OFFICER'S REPORT FOR:	**Hearing Commissioners:**
SUBJECT:	**Proposed Waimakariri District Plan:** **Whaitua Motuhake: Special Purpose Zone - Museum and Conference Centre ('SPZ(MCC)')**
PREPARED BY:	**Peter Wilson**
REPORT DATED:	**06 November 2023**
DATE OF HEARING:	**19-22 February 2024**

WAIMAKARIRI DISTRICT COUNCIL

Executive Summary

1. This report considers submissions received by the District Council in relation to the Special Purpose Zone - Museum and Conference Centre ('SPZ(MCC)') objectives, policies, rules, definitions, appendices and maps of the Proposed Plan. The report outlines recommendations in response to the issues that have emerged from these submissions.

2. There are no issues in contention for the chapter, as the chapter received only one submission, in support.

3. I have recommended no changes to the Proposed Plan provisions

4. Having considered the single submission and reviewed all relevant statutory and non-statutory documents, I recommend that the SPZ(MCC) chapter of the Proposed Plan should be approved as notified.

Contents

Appendices

1 Introduction

1.1 Purpose

5. The purpose of this report is to provide the Hearing Panel with a summary and analysis of the submission received on the Special Purpose Zone - Museum and Conference Centre ('SPZ(MCC)') chapter.

6. This report is prepared under section 42A of the RMA. It considers the submission received by the District Council in relation to the relevant objectives, policies, rules, definitions, appendices and maps as they apply to the SPZ(MCC) chapter in the Proposed Plan. The report outlines recommendations in response to the submission.

7. This report discusses general issues or topics arising, the original and further submissions received following notification of the Proposed Plan, makes recommendations as to whether or not those submissions should be accepted or rejected, and concludes with a recommendation for changes to the Proposed Plan provisions or maps based on the preceding discussion in the report.

8. This report is provided to assist the Hearings Panel in their role as Commissioners. The Hearings Panel may choose to accept or reject the conclusions and recommendations of this report and may come to different conclusions and make different recommendations, based on the information and evidence provided to them by submitters.

1.2 Background to chapter

9. The SPZ(MCC) is a specific development proposal based around a central museum, a tavern, conference facility, wedding venue, and accommodation provider including an associated retail park. It covers one land parcel, owned by Daniel Smith Industries Limited, the developer.

10. The SPZ(MCC) chapter and zone arose from action 25[1] undertaken by the Minister of Earthquake Recovery under s24(1)(c) of Canterbury Earthquake Recovery Act and Canterbury Land Use Recovery Plan (LURP) to rezone the land. The context report for Action 25 is attached as **Appendix C** for background information.

11. Action 25 rezoned two areas of land in Southbrook, Rangiora as follows:

    - Rezoning of 7, 25, 31 and 43 Todds Road and 10 Townsend Road (RS 1439) from Rural to Business 2: and

    - Rezoning of 240 Flaxton Road (LOT 1 DP 324030) from Rural to Business 6. This is the parcel of land subject to the proposed SPZ(MCC).

12. Action 25 amended the Operative District Plan. The Business 6 zone was a new zone based on the existing Business 2 zone, but tailored to this particular development.

13. When developing the PDP, Council replaced the operative Business 6 zone with the SPZ(MCC).

14. The operative District Plan shows the zone as follows:

[1] Undertaken on 6 March 2014

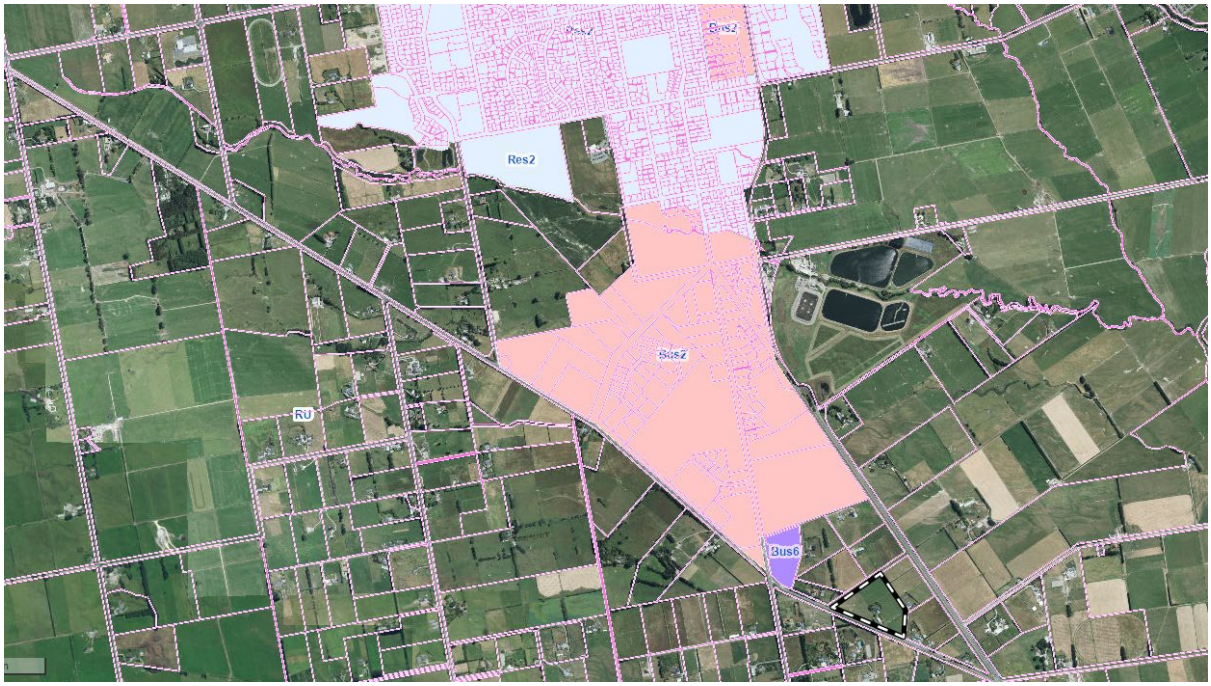


Figure 1 Operative District Plan zones

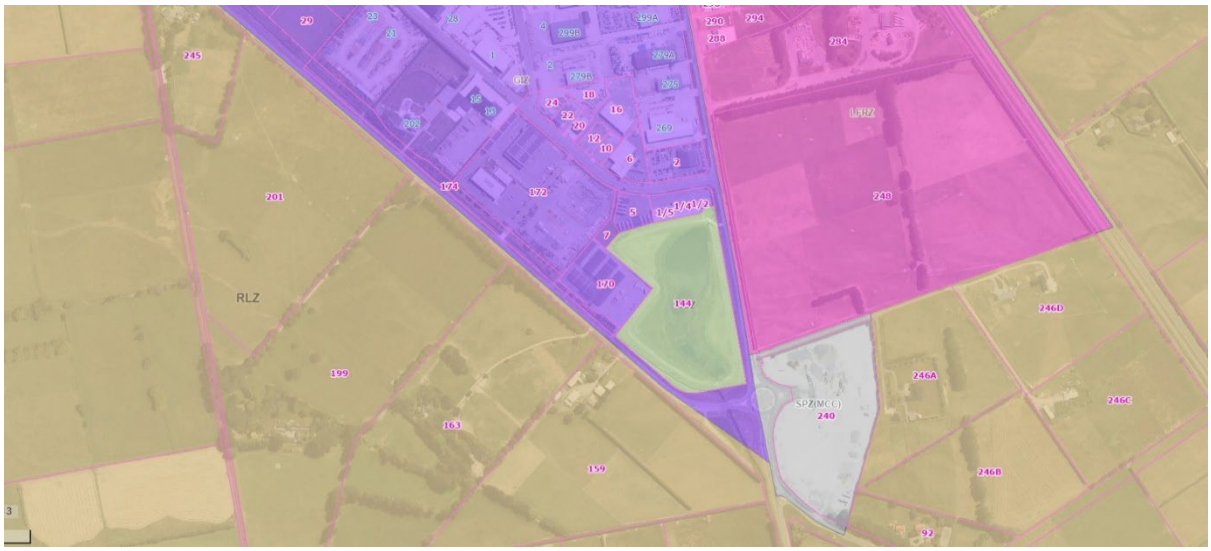


Figure 2 Proposed District Plan zones

1.3 Author

15. My name is Peter Wilson. My qualifications and experience are set out in Appendix B of this report.

16. My role in preparing this report is that of an expert planner.

17. Although this is a District Council Hearing, I have read the Code of Conduct for Expert Witnesses contained in the 2023 Practice Note issued by the Environment Court. I have complied with that Code when preparing my written statement of evidence and I agree to comply with it when I give any oral evidence.

18. I confirm that the issues addressed in this statement of evidence are within my area of expertise as an expert policy planner.

19. Any data, information, facts, and assumptions I have considered in forming my opinions are set out in the part of the evidence in which I express my opinions. Where I have set out opinions in my evidence, I have given reasons for those opinions.

20. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

1.4 Key Issues in Contention

21. There are no issues in contention in this chapter.

1.5 Procedural Matters

22. At the time of writing this report there have not been any pre-hearing conferences, clause 8AA meetings or expert witness conferencing in relation to the submission on the SPZ(MCC) chapter.

2 Statutory Considerations

2.1 Resource Management Act 1991

23. The Proposed Plan has been prepared in accordance with the RMA and in particular, the requirements of:

    - section 74 Matters to be considered by territorial authority, and
    - section 75 Contents of district plans,

2.2 Section 32AA

24. I have not undertaken an evaluation under s32AA as there are noe recommended amendments to provisions since the initial section 32 evaluation was undertaken.

2.3 Trade Competition

25. Trade competition is not considered relevant to the SPZ(MCC)provisions of the Proposed Plan.

26. There are no known trade competition issues raised within the submissions.

3 Consideration of Submissions and Further Submissions

3.1 Overview

27. There is 1 submission point on the SPZ(MCC)chapter, providing conditional support.

28. There are no definitions relevant to this chapter that need to be considered.

3.1.1 Report Structure

29. In accordance with Clause 10(3) of the First Schedule of the RMA, I have undertaken the following evaluation on a provisions-based approach. I have organised the evaluation in accordance with the layout of the SPZ(MCC)chapter in the Proposed Plan as notified.

30. As there is only 1 submission point, this evaluation contains a specific recommendation which is contained in **Appendix A.**

31. The following evaluation should be read in conjunction with the summaries of submissions and the submission itself. I agree with the relief sought and the rationale for that relief, and have noted my agreement As there are no changes sought in the submission I have not provided a marked-up version of the SPZ(MCC) chapter.

3.1.2 Format for Consideration of Submissions

32. I have considered the submissionto the Proposed Plan in the following format:

    - Matters raised by submitters;
    - Assessment; and
    - Summary of recommendations

4 Analysis of submissions

4.1 Emergency Service Facilities

4.1.1 Matters raised by submitters

33. There is 1 submission point on the chapter, from Fire and Emergency New Zealand (FENZ) [303.79], supporting the inclusion of emergency service facilities within the SPZ(MCC) as a permitted activity. They request that SPZ(MCC)-R5 is retained as notified.

4.1.2 Assessment

34. The only submission on the zone/chapter is in support, with no amendments requested.

4.1.3 Recommendations

35. I recommend the following outcomes for the submissions:

    - FENZ [303.79] is **accepted**

36. I recommend no changes to the Proposed Plan arising from these recommendations.

4.2 Clampett and Rolleston Industrial Development relief

37. For the Clampett and RIDL general relief [284.1, 326.1, 326.2, 326.3] to remove public and limited notification on all controlled and restricted discretionary activity rules, and to remove the terms avoid, remedy, and mitigate from PDP provisions, I have considered that:

    • Nothing provided in the submission justifies the removal of public and/or limited notification from the SPZ(MCC) zone rules, noting that most rules in this zone are permitted activities.

    • Similarly, no specific and contextual information has been provided to justify the removal of the terms avoid, remedy, or mitigate from the objectives, policies, rules, and matters of discretion within the SPZ(MCC) zone provisions.

    • I consider that the notification status and RMA sustainable management direction verb is appropriate.

Appendix A. Recommended Responses to Submissions and Further Submissions

The recommended responses to the submissions made on this topic are presented in Table A below.

