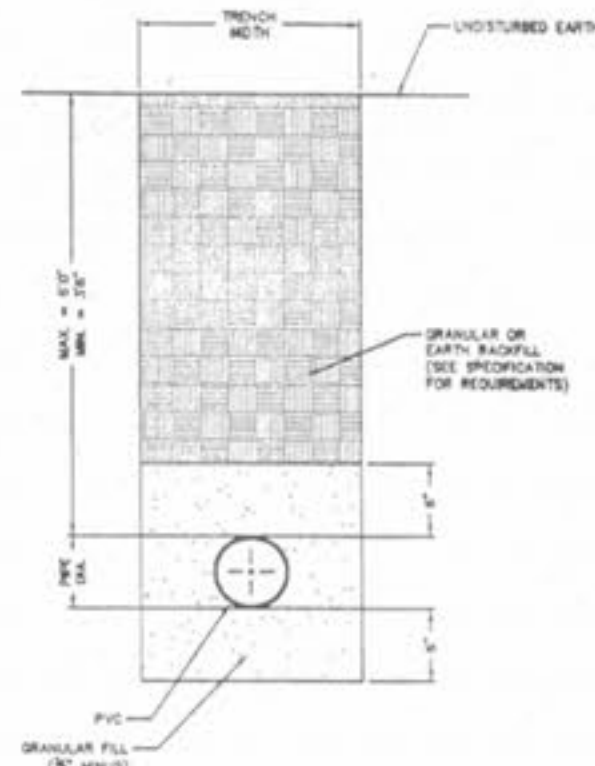
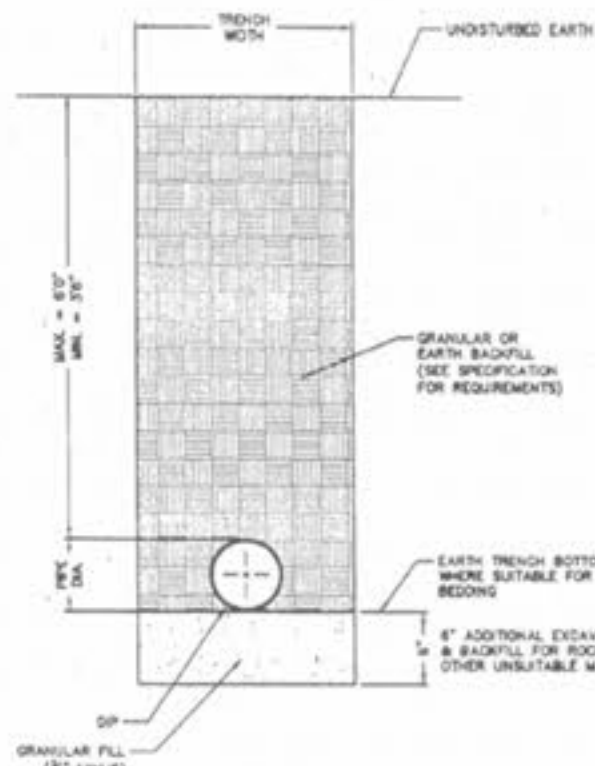


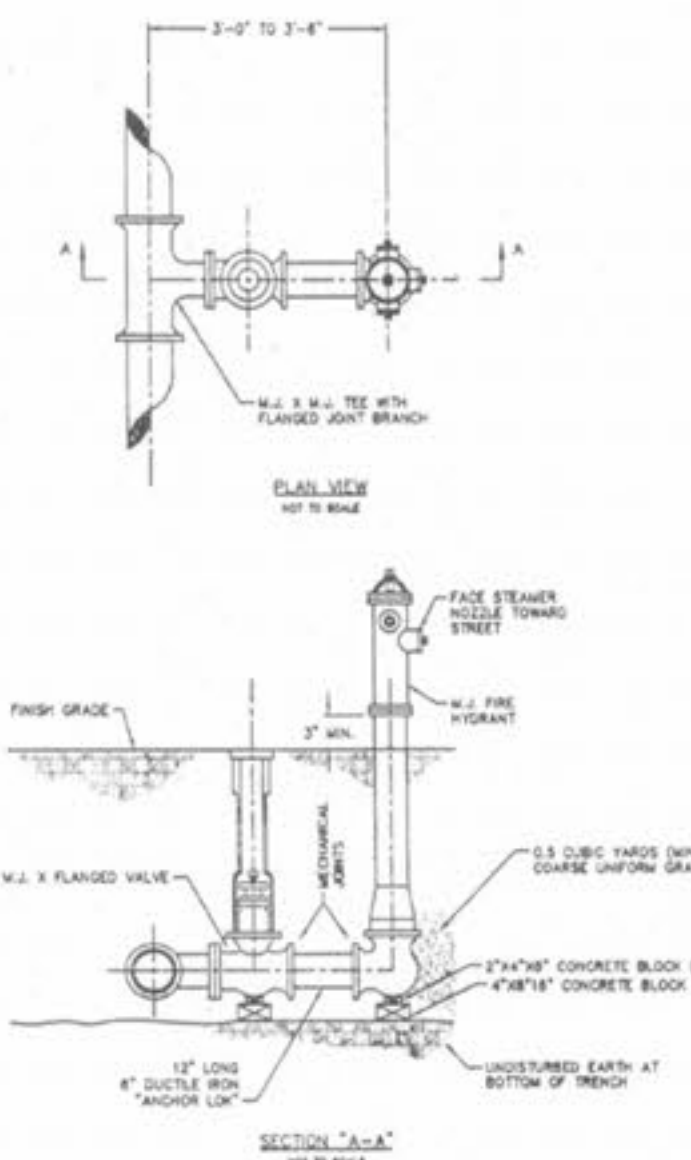
Drawing name: K:\0405084 FOX HAVEN ADDN\dwg\improvements\6147DETAILS.dwg Plotted on: Jan 06, 2006 4:02pm Plotted by: wtraoung



