milward finlay lobb

Memorandum of Evidence – Hearing G	
Client	**TJ and AK O'Neill and C and F Trustees 2006 Ltd (now DJ O'Neill and O'Neill Trustees 2023 Ltd)**
Address	**Coonoor Road, Timaru**
File Number	**223312/05**
Date	**June 2025**

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MAY IT PLEASE THE PANEL

Summary

1.0 This submission is prepared on behalf of TJ and AK O'Neill and CF Trustees 2006 Ltd (now DJ O'Neill and O'Neill Trustees 2023 Ltd) to propose a rezoning of Lots 1 – 3 DP 579256 at Coonoor Road from General Rural Zone to General Residential Zone.

2.0 It is proposed that the site be identified as a Future Development Area. This will allow for the preparation of an Outline Development Plan which addresses matters relating to roading, infrastructure and servicing, mana whenua values and flood hazards as identified in Council's s42A report.

Experience and Overview

3.0 My name is Andrew Scott Rabbidge, I am a Director of Milward Finlay Lobb Limited, an engineering, surveying and planning consultancy. I hold a Bachelor of Surveying (Credit) from the University of Otago (1995). *Please refer to Appendix 1 for further qualifications and experience.*

4.0 My experience in land development as a consultant includes a wide range of subdivision applications throughout the central South Island and spans 30 years.

5.0 This submission does not form expert planning evidence. Rather, it is a response to the s42A Report and a memorandum to be tabled to the hearings panel for Hearing G (Growth and Future Development Areas).

6.0 I do not wish to be heard at the hearing.

Background and Clarification of the Proposal

7.0 The site is 6.6028 hectares situated on the outskirts of Timaru being legally described as Lots 1 – 3 DP 579256. An aerial view of the subject site is shown in **Figure 1** on the following page.

8.0 The site is zoned Rural 1 in the Operative District Plan and General Rural Zone in the Proposed District Plan and adjoins the residential zoned land. An area of the site is to be zoned Open Space Zone in the Proposed District Plan as it is captured as a riparian buffer area adjoining the Ōtipua Creek.

9.0 There are no other planning notations that apply to the site in the Operative District Plan, however it is noted that there are a number of additional planning notations that apply to the site under the Proposed District Plan. These are:

- Flood Assessment Areas
- Liquefaction Areas
- Adjoins Wai Taoka and Wai Taoka Lines – SASM12 (Ōtipua (Saltwater) Creek) and SASM-2 (Tohunga whare wananga, wahi pakanga)
- Drinking Water Protection Area
- Light Sensitive Area

FIGURE 1: SUBJECT SITE (LOTS 1-3 DP579256)

10.0 The submission relates to an amending proposal and requests that the land be identified as a Future Development Area (FDA) in the Proposed District Plan. An FDA will enable a structured approach to future development and provide sufficient time to prepare a comprehensive Outline Development Plan (ODP) that addresses infrastructure, servicing, hazards and cultural matters in coordination with Council.

11.0 The site adjoins the General Residential Zone to the east and the General Industrial Zone beyond Coonoor Road to the south (30m). The neighbouring site to the east (Lot 100 DP 365925) originally formed part of the subject site as a larger rural land parcel and obtained subdivision consent for 10 residential allotments (consent ref. 101.2022.235.1). The submitter has been in discussion with Council for several years regarding future development opportunities at the subject site and the extension of existing infrastructure.

12.0 The site is not classified as LUC 1-3 soils therefore the NPS-HPL does not apply.

Response to s42A Report

13.0 I agree with section 12.5.7 of the s42A report for matters relating to the notified zoning, landscape and natural character and biodiversity.

Hazards

14.0 The Flood Assessment Area (FAA) can be managed through design and future subdivision applications. The extent of the FAA's does not limit density and are common in land development projects throughout the District. Guidance on future Finished Floor Levels will be obtained from Environment Canterbury and / or the Timaru District Plan when required. I do not see this as being a restriction to applying an FDA or preparation of a future ODP as others FDA's are located within FAA's.

