

PLANEVIEW SANITARY SEWER RECONSTRUCTION

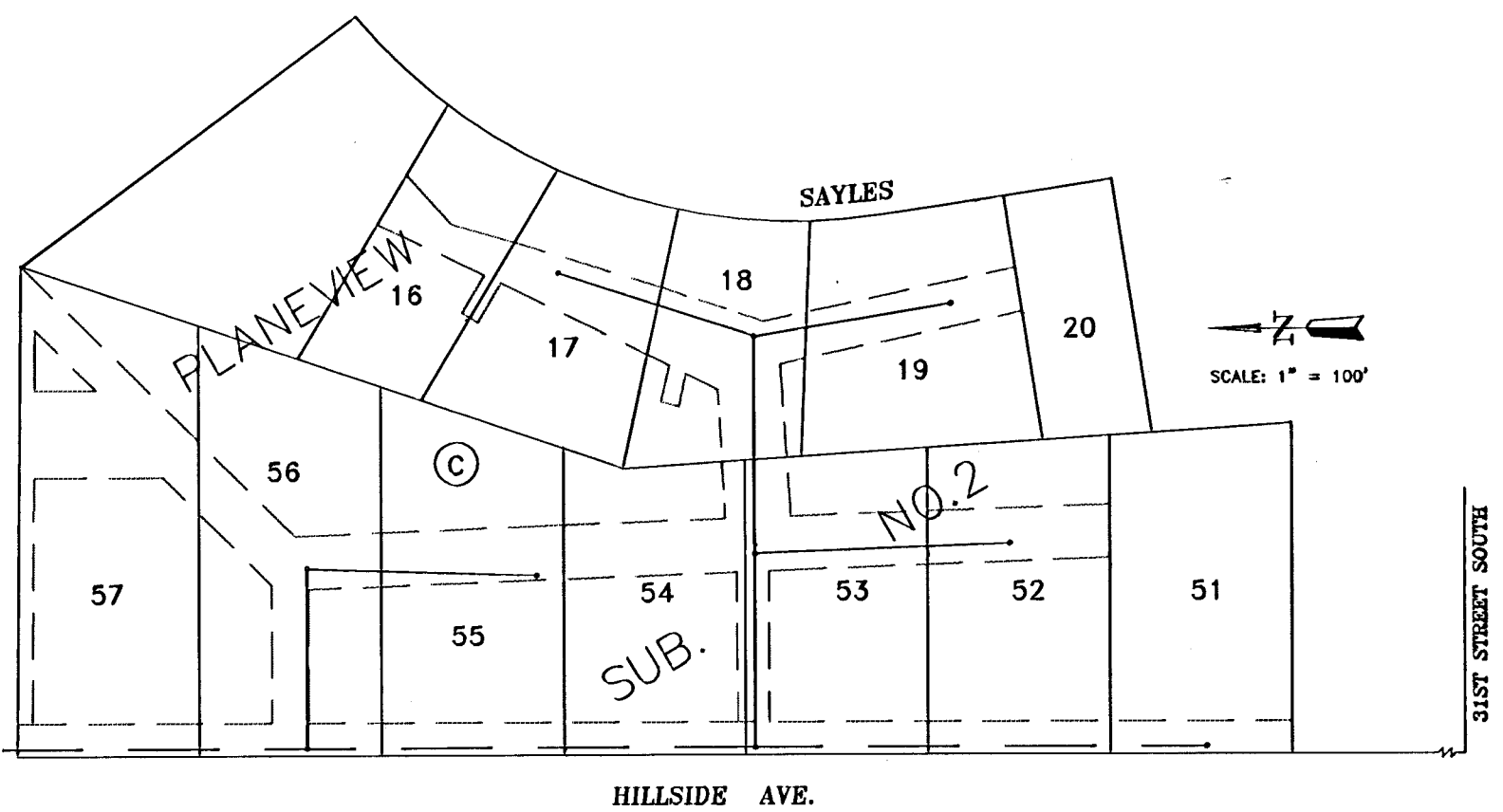
PART OF BLOCK C, PLANEVIEW SUBDIVISION NO.2

PROJECT NO. 468 83198

OCA NO. 622232

CITY OF WICHITA

MICHAEL E. LINDEBAK, CITY ENGINEER
2001



VICINITY MAP

BENCH MARK NO. 1:
C.O.W. BENCH MARK LOCATED ON THE NORTHEAST
CORNER OF CONCRETE R.C.B. AT HILLSIDE AND WASSALL.
ELEV. 104.50 CITY DATUM

BENCH MARK NO. 2:
NW. CORNER OF BOTTOM STEP OF WEST (MAIN)
ENTRANCE TO THE SOUTHEAST ASIAN BAPTIST CHURCH.
ELEV. 104.41 CITY DATUM

BENCH MARK NO. 3:
TOP OF 4" STEEL PIPE FENCE 11.6 FEET EAST OF SOUTHWEST
CORNER OF LOT 51, BLOCK C, PLANEVIEW SUBDIVISION NO. 2.
ELEV. 104.35 CITY DATUM

CONTENTS

TITLE SHEET	1
PLAT	2
OVERALL LAYOUT PLAN	3
PLAN/PROFILE	4 & 5
MANHOLE DETAILS	6

GENERAL NOTES

- INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA IS NOT TO BE CARRIED THROUGH CONSTRUCTION. LOCAL RESIDENTAL TRAFFIC GENERATED WITHIN THE PROJECT AREA IS TO BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS.
- UTILITY SERVICE LINES, POLES, VALVE BOXES, METERS, AND ET CETERA 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 PLAN LOCATIONS ARE NOT GUARANTEED AND ADDITIONAL UTILITIES MAY ALSO BE ENCOUNTERED. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- THE COST OF CONCRETE DRIVEWAY REMOVAL SHALL INCLUDE A SAW CUT OF A MINIMUM DEPTH OF ONE FOURTH OF THE PAVEMENT THICKNESS. THE SAW CUT SHALL BE AT THE PROPERTY LINE OR THE NEAREST JOINT. THE EXACT LOCATION SHALL BE DETERMINED BY THE FIELD ENGINEER.
- 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 WATER 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.

