TARGET

WICHITA, KANSAS

T-1943 Wichita Far West

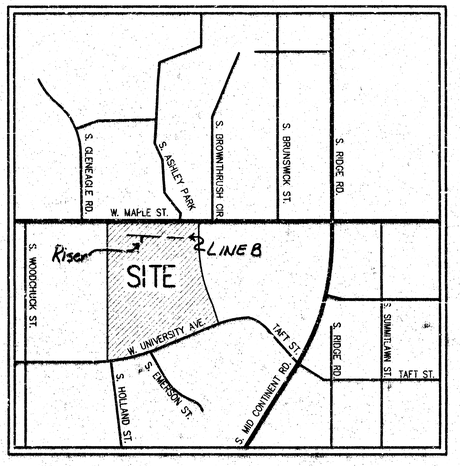
SANITARY SEWER FOR ASHLEY TOWNE CENTRE ADDITION

CITY OF WICHITA PRIVATE PROJECT NO. ~~1410~~ 1409PPS (607861)

Neil D. Cable, P.E. - City Engineer

GENERAL NOTES

1. ALL IMPROVEMENTS WITHIN CITY RIGHTS OF WAYS, WATER AND SANITARY SEWER TO CONFORM TO CITY OF WICHITA STANDARD SPECIFICATIONS.
2. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, REGULATIONS, AND ORDINANCES.
3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, REPAIRING, OR REPLACING ALL EXISTING UTILITIES AND IMPROVEMENTS DURING CONSTRUCTION.
4. ALL ON-SITE IMPROVEMENTS SHALL CONFORM TO THE SPECIFICATIONS MADE A PART OF THESE CONSTRUCTION DRAWINGS.
5. THE SIZE, TYPE, LOCATION, AND NUMBER OF ALL KNOWN UNDERGROUND UTILITIES ARE APPROXIMATE WHEN SHOWN ON THE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES IN THE AREA OF THE WORK. BEFORE COMMENCING NEW CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR ALL UNKNOWN UNDERGROUND UTILITIES.
6. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL UTILITIES TO COORDINATE SCHEDULES.
7. THESE DOCUMENTS ARE INSTRUMENTS OF SERVICE PROVIDED BY KIMLEY-HORN AND ASSOCIATES, INC. AND SHALL NOT BE REPRODUCED OR IN ANY WAY USED BY ANYONE WITHOUT PRIOR WRITTEN APPROVAL FROM KIMLEY-HORN AND ASSOCIATES, INC.
8. THESE DOCUMENTS ARE NOT TO BE USED FOR ANY CONSTRUCTION UNLESS SIGNED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER IN THE EMPLOY OF KIMLEY-HORN AND ASSOCIATES, INC. THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE APPROVED PLANS.
9. SURVEY INFORMATION, TOPOGRAPHIC CONTOURS AND OTHER EXISTING FEATURES WAS PROVIDED BY OTHERS. KIMLEY-HORN AND ASSOCIATES, INC. CANNOT BE HELD LIABLE FOR ANY INACCURACY IN THE SURVEY INFORMATION.
10. SOILS ENGINEERING, PAVEMENT DESIGN, SLOPE AND ROAD BED STABILIZATION, RETAINING WALLS, AND SUBGRADE IMPROVEMENTS HAVE BEEN PROVIDED BY OTHERS. SEE RECOMMENDATIONS AND SPECIFICATIONS BY SOILS ENGINEER.
11. A PRE-CONSTRUCTION MEETING INVOLVING THE CONTRACTOR, THE ENGINEER, THE OWNER, AND CITY OF WICHITA SHALL BE HELD PRIOR TO THE START OF ANY ROADWAY AND/OR UTILITY CONSTRUCTION. THE CONTRACTOR WILL BE REQUIRED TO NOTIFY THE OWNER AND THE ENGINEER OF THE DATE HE INTENDS TO START CONSTRUCTION.
12. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
13. THE CONTRACTOR IS ADVISED THAT OTHER CONTRACTORS MAY BE WORKING IN THE AREA OF THIS PROJECT. THE CONTRACTOR WILL BE REQUIRED TO COORDINATE HIS WORK WITH SAID CONTRACTORS. ALL COSTS INCIDENTAL TO THIS REQUIREMENT SHALL BE INCLUDED IN THE ORIGINAL CONTRACT PRICE FOR THE PROJECT.
14. SHEETING AND BRACING: THE SIDES OF ANY EXCAVATION OVER FIVE FEET DEEP (OR AT DEPTHS THAT WILL INTRODUCE CAVING) SHALL BE SUPPORTED BY ADEQUATE SHORING. ALL EXCAVATION, TRENCHING AND SHORING SHALL BE IN STRICT COMPLIANCE WITH APPLICABLE OSHA RULES AND REGULATIONS.
15. FOR STORM SEWER CULVERTS, LOCATION OFFSETS ARE MEASURED TO UPSTREAM OR DOWNSTREAM END OF FLARED END SECTION.
16. THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK.
17. ALL TRAFFIC CONTRCL SHALL FOLLOW MUTCD STANDARDS.
18. CLEAN-UP AND RESTORATION: RESTORE ALL PAVEMENTS, CURBS AND GUTTERS, SIDEWALKS, UTILITIES, FENCES, YARDS, LAWNS, AND OTHER STRUCTURES (OR SURFACES AFFECTED BY CONSTRUCTION) TO CONDITION EQUAL TO OR BETTER THAN BEFORE WORK BEGAN AND TO SATISFACTION OF THE ENGINEER, AUTHORITY HAVING JURISDICTION, AND PROPERTY OWNER. REMOVE AND DISPOSE OF ALL WASTE MATERIAL OFF-SITE. GENERAL CLEAN-UP OF THE AREA SHALL BE PERFORMED ON A DAILY BASIS TO THE SATISFACTION OF THE ENGINEER. PROPER SAFETY PROVISIONS SHALL BE MAINTAINED UNTIL COMPLETION OF WORK.
19. CONTRACTOR SHALL CLEAN ALL STREETS AFFECTED BY THIS CONSTRUCTION FOR THE ENTIRE WIDTH OF THE STREET.
20. ALL DIMENSIONS AND ELEVATIONS ARE TO FLOWLINE UNLESS NOTED OTHERWISE.