Landscape Values

15.0 This submission agrees with section 12.5.7(b) of the s42A report which states that the landscape character is peri-urban given the established residential development to the east. The natural character values of the Ōtipua Creek will be protected through provision of esplanade reserve and public access, as proposed in the Proposed District Plan.

Cultural and Heritage

16.0 The subject site adjoins two significant SASMs associated with the Ōtipua (Saltwater) Creek and is identified as a Runanga Sensitive Area. As identified in the Manawhenua Report to Council, the Creek has sacred values as a wāhi tapu site.

17.0 The preparation of a future ODP will be designed in collaboration with mana whenua to ensure any future discharges can be managed on-site with a sufficient buffer to the Ōtipua Creek and comprehensive cultural assessment.

Infrastructure

18.0 An Engineering Design Report has been prepared and provided with this amending proposal - *please refer to Appendix 2*. The Report outlines the existing servicing facilities close to the site, and proposed new network design for sewer, stormwater, potable water and roading. The neighbouring site to the east has obtained extensions to the reticulated network from O'Neill Place. In summary:

18.1 The nearby sewer network has been identified by Council for future upgrade due to its age. During this upgrade, Council will assess and confirm capacity of the mains network. Three branch mains are proposed to service future residential allotments.

18.2 All future allotments will require onsite stormwater attenuation designed in accordance with Council requirements and Environment Canterbury LWRP provisions. The stormwater modelling outlined in the Report proposes a design approach which works with the unique topography of the site.

18.3 The reticulated water supply network is available to the adjoining site from O'Neill Place and extension and connection to this network could be achieved.

19.0 Given the nearby position of reticulated networks; three waters connection can be achieved to the subject site. All servicing arrangements will be comprehensively investigated, co-ordinated with Council and form part of the ODP. This may include the contribution of funding towards network capacity upgrades.

National Policy Statement on Urban Development (NPS-UD)

20.0 The National Policy Statement on Urban Development (NPS-UD) requires councils to provide for well-functioning urban environments and to enable growth in a responsive manner, particularly where it contributes to meeting demand for housing and lifestyle opportunities.

21.0 The Council's section 42A report acknowledges that the proposal largely gives effect to the NPS-UD, with the exception of Objective 6, due to the current lack of sufficient infrastructure provision for the site.

22.0 The proposed identification of the site as an FDA will allow time for the preparation of a comprehensive ODP. This will facilitate the infrastructure upgrades, while still advancing the benefits of increased housing supply, open space, and well-connected residential development aligned with the existing urban form, consistent with the NPS-UD.

Canterbury Regional Policy Statement (CRPS)

23.0 Chapter 5 of the CRPS provides a strategic framework for development which results in changes to urban, rural-residential and rural areas, together with infrastructure which supports this development.

24.0 Council's s42A report agrees that the proposal provides for development that consolidates with the urban area and increases housing choice consistent with Objective 5.2.1.

25.0 As per the assessment above, the preparation of an ODP will ensure that future development is integrated with the efficient provision of infrastructure, consistent with the intent of Policy 5.3.2(3) and Policy 5.3.5 of the CRPS.

Proposed Timaru District Plan, Strategic Directions

26.0 The Proposed District Plan gives effect to the CRPS through its high-level Strategic Directions. In alignment with the CRPS, Strategic Direction SD-O1 supports residential development where it is located adjacent to existing urban areas, follows a coordinated development pattern, and is efficiently connected to reticulated sewer and water infrastructure.

27.0 This proposal is consistent with SD-O1 as it supports a coordinated, cohesive development area. As outlined in this submission, the site is capable of achieving connection to reticulated water infrastructure and can accommodate on-site wastewater and stormwater collection, management and disposal. Details on the proposed arrangements will be achieved through the preparation of an ODP.

