

Building Over Or Near Relevant Infrastructure In Queensland

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Background

Building Act 1975 → If certain parts of the Queensland Development Code (QDC) are inconsistent with the Building Code of Australia (BCA) then QDC sets the requirements.

MP1.4 – “Building over or near relevant infrastructure” Is a Mandatory part of the QDC.

Appeals can be made and some acceptable solutions may vary depending on your certifier.

Protect infrastructure (sewer, water or stormwater mains) from being loaded by buildings.

Allow access for infrastructure maintenance.

Protect buildings from subsidence.

Purpose

The purpose of this QDC part is to ensure *building work* for a *building* or *structure* on a *lot* that contains, or is adjacent to a *lot* that contains, *relevant infrastructure* is carried out so—

- (a) the work does not—
 - (i) adversely affect the operation of the infrastructure; or
 - (ii) place a load on the infrastructure that could adversely affect its structure; and
- (b) the integrity of the *building* or *structure* is unlikely to be affected as a result of the infrastructure—
 - (i) being maintained or replaced; or
 - (ii) failing to function properly; and
- (c) when completed, the work allows—
 - (i) any gas that builds up in the infrastructure to escape in a way that ensures individuals in close proximity to a *maintenance cover* for the infrastructure are not harmed by the gas; and
 - (ii) the *relevant service provider* the access above the infrastructure required for inspecting, maintaining or replacing the infrastructure.

Requirements and Solutions

MP1.4 provides acceptable solutions for Class 1 and Class 10 buildings.

Some extra tolerances for light weight Class 10 buildings.

Alternate solutions required for:

- Class 2-9 buildings
- Work over or near pressure pipelines
- Work over or near large pipes
 - Sewers, water mains or combined sanitary drain pipes greater than 225mm in diameter.
 - Stormwater mains greater than 375mm in diameter.

PERFORMANCE REQUIREMENTS

Ensuring building work does not damage relevant infrastructure etc

P1

A building or structure—

- (a) does not adversely affect the operation of *relevant infrastructure*; and
- (b) does not place a load on the infrastructure that adversely affects its structure; and
- (c) is constructed and located so its integrity is unlikely to be affected as a result of the infrastructure—
 - (i) being maintained or replaced; or
 - (ii) failing to function properly.

PERFORMANCE REQUIREMENTS

Maintaining access to and ventilation for relevant infrastructure

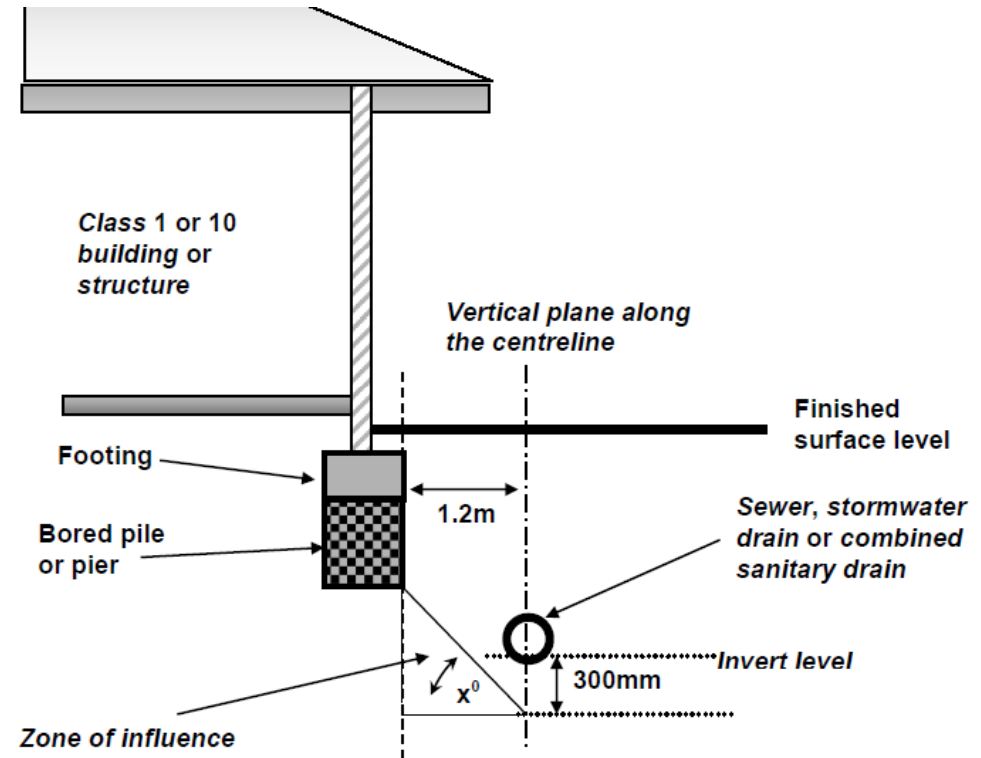
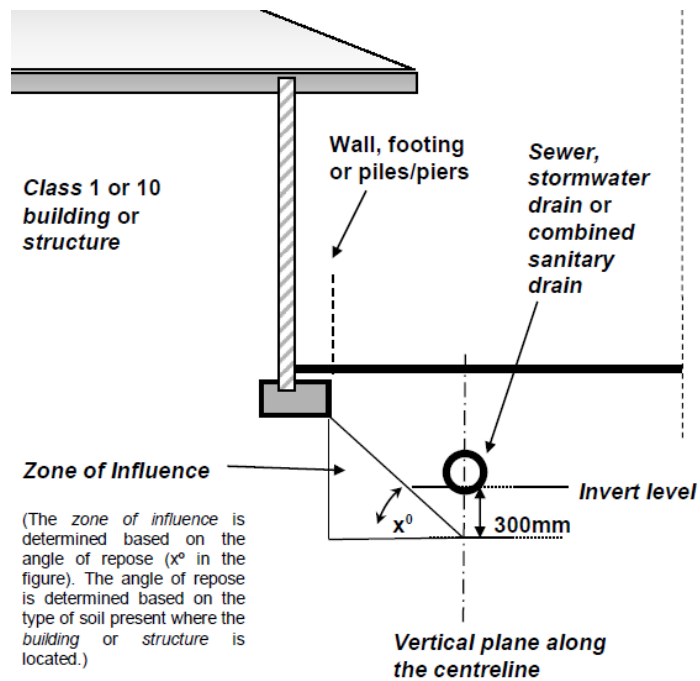
P2

