SANITARY SEWER REPAIR

AT ST. FRANCIS HOSPITAL

MURDOCK PROJECT SANITARY SEWER

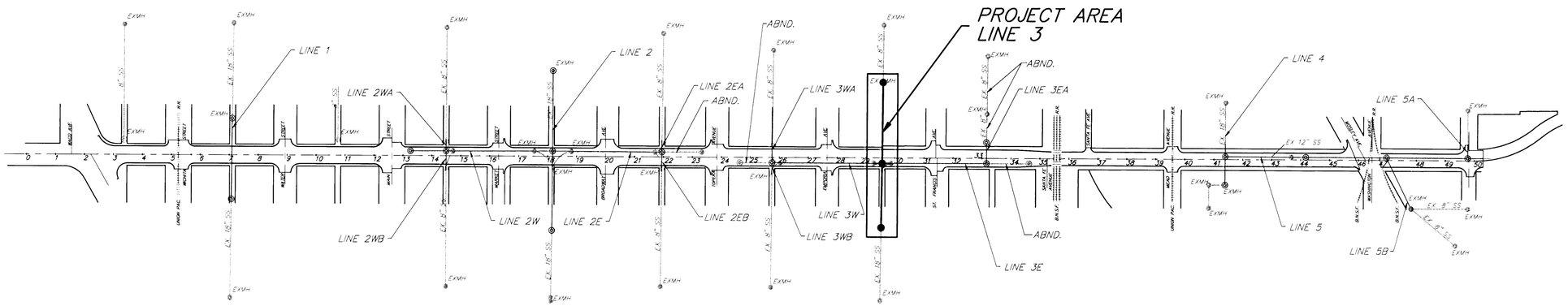
Project No.

468-76-245-82707

Index Code

621854

1" = 200'



BENCHMARKS

BM #1 – Little Arkansas River & Murdock, Brass Cap on Walk, NW Corner of Bridge, Stamped Elev. 1306.22 MSL
Use Elev. = 1306.38' MSL

BM #2 – "□" On Top of Brick Ledge on the NW Corner of Bldg. #744 No. Waco, @ Sta. 4+34.5, 38' Rt., of the Centerline of Murdock.
Elev. = 117.18' City Datum

BM #3 – "□" Cut on Top Curb Located in Fire Station Parking Lot, @ Sta. 9+32.5, 62.5'± Rt, of the Centerline of Murdock.
Elev. = 115.25' City Datum

BM #4 – Southwest Corner Concrete Retaining Wall (130 E. Murdock), @ Sta. 15+35.5, 58'± Lt., of the Centerline of Murdock.
Elev. = 115.99 City Datum.

BM #5 – "□" Cut on Top of Curb, Quik Trip Parking Lot, @ Sta. 20+83.5, 41.0'± Rt., of the Centerline of Murdock.
Elev. = 114.60 City Datum.

BM #6 – "□" Cut on Top of Concrete Located @ NE Corner of Murdock & Emporia @ Sta. 28+16.5, 54'± Lt., of the Centerline of Murdock. (Bldg. #818)
Elev. = 115.13 City Datum.

BM #7 – RR Spike in Power Pole (south side) @ Sta. 35+32, 44'± Lt., of the Centerline on Railroad R/W.
Elev. = 116.59 City Datum

BM #8 – "□" Cut on Top of Concrete Water Meter Vault, North Side @ Sta. 40+13.5, 39'± Rt., of the Centerline of Murdock.
Elev. = 113.58' City Datum

BM #9 – "□" Cut on NE Corner of Concrete Slab (Base for Commercial Gas Meter) @ Sta. 45+48.5±, 41.8'± Rt., of the Centerline of Murdock.
Elev. = 113.40' City Datum

BM #10 – "+" Cut on SW Corner of Murdock Industrial Addition (NE Corner of Murdock & Wabash)
Elev. = 112.06' City Datum

SHEET INDEX

1. Title Sheet
2. General Notes
3. Plan & Profile Sheet
4–6 Manhole Details

BRENT WOOTEN LICENSED 8470 KANSAS PROFESSIONAL ENGINEER

OCTOBER, 1997

CITY OF WICHITA, KANSAS

Michael E. Lindebak City Engineer

BAUGHMAN COMPANY P. A.
ENGINEERING & SURVEYING
316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

GENERAL NOTES

1. Interurban traffic generated outside the project area and local business traffic generated within the project area is to be carried through construction.

