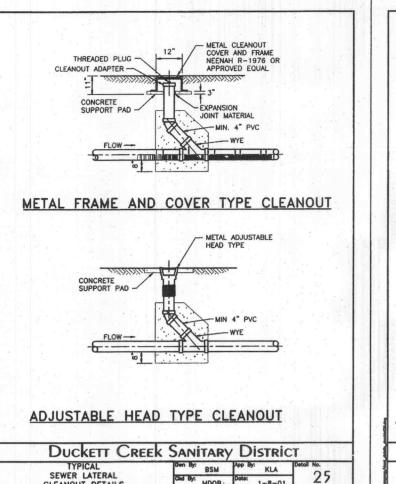
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APRIL 21, 2005

REV. 10/11/05 REV. 05/25/06



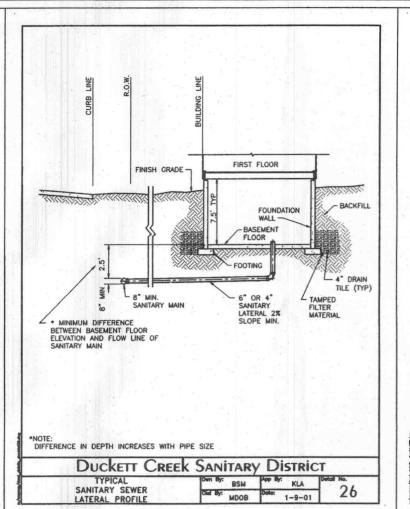
POURED CONCRETE THRUST

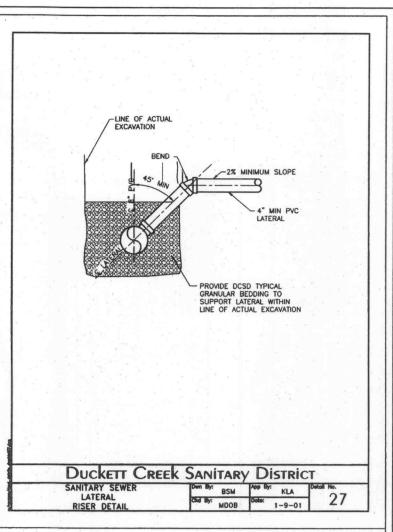
**PLAN VIEW** 

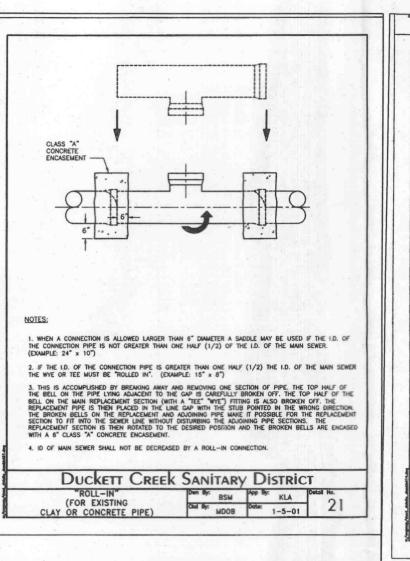
CAP OR PLUG

NO SCALE

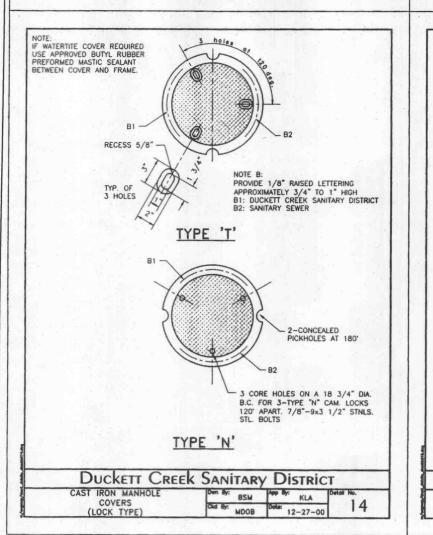
BLOCK (TYP)

