

# Plumbing: Sanitary Drainage – Fundamentals and common enquiries for graded drainage systems

## Q&A

*The following answers have been provided to questions asked during the Plumbing: Sanitary Drainage – Fundamentals and common enquiries for graded drainage systems webinar on 7 December 2023.*

*The answers provided are correct as of 20 December 2023.*

### **Where can I find a copy of the presentation slides?**

A copy of the presentation slides and recording of the webinar are available from the [VBA website](#).

### **Could you please clarify and define Plumbing Law? Could you please be specific with Acts and Regs?**

Please refer to this link for an explanation: <https://www.vba.vic.gov.au/plumbing/plumbing-regulatory-framework>.

### **For Class 2 multi storey level buildings, is an ORG required, or can a reflux valve be installed if not suitable location?**

At least one overflow relief gully (ORG) must be fitted unless there is no suitable location were built to all boundaries.

### **If a section of drain is running under another building, is it necessary that it must be located under the garage?**

The section of drain running under one building to service another building must be straight, be constructed of an approved material (PVC), have IO's to ground level on the up and down stream ends and not have any junctions or changes of direction. The drain does not have to be located under the garage. If the above conditions can be satisfied, you will need to make an application for a plumbing modification. Please follow this link for more information: <https://www.vba.vic.gov.au/plumbing/renewals-other-requirements/plumbing-modifications>



**If there are two grease interceptor traps next to each other, can the chamber vents be combined and then extended to atmosphere together, or should each chamber be vented independently? If there is a grease interceptor trap, can the chamber vent from it, and the disconnecter gully vent on outlet of GIT be interconnected and extended to atmosphere?**

The vents from interceptor chambers may be interconnected but will need to be sized appropriately. In relation to combining a chamber vent to the sealed and vented disconnecter gully at the outlet of the interceptor appliance, that is also permitted.

**The table regarding the reduced grade mentions about the minimum FU required for 150mm is 75 to run the pipes in reduced grade. The standards also mention we cannot upsize the pipe without exceeding the FU. Does that mean if we have got 75 FU, we could use 150mm pipe work?**

You are not permitted to increase the size of a drain unless you exceed the maximum permissible loading for that drain.

**What inspection openings must be permanently accessible for above ground plumbing including stacks and discharge pipes?**

Inspection openings on stacks must be made permanently accessible and any other inspection opening required for inspection or maintenance.

**Is it permitted to install high rise sanitary plumbing discharge pipes with inspection openings that will not be accessible after construction has been completed?**

Generally, removable access panels are installed on riser ducts/voids in buildings to gain access to inspection openings. Clause 10.5.2 & 10.5.4 would apply.

**Should the reflux valve be installed downstream of the BT?**

The reflux valve must be installed downstream of a boundary trap, if the reflux is installed for the purpose of preventing sewer surcharge. It is permissible to install a reflux valve in other locations to protect lower fixtures from higher ones.

**For external horizontal ORG drain with min 1:80 grade back to the gully, can this ORG drain drop vertically to ensure flood level requirements are met?**

Provided the separation height of 150mm is maintained between the top of the ORG and the spill level of the fixture, and that the overflow branch is on a grade of not less than 1.25 per cent back to the ORG riser.

**Should the reflux valve handle be installed tight to the underside of the locking cap?**

The reflux valve handle shaft must be raised to terminate just below the screwed cap to prevent dislodging of the valve cradle.

**Can a reflux valve be installed as an inspection shaft?**

Yes, however this is not recommended as it can damage the valve seat.

**If I use bends say 2x45 degree to form a jump up, do I have to use anchor blocks for PVC pipe?**

Yes, where the elevated section of drain is longer than 3m in length and grade of the drain exceeds 20 per cent (1:5), anchor blocks must be provided.

**How can I know that a building is sitting within a sewer surcharge area? Can I simply ask the plumber or builder?**

It is best to seek advice from the relevant local authority.



**If it is not known whether discharge may cause a foaming problem, can a clothes washing machine be connected to a floor waste gully?**

Where it is unknown if the discharge may cause a foaming, the fixture should be directly connected to drain.

**What does "mechanical protection" look like for pipes with less than required cover? Any examples?**

The methods used to mechanically protect a drain will vary depending on the application. An example could be an in-situ concrete structure specifically designed to prevent weight being transferred to the pipework.

**Let's say I'm doing a job on a site, and it's been subdivided. These 2 properties share the same sewerage point. They don't both need ORGs, do they?**

On a site containing 2 buildings, only one ORG is required provided the 150mm overflow separation height can be achieved for fixtures in both buildings.

**Why does a recessed ORG grate don't have to have 2m clearance above it?**

The VBA acknowledges inconsistency between this and similar clauses and will raise this for discussion with the Standards Working Group.

**Please define a "stack riser"?**

For the purpose of this webinar, a "stack riser" is a reference to a vertical pipe rising from the drain which is intended to connect a vertical stack to a below ground sanitary drain.

**Can bedding material for drains be recycled crushed materials like bricks, concrete roof tiles, concrete?**

Yes, however the material must not be deleterious or hazardous in nature.

**When does the requirement of HDPE or UPVC for sewer pipes come in? What scenarios warrant either material?**

As with all plumbing work, any material or product used must be fit for its intended purpose, therefore consideration should be given to the temperature of water to be conveyed, the type of environment such as contaminated or corrosive ground, the pressure rating of the pipes and fittings and exposure to UV etc.

**What are the sizing criteria for the ground vent?**

Sizing of all vents can be obtained from Table 3.9.3.1 of AS/NZS 3500.2:2021 and is dependent on the number of fixture units discharging to drain. It is important to note that a DN50 ground vent cannot serve as an overflow relief ground vent (OGV).

*For further information or clarification please contact the Technical and Regulation Team via [technicalenquiry@vba.vic.gov.au](mailto:technicalenquiry@vba.vic.gov.au)*

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