Table A: Recommended responses to submissions and further submissions

Submission No	Name	Provision	Decision Requested (Summary)	Section of this Report where Addressed	Officer's Recommendation	Officers' Reasons/Comments	Recommended Amendments to Proposed Plan?
303.79	Fire and Emergency NZ	Museum and Conference Centre	Support inclusion of Emergency Service Facilities within the Museum and Conference Centre Zone as a permitted activity. Retain SPZ(MCC)-R5 as notified.	Section 4.1	Accept	As outlined in Section 4.1	No

Appendix B. Report Author's Qualifications and Experience

Peter Wilson

I hold the following qualifications:

- Master of Planning (MPlan) and Bachelor of Physical Geography (BSc) from the University of Otago.

I am an intermediate member of the New Zealand Planning Institute.

I am a certified hearings commissioner.

I have 17 years' experience in working as a planner for local, central government, private consultancy, and a range of non-government organisations.

My work experience includes:

- Statutory, RMA, and recreation planning for the Department of Conservation.
- Consent planning for the Waitaki District Council.
- Extensive affected party, policy planning, Environment Court case management and litigation, central government liaison, and freshwater science experience with regional Fish and Game Councils and the New Zealand Fish and Game Council.
- Principal advisor (water) for Federated Farmers of New Zealand.
- Private consultancy, primarily on conservation and recreation planning issues to a range of non-government organisation and trust clients.
- Private aquaculture and geospatial businesses.

I have worked on planning matters across all New Zealand.

I have been employed by the Waimakariri District Council since August 2022 as a senior planner.

<u>Conflict of interest statement</u>

In my role at Federated Farmers of New Zealand, I was the primary author of its submission on the PDP. I understand that this is a potential conflict of interest that requires declaration. Whilst I have no direct interest or benefit or gain from the outcome of the submission, not being from a farming background and also being a new resident to the district (and region) since employment by Council, I have undertaken to:

a) Not be the reporting officer on the rural chapter
b) Ensuring that any other work that handles the Federated Farmers submission is checked and reviewed.
c) Not participating in consultation and engagement with Federated Farmers, except with another staff member present.

I notified my employer, the Waimakariri District Council, of this prior to employment.

Appendix C. Context report for Action 25

LAND USE RECOVERY PLAN

ACTION 25 (iii)

REZONING OF PRIORITY GREENFIELD BUSINESS LAND AT SOUTHBROOK (FLAXTON ROAD)

RESPONSE TO ACTION

Amend the Waimakariri District Plan as follows:

Chapter 1: Definitions

Add a new definition 'Non-Permanent Accommodation' to read as follows:

Non-Permanent Accommodation

Non-Permanent Accommodation means the use of a building or area within a building for the day to day accommodation of tourists and short-stay visitors. For the purposes of this definition double rooms and powered van sites are counted as one single non-permanent accommodation unit.

Chapter 16: Business

Add new Policy 16.1.1.8 to read as follows:

Policy 16.1.1.8: Business 6

Provide for a site specific area of business activity located at the corner of Fernside Road and Flaxton Road in Rangiora, developed as a comprehensive complex based around a central museum, wedding venue, tavern and conference facility with an associated non-permanent accommodation provider, that:

a. achieves a high level of amenity and urban design through comprehensive development, taking into account principles of 'Crime Prevention through Environmental Design';

b. ensures that the museum, wedding venue, tavern and conference facility are the primary functions within the zone;

c. protects the safe and efficient functioning of Flaxton Road and Fernside Road;

d. provides for associated retail which will not give rise to significant distributional effects on Key Activity Centres;

e. provides limited non-permanent accommodation that is supportive of and ancillary to the museum, conference facility, tavern and wedding venue; and,

f. provides for activities similar to that anticipated within the Business 2 Zones.

Chapter 27: Natural Hazards - Rules

Add new Rule 27.1.1.26 to read as follows:

27.1.1.26	**Within the Business 6 Zone shown on District Plan Map 180 any new building shall have a minimum floor level of 400mm above the 0.5% Annual Exceedance Probability flood event.**

Chapter 30: Utilities and Traffic Management

Add new Rule 30.6.1.34 to read as follows:

30.6.1.34 Within the Southbrook Business 6 Zone no vehicle crossing shall directly access Flaxton Road.

Delete Rule 30.9.1 and **add** new Rule 30.9.1 to read as follows:

30.9.1 Any activity that does not comply with Rules 30.6.1.8, 30.6.1.33 (traffic sight lines at road/rail crossings) and 30.6.1.34 (access to Flaxton Road) is a non-complying activity.

Chapter 31: Health, Safety and Wellbeing

Delete Rule 31.1.1.14 and **add** new Rule 31.1.1.14 to read as follows:

31.1.1.14 Any structure shall comply with the minimum setback requirements in Table 31.1 and measurements shall be taken from the nearest point of any part of any structure (or dwellinghouse).

Table 31.1: Minimum Structure Setback Requirements

Location	A setback is required from	Setback depth (minimum)
Rural Zone	Any road boundary	20m for any dwellinghouse 10m for any structure other than a dwellinghouse
	Any internal site boundary	20m for any dwellinghouse 3m for any structure other than a dwellinghouse
	Any existing dwellinghouse on an adjoining site	10m for any structure (excluding a dwellinghouse)
All Residential Zones other than the Residential 4A Zone (Wards Road, Mandeville North and Mill Road, Ohoka), Residential 6A and 7 NOTE: See Rule 31.1.1.15	Any road boundary (other than a boundary to a strategic road or arterial road) or any accessway	2m
Residential 4A Zone (Wards Road, Mandeville North) shown on District Plan Map 162, and Residential 4A Zone (Mill Road, Ohoka) shown on District Plan Map 160	Any boundary from a local road	10m

Location	A setback is required from	Setback depth (minimum)
Residential 4A Zone (Mill Road, Ohoka) shown on District Plan Map 160	Mill Road boundary	15m
	Any internal site boundary	5m
All Residential Zones, other than Residential 6, 6A and 7, where the site fronts onto a strategic or arterial road	The road boundary of any strategic or arterial road	6m or 4m for any garage where the vehicle entrance is generally at right angles to the road
Residential 5 Zone	Any site boundary adjoining an accessway for allotments 15, 16, 17, 27, 28 and 29 shown on District Plan Map 140	4m
Residential 6A Zone (other than areas identified on District Plan Map 142 as excluded from the setback requirement)	Any internal site boundary, other than boundaries with accessways	2m for any structure other than garages and structures above garages
Residential 6A	Boundaries with accessways	10m for any structure other than a garage and structures above garages NOTE: Refer to Figure 31.1 and Rule 31.1.1.16
Residential 7	Any road boundary (other than to a arterial road) or any accessway	2m for any dwellinghouse within Area A 3m for any dwellinghouse within Areas B and C 5.5m for any structure other than a dwellinghouse within Areas A, B and C
	The road boundary of any arterial road	6m
	Any internal site boundary	2m
	Any site boundary of 309 Island Road being Lot 1 DP 62400	20m
Business 2, 3 and 6 Zones, where the site fronts onto a strategic or arterial road	The road boundary of any strategic or arterial road	10m
All Business Zones, other than: (a) the Business 1 Zone at Pegasus, (b) any Business 4 Zone, and (c) the Business 1 Zones at Rangiora and Kaiapoi, where the site is adjacent to a Residential Zone or a Rural Zone boundary	The zone boundary, or where the zone boundary is a road, the road boundary	10m
Business 4: Williams/Carew Zone	Any road boundary	6m
	Any site boundary	5m

Location	A setback is required from	Setback depth (minimum)
All Zones	All overhead high voltage electrical lines as shown on District Plan Maps where the adjacent span length is less than 375 metres	32 metres to the side of the centreline of the conductors
	All overhead high voltage electrical lines as shown on District Plan Maps where the adjacent span length is between 375 and 600 metres	55 metres to the side of the centreline of the conductors
	All overhead high voltage electrical lines as shown on District Plan Maps where the adjacent span length is greater than 600 metres	100 metres to the side of the centreline of the conductors

Delete Rule 31.1.1.26 and **add** new Rule 31.1.1.26 to read as follows:

31.1.1.26 Any structure in a Business 1, 2 or 6 Zone shall not exceed a height of 15m except:

a. for the Business 1 Zone in Pegasus, where any structure shall not exceed a height of 10m.

b. the Business 1 Zone (Rangiora and Kaiapoi), where any structure shall not exceed a height of 12m.

Delete Rule 31.1.1.33 and **add** new Rule 31.1.1.33 to read as follows:

31.1.1.33 Within any setback from a road boundary (required by Rules 31.1.1.13, 31.1.1.14, 31.1.15 and Table 31.1) in any site in any Business Zone the area shall be landscaped for an average depth of 2m from the site boundary. For the Southbrook Business 2 Zone, Todds Road Business 2 Zone and the Business 6 Zone this shall include an evergreen tree of at least 1.5m in height at the time of planting at a spacing of one tree every 10m or a minimum of one tree per site frontage.

Add new heading "Special Requirements Business 6 Zone" after Rule 31.1.1.45

Add new Rule 31.1.1.46 to read as follows:

31.1.1.46 Within the Business 6 Zone any boundary with Lots 1 and 4 DP 352557 and Lot 3 DP 33763 shall be landscaped to a minimum depth of 10 metres.

Add new Rule 31.1.1.47 to read as follows:

31.1.1.47 Within the Business 6 Zone any industrial activity shall be setback a minimum of 50 metres from the museum, wedding venue, tavern, conference and Non-Permanent Accommodation

facility. Within the 50 metre setback, a minimum of 10 metres of landscaping shall be provided.

Add new Rule 31.1.1.48 to read as follows:

31.1.1.48 Within the Business 6 Zone a maximum of 260 carparking spaces shall be provided.

Delete Rule 31.4.1 and **add** new Rule 31.4.1 to read as follows:

31.4.1 Except as provided for by Rules 31.1.2, 31.2, 31.3.3, 31.4.3, 31.4.4 or 31.5 any land use which does not comply with one or more of Rules 31.1.1.7 and 31.1.1.10 to 31.1.1.42, 31.1.1.44 - 31.1.1.48 is a discretionary activity.

Delete Rule 31.7.1.6 and **add** new Rule 31.7.1.6 to read as follows:

31.7.1.6 On any site in any Business 1 or 4 Zone:

a. no more than 1 free standing sign shall be erected per site;

b. the display area shall not exceed 6m2;

c. no sign which is attached to a structure shall protrude above the apex of the roof at its highest point; and

d. no sign which is attached to the leading edge of a veranda on a building shall be more than 400mm in height.

On any site in any Business 2 and 3 Zone:

e. not more than one free standing sign shall be erected per site, except where a site has a road frontage of more than 20m or two or more road frontages;

f. where the site has a road frontage of more than 20m, or two or more road frontages, not more than three free standing signs shall be erected per site;

g. any free standing sign shall not exceed 7.5m in height;

h. the display area of any sign shall not exceed 12m2; and

i. where there are more than two free standing signs on a site, one of the free standing signs shall not exceed 3m in height and the display area shall not exceed 3m2.

Within the Business 6 Zone:

a. No more than 1 free standing sign shall be erected per site.

b. No sign shall be located on the Fernside Road Frontage.

c. No more than one sign shall be located on the Flaxton Road Frontage.

d. Any free standing sign shall not exceed 7.5 metres in height.

e. The display area of any sign shall not exceed $12m^2$.

Add new Rule 31.12.1.9 to read as follows:

31.12.1.9 Activities in the Business 6 Zone shall not exceed the following noise limits when measured or assessed at any site (including the site emitting the noise) within the Business 6 Zone:

a. **daily from 0700 hours to 2200 hours: 65dB L_{Aeq}; and at other times 55dB L_{Aeq};**

b. **daily from 2200 hours to 0700 hours the following day: 85dB L_{AFmax}.**

Add new Rule 31.24 to read as follows:

Retail Activities within Land Use Recovery Plan Priority Areas

31.24 Permitted Activities

Any land use is a permitted activity if it:

i. is not otherwise listed as a discretionary or non-complying activity under Rules 31.25 or 31.26;
ii. complies with the conditions under Rule 31.24.1; and
iii. complies with all the conditions and provisions for permitted activities in this and all other chapters.

31.24.1 Conditions - Land Use Recovery Plan Priority Areas

31.24.1.1 Within the Business 6 Zone the chapel, museum, tavern, conference centre and gym shall not be exceed the following maximum gross floor area:

Activity	Maximum gross Floor Area
Chapel	150m^2
Tavern	400m^2
Museum/ Conference centre including café and shop	4000m^2
Gym	200m^2

Add new Rule 31.24.1.2 to read as follows:

31.24.1.2 Within the Business 6 Zone a maximum of 20 Non-Permanent Accommodation units shall be provided.

Add new Rule 31.24.1.3 to read as follows:

31.24.1.3 Within the Business 6 Zone, any activity other than a museum, wedding venue, tavern or conference facility shall not utilise an area in excess of 40% of the total area of the Zone.

