Unitywater

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Pr9688 - BOAA Technical Standard Category A

Guidelines for the assessment of proposed building or structure works over and adjacent to Unitywater's sewers on private properties (not Roads)

Pr9688 - BOAA Technical Standard Category A

Document Owner	Head of Development Services
References	OP9692 - Building Over and Adjacent to Unitywater Assets Policy

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1. Introduction

This Technical Standard provides a guideline for buildings or structures which are defined as assessable building works in the current Building Regulation legislation (e.g. construction of a new dwelling or a retaining wall higher than 1m above the finished ground level) to be constructed over and adjacent to Unitywater's sewerage infrastructure.

It is mandatory to use the Queensland Development Code Mandatory Part 1.4 'Building over or near relevant infrastructure' (QDC MP1.4) to assess applications for building works over and adjacent to a service provider's asset. The Queensland Development Code (QDC) MP 1.4 – Building over or near relevant asset can be found at www.hpw.qld.gov.au

Where the building or structure work proposed within Unitywater's service region does not comply with an acceptable solution under the QDC MP1.4 or the proposed building or structure work will not maintain the prescribed clearances between the work and Unitywater infrastructure as outlined in the QDC MP1.4, the proposal (building development application) must be referred to Unitywater for concurrence assessment.

In summary, the applicable minimum distances from Unitywater infrastructure are:

Class 1 or 10 building or structure

- All loads created by the building works and the associated footing arrangement will be at least **300mm below** the bottom of all water or sewerage infrastructure, **and**
- When complete, all parts of the building or structure will be located at least **3m horizontally clear** from the centreline of the water or sewerage infrastructure.

Class 2 – 9 building

- All loads created by the building works and the associated footing arrangement will be at least **300mm below** the bottom of all water or sewerage infrastructure, **and**
- When complete, all parts of the building or structure will be located at least **5m horizontally clear** from the centreline of the water or sewerage infrastructure.

Building works involving the use of driven piles or piers

- The piles or piers are located at least **5m horizontally clear** from the centreline of the water or sewerage infrastructure.

Building works involving the use of ground anchors or rock bolts

- The ground anchors or rock bolts are located at least **10m horizontally clear** from the centreline of the water or sewerage infrastructure.

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2. Definitions

Term	Meaning
Access	Unitywater requires access for sewer infrastructure maintenance purposes and unencumbered entry to the sewer is to be maintained.
Authorised Person	A person acceptable to, authorised by, or approved by Unitywater under s.45 of *Water Supply (Safety & Reliability) Act 2008*.
Cantilevering	Structure or beam extended from a wall or foundation to support a balcony or wall.
Connection Point	Point of connection between the property connection sewer and the customer sanitary drain. *Also called property connection point.*
Demountable	Any structure or roof that can be manually dismantled and removed from its current position by two people within a four-hour period. *Note: A statement by the structural engineer supporting this will be required, should this option be requested.*
Developer	A person, organisation, local government authority or government authority (other than a Water Agency) carrying out works within easements or over or adjacent to Unitywater's sewerage assets.
Easement ('easement in gross')	A right held by one party to enter onto land owned by another person or make use of the land of another for certain purposes (refer to *Property Law Act 1974*).
Inspection Shaft (IS) (Also 'Lamphole')	A structure on a sewer between MHs or at the end of a sewer line which provides access for small equipment such as a small camera or light.
Maintenance hole (MH)	A chamber with a removable cover which allows human and machine access to a (typically buried) sewer.
Maintenance shaft (MS)	A structure on a sewer between MHs, larger than an inspection shaft, which provides equipment access but not person access to the sewer (can be used as an alternative to MHs).
Maintenance Structure	See Inspection Shaft, Maintenance Hole, and Maintenance Shaft.
Non-trafficable areas	Areas not subject to vehicular traffic.
Owner	An owner is the registered proprietor of land under the provisions of the *Land Title Act 1994* and the person or organisation who has lawful control of the land.
Pressure sewer	A pipe into which sewage is pumped directly from a property and then transported under pressure to a sewage treatment facility or a conventional gravity sewer. Pressure reticulation sewers may be located on private property or in part of a road.
Property connection sewer	A short sewer owned and operated by Unitywater that terminates within the property to be serviced. It connects the sewer and the customer sanitary drain and, in some cases, a vertical riser.
Private Property	Means freehold land, including lease land, as defined in the *Land Act 1994* and to which the public does not have access or has access only on limited conditions with the consent of the owner/occupier.
Road	A road means an area of land, whether surveyed or unsurveyed that is dedicated, notified or declared to be a road for public use or taken under an Act, for the purpose of a road for public use. The term includes a street, esplanade, reserve for esplanade, highway, pathway, thoroughfare, track or stock route and a bridge, causeway, culvert or other works in, on, over or under a road and any part of a road. A road, whether constructed or not, extends from property boundary on one side of the road to property boundary on the other side.