VICINITY MAP

NOT TO SCALE

SHEET NO.	SANITARY SEWER	REVISIONS 1	2	3	4	5
		11/11/03	11/20/03	1/27/04		
C6.0	SANITARY SEWER COVER SHEET	●	●	●		
C6.1	SANITARY SEWER PLAN AND PROFILE LINE A	●	◕			
C6.2	SANITARY SEWER PLAN AND PROFILE LINE B	●	●	●		
C6.3	SANITARY SEWER DETAILS	●	●	●		

Utility Contractors, Inc.- Contractor
Brandon Bohannon - KE Miller - Inspector
Riser
As-Built 10/13/04 Per Plans
Released 11/9/04
.pdf by JDL 11/16/04

CONTACTS

OWNER:

TARGET
1000 NICOLLET MALL, TPN-12F
MINNEAPOLIS, MINNESOTA 5540
TEL: (612) 761-5201
FAX: (612) 761-3727
CONTACT: JANA BEAN

CIVIL ENGINEER:

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DENVER, COLORADO 80202
TEL: (303) 228-2300
FAX: (303) 446-8678
CONTACT: SAMUEL B. SOURS, P.E.

LANDSCAPE ARCHITECT:

MCCLUGGAGE, VANSICKLE AND PERRY
125 S. WASHINGTON
WICHITA, KS 67202
TEL: (316) 262-0451
FAX: (316) 262-5465
CONTACT: DUSTIN RANDOLPH

LAND SURVEYOR:

SHAFER, KLINE & WARREN, INC.
11100 WEST 91ST STREET
OVERLAND PARK, KANSAS 66214
TEL: (913) 888-7800
FAX: (913) 888-7868
CONTACT: SCOTT D. CONFER

CITY ENGINEER'S OFFICE:

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455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
TEL: (316) 268-4501
FAX: (316) 268-4114

CITY WATER & SEWER DEPARTMENT:

CITY HALL - EIGHTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
TEL: (316) 268-4555
FAX: (316) 268-4514

AS-BUILT
10/13/04
Date
Signed

APPROVED AS NOTED
By CITY ENGINEER OF WICHITA

Sanitary Sewers VRH 1/30/04

Storm Sewers

Driveway Approaches

Water Mains

Paving

NOTE TO CONTRACTOR

INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSES 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.