2. Utility service lines, poles, valve boxes, meters, and etcetera 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.
   Contractor will be required to provide a minimum advance notice of forty-eight (48) hours to utility companies prior to excavation or working adjacent to utilities.
   The following numbers are provided:

Kansas One-Call	687-2470
Cablevision	262-4270
or	263-2061
K.P. L. Gas Service Company	383-8650
Kansas Gas & Electric Company	383-8600
Peoples Natural Gas Co.	942-8350
Southwestern Bell Telephone Company	1-571-2611
City of Wichita Water Department	268-4908
City of Wichita Sewer Maintenance	268-4071

3. The bid item "L.F. Pavement Removal & Replacement" shall INCLUDE all Marking, Sawcutting, Removal, Disposal as well as all Temporary & Permanent Pavement Replacement. Temporary Pavement may be installed within the ROW lines of Murdock and shall be 6" min. A.C. (4" bit. base) Permanent Pavement shall match existing type outside the Murdock Street ROW and shall be installed as per City Specs. Prior to the let date of the project, each bidder shall visit the site and fully inform himself as to the type of pavement to be replaced as well as other preexisting conditions.

4. All Project waste including pavement, piping, manholes 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 archaeological investigations unless buried in a previously approved borrow location.

5. The City of Wichita's Sewer Maintenance Division of the Department of Water and Water Pollution Control has televised sewers within the limits of the project. Tapes are available for inspection by the Contractor during normal office hours at the Sewer Maintenance Division's office at City Hall. The Contractor shall be responsible for reconnecting active lines to the new main. Connections to active service lines shall be paid for at the unit price bid for said items.

6. 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.

7. The City of Wichita Water Department shall field locate water valves one time during construction when requested by the Contractor. It shall be the 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.

8. Lines shown on the plan to be abandoned in place shall be plugged at each end. Lines greater than 15" in Dia. shall be filled with sand or grout and plugged at each end. Sand or grouting abandoned lines shall not be paid for directly but shall be considered INCIDENTAL to the bid item "Pipe Abandoned In Place"

9. In locations where new pipe is to be directly connected to existing pipe, connections shall be made with "Fernco Couplings" or equivalent, approved plastic - clay couplers.

10. The Contractor shall give all property owners and/or tenants of developed property abutting the project limits a minimum of ten (10) days advance notice prior to start of construction.

11. By-Pass pumping to maintain sewage flow shall not be paid for directly, but shall be considered INCIDENTAL to other items in the bid.

12. Removal of Observation Holes shall not be paid for directly, but shall be considered INCIDENTAL to the unit price bid item "L.F. Pipe Removed".

13. The Contractor shall comply with all applicable safety regulations

14. The Contractor shall provide a minimum of One (1) lane of traffic open in each direction along Murdock at all times. Additional lanes of traffic shall be opened as stages of the project progress. Construction Traffic Control signs shall be in accordance with the latest revision of the Manual on Uniform Traffic Control Devices.

15. The Contractor shall note that some manholes were not accessible during the design stages of this project and that top and flow elevations are derived from City Record.

16. The Contractor shall be aware that many of the existing sanitary sewer lines conflict with the existing storm sewer lines, and that extreme caution must be taken in locations where the storm sewer system is to remain active during sanitary sewer construction.

17. Existing Manhole Frames & Covers may be reused if deemed in good condition by the Engineer. Rings and covers not reused but in salvageable condition shall be cleaned and delivered to the City Maintenance Yard.

18. The Contractor shall be responsible for maintaining continuous flow of sewage during construction. Contractor shall submit a detailed schedule to the Engineer prior to construction detailing the methods to be used for maintaining sewage flow.

MURDOCK SANITARY SEWER REPLACEMENT
GENERAL NOTES

BAUGHMAN COMPANY P. A.
ENGINEERING & SURVEYING
316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER 468-76-245-82707

SHEET 2 OF

DESIGN	DRAWN	UTIL. CHECK'D	DATE	SCALE
JFB	JFB		10/97	None

ZIMAUZ\NOTEPAGE

BENCHMARKS

BM #6 – "□" Cut on Top of Concrete Located @ NE Corner of Murdock & Emporia @ Sta. 28+16.5, 54'± Lt., of the Centerline of Murdock. (Bldg. #818)
Elev. = 115.13' City Datum.

