

BENDS	"B"	"C"	"D"	"E"	"F"
6"-11 1/4"	8"	15"	12"	24"	10"
6"-22 1/2"	8"	19"	12"	24"	13"
6"-45"	8"	30"	12"	24"	15"
6"-90"	8"	30"	12"	24"	20"
8"-11 1/4"	8"	20"	12"	24"	10"
8"-22 1/2"	8"	22"	12"	24"	16"
8"-45"	8"	31"	12"	24"	18"
8"-90"	8"	38"	12"	24"	24"
12"-11 1/4"	8"	30"	12"	24"	15"
12"-22 1/2"	8"	35"	12"	24"	20"
12"-45"	8"	40"	12"	24"	22"
12"-90"	8"	60"	12"	24"	32"
16"-11 1/4"	TL	28"	20"	24"	28"
16"-22 1/2"	TL	39"	20"	24"	39"
16"-45"	TL	50"	20"	24"	50"
16"-90"	TL	91"	20"	24"	60"
20"-11 1/4"	TL	34"	24"	24"	28"
20"-22 1/2"	TL	48"	24"	24"	39"
20"-45"	TL	74"	24"	24"	50"
20"-90"	TL	136"	24"	24"	60"
24"-11 1/4"	TL	40"	28"	28"	40"
24"-22 1/2"	TL	56"	28"	28"	56"
24"-45"	TL	101"	28"	28"	60"
24"-90"	TL	180"	28"	28"	60"
30"-11 1/4"	TL	49"	34"	30"	49"
30"-22 1/2"	TL	79"	34"	30"	60"
30"-45"	TL	154"	34"	30"	60"
30"-90"	TL	285"	34"	30"	60"

TEES	"G"	"H"	"I"	"J"	"K"
8"x8"x8"	12"	24"	24"	18"	18"
8"x8"x12"	12"	24"	18"	18"	18"
8"x8"x24"	12"	24"	18"	18"	27"
12"x12"x8"	12"	24"	27"	27"	18"
12"x12"x12"	12"	24"	27"	27"	27"
12"x12"x24"	12"	38"	24"	38"	27"
24"x24"x18"	18"	53"	28"	53"	18"

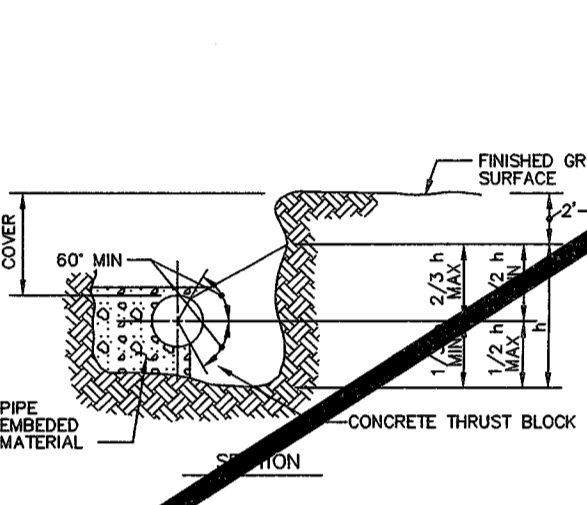
NOTES:
 1. 2"x4" FITTINGS EQUIVALENT TO 6" FITTINGS.
 2. TAPPING SLEEVES TO HAVE BACKING BLOCKS SAME SIZE AS REQUIRED FOR TEES.
 3. "TL" = TOTAL LENGTH OF FITTING MINUS CLEARANCE FOR BELLS.

INTERNAL WATER PRESSURE 6" through 12"=200 psi
 INTERNAL WATER PRESSURE 16" through 30"=210 psi
 BEARING PRESSURE OF SOIL=2000 psi

