BUILDING OVER/ADJACENT TO LOCAL GOVERNMENT SEWERAGE INFRASTRUCTURE TECHNICAL GUIDELINE



1 Scope

This guideline applies to the technical criteria when assessing an application to build over or adjacent to Rockhampton Regional Council's sewerage infrastructure.

2 Purpose

The purpose of this guideline is to:

- (a) Assist Council employees with conducting a risk assessment of applications to build over or adjacent to Council's sewerage infrastructure and to make the following determinations:
 - (i) Approve an application to construct as proposed (with possible additional conditions specified in the construction approval); and/or
 - (ii) Approve an application to construct but with modifications to the proposal and possible additional conditions; and
- (b) Provide applicants and advising engineers with details of requirements to satisfy Council's policy on building over/adjacent to Council's sewerage infrastructure.

3 Related Documents

3.1 Primary

Building Over/Adjacent to Local Government Sewerage Infrastructure Policy

3.2 Secondary

Building Act 1975

Planning Act 2016

Planning Regulation 2017

Plumbing and Drainage Regulation 2019

Water Supply (Safety and Reliability) Act 2008

Work Health and Safety Act 2011

Build Over or Adjacent to Sewerage Infrastructure Application Form

National Construction Code of Australia

Capricorn Municipal Development Guidelines

Delegations Register - Water Supply (Safety and Reliability) Act 2008

Easement Schedule

Form 9 Easement – <u>Titles Registry Form – Department of Resources</u>

Queensland Development Code MP1.4 Building Over or Near Relevant Infrastructure

Rockhampton Region Planning Scheme

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4 Definitions

To assist in interpretation, the following definitions apply:

Access Chamber (Manhole)	Below ground structure with a sealed cover constructed in the line of the sewer or the sanitary drain to facilitate maintenance of the sewer or sanitary drain.		
Applicant	A person who applies to Council for its written consent to build over/adjacent to sewerage infrastructure.		
BOSI	Building over/adjacent to sewerage infrastructure		
Building	As defined in the Building Act 1975:		
	(a) A building is a fixed structure that is wholly or partly enclosed by walls or is roofed.		
	(b) The term includes a floating building and any part of a building. See also "structure".		
Building Class 1 and 10	A building or structure as defined under the National Construction Code.		
Building Class 2 to 9	A building or structure as defined under the National Construction Code.		
CCTV Inspection	Closed Circuit Television Inspection in Wincan reporting format.		
Centreline	As defined in the QDC MP1.4, the notional line running through the centre of the relevant infrastructure along its length.		
Clear Zone	As defined in the QDC MP1.4, for relevant infrastructure, a three-dimensional space, free of:		
	(a) Overhanging parts of a building or structure; and		
	(b) Other objects that would impede access to the relevant infrastructure required by the relevant service provider for the purpose of inspecting, maintaining, or replacing the infrastructure, as required.		
CMDG	Capricorn Municipal Development Guidelines		
Combined Sanitary Drain	As defined in the <i>Plumbing and Drainage Regulation 2019</i> , a sanitary drain for receiving discharges from two or more neighbouring premises, other than a sanitary drain owned by the sewerage service provider for the premises.		
Connection Point	As defined in the <i>Plumbing and Drainage Regulation 2019</i> , a point where — a service provider's sewerage system connects to a sanitary drain or sewer.		
Council	Rockhampton Regional Council		
Delegated Officer	An employee appointed to a position with the relevant delegation under the <i>Water Supply (Safety and Reliability) Act 2008.</i>		
Employee	Local government employee:		
	(a) The Chief Executive Officer; or		
	(b) A person holding an appointment under section 196 of the <i>Local Government Act 2009</i> .		
Fill	As defined in the QDC MP1.4, material used to backfill a trench or build up the level of land above the original surface level before building work commences.		
Inspection Opening	An access opening in a pipe or pipe fitting, arranged to facilitate inspection, testing or the cleaning of obstructions, and fitted with a threaded cap, plug or access		
	cover.		

