

**BEFORE THE HEARINGS PANEL
FOR THE QUEENSTOWN LAKES PROPOSED DISTRICT PLAN**

IN THE MATTER of the Resource
Management Act 1991

AND

IN THE MATTER of the Subdivision and
Development Chapter
(Hearing Stream 3)

**STATEMENT OF EVIDENCE OF GARTH JAMES FALCONER
ON BEHALF OF QUEENSTOWN LAKES DISTRICT COUNCIL**

URBAN DESIGN

29 JUNE 2016

 **Simpson Grierson**
Barristers & Solicitors

J G A Winchester / S J Scott
Telephone: +64-3-968 4018
Facsimile: +64-3-379 5023
Email: sarah.scott@simpsongrierson.com
PO Box 874
SOLICITORS
CHRISTCHURCH 8140

TABLE OF CONTENTS

1. INTRODUCTION	1
2. EXECUTIVE SUMMARY	3
3. BACKGROUND	4
4. GOOD SUBDIVISION DESIGN	5
5. QLDC LAND DEVELOPMENT AND SUBDIVISION CODE OF PRACTICE	8
6. SUBDIVISION GUIDELINE	10
7. PROPOSED DISTRICT PLAN	11

1. INTRODUCTION

- 1.1 My full name is Garth James Falconer. I am the sole director and owner of Reset Urban Design Ltd, a specialist urban design and landscape architecture practice. I have been in this position since July 2008. I was previously the founding Director of Isthmus Group.
- 1.2 I hold a Master of Urban Design from Oxford Brookes University, a Post-Graduate Diploma in Landscape Architecture from Lincoln University and a Bachelor of Arts (Geography and Sociology) from the University of Auckland. I have over 26 years' experience leading design teams on large scale urban projects around New Zealand. I have been involved in formulating the Auckland Plan (2012) for Auckland Council and a number of leading comprehensive housing developments such as Hobsonville Point, Addison and Redoubt Ridge.
- 1.3 I am the author of the recently published book "Living in Paradox: an urban design history of kainga, towns and cities in New Zealand" (2015) which has received national and international critical acclaim. Several sections in the book background the history of subdivision and include case studies of current best practice.
- 1.4 I have recently relocated to Wanaka and have been involved with the Queenstown Lakes District Council's (**QLDC**) Park Team on the formation of the Wanaka Lakefront Development Plan 2016-2046.¹ I have now been contracted by the QLDC to provide evidence in relation to urban design matters for the Subdivision and Development Chapter of the Proposed District Plan (**PDP**).
- 1.5 I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and that I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise, except where I state that I am relying on the evidence of another person.

1 <http://www.qldc.govt.nz/your-council/your-views/wanaka-lakefront-development-plan/>.

1.6 The key documents I have used, or referred to, in forming my view while preparing this brief of evidence are:

- (a) QLDC Land Development and Subdivision Code of Practice (**Code of Practice**);
- (b) QLDC Subdivision Design Guidelines (**Subdivision Guideline**);
- (c) Kapiti Coast District Council Subdivision Best Practice Subdivision Guidance;
- (d) QLDC Proposed District Plan Chapters 3, 4 and QLDC's position in its Right of Reply for these two chapters;
- (e) QLDC Proposed District Plan Chapter 27; and
- (f) *Urban Design Critique of Subdivisions in Queenstown Lakes District*, Boffa Miskell, August 2010 (this is attached as **Appendix 1** to my evidence).

1.7 I have read the evidence of Mr Clinton Bird, filed in the Strategic Directions Hearing Stream.²

1.8 Through living in Wanaka I am generally familiar with the District, and have recently visited Arthurs Point, Lake Hayes Estate, Jacks Point, Peninsula Bay, Northlake, and Mount Iron.

1.9 My evidence will cover:

- (a) background to subdivision design;
- (b) good subdivision design;
- (c) review of the Code of Practice;
- (d) review of Subdivision Guideline; and
- (e) review of the PDP as relevant to subdivision.

1.10 Attached to my evidence are the following documents:

- (a) **Appendix 1:** *Urban Design Critique of Subdivisions in Queenstown Lakes District*, Boffa Miskell, August 2010;
- (b) **Appendix 2:** QLDC Subdivision Design Guidelines, Version 1.0, Draft May 2015.

² <http://www.qldc.govt.nz/assets/Uploads/Planning/District-Plan/Hearings-Page/Hearing-Stream-1b/42-reports/0001-QLDC-T01B-Clinton-Bird-Evidence-19-02-2016-A.4-27377136-v.-.pdf>

- 1.11 The Code of Practice has been attached to Mr Glasner's evidence at Appendix 1.

2. EXECUTIVE SUMMARY

- 2.1 To many, increased urbanisation appears to be at the detriment of the District's natural landscape. Therefore, the quality of subdivision is a major issue. The key conclusions in my evidence are that:

- (a) due to the huge growth in population in an area of high amenity landscape, there is intense pressure on providing quality subdivision design;
- (b) reviews of recently built subdivisions make it clear that the Subdivision Guideline is needed to encourage good quality subdivision design;
- (c) the Subdivision Guideline is well founded and helpful;
- (d) the Subdivision Guideline provides a concise checklist for the layout and broad scale design of subdivisions, although in the context of encouraging high quality outcomes they would benefit from being extended in scope;
- (e) I support the recommendation of Mr Bryce to make subdivision that is not supported by a structure plan a restricted discretionary activity. This is to improve the quality of the built subdivision outcomes especially in terms of fitting the proposal to its context, and extending guidance to include lot design and built form. This will encourage good urban design and would give effect to Chapters 3 and 4 (Strategic Direction and Urban Development) of the PDP;
- (f) I support the recommendation of Mr Bryce to make subdivision that is in accordance with a structure plan a controlled activity on the basis the relevant structure plan has good subdivision design principles instilled within it, and provides a positive response to the location specific characteristics;
- (g) to maintain good built urban form the cross leasing of sites should become a discretionary activity; and
- (h) as a further check all large subdivisions seeking consent should be required to be reviewed by the urban design panel.

3. BACKGROUND

- 3.1** The Queenstown Lakes District (**District**) has one of the fastest growing populations in New Zealand.³ House prices are also amongst the highest and most unaffordable in the country with QV New Zealand reporting an increase in value of 17.8% in the last twelve months.⁴
- 3.2** The District's natural landscape is the key attractor to both residents and tourists, who are the mainstay of the local economy. I refer also to the evidence of Dr Marion Read and Mr Philip Osborne filed in the Rural hearing, who both support this view.
- 3.3** Generally the District's natural landscape is very hilly to steep, characteristically with small flat areas. Consequently land for residential development is limited and is a precious commodity.
- 3.4** There has been a lot of greenfield subdivision across the District in the past 20 years, which has spread urban form into surrounding rural landscapes. In the Wakatipu Basin, Queenstown has developed into multiple centres: the Town Centre, Arthurs Point, Remarkables Park, Frankton Flats and Jacks Point. Arrowtown has further consolidated, and in Wanaka development has spread outwards, across and back from Roys Bay. The relatively recent Northlake and Riverside subdivisions have spread north and eastward from the established parts of Wanaka and Roys Bay, to essentially fully enclose Mt Iron.
- 3.5** The Council has identified urban growth boundaries for Queenstown, Arrowtown and Wanaka in the PDP to:⁵
- (a) promote a compact, well designed and integrated urban form;
 - (b) manage the cost of Council infrastructure; and
 - (c) protect the District's rural landscapes, from sporadic and sprawling development.

³ http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/projections-overview/subnat-pop-proj.aspx

⁴ <https://www.qv.co.nz/resources/news/article?blogId=226>

⁵ Objective 3.2.2 Strategic Direction. Council's Reply 7 April 2016.

<http://www.qldc.govt.nz/planning/district-plan/proposed-district-plan/proposed-district-plan-hearings/strategic-direction-urban-development-and-landscape-chapters-3-4-and-6/councils-right-of-reply-streams-01a-and-01b/>

- 3.6** I understand that evidence on these urban growth boundaries has been provided in earlier hearings on the PDP.
- 3.7** Within these boundaries, at locations including Jacks Point and southern Wanaka, there are large areas that are still to be developed. However, as these are finite there will need to be a shift in subdivision design towards higher densities and increased efficiencies within existing urban areas.⁶
- 3.8** While not part of the PDP, Special Housing Areas have been designated to provide more housing more quickly, and to provide a greater number of affordable homes. Under these circumstances the planning requirements for good subdivision design are coming under increasing pressure.

4. GOOD SUBDIVISION DESIGN

- 4.1** Subdivision is literally the dividing of larger parcels of land into smaller parcels and these developments can range from a rural to residential land use, or from a larger residential site into more intensified infill. Over time, subdivision design has played a big part in the character and life of the District's towns and cities, especially the places that are growing. Traditionally there have been few controls on subdivision design with more of an emphasis on meeting technical standards, primarily revolving around matters of surveying and engineering.
- 4.2** New Zealand subdivision design has generally been influenced by the Garden City Movement, a planning philosophy from the early Twentieth century which championed space and light within a garden environment. What became known as "Garden Suburbs" have been characterised by wide often meandering streets, detached low rise homes on large lots, and community reserves of open space. This form of subdivision remains the dominant type around the country and also locally in the District. The exceptions are the historic centres of Arrowtown and Queenstown where subdivision is denser and responds more directly to the local landform.
- 4.3** Many Councils around the country started adopting Urban Design based principles in the early 2000s. This was as a result, in part, of the Ministry for

⁶ Refer to Chapters 7 Low Density Residential, 8 Medium Density Residential, 9 High Density Residential and 16, Business Mixed Use Zone.

the Environment's concern for the state of urban development. This led to the Urban Design Protocol (2005) which QLDC is a signatory member.

4.4 The Urban Design Protocol defines Urban Design as: "*Urban design is concerned with the design of the buildings, places, spaces and networks that make up our towns and cities, and the ways people use them. It ranges in scale from a metropolitan region, city or town down to a street, public space or even a single building. Urban design is concerned not just with appearances and built form but with the environmental, economic, social and cultural consequences of design*".⁷

4.5 I concur with the evidence of Clinton Bird that Urban Design is becoming increasingly complex and there are a number of definitions that emphasis the study and design of human settlements, connectivity, placemaking and public spaces. Generally I believe good urban design aims to provide an optimal living environment for people in a sustainable way within the environment. A well designed subdivision performs highly across a number of constituent factors from broad scale planning to detail design. The planning of the layout and structure of the streets, lots and open spaces is of fundamental importance.

4.6 A well designed subdivision:

- (a) should fit comfortably with and have a low impact on the natural landscape, retaining and enhancing the local ecological and cultural features and working with the surrounding context; the streets, open spaces and land uses;
- (b) will have a connected movement system that creates a legible network of roads or streets, lanes and paths that maximise access, pedestrian safety and visibility;
- (c) will often have centres of community facilities and a range of connected open spaces accommodating natural features, recreation areas and stormwater flow. There will be strong plantings of street

⁷ P7 <http://www.mfe.govt.nz/sites/default/files/urban-design-protocol-colour.pdf>

trees and habitat areas together with natural stormwater runoff areas;
and

- (d) will have lots (or sections) that will be orientated well to the sun, that provide good definition and activation of the street, and with spacious private back yards. There will be a range of lot sizes providing a variety of living units with denser lots nearer community centres.

4.7 The benefits of urban design are many and wide ranging from physical build costs to human wellbeing. With a well-designed landscape there are lower earthworks costs, enhanced ecology and lower volumes of runoff. Good lot layouts allow lower build costs, better solar orientation and more usable space. Well-designed open spaces and streets give a greater sense of community, personal safety and sense of place.

4.8 The costs of poor urban design can range from damaging local landscapes, removal of local character, inefficient usage of land, and increased levels of vehicle dependency. Poor layout can create many rear lots with little street access, streets dominated by garages and high fencing, poor planting and stormwater design that can create high maintenance costs.

4.9 QLDC established urban design panels in 2004 to provide design assessment in order to improve the quality of the built landscape. It also adopted the Urban Design Strategy in 2009, which included the laying out of a series of challenges facing the District including the form and quality of urban growth. These urban design panels are made up of an independent panel of experts⁸ that provide review of larger scale residential and commercial development located within the District's High Density Residential and Town Centre zoned areas of the District. Consideration of subdivision consent applications for larger scale residential and commercial development by the Urban Design panel is not a mandatory requirement, however it is encouraged by QLDC and to date has been a free service to applicants.

4.10 In 2010 and 2011, as part of monitoring and review of the Operative District Plan (ODP) and a QLDC concern for the perceived changes in the use of different subdivision zones, a qualitative assessment was carried out from an urban design perspective by consultants Boffa Miskell called "Urban Design

8 <http://www.qldc.govt.nz/planning/other-planning-information/urban-design/urban-design-panels/>

Critique of Subdivisions in Queenstown Lakes District" (**Subdivision Report**). The Subdivision Report studied 7 subdivisions in Queenstown and 2 in Wanaka. The Subdivision Report began with a definition of Urban Design and an outline of a detailed methodology that rated the success of each subdivision against 11 Urban Design Criteria to give an overall assessment and to note key lessons. In addition to subdivision layout, the assessment included several criteria specifically to do with built form, scale, active edges and enclosure.

4.11 Overall, the Subdivision Report gave a mediocre rating of between "less successful" to "successful" to all seven subdivisions assessed. There were no subdivisions that rated "very successful" against any of the criteria. The report noted a number of key lessons in the conclusion to assist in achieving better urban design outcomes, namely:

- (a) addressing a lack of creativity;
- (b) standardised roading layouts;
- (c) variability in quality of buildings;
- (d) wide streets with poor enclosure;
- (e) many rear lots; and
- (f) a poor response to local character.

4.12 Despite the seriousness of these conclusions, this comprehensive study has not been repeated since 2010/2011. The District's first design guideline for subdivision was not created until 2015 (and this is the version that I will address later in this evidence).

5. QLDC LAND DEVELOPMENT AND SUBDIVISION CODE OF PRACTICE

5.1 The Code of Practice is a lengthy document (over 300 pages) that details the provision of subdivision infrastructure, for the application and post approval subdivision process. The Code of Practice is based on the adoption of the New Zealand Standard (NZS) 4404:2010 with local modifications to ensure relevance to the District. This revision was sponsored by the Local Government of New Zealand, the New Zealand Transport Agency and the Ministry for the Environment.⁹

9 QLDC Land Development and Subdivision Code of Practice 2015 (**Code of Practice**) at page 19.

- 5.2** The preface to the Code of Practice clearly states that it *"is not an urban design policy, guide or method of masterplanning"*,¹⁰ rather it provides *"standards for design and construction of land development and subdivision"*.¹¹
- 5.3** In my view the Code of Practice contains several messages as to its scope and extent which could provide confusion in relation to the purpose of the Subdivision Guidelines. Firstly under the context section it is noted that it is the Code that "also provides best practise land development and subdivision infrastructure techniques in low impact design, climate change and urban design."¹²
- 5.4** The Codes sub section specifically on urban design, lists the 7 principles/ design qualities from the MfE Urban Design Protocol (2005) and the Code states that the Protocol "has been the primary influence on urban layouts that are encouraged in this Code."¹³ But there is no elaboration on how these are to be used or how they form part of any assessment. They remain an isolated element.
- 5.5** The General Requirements section of the Code lists out the contents of the drawing package to be supplied to lodge an application for subdivision, but the list does not include any specific urban design plans such as a context analysis.¹⁴
- 5.6** To clarify any possible confusion I believe the Code of Practice is not view fit for the purpose of providing an urban design guide, nor is it intended to be. The QLDC's primary use of the Code of Practice is to ensure that the installation of infrastructure is fit for purpose. For these reasons it is important that the Subdivision Chapter has Objectives and provisions that support good urban design and that the Subdivision Guidelines, which is a separate document to the Code of Practice, are incorporated by reference. I now turn to consider the QLDC Subdivision Guideline.

10 Code of Practice, at page 18.

11 Code of Practice, at page 19.

12 Code of Practice, at page 30.

13 Code of Practice, at page 33.

14 Code of Practice, at page 36.

6. SUBDIVISION GUIDELINE

- 6.1** Over the last ten years many Councils have introduced design guidelines for subdivisions. Having reviewed the guidelines produced by Dunedin, Christchurch, Nelson, Wellington, Kapiti Coast, Hawkes Bay, Tauranga and Auckland, it is clear to me that there is a large range of variability in the format and coverage of these guidelines.
- 6.2** QLDC has recently developed a set of guidelines called "Queenstown Lakes District Council Subdivision Design Guidelines: a design guide for the subdivision and development in the urban zones" dated May 2015 (see **Appendix 2**). The document is relatively short and concise at ten pages. Its contents are structured around subdivision design principles, neighbourhood and site considerations and subdivision design.
- 6.3** The purpose of the Subdivision Guideline is to "assist sub dividers and those involved in the subdivision process to create places that are desirable to live, work and play".¹⁵ The Subdivision Guideline is focused on broader scale aspects of subdivision design, namely the layout and structure - the detail and specific infrastructure design is to be found in the Code of Practice. The purpose also notes that it is primarily focused on greenfield subdivision and excludes rural. The Kapiti Coast District Council Best Practice Subdivision Guide is referenced as a key source.
- 6.4** Eleven subdivision design principles (drawn from the Kapiti guidelines) are listed. QLDC's approach is noted as encouraging good subdivision design and that the use of the guidelines will form part of the assessment. It is also noted that each subdivision is a unique response to a particular location.
- 6.5** What follows are a series of graphic pages that lay out considerations on neighbourhood opportunities and constraints. A hypothetical subdivision case study is illustrated (a vacant site in Wanaka known locally as Scurr Heights), covering guideline principles with considerations of: transport and connections, street and lot orientation, layout, and open spaces. The final page demonstrates how a subdivision design can respond to the guideline principles and notes the positive outcomes.

- 6.6** In my opinion the Subdivision Guideline is easy to read and is clearly aimed at informing decision makers at the start of the subdivision design process. The information, the principles and the considerations are all well founded and helpful. The Subdivision Guideline's list of principles and itemised considerations provides a checklist type of guideline for developers and QLDC consents officers.
- 6.7** In all, the Subdivision Guideline is a high level document that is intended to instil good practice and I consider that it compares well with other districts' guidelines.
- 6.8** For example, as previously noted there are a number of items from the Subdivision Report I discussed above that are left out such as scale, built form, lot design and enclosure. These items are more critical as densities increase. Also I believe to strengthen local character and fit with the landscape more detail could be included about the natural landscape, importance of earthworks, continuing landscape patterns and successful planting.

7. PROPOSED DISTRICT PLAN¹⁶

- 7.1** Chapter 3 Strategic Direction outlines the key objectives that all subsequent chapters are to follow. Starting with listing out the 9 special qualities of the District, the goals and objectives that follow are directly aligned with urban design themes eg: strategic management of urban growth, quality built environment, local character and protection of natural environment.
- 7.2** The first five objectives and policies of Chapter 27 Subdivision and Development¹⁷ directly encourage good urban design. Objectives 27.2.1 to 27.2.5 and associated policies are aligned with good urban design goals and practice. Specifically, they aim to create quality environments to live, work and play, and to achieve benefits for the developer, future residents and community. Objective 27.2.4 seeks to ensure heritage and natural features are identified, incorporated and enhanced within subdivision design.

¹⁶ I refer to the Council's Reply dated 7 April 2016 for Chapters 1, 3, 4, 5, 6, and the Reply dated 3 June 2016 for Chapters 21, 22, 23, 33, 34. All other Chapters are as notified.

¹⁷ I refer to the objectives and policies as set out in Appendix 1 to Mr Bryce's s42A report dated 29 June 2016.

- 7.3** As notified the Subdivision and Development Chapter made all subdivision a discretionary activity. Mr Bryce in his s42A report recommends making subdivision a restricted discretionary activity in general, and a controlled activity where the subdivision is supported by, and is in accordance with a structure plan that is included in the Subdivision Chapter.
- 7.4** I support making subdivision a restricted discretionary activity, with the inclusion of the Subdivision Guidelines as a matter of discretion. I consider that the guidelines, with the objectives and policies in the Subdivision and Development Chapter, will advance good urban design principles.
- 7.5** I also support making subdivision that is in accordance with a structure plan a controlled activity on the basis the relevant structure plan has good subdivision design principles instilled within it, and provides a positive response to the location specific characteristics.
- 7.6** Also, I support that the cross leasing of sites should become a discretionary activity in order to maintain good built urban form.

7.7 As a further check, I consider that all large subdivisions seeking consent should be required to be reviewed by the urban design panel. I suggest that the threshold for what constitutes a large subdivision would be over 40 lots or over two hectares (whichever is the least)). I note that the Council's guidance for using the urban design panel¹⁸ suggests that any project should be considered for review by an urban design panel if it has the potential to significantly impact on the quality of urban design in the area, or if the planner processing the resource consent has recommended the project be reviewed by the urban design panel. The Council already has the discretion for subdivision applications to be reviewed by the urban design panel. I also consider that the subdivision guidelines will also provide a basis for subdivision design to be assessed against.



Garth Falconer
29 June 2016

¹⁸ <http://www.qldc.govt.nz/planning/other-planning-information/urban-design/urban-design-panels/>

**Appendix 1 : *Urban Design Critique of Subdivisions in Queenstown Lakes District*, Boffa
Miskell, August 2010.**



Urban Design Critique of Subdivisions in Queenstown Lakes District

Wanaka Only- July 2011

Table of Contents

Introduction	2
Methodology	2
Sites Appraised	4
Site A - Lake Hayes, Queenstown	5
Site B - Fernhill, Queenstown	13
Site C - Goldfields, Queenstown	21
Site D - Arthur's Point, Queenstown	29
Site E - Atley Downs, Queenstown	37
Site F - Mt. Iron Estate, Wanaka	45
Site G - Meadowstone, Wanaka	53
Conclusion	61

Sites A-E are not included. They were published in May/June 2011 with the Queenstown Low Density Zone Monitoring Report.

Only the Wanaka examples F & G are included in this version of the report.

Introduction

Scope of Project

Urban Design has been defined as ‘*the art of making places for people. It includes the way places work and matters such as community safety, as well as how they look. It concerns the connections between people and places, movement and urban form, nature and the built fabric, and the process of ensuring successful villages, towns and cities. Urban design is the key to making sustainable developments and the conditions for a flourishing economic life, for the prudent use of natural resources and social progress*’ (DETR, By Design)

Queenstown Lakes District Council (QLDC) appointed Boffa Miskell to assess the **urban design qualities** of seven subdivisions within the District. The maps on page 4 show the locations of these subdivisions. This report includes a record of built outcomes of the subdivisions alongside an assessment of the visual quality and an appraisal of other urban design outcomes.

Methodology

Overview

The project was undertaken by urban designers from Boffa Miskell in conjunction with planning and urban design staff from QLDC. It is anticipated that this will assist QLDC staff in monitoring the outcomes of subdivisions in the District and in particular, the relevant policies and rules.

Initially, a site assessment template was developed with a list of elements to assess and items to photograph. The template included a checklist of urban design criteria to ensure continuity. This served to focus on the key issues for the reviewers when critiquing the individual subdivisions. The urban design criteria is discussed more overleaf.

The site visits were undertaken in winter (June 2010) and as a consequence the effect of planting is less visible, in particular, the visual effects of deciduous street trees. For some sites snow and ice obscured part of the open spaces.