BACKING BLOCKS
NOT TO SCALE

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O'FALLON, MISSOURI

BACKING BLOCK DETAILS AND LOCATIONS



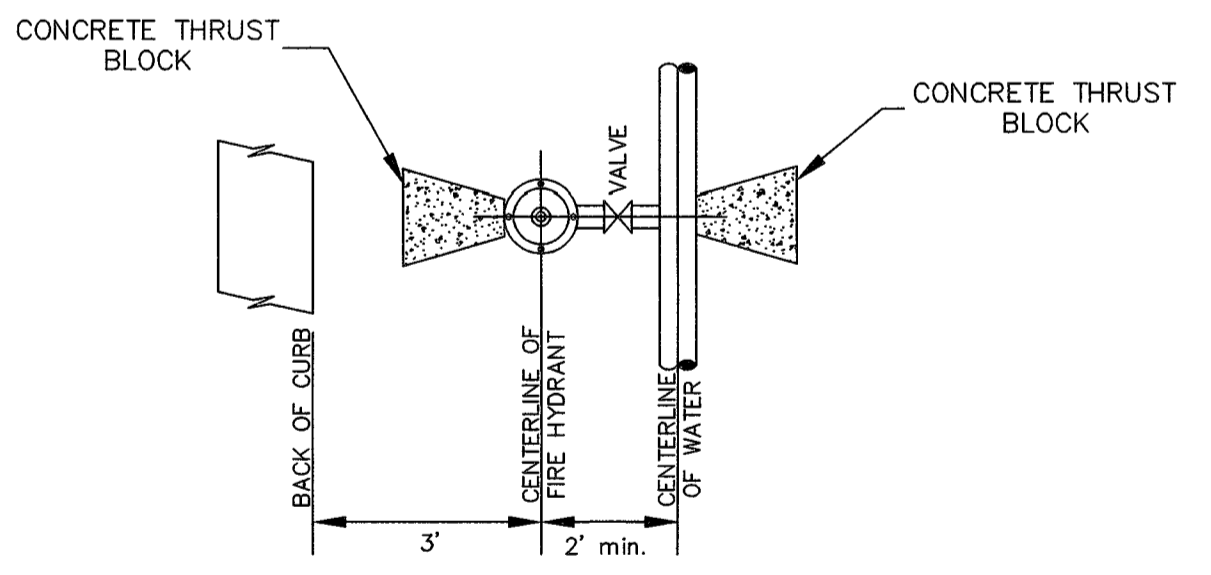
SIZE	BEND	THRUST AREA	B	H
16"	TT 1/2"	4 SF	2'	2'
16"	45°	8 SF	2.8'	2.8'

- NOTES:
 1. AREA OF BLOCK A = BxH. BLOCK AREAS ARE SHOWN ON GENERAL LAYOUT OR TABLE.
 2. B = H = A/√2. EXCEPT WHERE TOP OF BLOCK IS WITHIN 12" FROM GROUND SURFACE, THEN B = A/√2.
 3. MINIMUM BLOCK DIMENSION (B & H) SHALL BE AT LEAST 12" OF PIPE OR 1 FOOT FOR PIPE 12" OR LESS.
 4. THE BOTTOM OF THE BLOCK SHALL EXTEND AT LEAST TO THE BOTTOM OF THE TRENCH IN ALL CASES.
 5. L=FITTING LENGTH MINUS CLEARANCE FOR BELLS.
 6. DETAIL IS SHOWN FOR CAST IRON PIPE DETAIL IS SIMILAR FOR OTHER TYPES OF PIPE.
 7. DIMENSIONS FOR THRUST BLOCKS FOR FIRE HYDRANT ASSEMBLY ARE SHOWN IN PLAN.

CONCRETE THRUST BLOCKING
NOT TO SCALE

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CONCRETE THRUST BLOCKING DETAILS



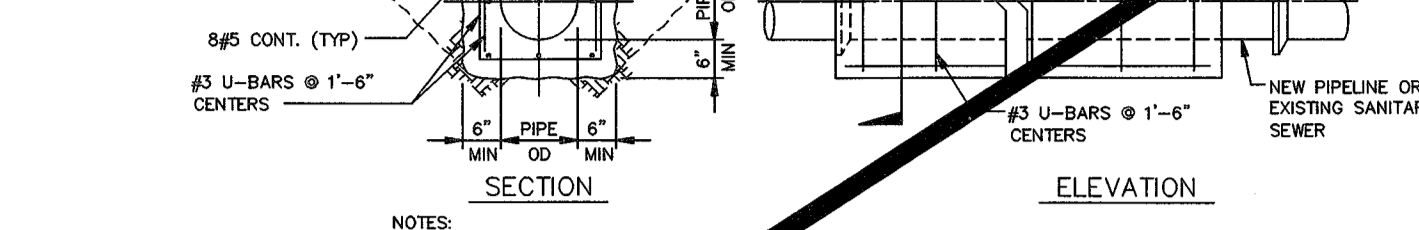
CONFIGURATION
 ALL FIRE HYDRANTS SHALL BE 3' OFF BACK OF CURB
 ALL WATER MAINS SHALL BE A MIN. OF 5' OFF BACK OF CURB

