Proposed Plan Change to the Timaru District Plan

Broughs Gully Outline Development Plan

Timaru District Council

Plan Change to the Timaru District Plan

November 2016

Planz Consultants

Quality Assurance Statement:

Application Prepared By:

Planz Consultants Ltd, 111 St Asaph Street, PO Box 1845, Christchurch 8140, www.planzconsultants.co.nz

Jonathan Clease (Associate & Urban Designer)

DDI; (03) 964-4630 Mob: 022 170 0204

E: jonathan@planzconsultants.co.nz

Reviewed By:

Justine Ashley (Director) DDI: (03) 372 2284 Mob: 027 285 9458

E: justine@planzconsultants.co.nz

Project Number:

Document Status: FINAL

Date: November 2016

TABLE OF CONTENTS

1 INTRODUCTION ---- 8

2 BACKGROUND TO PLAN CHANGE 21 ---- 9

2.1 SITE LOCATION ---- 9
2.2 SITE DESCRIPTION ---- 10
2.3 SURROUNDING AREA ---- 11
2.4 SITE ZONING ---- 11

3 PURPOSE OF THE PLAN CHANGE ---- 13

4 REASONS FOR THE PLAN CHANGE ---- 14

5 PLAN CHANGE PROVISIONS AND AMENDMENTS ---- 16

5.1 THE PLAN CHANGE SITE ---- 16
5.2 PROPOSED AMENDMENTS ---- 16
5.2.1 ODP Appendix ---- 16
5.2.2 ODP provisions ---- 16
5.2.3 Financial Contributions ---- 17

6 ASSESSMENT OF ENVIRONMENTAL EFFECTS ---- 18

6.1 COORDINATION AND PROVISION OF INFRASTRUCTURE ---- 18
6.2 TRANSPORT EFFECTS ---- 19
6.3 STORMWATER ---- 21
6.4 SEWER ---- 22
6.5 COORDINATED DEVELOPMENT AND URBAN DESIGN ---- 23

7 SECTION 32 EVALUATION ---- 24

7.1 ARE THE OBJECTIVES OF THE PROPOSAL THE MOST APPROPRIATE WAY TO ACHIEVE THE PURPOSE OF THE ACT? (S32(1)(A)) ---- 24
7.2 EXAMINE WHETHER THE PROVISIONS IN THE PROPOSAL ARE THE MOST APPROPRIATE TO ACHIEVE THE OBJECTIVE OF THE PROPOSAL BY IDENTIFYING: ---- 25
7.2.1 If there are other reasonably practicable options for achieving the proposal (s32(1)(b)(i)). ---- 25
7.2.2 Assessing the efficiency and effectiveness of the provisions in achieving the objective of the proposal (s32(1)(ii) and s32(2)). ---- 28
7.2.3 Summarising the reasons for deciding on the provisions (s32(1)(b)(iii)). ---- 29
7.2.4 Risk of acting or not acting (s32(2)(c)) ---- 30
7.3 EXAMINE WHETHER THE PROVISIONS IN THE PROPOSAL ARE THE MOST APPROPRIATE TO ACHIEVE THE OBJECTIVES OF THE EXISTING DISTRICT PLAN TO THE EXTENT THAT THOSE ARE RELEVANT (S32(3)) ---- 30

8 STATUTORY CONSIDERATIONS ---- 34

8.1 SECTIONS 74 & 75 OF THE RMA ---- 34
8.2 SECTION 31 – FUNCTIONS OF COUNCIL ---- 34
8.3 SECTION 75 – CONTENTS OF DISTRICT PLANS ---- 34
8.4 NATIONAL POLICY STATEMENTS (NPS) AND NEW ZEALAND COASTAL POLICY STATEMENT ---- 35
8.5 CANTERBURY REGIONAL POLICY STATEMENT (RPS) AND REGIONAL PLANS ---- 35
8.6 CANTERBURY REGIONAL LAND TRANSPORT STRATEGY 2012-2042 (RLTS) ---- 36
8.7 IWI DOCUMENTS ---- 36
8.8 PART 2 ---- 37

9 CONSULTATION ---- 39

10 CONCLUSION ---- 40

APPENDICES:

Appendix 1: Ownership Plan and Certificates of Title

Appendix 2: Proposed Text Changes to the Timaru District Plan

Appendix 3: Proposed Outline Development Plan

Appendix 4: Servicing Report

Appendix 5: Financial Contributions Assessment

Appendix 6: Stormwater Assessment

Appendix 7: Summary of Submissions from Landowners Workshops

Appendix 8: Properties included in Consultation

Appendix 9: Consultation letter and Summary of Feedback

Council Plan Change

Resource Management Act 1991

1 Introduction

Clause 2 of the First Schedule of the Resource Management Act (RMA) provides for local authorities to prepare changes to their operative District Plans. Clause 5 of the same schedule requires that the local authority that has prepared the proposed plan change must:

- Prepare an evaluation report for the proposed plan in accordance with section 32 and have particular regard to that report when deciding whether to proceed with the plan change; and
- Publicly notify the proposed plan if the local authority decides to proceed with the plan.

This report provides the evaluation of the proposed plan change and addresses the required matters under s.32. It is to provide a comprehensive and informative basis for consideration of the proposed plan change by Timaru District Council to introduce an Outline Development Plan ('ODP') and associated rules and financial contributions provisions to the Timaru District Plan.

2 Background to Plan Change 21

2.1 Site location

The site is located on the northern periphery of Timaru's urban area, neighbouring rural farm land to the west, Washdyke industrial area to the north, and State Highway 1 to the east.

Figure 1. General location within Timaru

The Broughs Gully site is generally defined as the undeveloped and rural residential sites boarded by Old North Road, Mahoneys Hill Road, State Highway 1 and Jellicoe Street as shown in Figure 2 below. The site does not include the established residential areas of Tasman, Cook, Beaumont, Dampier, Burnett Streets, Godley Place and Lancewood Terrace, although the ODP will facilitate access from a number of these existing roads into the site.

Figure 2, Broughs Gully area

2.2 Site description

The site is approximately 27 hectares in area, with 28 different owners holding sections in the area. These landholdings are typically comprised of lifestyle blocks that generally range in size from approximately 0.5ha to 2 ha. The lots fronting onto Jellicoe Street to the south or Mahoneys Hill Road to the north generally contain a residential dwelling located close to the road frontage, with the balance of these lots used for low intensity rural grazing. The balance of the lots that are without dwellings are currently in pastoral farming use, although a nursery business and church operate from lots fronting onto Mahoneys Hill Road and a lot at the eastern end of the site has a dwelling that is associated with a self-storage business and commercial premises that are accessed from State Highway 1.

Subdivision consent (RMA consent 101.2015.21) has been granted to create 16 new residential lots in the north west of the site and accessed from Old North Road. This subdivision is under construction.

A small portion of the western slopes are crossed by Alpine Energy and Transpower national electricity transmission network overhead powerlines, with a large substation located approximately 1km to the southwest of the block.

The site physically is typical rolling rural grassland with a number of shelterbelts and amenity plantings along lot boundaries and adjacent to residential dwellings. There is a natural valley running west – east centrally through the site which forms the main drainage channel. There is a natural crest running roughly along the Res 1 / Res 4 zone boundary, north of which the slope of the land falls away to the north towards Mahoneys Hill Road.

2.3 Surrounding area

Broughs Gully is bordered to the west and north by extensive farmland that is zoned Rural 1, with this western farmland traversed by the Transpower and Alpine Energy electricity transmission corridor. To the south the site is bounded by established residential suburbs, with the typical built form consisting of detached single or two storey family homes set within landscaped gardens. The typical site size is between 600-900m^2, with the age and style of housing generally being representative of the 1970s with some more modern replacement or infill housing also being present.

The area to the north the site beyond Mahoneys Hill Road is zoned Residential 4, with several dwellings facing onto Mahoneys Hill Road. These lots are generally much larger than the 1,500m^2 minimum permitted under the Residential 4 zoning. A recent subdivision has been created just outside the site to the northeast and accessed from Lancewood Lane, which in turn accesses onto Mahoneys Hill Road. This subdivision contains modern stand-alone family homes that have either recently been built or are under construction. It is noted that although zoned Residential 4 (minimum site size 1,500m^2), the Lancewood Lane development has been formed at Residential 1 densities with lots typically around 700 – 900m^2 in size through a resource consent process (RMA consent 101.2014.31) where the merits and potential environmental effects and integrity of the zone outcomes of creating smaller sections was considered. The Res 4 zoning also extends to the north and west of Old North Road, although this area is currently undeveloped as pastoral farmland and as such is visually indistinguishable from the adjacent Rural 1 zone.

The site is bordered to the east by a mix of Recreation 2, Residential 1 and Rural 3 zoning, with State Highway 1 and the main trunk rail line both passing to the east of the site. These arterial transport corridors effectively separate the site from the rural land to the east, which in turn merges into Washdyke Lagoon.

This zoning of both the site and the wider area reflects the site's location on the edge of Timaru's urban area. In essence the Residential 1 zoned portion of the site provides for the northern extension of suburban housing, while the Residential 4 zoning provides for a residential large lot transition between suburban densities and the rural area.

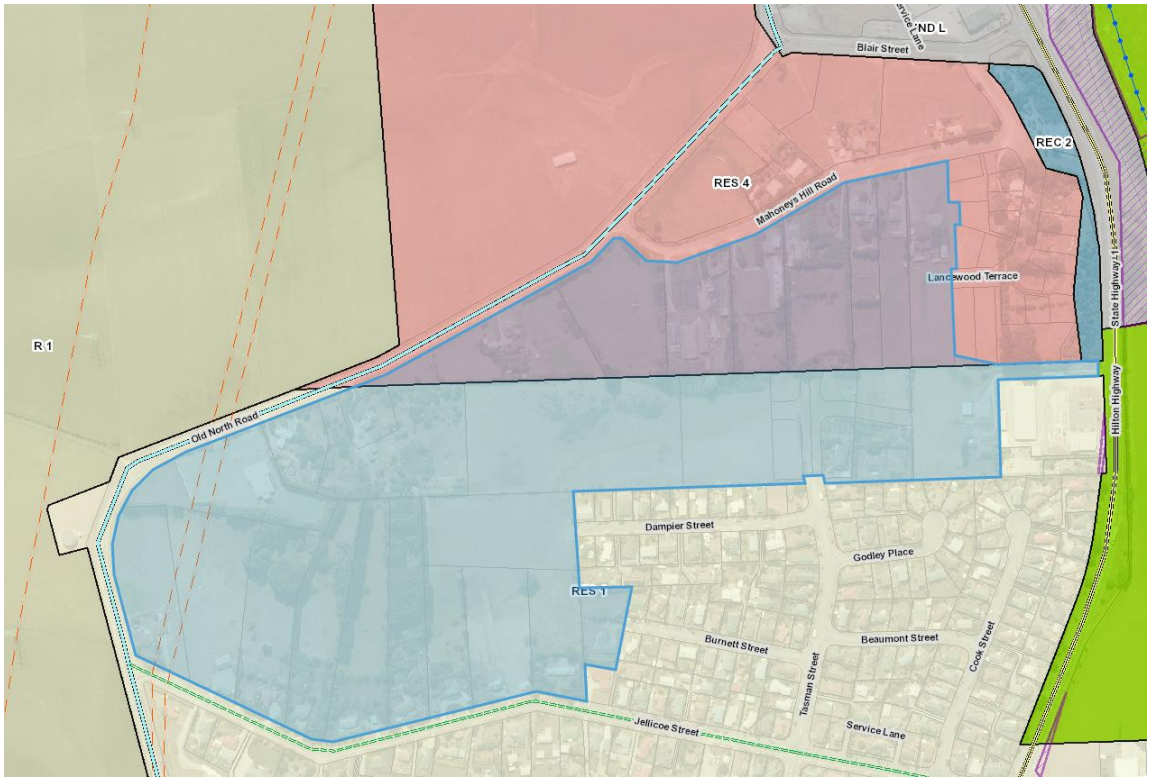
2.4 Site zoning

The southern part of the site is zoned Residential 1, with the northern slopes having a Residential 4 zoning as shown in Figure 3 below.

The portion of the site zoned Residential 1 is permitted to be developed under the Operative Timaru District Plan to allotments of a minimum size of 450m^2 (and under certain circumstances to 200m^2).

The portion of the site zoned Residential 4 is permitted to be developed under the Operative Timaru District Plan to allotments of a minimum size of 1,500m^2. Figure 3 shows the site with a dark blue border. The Residential 1 Zone is shown in light blue, with the portion of the site zoned Res 4 shown in purple and the balance of the Res 4 zone outside the site shown in pink.

Figure 3. Broughs Gully zoning



3 Purpose of the Plan Change

The purpose of the proposed plan change is to facilitate coordinated urban development and the cost-effective and equitable provision of network servicing infrastructure across a site that is currently in multiple ownership and has significant servicing constraints.

4 Reasons for the Plan Change

The site has been zoned for suburban density development for the life of the operative District Plan (approximately 15 years). The Residential 1 portion of the site has had a suburban zoning for some 30 years, with the Residential 4 zone also identified as a future urban area or large lot residential area since the mid-1980s. If developed to permitted densities, and taking into account land necessary for services and roading, the block as a whole can yield approximately 180 additional sections. This yield can be increased to 230 sections if the Res 4 zoned portion of the site were to obtain a resource consent (or a future plan change) to develop to Res 1 densities, in a manner similar to the recent Lancewood Lane area.

The block therefore makes an important contribution towards providing housing choice and urban development capacity for accommodating household growth for Timaru. Such provision is in a location that is immediately adjacent to the existing urban edge and is able to be readily integrated into existing suburban areas. As such future housing on the site is able to take advantage of easy access to existing schools, parks, community facilities, and shopping centres. Uptake of development potential, and therefore the provision of additional housing, has however been extremely limited over the life of the Operative Plan. Consultation feedback from landowners has shown two primary reasons for the lack of development. The first reason is that a number of owners enjoy the amenity, spaciousness, and rural outlook of their existing lifestyle blocks and do not wish to undertake development themselves or to on-sell to developers at the current time. The second reason is that some landowners do wish to develop their land but the costs and ability to service individual sites is problematic. Current network provision is either non-existent or is lacking capacity for additional units.

As set out above, the block is currently divided into multiple property titles that are under different ownership. Development of individual titles to suburban densities is therefore difficult to achieve in terms of both infrastructure provision, and in terms of enabling a coherent suburban outcome and built form that is well connected to the adjacent urban fabric.

The Operative District Plan does not include an Outline Development Plan for this area, although it does for other greenfield urban growth areas in North Temuka and Gleniti (and for industrial sites in Washdyke). There is therefore no direction in the Plan as to how this site should develop or how to achieve efficient and effective integration with the adjacent urban area. The Plan does provide a policy framework relating to the need for ODPs to facilitate coordinated urban development, with the existing objectives and policies adequate for providing direction on the role and function of ODPs, with minor amendment to include reference to a new ODP for the Broughs Gully area.

In terms of the provision of network services and roading, the Plan currently provides for consideration of such matters at the time subdivision consent applications are made, however it does not provide any specific direction for the particular issues faced by this site in terms of multiple ownership with differing aspirations as to when or if lot-by-lot redevelopment is to occur.

Unlike many Local Authorities, the Council does not have a Development Contributions Policy prepared under the Local Government Act ('LGA'), but instead takes contributions from developers towards the provision of network infrastructure via Financial Contributions rules under the Resource Management Act, with such rules incorporated into the District Plan. The equitable funding of the necessary network infrastructure for the site therefore requires specific provision to be made in the Plan's Financial Contributions provisions. It is noted that in the event that the Resource Management Act is amended to remove the ability to take Financial Contributions (as is currently possible in an amendment bill before the Select Committee), then the Council will need to develop an alternative Development Contributions policy under the LGA. Whilst the legislative framework for contributions may change, the general principle of developers making a fair and equitable contribution towards the provision of network infrastructure is provided through both processes, with the onus being on Council to justify the need for and cost of those services and to develop a contribution framework through consultation with their community.

5 Plan Change Provisions and Amendments

5.1 The Plan Change site

The proposed Plan Change applies to the area described in section 2.2 (Figure 2) above. The Certificates of Title for the lots that form the plan change area are attached as **Appendix 1.**

5.2 Proposed Amendments

The proposed changes to the Plan are summarised below. These changes relate only to the following four matters:

1) The introduction of an Outline Development Plan;
2) Amendments to existing policies to include reference to the Broughs Gully ODP area;
3) The introduction of rules requiring future land use development and subdivision to be in accordance with the ODP; and
4) Amendments to the Financial Contributions provisions to specifically address infrastructure funding contributions for the ODP area. A full text changes of the proposed amendments is contained within **Appendix 2** and the proposed ODP for the site is contained within **Appendix 3**.

5.2.1 ODP Appendix

It is proposed to introduce a new ODP which will be known as Appendix C, Part D2. The Broughs Gully ODP has been prepared with the same format as the existing greenfield ODPs for other areas. The ODP shows the following matters:

1) Internal road layout;
2) Stormwater retention areas and adjacent greenspace;
3) Sewer main connection to the trunk main east of the State Highway;
4) A portion of the Old North Road frontage where access is not to be provided to any additional lots;
5) Transpower and Alpine Energy electricity transmission corridor route.

5.2.2 ODP provisions

The existing policy relating to the Temuka North ODP is to be amended to include policy reference to the new Broughs Gully ODP. The proposed rules require development to be in general accordance with the ODP. The rules relate to both land use (i.e. development that occurs without subdivision), and also to subdivision itself.

Given that the environmental issues the ODP is seeking to address are able to be identified e.g. they relate to the efficient provision of network services and coordinated urban form and integration with adjacent suburbs, it is considered that restricted discretionary status is appropriate for proposals that are not in accordance with the ODP. This activity status and associated assessment matters enable the Council to assess the relevant matters, whilst concurrently providing certainty to applicants as to the matters that are to be assessed. Restricted discretionary status (unlike controlled activities) also enables applications to be declined if the proposed layout would prevent coherent development of the area or would frustrate the provision of network infrastructure. Restricted discretionary status is also consistent with the existing approach to ODPs for the Temuka North and Gleniti areas.

5.2.3 Financial Contributions

A key purpose of the plan change is to enable the fair and equitable provision and funding of the network infrastructure necessary to enable coordinated development of the site. The District Plan includes Financial Contribution provisions, with those relating to potable water supply and open space/ parks considered to be appropriate for the site without amendment. These infrastructure elements are able to be readily provided, with the wider suburb already containing parks and reserves. The stormwater retention areas also provide a passive recreational function as grassed open space areas for the majority of the time when these areas will be largely dry.

Minor changes are need to the Stormwater provisions to ensure consistency with the Gleniti ODP. Specific Financial Contribution provisions are needed for roading to enable roading services to be provided and the cost equitably shared across the site.

Background assessment and review of Financial Contributions is provided in Appendix 4.

6 Assessment of Environmental Effects

It is important to emphasise that the site already has an urban zoning, albeit that it is currently largely undeveloped and rural in appearance. This plan change does not seek to amend the underlying zoning. The proposed amendments simply insert an ODP to direct the form of future development and to address servicing issues. The scope of the Assessment of Environmental Effects ('AEE') is therefore limited to the effects derived from the ODP layout and provision of services, rather than the effects that might occur from a change in zoning from rural to urban activities. This AEE has been prepared in accordance with the Fourth Schedule of the RMA.

6.1 Coordination and provision of infrastructure

The majority of the site is currently not serviced by network infrastructure. The lack of such services effectively prevents the development of the site to the suburban densities anticipated through the underlying zoning.

The relatively small size of existing individual lots (from a development perspective), combined with the high number of different landowners and the differing aspirations of these owners, makes land-owner led provision of such infrastructure extremely difficult. This difficulty is in large part reflected in the lack of development that has occurred in the site over the life of the District Plan, despite the block having been zoned for residential purposes for several decades. In essence the absence of a coordinated servicing strategy effectively prevents the site from being developed in accordance with the underlying zoning.

The current District Plan provisions nonetheless enable individual proposals to be progressed via subdivision consents. Whilst such consents may be granted (as is the case with the Mueller Place development), subsequent servicing costs and constraints still make development problematic and can frustrate the implementation of subdivision consents or require expensive site-by-site servicing solutions such as on-site stormwater detention tanks. Whilst site-by-site solutions may be available for some lots, cumulatively these solutions are more expensive and less effective and efficient than the development of a single integrated network. For many sites within the catchment, individual sewer, stormwater, and road access solutions are simply not available.

The proposed ODP has been designed to provide a framework for the coordinated urban development of the block. Financial Contributions have been calculated to ensure that equitable funding of the necessary infrastructure is able to occur. Without a Financial Contributions framework, the costs of providing infrastructure will fall unequally across the site, where some individual lots lose a disproportionate amount of land for servicing. This is especially the case for stormwater and roading infrastructure where the location of the main retention basins on the valley floor and the main Road 1 alignment are largely driven by topography.

It is recognised that even with the ODP, Council will still need to play a key role in facilitating the provision of network infrastructure. The sewer, water, and stormwater system can plausibly be developed whilst individual lots remain at their current lifestyle block level of development. This could be done through landowner agreement to create easements for the conveyance of sewer and stormwater across their properties. As such networks are either piped, or in the case of stormwater take the form of landscaped swales, the ongoing use of individual sites as lifestyle blocks are not unduly affected. With Council as facilitator, the provision of network sewer, water, and stormwater for the whole of the ODP area could therefore occur in line with the layout shown on the ODP, in advance of all individual lots developing. This would enable lots higher in the catchment to redevelop in accordance with the ODP layout, but without being dependant on all lots lower in the catchment developing first.

The formation of the road network has a potentially greater impact on existing lifestyle block amenity and function and therefore the formation of roading is likely to only occur when lots are developed to suburban densities. For this reason the roading network has been designed so that it can be incrementally formed from a number of ends so that the number of lots that are reliant on neighbouring properties for road access is reduced.

The reality of the existing lot pattern means that there will nonetheless remain staging issues where some owners will not be able to develop until roading connections are provided across neighbouring properties. This situation is however no different from the status quo where network servicing is not available to the majority of lots. In essence the choice is between ad hoc development with individual servicing solutions that are only available to a narrow number of lots (primarily those in the Residential 4 zone), or the proposed ODP and financial contribution requirements that provide a framework for coordinated and financially equitable development, albeit development that is still reliant on individual landowners for its implementation.

6.2 Transport effects

The site does not currently contain any formed internal road network apart from a short cul-de-sac (Mueller Place) that is under construction in association with a small subdivision in the northwest of the site accessed off Old North Road. A short section of unformed legal road also exists in the east of the site as a northern extension of Tasman Street. The lack of any internal road network means that where future development of the site is undertaken on a lot-by-lot basis access can generally only be obtained via a series of rear drives or short cul-de-sacs. Such an access arrangement is inefficient and creates multiple entrances along the perimeter road network. From an urban design perspective it also prevents easy connection from and through the site to the adjacent suburban areas and limits opportunities for cycling and walking across the block.

Old North Road currently has a posted 80kph speed limit, with restricted visibility at the western end of the site due to a bend in the road. As such it is not ideal for a number of new access points to be formed along this frontage, especially where those accesses serve multiple residential properties. The eastern end of the site likewise has the potential to obtain access through an adjacent eastern lot directly onto State Highway 1. Given the strategic through-traffic function of SH1, direct access onto this road for new residential development should be limited, especially if alternative access can be provided onto the local road network.

In response to the potential connectivity and safety issues created through uncontrolled access on a lot-by-lot basis, the ODP provides for a coherent, connected internal road network. Road 1 is proposed as the primary transport link through the site, providing linkages and connectivity with the wider transport network. The width of the proposed corridor (23m) is sufficient for accommodating a central stormwater swale and an active transport pathway within the proposed road reserve corridor. Road 1 is sited to connect with the Tasman Street / Lancewood Terrace intersection in accordance with topography and largely in alignment with the existing unformed legal road in this area. The potential of using in its entirety the existing four way unformed road reserve has been considered, however the proposed 'T' intersection is preferred due to topography and the need to reduce the longitudinal grade of the extension of Lancewood Tce to enable compliance with NZS4404. The proposed design of Road 1 in this area maximises the potential for desirable north facing sections on the south side of the road, and minimises the undesirable steeper south facing land on the north side of the road.

Road 1 has then been designed to follow the bottom of the gully as it heads west. This enables the efficient conveyance and treatment of stormwater within the road reserve, as well as allowing the logical and progressive sequence of development of separately owned properties. Road 1 connects to the southwest with Jellicoe Street rather than Old North Road. This is consistent with Jellicoe Street being a collector road with a 50 kph speed limit as opposed to the principle road function and higher speed limit of Old North Road. The alignment of Road 1 and the proposed access location provides sufficient sight safety distances and setback from the Jellicoe/ Old North Road intersection, suitable longitudinal grades, and provides multiple existing lots with the opportunity to gain access to it.

Road 2 is the link between the consented subdivision of Mueller Place and Road 1. Road 2 can either be formed as a road link, or alternatively could be in the form of a cul-de-sac head with an active transport (cycle and pedestrian path) and services corridor through to Road 1 rather than necessarily having to provide for vehicle access. Formation of Road 2 as a cul-de-sac would still enable development in this part of the catchment therefore the connection of Road 2 to Road 1 for vehicle movement is desirable but not critical, and is reflected in a note on the ODP.

Road 3 occupies the existing unformed road reserve off the northern end of Tasman Street, with the addition of a cul-de-sac head to service the final property to the east. The location of this road enables the opportunity to develop land either side of the road and connect the eastern most properties. It also enables the eastern properties to develop to suburban densities without having to access directly onto SH1.

Road 4 is a short cul-de-sac off Road 1 with the primary purpose of accessing and servicing the western most properties. Access directly onto Old North Road for these properties is not desirable or safe due to topography, sight safety distances and roading hierarchy. The location and orientation of Road 4 also reflects the location of existing overhead Transpower and Alpine Energy electricity transmission lines and thereby maximises the development potential of adjoining land whilst providing access to the line corridor for maintenance purposes.

Burnett Street is proposed to connect to Road 1 to improve connectivity and development/ staging options. Dampier Street is proposed to be an active transport link and services corridor only due to the steep grade down to Road 1.

The proposed road network will result in a small increase in traffic to the adjoining street network as sections are developed. Such increases in traffic are consistent with the long-held residential zoning of the site. As the overall number of sections possible throughout the site is relatively modest, the overall additional traffic will also be relatively modest, and consistent with the local or collector road function of the adjacent streets. All the adjacent streets and intersections have sufficient capacity to readily accommodate the additional traffic generated by incremental development of the site. The ODP provides several connections to the adjacent road network so that any additional traffic is able to be dispersed through a number of new intersections. The new connections also improve connectivity for existing residents who will be able to readily travel to the north across the block.

Overall, the proposed road network integrates well with the wider network and is consistent with the surrounding roading hierarchy with access from the proposed collector or local roads onto adjacent local roads. The proposed road layout has been designed to maximise the ability of as many landowners as possible to develop should they so wish through having multiple access points that enable the road network to be formed incrementally from several directions. No single landowner can restrict subsequent development for the whole catchment.

Additional discussion and background on the Transport network is provided in the Servicing Report in Appendix 5.

6.3 Stormwater

There is currently no network stormwater infrastructure in the site, other than a short length of pipe under the State Highway and into the access of 18 Hilton Highway at the far eastern end of the site. The Mueller Place subdivision is to contain stormwater tanks to capture peak flows in high rainfall events and will then discharge slowly into the catchment. The low density of existing development means that most existing dwellings discharge to ground, with stormwater following the natural contours and draining down the centre of the valley to the valley floor. The north-facing Residential 4 lots that access from Mahoneys Hill Road are on the crest of a ridge and partially drain to a separate catchment to the north, with stormwater from these sites also generally discharged to ground given the low density of existing development. Whilst discharge to ground is effective for low density development, it will not be an appropriate solution if in the future the Residential 4 zone is changed to enable more intensive development or resource consents are granted in an incremental manner for more intensive housing.

The location of the stormwater retention ponds and swales is determined by topographical features such as slope, grade, aspect and location within the gully. The spatial extent of the stormwater retention ponds is determined by the storm intensity discharge calculation and Regional Council discharge requirements which determine the storage capacity that is required. Low impact urban design principles will be included in the final detailed design that reflect the current best practice for the treatment of stormwater, with a note on the ODP requiring such principles to be adopted in the network design. The stormwater from the site will connect to the existing Council network via an existing easement and pipe under SH1.

The discharge will ultimately be into Washdyke Lagoon which is considered to be a sensitive environment by local Iwi. As such the detailed design will be subject to assessment through the necessary Canterbury Regional Council consenting process, with the ODP stormwater areas being of sufficient size to enable first flush treatment of stormwater to improve the quality of the discharge.

The location of the basins are driven by the topography of the site which means that the most cost effective and efficient location for the primary storage basin is in the flatter area at the bottom of the catchment on the valley floor, with the north-facing lots on Mahoneys Hill road draining north into a separate system. There are significant engineering costs and design challenges with retaining large volumes of stormwater elsewhere on the site and the clay-based soil conditions limit the effectiveness of direct discharge to ground for development at suburban densities. The proposed ODP solution is therefore considered to be the only realistic option for managing stormwater if the catchment develops to suburban densities.

Additional discussion and background on the stormwater network is provided in the Servicing Report in Appendix 5.

Detailed assessment and justification for the size and location of the stormwater attenuation areas is provided in Appendix 6.

6.4 Sewer

The majority of properties at the western end of the catchment with frontage to Jellicoe Street are serviced by an existing private sewer which connects into the Tasman Street sewer catchment between numbers 25 and 29 Dampier Street. This broader catchment is currently over capacity and overflows during high rainfall events. As such there is no capacity in the wider network to accept additional discharges from further connections to the private sewer. A new sewer line is proposed to be installed along the northern edge of the site within the Old North Road reserve as part of the sewer servicing solution for the Mueller Place cul-de-sac. This new sewer line is to be located within existing road reserves and will have sufficient capacity to service new development to Residential 4 zone densities on the north-facing slopes with frontage to Mahoneys Hill Road and Old North Road.

The ODP provides for a new sewer, generally following the alignment of the Road 1 road reserve. Gravity is a primary constraint in the design of the sewer network given the topography of the site. The primary trunk main will follow the alignment of Road 1 and can be installed during its construction or earlier if required (subject to landowner agreement). The proposed main sewer line can then connect to the wider Council reticulated network via a new connection beneath SH1. The new sewer line will provide sufficient capacity to service all additional new dwellings in the site. The new sewer line will also provide an option for existing dwellings to stop using and ultimately decommission the existing older private sewer, and instead connect to the new network. Any such discharge transfers will help in a small way to reduce capacity constraints and overflow issues in the existing wider Tasman Street catchment.

Additional discussion and background on the sewer network is provided in the Servicing Report in Appendix 5.

6.5 Coordinated development and urban design

The status quo of suburban density zoning underlying lifestyle blocks in multiple ownership makes the development of coherent and connected urban fabric extremely difficult to achieve. In terms of form, the layout of site-by-site development that occurs in an ad hoc manner is limited to long rear driveways or small cul-de-sacs on a site-by-site basis. Unless landowners cooperate, or a single developer is able to acquire a number of sites over time, it is not possible to form connections through or within the site. Such a layout increases car dependency by preventing pedestrian or cycle movement through the site and limits logical or legible connections to the adjacent residential suburban fabric. In contrast the proposed ODP enables such connections to be formed and enables individual landowners to undertake development of their sites as an element in a wider coherent suburban outcome.

7 Section 32 Evaluation

Before a proposed plan change is publicly notified, Section 32 of the Resource Management Act requires an evaluation that must examine:

- The extent to which the objectives (purpose) of the proposal are the most appropriate way to achieve the purpose of the Act.
- Whether the provisions in the proposal are the most appropriate to achieve the objective (purpose) of the proposal by:
  - Consideration of other reasonably practicable options for achieving the coordinated urban growth and servicing of the site.
  - Assessment of the efficiency and effectiveness of the provisions in achieving the objective of the proposal. This assessment should identify the benefits and costs of environmental, economic, social and cultural effects, including opportunities for economic growth and employment.
- Whether the provisions in the proposal are the most appropriate to achieve the objectives of the existing District Plan, to the extent that those are relevant.
- Assessment of the risks of acting or not acting.

7.1 Are the objectives of the proposal the most appropriate way to achieve the purpose of the Act? (s32(1)(a))

The proposed Plan Change does not seek to alter any existing objectives of the Plan. In circumstances where objectives are not sought to be altered, s32(6)(b) states that references to 'objectives' means the 'purpose' of the proposal.

The purpose of this Plan Change (as set out on Section 4 above) is to achieve coordinated urban growth and the efficient and equitable delivery of network services for the site. Accordingly, the evaluation must consider the extent to which the inclusion in the District Plan of an ODP, associated provisions requiring development to be in accordance with the ODP, and Financial Contribution provisions best achieves the purpose of the plan change, and ultimately the purpose of the Act.

The purpose of the Act is to promote sustainable management of natural and physical resources.

This means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while:

(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

In summary, the proposal achieves the purpose of the Act for the following reasons (a full assessment of Part 2 of the RMA is provided in Section 8.2):

- It pro-actively and specifically manages the use and development of the site for residential purposes at suburban densities. Without the coordinated provision of network infrastructure such development is very unlikely to occur, leading to a lack of housing choice and capacity in Timaru;
- Provides the opportunity for individual landowners to develop their land, and concurrently does not force existing lifestyle block owners into having to develop;
- In so doing the plan change enables the community to provide for its economic wellbeing, and thereby contributes to its social wellbeing.
- It provides certainty in terms of the layout and urban form of future development;
- Provides a connected road network that facilitates active modes of transport and integrates the site into the existing residential suburban fabric;
- Enables network infrastructure to be provided in a cost-effective and equitable manner;
- Provides for the management and design of future lots beneath the electricity transmission corridor to ensure the ongoing use and maintenance of this strategic corridor;
- The ODP provides for integrated management of effects associated with infrastructure provision and the management of sewer and stormwater discharges through providing connections to the Council's reticulated networks, with additional controls on the design of the stormwater system available through Regional Council requirements.

7.2 Examine whether the provisions in the proposal are the most appropriate to achieve the objective of the proposal by identifying:

7.2.1 If there are other reasonably practicable options for achieving the proposal (s32(1)(b)(i)).

The provisions of the proposal are summarised in Section 6.0 above and a full copy of the proposed text changes are contained in **Appendix 2** and the proposed ODP for the site is contained within **Appendix 3**.

In addition to this proposed plan change, other options for achieving the proposal include:

- Maintaining the status quo i.e. maintain the current Res 1 and Res 4 zoning with no coordinated provision of infrastructure or overall layout;
- Rezoning the entire block back to a low density rural residential outcome i.e. remove the ability to further subdivide the site and instead rezone another similarly sized block that is in single ownership and can be readily serviced to provide the necessary housing choice for the wider community;
- Introducing an ODP that shows a different layout;
- Council undertakes a Notice of Requirement to designate the land needed for network infrastructure, with Council acquiring this land and building the infrastructure; or
- Waiting for the Timaru District Plan Review and including an ODP and associated provisions through that wider Plan review process.

These options are discussed as follows:

Maintain the Status Quo

As set out in section 6.1 above, the majority of the site is not currently able to be serviced by network infrastructure. There are likewise limited site-by-site infrastructure solutions available were the entire block to be redeveloped to suburban densities in an ad hoc manner. The lack of servicing is a key reason why there have been little redevelopment across the site over the life of the District Plan. Continuing the status quo of relying on individual landowners to coordinate provision and equitable funding of network infrastructure is considered to be very unlikely to occur given the differing aspirations and development intentions of landowners. Under the status quo option, the site is likely to remain largely undeveloped, apart from sporadic site-by-site developments in the limited number of instances where servicing may be possible.

Alternative Location

Given the difficulties with providing a coordinated servicing solution across the site, an alternative is to accept the difficulties with further intensification and instead rezone the site to provide only for very low density rural residential activities i.e. design a zone that in essence only provides for a continuation of the existing level of density and does not provide for any further intensification. This option would remove the difficulties with integrating future development with the adjacent suburb and would likewise remove the difficulties with funding and constructing services. This option would also enable existing landowners to continue to enjoy their current lifestyle with little change in the character or amenity of the site.

In order to continue to provide housing choice and urban growth capacity for the District, an alternative rural block under single ownership, and in a location where it could be easily serviced could be zoned for suburban residential purposes.

This option would be effective in enabling coordinated urban growth that is efficiently serviced. The biggest change is the location in which such growth would occur. The cost of this option falls on those landowners within the site with development aspirations who would lose that future development potential. Under the status quo, such potential is however somewhat theoretical as development is dependent on coordinated services being provided, as without servicing, the land cannot be developed to higher densities. This option is effective and efficient in terms of achieving wider urban growth and servicing outcomes for the District. The costs of this option fall on landowners with development aspirations, based on the long-held urban zoning of the site. Feedback from owners shows that there is a sufficient number of owners who do wish to develop that the costs of this option on those owners is significant.

Different layout

This option is to retain the general approach of an ODP to guide future development, with the difference being an alternative ODP layout. Some existing features such as the location of electricity transmission lines are fixed, as is the general size and location of stormwater retention basins (due to topography). The locations where Road 1 access is gained to the surrounding road network, and the location of internal cul-de-sacs does have a degree of flexibility. The proposed roading layout has been developed to recognise contour; to recognise existing road links/ cul-de-sac ends; to provide access to as many sites as possible; and to provide a range of options as to how the road formation could be staged so that access is not dependent on any single landowner developing first. Within these design criteria there may be opportunities to vary the ODP and still achieve the overall outcomes and purpose of the Plan Change.

The opportunity to explore variations to the layout will occur through the formal notification and submission process. Flexibility to explore alternative layouts is also available through the resource consent process where future developers have the option of applying for a restricted discretionary resource consent to develop in a manner that is not in accordance with the ODP. Such applications can then be assessed in terms of whether an alternative layout would still achieve the wider objectives of coordinated servicing and urban form.

Notice of Requirement

An alternative procedural route to a plan change is for the Council to designate the land needed for servicing, acquire the land (with compensation paid to landowners), and fund and develop the necessary infrastructure. Designations are typically only used for large strategic public works such as new schools, State Highways, or national electricity transmission and generation. It is extremely unusual for them to be used on relatively discrete blocks of land such as Broughs Gully. The compulsory acquisition powers also place a potentially onerous level of control over existing lifestyle block owners who have no desire to develop their properties. On balance, the use of designation powers is considered to be disproportionate to the issues facing the site and imposes an unnecessary level of regulation and control over those owners who do not wish to redevelop their land.

District Plan Review

Council has not yet formulated a definitive timeframe for notification and delivery of its District Plan Review. Preliminary work on the review is currently underway, with consultation on the review likely to occur throughout 2017, with a replacement District Plan notified at the end of that consultation process. Even if notification of the District Plan review occurs in late 2017, a full District Plan review is typically a lengthy and time consuming process that can stretch over a period of years to accommodate consultation, notification, submissions, further submissions, hearings, decisions, and appeals before provisions are deemed operative.

Accordingly, seeking to incorporate the content of this plan change into a District Plan review may result in a waiting period of several years for a decision, with the District Plan not providing any direction as to the form or servicing of ad hoc subdivision applications in the interim.

The time delay and uncertainty involved with a Review process presents no distinct advantage over progressing this Plan Change. Given that the District Plan review is likely to occur at some point in the medium term, it does mean that the contents of this Plan Change, if approved, would in theory be part of a re-notified Plan Review. As the Plan Change would be recent, few if any changes would be anticipated, aside from likely formatting to fit the stylistic framework of the Plan Review.

Conclusion on Alternatives

This Plan Change has been prepared based on sound information about the nature of existing servicing constraints and the difficulties in providing for coordinated urban growth in the area. No changes are proposed to the objectives while only minor amendments to the existing policy and rule package are proposed to enable the existing Plan ODP provisions to work effectively for the Broughs Gully site and to incorporate site-specific Financial Contributions to address the specific servicing needs of the site. This combination of providing a strategic approach to the intensification of the site and specificity in management of servicing is not considered to be replicated or improved upon in any of the above alternative options.

It is therefore considered that this Plan Change is the most reasonably practicable option to achieve the objective of the proposal.

7.2.2 Assessing the efficiency and effectiveness of the provisions in achieving the objective of the proposal (s32(1)(ii) and s32(2)).

Section 32 of the Act requires consideration of the benefits and costs of the proposal when assessing efficiency and effectiveness. These benefits and costs apply to the proposed provisions in respect of their environmental, social, cultural, and economic effects. Economic effects in particular are required to consider opportunities for economic growth (s32(2)(a)(i) and employment (s32(2)(a)(ii). All effects are required to be quantified where practicable (s32(2)(b)).

Environmental & Cultural	
Benefits	**Costs**
• Suburban intensification is enabled in a manner than can be serviced, with servicing designed to manage adverse effects from ad hoc stormwater and sewer solutions; • Suburban intensification is enabled in a coherent and connected urban form that is well integrated with the adjoining suburban fabric; • Transport routes are provided that enable and facilitate active modes of transport and easy walking and cycling connections within and across the site; • Roading connections are focussed in locations with good sight lines and to roads in a manner that is consistent with the wider roading hierarchy and function; • Enabling urban expansion in an area where there are no identified sites of cultural significance; • Enabling stormwater discharges to be appropriately managed and enabling sewerage to be discharged directly into a reticulated network rather than to ground via individual site solutions, thereby addressing cultural concerns regarding water quality and the treatment of sewerage.	• Alternative development layouts are prevented without obtaining a resource consent; • The proposed layout will enable additional traffic onto local cul-de-sac roads. • Visual change in the area where development is enabled, with an associated change in amenity and outlook for existing lifestyle block owners.
Efficiency and Effectiveness of Provisions The proposed provisions have been informed by knowledge of the existing infrastructure requirements and limitations. The contour of the site limits servicing options and layout. Detailed design and construction of the necessary infrastructure will require individual resource consents that in particular will need to address Regional Council matters regarding the management and quality of stormwater and sediment control. Without a coherent and equitable servicing strategy, development will either not occur, or will be limited to ad hoc solutions that potentially have a higher environmental cost through being less effective. Overall, the provisions are assessed as being both the most efficient and effective at recognising and providing for integrated development of the site.	

