

Cleanouts shall be provided at the foot of each stack and at all changes in direction, and must in all cases be readily accessible.

The cleanouts on the house traps, house drains and stacks shall be of the full diameter of the traps, drains and stacks on which they are placed, except where the said traps, drains or stacks are more than four inches in diameter, in which cases the cleanouts shall not be less than four inches in diameter.

Cleanouts fitted on cast iron pipes shall be leaded and caulked into hubs, and never into a plain piece of pipe.

All caps or covers on cleanouts shall be of brass not less than one-eighth of an inch in thickness, and shall have a solid square or hexagonal nut on top of the cap; they shall be screwed and made air-tight by the use of a suitable gasket. The bodies of the cleanouts shall be of brass or iron.

FITTINGS.

Pipes to be as Direct as Possible.

24. The arrangement of drain, soil, waste and vent pipes shall be as direct as possible. All changes in direction in horizontal pipes shall be made with full Y branches and sixth, eighth or sixteenth bends, and shall have a cleanout in the end of the Y branch. T Y's may be used on vertical soil and waste line when it is impossible or impracticable to use a Y branch, but they shall never be used on horizontal lines. Quarter-bends may be used on the vent system, fresh-air inlet, rain-water leaders, or on floor and yard drains. T's may be used on the vent system and in taking off the fresh-air inlet from the house drain.

No connection to any iron drain, soil or vent pipe shall be made by boring or tapping the pipe, or by a saddle. No inverted joints nor double hubs nor heel inlet connections shall be used on soil or waste pipes below the fixtures.

All fittings shall correspond in weight and quality with the pipes to which they are attached. Special fittings approved of by the Plumbing Inspector may be used in any part of the system.

Sizes of Soil and Waste Pipes.

25. The diameters of soil and waste pipes shall not be less than those given in the following table:

Pipes.	Diameter.
Main soil pipes.....	4 inches
Branch soil pipes.....	4 inches
Main waste pipes, except slop wastes.....	2 inches
Branch waste pipes for kitchen sinks, baths and laundry tubs.....	1½ inches
When set in ranges of three or more.....	2 inches
Branch waste pipe for wash-basins and refrigerators.....	1½ inches
Branch waste pipes for slop sinks.....	3 inches
Branch waste pipes for all other fixtures.....	1½ inches

In large buildings, or when batteries of fixtures are used, the size of the pipes shall be determined by the Plumbing Inspector.

Waste Pipes.

26. All main waste pipes shall be constructed of cast iron or brass piping. Branch waste pipes, when not laid horizontally and when not over ten feet long, may be constructed of lead. Horizontal wastes, when not over six feet long, may be constructed of lead. Brass or cast iron pipe shall be used on all waste pipe when possible.

Pipe Supports.

27. All vertical pipes and stacks shall be properly supported at their base. All horizontal cast iron pipes shall be supported at intervals of not more than five feet by proper wrought iron or steel pipe hangers or brick piers; all horizontal lead pipes shall have continuous supports throughout their entire length.

Pipe Terminals.

28. All soil, waste and ventilating pipes shall be located inside the premises, and all terminals of such pipes shall be located not less than twelve feet distant from and three feet above any opening, door or window in existence in that or any adjoining building at the date of the issuing of the permit; all pipe terminals shall project above the roof at least two feet.

On buildings whose roofs are used for drying purposes, the stack shall be extended seven feet above the roof and shall be suitably braced. The portion of all pipe terminals above the roof shall have a hub and shall, when it goes through the roof be flashed with 5 lb. sheet lead or by any other method approved by the Plumbing Inspector, and shall be made thoroughly water tight.

Traps.

29. Except when hereinafter specified, the waste pipe of every independent fixture shall be furnished with a separate trap, which shall be placed as near as practicable to the fixture which it serves and never more than two feet therefrom.

A sink and set of three wash-tubs may be connected to the house drain through one five-inch drum trap, when the outlet of the sink is not over three feet six inches from the nearest outlet of the wash-tubs; in such case the trap shall be above the floor. The outlet of each fixture shall enter the trap separately. Not more than four wash-bowls or sinks in a continuous line may be connected to the house drain through one five-inch drum trap.

There shall be only one trap under a water-closet, and that immediately beneath the same. No fixture shall drain through more than one trap (the main trap excepted).

All traps must have at least one and one-half inch water seal and be set true to their level.

Traps shall not be less than the size of the waste pipe to which they are attached, and shall be suitably supported.

Vent horns on earthenware traps are prohibited. All traps except earthenware traps shall have watertight cleanouts and shall be located so as to be easily accessible.

Special forms, however, of traps not provided with cleanouts, but easily cleaned, may be installed when permitted by the Plumbing Inspector. Drum traps, except wherein specified, may be placed beneath the floor when the cleanout of such trap is flush with said floor. No form of S trap shall be placed beneath a floor.