Conclusion

28.0 This submission asks that the site is identified as a Future Development Area, and through an Outline Development Plan, can support future residential use.

Appendix 1

Qualifications and Experience

1.1. My name is Andrew Scott Rabbidge. I am a Director of Milward Finlay Lobb Ltd (MFL) based in Timaru since January 1999, having commenced employment with MFL in late 1995.

1.2. I am a Licensed Cadastral Surveyor (July 1998) and Registered Professional Surveyor (2005) with almost 30 years of planning, surveying, engineering and land development experience throughout the Central and lower South Island.

1.3. My professional qualification is a Batchelor of Surveying (Credit) from Otago University (1995).

1.4. I am a full member of Survey and Spatial New Zealand (1995), a member of the Consulting Surveyors of New Zealand (1999) and an Associate member of the New Zealand Planning Institute (2012).

1.5. I have extensive experience in Planning, Rural and Residential subdivision, land development and project management throughout Canterbury and Otago. This includes almost 30 years of professional working knowledge of the Operative Timaru District Plan since late 1995.

Appendix 2

Civil Design Methodology – O'Neill Place, Timaru Subdivision – Stage 3	
Client	**T J & A K O'Neill and C & F Trustees 2006 Ltd**
File Number	**223312/03**
Date	**February 2024 (Revision A)**

Civil Design Methodology

O'Neill Place, Timaru Subdivision

Stage 3

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Civil Design Methodology

1.0 Introduction

Our clients, TJ & A K O'Neill and C & F Trustees 2006 Ltd, own a block of land on the south east of Timaru, being Lots 3 DP 579256 and Lot 100 DP 365925. Refer Figure 1 below and Figure 2 on page 2 for aerial photos of site.

The land is zoned residential and rural. Our clients wish to subdivide the land within the residential zoned Lot into more appropriate lot sizes and layouts, while providing the necessary three waters and roading infrastructure required for modern day development. The design is to conform to the standards of the Timaru District Council (TDC), and Regional Council, if required.

The stormwater design for this development is carried out to comply with the TDC's active plan requirements. There are existing water and sewer piped networks through the site, which can be used to service the development. The existing O'Neill Place formation provides access to the site and adjoining residential properties. All the existing networks will require some form of upgrading or extension as part of the development works.

Details of the existing networks and design of the new networks are detailed below. Their report shall be read in conjunction with this report.

Figure 1. Aerial Photo of Development Block

Figure 2. Aerial Photo of Site with existing services

2.0 Existing Infrastructure

2.1 Existing Sewer

The area for development has one existing sewer line entering the site:

DN225 trunk main heading south, entering site and exiting at south-eastern end within O'Neill Place alignment. The existing sewer main has approximately 0.3% grade.

The network has concrete manholes and concrete mains (CC-SR material as shown on TDC's GIS Plan).

2.2 Existing Stormwater

The natural fall of the ground is generally east to west across the development area. Existing O'Neill Place formation is crowned along the centerline. Stormwater runoff along the road is captured in kerb and channel on two sides.

There are some low-lying depressions/swales through the site typical of the existing surrounding rural environment which direct overland flow to the West. There is no reticulated network on site or in the adjacent road reserve, until the end of existing O'Neill Place road.

Otipua Creek North Branch runs parallel to the western boundary of the site. There is one existing TDC pipe discharging to Otipua Creek and running through the site, further North from Stage 3.

2.3 Existing Water

The area for development has one existing water line within it:

- DN150 cast iron main on O'Neill Place running North-South towards Coonoor Road.

There is an existing fire hydrant located at the Northern end of the existing footpath.

2.4 Existing Roading

The existing O'Neill Place Road formation adjoining the site is comprised of a 15.0-19.0 metre-wide sealed carriageway with grass berms, kerb & channels and footpaths on both sides.