Not all of lots within the subdivisions have been developed at time of site visit. In some cases the scale of the on site survey was reduced to a smaller number of streets agreed with QLDC. On site, the subdivision was discussed and assessed in relation to each urban design criteria and its elements. The response of each subdivision to the urban design criteria was rated on a sliding scale of very successful to not successful. An example of the sliding scale is below.

Overall, how successfully does this subdivision integrate with its local context?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



What do these ratings mean?

Very Successful: The subdivision is considered to achieve the best outcome in relation to the urban design criteria in almost all areas of the development. Represents an example of best practice.

Successful: The subdivision is considered to result in a good outcome in relation to the urban design criteria in most areas of the development.

Acceptable: The subdivision is considered to result in a satisfactory outcome using the urban design criteria.

Less Successful: The subdivision does not result in a satisfactory outcome in relation to the urban design criteria in some areas of the development.

Not Successful: The subdivision is considered to result in a very poor outcome in relation to the urban design criteria in almost all areas of the development.

Where appropriate, a summary sentence is included to outline why a subdivision received a certain rating, in particular where it was considered close to another rating or any extremes were balanced across the subdivision.

Urban Design Criteria

The urban design criteria used in the assessment has been designed to specifically comment on residential subdivisions. Elements of the Urban Design Protocol, QLDC's Urban Design Strategy and other urban design literature informed this criteria. A brief definition of each criteria used is given below. Throughout this report each criteria below are discussed and demonstrated.

Context: Refers to how the development addresses its wider context in relation to external connectivity (i.e. links to external amenities and town centre shops and parks), natural features (i.e. landscape) and built form (scale of neighbouring subdivisions, roads, etc).

Connectivity: A development is assessed favourably if the place is easy to move around by foot, bike and vehicle and also provides connections between amenities such as reserves and streets within the site.

Urban Grain: The pattern and size of land uses and road layouts, the buildings and their lots within a subdivision. A rating of the urban grain has not been included within this report as its results are discussed within other criteria such as legibility, enclosure and scale.

Legibility: A development is assessed favourably if the place can be easily understood (and memorable) and navigated as a person moves about it.

Scale: The combined impacts of built elements when seen in relation to its surroundings i.e. roads, open spaces or other buildings and how it responds to the scale and character of the development within the wider context.

Active Edges: Refers to the potential for visual engagement (or 'passive surveillance') between the street users and activities taking place in buildings (particularly on the ground floor). The presence of 'active edges' helps places feel safer and more personable.

Enclosure: The creation of a sense of defined space by means of surrounding buildings and planting.

Quality: The external appearance and functionality of materials and design elements used in both public and private areas and their overall maintenance/longevity.

Character: A place that responds to and reinforces locally distinctive patterns of development and landscape features.

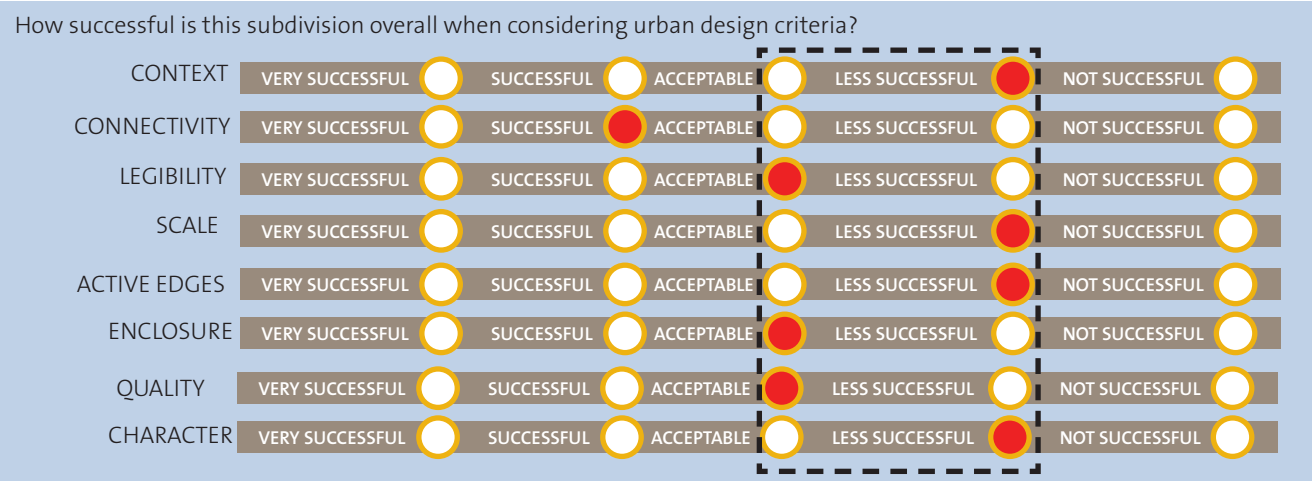
Distinctiveness: The special features which make a place more memorable and therefore more legible.

Creativity: The innovative approaches which promote diversity and turns a functional place into a memorable place. These are recorded in the key lessons at the end of each section.

Overall Assessment

Each subdivision has a concluding overall assessment page which brings together the ratings from each individual criteria assessment. The ratings for each criterion are assembled into a diagram to assess if there is a consistent rating for that subdivision. An example of this is shown below. The dotted line indicates in general where the

overall rating sits. This is followed by a short summary statement about the subdivision. A number of key lessons to learn from each subdivision are listed beneath the overall assessment table, which also comments on elements of creativity or extremes that were averaged out for the purposes of the ratings.





Site F – Mt. Iron Estate, Wanaka

Introduction

Size: 19.5ha. Approximately 120 were lots reviewed (contained within the black line on the map below)

Date of Consent: 2002

Complete: Largely complete, some vacant lots at the edge of area reviewed.

Zoning: Residential (light yellow)

Location: Mt. Iron Estate is approximately 1 km to the north east of Wanaka town centre. It is also close to the commercial area in Anderson Heights (shown in blue/green colour). Not all of the streets in Mt. Iron were reviewed.

Conditions: The site was visited on a cold sunny winter's morning.



Mount Iron zoning map



Mt. Iron Estate aerial

Mt. Iron Estate

Context



This is a recent subdivision with several peripheral lots under construction and an undeveloped landscape. It is part of a wider development which extends west to the local commercial centre of Anderson Heights. It is an extension of Wanaka township and backs onto the open slopes of a local landmark, Mt. Iron to the north east. Mt. Iron has a walking track and parking / toilet facilities accessed from within this site. The subdivision is readily visible from this track.

Vehicular access to the site is achieved from the west. Although the State Highway passes immediately to the south, it is not visible due to terracing. The Highway and Mt. Iron itself limit connections to the wider township in two directions. This site is a 15 minute walk from the town centre and a 5 minute walk from the Anderson Heights commercial centre.

INTEGRATION WITH BUILT ENVIRONMENT



- Vehicular connections to the surrounding subdivisions is primarily via local roads linking to Mt. Iron Loop Road/Mt. Iron Drive and Anderson Road that serve as collector roads.
- The development is bordered by new and established residential developments to the west and north.
- The development to the west is similar in urban grain, density and roading arrangements, although it is located in a more mature landscape setting.

INTEGRATION WITH THE NATURAL ENVIRONMENT



- Mt. Iron is visible from the majority of the site and creates a strong landscape setting.
- Besides the gently undulating land, there is little reference to previous land use, landforms or natural features. One exception is an internal, informal reserve with established trees.
- Sloping land at the base of Mt. Iron has been modified to provide flatter building platforms that step down to Rob Roy Lane.

How successful does this subdivision **integrate** with its local context?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



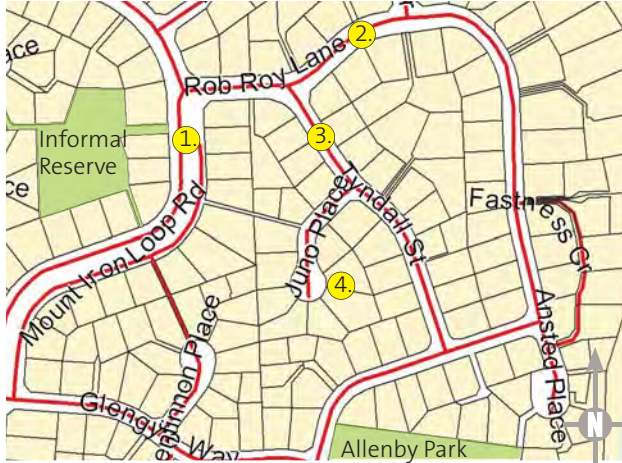
The subdivision has little design reference to its previous activities or features, although Mt. Iron is visible from most locations. The site is well connected and has adopted a similar design approach to that of the surrounding development. However, the urban grain is different to the traditional parallel and regular layouts adopted in Wanaka.

Mt. Iron Estate

Urban Structure

Connectivity

STREETS



The subdivision is accessed by three roads. All connect via T-junctions onto Rob Roy Lane, the principal loop road, which is connected via a roundabout to Mt. Iron Loop Road. Rob Roy Lane feeds one connecting road, two of cul-de-sacs and several private driveways. A network of public walkways (1-1.5m wide) also link these roads to Allenby Place and Mt. Iron walkway. An alternative pedestrian route to the State Highway is possible via the Mt. Iron walkway.

OPEN SPACE



STREET HIERARCHY

1. Mount Iron Loop Road
 - Road width 15m
 - Footpaths both sides
 - Wider in one section due to a slipway
2. Rob Roy Lane
 - 20m road reserve
 - 11m road width
 - Two footpaths in parts
3. Tyndall Street
 - 18m road reserve
 - 9m road, narrowing to 6m at pinch point
 - Footpath one side
4. Cul-de-sacs
 - 15m road reserve
 - 7m road width
 - Head of cul-de-sac 27m diameter including footpaths to both sides



Allenby Park is a large open space (photo at top left) and consists of an expansive level playing field. There was little evidence of activity. An informal open reserve also exists between Mt. Iron Loop Road, Mercury Place and Apollo Place. This space is accessed by two footpaths and a private drive, although the barrier at the end of the drive does not signify a public space (photo above). The pedestrian walkways are narrow, bordered by high fences and informally signposted to lead to the Mt. Iron walkway.

How successful is the connectivity through (and beyond) the site achieved using streets and open spaces?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



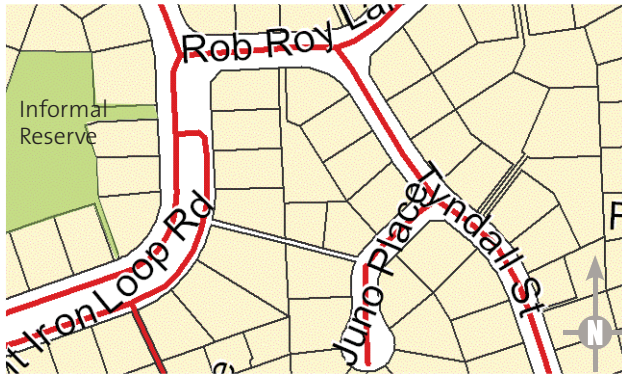
This subdivision has good vehicle and pedestrian connectivity given a network of roads and walkways. However, the walkways show evidence of anti-social behaviour (e.g. graffiti) and could be better designed to increase a sense of safety. The street blocks are large and despite pedestrian walkways in some parts, this results in longer walking distances.

Mt. Iron Estate

Urban Structure

Urban Grain

LOT DIVISION



Internal access is along predominantly curvilinear roads, which provide for adequate lot division and vehicular access to the irregularly shaped subdivision. All roads provide frontage access to generally even shaped lots on both sides, with the exception of two single-sided roads adjacent to Allenby Park. Private drive access is limited to larger rear lots adjacent to Mt. Iron and irregular shaped internal lots. There is some evidence of lot re-subdivision which effects the coherence of the urban grain.

Size/Density

The majority of lots are evenly sized (700-850 sqm). Larger lots are located at the foot of Mt. Iron and near Allenby Park.

Shape

Road side lots are generally square or rectangular, with central irregular lots accessed by private drives.

Access/Frontage

Minimum lot widths fronting roads creates regularity. Lots vary in depth and angle in response to curvilinear roads.

Variety/Variation

Variation includes the irregular shaped lots resulting from the road and cul-de-sac arrangements. Some corner lots appear larger.



LOT DEVELOPMENT



Dwellings generally align to the minimum road setback distances. However, visual regularity is limited by the variation in construction materials and building styles. There is little coherence across the development, although there is a noticeable use of high fences and planting to front boundaries. In some cases, lots along Rob Roy Lane have been raised slightly. In addition, some lots have been developed with deep setbacks to allow for further subdivision in the future.

Footprint Size/Coverage

Most dwellings and garages appear large and maximise site coverage.

Arrangement/Typology

Most dwellings are single-storey detached houses of varying styles. Some are two-storey/comprehensive units.

Street Frontage: Garage/Drive

Many standardised buildings located close to lot boundaries. Garages facing the street reduces passive surveillance.

Variety / Variation

Re-subdivision results in good and bad outcomes. On sloping sites this means dwellings in close proximity on different levels raising privacy issues.



Mt. Iron Estate

Appearance (Outcomes)

Legibility

Arrival



This subdivision is similar in layout to the surrounding subdivisions. When coming from the north a roundabout on Rob Roy Lane identifies the arrival point. From the south individual signage to Allenby Place, Allenby Park and strong views to Mt. Iron suggests a separate identity.

Navigation



Mt. Iron and Allenby Park acts as navigational aids on site. Road widths vary slightly, but there is little visual change to distinguish the road hierarchy. There are few built landmarks and streets with a different character. However, narrow walkways and minimal destination signage do not encourage pedestrian navigation.

Security



In several locations narrow pedestrian walkways are enclosed by high fences. These compromise a feeling of safety. Graffiti on fences further indicates a lack of security. Roads appeared wide with extensive driver visibility and generous bends. This can encourage high vehicle speeds.

Does this site achieve good **legibility**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Mt. Iron is a notable landmark and together with Allenby Park, aids wayfinding within this site. However, concern over safety and desirability of pedestrian walkway arrangements and roading layout, reduces the overall success of legibility.

Scale

Typology



The majority of the buildings are single-storey detached dwellings, with some examples of one and a half and two-storey dwellings along the site perimeter, particularly at the foot of Mt. Iron and adjacent to Allenby Park. There is a notable sense of openness and inconsistency within the development.

Buildings to Street



Regular lot frontage widths have established a predominantly single-storey building rhythm. As a result of lot level changes, multiple building styles there is little building frontage continuity or regularity along the street. Front fences are high and double garages tend to dominate the street.

Buildings to Public Spaces



As an expansive level sports field, Allenby Park comprises the main public open space. Due to its scale, the surrounding single-storey buildings appear visually insignificant. Even on the larger lots along Allenby Place, re-subdivision has resulted in two-storey buildings predominantly on rear lots. Taller buildings fronting the park would have provided a better scale and relationship.

Is the scale of development appropriate to the local environment?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



As a consequence of lot arrangements, two-storey buildings are predominantly located away from public roads and spaces. Therefore, the built form does not help define public spaces, or counter the dominance of roading to any great effect.

Mt. Iron Estate

Appearance (Outcomes)

Active Edges

Visibility



Individual lots have wide street boundaries, which reduces the number of dwellings along the street. Approximately a quarter of the lots have no public street frontage. Many frontages have high fences, wide garages and retaining structures. This results in poor visibility between dwellings and the street.

Front facade openings



Due to front boundary treatment (i.e. fencing and retaining structures), the visibility of dwellings from the street is variable and frequently restricted. Garages and blank gables also reduces the views of front doors and windows from the street.

Orientation/proximity



A small number of dwellings are placed side-on to the street to achieve better solar orientation, which results in blank walls facing the street. There are no predominantly east-west oriented roads, resulting in minimal variation in the location of building on either side of the street.

Garages



Double garages and driveways are often the focal point of front elevations. This is particularly the case where landscaping has not been provided for. However, many dwellings are individually designed, which introduces variation in layout and materials and relieves the visual dominance of garages from the street.

Does the layout of subdivision result in high degree of **active edges** to public areas?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



There are no apparent design controls in place to ensure street activity and passive surveillance of public roads, spaces and walkways. This is further emphasised by the variation in building design, ground levels and treatment of frontages.

Enclosure

Tyndall Street

Very little enclosure of streets is established within this subdivision, mostly due to the wide roads/ road reserves. This is accentuated by deep building setbacks and low dwelling heights.



Ansted Place

The only place where a sense of enclosure is achieved is at the head of Ansted Place. This is due to the height and proximity of building to the street. However, the width and layout substantially undermines this.



Does the subdivision successfully achieve good **enclosure**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The scale of roads/road reserves limits the opportunity for effective street and open space enclosure. However, even the narrower roads such as the private drives still have low building heights, which limits opportunities to define the street.

Mt. Iron Estate

Appearance (Outcomes)

Quality

Private
Buildings



The majority of buildings are individual designed, resulting in a very eclectic mix of building styles and limited cohesion. There is a strong emphasis on render and brick finishes, with relatively little stone or reference to other local materials.

Private Lot
Curtilage



The extent and variety of boundary treatment and undeveloped planting accentuates the lack of continuity. This results in a fragmented appearance across the development as a whole. There are very few examples of high quality frontage fencing or landscaping.

Public Street
Materials



All public and private roads are treated similarly with tarmac seal and concrete kerbing. The one exception is red concrete block work to crossings, parking bays and other uses. This lack of differentiation between types of streets is confusing.

Public
Landscape/
Open Space



Some public street landscaping is good, but it is limited in extent. Most of the street trees are not fully established. Allenby Park is entirely grassed with sporadic tree planting. The informal public space retains several existing landscape features. When the trees within the subdivision mature it may improve the overall visual quality of the development.

Overall **quality** of subdivision?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



There is little consistency in the style of dwellings and the quality of their gardens and boundaries. The streetscape is uniform and dominated by asphalt, with some block work features. When planting has matured, it may improve the quality.

Character

Consistency
Across Site



The only consistent elements across the site are the roads and views to the surrounding landscape. The mix of building styles, materials and relationship of buildings to the street has more of a rural residential character than one associated with an urban extension.

Building
Character



As the built character shows little consistency the overall character of the subdivision is influenced by the appearance of the roads. The future success of landscaping may result in an improved appearance. However, given that private front gardens appear smaller than in other scheme this may be limited.

Appropriateness



While the development adopts a similar design to its neighbours, there is little reference to the traditional built character of Wanaka, apart from general openness to the wider landscape. The road structure is a generic suburban model and other than Mt. Iron, this development could be anywhere.

Does the subdivision establish a special **character** appropriate to its site?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



There are no distinctive features, aside from views of Mt. Iron, within this subdivision which are memorable. The layout and lot development do not respond to the context and there is no consistency in character or appearance. However, the future look of this development does depend on how the landscape matures.

Mt. Iron Estate

Overall Impressions of Subdivisions - Distinctiveness



Wide Roads/Road Reserves

These are the predominant feature of this subdivision.



Pedestrian Walkways

While offering direct connections between roads they are not pleasant or attractive routes.



Mt. Iron Walkway

This is an excellent amenity, although links to the walkway could be clearer from within the site.



Further Subdivision

The process of lot re-subdivision seems unco-ordinated in some parts of the site.

Overall Assessment

How successful is this subdivision overall when considering urban design criteria?

CONTEXT	VERY SUCCESSFUL	○	SUCCESSFUL	○	ACCEPTABLE	●	LESS SUCCESSFUL	○	NOT SUCCESSFUL	○
CONNECTIVITY	VERY SUCCESSFUL	○	SUCCESSFUL	○	ACCEPTABLE	●	LESS SUCCESSFUL	○	NOT SUCCESSFUL	○
LEGIBILITY	VERY SUCCESSFUL	○	SUCCESSFUL	○	ACCEPTABLE	○	LESS SUCCESSFUL	●	NOT SUCCESSFUL	○
SCALE	VERY SUCCESSFUL	○	SUCCESSFUL	○	ACCEPTABLE	○	LESS SUCCESSFUL	●	NOT SUCCESSFUL	○
ACTIVE EDGES	VERY SUCCESSFUL	○	SUCCESSFUL	○	ACCEPTABLE	○	LESS SUCCESSFUL	○	NOT SUCCESSFUL	●
ENCLOSURE	VERY SUCCESSFUL	○	SUCCESSFUL	○	ACCEPTABLE	○	LESS SUCCESSFUL	○	NOT SUCCESSFUL	●
QUALITY	VERY SUCCESSFUL	○	SUCCESSFUL	○	ACCEPTABLE	○	LESS SUCCESSFUL	●	NOT SUCCESSFUL	○
CHARACTER	VERY SUCCESSFUL	○	SUCCESSFUL	○	ACCEPTABLE	○	LESS SUCCESSFUL	○	NOT SUCCESSFUL	●

ALTHOUGH THIS DEVELOPMENT PROVIDES A PLEASANT ENOUGH LOCATION ADJACENT TO MT. IRON, IT FALLS SHORT OF A NUMBER OF KEY URBAN DESIGN CRITERIA RESULTING THEREFORE RESULTING IN AN UNACCEPTABLE OUTCOME. GIVEN ITS LOCATION AS AN URBAN EXTENSION TO WANAKA IT DOES NOT MAKE THE BEST USE OF ITS LOCATION.

Key Lessons

- Roads dominate this scheme, both in width and alignment. Wide unused road reserves contribute little and reduce the overall success of this subdivision.
- Controls in relation to further lot subdivision would regulate the unco-ordinated look already evident on site.
- Narrow walkways with high fences do not promote security and encourage anti-social behaviour such as graffiti.
- Key landforms such as Mt. Iron can aid legibility, but has not been well utilised.
- Although the layout of the subdivision is efficient, there is little evidence of any creativity in road, lot, or built form arrangements. A combination of acceptable standards provides adequate functionality, but fails to contribute to its local context or include distinctive features.

