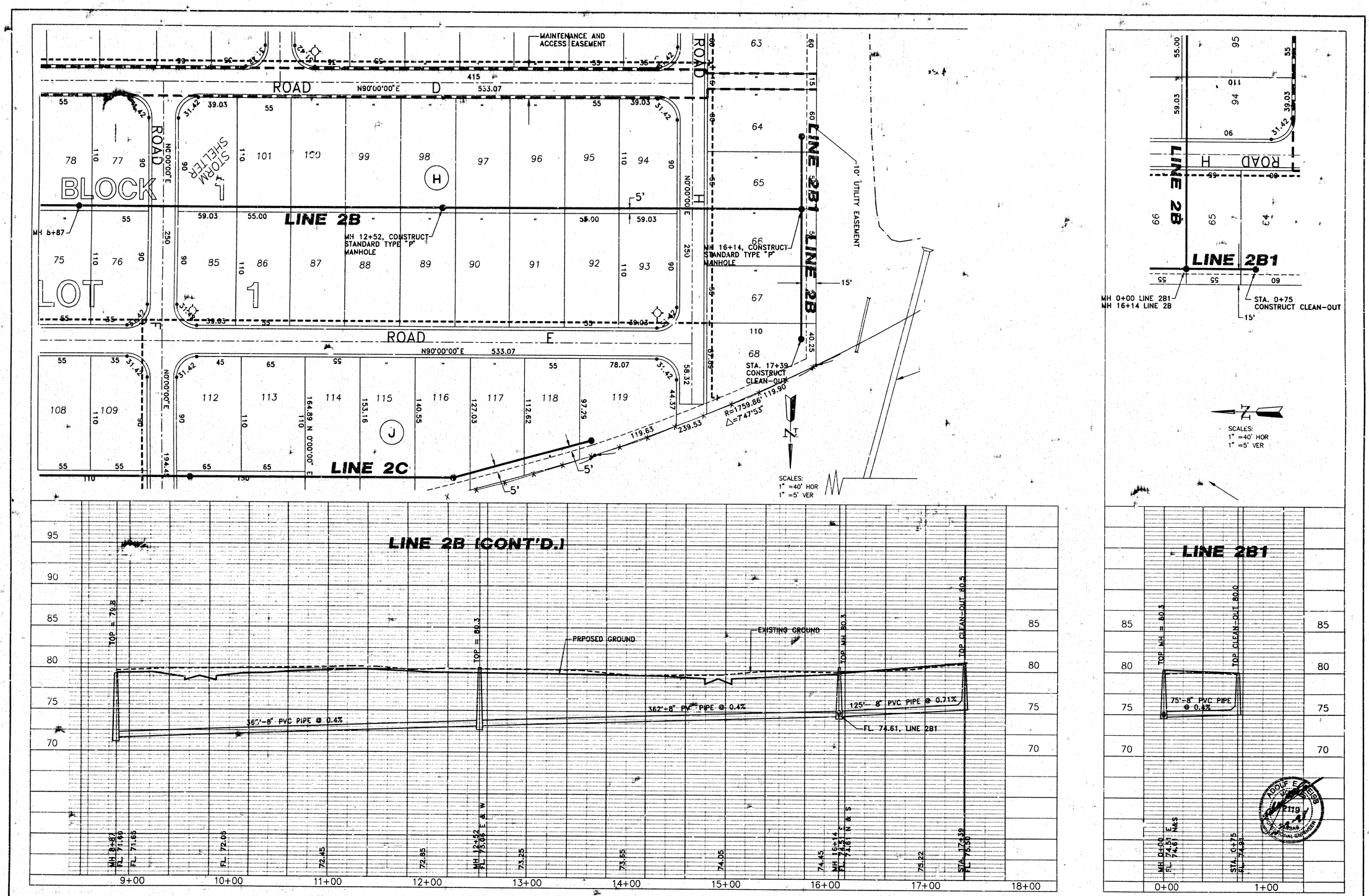
REISS & GOODNESS ENGINEERS
2160 WEST 21st STREET
WICHITA, KANSAS 67203
(316) 832-0217

AS CONSTRUCTED 2-15-99

REVISION	INVENTORY NO./SCP/LAYOUT	DRAWN BY	FILE NAME	CHECKED BY	DESIGNED BY	PROJECT
	NONE	R.G.	WHITE	R.P.	R.P.	LINE 2B / CEDAR RIDGE MHP