TYPICAL WATER MAIN AND FIRE HYDRANT LOCATIONS
NOT TO SCALE

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WATER MAIN FIRE HYDRANT DETAIL

PLACE CONCRETE AGAINST UNDISTURBED EARTH (EXCEPT ACROSS NEW PIPELINE TRENCH WHEN EXIST SANITARY SEWER IS ENCASED)

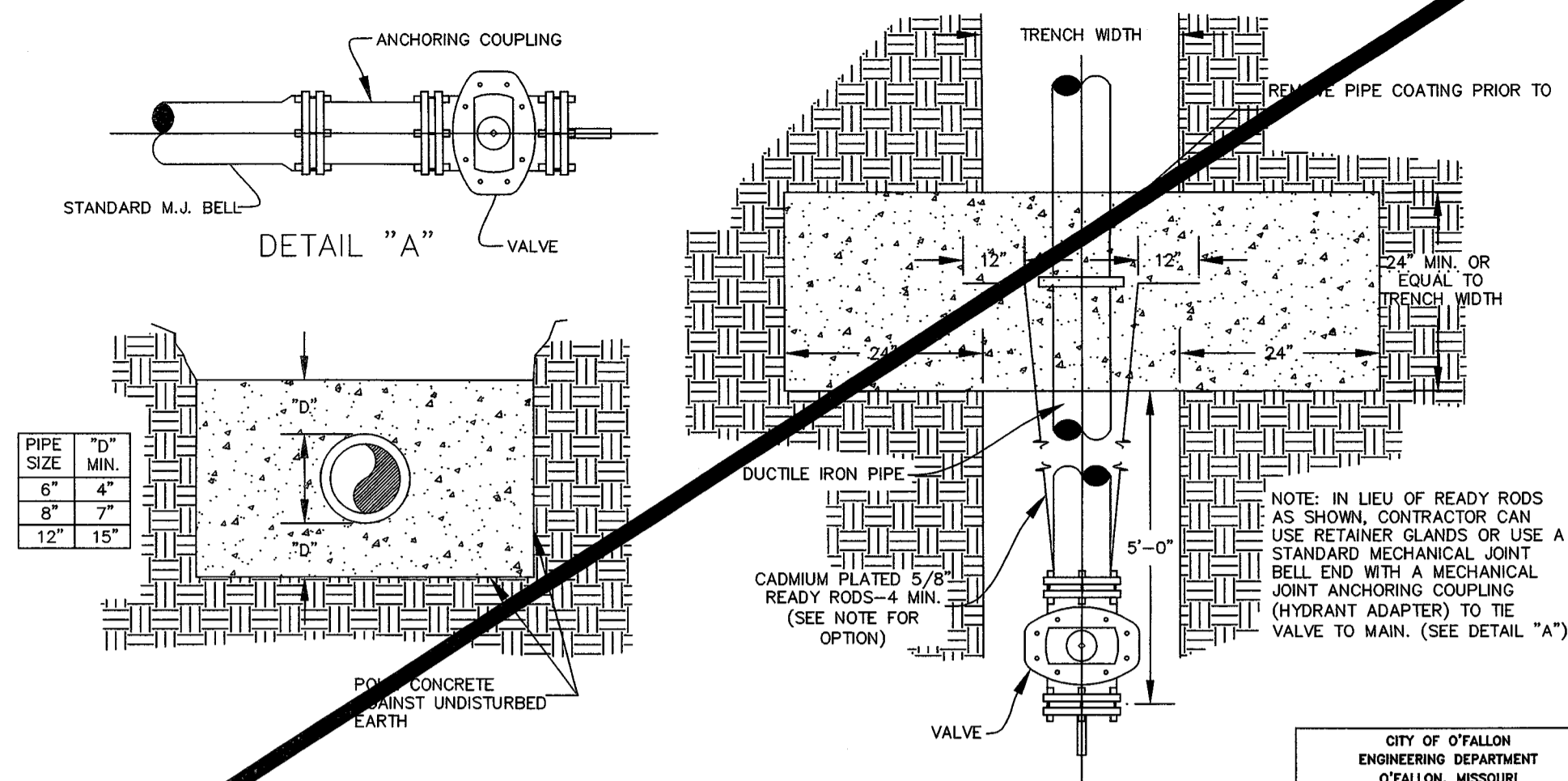


- NOTES:
 1. AT LOCATIONS WHERE THE TRANSMISSION MAIN CROSSES AN EXIST SANITARY SEWER, SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 2. WHEN THE PIPELINE IS PROTECTED WITH POLYETHYLENE TUBE ENCASEMENT, THE CONCRETE ENCASEMENT TO COVER THE POLYETHYLENE ENCASEMENT.