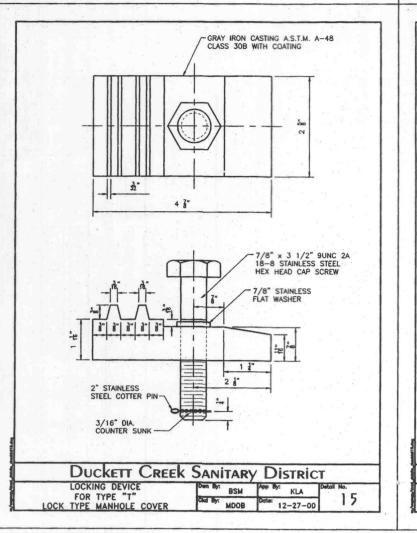


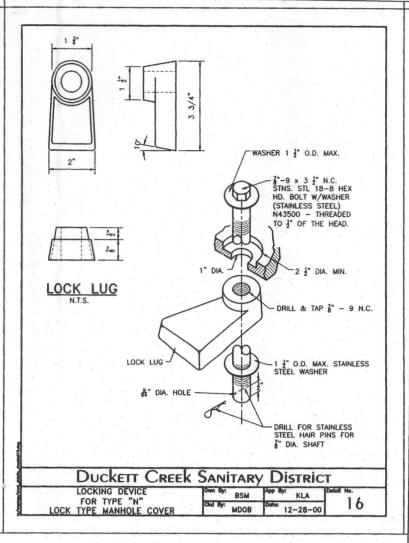


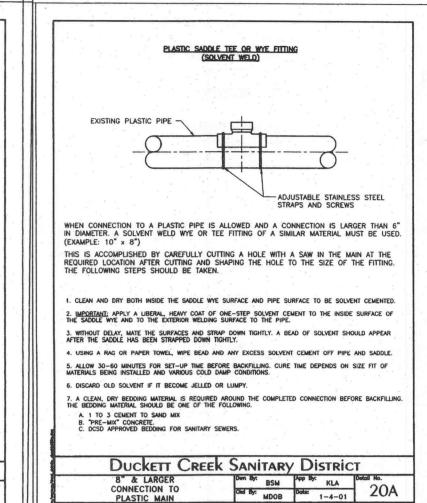


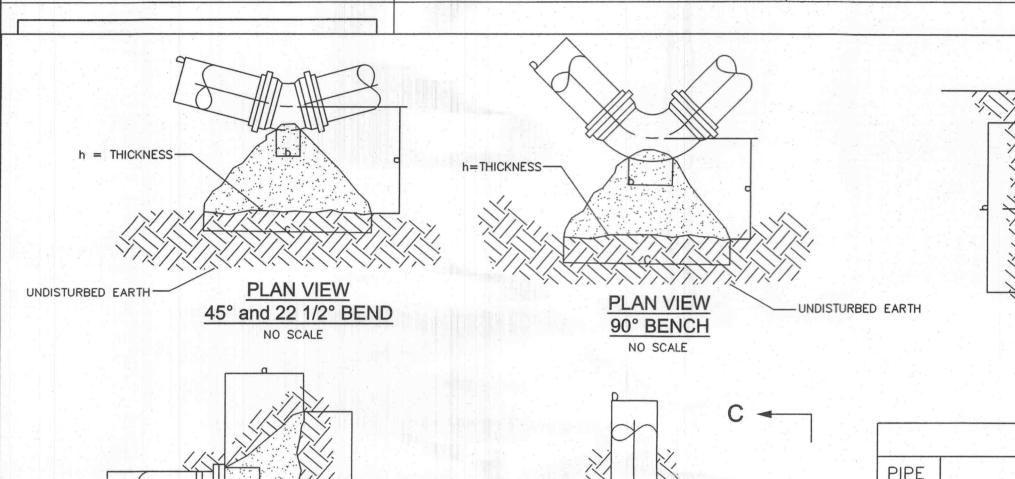
3' COVER (TYP)

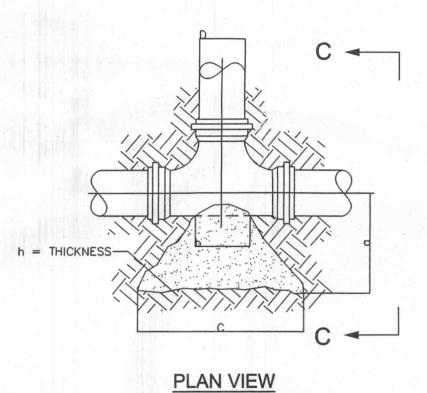












SECTION C-C

		TH	IRUST	BLOCK	DIME	VSION	ING (I	NCHE	S)	
PIPE SIZE			TEE PLUG WYE BRANCH		90. BEND		45° BEND		22 1/2° BEND	
D	a	b	С	h	C	h	С	h	С	h
1/2"	6	1 1/2	4	4	4	4	3	3	4	2
2"	8	2	9	3	9	3	5	3	4	2
3"	10	3	14	5	14	5	7	5	6	3
4"	11	4	20	10	24	12	17	9	13	6
6"	17	6	27	15	34	17	24	13	18	9
8"	22	8	38	19	44	22	34	17	24	12
10"	27	10	46	23	54	27	40	20	28	14
12"	32	12	56	28	64	32	48	24	34	17