BM #7 – RR Spike in Power Pole (south side) @ Sta. 35+32, 44'± Lt., of the Centerline on Railroad R/W.
Elev. = 116.59' City Datum

NOTES:

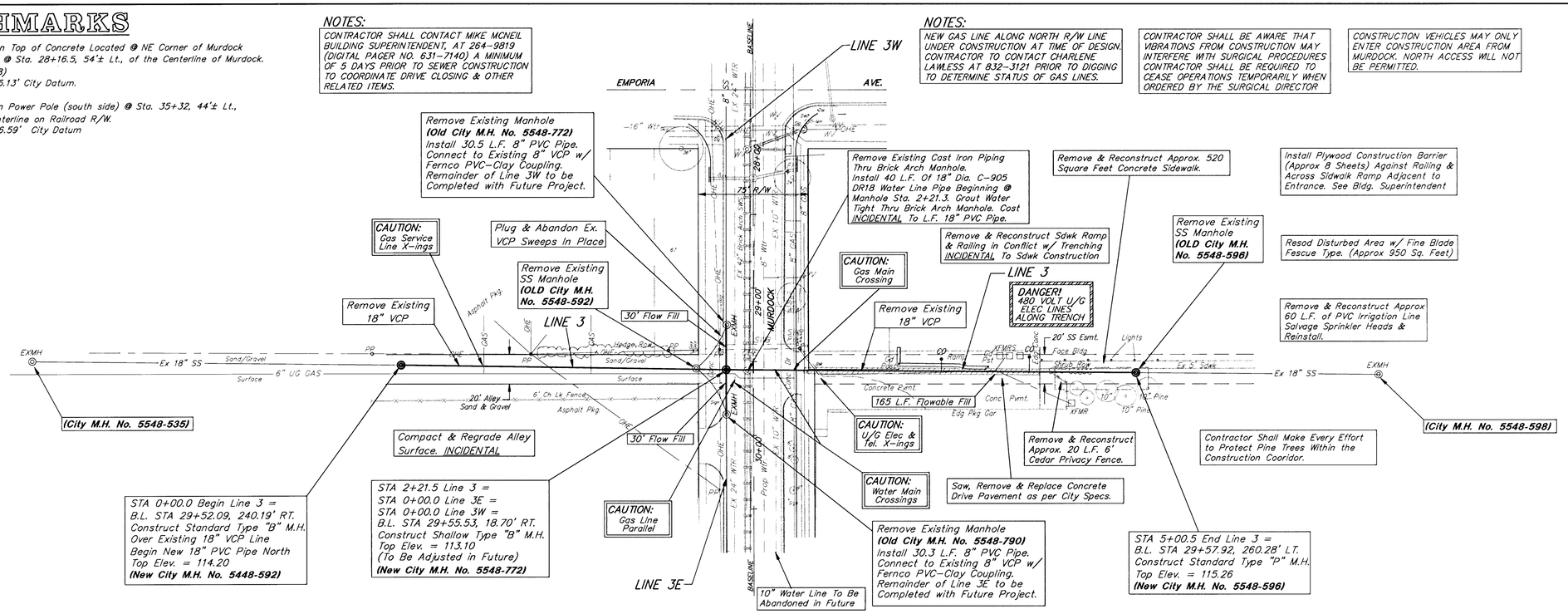
CONTRACTOR SHALL CONTACT MIKE MCNEIL BUILDING SUPERINTENDENT, AT 264-9819 (DIGITAL PAGER NO. 631-7140) A MINIMUM OF 5 DAYS PRIOR TO SEWER CONSTRUCTION TO COORDINATE DRIVE CLOSING & OTHER RELATED ITEMS.

NOTES:

NEW GAS LINE ALONG NORTH R/W LINE UNDER CONSTRUCTION AT TIME OF DESIGN. CONTRACTOR TO CONTACT CHARLENE LAWLESS AT 832-3121 PRIOR TO DIGGING TO DETERMINE STATUS OF GAS LINES.