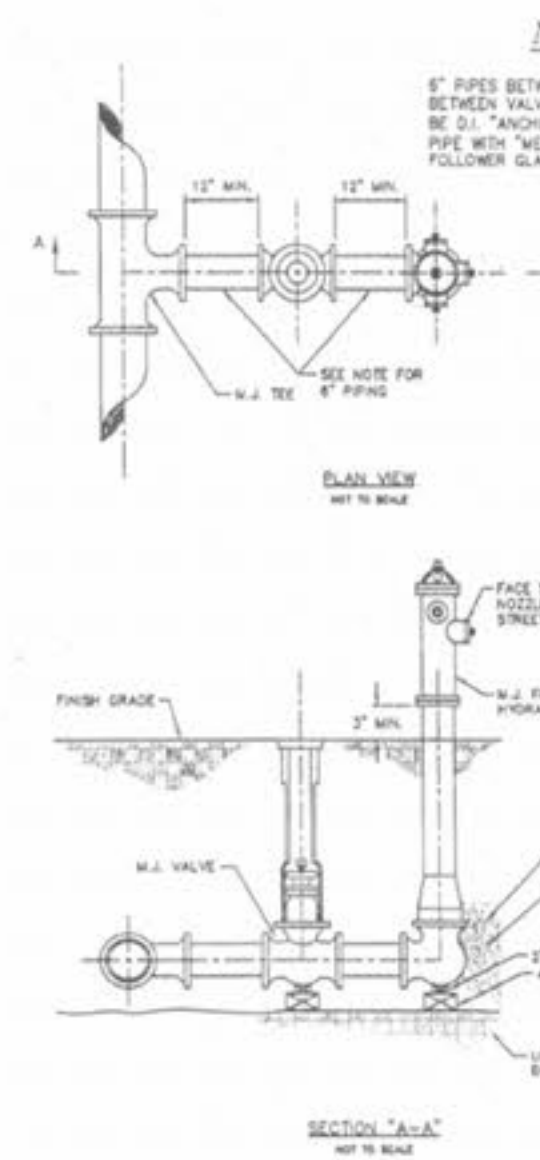
NOTES
SEE SPECIFICATIONS FOR ADDITIONAL DETAILS FOR BEDDING AND BACKFILL.
TYPICAL TRENCH SECTION FOR DUCTILE IRON PIPE
1/2" TO SCALE
DETAIL "A"
PAGE 1 OF 2



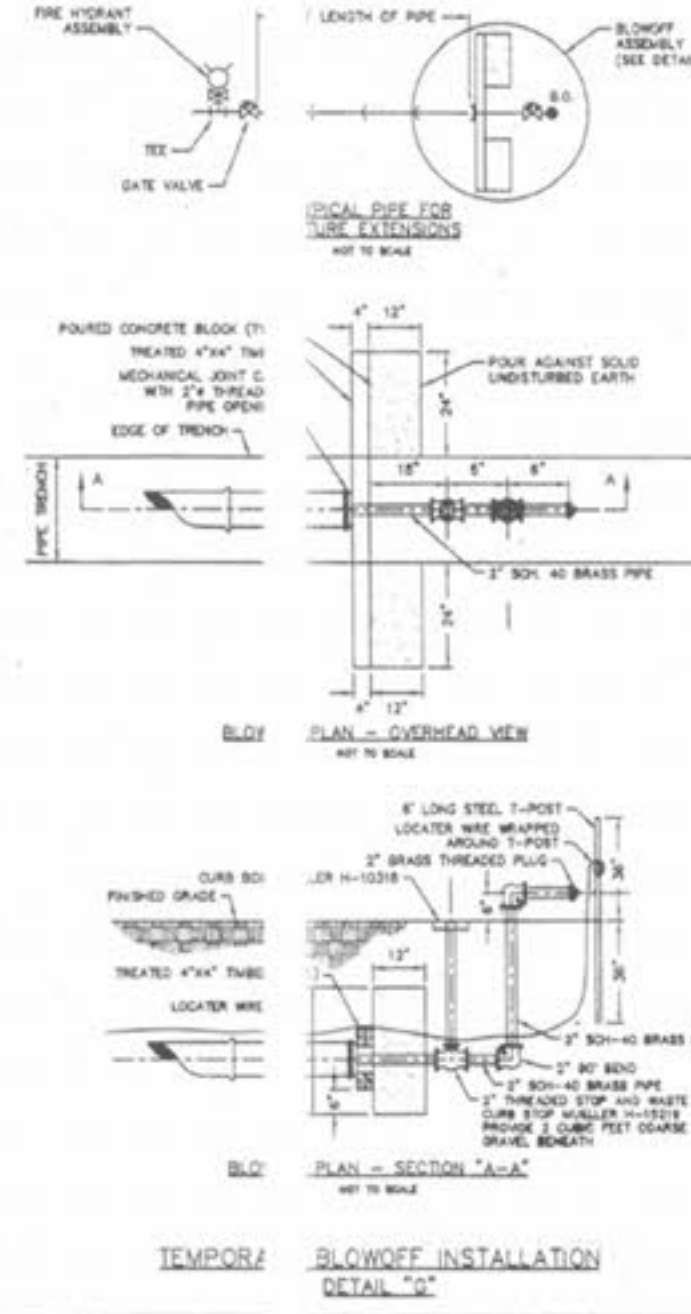
NOTES
SEE SPECIFICATIONS FOR ADDITIONAL DETAILS FOR BEDDING AND BACKFILL.
TYPICAL TRENCH SECTION FOR DUCTILE IRON PIPE
1/2" TO SCALE
DETAIL "A"
PAGE 2 OF 2



