

NOTES

CONTRACTOR TO COORDINATE WITH KGE FOR ELECTRIC SERVICE FOR THE FUEL STATION.

SEE SH. NO. P4 FOR TYPICAL PRODUCT PIPING. PIPING FROM THE DISPENSER ISLANDS TO THE UNDERGROUND PRODUCT STORAGE TANK SHOULD BE ROUTED ABOVE THE EXISTING 24" RCP.

ALL CONDUITS SHALL BE INSTALLED WITH PULL WIRE.

MINIMUM SLOPES ON RAIN LEADERS SHALL BE 1/4" FT.

SEE GRADING PLAN FOR RAIN LEADERS ELEVATIONS.

Construct Standard Manhole on existing 18" RCP. Diameter=5', H=9'-10" Top Elev.=165.00. Remove existing 16" RCP at inside face of manhole wall. Slope Manhole top to match Proposed Pavement. Connect to 6" Rain Leader (R.L.) to 15" SWS (E&W) Elev.=155.102 (E&W) See Detail Sh. No. C8

Proposed 8" Water line with Fire hydrant to be installed under separate agreement.

UTILITY NOTES

- A. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRICAL, TELEPHONE AND WATER SERVICES WITH APPROPRIATE LOCAL UTILITY COMPANIES.
- B. CONTRACTOR SHALL INCLUDE ALL ASSOCIATED UTILITY CONNECTION EXPENSES INCLUDING: TAPS, METERS, POLES, ETC. IN SUBMITTED PRICE.
- C. SEE GENERAL NOTES ON SHEET NO. C1 FOR ADDITIONAL REQUIREMENTS.
- D. ALL ELECTRICAL WORK SHALL CONFORM TO ALL APPLICABLE NATIONAL ELECTRIC CODE SECTIONS. REFER TO SECTIONS 514 FOR REQUIREMENTS ASSOCIATED WITH GAS STATIONS.

KEY NOTES

- 1. INTERCEPT EXISTING CONDUIT AND REROUTE LIGHTING CIRCUIT WIRING AROUND NEW GAS RISKS CONSTRUCTION AREA IN 3/4" C. REPULL WIRING FROM LIGHTING POLE "CC" TO LIGHTING POLE "BB" AND RECONNECT.
- 2. INSTALL 3/4" SCH. 40 PVC WATER SERVICE LINE FROM WATER METER TO YARD HYDRANT. MAINTAIN 36" MINIMUM COVER. CONTRACTOR SHALL COORDINATE THE LOCATION AND SETTING OF WATER METER WITH LOCAL WATER COMPANY. AT LEAST 1 WEEK PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE WICHITA WATER DEPARTMENT TO SCHEDULE THE TAP TO THE EXISTING WATER MAIN, AND PAY THE REQUIRED FEES AND OBTAIN THE NECESSARY PERMIT.
- 3. INSTALL FROST PROOF YARD HYDRANT. SEE DETAIL SH. NO. C5.
- 4. INSTALL FREESTANDING AIR COMPRESSOR PROVIDED BY OWNER ON 6" THICK 4'X8' CONCRETE AIR COMPRESSOR MOUNTING PAD. PAD SHALL BE REINFORCED WITH #4 BARS @ 15" O.C. E.W. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- 5. PREFABRICATED CANOPY SYSTEM (TO BE INSTALL BY OTHERS) WHERE INDICATED ON PLAN. CONTRACTOR TO INSTALL FOOTINGS, CONDUITS, AND CONDUCTORS. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- 6. INSTALL PREFABRICATED KIOSK WHERE INDICATED ON PLAN. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- 7. INSTALL (2) 2" CONDUITS FROM KIOSK TO MANAGERS OFFICE INSIDE OF MAIN DILLONS FOOD STORE. ONE CONDUIT TO BE USED FOR SECURITY SYSTEM CABLES (FURNISHED AND INSTALLED BY OTHERS) AND CONDUCTORS FOR INTERCOM (FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR). THE OTHER CONDUIT SHALL BE USED FOR COMPUTER COMMUNICATION CABLE. COORDINATE WITH OWNER'S REPRESENTATIVE FOR EXACT LOCATION OF ENTRY POINT INTO SUPERMARKET. INSTALLATIONS OF THESE CONDUITS SHALL BE ACCOMPLISHED BY BOARING BETWEEN THE KIOSK AND THE POINT OF ENTRY TO SUPERMARKET BUILDING.