Site G – Meadowstone, Wanaka

Introduction

Size: 20ha

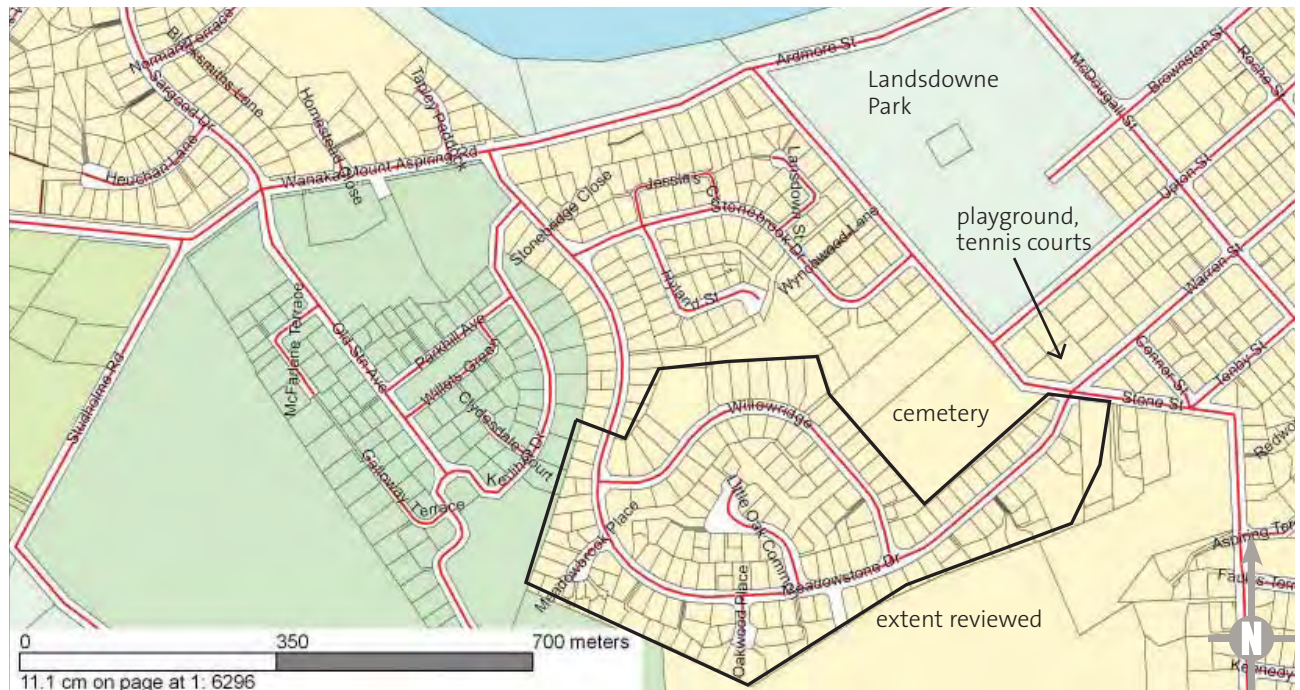
Date of consent: 2001/2002

Complete: Yes, however a retirement village is under construction within the area reviewed.

Zoning: Residential (light yellow) and Meadowpark (dark green - Rural Lifestyle)

Location: This subdivision is an extension of Wanaka to the south west. Its entry point is within 1 kilometre of the town centre. The streets reviewed include Willowridge, Little Oak Common, Meadowstone Drive (part), Meadowbrook Place and Oakwood Place.

Conditions: The site was visited on a cold, drizzly winter afternoon.



Meadowstone zoning plan



Meadowstone aerial

Meadowstone, Wanaka

Context



The subdivision is an extension of the town centre to the south-west, separated from the centre by a residential area, the cemetery and Landsdowne Park.

The site is on gently sloping land between the surrounding hills and Lake Wanaka. It is accessed by two roads off Stone Street and two roads off Mount Aspiring Drive. Meadowstone Drive is a direct extension of Warren Street which leads to the town centre. There are pedestrian connections to the nearby park.

The subdivision is approximately 1 km from the town centre. The primary school, parks, playground, Lake Wanaka and some other amenities are within 1 km of the site.

INTEGRATION WITH BUILT ENVIRONMENT



- Meadowstone Drive links with the town grid, but the scheme layout does not extend the formal grid pattern. Nevertheless, there are several direct and indirect connections to the town centre.
- The subdivision is close to the local amenities of the town centre, playground and tennis courts.
- A retirement village on site links with the existing rest home on a neighbouring site.
- Residential units back onto the adjacent cemetery.

INTEGRATION WITH THE NATURAL ENVIRONMENT



- Views of Mt. Iron are framed in part by the alignment of Meadowstone Drive.
- The southern most dwellings sit at the foot of the hillside and sit comfortably within it.
- There are no views of the lake from the public realm.
- An existing stream is incorporated into the greenways network.
- Some trees, in particular an oak tree, are retained within the site.

How successful does this subdivision **integrate** with its local context?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



This subdivision integrates well with its natural setting, using existing features and does not unduly encroach on the hillside. However, it backs onto the cemetery, concealing this from public view, and does not reference the grid layout of the nearby town centre.

Meadowstone, Wanaka

Urban Structure

Connectivity

STREETS



This portion of the subdivision is well connected, via a main road (Meadowstone Drive), a local loop road (Willowridge) and three cul-de-sacs. Each of these roads is further connected with greenways. There is provision for a future link to the south (marked as No.5 on the map). The widths of public roads/road reserves appear similar and therefore do not readily convey the road hierarchy. In contrast, the private roads are narrower.

STREET HIERARCHY

- ① Meadowstone
 - 9m (20m road reserve)
 - Main connecting routes
 - Footpaths both sides, with brick paving
- ② Willowridge
 - 9m (20m road reserve?)
 - Internal connecting road
 - Footpaths both sides, with brick paving.
- ③ Cul-de-sacs
 - Three in this section
 - 8.5m wide
 - Short routes with footpaths
- ④ Private Drives
 - Seven in this section
 - 4m wide (on average)
 - No footpaths, some change in materials



OPEN SPACE



A network of greenways connect the roads and cul-de-sacs to the remainder of the site north to Landsdowne Park. Some greenways follow the path of a stream and one is focused around an existing Oak tree. This greenway is well overlooked by back lots. The greenways vary in width, but are generally wide; in places up to 20m. There are also informal public open spaces along the greenways. However, the greenways do not have footpaths, which limits their use as pedestrian connections.

How successful is the connectivity through (and beyond) the site achieved using streets and open spaces?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The greenways are well connected. If there was a further vehicle route connectivity would have been more successful.

Meadowstone, Wanaka

Urban Structure

Urban Grain

LOT DIVISION



The site is irregularly shaped and with the curvilinear alignment of the roads, generates a variety of lot shapes. There is also a variety of lot sizes, with larger lots on the northern side of Willowridge and adjoining the southern boundary. The lots generally have a similar width to the road, but lot size depends on depth. Lots along the main roads have regular frontage width in contrast to those in the cul-de-sacs and private drives. Many lots, particularly along the southern boundary, are accessed off private drives. There is evidence of further subdivision, with comprehensive developments in Meadowbrook Place.

LOT DEVELOPMENT



Buildings were generally well accommodated within their lots and aligned with the boundaries, although in many cases lot coverage was maximised. There was a variation in building types along roads, with a mix in height, gables and vertical elements, such as chimneys. The rhythm of frontages along the street was fairly consistent.

Size/Density

There is a range of lot sizes. They appear regular from the street, but the depth determines the overall lot size.

Shape

The subdivision layout results in a mix of lot shapes, mainly on the south and north edges of the area reviewed.

Access/Frontage

Most dwellings align with lot boundaries and face the road, with the exception of the back lots.

Variety/Variation

There appears to be much lot variation, created by further subdivision, with some comprehensive schemes in the cul-de-sacs.

Footprint Size/Coverage

The dwellings did not appear cramped within lots despite relatively narrow frontages.

Arrangement/Typology

There is a varied mix of building types and heights. They are mostly single-storey, but some taller buildings were present.

Street Frontage: Garage/Drive

Garages did not particularly dominate the streetscene given the extent of frontage landscaping.

Solar Orientation

On south facing lots garages faced the roadside and on north facing lots garages tended to be at the rear.



Meadowstone, Wanaka

Appearance (Outcomes)

Legibility

Arrival



Entry into the subdivision was marked by subtle stone signage and stone bridges over the stream with a change in road surfaces. The stone signage was also consistently used to mark entrances to the streets. The road surfaces throughout the remainder of the site also changed when crossing the stream.

Navigation



It was not clear when entering the greenways where they linked to, although landmarks or roads were visible. Meadowstone Drive was clearly the principal route, given it is emphasised by its continuous curved alignment. The legibility of secondary roads was less clear.

Security



There were no footpaths or lighting along the greenways resulting in an incomplete look and a potential unsafe feeling. However, in most places the greenways were well overlooked. In places, the private gardens of some dwellings spilled into the greenways, with no definition between them. Across the site, even where fences were higher, upper floor windows provided some natural surveillance.

Does this site achieve good **legibility**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Navigation through the greenways was a little unclear, which added to a sense of unease. However, generally the greenways are successful, but the inclusion of footpaths and lighting could attract more users. The main route through the site was very clear to traffic users, but less clear to those drivers approaching it from side streets, given that there was limited differentiation between different road types. This resulted in the need for additional road markings.

Scale

Typology



The majority of buildings are single-storey detached dwellings. However, there are also many examples of two-storey dwellings along the principal roads. An increased proportion of two-storey dwellings were located on larger lots within cul-de-sacs, adjoining the rural boundary and close to the greenways.

Buildings to Street



A combination of regular narrow lot widths establishes a strong rhythm of individual buildings along both sides of the street. Irregularity of building form, height and colour combined with landscaping contributes to variety and a strong street edge.

Buildings to Public Spaces



Dwellings alongside greenways and public open spaces have a good visual relationship with the spaces given they are generally two-storied. In some cases private gardens merge with public spaces due to an absence of fencing. This creates uncertainty for park users as to where they are allowed to go.

Is the **scale** of development appropriate to the local environment?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



There is a consistent relationship between the type of road and the size of the building which adjoins it. This results in a good sense of scale within the scheme.

Meadowstone, Wanaka

Appearance (Outcomes)

Active Edges

Visibility



A clear visual relationship between buildings and streets was evident. Many were moderated by low fencing and planting/hedging along the street boundary, though in summer transparency may be less. Where taller fences existed the dwelling behind generally had windows on upper levels.

Front facade openings



The majority of the dwellings had front doors and windows along their street frontage. Most had shared vehicle and pedestrian access but some had separate pedestrian paths. In places, where a single-storey dwelling had a higher fence it still had some visible windows.

Orientation/proximity



Orientation is determined by road layout and lot widths. Buildings predominantly aligned with side boundaries and fronted roads, with the majority of dwellings located close to the street. There were some exceptions, with wider lots including buildings located towards the rear of the lot.

Garages



The majority of dwellings had double garages attached, especially on the northern aspects. These dominated the street when the front gardens lacked vegetation and generally resulted in a poor visual connection with the street. Garages on sites on the south side of Meadowstone Drive were generally located to the rear, increasing active windows overlooking the street.

Does the layout of subdivision result in high degree of **active edges** to public areas?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The dwellings in general have good passive surveillance to streets, open spaces and greenways.

Enclosure

The regular dwelling setbacks combined with the curvature of the road assists in creating a visually continuous frontage. This would be even better if the road reserve was narrower and buildings closer together.



The height of the buildings (including chimneys) assist in creating a vertical scale to the street and providing a better definition of the space. Reduction of the road reserve width and turning area would improve this further.



Does the subdivision successfully achieve good **enclosure**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Given the current roading standards, this is a better example of enclosure of space in a subdivision. Narrower road reserves would further enhance the sense of enclosure of the streetscapes.

Meadowstone, Wanaka

Appearance (Outcomes)

Quality

Private
Buildings



In general, the quality and maintenance of the buildings appears good. There is a variety of building types yet they sit comfortably together. This suggests there may be building controls for the site, particularly given the regular use of gabled buildings with pitched roofs.

Private Lot
Curtilage



The overall impression of the landscaping and fencing is reasonably cohesive and is of good quality and well maintained. Conversely, those dwellings without planting/fencing detracted from the overall quality. The low fences between lots added to the street's perceived rhythm.

Public Street
Materials,
utilities, etc.



The red paved footpath successfully reduced the dominance of the road and linked well into private driveways. The footpath does not change level at entrances to lots. Kerb and channel is the predominant drainage treatment on the site. The utilities on site were not very obvious.

Public
Landscape/
Open Space



The use of stone in the public landscape added to a visual cohesion across the site. The landscaping, bridges and open spaces are of high quality. The mainly grassed road reserves were more pronounced due to the extent of lot enclosure and though occasionally planted with trees did little to contribute to the streetscape.

Overall **quality** of subdivision?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The quality of landscaping and infrastructure unifies the scheme and the quality of the private planting and buildings reinforces this.

Character

Consistency
Across Site



The overall character presents a tightly knit development within the constraints of the road pattern and landform. The landscape quality across the site is high and a consistent treatment is evident. This results in a reasonably cohesive appearance.

Building
Character



The majority of buildings appeared to be individually designed. There is an emphasis on simple forms of a similar scale, which contributes to the character of Wanaka. This is complemented by the quality of the landscape surrounding the buildings.

Appropriateness



Changes in the scale of buildings reflect their location, rising in height towards the mountains and lowering closer to the more traditional streets in Wanaka. The road alignment is less appropriate to its context, due to the lack of reference to the traditional grid it adjoins. In general, the development responds better to the rural aspect than its urban context.

Does the subdivision have a special **character** appropriate to its site?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



This subdivision has a more cohesive character responding well to its rural edge setting. The public landscaping and materials use in pathways and bridges enhances this character.

Meadowstone, Wanaka

Overall Impressions of Subdivisions - Distinctiveness



Both public and private **landscaping** positively enhanced the character and cohesion of this subdivision.



There was a positive relationship between the height of buildings and their proximity to adjacent roads i.e. higher buildings were located adjacent to cul-de-sacs and greenways.



The linearity of **greenways** offers a green edge to many development lots and also provides a network of pedestrian connections.



The width of the roads and road reserves with extensive seal detracted from the scheme. However, the coloured and textured footpaths reduced their overall visual impact.

Overall Assessment

How successful is this subdivision overall when considering urban design criteria?

CONTEXT	VERY SUCCESSFUL	○	SUCCESSFUL	○	ACCEPTABLE	●	LESS SUCCESSFUL	○	NOT SUCCESSFUL	○
CONNECTIVITY	VERY SUCCESSFUL	○	SUCCESSFUL	●	ACCEPTABLE	○	LESS SUCCESSFUL	○	NOT SUCCESSFUL	○
LEGIBILITY	VERY SUCCESSFUL	○	SUCCESSFUL	●	ACCEPTABLE	○	LESS SUCCESSFUL	○	NOT SUCCESSFUL	○
SCALE	VERY SUCCESSFUL	○	SUCCESSFUL	●	ACCEPTABLE	○	LESS SUCCESSFUL	○	NOT SUCCESSFUL	○
ACTIVE EDGES	VERY SUCCESSFUL	○	SUCCESSFUL	●	ACCEPTABLE	○	LESS SUCCESSFUL	○	NOT SUCCESSFUL	○
ENCLOSURE	VERY SUCCESSFUL	○	SUCCESSFUL	○	ACCEPTABLE	●	LESS SUCCESSFUL	○	NOT SUCCESSFUL	○
QUALITY	VERY SUCCESSFUL	○	SUCCESSFUL	●	ACCEPTABLE	○	LESS SUCCESSFUL	○	NOT SUCCESSFUL	○
CHARACTER	VERY SUCCESSFUL	○	SUCCESSFUL	●	ACCEPTABLE	○	LESS SUCCESSFUL	○	NOT SUCCESSFUL	○

THIS SUBDIVISION INCLUDES HIGH QUALITY PUBLIC AND PRIVATE LANDSCAPING AND BUILDING DESIGN. IT HAS GOOD INTERNAL CONNECTIONS AND A BUILDING SCALE WHICH COULD HAVE BEEN ENHANCED BY NARROWER ROADS/ROAD RESERVES.

Key Lessons

- The wider road reserves reduce the overall success of this subdivision.
- This subdivision presents a co-ordinated impression, which suggests the use of design controls.
- The connectivity of this scheme is high, in particular due to the use of greenways. However, footpaths along the greenways would enhance usability for all people (i.e. parents with prams and people with limited mobility).
- Good public landscaping and quality materials can enhance the overall success of a subdivision, even in poor winter conditions.

Conclusion

The purpose of this review is to assess some typical subdivisions in relation to current urban design best practice. The findings of this report may assist QLDC in achieving better urban design outcomes in future subdivisions. It is important to note that the majority of the schemes reviewed were consented and commenced before the launch of the Urban Design Protocol in 2005. Therefore,

a general awareness of essential urban design qualities was unlikely at the time in which they were designed.

The key findings and overall assessment of each subdivision are not compared in this report. However, a number of the key lessons learned are outlined below in relation to each of the urban design criteria.

Urban Design Criteria - Key Lessons

Context

- All schemes reviewed were on greenfield sites.
- The schemes considered more successful were generally those located close to existing communities, built areas, key routes or services.
- The natural landscape setting is important and the retention of natural features, i.e. stream, trees, slopes, makes a real difference to the overall quality.

Connectivity

- Most sites were well connected externally for vehicular traffic.
- A hierarchy of roads was not always clear on site.
- Road arrangements which are not dictated by slopes vary significantly between schemes.
- All schemes provided open spaces, but these varied in scale, level of provision and quality of connections.
- The safety and design of pedestrian connections affected the overall connectivity of the subdivisions.

Legibility

- Curved and apparently arbitrary road alignments can be confusing.
- There were few landmark buildings or central areas of focus to aid navigation. Greater reliance should be made of natural features (i.e. distant views).
- Cul-de-sacs were mostly short, aligned with open spaces and had footpath connections to other destinations.
- Most developments achieved a sense of arrival, though few had a central focus determined by layout or form.

Scale

- The majority of buildings comprised detached single-storey dwellings on flat sites or two to three-storey on sloping sites.
- The larger lots tended to adjoin open spaces or site boundaries, rather than streets.
- Some larger lots have been further subdivided and

this can have a negative effect on the overall visual coherence.

- Large scale open spaces and wide roads appear larger when bounded by single-storey dwellings.
- Road reserves are an under-utilised resource. However, swales within the road reserve were successful on some sites.
- There was insufficient provision of larger buildings to define and enclose public areas.

Active Edges

- Dwellings predominantly fronted streets, but a large number also were located within rear lot developments. This reduces the ability to create active streets and also resulting in deep blocks.
- Street activity is lessened by wide lot street frontages.
- There is a tendency for garages to dominate street frontages. However, there is more creativity in garage and parking solutions on steeper slopes.
- Passive surveillance is reduced by frontage enclosure (i.e. fences, walls), planting and level changes.

Enclosure

- The sense of enclosure is generally weak due to the low ratio of building height to road width/open space (roads tend to be too wide).
- Occasionally groupings of taller buildings and careful use of landscape features assisted in creating some definition to street edges and a sense of enclosure.
- In places, public and private planting and some well designed boundary fencing assisted in forming an edge to the street.
- Narrower private roads often resulted in a better sense of enclosure than wider public roads.

Quality

- Predominantly new schemes were reviewed, resulting in a generally good overall building appearance.
- Common road materials results in some monotony and there was some surface materials degradation.

Conclusion

- Good quality public landscaping and private gardens are important factors in achieving cohesion and visual quality.

Character

- Varied building character reduced an appearance of regular forms, but individual designs added interest.
- Some schemes appeared to be enhanced by building controls on colour and materials (i.e. use of local stone).
- Some formal road layouts were less successful due to lack of appropriate supporting building scale and location.

Creativity

- There was little evidence of creativity in road design and urban grain.
- Lot shapes appeared to be designed to achieve uniform lot sizes rather than creating an attractive three-dimensional built outcome, by establishing enclosure, street edges, focus on corners or good edges to open spaces.
- The lack of a comprehensive relationship between built form and roads resulted in a lack of urban structure within developments.

Local Distinctiveness

- There was a generally a low response to local character. The schemes which had more local distinctiveness tended to succeed in more criteria. Some schemes demonstrated good use of local materials in building and landscape treatment (i.e. stone and local plant varieties).
- The scale of development, especially roads, sometimes compromised the ability to respond to local character.
- Standardised roading arrangements reduced local distinctiveness.



Urban Design Critique of Subdivisions in Queenstown Lakes District

Queenstown Only- May 2011

Copyright © Boffa Miskell Limited

Photographs by Boffa Miskell, except on page 46 main photo by Queenstown
Lakes District Council

Graphic design by Boffa Miskell

Maps supplied by Queenstown Lakes District Council

Table of Contents

Introduction	2
Methodology	2
Sites Appraised	4
Site A - Lake Hayes, Queenstown	5
Site B - Fernhill, Queenstown	13
Site C - Goldfields, Queenstown	21
Site D - Arthur's Point, Queenstown	29
Site E - Atley Downs, Queenstown	37
Site F - Mt. Iron Estate, Wanaka	45
Site G - Meadowstone, Wanaka	53
Conclusion	61

Sites F & G are not included, and will be published when the Wanaka Low Density Zone Monitoring Report is provided to Strategy Committee

Introduction

Scope of Project

Urban Design has been defined as *'the art of making places for people. It includes the way places work and matters such as community safety, as well as how they look. It concerns the connections between people and places, movement and urban form, nature and the built fabric, and the process of ensuring successful villages, towns and cities. Urban design is the key to making sustainable developments and the conditions for a flourishing economic life, for the prudent use of natural resources and social progress'* (DETR, By Design)

Queenstown Lakes District Council (QLDC) appointed Boffa Miskell to assess the **urban design qualities** of seven subdivisions within the District. The maps on page 4 show the locations of these subdivisions. This report includes a record of built outcomes of the subdivisions alongside an assessment of the visual quality and an appraisal of other urban design outcomes.

Methodology

Overview

The project was undertaken by urban designers from Boffa Miskell in conjunction with planning and urban design staff from QLDC. It is anticipated that this will assist QLDC staff in monitoring the outcomes of subdivisions in the District and in particular, the relevant policies and rules.

Initially, a site assessment template was developed with a list of elements to assess and items to photograph. The template included a checklist of urban design criteria to ensure continuity. This served to focus on the key issues for the reviewers when critiquing the individual subdivisions. The urban design criteria is discussed more overleaf.

The site visits were undertaken in winter (June 2010) and as a consequence the effect of planting is less visible, in particular, the visual effects of deciduous street trees. For some sites snow and ice obscured part of the open spaces.

Not all of lots within the subdivisions have been developed at time of site visit. In some cases the scale of the on site survey was reduced to a smaller number of streets agreed with QLDC. On site, the subdivision was discussed and assessed in relation to each urban design criteria and its elements. The response of each subdivision to the urban design criteria was rated on a sliding scale of very successful to not successful. An example of the sliding scale is below.

Overall, how successfully does this subdivision integrate with its local context?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



What do these ratings mean?

Very Successful: The subdivision is considered to achieve the best outcome in relation to the urban design criteria in almost all areas of the development. Represents an example of best practice.

Successful: The subdivision is considered to result in a good outcome in relation to the urban design criteria in most areas of the development.

Acceptable: The subdivision is considered to result in a satisfactory outcome using the urban design criteria.

Less Successful: The subdivision does not result in a satisfactory outcome in relation to the urban design criteria in some areas of the development.

Not Successful: The subdivision is considered to result in a very poor outcome in relation to the urban design criteria in almost all areas of the development.

Where appropriate, a summary sentence is included to outline why a subdivision received a certain rating, in particular where it was considered close to another rating or any extremes were balanced across the subdivision.

Urban Design Criteria

The urban design criteria used in the assessment has been designed to specifically comment on residential subdivisions. Elements of the Urban Design Protocol, QLDC's Urban Design Strategy and other urban design literature informed this criteria. A brief definition of each criteria used is given below. Throughout this report each criteria below are discussed and demonstrated.

Context: Refers to how the development addresses its wider context in relation to external connectivity (i.e. links to external amenities and town centre shops and parks), natural features (i.e. landscape) and built form (scale of neighbouring subdivisions, roads, etc).

Connectivity: A development is assessed favourably if the place is easy to move around by foot, bike and vehicle and also provides connections between amenities such as reserves and streets within the site.

Urban Grain: The pattern and size of land uses and road layouts, the buildings and their lots within a subdivision. A rating of the urban grain has not been included within this report as its results are discussed within other criteria such as legibility, enclosure and scale.

Legibility: A development is assessed favourably if the place can be easily understood (and memorable) and navigated as a person moves about it.