CONTRACTOR SHALL BE AWARE THAT VIBRATIONS FROM CONSTRUCTION MAY INTERFERE WITH SURGICAL PROCEDURES CONTRACTOR SHALL BE REQUIRED TO CEASE OPERATIONS TEMPORARILY WHEN ORDERED BY THE SURGICAL DIRECTOR

CONSTRUCTION VEHICLES MAY ONLY ENTER CONSTRUCTION AREA FROM MURDOCK. NORTH ACCESS WILL NOT BE PERMITTED.

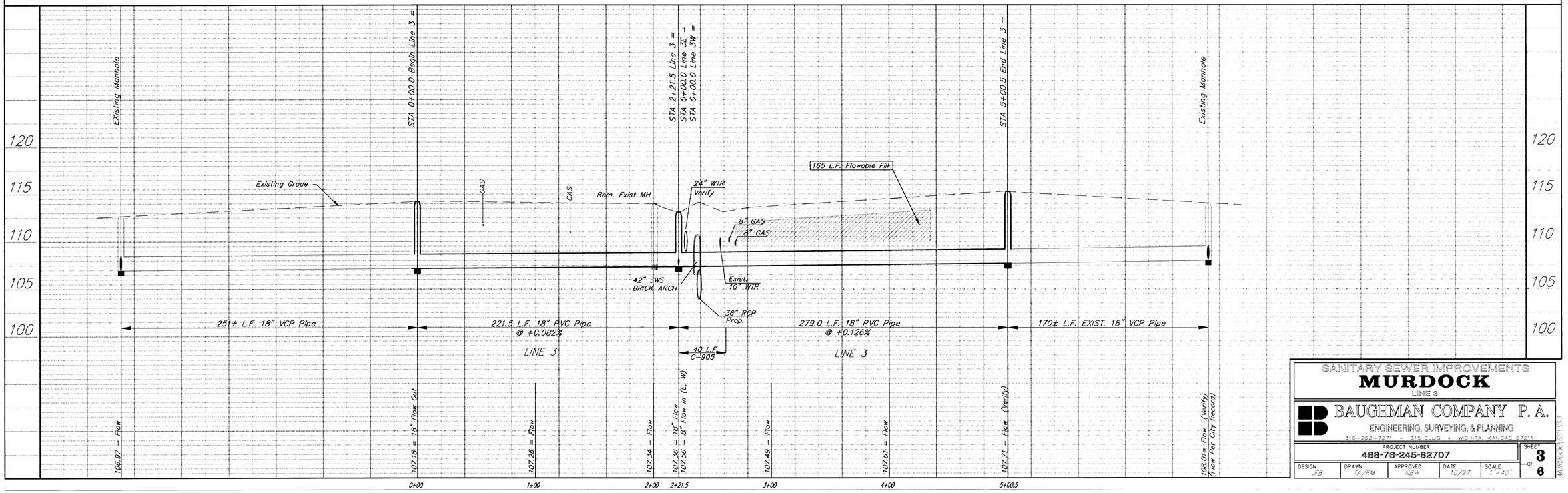


Scale: 1" = 40' Horizontal
1" = 5' Vertical
• = Iron

NOTES:

1.) This Sanitary Sewer Line Referenced From City Record Book Pages; A266-A267

2.) Manhole No. Referenced From Dept of Water & Sewer G.I.S. Records



SANITARY SEWER IMPROVEMENTS
MURDOCK
LINE 3

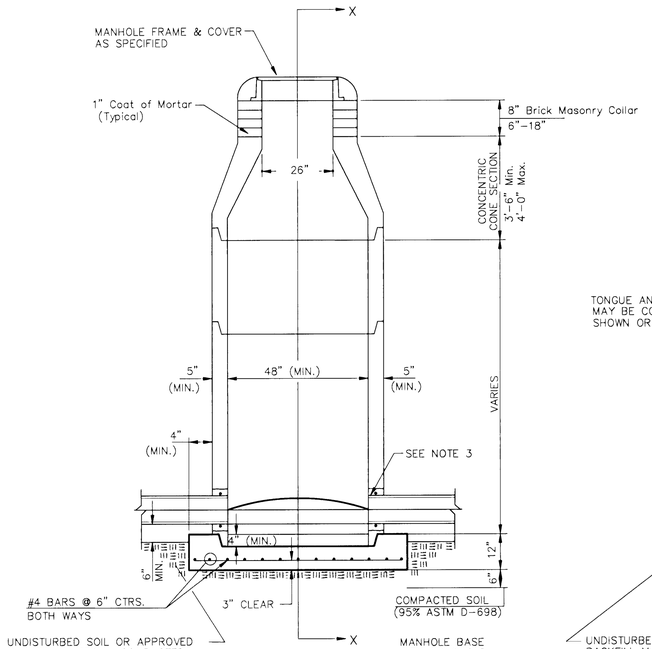
BAUGHMAN COMPANY P. A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER 488-78-245-82707

