



CITY OF HUNTINGTON BEACH
COMMUNITY DEVELOPMENT DEPARTMENT
BUILDING DIVISION

2000 Main Street
Huntington Beach, CA 92648
(714) 536-5241

2019 CALIFORNIA PLUMBING CODE GENERAL CHECKLIST

Note: *The list below is intended to assist the applicant by identifying the general requirements in the 2019 California Plumbing Code. Please note that this list is not intended to be a full nor a complete list. Please refer to the 2019 California Plumbing Code and the HBMC for all requirements.*

PART A. GENERAL REQUIREMENTS

1. Provide a written response to corrections circled on this sheet and/or notes on plans made by plan checker. All plan corrections shall be clouded or otherwise noted to expedite re-submittal plan check.
2. Note corrections and/or notes on submitted drawings – return red marked set with two, new sets of revised drawings.
3. All plans and calculations are to be prepared, stamped and signed by a licensed engineer, architect, or design/installer. 2019 CPC sec. 104.3.1.
4. Note fire rated construction on the plans to verify proper provisions for listed penetration protection. 2019 CPC sec. 1404.1
5. Show on plans which fixtures are handicap accessible. 2019 CPC sec. 403.2
6. All fixtures and appliances are to be identified and are required to be listed and labeled by an approved testing agency.
7. All plans submitted to the Huntington Beach Building Dept. for plan check must be submitted on minimum ledger size paper. (11 x 17).

PART B. DRAIN, WASTE AND VENT

1. Floor drain or similar traps directly connected to the drainage system and subject to infrequent use shall be protected with a trap seal prime. Trap seal primers shall be accessible for maintenance. 2019 CPC sec. 1007.1
2. Provide detail on drain waste, and vent systems. Include size of pipe and pipe materials.
3. Self closing or metered faucets shall be installed on lavatory sinks intended to serve the transient public such as service stations stores, restaurants, etc. 2019 CPC sec. 407.4.
4. Vent sizes through the roof must equal or exceed the size of the building sewer in area. 2019 CPC sec. 904.1 and table 703.2
5. Laundry facilities in commercial buildings and common laundries of multi-family dwellings require a trap primed floor drain. 2019 CPC sec. 418.3 (3).
6. Commercial kitchens require a trap-primed floor drain in cooking and/or prep areas. 2019 CPC sec. 418.3 (2).
7. Boiler rooms require a trap primed floor drain. 2019 CPC sec. 418.3 (4).
8. Trap primed floor drains shall be installed in toilet rooms containing two or more water closets or a combination of one water closet and one urinal, except in a dwelling unit. 2019 CPC sec. 418.3(1).

