separately vented in an approved manner. The area of any vent installed in a combination waste and vent system shall be not less than 1/2 the inside cross-sectional area of the drain pipe served. The vent connection shall be downstream of the uppermost fixture.

910.4 Each waste pipe and each trap in any such system shall be not less than two pipe sizes exceeding the sizes required by Chapter 7 of this code, and not less than two pipe sizes exceeding any fixture tail-piece or connection.

910.5 No vertical waste pipe shall be used in any such system, except the tailpiece or connection between the outlet of a plumbing fixture and the trap. Such tailpieces or connections shall be as short as possible, and in no case shall exceed 60cm (2 ft.).

Exception: Branch lines shall be permitted to have vertical offsets equal to 0.8 radian (45 degrees.

910.6 An accessible cleanout shall be installed in each vent for the combination waste and vent system. Cleanouts shall not be required on any wetvented branch serving a single trap when the fixture tailpiece or connection is not less than 50mm (2 in.) in diameter and provides ready access for cleaning through the trap.

910.7 No water closet or urinal shall be installed on any such system. Other one, two, or three unit fixtures remotely located from the sanitary system and adjacent to a combination waste and vent system shall be permitted to be connected to such system in the conventional manner by means of waste and vent pipes of regular sizes, providing that the two pipe size increase required in Section 910.4 is based on the total fixture unit load connected to the system.

Note: See Appendix B of this code for explanatory notes on the design of combination waste and vent systems.

911.0 Engineered Vent System.

911.1 General. The design and sizing of a vent system shall be permitted to be determined by accepted engineering practice. The system shall be designed by a registered design professional and approved in accordance with Section 301.3.

911.2 Minimum Requirements. An engineered vent system shall provide protection of the trap seal in accordance with Section 901.2.