Add new Rule 31.24.1.4 to read as follows:

31.24.1.4 Any retail activity in the Business 6 Zone shall not exceed 20% of the net floor area of the sum of all buildings or 100m2 on any site, whichever is the lesser, except where necessary to comply with Rule 31.24.1.4,

Add new Rule 31.25 to read as follows:

31.25 Non-complying Activities

31.25.1 Any land use which does not comply with Rule 31.24.1.1, 31.24.1.2 31.24.1.3, and 31.24.1.4 (Business 6 retail activities) is a non-complying activity.

Chapter 32: Subdivisions

Delete Rule 32.1.1.1 and **add** new Rule 32.1.1.1 as follows:

32.1.1.1 All allotments shall comply with Table 32.1.

Table 32.1: Minimum Allotment Areas and Dimensions

Zone	Minimum Allotment Area	Minimum Dimensions of Allotment (m)	
		Internal Square	Frontage
Business 2 and Business 6	700m^2		
Residential 1	300m^2	15 x 15	15
Residential 2	600m2 NOTE: See Rules 32.1.1.4, 32.1.1.8 and 32.1.1.11	18 x 18	15
Residential 3	600m^2 NOTE: See Rules 32.1.1.6, 32.1.1.7	15 x 15	15
Residential 6	400m^2	13 x 18	13

Zone	Minimum Allotment Area	Minimum Dimensions of Allotment (m)	
		Internal Square	Frontage
Residential 6A	137.5m^2 Maximum lot area on subdivision is 412.5m^2, other than where a balance area is created on subdivision which exceeds 4ha	Except for corner sites, the length of a road boundary of the lot shall be less than the depth of the lot, measured at right angles to that road boundary	Residential 6A
Residential 4A/4B	NOTE: See Rules 32.1.1.10 to 32.1.1.19		
Residential 5	Shall generally comply with the Concept Plan shown in District Plan Map 140		
Residential 7	Area A 150m^2 Area B 300m^2 Area C 500m^2 NOTE: See Rules 32.1.1.21 and 32.1.1.22	6 x 8m 15 x 15 m 15m x 15m	15m 15m
Rural	4ha NOTE: See Rule 32.1.1.5	120 x 120m	Allotments adjoining State Highways: minimum of 200m or no greater than 10m frontage to a formed road, provided that no more than two frontages of 10m shall be provided without a separation of 200m NOTE: See Rule 30.6.1.13
Mapleham Rural 4B Zone	Shall generally comply with the Concept Plan shown on District Plan Map 147		

CROSS REFERENCE: Rules 32.1.1.4, 32.1.1.5, 32.1.1.8 to 32.1.1.22

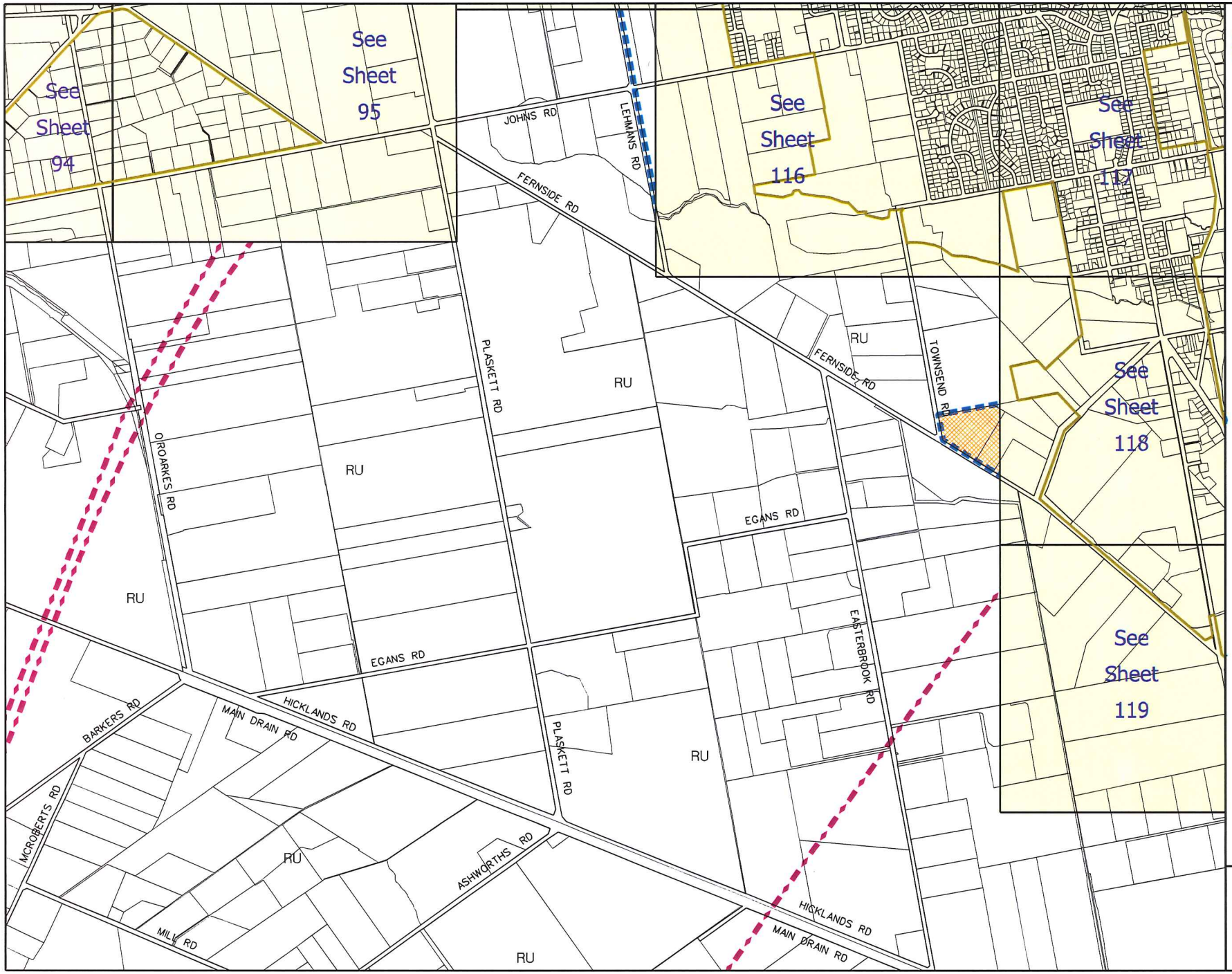
Add new sub clause ae. to Rule 32.1.1.23 to read as follows:

ae. The Business 6 Zone identified on District Plan Map 180

Add new District Plan Map 180 – Flaxton Road Business 6 Zone.

Delete District Plan Map 119 and **add** new District Plan Map 119 to rezone Lot 1 DP324030 to Business 6.

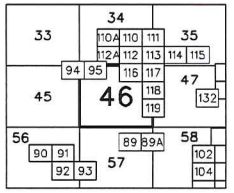
Apply any consequential renumbering or amendments throughout the District Plan as necessary.



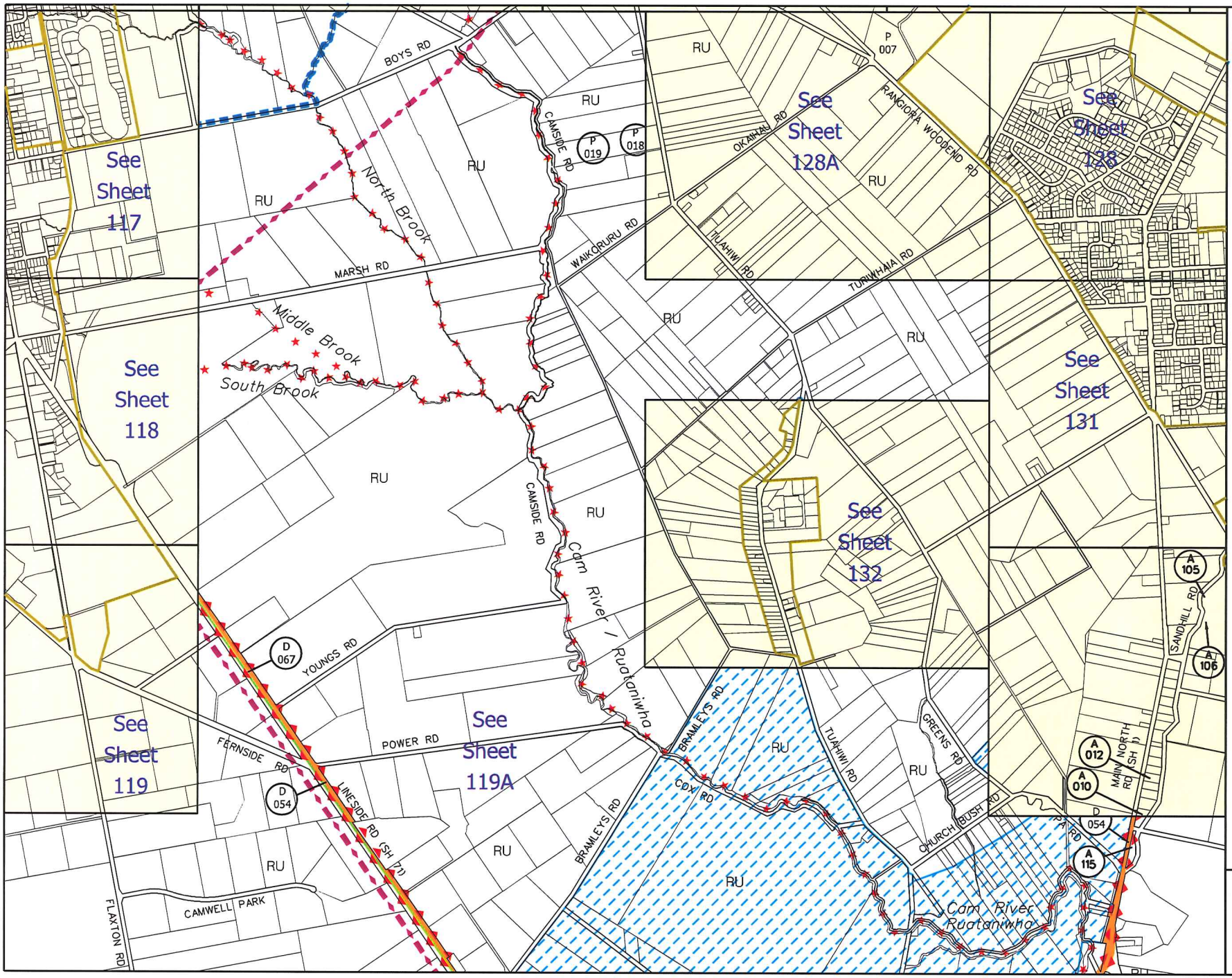
WAIMAKARIRI DISTRICT COUNCIL

NOTE:
Disclaimer - refer to map legend sheet

Metres
0 200 400 600
Scale 1:25,000 (A4)



