
	CODE OF PRACTICE FOR SUBDIVISION AND DEVELOPMENT
	Building Over or Close to Public Stormwater, wastewater or water pipelines and infrastructure

1. SCOPE

The document sets out the conditions under which building over or close to public infrastructure is dealt with. Public infrastructure by its very nature is required to be long-lived, be easily maintained and repaired, and cost effective. Activities which diminish those criteria such as building over or close to need to be analysed with the principal focus being on maintaining the long term integrity of the infrastructure. Transferring costs from the private to public sector merely to enable one particular building footprint to be developed is not acceptable. This document sets out obligations and responsibilities on both the property owner and the network operator to ensure as far as possible that the reasonable needs of both can be met.

- 1.1 Building over or close to public infrastructure is permitted only if diversion of the pipeline or modification of the building footprint is not practicable, or where significant additional infrastructure will be created.
- 1.2 Building over or close to public infrastructure can and does restrict the ability of the network operator to maintain the network. The costs of maintaining the network can be very significantly increased particularly where the pipeline is at some depth and/or the soils on the site are difficult to work in. In consequence, design and installation of temporary or permanent sheet piling of trenches may be necessary where it is essential to excavate down to the pipeline. Similarly, the use of concrete slab construction on hardfill places different constraints on subsequent excavation to pipelines. For this reason, the minimum or in specific instances, greater separation distances will be applied. Refer to TCDC Drawing H10 (attached).
- 1.3 Where building over or close to drains is approved a note will be placed on the Land Information Memorandum file to the effect that the dwelling has been constructed over a wastewater or stormwater pipeline. The purpose of this notation will be to advise prospective purchasers of the fact and to alert cultural sensitivities particularly to the issue of wastewater passing under the dwelling. The notation will also indicate that in the event of failure or major problem in the pipeline that repair works may involve more extensive property disruption than otherwise might be the case.

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2. CRITERIA


- 2.1. Any diversion of public wastewater or storm water pipelines shall be carried out in accordance with the Thames Coromandel District Council Standard. Drawings of the work must be provided for approval prior to the work being carried out. A fee will be charged for processing the application.
- 2.2. Building over or Close to Public Storm water or Wastewater pipelines and related infrastructure will **NOT** generally be permitted for:
- a. Wastewater gravity pipelines greater than 150mm internal diameter.
 - b. Storm water pipelines greater than 375mm internal diameter.
 - c. Any wastewater rising main
 - d. Any storm water or wastewater manhole or other structure.
 - e. Any connection.

Storm water and Wastewater Pipelines of lesser diameter will not automatically be approved for Building Over or Close to. Each case will be determined on the basis of the site and local network conditions.

- 2.3. The minimum separation distance required when building close to drains is set out in table 1. Note that the minimum separation distance depends on the difference between finished ground level and the invert level of the pipeline at any point along the affected length of the pipeline. For this reason final levels must be included in the application.

Table 1 Minimum Separation Distances

Depth to invert from finished Ground level 'D'	Minimum Separation Distance 'x' from centreline of pipeline diameter 'd' to building line or outside of drilled pile whichever is closer to pipeline.
Up to 2 m	$d/2 + 200\text{mm} + 1.3 \text{ metres.}$

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Depth to invert from finished Ground level 'D'	Minimum Separation Distance 'x' from centreline of pipeline diameter 'd' to building line or outside of drilled pile whichever is closer to pipeline.
Between 2 and 2.5 m	$d/2 + 200\text{mm} + 1.60$ metres
Between 2.5m and 3m	$d/2 + 200\text{mm} + 1.90$ metres
> three metres	Subject to specific design and conditions

3 EXCLUSIONS

- 3.1 The policy will not apply to non-habitable temporary or portable (i.e. building consent not required) residential structures such as single storey light frame structures and garden sheds provided that the extent of build over does not exceed eight (8.0) metres and that manholes and other structures are not affected. These buildings will however be required to be isolated from the pipeline as per the relevant standard drawings.
- 3.2 Where permission is given to build over a storm water pipeline the applicant will be required to provide an analysis of the upstream Catchment and design and construct an overland flow path in terms of the TCDC Code of Practice. The applicant will be required to show the continuity of the flow path from a viable upstream point to the logical downstream discharge point.

4 APPROVAL TO BUILD OVER PIPELINES SUBJECT TO THE FOLLOWING

- 4.1 A mandatory assessment of the condition of the pipeline and the effects of the build over is required **prior** to any approval being given. The information to be supplied as part of the assessment may include:
- a. As built information supplied by the applicant including site contour levels, proposed floor levels and invert levels and location of affected pipelines in relation to the proposed building.
 - b. A statement on the nature and respective depth of soils on the site



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- c. A statement on the construction methodology to be used for the construction of the building i.e. whether the floor is supported above ground on piles or directly supported by the subgrade of the soils.
- d. Access to the site if replacement is contemplated.
- e. Need to increase length of replacement to link to adjacent manholes either up or downstream.
- f. Location of existing connections both to the site and to adjoining sites.
- g. A CCTV inspection using a pan and tilt camera, to permit a 360 degree inspection, is to be carried out by a suitably qualified person at the applicants expense, of the whole portion of affected pipeline from upstream manhole to downstream manhole. This inspection is to be repeated after the piles have been drilled and concreted and **prior** to the pouring of the concrete for the slab. A DVD and copy of the inspection sheet complying with the NZ Pipe Inspection Manual of the inspections is to be supplied to the TCDC Utilities Manager for assessment and sign off. Approval to pour concrete will then be given.



