

**SDR-35 x C900 BELL & BELL ADAPTERS**

SIZE	CATALOG NO.	OD	OD	ID	ID	L	CTN QTY	CTN WT
4x4	337-040	4.50	4.215	4.06	4.25	10.0	1	4
6x6	337-060	6.50	6.275	6.06	6.32	11.15	1	8
8x8	337-080	8.05	8.400	8.13	8.45	12.50	1	15

**Duckett Creek Sanitary District**  
 SDR-35 x C900 BELL & BELL 4" 6" & 8" ADAPTERS  
 BSM MOOB KLA 1-3-01 19C

**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.
- 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, Wipe 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 COLE 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
  - TYPE "M" CONCRETE
  - CLASS "A" CONCRETE

**Duckett Creek Sanitary District**  
 8" & LARGER CONNECTION TO PLASTIC MAIN  
 BSM MOOB KLA 1-4-01 20A

**INSERTA TEE**  
 THE USE OF AN INSERTA TEE REQUIRES DISTRICT APPROVAL.

**INSTALLATION PROCEDURE:**

- CORE THE PROPER SIZE HOLE. TEE SIZE: 4" 6" 8" 10" 12" 15". BELL SIZE: 4" 6" 8" 10" 12" 15".
- 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 SOB 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 BRIDGE 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  
 BSM MOOB KLA 1-4-01 20B

**"ROLL-IN"**  
 (FOR EXISTING CLAY OR CONCRETE PIPE)

**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) 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 PIPE 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 BEING ADJACENT TO THE GAP IS CAREFULLY BROKEN OFF. THE TOP HALF OF THE BELL ON THE MAIN REPLACEMENT SECTION (WITH A "TIE" WYE) FITTING IS ALSO BROKEN OFF. THE REPLACEMENT PIPE IS THEN PLACED IN THE LINE GAP WITH THE STUB POINTED IN THE WRONG DIRECTION. THE BROKEN BELLS ON THE REPLACEMENT AND ADJACING PIPE MAKE IT POSSIBLE FOR THE REPLACEMENT SECTION TO FIT INTO THE SEWER LINE WITHOUT DISTURBING THE ADJACING PIPE SECTIONS. THE REPLACEMENT SECTION IS THEN RETURNED TO THE DESIRED POSITION AND THE BROKEN BELLS ARE ENCASED WITH A 6" CLASS "A" CONCRETE ENCASEMENT.
- I.D. OF MAIN SEWER SHALL NOT BE DECREASED BY A ROLL-IN CONNECTION.

**Duckett Creek Sanitary District**  
 "ROLL-IN" (FOR EXISTING CLAY OR CONCRETE PIPE)  
 BSM MOOB KLA 1-5-01 21

**1800' MAXIMUM SPACING**

**Duckett Creek Sanitary District**  
 FORCE MAIN CLEANOUT (6" DIA. & SMALLER)  
 BSM MOOB KLA 1-5-01 22

**Duckett Creek Sanitary District**  
 SANITARY SEWER LATERAL RISER DETAIL  
 BSM MOOB KLA 1-9-01 27

**BORING DETAIL**

**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 SMOG FIT.
- THE OUTSIDE DIAMETER OF THE CASING SHALL NOT BE LESS THAN, NOR MORE THAN ONE INCH GREATER THAN THE BORED HOLE.
- THE ANNULAR SPACE BETWEEN THE CASING PIPE AND THE BORED HOLE SHALL BE FILLED WITH GROUT.

**SUPPORT OF CARRIER PIPE OR FORCE MAIN IN CASING**

**SECTION A-A'**

**Duckett Creek Sanitary District**  
 ROADWAY BORING DETAIL  
 BSM MOOB KLA 1-5-01 23

**TYPICAL CREEK CROSSING**

**NOTES:**

- GROUTED 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 SOO OR 1 VERTICAL TO 2.5 HORIZONTAL SLOPE FOR SEED AND STRAM.
- RIP-RAP TO BE "M50 S" GRADATION, MINIMUM 12" THICK, GROUTED WITH 8 SACK MIX, SAND-CEMENT SLURRY, BROOM FINISH.
- 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  
 BSM MOOB KLA 1-8-01 24