When completed, a *building or structure* allows—

- (a) gas that builds up in *relevant infrastructure* to escape in a way that ensures individuals in close proximity to the *maintenance cover* for the infrastructure are not harmed by the gas; and
- (b) the *relevant service provider* the access above the infrastructure required for inspecting, maintaining or replacing the infrastructure.

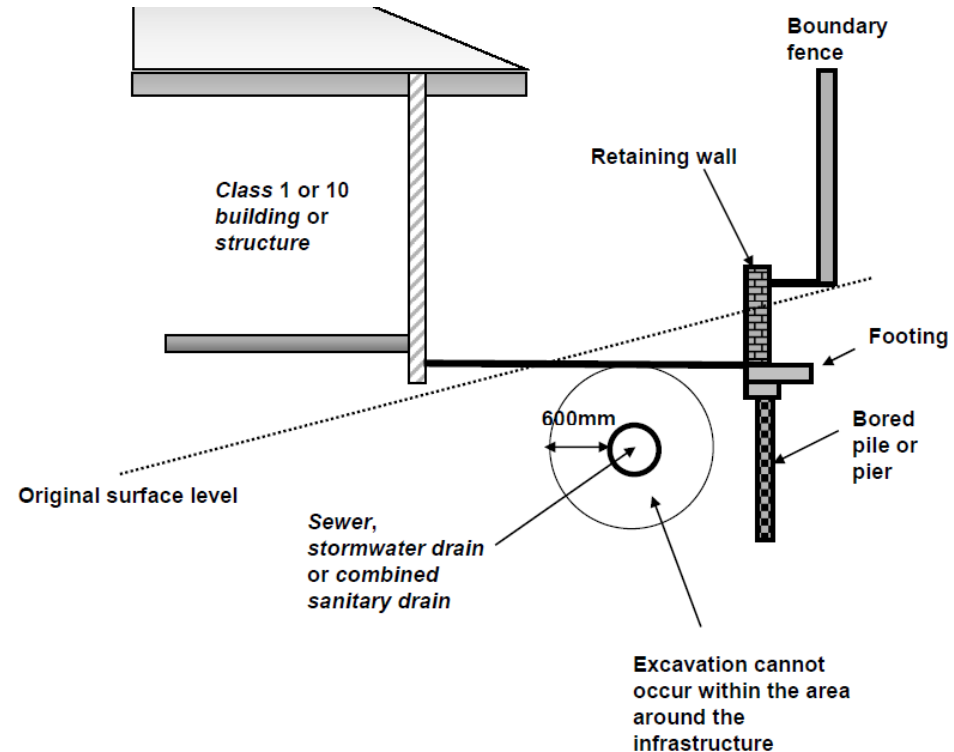
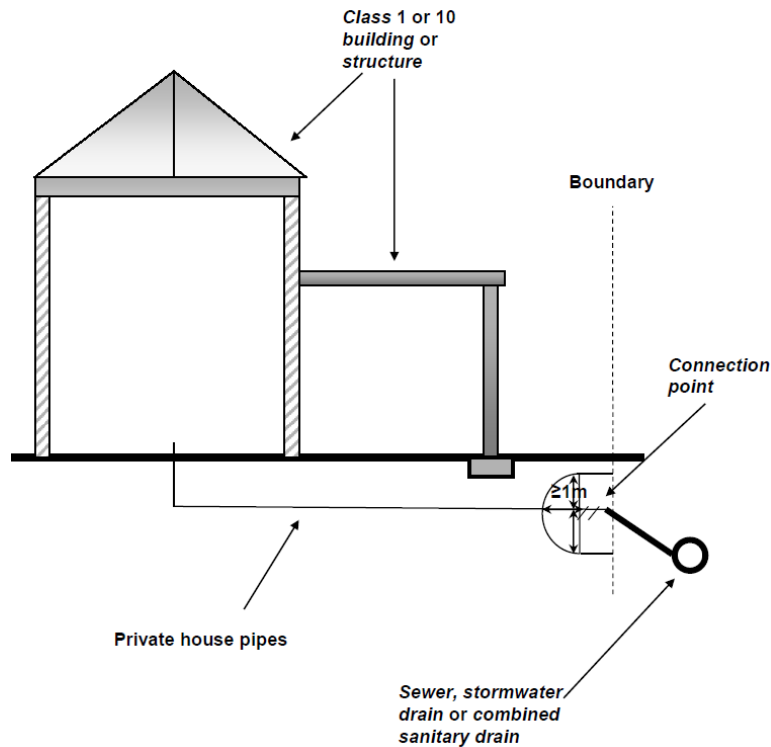
Acceptable Solution Requirements For P1

- Be located so that the invert level of the infrastructure (45 degree line) is at least 300mm above the zone of influence OR be supported on piers that are. Note: Bored piers cannot be installed within 1.2m of the vertical plane along the centreline.