CUSTOMER: CITY OF WICHITA PPW 762PPS (607861)

SCALE: NOTED
DATE: 01/09/98
PROJECT NO. 981099
SHEET: 7 OF 10



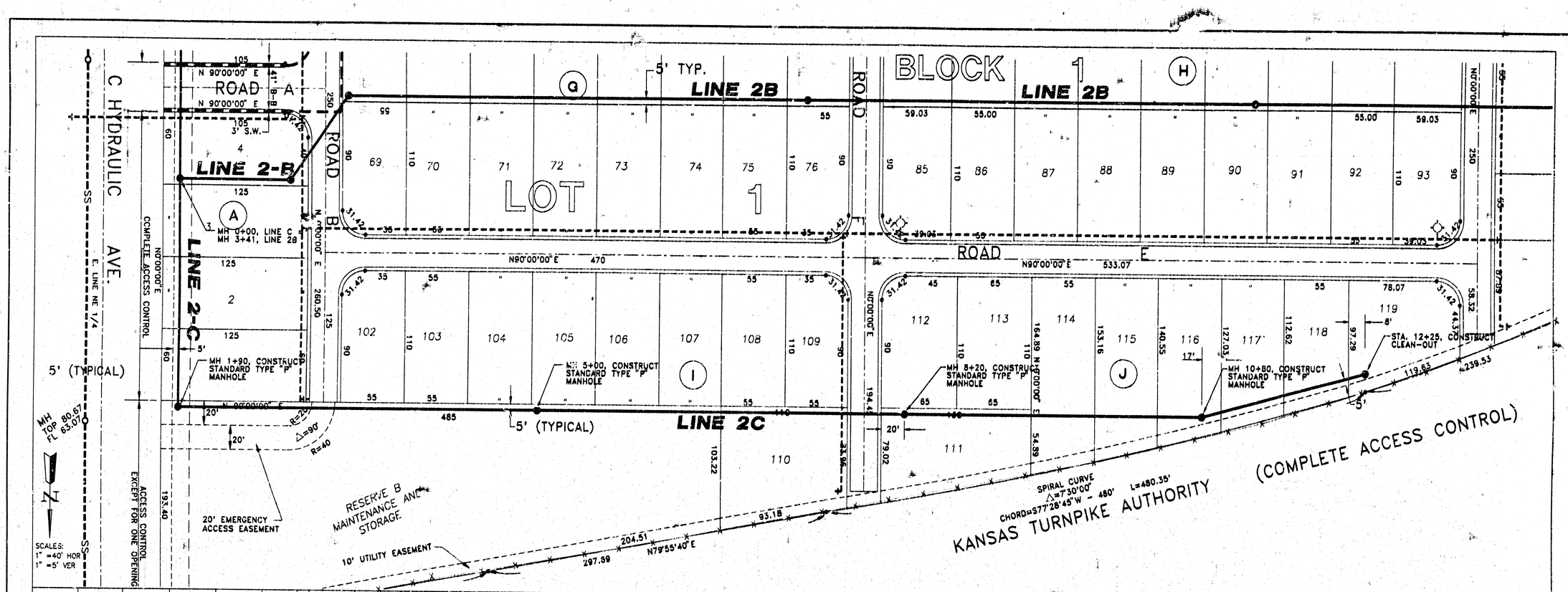
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	2008\WICHITA\CEDAR RIDGE	A.M.	SHT8	R.P.	R.P.	LINE 2B/LINE 2B1/LINE 2C CEDAR RIDGE MOBILE MHP

