



## STAFF REPORT

**TO:** Environment & Planning Subcommittee

**FROM:** Dugald Ley, Development Engineer

**REFERENCE:** RM070807

**SUBJECT:** **SUBDIVISION APPLICATION – R and N BENSEMANN -  
REPORT EP08/03/13 - Report prepared for 31 March Hearing.**

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### 1. INTRODUCTION

This application is for a 15-lot residential subdivision in a rural 2 zone which is low-lying and has the Thorp Drain running through it. Flooding issues and finished ground levels are discussed separately in other officer's reports.

### 2. BACKGROUND

This application is to create additional lots over and above those envisaged for present infrastructure. Should this application be granted consent then similar land to the north presently also zoned rural is most likely to gain consent for more intensive residential development or other options.

Consequently, if any infrastructure is contemplated then future-proofing will be required and paid for by this applicant. Although Engineering staff are reluctant to promote this area for residential development, subject to imposing appropriate conditions, most, if not all of our concerns and risks can be mitigated with conditions if the Committee were to grant consent.

### 3. ROADING

Access will be obtained off Old Wharf Road which is a collector road on Council's roading hierarchy. It has an 8.0m to 12.0m sealed width with an approximate RL top centerline level near Woodlands Drain of 2.6-2.7m TDC datum.

Old Wharf Road has adequate capacity to accommodate the additional 140 vehicle movements per day over and above the present approximate 2000 vehicle movements. Cycle/walkways are located on both sides of Old Wharf Road. The applicant is proposing to lift the new road to vest and right-of-way such that it has a minimum centerline RL level of 2.6m and with minimum building site levels of RL 3.4m in terms of mean sea level.

The roads have been designed to incorporate swale drains to control potential road sediments and contaminants plus to detain storm flows. These are accepted and are subject to suitable design at the engineering plan stage.

The new road will be classed as an access place which normally requires 2x2.5m moving lanes and 1x2.0m parking lane. As the lots are large and most likely more than two car parks will be provided on each lot it is unlikely that full on-road parallel parking will be required. The applicant has offered a 5.5m sealed road carriageway and car parking in recesses along the road where 16 car parks can be provided. The road will have a standard concrete footpath along its length which will link through from Old Wharf Road to Council's Woodlands Reserve. A tear-drop cul-de-sac is to be provided that meets our engineering standards for turning and the centre island planted with low-profile ground cover. The private right-of-way will meet Council's engineering standards and will require easements in favour of Council to gain access to the wastewater pump station. The pump station site shall be shown as a drainage/utility reserve.

If land to the north is developed in the future, those sites are long enough and have enough frontage to Thorp Street to gain future road access. Should this happen an indicative road should be highlighted to service the resulting rural land rather than a series of cul-de-sacs off Thorp Street.

#### **4. STORMWATER**

The site is riddled with a series of ponds which are influenced by:

- a) water from the Thorp Drain north of the site, and
- b) groundwater either from springs or flood flow effects of the Motueka River.

An existing easement in favour of Council is located over the existing "straightest" channel and the applicant requests that this be revoked and relocated to the west. This is acceptable, subject to appropriate easement for Council and suitable access arrangements for future maintenance. The applicant's plan has also been altered such that there are less landholdings that the new environmentally-sensitive drain will flow through. Stormwater from the new lots will either discharged to the above drain or roadside swales, therefore appropriate discharge consents will be required and details shown on the engineering plans.

#### **5. WATER SUPPLY**

Presently a 200mm main is located in Old Wharf Road with the capacity to service this site and 15 extra lots. The applicant is proposing a normal reticulation system to individual lots and firefighting supplies to meet the standards. These will be shown in more detail at engineering plan stage.

#### **6. WASTEWATER**

Presently the site cannot be serviced by gravity flow to Council's existing infrastructure. In this area Council has at least 9 wastewater pump stations within 700 metres of this proposed development. Hence Engineering is reluctant to accept a further asset that will add to Council's maintenance budget and potential complaints for noise and odours. Note: Council will take any opportunity to reduce its maintenance liability in this regard.

The applicant has looked at all options to service this site and has offered one option to install a pump station near Lots 7 to 9 and to pump to the existing pressure rising main near Woodlands Drain. As mentioned previously this proposed new pump station would have to be future-proofed to ultimately service the entire existing rural land north of the applicant's site. To some extent the applicant has agreed to this requirement.