- 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	665-1647
MULTIMEDIA CABLEVISION	283-7270
KGE, ELECTRIC	284-5721
CITY OF WICHITA WATER & SEWER	268-4908
KANSAS GAS SERVICE	832-3168

THE CONTRACTOR SHALL NOTIFY PIPELINE COMPANIES AT LEAST 24 HOURS IN ADVANCE OF ANY WORK BEING PERFORMED ACROSS AND/OR ADJACENT TO PIPELINES.

- MAILBOXES WITHIN THE LIMITS OF THE PROJECT SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AS APPROVED BY THE ENGINEER. CONTRACTOR WILL BE REQUIRED TO MAKE SATISFACTORY PROVISIONS FOR MAIL DELIVERY TO PROPERTIES AFFECTED BY THIS PROJECT DURING CONSTRUCTION.

- PROPERTIES WITHIN THE PROJECT MAY HAVE UNDERGROUND IRRIGATION SYSTEMS (LAWN SPRINKLERS) WHICH CONFLICT WITH NEW CONSTRUCTION. CONTRACTOR SHALL REMOVE SUCH COMPONENTS AS NEEDED DURING CONSTRUCTION OF THE PROJECT. THE IRRIGATION SYSTEM SHALL BE REINSTALLED IN LIKE KIND BEFORE PROJECT COMPLETION. ANY IRRIGATION SYSTEM MODIFICATIONS REQUIRED BECAUSE OF PROJECT IMPROVEMENTS SHALL BE COORDINATED WITH PROPERTY OWNER.

- 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. THE BID ITEM "CLEARING R/W AND SITE PREPARATION" SHALL BE FULL COMPENSATION FOR ALL ITEMS RELATED TO TREE REMOVAL IN STREET R/W.

- 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.

- 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.

- THE CONTRACTOR SHALL ADJUST WATER VALVE BOXES, WATER METER BOXES AND FIRE HYDRANTS AS NOTED ON THE PLANS AND AS DIRECTED BY THE ENGINEER. MATERIALS, EQUIPMENT AND LABOR REQUIRED FOR THE ADJUSTMENT OF WATER METER AND VALVE BOXES AND FIRE HYDRANTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS OF WORK IN THE CONTRACT. THE WATER DEPARTMENT SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, WATER VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

- 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 OF THE NATURE OF THE WORK TO BE COMPLETED.

- CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION.

- CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROLS DEVICES (MUTCD) TO ENSURE A SAFE WORK ZONE FOR THE TRAVELING PUBLIC.

- THE BID ITEM "PAVEMENT AND REMOVAL" SHALL INCLUDE THE REMOVAL AND REPLACEMENT OF CONCRETE SIDEWALKS, CONCRETE DRIVEWAYS AND CONCRETE PARKING LOTS.



© 2000 REISS & GOODNESS INC.

REISS & GOODNESS ENGINEERS

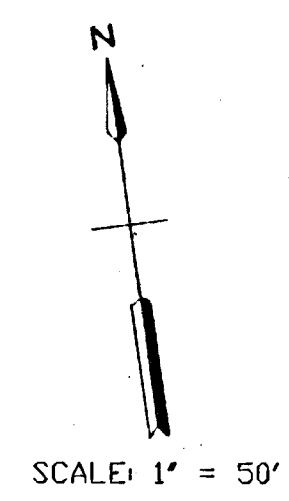
2160 WEST 21st STREET
WICHITA, KANSAS 67203
(316) 832-0213



REVISION	DIRECTORY	DRAWN BY	FILE NAME	CHECKED BY	DESIGNED BY	PROJECT
	OLD_C_WICHITA	C.E.	PLANE_VICI		B.P.	