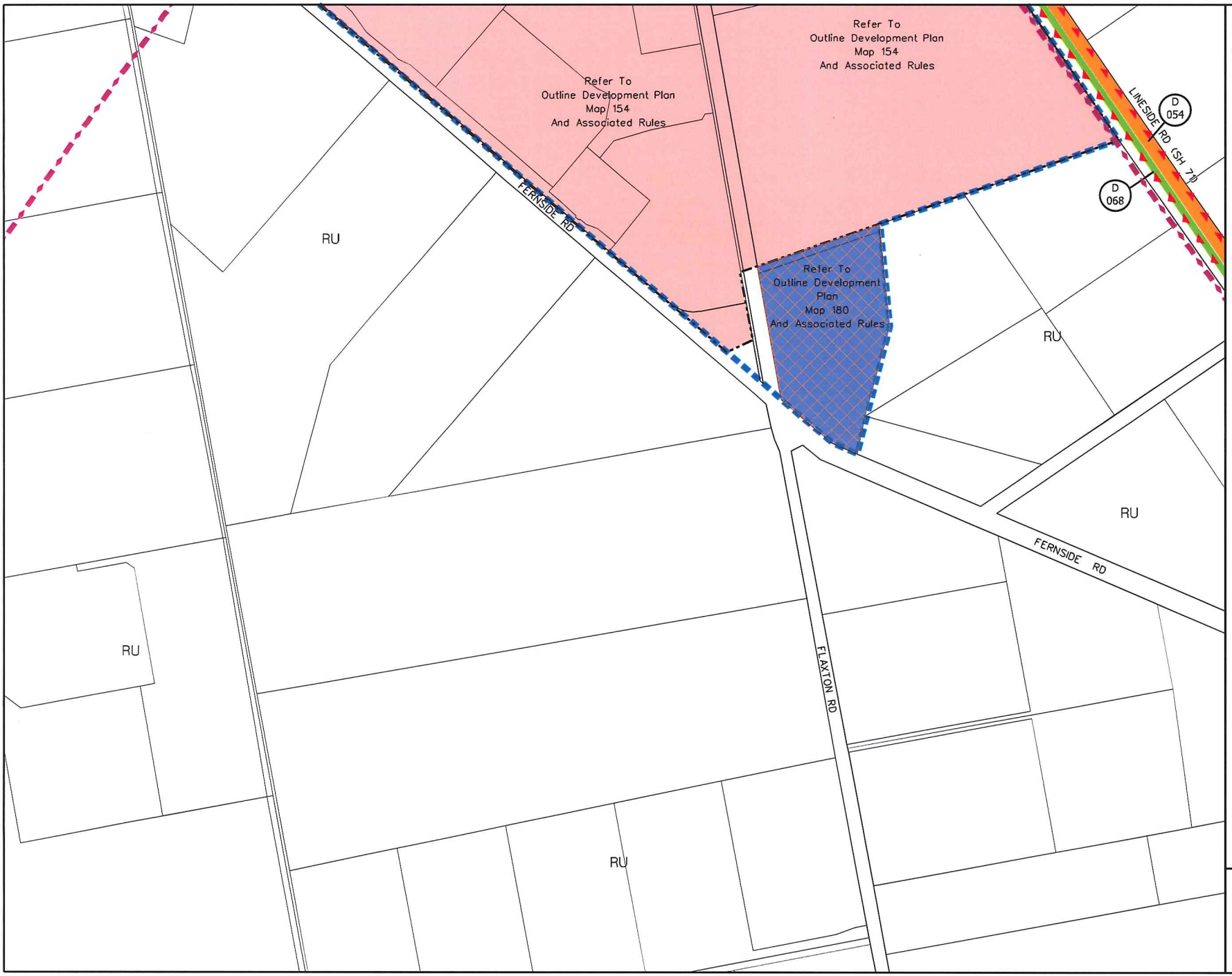
46



WAIMAKARIRI DISTRICT COUNCIL

NOTE:
Disclaimer - refer to map legend sheet

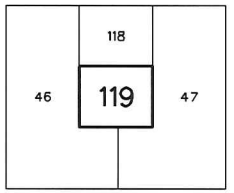
47



WAIMAKARIRI
DISTRICT COUNCIL

NOTE:
Disclaimer - refer to map legend sheet

Metres
0 60 120 180
Scale 1:7,500 (A4)



Rangiora

119

WAIMAKARIRI
DISTRICT COUNCIL

OUTLINE DEVELOPMENT PLAN AREA

EXISTING ROAD

LOCAL ROAD

PROPOSED ROAD DESIGN

STORMWATER MANAGEMENT AREA

NOTE:
Disclaimer - refer to map legend sheet

Metres

0 25 50 75

Scale 1:2,500(A4)

Flaxton/Fernside Business 6 Outline Development Plan 180

LAND USE RECOVERY PLAN
ACTION 25 (iii)

REZONING OF PRIORITY GREENFIELD BUSINESS LAND AT SOUTHBROOK (FLAXTON ROAD)

CONTEXT REPORT

Executive Summary

This document provides a context to Waimakariri District Council's response to Action 25(iii) of the Land Use Recovery Plan. Action 25(iii) requires the Council within 3 months, to prepare rezoning zoning provisions for greenfield priority areas for business at Southbrook shown on map A, appendix 1.

The rezoning provisions for the area of land on Flaxton Road and Fernside Road provide for a new business zone within the Waimakariri District Plan around a central museum, tavern, conference facility, wedding venue and accommodation provider, with zone specific proposals addressing traffic effects, noise effects, landscaping, signage, and effects on the safe and efficient functioning of both Flaxton and Fernside Road. The Business 6 Zone also allows for a level of retailing similar to that anticipated within the Business 2 Zones.

The rezoning provisions were notified for a two week public comment period, with a range of consultation methods used to seek comment including, multiple newspaper advertisements, website information, a series of drop in sessions at three centres in the District, individual meetings as requested and direct consultation by letter with a range of relevant groups and organizations (similar to statutory consultation under the Resource Management Act 1991).

A number of comments were received on the Council's response to the actions. These responses have been summarised and any recommended changes to the rezoning provisions have been recommended to the Minister for Earthquake Recovery.

The report presents:

- The changes proposed to the Waimakariri District Plan
- The options considered by Council
- The background reporting process that informed the proposed changes to the Waimakariri District Plan
- The Consultation process including a brief summary of the main issues identified through consultation.

The report concludes that the Minister for Canterbury Earthquake Recovery can make the following changes to the Waimakariri District Plan:

- Addition of a definition of "non-permanent accommodation"
- Addition of Policy 16.1.1.8
- Addition of Rule 27.1.1.26 requiring all buildings within the rezoned area to achieve a floor level of 400mm above a 0.5% annual exceedance probability flood event.
- Addition of Rule 30.6.1.34 limiting new vehicle crossing onto Flaxton Road.
- Addition of Rule 30.9.1, creating a non-complying activity status for non-compliance with Rule 30.6.1.34
- Addition of Rule 31.1.1.14 and associated table 31.1 to add Business 6 into the structure bulk and location requirements
- Addition of Rule 31.1.1.26 that limits structure height within the Business 6 Zone to 15 metres.
- Addition of Rule 31.1.1.33 requiring landscaping on within 2 metres of site boundaries

- Addition of Rule 31.1.1.46 requiring 10 metres minimum landscaping on the boundaries of Lots 1 and 4 DP 352557 and Lot 3 DP 33763.
- Addition of Rule 31.1.1.47 requiring a minimum setback between any proposed industrial activity and the museum/ conference centre, tavern, accommodation and wedding venue.
- Addition of Rule 31.1.1.48 limiting Business 6 carparking to a maximum of 260 spaces.
- Addition of Rule 31.4.1 creating a discretionary activity status for non-compliance with Rules 31.1.1.46 – 31.1.1.48.
- Addition of Rule 31.7.1.6 creating controls for signage within the Business 6 Zone.
- Addition of Rule 31.12.1.9 setting noise standards within the Business 6 Zone
- Addition of Rule 31.24.1 to create a limit on the size of the chapel, tavern, museum/conference centre/ café and gym.
- Addition of Rule 31.24.2 limiting the total number of accommodation units to 20.
- Addition of Rule 31.24.1.3 limiting uses other than the museum/ conference centre, tavern, accommodation and wedding venue to no more than 40% of the Business 6 zone.
- Addition of Rule 31.24.1.4 limiting retail activity to 20% or 100m^2 (whichever is the lesser) of the net floor area of the sum of all buildings on the site
- Addition of Rule 31.25.1 creating a non-complying activity status for non-compliance with Rules 31.24.1.1 – 31.24.1.4.
- Addition of Rule 32.1.1.1 to set a minimum allotment area in the Business 6 Zone of 700m^2.
- Addition of sub clause ae to Rule 32.1.1.23.
- Addition of District Plan Maps 119 and addition of new ODP Map 180.

With particular regard to the comments received the Council supports the comment of the Canterbury Regional Council that a rule mitigating against any flood hazard effect is included with the plan amendments.

An amendment to Policy 16.1.1.8 to amend the characteristics of the Business 6 Zone is also recommended based on the comments from Daniel Smith Industries. This amendment is proposed to include retailing that is associated directly with the museum/ conference centre, tavern, accommodation and wedding venue already provided for by the Policy.

Based on the conclusions of the traffic report, a change is also recommended to increase the maximum carpark numbers to 260, to accommodate peak demand onsite.

1. LURP Action

The Minister for Canterbury Earthquake Recovery directed the Canterbury Regional Council to prepare a Land Use Recovery Plan (LURP). This was done through a collaborative multi-agency partnership with Christchurch City Council, Selwyn District Council, Waimakariri District Council, Te Runanga o Ngai Tahu, New Zealand Transport Agency and the Canterbury Earthquake Recovery Authority.

The LURP was gazetted on the 6th of December 2013 and contains a number of action for the partner agencies to assist in Earthquake Recovery. Within the Waimakariri District, Action 25 directed the Waimakariri District Council, within 3 months to:

> ***"Action 25: Waimakariri District Plan***
>
> *Waimakariri District Council is directed, pursuant to section 24(1)(c) of the CER Act, to change or vary the objectives, policies and methods of its district plan to the extent necessary to provide for:*
>
> ***Rebuilding of existing business areas***
> *i. comprehensive developments in existing urban business areas, including brownfield sites.*
> *ii. management of the effects of rebuilding activities.*
>
> ***Greenfield priority areas for business***
> *iii. zoning provisions for greenfield priority areas for business at Southbrook shown on map A, appendix 1.*
> *iv. thresholds for commercial activities in greenfield priority areas where these are considered necessary to avoid reverse sensitivity effects or effects on viability of key activity centres.*
>
> *Details of any changes and variations to be provided to the Minister for Canterbury Earthquake Recovery within **3 months** of Gazettal of this Recovery Plan for the Minister to determine any public process required to give effect to those amendments."*

2. Background Information

Scope

This report focuses on the Council's response to Action 25(iii) with rezoning provisions for two areas of priority greenfield business land within Southbrook to be rezoned from Rural to Business. As there are two specific areas being rezoned the Action has be further split into the following two areas:

1. Rezoning of 240 Flaxton Road (LOT 1 DP 324030) from Rural to Business 6.

2. Rezoning of 7, 25, 31 and 43 Todds Road and 10 Townsend Road (RS 1439) from Rural to Business 2.

This report provides information on the rezoning of 240 Flaxton Road (LOT 1 DP 324030) from Rural to Business 6.

Site Location

The area to be rezoned is currently zoned Rural in the Waimakariri District Plan. The site is 4 hectares in area and is legally described as Lot 1 DP324030. The physical address is 240 Flaxton Road and is located on the corner of Flaxton Road and Fernside Road. Flaxton Road is described as an Arterial Road in the Waimakariri

District Plan (the Plan) and Fernside Road is a Collector Road. There is an existing dwelling on the Lot that is proposed to be removed prior to development occurring.

The site is currently grassed and not being used as a rural productive activity.

Pre-LURP notification

Prior to the notification of the LURP the Council sought initial comments from the landowner within the proposed area to be rezoned. The period of engagement between the Council and the landowner (Daniel Smith Industries Ltd) began with initial discussions in December 2012.

The process to prepare the proposed District Plan amendments has been an iterative process between the Council and Daniel Smith Industries; particularly around the provision of general retail activities and the background traffic and geotechnical reports.

Post Land Use Recovery Plan Notification

Following the notification of the LURP the following process has been undertaken:

Action	**Timeline**
Initial approach to landowner	December 2012
Initial scoping of plan provisions. Included within this initial scoping exercise was meetings with the landowner to discuss a specific development proposal.	December 2013 14 January 2014 23 January 2014
Engagement of external consultants. Kirk Roberts engaged to provide geotechnical report in accordance with the Ministry of Business, Innovation and Employment guidelines for the *geotechnical investigation and assessment of subdivisions in the Canterbury region. Ableys Transportation Consultants* engaged to provide expert opinion on maximum carparking and effect on the safe and efficient functioning of Flaxton Road.	December 2013 – January 2014
Letter sent to statutory parties informing them of the statutory direction and some initial thoughts on proposed draft provisions to the Waimakariri District Plan.	17 January 2014
Preparation of Plan Change provisions.	January 2014
Briefing to LURP implementation group on proposed provisions.	3 February 2014
Briefing to Council on proposed provisions. Opportunity to comment on proposed amendments to the	4 February 2014

Waimakariri District Plan.	
Notification for public comment. A two week comment submission period	8 February – 21 February 2014 Newspaper advertisements: 8 February 2014 13 February 2014 15 February 2014 19 February 2014
Kaiapoi 'Drop-in' session	12 February 2014
Woodend 'Drop-in' session	13 February 2014
Rangiora 'Drop-in' session	17 February 2014
Report to Council Committee, including consultation outcomes, background report and schedule of changes	4 March 2014
Finalisation of documentation prior to submission to the Minister for Canterbury Earthquake Recovery.	March 2014
Submission to the Minister for Canterbury Earthquake Recovery (the Minister)	6 March 2014

3. Issues and Options

Issues

Action 25(iii) requires the Council to prepare:

> zoning provisions for greenfield priority areas for business at Southbrook shown on map A, appendix 1

The action is in contrast to the remaining LURP 25 actions as it is a specific direction to the Waimakariri District Council to prepare rezoning provisions to give effect to a zoning change from Rural to Business zoning.