- 8. INSTALL 120/208 200 AMP THREE PHASE ELECTRIC SERVICE TO KIOSK POWER PANEL. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, (1) 4" CONDUIT AND BACKFILLING FROM POWER SOURCE INDICATED ON PLAN.
- 9. INSTALL (2) 3/4" CONDUITS FROM KIOSK TO FREE STANDING MONUMENT SIGN. ONE CONDUIT TO BE USED FOR AC CIRCUIT FOR PRICE SIGN LIGHTING AND A SEPARATE AC CIRCUIT FOR PRICE SIGN CONTROLLER MOUNTED ON BACK OF MONUMENT SIGN. THE OTHER CONDUIT TO BE USED FOR LOW VOLTAGE COMMUNICATION CABLE (FURNISHED WITH SIGN) TO SIGN CONTROLLER (FURNISHED WITH SIGN) MOUNTED ON BACK OF MONUMENT SIGN. CONTROL CABLE (FURNISHED WITH SIGN) CONNECTING THE PRICE SIGN TO THE SIGN CONTROLLER TO BE INSTALLED ON THE BACK OF MONUMENT SIGN.
- 10. INSTALL 3/4" CONDUIT FROM KIOSK TO AIR COMPRESSOR FOR AC CIRCUIT.
- 11. INSTALL I.D. SIGN. SEE DETAIL 5, SHEET A2.
- 12. INSTALL (2) 1" CONDUITS FROM KIOSK TO INSIDE OF CANOPY COLUMN CLOSEST TO KIOSK. ONE CONDUIT TO BE USED FOR AC CIRCUITS FOR CANOPY LIGHTING. THE OTHER CONDUIT TO BE LEFT EMPTY FOR USE BY THE SECURITY SYSTEM INSTALLATION CONTRACTOR.
- 13. INSTALL (2) 3/4" CONDUITS FROM KIOSK TO INSIDE OF CANOPY COLUMN CLOSEST TO CANOPY PRICE SIGN. ONE CONDUIT TO BE USED FOR AC CIRCUIT FOR PRICE SIGN LIGHTING AND A SEPARATE AC CIRCUIT FOR PRICE SIGN CONTROLLER MOUNTED ON CANOPY COLUMN. THE OTHER CONDUIT TO BE USED FOR LOW VOLTAGE COMMUNICATION CABLE (FURNISHED WITH SIGN) TO SIGN CONTROLLER (FURNISHED WITH SIGN) MOUNTED ON CANOPY COLUMN.
- 14. INSTALL 2 1/2" PVC CONDUIT FROM CANOPY COLUMN (INDICATED IN KEYNOTE #13) AT A POINT ABOVE CANOPY DECKING TO THE JUNCTION BOX ON THE BACK SIDE OF THE CANOPY PRICE SIGN FOR INSTALLATION OF THE CONTROL CABLE (FURNISHED WITH SIGN) CONNECTING THE PRICE SIGN TO THE SIGN CONTROLLER. TOTAL LENGTH OF CONDUIT SHALL NOT EXCEED 18'-0"
- 15. 3'-6" x 13'-0" PRICE SIGN MOUNTED ON CANOPY PER DETAIL 8, SHEET A2.
- 16. RELOCATE EXISTING POLE AND FIXTURES AS SHOWN ON PLAN. REMOVE EXISTING POLE BASE.
- 17. INTERCEPT EXISTING CONDUIT AND EXTEND RELOCATED POLE "CC". REPULL WIRING FROM EXISTING POLE "CC" TO RELOCATED POLE. FIELD VERIFY WIRING REQUIREMENTS.
- 18. INTERCEPT EXISTING CONDUIT AND EXTEND TO RELOCATED POLE "CC". REPULL WIRING FROM POLE "CC" TO POLE "EE". FIELD VERIFY WIRING REQUIREMENTS.