Social & Economic	
Benefits	**Costs**
• Increased enablement of the provision of residential housing on the site to provide housing choice for those members of the community wanting a new house in the northern part of Timaru; • Enabling additional housing as a contribution towards ensuring adequate provision of housing in the District, thereby assisting in maintaining housing affordability; • Increased opportunities for economic, and thereby social wellbeing, to be achieved through the ability to gain direct or indirect employment through the development of infrastructure and subsequent dwellings.	• Initial costs may be borne in part by the Council in order to facilitate network provision of sewer and stormwater networks in particular; • Loss of layout flexibility on a lot-by-lot basis; • Development timing of some lots may be delayed until internal roading connections are formed; • Some owners will have a disproportionate percentage of their site occupied by network infrastructure, thereby reducing development potential for these owners; • Loss of residual rural-based income where blocks are developed to suburban densities.
Efficiency and Effectiveness of Provisions The change in the nature and intensity of land use within the site will be significant should the site develop to its fullest capacity. The provisions will be efficient and effective in enabling such development to occur which under the status quo is unlikely to happen. It is important that an equitable solution is found for sharing the costs of infrastructure, especially when the amount of land necessary for such infrastructure is uneven across individual lots. The proposed financial contributions provisions are considered to be effective at delivering equitable cost-sharing, acknowledging that Council is likely to have to play a role in facilitating such provision and may need to bear the costs of installation and then recoup these costs through contributions as lots are subsequently developed.	

7.2.3 Summarising the reasons for deciding on the provisions (s32(1)(b)(iii)).

The provisions of the plan change have been developed to resolve a long-standing issue with the site that has prevented development occurring in accordance with the underlying zoning. The proposed provisions build upon those already in the District Plan that address coordinated urban development of greenfield sites and the financial contributions associated with such development. As the last two decades have shown, without such coordination the provision of services is very unlikely to occur, and subsequently additional housing choices and economic development will not be made available to the wider community.

The proposed provisions are consequently considered to be more effective in providing for urban growth across the site than either the status quo or any of the available alternative.

With respect to efficiency, it is considered that the provisions would result in a high degree of benefits while maintaining a relatively low level of costs. In summary, the provisions of the Plan Change would be efficient and effective in achieving the objective of the proposal i.e. coordinated development of an urban-zoned block in multiple ownership with servicing constraints.

7.2.4 Risk of acting or not acting (s32(2)(c))

The Act requires assessment of the risk of acting or not acting if there is uncertain or insufficient information. In relation to this proposed plan change there is no reason for not acting on the basis of insufficient or uncertain information. Sufficient information is available regarding the existing infrastructure capacity constraints and the need for additional infrastructure in order for the site to develop to suburban densities. The use of ODPs is a common tool for guiding greenfield development, with ODPs found in many District Plans nationally.

The risk of not acting, and instead perpetuating the status quo is that either suburban development does not occur (with attendant loss of housing choice), or that ad hoc development occurs with inefficient site-by-site infrastructure solutions that cumulatively will not be as effective as a single integrated network. Logical roading connections to the wider suburban fabric is likewise unlikely to occur under a site-by-site development scenario with associated poor urban design and accessibility outcomes.

7.3 Examine whether the provisions in the proposal are the most appropriate to achieve the objectives of the existing District Plan to the extent that those are relevant (s32(3))

In respect of each objective an assessment is provided which discusses the provisions of the plan change request and the manner in which they achieve the relevant objective. These are assessed in Table 1 below.

Part B	
Relevant Plan Provisions	**Assessment**
Section 8 - Roading	
Objectives (1) A safe and efficient roading network which recognises and provides for different users. (3) Minimise conflicts between land use and the roading network, while still providing for mobility, and safe and efficient ingress and egress to roads. **Policies** (1) To encourage the efficient use of the existing roading infrastructure. (2) To classify roads in the District according to their proposed function in the road network. (3) To encourage or require access functions to be provided from minor roads wherever possible. (4) Discourage direct private property access onto and off major roads, otherwise ensure the access is designed to a high standard. (5) To provide a roading system that allows safe and efficient access to and from adjoining private property… (8) To avoid, remedy or mitigate the adverse local environmental effects of proposed new roads and other additions to the District's transportation network. (9) To provide new roads or other facilities where these are considered essential. (10) To control access and the intensity of use along some roads, ensuring both vehicle and pedestrian safety… (15) To encourage cycling as a means of travel and recreation, and to improve road safety for cyclists.	The relevant transport objectives (and their associated policies) relate to the integration of land use and transport and the safe and efficient use of roads. The policies also seek to promote and enable active transport modes through cycling and walking connections. The proposed ODP provides a roading framework that promotes connectivity within and through the site, whilst avoiding the creation of new access points or vehicle movements onto major roads or the State Highway network. It is therefore considered to be consistent with the transport policy direction in the operative District Plan.
Sections 5 and 9 - Services and Infrastructure	
5(b) Objective 1 Avoid, remedy or mitigate the adverse effects of liquid waste (e.g. sewage, stormwater or agricultural) on aquatic and land ecosystems. **Policy 4** To provide for the maintenance or extension of existing stormwater systems and for the development of new systems where required. **Policy 6** To ensure all extensions of existing	The Objectives and policies seek the efficient and financially equitable provision of network services to new development. Where that development occurs within or adjacent to existing urban areas there is an expectation that dwellings will be connected to a reticulated network rather than relying on site-specific solutions. Development is only to occur once servicing is in place or readily available. The Broughs Gully area has existing significant servicing constraints, which is the primary reason why development to

settlements and new settlements have effective sewage disposal systems operating. **9 Objective 1** **(a)** Avoid, remedy, or mitigate the adverse effects of development, including servicing infrastructure, on the environment. **(b)** Ensure that an adequate level of infrastructure is provided to enable the efficient use and development of natural and physical resources by the recovery of the costs of providing that infrastructure directly from developers, and where appropriate, by apportioning costs between the developer and the community in accordance with the relative benefits of providing that infrastructure. **Policies** (1) To ensure that the means of providing water to a site is established at the time of subdivision. (2) To require financial contributions to develop and maintain the District's water supply infrastructure and reticulation, i.e. headworks, mains, and reservoir; roading network, water, sewerage or stormwater systems. Any cash contribution will be spent on the infrastructure within ten years of payment. (3) To discourage development that may compromise subsequent efficient serving and subdivision of land identified for future residential development. (4) To ensure that sufficient servicing is provided for intensive development in a way that avoids, remedies or mitigates adverse effects on the environment.	suburban densities in accordance with the underlying zoning has not occurred over the life of the District Plan. Without the proposed plan change, there will be limited ability to achieve the efficient provision of network infrastructure to enable such development to occur. The Council has developed a Financial Contribution assessment to ensure that the provision of network services is equitable across the site, recognising that some individual landowners will have a greater proportion of their site occupied by infrastructure than other sites.
Part B – 13 Community Enablement and Physical Resources	
Objective 1 To accommodate growth while protecting and enhancing the quality of the environment**.** **Policies** (1) To ensure that sufficient and appropriately zoned land is available to accommodate business and residential growth. (2) To provide for a range of business activities and lifestyle choices, for example rural living sites, large lot residential, conventional residential development, and high density residential development in Timaru's	The site has been zoned for suburban density for several decades, yet development has been extremely limited to date. The block is not therefore in practice readily available for accommodating urban growth or providing choice in the location of housing for the wider Timaru community. The ODP will assist in enabling the provision of services and the development of this block so that it is functionally available for accommodating residential growth.

inner city area.	
Part D – Residential Zones	
Objective 2.1.1 Recognise the importance of maintaining and enhancing the amenity values of residential areas.	The ODP will ensure that development of the site occurs in an integrated and connected manner, with stormwater managed via a central swale and basin system. The coordinated approach to growth will ultimately result in urban fabric that is more connected and or higher amenity than the alternative of ad hoc site-by-site development.

In summary, the proposed plan change is considered to be consistent with the intent of the relevant strategic objectives and policies for the District. In particular it is aligned with those objectives and policies that seek to recognise and provide for urban growth, provide for such growth to be connected to reticulated services that are equitably funded, and that is accessed via an efficient and safe road network that integrates new growth areas with the existing urban fabric.

8 Statutory Considerations

8.1 Sections 74 & 75 of the RMA

Section 74 of the RMA prescribes that the District Council must prepare and change a district plan in accordance with its functions under s31 and the provisions of Part 2.

The District Council must also have regard to an evaluation report prepared in accordance with s32.

Section 74(2) requires the District Council to also have regard to proposed regional plans, management plans, the Historic Places Register, regulations or the Plans of adjoining territorial authorities to the extent that these may be relevant.

It is noted that the proposal does not involve any cross territorial issues, any matters of historical reference, or matters addressed by management plans or strategies prepared under other Acts. With respect to Regional Policy Statements and Plans, these are identified and addressed further below.

Section 74(2A) also requires the Council to take into account relevant planning documents recognised by an iwi authority, to the extent that its content has a bearing on resource management issues.

8.2 Section 31 – Functions of Council

Any plan change must assist the Council to carry out its functions so as to achieve the purpose of the Act. The functions of a territorial authority are set out in s31 of the Act and include:

- establishing, implementing and reviewing objectives, policies, and methods to achieve integrated management of the effects of the use and development of land; and
- controlling actual or potential effects of the use and development of land.

The request for plan change clearly accords with these stated functions. The proposal provides for the use and development of land for residential activities and provides for the growth of Timaru. The proposed ODP and its use of largely existing rules (with minor amendments) provide the methods for Council to manage potential effects of this activity, demonstrates an integrated management approach, and enables the equitable funding of network infrastructure. The ODP provides a high level overview of the layout of development and sets in place those matters which must be implemented and maintained as mitigation measures e.g. access locations and stormwater basins.

8.3 Section 75 – Contents of District Plans

Section 75 requires a District Plan to state objectives for the District, policies to implement the objectives and rules to then implement the policies.

The proposal does not introduce any new, or alter any existing, objectives, and introduces only minor amendments to existing policies to recognise the need for development to be in accordance with the proposed ODP. It also introduces amendments to the existing rules package to ensure development occurs in accordance with the ODP (or if not is able to be properly assessed via a resource consent process). The reasons for the amendments to the rules is provided in this Plan Change and is consistent with s75(2) and the current format of the District Plan.

Section 75 requires a District Plan to not be inconsistent with Regional Plans. These are identified and discussed in paragraphs further below.

Section 75(3)(a), (b) and (c) also requires a District Plan to give effect to any National Policy Statement, the New Zealand Coastal Policy Statement and the Regional Policy Statement. These are discussed as follows:

8.4 National Policy Statements (NPS) and New Zealand Coastal Policy Statement

There are three NPS to which consideration must be given. These are:

- NPS for Renewable Electricity Generation
- NPS for Electricity Transmission
- NPS for Freshwater Management

There is no direct connection or geographic proximity to renewable electricity generation activities. The proposed ODP shows the location of an existing Electricity Transmission corridor. The roading layout has been designed so that a portion of the road is located beneath the corridor to enable the efficient use of land whilst concurrently providing for corridor access for maintenance purposes, and minimising the pressure to locate sensitive activities beneath the corridor. A comprehensive District Plan-wide approach to managing activities beneath the transmission corridor and giving effect to the NPS is anticipated to occur as part of the upcoming District Plan review. This ODP includes assessment matters relating to the design of lots to ensure that there are plausible building platforms that are able to be located outside of the transmission corridor. This is seen as an interim response to give effect to the NPS as it relates to this specific site, and pending broader District-wide provisions in the review.

The proposed ODP does not propose practices or effects that are inconsistent with the NPS for Freshwater Management noting that the detailed design of sewage and stormwater networks and management will be the subject of future resource consents as required under the relevant Regional Plans.

With respect to the NZ Coastal Policy Statement, the proposed ODP area is not part of the coastal environment.

8.5 Canterbury Regional Policy Statement (RPS) and Regional Plans

The RPS provides an overview of the Resource Management issues in the Canterbury region, and the objectives, policies and methods to achieve integrated management of the natural and physical resources of the Region. The methods include directions for provisions in district and regional plans.

The chapter of primary relevance of the Regional Policy Statement is Chapter 5 that relates to Land Use and Infrastructure. The objective and policy direction in Chapter 5 is focussed on enabling urban growth provided that it is adjacent or within existing urban areas, does not compromise the use and development of regionally significant infrastructure, is able to be efficiently serviced, and is not located in areas that are subject to high natural hazards, or have significant landscape, natural, or cultural values.

The site has long been zoned for urban purposes and is located within and adjacent to the existing urban edge of Timaru. The site is not subject to high natural hazards and does not contain any s.6 matters of national significance. The proposed ODP will help to facilitate urban growth in a suitable location and in a coherent and coordinated manner that is efficiently serviced. As such the proposed plan change is considered to give effect to the RPS.

Given that the site has an existing urban zoning, the relevance of the various Regional Plans is limited to the need to appropriately manage water quality and the discharge and treatment of stormwater and sewerage. As noted above, the detailed design of these systems on the site will require resource consents under the applicable Regional Plans, to ensure that the systems are appropriately designed and maintained. The proposed plan change enables such systems to be provided.

8.6 Canterbury Regional Land Transport Strategy 2012-2042 (RLTS)

The Canterbury Regional Land Transport Strategy (RLTS) sets the strategic direction for land transport within the Canterbury region over a 30 year period. The RLTS identifies the region's transport needs, the roles of land transport modes along with the planning, engineering, education, encouragement and enforcement methods that will be applied in the achievement of objectives.

The provisions of the ODP accord with this Strategy, specifically controlling the location of new access points such that any future residential development is able to obtain access onto the local road network without the need to additional access points or increase in vehicle movements onto State Highway 1. The design of the internal road network also facilitates active transport modes such as walking and cycling both within and across the site. Accordingly, the safety and efficiency of local roads and the State Highway will be protected and can respond, as necessary, to any changes to the RLTS.

8.7 Iwi Documents

Te Rūnanga o Ngāi Tahu represents Ngāi Tahu as an iwi authority for the purposes of the RMA, and Te Runanga o Arowhenua are the kaitiaki Rūnanga for the subject area. There are no statutory acknowledgement areas, silent file areas or waahi taonga areas identified in the District Plan that could be directly affected by this plan change, and the site has been zoned for urban activities for several decades.

No specific iwi management plan has been prepared for the area in which the plan change is located. Ngai Tahu have prepared the Mahaanui Iwi Management Plan 2013 (IMP). Whilst this document relates to the area north of the Hakatere River and therefore does not specifically relate to the Plan Change site or necessarily reflect Arowhenua Rūnanga values or concerns, the IMP nonetheless provides a useful values-based policy framework for the protection and enhancement of Ngāi Tahu values, and for achieving outcomes that provide for the relationship of Ngāi Tahu with natural resources.

Given the site's long-established urban zoning and the absence of any mahinga kai or waahi taonga values for the site, the key matter is considered to be in relation to the protection and sustainable use of freshwater, and in particular the maintenance of water quality discharging into Washdyke Lagoon. The ODP is designed to facilitate coordinated connection to network infrastructure where sewerage is reticulated into Council's network where it is treated in the existing sewage treatment plants. Development of a sewer main through the site and the potential for existing private sewer connections to be transferred will assist in reducing overflows form the existing sewer network which is at capacity. It is also considered to represent a much lower risk solution than individual site-by-site package plants or septic tank systems. Stormwater is likewise able to be collected via a single integrated system with provision made for retention and first flush treatment in the base of the valley and prior to discharging into the wider network. Resource consents will be needed for the Canterbury Regional Council regarding the detailed design of the stormwater system to ensure that acceptable water quality standard are maintained, with the ODP providing the framework for a single network.

In summary, the proposed plan change is not considered to significantly impact upon any cultural values and provided the necessary resource consents are obtained, it is considered to be consistent with the principles articulated in the Mahaanui Iwi Management Plan.

8.8 Part 2

Part 2 sets out the purpose and principles of the RMA. The purpose of the Act is to promote sustainable management of natural and physical resources. This is defined to mean:

> *Managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while:*
>
> *(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
>
> *(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
>
> *(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

The key matters for this assessment therefore are:

- Will the proposed Plan Change (in terms of the management of use, development and protection of natural and physical resources) enable people to provide for their wellbeing, health and safety?
- Will the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations be sustained?
- Will the life-supporting capacity of air, water, soil, and ecosystems be safeguarded?

  and;
- Are the adverse effects of this enablement capable of being avoided, remedied or mitigated?

In order to achieve the purpose of the Act, it is necessary to:

- recognise and provide for the matters of national importance in section 6;
- have particular regard to the other matters in section 7;

- take into account the principles of the Treaty of Waitangi (section 8);

The proposal is able to achieve the purpose of the Act. The status quo in terms of the District Plan provisions is not considered to be efficient, as evidenced by the lack of development to surburban densities that has been able to occur over the life of the District Plan. The absence of an ODP and associated provisions being applied to the site continues to result in considerable time and cost delays to the development of individual lots, with the efficient and cost-effective provision of network infrastructure being extremely difficult to achieve. The lack of a coherent access and roading network in the absence of the proposed ODP likewise makes it difficult for any future development to be integrated into the existing adjacent urban fabric.

The provisions of the plan change clearly enable the ongoing use and development of site for residential housing. This will assist the community to provide for its economic and social wellbeing.

Adverse effects are able to be avoided, remedied or mitigated. Integrated services and roading is able to be provided and is located in response to the site contour and existing road access points. This Plan Change recognises the context of the existing site on the edge of the existing urban area and the expectation that it will be progressively developed to suburban densities.

There are no matters of national importance considered relevant to this application. The area of land subject to the plan change does not include an outstanding natural landscape or feature and there are no impacts on the margins of an existing river or stream.

The "Other Matters" of relevance to this Plan Change are:

- s7(b) the efficient use of natural and physical resources
- s7(c) the maintenance and enhancement of amenity values
- s7(f) the maintenance and enhancement of the quality of the environment.

The formulation of this Plan Change has had regard to these matters. The ODP and accompanying rules provide an overview of how the site will be developed over time and will achieve the integrated management of effects at the ODP boundary with the existing urban area.

The ODP enables the efficient provision and use of network servicing infrastructure, whilst managing potential effects on the national electricity transmission lines and the efficient and safe functioning of State Highway 1.

With respect to s8, there are no known sites of significance to local Iwi on the site. The ODP enables the management of stormwater and reticulated sewage in order to maintain water quality.

In summary, having regard to the content and analysis contained within this report, it is concluded that the proposal achieves Part 2 of the RMA and is a more efficient and effective mechanism for managing the long-term servicing and development of the site than the existing provisions of the Operative District Plan.

9 Consultation

Prior to the development of the ODP, an Infrastructure Servicing Plan (ISP) was formulated which comprised of the proposed transport layout and extent of stormwater retention areas. This plan is included in Appendix D of the Servicing Strategy.

A copy of the ISP was provided to all landowners within the site, and workshops were held with landowners on 14th December 2015 and 29th February 2016. Subsequent meetings have been held with individual owners as requested. Following this feedback the ISP was amended to remove a proposed 'Road 4' as a crescent serving a number of the Residential 4 zoned lots accessed off Old North Road and Mahoneys Hill Road. These properties (and any future development) are able to obtain access either off these two frontage roads, or from the bottom of the lots from the proposed Road 1. A summary of the feedback received from this initial phase of consultation is included in Appendix 7.

Upon conversion of the ISP to a draft Plan Change and ODP, wider consultation in accordance with the 1st Schedule of the RMA was undertaken prior to finalisation of the Plan Change and presentation to Council for a decision on whether or not to proceed to notification. This wider consultation was to enable any other interested parties to put forward their views prior to the statutory public notification process.

The properties highlighted on the plan in Appendix 8, all landowners within the ODP, and the following organisations were included in the pre-notification consultation phase:

- Ministry for the Environment;
- Canterbury Regional Council;
- Te Runanga o Arowhenua;
- New Zealand Transport Agency;
- Alpine Energy Limited
- Transpower New Zealand Limited

A copy of the consultation letter and summary of the feedback is attached in Appendix 9. In accordance with the consultation requirements of the 1st Schedule of the RMA and s82 of the Local Government Act 2002, those that provided feedback were given an opportunity to present their views, which were given due consideration. Those that presented feedback have been written to outlining the reasons for subsequent decisions on amendments to the draft plan change prior to notification.

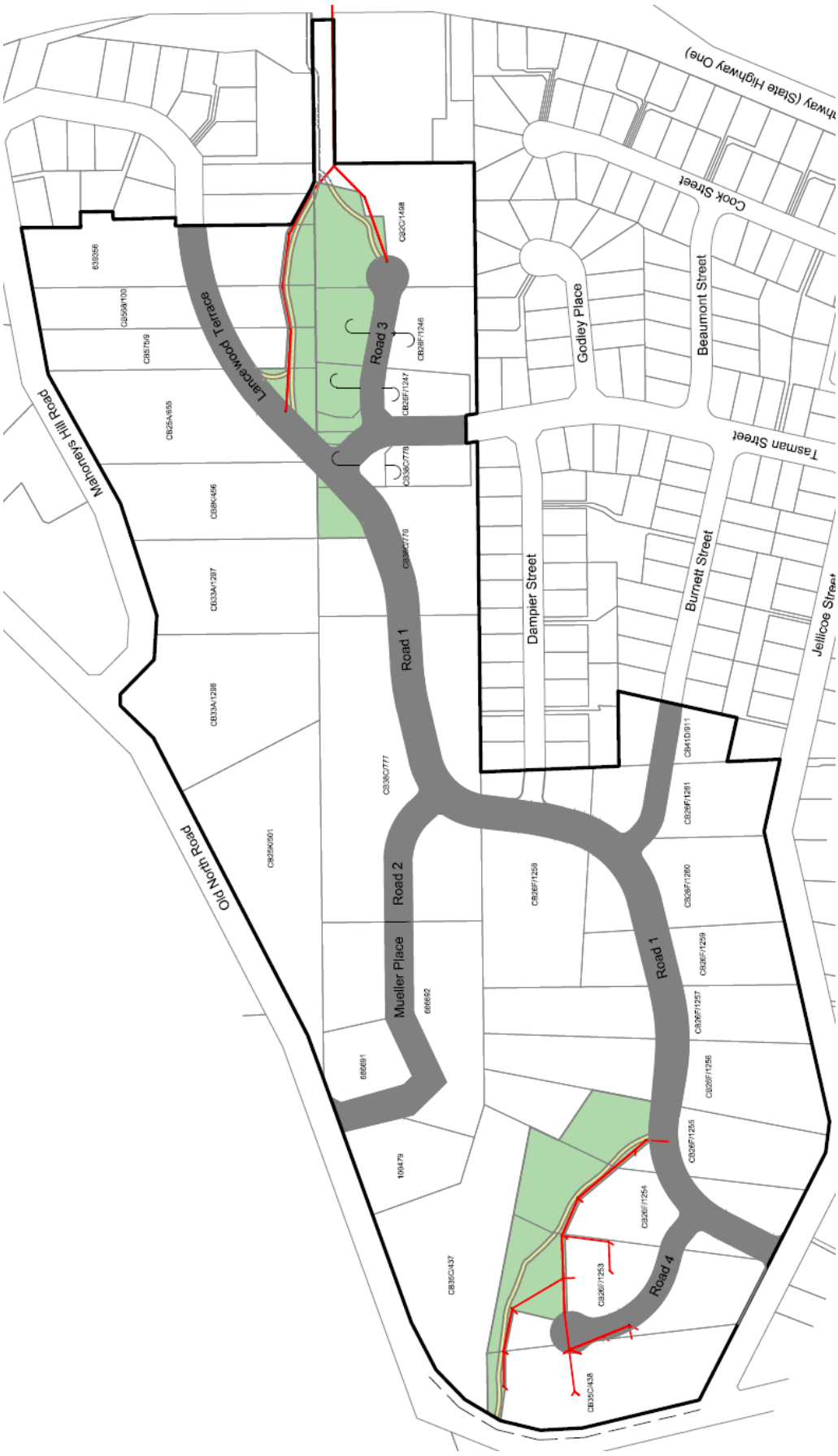
10 Conclusion

This Statutory Analysis and Evaluation Report with accompanying AEE and appendices presents all of the relevant information required to enable the proposed plan change to be considered. The information provided is at a level of detail that is appropriate to the scale and significance of the issues concerned. Potential environmental effects have been identified and appropriately avoided, remedied or mitigated through the proposed provisions.

Although no changes are proposed to any Objectives, and only a couple of amendments to the policies of the District Plan, all of the matters of policy and statutory consideration have been identified and addressed, including for all relevant higher order documents. Consultation with stakeholders has also been initiated and will be on-going as required, noting that all interested parties will have a formal opportunity to lodge submissions as part of the statutory plan change process.

APPENDIX 1:

Ownership Plan and Certificates of Title


Cook Street
Godley Place
Beaumont Street
Tasman Street
Dampier Street
Burnett Street
Jellicoe Street
Lancewood Terrace
Mahoneys Hill Road
Old North Road
Road 1
Road 2
Road 3
Road 4
Mueller Place

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**109479**
Land Registration District	**Canterbury**
Date Issued	11 December 2003

Prior References
CB26F/1251

Estate	Fee Simple
Area	4397 square metres more or less
Legal Description	Lot 1 Deposited Plan 326925

Proprietors
Noel Francis Shefford and Judith Norma Shefford

Interests

Appurtenant hereto is a right to convey storm and surface water created by Transfer 481060.1 - 30.10.1984 at 11:50 am

Appurtenant hereto is a right to drain sewage and water specified in Easement Certificate 514812.5 - 30.10.1984 at 11:50 am
The easements specified in Easement Certificate 514812.5 are subject to Section 309 (1) (a) Local Government Act 1974

5024067.3 Mortgage to (now) Westpac New Zealand Limited - 14.2.2001 at 9:45 am

9373356.1 Variation of Mortgage 5024067.3 - 13.5.2013 at 1:29 pm

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**639356**
Land Registration District	**Canterbury**
Date Issued	04 April 2014

Prior References
CB25B/737

Estate	Fee Simple
Area	9769 square metres more or less
Legal Description	Lot 1 Deposited Plan 471324

Proprietors
Murray Stephen McMillan and Helen Anne McMillan

Interests

Subject to Section 8 Mining Act 1971

Subject to Section 5 Coal Mines Act 1979

A439499.2 Mortgage to ANZ Banking Group (New Zealand) Limited - 21.12.1999 at 11.11 am

9660129.2 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 4.4.2014 at 11:40 am

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**686691**
Land Registration District	**Canterbury**
Date Issued	03 March 2015

Prior References
109480

Estate	Fee Simple
Area	2878 square metres more or less
Legal Description	Lot 17 Deposited Plan 484492

Proprietors
Rodney Wayne Innes

Interests

Appurtenant hereto is a right to convey storm and surface water created by Transfer 481060.1 - 30.10.1984 at 11:50 am

Appurtenant hereto is a right to drain sewage and water specified in Easement Certificate 514812.5 - 30.10.1984 at 11:50 am

The easements specified in Easement Certificate 514812.5 are subject to Section 309 (1) (a) Local Government Act 1974

9970732.2 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 3.3.2015 at 9:21 am

Appurtenant hereto is a right to drain sewage created by Easement Instrument 9970732.4 - 3.3.2015 at 9:21 am

The easements created by Easement Instrument 9970732.4 are subject to Section 243 (a) Resource Management Act 1991

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**686692**
Land Registration District	**Canterbury**
Date Issued	03 March 2015

Prior References
109480

Estate	Fee Simple
Area	1.4254 hectares more or less
Legal Description	Lot 50 Deposited Plan 484492

Proprietors
Old North Road Properties Limited

Interests

Appurtenant hereto is a right to convey storm and surface water created by Transfer 481060.1 - 30.10.1984 at 11:50 am

Appurtenant hereto is a right to drain sewage and water specified in Easement Certificate 514812.5 - 30.10.1984 at 11:50 am

Subject to a right to drain sewage over part marked S and TU on DP 484492 specified in Easement Certificate 514812.5 - 30.10.1984 at 11:50 am

The easements specified in Easement Certificate 514812.5 are subject to Section 309 (1) (a) Local Government Act 1974

Subject to a right to drain sewage over part marked A on DP 484492 created by Transfer A102853.2 - 22.3.1994 at 10:46 am

9970732.3 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 3.3.2015 at 9:21 am

Subject to a right to drain sewage over parts marked B, S on DP 484492 created by Easement Instrument 9970732.4 - 3.3.2015 at 9:21 am

The easements created by Easement Instrument 9970732.4 are subject to Section 243 (a) Resource Management Act 1991

9994146.3 Mortgage to ANZ Bank New Zealand Limited - 24.3.2015 at 11:11 am

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB2C/1498**
Land Registration District	**Canterbury**
Date Issued	30 October 1964

Prior References
CB554/77

Estate	Fee Simple
Area	1.2141 hectares more or less
Legal Description	Lot 1 Deposited Plan 23147

Proprietors
Hilton Trust Limited

Interests

481060.1 Transfer creating the following easements - 26.3.1984 at 10.45 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Right to convey storm and surface water	Lot 1 Deposited Plan 23147 - herein	Part herein	Lot 2 Deposited Plan 23147 - CT CB2C/1499	
Right to convey storm and surface water	Lot 1 Deposited Plan 23147 - herein	Part herein	Lot 2 Deposited Plan 10288 - CT CB2C/122	
Right to convey storm and surface water	Lot 1 Deposited Plan 23147 - herein	Part herein	Lot 3 Deposited Plan 6987 - CT CB2C/122	
Right to convey storm and surface water	Lot 1 Deposited Plan 23147 - herein	Part herein	Lot 4 Deposited Plan 6987	
Right to convey storm and surface water	Lot 1 Deposited Plan 23147 - herein	Part herein	Lot 5 Deposited Plan 6987	
Right to convey storm and surface water	Lot 1 Deposited Plan 23147 - herein	Part herein	Lot 6 Deposited Plan 6987	
Right to convey storm and surface water	Lot 1 Deposited Plan 23147 - herein	Part herein	Lot 7 Deposited Plan 6987	
Right to convey storm and surface water	Lot 1 Deposited Plan 23147 - herein	Part herein	Lot 8 Deposited Plan 6987	

10434062.2 Mortgage to Westpac New Zealand Limited - 13.6.2016 at 8:48 am

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB8K/456**
Land Registration District	**Canterbury**
Date Issued	09 May 1969

Prior References
CB297/147

Estate	Fee Simple
Area	8094 square metres more or less
Legal Description	Section 7 Puhuka Hamlet

Proprietors
Beverley Anne White and Winston Clifford Martyn

Interests

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB25K/501**
Land Registration District	**Canterbury**
Date Issued	16 February 1984

Prior References
CBPR196/78

Estate	Fee Simple
Area	1.2823 hectares more or less
Legal Description	Section 4 Puhuka Hamlet

Proprietors
Peter David John Rose and Denise Rose

Interests

Subject to Section 8 Mining Act 1971

Subject to Section 5 Coal Mines Act 1979

5147984.1 Mortgage to Bank of New Zealand - 1.2.2002 at 10:47 am

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB25K/655**
Land Registration District	**Canterbury**
Date Issued	23 February 1984

Prior References
CBPR218/121

Estate	Fee Simple
Area	1.2140 hectares more or less
Legal Description	Section 8 Puhuka Hamlet

Proprietors
Jennifer Louise Porter

Interests

Subject to Section 8 Mining Act 1971

Subject to Section 5 Coal Mines Act 1979

9377066.3 Mortgage to Westpac New Zealand Limited - 24.4.2013 at 4:45 pm

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB26F/1246**
Land Registration District	**Canterbury**
Date Issued	30 October 1984

Prior References
CB2C/1499

Estate	Fee Simple
Area	6118 square metres more or less
Legal Description	Lot 1 and Lot 22 Deposited Plan 47318

Proprietors
Lincoln Marcus Boakes

Interests

Subject to Section 308 (4) Local Government Act 1974

481060.1 Transfer creating the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	Part	Lot 1 and Lot 22 Deposited Plan 47318 - herein	

514812.6 Transfer creating the following easements in gross - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Grantee	Statutory Restriction
Convey storm and surface water	Lot 22 Deposited Plan 47318 - herein	Part herein	The Timaru City Council	

10151227.2 Mortgage to Bank of New Zealand - 18.9.2015 at 4:07 pm

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB26F/1247**
Land Registration District	**Canterbury**
Date Issued	30 October 1984

Prior References
CB2C/1499

Estate	Fee Simple
Area	3286 square metres more or less
Legal Description	Lot 2 and Lot 24 Deposited Plan 47318

Proprietors
Rodney Benjamin Arthur Boakes and Estelle Sarah Boakes

Interests

Subject to Section 308 (4) Local Government Act 1974

481060.1 Transfer creating the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	Part	Lot 2 and Lot 24 Deposited Plan 47318 - herein	

514812.6 Transfer creating the following easements in gross - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Grantee	Statutory Restriction
Convey storm and surface water	Lot 24 Deposited Plan 47318 - herein	Part herein	The Timaru City Council	

10462371.2 Mortgage to ANZ Bank New Zealand Limited - 27.6.2016 at 1:20 pm

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB26F/1253**
Land Registration District	**Canterbury**
Date Issued	30 October 1984

Prior References
CB2C/122

Estate	Fee Simple
Area	1.2919 hectares more or less
Legal Description	Lot 9 Deposited Plan 47318

Proprietors
Michael Wilson

Interests

481060.1 Transfer creating the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	Part	Lot 9 Deposited Plan 47318 - herein	

514812.5 Easement Certificate specifying the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 10 Deposited Plan 47318 - CT CB26F/1254	-	Lot 9 Deposited Plan 47318 - herein	
Drain sewage	Lot 11 Deposited Plan 47318 - CT CB26F/1255	-	Lot 9 Deposited Plan 47318 - herein	
Drain sewage	Lot 12 Deposited Plan 47318 - CT CB26F/1256	-	Lot 9 Deposited Plan 47318 - herein	
Drain sewage	Lot 13 Deposited Plan 47318 - CT CB26F/1257	-	Lot 9 Deposited Plan 47318 - herein	
Drain sewage	Lot 15 Deposited Plan 47318 - CT CB26F/1259	-	Lot 9 Deposited Plan 47318 - herein	
Drain sewage	Lot 16 Deposited Plan 47318 - CT CB26F/1260	-	Lot 9 Deposited Plan 47318 - herein	
Drain sewage	Lot 17 Deposited Plan 47318 - CT CB26F/1261	-	Lot 9 Deposited Plan 47318 - herein	
Drain sewage	Lot 14 Deposited Plan 47318 - CT CB26F/1258	-	Lot 9 Deposited Plan 47318 - herein	
Drain sewage	Lot 4 Deposited Plan 47318 - CT CB26F/1249	-	Lot 9 Deposited Plan 47318 - herein	

Identifier **CB26F/1253**

Drain water	Lot 20 Deposited Plan 47318 - CT CB26F/1248	-	Lot 9 Deposited Plan 47318 - herein
Drain water	Lot 4 Deposited Plan 47318	-	Lot 9 Deposited Plan 47318 - herein
Drain water	Lot 14 Deposited Plan 47318	-	Lot 9 Deposited Plan 47318 - herein
Drain water	Lot 17 Deposited Plan 47318	-	Lot 9 Deposited Plan 47318 - herein
Drain water	Lot 16 Deposited Plan 47318	-	Lot 9 Deposited Plan 47318 - herein
Drain water	Lot 15 Deposited Plan 47318	-	Lot 9 Deposited Plan 47318 - herein
Drain water	Lot 13 Deposited Plan 47318	-	Lot 9 Deposited Plan 47318 - herein
Drain water	Lot 12 Deposited Plan 47318	-	Lot 9 Deposited Plan 47318 - herein
Drain water	Lot 11 Deposited Plan 47318	-	Lot 9 Deposited Plan 47318 - herein
Drain water	Lot 10 Deposited Plan 47318	-	Lot 9 Deposited Plan 47318 - herein

The easements specified in Easement Certificate 514812.5 when created will be subject to Section 309(1)(A) Local Government Act 1974

9134905.3 Mortgage to ASB Bank Limited - 30.7.2012 at 9:46 am

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB26F/1254**
Land Registration District	**Canterbury**
Date Issued	30 October 1984

Prior References
CB2C/122 CB6A/1249

Estate	Fee Simple
Area	1.1172 hectares more or less
Legal Description	Lot 10 Deposited Plan 47318

Proprietors
Brian William Chapman and Helen Strang Chapman

Interests

481060.1 Transfer creating the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	Part	Lot 10 Deposited Plan 47318 - herein	

514812.5 Easement Certificate specifying the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 10 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318 - CT CB26F/1253	
Drain sewage	Lot 11 Deposited Plan 47318 - CT CB26F/1255	-	Lot 10 Deposited Plan 47318 - herein	
Drain sewage	Lot 12 Deposited Plan 47318 - CT CB26F/1256	-	Lot 10 Deposited Plan 47318 - herein	
Drain sewage	Lot 13 Deposited Plan 47318 - CT CB26F/1257	-	Lot 10 Deposited Plan 47318 - herein	
Drain sewage	Lot 15 Deposited Plan 47318 - CT CB26F/1259	-	Lot 10 Deposited Plan 47318 - herein	
Drain sewage	Lot 16 Deposited Plan 47318 - CT CB26F/1260	-	Lot 10 Deposited Plan 47318 - herein	
Drain sewage	Lot 17 Deposited Plan 47318 - CT CB26F/1261	-	Lot 10 Deposited Plan 47318 - herein	
Drain sewage	Lot 14 Deposited Plan 47318 - CT CB26F/1258	-	Lot 10 Deposited Plan 47318 - herein	
Drain sewage	Lot 4 Deposited Plan 47318 - CT CB26F/1249	-	Lot 10 Deposited Plan 47318 - herein	
Drain water	Lot 10 Deposited Plan 47318 - herein	Herein	Lot 7 Deposited Plan 47318	

Drain water	Lot 10 Deposited Plan 47318 - herein	Herein	Lot 8 Deposited Plan 47318
Drain water	Lot 10 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318
Drain water	Lot 20 Deposited Plan 47318 - CT CB26F/1248	-	Lot 10 Deposited Plan 47318 - herein
Drain water	Lot 4 Deposited Plan 47318	-	Lot 10 Deposited Plan 47318 - herein
Drain water	Lot 14 Deposited Plan 47318	-	Lot 10 Deposited Plan 47318 - herein
Drain water	Lot 17 Deposited Plan 47318	-	Lot 10 Deposited Plan 47318 - herein
Drain water	Lot 16 Deposited Plan 47318	-	Lot 10 Deposited Plan 47318 - herein
Drain water	Lot 15 Deposited Plan 47318	-	Lot 10 Deposited Plan 47318 - herein
Drain water	Lot 13 Deposited Plan 47318	-	Lot 10 Deposited Plan 47318 - herein
Drain water	Lot 12 Deposited Plan 47318	-	Lot 10 Deposited Plan 47318 - herein
Drain water	Lot 11 Deposited Plan 47318	-	Lot 10 Deposited Plan 47318 - herein

The easements specified in Easement Certificate 514812.5 when created will be subject to Section 309(1)(A) Local Government Act 1974

514812.7 Transfer creating the following easements in gross - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Grantee	Statutory Restriction
Convey electric power	Lot 10 Deposited Plan 47318 - herein	Part herein	South Canterbury Electric Power Board	

The easement created by Transfer 514812.7 is subject to Section 309(1)(a) Local Government Act 1974

7278472.3 Mortgage to ANZ National Bank Limited - 12.4.2007 at 12:22 pm

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB26F/1255**
Land Registration District	**Canterbury**
Date Issued	30 October 1984

Prior References
CB2C/122 CB6A/1249

Estate	Fee Simple
Area	1.0888 hectares more or less
Legal Description	Lot 11 Deposited Plan 47318

Proprietors
Graham Michael Sullivan

Interests

481060.1 Transfer creating the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	Part	Lot 11 Deposited Plan 47318 - herein	

514812.5 Easement Certificate specifying the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain	Lot 11 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318	
Drain	Lot 11 Deposited Plan 47318 - herein	Herein	Lot 10 Deposited Plan 47318	
Drain	Lot 12 Deposited Plan 47318 - CT CB26F/1256	-	Lot 11 Deposited Plan 47318 - herein	
Drain	Lot 13 Deposited Plan 47318 - CT CB26F/1257	-	Lot 11 Deposited Plan 47318 - herein	
Drain	Lot 15 Deposited Plan 47318 - CT CB26F/1259	-	Lot 11 Deposited Plan 47318 - herein	
Drain	Lot 16 Deposited Plan 47318 - CT CB26F/1260	-	Lot 11 Deposited Plan 47318 - herein	
Drain	Lot 17 Deposited Plan 47318 - CT CB26F/1261	-	Lot 11 Deposited Plan 47318 - herein	
Drain	Lot 14 Deposited Plan 47318 - CT CB26F/1258	-	Lot 11 Deposited Plan 47318 - herein	
Drain	Lot 4 Deposited Plan 47318 - CT CB26F/1249	-	Lot 11 Deposited Plan 47318 - herein	
Drain water	Lot 11 Deposited Plan 47318 - herein	Herein	Lot 7 Deposited Plan 47318	
Drain water	Lot 11 Deposited Plan 47318 - herein	Herein	Lot 8 Deposited Plan 47318	

Identifier **CB26F/1255**

Drain water	Lot 11 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318
Drain water	Lot 11 Deposited Plan 47318 - herein	Herein	Lot 10 Deposited Plan 47318
Drain water	Lot 20 Deposited Plan 47318 - CT CB26F/1248	-	Lot 11 Deposited Plan 47318 - herein
Drain water	Lot 4 Deposited Plan 47318	-	Lot 11 Deposited Plan 47318 - herein
Drain water	Lot 14 Deposited Plan 47318	-	Lot 11 Deposited Plan 47318 - herein
Drain water	Lot 17 Deposited Plan 47318	-	Lot 11 Deposited Plan 47318 - herein
Drain water	Lot 16 Deposited Plan 47318	-	Lot 11 Deposited Plan 47318 - herein
Drain water	Lot 15 Deposited Plan 47318	-	Lot 11 Deposited Plan 47318 - herein
Drain water	Lot 13 Deposited Plan 47318	-	Lot 11 Deposited Plan 47318 - herein
Drain water	Lot 12 Deposited Plan 47318	-	Lot 11 Deposited Plan 47318 - herein

The easements specified in Easement Certificate 514812.5 when created will be subject to Section 309 (1)(A) Local Government Act 1974