NO.	REVISIONS	NAME	DATE
3	CITY OF WICHITA-FINAL SUBMITTAL	KHA	1/27/04
2	CITY OF WICHITA, KS-SUBMITTAL	KHA	11/20/03
1	TARGET C.P.R.	KHA	11/11/03

Kimley-Horn and Associates, Inc.
Engineering, Planning, and Environmental Consultants
950 Seventeenth Street, Suite 1050
Denver, Colorado 80202 (303) 228-2300

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DRAWN BY: ALY
DESIGNED BY: CRF
CHECKED BY: CRF
DATE: 11/11/03

TARGET T-1943
SANITARY SEWER CONSTRUCTION FOR ASHLEY TOWNE CENTRE ADDITION
CITY OF WICHITA PRIVATE PROJECT NO. 1409PPS (607861)

SANITARY SEWER COVER SHEET

SAMUEL B. SOURS 23755 1/27/04 KANSAS PROFESSIONAL ENGINEER

PROJECT NO.
066333000

DRAWING NAME
20CSAN-COV

SHEET NUMBER
C6.0

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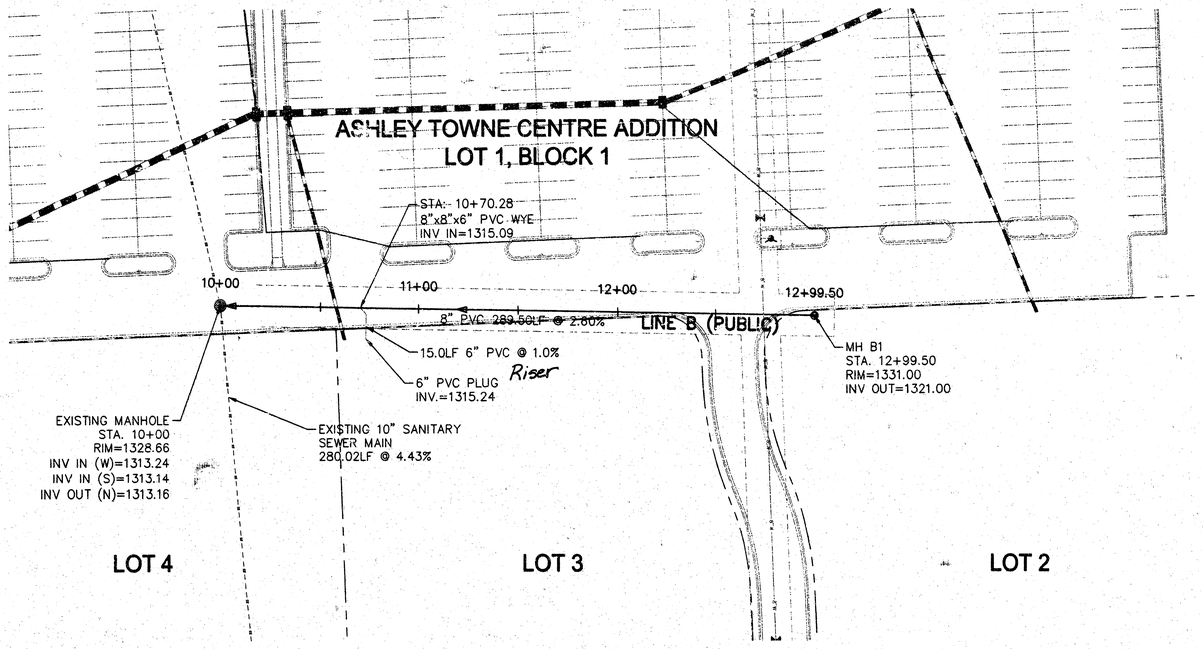
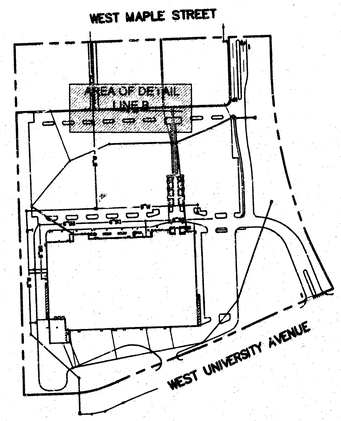