SCALE: NOTED	PROJECT NO. SE0301
DATE: 3-19-2001	SHEET 1 OF 6

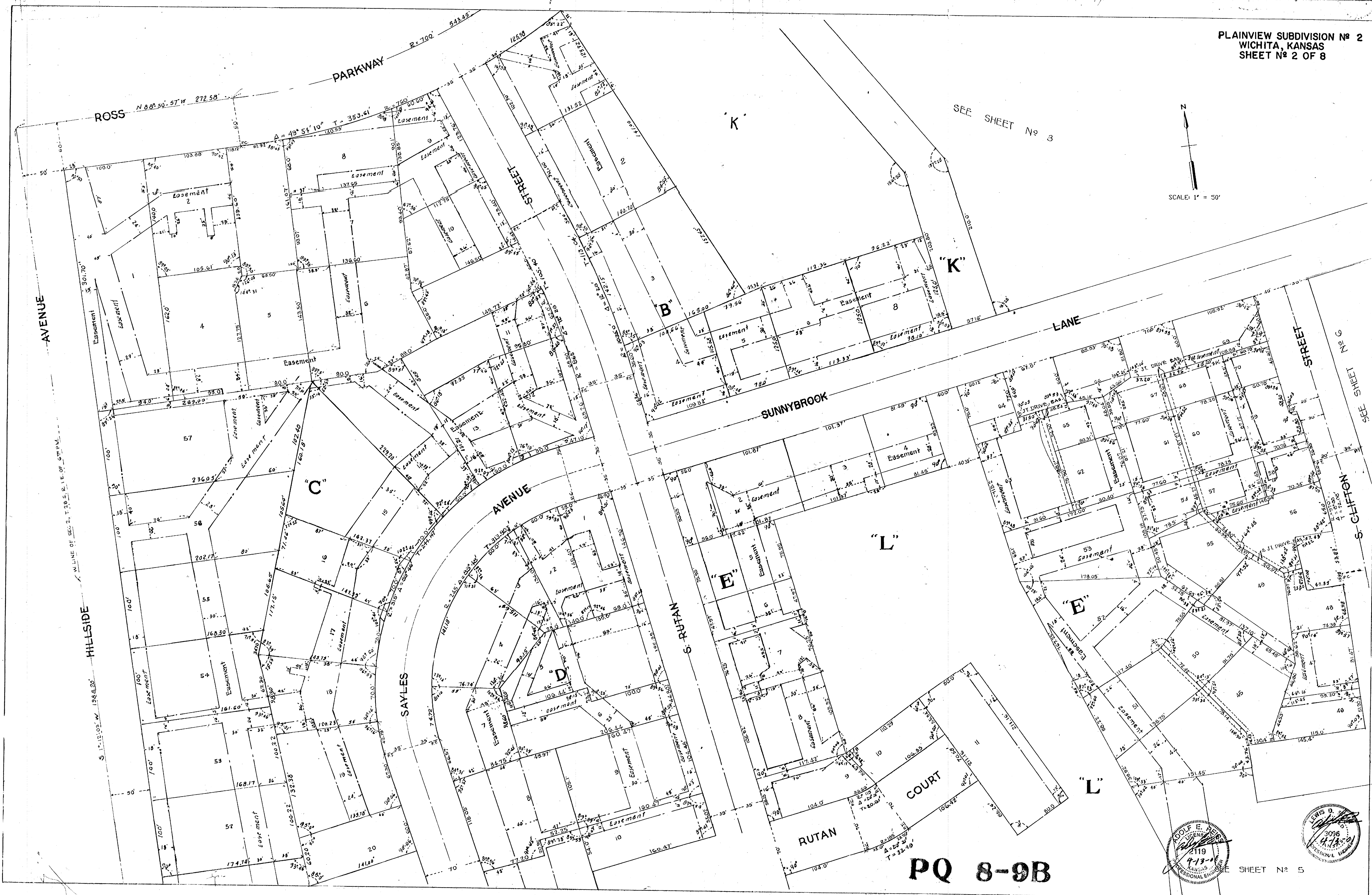
PLAINVIEW SUBDIVISION No 2
WICHITA, KANSAS
SHEET No 2 OF 8



SEE SHEET No 3

SEE SHEET No 9

S-CLIFTON

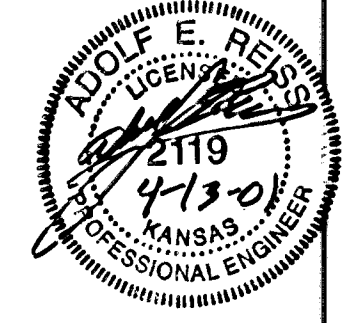
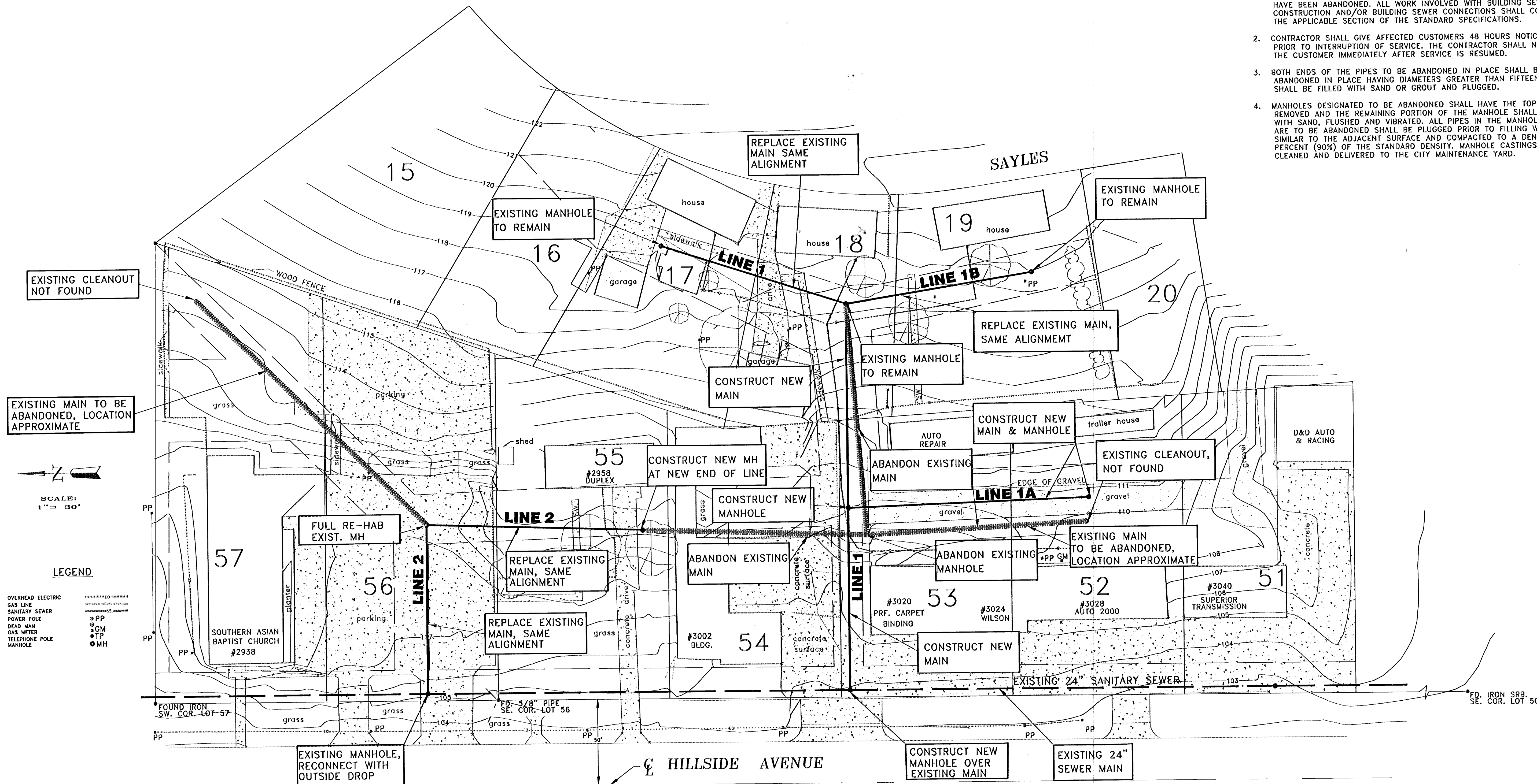