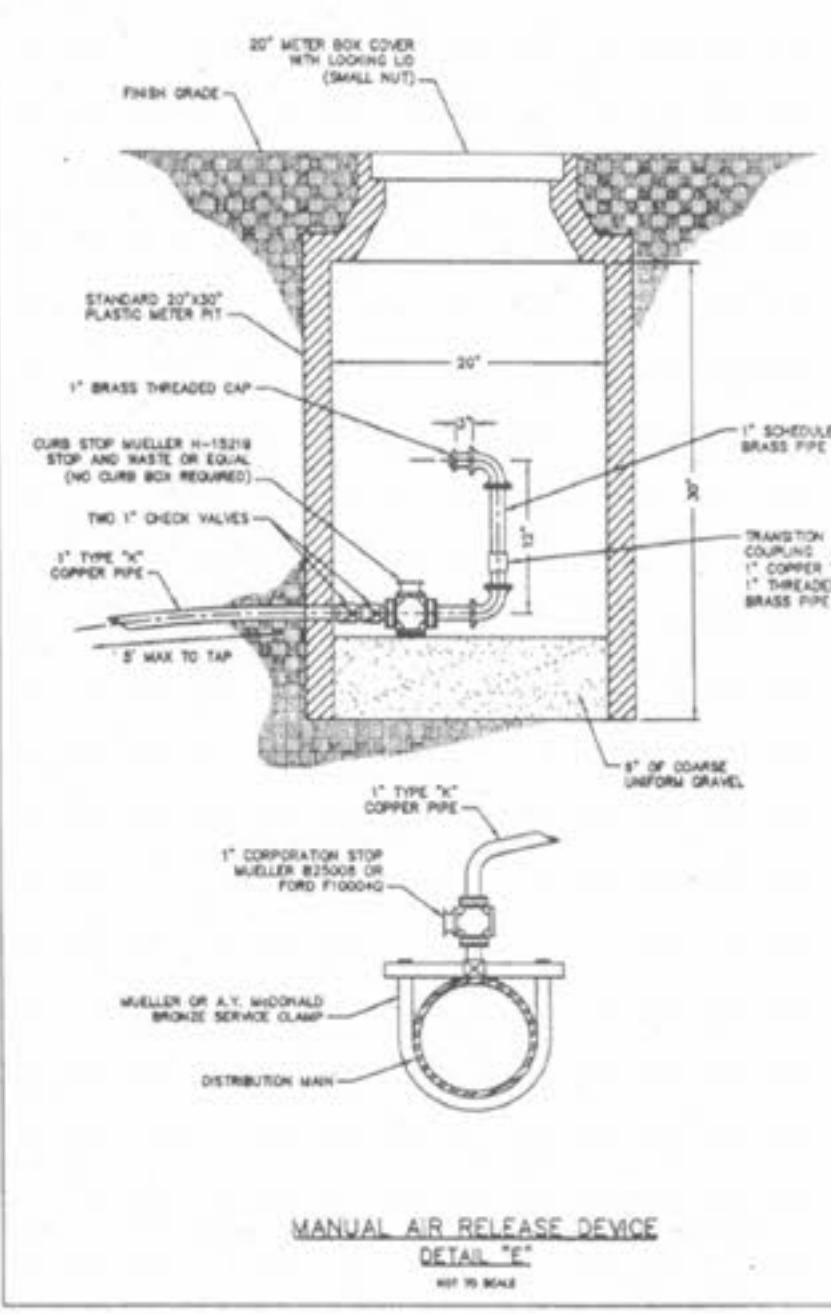
STANDARD FIRE HYDRANT DETAIL
DETAIL "B"
SHEET 1 OF 3



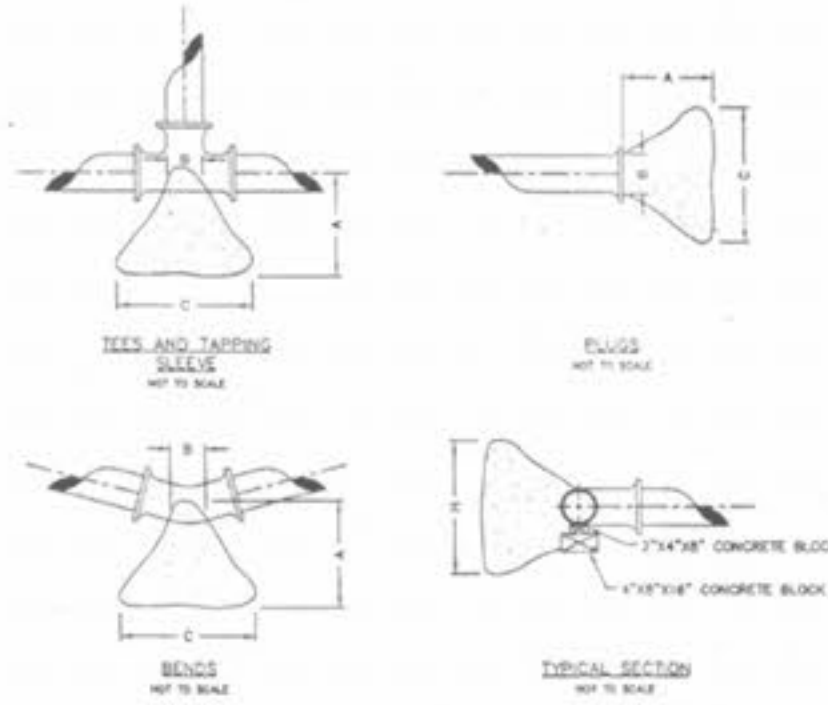
OPTIONAL FIRE HYDRANT DETAIL
DETAIL "B"
SHEET 2 OF 3



