GENERAL NOTES:

1. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF TWENTY-FOUR (24) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

   KANSAS ONE-CALL 1-800-344-7233

   THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF EMERGENCY:

KANSAS GAS & ELECTRIC	GAS:	1-316-261-6734
SOUTHWESTERN BELL TELEPHONE COMPANY		1-316-268-2222
CITY OF WICHITA WATER DEPARTMENT		1-316-265-1300
CITY OF WICHITA SEWER MAINTENANCE		1-316-268-4071

2. THE CONTRACTOR SHALL BE RESPONSIBILE FOR PRESERVING PROPERTY PINS. THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY PINS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH PINS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

3. 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 COMPANIES AND IS EITHER FROM COMPANY UTILITY DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.

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 ARCHEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW 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 MOUNDED AROUND MANHOLES WHICH EXTEND MORE THEN 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 MAINS OR MANHOLES, THE CONTRACTOR SHALL EXPOSE AND VERIFY THE ELEVATION, GRADE AND ALIGNMENT OF EXISTING 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.

10. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED BACK TO ORIGINAL GROUND LINE, SEEDED AND MULCHED.

11. ALL WORK TO BE DONE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD SPECIFICATIONS AND DETAILS..

SANITARY SEWER PLANS TO SERVE BRAUM'S ICE CREAM DEVELOPMENT

PRIVATE PROJECT NO. 553PPS
INDEX CODE : 607861
MICHAEL E. LINDEBAK, P.E. – CITY ENGINEER
CITY OF WICHITA
SEDGWICK COUNTY, KANSAS

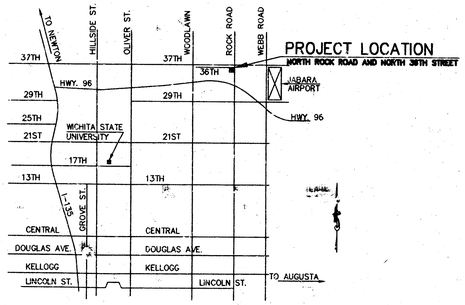
APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA
SANITARY SEWERS VRH 5/11/95

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 SHEETS:

1. TITLE SHEET
2. SANITARY SEWER – PLAN & PROFILE



NOT TO SCALE

VICINITY MAP

BENCHMARKS:

CHISELED "X" IN SIDEWALK AT THE NORTHEAST CORNER OF LOT 2, BLOCK 1, COMOTARA POWER CENTER, AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS.
ELEV = 200.27(C.O.W. DATUM)

CHISELED "X" IN SIDEWALK APPROX. 610 FEET WEST OF THE NORTHEAST CORNER OF LOT 2, BLOCK 1, COMOTARA POWER CENTER, AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS.
ELEV = 192.65(C.O.W. DATUM)

CITY OF WICHITA DATUM = U.S.G.S.–1187.4

Booked 1-19-96 JKB From As Builts

CONTACT PERSONS:

SAMUEL D. MALINOWSKY, P.E., KAW VALLEY ENGINEERING, INC. 913-762-5040

APRIL, 1995

SAMUEL D. MALINOWSKY
PROFESSIONAL ENGINEER

ASBUILT 12/13/95 JFB

NO.	DATE	REVISION	BY
1	4-24-95	REVISED SAN. MH LOCATION AND FL OF 4" STUB PER C.O.W.	JT

TITLE SHEET – SANITARY SEWER PLANS

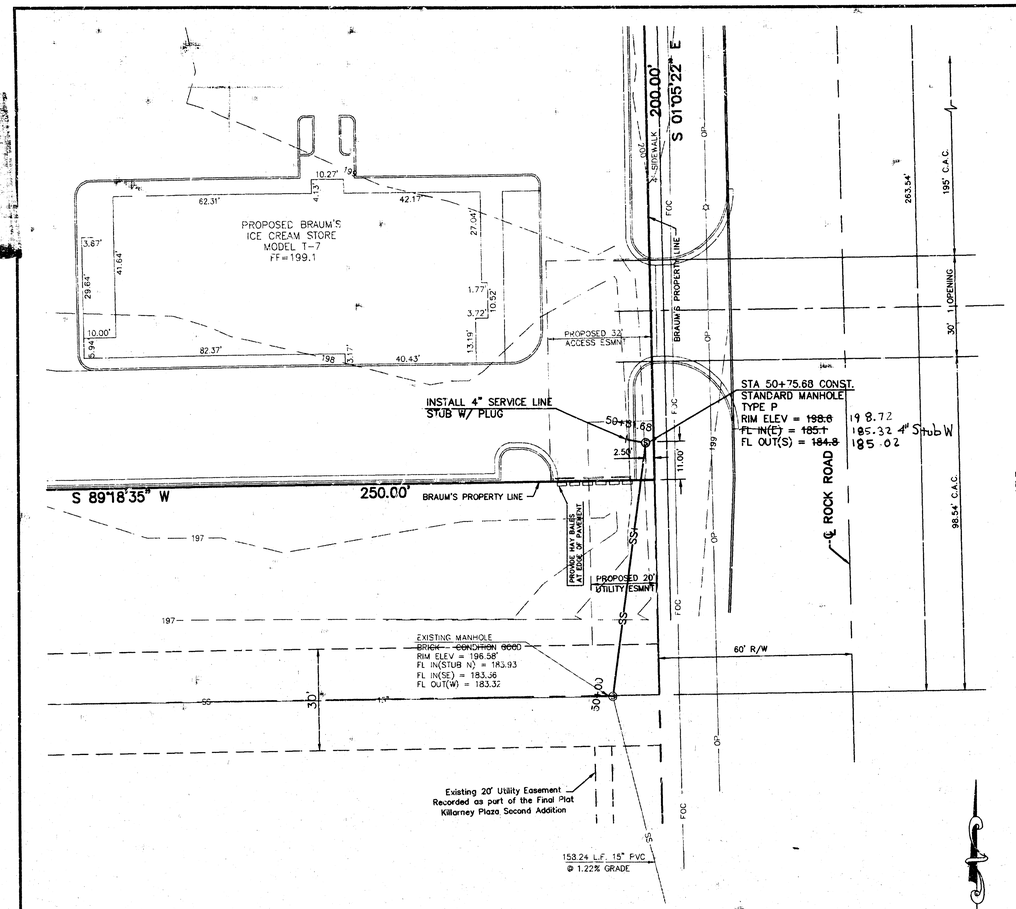
P.O. BOX 1304
2319 NORTH JACKSON
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FAX 913-762-7744