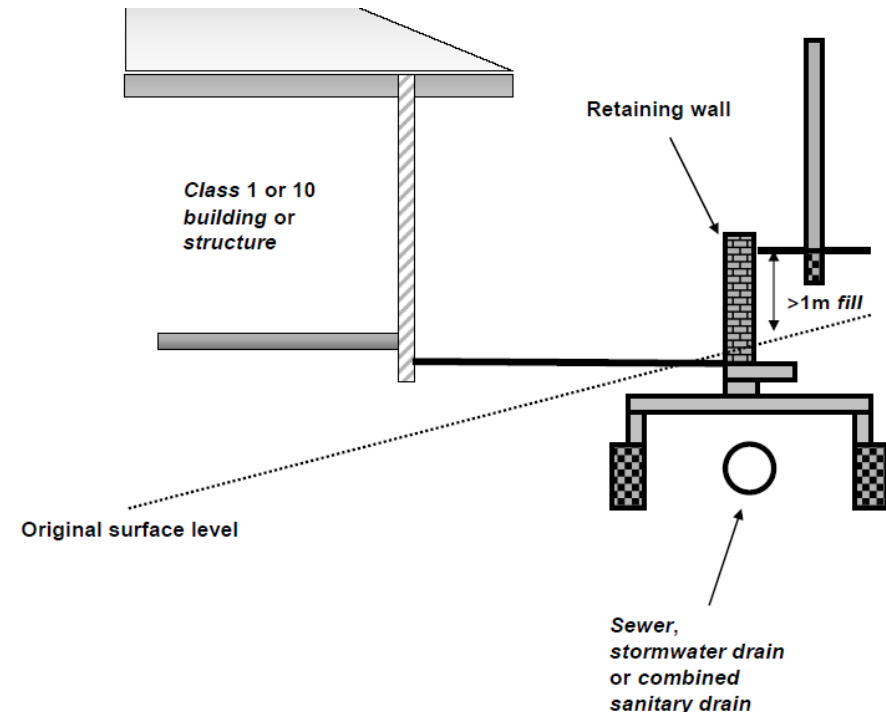
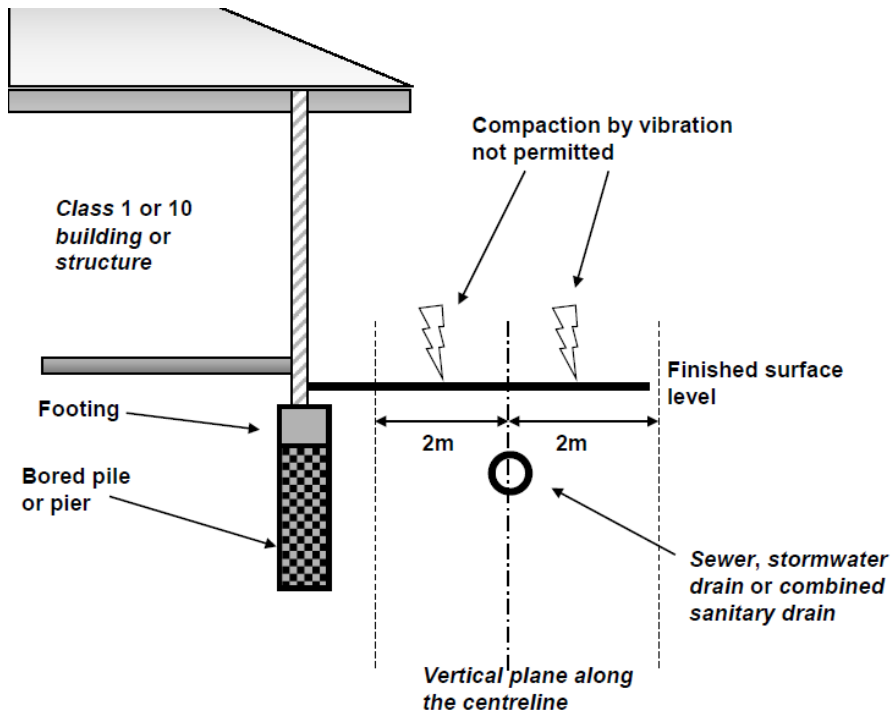
Acceptable Solution Requirements For P1

- Footings must be >1m from all parts of the connection.
- No excavation work is to be carried out within 600mm of the outer wall of the infrastructure.