Scale: The combined impacts of built elements when seen in relation to its surroundings i.e. roads, open spaces or other buildings and how it responds to the scale and character of the development within the wider context.

Active Edges: Refers to the potential for visual engagement (or 'passive surveillance') between the street users and activities taking place in buildings (particularly on the ground floor). The presence of 'active edges' helps places feel safer and more personable.

Enclosure: The creation of a sense of defined space by means of surrounding buildings and planting.

Quality: The external appearance and functionality of materials and design elements used in both public and private areas and their overall maintenance/longevity.

Character: A place that responds to and reinforces locally distinctive patterns of development and landscape features.

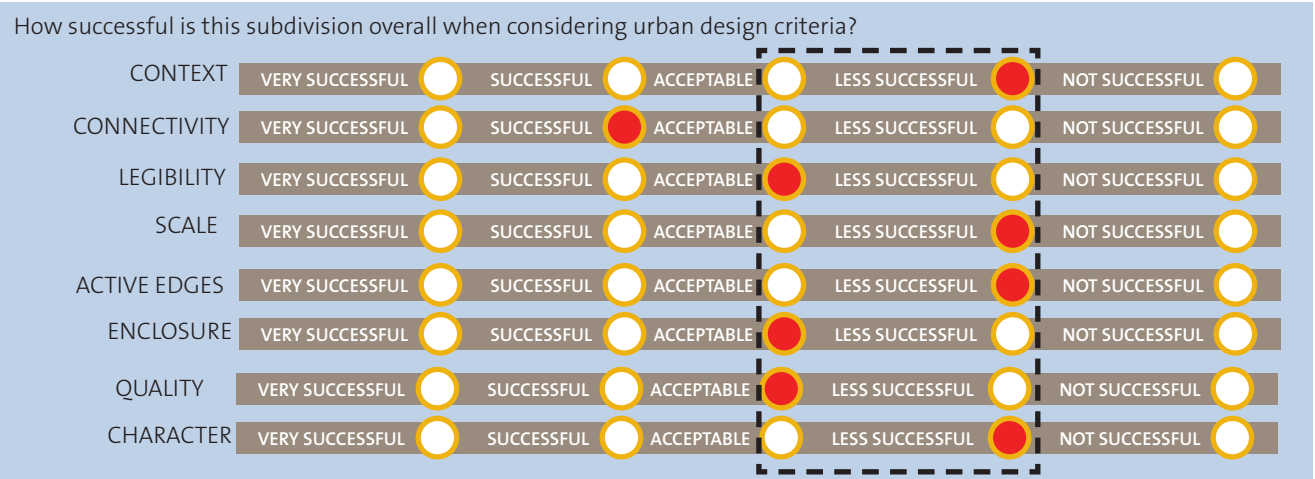
Distinctiveness: The special features which make a place more memorable and therefore more legible.

Creativity: The innovative approaches which promote diversity and turns a functional place into a memorable place. These are recorded in the key lessons at the end of each section.

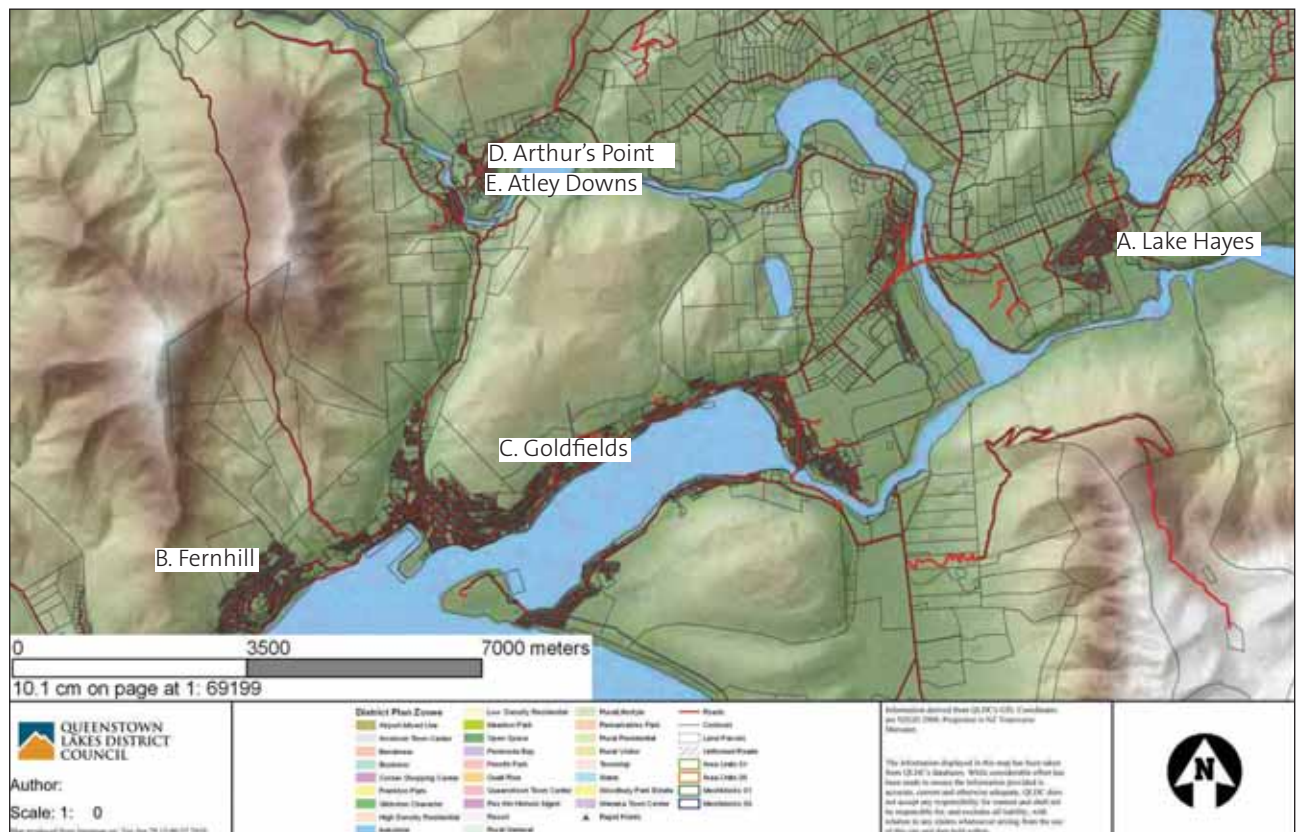
Overall Assessment

Each subdivision has a concluding overall assessment page which brings together the ratings from each individual criteria assessment. The ratings for each criterion are assembled into a diagram to assess if there is a consistent rating for that subdivision. An example of this is shown below. The dotted line indicates in general where the

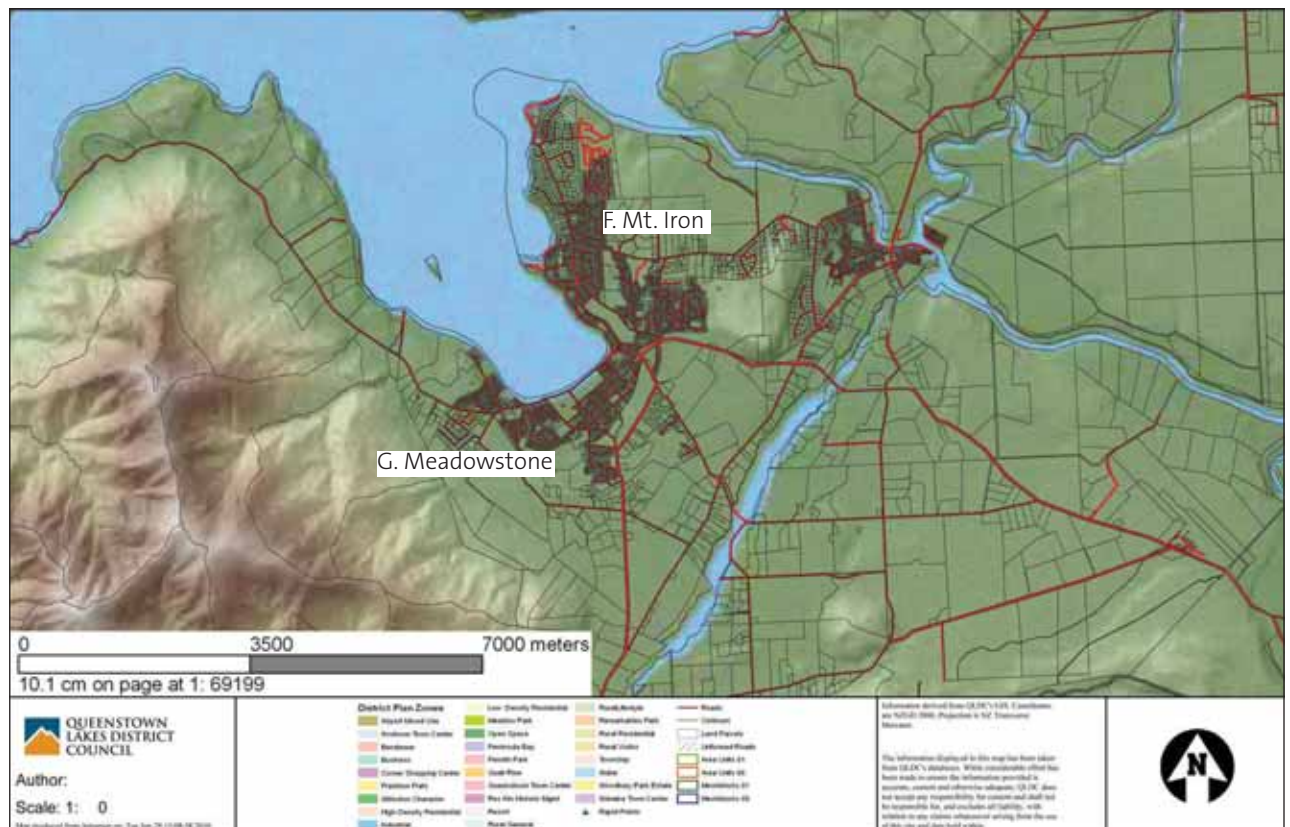
overall rating sits. This is followed by a short summary statement about the subdivision. A number of key lessons to learn from each subdivision are listed beneath the overall assessment table, which also comments on elements of creativity or extremes that were averaged out for the purposes of the ratings.



Sites Appraised



Sites in Queenstown



Sites in Wanaka

Site A – Lake Hayes, Queenstown

Introduction

Size: 28.6ha. Approximately 500 lots on site and 140 lots reviewed on the site visit.

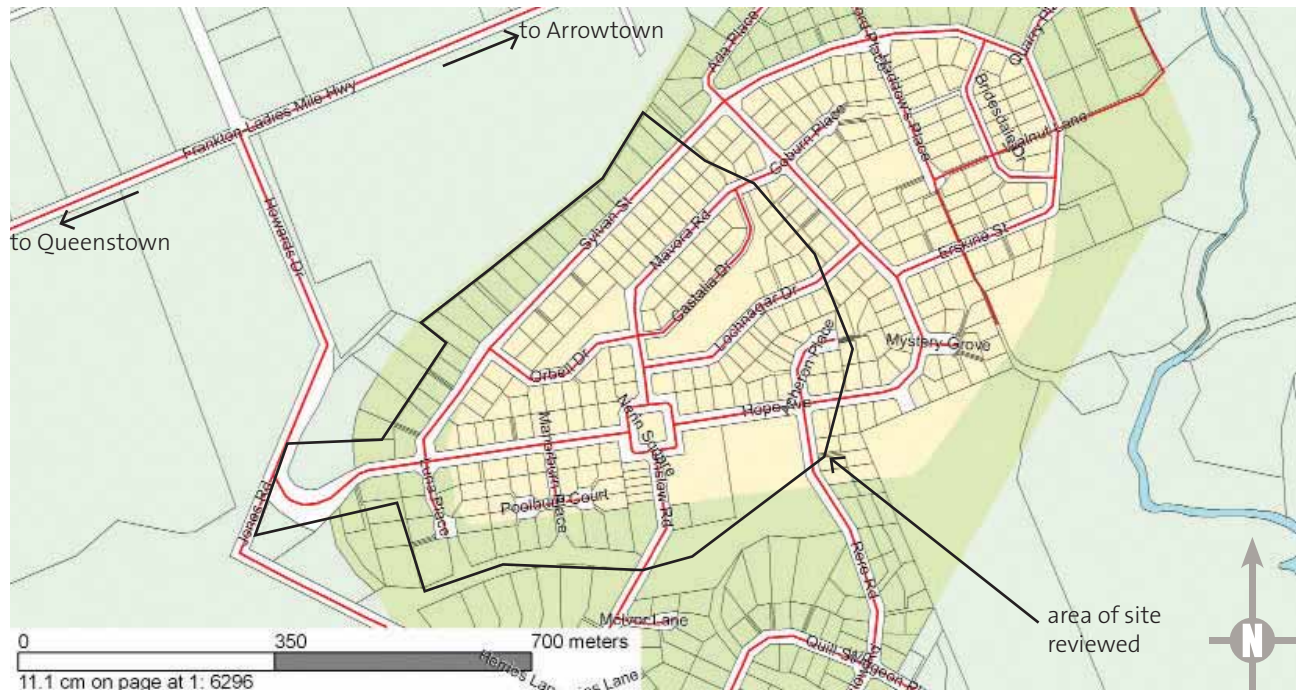
Date of Resource Consent: 2001/2002

Completed: No, some undeveloped lots within the subdivision.

Zoning: Residential (light yellow), Rural Residential (green)

Location: Lake Hayes Estate is located 6 kilometres from Frankton and 12 km from both Queenstown and Arrowtown.

Conditions: Visited on a winter morning, clear sky but ice and snow on the ground.



Lake Hayes Estate Zoning



Lake Hayes Estate Aerial

Lake Hayes

Context



Lake Hayes Estate is located on an out-of-town site. It is accessed off Howards Drive which connects to the Frankton Ladies Mile Highway. A view of the site from Howards Drive is shown.

The site is at a lower level than the surrounding roads and glimpses of the development can be seen from the Highway. There are slopes and terraces evident on the site. A high-voltage electricity transmission line crosses the southern portion of the site. There are several water features on the site. It is unclear whether these are pre-existing features.

The subdivision essentially is a “dormitory” residential development and is reliant on the private car and/or public bus to gain access to shops and communities services.

INTEGRATION WITH BUILT ENVIRONMENT



- The subdivision is located on an out-of-town greenfield site and has little built context in its immediate environment.
- The walking track to Lake Hayes requires crossing the busy State Highway and public access to the Kawarau River is not apparent.
- Glimpse views of the site from Frankton Ladies Mile Highway is shown.
- The development is segmented by the existing transmission lines.
- The scale of the development is much denser than the occasional rural lifestyle blocks beyond the site to the north east and west.

INTEGRATION WITH THE NATURAL ENVIRONMENT



- The subdivision sits across two slightly sloping terraces, separated by a steep terrace face. In general, the design recognises and retains this terrace slope.
- Its location on a terrace below the Highway limits views of the development.
- The landscape setting and views outwards are a key feature.

How successful does this subdivision **integrate** with its local context?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



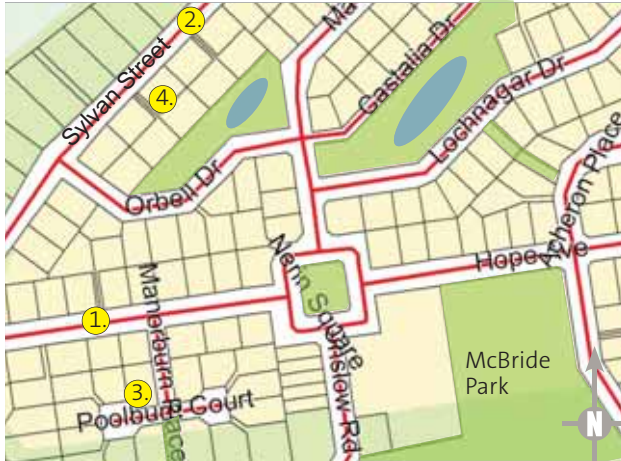
The out-of-town rural location hinders reference to and integration with a local built context. This development is remote and has an ‘island’ feel. On balance, its isolation and lack of service amenities are major factors in the rating. However, it is noted that the development is located well below the Highway, which aids in minimising its visual impact.

Lake Hayes

Urban Structure

Connectivity

STREETS



The site is accessed by one road link (Howards Drive) and one pedestrian link to Frankton Ladies Mile Highway. Within the site, Hope Avenue is the main street leading vehicles through the subdivision directly to Nerin Square at its centre. A network of connecting roads, cul-de-sacs and private drives provide access to individual lots. Greenways also aid walkability within this subdivision.

STREET HIERARCHY

1. Hope Avenue
 - Main Access Road
 - Two 6m lanes within a 22m road reserve
 - Central median
2. Sylvan Street
 - Connecting road
 - 23m reserve, 10m carriageway
 - Footpath one side
3. Poolburn Court
 - Double head cul-de-sac
 - 15m road reserve with 6m carriageway
 - Links to greenway
4. Private Drive
 - 6m between kerbs
 - No road reserve
 - Shared surface (no footpath)



OPEN SPACE



A network of greenway link the site to a central reserve (McBride Park) close to the square. McBride Park has a playground, BBQ area and artificial multi-sport court. Elsewhere the reserves contain ponds, landscaping and footpaths. The visual amenity and sense of safety of connections along some greenways could be improved, especially where high fences occur. A perimeter walkway provides a loop track at the base of the terrace, with a connection to a walkway on Frankton Ladies Mile Highway.

How successful is the **connectivity** through (and beyond) the site achieved using streets and open spaces?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Internal connectivity is good due to the road layout and pedestrian paths within the greenways which link much of the site.

Lake Hayes

Urban Structure

Urban Grain

LOT DIVISION



The subdivision has a strong rectilinear layout and an informal grid with straight roads. The predominantly regular arrangement, size and shape of lots reflects this road layout. Internal lots accessed by private drives vary in size and scale, some being more irregular in shape. Some streets act as a division line between the residential and rural residential zones, although development in the rural residential zone has occurred at densities not originally anticipated in the District Plan (and resulting in less regular lot shapes).

Size/Density

Lots in the centre of the site tend to be smaller than lots at the edge. There is no increase in intensity along Hope Avenue.

Shape

Smaller lots are generally rectangular in size. The edge sites are less regular.

Access/Frontage

The majority of lots front the local roads with back lots facing green spaces to the rear.

Variety/Variation

Variation of lots occurs as a result of irregular spaces created by the road alignment and triangular blocks.



LOT DEVELOPMENT



Houses are generally aligned with the road boundary set-back, although many are enclosed by tall fences and extensive planting, which increases the sense of separation and reduces overlooking of the street. The dwellings on the low density residential zoned land appear to fill the lot, whereas development on the rural residential land (north of Sylvan Street on the aerial shown above) tend to have similar sized dwellings situated at the road boundary with larger rear yards.

Footprint Size/Coverage

The majority of lots tend to be located close to the road setback. Many appear to maximise the site coverage.

Arrangement/Typology

Dwellings are predominantly detached and single-storey, with some two-storey dwellings in the rural residential zone.

Street Frontage: Garage/Drive

Many dwellings have double garages which reduces the number of windows/rooms overlooking the street.

Solar Orientation

Deeper setbacks are apparent on some north facing lots. This provides more usable garden but can reduce the sense of enclosure to the street.



Lake Hayes

Appearance (Outcomes)

Legibility

Arrival



Arrival is via Howards Drive, an access road situated on the upper terrace, which cuts down through the terrace face to the subdivision on the lower terrace. There is a marked visual contrast between the rural approach and the arrive into the subdivision. This entrance and arrival responds well to the existing landform.

Navigation



The site is surrounded by higher mountains and these generally aid navigation. However, internal navigation is limited by a lack of development landmarks and some direct road alignments. However, Hope Avenue is clear as a main, direct route through the development.

Security



There is no evidence of anti-social behaviour (i.e. graffiti or vandalism) along the various routes. The main open space incorporating the pylons together with its greenway is entirely bounded by high fences and undeveloped lots. For this reason it feels less safe as a pedestrian route.

Does the site achieve good **legibility**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Lack of built landmarks within the site reduce wayfinding. Taller buildings around Nerin Square would assist with this. Some of the greenways felt unsafe given the dominance of high fences along their edge.

Scale

Typology



Predominately the buildings are single-storey detached dwellings. There are some two-storey dwellings in the larger rural residential lots.

Buildings to Street



Views of dwellings are frequently of double garages and fencing, which reduces the community focus of the street. Buildings are large but appear less so due to the width of the roads. Some dwellings are elevated above the street which increases their scale in relation to the road and an overall sense of enclosure.

Buildings to Public Spaces



Along the internal greenway dwellings and landscape treatment are at a scale which results in good passive surveillance of the street without visual dominance. The new two-storey dwellings by Nerin Square are a good scale for the space, although they do not orientate to it. Lower buildings in proximity to the square fail to relate to scale of the road and the square.

Is the **scale** of development appropriate to the local environment?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The width of the roads combined with the low dwelling heights results in an uncomfortable scale of development. In particular, Nerin Square and Hope Avenue should have taller buildings at their edge to reflect their scale, importance and function.

Lake Hayes

Appearance (Outcomes)

Active Edges

Visibility



Many of the lots have high fences, often in places that are elevated above the road and footpaths, resulting in less visibility of dwellings from street level and reducing the effectiveness of any active edges.

Front facade openings



Relatively few front doors are visible from the street given they are frequently setback behind projecting garage doors. However, given that some dwellings are located above the street separate paths lead to front doors. This highlights front doors and makes the entrance more inviting and visible from the street.

Orientation/proximity



Most dwellings appear to be aligned to the minimum setbacks. Some dwellings are orientated away from lot boundaries to achieve better solar orientation. This reduces the proximity of the dwelling from the street and the potential for overlooking. This arrangement can increase variety of frontage arrangements.

Garages



Many garages front public streets and remain visually dominant due to their size, location forward of the main facade and minimal planting of front gardens. This reduces the opportunity for interaction and activity between the house and the street.

Does the layout of subdivision result in high degree of **active edges** to public areas?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The dominance of fences and garages reduces active edges to public areas, which results in less passive surveillance of the public realm.

Enclosure

Sylvan Street: A typical straight street with a wide carriageway and road reserve, combined with low single-storey buildings to either side, which creates little sense of enclosure.



Nerin Square: Little enclosure is created to this space. The two-storey dwellings are of a insufficient scale and number for a space of this magnitude. The opportunity to create a usable community focus has so far been lost.



Does the subdivision successfully achieve good **enclosure**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Given the wide roads, large public spaces are relatively low scale dwellings it is difficult to create a strong sense of enclosure.

Lake Hayes

Appearance (Outcomes)

Quality

Private
Buildings



The majority of buildings have pitched roofs, although there are a good number of mono-pitch and flat roofs. The predominant materials used include render and brick, with the some use of timber and stone. In general, building quality appears high and well maintained.

Private Lot
Curtilage



Lot boundary treatment varies in quality and type with little consistency. Many gardens have no enclosure and limited planting. There is evidence of extensive tall fencing along roads and greenways and this varies in height and openness.