SCALE: 1"=20'

Benchmark: South side of Central 300' West of Rock Road. Elev.= 166.30

REVISIONS	
NO.	DESCRIPTION
1	REVISED CANOPY SIGN LOCATION
2	ADDED SCREENING SHRUBS
3	CHANGED PRODUCT STORAGE TANK SIZE

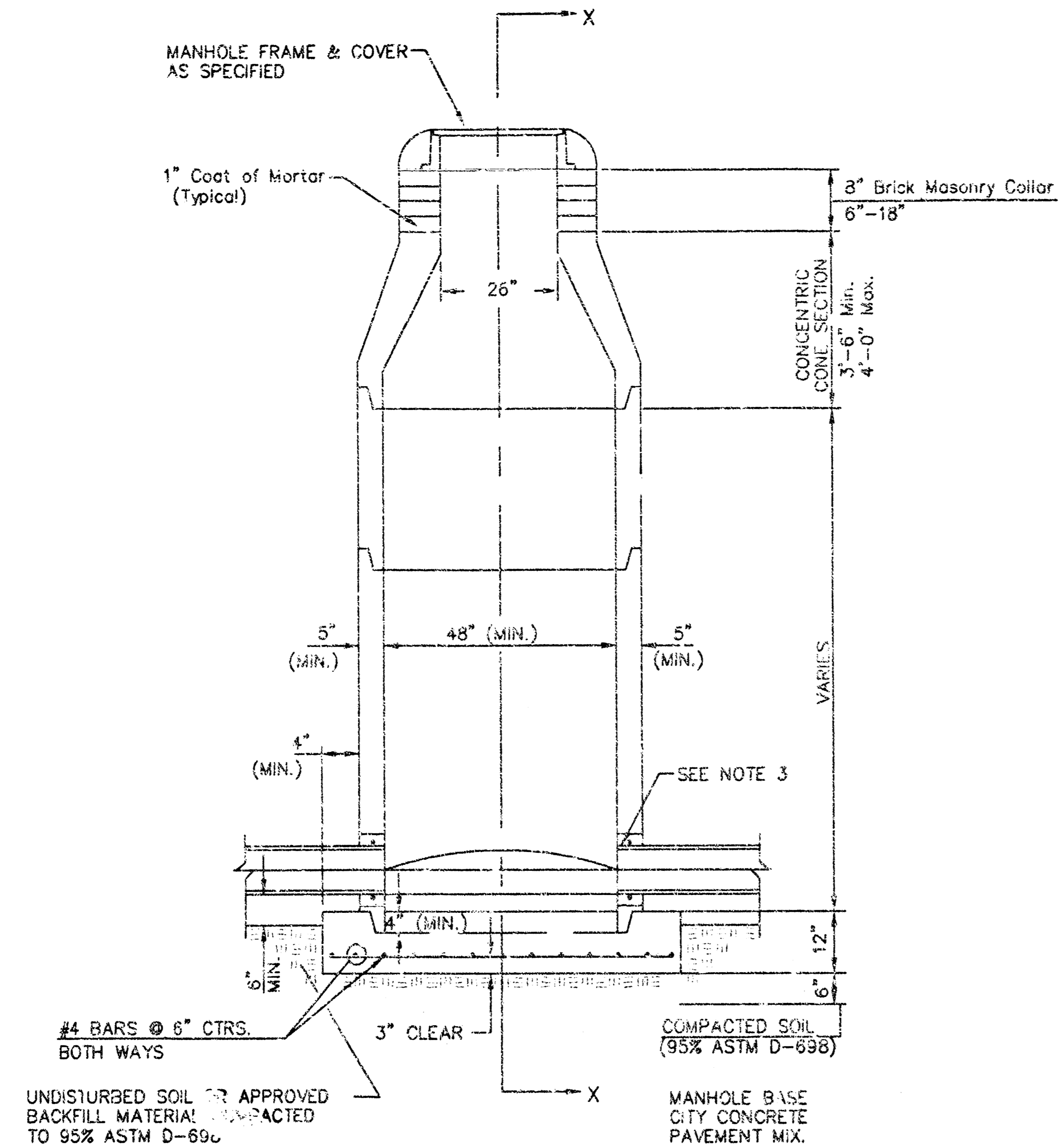
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Designed By:	ERC, KER
Drawn By:	DEP
Checked By:	
Date:	OCTOBER 20, 2000
Scale:	1"=40'
Disk File:	
Model:	
Address:	1707 E. CENTRAL WICHITA, KANSAS