7690644.3 Mortgage to Westpac New Zealand Limited - 5.2.2008 at 10:24 am

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB26F/1256**
Land Registration District	**Canterbury**
Date Issued	30 October 1984

Prior References
CB6A/1249

Estate	Fee Simple
Area	1.1246 hectares more or less
Legal Description	Lot 12 Deposited Plan 47318

Proprietors
Robert Walter Edgar Emile Goulet and Judith Rachel Earl-Goulet

Interests

481060.1 Transfer creating the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	Part	Lot 12 Deposited Plan 47318 - herein	

514812.5 Easement Certificate specifying the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 12 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318	
Drain sewage	Lot 12 Deposited Plan 47318 - herein	Herein	Lot 10 Deposited Plan 47318	
Drain sewage	Lot 12 Deposited Plan 47318 - herein	Herein	Lot 11 Deposited Plan 47318	
Drain sewage	Lot 13 Deposited Plan 47318 - CT CB26F/1257	-	Lot 12 Deposited Plan 47318 - herein	
Drain sewage	Lot 15 Deposited Plan 47318 - CT CB26F/1259	-	Lot 12 Deposited Plan 47318 - herein	
Drain sewage	Lot 16 Deposited Plan 47318 - CT CB26F/1260	-	Lot 12 Deposited Plan 47318 - herein	
Drain sewage	Lot 17 Deposited Plan 47318 - CT CB26F/1261	-	Lot 12 Deposited Plan 47318 - herein	
Drain sewage	Lot 14 Deposited Plan 47318 - CT CB26F/1258	-	Lot 12 Deposited Plan 47318 - herein	
Drain sewage	Lot 4 Deposited Plan 47318 - CT CB26F/1249	-	Lot 12 Deposited Plan 47318 - herein	
Drain water	Lot 12 Deposited Plan 47318 - herein	Herein	Lot 7 Deposited Plan 47318	
Drain water	Lot 12 Deposited Plan 47318 - herein	Herein	Lot 8 Deposited Plan 47318	

Drain water	Lot 12 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318
Drain water	Lot 12 Deposited Plan 47318 - herein	Herein	Lot 10 Deposited Plan 47318
Drain water	Lot 12 Deposited Plan 47318 - herein	Herein	Lot 11 Deposited Plan 47318
Drain water	Lot 20 Deposited Plan 47318 - CT CB26F/1248	-	Lot 12 Deposited Plan 47318 - herein
Drain water	Lot 4 Deposited Plan 47318	-	Lot 12 Deposited Plan 47318 - herein
Drain water	Lot 14 Deposited Plan 47318	-	Lot 12 Deposited Plan 47318 - herein
Drain water	Lot 17 Deposited Plan 47318	-	Lot 12 Deposited Plan 47318 - herein
Drain water	Lot 16 Deposited Plan 47318	-	Lot 12 Deposited Plan 47318 - herein
Drain water	Lot 15 Deposited Plan 47318	-	Lot 12 Deposited Plan 47318 - herein
Drain water	Lot 13 Deposited Plan 47318	-	Lot 12 Deposited Plan 47318 - herein

The easements specified in Easement Certificate 514812.5 when created will be subject to Section 309(1)(a) Local Government Act 1974

698189.1 Transfer creating the following easement in gross - 21.8.1987 at 9.22 am

Type	**Servient Tenement**	**Easement Area**	**Grantee**	**Statutory Restriction**
Slope and batter easement	Lot 12 Deposited Plan 47318 - herein	Herein	Timaru City Council	

9901762.2 Mortgage to Southland Building Society - 28.11.2014 at 10:56 am

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB26F/1257**
Land Registration District	**Canterbury**
Date Issued	30 October 1984

Prior References
CB6A/1249

Estate	Fee Simple
Area	8907 square metres more or less
Legal Description	Lot 13 Deposited Plan 47318

Proprietors
Glen James Charles Manley and Jennifer Hope Manley

Interests

481060.1 Transfer creating the following easement - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	Part	Lot 13 Deposited Plan 47318 - herein	

514812.5 Easement Certificate specifying the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 13 Deposited Plan 47318 - herein	Herein	Lot 10 Deposited Plan 47318	
Drain sewage	Lot 13 Deposited Plan 47318 - herein	Herein	Lot 11 Deposited Plan 47318	
Drain sewage	Lot 15 Deposited Plan 47318 - CT CB26F/1259	-	Lot 13 Deposited Plan 47318 - herein	
Drain sewage	Lot 17 Deposited Plan 47318 - CT CB26F/1261	-	Lot 13 Deposited Plan 47318 - herein	
Drain sewage	Lot 14 Deposited Plan 47318 - CT CB26F/1258	-	Lot 13 Deposited Plan 47318 - herein	
Drain water	Lot 13 Deposited Plan 47318 - herein	Herein	Lot 7 Deposited Plan 47318	
Drain water	Lot 13 Deposited Plan 47318 - herein	Herein	Lot 8 Deposited Plan 47318	
Drain water	Lot 13 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318	
Drain water	Lot 13 Deposited Plan 47318 - herein	Herein	Lot 10 Deposited Plan 47318	
Drain water	Lot 13 Deposited Plan 47318 - herein	Herein	Lot 11 Deposited Plan 47318	
Drain water	Lot 13 Deposited Plan 47318 - herein	Herein	Lot 12 Deposited Plan 47318	
Drain water	Lot 20 Deposited Plan 47318 - CT CB26F/1248	-	Lot 13 Deposited Plan 47318 - herein	

Identifier **CB26F/1257**

Drain water	Lot 4 Deposited Plan 47318	-	Lot 13 Deposited Plan 47318 - herein
Drain water	Lot 14 Deposited Plan 47318	-	Lot 13 Deposited Plan 47318 - herein
Drain water	Lot 17 Deposited Plan 47318	-	Lot 13 Deposited Plan 47318 - herein
Drain water	Lot 16 Deposited Plan 47318	-	Lot 13 Deposited Plan 47318 - herein
Drain water	Lot 15 Deposited Plan 47318	-	Lot 13 Deposited Plan 47318 - herein
Drain sewage	Lot 4 Deposited Plan 47318 - CT CB26F/1249	-	Lot 13 Deposited Plan 47318 - herein
Drain sewage	Lot 13 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318
Drain sewage	Lot 16 Deposited Plan 47318 - CT CB26F/1260	-	Lot 13 Deposited Plan 47318 - herein
Drain sewage	Lot 13 Deposited Plan 47318 - herein	Herein	Lot 12 Deposited Plan 47318

The easements specified in Easement Certificate 514812.5 when created will be subject to Section 309 (1)(a) Local Government Act 1974

698189.1 Transfer creating the following easement in gross - 21.8.1987 at 9.22 am

Type	Servient Tenement	Easement Area	Grantee	Statutory Restriction
Slope of batter easement	Lot 13 Deposited Plan 47318 - herein	Herein	Timaru City Council	

A234801.3 Mortgage to (now) Westpac New Zealand Limited - 2.5.1996 at 3.35 pm

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB26F/1258**
Land Registration District	**Canterbury**
Date Issued	30 October 1984

Prior References
CB2B/1332 CB2B/998

Estate	Fee Simple
Area	1.2119 hectares more or less
Legal Description	Lot 14 Deposited Plan 47318

Proprietors
Hadlow Properties Limited

Interests

481060.1 Transfer creating the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Right to convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	part	Lot 14 Deposited Plan 47318 - herein	

514812.5 Easement Certificate specifying the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 14 Deposited Plan 47318 - herein	herein	Lot 6 Deposited Plan 47318	
Drain sewage	Lot 14 Deposited Plan 47318 - herein	herein	Lot 7 Deposited Plan 47318	
Drain sewage	Lot 14 Deposited Plan 47318 - herein	herein	Lot 8 Deposited Plan 47318	
Drain sewage	Lot 14 Deposited Plan 47318 - herein	herein	Lot 9 Deposited Plan 47318	
Drain sewage	Lot 14 Deposited Plan 47318 - herein	herein	Lot 10 Deposited Plan 47318	
Drain sewage	Lot 14 Deposited Plan 47318 - herein	herein	Lot 11 Deposited Plan 47318	
Drain sewage	Lot 14 Deposited Plan 47318 - herein	herein	Lot 12 Deposited Plan 47318	
Drain sewage	Lot 14 Deposited Plan 47318 - herein	herein	Lot 13 Deposited Plan 47318	
Drain sewage	Lot 14 Deposited Plan 47318 - herein	herein	Lot 15 Deposited Plan 47318	
Drain sewage	Lot 14 Deposited Plan 47318 - herein	herein	Lot 16 Deposited Plan 47318	
Drain sewage	Lot 14 Deposited Plan 47318 - herein	herein	Lot 17 Deposited Plan 47318	
Drain sewage	Lot 4 Deposited Plan 47318	-	Lot 14 Deposited Plan 47318 - herein	
Drain sewage	Lot 16 Deposited Plan 47318	-	Lot 14 Deposited Plan 47318 - herein	
Drain sewage	Lot 17 Deposited Plan 47318	-	Lot 14 Deposited Plan 47318 - herein	

Drain water	Lot 14 Deposited Plan 47318 - herein	herein	Lot 7 Deposited Plan 47318
Drain water	Lot 14 Deposited Plan 47318 - herein	herein	Lot 8 Deposited Plan 47318
Drain water	Lot 14 Deposited Plan 47318 - herein	herein	Lot 9 Deposited Plan 47318
Drain water	Lot 14 Deposited Plan 47318 - herein	herein	Lot 10 Deposited Plan 47318
Drain water	Lot 14 Deposited Plan 47318 - herein	herein	Lot 11 Deposited Plan 47318
Drain water	Lot 14 Deposited Plan 47318 - herein	herein	Lot 12 Deposited Plan 47318
Drain water	Lot 14 Deposited Plan 47318 - herein	herein	Lot 13 Deposited Plan 47318
Drain water	Lot 14 Deposited Plan 47318 - herein	herein	Lot 15 Deposited Plan 47318
Drain water	Lot 14 Deposited Plan 47318 - herein	herein	Lot 16 Deposited Plan 47318
Drain water	Lot 14 Deposited Plan 47318 - herein	herein	Lot 17 Deposited Plan 47318
Drain water	Lot 20 Deposited Plan 47318 - CT CB26F/1248	-	Lot 14 Deposited Plan 47318 - herein
Drain water	Lot 4 Deposited Plan 47318	-	Lot 14 Deposited Plan 47318 - herein

The easements specified in Easement Certificate 514812.5 when created will be subject to Section 309(1)(a) Local Government Act 1974

581571.3 Transfer creating the following easements - 16.12.1985 at 1.53 pm

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 14 Deposited Plan 47318 - herein	part herein	Lot 23 Deposited Plan 6986 - CT CB361/66	

A102853.3 Transfer creating the following easements - 22.3.1994 at 10.46 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 14 Deposited Plan 47318 - herein	part herein	Lot 2 Deposited Plan 59517 - CT CB35C/437	

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB26F/1259**
Land Registration District	**Canterbury**
Date Issued	30 October 1984

Prior References
CB2B/1332

Estate	Fee Simple
Area	6488 square metres more or less
Legal Description	Lot 15 Deposited Plan 47318

Proprietors
James Reynold MacDonald

Interests

481060.1 Transfer creating the following easement - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	Part	Lot 15 Deposited Plan 47318 - herein	

514812.5 Easement Certificate specifying the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain water	Lot 15 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318	
Drain water	Lot 15 Deposited Plan 47318 - herein	Herein	Lot 7 Deposited Plan 47318	
Drain water	Lot 15 Deposited Plan 47318 - herein	Herein	Lot 8 Deposited Plan 47318	
Drain water	Lot 15 Deposited Plan 47318 - herein	Herein	Lot 11 Deposited Plan 47318	
Drain water	Lot 15 Deposited Plan 47318 - herein	Herein	Lot 12 Deposited Plan 47318	
Drain water	Lot 15 Deposited Plan 47318 - herein	Herein	Lot 13 Deposited Plan 47318	
Drain water	Lot 14 Deposited Plan 47318	-	Lot 15 Deposited Plan 47318 - herein	
Drain water	Lot 4 Deposited Plan 47318	-	Lot 15 Deposited Plan 47318 - herein	
Drain sewage	Lot 17 Deposited Plan 47318	-	Lot 15 Deposited Plan 47318 - herein	
Drain water	Lot 16 Deposited Plan 47318	-	Lot 15 Deposited Plan 47318 - herein	
Drain water	Lot 20 Deposited Plan 47318 - CT CB26F/1248	-	Lot 15 Deposited Plan 47318 - herein	
Drain sewage	Lot 15 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318	
Drain sewage	Lot 15 Deposited Plan 47318 - herein	Herein	Lot 10 Deposited Plan 47318	
Drain sewage	Lot 15 Deposited Plan 47318 - herein	Herein	Lot 11 Deposited Plan 47318	

Identifier **CB26F/1259**

Drain sewage	Lot 15 Deposited Plan 47318 - herein	Herein	Lot 12 Deposited Plan 47318
Drain sewage	Lot 15 Deposited Plan 47318 - herein	Herein	Lot 13 Deposited Plan 47318
Drain sewage	Lot 4 Deposited Plan 47318	-	Lot 15 Deposited Plan 47318 - herein
Drain sewage	Lot 16 Deposited Plan 47318 - CT CB26F/1260	-	Lot 15 Deposited Plan 47318 - herein
Drain sewage	Lot 14 Deposited Plan 47318 - CT CB26F/1258	-	Lot 15 Deposited Plan 47318 - herein
Drain water	Lot 17 Deposited Plan 47318	-	Lot 15 Deposited Plan 47318 - herein
Drain water	Lot 15 Deposited Plan 47318 - herein	Herein	Lot 10 Deposited Plan 47318

The easements specified in Easement Certificate 514812.5 when created will be subject to Section 309 (1)(a) Local Government Act 1974

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB26F/1260**
Land Registration District	**Canterbury**
Date Issued	30 October 1984

Prior References
CB2B/1332 CB2B/998

Estate	Fee Simple
Area	8956 square metres more or less
Legal Description	Lot 16 Deposited Plan 47318

Proprietors
Nathan David Kernohan and Aoraki Trustee Services Limited

Interests

481060.1 Transfer creating the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	Part	Lot 16 Deposited Plan 47318 - herein	

514812.5 Easement Certificate specifying the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318	
Drain sewage	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 10 Deposited Plan 47318	
Drain sewage	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 11 Deposited Plan 47318	
Drain sewage	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 12 Deposited Plan 47318	
Drain sewage	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 13 Deposited Plan 47318	
Drain sewage	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 15 Deposited Plan 47318	
Drain sewage	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 6 Deposited Plan 47318	
Drain sewage	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 7 Deposited Plan 47318	
Drain sewage	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 8 Deposited Plan 47318	
Drain sewage	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 14 Deposited Plan 47318	
Drain sewage	Lot 17 Deposited Plan 47318 - CT CB26F/1261	-	Lot 16 Deposited Plan 47318 - herein	
Drain sewage	Lot 14 Deposited Plan 47318	-	Lot 16 Deposited Plan 47318 - herein	
Drain sewage	Lot 4 Deposited Plan 47318	-	Lot 16 Deposited Plan 47318 - herein	
Drain water	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 7 Deposited Plan 47318	

Drain water	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 8 Deposited Plan 47318
Drain water	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318
Drain water	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 10 Deposited Plan 47318
Drain water	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 11 Deposited Plan 47318
Drain water	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 12 Deposited Plan 47318
Drain water	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 13 Deposited Plan 47318
Drain water	Lot 16 Deposited Plan 47318 - herein	Herein	Lot 15 Deposited Plan 47318
Drain water	Lot 20 Deposited Plan 47318 - CT CB26F/1248	-	Lot 16 Deposited Plan 47318 - herein
Drain water	Lot 4 Deposited Plan 47318	-	Lot 16 Deposited Plan 47318 - herein
Drain water	Lot 14 Deposited Plan 47318	-	Lot 16 Deposited Plan 47318 - herein
Drain water	Lot 17 Deposited Plan 47318	-	Lot 16 Deposited Plan 47318 - herein

The easements specified in Easement Certificate 514812.5 when created will be subject to Section 309 (1)(a) Local Government Act 1974

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB26F/1261**
Land Registration District	**Canterbury**
Date Issued	30 October 1984

Prior References
CB2B/998

Estate	Fee Simple
Area	7098 square metres more or less
Legal Description	Lot 17 Deposited Plan 47318

Proprietors
Michael Grant Dawson as to a 1/2 share
Benjamin Cole Dawson as to a 1/2 share

Interests

Fencing Provision in Transfer 547307

481060.1 Transfer creating the following easement - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	Part	Lot 17 Deposited Plan 47318 - herein	

514812.5 Easement Certificate specifying the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 6 Deposited Plan 47318	
Drain sewage	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 7 Deposited Plan 47318	
Drain sewage	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 8 Deposited Plan 47318	
Drain sewage	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318	
Drain sewage	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 10 Deposited Plan 47318	
Drain sewage	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 11 Deposited Plan 47318	
Drain sewage	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 12 Deposited Plan 47318	
Drain sewage	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 13 Deposited Plan 47318	
Drain sewage	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 14 Deposited Plan 47318	
Drain sewage	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 15 Deposited Plan 47318	
Drain sewage	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 16 Deposited Plan 47318	
Drain sewage	Lot 14 Deposited Plan 47318	-	Lot 17 Deposited Plan 47318 - herein	
Drain sewage	Lot 4 Deposited Plan 47318	-	Lot 17 Deposited Plan 47318 - herein	

Identifier **CB26F/1261**

Drain water	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 7 Deposited Plan 47318
Drain water	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 8 Deposited Plan 47318
Drain water	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 9 Deposited Plan 47318
Drain water	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 10 Deposited Plan 47318
Drain water	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 11 Deposited Plan 47318
Drain water	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 12 Deposited Plan 47318
Drain water	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 13 Deposited Plan 47318
Drain water	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 15 Deposited Plan 47318
Drain water	Lot 17 Deposited Plan 47318 - herein	Herein	Lot 16 Deposited Plan 47318
Drain water	Lot 20 Deposited Plan 47318 - CT CB26F/1248	-	Lot 17 Deposited Plan 47318 - herein
Drain water	Lot 4 Deposited Plan 47318	-	Lot 17 Deposited Plan 47318 - herein
Drain water	Lot 14 Deposited Plan 47318	-	Lot 17 Deposited Plan 47318 - herein

The easements specified in Easement Certificate 514812.5 when created will be subject to Section 309 (1)(a) Local Government Act 1974

581571.3 Transfer creating the following easement - 16.12.1985 at 1.53 pm

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 17 Deposited Plan 47318 - herein	Part herein	Lot 23 Deposited Plan 6986 - CT CB361/66	

8802448.2 Statutory Land Charge pursuant to Section 36 Legal Services Act 2011 - 14.7.2011 at 6:26 pm

9108115.4 Mortgage to Bank of New Zealand - 4.9.2012 at 9:32 am

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB33A/1296**
Land Registration District	**Canterbury**
Date Issued	12 June 1990

Prior References
CB12K/1278

Estate	Fee Simple
Area	1.1609 hectares more or less
Legal Description	Lot 1 Deposited Plan 55707

Proprietors
Chantry Holdings Limited

Interests

880819.7 Transfer creating the following easements in gross - 12.6.1990 at 11.44 am

Type	Servient Tenement	Easement Area	Grantee	Statutory Restriction
Slope or Batter Easement	Lot 1 Deposited Plan 55707 - herein	Part herein	The Timaru District Council	

880819.8 Easement Certificate specifying the following easements - 12.6.1990 at 11.44 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 1 Deposited Plan 55707 - herein	Herein	Lot 2 Deposited Plan 55707 - CT CB33A/1297	

The easement specified in Easement Certificate 880819.8 when created will be subject to Section 309(1)(a) Local Government Act 1974

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB33A/1297**
Land Registration District	**Canterbury**
Date Issued	12 June 1990

Prior References
CB12K/1278

Estate	Fee Simple
Area	8605 square metres more or less
Legal Description	Lot 2 Deposited Plan 55707

Proprietors
Nigel Chapman, Sandra Chapman and Margaret Lorimer

Interests

880819.7 Transfer creating the following easements in gross - 12.6.1990 at 11.44 am

Type	Servient Tenement	Easement Area	Grantee	Statutory Restriction
Slope or Batter	Lot 2 Deposited Plan 55707 - herein	Part herein	The Timaru District Council	

880819.8 Easement Certificate specifying the following easements - 12.6.1990 at 11.44 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 1 Deposited Plan 55707 - CT CB33A/1296	-	Lot 2 Deposited Plan 55707 - herein	

The easement specified in Easement Certificate 880819.8 when created will be subject to Section 309(1)(a) Local Government Act 1974

5494290.3 Mortgage to The National Bank of New Zealand Limited - 20.2.2003 at 9:00 am

8287462.1 Variation of Mortgage 5494290.3 - 16.10.2009 at 9:42 am

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB35C/437**
Land Registration District	**Canterbury**
Date Issued	11 March 1992

Prior References
CB26F/1252

Estate	Fee Simple
Area	1.2282 hectares more or less
Legal Description	Lot 2 Deposited Plan 59517

Proprietors
John Eric Brewerton, Anthony Mark Brewerton, Timothy Alister Suckling and Glenn Samuel Walton

Interests

481060.1 Transfer creating the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Convey stormwater and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	part	Lot 2 Deposited Plan 59517 - herein	

514812.5 Easement Certificate specifying the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain water	Lot 10 Deposited Plan 47318	part	Lot 2 Deposited Plan 59517 - herein	
Drain water	Lot 11 Deposited Plan 47318	part	Lot 2 Deposited Plan 59517 - herein	
Drain water	Lot 12 Deposited Plan 47318	part	Lot 2 Deposited Plan 59517 - herein	
Drain water	Lot 13 Deposited Plan 47318	part	Lot 2 Deposited Plan 59517 - herein	
Drain water	Lot 14 Deposited Plan 47318	part	Lot 2 Deposited Plan 59517 - herein	
Drain water	Lot 15 Deposited Plan 47318	part	Lot 2 Deposited Plan 59517 - herein	
Drain water	Lot 16 Deposited Plan 47318	part	Lot 2 Deposited Plan 59517 - herein	
Drain water	Lot 17 Deposited Plan 47318	part	Lot 2 Deposited Plan 59517 - herein	
Drain water	Lot 20 Deposited Plan 47318	part	Lot 2 Deposited Plan 59517 - herein	
Drain water	Lot 4 Deposited Plan 49771	part	Lot 2 Deposited Plan 59517 - herein	
Drain water	Lot 5 Deposited Plan 49771	part	Lot 2 Deposited Plan 59517 - herein	
Drain water	Lot 7 Deposited Plan 47318 - CT CB26F/1251	part	Lot 2 Deposited Plan 59517 - herein	

514812.7 Transfer creating the following easements in gross - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Grantee	Statutory Restriction

Convey electric power	Lot 2 Deposited Plan 59517 - herein	part herein	The South Canterbury Electric Power Board	

A102853.2 Transfer creating the following easements - 22.3.1994 at 10.46 am

Type	**Servient Tenement**	**Easement Area**	**Dominant Tenement**	**Statutory Restriction**
Drain sewage	Lot 7 Deposited Plan 47318 - CT CB26F/1251	part	Lot 2 Deposited Plan 59517 - herein	

A102853.3 Transfer creating the following easements - 22.3.1994 at 10.46 am

Type	**Servient Tenement**	**Easement Area**	**Dominant Tenement**	**Statutory Restriction**
Drain sewage	Lot 14 Deposited Plan 47318 - CT CB26F/1258	part	Lot 2 Deposited Plan 59517 - herein	

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB35C/438**
Land Registration District	**Canterbury**
Date Issued	11 March 1992

Prior References
CB437/46

Estate	Fee Simple
Area	9554 square metres more or less
Legal Description	Lot 3 Deposited Plan 59517

Proprietors
Shane Anthony Rogers and Cherie Kaye Holman

Interests
10196145.3 Mortgage to Westpac New Zealand Limited - 25.9.2015 at 5:06 pm

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB38C/776**
Land Registration District	**Canterbury**
Date Issued	05 April 1994

Prior References
CB28F/162

Estate	Fee Simple
Area	1.1129 hectares more or less
Legal Description	Lot 4 Deposited Plan 49771

Proprietors
Chantry Holdings Limited

Interests

481060.1 Transfer creating the following easements

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	Part	Lot 4 Deposited Plan 49771 - herein	

514812.5 Easement Certificate specifying the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain water	Lot 4 Deposited Plan 49771 - herein	Part herein	Lot 6 Deposited Plan 47318	
Drain water	Lot 4 Deposited Plan 49771 - herein	Part herein	Lot 7 Deposited Plan 47318	
Drain water	Lot 4 Deposited Plan 49771 - herein	Part herein	Lot 9 Deposited Plan 47318	
Drain water	Lot 4 Deposited Plan 49771 - herein	Part herein	Lot 10 Deposited Plan 47318	
Drain water	Lot 4 Deposited Plan 49771 - herein	Part herein	Lot 11 Deposited Plan 47318	
Drain water	Lot 4 Deposited Plan 49771 - herein	Part herein	Lot 12 Deposited Plan 47318	
Drain water	Lot 4 Deposited Plan 49771 - herein	Part herein	Lot 13 Deposited Plan 47318	
Drain water	Lot 4 Deposited Plan 49771 - herein	Part herein	Lot 14 Deposited Plan 47318	
Drain water	Lot 4 Deposited Plan 49771 - herein	Part herein	Lot 15 Deposited Plan 47318	
Drain water	Lot 4 Deposited Plan 49771 - herein	Part herein	Lot 16 Deposited Plan 47318	
Drain water	Lot 4 Deposited Plan 49771 - herein	Part herein	Lot 17 Deposited Plan 47318	
Drain water	Lot 4 Deposited Plan 49771 - herein	Part herein	Lot 2 Deposited Plan 59517 - CT CB35C/437	
Drain water	Lot 20 Deposited Plan 47318 - CT CB38C/778	Part	Lot 4 Deposited Plan 49771 - herein	

The easement specified in Easement Certificate 514812.5 over part Lot 20 DP 47318 when created will be subject to (now) Section 243(a) Resource Management Act 1991

Identifier **CB38C/776**

597070.2 Easement Certificate specifying the following easements

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain water	Lot 4 Deposited Plan 49771 - herein	Part herein	Lot 5 Deposited Plan 49771 - CT CB38C/777	

The easement specified in Easement Certificate 597070.2 is subject to (now) Section 243(a) Resource Management Act 1991

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB38C/777**
Land Registration District	**Canterbury**
Date Issued	05 April 1994

Prior References
CB28F/163

Estate	Fee Simple
Area	2.6135 hectares more or less
Legal Description	Lot 5 Deposited Plan 49771

Proprietors
Chantry Holdings Limited

Interests

Subject to Section 8 Mining Act 1971 (affects part formerly RS 42144)

Subject to Section 5 Coal Mines Act 1979 (affects part formerly RS 42144)

25418.1 Easement Certificate specifying the following easements

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 5 Deposited Plan 49771 - herein	Part herein	Lot 1 Deposited Plan 35712	
Drain sewage	Lot 5 Deposited Plan 49771 - herein	Part herein	Lot 2 Deposited Plan 35712	

481060.1 Transfer creating the following easements

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Right to convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	Part	Lot 5 Deposited Plan 49771 - herein	

514812.5 Easement Certificate specifying the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain water	Lot 20 Deposited Plan 47318 - CT CB38C/778	-	Lot 5 Deposited Plan 49771 - herein	
Right to drain water and a right to drain sewage	Lot 5 Deposited Plan 49771 - herein	Part	Lot 13 Deposited Plan 47318	
Right to drain water and a right to drain sewage	Lot 5 Deposited Plan 49771 - herein	Part	Lot 12 Deposited Plan 47318	
Right to drain water and a right to drain sewage	Lot 5 Deposited Plan 49771 - herein	Part	Lot 14 Deposited Plan 47318	
Right to drain water and a right to drain sewage	Lot 5 Deposited Plan 49771 - herein	Part	Lot 15 Deposited Plan 47318	
Right to drain water and a right to drain sewage	Lot 5 Deposited Plan 49771 - herein	Part	Lot 16 Deposited Plan 47318	

Right to drain water and a right to drain sewage	Lot 5 Deposited Plan 49771 - herein	Part	Lot 17 Deposited Plan 47318
Right to drain water and a right to drain sewage	Lot 5 Deposited Plan 49771 - herein	Part	Lot 2 Deposited Plan 59517 - CT CB35C/437

581571.3 Transfer creating the following easements

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 5 Deposited Plan 49771 - herein	Part herein	Lot 23 Deposited Plan 6986 - CT CB361/66	

597070.2 Easement Certificate specifying the following easementson DP 49771 - 14.4.1986 at 11.26 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain water	Lot 4 Deposited Plan 49771 - CT CB38C/776	-	Lot 5 Deposited Plan 49771 - herein	

The easement in Easement Certificate 597070.2 when created will be subject to Section 243(a) Resource Management Act 1991

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB38C/778**
Land Registration District	**Canterbury**
Date Issued	05 April 1994

Prior References
CB26F/1248

Estate	Fee Simple
Area	2811 square metres more or less
Legal Description	Lot 3 and Lot 20 Deposited Plan 47318

Proprietors
Chantry Holdings Limited

Interests

Subject to Section 241 Resource Management Act 1991

481060.1 Transfer creating the following easements

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Right to convey storm and surface water	Lot 1 Deposited Plan 23147 - CT CB2C/1498	Part	Lot 3 and Lot 20 Deposited Plan 47318 - herein	

514812.5 Easement Certificate specifying the following easements - 30.10.1984 at 11.50 am

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 6 Deposited Plan 47318	
Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 7 Deposited Plan 47318	
Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 9 Deposited Plan 47318	
Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 10 Deposited Plan 47318	
Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 11 Deposited Plan 47318	
Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 12 Deposited Plan 47318	
Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 13 Deposited Plan 47318	
Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 14 Deposited Plan 47318	
Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 15 Deposited Plan 47318	
Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 16 Deposited Plan 47318	
Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 17 Deposited Plan 47318	
Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 4 Deposited Plan 49771	
Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 5 Deposited Plan 49771	

Identifier **CB38C/778**

Drain water	Lot 20 Deposited Plan 47318 - herein	Part	Lot 2 Deposited Plan 59517 - CT CB35C/437

The easements appurtenant to Lots 6,7,9-17 DP 47318 specified in Easement Certificate 514812.5 are subject to (now) Section 243(a) Resource Management Act 1991

698189.1 Transfer creating the following easements in gross

Type	Servient Tenement	Easement Area	Grantee	Statutory Restriction
Slope or Batter easement	Lot 3 and Lot 20 Deposited Plan 47318 - herein	Part	The Timaru District Council	

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB41D/911**
Land Registration District	**Canterbury**
Date Issued	11 June 1996

Prior References
CB361/66

Estate	Fee Simple
Area	3590 square metres more or less
Legal Description	Lot 1 Deposited Plan 72316

Proprietors
Kevin Allan Waters

Interests

581571.3 Transfer creating the following easements

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 14 Deposited Plan 47318	Part	Lot 1 Deposited Plan 72316 - herein	
Drain sewage	Lot 17 Deposited Plan 47318	Part	Lot 1 Deposited Plan 72316 - herein	
Drain sewage	Lot 5 Deposited Plan 49771 - CT CB38C/777	Part	Lot 1 Deposited Plan 72316 - herein	

A242082.1 Easement Certificate specifying the following easements - 11.5.1996 at 12.30 pm

Type	Servient Tenement	Easement Area	Dominant Tenement	Statutory Restriction
Drain sewage	Lot 1 Deposited Plan 72316 - herein	Herein	Lot 2 Deposited Plan 72316 - CT CB41D/912	

A462427.1 CAVEAT BY CHRISTINE MAY SHEARS - 15.6.2000 AT 1.21 PM

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB568/100**
Land Registration District	**Canterbury**
Date Issued	23 December 1952

Prior References
CB549/14

Estate	Fee Simple
Area	6154 square metres more or less
Legal Description	Part Section 9 Puhuka Hamlet

Proprietors
Michele Gay Ryan and Peter Michael Olsen

Interests

Subject to Section 59 Land Act 1948

Subject to Section 8 Coal Mines Amendment Act 1950

7572776.3 Mortgage to Westpac New Zealand Limited - 19.10.2007 at 11:53 am

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

Identifier	**CB575/9**
Land Registration District	**Canterbury**
Date Issued	13 March 1953

Prior References
CB549/14

Estate	Fee Simple
Area	5987 square metres more or less
Legal Description	Part Section 9 Puhuka Hamlet

Proprietors
Juliette Ann Walden

Interests
Subject to Section 59 Land Act 1948
Subject to Section 8 Coal Mines Amendment Act 1950

APPENDIX 2:

Proposed Text Changes to the Timaru District Plan

D2 – Residential

Amend Policy 2.1.2.2

…..

Residential 1 Zone (Temuka North West)

Explanation and Principal Reason
The Temuka North West Residential Expansion - Outline Development Plan area is outlined in Appendix B of Part D 2 Residential Zones and comprises approximately 31 hectares of land situated west of King Street (State Highway 1) between Oxford Crossing Road in the north, the Temuka River Stopbank in the west, Cass Street in the south and Grant Street and Wallingford Road in the east and also includes the existing Residential 1 Zoned land north of Donald Street.

The Outline Development Plan includes the configuration of land use zoning, roads, walkways, reserve and linkages throughout the site. The Rules and Performance Standards of the Residential 1 Zone shall apply to this zone.

The northern areas of this zone are labelled as „deferred" zones, i.e. Stages 1A and 2. The Residential 1 Zone rules shall not apply to those deferred zones until a sewer outfall is available to these stages. These stages are intended to be developed sequentially, as the sewer will first service Stage 1 and 1A and then progress northwards to Stage 2. This is to enable Council to budget for the funds it may choose to contribute to the development of services, such as the extension of the sewer.

Staged development will also ensure:
- *strategic and efficient use of land;*
- *provision of sewer on an 'as required' and coordinated basis;*
- *consolidation of urban form;*
- *progressive change in the character of the area;*
- *limitation of the potential effects on existing uses;*
- *provision of enough zoned land within the urban area to counter the demand for rural lifestyle developments.*

Residential 1 Zone (Broughs Gully)

Explanation and Principle Reason

The Broughs Gully Outline Development Plan (ODP) area is shown in Appendix C of Part D2 Residential Zones and comprises 27ha of land situated in the Washdyke area and generally bordered by Jellicoe Street, Old North Road, Mahoneys Hill Road and existing suburban development. It is predominantly zoned Residential 1, but also includes an area of Residential 4 zone to the north.

The Outline Development Plan includes the configuration of land use zoning, roads, services, walkways, stormwater basins and linkages throughout the site. The Rules and Performance Standards of the Residential 1 Zone (and Residential 4 zone for the northern portion of the ODP area) shall apply to this zone.

Development of this area in general accordance with the ODP will ensure:

- ***efficient development of urban zoned land to provide housing choice;***
- ***provision of sewer and stormwater infrastructure on a coordinated basis;***
- ***provision of a connected, safe, and efficient roading network;***
- ***the avoidance of new roading and access connections to major roads;***
- ***the avoidance of adverse effects (including reverse sensitivity effects) on the National Grid;***

….

Residential 4 Zone (Low Density Residential; Timaru only)

Explanation and Principal Reason
This is a low density zone provided for at several locations in Washdyke. Amenity values are intended to be of as high a standard as is compatible with its location near an industrial area. An integrated building location and planting regime is to be provided to detail means of achieving maximum visual amenity. ***A portion of the Residential 4 Zone is included within the Broughs Gully Outline Development Plan area shown in Appendix C of Part D2, with the outcomes described above in the Residential 1 Zone (Broughs Gully).***

Add new policy 2.4.2.4

Ensure that development in the Residential 1 and 4 zones at Broughs Gully (as set out in Appendix C of Part D2) is efficient, coordinated and supported by adequate services and is in general accordance with the roading and servicing layout shown in Appendix C.

Amend D2, Residential 1 Zone, Rule 3A

3A Restricted Discretionary Activities

The following is a Restricted Discretionary Activity provided it is not listed as a Prohibited, Non-Complying or Discretionary Activity and it complies with all the relevant Zone Performance Standards:

3A.1 Residential activities not in compliance with the Temuka North West Residential Expansion - Outline Development Plan (as set out in Appendix B of Part D 2). Discretion shall be limited to the matter(s) not complied with.

3A.2 Any proposed activity that does not comply with the location(s) of infrastructure shown on the Broughs Gully Outline Development Plan (as set out in Appendix C of Part D2). Discretion shall be limited to the matter(s) not complied with.

Amend D2, Residential 1 Zone, Rule 4, Non-Complying Activities

4.2 In the Residential 1 Zone at Broughs Gully (as set out in Appendix C of Part D2), any building, fence or activity that does not meet the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001) is non-complying.

Amend D2, Residential 1 Zone, Rule 5, Performance Standards

5B Supplementary Performance Standards for All Activities within the Broughs Gully Outline Development Plan area shown in Appendix C of Part D2

5.B.1 No more than 60% of the area of an allotment shall comprise of impervious or hardstand surfacing.

5.B.2 The runoff from the first 15mm of rainfall in any storm event (regardless of duration) from any impervious or hardstand surfaces (excluding roofs) shall be treated before discharging to a reticulated network. The treatment shall be by infiltration systems, which may include but is not limited to:

- **Infiltration basins**
- **Rain Gardens**
- **Permeable Pavement**
- **Constructed Wetlands**
- **Catchpit Filter Inserts**

5.B.3 Materials used in the construction of roofs of all new dwellings shall be a material that minimises the release of heavy metal contaminants to stormwater. Uncoated galvanised and copper shall not be used.

5.B.4 All buildings, fences, earthworks, vegetation and structures shall comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001).

Amend D2, Residential 4 Zone

2. Controlled Activities

The following are controlled activities subject to complying with all the Performance Standards for this zone and the General Rules with the exercise of Council's discretion restricted to the matter(s) specified.

- Old North Road

2.1. One household unit per allotment provided for as part of a comprehensive development plan in that part of the zone west of Old North Road, or one unit per proposed allotment south or east of Old North Road **(unless otherwise restricted by the Outline Development Plan shown in Appendix C, Part D2)** , Blair Street, or Mahoneys Hill Road. Council shall restrict its discretion to the environmental effects associated with the matters in Policy 2.1.2.2.

Amend D2, Residential 4 Zone

3. Discretionary Activities

3A Restricted Discretionary Activities – Broughs Gully Outline Development Plan area

The following is a Restricted Discretionary Activity provided it is not listed as a Prohibited, Non-Complying or Discretionary Activity and it complies with all the relevant Zone Performance Standards:

3A.1 Any activity that does not comply with the location(s) of infrastructure shown on the Broughs Gully Outline Development Plan (as set out in Appendix C of Part D2). Discretion shall be limited to the matter(s) not complied with.

Amend D2, Residential 4 Zone, Rule 5, Performance Standards

5A Supplementary Performance Standards for All Activities within the Broughs Gully Outline Development Plan area shown in Appendix C of Part D2

5.A.1 No more than 60% of the area of an allotment can comprise of impervious or hardstand surfacing

5.A.2 The runoff from the first 15mm of rainfall in any storm event (regardless of duration) from any impervious or hardstand surfaces (excluding roofs) shall be treated before discharging to a reticulated network. The treatment shall be by infiltration systems, which may include but is not limited to:

- **Infiltration basins**
- **Rain Gardens**
- **Permeable Pavement**
- **Constructed Wetlands**
- **Catchpit Filter Inserts**

5.A.3 Materials used in the construction of roofs of all new dwellings shall be a material that minimises the release of heavy metal contaminants to stormwater. Uncoated galvanised and copper shall not be used.

D6.3 – Subdivision

Amend D6.3, Subdivision, Rule 6.3.5A

6.3.5A Restricted Discretionary Activities

The following shall be Restricted Discretionary Activities provided that they are not listed as a Prohibited, Non-Complying or Discretionary Activity, and they comply with all the relevant Zone standards:

….

(v) Any subdivision not in compliance with the Broughs Gully Outline Development Plan (as set out in Appendix C of Part D 2). Discretion shall be limited to the matter(s) not complied with.

Amend D6.3, Subdivision, Rule 6.3.8

Performance standards for subdivision in residential zones

….

(5) In the Residential 4 Zone all subdivisions shall comply with a comprehensive development plan for the contiguous land in the same zone, unless the sites have access to Doncaster or Martin Streets, or are on the south or east side of Old North Road, Blair Street or Mahoneys Hill Road, **and are not within the Broughs Gully Outline Development Plan shown in Appendix C, Part D2, in which case** ~~**where**~~ the development plan need relate only to the existing allotment being subdivided. **For the area subject to Appendix C, Part D2, all subdivisions are to be in accordance with the Outline Development Plan.**

(9) Where fill is to occur in the Residential 1 Zone at Temuka North West (as set out in Appendix B of Part D 2) **or within the Broughs Gully Outline Development Plan area (as set out in Appendix C, Part D2),** a certificate in accordance with NZS 4431:1989 Code of Practice for Earth Fill for Residential Development shall be provided in relation to the location, depth and nature of any fill. In addition, a report from a suitably qualified person is required confirming that the placement of fill will not create a flood hazard.

(19) At the time of subdivision, new roads and water, sewer, and stormwater infrastructure shall be constructed and vested in general accordance with the layout shown on the Broughs Gully Outline Development Plan (as set out in Appendix C of Part D 2). It is the developer's responsibility to:

a. **Construct the portion of road contained within their land to be subdivided prior to Council's granting certification under section 224 of the Resource Management Act 1991.**

b. **Design and construct the roads and services in general accordance with the Outline Development Plan (as set out in Appendix C of Part D 2) and in accordance with Council's standards for urban subdivision. Road reserves are to be the minimum dimensions specified in Appendix C to enable inclusion of a stormwater swale system within the road reserve.**

c. **Ensure no methods are used to hinder or restrict the ability for adjoining land to link to the new road.**

d. **Demonstrate that each new allotment has an approved connection to Council's reticulated wastewater network. Such connections will only be approved where there is sufficient capacity in the network to accept additional discharges**

(20) In the Broughs Gully Outline Development Plan area (as set out in Appendix C of Part D 2), all applications for subdivision consent shall be required to provide a financial contribution in accordance with Sections 6.5 and 6.6 of the District Plan for the following purposes:

e. **Sewer: to provide for an efficient sewage disposal system in accordance with Part D 6.5 Rule 6.5.4.2.**

f. **Stormwater: to provide for the maintenance and extension of stormwater systems in accordance with Part D 6.5 Rule 6.5.3.2 and Rule 6.5.3.3.**

g. **Water: to provide for the maintenance and development of the water supply in accordance with Part D 6.5 Rule 6.5.1.2.**

h. **Roading: to provide for safe and efficient road network in accordance with Part D 6.6 Rule 6.6.5(1).**

D6.5 – Water, Sewer, Stormwater and Open Space and Recreation Contributions

Amend D6.5, Stormwater, Rule 6.5.3.2

(6) At Gleniti and **Broughs Gully**, where open drainage channels are to be established and managed as stormwater swales (with or without associated detention dams) as part of a comprehensive stormwater management system, financial contribution shall be calculated in accordance with all of the above provisions.