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Term	Meaning
Residence	Detached or attached dwelling, no greater than 2 stories high, used, or intended to be used, as a place of habitation or mainly as a place of habitation.
Sewer main	Pipe or other construction, usually buried, designed to carry sewage from more than one source to a point of discharge or treatment.
Sewer rising main	A pipe through which sewage is pumped generally rising from the pumping station to the point of discharge into the receiving sewer. Sewer rising mains are usually located in a road. *Also called a sewer pressure main.*
Trafficable areas	Areas subject to vehicular traffic.
Vacuum sewer	A pipe into which sewage is drawn and then transported under vacuum to a sewage treatment facility or a conventional gravity sewer. Vacuum reticulation sewers are usually located in the road reserve.

3. Abbreviations

Abbreviation	Meaning
CCTV	Closed-circuit television
kg	kilogram
m	metre
mm	millimetre
m^2	Square metre
min	minimum
UPVC	Un-plasticised polyvinyl chloride
°	degree

4. Roles and Responsibilities

Position title	Roles and responsibilities
Head of Development Services	As Document Owner responsible for: • Conducting and/or delegating regular reviews to ensure this document and related resources (e.g. forms, website content) remain fit for purpose, consistent and current. • Approving this document for publication. • Ensuring all relevant stakeholders and team members have been consulted and feedback is captured and actioned (where applicable). • Ensuring appropriate communication and/or training is provided to relevant team members when implementing a new, amended or obsolete document (where applicable). • Monitoring compliance with internal/external requirements (e.g. monitor legislation changes and assess/update this document when required).
Team members	• Working in accordance with this document. • Advising the Document Owner if this document is not consistent with current practices. • Where possible, minimise printing and/or avoid creating duplicate copies of this document. Ensure current versions are sourced from the Document Centre.

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5. Guidelines for Applicable Circumstances

No.	Item	Works/Structure	Criteria
1	*Sewer Maintenance Structures (Maintenance Holes, Maintenance Shafts, and Inspection Shafts)*	**All Works**	• Construction over maintenance structures is not permitted, as access is required. • Construction near maintenance structures requires a clear area of at least 3m x 2m unobstructed vertical clearance (open to the sky) with a minimum clearance of 1m from the building/structure is maintained around the edge of the maintenance hole cover. • Footings/foundations must extend a minimum depth to the angle of repose to the invert level of the sewer to ensure that no additional load will be placed on the sewer main or maintenance structure. • Maintenance structure cover levels must match new surface levels where fill or excavation works are to be undertaken (works on live maintenance structure to be carried out by Unitywater authorised person). • Access is required from the street frontage (of the property containing the maintenance structure) to the maintenance structure around the outside of buildings or structures, the design must ensure clear access of at least 1.0m wide unobstructed horizontal clearance, opened to the sky and is provided to the maintenance structure from the front entrance of the property (containing the maintenance structure). Access must be available at all times for maintenance. • The design must ensure access is provided to the structure where changes to Finished Surface Level along the access route do not exceed 1.0m vertically. Multiple changes to Finished Surface Level are possible subject to a minimum 1.0m x 0.5m horizontal pad at each vertical change in Finished Surface Level (that does not exceed 1.0m vertically).

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No.	Item	Works/Structure	Criteria
2	*Property Sewerage Connection Servicing the Lot or Adjoining Lot*	**All Works**	• Construction over a sewerage property connection servicing the lot or adjoining lot is not permitted. • A minimum horizontal clearance of 1.0 m from the closest edge of the building and any part of property sewerage connection must be maintained with an unobstructed vertical clearance. • No additional load shall be placed on any property sewerage connection. • Footings/foundations must extend below the invert level of the sewer to ensure that no additional load will be placed on the property sewerage connection by the structure.
3	*Easements for Sewerage Purposes- Containing Unitywater's Asset or Not*	**All Works**	• Construction of permanent structures within a Unitywater easement requires Unitywater's easement encroachment consent (refer Easement Encroachment application). • Non-permanent or removable structures like driveways, letter boxes, landscapes, retaining walls < 1.0 m high (excluding masonry) may be permitted. • Other Utility services are to traverse an easement at a 90° ± 15°. • Other utility services traversing an easement must maintain a minimum vertical clearance as per SEQ Amendment to WSAA Sewerage Code of Australia. • Other utility services parallel to a sewer main within an easement must maintain a minimum horizontal clearance as per SEQ Amendment to WSAA Sewerage Code of Australia.
4	*All Sewer Mains (Not Greater Than 225mm)*	**All works** **Including but not limited to the following**: *Garages, sheds, home workshops (colourbond, timber, brick or concrete construction),*	• Driven piles are not permitted within 5 metres of the sewer main. • Hand excavated, or backhoe excavated footings (pad or strip footings) must have a minimum of 600mm clearance in all directions to the outside of the sewer main. • The underside of any slab, bridging footing or bridging beam is to be a minimum of 300mm clear of the top of the sewer, on a suitable packing medium.

