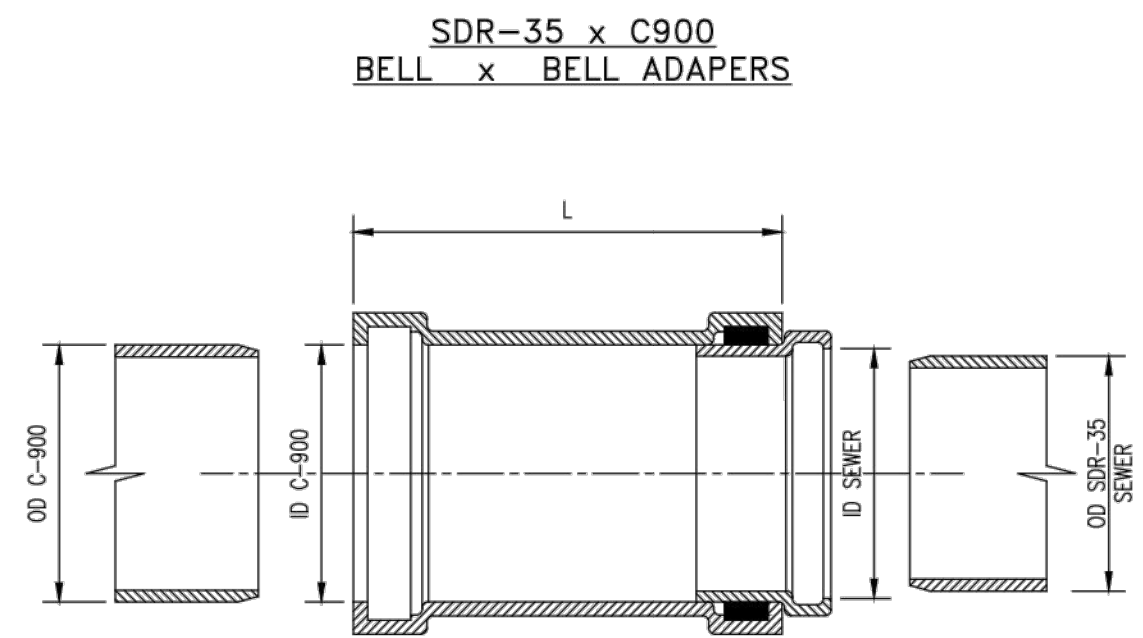


SIZE	CATALOG NO.	A	L	STYLE
4"	335-040	3.2	10.0	FABRICATED
6"	335-060	2.9	3.5	HARCO
8"	335-080	4.0	12.5	FABRICATED

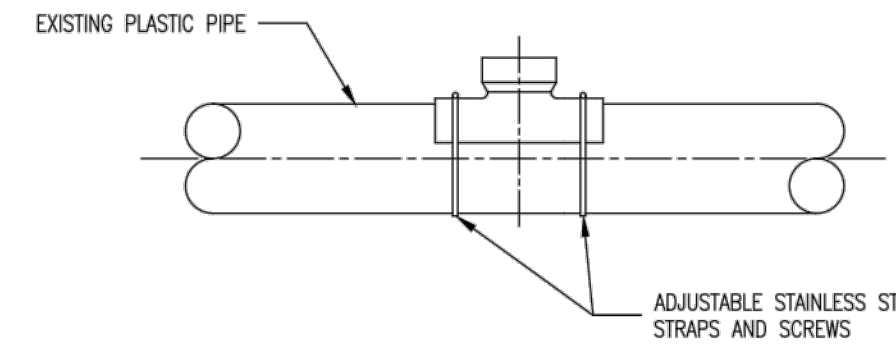
Duckett Creek Sanitary District
 SDR-35 x C900 BELL AND SPIGOT SPECIAL 4", 6" 8" ADAPTERS
 Drawn By: BSM, App By: KA, Detail No. 19B
 Check By: MDOB, Date: DEC. 2015



SIZE	CATALOG NO.	OD C900	OD SEWER	ID C900	ID SEWER	L	CTN QTY	CTN WT
4x4	337-040	4.80	4.215	4.86	4.25	10.0	1	4
6x6	337-060	6.90	6.275	6.96	6.32	11.13	1	8
8x8	337-080	9.05	8.400	9.13	8.45	12.50	1	15