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Invert level	As defined in QDC MP1.4, for a pipe forming part of relevant infrastructure, the lowest point of the internal surface of the pipe at any cross-section of the pipe.		
Jump-up's	Also known as vertical riser, is often used to describe a sewerage house connection branch. Raised to ground level with a removable airtight cap fitted bolted trap screw.		
Lamphole	A vertical pipe or shaft extending at the desirable maximum as per CMDG 1.2m in height from the sewer to the surface. It can be used as an inspection and clean point only. Typically, a 150mm riser pipe and fitted with a threaded cap, plug or access cover. It is located at the end of a drain instead of a manhole, where the last reach is less than 90m. Must maintain a minimum 1.5m horizontal clearance from the vertical plane along the centreline and must be open to the sky.		
Light-weight Class 10	As defined in QDC MP1.4, a building or structure is a light-weight class 10 if it is a class 10 building or structure and all of the walls, columns and roofs of the building or structure are constructed from materials other than concrete and masonry.		
Load Bearing Element	As defined in QDC MP1.4, for a building or structure, means an element of the building or structure intended to resist vertical or horizontal (including lateral) forces additional to those due to its own weight.		
Maintenance Cover or Access Chamber Lid/Manhole Lid	As defined in QDC MP1.4, for relevant infrastructure, means a cover, whether above, at, or below ground level, for a chamber through which a person, machine or device may gain access to the relevant infrastructure, for the purpose of inspecting, maintaining, or replacing the infrastructure.		
Maintenance Point	Inspection openings, jump-up's and roll-overs, access chambers and lamphole's.		
Pressure Pipeline	As defined in QDC MP1.4, a pipeline that is designed to operate predominantly under pressure, whether imposed by pumping or gravity, at pipe-full flow (for example, sewer rising main).		
QDC MP1.4	Queensland Development Code MP1.4 Building Over or Near Relevant Infrastructure		
Relevant Infrastructure	As defined in QDC MP1.4, any of the following infrastructure, including the connection for the infrastructure: (a) A sewer operated by or for a sewerage service provider; or (b) A combined sanitary drain.		
Retaining Wall	A structure erected to support an excavated or filled embankment.		
Risk Assessment	Assessment statement of the likelihood and consequences of building over/close to sewer infrastructure, in the event of a sewer infrastructure collapse.		
Roll-over	A series of 90 degree vertically bent (150 mm) L shaped sewer pipes which are connected with each section lower than the previous to reduce the invert level of the sewer line along a steep gradient in lieu of an access chamber.		
RPEQ	Registered Professional Engineer of Queensland under the <i>Professional Engineers Act 2002.</i>		
Sanitary Drain	A drain that is part of common effluent drainage, that is directly connected to, and used to carry discharges from, a soil or waste pipe for individual premises.		
Sewage	Means household and commercial wastewater that contains or may contain faecal, urinary, and other human waste.		

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Sewerage infrastructure	Infrastructure used to receive, store, transport and treat sewage or effluent, including, for example, sewerage mains, access chambers, maintenance covers and points, vents pumps, structures and machinery vested in Council.
Sewerage Main	A non-pressure pipe used to collect and transport sewage.
Structure	Includes building classes 1 – 10, masonry fence, pergola, swimming and spa pool, and retaining walls greater than 1 metre.
Vertical Plane along the Centreline	As defined in QDC MP1.4, a notional two-dimensional vertical plane extending upwards and downwards through the centreline of the relevant infrastructure.
Wincan	Inspection and data validation software application specific to sewerage infrastructure.
Zone of influence	The zone of influence is the area of strata likely to be affected by superimposed building loads. The boundary of the zone of influence is nominally defined as a line projected at a 45° angle 300mm below the invert of the sewer to the natural surface. The actual boundary of the zone of influence may be affected by factors including groundwater and soil type and must be calculated by a RPEQ.

5 Guideline

This guideline is structured to assist in assessing BOSI applications (rather than the task referenced in paragraph 5.2.2(b)). Delegated officers can work through the guideline using the information contained in a BOSI application and produce an approval certificate/letter containing any additional conditions or requirements.