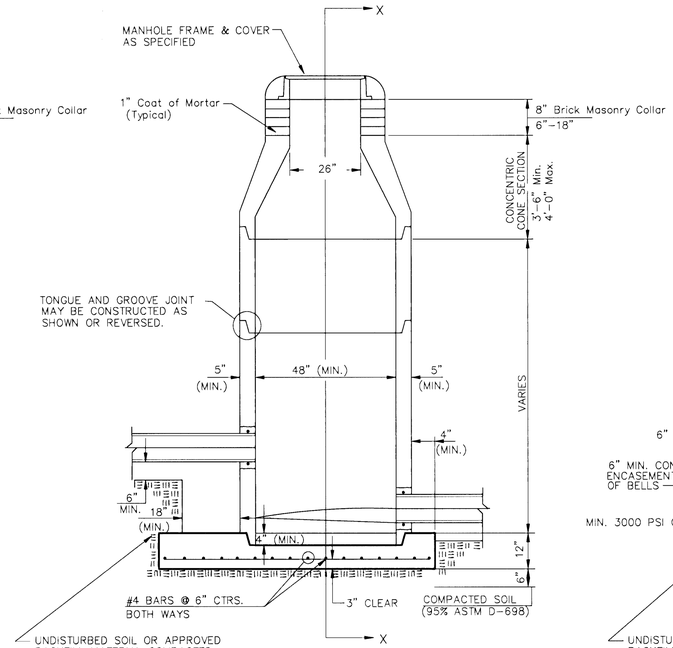
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JFB	TA/RM	NBW	10/97	1"=40'	3 OF 6