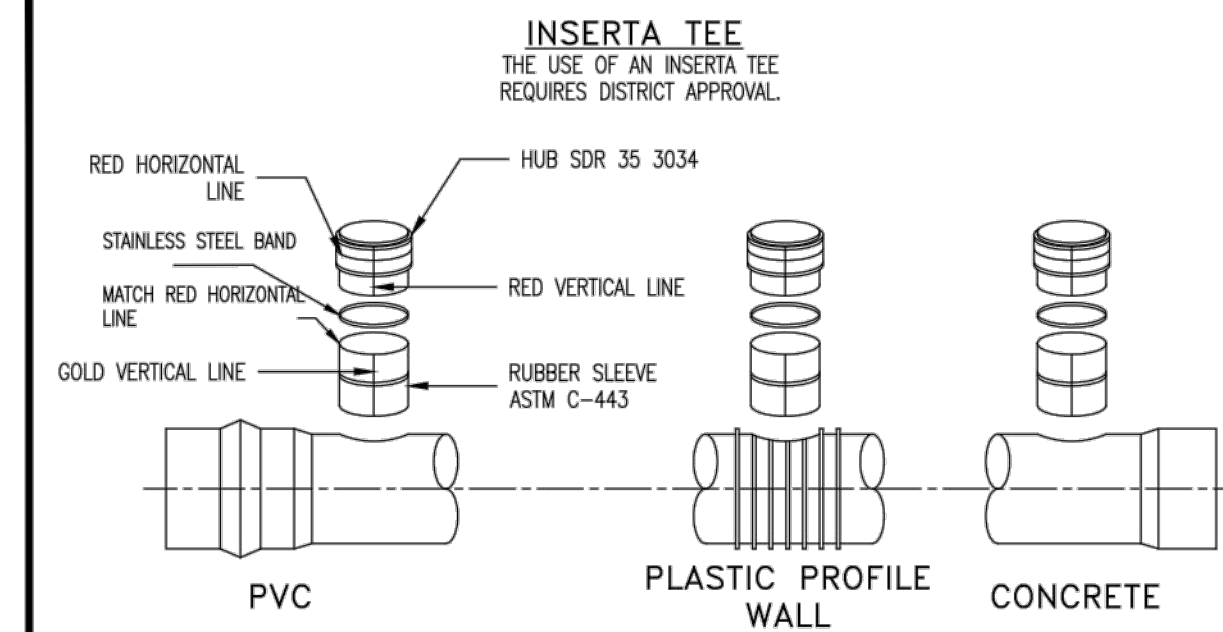
Duckett Creek Sanitary District
 SDR-35 x C900 BELL AND BELL 4", 6" & 8" ADAPTERS
 Drawn By: BSM, App By: KA, Detail No. 19C
 Check By: MDOB, Date: DEC. 2015

PLASTIC SADDLE TEE OR WYE FITTING (SOLVENT WELD)