PQ 8-9B

SHEET No 5

ADDITIONAL NOTES

1. ONLY ACTIVE BUILDING SEWER LINES WHICH CONNECT ACTUAL BUILDINGS TO THE SYSTEM ARE TO BE RECONNECTED TO THE NEW SEWER CONSTRUCTION. BUILDING SEWER LINES AND/OR CONNECTIONS WHICH HAVE BEEN ABANDONED ARE NOT TO BE RECONNECTED TO THE SEWER CONSTRUCTION. IT WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO ASCERTAIN WHICH SUCH BUILDING SEWER LINES AND/OR CONNECTIONS ARE ACTIVE AND WHICH SUCH SEWERS AND/OR CONNECTIONS HAVE BEEN ABANDONED. ALL WORK INVOLVED WITH BUILDING SEWER LINE CONSTRUCTION AND/OR BUILDING SEWER CONNECTIONS SHALL CONFORM TO THE APPLICABLE SECTION OF THE STANDARD SPECIFICATIONS.
2. CONTRACTOR SHALL GIVE AFFECTED CUSTOMERS 48 HOURS NOTICE PRIOR TO INTERRUPTION OF SERVICE. THE CONTRACTOR SHALL NOTIFY THE CUSTOMER IMMEDIATELY AFTER SERVICE IS RESUMED.
3. BOTH ENDS OF THE PIPES TO BE ABANDONED IN PLACE SHALL BE PLUGGED. PIPES ABANDONED IN PLACE HAVING DIAMETERS GREATER THAN FIFTEEN INCHES (15") SHALL BE FILLED WITH SAND OR GROUT AND PLUGGED.
4. MANHOLES DESIGNATED TO BE ABANDONED SHALL HAVE THE TOP FOUR (4') REMOVED AND THE REMAINING PORTION OF THE MANHOLE SHALL BE FILLED WITH SAND, FLUSHED AND VIBRATED. ALL PIPES IN THE MANHOLE WHICH ARE TO BE ABANDONED SHALL BE PLUGGED PRIOR TO FILLING WITH MATERIAL SIMILAR TO THE ADJACENT SURFACE AND COMPACTED TO A DENSITY OF NINETY PERCENT (90%) OF THE STANDARD DENSITY. MANHOLE CASTINGS SHALL BE SALVAGED, CLEANED AND DELIVERED TO THE CITY MAINTENANCE YARD.

