

Hydraulic designs

Plumbing Advisory Note

Revised July 2026

Hydraulic designs for plumbing and drainage pipe work and equipment, previously referred to as building plan applications, must be lodged with the Office of the Technical Regulator (OTR).

Submissions must include all details of sanitary plumbing, drainage and water reticulation pipe work.

- Hydraulic designs are required for:
- building developments within the Adelaide CBD
- commercial and industrial developments, including additions
- residential developments of three or more floor levels
- housing developments of three or more dwellings
- any building that includes an alternative performance based plumbing design
- non-drinking and drinking water for recreational and commercial/industrial sites
- pumping installations
- trade waste installations
- interactive water features
- residential sites (other than Class 1A) where non-drinking water is provided.
- FPAA101D sprinkler systems
- fire-fighting water services (in-ground pipework and testable backflow prevention devices only)

Schematic plumbing designs also need to be lodged for developments of four or more levels.

What to include

Hydraulic design plans need to include:

- pipe sizing, venting, gradients, fixture unit loadings, trade

waste details, backflow prevention, and temperature control

- type of system (e.g. RVASS, fully vented modified etc), fixture unit loadings, and grades for individual stacks
- a legend explaining elements of the design.

Lodging plans with the OTR

- Download and fill in the hydraulic design submission form. This can be found in the Plumbing trades section of otr.sa.gov.au
- Send the completed form, plans and any other relevant information to the OTR at least 28 days before the installation commences.

Email: otr.hds@sa.gov.au

(Attachments must be smaller than 10MB)

Post: Office of the Technical Regulator – Plumbing GPO
Box 618, Adelaide SA 5001.

(If the hard copy of the plan is larger than A3 size,
you must also send a digital copy)

Who else should be notified?

- SA Water, if the design involves a new sewer or water connection, trade waste, or you are proposing to build over or close to an SA Water asset or easement
- Water entity, if not SA Water
- SA Health
- Local council

Contact the Office of the Technical Regulator for more information

Online otr.sa.gov.au

Email otr.hds@sa.gov.au

Phone 1300 760 311



Government of
South Australia