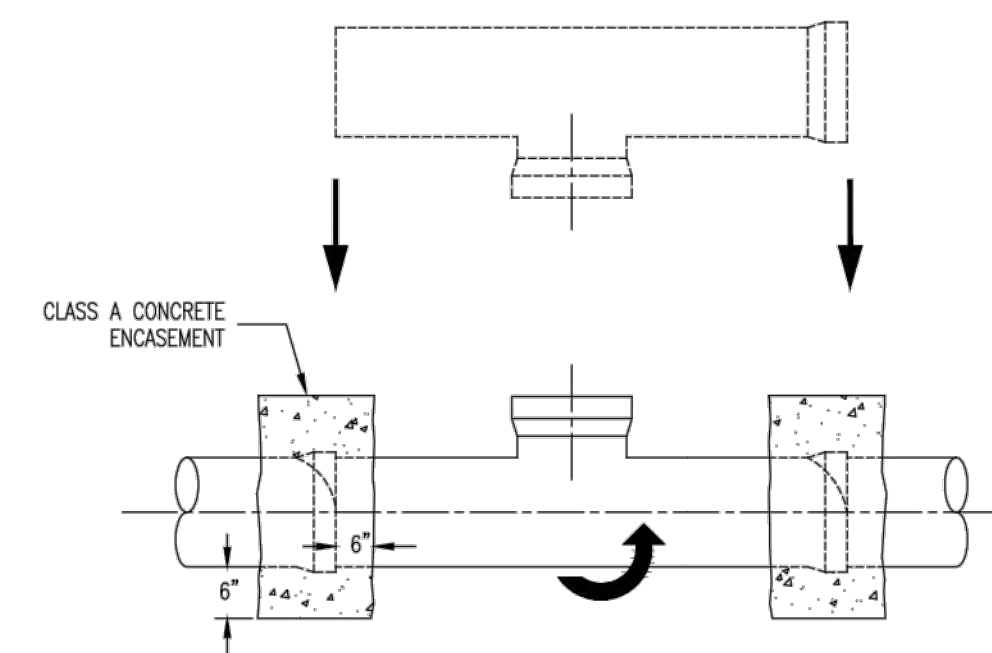
- WHEN CONNECTION TO A PLASTIC PIPE IS ALLOWED AND A CONNECTION IS LARGER THAN 6" IN DIAMETER, A SOLVENT WELD WYE OR TEE FITTING OF A SIMILAR MATERIAL MUST BE USED. (EXAMPLE: 10" x 8")
- THIS IS ACCOMPLISHED BY CAREFULLY CUTTING A HOLE WITH A SAW IN THE MAIN AT THE REQUIRED LOCATION AFTER CUTTING AND SHAPING THE HOLE TO THE SIZE OF THE FITTING. THE FOLLOWING STEPS SHOULD BE TAKEN:
- CLEAN AND DRY BOTH INSIDE THE SADDLE WYE SURFACE AND PIPE SURFACE TO BE SOLVENT CEMENTED.
 - IMPORTANT:** APPLY A LIBERAL, HEAVY COAT OF ONE-STEP SOLVENT CEMENT TO THE INSIDE SURFACE OF THE SADDLE WYE AND TO THE EXTERIOR WELDING SURFACE TO THE PIPE.
 - WITHOUT DELAY, MATE THE SURFACES AND STRAP DOWN TIGHTLY. A BEAD OF SOLVENT SHOULD APPEAR AFTER THE SADDLE HAS BEEN STRAPPED DOWN TIGHTLY.
 - USING A RAG OR PAPER TOWEL, WIPE BEAD AND ANY EXCESS SOLVENT CEMENT OFF PIPE AND SADDLE.
 - ALLOW 30-60 MINUTES FOR SET-UP TIME BEFORE BACKFILLING. CURE TIME DEPENDS ON SIZE FIT OF MATERIALS BEING INSTALLED AND VARIOUS COLD DAMP CONDITIONS.
 - DISCARD OLD SOLVENT IF IT BECOMES JELLED OR LUMPY.
 - A CLEAN, DRY BEDDING MATERIAL IS REQUIRED AROUND THE COMPLETED CONNECTION BEFORE BACKFILLING. THE BEDDING MATERIAL SHOULD BE ONE OF THE FOLLOWING:
 - 1 TO 3 CEMENT TO SAND MIX
 - "PRE-MIX" CONCRETE.
 - DCSD APPROVED BEDDING FOR SANITARY SEWERS.

Duckett Creek Sanitary District
 8" AND LARGER CONNECTION TO PLASTIC MAIN
 Drawn By: BSM, App By: KA, Detail No. 20A
 Check By: MDOB, Date: DEC. 2015