TEMPORARY BLOWOFF INSTALLATION DETAIL "C"
NOT TO SCALE



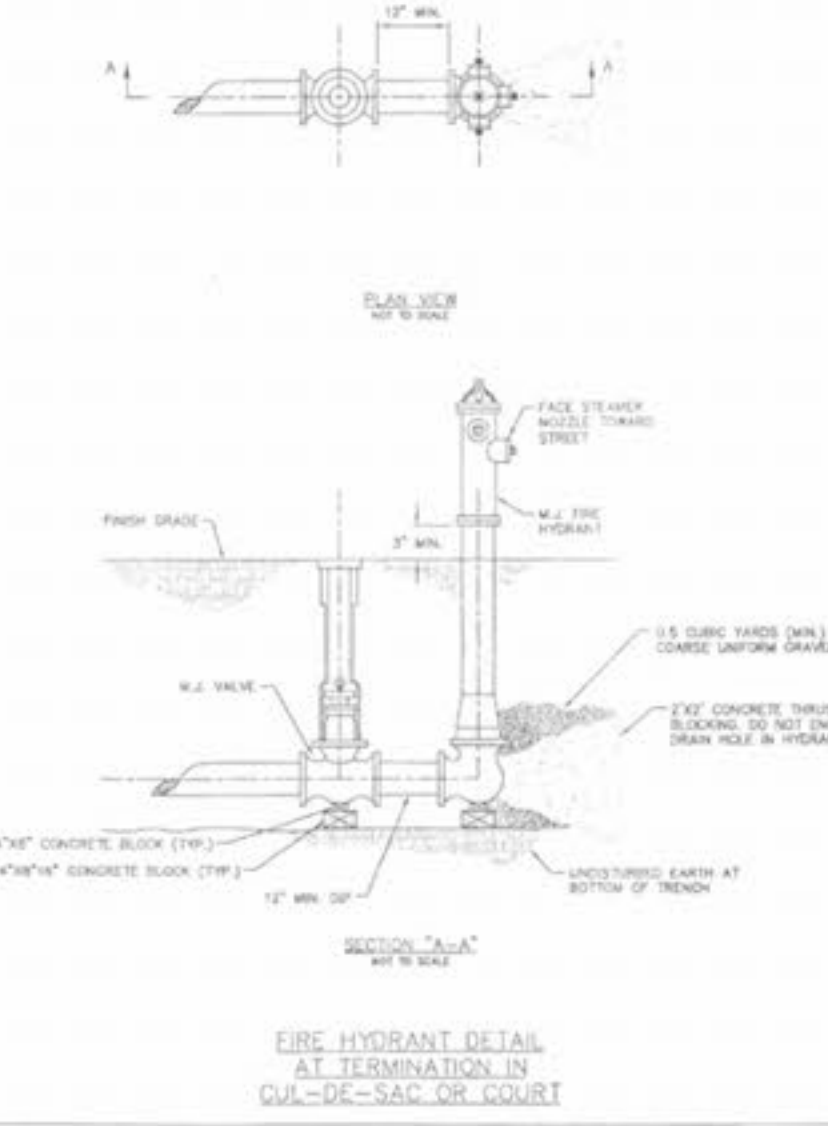
MANUAL AIR RELEASE DEVICE DETAIL "E"
NOT TO SCALE