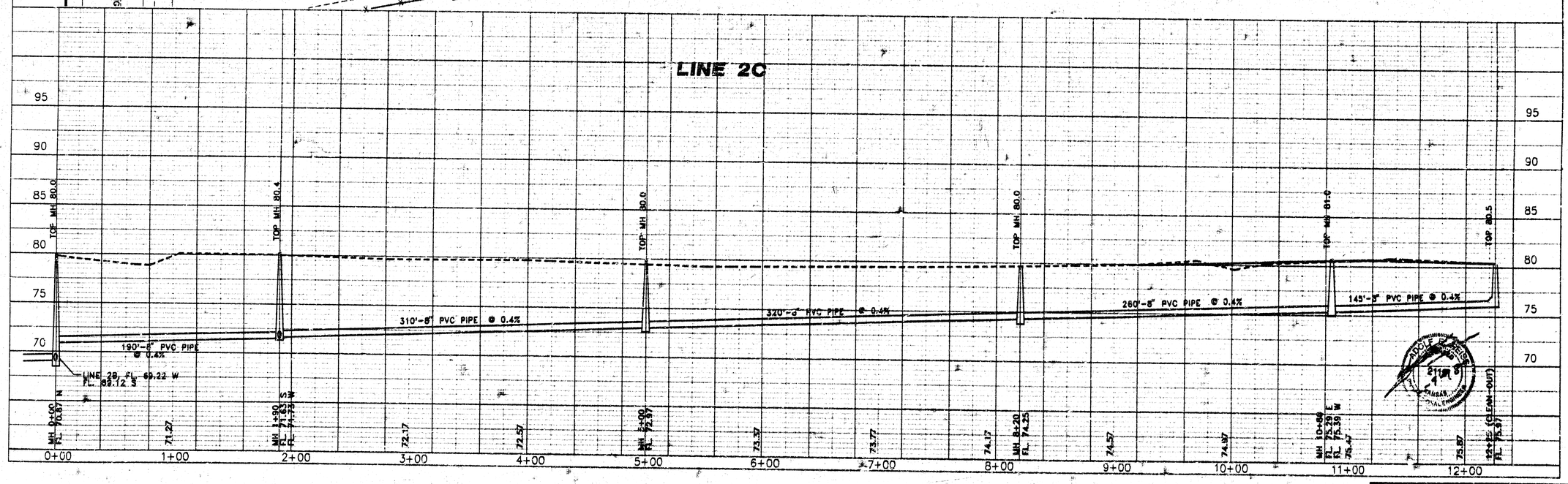
CUSTOMER: CITY OF WICHITA PPW 762PPS (607861)

AS CONSTRUCTED 2-15-99

REISS & GOODNESS ENGINEERS
2160 WEST 21st STREET
WICHITA, KANSAS 67203
(316) 832-0213

SCALE: NOTED
DATE: 01/09/98
PROJECT NO. 98108
SHEET: 8 OF 10





REVISION	DIRECTORY	DRAWN BY	FILE NAME	CHECKED BY	DESIGNED BY	PROJECT
	BOB\WICHITA\CEDAR RIDGE	A.M.	BMP	R.P.	R.P.	LINE 2-C / CEDAR RIDGE MHP

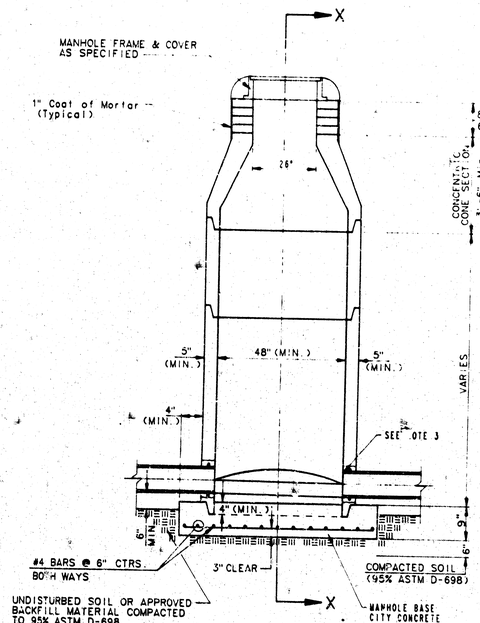
CUSTOMER: CITY OF WICHITA PPW 762PPS (607861)

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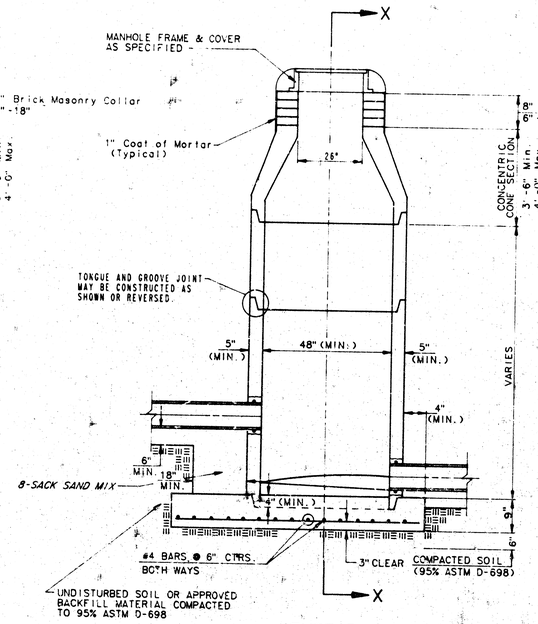
REISS & GOODNESS ENGINEERS
2160 WEST 21st STREET
WICHITA, KANSAS 67203
(316) 832-0713