Amend D6.5, Stormwater, Rule 6.5.3.3

(l) For that area included in the Residential 6 Zone, Residential 6(a) Zone (Deferred)**,** ~~**and**~~ 6(b) Zone (Deferred) at Gleniti in Timaru, **and within the Broughs Gully Outline Development Plan,** the system shall be within the existing natural open drainage channels, stormwater swales and/or such other waterways as may be the subject of resource consent and shall:

- be located as identified in the Indicative Development Plan for Gleniti **or Broughs Gully** (or such other as may be the subject of resource consent)
- be visually similar in appearance to a natural gully
- include earth detention dams
- be designed to manage a 2% annual excedence probability rainfall event (i.e. 50 year/30 minute); and
- be approved by a suitably qualified chartered professional engineer.

(m) Detention dams within stormwater swales in the Residential 6 Zone, Residential 6(a) Zone (Deferred)**,** ~~**and**~~ 6(b) Zone (Deferred) at Gleniti in Timaru **and within the Broughs Gully Outline Development Plan,** are to be constructed on, or about, the locations as indicated in the Indicative Development Plan for Gleniti **and Broughs Gully**, or in such other locations as are approved by resource consent.

(i) Detention dams are to be constructed to the following specifications:

- Be made from local available material up to a height of 2 metres.
- Suitable construction and the final integrity of each detention dam will need to be verified by a chartered engineer.
- Each dam will have a single 300 millimetre diameter concrete culvert pipe installed at gully level, and a scour resistant overflow installed on top of the dam structure.
- Once completed regular maintenance of each structure will be required to ensure there are no blockages or scouring.

- Walkways, cycleways and plantings may be established as part of the stormwater swale.

(ii) Additional detention dams may also be constructed, as and when required.

(iii) No buildings and/or structures that conflict with the primary objective of stormwater management may be established within a stormwater swale.

(n) Every person within the Residential 6 Zone, Residential 6(a) Zone (Deferred)**, and** ~~and~~ 6(b) Zone (Deferred) at Gleniti in Timaru**, and within the Broughs Gully Outline Development Plan,** has a duty to avoid the discharge of sediment from any site subject to land modification, development or subdivision. One or more sediment retention and/or filtering mechanisms may be necessary to ensure that this standard can be met. All measures to mitigate against the discharge of sediment from a site shall be:

- Implemented prior to, or shortly after, the commencement of any land modification activity;
- Retained until the land-disturbing activity has been completed, and/or the potential for sediment discharge has ceased.

(o) Within the Residential 6 Zone, Residential 6(a) Zone (Deferred)**, and** ~~and~~ 6(b) Zone (Deferred) at Gleniti in Timaru**, and within the Broughs Gully Outline Development Plan,** all bare earthwork surfaces shall be re-vegetated as soon as practicable. Hydroseeding, grassing or other means of re-vegetation shall be carried out on a progressive basis as soon as the earthworks have been completed on a particular part of the site, so as to prevent the future generation and discharge of any sediment from that site.

(p) Earthworks, roading, tracking and trenching activities within the Residential 6 Zone, Residential 6(a) Zone (Deferred)**, and** ~~and~~ 6(b) Zone (Deferred) at Gleniti in Timaru**, and within the Broughs Gully Outline Development Plan,** shall be isolated from the path of any run-off from surrounding land to prevent it from washing across the site and eroding sediment from any exposed earth.

(q) Within the Residential 6 Zone, Residential 6(a) Zone (Deferred)**, and** ~~and~~ 6(b) Zone (Deferred) at Gleniti in Timaru**, and within the Broughs Gully Outline Development Plan,** any stormwater run-off that is discharged from a piped outfall, or an overland flowpath, shall not cause any form of erosion.

D6.6 – Raoding Hierarchy

Amend D 6.6, Roading Hierarchy, Rule 6.6.5

(2) In the Broughs Gully Outline Development Plan area (as set out in Appendix C of Part D2), a financial contribution for roading shall be payable in accordance with the following cost share agreement:

a. The cost of all future and indicative roads within the Outline Development Plan will be determined and summed to give the total cost of future and indicative roads.

b. The direct benefit that each property receives from the roading on its land is determined and subtracted from the actual cost of the roading on its land. This could be a positive or negative value. The direct benefit shall be determined by assessing the potential new allotment yield for each existing allotment and multiplying this by the typical amount of road per allotment in recent developments. This is then multiplied by a square metre rate for new road to give a benefit value.

c. The sum of the all the benefit costs determined in 6.6.5(2)(b) is subtracted from the total cost of all future and indicative roads determined in 6.6.5(2)(a). This residual cost represents the catchment wide benefit that each property receives from adjoining and surrounding properties developing.

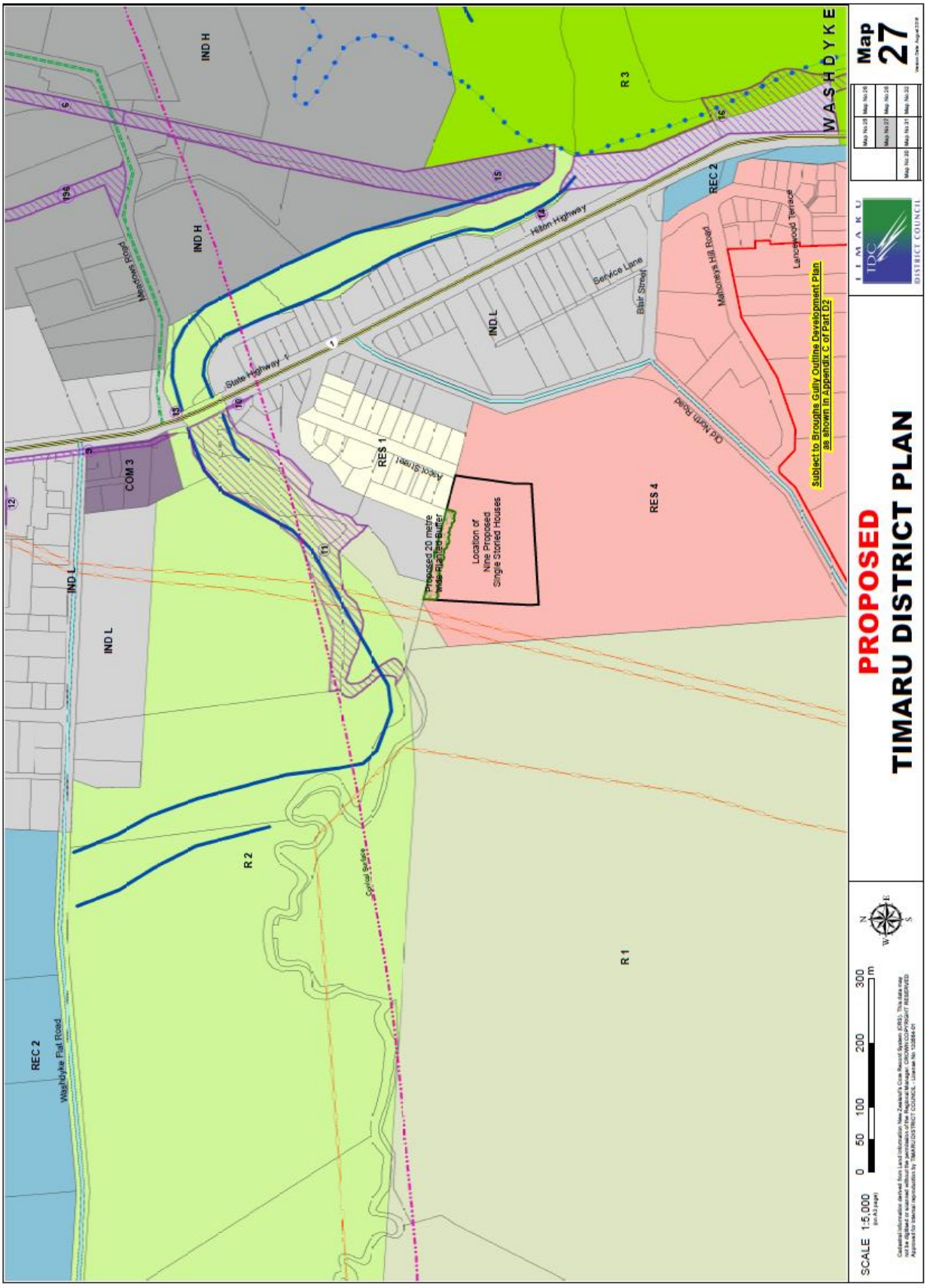
d. The residual cost determined in 6.6.5(2)(c) is apportioned to all properties in the catchment in accordance with their developable area.

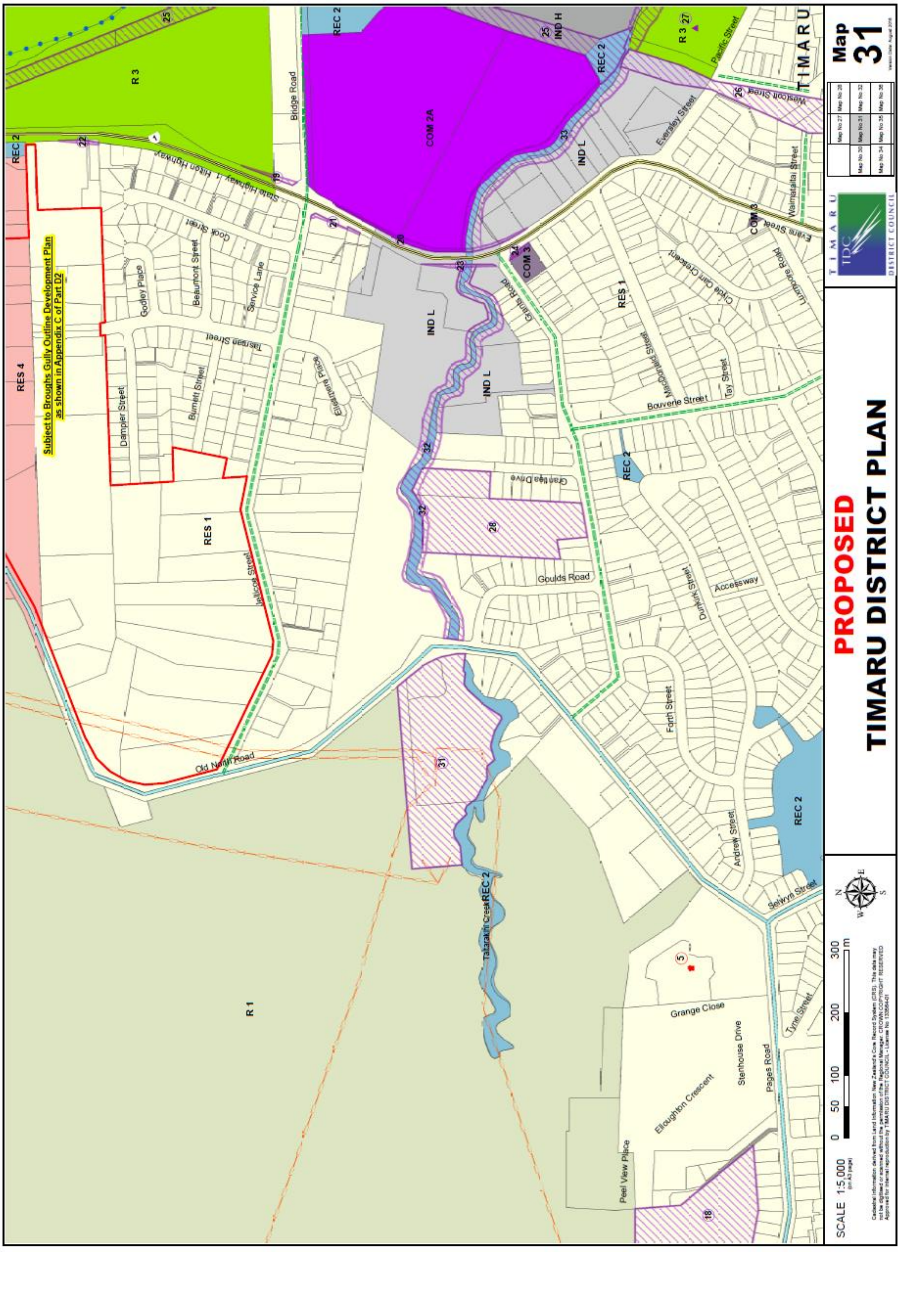
e. For each property, the cost of the direct benefit (determined in 6.6.5(2)(b)) plus the properties share of the apportioned residual cost (determine in 6.6.5(2)(c)) equals the total cost of that properties financial contribution. If the actual cost of roading on that property is greater than the financial contribution, then the property receives from Council a financial contribution credit (in the form of cash). If the actual cost of roading on that property is less than the financial contribution, then the property pays Council a financial contribution (in the form of cash).

NOTE: The Council's proposals for the basis of cost sharing will be made available to the subdividers in broad terms, i.e. rate of levy on defined areas, basis of adjustment and details of services proposed.

C – Planning Maps

Amend District Plan Maps 27 and 31:


PROPOSED
TIMARU DISTRICT PLAN
Map 27
IND H
IND L
COM 3
RES 1
RES 4
R 1
R 2
R 3
REC 2
WASHDYKE
Hilton Highway
State Highway 1
Service Lane
Blair Street
Mahoneys Hill Road
Lancewood Terrace
Old North Road
Arcot Street
Proposed 20 metre Wide Planted Buffer
Location of Nine Proposed Single Storied Houses
Subject to Broughs Gully Outline Development Plan as shown in Appendix C of Part D2
Meadows Road
Washdyke Flat Road
Canal Sluice
SCALE 1:5,000


PROPOSED
TIMARU DISTRICT PLAN
Map 31
Subject to Broughs Gully Outline Development Plan as shown in Appendix C of Part D2
SCALE 1:5,000

APPENDIX 3:

Proposed Outline Development Plan – Broughs Gully

Road 1
Legal width: 20m from intersection of Jellicoe Street to boundary between Lot 11 DP 47318 and Lot 12 DP 47318, where after it gradually widens to 23m legal width by the eastern boundary of Lot 12 DP 47318. Remains 23m wide until the intersection of Tasman Street and Lancewood Terrace.

Road 2
Road 2 can either be formed as a road link (legal width 20m), or alternatively could be in the form of a cul-de-sac head with an active transport (cycle and pedestrian path) and services corridor through to Road 1.

Road 4
Legal width: 16m

Burnett Street Extension
Legal width: 16m

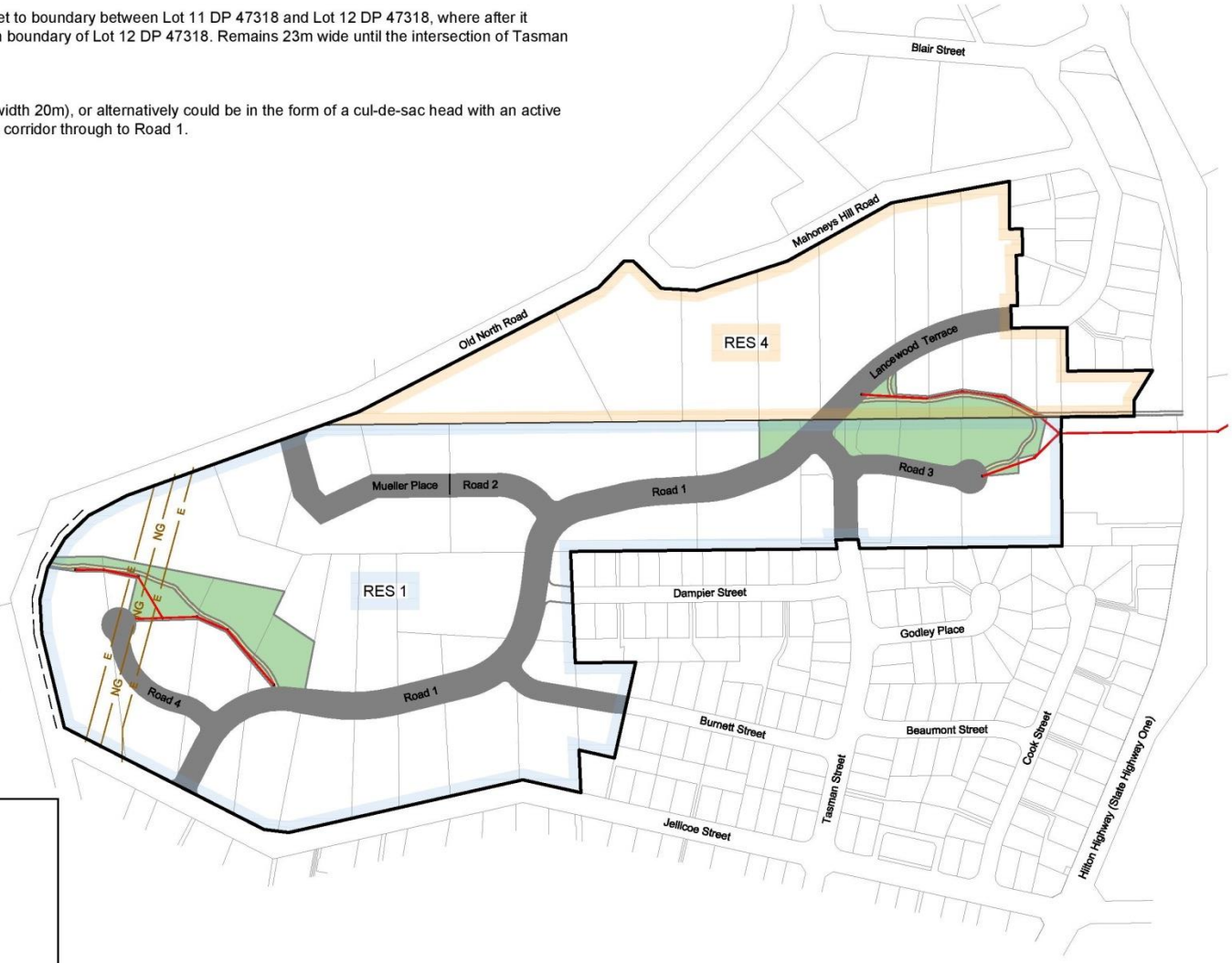
Damiper Street Extension
Active transport link and services corridor only.

New Vehicle Accesses onto Old North Road
New vehicle access onto Old North Road shall not be permitted as shown on this plan for traffic safety reasons. Note the extent of no access extends 68m along the northwest boundary of Lot 2 DP 59517.

Stormwater Retention Ponds and Swales
Detailed design of these areas is to incorporate water sensitive and low impact design principles, current best practice and relevant elements from the Gleniti Zone 6 Green Space Design Guidelines.

Cycle and Pedestrian Path
Off road cycle and pedestrian paths are to be formed and sealed with a width of 2.5m.

Location of services
Sewer, stormwater and water services, where not shown otherwise, shall be located in the road reserve.



KEY:
- Road
- Stormwater
- Cycle and Pedestrain Path
- Sewer
- No access to Old North Road
- E — Existing power lines
- NG — National grid transmission lines

APPENDIX C: BROUGHS GULLY OUTLINE DEVELOPMENT PLAN

APPENDIX 4:

Financial Contribution Assessment

STATUTORY BASIS FOR PROPOSED

BROUGHS GULLY FINANCIAL CONTRIBUTIONS

APRIL 2016

VERSION 1.0

#962808

#962808

Contents

1. Introduction 1
2. Statutory Basis of Financial Contributions 1
3. Sewer 2
   3.1. Statutory Framework 2
   3.2. Purpose of Proposed Financial Contribution 4
   3.3. Scope of Contribution and Method of Determination 4
   3.3.1. Partial assessments, deferral and postponements 4
4. Stormwater 5
   4.1. Statutory Framework 5
   4.2. Purpose of Proposed Financial Contribution 8
   4.3. Scope of Contribution and Method of Determination 8
   4.3.1. Partial assessments, deferral and postponements 8
5. Water 9
   5.1. Statutory Framework 9
   5.2. Purpose of Proposed Financial Contribution 10
   5.3. Scope of Contribution and Method of Determination 10
   5.3.1. Partial assessments, deferral and postponements 11
6. Road 12
   6.1. Statutory Framework 12
   6.2. Purpose of Proposed Financial Contribution 13
   6.3. Scope of Contribution and Method of Determination 13
7. Appendix A - Sewer 15
8. Appendix B - Stormwater 16
9. Appendix C - Water 17
10. Appendix D - Roading 18

#962808

1. Introduction

The purpose of this document is to outline the proposed statutory basis for the financial contributions to be taken for infrastructure in Broughs Gully, Timaru. Broughs Gully is generally described as the undeveloped area bounded by Old North Road, Mahoneys Hill, State Highway 1 and Jellicoe Street.

Financial contributions for the 3 waters (sewer, stormwater and water) are firmly established in the District with many examples of their successful use to distribution the total cost of infrastructure fairly and equitably amongst multiple benefactors. However the use of roading financial contributions is less established, especially when it comes to the distribution of roading costs over a set number of land owners in accordance with benefit as opposed to the traditional approach of 'if it's on your land you build and pay for it.'

2. Statutory Basis of Financial Contributions

Section 108 (2) (a) of the Resource Management Act 1991 (RMA) states:

> *(2) A resource consent may include any 1 or more of the following conditions:*
>
> *(a) subject to subsection (10), a condition requiring that a financial contribution be made:*

Subsection (10) states:

> *(10) A consent authority must not include a condition in a resource consent requiring a financial contribution unless—*
>
> *(a) the condition is imposed in accordance with the purposes specified in the plan or proposed plan (including the purpose of ensuring positive effects on the environment to offset any adverse effect); and*
>
> *(b) the level of contribution is determined in the manner described in the plan or proposed plan.*

The subsequent sections of this document examine in detail how the Timaru District Operative Plan (the Plan) meet the criteria of s108(10) of the RMA in respect to sewer, stormwater, water and roading.

3. Sewer

3.1. Statutory Framework

Part B 5(b) Liquid Waste Management of the Plan identifies the effects of liquid waste as follows:

> *The adverse effects of liquid waste, including sewage and stormwater, on the environment and the threatened contamination of coastal and freshwater systems in the District.*

It establishes the following objective in response to this issue:

Part B 5(b), Objective (1):

> *(1) Avoid, remedy or mitigate the adverse effects of liquid waste (e.g. sewage, stormwater or agricultural) on aquatic and land ecosystems.*
>
> *Principal Reason*
>
> *A reduced level of ecosystem degradation should result. Encourages polluters to improve efficiency where waste is able to be reduced, recovered, or reused. The overall quality of areas where discharges occur should improve.*

Underlining added for emphasis.

This objective is addressed by the following Policy:

Part B 5(b), Policy (6):

> *(6) To ensure all extensions of existing settlements and new settlements have effective sewage disposal systems operating.*
>
> *Explanation and Principal Reason*
>
> *Gives consideration to the adverse effects of sewage and the requirements of any discharge consents and reduces the threat to public health and nuisance concerns.*

The method of achieving this policy is:

Part B 5(b), Method (3):

> *(3) Requiring sewerage systems to be installed at time of subdivision for extensions of existing settlements or for any new settlements (see General Rule 6.5).*
>
> *Principal Reason Ensures development only occurs where the environment can support any adverse effects from liquid waste. Includes residential, commercial, or industrial expansion. Sewerage systems refers to coordinated community systems.*

The ability to apply financial contributions to give effect to the objectives, policies and methods is enabled through:

Part B 5(b), Method (12):

> *(12) Including rules which require the taking of financial contributions to provide infrastructure and associated physical work for the management of sewage effluent and trade waste (see General Rule 6.5).*
>
> *Principal Reason*

To recover the costs of providing a sewerage system and to ensure those users benefiting from this service pay a fair and reasonable share of the cost.

The ability to apply financial contributions is further reinforced in Part B 9, Policy (2) which states:

(2) To require financial contributions to develop and maintain the Districts water supply infrastructure and reticulation, i.e. headworks, mains, reservoir; roading network, water, sewerage or stormwater mains. Any cash contribution will be spent on the infrastructure within ten years of payment.

Explanation and Principal Reason

To recognise that there is a major investment in water supply schemes and other services and to provide for ongoing improvements to these services.

Underlining added for emphasis.

The rules that then detail the application of financial contributions for sanitary sewer systems is contained in Part D 6.5, Rule 6.5.4.2. Of note are the following rules:

6.5.4.2 RULES ON FINANCIAL CONTRIBUTIONS

(1) At the time of subdivision, consideration shall be given to taking a financial contribution in the form of cash, land, works or services (or a combination of these). Council shall advise the amount of the contribution at the time of the subdivision consent.

(3) Where a connection to an existing sewerage system is not able to be made to the subdivision or development the maximum amount of the financial contribution shall be the full and actual cost of:

(a) Providing a sanitary sewerage system for the subdivision, development or building; and

(b) All necessary reticulation within the subdivision or development for each allotment, site or building.

(6) Where a connection to an existing sanitary sewerage network utility is available to serve the subdivision or land use the maximum amount of the financial contribution shall be the full and actual cost of:

(a) All necessary reticulation within the subdivision or land use for each allotment, site or building.

(b) Connections between the reticulation in the subdivision or development and the existing sanitary sewerage network utility system.

(c) Any upgrading to the existing sanitary sewerage network utility system that is required to provide for the expected effects of the subdivision, development or building on that utility system.

(d) An equitable share of the cost of the new sanitary sewerage utility systems or upgraded (sewerage utility) systems, including design costs, where additional capacity will be required by the cumulative effects of the development of an area.

The share will be calculated by dividing the cost of the work by the new or upgraded system.

In terms of s108 (10) of the RMA, the purpose of the financial contribution is clearly specified in the Plan (Part B 5(b)) as outlined above, and the manner in which the level of contribution is determined is described in the plan (Part D 6.5, Rules 6.5.4.2).

3.2. Purpose of Proposed Financial Contribution

The Broughs Gully Sewer Catchment is shown as bordered by the red dashed line on Plan FS01 in Appendix A. The plan also shows the proposed new sewers that will be constructed by the developers or Council as highlighted in yellow along Old North Road and the new main from the Main trunk line to the upper Gully.

As there is no currently available suitable sewer system in the catchment, Council proposes to construct the networks as highlighted on Plan FS01 to meet Part B 5(b) Policy (6) and the associated objectives and issues.

The purpose of taking of FC's to pay for the new networks is specified in Part B 5(b), Method (12) as detailed above.

3.3. Scope of Contribution and Method of Determination

The scope of the contribution and the method of determination shall be in accordance with Part D 6.5, Rule 6.5.4.2(6)(d), that being the share will be calculated by dividing the cost of the work by the new or upgraded system.

In practice this will be calculated in the following terms:

1. The total costs of constructing the mains highlighted on Plan FS01 in Appendix A shall be determined.
2. This is divided by the likely number of allotments within the catchment to determine a per connection contribution.
3. For developments and connections, the FC shall be the number of new allotments/connections multiplied by the per connection contributions determined in point 2 above, minus the value of the new public mains required to be constructed (if any). This figure could be positive (developer pays) or negative (Council pays developer).

3.3.1. Partial assessments, deferral and postponements

No deferral or postponements will be considered.

4. Stormwater

4.1. Statutory Framework

Part B 5(b) Liquid Waste Management of the Plan identifies the effects of liquid waste as follows:

> *The adverse effects of liquid waste, including sewage and stormwater, on the environment and the threatened contamination of coastal and freshwater systems in the District.*

It establishes the following objective in response to this issue:

Part B 5(b), Objective (1):

> *(1) Avoid, remedy or mitigate the adverse effects of liquid waste (e.g. sewage, stormwater or agricultural) on aquatic and land ecosystems.*
>
> *Principal Reason*
>
> *A reduced level of ecosystem degradation should result. Encourages polluters to improve efficiency where waste is able to be reduced, recovered, or reused. The overall quality of areas where discharges occur should improve.*

Underlining added for emphasis.

This objective is addressed by the following Policy:

Part B 5(b), Policy (4):

> *(4) To provide for the maintenance or extension of existing stormwater systems and for the development of new systems where required.*
>
> *Explanation and Principal*
>
> *Reason Acknowledges the existence of stormwater system in various areas of the District and the need to upgrade and expand these systems as urban areas develop and intensify*

The method of achieving this policy is:

Part B 5(b), Method (4):

> *(4) Investigating and where appropriate implementing alternative methods of stormwater reticulation for extensions to existing settlements and new subdivision to reduce environmental effects (see General Rule 6.5).*
>
> *Principal Reason*
>
> *Aims to identify any opportunity for reduced levels of pollutants in stormwater contaminating surface and ground water. Moves to address the level of stormwater contamination presently being discharged into fresh water ecosystems, and to coastal waters. To reduce peak flow rates in anticipation of the Regional Coastal Environment Plan and to help address the New Zealand Coastal Policy Statement.*

The ability to apply financial contributions to give effect to the objectives, policies and methods is enabled through:

Part B 5(b), Method (13):

(13) Including rules which require the taking of financial contributions to provide infrastructure and associated physical work for stormwater control (see General Rule 6.5).

Principal Reason

To recover the costs of providing a stormwater system and to ensure those users benefiting from this service pay a fair and reasonable share of the cost.

The ability to apply financial contributions is further reinforced in Part B 9, Policy (2) which states:

(2) To require financial contributions to develop and maintain the Districts water supply infrastructure and reticulation, i.e. headworks, mains, reservoir; roading network, water, sewerage or stormwater mains. Any cash contribution will be spent on the infrastructure within ten years of payment.

Explanation and Principal Reason

To recognise that there is a major investment in water supply schemes and other services and to provide for ongoing improvements to these services.

Underlining added for emphasis.

The rules that then detail the application of financial contributions for stormwater systems is contained in Part D 6.5, Rules 6.5.3.2. Of note are the following rules:

6.5.3.2 RULES ON FINANCIAL CONTRIBUTIONS

(1) At the time of subdivision, consideration shall be given to taking a financial contribution in the form of cash, land, works or services (or a combination of these). Any stormwater services, that are required to be constructed, reconstructed, upgraded or subject to any other structural works, shall be designed and constructed by the subdivider and/or developer to the standards specified in this District Plan.

(3) Where a connection to an existing stormwater drainage network utility system is not available to serve the subdivision or development the maximum amount of the financial contribution should be the full and actual cost of providing:

(a) A system for the disposal of stormwater; and

(b) Connections between the reticulation in the subdivision or development and the existing stormwater drainage network utility system; and

(c) All necessary reticulation and control structures within the subdivision or development; and

(d) A stormwater connection for each allotment, site or building.

(4) When calculating the financial contribution and to avoid disproportionate costs falling on developers at the lower end of catchments a cost sharing system shall apply as set out below:

(a) Each area affected by the need for a cost sharing arrangement will be defined and treated separately to determine the share of costs to be borne by subdividers. The Council's proposals for the basis of cost sharing will be made available to the

subdividers in broad terms, i.e. rate of levy on defined areas, basis of adjustment and details of services proposed.

(b) The contribution is to be based on estimated costs of providing the services, the estimates to be prepared on the basis of present day costs and supported by detailed engineering plans and formal detailed costing procedures for each service in each catchment area; costs are to include design fees. The date of the estimates is to be stated.

(c) The contribution shall be allocated by spreading the estimated cost of each service for the catchment on an area basis over the land in that catchment and the contribution charged as it is subdivided. The result to be a levy per hectare for stormwater and main drains.

(d) Although the contribution is to be calculated on an area basis, it shall be adjusted to allow for the direct benefit to be obtained by any one land owner. For example: the reticulation necessary in a subdivision is reduced considerably where a main drain goes right through that subdivision. In contrast the fringe areas do not receive such a benefit as the main drain comes only to the boundary. The method of adjustment is to be a deduction from the gross cost for the catchment of an estimate of the direct benefit pertaining throughout the catchment before determining the contribution per hectare.

(e) Where a subdivision is to receive a direct benefit the estimated amount is to be added back to the basic levy. The direct benefit received by any subdivision will reflect the projected load due to anticipated land use. This applies where a catchment has land which is zoned for different purposes. The direct benefit shall be calculated on the estimated cost of providing the necessary services for that subdivision ie a certain size drain.

(f) The contribution is to be applied on the basis of the catchment envisaged in the defined area referred to under Rule 6.5.3.2(4)(a) above, even if the final link for that subdivision is to services in another catchment. This provision is to ensure equity between different parts of the catchment.

(g) The contribution rate per hectare will be updated according to the most recently published quarterly figure of the Works Construction Cost Index (WCCI) to cover the increase in costs which will have taken place between the time the estimate is prepared and the subdivision approval given.

(h) The levied amount shall be made a condition of subdivisional approval. Payment to be required or a suitable bond entered into before the plan is sealed with such levy not subject to escalation during the period of approval.

(i) Where agreements such as set out above exist they shall continue to be applied to further development within the specific catchment.

(5) Where an existing stormwater drainage network utility system is available to serve the subdivision or development the maximum amount of the financial contribution shall be the full and actual cost of:

(a) All necessary reticulation in the subdivision or development and a stormwater connection for each allotment, site or building; and

(b) Connections between the reticulation in the subdivision or development and the existing stormwater network utility system; and

(c) Any upgrading of the existing network utility system that is required to provide for the expected effects of the subdivision, development or building on that utility system.

4.2. Purpose of Proposed Financial Contribution

The Broughs Gully Stormwater Catchment is shown as bordered by the blue dashed line on Plan SW03 in Appendix B. The plan also shows the proposed new retention basins and swales that will be constructed at the time of development.

As there is no currently available suitable stormwater system in the catchment, Council proposes the networks as on Plan SW03 to meet Part B 5(b) Policy (4) and the associated objectives and issues.

The purpose of taking of FC's to pay for the new networks is specified in Part B 5(b), Method (13) as detailed above.

4.3. Scope of Contribution and Method of Determination

The scope of the contribution and the method of determination shall be in accordance with Part D 6.5, Rules 6.5.3.2(4).

4.3.1. Partial assessments, deferral and postponements

No partial assessments, deferral or postponements will be considered.

5. Water

5.1. Statutory Framework

Part B 9 Services and Infrastructure of the Plan identifies the effects of insufficient servicing as follows:

> *Intensive development in areas where there is insufficient servicing infrastructure can have an adverse effect on the environment.*

It establishes the following objectives in response to this issue: Part B 9, Objective (1) b:

> *(1) (a) Avoid, remedy, or mitigate the adverse effects of development, including servicing infrastructure, on the environment.*
>
> *(b) Ensure that an adequate level of infrastructure is provided to enable the efficient use and development of natural and physical resources by the recovery of the costs of providing that infrastructure directly from developers and, where appropriate, by apportioning costs between the developer and the community in accordance with the relative benefits of providing that infrastructure.*
>
> *Principal Reason*
>
> *Infrastructure is an essential part of the District's resources, and the maintenance of the District's infrastructure is essential to the social, economic and cultural wellbeing of its people, as well as their health and safety.*
>
> *An integrated approach to the management of infrastructural issues associated with new land uses and subdivision will ensure any adverse effects on the environment are managed in an efficient and equitable manner*

The ability to apply financial contributions is enabled by Part B 9, Policy (2) which states:

> *(2) To require financial contributions to develop and maintain the Districts water supply infrastructure and reticulation, i.e. headworks, mains, reservoir; roading network, <u>water</u>, sewerage or stormwater mains. Any cash contribution will be spent on the infrastructure within ten years of payment.*
>
> *Explanation and Principal Reason*
>
> *To recognise that there is a major investment in water supply schemes and other services and to provide for ongoing improvements to these services.*

Underlining added for emphasis.

Part B 9, Method (4):

> *(4) Including rules which require the provision of works or services, and/or require the payment of cash, to cover an equitable portion of the actual cost of providing physical works (see General Rule 6.5).*
>
> *Principal Reason*
>
> *Ensures services are supplied in an efficient and equitable manner and that the costs of achieving access to water supply schemes are realised by those benefiting from them.*

The rules that then detail the application of financial contributions for water networks is contained in Part D 6.5, Rules 6.5.1.2. Of note are the following rules:

6.5.1.2 RULES FOR FINANCIAL CONTRIBUTIONS FOR WATER SCHEMES

(1) Within the boundaries of an urban water scheme
Where proposed allotments, sites or buildings are intended for human habitation or occupation within the boundaries of an urban water scheme (Timaru, Temuka, Geraldine, Pleasant Point) the following contributions are payable:

(a) Where water from a water network utility service is able to be delivered to the subdivision or land concerned from an existing water network utility:

(i) the full actual cost of all necessary reticulation within the subdivision or development for each allotment, site or building; plus

(ii) the full actual cost of connections between the reticulation in the subdivision or development and the existing water network utility system; plus

(iii) the full actual cost of any additions or modifications to the existing water network utility system that are required to provide for the expected effects of the subdivision, development or building on that utility system; plus

(iv) an equitable share of the cost of the existing water network utility system where additional capacity has been created in anticipation of future development to a maximum value of $3,000 for each allotment.

(b) When calculating (a)(iii) and (iv) above, the Council shall give consideration to whether any part of the cost of any additions or modifications to the existing network should be borne by Council or other subdividers or developers, and whether the subdivision or development benefits the present residents of the community or District to a degree that some or all of the cost of the existing network need not be charged.

(c) The contribution may be in cash or kind or a mix of these, but in all cases the amount to be paid shall be based on an analysis of actual costs and be able to be substantiated by Council.

5.2. Purpose of Proposed Financial Contribution

The Broughs Gully Water Catchment is shown as bordered by the light blue dashed line on Plan WM01 in Appendix C.

As there is no currently available suitable water network in the catchment, Council proposes the networks as on Plan WM01 are constructed to meet Part B 9 and the associated objectives and issues.

The purpose of the FC's is specified in the Plan (Part B 9) as outlined above.

5.3. Scope of Contribution and Method of Determination

The scope of the contribution and the method of determination shall be in accordance with Part D 6.5, Rules 6.5.1.2(1)(a)(iv).

The current appropriateness of Rule 6.5.1.2 (1) (a) (iv) could be reconsidered in terms of limiting the value to $3,000. The consequences of inflation since the inception of this rule have diluted the ability to meet the issues, objectives and policies outlined in Part B 9 with what is now a limited sum.

5.3.1. Partial assessments, deferral and postponements

No partial assessments, deferral or postponements will be considered.

6. Road

6.1. Statutory Framework

Part B 9 Services and Infrastructure of the Plan identifies the effects of insufficient servicing as follows:

> *Intensive development in areas where there is insufficient servicing infrastructure can have an adverse effect on the environment.*

It establishes the following objectives in response to this issue: Part B 9, Objective (1) b:

> *(1) (a) Avoid, remedy, or mitigate the adverse effects of development, including servicing infrastructure, on the environment.*
>
> *(b) Ensure that an adequate level of infrastructure is provided to enable the efficient use and development of natural and physical resources by the recovery of the costs of providing that infrastructure directly from developers and, where appropriate, by apportioning costs between the developer and the community in accordance with the relative benefits of providing that infrastructure.*
>
> *Principal Reason*
>
> *Infrastructure is an essential part of the District's resources, and the maintenance of the District's infrastructure is essential to the social, economic and cultural wellbeing of its people, as well as their health and safety.*
>
> *An integrated approach to the management of infrastructural issues associated with new land uses and subdivision will ensure any adverse effects on the environment are managed in an efficient and equitable manner*

The ability to apply financial contributions is enabled by Part B 9, Policy (2) which states:

> *(2) To require financial contributions to develop and maintain the Districts water supply infrastructure and reticulation, i.e. headworks, mains, reservoir; roading network, water, sewerage or stormwater mains. Any cash contribution will be spent on the infrastructure within ten years of payment.*
>
> *Explanation and Principal Reason*
>
> *To recognise that there is a major investment in water supply schemes and other services and to provide for ongoing improvements to these services.*

Underlining added for emphasis.

The rules that then detail the application of financial contributions for roading is contained in Part D 6.6, Rules 6.6.5. Of note are the following rules:

6.6.5 RULES FOR FINANCIAL CONTRIBUTIONS

Circumstances, maximum amount and general purposes of Financial Contributions.	
1. The provision of roads, private ways, access ways and service lanes including all future and/or indicative roads, access ways and service lanes.	
Circumstances:	*Where new allotments are intended for human habitation or occupation.*
Maximum amount of contribution:	*The full and actual cost of providing for all roads, private ways, access ways and service lanes to and within the land being subdivided and/or developed, including but not limited to:* • *the value of the necessary land; and* • *the provision of access ways, service lanes and fences; and* • *the formation and grassing of road berms; and* • *the provision of road gardens, median strips, road name plates and road furniture; and* • *road splays, turning bays and slip lanes; and* • *road drainage and road crossing; and* • *actual road construction costs*
General purposes for which the financial contribution may be used:	*To provide safe and efficient vehicle and pedestrian access to and within the subdivision and/or development, to mitigate the adverse effects of roading development, to enhance streetscape and general amenity values and to maintain, improve and develop the roading network.*

Underlining added for emphasis.

6.2. Purpose of Proposed Financial Contribution

The proposed future roading network and catchment is shown on plan PL04 in appendix D. The future network had been designed to maximise development throughout the entire catchment whilst considering constraints such as topography, existing dwellings, the existing road new network and maximising the benefits for each site. The definition of the roading catchment is all the properties upon which future road is proposed and all properties that will have frontage to future road, and are therefore benefiting from the future roading network.

In terms of s108 (10) of the RMA, the purpose of the financial contribution is clearly specified in the Plan (Part B 9 Objective (1) b) as outlined above.