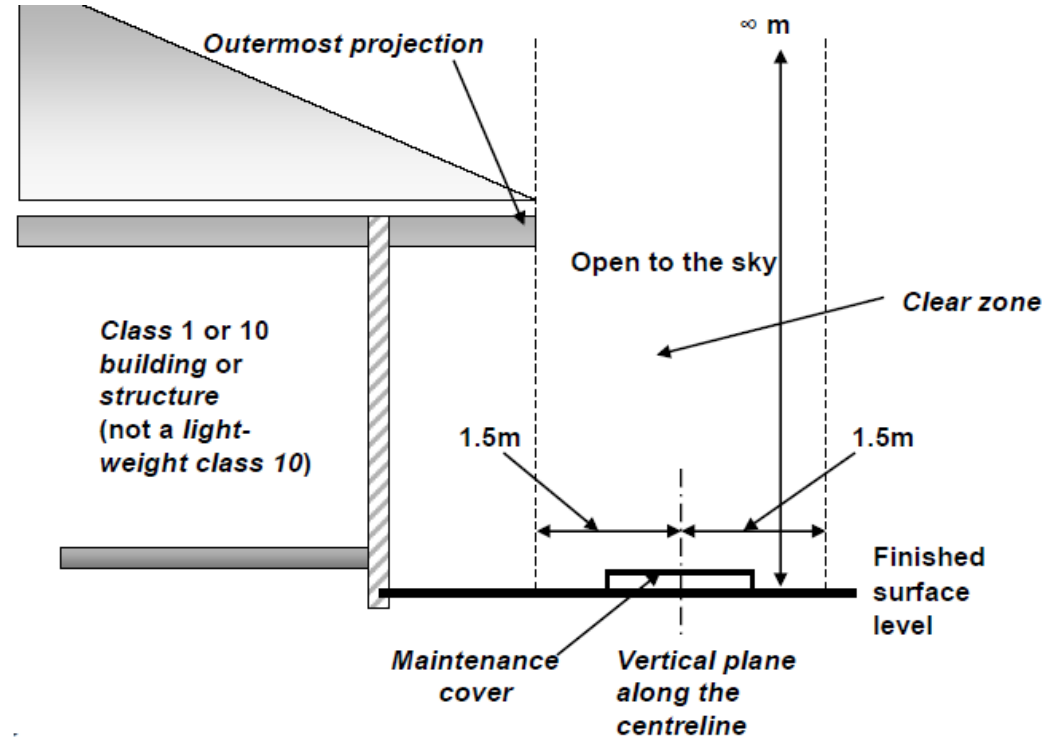
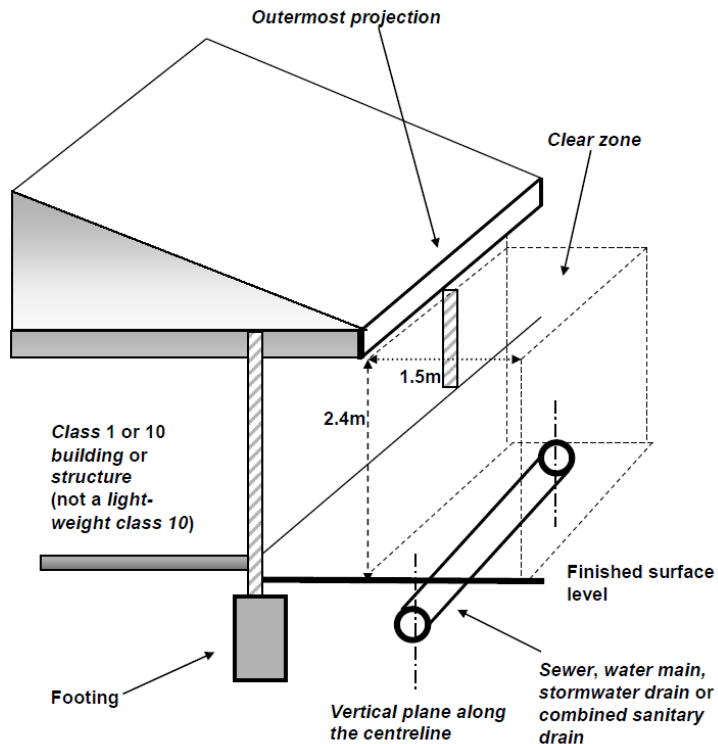
Acceptable Solution Requirements For P1

- Compaction via vibration must not be carried out within 2m of the vertical plane along centreline.
- 1m limit of additional fill that can be placed over infrastructure unless the fill is associated with a retaining wall which has been designed to bridge over the infrastructure by an RPEQ.