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DATE: 01/05/96 | SHEET: 9 OF 16

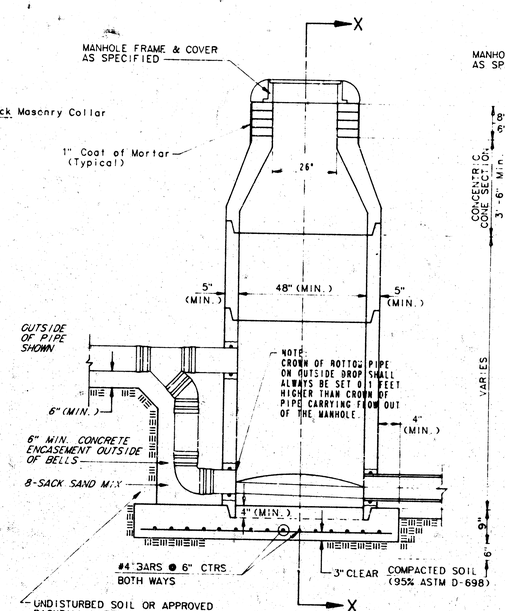
SEWER APPURTENANCES DETAILS
ADOPTED AS STANDARD DESIGN
BY
CITY OF WICHITA



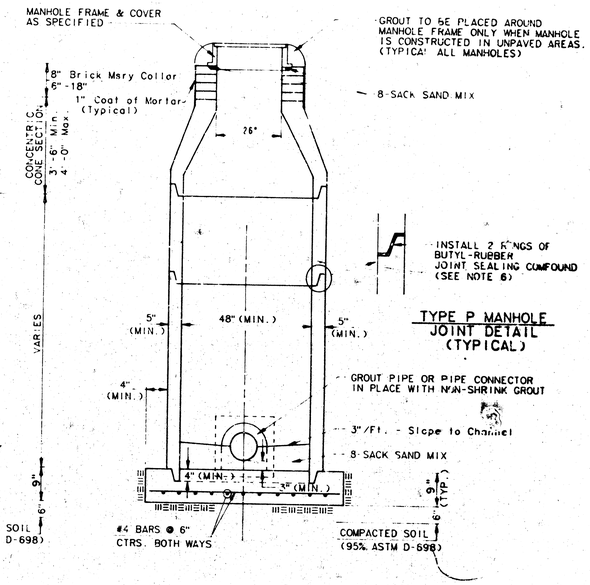
TYPE P
STANDARD MANHOLE



TYPE P
INSIDE DROP MANHOLE



TYPE P
OUTSIDE DROP MANHOLE

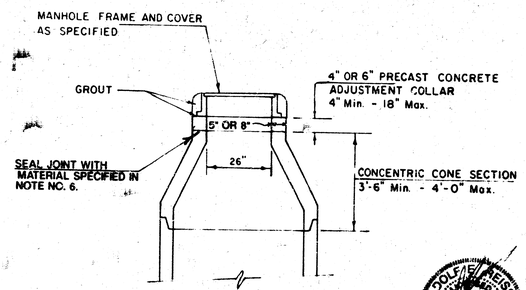


SECTION X
(TYPICAL)

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 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 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 8" 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 FREE FALL DROP INSIDE MANHOLES SHALL NOT EXCEED 2'. 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. 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.
19. **MANHOLE 5 FEET DEEP OR LESS SHALL BE CONSTRUCTED WITHOUT A CONE SECTION, BUT WITH A 6" THICK REINFORCED CONCRETE TOP PER CITY OF WICHITA SPECIFICATIONS.**



ALTERNATE CONSTRUCTION
IN UNPAVED AREAS

ADOLFO C. REISS 2119 KANSAS PROFESSIONAL ENGINEER 1-21-91

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