The District Plan is an effects based plan which utilises a zoning framework to manage the resource management issues identified within the district. There three current general business zones, described within the District Plan[1] as follows:

> *"**Business 1** covers the distinctive town centres; Woodend, Oxford, Rangiora and Kaiapoi Town Centres based on a wide range of business activities and public amenities.*
>
> ***Business 2** are areas of existing commercial and industrial activity in the District.*
>
> ***Business 4** provides for a small existing area of retail and business activity that is located at the southwestern corner of Williams and Carew Streets in Kaiapoi, and the Lilybrook shops on the corner of Percival Street and Johns Road in Rangiora. This also provides for a small area of local community business activity within the West Kaiapoi Outline Development Plan."*

[1] Explanation to Policy 13.1.1.1.

In identifying the issues that apply to the zoning provisions for the greenfield priority areas (the rezoned areas) it is important to note at the outset that the rezoning required by Action 25(iii) is fundamentally supported by the landowner within the plan change (excepting individual comments made on the semantics of the Outline Development Plan and Plan standards that will apply to the Business 6 Zone).

For this rezoning area Daniel Smith Industries have proposed a specific development proposal based around around a central museum, tavern, conference facility, wedding venue and accommodation provider including an associated retail park. Details of the proposal can be found in the full detail of comments received.

Options

Given the specific nature of Action 25(iii) three options were considered to respond to Action 25(iii):

a. Utilise an existing zoning within the Plan
b. Create a new zoning specific to the priority business area.
c. Utilise an existing zoning within the Plan and create specific plan provisions to provide for the management of site specific effects.

Proposal to meet LURP Action

The option chosen by Council is to create a new zone within the zone framework of the District Plan, that is based on the provisions of the Business 2 Zone, and which specifically address the specific effects of the proposed central museum, tavern, conference facility, wedding venue and accommodation provider.

The provisions that are proposed to apply to the rezoned area also include the general existing Business provisions of the Waimakariri District Plan. These general provisions cover requirements for all business zones such as the requirement to provide water reticulation, corner splay requirements on intersections and right of way requirements.

The proposed concept for the Business 6 zone is built around a central museum, tavern, conference facility, wedding venue and accommodation provider that are central to the zone. The intent of the proposed amendments to the Plan are to enable development of these activities up to a maximum floor area. In order to enable this development, a new Policy is proposed that provides for these activities, while recognising that the environment is generally based on the anticipated characteristics of the Business 2 environments. The maximum floorspace provided for these activities in the zone are:

Activity	**Maximum gross Floor Area**
Chapel	150m^2
Tavern	400m^2
Museum/ Conference centre including café and shop	4000m^2
Gym	200m^2

Proposed new Rule 31.24.1.2 also introduces a limit of 20 non-permanent accommodation units, which are defined to limit their use to short stay accommodation. The intent of the definition is to ensure that permanent dwellings are not established within the Business 6 area, to avoid reverse sensitivity effects between these potential activities, and the specific activities are enabled within the zone. The definition of "non-permanent accommodation" that is proposed to be inserted into the District Plan does not restrict room size; this is to provide flexibility in

the number of accommodation beds to be provided whilst ensuring that the spatial extent of the accommodation area fits within the rezoned area.

The maximum gross floor areas provided for in proposed Rule 32.24.1.1 are based upon a review of the size of similar existing consents within Waimakariri District, both established and consented but not yet developed. Non-compliance with proposed Rule 32.24.1.1 is considered as a non-complying activity; this Resource Management Act 1991 (the Act) activity status is purposed to ensure that none of the activities enabled by Rule 32.24.1.1 overwhelm the ability of the Business 6 Zone to achieve the characteristics of the zone anticipated in new Policy 16.1.1.8.

New plan provisions are also proposed to be introduced to mitigate effects such as noise, signage, visual amenity, and the safe and efficient functioning of both Flaxton Road and Fernside Road. The new provisions that address specific adverse effects are:

- A maximum of 1 sign on the Flaxton Road boundary with a maximum height of 7.5metres and with a maximum display area of $12m^2$ (proposed new Rule 31.7.1.6). The purpose of this rule is to avoid multiple signage along the Flaxton Road and Fernside Road boundaries and the potential traffic impacts that this may have.

- A maximum of 260[2] carparks across the Business 6 Zone (proposed new Rule 31.1.1.48) based on work undertaken by Abley Transportation Consultants. The maximum number of carparks is set to provide sufficient carparking onsite during peak times while avoiding large areas of carpark which may become potentially underutilised.

- A limit on new entranceways accessing Fernside Road (proposed new Rule 30.6.1.34). The proposed Rule will require entranceways to lots within the rezoned area to be via the proposed new road shown on the Outline Development Plan (ODP) and is based on recommendations within the attached traffic assessment.

- A minimum of 10 metres of landscaping on the boundary of Lots 1 and 4 DP 352557 and Lot 3 DP 33763 (proposed Rule 31.1.1.46) This rule is recommended to be included to ensure that visual effects on the two rural lots immediately adjoining the rezoned area are mitigated. Of note, District Plan Rule 31.1.1.14, which is amended as part of this response to Action 25(iii) to include the Business 6 zone, requires a 10 metre structure setback to these boundaries.

- A minimum setback of 50 metres between the museum/ wedding venue, tavern and conference facility and any other commercial or industrial activity. The purpose of this rule is to ensure that any activity enabled under proposed new Rule 31.24.1.4 9 (see below) is setback from the central activities within the zone.

- Maximum areas within the Business 6 zone that can be used for activities other than the museum, tavern, conference facility, wedding venue and accommodation provider. The purposed of this Rule is to ensure that the zone effectively provides for the central museum, tavern, conference facility, wedding venue and accommodation provider that the zone provides for.

[2] Increased from an initial limit of 200 based on a traffic report from Abley Transportation Consultants

With regard to potential flood management, as a greenfield priority area, Policy 11.3.2 of the Regional Policy Statement (RPS) requires mitigation of flood effects within the greenfield priority areas. No specific flood risk modelling has been undertaken as the area is located in a low –medium area of flood risk based on the Council's 2013 flood modelling. However, proposed new Rule 27.1.1.25 requires that any building[3] within the rezoned area achieve a floor height of 400mm above the 0.5% annual exceedance probability flood event.

As a greenfield priority area, the proposed amendments also includes the new retail rule proposed as part of LURP Action 25(iv). The purpose of this is to enable limited retailing on a consistent basis. New Rule 31.24.1.2 sets a retail trigger of 20% of the total floor area of all buildings onsite or 100m2, whichever is the lesser. The purpose of this rule is to ensure that any retailing that occurs within the business greenfield priority areas does not impact on the Key Activity Centres. It also ensures that the greenfield priority areas remain available for the primary purpose intended i.e. residential or business.

The Action 25(iv) supporting document comments on the new priority area retail thresholds comments:

> *"In terms of the Business 2 Zone, the 100m2 threshold control is focused on enabling retail activities, including offices uses, that can reasonably be expected to be provided in association with industrial and commercial activities. It is intended to trigger the need for an effects assessment within the context of a resource consent application where a retail activity exceeds this figure, particularly where a proposed retail activity is not associated with an activity consistent with the purpose of the Business 2 Zone.*
>
> *It is anticipated that 100m2 will provide for retailing associated with manufacturing or other activities anticipated within the Business 2 zone, or for ancillary activities such as food outlets and cafes, that support Business 2 zone activities.*
>
> *The 100m2 floorspace threshold is based on an understanding of the size of business premises located with the Business 1 Zones of Kaiapoi and Rangiora. The typical tenancy size within the core parts of these centres is in the order of 100m2 to 120m2. The Rangiora Town Centre Strategy (adopted September 2010) and the Kaiapoi Town Centre Plan (adopted June 2011) were supported by economic assessments that acknowledges the fine grain nature of these centres."*

With regard to geotechnical investigations, *Kirk Roberts geotechnical engineers* were engaged to undertake a geotechnical survey in accordance with the requirements of the Ministry of Business, Innovation and Employment guidelines for the *geotechnical investigation and assessment of subdivisions in the Canterbury region.* The guidelines specify geotechnical testing required as part of any plan change to rezone land within the greater Canterbury Region. The geotechnical report, attached as Appendix I, concludes that the site is suitable for development.

[3] Amended from "dwellinghouse" in consideration of comments from the Canterbury Regional Council.

Abley Transportation Consultants were also engaged to review the access arrangements onto both Flaxton and Fernside Roads. Flaxton Road is identified in the District's roading hierarchy as an arterial road, with Fernside Road having a collector road function. The Abley's report, attached as Appendix II concludes that 'left in/out' entrance/exit onto Flaxton Road and full access onto Fernside Road will be required. These recommendations have been incorporated into the design of the Outline Development Plan.

With regard to the National Environmental Standard for Managing and Assessing Contaminants in soil to protect human health (the NES), a review of the files held by Council raised no specific issues with regard to the hazardous Activities and Industries List (HAIL). An assessment against the provisions of the NES will be required at the time that any of the activities listed in the NES are undertaken on the site.

Parts of the District Plan applicable

Proposed Policy 16.1.1.8 is anticipated to be included within Chapter 16, which sets the objectives and policies that set the characteristics of the current business zones.

Chapter 31 and 32 respectively provide for the management of effects associated with health, safety and wellbeing. Proposed new Rule 31.1.1.14 (bulk and location requirements), 31.1.1.26 (structure height), 31.1.1.33 and 31.1.1.46 (landscaping requirements), 31.1.1.47, 31.1.1.48 and 31.7.1.6 (signage) all fall under existing subheadings within the District Plan or under a new sub heading specific to the Business 6 Zone.

As the new retail thresholds proposed by the response to Action 25(iv) also apply to this action, the retail threshold rules are proposed to be located directly following the greenfield priority area rules introduced as part of that action.

Rule 30.6.1.34, which controls the management of the effects on Flaxton Road is proposed to be located within the utilities and traffic management chapter (Chapter 30). This chapter contains rules which apply to the districts road network.

Proposed new Rule 27.1.1.25, addressing flood hazards, is proposed to be located in Chapter 27 under the general conditions for mitigation of flood hazards

4. Consultation

Internal

A project control group (PCG) oversees LURP implementation within the Council. It also considers any technical matters and approves consultation processes and overall timeline management. The PCG comprises senior staff from Council planning, strategic policy and engineering units.

On 4 February Waimakariri District Councillors were invited to a staff briefing to discuss the proposed responses to Action 25. The briefing focused on the proposed draft amendments necessary to meet LURP Action 25. Councillors endorsed the then draft District Plan amendments and the proposed consultation process.

On 20 January 2014 an internal meeting was held with Council asset management staff to discuss the location of infrastructure within the proposed business greenfield priority area.. The meeting focused particularly on the required size and best location of the stormwater management areas and the proposed roading alignment. The

requirement for areas of recreation reserve land within the area proposed to be rezoned was also discussed.

External

On 8 February 2014 the Council initiated a two week consultation period on the proposed district plan amendments. Notification of the consultation period was by way of notices in the *Northern Outlook* and *the News* and by direct letters to landowners neighbouring the plan change area.

The Consultation period ran from the 8 February until the 21 February, with written comments asked for on the proposed plan provisions. Three public drop-in sessions were held within this period to allow members of the public to ask questions of Council Staff. The locations of the drop-in sessions were:

- Kaiapoi 12 February 2014
- Woodend 13 February 2014
- Rangiora 17 February 2014

The Kaiapoi and Woodend drop in sessions were not well attended with 2 attendees in Kaiapoi and 3 in Woodend (discussing the proposed rezoning in Todds Road as Action 25 (iii)). The Rangiora drop in session was well attended with approximately 14 attendees discussing the two proposed priority business area rezoning's in Action 25(iii). The majority of attendees were neighbouring landowners who had been directly informed of the proposed amendments and have made further written comments.

To highlight the proposed responses to Action 25, the Council sent a letter to all landowners adjoining or adjacent the two Action 25 rezoning areas explaining the Action 25 requirements and asked for specific written comments.