M:\MURDOCK\SS\SS3

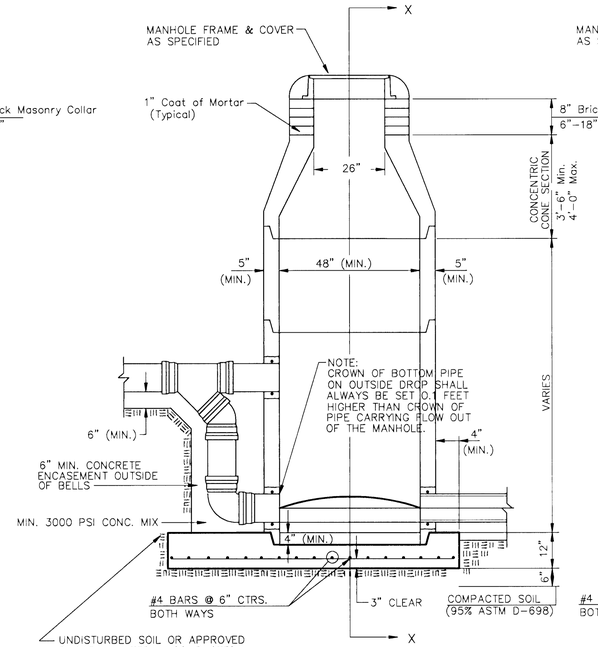
SEWER APPURTENANCES DETAILS



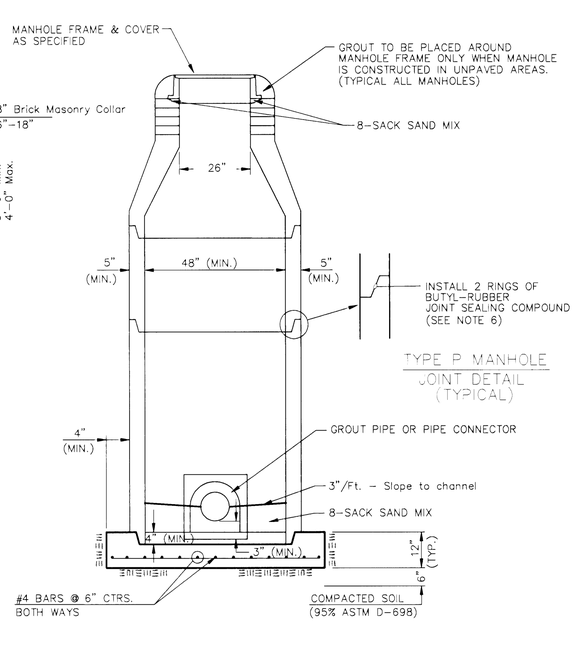
TYPE P
STANDARD MANHOLE



TYPE P
INSIDE DROP MANHOLE



TYPE P
OUTSIDE DROP MANHOLE

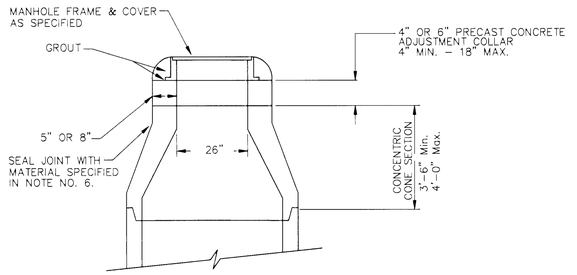


SECTION X
(TYPICAL)

GENERAL NOTES

PRECAST MANHOLE NOTES

1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS 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 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" 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 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.
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 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.
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. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.



ALTERNATE CONSTRUCTION
IN UNPAVED AREAS

CITY OF WICHITA

STD. MANHOLE DETAILS

& SEWER APPURTENANCES DETAIL

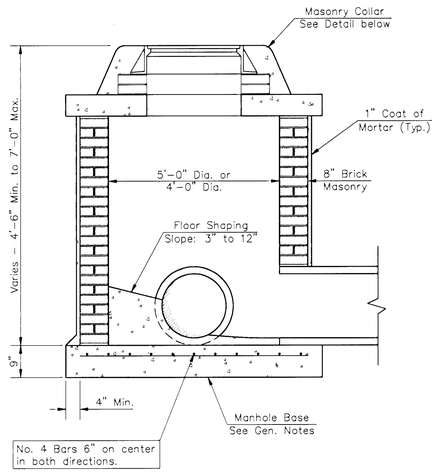
BAUGHMAN COMPANY P.A.

ENGINEERING, SURVEYING, & PLANNING

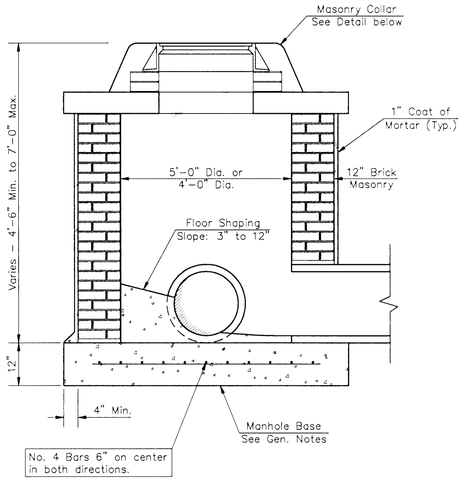
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER				SHEET
				4 OF 6
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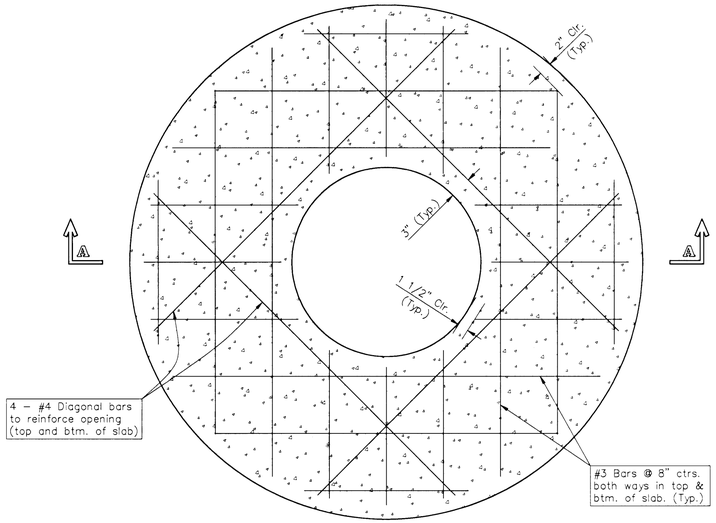
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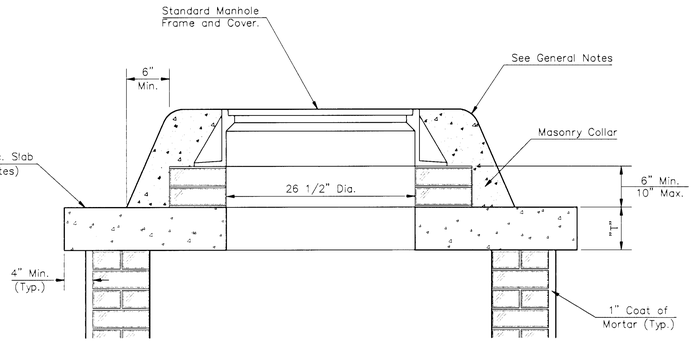
SHALLOW TYPE "A" MANHOLE