-4"x8"x16" CONCRETE BLOCK

TYPICAL FOR ALL THRUST

BLOCKS EXCEPT AS NOTED

TEE OR WYE BRANCH

NO SCALE

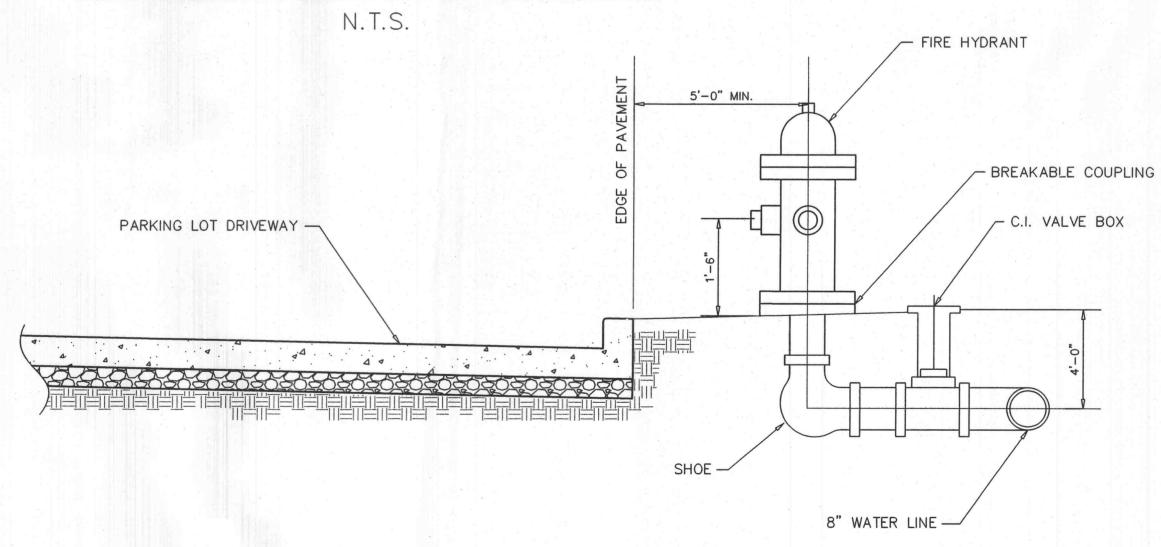
## WATER LINE NOTES:

- 1. FIRE HYDRANT SHALL HAVE NOT LESS THAN TWO 2 1/2 INCH OUTLETS AND ONE 4 1/2 INCH OUTLET, A 5 1/4 INCH VALVE, A 6 INCH BARREL AND SHALL BE OF THE BREAKAWAY DESIGN, FROST FREE WITH CHAIN, LEFT HAND OPEN DESIGN AND HAVE NATIONAL STANDARD THREADS.
- 2. MINIMUM FIRE FLOW FROM A SINGLE FIRE HYDRANT SHALL BE FIFTEEN HUNDRED (1500) GALLONS PER MINUTE AT TWENTY (20) PSI RESIDUAL PRESSURE.
- 3. EACH FIRE HYDRANT SHALL BE PROVIDED WITH A CONTROL VALVE IN THE HYDRANT CONNECTION SUCH THAT THE HYDRANT CAN BE REMOVED FROM SERVICE WITHOUT SHUTTING OFF WATER SUPPLY TO OTHER FIRE HYDRANTS.
- 4. THE CENTER OF A HOSE NOZZLE OUTLET SHALL NOT BE LESS THAN EIGHTEEN (18) INCHES ABOVE GRADE AND THE OUTLETS MUST FACE THE STREET OR ACROSS DRIVE.
- 5. THERE SHALL BE NO OBSTRUCTIONS, I.E., PLANTINGS, BUSHES, TREES, SIGNS, LIGHT STANDARDS, MAILBOXES, ETC. WITHIN SIX (6) FEET OF ANY FIRE HYDRANT, AND/OR FIRE DEPARTMENT CONNECTION TO AN AUTOMATIC SPRINKLER SYSTEM.
- 6. PUBLIC FIRE HYDRANTS SHALL HAVE THE BONNETS COLOR CODED IN ACCORDANCE WITH ORDINANCE NO. 13 OF THE COTTLEVILLE FIRE PROTECTION DISTRICT.
- 7. CITY OF O'FALLON WATER COMPANY STANDARDS TO BE FOLLOWED FOR WATERLINE CONSTRUCTION.
- 8. THE LOCATION OF WATER METERS IS TO BE WITHIN THE RIGHT OF WAY/EASEMENT OR COORDINATE WITH THE CITY ON ITS LOCATION. ALSO REFERENCE MECHANICAL/ELECTRICAL/PLUMBING PLANS FOR ADDITIONAL INFORMATION.
- 9. MINIMUM OF42" COVER OVER WATER MAINS. (ONLY FOR CITY WATER MAINS).