Special forms of traps, such as grease, sand or other traps, shall be installed under the supervision of the Plumbing Inspector whenever called for by regulations of the Local Board.

Special Waste Pipes, Fixtures and Traps.

30. No waste pipe from any refrigerator, cold storage or other receptacle in which food stuffs are kept or stored shall be directly connected with any drain, soil or other waste pipe, but such waste pipes shall discharge into an open water supplied fixture or floor drain properly trapped. Refrigerator wastes shall be trapped separately and so arranged as to admit of frequent flushing, and shall be as short as possible. When two or more refrigerator waste pipes are connected together or to a stack, said waste or stack shall be extended through the roof of the premises for ventilation.

The waste pipes from soda-water fountains and from safes under fixtures and overflow pipes from tanks, shall not connect directly with any drain, soil or other waste pipe, but shall discharge into any open fixture properly trapped.

Vents.

31. All traps which in the opinion of the Plumbing Inspector are liable to syphonage, shall be protected from syphonage by anti-syphon, or vent pipes. All vent pipes shall be constructed of brass, cast iron or galvanized wrought iron, though lead pipe may be used for distances not greater than ten feet, in which case it must be exposed to view. Vent pipes shall be of not less bore than the trap which they serve. They shall enter the waste pipe within eighteen inches of the trap.

Vent pipes for water closets shall be connected to the highest point of the bend or of the hub to which the bend connects, and must be at least 2 inches in diameter. Vent pipes, if for not more than three closets and less than thirty feet in length, need not be greater than two inches. If for more than three closets or more than 30 feet in length, they shall be of three inch bore.

All vent pipes shall be run as direct as practicable, and if one and one-half inch or less in diameter they shall not exceed thirty feet in length. All offsets on ventilating pipes shall, when practicable, be made at an angle of not less than 45 degrees to the horizontal.

Branch ventilating pipes shall be kept above the top of all fixtures connected therewith, or be constructed in such a manner as to prevent the use thereof as soil or waste pipes. All vents to the main stack shall be connected above the highest fixture.

Vent terminals through the roof shall be constructed according to Section 28 of these regulations, and shall be increased at least one inch in diameter going through the roof.

Two or more vent pipes may be connected into or with a vent, but in every such case such main vent pipe must be increased at least one inch or more, according as the Plumbing Inspector may direct.

Vent piping shall be run whenever practicable, on the continuous or loop-vent system.

The trap for the upper fixture on a line of soil or waste pipe, if within five feet of the stack in a horizontal line, shall not require a special vent pipe, unless the outlet is branched into a stack more than eighteen inches below the top water line of the trap. Two water-closets, when branched into a double Y branch, or only one water-closet on a stack when within five feet of the stack, requires no special vent pipe.

WEIGHT AND QUALITY OF PIPING.

Cast Iron Pipe.

32. All cast iron pipes and fittings shall be sound, cylindrical and smooth, free from cracks, sand-holes and other defects, and of a uniform thickness. Pipes including the hubs shall not weigh less than the following specified weights per lineal foot:

Diameter of Pipe.	Weight per lineal foot.
2 inches.....	4 lbs.
3 inches.....	6 lbs.
4 inches.....	9 lbs.
5 inches.....	12 lbs.
6 inches.....	15 lbs.

All bends, traps and fittings used in connection with such pipes shall correspond with them in weight and quality.

Lead Pipe.

33. When lead pipe is used as a waste or vent pipe, such pipe shall not weigh less than the following weights:

Diameter of Pipe.	Weight per lineal yard.
1½ inches.....	7 lbs. 8
1¾ inches.....	9 lbs. 10
2 inches.....	12 lbs. 14
3 inches.....	18 lbs.
4 inches.....	24 lbs.

Brass Pipe.

34. All brass pipe for soil, waste or vent pipes shall be thoroughly annealed, seamless, drawn or brazed tubing of suitable gauge, weight and thickness, as determined by Plumbing Inspector.

Pipe Joints.

35. All joints between lead pipes or between lead and brass pipes or traps, shall be wiped solder joints. In no case shall bolted joints be made.

All joints on cast iron pipe shall be made with picked oakum and molten lead run full, thoroughly hand-caulked, and made gas and water tight.

No slip joint or coupling shall be used for a connection on the sewer side of any trap.

All joints on galvanized iron or brass pipe shall be screwed joints made up with red lead paste or other suitable substance, and shall be made gas and water tight.

All connections of lead pipe with cast iron pipe shall be made with a brass ferrule of diameter not less than the lead pipe placed in the hub of the iron pipe, and properly leaded and caulked into said hub. The ferrule shall be connected with the lead pipe by a wiped joint. All ferrules shall be of cast brass at least four inches long, and free from all sand holes or other defects.

Soldering nipples shall be of heavy cast brass.

FIXTURES.

Strainers on Fixtures.

36. All fixtures other than water-closets and urinals shall have strong metallic strainers or bars over the outlets to prevent the obstruction of the waste pipe.