Acceptable Solution Requirements For P2

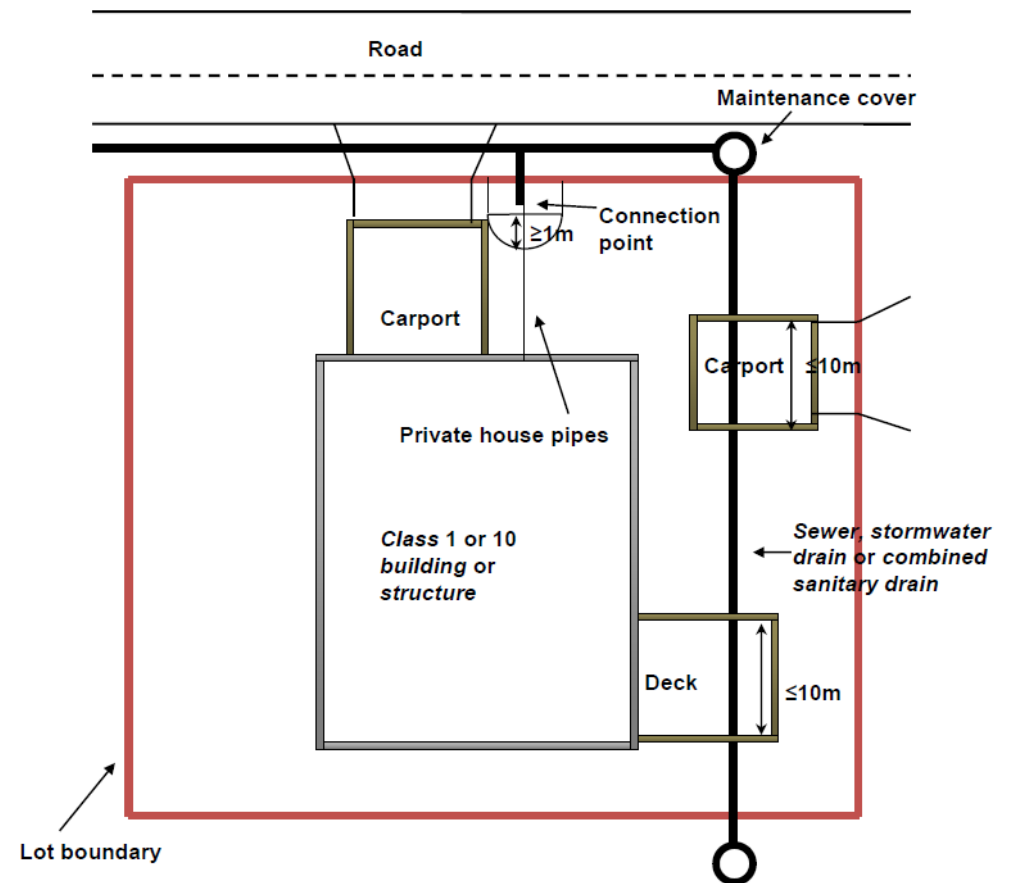
- Provide a 1.5m wide x 2.4m high clear zone over the infrastructure (not including maintenance cover).