Public Street
Materials



Streets are predominantly tarmac with standard kerbs. The exception is the block paved street crossings and car parking areas, which are incorporated within all streets. Roading and paving materials tend to be standard with little attempt to establish a separate character through landscape treatment.

Public
Landscape/
Open Space



Some greenways have ponding as a central feature and this raises the visual quality of some public open spaces. Pathways of loose gravel cross over the greenways. The quality of the playground and the sports equipment was high. There is limited roadside planting and street trees.

Overall **quality** of subdivision?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The overall quality of the subdivision is variable, but as the scheme is not completed it is difficult to comprehensively assess. In addition, the snow and ice on the day of the site visit may have hid additional good or bad design elements.

Character

Consistency
Across Site



Overall this subdivision is of a large scale open character, with much variation between open space and building types. It has few distinctive characteristics that distinguish it from other subdivisions other than its strong axial main street and central square.

Building
Character



There is little cohesion between buildings within this subdivision due to the high variation in building types and lot development across the site.

Appropriateness



The scale of the roads tend to dominate the character of the subdivision, though the straight and rectilinear alignment is a suitable response to this predominantly flat site and draws on the historic layout of Queenstown. The development relies on its surrounding landscape for a sense of place.

Does the subdivision establish a special **character** appropriate to its site?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



This type of subdivision could be found anywhere and does not create a distinctive character in relation to its context.

Lake Hayes

Overall Impressions of Subdivisions - Distinctiveness



Nerin Square and Hope Avenue

Central square and wide avenue are less successful due to low perimeter buildings and lack of enclosure / built scale.



Greenways The use of ponds and playgrounds are successful. However, perimeter fencing controls for these spaces (to limit height and enhance their appearance) would be beneficial.



Out of Town Location

This subdivision requires residents to drive or bus for most of their daily needs.



Roads and Road Reserves Widths

Street scale is not matched by a sufficient built scale to create meaningful enclosure of spaces, or human comfort.

Overall Assessment

How successful is this subdivision overall when considering the urban design criteria?

CONTEXT	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
CONNECTIVITY	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
LEGIBILITY	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
SCALE	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
ACTIVE EDGES	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
ENCLOSURE	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
QUALITY	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
CHARACTER	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	

THE SUBDIVISION'S OUT-OF-TOWN LOCATION WITHOUT APPROPRIATE LOCAL SERVICES FOR ITS RESIDENTS IS A MAJOR URBAN DESIGN CONCERN. THE WIDTH OF ROADS AND LOW-SCALE OF BUILDINGS DETRACT FROM ITS OVERALL QUALITY.

Key Lessons

- The subdivision would be more successful if it had been treated like a standalone village development with sufficient facilities and amenities established, including shops, some employment opportunities and child care. These could have been designed to create a village centre and destination for local residents.
- The width of the roads result in an inefficient use of land for roads reserves. This excessive width may encourage faster traffic speeds.
- Fences bounding greenways reduce visibility and sense of safety, especially the greenway along the transmission line.

Site B – Fernhill, Queenstown

Introduction

Size: 10.9ha

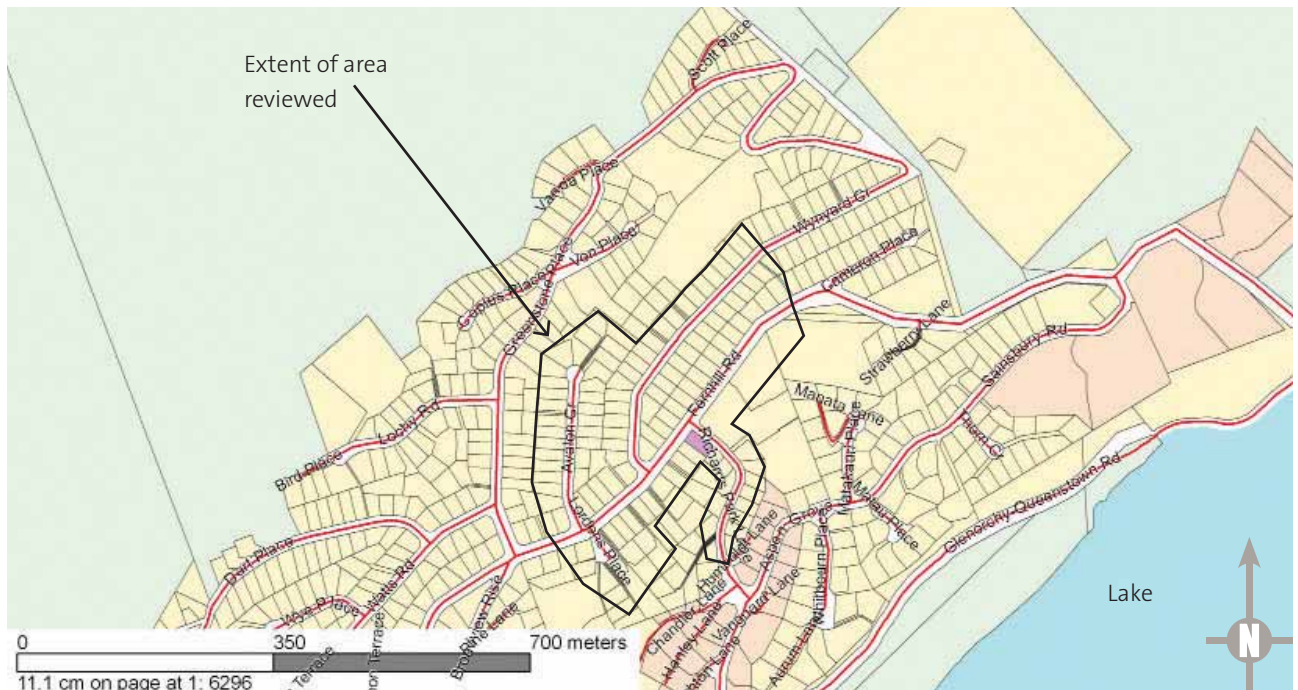
Date of Resource Consent: 1970s

Completed: Yes, although there are a couple of vacant sites.

Zoning: Residential Zoned (light yellow), Corner Shopping Centre (purple)

Location: Fernhill is a housing area approximately 2km to the west of Queenstown town centre. It is an established subdivision dating from the 1970s facing south east on a sloped site. Avalon Crescent, Wynyard Crescent (part), Richards Park Lane and Fernhill Road (part) were reviewed. The extent of the area reviewed is shown on the map below.

Condition: Visited on a cold / icy winter afternoon in shade.



Fernhill zoning



Fernhill Aerial

Fernhill, Queenstown

Context



Fernhill is on a south-east facing slope overlooking Lake Wakatipu. Generally it is a shaded location, especially in winter. Much of the development in Fernhill is orientated to maximise views of the Lake.

It is accessed by Fernhill Road which connects to Lake Esplanade and to the Glenorchy - Queenstown Road, via neighbouring Sunnyside. Pathways through the hillside reserves link the area to the town centre and offer an alternative walking route. There are bus stops along Fernhill Road for the Blue Route. This route links to the town centre where transfers to Frankton and Arrowtown can be made.

INTEGRATION WITH BUILT ENVIRONMENT



- The predominant building type is similar to that in the surrounding neighbourhoods built during a similar period. However, the dwellings higher on the slope on Wynyard Close appear more recent.
- The area is accessed by one main road supported by local walkways through the reserves.
- Within the area, a number of local amenities exist, such as bus stops, post boxes, a dairy, restaurant and takeaway.

INTEGRATION WITH THE NATURAL ENVIRONMENT



- Most dwellings are designed to take advantage of views of the lake.
- The area is generally shaded in winter due to its southerly aspect.
- The buildings are designed to step into the slope with split-level design being predominant.
- The sections generally sit comfortably within the bush landscape without lot fences between them.

How successful does this subdivision integrate with its local **context**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The subdivision is a similar character to surrounding development. It is accessible to the town centre and has good walking and bus connections. There are amenities located centrally on Fernhill Road to meet the day-to-day requirements of residents.

Fernhill, Queenstown

Urban Structure

Connectivity

STREETS



Fernhill Road is the main route through this area and is connected to the town centre, 2 km away, via Lake Esplanade. It is serviced by buses and has some commercial activities, including a shop and motels. Due to the slope, the majority of dwellings are accessed by local access roads, cul-de-sacs or private driveways.

STREET HIERARCHY

1. Fernhill Road
 - Main access road
 - 15m road (20m with road reserve)
 - Bus stops
2. Wynyard Crescent
 - Local Access Road
 - 9m road (21m with road reserve)
3. Avalon Crescent
 - Cul-de-sac
 - 9m road (15m with road reserve)
 - On street parking
4. Private Drives
 - 6m width



OPEN SPACE



The neighbourhood reserve is just outside the area examined and includes a playground. The surrounding bush land and hillside have paths which link to the streets. In addition, there is an internal walkway linking the Wynyard Close to Fernhill Road. Views towards the lake from Fernhill are largely absent from most streets. Views of the lake, mountains and Queenstown itself have largely been privatised.

How successful is the **connectivity** through (and beyond) the site achieved using streets and open spaces?

VERY SUCCESSFUL ☐ SUCCESSFUL ☐ ACCEPTABLE ☒ LESS SUCCESSFUL ☐ NOT SUCCESSFUL ☐

The slope limits connections between the streets in this area. There are some pedestrian walkways which connect streets and the town via reserves, and more of these would improve connectivity.

Fernhill, Queenstown

Urban Structure

Urban Grain

LOT DIVISION



The section of subdivision reviewed has regular shaped lots which front on the street with the narrowest edge of the lot and back onto other lots. The exception being corners with irregular shaped lots. The main roads are parallel in an informal grid. To the south of Fernhill Road back lots are developed for lake and mountain views and to the east of Richards Place hotel and apartment complexes have been built. Most lots are located on sloping land, as a result some lots appear smaller from the street than if they were a flat lot.

Size/Density

The lots are approximately 600sqm in area, with some larger corner and internal lots.

Shape

Lots are generally rectangular with the shortest side fronting the street. Some re-subdivision of earlier lots is evident.

Access/Frontage

Lot development is related to road alignment across the slopes and the availability of views.

Variety/Variation

Some roads end in steeper slopes with higher turning areas resulting in irregular corner lots.



LOT DEVELOPMENT



The topography of the area has influenced the lot development. Many of the dwellings are two to three-storeys in height with undercroft garaging. The dwellings on the higher side of the roads tend to be developed towards the rear of the site to take advantage of views. Some dwellings have been developed on stilts to take further advantage of lake views.

Footprint Size/Coverage

The dwellings appear to fill the site, but often the rear of the building was not visible.

Arrangement/Typology

Predominantly 2-3 storey dwellings with undercroft garages and balconies on upper floors. Some duplex units.

Street Frontage: Garage/Drive

Garages are located under dwellings on the higher side of street and behind dwellings (at street level) on the lower side.

Solar Orientations

Most lots are orientated to the views of the lake/mountains and less for solar orientation.



Fernhill, Queenstown

Appearance (Outcomes)

Legibility

Arrival



Fernhill Road is the widest road, has bus stops and commercial units and as a result is clearly the primary street in this area. There is no bespoke signage for this area, with town signage used. The reserve along Lakeside Esplanade is an indication that this area is viewed separately to the town centre.

Navigation



Wayfinding is reasonably clear given that Fernhill Road provides the spine road for all secondary roads which link to it. The views of the lake and hillsides aid navigation through the site. The walkway reviewed is well signposted and connects to bus stops.

Security



Evidence of anti-social behaviour (i.e. graffiti and/or vandalism) was not seen on the site visit. The walkways appear narrow and steep. This may result in reluctance of some people to use them (it was too icy to walk these sloped walkways on the site visit).

Does this site achieve good **legibility**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The pedestrian walkways and connections are well signposted although the sense of safety along these is unclear. The glimpses of the lake and mountains aid way finding around this subdivision. The commercial uses, bus stops and traffic volumes along Fernhill Road clearly signal that this is the main through route.

Scale

Typology



The buildings are predominantly two to three-storey detached dwellings with balconies on upper floors. There are some single-storey dwellings. Duplex units, comprehensively developed apartments and motel units are also evident in the area. Some of these may be a result of redevelopment of sites.

Buildings to Street



There is a regularity in how the buildings address the street. On the high side of the street buildings are generally two or three-storeys with undercroft garaging and on the low side garages are generally located with direct street access. Comprehensive development creates a stronger streetscape.

Buildings to Public Spaces



Within the area reviewed there were no formal reserves, although there were public walkways. The steep alpine slopes form a significant backdrop above and behind buildings. Dwellings back onto these slopes and generally do not have rear boundary fencing.

Is the **scale** of development appropriate to the local environment?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The scale of the buildings are two to three-storeys and in most instances have a good relationship to the street and spaces. Some of the comprehensive development appears larger (more dominant) and out of scale with the surrounding dwellings.

Fernhill, Queenstown

Appearance (Outcomes)

Active Edges

Visibility



Generally, the majority of dwellings are visible from the street. However, when houses are on the lower side of the street this visibility is reduced. There are a number on steeper slopes both above and below the road that are accessed by private roads, which results in dwellings being less visible.

Front facade openings



In most cases, there were a number of windows and doors visible from the street, although in many circumstances front doors are accessed from the side as a consequence of using the ground floor as a garage.

Orientation/proximity



Most dwellings with undercroft garages were set back from the street to allow for driveways. Where the garage was located behind the dwelling the building was generally located closer to the street.

Garages



Garages beneath buildings on the higher side of the road, though fairly dominant, were mitigated by the presence of substantial windows and balconies above. In some cases colour has also been used to diminish the visual effect of the garages.

Does the layout of subdivision result in high degree of **active edges** to public areas?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



As a result of development responding to sloping sites and taking advantage of lake views dwellings tend to have a number of windows overlooking the street, which increases passive surveillance. However, it is unclear how well overlooked the public walkways are, particularly given the height of buildings adjoining them and the lack of ground floor activity.

Enclosure

Along Fernhill Road the taller and more substantial buildings on the north side of the street take advantage of the views and create good rhythm. However, this is not reproduced on the south side of the road.



At the junction of Wynyard Close and Fernhill Road a sense of enclosure has been created by the rhythm of taller buildings along this street and the curve of the road.



Does the subdivision successfully achieve good **enclosure**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Some areas of the development have a greater sense of enclosure due to taller buildings, but this is not consistent across the site.

Fernhill, Queenstown

Appearance (Outcomes)

Quality

Private Buildings



Many buildings in the area reviewed were 30-40 years old and the quality of the building materials reflected this both in their character and maintenance. Some areas where buildings/sites had been redeveloped more recently were of a better quality and in a better state of repair.

Private Lot Curtilage



The snow present during the site visit made it difficult to confirm on-site conditions. However, there appears to be private landscaping within some lots. Comprehensive developments appeared to present a more extensive landscaped edge to the street.

Public Street Materials



This was difficult to review given the snow conditions. Drainage in this area is via kerb and channel and the road and footpath materials appear to be standard tarmac.

Public Landscape/ Open Space



There appears to be an alpine theme in some public planting, although due to the snow conditions present during the site visit this was difficult to review. Planting along the walkway appeared less attractive and in general there were few street trees.

Overall **quality** of subdivision?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The overall quality of materials and appearance of this subdivision is less than successful. The maintenance appeared poor, although the quality of some private planting on comprehensive schemes improved the impression.

Character

Consistency Across Site



The character of the buildings within the area reviewed was consistent.

Building Character



Two and three-storey dwellings with undercroft garages were the predominant building character. This development form is similar to other higher buildings on slopes elsewhere in Queenstown. Some newer buildings have continued this form.

Appropriateness



The informal grid reflects the traditional street layout of Queenstown. The buildings are similar to the surrounding neighbourhoods. The form of the buildings is appropriate to its setting, although some additional public spaces, in particular spaces with viewpoints of the lake, would enhance it.

Does the subdivision establish a special **character** appropriate to its site?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The character is in keeping with its surrounds in terms of building form. Due to the weather on the day of site visit a clear image of the character of the landscaping was not established.

Fernhill, Queenstown

Overall Impressions of Subdivisions - Distinctiveness



Dwellings with undercroft garages are a consistent building form in both the older and newer areas. This form lessens the visual impact of garaging.



Views are privatised in parts and few public outlooks are available (this image is from a private drive).



This area is predominately in **shade in winter** (the sun only came into view in mid-late afternoon on the day of the site visit).



The subdivision is well serviced by **public transport** with regular bus stops along the centre of the subdivision near road and walkway junctions.

Overall Assessment

How successful is this subdivision overall when considering urban design criteria?

CONTEXT	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
CONNECTIVITY	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
LEGIBILITY	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
SCALE	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
ACTIVE EDGES	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
ENCLOSURE	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
QUALITY	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
CHARACTER	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	

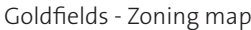
THE DESIGN OF THIS SUBDIVISION IN RESPONSE TO ITS SLOPING TERRAIN HAS RESULTED IN A REASONABLY CONSISTENT OUTCOME. HOWEVER, THE QUALITY OF THE BUILDINGS AND LANDSCAPE COULD BE FURTHER ENHANCED.

Key Lessons

- Development on steep slopes has resulted in many taller buildings which results in a good scale and a sense of enclosure of streets and spaces in some places.
- Glimpse views over the lake and mountains are spectacular, but opportunities for regular glimpses of these are lost through private development and driveways.
- Although there was evidence of road reserves along the sloping roads, neither these, nor the roads appeared excessively wide with the exception of Fernhill Road. However, a combination of street parking and snow may have disguised this.
- The climate in this subdivision is cold and when visited on one of the shortest days of the year, it was late in the afternoon before any sunlight came over this subdivision.

Introduction

Condition: Site visited on a cold, sunny winter morning - much of the site was in shadow.



Goldfields, Queenstown

Context



Goldfields is a residential area to the east of the centre of Queenstown, located on the upper slopes well above Frankton Road. Vehicular access is achieved via St. Georges Avenue, which connects to neighbouring residential areas and to the town centre via Goldfields Heights Road and Frankton Road. To the south, St. Georges Avenue connects through to further new subdivisions. A bus stop on Frankton Road is approximately 1 kilometre from Goldfield Heights Road. This bus serves Queenstown, Frankton and the airport. The site lies across south and south-east facing slopes with excellent elevated views of Lake Wakatipu and the surrounding mountains.

A playground and reserve (Goldfields Park) is located a 5 minute walk from the subdivision.

INTEGRATION WITH BUILT ENVIRONMENT



- The subdivision appears consistent in character and form to adjacent residential developments on sloping sites.
- The use of retaining structures for dwellings and roads is evident.
- The development form consists of clusters of dwellings separated by steep undeveloped slopes.
- Existing retained vegetation on slopes assists in separating development.

INTEGRATION WITH THE NATURAL ENVIRONMENT



- A development located on predominantly steep slopes, which takes advantage of lake and mountain views.
- The exposed rockface is well integrated, as is a natural stream and gully system through the centre of the site.
- The absence of boundary fencing helps integrate the development with the landscape.
- The south-east facing aspect of the site is a constraint to achieving solar access.

How successful does this subdivision integrate with its local **context**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The majority of land modification is the development of the roading infrastructure rather than individual site development. Dwellings are well integrated into the densely vegetated context and roads cross steep slopes, resulting in a similar character to the surrounding development.

Goldfields, Queenstown

Urban Structure

Connectivity

STREETS



Goldfields Height Road is a steep road and the only vehicle access to the subdivision. A cul-de-sac and series of private drives provide access to the remainder of the site. Roads take a zigzag alignment to facilitate development on the slopes. Pedestrian activity is generally confined to the roads, with few public connections between internal or external roads, which lengthens walking distances.

OPEN SPACE



STREET HIERARCHY

- 1 Goldfield Heights Road
 - 8m road
 - Single footpath
 - No readily apparent road reserve
- 2 Nugget Knob
 - Short cul-de-sac
 - 5m wide entrance
 - Wide turning circle
- 3 Goldleaf Hill
 - Private road
 - 6m wide
 - Body corporate managed
- 4 Stoneridge Place
 - Private Drive
 - 6m wide
 - Single footpath



Due to the steepness of the site, the extent of open space provision is restricted to one fenced set of tennis courts. Access is for the sole use of the body corporate and therefore not for public use. The development relies extensively on the natural landscape (both internally and externally) to impart a sense of openness/visual relief. The retention of the stream and gully system is successful, though this is marred by the unfortunate location of service utilities and the absence of crossings over the stream. A pedestrian link to the playground would increase connectivity.

How successful is the connectivity through (and beyond) the site achieved using streets and open spaces?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The steep nature of this site limits connectivity to the surrounding areas. Pedestrian links between private drives and through and across open spaces would help increase connectivity.

Goldfields, Queenstown

Urban Structure

Urban Grain

LOT DIVISION



This is a very difficult, steeply sloping site. This generates either long frontage lots parallel to the roads, or more commonly, deeper lots with relatively narrower road frontages. This maximises the number of lots in relation to expensive road length on slopes. The result is a development form of more concentrated buildings interspersed with less developed rear sloping yards. Urban grain is almost entirely determined by vehicle accessibility rather than subdivision 'design'.

Size/Density

Lot sizes are influenced by the degree of slope and the proximity of developable land to roads.

Shape

Lots generally have a narrower street frontage and greater depth. Non-linear roads increase the number of irregular lots.

Access/Frontage

Access is dominated by sharp bends and acute angle junctions. Parking controlled by slope steepness/road proximity.

Variety/Variation

Variety in the urban grain arises from a combination of slope, road/junction arrangements, aspect and views.



LOT DEVELOPMENT



Buildings are predominantly of two-storey configuration to maximise development across falling slopes and parking and aspect are strong factors in both layout and building design. Proximity to roads is a priority in achieving parking and access, with sloping sites and minimal amounts of flat land restricting conventional parking and garaging arrangements. This results in more inventive arrangements, that contribute to variety within the streetscene. Whilst lower-slope development mostly involves building out over the slope, upper-slope development increased the amount of earthworks required.

Footprint Size/Coverage

Given sloping sites development is unevenly distributed within lots and results in more two-storey dwellings.

Arrangement/Typology

Many split-level and duplex/terrace style dwellings, with some cantilevered over slopes.

Street Frontage

Generally top storey facades of dwellings are visible on lower-slopes, with entire buildings visible on the upper-slopes.

Solar Orientations

Building orientation generally subservient to slope and views. Many south-east facing balconies and little private open space to north side.



Goldfields, Queenstown

Appearance (Outcomes)

Legibility

Arrival



The vertical rock face and curving road at the entrance to the development help to create a legible entrance and sense of arrival. A chalet-style comprehensive development of higher density, adjacent to the entrance further assists with defining the entrance to the site.

Navigation



The high proportion of private roads/laneways within the development makes it unclear which roads are publicly accessible. Glimpsed views of the lake and mountains, distinctiveness of some buildings, road alignment and the rhythm of the streets all aid navigation through the site.

Security



The effect of zigzag roads and dense planting along some slopes and the road reserve reduces internal visibility and surveillance. However, there is little evidence of anti-social behaviour (i.e. graffiti or vandalism). Public footpaths with steep banks adjacent with no barriers may discourage pedestrian use.

Does this site achieve good **legibility**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Views out towards the lake, mountains and adjacent subdivisions help navigation people through this development.

Pedestrian surveillance is compromised along some streets, due to their zigzag nature and dense landscaping. Legibility is compromised by uncertainty of public access due to the high number of private roads.