Easements or vesting the rising main alignment will be required over the property to the north and I believe this has been accepted by the landowner concerned. Written consent will be required before consent to the subdivision is granted.

Council will accept a new wastewater pump station subject to the following:

The design shall be future-proofed in that it should have the capacity to service the entire area of land north of the site to Tudor Street and presently zoned rural, and also bounded by Woodlands Drain and Thorp Street.

Odour controls and ten-hour storage to be provided.

All lid levels of manholes, pump stations or where infiltration has the potential to enter the system shall have an RL level of 3.4m, ie same as the finished ground level of the building sites.

The pumpstation and associated assets shall be located on a utility site to vest with Council.

The rising main (and gravity main) to the existing Courtney Street rising main near Woodlands Drain shall be suitably protected. It is my view that a pressure sewage main located through private property will cause issues at a future date. To this end Council will only accept the rising main to be located in a reserve to vest, be it a utility lot or an extension to the Council reserve. The plan shall be redrawn to show this alteration.

A gravity sewer main of minimum 150mm internal diameter shall be laid to and inside the boundary of Lot 3 (DP19863) such that it can serve the presently undeveloped land north of the applicant's site.

As advised above there is a perceived future risk to Council that its infrastructure may be compromised by high ground water issues. However subject to appropriate raised elevation of services and that these services are suitably sealed, then there will be only minor adverse effects as a result of this application if the committee were to grant consent.

The following is a suggested list of appropriate engineering conditions that could be added to the consent.

## **7. STREET NAMES AND NUMBERS**

Street names should be shown on the 223 plan and approved by Council following submission of at least three names with reasons for the name.

- a) The street numbers allocated are:

Lot 1 – 11 – New road to vest	Lot 5 – 33	Lot 9 – 52	Lot 13 - 18
Lot 2 – 15	Lot 6 – 36	Lot 10 – 54	Lot 14 – 26
Lot 3 – 27	Lot 7 – 44	Lot 11 – 56	Lot 15 – 20
Lot 4 – 29	Lot 8 – 48	Lot 12 – 58	Lot 15 – existing 208 Thorp Street

- b) The street numbers shall be shown on the engineering plans.
- c) The street number for the existing house shall be changed and correctly displayed before the final title plan is approved.
- d) The cost of a name plate for any new street or private way sign shall be met by the consent holder on application to Tasman District Council.

## 8. RIGHT-OF-WAY

- a) The right-of-way shall be formed, and permanently surfaced to a minimum 5-metre width with kerb, channel and sumps and a maximum gradient of 1-in-6. The legal width shall be 6.0 metres.

**Note:** The minimum requirement for a permanent surface is a Grade 4 chip first coat, followed by a Grade 6 void fill second coat.

- b) The seal formation shall extend to the back of the footpath/edge of road seal/kerb crossing.

## 9. ROADING

- a) The road to vest and out to the sealed formation, shall have a minimum legal width of 11.4 metres, with a sealed carriageway of 5.5 metres.
- b) A 1.4 metre footpath shall be constructed on the north-east side of the road.
- c) Kerb, channels and sumps shall be installed in accordance with Tasman District Council's Engineering Standards and amendments.
- d) Parallel car parking recesses as shown on the subdivision plan dated 3 March 2008, Drawing 8743D.
- e) The surface level of the new road and right-of-way shall have a minimum level of 2.6 metres above MSL.
- f) The road shall incorporate paint marking and signage as appropriate.
- g) The centre island in the road to vest shall be suitably planted with low-growing ground cover plants. The two traffic lanes either side shall be a minimum 3.0 metres wide.

- h) Lot 13 isolation strip out to Old Wharf Road shall vest as road.

## 10. ACCESS

- a) Practical access shall be constructed to each lot at a minimum grade of 1-in-6 and complying with the Tasman District Resource Management Plan.
- b) A kerb crossing shall be formed for each lot in the subdivision (and pram crossings at the street intersections where required).

## 11. WATER SUPPLY

Full water reticulation, complete with all mains, valves, fire hydrants and other necessary fittings shall be installed and a water meter and approved housing box shall be provided for each lot.

## 12. SEWER

- a) Full sewer reticulation discharging to Courtney Street rising main shall be installed complete with any necessary manholes and a connection to each lot. (Lot laterals shall terminate at the building site and be capped off to prevent infiltration). This may include work outside the subdivision to connect to or upgrade existing systems.