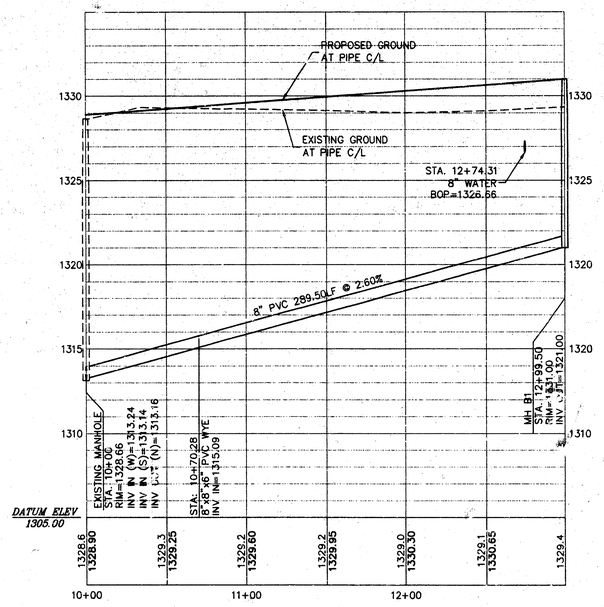
NORTH

GRAPHIC SCALE

40 0 20 40 80
FT.



KEYMAP
N.T.S.
NORTH



SANITARY LINE B (PUBLIC)

VERTICAL SCALE @ 24"x36" SHEET SIZE: 1"=4'

NO.	REVISIONS	NAME	DATE
3.	CITY OF WICHITA-FINAL SUBMITTAL	KHA	1/27/04
2.	CITY OF WICHITA, KS-SUBMITTAL	KP*	11/20/03
1.	TARGET C.P.R.	KHA	11/11/03

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DRAWN BY: ALY
DESIGNED BY: RJP
CHECKED BY: CRF
DATE: 11/11/03

TARGET T-1943

SANITARY SEWER CONSTRUCTION FOR ASHLEY TOWNE CENTRE ADDITION
CITY OF WICHITA PRIVATE PROJECT NO. 1408PPS (607061)

SANITARY SEWER PLAN & PROFILE LINE B

SAMUEL C. CRAIN
17655
10/27/04
KANSAS
PROFESSIONAL ENGINEER

PROJECT NO.
068033000

DRAWING NAME
20CSAN

SHEET NUMBER
C6.2

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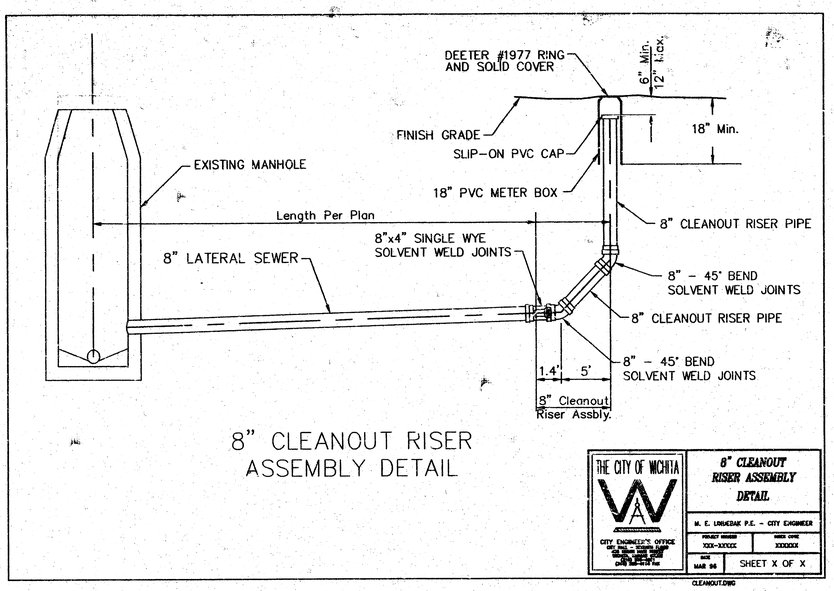


8" CLEANOUT RISER ASSEMBLY DETAIL

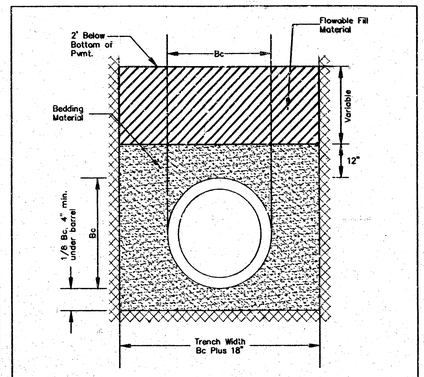
THE CITY OF WICHITA — CITY ENGINEER'S OFFICE