- Provide 1.5m radius x infinite height clear zone over any maintenance cover.



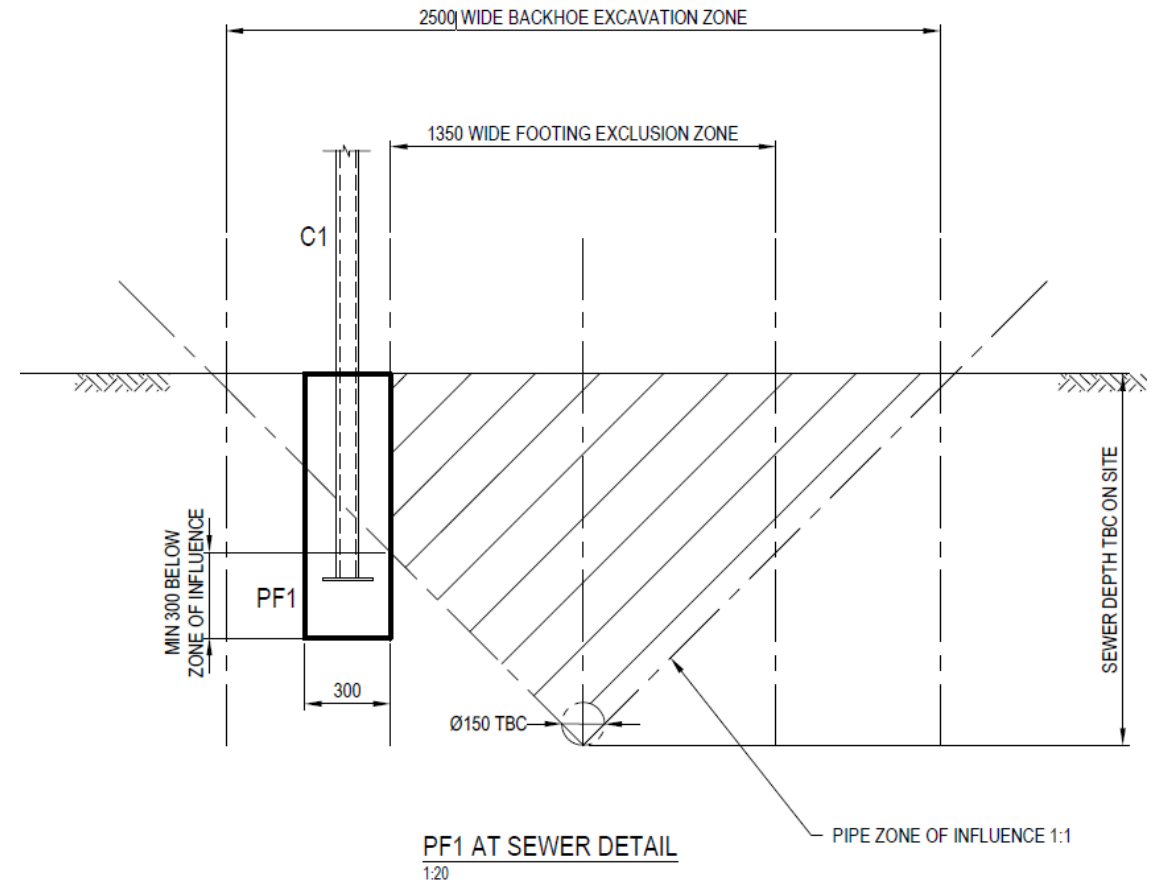
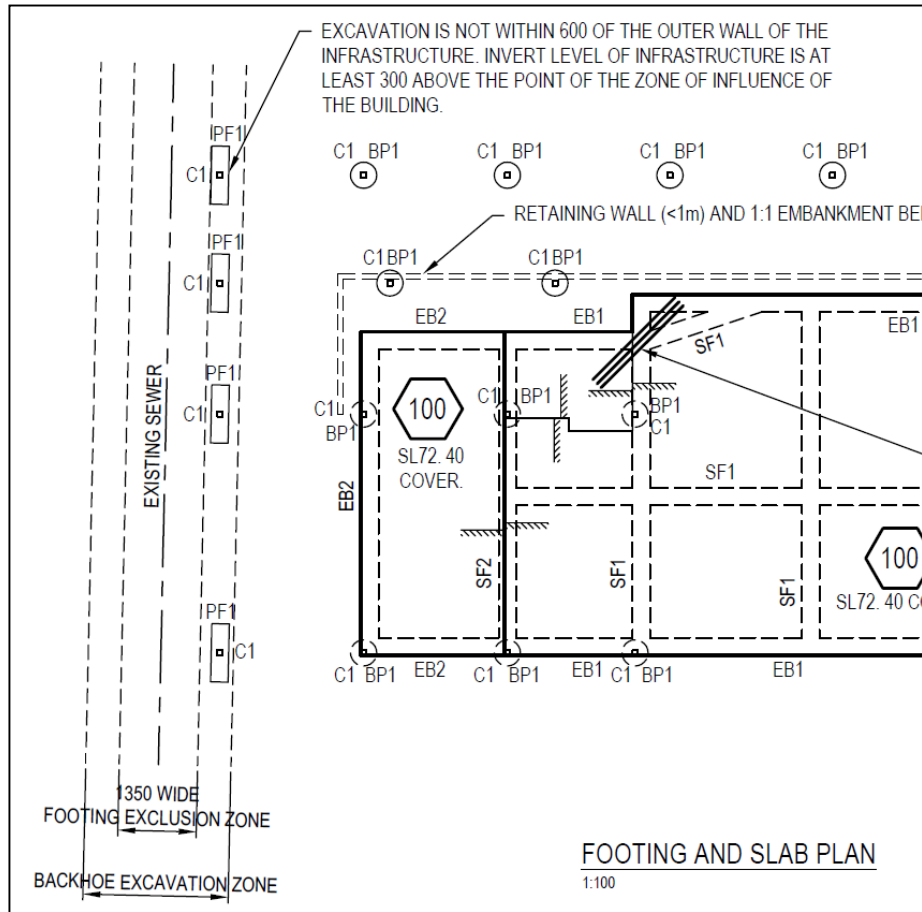
Acceptable Solution Requirements For P2 Light-Weight Class 10 (No Masonry)