## WATER LINE NOTES CONTINUED:

- 10. ALL CAST IRON PIPE FOR WATER MAINS SHALL CONFORM TO A.W.W.A. SPECIFICATION C-106 AND/OR C-108. THE CAST IRON FITTINGS SHALL CONFORM TO A.W.W.A. SPECIFICATION C-110. ALL RUBBER GASKET JOINTS FOR WATER CAST IRON PRESSURE PIPE AND FITTINGS SHALL CONFORM TO A.W.W.A. SPECIFICATION C-111.
- 11. ALL P.V.C. WATER PIPE SHALL HAVE A MINIMUM PRESSURE RATING OF PR-200 OR SR-21.
- 12. COORDINATE WATER METER LOCATIONS WITH THE CITY OF O'FALLON AND/OR THE O'FALLON WATER DISTRICT. REFER TO THE MECHANICAL/ELECTRICAL/PLUMBING PLANS FOR METER LOCATIONS AND FOR ADDITIONAL INFORMATION.

## THRUST BLOCK DETAILS

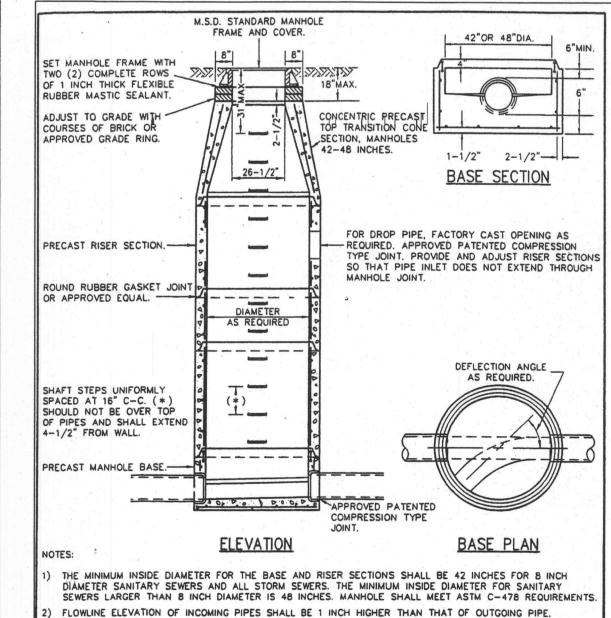


FIRE HYDRANT DETAIL

N.T.S.

PAYLINE WIDTH "W" SEE TABLE NO. 1 LINE OF -ACTUAL **EXCAVATION** - FLOW LINE COMPACTED OUTSIDE OF -CRUSHED PIPE BELL SPRING LINE LIMESTONE AND **SCREENINGS** OUTSIDE OF PIPE BARREL 4" MIN PAYLINE FOR "C" EXCAVATION LINE OF ACTUAL EXCAVATION METROPOLITAN ST. LOUIS SEWER DISTRIC PIPE BEDDING CLASS "C ' Standard Details of Sewer Construction SHEET 5 Ch. DJZ

N.T.S.



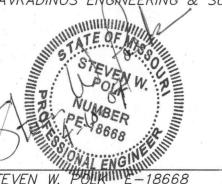
FLOWLINE ELEVATION OF INCOMING PIPES SHALL BE 1 INCH HIGHER THAN THAT OF OUTGOING PIPE. PIPE SIZES LARGER THAN 24 INCH DIAMETER MAY REQUIRE MANHOLE DIAMETERS OF 60 INCH, 72 INCH OR 96 INCH AS DETERMINED BY OUTSIDE DIAMETERS AND ORIENTATIONS OF CONNECTING PIPES. ECCENTRIC CONES SHALL BE USED ON DIAMETERS 60 INCH AND LARGER. STEPS SHALL EXTEND DOWN VERTICAL WALL OF CONE. PRIOR TO FABRICATION, SHOP DRAWINGS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL OF MANHOLES ON PIPE DIAMETERS LARGER THAN 24 INCH AND ALSO FOR THOSE STRUCTURES WITH A DROP PIPE CONNECTION.

METROPOLITAN ST. LOUIS SEWER DISTRICT Standard Details of Sewer Construction PRECAST CONCRETE MANHOLE WSH/SAM Ch. J.C.K.

N.T.S.

## O'FALLON P&Z # 904.01

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