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- 4.2 The DVD shall be assessed by the Water Services Manager who shall determine the necessity or otherwise to replace the pipe or other affected infrastructure. Any replacement of pipelines or other items of infrastructure affected by the work shall be replaced at the applicant's expense.
- 4.3 Where the network affected by the proposal has been constructed using earthenware, vitreous clay, asbestos cement, reinforced concrete, concrete lined mild steel pipes, and the gradient is greater than one per cent, the affected section of pipeline shall be replaced using PE 80B SDR 17 pipe. Where the gradient is less than one per cent UPVC SN 16 solid wall pipe shall be used. Where the length of the build over exceeds the nominal single length of pipe – twelve metres - and it is necessary to join the pipe, this shall be carried out in accordance with the TCDC Code of Practice. Particular care is to be paid to the bedding and haunching of the replacement pipeline, and to the width of trench.
- 4.4 The pipe shall be reconnected to the existing pipeline using approved shear band couplers. These couplers must have components manufactured from 316 Stainless Steel and Type B EPDM rubber.
- 4.5 The minimum length of pipeline to be replaced is the full length under the building footprint- including decks- plus a minimum of two metres extending either side beyond the footprint.
- 4.6 All buildings but especially raft foundation structures shall be protected and isolated from the effects of the trench and any damage caused by possible future pipe bursting construction techniques. Special consideration must be given to the migration of material from under the floor slab into any excavation in close proximity to the structure. The use of shock absorbing layers between the floor slab and the sub grade of the slab is required. Depending on soil conditions a protective skirt wall may be required to be installed to prevent migration of material into the trench area. This would be the case particularly when the separation distance is minimal and the dwelling runs substantially the full wall length along, and parallel to, the pipeline.
- 4.7 Foundation piles must be taken at least 500mm below estimated invert of the pipeline.

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- 4.8 Foundation piles must be drilled or hand dug once the location of the drain is accurately identified.
- 4.9 Where connections are under the proposed footprint of the building the the pipes shall be relocated outside the footprint a minimum of 2.0 times the depth of the pipeline clear of the footprint at the owners expense. If the pipeline is not to be replaced the cost of the new connection including capping of the old connection shall be met by the applicant.
- 4.10 Where a connection from an adjoining site is located under the proposed footprint, the cost of relocating the connection and diverting the service back to the boundary line to reconnect the existing service is to be borne by the applicant. This section of pipeline is deemed to be public and shall be constructed in materials specified in the TCDC Code of Practice and not to the lesser standards permitted under the Building Code.
- 5 RETAINING WALLS**
- 5.1 Where it is intended to construct a retaining wall of any description within five metres of a storm water or wastewater pipeline, the details must be submitted to Council for approval prior to the construction of the wall. Whether the wall requires a building consent or not is irrelevant as the constraints imposed on the infrastructure will need to be assessed.
- 5.2 In the case of drilled piles the separation distance will be measured from the invert of the pile encasement extended vertically to the outside wall of the pipeline.
- 5.3 Matters to be considered will include but not be confined to:-
- a. Type of wall i.e. cantilevered timber, gravity, cantilevered masonry.
 - b. In the case of cantilevered walls consideration is to be taken on the impact of trenching to the pipeline on the stability of the walls vertical members.
 - c. Separation distance from pipeline.
 - d. Existing depth of the pipeline.



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- e. Surcharge placed on pipeline.
- f. Whether the wall crosses the pipeline diagonally or at right-angles.
- g. Pipe material.
- h. Pipe class.
- i. Pipe size.

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Check list – REFER Policy guide for details

ABA			
Name			
Address			
Lot		DP	

1.	A fee is payable to enable an assessment of potential pipeline building over or close to be made. A deposit will be charged and final costs will depend on complexity of proposal.	
2.	<p>The applicant must provide:</p> <ul style="list-style-type: none"> a. A site plan showing the as built of the pipeline(s) in relation to the proposed building footprint. b. Existing and proposed ground levels. c. A CCTV inspection of the pipeline(s) complete with inspection sheets and DVD or Video tape 	
3.	If approved, the applicant must prove the actual location of the pipeline(s) for confirmation by Thames Coromandel District Council prior to building works commencing.	
4.	A second CCTV inspection must be carried out prior to concreting of the floor slab as set out in 4.1. (g) of this Appendix.	
5.	Any damage to the pipeline(s) or ancillary structures shall be repaired to at the satisfaction of TCDC Water Services Manager under the supervision of TCDC and at the applicants cost.	



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6.	All design and construction works shall comply with the TCDC Standards for Engineering Design and Construction. All relevant consents must be obtained by the applicant.	
7.	Specific circumstances outside the coverage of this Policy and the TCDC Standards for Engineering Design and Construction will be considered upon receipt of written application to the Water Services Manager.	
8.	All costs associated with meeting the above conditions shall be borne by the applicant.	
	Conditions Accepted	
	<p>.....</p> <p>.</p> <p>Property Owner(s) signature(s)</p> <p>Date</p>	
	<p>.....</p> <p>..</p> <p>Property Owners(s) Name(s)</p>	



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Note the term owner and applicant are synonymous. Any agent acting on behalf of the owner will be deemed to have the owner's authority to enter into a binding contract under this policy.