- <10 of the building runs continuously over the infrastructure.
- Provide 1.5m radius x infinite height clear zone over any maintenance cover.
- Provide 1m radius x 2.4m high clear zone for all parts of the connection.

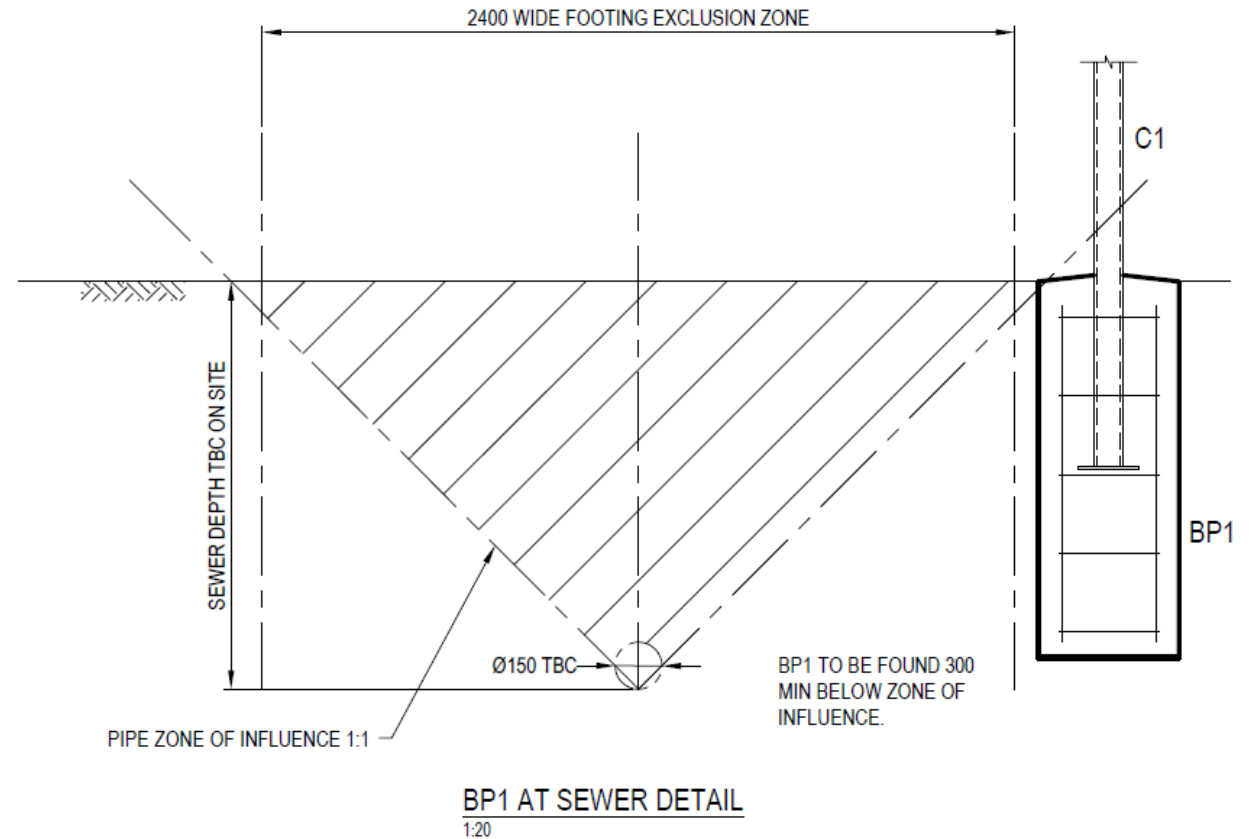
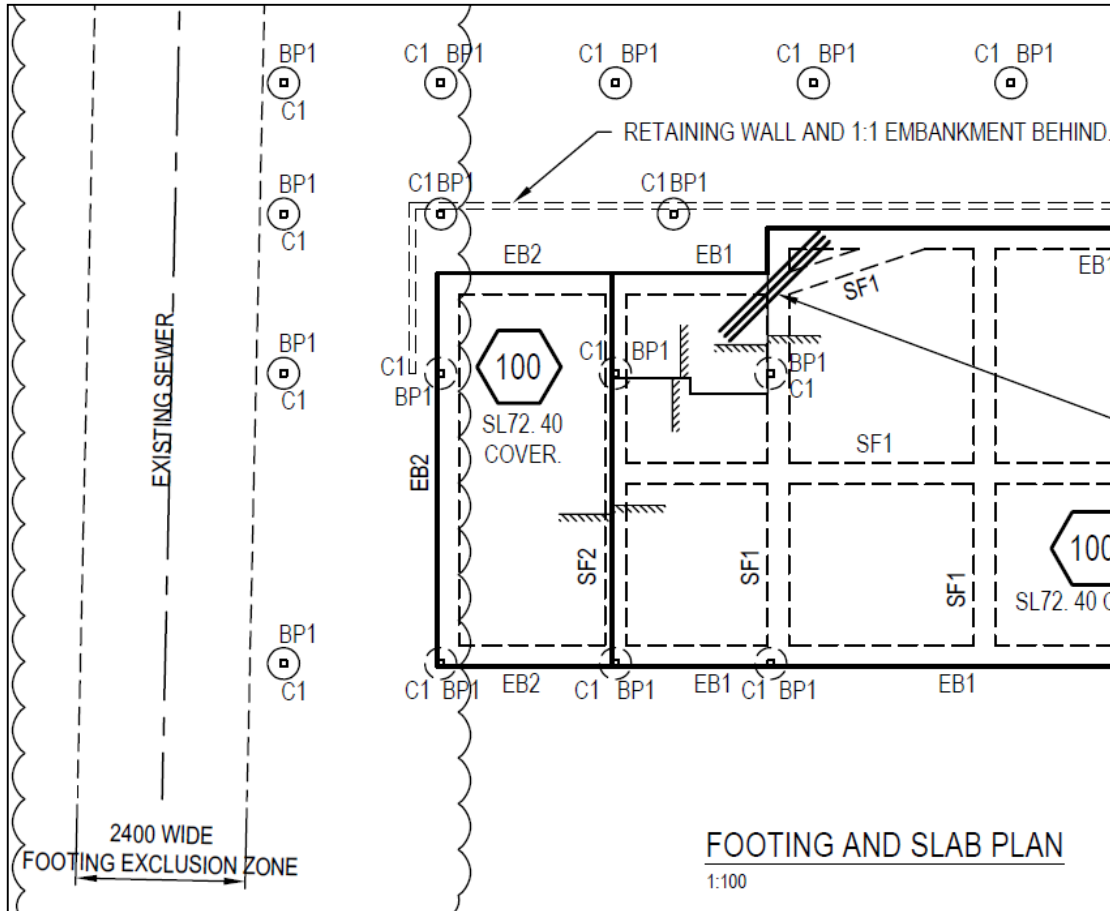
NOTE: These extra allowances may not get the okay with every certifier.