CONCRETE ENCASEMENT
NO SCALE

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CONCRETE ENCASEMENT DETAILS

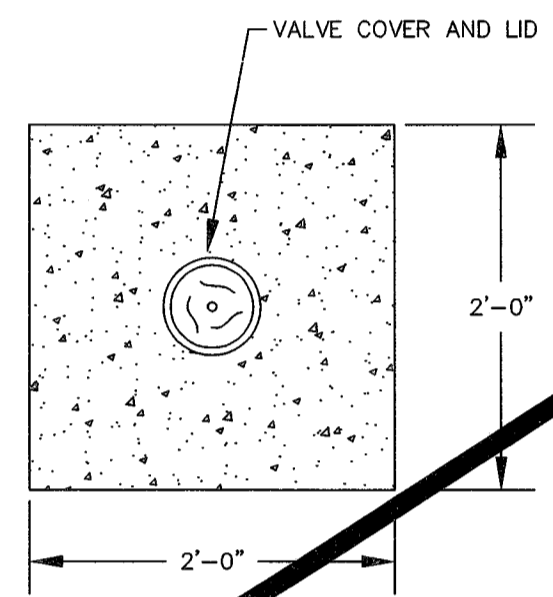


PIPE SIZE	"D" MIN.
6"	4"
8"	7"
12"	15"

STRADDLE BLOCK DETAIL
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STRADDLE BLOCK DETAILS



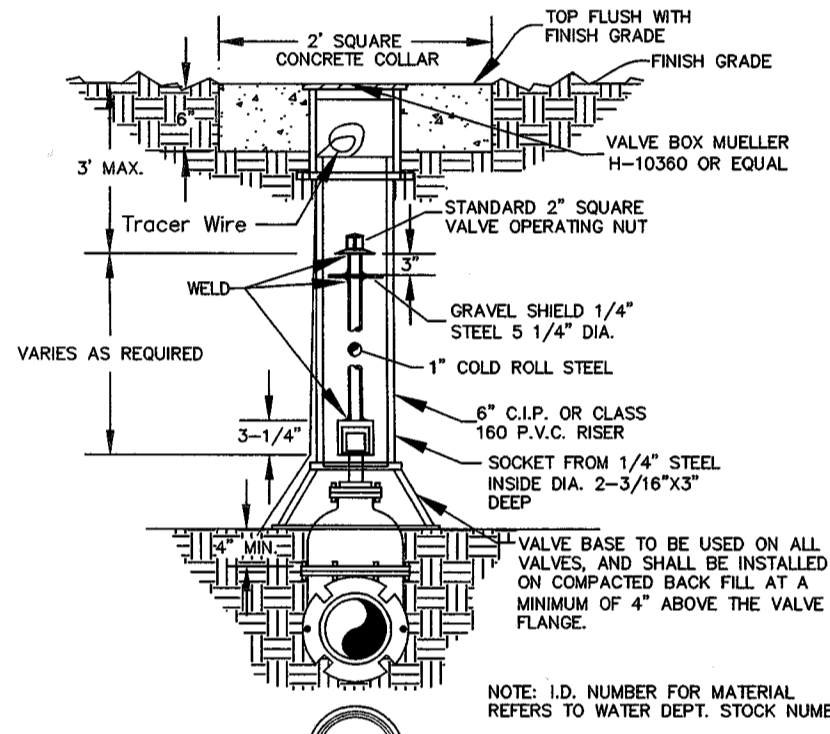
TOP VIEW CONCRETE COLLAR
NOT TO SCALE

- NOTE: 1. Concrete collar joint pattern is required in paved areas such as roadways, driveways, sidewalks or other areas of paved surfaces.
 2. Concrete collars are optional in other non-paved areas.