2.5 Existing Power, Chorus & Streetlighting

There is no existing overhead power line along the development which service the residential properties. Existing streetlights are standalone in the previous stage (all existing Alpine Energy electrical cables & chorus are underground).

3.0 New Network Design

3.1 Sewer

The current DN225 sewer network running through the development has been flagged by the TDC as potentially needing renewal due to its age. Following discussions, the TDC is contemplating upgrading the existing sewer main within this proposed stage. During this development, this main sewer line will be retained, and the TDC will assess and confirm its capacity. To address the low grades of the existing sewer pipes, the installation of additional sewer manholes is being avoided.

There are three DN150 uPVC SN16 branch mains proposed to service the new residential allotments. All these branch mains will connect to the DN225 sewer main through new uPVC DN225 junctions, with DN150 or DN100 branch Y junctions linking to the existing DN225 concrete main through stepped rubber fern couplings or similar fittings. DN100 uPVC SN16 laterals will connect to the main or a structure for individual allotment connection. Cleaning eyes will be used in conjunction with the uPVC pipes for new branch mains. Pipe sizes and grades will conform to NZS 4404:2010 or TDC's requirements.

3.2 Stormwater

The stormwater (SW) network design adheres to a Low Impact Design philosophy, incorporating through Stormwater360 Filterras. The design of SW components aligns with the guidelines outlined in the Stormwater Management Guideline (Timaru District Council, 2021). Furthermore, the site is registered as a HAIL site. However, the contamination has specifically been pinpointed in the Northern corner, which falls outside the Stage 3 area and consequently remains undisturbed.

3.2.1 Overview of Stormwater System

The two catchments considered for Stage 3 of O'neill Place Subdivision are as follows:

Catchment A – New Road, Road Reserve:

This catchment's stormwater runoff will be managed through kerb and channel installations on both sides of the new road formation. First flush runoff will undergo treatment using Stormwater360 Filterra treatment devices with bypass sumps, strategically located at approximately 45-meter intervals along the lowest points of the road formation. In larger events, excess runoff will overflow from the first flush treatment device into the proposed stormwater main. The pipe for this catchment is specifically designed to handle rainfall events with a 2% Annual Exceedance Probability (AEP) (equivalent to a 1 in 50-year event), including the additional load from the proposed Stage 4 development.

Catchment B – Residential Allotments

All residential allotments, including the right of way, will necessitate onsite stormwater attenuation design to accommodate events up to a 10% AEP, 60-minute rainfall event, in accordance with the active Timaru District Plan. Each residential allotment will require an attenuation tank specifically designed to manage pre-development flows. An individually engineered-designed attenuation tank will be mandatory, with the associated costs borne by the landowner at the time of obtaining a building consent. The natural overland flow in this catchment is east to west, serving as the flow path for events that exceed the development's capacity.

To facilitate these stormwater management strategies, a combination of concrete manholes, cleaning eyes, and sumps will be used in conjunction with uPVC and concrete pipes. Additionally, Filterra treatment devices and bypass sumps will contribute to an integrated and effective stormwater management system. Pipe sizes and grades will conform to NZS 4404:2010 or TDC's requirements.

3.2.2 Stormwater Analysis

The stormwater network design adheres to a Low Impact Design philosophy, incorporating through Stormwater360 Filterras. The design of strowmater components aligns with the guidelines outlined in the Stormwater Management Guideline (Timaru District Council, 2021).

Stormwater modelling was conducted to validate the adequacy of the current municipal stormwater network in accordance with the methodology outlined in Auckland Regional Council TP108. In our stormwater modelling process, an assumption was made that each allotment owner is responsible for discharging stormwater through an attenuation tank, and as a result, these individual discharges were not considered in the SW modelling.