Resource Management Act – First Schedule

On 17 January 2014 a letter was sent to the following statutory parties asking for comment on the Action 25 actions:

- inistry for the Environment;
- Hurunui District Council;
- Selwyn District Council;
- Christchurch City Council;
- Te Runanga o Ngai Tahu;
- Te Runanga o Ngai Tuahuriri;
- Canterbury Regional Council;
- New Zealand Transport Agency;
- Canterbury District Health Board;
- Transpower;
- New Zealand Historic Places Trust; and,
- Canterbury Earthquake Recovery Authority.

The purpose of the letter was to initiate initial consultation with statutory parties on the proposed response to Action 25 similar to that which the Waimakariri District Council would undertake as part of a Resource Management Act 1991 first schedule plan change process.

From this initial letter the Council held meetings with representatives of the NZHPT and Mahaanui Kurataiao Ltd. Written feedback was also received from the New Zealand Transport Agency and the Canterbury District Health Board.

Strategic Partners

A briefing was provided to the LURP Implementation Group on 3 February 2014. This group comprises planning managers and representatives from Waimakariri District Council, Selwyn District Council, Christchurch City Council, Canterbury Regional Council, the New Zealand Transport Agency and the Canterbury Earthquake Recovery Authority (CERA).

The group was briefed on the draft contents of the plan changes by Waimakariri District Council staff. Feedback comprised technical comment on wording and approach, reporting requirements to CERA and discussion on the consultation process.

With particular regard to this LURP action the LURP Implementation Group had two specific comments:

1. Whether a proposed Business 6 area was more relevant to earthquake recovery; and,
2. Consideration should be given to the size and scale of retail activity based on the threshold controls proposed in the response to Action 24(iv).

These comments have been addressed in sections 3 and 5 of this report. However, it is noted that the Business 6 area includes provision for activities that could occur within the Business 2 zone, while enabling a specific proposal. In addition, the proposed Plan amendments include the threshold controls proposed in the response to Action 24(iv).

Local Economic Development Advocacy Group meeting

The Council hosts the Waimakariri District Local Economic Development Advocacy Group (LED). This group is made up of members of the business community, two Waimakariri District Councillors and representatives from Kaiapoi Promotions Association, Rangiora Promotions Association and Enterprise North Canterbury.

The briefing, held on 19 February 2014, comprised an overview of LURP, the requirements of Action 25, an overview of the proposed District Plan amendments, plus an opportunity for feedback. The amendments were positively received, and the opportunity for each member to forward comments to the Council was offered.

5. Comments Received

The table below outlines the comments received on the proposed rezoning provisions. The table outlines who the Council consulted with, the method used to undertake the consultation and also outlines Councils response to the proposed district plan amendments have been recommended to address issues identified within the consultation period.

CONSULTEE	CONSULTATION METHOD	SUMMARY OF COMMENTS RECIEVED	REPONSE TO COMMENTS
Plan Change Landowner – Daniel Smith Industries (DSI)	• Initial discussions on formulation of draft Outline Development Plan. • Communications related to geotechnical and National Environmental Standard for Assessing and Managing Contaminants in Soil. • Involvement with design of Outline Development Plan	*Letter from DSI dated 13/02/2014* • General support for rezoning proposal. • At least 2100m^2 of retail space is required as a permitted activity to make the proposal a commercial reality. • Amend proposed plan provisions to enable the following: Hotel 550m^2 Chapel 150m^2 Accommodation 1860m^2 Gym/ Spa 800m^2 Retail Shops 2100m^2 Museum 2900m^2 Conference Centre 800m^2 Café 200m^2 Admin 125m^2 Brewery 800m^2	Proposed Rule 31.24.1.4 allows up to 100m^2 of retailing per site, based on the retail threshold proposed in Action 24(iv) and the requirement within the RPS to avoid retail distribution effects on the Key Activity Centres with Policy 6.3.6. Non-compliance with this rule is considered as a non-complying activity. However, the policy provides for retailing that is associated with the activities enabled by the zone and that would not generally attracted to the District without the proposal. Proposed plan provisions provide for 150m^2 chapel, 20 units of accommodation, 200m^2 gym, 4000m^2, Conference centre/ Café (4025m^2 sought in comments). Brewery considered as a retail activity. The permitted level of retail cannot be increased without a retail assessment to justify the level of retail without giving rise to retail distributional effects on the Key Activity Centres.
		Letter from Planz dated 13/02/2014 • Letter from Planz- general support for proposed provisions notified by	Noted general support for provisions within the *Planz* letter No total maximum floor level provided as no retail assessment

		Waimakariri District Council • Consider a detailed list of types and range of retail to be provided with a total *xm*^{2} floor area.	has been completed to justify the level of retail without giving rise to retail distributional effects on the Key Activity Centres. Detailing specific tenancies is not consistent with effects based approach of the district plan.
		Letter 1 from DSI dated 19/2/2014 • Reword proposed Rule 30.6.1.34 to allow access to Flaxton Road	Access to Flaxton Road is provided by way of a left in/out entrance/ exit to the internal road shown on the Outline Development Plan. Proposed Rule 30.6.1.34 only limits additional vehicle crossings onto Flaxton Road.
		Letter 2 from DSI dated 19/2/2014 • Development will not proceed unless retail activity is provided for. • Provide for specific retail floorspace based on eight retail units maximum 100m^2, one retail space of 200m^2 and four retail spaces 300m^2. • Business 6 Zoning should provide for 20% of the total developments floor area as retail. • Amend Policy 16.1.1.8 to add "*specialist retail shops and a farmers produce market*"	Understand that the commercial reality of the proposal is that a retail area is needed. However, Policy 6.3.6 of the Regional Policy Statement requires consideration of distributional effects on the Key Activity Centres. No retailing assessment has been provided to confirm that proposed retail amounts will not generate distributional effects. The DSI Plan dated 13/02/2014 indicates 10285m^2 of proposed retail area; this falls to be assessed as a non-complying activity under proposed Rule 31.24.1.4. However, the policy provides for retailing that is associated with the activities enabled by the zone and that

			would not generally attracted to the District without the proposal. Detailing specific tenancies is not consistent with effects based approach of the district plan. Note that amendments sought to Policy 16.1.1.8 seek to add in retailing to zone characteristics, with support for remainder of Policy. Addition of "*specialist retail shops and a farmers produce market*" not deemed necessary as the characteristics within the policy already provide for an assessment of additional retailing.
		Concept Plan dated 19/2/2014 • Concept plan provided showing location of key activities within Business 6 Zone.	Noted that concept plan aligns with proposed Outline Development with regard to the roading layout and provision of stormwater management areas.
		Letter from DSI dated 10/2/02014 • No access is provided to Flaxton Road • Rule 31.12.1.9 has different noise rules from the Business 2 zone. • 20 accommodation unites provided for by Rule 31.24.1.13 is too low. • Amend proposed plan provisions to enable the following: Hotel 550m^2 Chapel 150m^2 Accommodation 1860m^2 Gym/ Spa 800m^2	Access to Flaxton Road is provided by way of a left in/out entrance/ exit to the internal road shown on the Outline Development Plan. Proposed Rule 30.6.1.34 only limits additional vehicle crossings onto Flaxton Road. The new noise rules are based on an A_{eq} average and an A_{max}; the current district plan levels are based on an L_{10} measurement.

		Retail Shops 2100m^2 Museum 2900m^2 Conference Centre 800m^2 Café 200m^2 Admin 125m^2 Brewery 800m^2	The change primarily relates to the way sound is measured. Conferences events at night likely to be located indoors and will therefore be able to comply with the noise standard. There is a need to provide accommodation to support the conference centre activity on the site. The definition of "non-permanent accommodation" that is proposed to be inserted into the district plan does not restrict room size; this is to allow an equivalent number of beds to be provided while ensure the spatial extent of the accommodation fits within the rezoned area. Proposed plan provisions provide for 150m^2 chapel, 20 units of accommodation, 200m^2 gym, 4000m^2, Conference centre/ Café (4025m^2 sought in comments). Brewery considered as a retail activity. No retail assessment has been provided to show additional retail of the scale sought will not have distributional effects on the Key Activity Centres.

Mahaanui Kurataiao Ltd	• Meeting with Mahaanui Kurataiao Ltd. Opportunity to provide written comments. • Letters advising of the consultation period, plus follow up email.	• Minimum structure setback requirements for all zones must include setbacks from Waterways, wahi tapu and wahi taonga sites as set out in the Mahaanui Iwi Management Plan. • Stormwater conveyance and management areas must be separated from all waterways. All stormwater should be treated onsite. • Accidental Discovery Protocol not consistent with Mahaanui Iwi Management Plan.	Recommend as part of the District Plan review that all provisions are assessed for consistency with the Mahaanui Iwi Management Plan. With regard to the priority greenfield business area, no identified wahi tapu or wahi taonga sites known within Action (iii) priority areas in Te Whakatau Kaupapa or Mahaanui Iwi Management Plan 2013. Onsite stormwater treatment is provided for on the ODP.
New Zealand Historic Places Trust	• Meeting to discuss potential impacts on historic heritage values. • Letters advising of the consultation period, plus follow up email.	• That an archaeological survey is undertaken prior to the development of a site or area i.e. at the Outline Development Plan stage and that consultation is undertaken with tangata whenua.	Archaeological sites under the Historic Places Act 1993 include any place that was associated with human activity that occurred before 1900. An Authority is required to modify or destroy any such place. Similarly, the Act provides a process where archaeological material is discovered.
Gay Walker and Canterbury Trustees (2004) Ltd	• Opportunity to provide written comments on draft Outline development plan.	• Concerned with effects of business development; particularly noise, traffic generation, rubbish, effects on property values. • Adjoining property owners should be advised of any major changes to concept plans. • Preference for zone to remain Rural.	LURP Action 25(iii) requires rezoning provisions to be prepared for Southbrook business zone priority areas shown on Map 1A of the RPS. Proposed Rule 31.7.1.6 limits signage to one sign ($12m^2$ maximum display area) on Flaxton Road, while proposed Rule 31.12.1.9 sets noise limits. With regard to traffic effects,

			Flaxton Road and Fernside Road are anticipated to accommodate the additional traffic as a result of the rezoning based on the *Abley* report. Any increase in the size of the museum, conference centre, chapel and conference centre above the threshold limits proposed will require resource consent. With regard to effects associated with the proposed tavern, the Local Alcohol Policy allows assessment of the operational effects from the tavern.
Strategic Partners - Christchurch City Council, Selwyn District Council, New Zealand Transport Agency, Te Runanga o Ngai Tahu (see individual comments below)	• LURP implementation group.	• Questioned whether a proposed Business 6 area was more relevant to earthquake recovery. • Consideration should be given to the size and scale of retail activity based on the threshold controls proposed in the response to Action 24(iv).	These comments have been addressed in sections 3 and 5 of this report. However, it is noted that the Business 6 area includes provision for activities that could occur within the Business 2 zone, while enabling a specific proposal. In addition, the proposed Plan amendments include the threshold controls proposed in the response to Action 24(iv).
Southbrook Service Station Ltd 159 Fernside Road RD 1 Kaiapoi 7691	• Direct consultation through letter including draft Outline Development Plan.	• No comments received.	
J & C Graham C/- The Graham Family Trust 246a Flaxton Road RD 1 Kaiapoi 7691	• Direct consultation through letter including draft Outline Development Plan.	• No comments received.	

J & A Edwards 92 Fernside Road RD1 Kaiapoi 7691	• Direct consultation through letter including draft Outline Development Plan.	• Concerned with effects associated with use of the tavern (opening hours and function). • Controls needed to ensure that the Tavern does not develop before remainder of key Business 6 activities. • Preference for zone to remain Rural. • Adjoining property owners should be advised of any major changes to concept plans.	LURP Action 25(iii) requires rezoning provisions to be prepared for Southbrook business zone priority areas shown on Map 1A of the RPS. With regard to effects associated with the proposed tavern, the Local Alcohol Policy allows assessment of the operational effects from the tavern.
Ian Jarmen Ltd 159 Fernside Road RD 1 Kaiapoi 7691	• Direct consultation through letter including draft Outline Development Plan.	• No comments received.	
Ministry for the Environment	• Invitation to provide feedback prior to preparation of proposed changes to the Waimakariri District Plan.	• No comments received.	
Hurunui District Council	• Invitation to provide feedback prior to preparation of proposed changes to the Waimakariri District Plan.	• No comments received.	
Transpower New Zealand Ltd	• Invitation to provide feedback prior to preparation of proposed changes to the Waimakariri District Plan.	• No comments received.	
Canterbury District Health Board - Health Protection Officer	• Invitation to provide feedback prior to preparation of proposed changes to the Waimakariri District Plan.	• Correspondence received from Community and Public Health advising no comment to be made.	
R and J Beck 201 Flaxton Road RD 1 Kaiapoi 7691	• Direct consultation through letter including draft Outline Development Plan.	• No comments received.	

