

GUIDE

PARKADE DRAINAGE SYSTEMS

GUIDE OVERVIEW

Current BC Plumbing Code acceptable solutions need to be followed for typical covered parkade drainage systems. The following are deemed to be compliant solutions for fixtures / systems draining to the Parkade Drainage System (PDS):

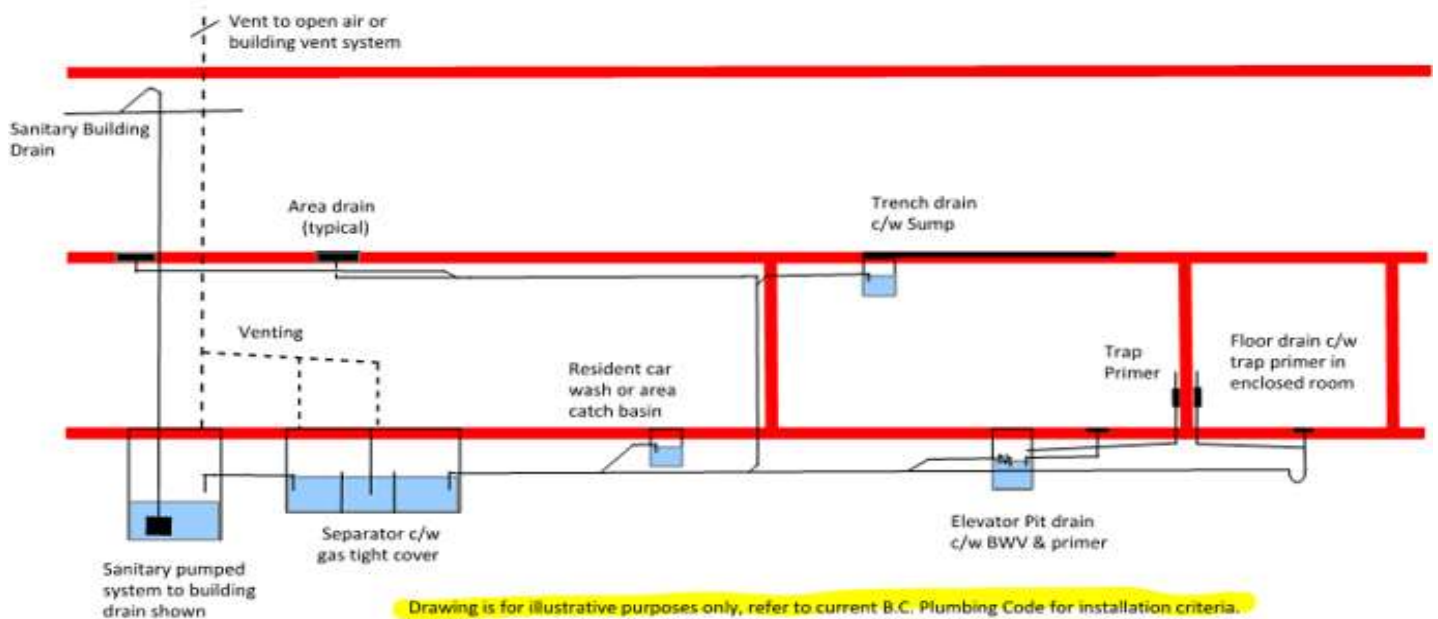
- floor drains and catch basins in the parkade area
- car wash facilities in the parkade
- sprinkler room and mechanical room floor drains near the parkade

Optional fixtures / systems permitted to discharge to PDS

- backflow preventor drains
- condensate drains
- boiler room relief valves & drains
- clear-water waste
- fire pump test drains
- trench drains (parkade entrance)
- elevator pit drains c/w BWV
- electrical pull pit drains (c/w sump & BWV)
- gargabe room drains
- small loading bay areas
- air shaft drain

Discharges from the following fixtures / systems not permitted to drain into PDS

- roof drains
- planter drains
- deck drains
- drain tile, subsoil drainage
- oil change facilities
- tire repair shops
- service bays / areas
- domestic sanitary waste, i.e: toilets/sinks/baths/showers, etc.
- blackwater waste (before or after treatment)



1. The Parkade Drainage System is a unique system designed to collect waste flows from parking level garages. These areas are not *storm water* or *clear-water wastes* and therefore cannot be drained to the *storm sewer system*. Typically, sanitary venting systems can be onerous in parkades. As a result, the Parkade Drainage System does not require, nor will it permit any vents upstream of the separator.
2. The Parkade Drainage System separator shall be vented, in accordance with the current BC Plumbing Code. If draining into a building drain, the separator fixture arm will require a vent. When draining into a pumped system, the pump chamber shall be vented as per the current BC Plumbing Code.
3. The Parkade Drainage System shall drain to the *sanitary drainage system*. Where sanitary fixtures drain to a sanitary pumped sump that also serves the Parkade Drainage System, a backwater valve shall be installed on the outlet piping of the Parkade Drainage System separator.
4. The Parkade Drainage System separator and its compartments shall be accessible for inspection, cleaning and maintenance, as required.
5. A sand / grit interceptor may be required to be installed upstream of the Parking Drainage System when sediment may impair the system operation.
6. The Parkade Drainage System separator lid shall have a gas tight lid. The inlet and outlet piping shall have 90° elbow drop legs, to provide a water seal, to within 8" off the bottom to prevent sewer gases from entering the building.
7. All drains within enclosed areas / rooms are to be provided with a p-trap and a reliable means to maintain the trap seal.
8. A permanent means of priming water shall be connected to the Parkade Drainage System to maintain a water seal at the separator. Typical priming could be done through the elevator pit sump.

9. The minimum size of drainage on the inlet piping to the Parkade Drainage System shall be 4” in diameter. When system flow rates exceed the design rate of the separator, flow restricting devices or other methods may be required.
10. Other design factors, materials and methods considered as good engineering practice, such as APSE Guidelines will be considered in lieu of the above.
11. Any piping, fixtures / systems penetrating a fire separation required to have a fire resistance rating, shall be sealed by a firestop meeting the requirements of the BC Building Code.

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