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CONCRETE COLLAR DETAIL

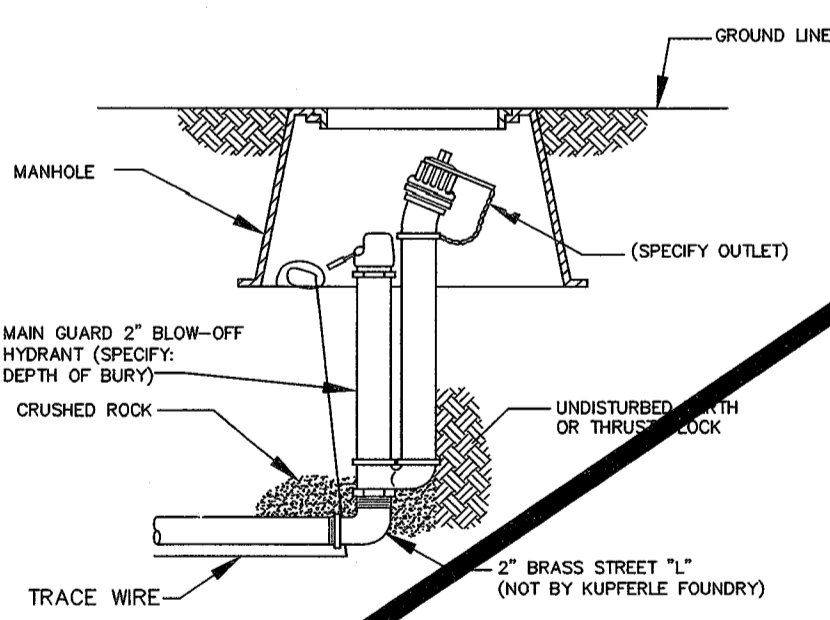
Concrete collar will be in accordance with the Concrete collar detail.



WATER VALVE DETAIL
NOT TO SCALE

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ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

WATER VALVE DETAIL



BLOW-OFF HYDRANTS SHALL BE NONFREEZING, SELF DRAINING TYPE, WITH AN OVERALL LENGTH OF 2'. SET UNDERGROUND IN A TRENCH 2' DEEP. THESE HYDRANTS WILL BE FURNISHED WITH A 2" FIP INLET, A 2" TURNING OPERATING ROD, AND SHALL OPEN TO THE LEFT. ALL WORKING PARTS SHALL BE OF BRONZE TO BRONZE DESIGN AND BE SERVICEABLE FROM ABOVE GRADE WITH NO DIGGING. THE INLET SHALL ALSO BE BRONZE AND BE 2-1/2" NST. HYDRANTS SHALL BE LOCKABLE TO PREVENT UNAUTHORIZED USE AS MANUFACTURED BY KUPFERLE FOUNDRY CO., ST. LOUIS, MO, OR APPROVED EQUAL.

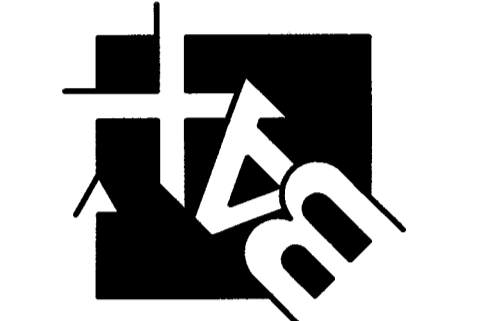
BLOW-OFF HYDRANT
NOT TO SCALE

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ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

BLOW-OFF HYDRANT DETAIL

PROJECT TITLE:
 TAUC PROPERTIES
 O'FALLON MAIN
 507 S. MAIN ST.

ENGINEERING PLANNING SURVEYING
 221 Point West Blvd.
 St. Charles, MO 63301
 636-928-5562
 FAX 636-928-1718



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 I hereby specify that the documents intended to be authenticated by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other Drawings, Specifications, Estimates, Reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

REFERENCE DRAWINGS ONLY

REVISIONS

NO.	DESCRIPTION

Developer / Owner:
 DR MATT BRUCKEL
 TAUC PROPERTIES LLC
 9556 MANCHESTER ROAD
 ST. LOUIS, MO 63119

WATER DETAILS

P+Z No.
19-16 (approved 7-7-16)

City No.
16-000028

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