8" CLEANOUT RISER ASSEMBLY DETAIL

M. E. LINDEBAK P.E. – CITY ENGINEER

PROJECT MANAGER	INDEX CODE
XXX-XXXXX	XXXXXX
DATE: MAR 96	SHEET X OF X

CLEANOUT.DWG

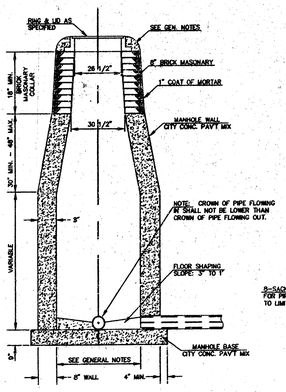


Detail Of Flowable Fill For Sanitary Sewer Pipe & Water Lline.

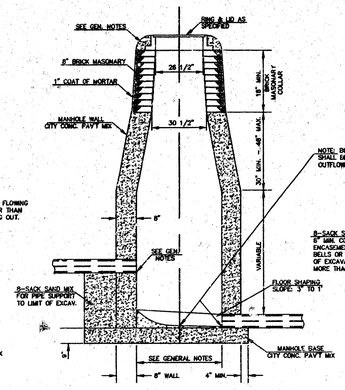
Rev: 5-19-2000

SEWER APPURTENANCES DETAILS

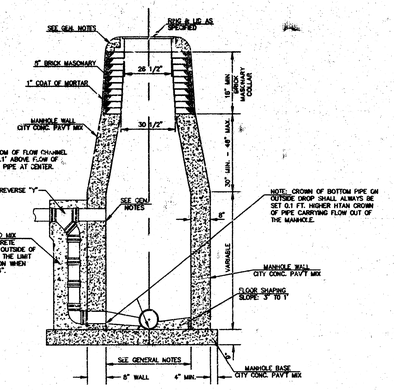
STANDARD MANHOLE TYPE "C"



INSIDE DROP MANHOLE TYPE "C"



OUTSIDE DROP MANHOLE TYPE "C"



GENERAL NOTES

1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE WALLS AND 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. TYPE "C" MANHOLES CAN BE CONSTRUCTED ONLY WHERE PIPE SIZES ARE 8" OR SMALLER. THE INSIDE DIAMETER OF TYPE "C" MANHOLES SHALL BE 4'. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASE. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. REINFORCING STEEL SHALL BE PLACED 6" ABOVE THE BOTTOM OF THE MANHOLE BASE. COST OF FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
3. AN OPENING SHALL BE CUT IN THE MANHOLE WALL FOR THE UPPER INLET PIPE FOR INSIDE AND OUTSIDE DROP MANHOLES. THE UPPER INLET PIPE SHALL BE GROUTED INTO THIS OPENING WITH NON-SHRINK GROUT. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT.
4. 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" 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.
5. 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.
6. 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.
7. 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.
8. STANDARD MANHOLES TYPE "C" AND STANDARD INSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.

THE CITY OF WICHITA — CITY ENGINEER'S OFFICE

TYPE "C" MANHOLES

M. E. LINDEBAK P.E. – CITY ENGINEER

PROJECT MANAGER	INDEX CODE
XXX-XXXXX	XXXXXX
DATE: MAR 96	SHEET X OF X

TYP-CMH.DWG

NO.	REVISIONS	BY	DATE
1	TARGET C.O.P.R.	KHA	11/11/03
2	CITY OF WICHITA, KS-SUBMITTAL	KHA	11/20/03
3	CITY OF WICHITA-FINAL SUBMITTAL	KHA	1/27/04

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DRAWN BY: ALY
DESIGNED BY: CRF
CHECKED BY: CRF
DATE: 11/11/03

TARGET T-1943

SANITARY SEWER CONSTRUCTION FOR ASHLEY TOWNE CENTRE ADDITION
CITY OF WICHITA PRIVATE PROJECT NO. 1408PPG (607861)

SANITARY SEWER DETAILS

SAMUEL B. SCHUE — NUMBER 17655 — STATE OF KANSAS — PROFESSIONAL ENGINEER

PROJECT NO. 066033000
DRAWING NAME 20CSAN-DET
SHEET NUMBER C6.3

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