Scale

Typology



Typically only one level of a two-storey dwelling located on the lower-slopes is visible from the road, with two to three-storey dwellings visible on the upper-slopes. There is a tendency towards duplex/terrace housing given constraints. Most dwellings have been specifically designed, resulting in great variety.

Buildings to Street



Dwellings on the upper-side of the street are generally two to three-storeys. Typically, the lower-side of the street has less dominant building forms and a greater variety of entrances and garage/parking configurations that introduce a more continuous, if not lower, development frontage along the street.

Buildings to Public Spaces



The open spaces appear to be largely in private ownership, except for the stream, which has little direct overlooking. The tennis courts are overlooked by two-storey dwellings (see photograph to left) and is an appropriate scale for this space. In some cases there are views of the development from roads beyond the site where development appears dominant.

Is the **scale** of development appropriate to the local environment?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The design and location of buildings in response to the slope has resulted in reasonably successful scale of development in relation to the street. However, some buildings can appear visually dominant.

Goldfields, Queenstown

Appearance (Outcomes)

Active Edges

Visibility



Visibility of buildings from internal roads is generally good as a consequence of the proximity of dwellings to the road. Typically there are no tall fences to separate buildings from the street, although some buildings included undercroft garaging reduced the number of windows at ground level.

Front facade openings



The degree of facade openings (doors and windows) varies on either side of the street. Upper slopes tended to have large windows to maximise views, with activity on the upper levels. On the lower slopes the ground floor of the dwellings tended to have active windows overlooking the street.

Orientation/proximity



Dwellings are generally close to the street on the lower-slope side and set back further on the upper-slope side given requirements for garage access and related frontage parking. Most buildings followed the road alignment closely. There is little evidence of lot boundary fencing.

Garages



Parking is a significant design issue and a wide variety of solutions are evident. Whilst double garages are common on upper-slope dwellings, slopes severely restricted garages on the lower-slope side. Many resorted to carports and parking platforms, often with steep drive access.

Does the layout of subdivision result in high degree of **active edges** to public areas?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Building intensity and dwelling / car parking design responding to topography and narrower streets, resulted in a high level of active edges to the streets. Although many of these streets are private roads.

Enclosure

Where buildings are located on man-made terraces on existing steep terrain, road level enclosure has been established by both the exposed rock face and buildings above.



Nugget Knob is a example of a cluster of buildings grouped around a short cul-de-sac, which achieves a sense of enclosure and achieves glimpse views beyond.



Does the subdivision successfully achieve good **enclosure**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Limited building platforms and extensive views have resulted in taller buildings and more comprehensive building forms. This contributes to the sense of enclosure of the streetscene. Enclosure is also assisted by natural features, such as rock outcrops. However, enclosure of the street is compromised in places by the separation between buildings, private parking setbacks and changes in the height of building on different sides of the street.

Goldfields, Queenstown

Appearance (Outcomes)

Quality

Private Buildings



There are examples of standardised buildings given that most are required to respond to site-specific constraints. The quality and appearance of building materials and maintenance appears reasonably good, but some had a poor appearance from beyond the site where foundations details may be visible.

Private Lot Curtilage



A characteristic of the site is the absence of lot boundary fences. The extent of private gardens is limited, as is the amount of planting along streets. However, the quality of planting on the steeper, undeveloped slopes is high and contributes positively to the public realm.

Public Street Materials



All roads comprise tarmac with concrete kerbing. Roadside footpaths include block paving and in some cases this extends into private drives. Private roads appear to operate successfully as shared surface streets where pedestrians and vehicles are comfortable to use the same space.

Public Landscape/
Open Space



Extensive use of local stone within the landscape raises the general quality and character of the place. However, conversion of roadside planting areas for carparking undermines this. Overall, the quality of surface materials appears tired, with private space appearing better than the 'public' areas.

Overall **quality** of subdivision?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Buildings appear well maintained, as does the public realm. Planted slopes and rock faces contribute to the overall quality of the development. However, some paving appears worn and some landscaped areas have been converted to parking.

Character

Consistency Across Site



There is a consistency in character across the site given the way buildings have addressed the steep slopes. Each of the private roads is different in character and arrangement. However, the general response to the site is consistent.

Building Character



There is a mix of individually designed buildings which step into the slope. Their scale fits well with the character of the area.

Appropriateness



The development sits well within its natural setting given the large trees and rock crops. When viewed from the lower slopes the scale of development is similar to that within the context, but parts are visible on the skyline.

Does the subdivision establish a special **character** appropriate to its site?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The private lot developments are more successful than the design of the public areas. However, as a whole there is a consistent character which sits well within the landscape.

Goldfields, Queenstown

Overall Impressions of Subdivisions - Distinctiveness



The use of **carports** are less dominant than garages and introduces variety to the scheme.



A **reduced road reserve** due to the absence of footpaths and minimal building setbacks results in a better sense of enclosure of the street than occurs with wider roads.



Clustering of buildings in groups around **short cul-de-sacs** addresses slope issues and creates a sense of enclosure of the street and good overlooking.



The extent and use of **rock faces** and **glimpse views of the lake and mountains** between buildings are significant visual elements in this subdivision.

Overall Assessment

How successful is this subdivision overall when considering urban design criteria?

CONTEXT	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
CONNECTIVITY	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
LEGIBILITY	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
SCALE	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
ACTIVE EDGES	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
ENCLOSURE	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
QUALITY	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
CHARACTER	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	

THE DESIGN OF THIS SUBDIVISION IN RESPONSE TO ITS SLOPING TERRAIN HAS RESULTED IN GOOD ENCLOSURE OF SPACES AND CREATION OF ACTIVE EDGES.

Key Lessons

- Development on steep slopes dictates a particular road configuration that result in a more organic layout and less standardised building forms, as each lot presents its own individual design challenge.
- The open spaces and retention of natural features, together with a visual relationship to the landscape is important in integrating this development into its setting.
- The glimpse views of the lake and mountains are significant and create points of excitement between buildings.
- The apparent absence of road reserves (i.e. no front fences) establishes a good relationship between buildings and streets.
- Narrow private roads generally achieve a greater sense of enclosure of the street.

Site D – Arthur's Point, Queenstown

Introduction

Size: 2.6ha

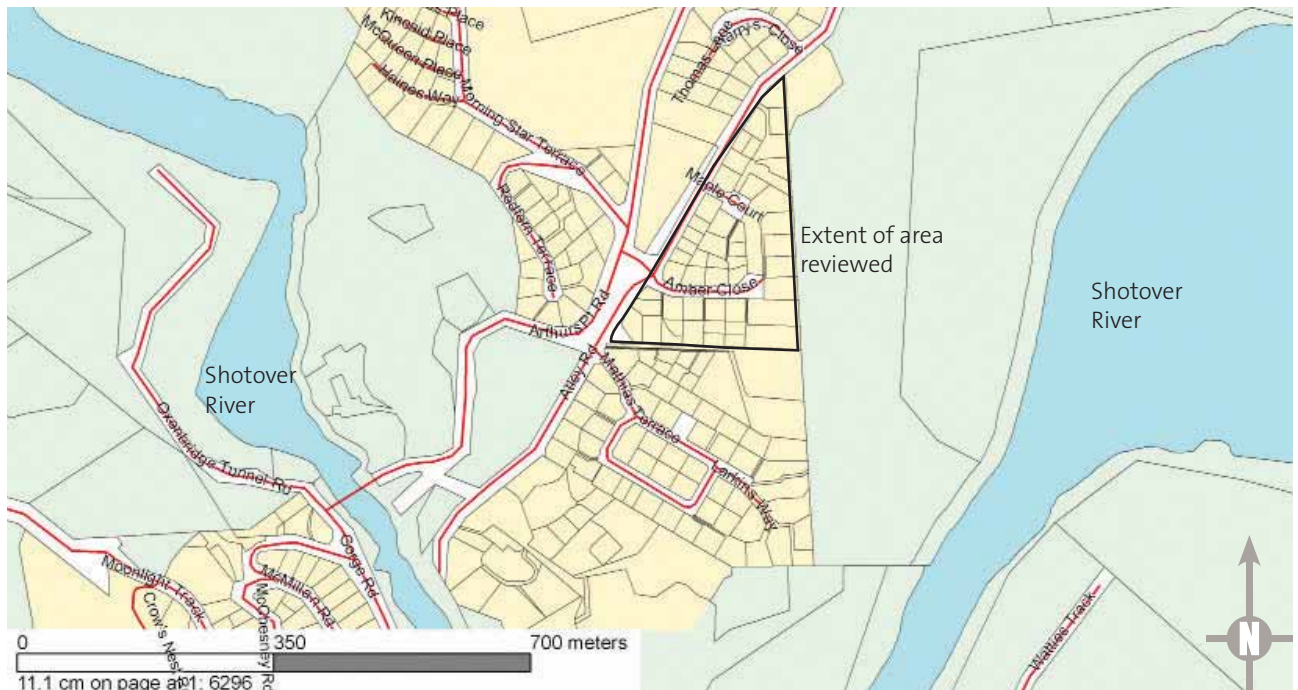
Date of Resource Consent: 2002

Complete: Largely complete but there are a few vacant lots

Zoning: Residential (light yellow)

Location: Arthur's Point subdivision is approximately 6km from Queenstown Town Centre. It is located on a high terrace above the Shotover River and adjacent to other similar subdivisions.

Conditions: Atley Road (part), Maple Court and Amber Close were reviewed on a sunny mid winter cold morning.



Arthur's Point - Zoning Map



Arthur's Point - Aerial

Arthur's Point

Context



The subdivision is located on the northeast side of the Shotover Gorge along the road between Queenstown and Arrowtown. The bridge over the Shotover River is the main access road to Queenstown 6km away.

This subdivision is within the Arthur's Point settlement. It is accessed via Arthur's Point Road by a single entry road shared with neighbouring developments. Arthur's Point Road is shown in the photograph with the subdivision on the left.

INTEGRATION WITH BUILT ENVIRONMENT



- Houses on Atley Road the main spine road front onto the high timber fence of the motor camp.
- Level changes and boundary treatment result in a limited visual relationship between Arthur's Point Road and this subdivision.
- This area is surrounded by recent residential development. To the north along Arthur's Point Road lies an early stone cottage as shown in the photograph to the left.

INTEGRATION WITH THE NATURAL ENVIRONMENT



- The site is located on a flat terrace beside a steep drop down to the Shotover River.
- It is surrounded by mountains on most sides, with the access road aligned with views down the valley.
- Views to the mountains are maintained throughout the scheme.
- The site is formerly farm land and contains a few existing trees.
- Views down to the river are generally privatised.

How successful does this subdivision **integrate** with its local context?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



This subdivision forms part of a linear expansion of the Arthur's Point settlement along the road to Queenstown. Its visual impact is limited to one public viewpoint and it sits comfortably on a natural terrace, without the need for substantial modifications to the existing landforms. The rating is reduced due to the lack of facilities (i.e. shops) for residents.

Arthur's Point

Urban Structure

Connectivity

STREETS



The site is served by a logical road hierarchy of Atley Road on the western boundary, cul-de-sacs and private roads. However, limited connections between internal roads reduces connectivity. The cul-de-sacs are linked by a greenway, but this connection does not provide a link to neighbouring subdivisions, or beyond.

OPEN SPACE



STREET HIERARCHY

1. Spine Road (Atley Road)
 - Straight road
 - 12+m wide, 1 footpath
 - Not connected at north to Arthur's Point Road
2. Two Cul-de-sacs
 - Accessed off Atley Road
 - Circular turning heads
 - 8m wide road
 - One footpath
3. Private Link Road
 - Links Atley Road and Cul-de-sac
 - Ranges from 3-4m wide (under construction)
4. Private Right of Ways
 - Five private lanes off Cul-de-sacs
 - 8m wide
 - Shared space (no footpath)



There is an attractive greenway (Murdock Park) which links the two cul-de-sacs and contains a playground and stormwater swales. This greenway is well overlooked by neighbouring houses and the private access road. The vegetation is currently undeveloped. It is the only public open space on the site. There is an informal pedestrian link from Atley Road to the Shotover River (photo to left). There are no other direct pedestrian links to public open spaces/amenities in the area.

How successful is the **connectivity** through (and beyond) the site achieved using streets and open spaces?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Connectivity could have been better if the greenway extended beyond this site to neighbouring subdivisions. In addition, there are limited connections between internal roads and cul-de-sacs within the development.

Arthur's Point

Urban Structure

Urban Grain

LOT DIVISION



The site is triangular and the road and lot layout generates a gradation of lot sizes from west to east. Of the lots within this subdivision, more units are accessed off private drives than public roads (21 units face a road, 26 a private drive). In all cases the lots fronting public spaces are accessed from private lanes.

The majority of lots are rectangular/nearly square in shape, with the narrowest width along the public frontage. Irregular shaped lots are internalised within the layout.

Size/Density

Larger lots located at the edge (views of river), with smaller lots nearer Atley Road. Some examples of re-subdivision.

Shape

Lots are generally deeper on their east-west axis, except where south facing on Amber Close.

Access/Frontage

Lots overlooking open spaces are accessed from private drives/ front access lane. Other lots fronted streets and lanes.

Variety

There is a reasonably wide range of lot sizes, which results in variety of house types and sizes.



LOT DEVELOPMENT



There remain a few lots that are undeveloped at the edge of the site. There is a range of lot sizes across the site, with some lots nearer the edge which have been further subdivided. This results in the appearance of greater site coverage and higher density in those areas.

On Atley Road the garages are generally located to the front of the lot (the sunny side). This may be in response to the less attractive view of the motor camp opposite.

Footprint Size/Coverage

There is evidence that some buildings maximised site coverage and were close to their lot boundaries.

Arrangement/Typology

Mostly detached dwellings, some were designed to appear as multiple buildings which lessens their visual dominance.

Street Frontage: Garage/Drive

On smaller lots garages appeared more dominant than on larger lots.

Climatic conditions

North-facing lots with aspects to Amber Close used private drives to access garages. This results in garage-free frontages.



Arthur's Point

Appearance (Outcomes)

Legibility

Arrival



The fencing at the entrance does not do the overall quality of the development justice. The fencing relates to the motor camp and the development of one lot at the entrance to the development. If another entrance occurred in the future (from the north), effort should be made to achieve better integration.

Navigation



It is difficult to differentiate between public and private roads; lamp posts, footpaths on public roads and some signage are the only clues. The road surface does not vary providing no definition between public and private roads. One private road links two public roads adding to the confusion.

Security



The greenway is wide with a clear view to destinations at either end. A central footpath is well overlooked by neighbouring dwellings and felt safe as a consequence.

Does this site achieve good **legibility**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The entrance is disappointing. It reduces the arrival experience and lacks integration with the surrounding subdivisions. Additionally, the lack of definition between private and public roads and uncertainty of their destinations also detract from the overall success of the scheme. However, the central greenway is a successful, safe connection between cul-de-sacs.

Scale

Typology



The buildings were predominately single-storey detached dwellings. Many dwellings were composed of multiple buildings linked together, resulting in a reduced scale, particularly on larger lots. The majority of two-storey dwellings are on larger blocks along the eastern boundary.

Buildings to Street



Buildings along most streets are of a low scale. On Amber Close garages are accessed off private drives, which helps to reduce the scale of dwellings. However, in other parts, such as Atley Road the scale of the dwellings is dominated by garaging and dwellings are occasionally hidden by fencing.

Buildings to Public Spaces



Along the greenway, on the western side, dwellings tend to be single-storey on small lots, and on the eastern side two-storey on larger lots. Dwellings and associated landscaping were at a scale which resulted in good passive surveillance of the street, without visual dominance. This makes the public space feel safe.

Is the **scale** of development appropriate to the local environment?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The scale of the buildings within the scheme are considered appropriate to their immediate surroundings. Breaking down individual buildings into a number of smaller elements reduces the built scale. If dwellings on both sides of the greenway were two-storey with less dominant garaging/fencing this would make the development more successful.

Arthur's Point

Appearance (Outcomes)

Active Edges

Setbacks,
Boundary
Treatment and
Landscaping



Generally the dwellings are located close to the road, with generally a 4-5m setback. The development exhibits a high degree of enclosure given the relationship of buildings with the street and through planting and fencing. Stormwater swales made use of the road reserve.

Front facade
openings



Dwellings included a reasonable number of windows and front doors onto public streets which assists in passive surveillance and make the development more personable. In a few instances front doors were obscured by garages, planting and fences, as shown in the photograph to the left.

Garages



Garages occasionally dominated the street due to narrower lots along Atley Road and are often located forward of the dwelling. On other roads in the subdivision garages were generally not as dominant, in particular the north facing sunny side of Amber Close.

Orientation
to streets and
public spaces



Private gardens are often located to the side of the house and offered an additional active edge along the greenways and other public open spaces.

Does the layout of subdivision result in high degree of active edges to public areas?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The garages along Atley Road and fencing of some lots reduced the overall success of achieving active edges within the subdivision. Excluding this aspect, the remainder of the development appears successful.

Enclosure

Cul-de-sac

The width of this road and road reserve significantly reduces the sense of enclosure of the street. When landscaping is fully established this may help to mitigate this effect.



Private Drive

This private drive is narrow and has the appearance of a shared surface. It has a good sense of enclosure due to reduced building setbacks and a variety of quality boundary treatments.



Does the subdivision successfully achieve good **enclosure**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The public roads and spaces are wide and are less successful in achieving enclosure of the street. However, better street enclosure is achieved by the narrow private drives, which create a better pedestrian-friendly and intimate street environment, although they are not part of the public realm.

Arthur's Point

Appearance (Outcomes)

Quality

Private
Buildings



The majority of dwellings are individually designed (i.e. are not standardised building company designs), in particular the larger dwellings on bigger lots. This helps to create variety within the development. The quality is generally good and many include chimneys and local stone.

Private Lot
Curtilage



A key characteristic of the scheme is the extensive planting of private gardens and the quality of fencing and boundary landscaping. There is evidence of some building control being exercised to ensure these outcomes.

Public Street
Materials



Generally standard tarmac and concrete edging are used for roads. Flush road kerbs and drain covers within stormwater swales are incorporated into the road reserves and make use of otherwise under utilised land.

Public
Landscape/
Open Space



Good quality landscaping, in particular of the playground and greenway contributes to the overall quality of the development.

Overall **quality** of subdivision?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The quality of the materials used in the public and private realm is considered to be good and enhances the overall appearance of the scheme.

Character

Consistency
Across Site



Besides the dwellings facing Atley Road, there is a reasonable level of cohesion given the quality of planting and public landscaping throughout the development. The absence of road kerbs assists with this.

Building
Character



The emphasis of the development is on low-scale, simple built forms. It includes some modern designs and larger buildings, and as a consequence no overall building character is achieved. However, the use of timber and stone in dwellings provides some visual cohesion.

Appropriateness



The use of cul-de-sacs as a principle means of access is not normally encouraged. However, in this instances and given the wider context, sufficient pedestrian access is achieved. The character is, in general, small-scale and varied, offering a reasonably appropriate response to the site and context.

Does the subdivision establish a special **character** appropriate to its site?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The quality of the materials and the consistent use of a number of landscaping elements across the site assists in creating an overall consistent character, which is considered appropriate in this location.

Arthur's Point

Overall Impressions of Subdivisions - Distinctiveness



The **greenway** incorporates stormwater swales, a path and play facilities and overall enhances connectivity.



The use of grassed **swales** within the road reserve results in a treatment appropriate to the wider natural setting.



Garaging to the rear of dwellings accessed off private drives and dwellings fronting the street creates an active street frontage.



A sense of **enclosure** is achieved along the private drives as a result of planting and a narrow carriageway.

Overall Assessment

How successful is this subdivision overall when considering urban design criteria?

CONTEXT	VERY SUCCESSFUL	SUCCESSFUL	ACCEPTABLE	LESS SUCCESSFUL	NOT SUCCESSFUL
CONNECTIVITY	VERY SUCCESSFUL	SUCCESSFUL	ACCEPTABLE	LESS SUCCESSFUL	NOT SUCCESSFUL
LEGIBILITY	VERY SUCCESSFUL	SUCCESSFUL	ACCEPTABLE	LESS SUCCESSFUL	NOT SUCCESSFUL
SCALE	VERY SUCCESSFUL	SUCCESSFUL	ACCEPTABLE	LESS SUCCESSFUL	NOT SUCCESSFUL
ACTIVE EDGES	VERY SUCCESSFUL	SUCCESSFUL	ACCEPTABLE	LESS SUCCESSFUL	NOT SUCCESSFUL
ENCLOSURE	VERY SUCCESSFUL	SUCCESSFUL	ACCEPTABLE	LESS SUCCESSFUL	NOT SUCCESSFUL
QUALITY	VERY SUCCESSFUL	SUCCESSFUL	ACCEPTABLE	LESS SUCCESSFUL	NOT SUCCESSFUL
CHARACTER	VERY SUCCESSFUL	SUCCESSFUL	ACCEPTABLE	LESS SUCCESSFUL	NOT SUCCESSFUL

THE QUALITY OF PUBLIC AND PRIVATE AREAS AND WALKABILITY OF THIS SUBDIVISION IS SUCCESSFUL. THERE IS EVIDENCE OF COVENANTS WHICH ASSIST IN THE OVERALL QUALITY, ALTHOUGH SOME BOUNDARY TREATMENTS COULD BE IMPROVED.

Key Lessons

- The use of private drives (which act as public through roads) result in a better sense of enclosure and pedestrian scale than that achieved along some of the public roads.
- The greenway is successful as a result of incorporating a playground (a destination). It also includes stormwater facilities and an interesting footpath, enhancing the subdivisions overall connectivity.
- The use of swales within road reserves is attractive and helps integrate private and public landscapes.
- Private drives to the south of the east-west roads enables better residential frontage to the sunny north aspect.

Site E – Atley Downs

Introduction

Size: 1ha

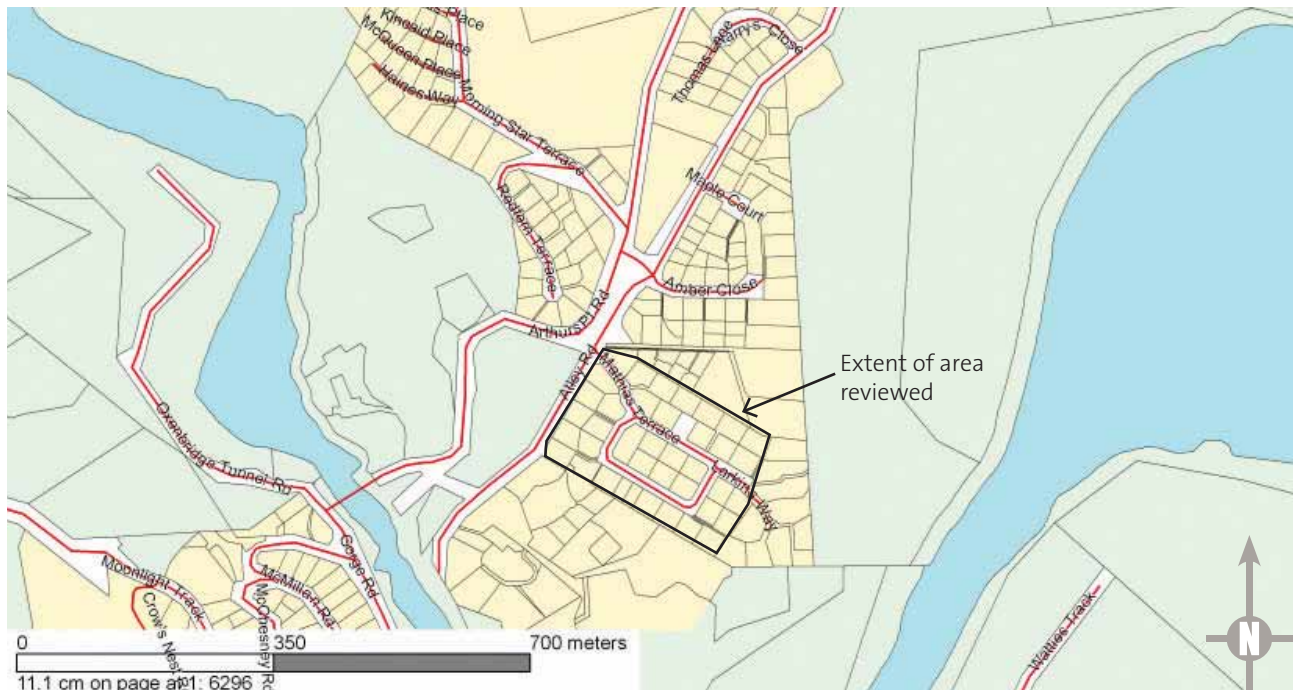
Date of Resource Consent: 2002

Completed: The central sites are largely complete, some under construction. More vacant lots toward the southeast.