**Note:** This will require the installation of a wastewater pump station and rising main complying with the Tasman District Council Engineering Standards. Ten hours storage is required at the pump station site together with odour control telemetry and access to the pump station and rising main shall be located on a utility lot to vest with Council.

- b) Any wastewater opening, ie manholes, lids etc. shall have a minimum level of RL 3.4 above MSL.
- c) An appropriately-designed gravity sewer shall be laid to Lot 3 DP19863 to service the land to the north of the subdivision.

## 13. STORMWATER

- a) A full stormwater reticulation discharging to the Thorp Drain shall be installed complete with all necessary manholes, sumps, inlets and a connection to each lot. This may include work outside the subdivision.
- b) The general concept of swales and low impact designs to drain the road carriageway are approved subject to the design being submitted at engineering plan stage.
- c) The relocated Thorp Drain shall be designed to a Q50 storm design using the 2008 Engineering Standards & Policies design rainfall charts.
- d) Appropriate access along the banks for maintenance shall be provided at all times and protected by an easement-in-gross in favour of Council.

- e) Secondary flow paths shall be incorporated into the Thorp Drain and the subdivision reticulation design. In particular this relates to the realignment near Lots 10/16 and through Lots 13 and 14 where the full flow entering the site will bypass the 90° bend on Lot 10.
- f) The existing easement on Thorp Drain will not be revoked until Council is satisfied with the replacement drain.
- g) Minimum building site ground level is not less than 3.40 metres Tasman District Council datum and access and roading/ROW levels shall not be less than 2.6 metres.
- h) If filling obstructs the natural runoff from an adjoining property then provision shall be made for the drainage of that property.

#### **14. CABLING**

- a) Live telephone and electric power connections shall be provided to each lot and all wiring shall be underground to the standard required by the supply authority.
- b) Confirmation of the above from the supply authority and a copy of the supplier's Certificate of Compliance shall be provided to the Council.

#### **13. ELECTRICITY**

Electricity substation sites shall be provided as required by the supply authority. Substations shall be shown as "**Road to Vest**" on the survey plan if adjacent to a road or road to vest.

#### **15. STREET LIGHTING**

The consent holder shall provide street lighting in accordance with the Tasman District Council's Engineering Standards and amendments. This work will include installation of cabling, poles, outreach arms and lanterns.

#### **16. ENGINEERING CERTIFICATION**

- a) At the completion of works, a suitably experienced chartered professional engineer or registered professional surveyor shall provide Council with written certification that the works have been constructed to the standards required.
- b) Certification that a site has been identified on each new lot suitable for the erection of a residential building shall be submitted from a chartered professional engineer or geotechnical engineer experienced in the field of soils engineering (and more particularly land slope and foundation stability). The certificate shall define on each lot the area suitable for the erection of residential buildings.
- c) Where fill material has been placed on any part of the site, a certificate shall be provided by a suitably experienced chartered professional Engineer, certifying that the filling has been placed and compacted in accordance with NZS 4431:1989.

## 17. EASEMENTS

Easements/easements in gross shall be shown on the survey plan if required by Council.

**Note:** The wastewater rising main shall be located on a utility lot adjacent to the Council reserve.

**ROADING CONTRIBUTION – DC**  
**WASTEWATER CONTRIBUTION -DC**  
**STORMWATER CONTRIBUTION -DC**  
**WATER CONTRIBUTION - DC**

The consent holders at their cost shall construct kerb and channel plus a 1.4m footpath along the frontage of the subdivision.

## 18. MAINTENANCE PERFORMANCE BOND

The consent holder shall provide Council with a bond to cover maintenance of any roads or services that will vest in Council. The amount of the bond shall be \$1,000 per lot to a maximum of \$20,000 or a figure agreed by the Engineering Manager and shall run for a period of five years from the date of issue of 224C certification for the subdivision.

**Note:** The term for the bond has been extended due to the low impact designs being used and the susceptibility to failure at the early stages of building development.

The bond shall provide for fair wear and tear and damage.

## 19. ENGINEERING PLANS

All engineering works as outlined above shall be shown on engineering plans and to the requirements as set out in the Tasman District Council engineering standards and amendments. A 223 certificate cannot be issued until the Engineering plans have been received and approved by Council.

“As built” plans of services will be required at the completion of the works and approved by the Engineering Manager prior to the issue of a 224C Certificate.

Dugald Ley  
**Development Engineer**