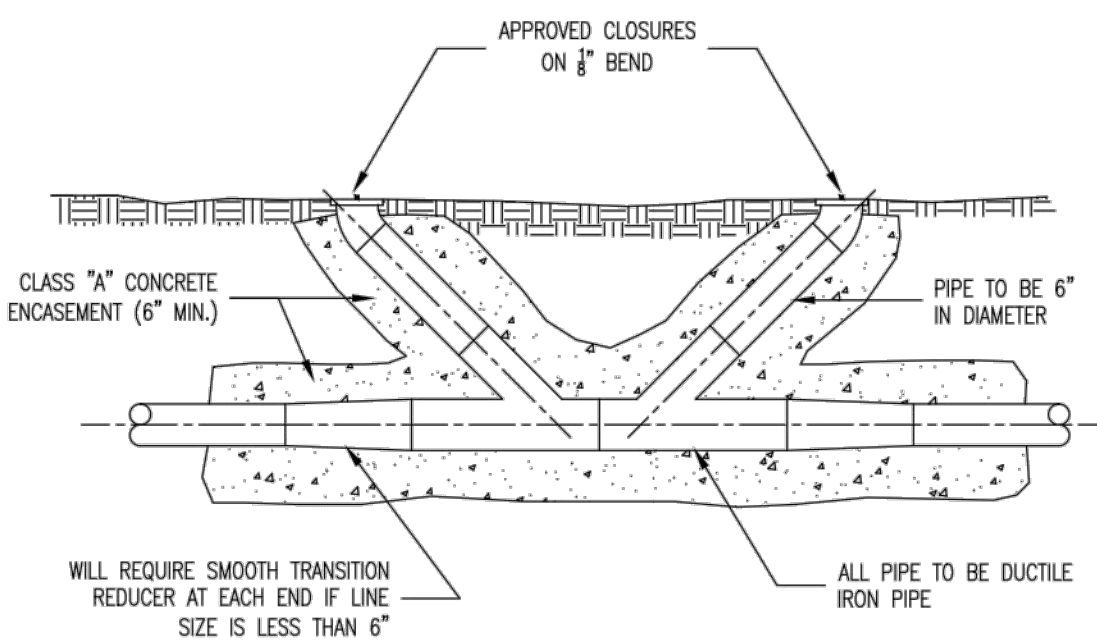
- INSTALLATION PROCEDURE:**
- CORE THE PROPER SIZE HOLE.
 - INSERT THE RUBBER SLEEVE (1) IN THE CORED HOLE WITH THE GOLD VERTICAL LINE ON THE RUBBER SLEEVE (2) FACING TO THE SIDE OF THE MAIN LINE. THE UPPER SEGMENT SHOULD BE ON TOP OF THE WALL OR RIB AND THE LOWER SEGMENT (PVC, PROFILE WALL, AND POLYETHYLENE PIPE ONLY) SHOULD BE ON THE INSIDE OF THE PIPE.
 - APPLY THE INSERTA TEE SOLUTION SUPPLIED TO THE INSIDE OF THE RUBBER SLEEVE AND TO THE OUTSIDE OF THE PVC HUB ADAPTER. **CAUTION - DO NOT USE AN OIL BASED LUBRICANT.**
 - PLACE THE PVC HUB ADAPTER (3) INTO THE RUBBER SLEEVE. MAKE SURE THAT THE RED VERTICAL LINE (4) ON THE PVC HUB ADAPTER IS IN LINE WITH THE GOLD VERTICAL LINE (2) ON THE RUBBER SLEEVE.
 - PLACE THE 2x4 BOARD ONTO THE TOP OF THE PVC HUB ADAPTER.
 - THE RED HORIZONTAL LINE (5) AT THE TOP OF THE HUB ADAPTER IS A DEPTH MARK. THIS TELLS THE INSTALLER HOW FAR TO DRIVE THE ADAPTER INTO THE RUBBER SLEEVE. DRIVE THE PVC HUB ADAPTER INTO THE RUBBER SLEEVE TO WHERE THE HORIZONTAL RED LINE (5) ON THE PVC HUB ADAPTER (3) MEETS THE TOP OF THE RUBBER SLEEVE (2).
 - PLACE THE STAINLESS STEEL BAND (7) AROUND THE TOP OF THE RUBBER SLEEVE AND TIGHTEN DOWN.
 - INSTALL PIPE IN NORMAL MANNER.

Duckett Creek Sanitary District
 INSERTA TEE DETAILS AND SPECIFICATIONS
 Drawn By: BSM, App By: KA, Detail No. 20B
 Check By: MDOB, Date: DEC. 2015