Environment Canterbury	• Invitation to provide feedback prior to preparation of proposed changes to the Waimakariri District Plan. • Discussion on provisions with Environment Canterbury Staff.	• Support proposed rezoning subject to an assessment of flood risk from a 0.5% AEP flood event. Incorporate flood risk mitigation measures within proposed rules and/ or Outline Development Plan.	RPS Policy 11.3.2 requires mitigation of flood effects within the greenfield priority areas. No specific flood risk modelling undertaken as the area is located in a low–medium area of flood risk based on the Council's 2013 flood modelling. An amendment to the provisions is proposed to require buildings with the ODP area to achieve a floor level above a 0.5% AEP flood event.
Enterprise North Canterbury	• General Comments.	• Support identification of 240 Flaxton Road to business zoning. • Support provision for conference centre within proposed Policy 16.1.1.8.	
Steve Hewitt	• General Comments.	• Proposed rezoning of the land at 240 Flaxton Road is totally inappropriate for this area. • A museum and conference centre do not belong in an industrial area. • Concerned with operation of a Tavern close to Flaxton/ Fernside Road. • Concerned that potential retail area will affect Rangiora High Street by diverting business away.	LURP Action 25(iii) requires rezoning provisions to be prepared for Southbrook business zone priority areas shown on Map 1A of the RPS. With regard to effects associated with the proposed tavern, the Local Alcohol Policy allows assessment of the operational effects from the tavern. With regard to potential retail effects on the Rangiora Town Centre, the Regional Policy Statement requires that any significant retail distributional effects on the Key Activity Centres are considered. Proposed Rule 31.24.1.4 introduces a non-complying

			activity status for retailing above priority area threshold (refer Action 25iv).
New Zealand Transport Agency	• Invitation to provide feedback prior to preparation of proposed changes to the Waimakariri District Plan.	• Correspondence received advising that they do not anticipate any adverse impacts on the State Highway network.	
Adrienne McGowan	• General Comments.	• The proposed rezoning contradicts the need to protect Key Activity Centres. • The general activities anticipated will not fit with the priority business area. • Concerned with effects related to the operation of the tavern.	With regard to potential retail effects on the Rangiora Town Centre, the Regional Policy Statement requires that any significant retail distributional effects on the Key Activity Centres are considered. Proposed Rule 31.24.1.4 introduces a non-complying activity status for retailing above priority area threshold (refer Action 25iv). With regard to effects associated with the proposed tavern, the Local Alcohol Policy allows assessment of the operational effects from the tavern.
Ravenswood Developments Ltd	• Letter advising of the consultation period as part of Action 25(iv) response.	• Comment point (ix) seeks to delete the proposed 100m2 threshold as it applies to business zones and amend wording. • Amend Rule 31.26 to allow office activities as a discretionary activity.	The 20% rule currently does not provide a tangible threshold control as it can enable significant sized developments. A floor space control based on the zone purpose provides certainty. Office activity is associated with the Business 1 Zones. An exemption

			is made for ancillary office activities.
Continental/ Kate Wilkinson	• General Comments	• Support proposed development of DM and AD Smith • Limitation of general retailing activity will not allow proposal to continue. • Proposal will support local business • Provision for 20 accommodation units is too small • Recommend that retail space in addition of 100m2 is provided for.	Proposed Rule 31.24.1.4 allows up to 100m^2 of retailing per site, based on the retail threshold proposed in Action 24(iv) and the requirement within the RPS to avoid retail distribution effects on the Key Activity Centres with Policy 6.3.6. Non-compliance with this rule is considered as a non-complying activity. However, the policy provides for retailing that is associated with the activities enabled by the zone and would not generally attracted to the District without the proposal. There is a need to provide accommodation to support the conference centre activity on the site. The definition of "non-permanent accommodation" that is proposed to be inserted into the District Plan does not restrict room size; this is to allow an equivalent number of beds to be provided while ensure the spatial extent of the accommodation fits within the rezoned area.

The full detail of written and verbal comments on the four parts of Action 25 that were received within the comment period are provided as a separate document. This document also contains one submission (Melvyn and Janet Pearson) that is not related to LURP Action 25.

6. Legislation and Policy

Canterbury Earthquake Recovery Act 2011 (CER Act)

The CER Act 2011 provides for the recovery of greater Christchurch as set out in Part 1, section 3, clauses (a) to (i). Land use Recovery Plan Action 25 specifically links to clauses:

"(a) to provide appropriate measures to ensure that greater Christchurch and the councils and their communities respond to, and recover from, the impacts of the Canterbury earthquakes:

(b) to enable community participation in the planning of the recovery of affected communities without impeding a focused, timely, and expedited recovery:

(d) to enable a focused, timely, and expedited recovery:

(f) to facilitate, co-ordinate, and direct the planning, rebuilding, and recovery of affected communities, including the repair and rebuilding of land, infrastructure, and other property:"

Section 10 of the CER Act 2011 requires that the exercise of powers under the Act is in accordance with the purposes of the Act:

"The Minister has a range of mechanisms under the CER Act to make the changes recommended should he consider them appropriate, including:

- *Amending this Land Use Recovery Plan*
- *Implementing an Order in Council*
- *Preparing additional plans*
- *Using the powers under section 27 of the CER Act.*

Before making any changes the Minister for Canterbury Earthquake Recovery will determine, in accordance with the CER Act, the level of community consultation required, and consider whether the exercise of any power is in accordance with the purposes of the CER Act and if the Minister reasonably considers it necessary to exercise this power."

Recovery Strategy – Vision and Goals

The vision of the Recovery Strategy is:

"Greater Christchurch recovers and progresses as a place to be proud of – an attractive and vibrant place to live, work, visit and invest, mō tātou, ā, mō kā uri ā muri ake nei – for us and our children after us."

Land Use Recovery Plan Action 25 specifically links to the built environment recovery goals. The relevant clauses of this goal that have been taken into account are as follows:

"Built environment recovery

5. Develop resilient, cost effective, accessible and integrated infrastructure, buildings, housing and transport networks - by:

5.1 coordinating and prioritising infrastructure investment that effectively contributes to the economy and community during recovery and into the future;

5.2 supporting innovative urban design, buildings, technology and infrastructure to redefine greater Christchurch as a safe place built for the future;

5.3 rebuilding infrastructure and buildings in a resilient, cost-effective and energy-efficient manner."

"Regulation, standards and other information to support the rebuild and repair of housing to a quality that meets the technical requirements for the land categories and building standards. One of these requirements is that:

> *"• when making a resource consent application or a request for a plan change for the subdivision of land, the person proposing the subdivision must address the risk of liquefaction. As a minimum, that person must provide the local authority with a geotechnical assessment in accordance with the Guidelines for the geotechnical investigation and assessment of subdivisions in the Canterbury region (Department of Building and Housing, 14 November 2011).2[This requirement does not apply where a building will not be permitted as a result of the subdivision of land.]"*

Land Use Recovery Plan Outcomes

Action 25(iii) relates specifically to the following LURP Outcomes: 1, 4, 5, 8, 11, 12, 13, and 15

Direction and coordination

1. A clear planning framework directs where and how new development should occur so that it integrates efficiently and effectively with infrastructure programmes and avoids key hazards and constraints.

4. RMA plans and regulatory processes enable rebuilding and development to go ahead without unnecessary impediments.

5. A supportive and certain regulatory environment provides investor confidence to obtain the best outcomes from resources used in the recovery.

8. Investment in community facilities and services supports vibrant key activity centres and neighbourhood centres.

Business

11. Sufficient industrial business land is available to accommodate relocations and industrial sector growth.

Transport

12. Congestion arising from road works and from changes in travel due to development, including business and household relocations, is minimised.

13. An attractive and financially viable public transport network supports significantly increased use.

15. An efficient freight network provides for the needs of freight transport, particularly in relation to access to the port and the airport.

These outcomes form the basis against which the Land Use Recovery Plan will be monitored (see section 5).

Regional Policy Statement

Land Use Recovery Plan Action 25 specifically links to Chapter 6 of the Canterbury Regional Policy Statement. The relevant clauses of this goal that have been taken into account are as follows:

"Objective 6.2.5 – Key activity and other centres
Support and maintain the existing network of centres below as the focal points for commercial, community and service activities during the recovery period:

(1) The Central City
(2) Key Activity Centres
(3) Neighbourhood centres.

These centres will be high quality, support a diversity of business opportunities including appropriate mixed-use development, and incorporate good urban design principles.

The development and distribution of commercial activity will avoid significant adverse effects on the function and viability of these centres.

Policy 6.3.6 – Business land
To ensure that provision, recovery and rebuilding of business land in Greater Christchurch maximises business retention, attractsinvestment, and provides for healthy working environments; business activities are to be provided for in a manner which:
(1) Promotes the utilisation and redevelopment of existing business land, and provides sufficient additional greenfield priority area land for business land through to 2028 as provided for in Map A;
(2) Recognises demand arising from the relocation of business activities as a result of earthquake-damaged land and buildings;
(3) Reinforces the role of the Central City, as the city's primary commercial centre,
(4) Recognises that new commercial activities are primarily to be directed to the Central City, Key Activity Centres and neighbourhood centres where these activities reflect and support the function and role of those centres; or in circumstances where

locating out of centre, will not give rise to significant adverse distributional or urban form effects;
(5) Recognises that new greenfield priority areas for business in Christchurch City are primarily for industrial activities, and that commercial use in these areas is restricted;
(6) Recognises that existing business zones provide for a range of business activities depending on:
(i) the desired amenity of the business areas and their surrounds; and
(ii) the potential for significant distributional or urban form effects on other centres from new commercial activity.
(7) Utilises existing infrastructure availability, capacity and quality;
(8) Ensures reverse sensitivity effects and conflicts between incompatible activities are identified and avoided or mitigated against;
(9) Ensures close proximity to labour supply, major transport hubs and passenger transport networks;
(10) Encourages self-sufficiency of employment and business activities within communities across Greater Christchurch;
(11) Promotes, where appropriate, development of mixed-use opportunities, within Key Activity Centres provided reverse sensitivity issues can be appropriately managed; and
(12) Incorporates good urban design principles appropriate to the context of the development.

Methods
Territorial Authorities:
Will
(1) Include in district plans objectives, policies and rules (if any) to give effect to Policy 6.3.6 .
(2) Identify trigger thresholds for office and retail commercial activities in industrial areas where these activities are likely to give rise to distributional effects, particularly on larger commercial centres, or result in reverse sensitivity effects.
Should
(3) Consider appropriate administrative and financial arrangements to enable and encourage business land provision to occur.
(4) Identify neighbourhood centres in district plans and that of the Key Activity Centres;

Policy 11.3.2 – Avoid development in areas subject to inundation

In areas not subject to Policy 11.3.1 that are subject to inundation by a 0.5% AEP flood event; any new subdivision, use and development (excluding critical infrastructure) shall be avoided unless there is no increased risk to life,and the subdivision, use or development:

(1) is of a type that is not likely to suffer material damage
in an inundation event; or (2) is ancillary or incidental to the main development; or (3) meets all of the following criteria:

(a) new buildings have an appropriate floor level above the 0.5% AEP design flood level; and

(b) hazardous substances will not be inundated during a 0.5% AEP flood event. provided that a higher standard of management of inundation hazard events may be adopted where local catchment conditions warrant (as determined by a

cost/benefit assessment.) When determining areas subject to inundation, climate change projections including sea level rise are to be taken into account. This policy implements the following objective:
Objective 11.2.1

Methods

The Canterbury Regional Council:
Will:
(1) Provide information it holds on historical and design flood events to assist territorial authorities in determining areas subject to 0.5% AEP flood events.
(2) Make available, upon request, any information regarding natural hazards that it holds.
(3) Provide guidance about appropriate floor levels to manage the adverse effects of flood events.