Stormwater runoff was estimated utilising the Rational Formula, deemed appropriate for the hardstand areas encompassing Stages 3 and 4, including road areas totalling approximately 3500m^2. The Rational Formula was applied with the following parameters in our stormwater calculations:

Runoff coefficient factor:

- Grass: 0.35 (silty top soil)
- Hardstand areas: 0.90
- Gravel areas: 0.65

Rainfall intensities:

Rainfall intensities were derived from the High Intensity Rainfall Design for Timaru District (v4 Issued 5 August 2021), incorporating climate change projections up to 2090. The capacity analysis of the existing stormwater pipelines was based on a 20% Annual Exceedance Probability (AEP) rainfall data.

Existing Catchment area:

The existing catchment area, approximately 335,000 square meters, used to estimate the current stormwater pipe capacity was determined from Canterbury Mapview and is depicted in Figure 3 below.

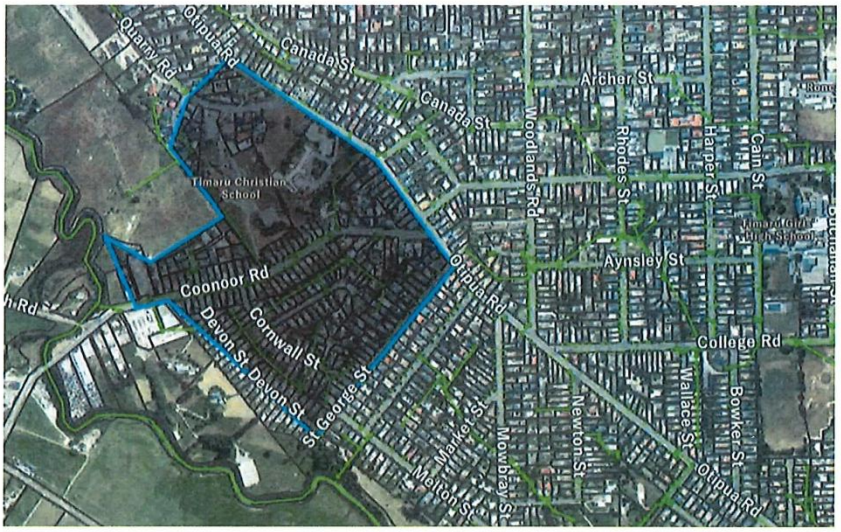

Figure 3. Existing catchment area contributed to existing stormwater pipe

3.2.3 Stormwater Modelling Results

Our analysis indicates that the time of concentration for the considered catchment is approximately 25 minutes. It is crucial to note that the existing DN675 stormwater main on Coonoor Road, located to the South of the site, was originally designed to 20% AEP rainfall event, utilising the Colebrook formula as specified in NZS 4404:2010.

Given the unique topography of the O'neill Place site, which eliminates direct overland flowpaths toward Coonoor road, the proposed development has been intricately engineered for a 2% Annual Exceedance Probability (AEP). This design approach seamlessly integrates both the existing catchment and the planned development from O'neill Place. A summary of this design approach is provided in Table 1 below:

Table 1. Catchment area with flowrate compared to existing DN675 capacity

	Runoff Surface (considered 25 minute duration rainfall)			
	Existing catchment	**Stage 3 and 4 (O'neill Place)**	Total	Existing DN675 capacity
	(20% AEP)	(2% AEP)	N.A.	N.A.
Flow rate (L/s)	1056	374	**1430**	**1860**

The highlighted numbers in Table 1 above confirms that the existing DN675 capacity is sufficient to take the extra Stage 3 and Stage 4 of this subdivision.

3.2.4 Stormwater Quality

The Stormwater360 Filterra treatment device under consideration has the capacity to treat the first flush at a 10mm/hour, as indicated by the supplier. It is important to emphasize that the efficiency of this treatment device can vary significantly from site to site.

Based on findings from the Canterbury University Filterra Roof Study, the Stormwater360 Filterra demonstrates an approximate 99% removal efficiency for both Total and Dissolved Zinc. It is essential to acknowledge that pollutant removal efficiency and corresponding percentage removal are influenced by factors such as particle size distribution, specifications, and contaminant mix.