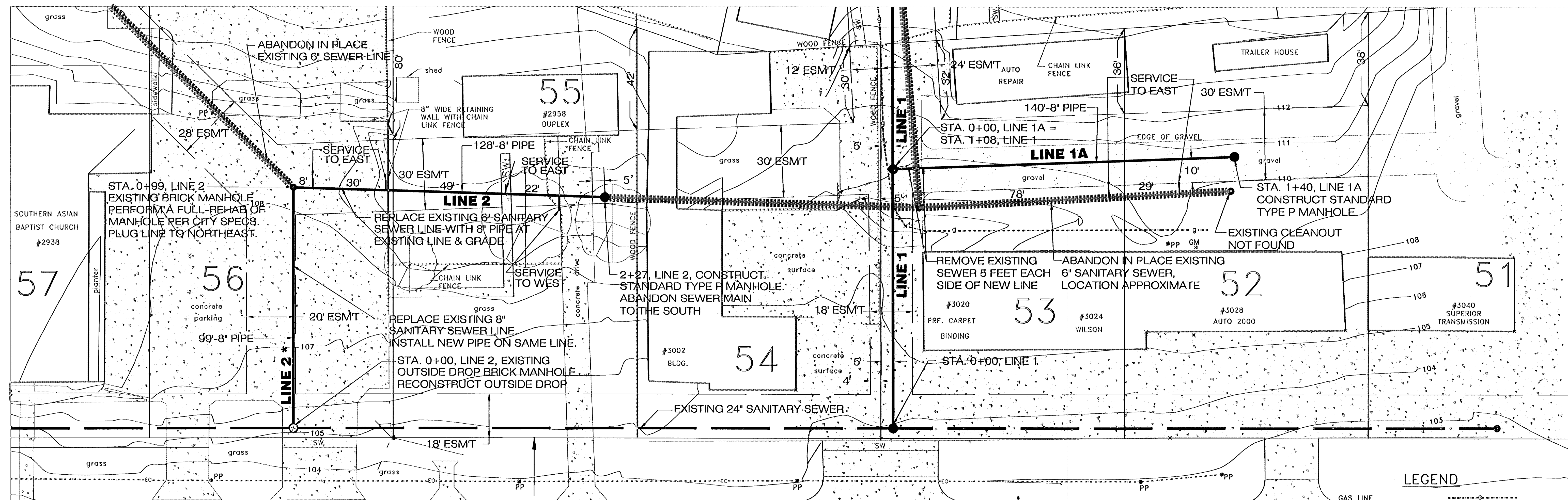


REISS & GOODNESS ENGINEERS, INC.
2160 WEST 21st STREET
WICHITA, KANSAS 67203
(316) 832-0213

OVERALL LAYOUT PLAN

PLANEVIEW SANITARY SEWER RECONSTRUCTION

REVISION	DIRECTORY	DRAWN BY	FILE NAME	CHECKED BY	DESIGNED BY	PROJECT	CUSTOMER	SCALE: NOTED	PROJECT NO. 50301
	OLD_CV WICHITA	C.E.	PLANEVIEW_OVALL.DWG		B.P.			DATE: 3-20-2001	SHEET 3 OF 6



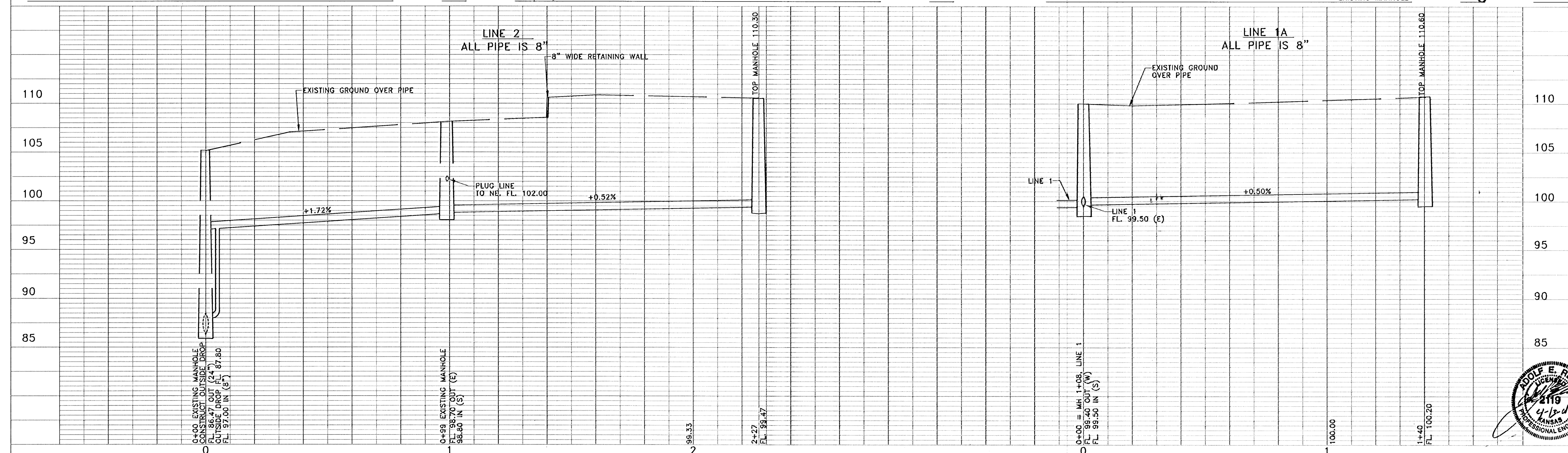
SCALE:
 1" = 20' HOR
 1" = 5' VER

*** NOTE:** CITY INDICATES AN EXISTING SERVICE LINE TAPPED FROM EXISTING EAST/WEST SEWER LINE TO BE REPLACED BY LINE 2, WHICH SERVES THE WEST PART OF BUILDING #2938. LOCATION IS NOT KNOWN FROM TELEVISION RECORDS.