Zoning: Residential (light yellow)

Location: Atley Downs is a new subdivision adjacent to the Arthur's Point subdivision. It is approximately 6km from Queenstown Town Centre. It is located on a high terrace above the Shotover River.

Conditions: Mathias Terrace and Larkin Way (part) were reviewed on a sunny cold winter morning.



Atley Downs Zoning Map



Atley Downs Aerial

Atley Downs

Context



Atley Downs is located immediately south of the Arthur's Point subdivision (Site D). These subdivisions are located on a terrace above the Shotover River, on the northeast side of the Shotover Gorge and along the road between Queenstown and Arrowtown. The bridge over the Shotover River is the main access route to Queenstown 6km away.

This subdivision is within the Arthur's Point settlement. It is accessed via Arthur's Point Road by a single entry road shared by the neighbouring developments. The site has views of the surrounding mountains. Connections to the Shotover River are via Atley Road and an informal pathway opposite Harry's Close to the north. There are no direct connections to the river from this site.

INTEGRATION WITH BUILT ENVIRONMENT



- Development is a similar scale to the residential subdivisions to the south and west. The scheme west of Arthur's Point Road is shown.
- Immediately to the south of Atley Downs across the gorge lies part of the earlier settlement. This is a typical rural development of larger, irregular lots set within a wooded environment. It includes the former timber weatherboard farm buildings.

INTEGRATION WITH THE NATURAL ENVIRONMENT



- The site is located on a flat terrace beside a steep drop down to the Shotover River.
- Views of the mountains are obtained from all parts of the site.
- There is little evidence of retained vegetation on the site, although there are existing trees at its south east edge, as shown in the image to the right.
- The central reserve varies in level and as a result it is unclear if this is a natural or man-made feature.

How successful does this subdivision **integrate** with its local context?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



This subdivision is located on a relatively flat terrace adjacent an existing settlement with limited facilities for residents (i.e. shops). Visually it is unobtrusive in the landscape. Links to the neighbouring subdivisions could be improved through pedestrian walkways.

Atley Downs

Urban Structure

Connectivity

STREETS



This subdivision has one access off Atley Road and no other external road connections. Atley Road links to Arthur's Point Road which connects Queenstown and Arrowtown. Mathias Terrace, a loop road, services most of the site with one short cul-de-sac off it. Larkins Way is a private drive and a number of smaller lanes off this provide access to back lots.

STREET HIERARCHY

1. Atley Road
 - Main Access Road
 - 8m carriageway
 - Footpath on one side
2. Mathias Terrace
 - 14m road reserve and 8m carriageway.
 - Loop Road
 - Footpaths on both sides
3. Larkins Way
 - Private Road
 - Footpath one side
4. Private Drives
 - 5m roadway
 - No footpaths



OPEN SPACE



There is one reserve within Atley Downs and it is bordered on three sides by Mathias Drive, with some dwellings on the eastern boundary. It varies in level and is grassed, with no formal activities or footpaths on it. Swales and footpaths within the landscaped road reserve result in a pleasant walking experience throughout the site. Further visual interest is created by a short cul-de-sac off Mathias Drive (photo to left) which is well landscaped.

How successful is the connectivity through (and beyond) the site achieved using streets and **open spaces**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Mathias Terrace is the primary access and provides adequate internal connections for a subdivision of this size. A pathway to adjacent developments (and facilities within the reserve such as play equipment) would enhance pedestrian connectivity.

Atley Downs

Urban Structure

Urban Grain

LOT DIVISION



On the flatter portion of the site, east of the central reserve, the lot sizes are generally even in shape and size, with wider frontages along the roadway. The lots which are closer to Atley Road are on a down-slope to the road and are accessed off private drives from Mathias Terrace with pedestrian connections to Atley Road. Some back lots to the north also require private drive access. The small courtyard off Mathias Terrace in the centre of the image above offers an alternative to a private driveway arrangement. The lots increase in size further east along Larkins Way.

Size/Density

The lots are generally approximately 1,000sqm in area. There is little evidence of further subdivision.

Shape

Due to the rectangular site, the majority of the lots are almost square in shape with the longer edges facing the road.

Access/Frontage

Most lots front roads. The lots on the western edge have road access to Mathias Terrace but front Atleys Road.

Variety/Variation

Further subdivision of one lot is evident (to create two even length road frontages).



LOT DEVELOPMENT



The development of the lots within Atley Downs generally results in mostly single-storey dwellings with large footprints, although there are a number of two-storey dwellings. There is a variety in the treatment of garages and their location. Mounding of the lot frontage and/or sides is evident, in particular along the northern extent of Mathias Terrace.

Footprint Size/Coverage

Dwellings and garages are generally large and cover the majority of lots, as seen on the aerial.

Arrangement/Typology

Predominantly single-storey dwellings, with some two-storey dwellings in the south east of the subdivision.

Street Frontage: Garage/Drive

Overall there is variety in how garages are designed. Some front the street and generally they are setback.

Solar Orientation

There is evidence that private open space is designed to favour the sunny side of dwellings using deep setbacks from the road edge on northern aspects.



Atley Downs

Appearance (Outcomes)

Legibility

Arrival



The entry to Atley Downs is marked by a rise in road level, a stone wall and metal signage. The paving used for footpaths also changes. As this part of the site forms part of a wider subdivision, this entry treatment might be more appropriate at the main entrance.

Navigation



The site is accessed by a rectangular loop road which links the majority of the site. Private drives extend from the corner bends of the road and effectively form private extensions to the loop, and in particular are used to access the sloped lots adjacent to Atley Road.

Security



There was no evidence of anti-social behaviour (i.e. graffiti or vandalism). The roads and lanes have good visibility and feel safe.

Does this site achieve good **legibility**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The grid layout of the subdivision is easy to navigate and there is a sense of safety and security.

Scale

Typology



In general, buildings are single-storey with chimneys or other rooftop features. Some dwellings at the southern edge are two-storey in height. Most dwellings have double garages and these are located in a variety of locations in relation to the dwelling (to the front, side, or behind).

Buildings to Street



The streets are wide but the footpaths and swales lessen the appearance of this. The dwellings are of a scale which help define the street edge. Some however are slightly elevated above the street.

Buildings to Public Spaces



The reserve is quite large and does not include any footpaths, seats, etc. Two adjacent buildings front this space. If there were two-storey buildings adjoining it this would achieve more effective enclosure of the space.

Is the **scale** of development appropriate to the local environment?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The scale of buildings in relation to the street is generally appropriate to the development, although the dwellings adjacent to the reserve appear dwarfed beside this large space.

Atley Downs

Appearance (Outcomes)

Active Edges

Visibility



Fencing, mounding and slightly elevated lots limit the visibility of some dwellings from the street. When the mound planting is fully established this will further reduce visibility. Dwellings located adjoining the reserve have good visibility (it is notable that they have not fenced off their boundary to the reserve).

Front facade openings



The north facing dwellings in particular, have many windows and doors visible from the street. A number of dwellings have separate footpaths leading to the front door. However, front fences and mounding once again limit visibility of front facades in places and creates a feeling of separation.

Orientation/proximity



The larger two-storey houses along the southern edge of the site sit further back from the road reserve than other dwellings. However, upper floor windows compensate for some loss of passive surveillance resulting from to generous front setback.

Garages



In a number of cases, garages are dominant elements when viewing dwellings from the street. However, this is not always the case. A couple of dwellings appear to have habitable rooms above the garage, which increases the number of windows overlooking the street and creation of an active frontage.

Does the layout of subdivision result in high degree of **active edges** to public areas?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



On balance, the extent of active edges within this scheme is acceptable, considering the number of lots with windows and doors facing the street in comparison to the number of sites which have high fences, mounding and concealed openings.

Enclosure

Taller building elements and slightly elevated buildings assist in creating a sense of enclosure to the street. Footpaths, swales and planting assists this, and will improve as the landscaping develops.



Some enclosure of the short cul-de-sac off Mathias Terrace is achieved given the taller building elements create a vertical impression, which balances out the width of the road.



Does the subdivision successfully achieve good **enclosure**?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



Despite the width of the road reserve, the height of the dwellings and the treatment of the roads results in definition of the street edge and a sense of enclosure. This is likely to improve when the landscaping matures.

Atley Downs

Appearance (Outcomes)

Quality

Private
Buildings



Building materials appear to be of high quality and well maintained and the dwellings are also appear to have been individually designed.

Private Lot
Curtilage



The quality of private planting is good (although it is not fully established). There is no evidence of a consistent approach to lot enclosure, which may have helped with strengthening the cohesiveness of the scheme. There is evidence of mounding along streets, which may be used instead of fencing.

Public Street
Materials



The visual dominance of roads is broken up by the use of stone paving at crossing points. However, there is evidence of wear and tear and this detracts from the overall impression of this feature. The use of swales is more appropriate to this low density/rural setting.

Public
Landscape/
Open Space



The quality of the swales, footpaths and planting within the road reserve is very good and adds to the overall impression of the scheme. However, the open space in comparison is bland given limited detailing and features and the appearances of a large grassed area.

Overall **quality** of subdivision?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The overall impression of the quality of this subdivision is high and well maintained. If the large open space was further developed with play equipment or planting the quality of this scheme would be rated 'very successful'.

Character

Consistency
Across Site



There is a consistency of building materials and forms in this subdivision which suggests that building controls may be in place. The overall impression of Atley Downs is of a reasonably consistent character.

Building
Character



The overall design, use of natural materials and gables results in high quality, attractive buildings.

Appropriateness



Private and public landscaping along and adjoining the road reserve is appropriate to its setting and has an appearance of blending with the landscape. The reference to a grid layout reflects the development of other flat sites in Queenstown.

Does the subdivision establish a special **character** appropriate to its site?

VERY SUCCESSFUL



SUCCESSFUL



ACCEPTABLE



LESS SUCCESSFUL



NOT SUCCESSFUL



The character of the Atley Downs subdivision is appropriate to its rural setting, incorporating the use of swales, landscaping and sympathetic building design and materials.

Atley Downs

Overall Impressions of Subdivisions - Distinctiveness



The post boxes on Atley Road are a unique feature of the site and result in a memorable place.



Swales used within this development are appropriate to the rural setting and the use of grey schist reflects the colours of the surrounding mountains.



The use of a stone wall at the entrance with planting reflects the rural setting.



The cul-de-sac achieves a level of creativity and is well overlooked and cohesive given it incorporates informality and a shared space design approach.

Overall Assessment

How successful is this subdivision overall when considering urban design criteria?

CONTEXT	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
CONNECTIVITY	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
LEGIBILITY	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
SCALE	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
ACTIVE EDGES	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
ENCLOSURE	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
QUALITY	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	
CHARACTER	VERY SUCCESSFUL		SUCCESSFUL		ACCEPTABLE		LESS SUCCESSFUL		NOT SUCCESSFUL	

THIS QUALITY OF THE PUBLIC AND PRIVATE AREAS OF THIS SUBDIVISION IS SUCCESSFUL. THERE IS EVIDENCE THAT BUILDING CONTROL COVENANTS MAY HAVE BEEN IN PLACE TO ASSIST IN THE OVERALL QUALITY.

Key Lessons

- The road reserve treatment and taller elements on buildings result in definition of the street, which helps mitigate some of the effects of the wide road.
- The use of swales within road reserves is attractive and helps integrate the private and public landscapes.
- The consistent use of similar building materials and apparent building controls results in an overall character which is attractive.
- The use of a short cul-de-sac which adopts an informal shared space design approach instead of a private road to achieve back lot access and increase road frontage is commendable.

Conclusion

The purpose of this review is to assess some typical subdivisions in relation to current urban design best practice. The findings of this report may assist QLDC in achieving better urban design outcomes in future subdivisions. It is important to note that the majority of the schemes reviewed were consented and commenced before the launch of the Urban Design Protocol in 2005. Therefore,

a general awareness of essential urban design qualities was unlikely at the time in which they were designed.

The key findings and overall assessment of each subdivision are not compared in this report. However, a number of the key lessons learned are outlined below in relation to each of the urban design criteria.

Urban Design Criteria - Key Lessons

Context

- All schemes reviewed were on greenfield sites.
- The schemes considered more successful were generally those located close to existing communities, built areas, key routes or services.
- The natural landscape setting is important and the retention of natural features, i.e. stream, trees, slopes, makes a real difference to the overall quality.

Connectivity

- Most sites were well connected externally for vehicular traffic.
- A hierarchy of roads was not always clear on site.
- Road arrangements which are not dictated by slopes vary significantly between schemes.
- All schemes provided open spaces, but these varied in scale, level of provision and quality of connections.
- The safety and design of pedestrian connections affected the overall connectivity of the subdivisions.

Legibility

- Curved and apparently arbitrary road alignments can be confusing.
- There were few landmark buildings or central areas of focus to aid navigation. Greater reliance should be made of natural features (i.e. distant views).
- Cul-de-sacs were mostly short, aligned with open spaces and had footpath connections to other destinations.
- Most developments achieved a sense of arrival, though few had a central focus determined by layout or form.

Scale

- The majority of buildings comprised detached single-storey dwellings on flat sites or two to three-storey on sloping sites.
- The larger lots tended to adjoin open spaces or site boundaries, rather than streets.
- Some larger lots have been further subdivided and

this can have a negative effect on the overall visual coherence.

- Large scale open spaces and wide roads appear larger when bounded by single-storey dwellings.
- Road reserves are an under-utilised resource. However, swales within the road reserve were successful on some sites.
- There was insufficient provision of larger buildings to define and enclose public areas.

Active Edges

- Dwellings predominantly fronted streets, but a large number also were located within rear lot developments. This reduces the ability to create active streets and also resulting in deep blocks.
- Street activity is lessened by wide lot street frontages.
- There is a tendency for garages to dominate street frontages. However, there is more creativity in garage and parking solutions on steeper slopes.
- Passive surveillance is reduced by frontage enclosure (i.e. fences, walls), planting and level changes.

Enclosure

- The sense of enclosure is generally weak due to the low ratio of building height to road width/open space (roads tend to be too wide).
- Occasionally groupings of taller buildings and careful use of landscape features assisted in creating some definition to street edges and a sense of enclosure.
- In places, public and private planting and some well designed boundary fencing assisted in forming an edge to the street.
- Narrower private roads often resulted in a better sense of enclosure than wider public roads.

Quality

- Predominantly new schemes were reviewed, resulting in a generally good overall building appearance.
- Common road materials results in some monotony and there was some surface materials degradation.

Conclusion

- Good quality public landscaping and private gardens are important factors in achieving cohesion and visual quality.

Character

- Varied building character reduced an appearance of regular forms, but individual designs added interest.
- Some schemes appeared to be enhanced by building controls on colour and materials (i.e. use of local stone).
- Some formal road layouts were less successful due to lack of appropriate supporting building scale and location.

Creativity

- There was little evidence of creativity in road design and urban grain.
- Lot shapes appeared to be designed to achieve uniform lot sizes rather than creating an attractive three-dimensional built outcome, by establishing enclosure, street edges, focus on corners or good edges to open spaces.
- The lack of a comprehensive relationship between built form and roads resulted in a lack of urban structure within developments.

Local Distinctiveness

- There was a generally a low response to local character. The schemes which had more local distinctiveness tended to succeed in more criteria. Some schemes demonstrated good use of local materials in building and landscape treatment (i.e. stone and local plant varieties).
- The scale of development, especially roads, sometimes compromised the ability to respond to local character.
- Standardised roading arrangements reduced local distinctiveness.

Appendix 2: QLDC Subdivision Design Guidelines, Version 1.0, Draft May 2015

QUEENSTOWN LAKES DISTRICT COUNCIL SUBDIVISION DESIGN GUIDELINES

A DESIGN GUIDE FOR SUBDIVISION AND DEVELOPMENT IN THE URBAN ZONES



QUEENSTOWN OFFICE

10 Gorge Road
Queenstown 9300
P: 03 441 0499

WANAKA OFFICE

47 Ardmore Street
Wanaka 9305
P: 03 443 0024

E: services@qldc.govt.nz
www.qldc.govt.nz



QUEENSTOWN
LAKES DISTRICT
COUNCIL

1. SUBDIVISION DESIGN PRINCIPLES

Purpose and Notes	02
Principles of Subdivision Design	03
The Council's approach and status of the Guidelines	03

2. NEIGHBOURHOOD AND SITE CONSIDERATIONS

Neighbourhood Analysis	04
Site Analysis	05

3. SUBDIVISION DESIGN

Roading and access connections	06
Street and Lot Layout	07
Open Spaces	08
Stormwater Management	09

4. PUTTING IT TOGETHER

10

PURPOSE OF THE GUIDELINE

To assist sub dividers and those involved in the subdivision process to create places that are desirable to live, work and play.

The guideline suggests how neighborhoods can be structured so the layout of streets, lots, parks and connections achieve maximum benefits to the subdivider, end-resident and community.

The guideline focuses on the broader scale aspects of subdivision design. It does not specify guidance on finer detailed elements such as street design, landscaping and the installation of infrastructure.

The QLDC Land Development and Subdivision Code of Practice provides specific detail on design.

The council will support subdivision that is designed to suit the local context and responds well to opportunities and constraints.

NOTES

- The primary focus of the Guideline is on 'greenfield' subdivisions, recognising the limitation of infill subdivision. Although the Guideline can assist with the design and siting of additional buildings in small scale and infill subdivision.
- The Guideline is not intended to be applicable to subdivision in the Rural Zones.
- The Council is grateful to the Kapiti Coast District Council for allowing the 'KAPITI COAST DISTRICT COUNCIL BEST PRACTICE SUBDIVISION GUIDE' to be drawn upon as part of the production of the Guideline.

SUBDIVISION DESIGN PRINCIPLES

- **LOGIC**
Should underpin all design. Good subdivision will focus on a response to the opportunities and constraints of the site and surrounding neighbourhood.
- **INTEGRATE**
With surrounding neighbourhoods through roading, trail and open space networks.
- **LAYOUT**
Will respond to local landforms, climate, views and district wide character.
- **REINFORCE**
Existing focal points to ensure residents will be able to walk to existing and planned facilities and services.
- **VARIETY**
Of lot sizes to encourage a diverse community, a range of housing options and opportunity for infill housing where appropriate.
- **CONNECT**
Streets, trails and walking and cycling connections between existing and planned subdivisions to provide accessibility, efficiency, reduce vehicle dependence and emissions.
- **OPEN SPACES**
Need to be well located, safe, fit for purpose, cost effective to maintain and where possible, connected to encourage biodiversity and connections.
- **SAFE**
Subdivisions will have allotments and public open spaces fronting the road and trails providing informal surveillance of the public realm.
- **REDUCE**
The impacts of stormwater, resource use and vehicle dependency.
- **MAXIMISE**
Sunlight, opportunities for domestic scale renewable energy and efficient use of water.
- **HERITAGE AND NATURAL FEATURES**
Should be protected and utilised in a manner that adds value to the subdivision and feature.

THE COUNCIL'S APPROACH

THE COUNCIL WILL ENCOURAGE GOOD SUBDIVISION DESIGN BY

- Granting applications that are consistent with the guidelines on a non-notified basis.
- Provide a QLDC Land Development and Subdivision Code of Practice as a single, document to advise subdividers, engineers, planners and surveyors.
- Recognising where effort has been made to integrate and enhance existing and planned waterways, stormwater paths, pedestrian and cycle connections.
- Striving to achieve Integration, communication, transparency and partnership across planning, engineering and parks teams to provide an effective and efficient regulatory process for the subdivider.

STATUS OF THE GUIDELINES

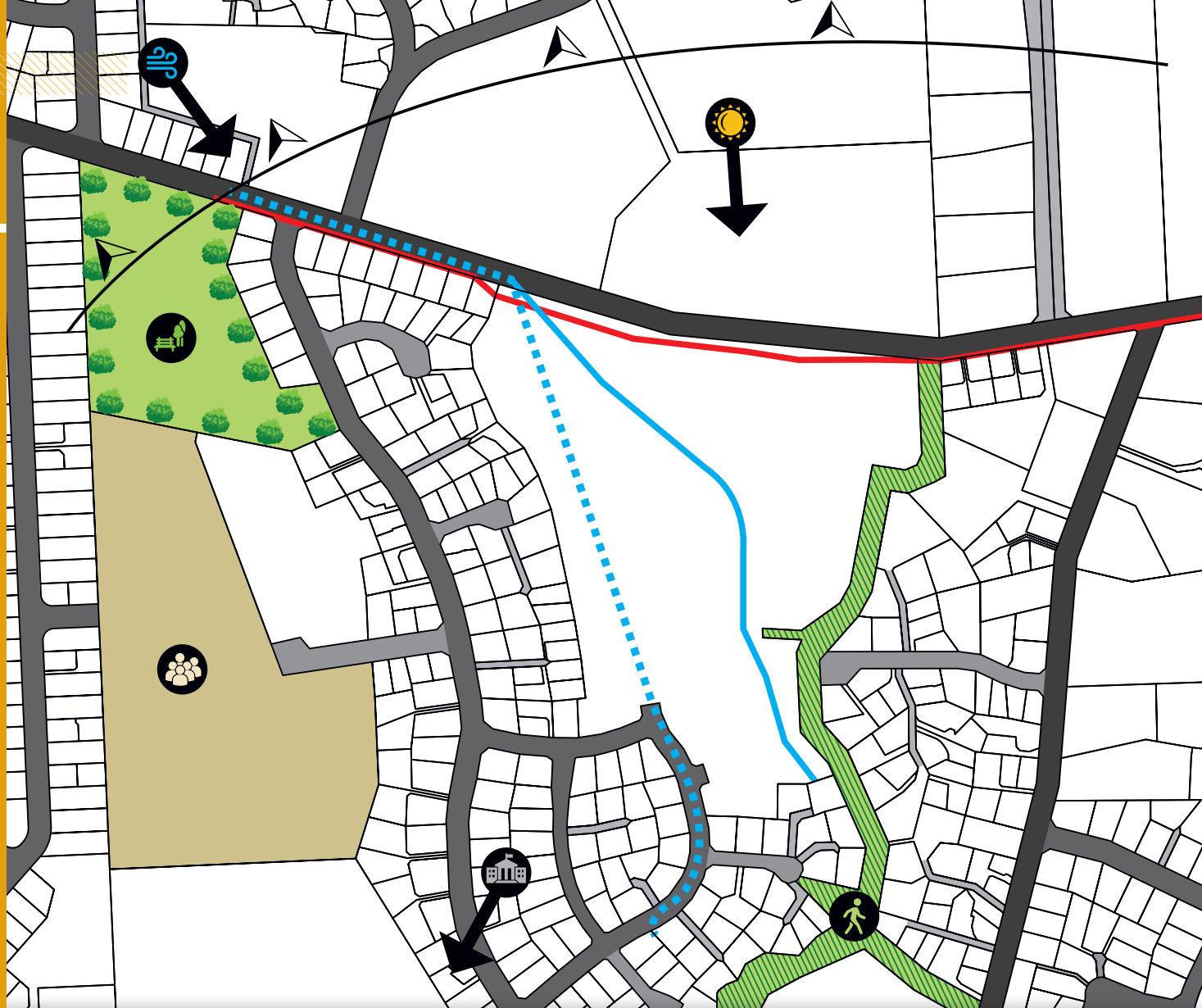
- The guidelines are not part of the District Plan, although have status under Section 104 of the Resource Management Act. They will be considered as part of the assessment of resource consent applications.
- The policies and rules of the District Plan Subdivision chapter acknowledge that subdivision has a variable nature and there is no strict formula to create a good subdivision.
- Differences in neighborhood character, environmental opportunities and constraints and the provision of infrastructure require a response tailored to each situation.
- Subdivision that is consistent with the intent of the guidelines is likely to be consistent with the District Plan Subdivision Chapter objectives and policies.
- Version 1.0 Draft May 2015

NEIGHBOURHOOD ANALYSIS

Early identification of the opportunities on the site that would enhance the subdivision and any likely issues, including hazards and engineering related constraints are important factors that are encouraged to be resolved early in the design and feasibility stage.