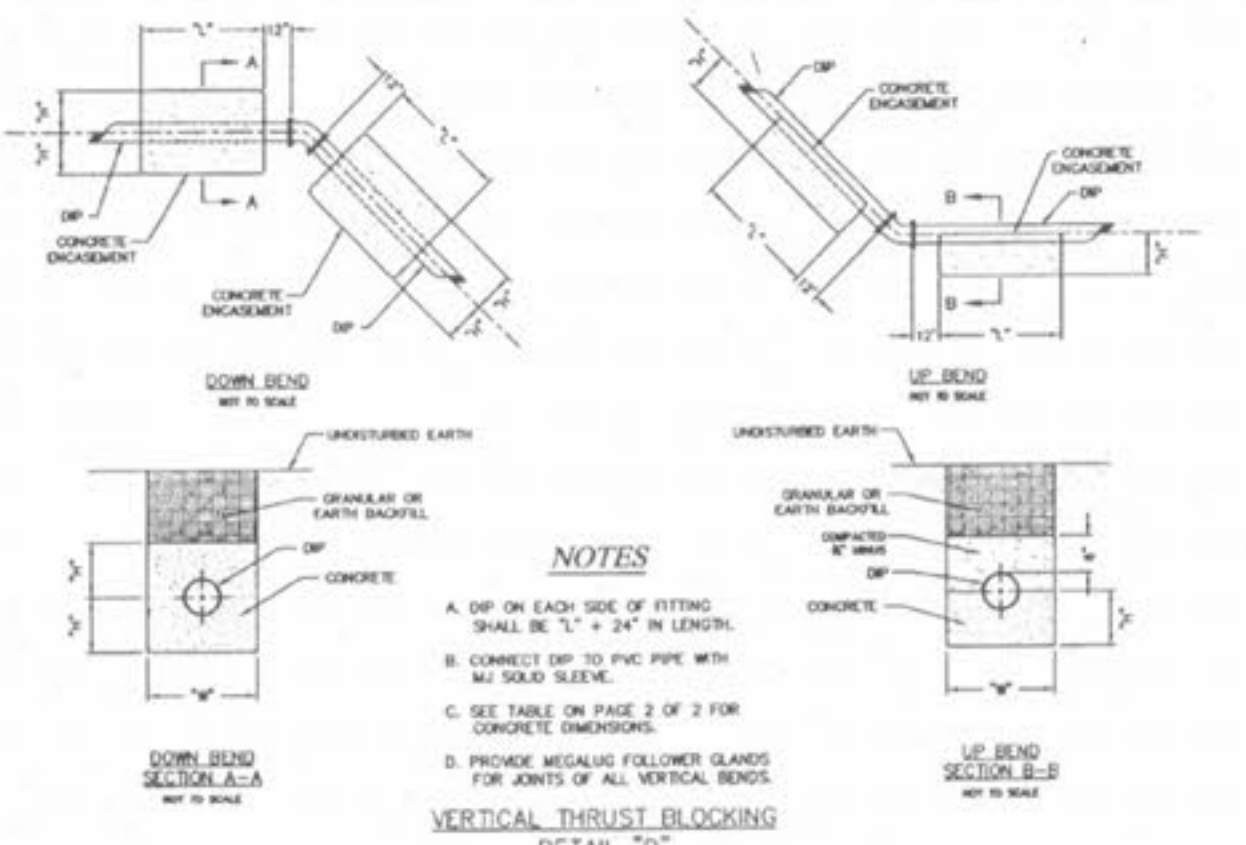
THRUST BLOCK DIMENSIONS - INCHES

PIPE DIA.	ALL FTGS.		TEE PLUG		90 DEGREE BEND		45 DEGREE BEND		22-1/2 BEND		11-1/4 BEND	
	A	B	C	H	C	H	C	H	C	H	C	H
4	18	4	24	12	20	15	18	12	12	12	12	12
6	18	6	30	18	26	21	24	18	18	18	18	18
8	20	8	36	24	32	27	30	24	24	24	24	24
10	20	10	42	30	38	33	36	30	30	30	30	30
12	24	12	48	36	44	39	42	36	36	36	36	36

HORIZONTAL THRUST BLOCKING DETAIL "C"
NOT TO SCALE



FIRE HYDRANT DETAIL AT TERMINATION IN CUL-DE-SAC OR COURT
NOT TO SCALE

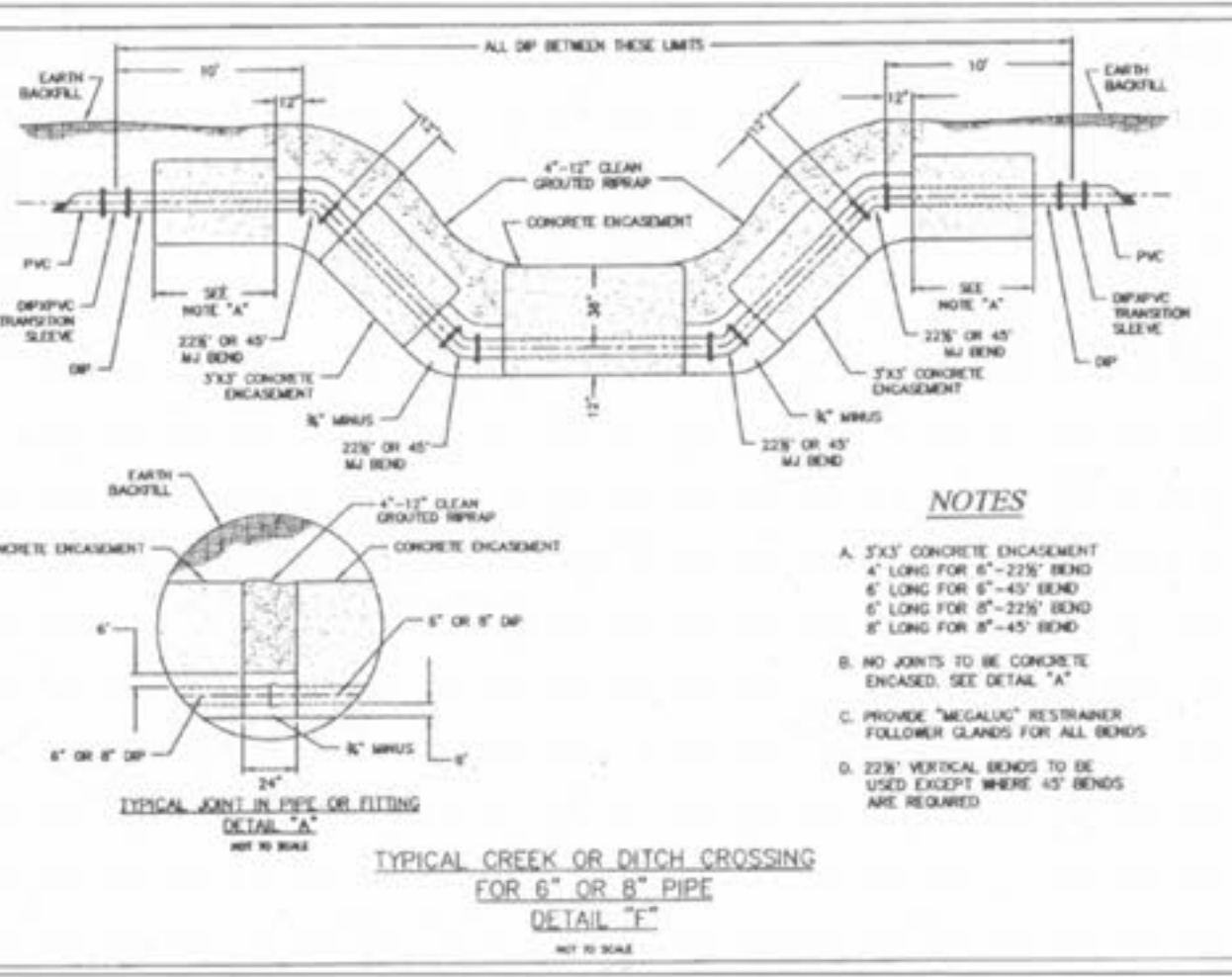


NOTES
A. DIP ON EACH SIDE OF FITTING SHALL BE "L" + 24" IN LENGTH.
B. CONNECT DIP TO PVC PIPE WITH NO. 100 SLUICE.
C. SEE TABLE ON PAGE 2 OF 2 FOR CONCRETE DIMENSIONS.
D. PROVIDE METALLIC FOLLOWER GLANDS FOR JOINTS OF ALL VERTICAL BENDS.
VERTICAL THRUST BLOCKING DETAIL "D"
PAGE 1 OF 2