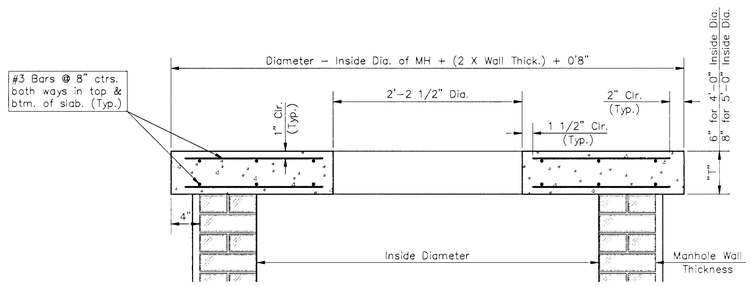
SHALLOW TYPE "B" MANHOLE



PLAN

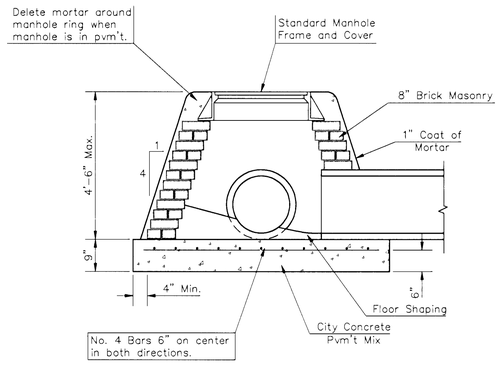


MASONRY COLLAR DETAIL

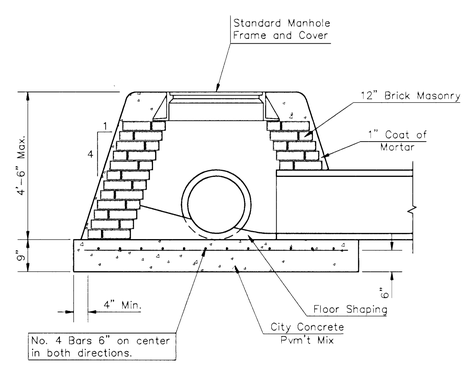


SECTION A-A

FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

GENERAL NOTES

1. 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 cement 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 "A" shallow manholes can be used on sewers when the manhole is not located within public street pavement. 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.

2. 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 6" 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.

3. 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. 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.

4. 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.

5. 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 drawings.

6. The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.

7. Standard shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type and diameter indicated. Standard special shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.

8. All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.

CITY OF WICHITA, KANSAS

Std. Manhole Detail

TYPE "A" AND TYPE "B"

BAUGHMAN COMPANY P. A.
ENGINEERING, SURVEYING, & PLANNING
316-262-727 • 315 ELLIS • WICHITA, KANSAS 67211

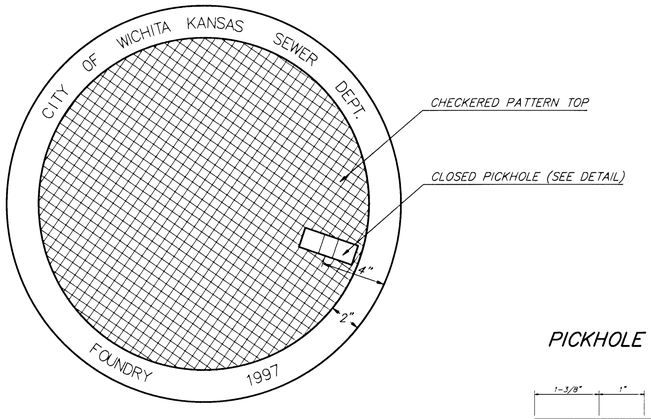
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DESIGN C.O.W.	DRAWN Staff	APPROVED	DATE 10/97	SCALE NONE	

