

TO: City Planning

FROM: Consents & Compliance Officer, Water and Waste Services

DATE: 15 December 2016

SUBJECT: **SUB-2016-107** **TWO LOT SUBDIVISION**
LUC-2016-539 **49 WALTON STREET, DUNEDIN**
COMBINED DRAINAGE & WATER AND WASTE SERVICES COMMENTS

Proposed Activity

Subdivision consent is sought from Council to create a two-lot subdivision at 49 Walton Street, Dunedin. The site is within the Residential 1 zone.

Subdivision Description

The proposal is to demolish the current dwelling and construct two two-bedroom double storied dwellings on their own lots.

Proposed lot one will be 206m² (158m² net) and proposed lot 2 will be 254m² (minimum lot size for the area is 500m²).

According to the concept plans it appears that the sites will be close to 100% impervious, however a total site coverage figure has not been provided.

Existing Services

A review of the Council's GIS records shows 100mm diameter water pipes and 150mm diameter wastewaters pipe in both Walton Street and Font Street. There is a 150mm diameter stormwater pipe downstream of the property which runs across Font Street, through 43 Walton Street (Lot 20 DP 130) and ending in a manhole on Walton Street.

Density assessment

Residential 1 rules in the Dunedin District Plan allows for a minimum site size of 500m² per residential unit. Both lots are well below the allowable lot size.

Modelling report

The WWS hydraulic modeller has assessed the application and the available capacity in the system

Water - Current Situation

There are no issues with supplying water to this subdivision even though it exceeds the allowable site sizes.

Wastewater - Current Situation

WWS carefully check wastewater catchment networks to ensure development does not exacerbate known issues.

Surcharging of the network, constructed overflow spills and flooding downstream is predicted and observed during rainfall events in this area. Capital renewals are ongoing within the Kaikorai Valley area starting at this upstream end and it is anticipated this work will alleviate these events by 2031.

There is no significant change due to a single property however addition of a second property will create additional flows which have the potential to increase flooding and overflow spills.

Stormwater - Current Situation

There is a DCC stormwater pipe from Walton Street through properties to Font Street and onto Kaikorai Valley Stream. DCC does not hold any modelling information on this stormwater catchment. Any increase in impervious surface could have potential flooding issues downstream. Stormwater

flows from this site have the potential to be significantly different post development to the current single dwelling site. Any additional development that is beyond the allowable has the potential to exacerbate known stormwater surcharge and flooding issues in the catchment downstream.

Conclusion

Any exceedance in density rules counteracts Water and Waste Services' usual forward planning for capacity. Water and Waste Services use the District Plan zoning as guidance for future planning of the network. Proposals such as this that have a higher density than that permitted in the zone consume capacity that has been already been assigned and planned for in the zone at the permitted density. At some point capacity will be fully utilised and areas in the zone at or below the permitted density may not be able to be supplied without additional or upgraded infrastructure.

The water network can accept the proposed development. The stormwater and wastewater network has no capacity for additional 'undersized / over dense' connections. Therefore Water and Waste Services do not support this development proposal.

If the proposal is to be accepted, the following applies:

Water Services

It is required that each lot is serviced from an individual Point of Supply as defined by the Dunedin City Council Water Bylaw 2011. The site has a current water connection which can be retained for proposed lot 1. Proposed lot 2 requires a new individual water connection to DCC services which will be approved through the "Application for Water Supply" process; this is provided as a condition of consent. All new water service connections to the proposed development must be in accordance with the requirements of Section 6.6.2 of the Dunedin Code of Subdivision and Development 2010.

Firefighting Requirements

All aspects relating to the availability of water for firefighting should be in accordance with SNZ PAS 4509:2008, being the Fire Service Code of Practice for Fire Fighting Water Supplies.

There is a Fire Hydrant (WFH03303) 61 metres from the development entrance. Based on SNZ PAS 4509:2008 a W3 (25l/s) zone requires a Fire Hydrant within 135 m and a second within 270 m. These Fire Hydrants requirements are compliant for the development.

Stormwater Services

The proposal is non-compliant with the current District Plan rules minimum site size for a Residential 1 zone, therefore a Storm Water Management Plan (SWMP) is required by WWS.

The SWMP must ensure proposed development will not exacerbate any current capacity or surcharge issues within the area. The SWMP is to include:

- Stormwater calculations which state the difference between the pre-development flows and post-development flows and how to manage any difference in flow;
- Discharges from hard surfaces shall be detailed clearly in the plan.
- Detail stormwater management systems proposed for the development to accommodate for any excess runoff from extra impervious surfaces.
- Ensure the development will not affect any properties downstream.