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No.	Item	Works/Structure	Criteria
		Carports, pergolas, verandas, gazebos, sails, decking,	• A minimum horizontal clearance of 1.0m between a bored pier and the outside edge of the sewer main must be maintained. • Footings/foundations must extend a minimum depth to the angle of repose to the invert level of the sewer to ensure that no additional load will be placed on the sewer main.
		Residences, commercial, industrial, public, multi-unit and high-rise apartment buildings, sport stadiums, transport terminals,	• The footings/foundation for the building or structure must be designed to ensure the building or structure will be self-sustaining should Unitywater have to excavate the infrastructure for maintenance or repair. • Buildings and structures may be permitted to be constructed over sewers provided the sewer main has been inspected and assessed. Rehabilitation by Unitywater may be required as necessary.
		Fences, Retaining walls,	• Retaining walls must traverse the sewer main at 90° ± 15°. • Retaining walls (structures) shall be designed to enable excavation access to the sewer main without compromising the structural integrity of the wall.
		Swimming pools, spas,	• Above ground (demountable) swimming pools and spas must ensure a minimum cover of 600 mm is maintained over the sewer main. • In-ground swimming pools may be permitted to be constructed over sewers provided the sewer main has been inspected, assessed and rehabilitated as necessary. • Access is required from a street frontage to the MH around outside of pools (1.0 m wide unobstructed horizontal clearance, opened to the sky).
		Driveways, Paving, Storage areas, Vehicle parking areas,	

		Excavation, landscaping,	• For residential, commercial/industrial driveways *and paving:*
			  ○ A minimum cover of 750 mm must be maintained over the sewer main.
			  ○ Maintenance structure levels must match the new surface level where impacted by the driveway or paving finished surface level (work on the Maintenance structure is to be carried out by a Unitywater authorised person).

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No.	Item	Works/Structure	Criteria
		Utilities service lines, *Telecommunication / electrical transmission poles and towers*	○ Where maintenance structures exist, Class D covers complying with Unitywater's requirements are to be fitted (any alteration works necessary to Unitywater infrastructure are to be carried out by a Unitywater authorised person at the owner's expense). ○ No additional load is to be placed on the sewer main by the works. • Consent is not required for the planting of trees, shrubs and gardens. Please consider the type of trees to be planted (visit Unitywater's webpage, think before you plant and Planting Guide for appropriate choice of plantings). • Consent is required for the placement of rockeries (constructed with rocks weighing more than 25kg) and other garden features (larger than 1.0 m in any dimension). • For sewers with a depth less than 3.0m to invert level the depth of fill permitted to be placed over the sewer main must not increase the depth to invert level to more than 3.0 m. • For sewers with a depth greater than 3.0m and less than 6.0m to invert level the depth of fill permitted to be placed over the sewer main must not increase the depth to invert level to more than 6.0m. • For sewers with a depth greater than 6.0m to invert level a case-by-case assessment by Unitywater will be required. • Any fill placed over a sewer main must be placed without the use of heavy compaction equipment. • For excavation works a minimum cover of 600 mm must be maintained over the sewer main in non-trafficable areas and 900 mm in trafficable areas. • Maintenance hole/inspection shaft cover levels must match the new surface levels where impacted by the excavation or filling finished surface level (work to be carried out by a Unitywater authorised person). • Other utility services (Includes gas and electricity service lines, telecommunications cables, stormwater pipes and property sewers/drains) are to traverse a sewer main at a 90° ± 15°.

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No.	Item	Works/Structure	Criteria
			• Other utility services (Includes gas and electricity service lines, telecommunications cables, stormwater pipes and property sewers/drains) traversing a sewer main must maintain a minimum vertical clearance as per SEQ Amendment to WSAA Sewerage Code of Australia. • Other utility services (Includes gas and electricity service lines, telecommunications cables, stormwater pipes and property sewers/drains) parallel to a sewer main must maintain a minimum horizontal clearance as per SEQ Amendment to WSAA Sewerage Code of Australia. • No additional load is to be placed on the sewer by the services.

6. Recordkeeping

The table below identifies the types of records relating to this documented process and their storage location:

Type of Record	Storage Location
Unitywater Application to Build Over or Near Water Supply or Sewerage Infrastructure – Development Portal application	Customer Relations Management Tool Objective Project Folder (For CCTV file storage >50mb)
BOAA - Further Matters to Be Resolved Notice	Customer Relations Management Tool
BOAA - Notice of Finalisation	Customer Relations Management Tool
BOAA - Referral Confirmation Notice	Customer Relations Management Tool
BOAA - Referral Response - Approval	Customer Relations Management Tool
BOAA - Response (Refusal) Letter	Customer Relations Management Tool

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