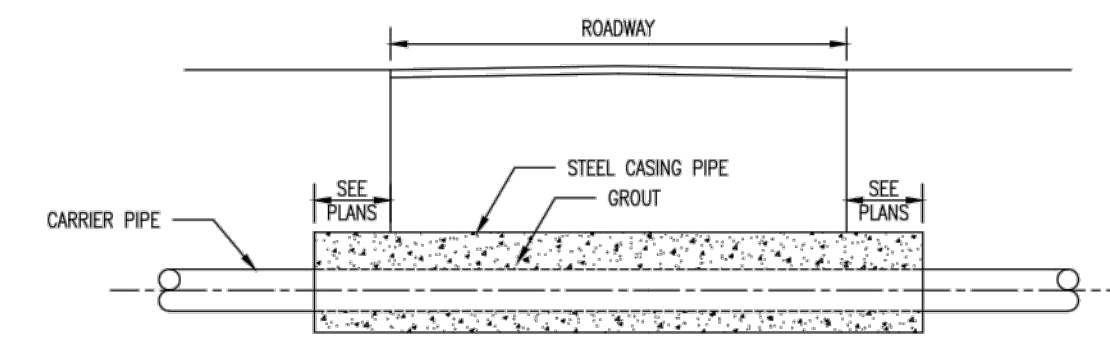
- NOTES:**
- WHEN A CONNECTION IS ALLOWED LARGER THAN 6" DIAMETER A SADDLE MAY BE USED IF THE I.D. OF THE CONNECTION PIPE IS NOT GREATER THAN ONE HALF (1/2) OF THE I.D. OF THE MAIN SEWER. (EXAMPLE: 24" x 10")
 - IF THE I.D. OF THE CONNECTION PIPE IS GREATER THAN ONE HALF (1/2) THE I.D. OF THE MAIN SEWER THE WYE OR TEE MUST BE "ROLLED IN". (EXAMPLE: 15" x 8")
 - THIS IS ACCOMPLISHED BY BREAKING AWAY AND REMOVING ONE SECTION OF PIPE. THE TOP HALF OF THE BELL ON THE PIPE LYING ADJACENT TO THE GAP IS CAREFULLY BROKEN OFF. THE TOP HALF OF THE BELL ON THE MAIN REPLACEMENT SECTION (WITH A "TEE" FITTING) IS ALSO BROKEN OFF. THE REPLACEMENT PIPE IS THEN PLACED IN THE LINE GAP WITH THE STUBS POINTED IN THE WRONG DIRECTION. THE BROKEN BELLS ON THE REPLACEMENT AND ADJOINING PIPE MAKE IT POSSIBLE FOR THE REPLACEMENT SECTION TO FIT INTO THE SEWER LINE WITHOUT DISTURBING THE ADJOINING PIPE SECTIONS. THE REPLACEMENT SECTION IS THEN ROTATED TO THE DESIRED POSITION AND THE BROKEN BELLS ARE ENCASED WITH A 6" CLASS "A" CONCRETE ENCASEMENT.
 - ID OF MAIN SEWER SHALL NOT BE DECREASED BY A ROLL-IN CONNECTION.

Duckett Creek Sanitary District
 ROLL-IN (FOR EXISTING CLAY OR CONCRETE PIPE)
 Drawn By: BSM, App By: KA, Detail No. 21
 Check By: MDOB, Date: DEC. 2015



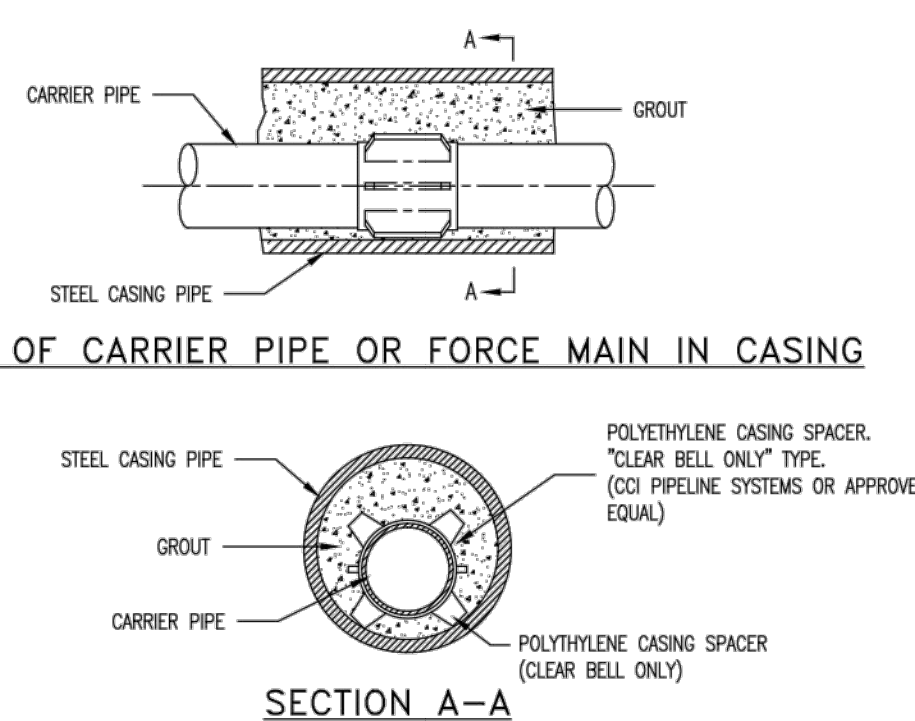
1800' MAXIMUM SPACING

Duckett Creek Sanitary District
 FORCE MAIN CLEANOUT 6" DIAMETER & SMALLER
 Drawn By: BSM, App By: KA, Detail No. 22
 Check By: MDOB, Date: DEC. 2015