5.1 Performance Criteria

This guideline specifies performance criteria that have guided technical specifications and provide details of situations that allow these performance criteria to be achieved. There may however be alternative options to achieve these criteria and alternative options are to be approved by a delegated officer.

The performance criteria are:

- (a) The carrying out of building work over or adjacent to sewerage infrastructure must not:
 - (i) Interfere with or adversely affect the function of the service; or
 - (ii) Place any additional load on the sewerage infrastructure; or
 - (iii) Impede Council's ability to meet its obligations (maintenance of infrastructure including combined sanitary drains).
- (b) Adequate access <u>must</u> be provided to the sewerage infrastructure for future maintenance (in accordance with the clear zone identified in QDC MP1.4).

It should be further noted that these guidelines are to be read in conjunction with the QDC MP1.4.

This guideline deals with:

- (a) Building Classes 2 9; or
- (b) Building Classes 1 and 10, or
- (c) Minor Works (as detailed in paragraph 5.2.11),

where the proposal does not comply with an acceptable solution provided in the QDC MP1.4.

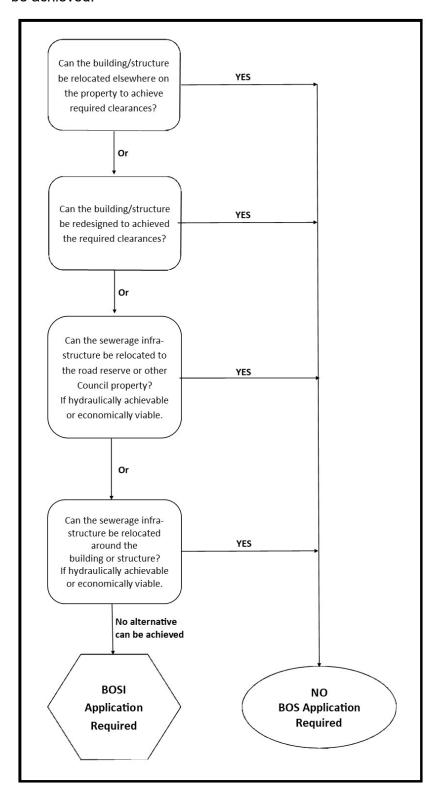
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5.2 General

5.2.1 Class 2 to 9 Buildings

Council will impose alternative requirements in lieu of building Class 2-9 structures, which includes commercial and multi-level buildings, over sewerage infrastructure. Alternatives include, redesigning proposed development to avoid existing sewerage infrastructure or diversion of sewerage infrastructure.

These alternatives will not require a BOSI application if compliance with QDC clearances can be achieved.



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5.2.2 Application (BOSI) and Assessment Process

The applicant must submit a BOSI Application Form. All costs associated with the process are the responsibility of the applicant.

The process consists of:

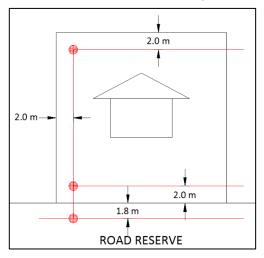
- (a) Submission of a BOSI Application Form and fee by the applicant. Assessment will not commence until full payment of the BOSI application has been received;
- (b) Submission of appropriate plans which display the proposed structure footing/foundation design that is certified, signed and dated by a RPEQ. The plans must clearly demonstrate that there is no additional load implied to Councils Infrastructure because of the proposal;
- (c) Assessment by Council including initial CCTV inspection;
- (d) Issuance of a "BOSI Construction Permit". The BOSI Construction Permit will be valid for 2 years from the date of issue;
- (e) Construction works by the applicant;
- (f) Construction inspections including but not limited to concrete pre-pour of piers and bridging slabs;
- (g) Post construction CCTV inspection; and
- (h) Issuance of "Building over Sewerage Infrastructure Final Permit" on completion of works and any remedial works. This will remain in perpetuity provided no modifications are made to the relevant building or structure.

5.2.3 Standard Alignment Minimum Clearance Guide

When unable to comply with QDC MP 1.4, applications are assessed on a case-by-case basis.