THE NEIGHBOURHOOD OPPORTUNITIES AND CONSTRAINTS:

- Identify the positive elements of the local character
- Street, walking and cycling networks
- Existing and planned local centres, parks, playgrounds, rivers and lakes
- Public transport where this is available
- Places of education and work
- Built and natural heritage features
- Vegetation patterns
- Consider the local and wider landform and how existing and planned development has responded to this
- Hazards
- Existing and planned utilities
- Infrastructure capacity, connections and linkages with existing neighbourhoods, including:
 - Wastewater
 - Water
 - Stormwater
 - Power
 - Communication
 - Existing utilities



Sun direction



Wind direction



Park



Community Facility



Town Centre



Public Open Space/
Walkway



Outlook



Collector Road



Local Road



Cul de sac

--- Water

— Existing Overland
Flow Path

— Waste Water

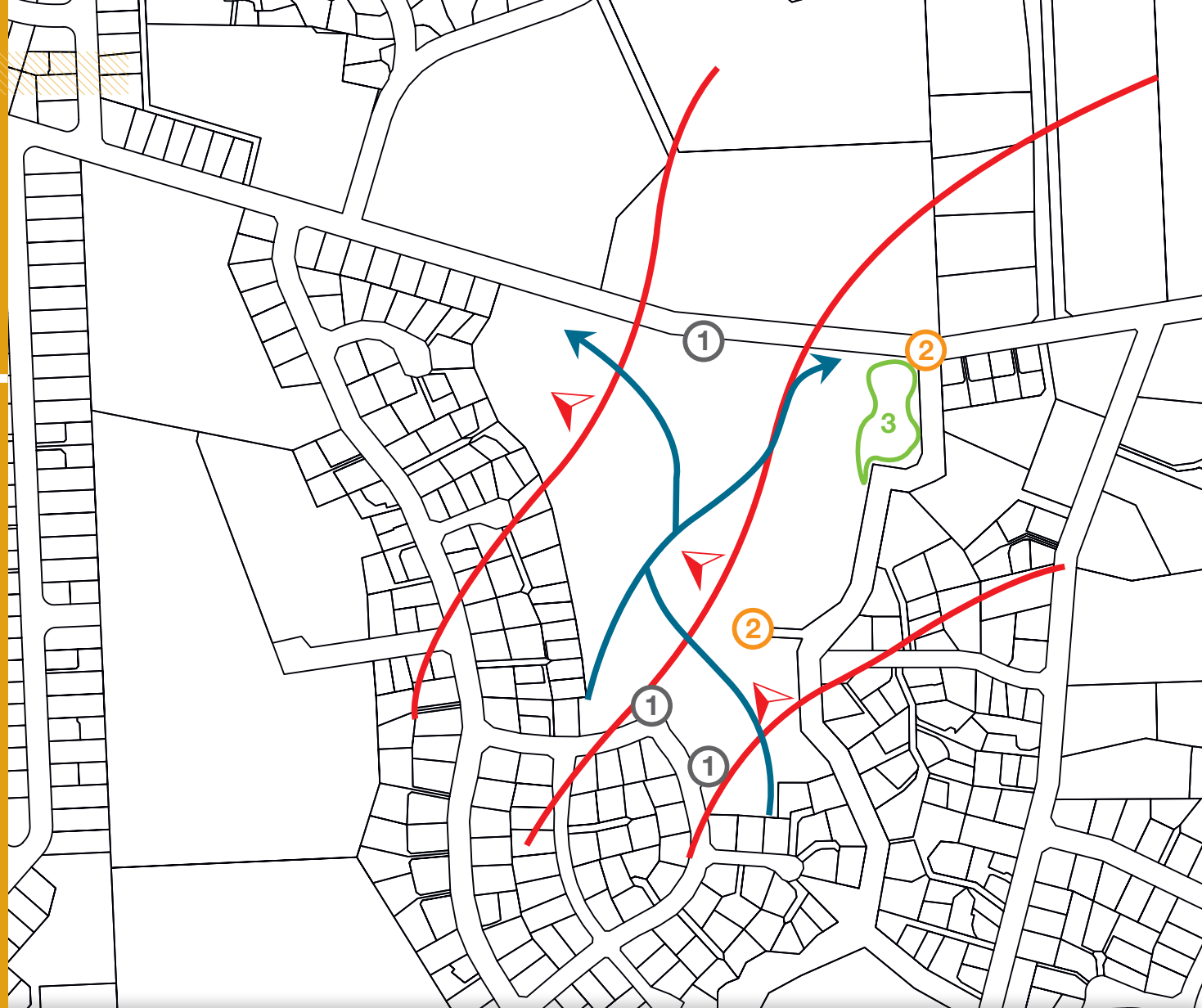
Disclaimer: Site analysis and design are solely for the purpose of demonstrating application of the principles of this document.



SITE ANALYSIS

CONSIDER SITE CHARACTERISTICS TO IDENTIFY OPPORTUNITIES AND CONSTRAINTS

- Topography and landforms
- Orientation – views, prevailing wind, aspect
- Road, trail, walking, cycling and open space connection points
- Existing utilities
- Previous land uses and the potential for contaminated land
- Cultural features or heritage items
- Distance to existing and planned local centres, parks, rivers and lakes beyond the site
- Existing buildings that are to be retained
- Existing vegetation that would enhance the subdivision
- Water bodies, including springs and natural drainage features
- The location of any commercial activities or areas with higher densities
- Infrastructure connections and capacity and integrate these with existing services including
 - Reticulation
 - Power
 - Communication



Contour and
Direction of Slope



Drainage Flow



Road Connection Points



Pedestrian/Cycling Connection Points



Existing Vegetation

Disclaimer: Site analysis and design are solely for the purpose of demonstrating application of the principles of this document.

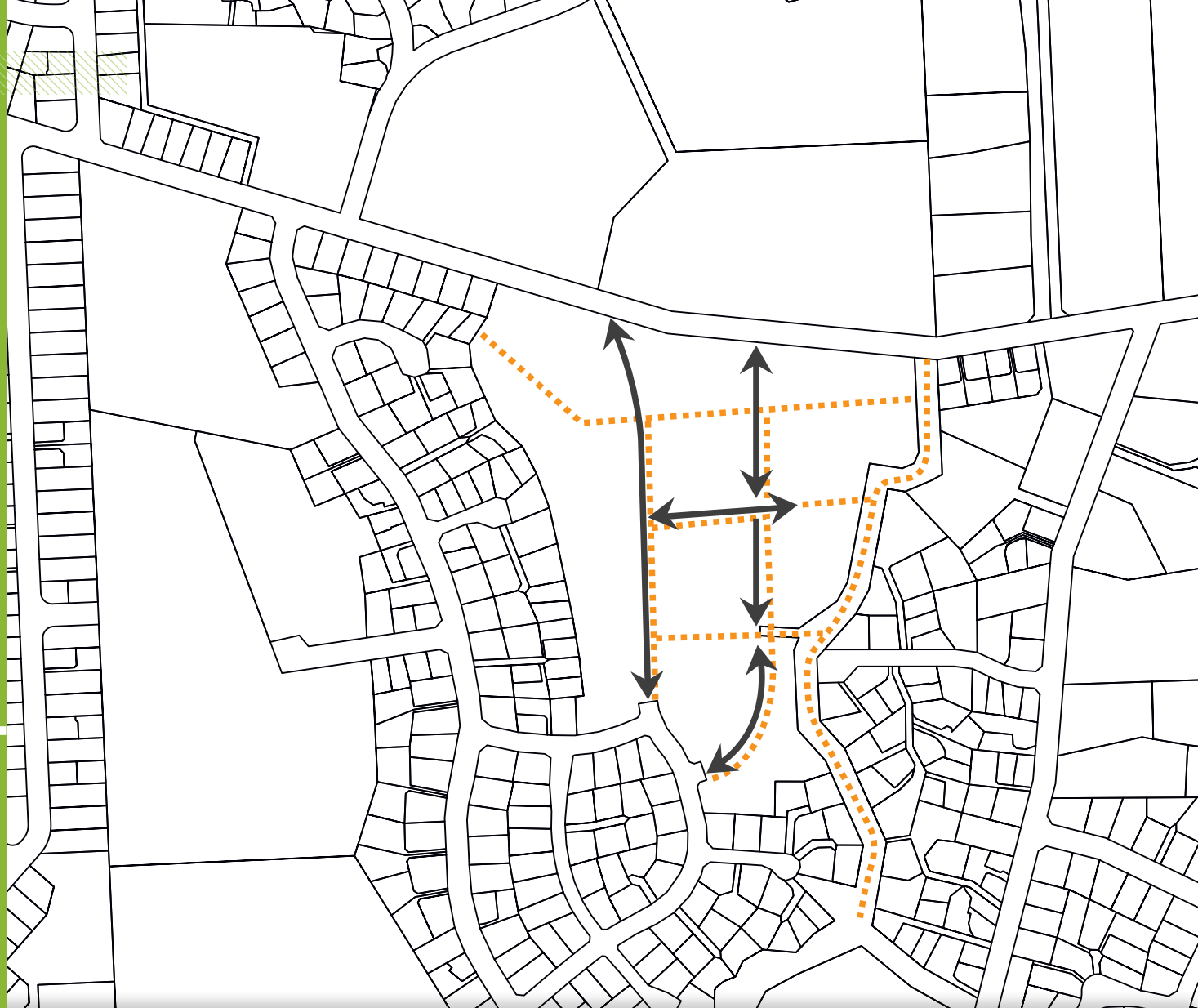
Using the information derived from the neighbourhood and site analysis, identify opportunities and constraints for the subdivision, with focus on the following aspects:

- Transport and connections
- Street and lot orientation
- Open spaces
- Stormwater management
- Hazards
- Infrastructure



TRANSPORT AND CONNECTIONS

- Create direct connections between roads and pathways
- Minimise the use of cul-de-sacs
- Avoid cul-de-sacs with no pathway connections
- Roads can be made safe by good design
- Encourage a walkable and cycle friendly neighbourhood with connection to community facilities not more than 500 metres from any lot
- Provide efficient walking and cycling connections to existing and planned public transport
- Provide for future public transport such as the provision for bus stops on the road verge



Roading/Vehicle Connections



Pedestrian & Cycling Connections



STREET AND LOT ORIENTATION AND LAYOUT

- Orientate roads north/south with lots orientated east/west where possible to ensure good sunlight and northerly outlook
- Ensure south facing lots have north facing backyards for outdoor living
- Limit the length and size of blocks to ensure that large blocks do not discourage walking distances between connections
- Avoid rear lots where possible
- Consider the selection of appropriate tree species to promote sunlight throughout winter, reduce water dependence once established and ensure ample room on the verge to accommodate the root system of the tree
- Minimise earthworks and disrupting the landform by:
 - Designing the layout of roads and lots to fit with the natural character and topography of the site
 - Avoid situations where significant post subdivision development earthworks will be required to create building platforms and driveways.



Park



Community Facility

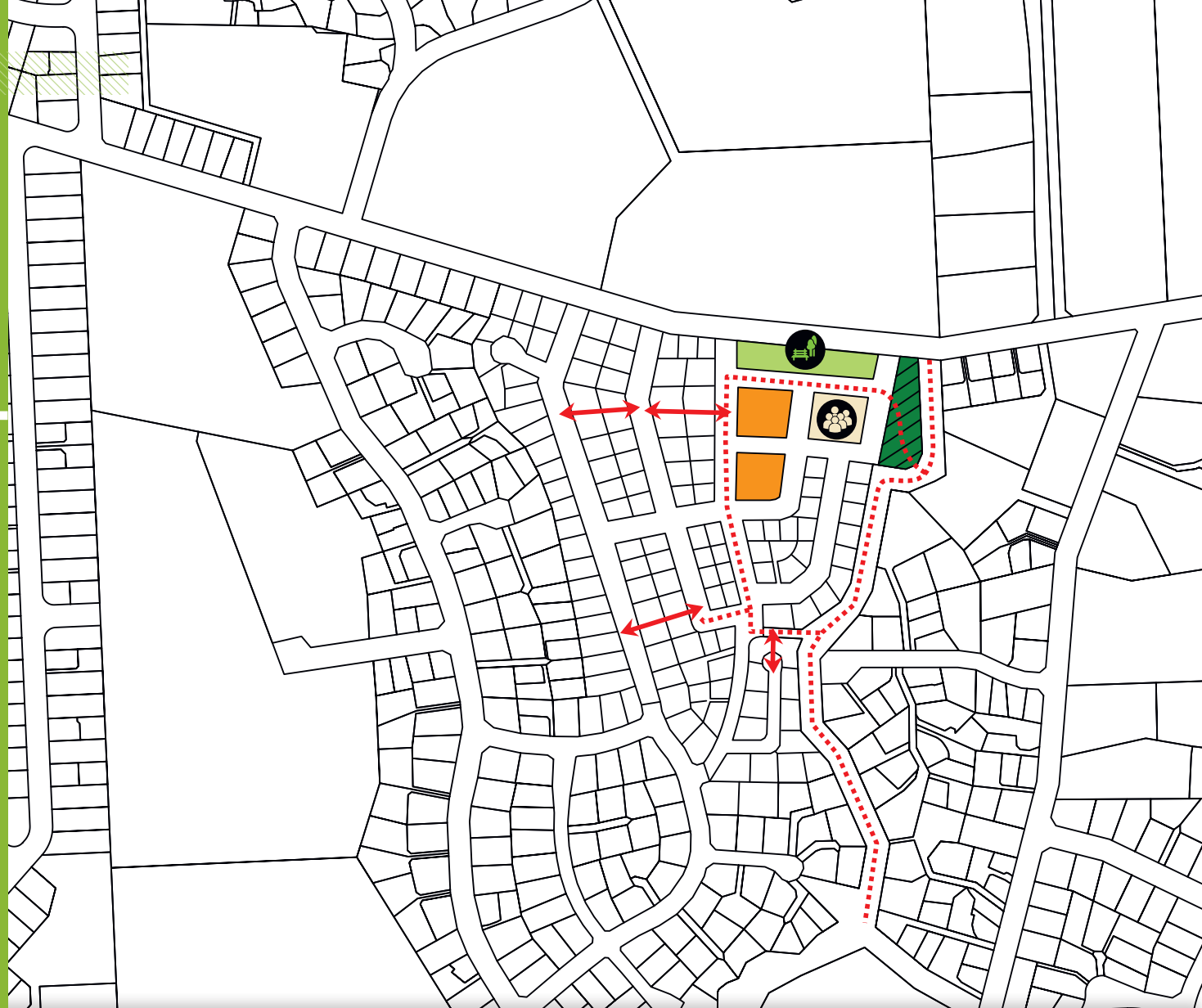


Medium Density



OPEN SPACES

- Developers are required to discuss any impact of subdivision on existing reserves or the development and potential vesting of any new reserves with the Council's Parks Team prior to lodging any development plans or resource consent applications with Council
- Parks have frontage to roads so they are visible, have opportunities for passive surveillance and easy to access
- Avoid parks on rear lots
- Where possible, connect with walkways and open spaces to form a network
- Provide on road car parking adjacent to parks
- Avoid creating pedestrian and cycleways that are located between the backs of lots
- Take opportunities to integrate water bodies and stormwater management areas with open spaces
- Avoid roads/vehicle accesses through reserves unless to access agreed car parking serving the reserve
- Refer to the Landscape section of the QLDC Land Development and Subdivision Code of Practice for guidance on planting in reserves, including within the road reserve
- Locate playgrounds where they will have optimal access and informal surveillance



Reserve



Walkway Connections



Walkway & Cycleways



STORMWATER MANAGEMENT

- Manage stormwater within the catchment to avoid problems with runoff, flooding, erosion and pollution
- Consider the pre-development hydrological regime and how designing with this may enhance stormwater management and local amenity and water quality values
- Building in the requirements of secondary flow paths
- While acknowledging the primary function of Drainage swales and detention ponds, their design has the potential to enhance, or, detract from the local landscape and will influence the character of the neighbourhood
- Investigate how the location of and design of drainage swales and detention ponds can be designed to become important parts of the landscape within public open space areas
- Where there will be co-location of stormwater management areas within reserves, subdividers are required to discuss the proposed features with the Council's parks team



Integrate stormwater retention & treatment area with vegetation reserve



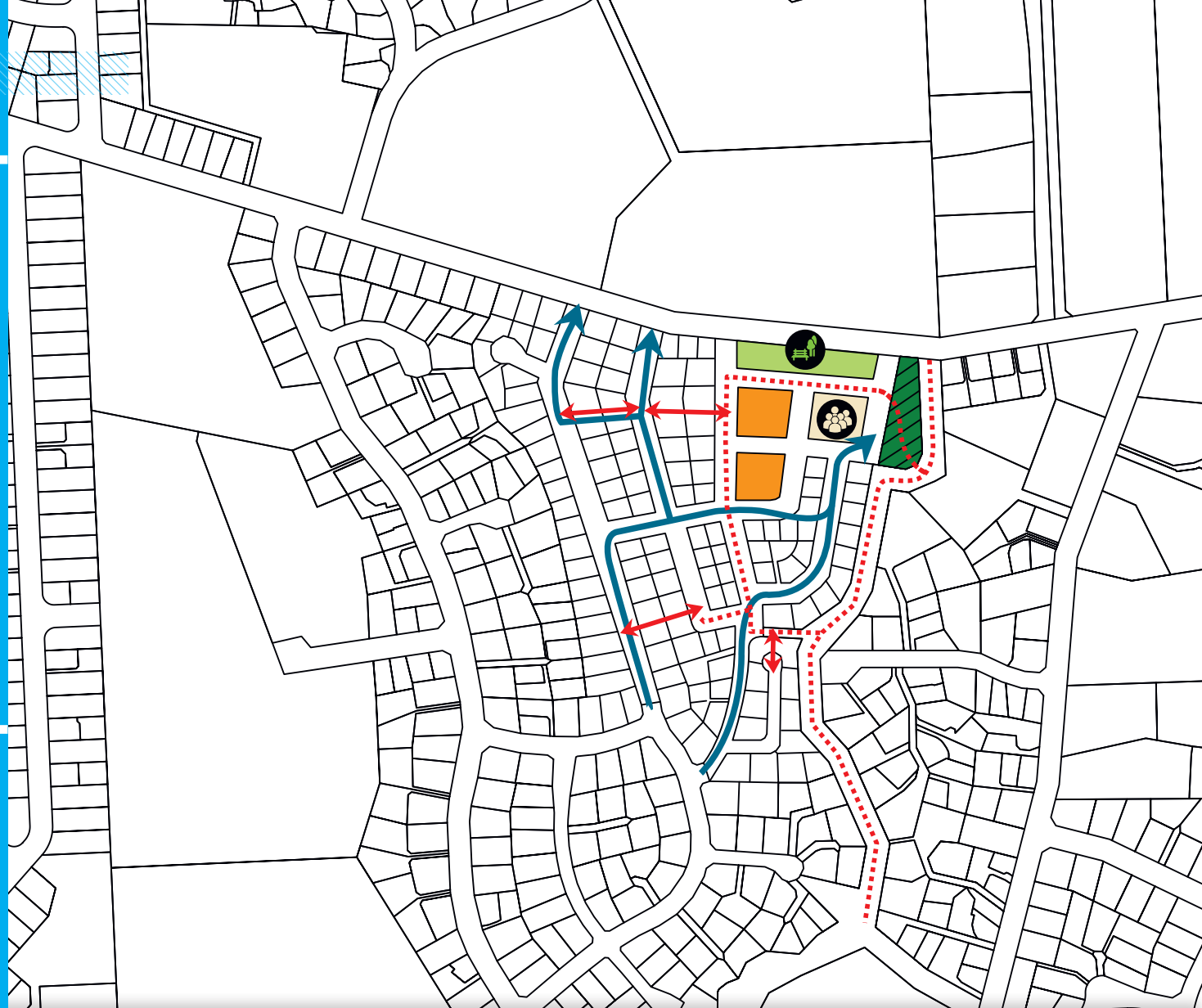
Stormwater

SUBDIVISION DESIGN PRINCIPLES

- **LOGIC** – Respond to the opportunities and constraints
- **INTEGRATE** – with surrounding neighbourhoods
- **LAYOUT** – Responds to the landform and views
- **REINFORCE** – Existing focal points
- **CONNECT** – Streets, open spaces, walking and cycling networks
- **OPEN SPACES** – Are well located and fit for purpose
- **SAFE** – Allotments and public open space fronts the road
- **REDUCE** – Impacts of stormwater and vehicle dependence
- **MAXIMISE** – Sunlight and efficient energy and water use
- **HERITAGE AND NATURAL FEATURES** – protected and utilised

SUBDIVISION OUTCOME

- Park located near collector road
- Medium density development and area for any community based or commercial activities located near the park and collector roads with both vehicle and pedestrian connections throughout the subdivision
- Avoided rear sections where possible
- Minimised the use of cul-de-sacs
- Utilised connections to existing neighbourhood
- Medium density development and community activity located internally within the proposed subdivision to absorb impacts on adjoining lower density residential areas
- Areas of vegetation integrated with stormwater retention area



Park



Community Facility



Reserve



Walkway Connections



Medium Density



Stormwater



Walkway & Cycleways