

Pound Road Industrial Development, Infrastructure Servicing Memo

Introduction

This memo has been produced to provide supplementary and superseding information to the Davie Lovell-Smith Infrastructure Report "Pound Road Industrial Subdivision" dated June 2025. Following extensive consultation with Christchurch City Council (CCC) and infrastructure assessments a revised discharge and servicing strategy for both sewer and water supply has been formulated for the proposed Pound Road Industrial Subdivision.

Sewer

The original proposal gave preference to a Local Pressure Sewer (LPS) network with each site being consent noticed to provide a tank and pump to buffer flows ensuring the capacity restrictions of the downstream were met. The discharge location was proposed as WwAccessID 45973 within Pound Road. Following further modelling of the existing downstream network, discussion with CCC wastewater engineers regarding the current operational phase issues and restrictions of LPS networks in other industrial development areas, a revised proposal to install a gravity network is provided.

The gravity network will extend through all roads within the proposed development, located near the centre of the carriageway. Each lot will be serviced with a 150mm uPVC lateral extending a minimum of 600mm into the proposed lot to allow future connection. The gravity main network will be a minimum size of 225mm uPVC. There is an opportunity to upsize some of the pipework if CCC wish to consider future upstream development catchments. The cost of this upsizing will be at the expensive of Council recovered at the time of 224(c).

The gravity network will discharge to a dedicated pump station to be constructed within the development site. Given the natural fall of the site to the south, the pump station will be located within Lot 200 to ensure the gravity network is rising with the finished contour of the site. This will ensure the network is as shallow as possible, greatly reducing future maintenance liability, whilst ensuring the greatest possible catchment is serviceable. Further consultation with Council is required to determine minimum area requirements for the pump station site. If required a portion of lot 3 can be re-purposed as utility allotment and vested to Council to accommodate the footprint of the pump station. This will be undertaken prior to the granting of the Subdivision Consent.

The pump station will discharge via a rising main that is proposed to be installed through the existing reserve adjacent to Lot 200, along Pound Road, east along Waterloo Road to the intersection of Waterloo Road and Brixton Street. The network modelling undertaken by Opus on behalf of CCC has shown that with future growth model scenarios considered there is capacity in the downstream network from WwAccess ID 1095 without surcharging the pipe. As such, there is no need to buffer flow or provide excess storage to facilitate off peak pumping.

Both the pump station and the gravity network will be designed in accordance with Council requirements. Consultation with the Wastewater Department will ensure an adequate level of service and any future development is catered for.

Water Supply

Given the constraints for water supply from the existing network to service the proposed development area the original proposal gave preference to a tank on-site with supply from the existing 200mm main located at the corner of Pound and Waterloo Road. Following further detailed discussion with CCC water supply engineers, concerns around on-going maintenance and water quality using a tank has resulted in a revised servicing strategy, that being Option 1 in the original Infrastructure Report as requested by CCC.

An upgrade of the existing water supply main that extends from the Templeton Booster Pump Station near the Foreman's Road and Main South Road intersection through to Pound Road will be undertaken. Further consultation will be undertaken with CCC to confirm the sizing of the upgrade during detailed design. At this time, it is expected the upsizing would be from 200mm uPVC to 375mm uPVC to service the development. However, this will be confirmed with further modelling and discussion with CCC to confirm if there are any possible future development areas they wish to service. Initial discussion with CCC indicated the existing booster pumps may be sufficient, however this will be confirmed as part of the further modelling.

The upgrade will be undertaken on the current alignment of the existing 200mm main. The upsizing will finish at the current termination point of the 200mm main where the development is proposed to connect. The connection point will remain as per the original proposal with a 200mm main then extending from the connection point into the development site. This 200mm main will then extend through all development roads, with submains providing future service connection points to the proposed allotments.

Hydrants will be placed approximately every 67m along the mains within the development to ensure a service level of FW4 is achieved, with each hydrant to provide a minimum flow of 12.5l/s in accordance with SNZ PAS 4509:2008. Future lot uses that require a higher-level firefighting demand will be required to address this on-site at the time of building consent.

The design of the water supply network and the upgrade of the existing network will be undertaken in accordance with Council requirements.

Please refer to the Revision 1 Engineering Concept plans which have been updated to show both the revised sewer and water supply strategies.



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