A minimum 1.0m horizontal separation must be maintained between the outside of footings and the centre of the sewerage main, where it can be demonstrated no reasonable alternatives exist. Standard alignment is defined by the following criteria:

Location of Sewerage Infrastructure	Standard Alignment
Adjacent to side boundaries	2.0m
Adjacent to front and rear boundaries	2.0m
Within Road Reserve	1.8m



5.2.4 Sewerage Easement or Allotment Boundary

Consent will **NOT** be granted for the construction of a building or structure over or adjacent to sewerage infrastructure that is located within a registered sewerage easement. Refer to Easement Schedule for further details.

A sewerage easement boundary or allotment boundary is considered to be a defining limit under this guideline and the horizontal clearances identified in QDC MP1.4 do not apply. However, the applicant must ensure no additional load is implied to Council's sewerage infrastructure and reasonable access for maintenance purposes can be achieved.

Minor works as identified in paragraph 5.2.11, are not permitted to be constructed within a registered sewerage easement.

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5.2.5 Sewerage Non-Standard Alignment Minimum Clearance Guide (See Paragraph 5.2.3)

When the sewerage infrastructure is on a non-standard alignment and not contained within an easement, construction may be permitted over or adjacent to the sewerage infrastructure in accordance with the technical guideline requirements.

Allowances or alternatives to the technical guidelines may be permitted with the consent of the delegated officer.

5.2.6 Consent Declined

Consent will **NOT** be granted for the construction of a building or structure (excluding minor works as detailed in paragraph 5.2.11) over or within 2.0m of sewerage infrastructure that is:

- (a) Sewer greater than 225mm in diameter;
- (b) A sewer pressure pipeline; or
- (c) Trunk sewerage infrastructure identified in the Rockhampton Region Planning Scheme existing and/or in the future (some 225mm diameter sewer may function as trunk infrastructure).

5.2.7 Building Over a Combined Sanitary Drain

Consent must be sought for buildings/structures proposed over a combined sanitary drain.

In some instances, Council will assess the proposal based on the following criteria for the combined sanitary drain:

- (a) Location;
- (b) Access; and
- (c) Condition,

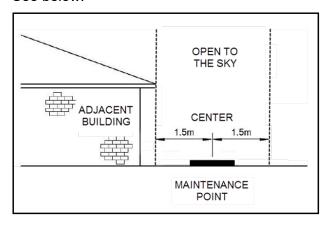
and may upgrade the infrastructure, which consequently may have impacts on construction timelines.

5.2.8 Clearance from Maintenance Cover and Maintenance Points

5.2.8.1 Maintenance Cover

(a) All buildings or structures (including minor works as detailed in paragraph 5.2.11) must have clearances from all maintenance covers in accordance with QDC MP1.4 and clearances must be adhered to in this regard.

See below.



5.2.8.2 Maintenance Points

All buildings or structures (including minor works as detailed in paragraph 5.2.11) must have clearances from all maintenance points.

In accordance with QDC MP1.4 and clearances must be adhered to in this regard.

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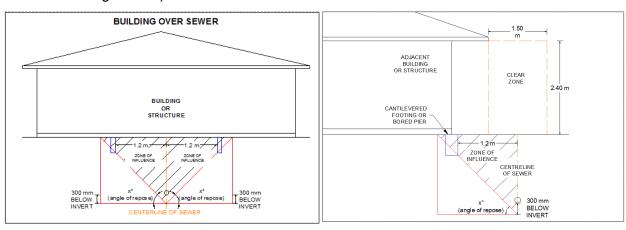
5.2.9 Relocating or Relining of Council's Sewerage Infrastructure

Relocating and relining of Council's sewerage infrastructure must be conducted by Council or an approved contractor. Where an approved contractor is undertaking the works, the design, materials and construction methods must also be approved by Council through an Operational Works Application and must be in accordance with CMDG requirements. Council will inspect all open trenches prior to backfilling. A minimum of 24 hours notification of inspection is required.