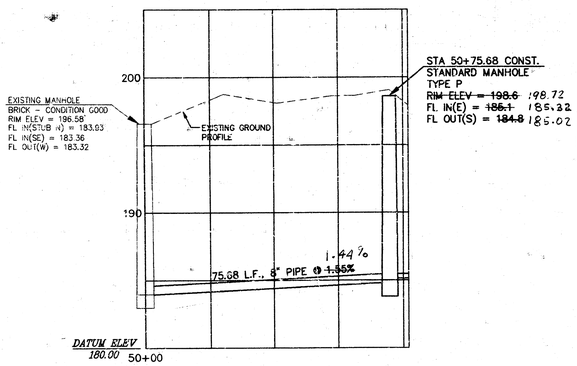
KAW VALLEY ENGINEERING, INC

122 N.W. PARKWAY
RIVERSIDE, MISSOURI
64150
(816)587-5033
FAX 816-587-0129

PROJ. NO.	95-1683
DATE	APR 14, 1995
DESIGNER	SDM
DRAWN BY	JT
CHECKED BY	SDM
CFN	1683TTLS
SHEET	1 OF 2

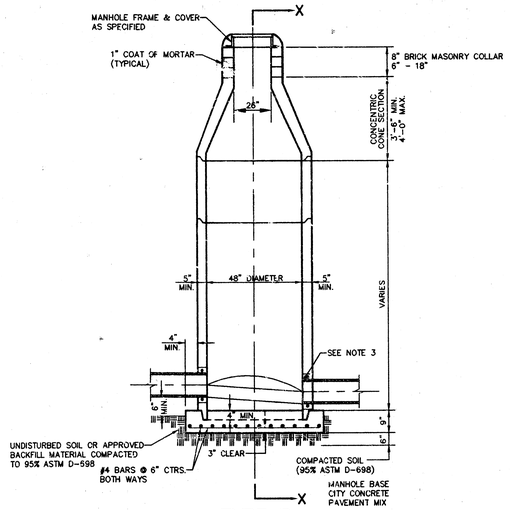
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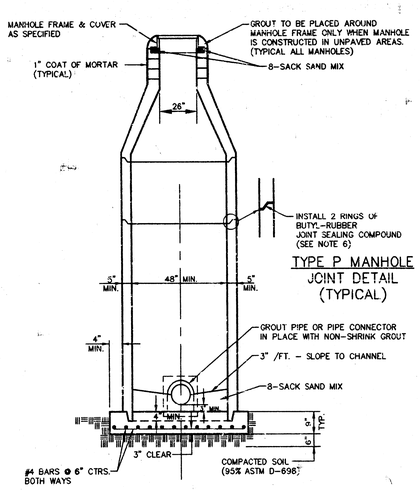


SCALE:
PLAN: 1" = 20'
PROFILE: 1" = 20' HORIZ.
1" = 5' VERT.

NOTE: BUILDING FOOTPRINT AND ONSITE CURB & GUTTER IS FOR INFORMATION ONLY. IT IS NOT A PART OF THIS PROJECT.



TYPE P
STANDARD MANHOLE



TYPE P MANHOLE
JOINT DETAIL
(TYPICAL)

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 P.V.C. 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 WALL SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS 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 INCHES SHALL HAVE AN INSIDE DIAMETER OF 4 FEET. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24 INCHES OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5 FEET. 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 6 INCH CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3 INCHES ABOVE THE BOTTOM OF THE MANHOLE BASE.

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 NON-SHRINK 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.

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.

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 FEET. THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.

17. A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8 INCH WALLS AND A VERTICAL HEIGHT OF 6 INCHES MINIMUM AND 18 INCHES MAXIMUM. A 1 INCH COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR.

18. MANHOLE RIMS NOT IN PAVED AREAS ARE TO BE 0.4' ABOVE FINISHED GROUND.

ALL ELEVATIONS SHOWN ARE IN U.S.G.S. DATUM. SUBTRACT 1187.4 TO ATTAIN CITY OF WICHITA DATUM.

BENCHMARK #1: CHISELED "X" IN SIDEWALK AT THE NORTHEAST CORNER OF LOT 2, BLOCK 1, COMOTARA POWER CENTER, AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS.
ELEV. = 200.27

BENCHMARK #2: CHISELED "X" IN SIDEWALK APPROX. 610 FEET WEST OF THE NORTHEAST CORNER OF LOT 2, BLOCK 1, COMOTARA POWER CENTER, AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS.
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AS BUILT 12/13/95 JFB

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SANITARY SEWER - PLAN & PROFILE

PROJ. NO.	95-1683
DATE	APR 14, 1995
DESIGNER	SDM
DRAWN BY	JT
CHECKED BY	SDM
CFN	1683SAN
SHEET	2 OF 2

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