DETAILS\STA.DWG

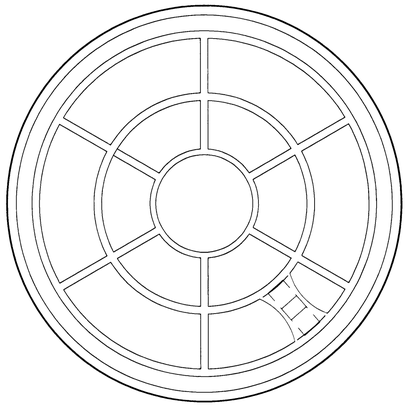
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE COVER
Weight = 180 Lbs.

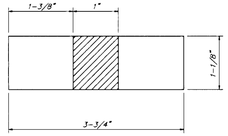


TOP VIEW

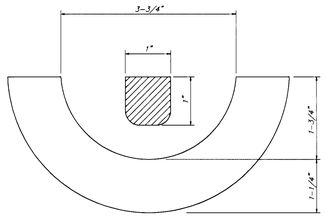


BOTTOM VIEW

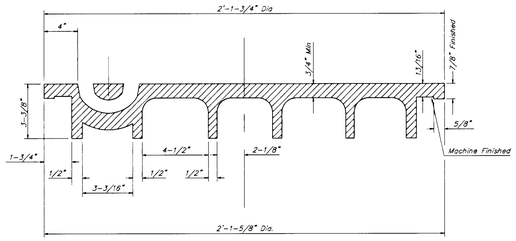
PICKHOLE DETAIL



TOP VIEW

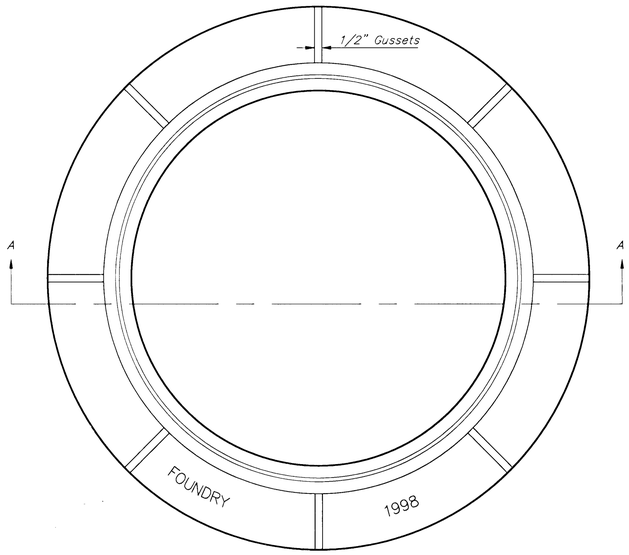


SECTION VIEW

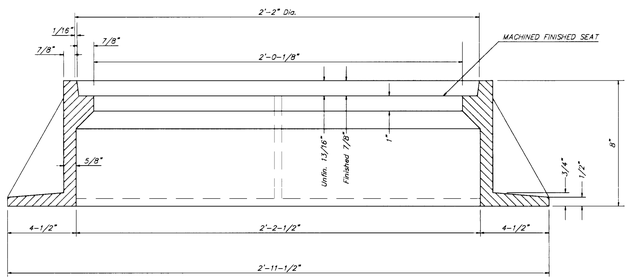


SECTION VIEW

MANHOLE FRAME
Weight = 240 Lbs.



TOP VIEW



SECTION A–A

GENERAL NOTES

MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.

MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDARY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH AS THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1 INCH IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

MANHOLE FRAME AND COVER DETAIL
ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

BAUGHMAN COMPANY P. A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER					SHEET
					6 OF 6
DESIGN	DRAWN	APPROVED	DATE	SCALE	
	Staff		10/97	None	

IF THIS IS WRONG

08-03-03-08