5.2.10 Specific Requirements for Building Within the Zone of Influence or Over Council's Sewerage Infrastructure – Building Classes 1 - 10

Where construction is approved within the zone of influence or over Council's sewerage infrastructure, any or all of the following conditions may be applicable for Building Classes 1 - 10:

(a) A structural footing design with engineering drawings certified by an RPEQ must be submitted to Council for an assessment of the footing design's potential impact on the sewerage infrastructure. All footings/piers must maintain a minimum 1.0m horizontal separation from the centreline of the sewer to the edge of the footing. (See QDC MP1.4 drawings below)



- (b) Upgrade or relining of the existing sewerage (subject to availability of relining contractors) if applicable.
- (c) Provision of an easement if required.

5.2.11 Minor Works not requiring a BOSI Application

The minor works identified below are generally not considered by Council as assessable, therefore consent from Council is not required, except where there is actual interference with the sewerage infrastructure (an example of actual interference may be footings constructed directly over the sewerage main).

For the purposes of these guidelines, minor works include:

- (a) Demountable fences;
- (b) Retaining wall less than 1.0m in height;
- (c) Sheds, bird aviaries and garages (structure less than or equal to 10m in length) classified as a light-weight class 10;
- (d) Others as determined by the delegated officer (this may include decks, carports and pergolas); and
- (e) Excavation and filling up to 1.0m.

Any fill placed over an access chamber will require the access chamber to be raised to the new surface level.

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Any alterations proposed to the level of an existing access chamber are at the full cost to the applicant. A request must be made in writing to Council for a quotation to be compiled for the works.

It should be noted that all minor works <u>must not</u> be undertaken over or adjacent to any maintenance point or maintenance cover and the clearances specified in this guideline must be complied with.

All minor works should be designed and constructed to ensure the sewerage infrastructure is adequately protected, as provided in this guideline. Further, all minor works must be designed to ensure no additional loading is applied to Council's sewerage infrastructure and full access is attainable.

5.2.12 Indemnity and Release Clause

The permit holder and/or property owner agree that they will be responsible for the costs of repairing any damage caused to the sewerage infrastructure as a result of the construction of the proposed structure(s).

In addition, the permit holder and/or property owner agree to indemnify, and keep indemnified, Council from all claims for any loss, damage, injury or death incurred or suffered directly or indirectly in connection with or arising from the proposed structure(s) being constructed over or adjacent to the sewerage infrastructure.

5.2.13 Consent Must be Sought for Above Ground Pools

Above ground pools are assessed on a case-by-case basis. Above ground pools are classified as a light-weight structure, this includes fiberglass or plastic swimming pools with no concrete or masonry walls. For the BOSI application to be approved, it must comply with the acceptable solution: A1 (2)(b)(iii)(B) of QDC MP1.4. The pool design must be certified by a RPEQ Engineer as part of the compliance of performance requirement P1.

5.2.14 Access to Council's Infrastructure Post Construction

In the event Council requires access to the sewerage infrastructure for future maintenance and/or reconstruction work, the applicant is responsible for all rehabilitation works and associated costs regarding the reinstatement of the structures built over the sewerage infrastructure.

5.2.15 Enforcement

Where non-compliance has been identified with the permit or this guideline, enforcement action may be undertaken in accordance with the provisions of the *Water Supply (Safety and Reliability) Act 2008*.

5.3 Construction Requirements

5.3.1 Site Works

The approximate location and depth of Council's sewerage infrastructure may be obtained from Council plans relevant to the building site. Council does not guarantee in any way the accuracy of these plans and provides them as a guide only.

Confirmation of sewerage infrastructure location and depth is to be obtained by potholing at no cost to Council.

5.3.2 Repairs/Damage

In the event that Council's sewerage infrastructure is damaged during site works or construction through negligence of the contractor/applicant, Council must be notified immediately. All costs associated with rectification of damage to Council assets will be recovered from the applicant.

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6 Review Timelines

This guideline is reviewed when any of the following occur:

- (a) The related information is amended or replaced; or
- (b) Other circumstances as determined from time to time by the Manager Planning and Regulatory Services.

7 Document Management

Sponsor	Chief Executive Officer
Business Owner	General Manager Community Services
Policy Owner	Manager Planning and Regulatory Services
Policy Quality Control	Legal and Governance



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