

## **Title 15 of the Rules of the City of New York Chapter 31 Rule Governing House/Site Connections to the Sewer System**

### **§31-05 Standards for Installation of Sewer Connections.**

#### **(a) General Requirements.**

All new sewer connections shall be in compliance with this Rule.

#### **(b) Specific Requirements.**

- (1) Sewer connections may be made to available existing sewers, drains, or approved outlets, upon the issuance of a permit.
- (2) New sewer connections shall have a minimum of four (4) feet of cover unless the DEP grants approval for a lesser cover. No cover above a sewer connection less than two and a half (2.5) feet shall be permissible. Sewer connections with less than three (3) feet of cover must be encased in concrete.
- (3) Connections to sewers supported by piles must be ductile iron pipe Class fifty-six (56), on broken stone with push on joints. The thickness of the broken stone bedding shall be a minimum of nine (9) inches.
- (4) Where the replacement or repair of an existing sewer connection results in damage or defect to adjacent or connected facilities, the Commissioner, upon being notified of such damage or defect, may order the Licensed Master Plumber to investigate and effect any repairs to the adjacent or connected facilities that may be required at such plumber's own expense. Representatives of adjacent or connected facilities shall be mailed copies of the Commissioner's order.
- (5) Catch basin connections to storm or combined sewers of forty-eight (48) inches in diameter or smaller shall be made to existing or new manholes. For sewers larger than forty-eight (48) inches in diameter, the catch basin connections shall be made to existing manholes, if available, or directly to the sewer. Details of all other methods of connections shall be reviewed and approved by the DEP. All work must be in accordance with any Builders Pavement Plan, approved by the City.
- (6) New sewer connections shall be made to existing spurs fronting the property.
- (7) In cases where no spurs exist, or connection to an existing spur is not feasible, one of the following methods of connection shall be used:
  - (i) For six (6) inch diameter sewer connections to six (6) inch diameter sewers or drains, three (3) sections of the existing sewer or drain shall be replaced with two (2) straight pipe sections and a central spur piece.
  - (ii) For six (6) inch diameter sewer connections to eight (8) inch diameter sewers or drains, if the existing eight (8) inch diameter sewer or drain is not supported by a concrete cradle, the connection method described in subparagraph (i) of this paragraph (7) shall

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apply. For sewers or drains on concrete cradles, a minimum of four (4) feet in length of the existing sewer or drain shall be encased in concrete from the point of connection. The concrete shall be allowed to set for twenty-four (24) hours, after which time, core drilling shall be performed.

- (iii) Core drilling to install a spur into an existing sewer or drain shall only be performed with an approved coring machine. Such coring shall be made at the one (1) or two (2) o'clock or ten (10) to eleven (11) o'clock position as described in paragraph (9) of this subdivision (b). The cored portion of the sewer shall be retained and submitted to the Inspector. Core drilling shall only be permitted in the following circumstances:
    - (A) where the new sewer connection is six (6) inches in diameter and the existing sewer or drain is ten (10) inches in diameter or larger;
    - (B) where the new sewer connection is eight (8) inches in diameter and the existing sewer or drain is twelve (12) inches in diameter or larger;
    - (C) where the new sewer connection is ten (10) inches in diameter and the existing sewer or drain is twenty-four (24) inches in diameter or larger.
  - (iv) Any sewer connection twelve (12) inches in diameter or larger to existing sewers or drains less than forty-eight (48) inches in diameter shall be made only to an existing or proposed manhole. For sewer connections larger than eighteen (18) inches in diameter, the applicant shall submit a detail of the proposed method of connection to the DEP for review and approval.
- (8) Core drilling. Core drilling shall be performed in accordance with the following requirements:
- (i) Clay or Cement Sewers or Drains. A six (6) inch thick concrete encasement on top and bottom of the existing sewer or drain for a minimum of four (4) feet length along the existing sewer shall be provided. The concrete encasement shall be allowed to set for a minimum of twenty-four (24) hours before the core drill may be performed.
  - (ii) Brick Sewers or Drains. A three (3) inch concrete encasement with six (6) by six (6) w2.9/w2.9 wire mesh over the top half of the sewer for a minimum of four (4) feet along the length of the sewer shall be provided. The concrete encasement shall be allowed to set for a minimum of twenty-four (24) hours before the core drill may be performed.
- (9) Installation of a spur on the existing sewer or drain shall be performed in accordance with the following requirements:
- (i) A hole shall be core drilled with an approved core drilling machine to produce a smooth hole equal to the inside diameter of the sewer connection. A tap saddle/tee made of cast iron shall be installed and bonded to the existing sewer or drain with a quick setting two-part mix of epoxy adhesive that will harden in four (4) to seven (7) hours.