3.2.5 Stormwater Quantity

As previously mentioned, the current DN675 pipeline on Coonoor Road has been determined to be adequate for accommodating the stormwater runoff generated by both the existing catchment and the planned future stages 3 and 4 of O'neill Place. Moreover, the site's topography at O'neill Place, characterised by natural slopes descending towards the Salt Creek on the West, minimised the potential risks and impacts on the road network.

3.2.6 Erosion and Sediment Control Plan

Milward Finlay Lobb has compiled a separate document containing an Erosion and Sediment Control report, which has been submitted to the Timaru District Council. This report outlines all the essential measures to be implemented during the construction phase.

3.2.7 Flooding

The site, according to historical records maintained by the Timaru District Council, is not situated in an area with a documented flood risk. However, the District Plan map indicates that a section of the site may be susceptible to overland stormwater flow and liquefaction, primarily due to a high groundwater table. Milward Finlay Lobb has conducted a geotechnical assessment of the site, revealing that the susceptibility to liquefaction in the area is moderate.

3.3 Water

The existing DN150 cast iron pipe along the site will be re-aligned with DN150 uPVC PN12 pipe to be along the eastern footpath of the proposed road for Stage 3. A DN63 PE100 PN12.5 rider main will be installed along the Western footpath to serve Lots 1, 2, 3, 4, 5, 6 & 7. One new fire hydrant will be installed on the DN150 main at the Northern boundary to satisfy firefighting requirements as outlined in SNZ PAS 4509.

Residential allotments with direct frontage to a main will have a 20mm ID service connection provided, with rear lots having a 25mm ID service connection at the nett area. Individual manifolds are still required to have a 20mm connection but can be upsized to 25mm ID beyond the valve. Jumbo Acuflo manifold boxes may be used where multiple connections are made in the same vicinity, with stainless tags installed to label the connection to corresponding allotment.

3.4 Roading

The proposed roading design is in accordance with consultation with TDC's Land Transport Unit. Proposed road reserve for Stage 3 of O'Neill Place will have a 10.4 metre-wide carriageway, with 2 x 3.0 metre lanes and 2 x 2.2 metre-wide parking bays. Grass berm and footpath will form the remaining portion of the road reserve. The carriageway will have kerb and channel on each side and at every 45m interval, a Filterra unit with bypass sump will be installed on both sides.

The horizontal geometry has been designed to direct stormwater runoff along the kerb and channel on each side of the road. The vertical geometry has been designed to suit the natural contour of the land, as well as providing stormwater to flow into the Filterra units and discharge through the new pipe network towards the existing main on Coonoor Road.

The proposed Right-of-Ways conform to TDC standards with respect to legal and formed width, sealed and drainage provision.

Vehicle crossings have been designed to be installed in positions assumed to be most practical for future development and sized in accordance with the other recent developments in the Timaru District.

Surfacing materials will be to usual TDC standards i.e., two coat chipseal for carriageway and parking bays, asphaltic concrete for vehicle crossings and footpaths.

4.0 Landscaping

Landscaping is to be provided by the installation of four Filterra treatment devices, three street trees in berms, planting in garden bed areas. Underground services provide limited areas for street trees to be situated suitably without causing a potential hinderance on these services. The number of trees will be subject to TDC approval.

5.0 Power, Chorus and Streetlighting

Chorus and Alpine Energy have indicated the ability to service all lots in the subdivision, through underground networks. Above-ground infrastructure, i.e., transformer, distribution box, link box, will be present in the development as part of Alpine Energy's network design, with all cabling and ducting being underground. All of Chorus' infrastructure will be underground, including fibre ducting, handholes and junction pits.

Betacom is preparing a streetlight network design to tie into the existing network to the South East corner. New streetlights are at positions to conform to AS/NZS 1158 standards, with design plans and rendering detailing the illumination for the new network.