The SWMP must be submitted and accepted by the Asset Planning Engineer, Water and Waste Services prior to any construction commencing.

Wastewater Services

The consent holder must implement water saving devices, including but not limited to, low-flow shower heads, 6/3 dual flush toilets and aerated sink mixers. This will assist in reducing water consumption and the average volume of wastewater being disposed of from the development.

Private Drainage

New lot 1 has an existing dwelling which is to be removed. The existing wastewater drain must be sealed at the DCC wastewater pipe.

New lots 1 & 2 require a new wastewater drain for each new lot to the DCC wastewater pipe in Font Street. A separate stormwater drain from each new lot must discharge to the kerb and channel in Font Street. Both wastewater and stormwater drains from new lot 1 via easement A over new lot 2.

Easements

All rights are reserved for any necessary easements required by this subdivision.

Service easements are required over proposed lot 2 in favour of proposed lot 1 where wastewater/ stormwater drains and water supply pipes are located.

Consent Conditions**Water Services****New Water Service Connections**

1. An "Application for Water Supply" is to be submitted to the Water and Waste Services Business Unit for approval to establish a new water connection to proposed lot 2. Details of how the proposed lot is to be serviced for water shall accompany the "Application for Water Supply".
2. Upon approval by the Water and Waste Services Business Unit, water service connections shall be installed in accordance with the requirements of Section 6.6.2 of the Dunedin Code of Subdivision and Development 2010.

Stormwater Services

3. A Stormwater Management Plan for the subdivision shall be provided to Water and Waste Services for approval prior to construction commencing. The Stormwater Management Plan must outline how stormwater from each lot of the subdivision will be managed to ensure post-development flows do not exceed pre-development flows, and identify and address any downstream effects of the stormwater generated by the development, including any mitigation required.

Wastewater Services

4. The consent holder must implement water saving devices, including but not limited to, low-flow shower heads, 6/3 dual flush toilets and aerated sink mixers.

Easements**Private Services**

5. All rights are reserved for any necessary easements required by this subdivision.
6. Service easements are required over proposed lot 2 in favour of proposed lot 1 where wastewater/ stormwater drains and water supply pipes are located.

Advice Notes**Code of Subdivision**

- Parts 4, 5 and 6 (Stormwater Drainage, Wastewater and Water Supply) of the Dunedin Code of Subdivision and Development 2010 must be complied with.

Water Service Connections

- The installation and connection of a new water service to the existing public water reticulation system or the upgrading of an existing water service connection will be carried out after the Consent Holder has completed and submitted an 'Application for Water Supply' form to the Water and Waste Services Business Unit or an approved AWSCI, as per the Dunedin City Council Water Bylaw 2011.
- A quote for the required work must be obtained from an approved water supply connection installer (AWSCI). The list of AWSCI's, application form and the full process can be found here <http://www.dunedin.govt.nz/services/water-supply/new-water-connections>.

Fire-fighting Requirements

- All aspects relating to the availability of water for fire-fighting should be in accordance with SNZ PAS 4509:2008, being the Fire Service Code of Practice for Fire Fighting Water Supplies, unless otherwise approved by the New Zealand Fire Service.

Erosion and Sediment Control

The following documents are recommended as best practice guidelines for managing erosion and sediment-laden run-off:

- a. Environment Canterbury, 2007 "Erosion and Sediment Control Guideline 2007" Report No. R06/23.

b. Dunedin City Council "Silt and Sediment Control for Smaller Sites" (information brochure).

Private Drainage Matters

- Certain requirements for building on this site may be stipulated via the building consent process and are likely to include the following points:
 - Stormwater from driveways, sealed areas and drain coils is not to create a nuisance on any adjoining properties.
 - For sites level with or above the road, the finished floor level of any building is to be a minimum of 150mm above the crown of the road.
 - For sites below the road, the finished floor level is to be no less than 150mm above the lowest point on the site boundary. Surface water is not to create a nuisance on any adjoining properties.
 - For secondary flow paths, the finished floor level shall be set at the height of the secondary flow plus an allowance for free board.
 - As required by the New Zealand Building Code E1.3.2, surface water resulting from an event having a 2% probability of occurring annually, shall not enter dwellings. The finished floor level shall be set accordingly.

Chelsea McGaw
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Water and Waste Services Business Unit
Dunedin City Council

CC:	Hydraulic Modeller Asset Planning Engineer Quality Inspector Technical Support Officer, Building Services Customer Accounts Officer	- Louisa Sinclair - John Eteuati - Calvin White - Robbie Ludlow - Helen Flett
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