**METAL FRAME AND COVER TYPE CLEANOUT**

**ADJUSTABLE HEAD TYPE CLEANOUT**

**Duckett Creek Sanitary District**  
 DETAILS AND SPECIFICATIONS  
 BSM MOOB KLA 1-8-01 25

**TYPICAL SANITARY SEWER LATERAL PROFILE**

**NOTE:** DIFFERENCE IN DEPTH INCREASES WITH PIPE SIZE.

**Duckett Creek Sanitary District**  
 TYPICAL SANITARY SEWER LATERAL PROFILE  
 BSM MOOB KLA 1-9-01 26

**LOW PRESSURE SEWER MAIN CONNECTION AT MANHOLE**

**NOTE:** INVERT-BOTTOM SHALL BE WORKED TO PROVIDE POSITIVE DRAINAGE THROUGH MANHOLE.

**Duckett Creek Sanitary District**  
 LOW PRESSURE SEWER MAIN CONNECTION AT MANHOLE  
 BSM MOOB KLA 1-9-01 28

**THRUST BLOCK DETAIL AND SIZE SCHEDULE**

MAIN SIZE	A x B	A x B	A x B	A x B
2"	25" x 1'	35" x 1'	45" x 1'	55" x 1'
4"	1' x 1'	1.5' x 1'	2' x 1'	2.5' x 1'
6"	1' x 1'	1.5' x 1'	2' x 1'	2.5' x 1'
8"	1' x 1'	2' x 1'	2.5' x 1'	3' x 1'

**Duckett Creek Sanitary District**  
 THRUST BLOCK DETAIL AND SIZE SCHEDULE  
 BSM MOOB KLA 1-9-01 29

**AERIAL CREEK CROSSING DETAIL**

**Duckett Creek Sanitary District**  
 AERIAL CREEK CROSSING DETAIL  
 BSM MOOB KLA 1-10-01 30A

**CONCRETE PIER DETAIL**

**Duckett Creek Sanitary District**  
 CONCRETE PIER DETAIL  
 BSM MOOB KLA 1-9-01 30B

**AERIAL CROSSING BARRIER DETAIL**

**BILL OF MATERIAL:**

NO.	QTY.	SYN. NO.	SIZE	DESCRIPTION
1	1	3600	12" x 2"	PIPE, SIL. SORB.
2	8	3600	1/2" x 2"	BAR, SIL. SORB.
3	2	3600	1/2" x 2"	BAR, SIL. SORB.
4	2	3600	1/2" x 2"	BAR, SIL. SORB.
5	2	3600	1/2" x 2"	BAR, SIL. SORB.
6	2	3600	1/2" x 2"	BAR, SIL. SORB.
7	2	3600	1/2" x 2"	BAR, SIL. SORB.
8	2	3600	1/2" x 2"	BAR, SIL. SORB.
9	2	3600	1/2" x 2"	BAR, SIL. SORB.
10	2	3600	1/2" x 2"	BAR, SIL. SORB.

**NOTES:**

- "BILL OF MATERIALS" PROVIDES SUFFICIENT MATERIAL FOR TWO BARRICADES.
- LOCATION OF BARRICADES ON PIPING SYSTEM TO BE AS SPECIFIED ON APPROVED CONSTRUCTION DRAWINGS.
- TWO BARRICADES WILL BE REQUIRED, ONE AT EACH END OF THE CROSSING AS A DETERRENT AGAINST FOOT TRAFFIC. IN SOME INSTANCES ADDITIONAL BARRICADES MAY BE REQUIRED.
- COAT ANY EXPOSED PIPE WITH MASTIC, STOCK #51807.

**Duckett Creek Sanitary District**  
 AERIAL CROSSING BARRIER DETAIL  
 BSM MOOB KLA 1-9-01 30C

**AERIAL CROSSING CONCRETE COLLAR DETAIL**

**Duckett Creek Sanitary District**  
 AERIAL CROSSING CONCRETE COLLAR DETAIL  
 BSM MOOB KLA 1-9-01 30D