9. Indirect waste pipes exceeding 5 feet, but less than 15 feet in length shall be directly trapped, but such traps need not be vented. If venting is required, it shall be independent to the outside air without connecting to a sewer connected vent. 2019 CPC sec. 803.3.
10. An approved type of two way cleanout fitting installed inside the building wall near the connection between the building drain and the building sewer or installed outside the building at the lower end of a building drain and extended to grade, shall be permitted to be substituted for an upper terminal cleanout. 2019 CPC sec. 707.4 (4)
11. Each cleanout shall be installed so that it opens to allow cleaning in the direction of flow of the soil, waste or sewer pipes. 2019 CPC sections. 707.5, 719.4 (building sewers).
12. Show all required cleanout location and sizes. 2019 CPC sec. 707.4.
13. A cleanout shall be installed above the fixture connection fitting serving each urinal, regardless of the floor/level location of the urinal in the building. 2019 CPC sec. 707.4
14. Each horizontal drain pipe shall be provided with cleanout at its upper terminal. 2019 CPC sec. 707.4.
15. All cleanouts serving drains with backwater valves shall be permanently labeled with the words "BACKWATER VALVE DOWNSTREAM". 2019 CPC sec. 710.1
16. Indirect waste connections shall be provided for drains, overflows, or relief vents from the water supply system, **and no piping or equipment carrying wastes or producing wastes or other discharges under pressure shall be directly connected to a part of the drainage system.** 2019 CPC sec. 805.1
17. All food prep sinks and similar equipment shall be indirectly connected to the drainage system by means of an airgap. 2019 CPC sec. 801.3.3.
18. Establishments engaged in the storage, preparation, selling, serving, processing or other handling of food and beverage involving equipment that requires drainage shall provide indirect waste piping systems. 2019 CPC sec. 801.3.
19. Pot, scullery, dishwashing, silverware sinks, commercial dishwashing machines, and other similar fixtures shall be directly connected to the drainage system. A floor drain shall be provided adjacent to the fixture, and the fixture shall be connected on the sewer side of the floor drain trap, providing that no other drainage line is connected between the floor drain waste connection and the fixture drain. 2019 CPC sec. 704.3
20. All floor drains, mop sinks, prep sinks and floor sinks and drains receiving grease waste from any food prep sinks must drain through a grease trap or interceptor, depending upon the amount of grease receiving fixtures. 2019 CPC sec. 1014.1, 1014.2.
21. Size of Hydromechanical Grease Interceptors is determined using Table 1014.2.1 of the 2019 CPC.
22. All plumbing equipment and fixtures connected to a grease trap must drain through an approved vented flow control device installed in a readily accessible and visible location. No drain or vent connection may be made between the vented flow control device and the grease trap inlet. Show location of vented flow control device on plan. 2019 CPC sec. 1014.2.
23. Size of Gravity Grease Interceptors is determined using Table 1014.3.6 of the 2019 CPC.
24. Gravity Grease Interceptors shall not be installed in any portion of the building where food is handled. 2019 CPC sec. 1014.3.4.
25. A sample box or port is required immediately downstream of grease interceptor per city of Huntington Beach FOG regulations.
26. Repair garages and gasoline stations with grease racks or pits, and factories that have oily, flammable , or both types of waste as a result of manufacturing, storage, maintenance, repair, or testing processes , shall be provided with an oil or flammable interceptor, whichever is appropriate that shall be connected to floor drains/sinks. The separation or vapor compartment shall be independently vented to the outside air. 2019 CPC sec. 1017.1

27. Structure requires rain water system based on 4 inch rainfall per hour. Include square footage of roof per area served by rain water system. 2019 CPC Ch. 11, 2019 CPC Tbl. 1103.2 (horizontal) and Tbl. 1103.1 (vertical).
28. Secondary roof drainage shall be provided by the use of roof scuppers or a secondary roof drain per 2019 CPC sections 1101.12.2.1 and 1101.12.2.2.
29. Total number of water closets for women must equal the total number of water closets and urinals required for men. Exception is: *Requirement shall not apply when single occupancy toilet facilities are provided for each sex in an A or E occupancy with an occupant load of less than 50.* 2019 CPC table 422-1 footnote # 3.
30. Use 2019 California Building Code to determine total occupant load and occupancy classification to determine minimum number of fixtures required for occupancy denoted on plans. 2019 CPC sec. 422.1
31. Use Tbl. 422.1 (Minimum Plumbing Facilities) of the 2019 CPC to determine the number of plumbing fixtures required based on occupant load and classification determined by 2019 Ca. Building Code.
32. Each combination waste and vent system shall be provided with a vent or vents adequate to ensure free circulation of air. The vent connection shall be downstream of the uppermost fixture. 2019 CPC sec. 910.3
33. In a combination waste and vent system each waste pipe and trap in such a system shall be not less than two pipe sizes exceeding the sizes required by chapter 7 of the 2019 CA Plumbing Code, and not less than two pipe sizes exceeding a fixture tailpiece or connection. 2019 CPC sec. 910.4
34. Any branch drain in a combination waste and vent system in excess of 15' in length requires a separate vent located immediately downstream of uppermost fixture. 2019 CPC sec. 910.3.
35. Plumbing fixtures shall drain to the public sewer or private sewer by means of gravity unless such fixtures are below the level of the main sewer. 2019 CPC sec 709.1, 710.2.
36. The discharge line from a sump pump shall be provided with an accessible backwater check valve and a gate or ball valve. The gate or ball valve shall be fullway and located on the discharge side of the check valve. 2019 CPC sec. 710.4
37. If the gravity line that the pumped discharge drains to is horizontal, the pumped discharge shall enter the gravity drain pipe from the top through a wye branch fitting. 2019 CPC sec. 710.4.
38. Where non water urinals are installed not less than one water supply fixture unit shall be installed upstream on the same drain line to facilitate drain line flow and rinsing. 2019 CPC sec. 412.1.3.
39. A flexible hand held shower spray unit with a hose at least 59 inches long that can be used both as a fixed shower head and as a hand held shower shall be provided and installed on the back wall of the compartment adjacent to the seat wall, 19 in. minimum and 27 in. maximum from the seat wall. Shower controls shall be within of 27" the seat. 2019 CBC sec. 1127A.5.2.5, 1127A.5.3.6, 1127A.5.3.6.1, 1127A.5.3.7.
40. Where toilet compartments are provided, at least 5% of the toilet compartments, or 5% of the combination of toilet compartments and urinals, but no fewer than one toilet compartment shall comply with section 11B-604.8.2 for Ambulatory Accessible compartments. In addition to the compartments required to comply with section 11B-604.8.1, where 6 or more toilet compartments are provided, or where the combination of urinals and water closets totals 6 or more fixtures, toilet compartments complying with section 11B-604.8.1 shall be provided in the same quantity as the toilet compartments required to comply with section 11B-604.8.1. 2019 CBC sec. 11-B 213.3.1.
41. Where separate facilities are provided for persons of each sex, these facilities shall be accessible to persons with disabilities. Where unisex facilities are provided, these facilities shall be accessible to persons with disabilities. 2019 CBC sec. 11B.213.1, 11B.213.2.1.