6.3. Scope of Contribution and Method of Determination

In accordance with Part B 9, Objective (1)b, it is proposed to apportioning the costs between the developer and the community. In this instance the community is the highlighted land parcels in the Broughs Gully catchment as shown on plan PL04 in appendix A. These are the properties directly benefiting through a connected and integrated road network.

The manner in which the level of contribution is determined is described in the plan (Part D 6.6, Rules 6.6.5). However, it is not considered sufficiently clear in terms of what is required at Broughs Gully. Therefore the following rules are proposed:

In the Broughs Gully Outline Development Plan area (as set out in Appendix C of Part D2), a financial contribution for roading shall be payable in accordance with the following cost share agreement:

a. The cost of all future and indicative roads within the Outline Development Plan will be determined and summed to give the total cost of future and indicative roads.

b. The direct benefit that each property receives from the roading on its land is determined and subtracted from the actual cost of the roading on its land. This could be a positive or negative value. The direct benefit shall be determined by assessing the potential new allotment yield for each existing allotment and multiplying this by the typical amount of road per allotment in recent developments. This is then multiplied by a square metre rate for new road to give a benefit value.

c. The sum of the all the benefit costs determined in 6.6.5(1)(b) is subtracted from the total cost of all future and indicative roads determined in 6.6.5(1)(a). This residual cost represents the catchment wide benefit that each property receives from adjoining and surrounding properties developing.

d. The residual cost determined in 6.6.5(1)(c) is apportioned to all properties in the catchment in accordance with their developable area.

e. For each property, the cost of the direct benefit (determined in 6.6.5(1)(b)) plus the properties share of the apportioned residual cost (determine in 6.6.5(1)(c)) equals the total cost of that properties financial contribution. If the actual cost of roading on that property is greater than the financial contribution, then the property receives from Council a financial contribution credit (in the form of cash). If the actual cost of roading on that property is less than the financial contribution, then the property pays Council a financial contribution (in the form of cash).

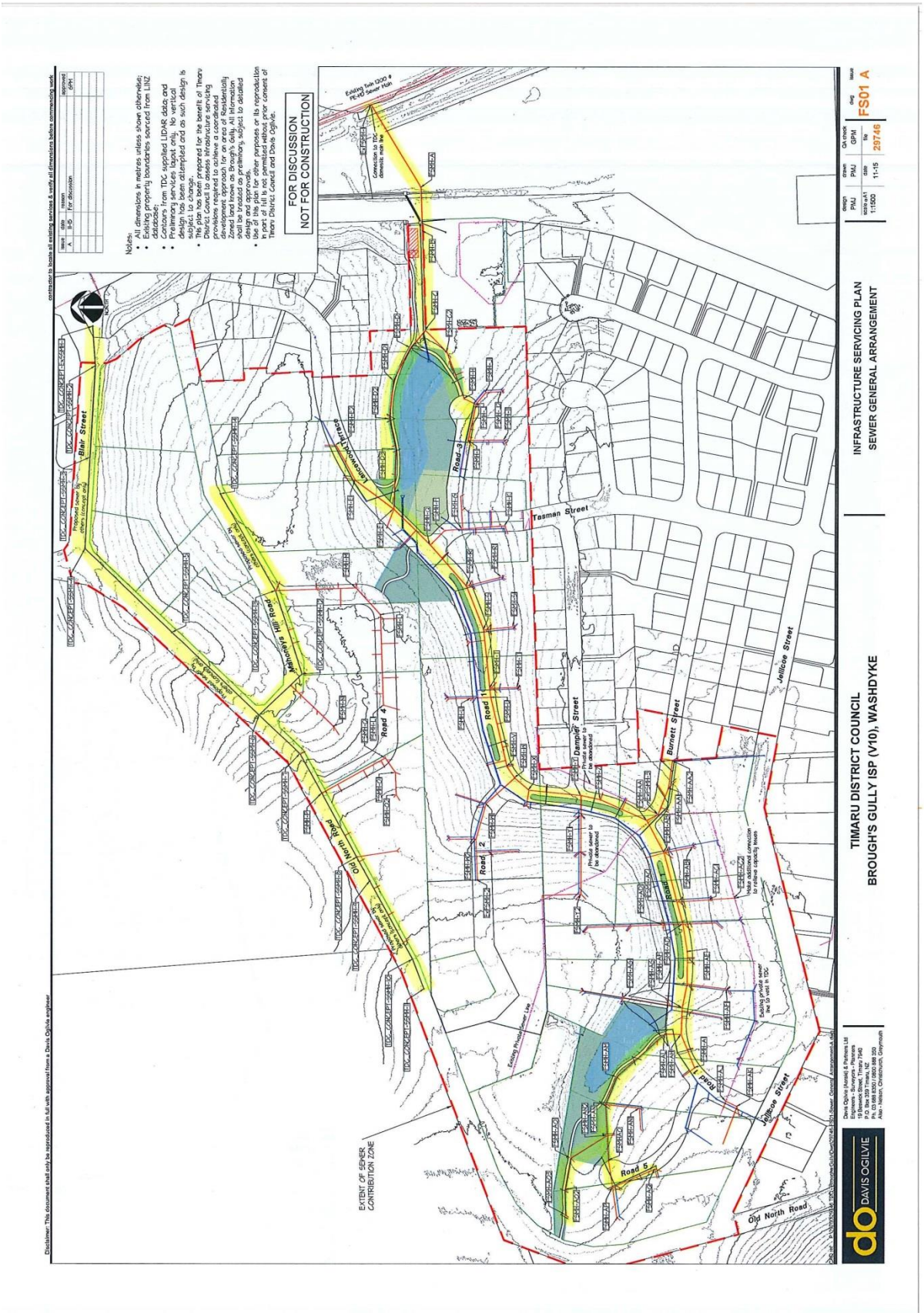
The Council's proposals for the basis of cost sharing will be made available to the subdividers in broad terms, i.e. rate of levy on defined areas, basis of adjustment and details of services proposed.

The contribution is inclusive of all items included in Rule 6.6.5 and therefore includes the road construction costs, berms, street furniture (including lighting), power reticulation, communication reticulation and road drainage.

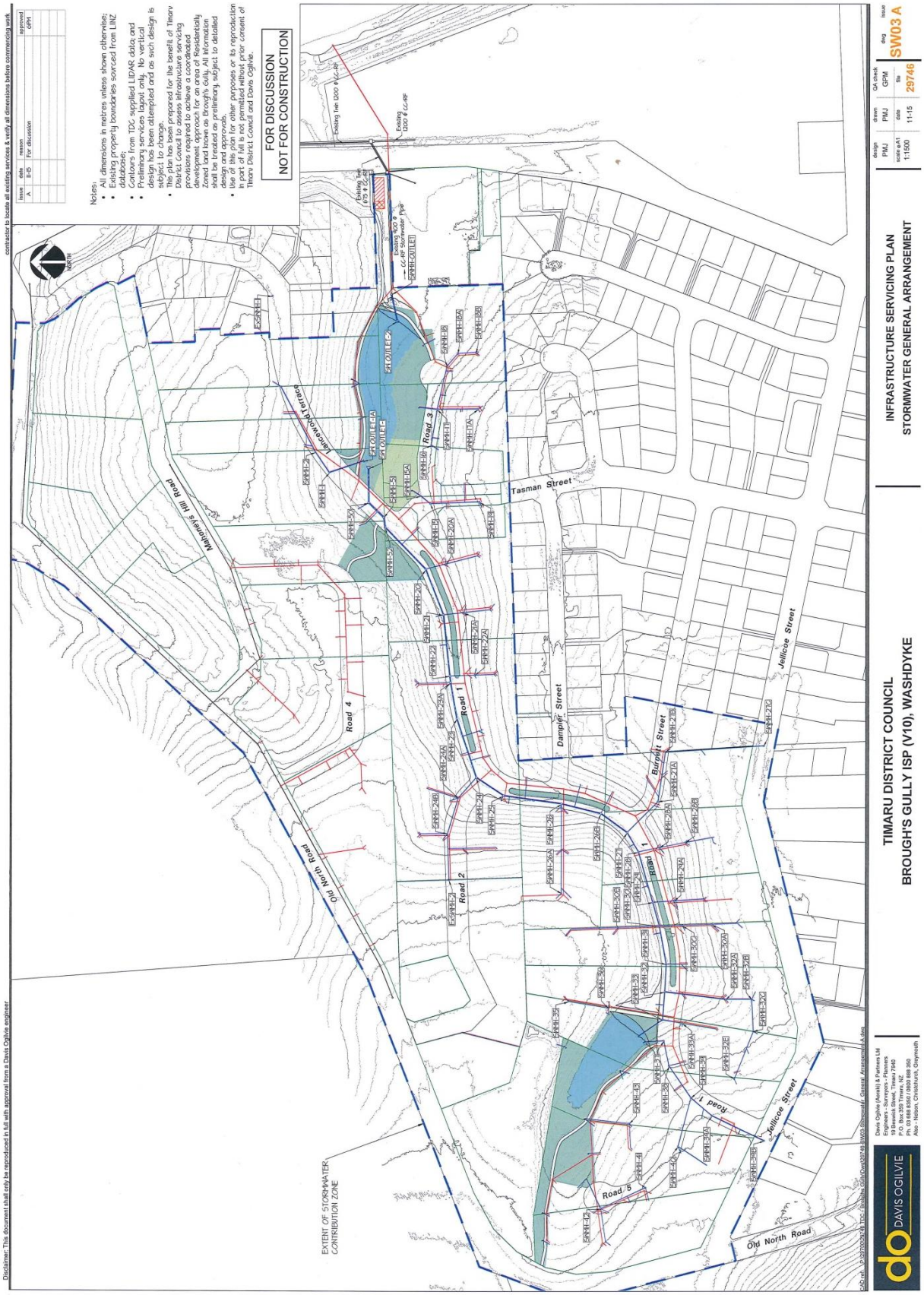
By way of example, the property shown on the plan at the corner of Old North Road and Jellicoe Street will pay a financial contribution as it has a very very small amount of future road on its land and a large potential section yield. Note it can only develop off this future road. Whereas the adjoining two properties to the east have a large amount of future road area of their properties and a lower section yield, so will receive a financial credit.

In accordance with Part B 9, Objective (1) b, a 50% apportionment between developer and community has been made for the costs of the cycleway/active transport link along Road 1. This recognises that the wider community beyond any one specific development benefit from this link. Therefore Council will pay 50% of the costs of the link.

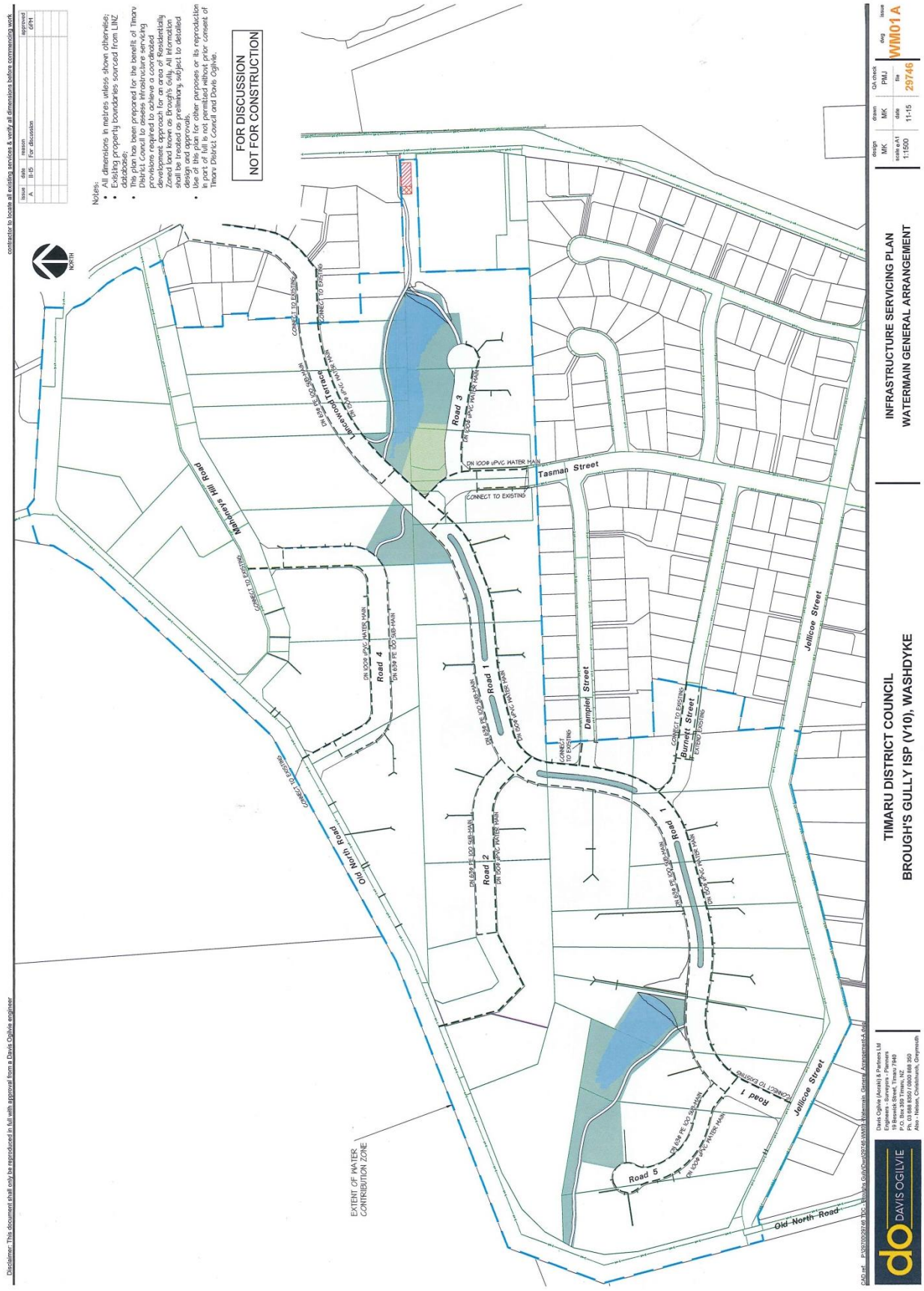
7. Appendix A - Sewer



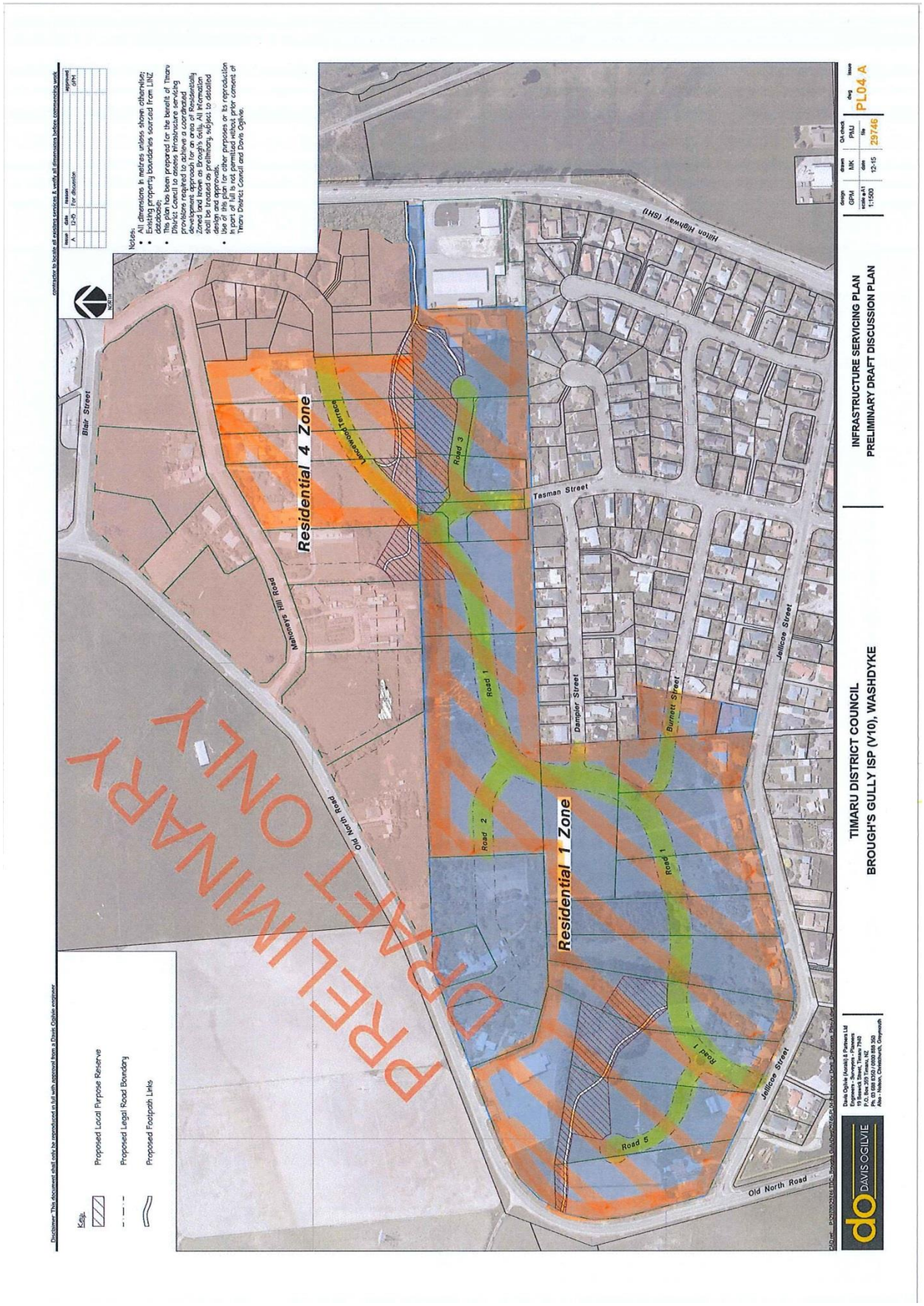
8. Appendix B - Stormwater



9. Appendix C - Water



10. Appendix D - Roading



APPENDIX 5:

Infrastructure Assessment

SERVICING STRATEGY

BROUGHS GULLY

TIMARU

JUNE 2016

VERSION 1.0

#1003217

#1003217

Contents

1. Introduction 1
2. Sewer 2
   2.1. Existing Network 2
   2.2. Proposed Network 2
3. Stormwater 3
   3.1. Existing Network 3
   3.2. Proposed Network 3
4. Water 4
   4.1. Existing Network 4
   4.2. Proposed Network 4
5. Road 5
   5.1. Existing Network 5
   5.2. Proposed Network 5
6. Appendix A – FS01 Sewer 7
7. Appendix B – SW03 Stormwater 8
8. Appendix C – WM01 Water 10
9. Appendix D – PL04 Roading 11

1. Introduction

The purpose of this document is to describe the existing services available within the Broughs Gully catchment, and those that will be required in the future to enable the catchment to develop in accordance with the underlying Residential 1 and Residential 4 zoning.

The services that this document will focus on are sewer, stormwater, water and roading.

The Broughs Gully catchment is generally described as all the properties within the area bounded by Old North Road, Mahoneys Hill, State Highway 1 and Jellicoe Street as shaded in blue below.

2. Sewer

2.1. Existing Network

There is currently no public reticulated sewer network servicing the site.

The reticulated network servicing the Dampier Street, Burnett Street, Tasman Street, Godley Place, Beaumount Street, and Cook Street dwellings is at capacity and prone to overflowing during high rain events due to stormwater infiltration.

The properties within the catchment along Jellicoe Street are serviced by a private sewer that connects into the Tasman Street catchment. Due to the considerable length of this pipe and its multiple ownership structure, it could present considerable issues for its private owners in the case of blockage or need for repair.

The recent development along Lancewood Terrace resulted in the construction of new public mains up Mahoneys Hill Road and along Lancewood Terrace. There is capacity in this network to accommodate additional development along a short distance of Mahoneys Hill Road.

Council has recently (June 2016) awarded a contract to construct a public main extending along Blair Street, Old North Road and Mahoneys Hill Road. This is highlighted on plan FS01 in Appendix A and will enable access to the reticulated network for the properties that front those roads.

The remaining household units within the site have site specific treatment and discharge systems.

2.2. Proposed Network

In order to service all remaining land within the catchment, without the need for onsite treatment or storage, a new main is proposed to be laid up the gully within the alignment of Road 1. The alignment is also highlighted on plan FS01 in Appendix A and will service the intensification of all the remaining land in the catchment.

This new network will require a separate connection to the Main Trunk Domestic Line (MTDL) on the eastern side of State Highway 1. The construction of this portion of the new main from the MTDL to within the catchment will require specific trenchless methodology under the highway and will to pass through approximate 135m of adjoining Rural 3 land prior to reaching the catchment. The cost of constructing this portion of 'dead running' main is significant and beyond the feasibility of any one single development in the catchment. Therefore it is proposed that Council will initially fund the construction of this portion and recoup the full cost from all those properties in the catchment by way of a financial contribution when they develop and connect.

Additionally, as all those properties currently connected to the private sewer off Jellicoe Street will in time be transferred to the new main in Road 1, it will reduce the load on the Tasman Street network and alleviate the overflow issues.

3. Stormwater

3.1. Existing Network

As show on plan SW03 in Appendix B, there is currently a connection from a main truck stormwater on the eastern side of State Highway 1, leading into the site. However, due to the requirements of the Canterbury Regional Councils Land and Water Regional Plan (LWRP) any new or additional discharges into this network will require treatments and attenuation.

In addition to this, the stormwater main on the eastern side of State Highway 1 discharges into Washdyke Lagoon which is considered a sensitive environment by local Iwi.

The topography of the Broughs Gully catchment is dominated by the west - east running gully which drains into the network. Due to the undeveloped nature of much of the catchment, stormwater is typically discharged to ground and at high rainfall events drains over land down the gully.

The area in the north of the catchment that drains towards Old North Road and Mahoneys Hill Road also discharges to ground and overland to the road reserves.

It is noted that the recent Lancewood Terrace development constructed two stormwater treatment and attenuation areas. One in the southeast corner of Lot 200 DP 484803, and the other within the Council owned green space at the intersection State Highway 1 and Blair Street.

3.2. Proposed Network

In order to meet the requirements of the LWRP and improve the quality of discharge into the Washdyke Lagoon, water sensitive design principles such as a system of swales and retention ponds has been designed that implements the current best practice approach to the conveyance, attenuation and treatment of stormwater. The layout is shown on plan SW03 in Appendix B. This system has been designed to maintain post development discharges at predevelopment levels up to a 50 year return period (see calculations attached in Appendix B); and enable the eventual incorporation into a wider Stormwater Management Plan.

Whilst conveyance is primarily reticulated, the central swale between the carriageways of Road 1 is designed to treat and convey road run off, as well as acting as a secondary flow path when the piped reticulation is at design capacity.

The location of the retention areas was determined by topography, location, economic assessment, environmental requirements and restraints. These elements were considered from a catchment wide perspective to develop a solution that is efficient and effective for the whole catchment.

The location and spatial extent of the retention basin has been further refined by computer modelling which uses the existing ground surface and the construction of virtual bunds. In order to minimise earthworks and construction costs, and maximise storage capacity, areas in the gully with flatter longitudinal grades have been identified. This enables bunds to be designed which maximise the storage capacity and minimise the height of bunds.

This has shown that given the requirements of the LWRP, the only realistic and cost effective options for treating and attenuating stormwater in a catchment of this scale is to utilise the area at the lowest point of the gully.

4. Water

4.1. Existing Network

There is no potable water reticulation within the site.

4.2. Proposed Network

The proposed water reticulation network is shown on plan WM01 in Appendix C. It is contained entirely within the proposed road reserves and is based on connections to the existing network reticulation which has the capacity to service the catchment.

5. Road

5.1. Existing Network

Old North Road forms the west and northwest boundary of the site. It is a Principal Road and of a rural nature with no kerb and channel or footpath.

Mahoneys Hill Road forms the northern boundary of the site. It is a Local Road, mainly of a rural nature with no kerb and channel or footpath, other than a small portion at the Lancewood Terrace end.

Lancewood Terrace is a recently constructed street off Mahoneys Hill Road through the Pacific Heights development. It is not currently classified but will likely become a Local Road. It is fully developed with kerb and channel, footpaths and streetlighting.

State Highway 1 / Hilton Highway forms the eastern boundary. It is a national Route under the jurisdiction of the New Zealand Transport Authority (NZTA). Currently there are several private access ways directly onto the Highway at numbers 16 and 18 Hilton Highway.

Jellicoe Street forms the southern boundary of the site and is a Collector Road. The portion of Jellicoe Street that fronts the site is not developed with kerb and channel or footpath. The remainder of Jellicoe Street has kerb and channel and footpath.

The footpath along Hilton Highway is an active transport link / shared pathway providing linkage to the Washdyke industrial area to the north and the greater Timaru urban area to the south. There is also an existing shared pathway that extends south from the Jellicoe Street / Old North Road intersection.

5.2. Proposed Network

The proposed roading layout is highlighted on plan PL04 in Appendix D.

The central feature of the layout is Road 1 which provides the primary linkage through the site and connectivity with the surrounding network. It generally follows the gully from the proposed Jellicoe Street intersection through to the future intersection with an extended Lancewood Terrace and Tasman Street. As this design generally traverses each of the current allotments, it allows a logical sequence of development from either end or via an intermediate point such as Burnett Street. This maximises development options by not allowing any one single development to restrict all other development in the catchment.

The Road 1 / Lancewood Terrace / Tasman Street intersection has been moved north from the existing ‘T’ intersection which is unformed legal road. This is due to topography and the need to reduce the longitudinal grade of the extension of Lancewood Tce to enable compliance with NZS4404. The Road 1 / Jellicoe Street intersection has been designed to connect at a location that ensures sufficient sight distances, avoids existing dwellings and enables suitable longitudinal grades. Having Road 1 intersecting with Old North Road is not desirable due to sight distances and safety.

Road 1 has also been designed as the primary space for the conveyance of road runoff and enables an element of stormwater treatment in the central swales. The legal road reserve is to be 23m wide which provides space for a central swale and active transport linkages. This is shown in the typical cross sections attached in in Appendix D.

Road 2 links Mueller Place with Road 1. It is not considered critical and given a suitably designed turning head extending from the end of Mueller Place, the link through to Road 1 could be solely for services and active transport modes. This may be left to be determined by the developer. Its legal width will be determined by its function, being 20m if a road but possibly narrower if not.

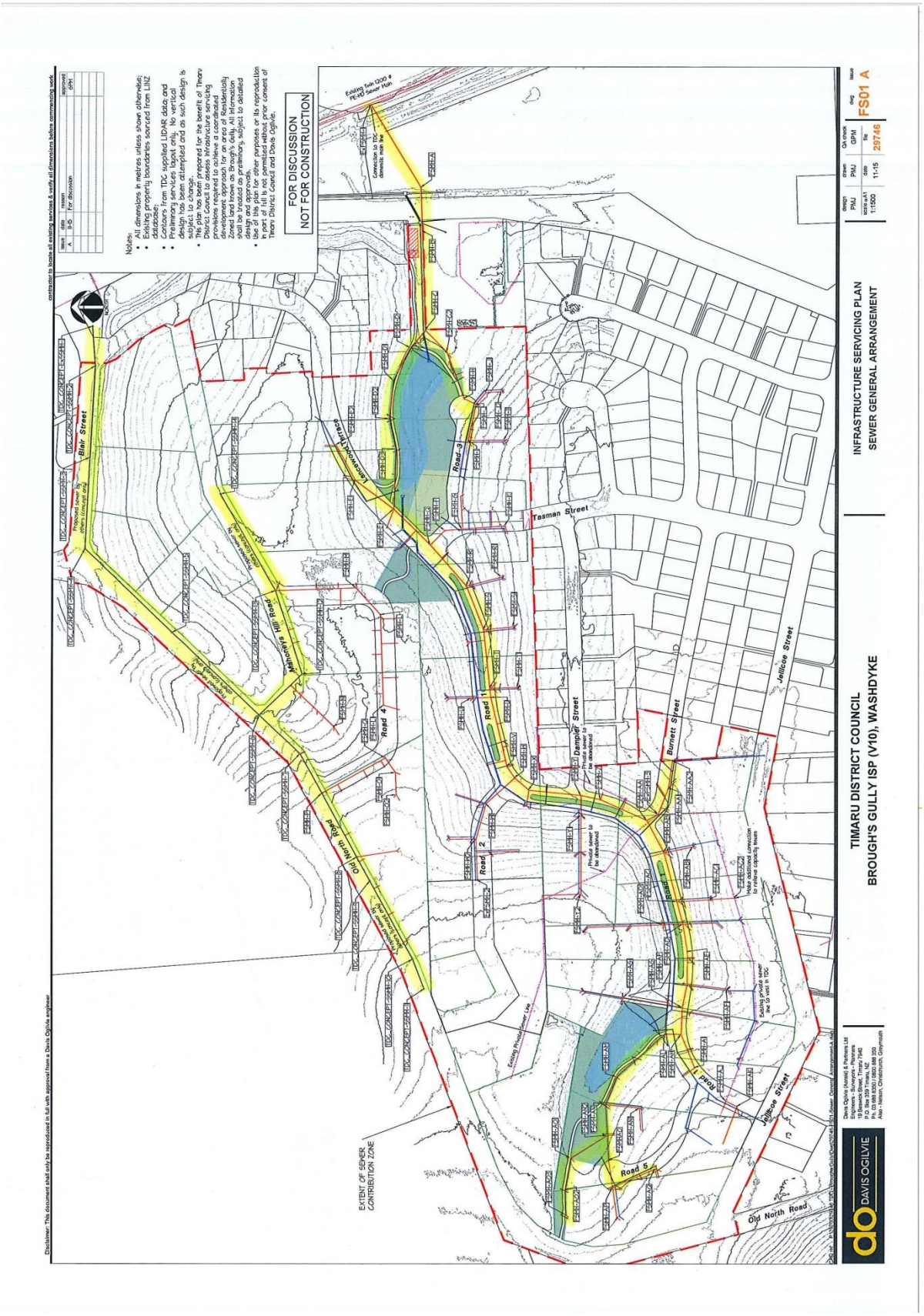
Road 3 is the unformed road reserve off Tasman Street that extends to the east. Given the provision of a suitably designed turning head, it enables the development of all the properties in this area. Its legal width is 16m. Typical roads are 20m wide but in this instance it can be narrower because it adjoins a stormwater reserve which can accommodate some services.

Road 4 was a proposed loop road between Mahoneys Hill Road and Old North Road. It was removed as a result of feedback from landowners during the initial workshops.

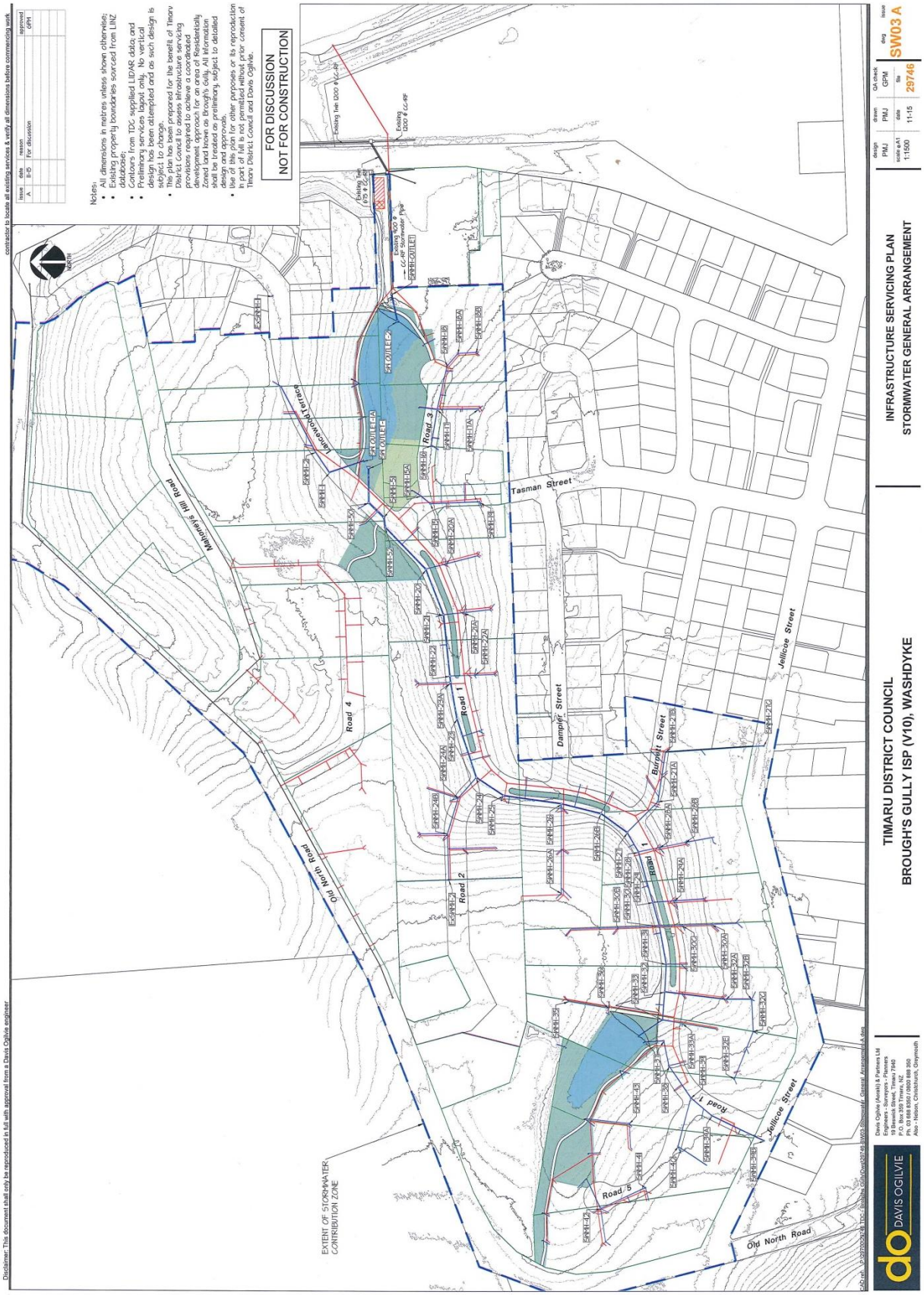
Road 5 is a short cul de sac off Road 1 designed to service the western portion of the catchment, because access directly onto Old North Road is unsafe at this location. The alignment of Road 5 has been designed to accommodate as much of the overhead power lines within the road reserve as possible. Its legal width is 16m. Typical roads are 20m wide but in this instance it can also be narrower because it adjoins a stormwater reserve which can accommodate some services.

The proposed network takes a catchment and wider network perspective to create a permeable, well connected transport network that is efficient and effective.

6. Appendix A – FS01 Sewer



7. Appendix B – SW03 Stormwater



POST DEVELOPMENT CATCHMENT

Step 1	Catchment Arean and Main Channel	
Total Area	28.86	ha
Impervious	12	ha
Pervious	16.86	ha
Channelisation factor, C	0.6	
Catchment Length	1.15	km
Cathcment Slope	0.44	%

Step 2	Curve Number and initial Abstration		
	CN	Area	CN*Area
Impervious	98	12	1176.00
Pervious	74	16.86	1247.64
Total		28.86	2423.64
CN(weighted)	84		
Ian(weighted)	2.9		

Step 3	Time of Concentration	
Runoff factor	0.72	
tc	0.14	hrs
SCSLags for HEC-HMS"tp"	0.09	hrs

Step 3	Storage	
Cathcment Area	0.2886	km^2
Calculated Storage,S	48.46	

Step 4	Runoff Volumes and Peak Discharges			
Description	Storm 1	Storm 2	Storm 3	Storm 4
Average Recurrence Interval/WQV	2.33yr ARI	10yr ARI	50yr ARI	100yr ARI
24hr Rainfall Depth, P_{24} (mm)	35	95	135	152
Compute c* (mm)	0.231	0.479	0.571	0.601
Specific Flow rate q*, TP108 figure 5.1	0.1	0.11	0.125	0.128
Peak Flow rate q_p	1.01	3.02	4.87	5.62
Runoff Depth Q_{24} (mm)	12.78	60.33	96.63	112.51
Runoff Volume V_{24} (m^3)	3688	17411	27887	32470

Channeling Factor	
Pipe Stormwater system	0.6
Engineered grass channels	0.8

	A	B	C
Urban Lawns	39	61	74
Roads,roof	98	98	98
Pasture, good grass	36	61	74

PRE DEVELOPMENT CATCHMENT

Step 1	Catchment Arean and Main Channel	
Total Area	28.86	ha
Impervious	1	ha
Pervious	27.86	ha
Channelisation factor, C	0.8	
Catchment Length	1.15	km
Cathcment Slope	0.44	%

Step 2	Curve Number and initial Abstration		
	CN	Area	CN*Area
Impervious	98	1	98.00
Pervious	74	27.86	2061.64
Total		28.86	2159.64
CN(weighted)	75		
Ian(weighted)	4.8		

Step 3	Time of Concentration	
Runoff factor	0.60	
tc	0.21	hrs
SCSLags for HEC-HMS"tp"	0.14	hrs

Step 3	Storage	
Cathcment Area	0.2886	km^2
Calculated Storage,S	85.43	

Step 4	Runoff Volumes and Peak Discharges			
Description	Storm 1	Storm 2	Storm 3	Storm 4
Average Recurrence Interval/WQV	2.33yr ARI	10yr ARI	50yr ARI	100yr ARI
24hr Rainfall Depth, P_{24} (mm)	35	95	135	152
Compute c* (mm)	0.129	0.333	0.423	0.454
Specific Flow rate q*, TP108 figure 5.1	0.06	0.11	0.13	0.135
Peak Flow rate q_p	0.61	3.02	5.06	5.92
Runoff Depth Q_{24} (mm)	7.88	46.30	78.59	93.12
Runoff Volume V_{24} (m^3)	2273	13364	22682	26875

Additional Volume (Vpost - Vpre), m^3	1415	4048	5205	5596

POST DEVELOPMENT CATCHMENT, C1 (Top End)

Step 1	Catchment Arean and Main Channel	
Total Area	4.593	ha
Impervious	0.1	ha
Pervious	4.493	ha
Channelisation factor, C	0.6	
Catchment Length	0.20	km
Cathcment Slope	2.30	%

Step 2	Curve Number and initial Abstration		
	CN	Area	CN*Area
Impervious	98	0.1	9.80
Pervious	74	4.493	332.48
Total		4.593	342.28
CN(weighted)	75		
Ian(weighted)	4.9		

Step 3	Time of Concentration	
Runoff factor	0.59	
tc	0.03	hrs
SCSLags for HEC-HMS"tp"	0.02	hrs

Step 3	Storage	
Cathcment Area	0.04593	km^2
Calculated Storage,S	86.84	

Step 4	Runoff Volumes and Peak Discharges			
Description	Storm 1	Storm 2	Storm 3	Storm 4
Average Recurrence Interval/WQV	2.33yr ARI	10yr ARI	50yr ARI	100yr ARI
24hr Rainfall Depth, P_{24} (mm)	35	95	135	152
Compute c* (mm)	0.127	0.329	0.419	0.450
Specific Flow rate q*, TP108 figure 5.1	0.038	0.095	0.12	0.128
Peak Flow rate q_p	0.06	0.41	0.74	0.89
Runoff Depth Q_{24} (mm)	7.75	45.89	78.03	92.50
Runoff Volume V_{24} (m^3)	356	2108	3584	4249

PRE DEVELOPMENT CATCHMENT, C1 (Top End)

Step 1	Catchment Arean and Main Channel	
Total Area	4.593	ha
Impervious	0	ha
Pervious	4.593	ha
Channelisation factor, C	0.8	
Catchment Length	0.20	km
Cathcment Slope	2.30	%

Step 2	Curve Number and initial Abstration		
	CN	Area	CN*Area
Impervious	98	0	0.00
Pervious	74	4.593	339.88
Total		4.593	339.88
CN(weighted)	74		
Ian(weighted)	5.0		

Step 3	Time of Concentration	
Runoff factor	0.59	
tc	0.04	hrs
SCSLags for HEC-HMS"tp"	0.03	hrs

Step 3	Storage	
Cathcment Area	0.04593	km^2
Calculated Storage,S	89.24	

Step 4	Runoff Volumes and Peak Discharges			
Description	Storm 1	Storm 2	Storm 3	Storm 4
Average Recurrence Interval/WQV	2.33yr ARI	10yr ARI	50yr ARI	100yr ARI
24hr Rainfall Depth, P_{24} (mm)	35	95	135	152
Compute c* (mm)	0.123	0.323	0.412	0.443
Specific Flow rate q*, TP108 figure 5.1	0.06	0.11	0.13	0.135
Peak Flow rate q_p	0.10	0.48	0.81	0.94
Runoff Depth Q_{24} (mm)	7.55	45.19	77.08	91.47
Runoff Volume V_{24} (m^3)	347	2076	3540	4201

Additional Volume (Vpost - Vpre), m^3	9	32	43	48

POST DEVELOPMENT CATCHMENT, C2 (Bottom End)

Step 1	Catchment Arean and Main Channel	
Total Area	24.267	ha
Impervious	11.9	ha
Pervious	12.367	ha
Channelisation factor, C	0.6	
Catchment Length	0.95	km
Cathcment Slope	0.54	%

Step 2	Curve Number and initial Abstration		
	CN	Area	CN*Area
Impervious	98	11.9	1166.20
Pervious	74	12.367	915.16
Total		24.267	2081.36
CN(weighted)	86		
Ian(weighted)	2.5		

Step 3	Time of Concentration	
Runoff factor	0.75	
tc	0.11	hrs
SCSLags for HEC-HMS"tp"	0.08	hrs

Step 3	Storage	
Cathcment Area	0.24267	km^2
Calculated Storage,S	42.14	

Step 4	Runoff Volumes and Peak Discharges			
Description	Storm 1	Storm 2	Storm 3	Storm 4
Average Recurrence Interval/WQV	2.33yr ARI	10yr ARI	50yr ARI	100yr ARI
24hr Rainfall Depth, P_{24} (mm)	35	95	135	152
Compute c* (mm)	0.262	0.516	0.606	0.635
Specific Flow rate q*, TP108 figure 5.1	0.08	0.14	0.154	0.157
Peak Flow rate q_p	0.68	3.23	5.05	5.79
Runoff Depth Q_{24} (mm)	14.12	63.50	100.48	116.58
Runoff Volume V_{24} (m^3)	3426	15410	24384	28290