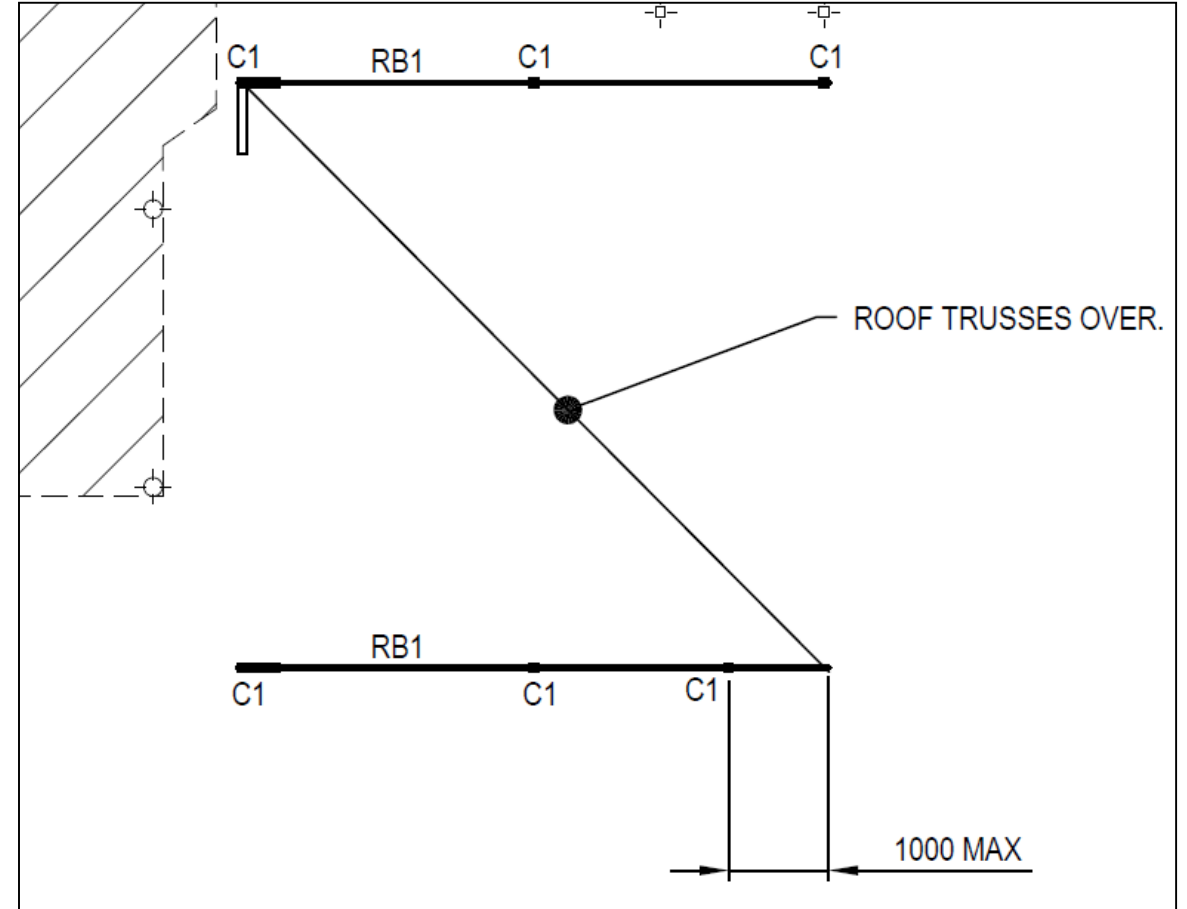
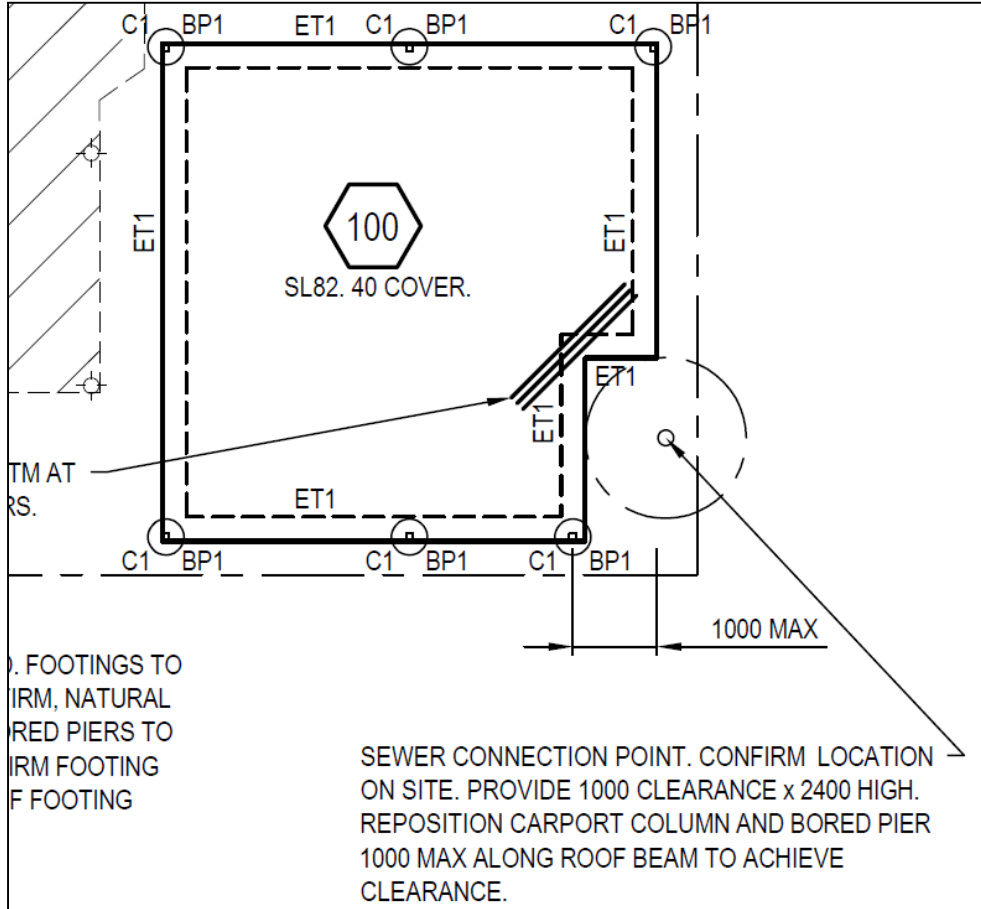
Examples



Examples



Examples



Examples