42. Where a separate toilet facility is required for each sex, and each toilet facility required to have only one water closet, two family or assisted use toilet facilities shall be permitted in place of the required separate toilet facilities. 2019 CPC sec. 422.2.2.

PART C. WATER DISTRIBUTION

1. Provide detail on water distribution system. Include size of pipe and pipe materials.
2. Specify water meter size and total developed length of the water system. 2019 CPC sec. 610.7
3. Size water system using Chapter 6 or Appendix A of the CPC. Size for public or private use. 2019 CPC sec. 610.4, 610.5
4. Pipe velocities not to exceed 10 feet per second unless engineered to do so. 2019 CPC Appendix A 107.1.
5. Hot water required at _____ for sanitation. 2019 CPC sec. 601.2.
6. Provide note detailing water piping insulation requirements per the 2019 CA Energy Code.
7. Where food is consumed indoors, water stations shall be permitted to be substituted for drinking fountains. Bottle filling stations shall be permitted to be substituted for drinking fountains up to 50% of the requirements for drinking fountains. Drinking fountains shall not be required for an occupant load of 30 or less. 2019 CPC sec. 415.2
8. Quick closing valves in a battery (two or more) must have water hammer absorbing devices installed 2019 CPC sec. 609.10
9. Anti – siphon and/or backflow protection required at _____. 2019 CPC sec. 603.1
10. Backflow device access and clearance shall require a minimum of one foot (12”) between the lowest portion of the apparatus and grade. Installations of the backflow device exceeding five feet above the floor or grade shall be provided with a permanent platform capable of supporting a tester or maintenance person. 2019 CPC sec. 603.4.3
11. New potable water systems are required to be disinfected by chlorination. 2019 CPC Sec.609.9 (1, 2, 3, 4)
12. Bacteriological testing of potable water system required to be performed by an independent third party testing laboratory. 2019 CPC Sec. 609.9(4).
13. Hot water discharging from all tubs and whirlpool type tubs shall be limited from exceeding 120°F by a device conforming to standard ASSE 1070/ASME /CSA B125.70A112.1070 Water heater control may not be used for this requirement. 2019 CPC sec. 409.4.
14. Hot water delivered from public lavatories shall be limited from exceeding 120°F by a device conforming to standard ASSE 1070/ASME /CSA B125.70A112.1070. Water heater control may not be used for this requirement. 2019 CPC sec. 407.3. Must install Thermal Mix Valve(s). Please show location of Thermal Mix Valve(s) on plan.
15. Water meter must be upsized to _____ inch to accommodate additional plumbing fixtures. 2019 CPC tables 610.3, 610.4.
16. In multi-family dwellings one or more accessible shut off valves shall be provided in each dwelling unit so that the water from that unit can be shut off without shutting off water to other units. 2019 CPC sec. 606.3
17. Non potable water outlets shall be permanently labeled with black lettering on a yellow background “CAUTION : NON POTABLE WATER, DO NOT DRINK” 2019 CPC sec. 601.3.2.
18. An approved expansion tank shall be installed in the cold water distribution piping downstream of any pressure regulator, backflow device, check valve, etc. placed on the main cold water pipe service to prevent excessive pressure from developing due to thermal expansion. 2019 CPC sec. 608.3.