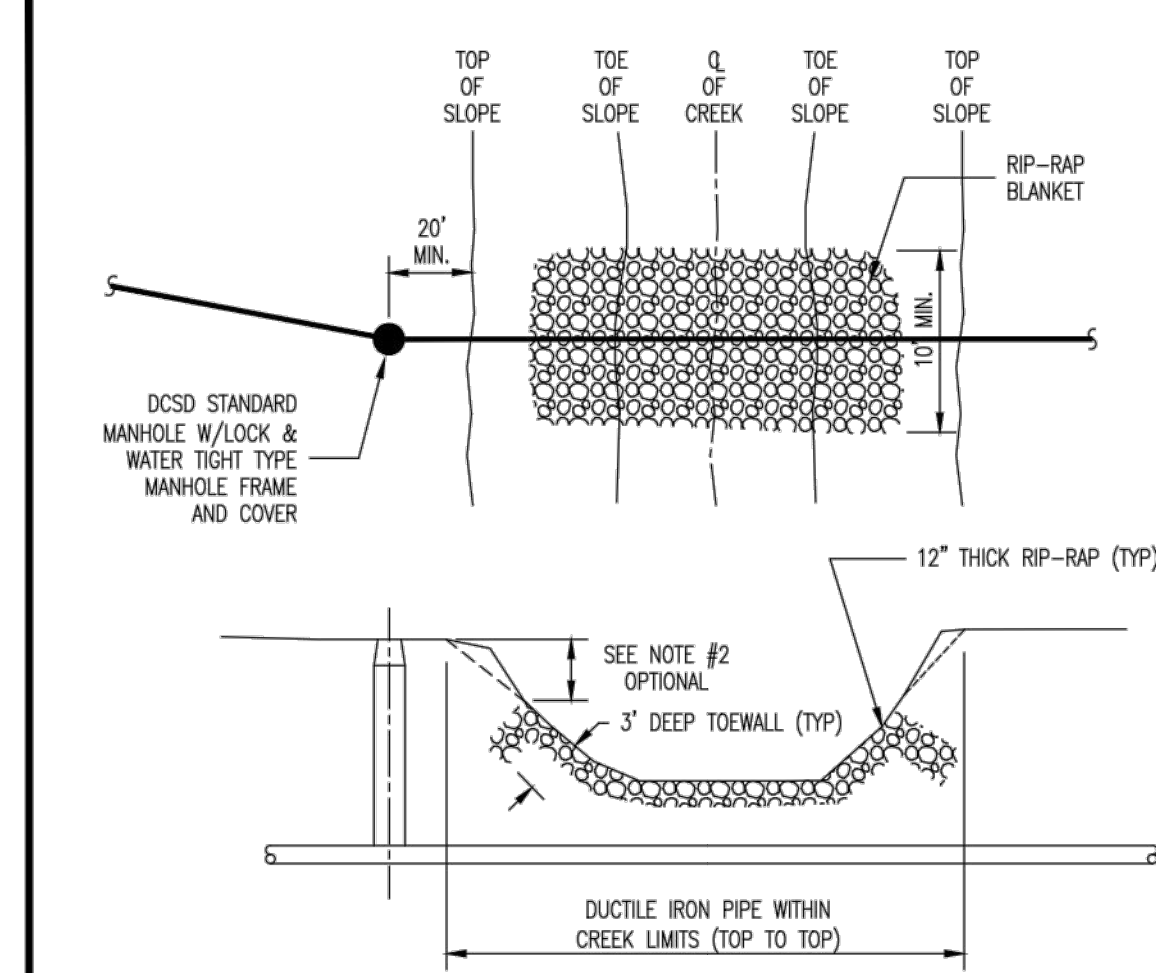


- NOTES:**
- INSIDE DIAMETER OF CASING PIPE TO BE MINIMUM OF 4" GREATER THAN COUPLING DIAMETER OF CARRIER PIPE.
 - ENCASEMENTS TO BE INSTALLED UNDER THE ROAD BY MEANS OF JACKING IT THROUGH, OR BY DRY BORING A HOLE THAT WILL RECEIVE THE CASING WITH A SNUG FIT.
 - THE OUTSIDE DIAMETER OF THE CASING SHALL NOT BE LESS THAN, NOR MORE THAN ONE INCH GREATER THAN THE BORED HOLE.
 - CASING PIPE SLOPE TO MATCH CARRIER PIPE. CARRIER PIPE TO LAY IN THE BOTTOM OF THE STEEL CASING PIPE.

SUPPORT OF CARRIER PIPE OR FORCE MAIN IN CASING



Duckett Creek Sanitary District
 ROADWAY BORING DETAIL
 Drawn By: MSM, App By: KA, Detail No. 23
 Check By: MDOB, Date: DEC. 2015



- NOTES:**
- RIP-RAP IS REQUIRED AT ALL CREEK CROSSINGS WHERE THE EMBANKMENTS CROSSED ARE STEEPER THAN 1 VERTICAL TO 2 HORIZONTAL RATIO SLOPE; AND ALSO WHERE THERE IS 3 FEET OR LESS COVER OVER THE TOP OF THE SEWER MAIN.
 - PLACE RIP-RAP ON LOWER 3/4 OF SLOPE. GRADE UPPER 1/4 OF SLOPE AT 1 VERTICAL TO 2 HORIZONTAL SLOPE FOR SOD OR 1 VERTICAL TO 2.5 HORIZONTAL SLOPE FOR SEED AND STRAW.
 - RIP-RAP TO BE "MSD 5" GRADATION, MINIMUM 12" THICK.
 - INCORPORATE A 3 FEET DEEP TOE WALL ON EMBANKMENT'S UPPER EDGE OF RIP-RAP.
 - TOP SURFACE OF RIP-RAP SHOULD NOT BE HIGHER THAN ADJACENT GROUND SURFACE.
 - IF PIPE HAS LESS THAN 12" COVER, A PAVED CHANNEL MAY BE REQUIRED.
