

HOUSE CONNECTIONS ALLOWED BY TEE SADDLE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. A. E. S. Ch. J. C. K. April 1978 Sheet 52

Note: The opening shall be cut by the contractor to a sufficient size to permit inserting a tee saddle or short length of pipe of the required elevation and depth to allow at least two (2) inches space around the pipe. This space will be neatly filled with 1-3 Cement-sand mortar and the new pipe neatly trimmed and pointed up flush with the inside of the main sewer.

If there are reinforcing bars in the sewer wall, only those preventing insertion of the pipe may be cut. All others shall be bent into a Class "C" concrete collar at the junction of the connection pipe and the main sewer.

B (8" LARGER) CONNECTION TO PLASTIC MAIN

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. A. E. S. Ch. J. C. K. JUNE, 1985 SHEET 53

When a 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 of the required location. After cutting and shaping the hole to the size of the fitting, the following steps should be taken:

1. Clean and dry both inside saddle wye surface and pipe surface to be solvent cemented.
2. Important: Apply a liberal, heavy coat of a ONE-STEP SOLVENT CEMENT to the inside surface of the saddle wye and to the exterior seating surface to the pipe.
3. Without delay, mate the surfaces and snap down tightly. A bead of solvent should appear after saddle has been stripped down tightly.
4. Using a rag or paper towel, wipe bead and dry excess solvent cement off pipe and saddle.
5. Allow 30-60 minutes for set-up time before backfilling. Cure time depends on size and fit of materials being installed and various cold damp conditions.
6. Discard old solvent if it becomes thick or lumpy.
7. A clean, dry bedding material is required around the completed connection before backfilling. The bedding material should be one of the following:
 - A. M.S.D.#1 Bedding
 - B. 1 to 3 Cement to Sand Mix
 - C. "Pva-Mix" Concrete

"ROLL-IN" FOR EXISTING CLAY OR CONCRETE PIPE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. A. E. S. Ch. J. C. K. April 1985 Sheet 54

When a connection is allowed larger than 6" diameter a saddle may be used if the I.D. of the connection pipe is $\geq 1/2$ 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 $\geq 1/2$ greater than one-half (1/2) the I.D. of the main sewer the wye or the 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" or "wye" fitting) is also broken off. The replacement pipe is then placed in the line gap with the end pointed in the wrong direction. The broken bell on the replacement and the 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 bell is encased with a "Class "A" concrete encasement.

CONNECTIONS TO LARGE SEWERS

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. A. M. P. Ch. J. C. K. April 1985 Sheet 55

Notes: Opening into existing sewer to be cut carefully to avoid damage to adjacent masonry. Hole to be cut to proper grade and elevation and to be of such size as to permit a two-inch space all around the outside of the pipe. This space shall be carefully filled with one part cement and three parts sand mortar compacted into place after the pipe has been inserted and properly bedded to bed and grade. Existing reinforcing bars are to be bent back into the concrete collar around the pipe to provide reinforcement equity on all sides.

FORCE MAIN CLEANOUT (6" DIA. & SMALLER)

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. R. N. Ch. J. C. K. JAN. 1987 Sheet 56

Will require smooth transition reducer at neck and if line size is less than 6" dia. All pipe to be cast iron or ductile iron pipe.

1800' MAXIMUM SPACING

TONGUE AND GROOVE CONCRETE PIPE JOINTS

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. A. D. S. Ch. J. H. S. November 1986 Sheet 57

Apply cold mix compound after drying and hardening of primer to a suitable surface which will hold compound without sagging and not sooner than 3 hours after primer has been applied.

For use of cold-mixed pointing compounds with tongue-and-groove concrete pipe. Use only when rubber-type or preformed neoprene or special gaskets are not required.

Apply approved primer to joining pipe surfaces. Amount of compound to be applied to joining surfaces shall be sufficient to completely fill the joint. Use of an approved preformed compound is permitted.

Sink off excess flush with interior.

Inside diameter

Inside width of joint

- 1/4" max. FOR STRAIGHT ALIGNMENT ONLY
- 1/2" max. For inside Dia. 48" and larger
- 1" max. For inside Dia. 24" to 45" inclusive
- 3/4" max. For inside Dia. 12" to 21" inclusive

50% Maximum increase permitted only on curved alignments

PAVEMENT LUG

General Notes:

1. Do not scale drawing. Follow dimensions.
2. For longitudinal and transverse joints, down and tie bar requirements and curb dimensions refer to the Pavement Construction Details for "Joints and Curbs."
3. Pavement Lugs may be required on wider pavements.
4. Pavement Lugs shall be required on all street grades in excess of 6%.
5. Pavement Lugs shall be located at or near the point which street grades first exceeds 6%, and then proceed uphill at the following spacing: 200' intervals on longest sections; 100' intervals on horizontal curve sections; and 100' in either direction from graded troughs when street grade is in excess of 6% or as directed by the Director.
6. The first Pavement Lug shall be at point 50' uphill from a graded trough or at the point where a 6% grade is encountered and shall decrease in depth 3 ft., 4 ft., 3 ft., 5 ft., 4 ft., 3 ft.; uphill as required.
7. Pavement Lugs may vary in depth with each steep grade run. The minimum depth is 3 ft. and the minimum increment is 1 ft.
8. Asphaltic Concrete Curbion to be placed in the pavement as directed by the Director.

PIPE BEDDING CLASS 'C' (FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)

Approved Patented Compression Type Joint

Grout To Seal Around Pipe

DUCTILE IRON PIPE Max. Dia. 12"

Cut PVC Drop Pipe To Fit D.I.P.

151 or Greater Slopes

3/4" Stainless Steel Bands Min. 2 Req'd. (See 6" x 6" anchors)

Flared Leg Bracket (D021 or Equal) Attached With 3/8" D. x 3" Stainless Steel Bolt/Anchor

8" PVC DROP PIPE For 8", 10", 12" Lines

DETAIL 'A' STANDARD DROP PIPE

DETAIL 'A' Modified DROP PIPE (For Steep Inflow Grades)

OVERDRI

Ductile Iron Pipe To Bridge Overdri

Step Rungs Placed On Unobstructed Wall

SEE DETAIL 'A'

8" PVC

Crustalline Backfill

Section B-B

90° Elbow

INSIDE DROP MANHOLE

DUCKETT CREEK SEWER DISTRICT
STANDARD CONSTRUCTION DETAIL
DETAIL NO. JAN. 1989