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- (ii) A hole shall be core drilled with an approved core drilling machine to produce a smooth hole equal to the outside diameter of either a Dutchman (short piece of pipe with belt) or the outside diameter of a neoprene rubber tee fitting, which shall be placed in the drilled hole and held in place by a tampered plastic insert. The sewer connection shall fit into the open end of the tee fitting and be held in place by a mechanically tightened steel band.
- (10) Should unanticipated field conditions necessitate a different method of construction than that shown on the certified sewer certification application, such method shall be submitted for review and approval by the DEP, prior to any work being performed.

### **(c) Materials.**

- (1) The materials used for new sewer connections or replacement of existing sewer connections and appurtenances shall meet the following requirements:
- (i) Extra strength vitrified clay pipe (ESVP), conforming to A.S.T.M. C-700 on six (6) inch concrete cradle, class forty (40), for sewer connections up to and including an eighteen (18) inch diameter;
  - (ii) Ductile iron pipe (DIP), Class fifty-six (56) with push-on joints, conforming to A.N.S.I. specification on broken stone bedding conforming to A.S.T.M. C-33, size sixty-seven (67);
  - (iii) Pre-cast Reinforced Concrete Pipe (PCRP) Class three (3) or higher on six (6) inch concrete cradle conforming to A.S.T.M. Class thirty five (35) for sewer connections of a twenty-four (24) inch diameter and larger;
  - (iv) Extra heavy cast iron soil pipe (EHCI) on broken stone bedding conforming with A.S.T.M. Class thirty-three (33), size sixty seven (67).
- (2) Materials differing from those described in paragraph (1) of this subdivision (c) shall not be issued without written approval of the DEP. The burden of establishing the suitability of the material shall be with the applicant.

### **(d) Manhole Connections.**

- (1) The inner top of the proposed sewer connection shall not be lower than the inner top of the sewer. The invert of the proposed sewer connection shall be at least three (3) inches above the bench elevation at the manhole wall. The invert of the proposed sewer connection shall not be more than four (4) feet above the spring line (1/2 the diameter) of the sewer.
- (2) The use of pre-cast manholes on existing sewers or drains shall be in conformance with the latest DEP Sewer Design Standards, and shall be supplied by an approved vendor.
- (3) No pre-cast manholes shall be installed on existing brick sewers.

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### **(e) Seepage Basins, Catch Basins and Catch Basin Connections.**

- (1) All proposed seepage basins, catch basins, and catch basin connections shall be installed in accordance with any Builders Pavement Plan approved by the City and the latest DEP standards and requirements, and shall be supplied by approved vendors.

### **(f) Trench Excavation.**

- (1) Prior to performing any excavation, the permittee shall give notice to the New York City & Long Island One Call Center in accordance with 16 NYCRR Part 753.
- (2) Excavations, trenching, and shoring as required, shall be in conformance with sections 23 and 53 of the New York State Industrial Code, and all other applicable Federal, State, and Local Laws, Rules and Regulations.
- (3) Permittees shall comply with all requirements of the DOT or other entity having jurisdiction.
- (4) The permittee shall properly support, protect, and maintain all facilities encountered.
- (5) Rock excavation for proposed sewer connections shall be made in compliance with applicable sections of the DEP's Standard Specifications.
- (6) The maximum width of a sheeted trench shall be in accordance with DEP Sewer Design Standards.

### **(g) Backfilling.**

- (1) Backfilling and pavement restoration shall be in compliance with the Standards and Requirements of the DOT or other entity having jurisdiction.
- (2) No backfilling shall commence until the sewer connection, seepage basin, catch basin and catch basin connection has been properly installed, inspected and accepted by the Inspector.
- (3) If the work is not accepted by the Inspector, the permittee shall make the trench safe, including plating in as required by the DOT or other entity having jurisdiction.