PRE DEVELOPMENT CATCHMENT, C2 (Bottom End)

Step 1	Catchment Arean and Main Channel	
Total Area	24.267	ha
Impervious	1	ha
Pervious	23.267	ha
Channelisation factor, C	0.8	
Catchment Length	0.95	km
Cathcment Slope	0.54	%

Step 2	Curve Number and initial Abstration		
	CN	Area	CN*Area
Impervious	98	1	98.00
Pervious	74	23.267	1721.76
Total		24.267	1819.76
CN(weighted)	75		
Ian(weighted)	4.8		

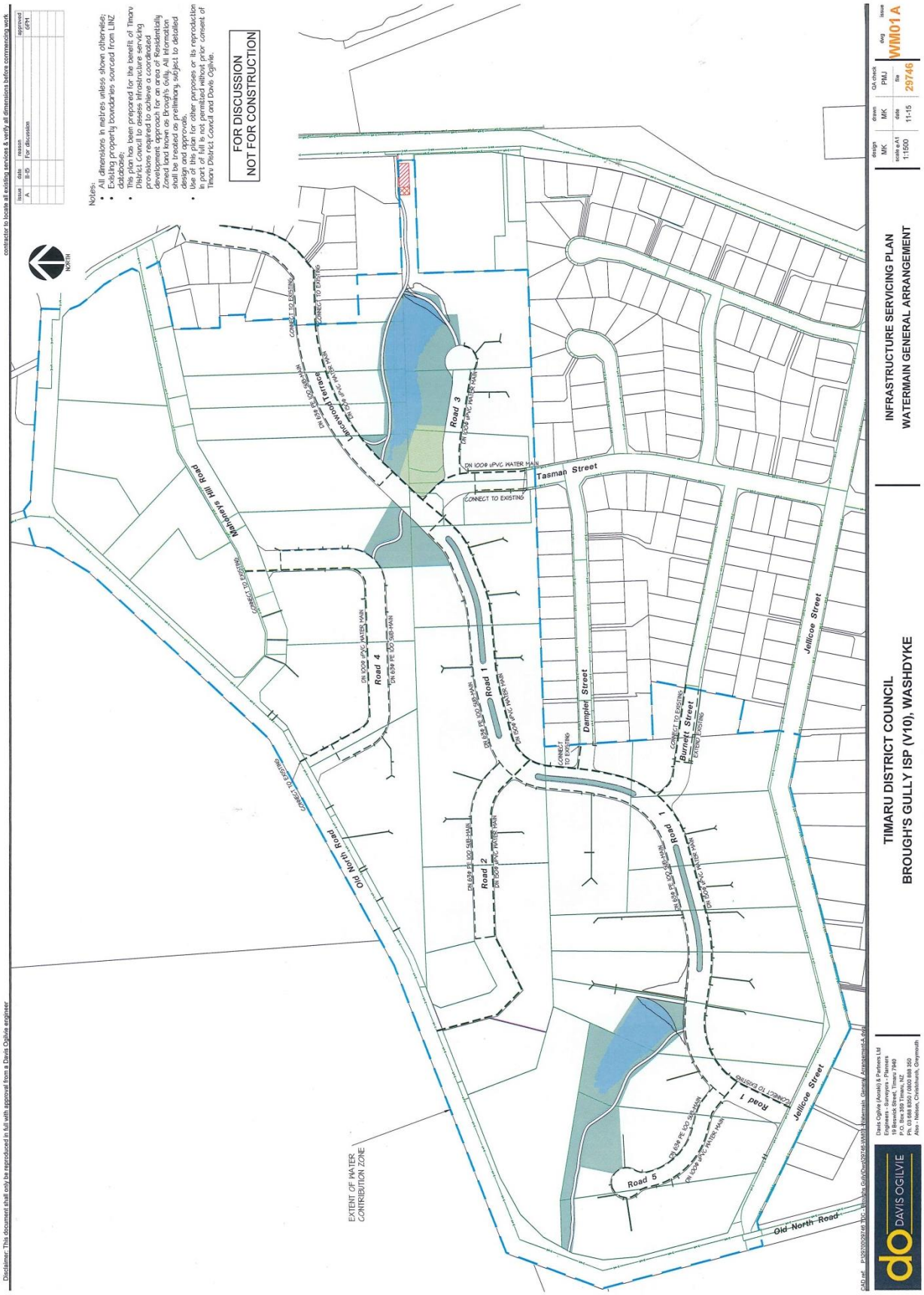
Step 3	Time of Concentration	
Runoff factor	0.60	
tc	0.17	hrs
SCSLags for HEC-HMS"tp"	0.12	hrs

Step 3	Storage	
Cathcment Area	0.24267	km^2
Calculated Storage,S	84.72	

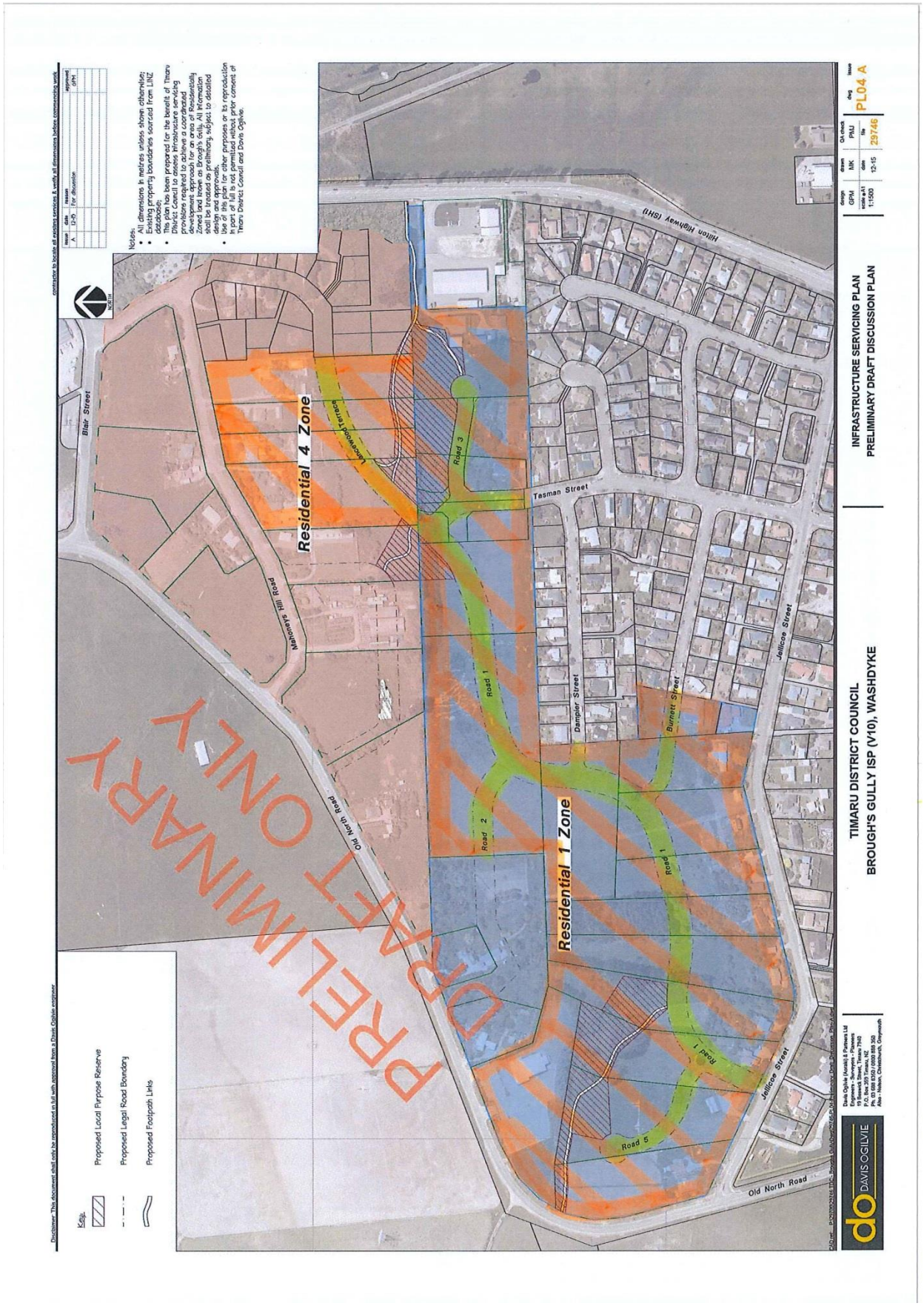
Step 4	Runoff Volumes and Peak Discharges			
Description	Storm 1	Storm 2	Storm 3	Storm 4
Average Recurrence Interval/WQV	2.33yr ARI	10yr ARI	50yr ARI	100yr ARI
24hr Rainfall Depth, P_{24} (mm)	35	95	135	152
Compute c* (mm)	0.130	0.335	0.425	0.457
Specific Flow rate q*, TP108 figure 5.1	0.06	0.11	0.13	0.135
Peak Flow rate q_p	0.51	2.54	4.26	4.98
Runoff Depth Q_{24} (mm)	7.94	46.52	78.88	93.43
Runoff Volume V_{24} (m^3)	1927	11289	19142	22674

Additional Volume (Vpost - Vpre), m^3	1499	4122	5241	5616

8. Appendix C – WM01 Water

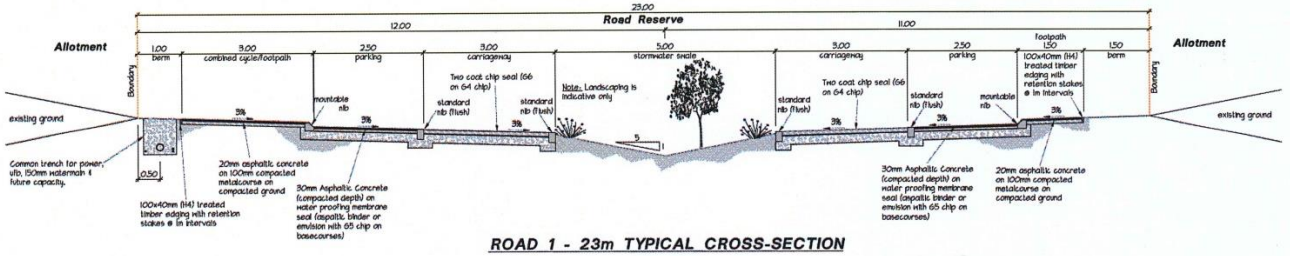


9. Appendix D – PL04 Roading

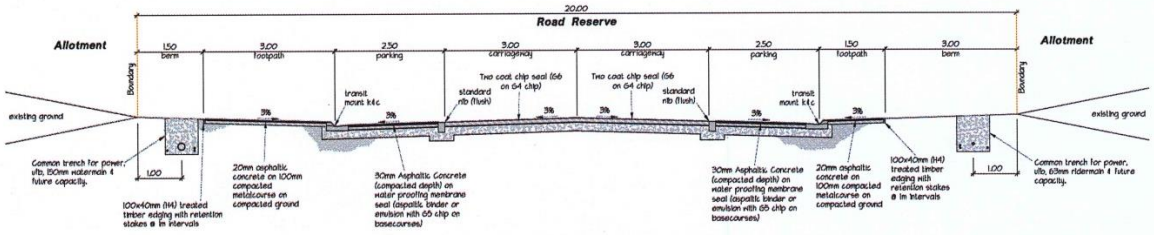


contractor to locate all existing services & verify all dimensions before commencing work

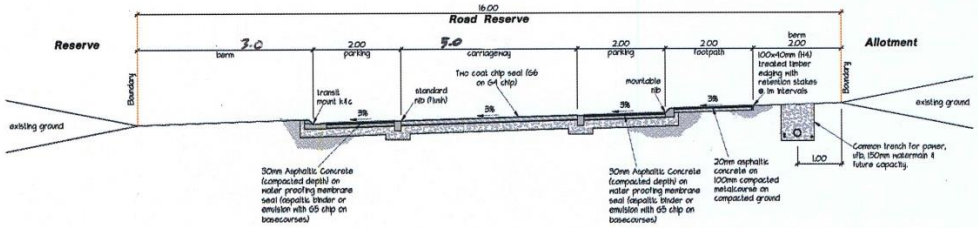
issue	date	reason	approved
A	11-15	For discussion	GPM



ROAD 1 - 23m TYPICAL CROSS-SECTION



ROAD 1 - 20m TYPICAL CROSS-SECTION



ROAD 3 - 16m TYPICAL CROSS-SECTION

Notes:

- All dimensions in metres unless shown otherwise;
- This plan has been prepared for the benefit of Timaru District Council to assess infrastructure servicing provisions required to achieve a coordinated development approach for an area of Residentially Zoned land known as Brough's Gully. All information shall be treated as preliminary, subject to detailed design and approvals.
- Use of this plan for other purposes or its reproduction in part of full is not permitted without prior consent of Timaru District Council and Davis Ogilvie.

FOR DISCUSSION
NOT FOR CONSTRUCTION

DAVIS OGILVIE
Davis Ogilvie (Aoraki) & Partners Ltd
Engineers - Surveyors - Planners
19 Beswick Street, Timaru 7940
P.O. Box 359 Timaru, NZ
Ph. 03 688 8550 / 0800 888 350
Also - Nelson, Christchurch, Greymouth

TIMARU DISTRICT COUNCIL
BROUGH'S GULLY ISP (V10), WASHDYKE

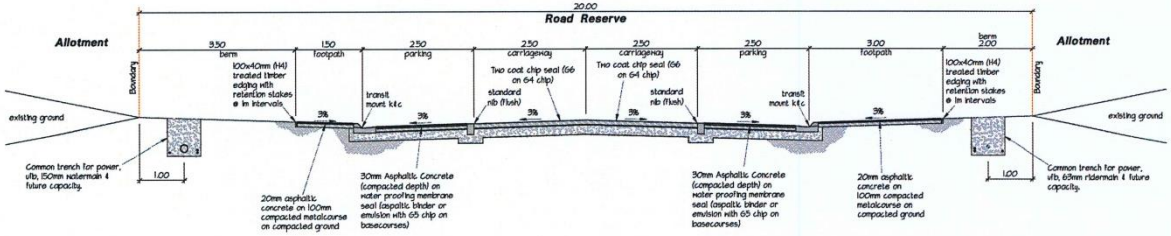
INFRASTRUCTURE SERVICING PLAN
TYPICAL DETAILS

design	drawn	QA check	dwg	issue
GPM	MK	PMJ	TD01	A
scale @ A1	date	file		
1:50	11-15	29746		

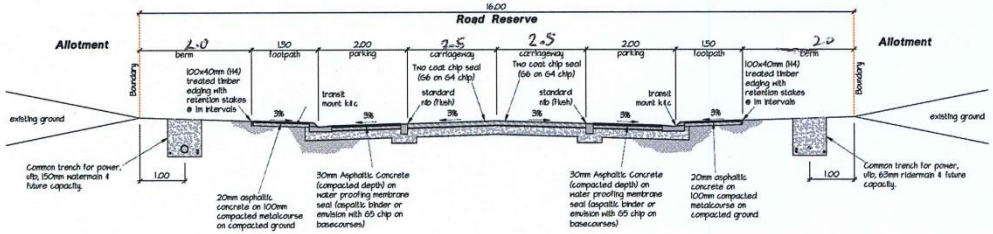
#1003217

contractor to locate all existing services & verify all dimensions before commencing work

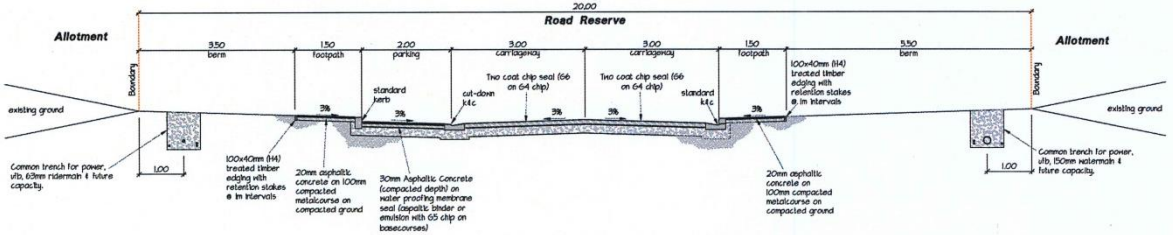
issue	date	reason	approved
A	11-15	For discussion	GPM



ROAD 4 - 20m TYPICAL CROSS-SECTION



ROAD 5 - 16m TYPICAL CROSS-SECTION



LANCEWOOD TERRACE - 20m TYPICAL CROSS-SECTION (TO MATCH EXISTING)

Notes:

- All dimensions in metres unless shown otherwise;
- This plan has been prepared for the benefit of Timaru District Council to assess infrastructure servicing provisions required to achieve a coordinated development approach for an area of Residentially Zoned land known as Brough's Gully. All information shall be treated as preliminary, subject to detailed design and approvals.
- Use of this plan for other purposes or its reproduction in part of full is not permitted without prior consent of Timaru District Council and Davis Ogilvie.

FOR DISCUSSION
NOT FOR CONSTRUCTION

CAD ref: P:\29700\29746 TDC - Brougha Gully\Dwg\29746-TD02-Typical Details-A.dwg

DAVIS OGILVIE
Davis Ogilvie (Aoraki) & Partners Ltd
Engineers - Surveyors - Planners
19 Beswick Street, Timaru 7940
P.O. Box 359 Timaru, NZ
Ph. 03 688 8350 / 0800 888 350
Also - Nelson, Christchurch, Greymouth

TIMARU DISTRICT COUNCIL
BROUGH'S GULLY ISP (V10), WASHDYKE

INFRASTRUCTURE SERVICING PLAN
TYPICAL DETAILS

design	drawn	QA check	dwg	issue
GPM	MK	PMJ	TD02	A
scale @ A1	date	file		
1:50	11-15	29746		

13

#1003217

contractor to locate all existing services & verify all dimensions before commencing work

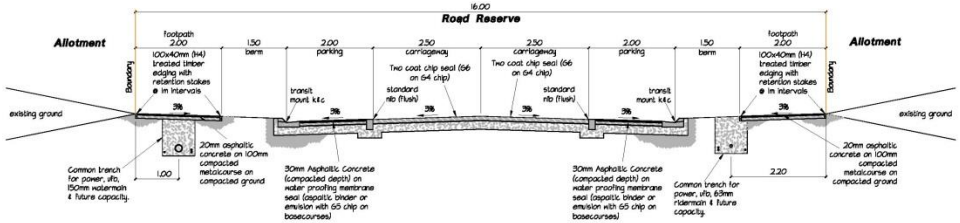
issue	date	reason	approved
A	11-15	For discussion	GPM

NORTH

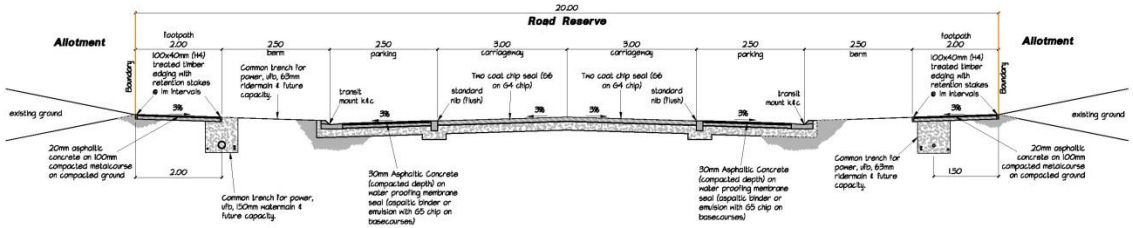
Notes:

- All dimensions in metres unless shown otherwise;
- This plan has been prepared for the benefit of Timaru District Council to assess infrastructure servicing provisions required to achieve a coordinated development approach for an area of Residentially Zoned land known as Brough's Gully. All information shall be treated as preliminary, subject to detailed design and approvals.
- Use of this plan for other purposes or its reproduction in part of full is not permitted without prior consent of Timaru District Council and Davis Ogilvie.

FOR DISCUSSION
NOT FOR CONSTRUCTION



BURNETT STREET - 16m TYPICAL CROSS-SECTION
(TO MATCH EXISTING)



TASMAN STREET - 20m TYPICAL CROSS-SECTION
(TO MATCH EXISTING)

CAD ref: P:\2670029746 TDC - Broughs Gully\Dwg\29746-TD03-Typical_Details-A.dwg

DAVIS OGILVIE
Davis Ogilvie (Aoraki) & Partners Ltd
Engineers - Surveyors - Planners
19 Beswick Street, Timaru 7940
P.O. Box 359 Timaru, NZ
Ph. 03 688 8350 / 0800 888 350
Also - Nelson, Christchurch, Greymouth

TIMARU DISTRICT COUNCIL
BROUGH'S GULLY ISP (V10), WASHDYKE

INFRASTRUCTURE SERVICING PLAN
TYPICAL DETAILS

design	drawn	QA check	dwg	issue
GPM	MK	PMJ	TD03	A
scale @ A1	date	file		
1:50	11-15	29746		

APPENDIX 6:

Stormwater Assessment

Brough's Gully Stormwater Assessment Report

PREPARED FOR: TIMARU DISTRICT COUNCIL / BROUGH'S GULLY, TIMARU / OCTOBER 2016

FILE TIM29746

0800 888 350
timaru@do.co.nz

14 The Terrace, Timaru
PO Box 359, Timaru 7940
www.do.co.nz

Quality Assurance

Title:	Brough's Gully Stormwater Assessment Report		
Client:	Timaru District Council		
Filename:	P:\29700\29746 TDC - Broughs Gully\Engineering\Subdivision_of_Lot_1_DP23147\Report\29746-PJ-Consultation Revised Stormwater Assessment Report.docx		
Version:	2		
Date:	October 2016		
Project No:	29746 (Timaru)		
Prepared By:	Paul Jackson Civil Engineer NZCE / BEng (Hons)	**Signature:**	
Reviewed By:	Glen McLachlan Director, Licensed Surveyor BSurv(Hons), MNZIS	**Signature:**	

Disclaimer

This report has been prepared solely for the purpose of evaluating the impacts of a proposed subdivision on Lot 1, DP 23147 on the greater Brough's Gully Infrastructure Servicing Plan (ISP). The information contained herein is confidential, and shall not be passed on to any third party without prior written permission of Davis Ogilvie (Aoraki) Ltd.

Only Timaru District Council are entitled to rely upon this report, and then only for the purpose stated above. Davis Ogilvie (Aoraki) Ltd accepts no liability to anyone other than those parties names above in anyway in relation to this report and the content of it and any direct or indirect effect this report may have. Davis Ogilvie (Aoraki) Ltd does not contemplate anyone else relying on this report or that it will be used for any other purpose.

Should anyone wish to discuss the content of this report with Davis Ogilvie (Aoraki) Ltd, they are welcome to contact us on (03) 688 8350 or at 14 The Terrace, Timaru.

DAVIS OGILVIE
ENGINEERS / SURVEYORS / PLANNERS

Table of Contents

1.0 Introduction 1

2.0 Methodology 2

2.1 Attenuation Requirements 2

2.2 Runoff Calculations 3

2.2.1 Part 1 – Review total attenuation requirements for the Brough Gully Area 3

2.2.2 Part 2 – Stormwater Assessment for Subdivision of Lot 1 DP23147 4

2.2.3 Part 3 – Assessment of Areas Available for Storage 4

3.0 Discussion Points 5

Appendix 1 Brough's Gully Catchment Boundaries

Appendix 2 Proposed Subdivision Scheme Plan

Appendix 3 Runoff Coefficient Calculations

Appendix 4 Runoff Calculation Summaries

1.0 Introduction

Davis Ogilvie (DO) has been engaged by the Timaru District Council (TDC) to assist them with the preparation of an Infrastructure Servicing Plan (ISP) for the overall Brough's Gully area. TDC has asked DO to assess the following:

1. Review the total amount of storage required within the Brough Gully catchment;
    a. There is need for a re-assessment of the amount of attenuation thought to be required for the entire Brough's Gully area. DO are to review this using the Rational Method and evaluate with consideration of pre and post development flows.
2. To look at the attenuation requirements for Lot 1, DP23147 (highlighted green on Figure 1) as per the proposed subdivision scheme plan (Appendix 1) but additionally include the following:
    a. The developer will be required to construct the Tasman Street Extension and the road on Lot 21 & 23, DP47318 (highlighted blue on Figure 1) as part of their subdivision. Therefore they would be responsible for the attenuation of this runoff to pre-development levels.
    b. Construction of the road in Lot 21 & 23, DP 47318 will intercept the runoff from Lots 1 & 2, DP 47318 (highlighted red on Figure 1). Therefore, the pre-development runoff from these properties needs to be included in any assessment as well (Note: post development attenuation from these properties has not been considered as that would only be by agreement with the owner of Lot 1 DP 23147).
3. As the owner of Lot 1 DP23147 is proposing an alternative subdivision to that set-out in 'v10' of the ISP, DO are to assess and discuss the availability of storage for the remainder of the Brough's Gully area. Storage will be created as follows:
    a. A Dam will be created on Lot 22, DP 47318 (west of the current location and off Lot 1 DP23147) to utilise the currently proposed storage.
    b. The proposed Road-1 will potentially be moved south to create additional storage at the bottom of the gully.

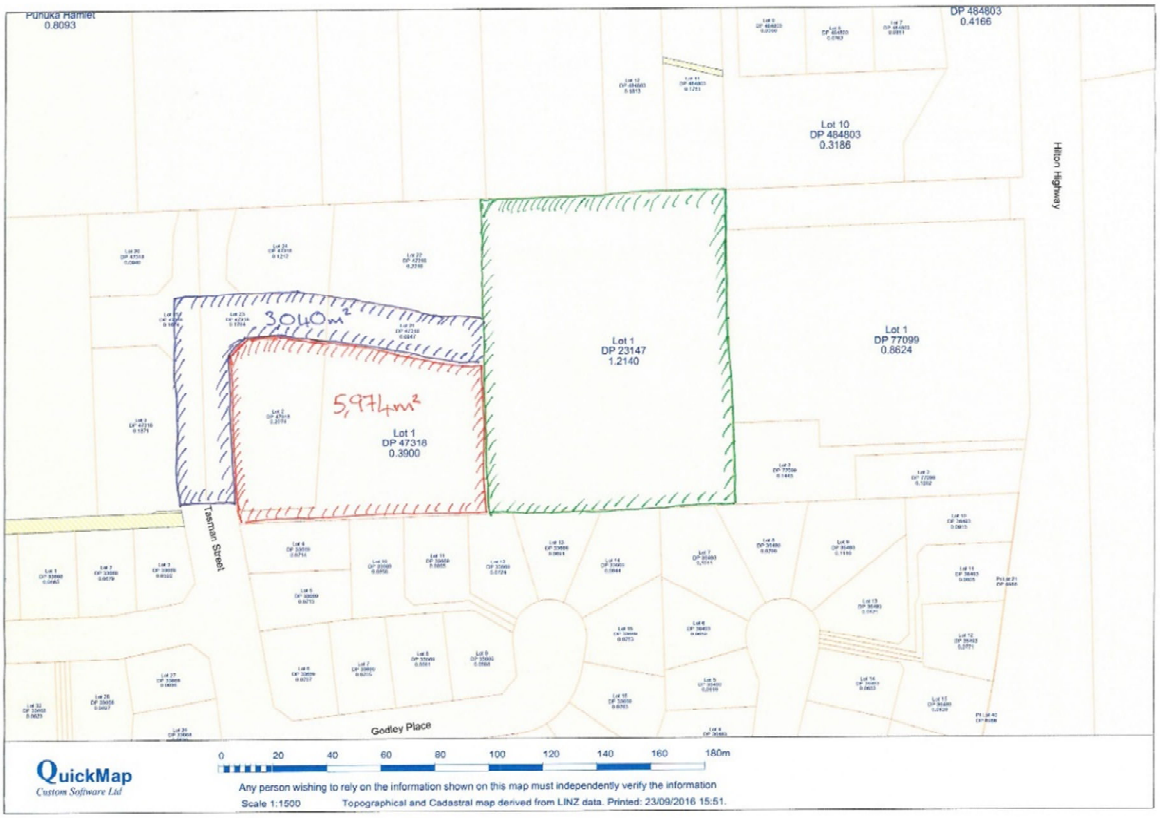


Figure 1: Area under consideration for Part 2

2.0 Methodology

2.1 Attenuation Requirements

Selecting what event and for what duration post-development discharges should be attenuated for is fundamentally important in the calculation of attenuation volumes. TDC have advised that attenuation is required for events corresponding to a 2% Annual Exceedance Probability (AEP). The duration for which attenuation should be achieved can be dependent on a number of factors:

a) The available capacity within the receiving stormwater infrastructure;
b) The Time of Concentration (ToC) of the catchment which the subject land is a part of; and
c) The receiving environment of the stormwater discharge.

An assessment of the capacity of the available stormwater network has not been carried out. We do not believe that this is necessary as points 'b' and 'c' will have a greater impact on the duration of attenuation required.

This development is at the bottom of a much larger catchment which needs to be considered when assessing the attenuation requirements of the catchment. The entire Brough's Gully catchment has a ToC of approximately 60 minutes and without further investigation, as a minimum, all events up to and including the 2% AEP, 60 minute event should be assessed.

In development of the Brough's Gully ISP it has always been considered that the Washdyke Lagoon is the receiving environment. This is a highly sensitive natural water feature with significant environmental and cultural values. DO have been involved in a number of projects where the Washdyke Lagoon has been the receiving environment (via other channels) and the required ToC for

assessment of attenuation has been 24 hours (set by ECan). Additionally, all calculations to-date for the Brough's Gully ISP have worked on the assumption that attenuation would be required for 24 hours.

TDC will be developing global stormwater management plans for the region. Once operative these plans will give TDC the power to grant consents for discharges into their network. In light of this we sought advice from TDC on their assessment of the storm duration which should be allowed for. Their response was that in the absence of further information we should use 24 hours.

We have also considered that this project is in a feasibility type stage and that we need to be somewhat conservative. TDC are preparing a plan change for this area and it would be very difficult to acquire additional land after the plan change. It would be unacceptable to set aside areas for stormwater management during this plan change phase only to find them insufficient at a later date.

Therefore, we have assumed that the attenuation requirements for both Part 1 and Part 2 are that stormwater post development discharges from the proposed developments must be attenuated to pre-development levels for all events up to and including the 2% AEP, 24 hour event.

2.2 Runoff Calculations

2.2.1 Part 1 – Review total attenuation requirements for the Brough's Gully Area

- Modelling of attenuation pond is critical to the overall attenuation requirements. Simple modelling of the difference between pre and post development discharges over the required duration tends to under estimate the required storage volumes. This is because the peak post-development discharge (equal to the pre-development discharge) can generally only be realised when the attenuation pond is at capacity. Therefore, flows increase as the water level in the pond increases. DO have assessed the amount of storage in the proposed dams and used these within the proposed models. The East Dam appears to provide insufficient storage as currently designed – therefore this was modelled with an inverted frustum;
- DO has used the Rational Method to assess the stormwater runoff from the affected land. For a catchment of 26 ha this is likely to give a conservative answer. This is acceptable given we are in feasibility stages but the volume required for attenuation will likely reduce when more sophisticated modelling tools are used in detailed design;
- Refer to Appendix 1 for the Brough's Gully catchment boundaries (note that the catchments to the north are not relevant to this assessment). The current (or pre-development) runoff coefficient was measured from aerial photographs.
    - Refer calculation sheets (Appendix 3). Pre development runoff coefficient 'C' for West Bund catchment is 0.48;
    - Pre development runoff coefficient 'C' for the East Bund catchment is 0.44;
- The proposed (or post-development) runoff coefficient was assessed by analysing existing residential development in the area as well as an assessment of the proposed land use and the rules under the proposed Plan Change.
    - Refer calculation Sheets. Post development runoff coefficient 'C' for the West Bund catchment is 0.58
    - Post development runoff coefficient 'C' for the East Bund catchment is 0.65
- Excel calculations indicate that 3,100 m^3 of storage would be required behind the West Bund and around 8,900 m^3 for the East Bund. The West Pond capacity as currently designed is around 3,200 m^3 and will likely require very little change. The East Pond is currently designed with around 3,200 m^3 of storage and therefore it is of insufficient capacity when using the Rational Method for analysis. East Bund volume can be augmented using earthworks and reshaping the natural ground to achieve an aesthetic temporary storage pond. With the

current road layout there is a need for fill material which could potentially be sourced from the East Pond area. Overall it is believed that this upper limit 8,900 m^3 of storage could be achieved within the current reserve area although some of the proposed recreation reserve may be required for stormwater attenuation in extreme events. A summary of the calculations is included in Appendix 4.

- In line with the feasibility nature of this assessment the ponds have been modelled as independent catchments. Due to the nature of the site it is likely they will run in series in the final design but this is beyond the scope of this assessment. It is not believed that this will have a significant impact on the storage volumes required.

2.2.2 *Part 2 – Stormwater Assessment for Subdivision of Lot 1 DP23147*

- DO has used the Rational Method to assess the stormwater runoff from the affected land (Q = 2.78 * C.i.A). For Part 2, the area under consideration is small (2.1 ha) and therefore the rational method is an appropriate method for assessment.
- The current (or pre-development) runoff coefficient was measured from aerial photographs.
    - Refer calculation sheets (Appendix 3). Pre development runoff coefficient 'C' is 0.46
- The proposed (or post-development) runoff coefficient was assessed by analysing existing residential development in the area as well as an assessment of the proposed land use.
    - Refer calculation Sheets (Appendix 3). Post development runoff coefficient 'C' is 0.61
- DO have modelled the pond as an inverted frustum with a maximum depth of 0.8m (from consent application) and side slopes of three horizontal to one vertical. It is assumed that the necessary freeboard would be on top of the 0.8 in the resource consent application.
- Excel calculations indicate that 828m^3 of storage would be required for the subdivision of Lot 1 DP 23147. This equates to a pond area around 1,000 m^2 once freeboard is added in to the design. A summary of these calculations is included in Appendix 3.

2.2.3 *Part 3 – Assessment of Areas Available for Storage*

- Currently the East Pond has a surface area of 4,100 m^2 with scope to increase this to around 6,500 m^2. This would be an average depth of around 1.4m to achieve the 8,900 m^3 of storage. The current design has a depth of 2.8 m so the pond could be shaped relatively flat around the south and western edges to blend in with the proposed subdivision design.
- With the proposed subdivision on Lot 1 DP 23147, the surface area available for the pond reduces to around 3,000 m^2 which will mean an average depth of 3.0 m will be required which we believe is largely impractical.
- Alternatively, storage could be constructed on the west side of the Tasman Street extension. Implications of this are:
    - Realigning Road-1 out of the bottom of the gully to the south utilising flatter land that would be preferable to build houses on;
    - Create issues for road connectivity. i.e. The ability for Lancewood Terrace to connect through to Road 1 and the Tasman Street extension;
    - Creation of a long narrow attenuation area at a shallower depth. As it is shallower it would require more area;

3.0 Discussion Points

- The developer of Lot 1 DP23147 is required to provide land on their subdivision for attenuation. A potential solution is to provide a hybrid option whereby the East Dam is moved slightly upstream to reduce the impact on this property whilst still retaining the bulk of the reserve area for stormwater storage;
- The proposed Lot 8 has implications for secondary flow paths and potential flooding. Under current design the 900 mm dia pipe will cater for all events with an ARI of 50 years. The dams are also designed for 50 year return periods. For events in excess of 50 years when the dams are potentially compromised then water will overtop the dams and discharge to the east onto the State Highway. Proposed Lot 8 effectively blocks this secondary flow path. Consideration should be given to carrying out a flood hazard assessment for this allotment based on the future development of Brough's Gully. This could look at restricting the location of a building on Lot 8 as well as establishing appropriate building floor levels to ensure a secondary flow path can be maintained and that any future residential dwellings are not compromised.
- If attenuation is to be moved to the west side of the Tasman Street extension, then the Overall Development Plan (ODP) would lose a number of the higher quality sections within the subdivision. These sections are north facing with a good aspect and located out of the existing gully / secondary flow paths. The loss of higher quality sections would have a detrimental effect on the ODP and any financial model / viability of development (which would subsequently impact overall calculations for contributions as well).
- We have not looked at other means of reducing the stormwater attenuation requirements through proprietary devices such as a hydro-brake.
- Contours indicate that secondary flow runoff from the existing developed areas will enter this property. This has not been evaluated as part of our stormwater attenuation assessment. Whilst it will need to be considered in terms of secondary flow path capacity it should not have an impact on storage requirements as there would be no change between the calculated pre and post development runoffs from these existing residential areas.

Rational Method has been used for this assessment. It is likely to be overly conservative on the larger catchments. Assessment of runoff coefficients is from aerial photo information. 'C' values generally in accordance with the New Zealand building Code. Soil types based on knowledge of local area and test pits excavated on site as part of a basic geological investigation.

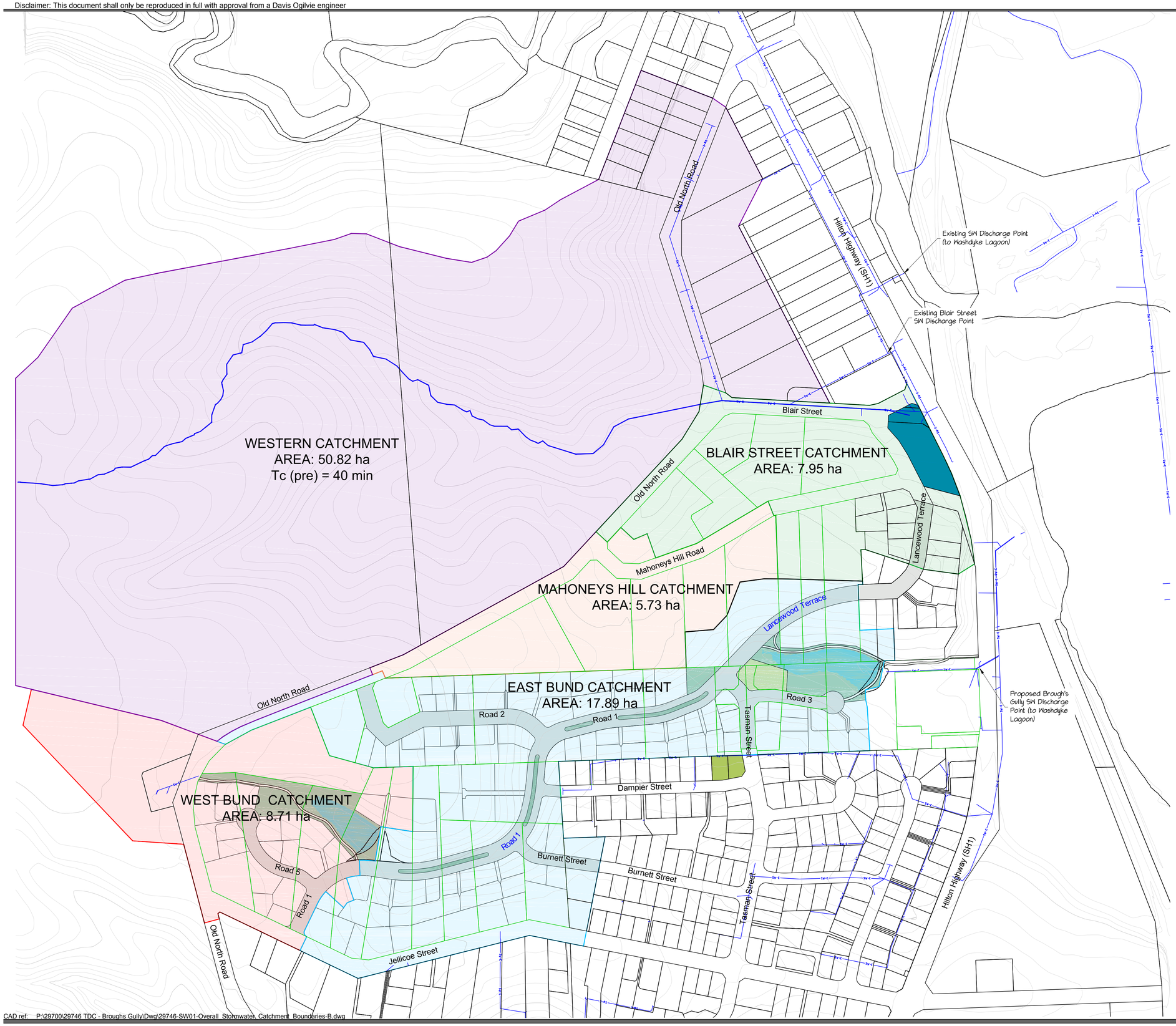
APPENDIX 1

Brough's Gully Catchment Boundaries

DAVIS OGILVIE
ENGINEERS / SURVEYORS / PLANNERS

issue	date	reason	approved
A	11-15	For discussion	GPM
B	11-15	Updated Catchment Boundaries	GPM

NORTH



Notes:

- All dimensions in metres unless shown otherwise;
- Existing property boundaries sourced from LINZ database;
- Contours from TDC supplied LIDAR data; and
- Preliminary services layout only. No vertical design has been attempted and as such design is subject to change.
- This plan has been prepared for the benefit of Timaru District Council to assess infrastructure servicing provisions required to achieve a coordinated development approach for an area of Residentially Zoned land known as Brough's Gully. All information shall be treated as preliminary, subject to detailed design and approvals.
- Use of this plan for other purposes or its reproduction in part of full is not permitted without prior consent of Timaru District Council and Davis Ogilvie.
- The Western catchment pre-developed time of concentration (Tc (pre)) has been determined using the methods specified in the New Zealand Building Code Verification Method E1/VM1.