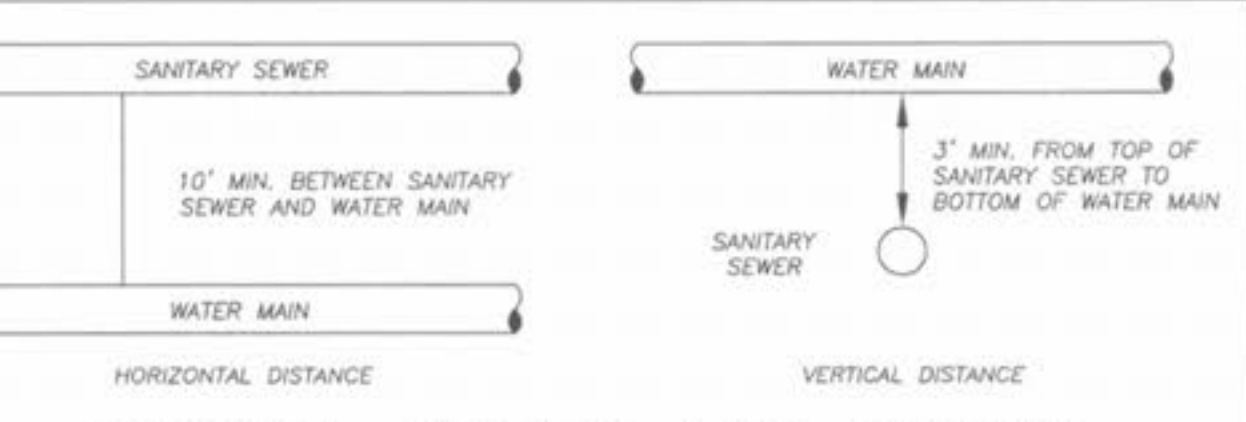
PIPE SIZE DEGREE BEND DOWN BENDS UP BENDS

PIPE SIZE	DEGREE BEND	DOWN BENDS			UP BENDS		
		W	H	L	W	H	L
4"	11 1/4"	18	12	18	12	12	12
	22 1/2"	18	18	24	12	12	12
	45"	18	30	30	12	12	18
6"	11 1/4"	24	18	24	12	12	12
	22 1/2"	24	18	24	12	12	12
	45"	24	18	24	12	12	12
8"	11 1/4"	24	18	24	12	12	18
	22 1/2"	24	18	24	12	12	24
	45"	24	18	24	12	12	24
10"	11 1/4"	30	24	30	18	18	18
	22 1/2"	30	24	42	18	18	24
	45"	30	24	42	18	18	36
12"	11 1/4"	30	24	30	18	18	18
	22 1/2"	30	24	54	18	18	30
	45"	30	36	72	24	18	36

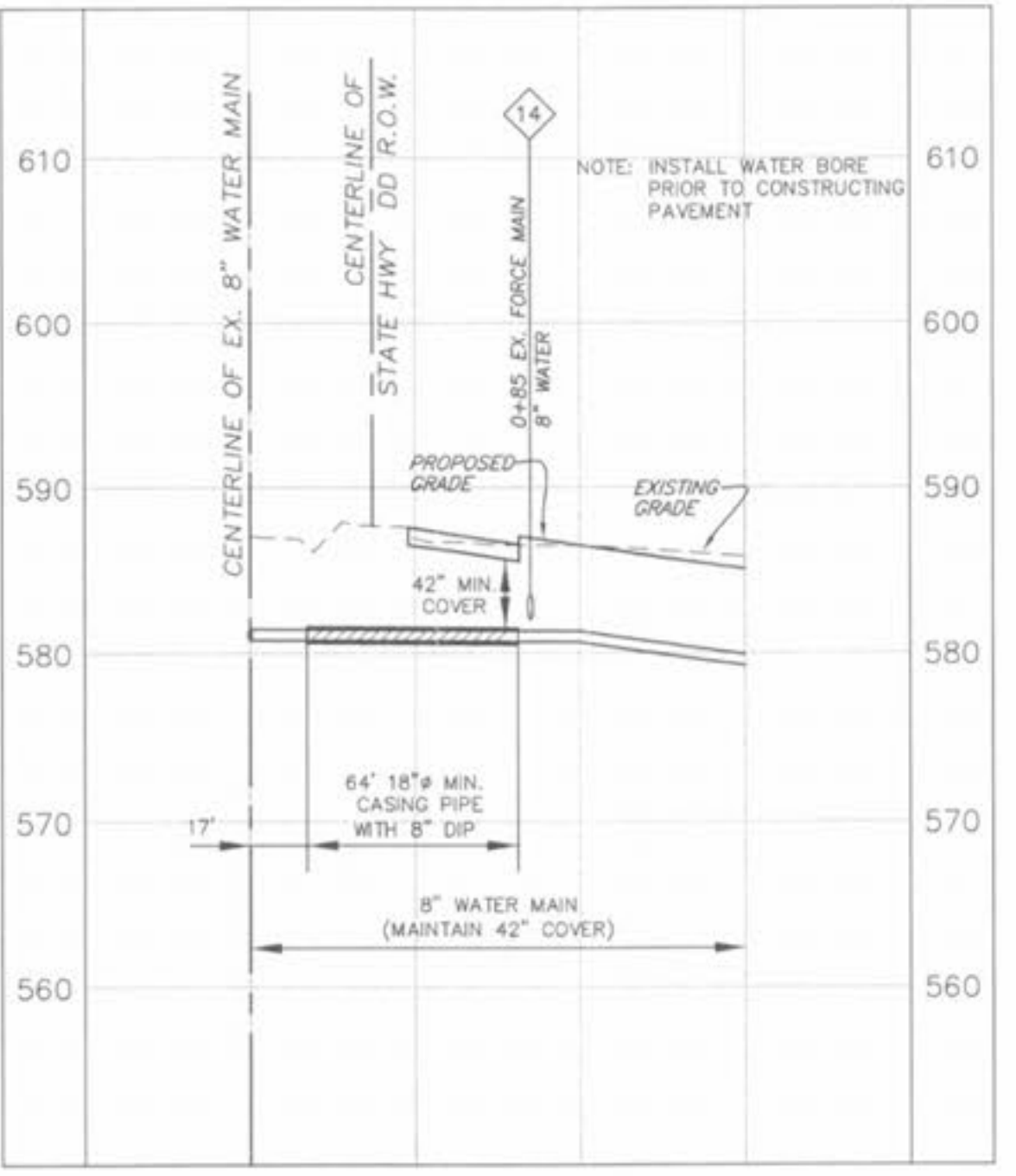
DIMENSIONS FOR VERTICAL BENDS (IN INCHES)
DETAIL "D"
PAGE 2 OF 2