19. The installation of PEX tubing in potable water supply systems must follow individual manufacturers' installation procedures and the procedures set forth in 2019 CPC sections 605.9.1 thru 605.9.3.
20. PEX tubing when placed in the soil and used in potable water systems intended to supply drinking water, the tubing shall be sleeved with a material approved for potable water use in soil or material(s) that are impervious to solvents or petroleum products. 2019 CPC tbl. 604.1 footnote #3.
21. PEX tubing shall meet or exceed the requirements of ASTM F876-2013a when used in continuously recirculating hot water systems where chlorinated water is supplied to the system and PEX tubing is exposed to the hot water 100% of the time. 2019 CPC tbl. 604.1 footnote #4.
22. Plumbing fixtures and fixture fittings shall follow the maximum water use guidelines allowed in sections 5.303. for water conservation (non-residential) as required in the 2019 CA Green Building Standards Code.
23. Plumbing fixtures and fixture fittings shall follow the maximum water use guidelines allowed in sections 4.303.1 for water conservation (residential) as required in the 2019 CA Green Buildings Standard.
24. In new buildings or additions in excess of 50,000 square feet separate water submeters shall be installed in each tenant space where projected water use is projected to use more than 100 gallons per day. (Laundromats, cleaners, restaurant/food service, medical/dental offices, beauty salon/spas, etc.) 2019 CGBC sec. 5.303.1.1.
25. Where static water pressure in the main water supply piping is exceeding 80 psi an approved type pressure regulator preceded by an adequate strainer shall be installed and the static pressure reduced to 80 psi or less. 2019 CPC sec. 608.2. The city of Huntington Beach does not achieve a static pressure of 80 psi in its water main supply piping. Please remove pressure regulator from plan.

PART D. GAS PIPING

1. Provide detail on gas piping; include size of piping and pipe materials. 2019 CPC sec. 1208.1.
2. Provide lengths of all gas piping branches and the main line from meter to structure. Include all valve locations. 2019 CPC sec. 1215.4 (1 -6).
3. Provide total btuh demand for each outlet on the gas piping system. Include both new and existing outlet btuh demand for proper sizing approval of gas system. 2019 CPC sec. 1215.4(1 thru 6)
4. Description of each appliance of the gas piping system is required. 2019 CPC sec. 1214.3.
5. CSST (corrugated stainless steel tubing) gas pipe systems shall be bonded to the electrical service grounding electrode system at the point where the CSST gas piping enters the building. The bond jumper shall be a minimum 6 awg. copper. 2019 CPC sec. 1211.2. (Exception: Listed, electrically continuous, shielded CSST tubing)
6. Gas piping 5psi and above located inside a structure is prohibited unless one of the following conditions is met: 1. Pipe system is welded. 2. Pipe is located in a ventilated chase, 3. Pipe is located in buildings or separate area of building used exclusively for industrial heating or processing, research, warehousing or boiler or mechanical equipment room, 4. Piping is temporary for buildings under construction, 5. Piping serves appliances/equipment for agricultural purposes 6. The gas system is an LP- gas system w/op > 20 psi and complies with NFPA 58. 2019 CPC sec. 1208.5.
7. Line pressure regulators at multiple regulator installations shall be marked by a metal tag or other permanent means designating the building or the part of the building being served by such regulator. 2019 CPC sec. 1208.8.8.
8. In multiple tenant buildings supplied through a master meter or through a service regulator where a meter is not provided or where meters or service regulators are not readily accessible from the equipment location, an individual shut off valve for each apartment or tenant line shall be provided at a convenient point of general accessibility. 2019 CPC sec. 1210.9.2.

9. Where the serving gas supplier delivers gas at a pressure greater than 2 psi for piping systems serving appliances designed to operate at 14" wc or less overpressure protection devices shall be installed. 2019 CPC sec. 1208.9.