 - DUCTILE IRON PIPE IS REQUIRED WITHIN THE CREEK LIMITS.

Duckett Creek Sanitary District
 TYPICAL CREEK CROSSING
 Drawn By: BSM, App By: KA, Detail No. 24
 Check By: MDOB, Date: DEC. 2015

PROJECT TITLE
**IMPROVEMENT PLANS
 THE VILLAGES AT
 MONTRACHET**
 DETAILS

PICKETT, RAY & SILVER INC
 CIVIL ENGINEERING, LAND SURVEYING,
 AND NATURAL RESOURCES SERVICES
 St. Peters, MO 63376
 22 Richmond Center Court
 St. Peters, MO 63376
 Phone (636) 397-1211 Fax (636) 397-1104
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ENGINEER'S AUTHENTICATION
 THE RESPONSIBILITY FOR PROFESSIONAL ENGINEERING LIABILITY ON THIS PROJECT IS LIMITED TO THE SET OF PLANS AUTHENTICATED BY THE SEAL, SIGNATURE, AND DATE HEREON ATTACHED. RESPONSIBILITY IS DISCLAIMED FOR ALL OTHER ENGINEERING PLANS INVOLVED IN THIS PROJECT AND SPECIFICALLY EXCLUDES REVISIONS AFTER THIS DATE UNLESS REAUTHENTICATED.
PICKETT, RAY & SILVER, INC. MO LICENSE #000336
 KARL ANTHONY SCHOENIKE
 PROFESSIONAL ENGINEER
 STATE OF MISSOURI
 NUMBER RE-2003015035
 01-25-16
 KARL A. SCHOENIKE, P.E.
 PROFESSIONAL ENGINEER LICENSE 2003015035
 ELECTRONIC SEAL

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P+Z No. 15-15.01
 City No. 15-742-SP
 Page No.

PWS #2 APPROVED 12/30/15
 CITY OF O'FALLON APPROVED 01/25/16
 DCSD APPROVED 11/30/15 PERMIT NUMBER 2015-2-005

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