FOR DISCUSSION
NOT FOR CONSTRUCTION

CAD ref: P:\29700\29746 TDC - Broughs Gully\Dwg\29746-SW01-Overall Stormwater Catchment Boundaries-B.dwg

DAVIS OGILVIE

Davis Ogilvie (Aoraki) & Partners Ltd
Engineers - Surveyors - Planners
19 Beswick Street, Timaru 7940
P.O. Box 359 Timaru, NZ
Ph. 03 688 8350 / 0800 888 350
Also - Nelson, Christchurch, Greymouth

TIMARU DISTRICT COUNCIL
BROUGH'S GULLY ISP (V10), WASHDYKE

INFRASTRUCTURE SERVICING PLAN
OVERALL STORMWATER CATCHMENT BOUNDARIES

design	drawn	QA check
MK	MK	PMJ
scale @ A1	date	file
1:2500	11-15	29746

dwg SW01 issue B

DAVIS OGILVIE
ENGINEERS / SURVEYORS / PLANNERS

APPENDIX 2

Proposed Subdivision Scheme Plan

DAVIS OGILVIE
ENGINEERS / SURVEYORS / PLANNERS

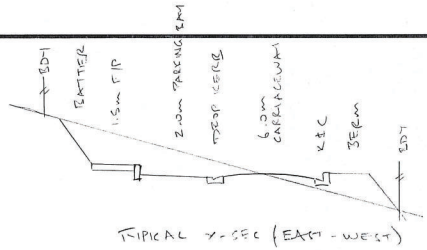
PROPOSED EASEMENTS			
Purpose	Shown	Servient Tenement	Dominant Tenement
Right of Way Right to convey water, electricity, telecommunications & computer media Right to drain sewage and water	A	Lot	Lots 2,3,4,5 & 6
	B	Lot	Lots 2,3 & 4
	C	Lot	Lots 2 & 3
	D	Lot	Lots 4,5 & 6

NOTES:
- Refer to RCA Subdivision Plan 101.2012.550 for existing easement schedules.
- Existing Easements N, S, T, U, V, W, X,Y, Z, EB & EF are to be cancelled in respect of Lots 1-6, 8 & 11 on this plan.
- Full Engineering Plans and design for the Tasman Street Extension and the servicing of Lots 1-8 to be submitted by Milward Finlay Lobb Ltd

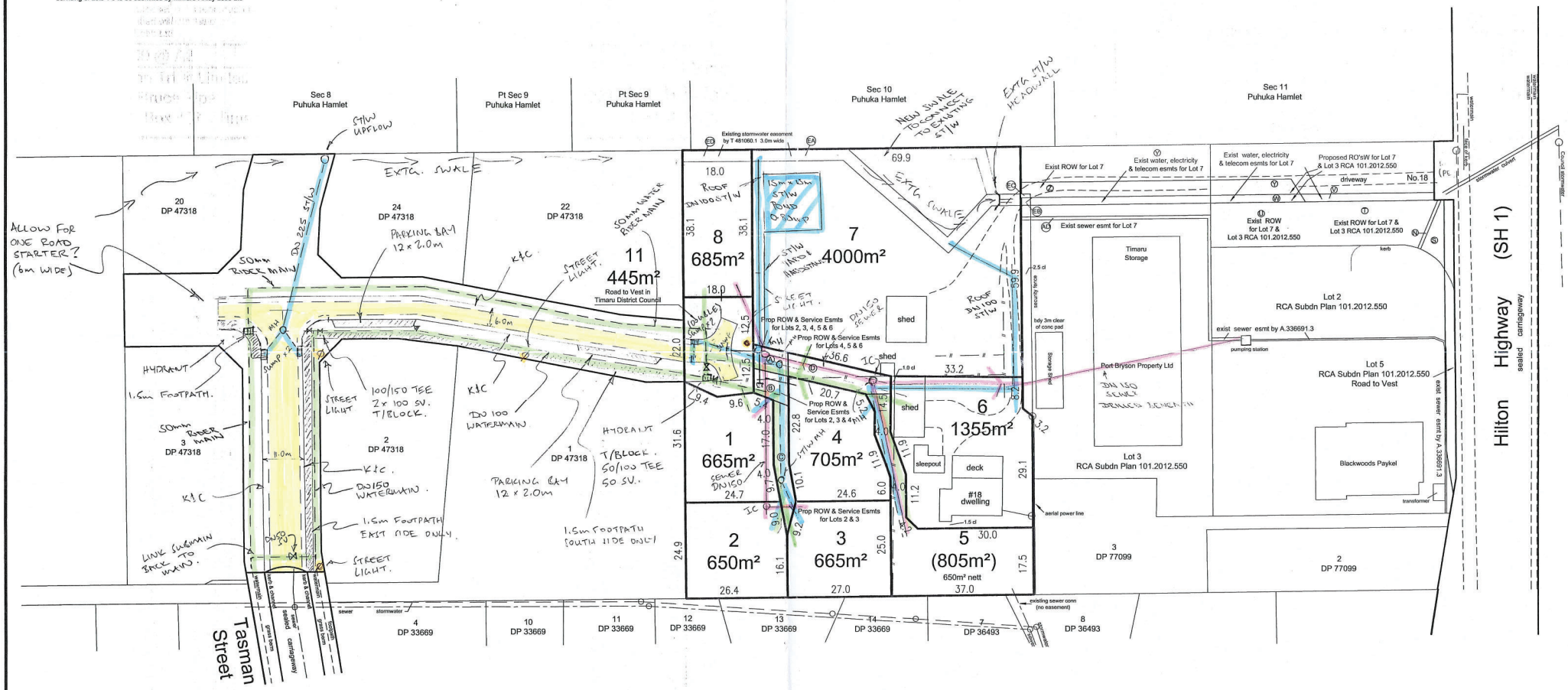
ST/W MH =
ST/W UPFLOW =
SUMP =
DOUBLE SUMP =

STREET LIGHTS =
SEWER MH (PE) =
(CONC) =
SEWER IC (CONC) =

HYDRANT =
DN100 SV =
DN150 SV =



TYPICAL X-SEC (EAST - WEST)



This plan has been prepared for the sole purposes of obtaining subdivisional consent pursuant to Section 88 of the Resource Management Act 1991. Use of this plan for other purposes or its reproduction in part or in full is not permitted without the prior consent of Milward Finlay Lobb Ltd.

PRELIMINARY PLAN ONLY

Area and Dimensions Approximate and subject to final survey

VALUATION REF: 24930/110.00

TIMARU DISTRICT

Z:___2013 Drawings\Hilton Development Trust 168911_1\Hilton Development Trust RCA.dwg

SCALE : 1:750 @ A2 | Date : March 2013

Applicants: Hilton Trust Limited
C/- Bruce Pipe
P O Box 737 Timaru 7940

Surveyed	RGF
Drawn	CJB
Amended	31.8.2016
Amended	

Resource Consent Application
Proposed Subdivision of Lot 1 DP 23147 & Lot 1 DP 77099
(Lot 4 RCA Subdn Plan No. 101.2012.550)

MILWARD FINLAY LOBB LTD
Consulting Civil & Structural Engineers,
Registered Professional Surveyors & Land Development Consultants
P O Box 434, No.6 The Terrace, Timaru
p: (03) 684 7688 e: admin@mflnz.co.nz www.mflnz.co.nz

Client/Job No. 168911/1

APPENDIX 3

Runoff Coefficient Calculations

DAVIS OGILVIE
ENGINEERS / SURVEYORS / PLANNERS

11 Deans Ave, Addington / P O Box 589, Christchurch 8140
T. 0800 999 333 / E. hello@do.co.nz / www.do.co.nz

DAVIS OGILVIE ENGINEERS / SURVEYORS / PLANNERS

Date: 27 / 9 / 16 Project: BROUGH GULLY Job No: 29746

Engineer: PJ Sheet No: Revision:

CALCULATION SKETCH SHEET

Description: ASSESSMENT OF SUBDIVISION OF LOT 1 DP 23147 (STORMWATER)

ATTENUATION INCLUDES (REFER SKETCH)
- LOT 1, DP 23147
- ~~ESP~~ ALL FUTURE ROAD
- POSSIBILITY OF LOT 1 ~ LOT 2 DP 47318

PREDEVELOPMENT RUNOFF COEFFICIENT

→ LOT 1, DP 23147 (12,140m²) GREEN HATCH

		'C'	
ROOF	548m²	0.90	493.2
SEALED DRIVE	194m²	0.85	164.9
UNSEALED DRIVE	1073m²	0.50	536.5
PADDOCK / LAWN	10,325m²	0.40	4130.0
	12,140m²		5324.6

PREDEVELOP 'C' = $\frac{5324.6}{12,140}$ = 0.44

→ ROAD TO WEST (3040m²) BLUE HATCH

PREDEVELOP 'C' = 0.40 (PADDOCK / GRASS)

→ LOTS 1 ~ 2 DP 47318 (5974m²) RED HATCH

		'C'	
ROOF ~ HARDSTAND	1,510m²	0.88	1328.8
PADDOCK / LAWN	4,464m²	0.40	1785.6
	5974m²		3114.4

PREDEVELOP 'C' = $\frac{3114.4}{5974}$ = 0.52

PREDEVELOPMENT 'C'

12,140 × 0.44	=	5341.6
3,040 × 0.40	=	1216.0
5,974 × 0.52	=	3106.5
21,154		9664.1

⇒ $\frac{9664.1}{21154}$ = **0.46**

11 Deans Ave, Addington / P O Box 589, Christchurch 8140
T. 0800 999 333 / E. hello@do.co.nz / www.do.co.nz

DAVIS OGILVIE ENGINEERS / SURVEYORS / PLANNERS

Date: 27 / 9 / 16 Project: BROUGH QUAY Job No: 29746

Engineer: DJS Sheet No: 2 Revision:

CALCULATION SKETCH SHEET

Description: ASSESSMENT OF SUBDIVISION OF LOT 1 DP 23147 (STORMWATER)

POST DEVELOPMENT RUNOFF COEFFICIENT

LOT 6 TOTAL AREA = 1355 m²

		'C'	
ROOF / HARDSTAND	= 625 m²	0.88	550
LAWN / PADDOCK	= 730 m²	0.4	292
			842

'C' = 842 / 1355 = 0.62

LOTS 1-5, 8, 11 (4620), LOTS 1-2 DP 47318 (5974) + ROAD TO VEST (3040) → (13634 m²) ADOPT POST DEV 'C' = 0.65

LOT 7 TOTAL AREA = 4000 m²

		'C'	
ROOF / HARDSTAND	= 1190 m²	0.88	1047.2
POND	= 250 m²	1.00	250
GRASS / PADDOCK	= 2560 m²	0.4	1024
			2321.2

'C' = 2321.2 / 4000 = 0.58

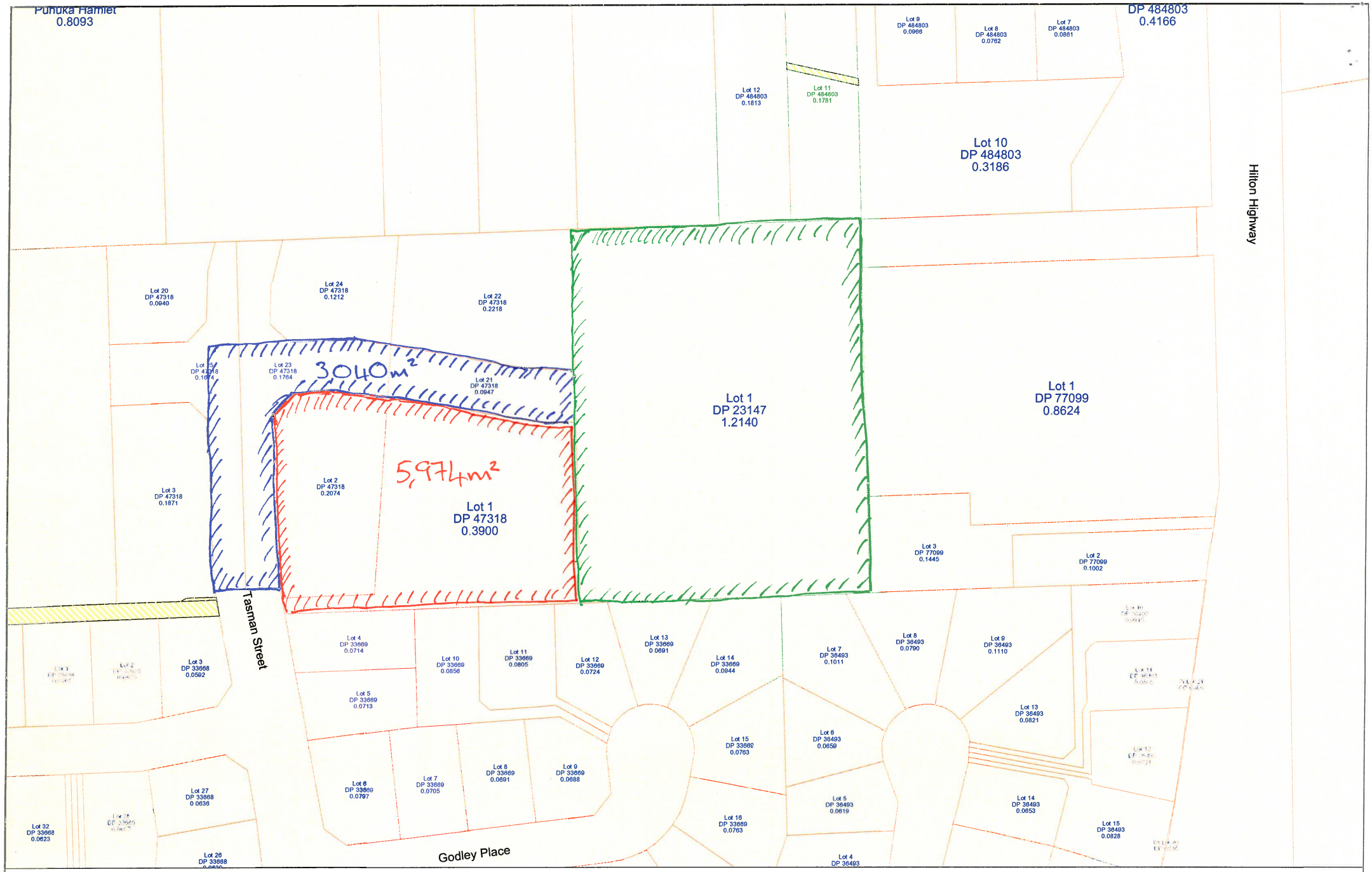
POST DEVELOPMENT 'C'

1355	× 0.62	840.1	12931.5 / 21,154	= 0.61
13634	× 0.65	8862.1		
4,000	× 0.58	2320		
2165	× 0.42	909.3		
21,154		12931.5		

EXISTING DRIVEWAY TO TRANSFER TO ADJACENT PARCELS (BALANCE LOT 1, DP 23147) = 2165 m²

GRAVEL DRIVE	= 394 m²	· 0.5	197
PADDOCK / BERM	= 1771 m²	0.4	708.4
	2165		905.4

905.4 / 2165 = 0.42



QuickMap
Custom Software Ltd

Any person wishing to rely on the information shown on this map must independently verify the information

Scale 1:1500 Topographical and Cadastral map derived from LINZ data. Printed: 23/09/2016 15:51.

11 Deans Ave, Addington / P O Box 589, Christchurch 8140
T. 0800 999 333 / E. hello@do.co.nz / www.do.co.nz

DAVIS OGILVIE
ENGINEERS / SURVEYORS / PLANNERS

Date: 29 / 9 / 16 Project: BROUGH GULLY Job No: 29746
Engineer: PS Sheet No: 1 Revision:
Description: RUNOFF COEFFICIENTS

CALCULATION SKETCH SHEET

PRE DEVELOPMENT → WEST BUND CATCHMENT

→ CHURCH ROOF + HARDSTAND
↳ 7045m² × 0.9 = 6340

→ WEST OF OLD NORTH ROAD
↳ 25,545 × 0.4 + 240 × 0.9 = 10434

→ EXISTING SEAL
↳ 5144m² × 0.85 = 4372.4

→ OTHER ROOF + HARDSTAND
↳ 1707m² × 0.85 = 1451

→ PASTURE
↳ 47707 × 0.4 = 19083

87148m² 41680

PRE DEVELOP 'C' VALUE FOR WEST BUND
↳ 41680 / 87148 = 0.48

11 Deans Ave, Addington / P O Box 589, Christchurch 8140
T. 0800 999 333 / E. hello@do.co.nz / www.do.co.nz

DAVIS OGILVIE ENGINEERS / SURVEYORS / PLANNERS

Date: 29 / 9 / 16 Project: BROUGH GULLY Job No: 29746

Engineer: PJS Sheet No: 2 Revision:

Description: RUNOFF COEFFICIENTS

CALCULATION SKETCH SHEET

POST DEVELOPMENT ↳ WEST BUND CATCHMENT

→ CHURCH + HARDSTAND (ROOF) = 7,045m² × 0.9 = 6340.5

→ WEST OF OLD NORTH ROAD REMAINS RURAL

↳ 25,545m² × 0.4 + 240 (TANK) × 0.9 = 10,434

→ POND SURFACE (DIRECT RUNOFF)

↳ 2,835m² × 1.0 = 2,835

→ RESERVE (GRASS SURROUNDING POND + CHURCH)

↳ 14,750m² - 2,835m² × 0.4 = 4,766

→ ROAD + SECTIONS

↳ 39,808m² × 0.65 = 25,719.2

50,094.7

TOTAL AREA = 87,148m²

POST DEVELOP 'C' VALUE FOR WEST BUND

↳ $\frac{50094.7}{87148} = 0.58$

ROADS CHECK

ROAD 1

15.5m	PAVED	× 0.85	=	13.175
7.5m	BERM	× 0.30	=	2.25
23				15.425

↳ $\frac{15.425}{23} = 0.67 \fallingdotseq 0.65$

ROAD 3

10m	PAVED	× 0.85	=	8.5
6m	BERM	× 0.30	=	1.8
16				10.3

$\frac{10.3}{16}$ 0.64

11 Deans Ave, Addington / P O Box 589, Christchurch 8140
T. 0800 999 333 / E. hello@do.co.nz / www.do.co.nz

DAVIS OGILVIE ENGINEERS / SURVEYORS / PLANNERS

Date: 29 / 9 / 16 Project: BROUGH GULLY Job No: 29746

Engineer: PJ Sheet No: 3 Revision:

CALCULATION SKETCH SHEET

Description: RUNOFF COEFFICIENTS

PRE DEVELOPMENT → EAST BUND CATCHMENT

→ EXISTING SEAL

↳ OLD NORTH ROAD = 503m²
SELLICOE ST = 4325m²
4828m² × 0.85 = 4104

→ ROOF - HARDSTAND

↳ SELLICOE ST = 7260m²
THOMAN ST = 1702m²
8962m² × 0.85 = 7612

OLD NORTH RD 1683m² × 0.85 = 1431

→ PASTURE

↳ 163,392m² × 0.40 = 65357
178,865 78,504

PRE-DEVELOP 'c' VALUE FOR EAST BUND CATCHMENT

↳ 78504 / 178865 = **0.44**

AREA CHECK

178865
+ 87148
266013

OK

11 Deans Ave, Addington / P O Box 589, Christchurch 8140
T. 0800 999 333 / E. hello@do.co.nz / www.do.co.nz

DAVIS OGILVIE ENGINEERS / SURVEYORS / PLANNERS

Date: 29 / 9 / 16 Project: BROUGH GULLY Job No: 29746

Engineer: PS Sheet No: 4 Revision:

Description: RUNOFF COEFFICIENTS

CALCULATION SKETCH SHEET

POST DEVELOPMENT ↳ EAST BUND CATCHMENT

→ EAST BUND POND SURFACE (DIRECT RUNOFF)

↳ 4135 m² × 1.0 = 4,135 m²

→ EAST BUND RESERVE

↳ 10866 - 4135 m² × 0.4 = 2690

→ ROAD & SECTIONS

↳ 168005 m² × 0.65 = 109203

178865 m² 116028

POST DEVELOP 'C' VALUES FOR EAST BUND

↳ 116028 / 178865 = 0.65

AREA CHECK

178865
+ 87148
266 013 (POST DEV)

OK

266013 (PRE DEV)

BRUCE PIPE

CHANGE IN AREA OF 6,890 m²

APPENDIX 4

Runoff Calculation Summaries

DAVIS OGILVIE
ENGINEERS / SURVEYORS / PLANNERS

Brough Gully - Developer Alternative Layout Without Lots 1 & 2 DP 47318

Pre Development Runoff Coefficients

Area (Refer Calc Sheet)	C	A	C*A
Lot 1, DP 23147	0.44	1.2140	0.534
Road to Vest	0.4	0.3040	0.122
Lots 1 & 2, DP 47318	0.52	0.5974	0.311
Composite	**0.4568**	2.1154	**0.966**

Post Development Runoff Coefficients

Area Type	C	A	C*A
Proposed Lot 6	0.62	0.1355	0.084
Proposed Lots 1-5 & Road to Vest	0.65	0.7660	0.498
Lots 1 & 2, DP 47318	0.52	0.5974	0.311
Proposed Lot 7	0.58	0.4000	0.232
Balance Lot 1, DP 23147	0.42	0.2165	0.091
Generic - Res1	0.65	0.0000	0.000
Composite	**0.57**	2.1154	**1.215**

Exfiltration Parameters

Exfiltration Dimensions	L	W
	0	0
Exfiltration Area	0 m^2	
Infiltration Rate	0 m/hr	
Exfiltration Rate	0 m^3/sec	

Exffiltration Pit depth (m)	0
Pit Void Ratio	0.35
Available Storage (m^3)	0

Pond Parameters

Length	29 m
Width	30 m
Slope	3 1V:?H

Return Period	50

C_d = 0.60 (From NZCE 4138 - Ch9 Pg21)

Orifice D = 0.095 m

Orifice diameter "d" in metres	C_d free flow	C_d submerged flow
0.020	0.61	0.57
0.025	0.62	0.58
0.035	0.64	0.61
0.045	0.63	0.61
0.050	0.62	0.61
0.065	0.61	0.60
≥ 0.075	0.60	0.60

Results

Return Period	50 Years							
Duration (min)	**10**	**20**	**30**	**60**	**120**	**360**	**720**	**1440**
Intensity (mm/hr)	138	117	82	47	27	13.6667	9.33333	5.625
Pre Dev Discharge (l/s)	370.75	314.33	220.30	126.27	72.54	36.72	25.08	15.11
Pre Dev Runoff (m^3)	222	377	397	455	522	793	1083	1306
Post Dev runoff (m^3)	280	474	498	571	656	997	1361	1641
Attenuation Pond Depth (m)	0.298	0.484	0.502	0.553	0.596	0.743	0.811	0.644
Atten. Discharge (l/s)	**10.29**	**13.10**	**13.34**	**14.01**	**14.55**	**16.23**	**16.96**	**15.12**
Atten. Volume (m^3)	**276**	**464**	**482**	**537**	**584**	**749**	**828**	**637**

10 Year Return Period

Duration (min)	10	20	30	60	120	360	720	1440	
Intensity (mm/hr)	78	42	32	24	18	9	6	4	(From TDC OPUS Report)
Pre Dev Discharge (l/s)	209.6	112.8	86.0	64.5	48.4	24.2	16.1	10.7	
Pre Dev Runoff (m^3)	125.73	135.41	154.75	232.12	348.19	522.28	696.37	928.49	
Post Dev Discharge (l/s)	263.4	141.8	108.0	81.0	60.8	30.4	20.3	13.5	
Post Dev Runoff (m^3)	158.01	170.17	194.48	291.72	437.58	656.36	875.15	1166.87	

50 Year Return Period

Duration (min)	10	20	30	60	120	360	720	1440	
Intensity (mm/hr)	138	117	82	47	27	13.67	9.33	5.63	(From TDC OPUS Report)
Pre Dev Discharge (l/s)	370.8	314.3	220.3	126.3	72.5	36.7	25.1	15.1	
Pre Dev Runoff (m^3)	222.45	377.20	396.54	454.58	522.28	793.09	1083.24	1305.69	
Post Dev Discharge (l/s)	465.937	395.034	276.861	158.689	91.162	46.144	31.513	18.992	
Post Dev Runoff (m^3)	279.56	474.04	498.35	571.28	656.37	996.71	1361.36	1640.91	

Brough Gully - West Bund Catchment

Pre Development Runoff Coefficients

Area (Refer Calc Sheet)	C	A	C*A
Church Roof & Hardstand	0.9	0.7045	0.634
Area West of Old North Road (Pasture)	0.4	2.5305	1.012
Area West of Old North Road (Tank)	0.9	0.024	0.022
Existing Seal	0.85	0.5144	0.437
Other Roof & Hardstand	0.85	0.1707	0.145
Pasture	0.4	4.7707	1.908
Composite	**0.4772**	8.7148	**4.158**

Post Development Runoff Coefficients

Area Type	C	A	C*A
Church Roof & Hardstand	0.9	0.7045	0.634
Area West of Old North Road (Pasture)	0.4	2.5305	1.012
Area West of Old North Road (Tank)	0.9	0.024	0.022
Pond Surface	1	0.2835	0.284
Reserve	0.4	1.1915	0.477
Road & Sections	0.65	3.9808	2.588
Composite	**0.58**	8.7148	**5.015**

Exfiltration Parameters

Exfiltration Dimensions	L	W
	0	0
Exfiltration Area	0 m^2	
Infiltration Rate	0 m/hr	
Exfiltration Rate	0 m^3/sec	

Exffiltration Pit depth (m)	0
Pit Void Ratio	0.35
Available Storage (m^3)	0

Return Period	50

C_d = 0.60 (From NZCE 4138 - Ch9 Pg21)

Orifice D = 0.145 m

Orifice diameter "d" in metres	C_d free flow	C_d submerged flow
0.020	0.61	0.57
0.025	0.62	0.58
0.035	0.64	0.61
0.045	0.63	0.61
0.050	0.62	0.61
0.065	0.61	0.60
≥ 0.075	0.60	0.60

Results

Return Period	50 Years							
Duration (min)	**10**	**20**	**30**	**60**	**120**	**360**	**720**	**1440**
Intensity (mm/hr)	138	117	82	47	27	13.667	9.333	5.625
Pre Dev Discharge (l/s)	1595.35	1352.58	947.96	543.35	312.13	157.99	107.90	65.03
Pre Dev Runoff (m^3)	957	1623	1706	1956	2247	3413	4661	5618
Post Dev runoff (m^3)	1154	1956	2056	2357	2708	4113	5617	6771
Attenuation Pond Depth (m)	1.503	2.112	2.164	2.317	2.434	2.843	2.978	2.250
Atten. Discharge (l/s)	**53.80**	**63.78**	**64.56**	**66.80**	**68.47**	**74.00**	**75.73**	**65.83**
Atten. Volume (m^3)	**1131**	**1900**	**1971**	**2177**	**2336**	**2891**	**3072**	**2086**

10 Year Return Period

Duration (min)	10	20	30	60	120	360	720	1440	
Intensity (mm/hr)	78	42	32	24	18	9	6	4	(From TDC OPUS Report)
Pre Dev Discharge (l/s)	901.7	485.5	369.9	277.5	208.1	104.0	69.4	46.2	
Pre Dev Runoff (m^3)	541.03	582.65	665.89	998.83	1498.25	2247.37	2996.49	3995.32	
Post Dev Discharge (l/s)	1086.7	585.1	445.8	334.4	250.8	125.4	83.6	55.7	
Post Dev Runoff (m^3)	652.01	702.17	802.48	1203.71	1805.57	2708.35	3611.14	4814.85	

50 Year Return Period

Duration (min)	10	20	30	60	120	360	720	1440	
Intensity (mm/hr)	138	117	82	47	27	13.67	9.33	5.63	(From TDC OPUS Report)
Pre Dev Discharge (l/s)	1595.4	1352.6	948.0	543.3	312.1	158.0	107.9	65.0	
Pre Dev Runoff (m^3)	957.21	1623.10	1706.33	1956.04	2247.37	3412.67	4661.21	5618.42	

Brough Gully - East Bund Catchment

Pre Development Runoff Coefficients

Area (Refer Calc Sheet)	C	A	C*A
Existng Seal	0.85	0.4828	0.410
Roof & Hardstand	0.85	0.8962	0.762
Roof & Hardstand (Old North Road)	0.85	0.1683	0.143
Pasture	0.4	16.3392	6.536
Composite	**0.4389**	17.8865	**7.851**

Post Development Runoff Coefficients

Area Type	C	A	C*A
East Bund Pond Surface	1	0.4135	0.414
East Bund Reserve	0.4	0.6725	0.269
Road & Sections	0.65	16.8005	10.920
-	0.58	0.0000	0.000
-	0.42	0.0000	0.000
-	0.65	0.0000	0.000
Composite	**0.65**	17.8865	**11.603**

Exfiltration Parameters

Exfiltration Dimensions	L	W
	0	0
Exfiltration Area	0 m^2	
Infiltration Rate	0 m/hr	
Exfiltration Rate	0 m^3/sec	

Exffiltration Pit depth (m)	0
Pit Void Ratio	0.35
Available Storage (m^3)	0

Pond Parameters

Length	100 m
Width	30 m
Slope	3 1V:?H

Return Period	50

C_d = 0.60 (From NZCE 4138 - Ch9 Pg21)

Orifice D = 0.204 m

Orifice diameter "d" in metres	C_d free flow	C_d submerged flow
0.020	0.61	0.57
0.025	0.62	0.58
0.035	0.64	0.61
0.045	0.63	0.61
0.050	0.62	0.61
0.065	0.61	0.60
≥ 0.075	0.60	0.60

Results

Return Period	50 Years							
Duration (min)	**10**	**20**	**30**	**60**	**120**	**360**	**720**	**1440**
Intensity (mm/hr)	138	117	82	47	27	13.667	9.333	5.625
Pre Dev Discharge (l/s)	3011.91	2553.58	1789.69	1025.80	589.29	298.28	203.70	122.77
Pre Dev Runoff (m^3)	1807	3064	3221	3693	4243	6443	8800	10607
Post Dev runoff (m^3)	2669	4525	4757	5453	6266	9514	12995	15664
Attenuation Pond Depth (m)	0.796	1.267	1.314	1.449	1.573	1.997	2.260	2.001
Atten. Discharge (l/s)	**77.49**	**97.78**	**99.56**	**104.56**	**108.94**	**122.76**	**130.58**	**122.87**
Atten. Volume (m^3)	**2640**	**4448**	**4637**	**5196**	**5722**	**7627**	**8887**	**7644**

10 Year Return Period

Duration (min)	10	20	30	60	120	360	720	1440
Intensity (mm/hr)	78	42	32	24	18	9	6	4
Pre Dev Discharge (l/s)	1702.4	916.7	698.4	523.8	392.9	196.4	131.0	87.3
Pre Dev Runoff (m^3)	1021.43	1100.00	1257.15	1885.72	2828.58	4242.87	5657.16	7542.88
Post Dev Discharge (l/s)	2513.9	1353.7	1031.4	773.5	580.1	290.1	193.4	128.9
Post Dev Runoff (m^3)	1508.37	1624.40	1856.45	2784.68	4177.02	6265.53	8354.03	11138.71

(From TDC OPUS Report)

50 Year Return Period

Duration (min)	10	20	30	60	120	360	720	1440
Intensity (mm/hr)	138	117	82	47	27	13.67	9.33	5.63
Pre Dev Discharge (l/s)	3011.9	2553.6	1789.7	1025.8	589.3	298.3	203.7	122.8
Pre Dev Runoff (m^3)	1807.15	3064.29	3221.44	3692.87	4242.87	6442.88	8800.02	10607.17
Post Dev Discharge (l/s)	4447.750	3770.918	2642.866	1514.813	870.212	440.478	300.814	181.294

(From TDC OPUS Report)

APPENDIX 7:

Summary of Submissions from Landowners Workshops

Broughs Gully Infrastructure Services Plan
Summary of Submissions from 1st & 2nd Landowners Workshops

Total number of submissions as at 23/2/2016: **10**

The submissions have been organised according to the questions on the submission form (#967324) and sub-topics to each question as per the table below:

Question	Responses
Proposal supported	5
Proposal not supported	3
Neutral / not stated	3
Lack of demand for development / new sections	2
Financial Contributions	4
Design features	4
Infrastructure	4
Request for more information	2
Remove Road 4	2
Reduction in land values	1

No.	Name, Address & Mail ID	Question	Topic and Submission	Response
1	W Martyn and A White 36 – 42 Mahoneys Hill Rd Timaru Record Number: 971927	Submission form not used.	**Infrastructure:** It is my belief the Broughs Gully infrastructure servicing, and the services required at Mahoneys Hill Road are separate issues and should be addressed in the manner by the TDC. Due to the land contours between the two areas, prohibiting some property sewer connections, separate land titles, which would require easements from Mahoneys Hill properties, to Broughs Gully project, for sewer laterals and unsuitable lateral levels, which dictate that two separate projects exist, and should be addressed accordly, as Mahoneys Hill road infrastructure exists and only requires service infrastructure.	The physical catchments and proposed infrastructure networks overlap the land accessed from Mahoneys Hill Rd and Broughs Gully. The two areas are most efficient treated as one network.
			Request for more information: It is the wish of the Mahoneys Hill Rd and Old North Road property owners to meet with the Council representatives, to discuss these issues, required services, and associated costs for the Mahoneys Hill Road infrastructure stand-alone project.	Mahoneys Hill Rd and Old North Rd landowners meet separately with Council on 29/02/2016
			Infrastructure: The Blair Street, Mahoneys Hill Road East and West, and Old North Road sewer service mains have been designed, costed and suitable Contractor interviewed prior the Menzie Subdivision and sewer connection to East Mahoneys Hill Road, so it has been a missed opportunity for the building of the total scheme as proposed, which could have been installed concurrently.	A design was proposed over 10 years ago but not detailed or discussed with any Contractor.
			Infrastructure: Most important service required is the sewer system, however street lighting, stormwater, kerb and channel, suitable footpaths and property sealed entrances are concerned issues with the property rate payers / owners, which require District Council attention.	Majority of Mahoneys Hill Road and Old North Road are zoned Res 4 therefore do no pay Res 1 rates nor are anticipated to receive Res 1 levels of service.
2	Brian Lobb Record Number: 971636	What questions or ideas do you want the TDC to consider that you have not hear about tonight	**Proposal supported:** Bl..dy Great.	
		Are there other comments or suggestions you wish to make?	**Financial Contributions:** Cost share proposal	Details will be provided in time.
		What questions or ideas do you want the TDC to consider that you have not hear about tonight	**Design features:** Height of Dam?	To be determined at time of detailed design.
		Are there other comments or suggestions you wish to make?	**Proposal supported:** Well done and well run meeting. Good concept. **Request for more information:** Can we have a plan please	Plan provided.

3	Juliette Walden 22 Mahoneys Hill Rd Record Number: 973805	What questions or ideas do you want the TDC to consider that you have not hear about tonight	**Proposal not supported:** Absolutely nothing.	
		Are there other comments or suggestions you wish to make?	**Lack of demand for development / new sections:** No advantage to me at all. Don't see any reason for it. Subdivision down the road taken over 3 years + minimal sections sold so obviously limited interest to people.	
		What questions or ideas do you want the TDC to consider that you have not hear about tonight	Why should I pay for something I don't want + of no advantage to me. Why do Council consider they are entitled to "bully" residents into this. Why is media not involved?	There is no compulsion for any landowner to develop. If a landowner does not wish to develop or connect to a service, Council will not force them to do so. See bullet point 1 letter to landowners 18/12/2015 and 4/03/2016.
		Are there other comments or suggestions you wish to make?	**Proposal not supported:** Complete waste of time energy and money.	
4	Glenn Walton on behalf of Timaru Central Gospel and Meeting Trust 177 Old North Road TImaru Record Number: 974119	What questions or ideas do you want the TDC to consider that you have not hear about tonight	**Proposal supported:** We approve the development from the point of view that we could connect to a sewer system that is close by. Currently our sewerage is pumped to Tasman Street and this has caused problems a number of times over the last twenty years. Overall, very happy about the proposed plan and support the good foresight that the Council has in this development.	
		Are there other comments or suggestions you wish to make?		
		What questions or ideas do you want the TDC to consider that you have not hear about tonight		
		Are there other comments or suggestions you wish to make?	**Infrastructure:** Why don't the Council develop the sections that would be available from extending the end of Tasman Street, considering it is already Council owned. This may help show other landowners in the area that the Council is taking the lead?	Council does not own any land available for future sections. Council does own land that will be future road and is considering constructing this road to 'kick start' growth and development.

5	Kevin Waters 22 Burnett Street Timaru Record Number: 974330	Submission form not used.	**Proposal not supported:** I do see general merit in your proposed development plan for this area, however at this time and presently in strong opposition to it progressing, unless safeguards are included to prevent me from incurring a large financial loss.	The financial contributions being developed aim to harmonize the costs and benefits.
			Infrastructure: My property does presently already have all the needed services either already installed or close by with existing infrastructure for me to develop up to two sections, with relatively low development costs.	The property does not have an additional sewer or stromwater connection.
			Financial Contributions: My opposition to the proposed new development plan can be readily overcome if fair and equitable provisions are made at the time of finalising your present development plan, to ensure I do not suffer costs significantly above what I was likely to incur if I was to develop my property today.	The financial contributions being developed aim to harmonize the costs and benefits.
6	Robyn McDonald and Barry Cantwell 19 Mahoneys Hill Rd Timaru Record Number: 975822	What questions or ideas do you want the TDC to consider that you have not hear about tonight	**Neutral:** A bit ambitious	
		Are there other comments or suggestions you wish to make?	**Lack of demand for development / new sections:** People live in this area for the lifestyle it affords within the town boundary. I can't see people giving that up readily. **Design features:** Road 4 seems to be a complete waste of time. **Infrastructure:** Obviously one would prefer existing properties to be brought up to date infrastructure wise before something so up to the minute is indicated next door.	There is no compulsion for any landowner to develop. If a landowner does not wish to develop or connect to a service, Council will not force them to do so. See bullet point 1 letter to landowners 18/12/2015 and 4/03/2016.
		What questions or ideas do you want the TDC to consider that you have not hear about tonight	**Infrastructure:** Sewerage for Blair Street / Old North Road. How about some updating for the colossal rates we are paying for what?	As 19 Mahoneys Hill Rd is not connected to a Council main, there is no sewer component to their current rates account.
		Are there other comments or suggestions you wish to make?	I'd like to see Council spend a portion of our rate money on Old North Road / Blair Street, pest control of the animal and plant variety. We are plagued by rabbits, possums and every weed known to mankind, most of which come from public land ie the berms. Am constantly spraying gorse, convolvulus etc outside our boundary, also pick up rubbish from street on regular basis. At own cost.	

7	Nigel Chapman 46 Mahoneys Hill Road Timaru Record Number: 976528	Submission form not used.	**Proposal not supported:** ….so far I will against the proposed development unless changes are made and it becomes more flexible allowing individual owners to design development of their land (got to look out for myself in this instance as the proposed Road 4 would have a large negative impact on my business and future development value and potential.	Road 4 removed from proposal.
			Design features: In my case my most valuable land (flat, north facing with both ocean and mountain views – in fact my only flat land) has had a potential road placed through it (Road 4).	Road 4 removed from proposal.
			Design features: I also fail to understand why a residential road would need to be 20m wide.	20m required for underground services and reticulation.
			Reduction in land values: As a whole the development would I believe reduce the land values for the smaller sections such as mine due to the large areas not available for development…	Not supported.
			Financial Contributions: The other issue of course is that the large amount of infrastructure will make any development fiscally difficult as I can't see the smaller land owners being prepared to share the huge costs involved.	Purpose of Financial contributions is to apportion cost according to benefit so that smaller land holders are not unfairly burdened.
8	Ben Boakes 31 Tasman Street Timaru Record Number: 979225	What questions or ideas do you want the TDC to consider that you have not hear about tonight	**Proposal supported:** I think the development is very good. I support it fully.	
		Are there other comments or suggestions you wish to make?	**Financial Contributions:** My bottom section would become part of the reserve. Would I get market value for this?	It will be included as a credit as part of the financial contributions.
		What questions or ideas do you want the TDC to consider that you have not hear about tonight		
		Are there other comments or suggestions you wish to make?	**Design features:** There should be a building standard in this development to keep the standard up, for resale etc.	

9	Bruce Pipe 18 Hilton Highway, Timaru Record Number: 980037	Submission form not used.	**Existing Proposal:** 18 Hilton Highway has a subdivision plan to create a minimum of eight lots with the potential for upto 15 lots. This has been prepared and discussed extensively with both the Council's services and planning staff.	Mr Pipe has discussed his proposed subdivision several times with Council staff. He has been told that there are major planning and servicing issues with his proposal. His application was lodged and returned as incomplete in mid Feb 2016. See Plans.
			Design Features: Objective of the Services Plan: The servicing plan should focus on facilitating the economic development of the most suitable land for residential development.	Economic, topographical and environmental requirements where the primary considerations when designing the servicing for the entire catchment. When taking a catchment wide approach, the most suitable land for residential development is identified, as is the least suitable land for development. As a function of topography, location, servicing and outlook, land at the bottom of the catchment in the gully is not a suitable as that land on the ridges.
			Design Features: Critical to achieving this objective is the need to establish the scope of services corridor linking those areas of Broughs Gully that contain the most suitable land for residential development…..However there are some areas where roading for example will be uneconomic and or unnecessary. In such cases a simple walking / cycling track along the services corridor will be a better option.	Agree that linkages and permeability in a transport network is important. This is an important principle of the current network design. There are cases where the road does not service large numbers of allotments or high value allotments. While this may be less economically viable at a site level, at a catchment wide and network wide perspective, these linkages are extremely important.
			Design Features: The proposed extension of Lancewood Terrace is a relatively high cost section of road with no apparent benefits to offset the cost…….There may be merit in considering realigning Road 4 to run from Old North Road through to Lancewood Terrace……If there is a need to connect Area 1 to the services corridor planned for Broughs Gully then a walking / cycling track linking the Lancewood extension to Road 1 would be the preferred option.	As per comments above. Additionally, the linkage of Road 1 / Lancewood Tc provides connectivity for vehicles heading north via Lancewood Tc / Mahoneys Hill / Blair St / State Highway 1. It will enable vehicles to head south via Road 1 / Jellicoe / and Old North Road. A small proportion of vehicles may head south via Lancewood Tc / Mahoneys Hill / Blair St and SH 1 but, judging by the SH 1 / Jellicoe / Bridge St intersection, residents are likely to avoid a south turn at the SH 1 / Blair intersection.
			Design Features: The servicing plan shows Road 2 being extended to connect with Road 1. Presumably this extension is to create a services corridor for the partially completed subdivision…..It is noted that a large area of relatively flat land suitable for residential development lying to the south west of the partially completed subdivision has been ignored in the draft plan. To address this Road 2 should be extended to follow the contour in a southerly direction…….This road extension would more readily service this area compared to the proposed Road 1 running up the bottom of the gully.	The Road 2 / Road 1 connection is the only link in the plan that has not been deemed critical. Given a suitably designed turning head extending from the proposed Road 2, the link through to Road 1 could be solely for services and active transport. This may be left to be determined by the developer. The flat area south west of the subdivision has been considered and is best developed from Road 1 as proposed. This is because ROW's will be sufficient to access such a small area and the area is currently owned by those properties through which Road 1 runs and can therefore be developed when Road 1 constructed as opposed to being constrained until adjoining properties develop. The cul de sac as proposed by Mr Pipe is too long (cul de sac should not be greater that 100m long) and creates a saturated and inefficient road network.