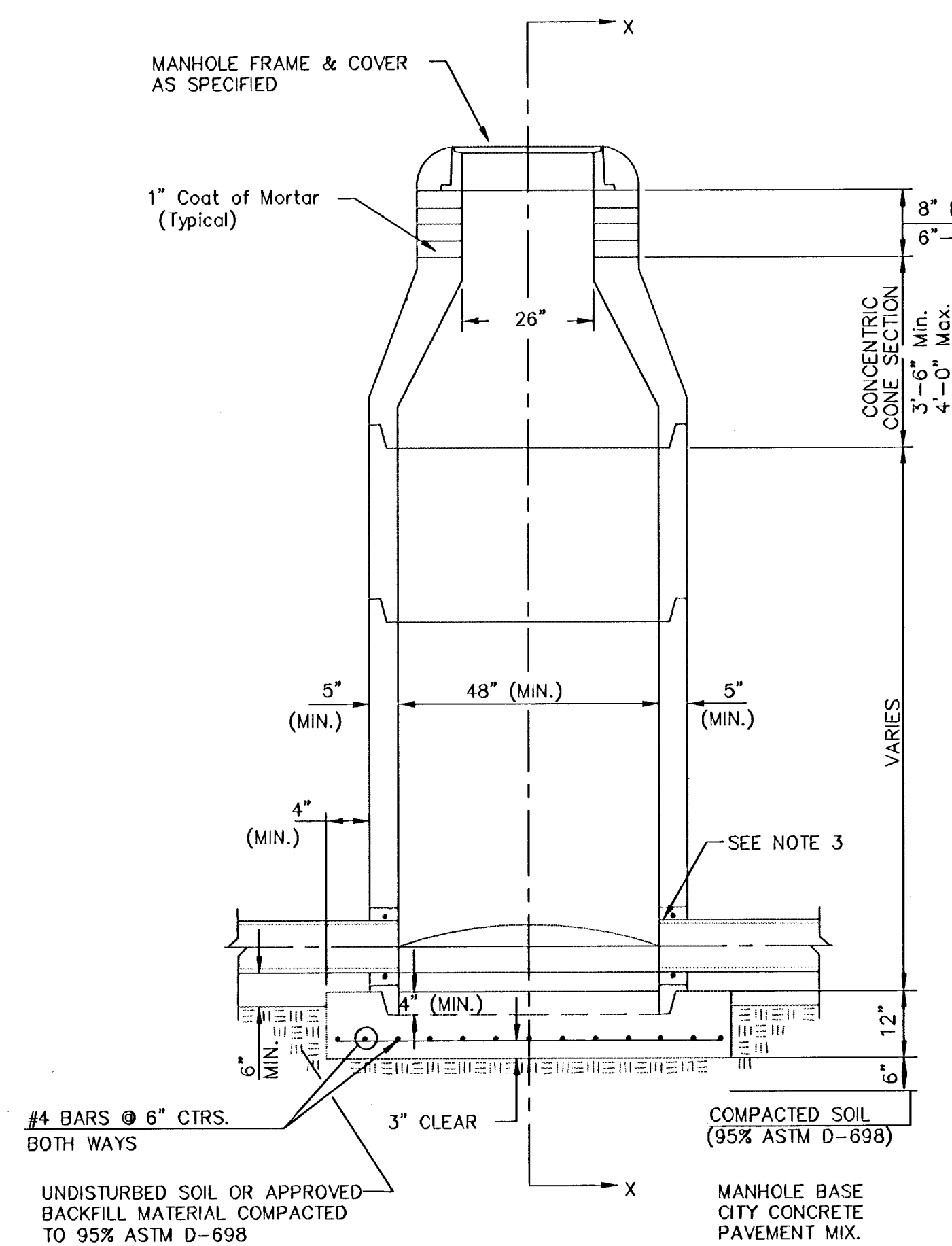
LEGEND

- GAS LINE
- OVERHEAD ELECTRIC
- SANITARY SEWER
- POWER POLE
- GAS METER
- MANHOLE
- EXISTING MANHOLE

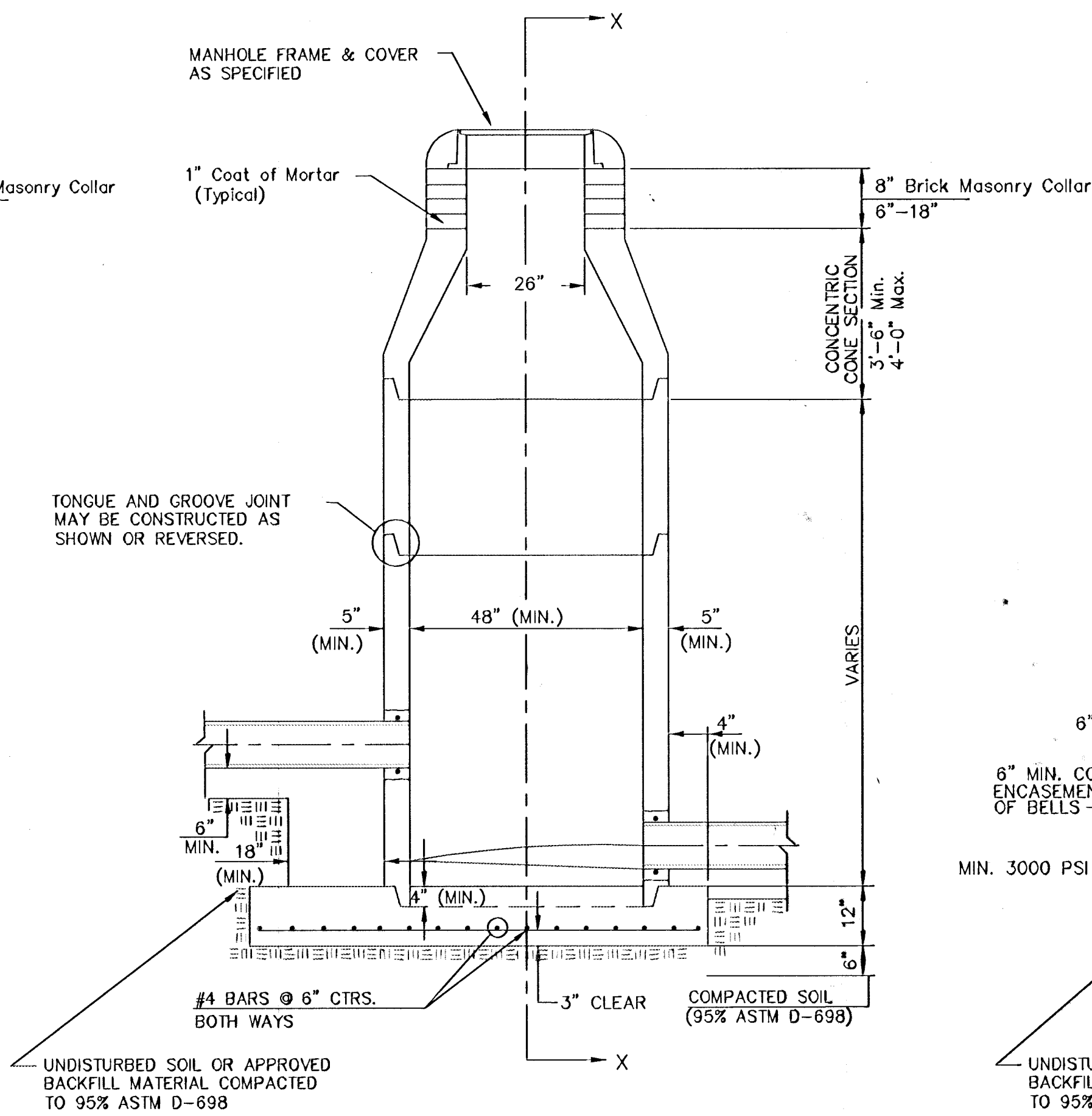
CONTRACTOR SHALL ATTEMPT TO LIMIT PAVEMENT REMOVAL ON PRIVATE PROPERTY TO THREE (3) FEET EACH SIDE OF THE PROPOSED SEWER LINES