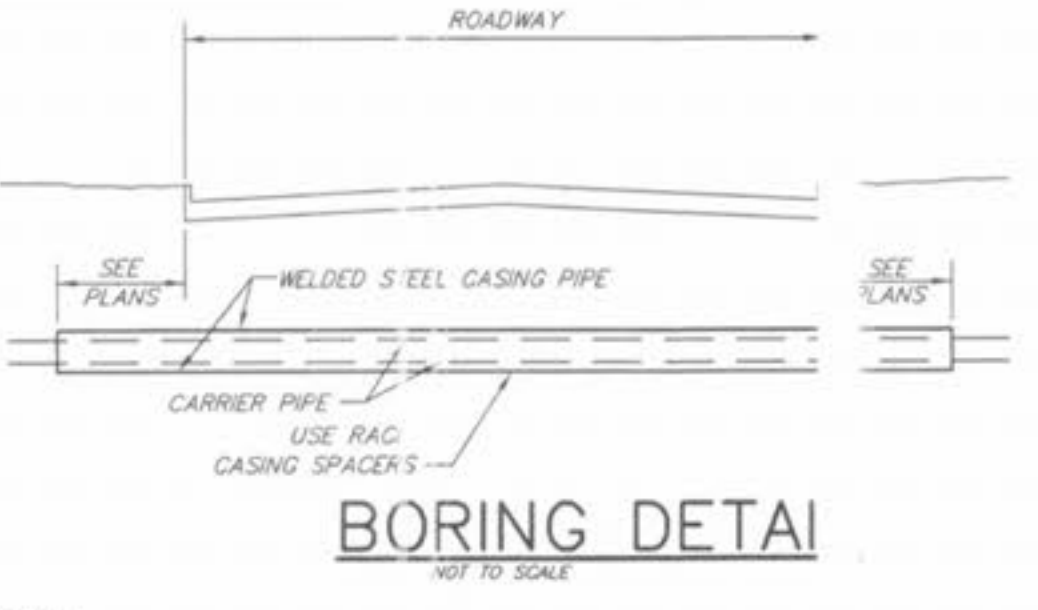
TYPICAL CREEK OR DITCH CROSSING FOR 6" OR 8" PIPE
DETAIL "I"
NOT TO SCALE



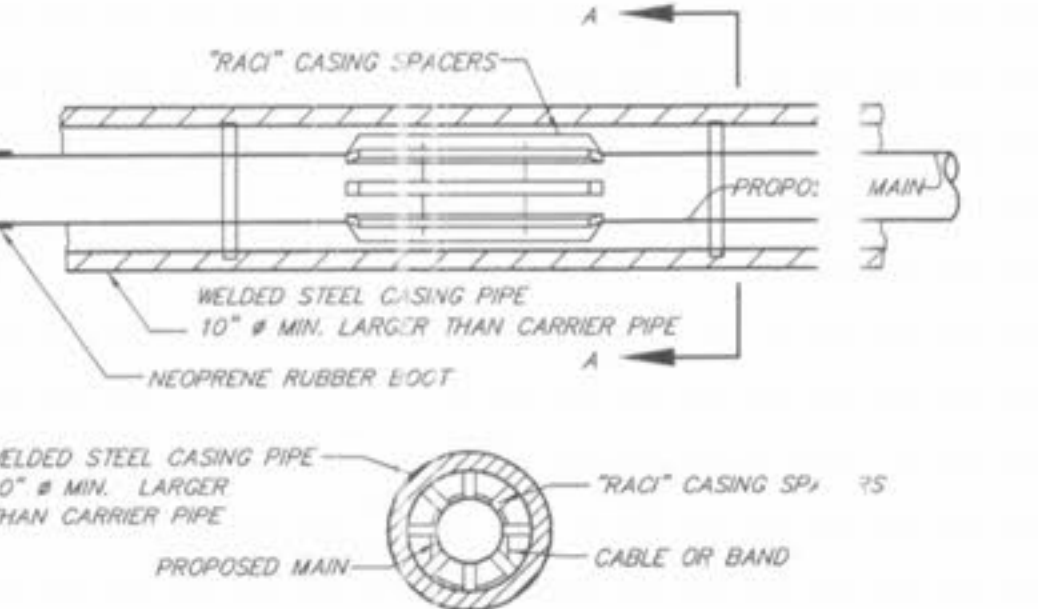
TYPICAL WATER AND SEWER SEPARATION
NOT TO SCALE



WATER MAIN PROFILE
SCALE: HOR: 1" = 50' VER: 1" = 10'