			Design Features: ….a section of Road 1 from a point approximately 120m from the junction with Road 5 down to the junction with Road 2 offers no economic benefit in terms of providing access to the adjoining residential land……The topography either side of this section of Road 1 is relatively steep and has limited appeal for residential use. The topography in this area of the gully however makes it ideal for use as a stormwater containment area. As such it would require minimal earthworks to provide significant holding capacity for the greater residential area plan further up the gully.	See comments above regarding connectivity of transport networks. Not having connectivity in this location create significant issues for the transport network. The topography either side of Road 1 is comparable to that in the existing residential development north of Jellicoe Street which is a fully developed medium density Res 1 area. See attached bund and containment design by DO which shows that a retention pond in this location requires a high bund, significant earthworks and limited storage capacity, mainly due to the longitudinal grade of the gully.
			Design Features: A second storm water containment area is possible if Road 1 from Tasman Street is realigned. The realignment of Road 1 would retain a section wide stripe parallel to Dampier St for residential development. In contrast the draft plan allows for one and a half sections which is not practical nor economic.	This is physically possible but as shown on the attached design by DO requires significant earthworks. The draft plan allows sufficient depth for 2 allotments. The layout of future allotments has been carefully considered during the design and maximizes this desirable north facing area.
			Design Features: The two storm water containment areas thus created would have more than sufficient capacity to hold all the storm water collected from the proposed residential areas further up the gully from Tasman Street.	The combined capacity of the two Pipe retention ponds is between 3420m^3 and 6880m^3 with ponds between 2.1 and 3.1m deep. Initial modelling shows that the entire catchment requires approximately 3200m^3 of retention, which under the proposed ISP can be accommodated in a single pond of max depth of 2.7m at the bottom of the catchment. The ISP option requires less overall land and less construction than the Pipe ponds. Under the Pipe proposal, a third retention pond is still required for the attenuation of stormwater from all the downstream properties of his proposed ponds. This includes Mr Pipes land at 18 Hilton Highway. The logical location is at the lowest point of the catchment, which is on Mr Pipes property and is where the proposed ISP pond is located.
			Design Features: The draft services plan indicates that a major stormwater containment area is planned within Area 4. It would appear that the location selected for this stormwater containment area is solely due to it being at the bottom end of Broughs Gully.	The location and topography are a significant reason for locating the retention pond at the bottom of the catchment. The simple reality that water drains downhill means that the engineering practicalities of pumping or retaining stormwater elsewhere require significant cost and infrastructure that are beyond the scale of the development within this catchment.

			Design Features: The land shown on the draft plan map as being for stormwater containment is already the subject of a residential subdivision plan that has been extensively discussed with Council Staff and submitted for approval. Clearly this land has an economic value for residential use with potential for upto 15 residential lots.	As addressed above, Mr Pipe has discussed his proposal several times with Council staff but he has been told there are major planning and servicing issues with his proposal and has chosen not to proceed. The main issues being that the site has no sewer connection, that under the current rules Mr Pipe would be responsible for the full construction costs of the extension of Tasman Street / Road 3 (approximately 175m of road is required to be built to reach the boundary of the Pipe proposal), that the proposal has not demonstrated its ability to treat and attenuate its stormwater, and because Mr Pipe proposes a 4000m^2 non-residential landuse on Lot 7 of his proposed plan which will be classed as a non-complying activity. Mr Pipe lodged his application which was returned as incomplete in mid Feb 2016. It is clear that as the issues above make the application unachieved at worst and uneconomic at best, that the application was only lodged in attempt to prevent the proposed ISP. There is no evidence that there is potential for upto 15 residential lots. The application as returned only contained 7 residential lots. The land within 18 Hilton Highway is comparatively low value land within the catchment as it is low lying in the bottom of the gully without any outlook.
			Financial Contributions: The economics of the development rests on the total area being developed for residential use. Or in other words if a significant portion of the area is used for a stormwater containment area the cost of Road 3 plus services exceeds the most optimistic returns possible from the five lots remaining.	The purpose of the proposed financial contributions rules is to reimburse the landowners whose land is used for retention ponds and distribute the costs of Road 3 according to benefit. This will result in the development costs of Mr Pipes development being less than they currently are and comparable to other similar sized developments in the catchment. It will not ensure economic viability however as this is dependent on the desirability and marketability of his proposed allotments.
10	Reid Cowen Representative of Joseph Sullivan of Chantry Holdings Ltd. 983216	Submission form not used.	Submission in support.	

APPENDIX 8:

Properties included in Consultation


RES 4
Service Lane
Blair Street
Old North Road
Mahoneys Hill Road
REC 2
Lancewood Terrace
Subject to Broughs Gully Outline Development Plan as shown in Appendix C of Part D2
TIMARU


RES 4
REC 2
Subject to Broughs Gully Outline Development Plan as shown in Appendix C of Part D2
Dampier Street
Godley Place
R 3
RES 1
Burnett Street
Beaumont Street
Old North Road
Jellicoe Street
Service Lane
Bridge Road
Eastmere Place
IND L
COM 2A

APPENDIX 9:

Consultation letter and Summary of Feedback

5 August 2016

«Addressee1»
«Postal_Address»
«Mail_Line_2»
«Mail_Line_3»
«Mail_Line_4»

Dear Sir/Madam

Proposed Broughs Gully Plan Change

We are pleased to present you with the Proposed Broughs Gully Plan Change to the Operative Timaru District Plan and invite you to participate in providing feedback.

The purpose of the Proposed Broughs Gully Plan Change is to facilitate coordinated urban development and the cost-effective and equitable provision of network servicing infrastructure across a site that is currently in multiple ownership and has significant servicing constraints.

The purpose of this consultation is to seek feedback from the affected landowners, interested parties and those living in the general area. The feedback will be used to inform the final content of the Plan Change.

A copy of the full Proposed Plan Change documentation is available on Councils website at www.timaru.govt.nz/broughs If you would prefer a paper copy then please contact Jacky Clarke on 684 7413 or jacky.clarke@timdc.govt.nz A copy can be posted out to you or made available for pickup at Council offices.

Also on the website is an online feedback form. We encourage you to use this form to present your views on the Proposed Plan Change. Alternatively please use the form included in this letter along with the freepost envelope. Feedback closes on Friday 2 September 2016.

If you would like to meet Council staff prior to feedback closing to discuss any questions or concerns you may have then please do not hesitate to contact us.

If you would like the opportunity to present your feedback in person after Friday 2 September 2016, the Council will be holding a Proposed Plan Change Workshop which shall be attended by relevant senior Council staff.

At the completion of the feedback period and the Workshop, the feedback shall be considered by Council and used to inform any changes to the Proposed Plan Change considered necessary prior to it being formally lodged. At this point the Plan Change

will be notified by Council, with the subsequent submission and hearing process in accordance with RMA requirements.

Those that have provided feedback will be contacted with their feedback addressed and explanatory material provided relating to any consequent decision.

Also included with this letter is a flow chart that shows the evolution of the project and the various stages leading up to the drafting of the plan change and the steps that will be followed through to when it is publicly notified for submissions by the Council.

If you have any questions or wish to discuss any aspect of the Proposed Plan Change, please do not hesitate to contact us.

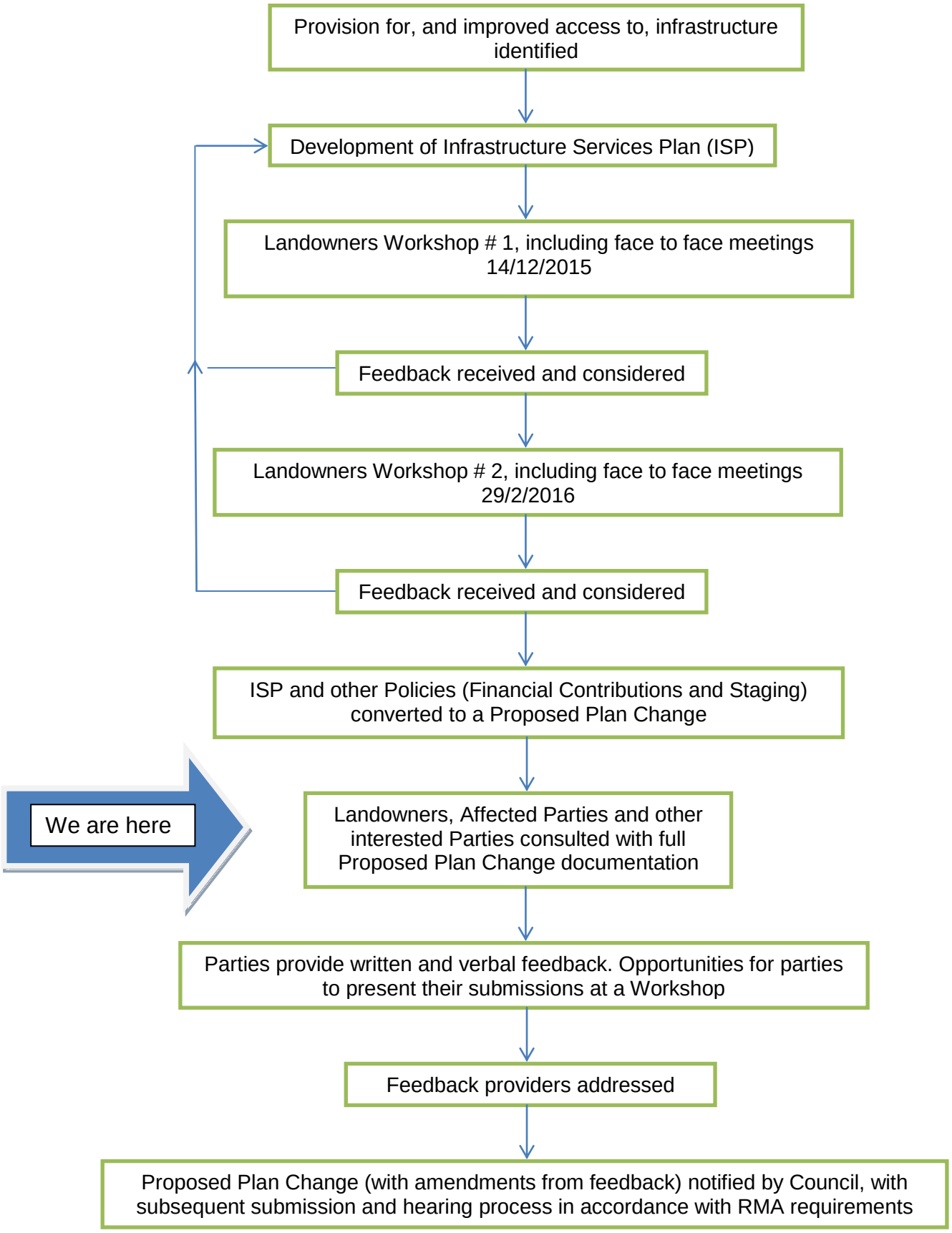
Yours faithfully

Ashley Harper

Direct Dial: 03 687 7260
Facsimile: 03 687 7206
Email: Ashley.harper@timdc.govt.nz

Frazer Munro

Direct Dial 03 687 7225
Facsimile: 03 687 7206
Email: Frazer.munro@timdc.govt.nz


Provision for, and improved access to, infrastructure identified
Development of Infrastructure Services Plan (ISP)
Landowners Workshop # 1, including face to face meetings 14/12/2015
Feedback received and considered
Landowners Workshop # 2, including face to face meetings 29/2/2016
Feedback received and considered
ISP and other Policies (Financial Contributions and Staging) converted to a Proposed Plan Change
We are here
Landowners, Affected Parties and other interested Parties consulted with full Proposed Plan Change documentation
Parties provide written and verbal feedback. Opportunities for parties to present their submissions at a Workshop
Feedback providers addressed
Proposed Plan Change (with amendments from feedback) notified by Council, with subsequent submission and hearing process in accordance with RMA requirements

Summary and Response to feedback received from Proposed Broughs Gully Plan Change

No.	DM Ref	Name & Address	Specific provision feedback relates to	Feedback	Decision Requested	Heard at Workshop	Response
1	1016244	Marjorie Bryant 18 Burnett Street	Extension of Burnett Street	1. Tasman St, Jellicoe St and Road 1 would cope with additional traffic as opposed to extending Burnett St	Street to stay as it is	N	As the land at the end of Burnett Street is already zoned residential 1, it could be developed with a road as a controlled activity under the current plan provisions. The future extension of Burnett St is already anticpated, see previous City of Timaru Planning Map 40.2 and current plan provisions.
				2. Would devalue their property			
				3. It would effect the safety of the street			
2	1014614	Doreen Fraser 19 Tasman Street	Increase traffic on Tasman Street	The traffic increases on Tasman Street is seriously understated and such traffic increase will have detrimental effect on the ambiance of the suburb	Abort	Y	Tasman Street is designed and constructed to the standard of a Local Through Road in accordance with District Plan requirements and has the capacity to accommodate additional traffic. It should be noted that by extending Tasman Street and linking it with Road 1, the traffic will be dispersed onto other roads on the network and not be concentrated on Tasman Street to the extent that it currently is.
			Serenity of Oceanview will be lost	Lowering of our property values is inevitable if this project proceeds			
3	1014844	Kevin McGlinchy 19 Jellicoe Street	Traffic Volume on Jellicoe Street	Additionl traffic will cause more problems exiting Jellicoe onto SH 1	To move proposed Grants Rd / SH 1 lights to Jellicoe / SH 1	N	The purpose of the proposed plan change is to address servicing and infrastructure within the Broughs Gully area as this area is currently zoned Res 1. The issues at the SH1 / Jellicoe Street intersection are well understood and documented in the Timaru Transportation Study. It is noted that the primary purpose of the Highway network is to act as a transport through corridor and the effect of local netwrok access points undermine the integrety of the Highway. Traffic speeds on the Highway and installation of lights are beyond the scope of this plan change.
				Current waiting times at Jellicoe / SH1 are over 1 minute			
				Existing traffic of SH exceeding the 50km limit			
				Move the proposed Grants Rd / SH 1 lights to Jellicoe / SH 1			
4	1015683	Raymond Harkness Carol Bradley 52 Jellicoe Street 027 423 5110	Proposed Plan Change	Priority should be given to kerb and channel on north side of Jellicoe	Footpaths, guttering and traffic lights	N	A footpath with kerb and channel will be constructed along the north side of Jellicoe Street as the existing properties develop and intensify. The properties on the north side of Jellicoe are currently life style blocks and as such are not serviced to typical residential sections.
				Traffic lights are needed at the Jellicoe / SH 1 intersection			See comments from submission #3.
5	1017860	James Archbold 15 Burnett Street	Linking Burnett Street to Road 1	Burnett St is not wide enough of accommodate more cars		N	Carriageway is 9 m wide, which leaves a 5m wide traffic lane if there are two parked cars either side. For most road uses this is too narrow to allow for two way traffic and creates the sense of the road being narrow and unsafe. This is beneficial as it slows down traffic considerably, increases the safely of pedestrains and active transport uses, and deceases speeds around intersections. It is noted that nearby Beaumont Street is the same wide and a through road.
				We brought in this street because it is a dead end street			See comments from submission #1
6	1018096	Evan Carson Gwenda Carson 6 Burnett Street	Burnett St / Tasman St intersection	The vision from Burnett St into Tasman St is very poor both ways due to the contour of Tasman St		N	The visibility sight distances are not at all poor. They are in fact more than adequate for this residential environment.
				The intersection of Tasman and Burnett, the camber of the road requires remedial work if the road is to be opened up to the west. As it stands vehicles turning left into Burnett St from Tasman, due to the road chamber, vehicles are pushed to centre of the road. And if travelling to quickly actually cross the centre of Burnett St.	Judder bars on Tasman St		Whilst on a slope, the grades and crossfalls of the carriageway at the intersection are suitable for motorist behaviour that is aligned and appropriate for the residential environment – Motorists who drift to the centreline are manoeuvring too quick and will be in that small minority of motorists who choose to speed. The corner kerb radii values, that have been inherited are too large a value and as such do not 'match' the side street width – The corner kerbing condition does not justify renewal in the foreseeable future, however a median island could be installed to 'take up the space' and 'close the intersection area down'.
			Traffic	The proposed width at top end of Burnett St and new Road 1 we object to such a wide carriageway. Fact is only leads to traffic moving faster which we do not need in res area. Why not make new roads same as existing streets plus extra 1.2m for cycle lanes.	Explanation for wide carriageways		At 11m wide the west end of road 1 is effectively a width that mimicks, or is related to the existing neighbourhood street widths; 9m + 1m for cyclists + 1m for cyclists = 11m (being the width on the cross section). The road reserves are wider to accommodate all services and stormwater.
				We suggest because of the terrain in connecting Burnett St to Road 1, be abandonded leaving Tasman Street, Old North Road and Jellicoe entrances and exists from proposed new roadways. And having cul de sac from Road 1 backing onto Burnett St no through fare.			The terrain connecting Burnett to Road 1 does not present construction issues. Creating a link from the existing Res area to Road 1 will improve circulation and reduce pressure on existing streets and intersections.
			Other		Council to have a bylaw governing height of trees etc that may be planted.		This is a Res 1 wide issue which is beyond the scope of the proposed plan change.
7	1018098	Raylene McIntosh 20 Burnett Street	Transport effects	As a whole support proposal	Services and pedestrian lane only from Burnett St to Road 1	N	See comments from submission 5 and 6.
				Extension of Burnett St to Road 1 not necessary			
				Burnett St is not wide enough of accommodate more traffic			

No.	DM Ref	Name & Address	Specific provision feedback relates to	Feedback	Decision Requested	Heard at Workshop	Response
8	1019136	Ben Boakes 31 Tasman Street		I am in full support for the Plan Change.	Be kept informed	N	
9	1020026	Nathan Kernohan 51 Jellicoe Street 686 6546	Traffic	The proposal for this new road is shown on paper as being wide enough dual carriageway at 23 metres wide and parallel to Jellicoe Street. This seems excessively wide and will affect the quiet enjoyment of our properties.		Y	The width is for the treatment and conveyance of stormwater which will be in the form of a central swale network. The traffic lanes will be in accordance with DP requirements and will not result in nosie beyond that of a road that is permitted under the current Res 1 zoning
				The cost to establish this road at today's prices is excessive per linear metre. This will require residents to fund a 23 metre proposed highway at a cost which will be unmanageable for many and be of limited or no benefit to them.			The additional width is for stormwater swales which are low cost.
				The Council has advised that this road was originally proposed in 1880 to allow for the development of the settlement of Timaru. This appears to be incorrect, as only one proposed road was shown on these early maps. This was an extension of Tasman Street into Mr Sullivan's property, and was very short with two short roads off it to the left and right. This road does not exist currently.			A roading layout was included in the City of Timaru Planning Map 40.2 prior to the current District Plan which was written in the mid 1990's. The reasons for it removal are not clear. There is a unformed road reserve at the end of the Tasman St carriageway.
				I am concerned that if there are no objections lodged with Council now against the development of this road that the Council may accept the proposed road for Brough's Gully as part of the current town plan. This could have the effect of preventing Jellicoe Street residents gaining building consents or improving or developing their land if it may affect future work on this road.			This is pre lodgement consultation. The feedback received will be used to inform the final plan change. Once lodged, a formal consultation will take place that will include submissions.
				The existence of this road on Council plans, whether or not the Council ever intend to implement it, will serve to devalue the properties of the residents of Jellicoe Street and limit the their use of their properties.			It is not Council which will implement the road, it will be property owners if and when they choose to develop.
				If this paper road had been proposed to exist along the existing fence lines of the affected land owners it would have been less inconvenient.			Roading layout has been designed to be a balance between maximising the development potential of the zone while minimising impact on existing dwellings.
				This proposed paper road runs through the middle of my property as it does with many of my Jellicoe Street neighbours. I have half my property on either side of this proposed paper road. I would appreciate my concerns being heard and having the Council consider the impact this proposed road has on Timaru residents. This road could affect my ability to enhance and develop my current business.			The road will only be constructed if and when you choose todevelop. If you do not wish to develop, it will never effect your enjoyment of your land.
				I am of the understanding. That all Council meetings to date, regarding the Brough's Gully issue have been in committee Council meetings. This has given the perception there is no Council transparency in decisions or planning made.			Two landowners workshops have been held (December 2015 and Feb 2016) as well as 4 information letters. The current process of seeking feedback is part of informing landowners and the public, and seeking their views.
10	1018781	Mike Wilson		Happy for it to happen and to sell my land off . But have no money		N	
11	1013236	John Brewerton 66 Jellicoe Street on behalf of Old North Road Church Hall	Services	Our only interest is if there was provision for us to hook our sewer direct into the TDC sewer, we would probably use it.		N	
				I think that a lot of landowners just want it to be a rural lifestyle area and don't want to be bother with it			
12	1018784	Transpower	Give effect to NPSET through amendment of rules	Amend the additional text in Policy 2.1.2.2 by including the following: ● the avoidance of adverse effects (including reverse sensitivity effects) on the National Grid; Amend proposed Policy 2.4.2.4 as follows: "Ensure that development in the Residential 1 and 4 zones at Broughs Gully (as set out in Appendix C of Part D2):..... ● avoids adverse effects (including reverse sensitivity effects) on the safe, effective and efficient operation, maintenance, upgrading and development of the National Grid transmission lines."	Amendment made to Plan Change text	N	Requested amendments included. Policy 2.4.2.4 sits under 2.4 Issue 4 which states *"Residential activities produce adverse environmental effects which give rise to a demand for reticulated services such as stormwater and sewerage and which create a demand for water."* The requested amendents do not contribute to addressing this issue and therefore have not been included. The requested amendents align with a broader zone issue and will be incorporated in the current District Plan Review.

No.	DM Ref	Name & Address	Specific provision feedback relates to	Feedback	Decision Requested	Heard at Workshop	Response
12	1018784	Transpower	Give effect to NPSET through amendment of rules	Amend the proposed Performance Standards in D2, Residential 1 Zone Rule 5 to also include the following: "5.B.x No building or activity sensitive to the National Grid shall be located within: ● 10 metres of the centre line of a National Grid transmission line on single poles; ● 12 metres of the centre line of a National Grid transmission line on pi poles; and ● 12 metres of the foundation of a National Grid transmission line support structure. 5.B.x Fences shall be located greater than 6 metres from a National Grid transmission line support structure. 5.B.x Earthworks: (a) shall not destabilise a National Grid transmission line support structures; (b) shall not result in a reduction in the ground to conductor clearance distances below what is required by Table 4 of NZECP34:2001; and (c) shall be no deeper than: ● 300mm within 2.2m of a National Grid transmission line support structure or stay wire: and ● 750mm within 2.2 to 5m of a National Grid transmission line support structure; except where the earthworks are vertical holes not exceeding 500m in diameter beyond 1.5m of a National Grid transmission line support structure or undertaken by a network utility operator. Advice Note: (a) Vegetation to be planted around the National Grid should be selected and managed to ensure that it will not breach the Electricity (Hazards from Trees) Regulations 2003. (b) Buildings and structures in the vicinity of the National Grid must also comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001)."	Amendment made to Plan Change text		Requested amendments are beyond the scope of the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001). Reference will be made in the Plan Change text to NZECP34:2001.
				As a consequence of the addition sought above, Amend the definition of 'Activity Sensitive to Aircraft Noise' in Part D8 – Appendices as follows: Activity Sensitive to Aircraft Noise and Activity Sensitive to the National Grid - Means			Not required as requested changes not included in full
				Amend D2, Residential 1 Zone, by adding a new Non-Complying Activity rule as follows: "4.x In the Residential 1 Zone at Broughs Gully (as set out in Appendix C of Part D2), any building, fence or activity that does not meet the Performance Standards in 5.B.x, 5.B.x or 5.B.x is non-complying."			Following the alterations to the requested changes above, Non-complying activity status will be given to activities that do not meet the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001). See proposed text changes.
				Amend the proposed Performance Standards in D6.3, Subdivision, Rule 6.3.8 as follows: "(x) In the Broughs Gully Outline Development Plan area (as set out in Appendix C of Part D2) any lots created must maintain access to the National Grid and must show a building platform that is greater than: ● 10 metres from the centre line of a National Grid transmission line on single poles; ● 12 metres from the centre line of a National Grid transmission line on pi poles; and ● 12 metres from the foundation of a National Grid transmission line support structure.			Neither the NPS on Electrical Transmission or the New Zealand Electrical Code of Practice for Electrical Safe Distances contain a requirment to show a building platform. Access and corridor is addressed in proposed performance standards in D2, Res 1, Rule 5
				Amend D6.3, Subdivision, Rule 6.3.6, Non-Complying Activities as follows: (x) Any subdivision in the Broughs Gully Outline Development Plan area (as set out in Appendix C of Part D2) that does not meet the Performance Standard in Rule 6.3.8(x).			Not required as a consequence of the alterations above.
				As a consequence, delete the following notation shown on the ODP (Appendix 3) ~~"Electricity Transmission corridor Any lots created beneath the transmission corridor must show a building platform located beyond the corridor"~~			Agreed

No.	DM Ref	Name & Address	Specific provision feedback relates to	Feedback	Decision Requested	Heard at Workshop	Response
12	1018784	Transpower	Give effect to NPSET through amendment of rules	Amend the 'Key' that accompanies the ODP (Appendix 3) as follows: "~~Existing power lines~~ National Grid transmission lines"	Amendment made to Plan Change text		Agreed
13	1018787	Kevin Waters 22 Burnett Street	Transport effects	With the current TDC draft development plan that it will never be economically viable for me, or a subsequent owners of my property, to economically subdivide my property at 22 Burnett Street. This effectively means, that the proposed Burnett Street link road to Road-1 will be extremely unlikely to ever proceed, which is to the detrimental to the purpose of the current draft plan for the region		N	Under the current planning provisions it is impossible to the propoerty to develop as there is no sewer connects, and if there was there would still be the requirement to construct a through road. The proposed financial contribution rules mean that the cost of the through road are not totally leived agains the propoerty but are distributed to all developers inthe zone that benefit. This makes it more economically viable to develop.
				The present Burnett street proposed connecting through to Road-1, requires traffic to move up/down a steep 10m hill whilst also negotiating a bend in the road, which limits viewing safety as traffic has also to progress up/down a hill on the other side as well the present Burnett Street - Tasman Street intersection would incur much more traffic than presently.	**Burnett** Street / Road 1 link removed		See submissions 5 and 6 above. The visibility sight distances and alignments from Burnett Street are more than adequate, even when assessed in a small vehicle. The environment will obviously remain as residential and with Tasman Street remaining as a collector/distributor its not considered that the dynamics of the activity at the intersection will change markedly. Traffic volumes will increase with the neighbourhood developments, however there is available capacity for this to occur in what currently is a large cul-de-sac neighbourhood. Tasman Street could and may have targeted 40kph safe and appropriate engineering take place along its length, to reinforce the residential environment, but more importantly to induce better speeds. But in terms of the side street, it remains that the onus is on the motorist exiting that street to ensure that they are positioned such that they see the way is clear in each and every direction prior to moving away. Meanwhile the overall intersection, including the adjacent Beaumont Street is well 'laid out' with good intervisibility sight lines.
				However I am very aware from my direct experience of driving on these streets over 30 plus years that the Burnett - Tasman streets intersection will become a very much more dangerous intersection than it is, right now. This difficult hazard, which I negotiate most days, exists because traffic travelling north or south on the arterial Tasman Street, does often approach straight through this "T" intersection at relatively high speed (50kM/h), as there is a considerable downhill slope from all directions to the Burnett -Tasman streets intersection. The geography of the street means right turning traffic from Burnett Street into Tasman Street, must be extremely vigilant to observe these racing vehicles and in particularly on his left hand side before making right turn into Tasman street south. As a driver approaching this intersection from Burnett Street in a car with smaller height passenger side windows than others larger vehicles, does find it very difficult to see oncoming traffic from the Tasman Street hill, on the south side of the intersection. This is because it often is impossible for a Burnett street right turning car driver, right turning into Tasman Street, to actually see the southern side Tasman Street hill traffic approaching the intersection. As near the top of the hill and traffic on it, is cut off from his view because he cannot see up the hill beyond the top of his left front passenger's top window. The Burnett street driver has to contort is body down low in his driver's seat, in order to try and see possible oncoming vehicles from the Tasman Street northern hill road; or if he has one, get his left side passenger to verify no vehicles are coming from that direction, as I often do, before progressing safely with a right hand turn into Tasman St.			
				This issue is also further compounded by the fact that the intersection is in effect not only a simple "T" intersection, but virtually a four way one; as Beaumont Street also Tees off Tasman street within 10 meters of it. Hence a right turning Burnett street driver into Tasman Street also has to evaluate that hazard before turning right. It really is a traffic hazard which certainly will be greatly magnified and cause accidents, when the traffic density increases as the present draft displays. I suggest if you have any doubts regarding my years of experience associated with this Burnett street hazard, that you test it yourself in a vehicle with smaller windows, whilst imagining a car suddenly coming over the hill at speed at near 50kM/hr to confirm my findings. The worse time is in the early morning from 6:45 to 8 AM as people go off to work.			
				The western end Dampier street "green area" intersection with Road-1, is via only an approximate 17 metre long by 2m high fall along a continued straight flat section of Dampier street. Whereas the present intended Burnett Street approach to Road-1, has an approximate 74 m long by a 10m high fall and a bend to negotiate down toRoad-1. Plus Burnett Street has an estimated 20m full to its opposite end at Tasman Street. That is, there is a mean 15m hill to negotiate up and down to travel from Tasman Street to Road-1 via Burnett Street; whereas there is only a small 2m slope continued straight road to pass through at the western end of Dampier Street to Road-1.			

No.	DM Ref	Name & Address	Specific provision feedback relates to	Feedback	Decision Requested	Heard at Workshop	Response
14	1020140	Glen and Jenny Manley 57 Jellicoe Street		I cannot see the benefit or sense of any plan to cut most of these properties in half with a 23 meter wide road against the rights of the landowners. We all chose to buy these properties for the space and lifestyle. My wife and I have no future plans to sell up and it is very doubtful that anybody would want to build houses on the south facing side of the gully if we did.		N	The road will only be constructed if and when you choose todevelop. If you do not wish to develop, it will never effect your enjoyment of your land.
				A road running along the fence line behind the Exclusive Brethren Church and the stalled small subdivision on Mr Innes's former property would seem to me to have more merit.			This would not adequately service the existing Res 1 area
15	1018250	Bruce Pipe 16 & 18 Hilton Highway 686 2999 021 440 191	Resource consent application 101.2016.24:	This resource consent application reflects extensive consultation with Council staff responsible for infrastructure. The subdivision plan, it's aim and the logic behind the layout was discussed in detail with key Council staff. The proposed subdivision pre dates the Broughs Gully Plan Change. Further key aspects of the subdivision including boundary adjustments and easements have already been approved by the Council and incorporated in lots 2 and 3 of the subdivision for 16 Hilton Highway.	Recognition that resource consent application 101.2016.24 pre dates the proposed Plan Change	Y	The applicant approached Council in 2013 regarding the proposal to develop 18 Hilton Highway. The development would require the construction of a 185m length of road and could not be serviced by sewer so no application was made. In Feb 2016 (after the applicant was consulted on the proposed Broughs ISP) the application for subdivision was lodged and returned as incomplete. The application has never been supported by Council staff. The development at 16 Hilton Highway are unrelated to this proposal.
			Local Purpose reserve	Previous feedback and subsequent meetings with Council staff to discuss possible compromise options for storm water appear to have been ignored.			Previous feedback has been assessed and considered. It proposed moving the stormwater retention areas which was not practical. See summary of submission from landowner workshops.
				The most recent subdivisions being Lancewood Lane (20 lots) and the 16 lot subdivision on Old North Road have both incorporated storm water retention areas. The storm water retention areas for the Lancewood Lane is as excellent example where land not suitable for residential use has been utilized. Most developments will have land that could be used in this manner.			Lancewood Terrace used land adjoining 18 Hilton Highway and Council land to attenuate stormwater. The 16 lot subdivision on Old North Road has had to use an allotment that was to be a residiential section for retention. They are placing eight 10,000 litre tanks on the allotment as temporary storage until a catchment wide solution is available.
				The Plan Change Report states the storm water retention areas will provide passive recreation functions. if the authors truly believe this then why not locate these in a more central location. In reality they will be wet for extended periods and hence unlikely to be maintained to a state required for recreation use.			The retention primarily for storwater retention which is why they are at the bottom of the catchement. They are designed using a similar methodolgy to those in Gleniti which have proven to have passive recreational value.
				The Plan Change Report states that the cost of storm water retention on a site by site basis will required expensive systems and quotes the 16 lot Old North Road development as an example. This is not correct. In that example the developer has weighed up the economics and decided to use one lot for storm water retention purposes to enable 15 lots to proceed to sale. This is part of the financial analysis each and every developer no matter how small needs to make.	That each subdivision incorporate provision for storm water retention on site to minimise the adverse impact of using larger areas of valuable residential land as proposed in the Plan Change. The Council should plan for a large centrally located recreational area		See comments above. The developer of the 16 lot subdivision would prefer centralised treatment.
				The Plan Change Report claims that the option of taking 5,000 sqm of the 18 Hilton Highway (45% of the land use area) for storm retention water "is considered to be the only realistic option for managing storm water". This is simply not true. Even a cursory on-site inspection along the length of Broughs Gully shows that there are numerous locations where storm water retention areas could be developed. In every case these offer a lower cost and more environmental friendly option than that proposed.			To retain and treat stormwater in any location other that at the bottom of a catchment is not practical. See summary of submission from landowner workshops.
				The extensive storm water containment area proposed for 18 Hilton Highway will, if put in place will make the development of the balance of the land uneconomic. This is ironic given the Council's desire to promote the development of Broughs Gully! It will also inpact on out successful self storage business when the Council is promoting business growth in South Canterbury.			As it stands today, the development of 18 Hilton Highway is uneconomic as there is no sewer connection available and it requires the construction of 185m of road just to get to the propoerty. The purpose of the proposed plan is to make developments such as this economic by sharing the cost of the sewer and road amongts the land / developers that will benefit.
			Cycling and Walking Tracks	Although the scale of the site plan means it is difficult to establish where these tracks are it appears that it is proposed to have one track linking to SH1 via 16 and 18 Hilton Highway. This will not be possible as there will be a security fence around the boundary of lot 3/16 Hilton Highway.	Cycling and walking paths should follow the roading corridors and not cross business properties.		The cycling and walking track has been moved north off the 16 and 18 Hilton Hwy land. Preliminary dicsussions with the majority of landowners effected by the new alignment has taken place.

No.	DM Ref	Name & Address	Specific provision feedback relates to	Feedback	Decision Requested	Heard at Workshop	Response
16	1022504	Sarah Kernohan 51 Jellicoe Street Timaru sarah.kernohan@gmail.com SarahK@hume.vic.gov.au	Plan Change Purpose	It should be made transparent whether the plan change is or isn't privately requested and where the request has come from.			Plan change is a Council initated plan change
				The report notes that a subdivision on Old North Road has stalled because of sewer and servicing issues. It should be made clear if the issues related to this subdivision are what are driving the need for the ODP, particularly in relation to the need for Council to forward fund infrastructure.			The subdivision on Old North Road is no longer stalled and is currently fully serviced and under construction. The issues from this development are not driving the need to this ODP. The PC will be clarified in this respect.
				It is unclear the extent to which there is pressure for development from other landowners within the ODP area. If there is not pressure from other landowners to develop it is not considered that the plan change should be fast tracked to rectify an issue with an existing approved subdivision. The responsibility for this should lie with the developer or Council. Whilst it is acknowledged that the Broughs Gully land has limited ability to develop without the ODP, it is unclear the extent to which this is an issue for landowners in the short/medium term. If this is not an issue in the short/medium term then it would seem more logical for the ODP to occur as part of the next District Plan review. It should not be driven the need to fix a stalled development within the ODP area.			There is currently limited pressure from landowners for development. The ODP is forward planning and a significantly easier task if undertaken proactivity rather than reactivity. The plan is not being fast tracked, it is part of the standard plan change process that predates the consideration of the District Plan review which could be at least 5 years away.
			Staging	The report makes numerous references to the ODP providing for the 'coordinated' development of land. Even with an ODP, the fragmented nature of the land will still result in difficultly in ensuring a coordinated and holistic development outcome, particularly when in reality there could be up to 28 separate resource consent applications lodged with Council			This is acknowlegded and accepted, however the Plan Change and ODP is considered the most appropriate solution.
				There are a number of statements within the report with regards to the ability of landowners to develop independent of each other and the extent to which no landowner will be forced into developing. I question the extent to which landowners will not be 'forced' to develop, when it has been acknowledged in the report that the development of some lots may be delayed until internal roading connections are formed. It is considered that if a situation arises where a landowner is unable to develop until a neighbouring landowner develops, then it would be assumed that whilst a landowner may not be 'forced' to development, that they would face significant pressure to develop.			A similar situation exists in Gleniti and Washdyke. No pressure is placed on a landowner to develop.
				The report states that the ODP "provides the opportunity for individual landowners to develop their land, and concurrently does not force existing lifestyle block owners into having to develop". However it would appear that some landowners would be required to allow for a certain level of development on their land in order to allow infrastructure services to be constructed through their provides in order to service properties that wish to develop. Whilst it can be argued that services such as sewer, water and stormwater can largely be accommodated as underground easements, these works will still encumber the non-developing property and impact on the ability of the non-developing landowner to use their property during the construction of these services.			The construction of services through land would only ever be undertaken with landowner agreement. It is noted that underground services can be installed using trenchless technology that would not disrupt landowners. Even open trenching of services can be laid quickly (several days for 100m) with minimal disruption.
				Whilst the report states that the road layout allows for a logical sequence of development from either end or via an intermediate point, it is not clear what happens if a landowner wishes to develop their property out of sequence e.g. not from either end or via an intermediate point. Will this property be able to develop? And how will they access their site?			In accordance with the proposed rules, all properties must develop in accordance with the ODP. Therefore, an 'intermediate landower' will not be able to develop until an adjoining property has developed.

No.	DM Ref	Name & Address	Specific provision feedback relates to	Feedback	Decision Requested	Heard at Workshop	Response
16	1022504	Sarah Kernohan 51 Jellicoe Street Timaru sarah.kernohan@gmail.com SarahK@hume.vic.gov.au	Staging	it is unclear the extent to which property boundaries have been considered in determining the road alignment. There a number of roads, intersections or cul-de-sacs that straddle properties boundaries. It is considered the alignment of these roads will result in difficulties constructing the road, or cost inefficiencies.			Existing boundaries have been carefully considered, as have a number of design elements. Whilst there are a number of locations where the roads straddle existing boundaries, none of these fundamentally prevent an individual allotment from developing if services are available. It should be noted that development is required to be in 'general accordance' with the ODP (Policy 2.1.2.2). This means that final roading layout and design at a site level can be altered slightly to advance development as long as the intent of the ODP is still meet and no other landowner is disadvantaged.
			Roading	The report also refers to the proposed ODP providing for improved road connectivity for existing residents. Given the importance of providing for a development that supports a coherent and connected road network, the option of providing a cul-de-sac at Mueller Place should not be provided for within the ODP. Whilst, it is acknowledged that the ODP requires cycle and pedestrian connectivity through Mueller Place as a minimum, the approval of an ODP that does not require a vehicle connection of Mueller Place to Road 2 will result in significant reduction in connectivity and access for residents.			The Road 1 / Lancewood Terrace has been designed as the principle through road for vehicles heading north or south. The connectivity provided by Mueller Place is not critical to this.
			Financial Contributions	It is unclear from reading the report exactly how the provision of servicing will be equalised to ensure 'fair and equitable provision'. The report itself does not provide a clear and readily understood explanation of how equalisation is to occur, with some information provided in the report and other information contained with the District Plan. It is not reasonable to expect landowners to be able to readily understand such technical information, particularly when this information is located across multiple documents.			It is the proposed new rules in the text of the District Plan that should referred to. See proposed rule D6.3 Rule 6.3.8 (20). Much of the methodology that ensures the fair and equitable provision of infrastructure is already included in the District Plan, for example sewer in D6.5 Rule 6.5.4.2. It is not considered necessary in this instance to reproduce large parts of the DP or to educate the public in the application of the DP and land development process.
				many of the details of costing and compensation are not included within either documents. It is not considered appropriate for Council to propose such a plan which will have financial implications on landowners without all this information being provided upfront, in the clear and concise manner.			It is the nature of land development that full and actual costs are not known until the completion of all physical works. Therefore it is impossible for Council to provide details of costings. In the broader land development sense, it is not Councils role to provide individual landowners with the detailed costing to develop their property. Council can and will make available the contribution for vested infrastructure but this is only a component of an allotments development costs. As noted in the proposed plan text, the basis for cost sharing will be made available to subdividers in broad terms. To quantify values at this stage could be misleading. Although the District Plan is available to view online, consideration will be given to reproducing relevant rules as an appendix to the plan change report.
				D6.5, Stormwater, Rule 6.5.3.2 – the proposed contributions are difficult to read and understand when only the changed sections of a rule are provided within the report. In order to understand the proposed changes both the report and the District Plan need to be read together. It would assist if the entirely of 6.5.3.2 was provided within further documents made available for public comment.			
				Does Council purchase drainage land off landowners or does it stay in private ownership?			The undeveloped value of the land is included in the financial contribution calculations. Therefore Council effectively purchases the land and it becomes vested.
				D6.6, Roading Hierarchy, Rule 6.6.5, 2b) It is unclear what the actual cost of the roads are or when these costings will be provided. This should be costed at this stage to ensure transparency.			See comments above regarding costings
				What is the 'typical amount of road per allotment'? It is unclear how this is calculated			The 'typical amount of road per allotment' is the area (m^2) of roading per allotment as determined by recent subdivisions. This has been used to equalise the roading contribution by way of apportioning the roading burden across the site in accordance with development potential.