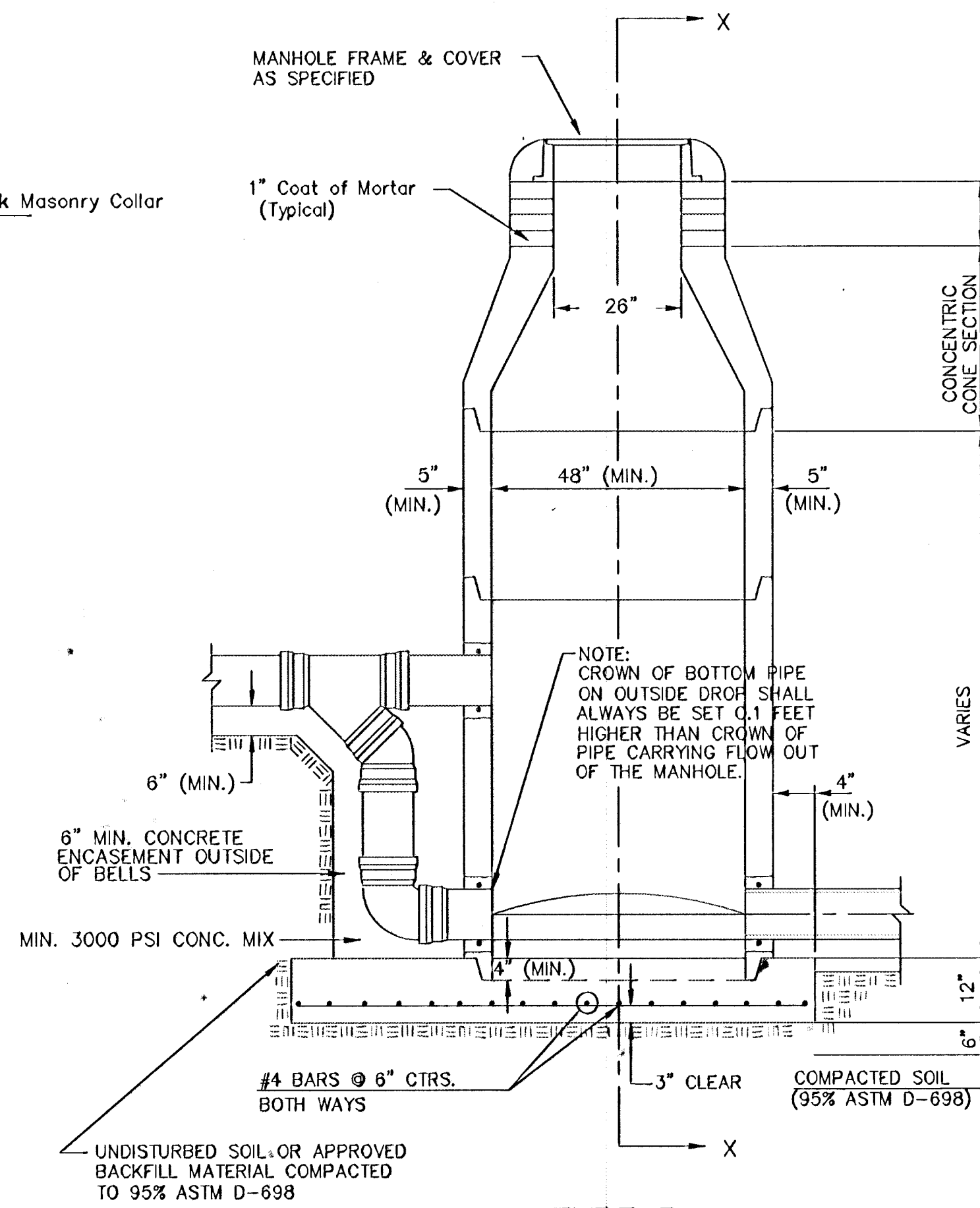
SEWER APPURTENANCES DETAILS



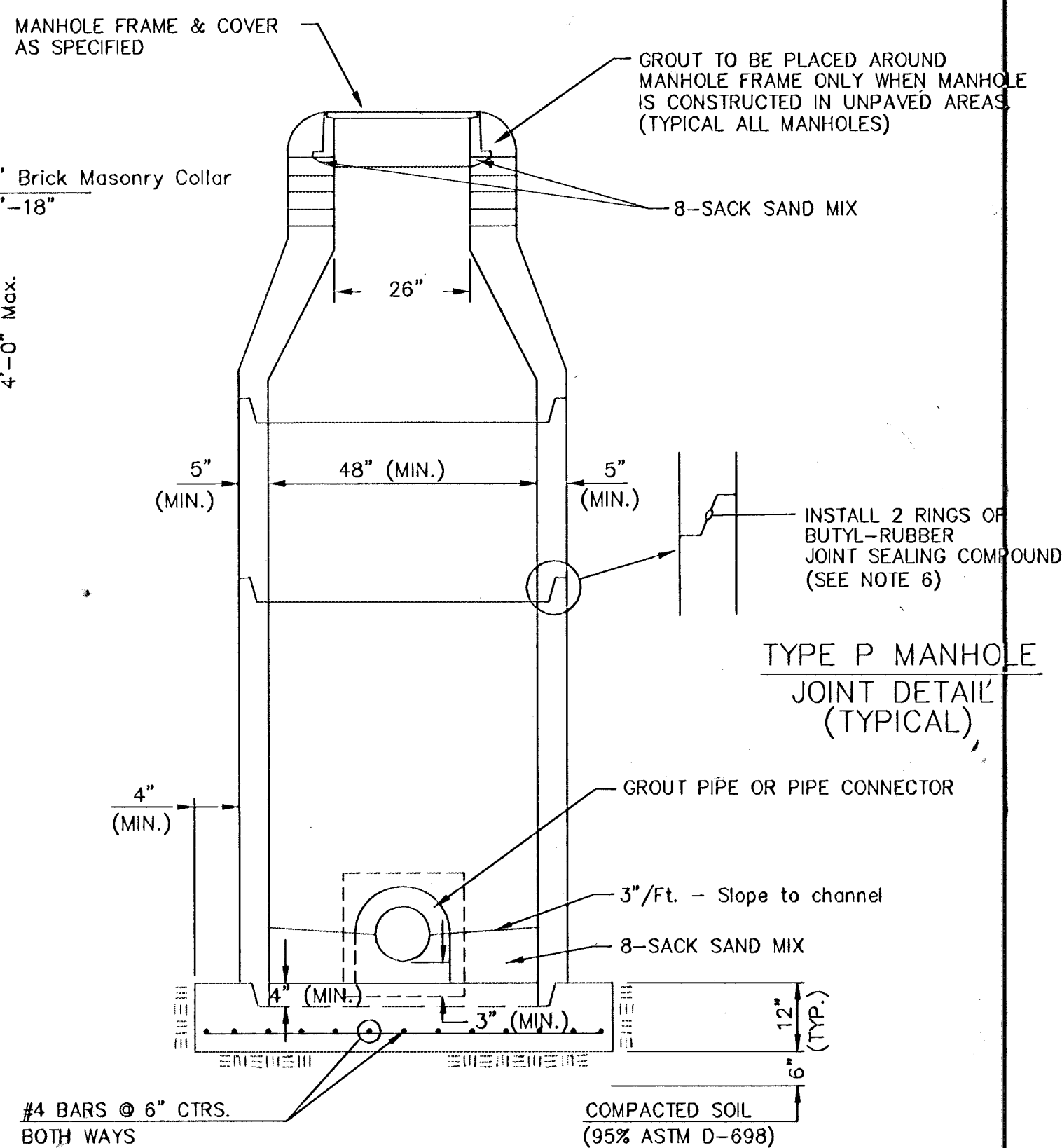
TYPE P
STANDARD MANHOLE



TYPE P
INSIDE DROP MANHOLE



TYPE P
OUTSIDE DROP MANHOLE



SECTION X
(TYPICAL)

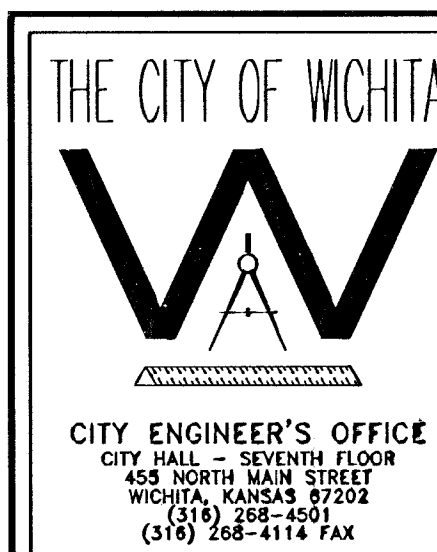
GENERAL NOTES

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 PIPE SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH NON-SHRINK GROUT 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 TNEDEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
- EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS 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 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.

- 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 OUTLET 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 MAHOLE. 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 2' 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. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.



CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4501
(316) 268-4114 FAX

STANDARD TYPE 'P' MANHOLES

M. E. LINDEBAK P.E. - CITY ENGINEER

PROJECT NUMBER
468-83198

QCA NO.
622232

DATE
MAR 2001

SHEET 6 OF 6