UTILITY & SITE PLAN

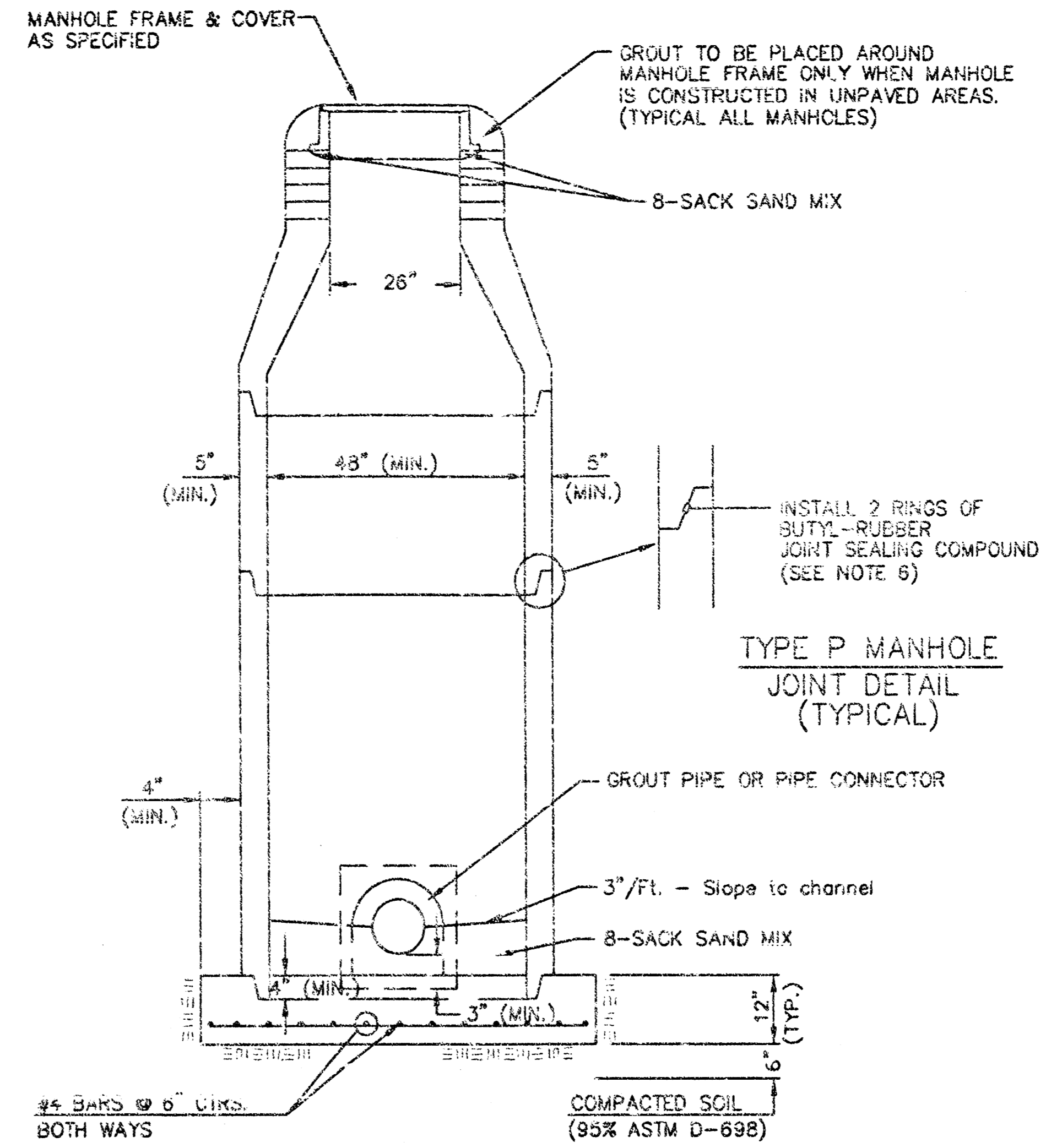
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SEWER APPURTENANCES DETAILS



TYPE P STANDARD 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 TNEDEC SERIES 66 HI-BUILD EPOXYLINE, 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 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 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.

REVISIONS

No.	DESCRIPTION	DATE

Project #:	36-00477-0645
Designed By:	GRC, KER
Drawn By:	YER, SAD
Checked By:	
Date:	NOVEMBER 3, 2000
Scale:	NA
Disk File:	
Model:	

Address: 7707 E. CENTRAL WICHITA, KANSAS

STANDARD TYPE "P" MANHOLES
Drawing No. C8

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