PART E. WATER HEATERS

1. Required temperature and pressure relief valve must terminate outside of structure, to an approved plumbing fixture or to location approved by Administrative Authority. 2019 CPC sec. 608.3, 608.5 (1-7).
2. Water heater enclosure required to have combustion air per 2019 CPC. sec. 506.1.
3. Water heater location not shown on plans.
4. Water heater passageway located above ceiling is allowed no more than 20' in length to appliance working platform. 2019 CPC secs. 508.4.1.
5. The passageway shall be unobstructed and have solid flooring not less than 24" in width from access opening to appliance. 2019 CPC sec. 508.4.2.
6. A level working platform not less than 30" x 30" shall be provided at the service side of the appliance. 2019 CPC sec. 508.4.3.
7. A permanent 120 volt receptacle outlet and a lighting fixture shall be installed near the appliance with the switch controlling the light to be at entrance to passageway. 2019 CPC sec. 508.4.4.
8. Any water system provided with a check valve, backflow preventer, or any other normally closed device that prevents dissipation of building water pressure back into the water main shall be provided with an approved, listed, and adequately sized expansion tank or other approved device having a similar function to control thermal expansion. 2019 CPC sec. 608.3
9. Water heater requires two straps. One located in the upper third of tank and one located in the lower third of the tank a minimum 4 inches above the control valve. 2019 CPC sec. 507.2
10. Water heater venting detail not shown on plans. 2019 CPC sec. 509.1.1.
11. Water heaters located in an attic-ceiling assembly, floor ceiling assembly, a floor - sub-floor assembly or where leakage from the water heater can cause damage to the structure a watertight, corrosion resistant pan shall be installed underneath the water heater. 2019 CPC sec. 507.5
12. Water heaters located in a bedroom or bathroom closet must be installed with a listed, gasketed door and self-closing device. The door must be installed with a threshold and bottom door seal. Water heaters installed in the above locations shall be of the direct vent type. 2019 CPC sec. 504.1(1, 2)
13. Non direct-vent type water heaters installed in beauty shops, barbershops or other facilities where chemicals that generate corrosive or flammable products such as aerosol sprays are routinely used shall be located in an equipment room separate or partitioned off from other areas, with provisions for combustion air from outdoors. 2019 CPC sec. 507.10

PART F. MEDICAL/DENTAL GAS, AIR AND VACCUM SYSTEMS

14. Plot plan required denoting cylinder storage area, property lines, driveways and existing neighboring buildings or structures. 2019 CPC sec. 1304.6, 1304.6.1 (1-3).
15. All Medical/Dental gas/vacuum and/or air piping installed underground within buildings or embedded in concrete floors or walls shall be installed in a continuous conduit. 2019 CPC sec. 1310.3.2.
16. Piping system layout required denoting location of all alarms, valves and inlets/outlets. 2019 CPC sec.1304.6.1 (2).
17. All medical gas, vacuum and air piping, valves and manifolds shall have permanent labels bearing the name of the gas they convey or control and shall be color coded as specified in table 1305.1, and in accordance with 2019 CPC secs. 1310.11, 1310.11.1, 1310.11.2.

18. Category 3 (dental nitrous oxide and oxygen systems) warning systems shall comply with sec. 1317.2 for Category 2 systems with the following 8 exceptions listed in sec. 1318.2. 2019 CPC sec. 1318.2 (1-8).
19. Dental vacuum systems require two sources manifolded together working separately. 2019 CPC secs. 1314.2.1, 1315.2 (1-6).
20. Medical air compressors and vacuum pumps shall be installed in an accessible well lit, ventilated clean location provided with drainage facilities with medical air located separately from medical gas cylinder storage/source. 2019 CPC secs. 1313.2, 1314.1.
21. Source of dental compressor air intake shall be taken from one of the four sources listed in section 1313.5.2 of the 2019 CPC.
22. Exhaust from vacuum pumps shall be piped to the outside with a turned down, screened termination. 2019 CPC sec. 1314.5.2
23. The exhaust terminal shall be a distance of 25 feet from any door, window or air intake, at a level different from air intakes where topography will not divert the exhaust. 2019 CPC sec. 1314.5.1(1, 2, 3 and 4).
24. Prior to any medical gas or vacuum systems placed in service each and every system shall have certification testing by a qualified certification agency. 2019 CPC sec. 1319.1
25. Certification testing of the medical gas/vacuum systems shall include the ten certification tests listed in section 1319.2 of the 2019 CPC.
26. A final report is to be given to the Administrative Authority of jurisdiction for acceptance. Certification report is to include checklist specified by 2019 CPC sec. 1319.3.

PART G. ADDITIONAL CORRECTIONS

1. See additional attached notes and respond accordingly to correction(s) noted.
2. Compressed Air Systems must comply with section 120.6 (e) of the 2019 California Energy Code.
3. Form NRCA-PRC-01-F detailing the compressed air system must be completely filled out and placed on the plans per the state of California.