

CHAPTER 6 STANDARDS

The following standards are applicable to all construction and/or reconstruction projects for and/or under the jurisdiction of the District unless:

- A. Adjusting Rings: Adjusting Rings for sanitary manholes shall not exceed a total height of 12 inches.
- B. Air Test: Shall be in accordance with Standard Specifications for *Water and Sewer Main Construction in Illinois*, sixth edition, July 2009.
- C. Backfill: Backfill shall be as follows: All trenches across existing streets shall be excavated in compliance with the following specifications or applicable municipal specifications, whichever is more restrictive:
 1. Be backfilled with stabilized backfill, a fast setting flowable backfill material with an unconfined compressive strength of:

7-day average 50 PSI

28-day average 72 PSI

91-day average 80 PSI

Resistance to penetration (at 60 min) ASTM-D-3441 at 40 PSI and coefficient of permeability of $7 - 2 \times 10^{-5}$ CM/sec.
 2. The backfill shall extend four feet beyond the limits of the roadway.
 3. When the backfill has been installed to the satisfaction of the municipality, a 4-inch bituminous concrete surface course Class I mixture "D" type 2 meeting Illinois Department of Transportation (IDOT) specifications shall be placed over the entire trench equal in width to the existing roadway and extend a minimum of two feet beyond the edge of the trench.
 4. All excess materials shall be removed and the right-of-way shall be restored to its original condition to the satisfaction of the municipality.
 5. Before a trench is cut the municipality shall be notified. The trench must be repaired within 28 days of the first cut. In the event the cut is not repaired within the required time period, the Building Commissioner shall issue a stop work order on the building permit issued in association with the trench. In the event construction is not completed the Certificate of Occupancy shall not be issued until acceptable

repairs have been completed.

Trenches across proposed paved areas and streets shall be backfilled with CA-6 100 percent crushed, four feet beyond the limits of the paved area.

- D. Bedding: Bedding shall be CA-11, six inches above pipe less than 12 inches diameter, and 12 inches above pipe 12 inches diameter or more.
- E. Deflection Test for Flexible Thermoplastic Pipe: The deflection test for flexible thermoplastic pipe shall be in accordance with *Standard Specifications for Water & Sewer Main Construction in Illinois*, sixth edition, July 2009.
- F. Drop Manholes: Drop manholes shall be in accordance with *Standard Specifications for Water and Sewer Main Construction in Illinois*, sixth edition, July 2009.
- G. Grease Traps: Grease traps shall be designed in accordance with the Illinois Plumbing Code.
- H. Manholes: Manholes shall be in accordance with ASTM C478 and C923 and *Standard Specifications for Water and Sewer Main Construction in Illinois*, sixth edition, July 2009. Manholes shall have a bituminous coating on the exterior.
- I. Manhole Chimney Seals: Manhole chimney seals shall be exterior type for new manholes and interior type for existing manholes in accordance with ASTM C923.
- J. Manhole Joint Seals: Manhole joint seals shall be applied to all manhole riser joints and shall be a neat shrinkable 0.1 inch sleeve with adhesive applied with a propane torch.
- K. Manhole Lids: Manhole lids shall be heavy duty cast iron gasketed self-sealing, or water tight or bolted if required, with 1.5" recessed flush lettering stating "Lake in the Hills Sanitary District."
- L. Manhole Steps: Manhole steps shall be plastic or plastic coated cast iron in accordance with ASTM A 48.
- M. Manhole Taps: Manhole taps shall be cored and fitted with rubber gasketed couplings in accordance with ASTM C923.
- N. Pipe Materials: Pipe materials shall be as follows:
 - 1. Main lines 8 inches through 15 inches:

ASTM D3034 SDR 35 up to 12 feet depth
ASTM D3034 SDR 26 12 feet to 20 feet depth

ASTM D2241 SDR 26 over 20 feet depth
Ductile Iron over 20 feet depth

Main lines 18 inches through 36 inches: ASTM F679

Main lines 18 through 48 inches: ASTM F794

2. Service lines 6 inches minimum diameter at one percent minimum:

ASTM D3034 SDR 35
ASTM D2241 SDR 26 (pressure)

Risers are required in accordance with *Standard Specifications for Water and Sewer Main Construction in Illinois*, sixth edition, July 2009.

Connection of service lines to proposed sewers shall utilize WYES.

Connection of service lines to existing sewers shall utilize WYES by cutting the existing main and inserting a WYE with appropriate connectors.

3. Forcemains:

ASTM D2241 SDR 26
Ductile Iron Pipe

4. Flexible thermoplastic pipe shall have elastomeric joints.

- O. Record Drawings (as constructed drawings): Upon completion of a subdivision and acceptance by the District, record drawings shall be submitted within 60 days to the District through the District Engineer.

The requirements for record drawings are:

1. One set of blue line prints, 24 inch x 36 inch maximum.
2. One set reproducible mylar. 24 inch x 36 inch maximum.
3. One AUTOCAD *.DWG format on 3.5" disk.

- P. Televising: Televising shall be closed circuit of all new constructed mains with the report performed by an independent contractor in DVD format. Reports shall follow the Pipeline Assessment Certification Program (PACP) format