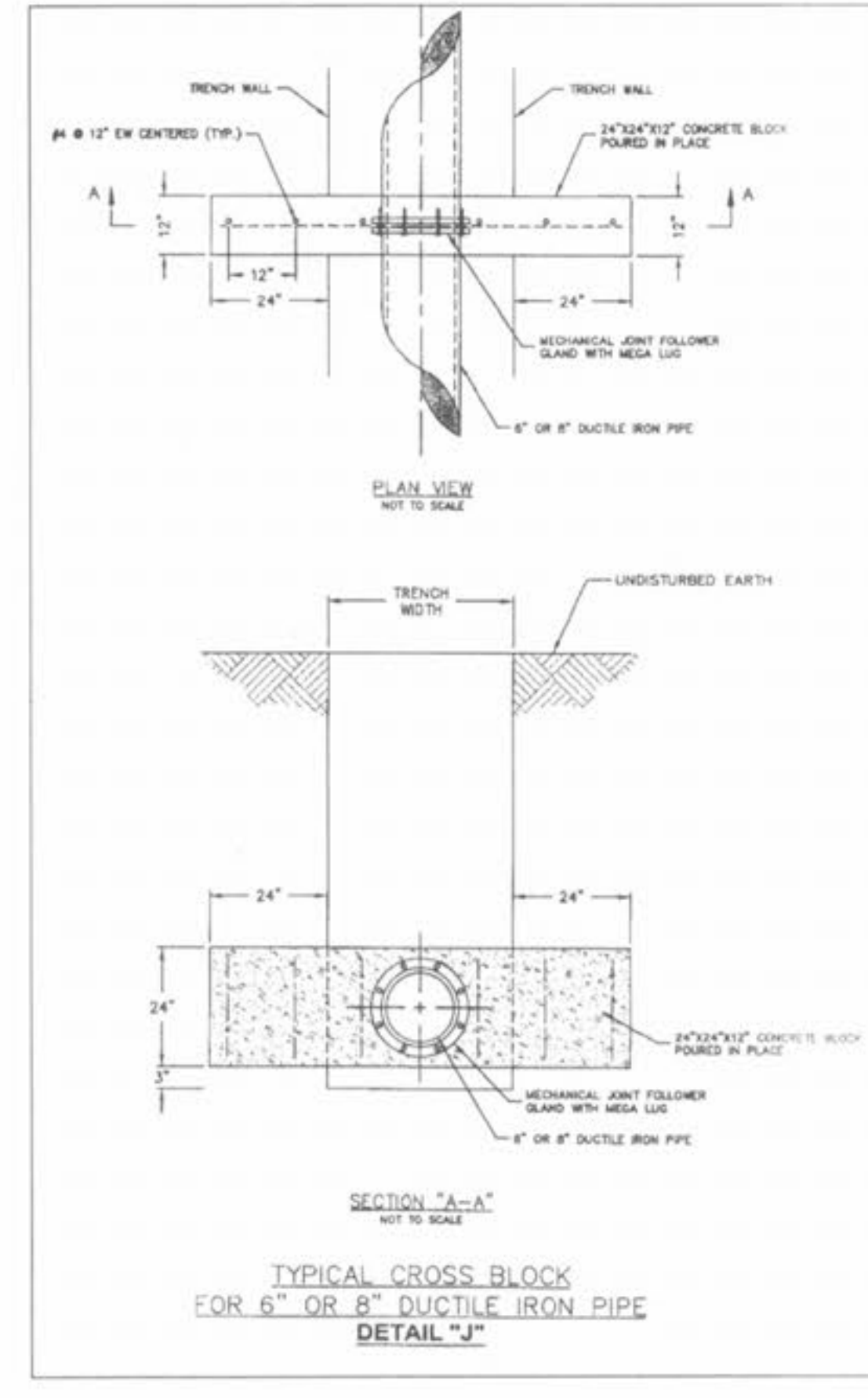
NOTES
1.) CASING PIPES FOR ROAD AND HIGHWAY CROSSINGS SHALL BE WELDED WITH A MINIMUM WALL THICKNESS OF 1/2", UNPAINTED OR COATED, AND A MINIMUM DIAMETER OF 10" LARGER THAN THE NOMINAL SIZE OF THE CARRIER PIPE.
2.) WHEREVER WATER MAINS ARE INSTALLED IN CASING PIPES, DUCTILE IRON PIPE SHALL BE SUPPORTED WITH "RAG" TAPE SPACERS AT 6" INTERVALS, OR 3' LENGTH OF PIPE. THE SPACERS SHALL BE CAREFULLY INSTALLED ON THE TOP OF THE CARRIER PIPE BEFORE IT IS INSTALLED IN THE CASING PIPE.



SECTION A
NOT TO SCALE

GENERAL NOTES

- All water lines shall be laid out at least 10 feet horizontal clearance from any sewer or manhole. An 18" vertical clearance from a pipe shall be maintained wherever water lines must cross over a sewer or manhole. The water line shall be laid out such that the bottom of the water line is above the top of the sewer or manhole. This vertical separation shall be maintained for that located within 10 feet horizontally, of any sewer or manhole.
- All PVC water pipe shall conform to ASTM D2241, Specification for 1/2" to 4" V.C. Pressure Pipe, 200 P.S.I. with approved joint.
- All water mains, valves, fittings, hydrants, and related accessories shall be installed in accordance with the current St. Charles County, Missouri Public Water Supply District No. 2 guidelines and specifications.
- All water hydrants and valves shall be ductile iron with a minimum wall thickness of 1/2". All ductile iron pipe shall conform to A.W.W.A. Specifications C-151. The ductile iron fittings shall conform to A.W.W.A. Specification CC-53. All rubber gasket joints for valves and fittings shall conform to A.W.W.A. Specification C-151.
- No flushing hydrants or water meters shall be located in driveways, sidewalks, or other hard surface areas.



TYPICAL CROSS BLOCK DETAIL "J"
NOT TO SCALE

ISSUE REMARKS/DATE

1	REV PER DUCKETT CREEK SANI. DISTRICT 9-20-05
2	REV PER CITY AND WATER DISTRICT COMMENTS 9-28-05
3	REV PER DUCKETT CREEK SANI. DISTRICT 10-17-05
4	REV PER WATER DISTRICT NO. 2 11-14-05
5	REV PER CITY OF OFALLON, 12-02-05
6	REV PER CITY OF OFALLON, 1-9-2006

PREPARED FOR:
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Chesterfield, Missouri 63005
(636) 537-2000



PREPARED BY:
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E-Mail: Sterling@sterling-mng-usa.com

PROJECT: FOX HAVEN ADDITION
DESIGNED:
CHECKED:

WATER DETAILS

NO. 04 05 084
M.S.D. SHEET
P# WD1
DRAWN: [Blank]
DATE: [Blank]