Territorial authorities:
Will:
(4) Set out objectives and policies, and may include methods in district plans to avoid new subdivision, use and development of land in known areas subject to inundation by a 0.5% AEP flood event, other than in the circumstances determined in Policy 11.3.2 clauses (1) to (3).
(5) Ensure that flooding hazards are assessed before any new areas are zoned or identified, in a district plan, in ways that enable intensification of use, or where development is likely to cause adverse effects.
(6) Where there is a known flooding risk, include provision in their district plans that require a 0.5% AEP flood event to be determined, and its effects assessed, prior to new subdivision, use or development of land taking place. Where the territorial authority has adopted a standard less frequent than a 0.5% AEP flood event, the expected flow and effects of that less frequent AEP flood event will be determined.

Local Authorities:
Should:
(7) Develop and implement flood plain management strategies."

7. Risks

Risk of not Acting:
Action 25(iii) specifically provides for the rezoning of two identified priority business areas and requires Council to provide rezoning provisions to the Minister. The risk of not acting is therefore simply that the priority business areas are not rezoned until a 1st schedule Resource Management Act 1991 process is undertaken.

With regard to the new Business 2 retailing thresholds proposed under Action 25(iv); retailing activities, if not appropriately managed, are likely to impact on the viability of Key Activity Centres.

Risks identified from notification of the LURP amendments:
Comments have been received from Daniel Smith Industries that the proposed Business 6 development will not proceed if a level of retailing is not provided for within the plan provisions for the Business 6 Zone. This risk is mitigated by the linking the Business 6 retail provisions with those generated in Action 25(iv) for the

Business greenfield priority areas; which will allow for retailing similar to the remaining business zone greenfield priority areas and the existing Business 2 zones.

With particular regard to the risk that the development does not proceed if retailing as requested is not provided for it is noted that non-compliance with Rule 31.24.1.4, whilst considered as a non-complying activity is provided for in the new Policy. The new Policy provides for retailing that is associated with the activities enabled by the zone and would not generally be attracted to the District without the proposal.

Comments received during the public consultation period from neighbouring properties have been considered. In particular, the concerns around road access onto Fernside Road, management of hazards and the operation of the proposed tavern have been addressed within the background reports and by way of amendments to the proposed plan provisions. Others are matters for other Council regulatory processes, such as the local alcohol policy.

Risk associated with the rezoning:
Given the level of support from the landowner within the area to be rezoned, it is considered that there is a low risk associated with the rezoning. In addition, the rezoning proposal does not adversely affect the ability of undeveloped business land to be developed for business activities.

8. Further Plan Changes

Given the relatively narrow scope of the Action 25(iii) it is not anticipated that the proposed amendments will require any future plan change.

It is also noted that Action 47 allows for the Council to make any changes or variations to objectives, policies and methods in its District Plan that it considers are appropriate to enable and support recovery and rebuilding in accordance with this Recovery Plan.

9. Final Recommendation

After considering the comments made during the notification period it is submitted that the Minister can direct that the changes set out in the response to action 25 document are incorporated into the Waimakariri District Plan. These changes are:

- Addition of a definition of "non-permanent accommodation"
- Addition of Policy 16.1.1.8
- Addition of Rule 27.1.1.26 requiring all buildings within the rezoned area to achieve a floor level of 400mm above a 0.5% annual exceedance probability flood event.
- Addition of Rule 30.6.1.34 limiting new vehicle crossing onto Flaxton Road.
- Addition of Rule 30.9.1, creating a non-complying activity status for non-compliance with Rule 30.6.1.34
- Addition of Rule 31.1.1.14 and associated table 31.1 to add Business 6 into the structure bulk and location requirements
- Addition of Rule 31.1.1.26 that limits structure height within the Business 6 Zone to 15 metres.
- Addition of Rule 31.1.1.33 requiring landscaping on within 2 metres of site boundaries
- Addition of Rule 31.1.1.46 requiring 10 metres minimum landscaping on the boundaries of Lots 1 and 4 DP 352557 and Lot 3 DP 33763.

- Addition of Rule 31.1.1.47 requiring a minimum setback between any proposed industrial activity and the museum/ conference centre, tavern, accommodation and wedding venue.
- Addition of Rule 31.1.1.48 limiting Business 6 carparking to a maximum of 260 spaces.
- Addition of Rule 31.4.1 creating a discretionary activity status for non-compliance with Rules 31.1.1.46 – 31.1.1.48.
- Addition of Rule 31.7.1.6 creating controls for signage within the Business 6 Zone.
- Addition of Rule 31.12.1.9 setting noise standards within the Business 6 Zone
- Addition of Rule 31.24.1 to create a limit on the size of the chapel, tavern, museum/conference centre/ café and gym.
- Addition of Rule 31.24.2 limiting the total number of accommodation units to 20.
- Addition of Rule 31.24.1.3 limiting uses other than the museum/ conference centre, tavern, accommodation and wedding venue to no more than 40% of the Business 6 zone.
- Addition of Rule 31.24.1.4 limiting retail activity to 20% or 100m^2 (whichever is the lesser) of the net floor area of the sum of all buildings on the site
- Addition of Rule 31.25.1 creating a non-complying activity status for non-compliance with Rules 31.24.1.1 – 31.24.1.4.
- Addition of Rule 32.1.1.1 to set a minimum allotment area in the Business 6 Zone of 700m^2.
- Addition of sub clause ae to Rule 32.1.1.23.
- Addition of District Plan Maps 119 and addition of new ODP Map 180.

With particular regard to the comments received the Council supports the comment of the Canterbury Regional Council that a rule mitigating against any flood hazard effect is included with the plan amendments.

An amendment to Policy 16.1.1.8 to amend the characteristics of the Business 6 Zone is also recommended based on the comments from Daniel Smith Industries. This amendment is proposed to include retailing that is associated directly with the museum/ conference centre, tavern, accommodation and wedding venue already provided for by the Policy.

Based on the conclusions of the commissioned traffic report, a change is also recommended to increase the maximum carpark numbers to 260, to accommodate peak demand onsite.

Appendix I
Kirk Roberts Geotechnical report

STRUCTURAL
GEOTECHNICAL
CIVIL
FIRE

GEOTECHNICAL REPORT

240 FLAXTON ROAD
RANGIORA
PREPARED FOR DM & AD SMITH INVESTMENTS LTD

JOB NO. 131388
DATE: 17/01/2014
ISSUE A

KIRK | ROBERTS
CONSULTING ENGINEERS

QUALITY CONTROL

Title	**240 Flaxton Road, Rangiora – Geotechnical Report**
Client	**DM & AD Smith Investments Ltd**
File Number	**131388**
Issue	**A**
Date	**17th January 2013**
Prepared By	**Name:** Scott McHardy BEng Geotechnical (Hons) **Signature:**
Authorised By	**Name:** Steven Roberts CPEng,(Geotechnical) MIPENZ ,IntPE(NZ) **Signature:**

LIMITATIONS

This report has been prepared solely for the benefit of DM & AD Smith Investments Ltd and the Waimakariri District Council. No liability is accepted by this company or any employee of this company with respect to its intended use by any other person or persons.

The subsurface soil conditions and the interpretations reported are those identified at the test locations at the time of the investigation and are subject to the limitations of the investigation methods. The test results represent only a small test sample of the total subsurface soils. Soil conditions may vary between the test locations and interpretation of the soil information and test results must take into account the spacing and plan location of the tests.

If subsurface conditions encountered on the site during construction appear to vary from those inferred from the information contained in this report, Kirk Roberts Consulting Engineers Ltd requests that it be notified immediately.

This report is only valid for the proposal as outlined in the introduction and the information and interpretation of the content in this report may not be relevant if the proposed development is altered in any way.

If the recipient of this report wishes to contact Kirk Roberts Consulting Engineers Ltd, either email: info@kirkroberts.co.nz or phone 03 379 8600.

1. INTRODUCTION

Kirk Roberts Consulting Engineers Ltd has been engaged by DM & AD Smith Investments Ltd to carry out a geotechnical assessment of the subject property at 240 Flaxton Road, Rangiora. This report summarises the encountered ground conditions on site and recommends foundation systems requireed to support the proposed property development, which incorporates several commercial buildings of various size, type and construction.

This report presents the results of a geotechnical investigation undertaken on 18th December 2013, together with an analysis of the soil properties, and a discussion of the following issues:

- Liquefaction potential
- Foundation recommendations

2. SITE DESCRIPTION

The subject property is located on the east side of Flaxton Road, Rangiora, bounded to the south by Fernside Road and by pastoral land to the east and north. The site lies approximately 25 m (at the nearest point) east of an irrigation channel that is fed from a series of small lakes/ponds located to the northwest. The site is generally flat and is currently developed with an existing residential building with garage. In accordance with the current development plan the existing building is to be demolished prior to redevelopment of the land.

Figure 2.1 shows the approximate location of the site and the surrounding area.

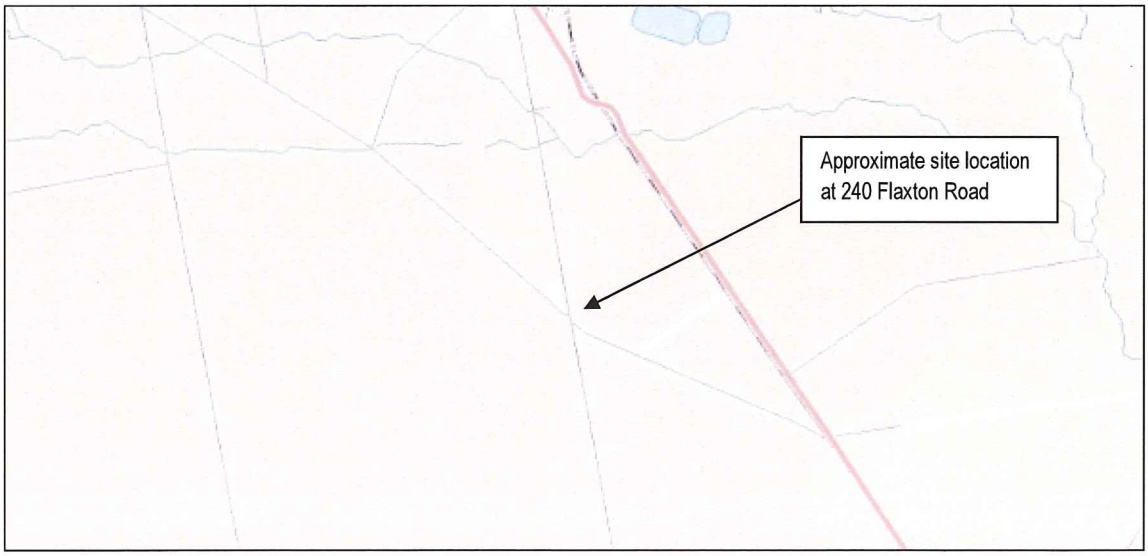


Figure 2.1: Location of 240 Flaxton Road, Rangiora

A site visit on 18th December 2013 showed no obvious signs of significant residual ground damage to the property.

The recent technical land category reclassification by the Ministry of Business, Innovation and Employment suggests the site is located within a rural and unmapped zone, indicating the requirement for site specific testing in order to classify the site in terms of liquefaction susceptibility for the purpose of foundation design.

3. SITE GEOLOGY

This area of Christchurch is underlain by variable sediments deposited after the last glacial period about 14,000 years ago. The anticipated subsurface soil profile in this area of Christchurch consists of alluvial sand and silt overbank deposits of the Springston Formation[1].

4. SITE INVESTIGATION

4.1 General

Our site investigation, completed 18/12/2013, consisted of twenty test pits (TP1 to TP20) and twenty Scala Penetrometer tests (SP1 to SP20) to a target depth of 3.0 m to assess the near-surface soil profile and ultimate bearing capacity respectively. The soil test locations are presented in Appendix A.

4.2 Subsurface Conditions

Results of the test pit excavations indicate the site to be underlain by the following subsurface soil profile:

Table 4.1: Simplified soil profile

Top of layer (m)	Soil Type	Density
0.0	Light brown organic silt (TOPSOIL)	Firm
0.2 – 0.3	Light brown SILT	Firm to stiff
0.7 – 1.4	Light grey sandy GRAVEL	Dense

The test pits indicated a relatively uniform soil profile across the site with a layer of topsoil overlying firm to stiff silt to 0.7 – 1.4 m below ground level (bgl), overlying dense sandy gravel to the test termination depths. The silt layer included several lenses of either sandy silt or clayey silt. Refer to soil test results, Appendix A.

The near surface silt layers provide a geotechnical ultimate bearing capacity of 300 kPa at 0.3 m bgl, generally increasing with depth to in excess of 800 kPa at 1.0 m bgl. At test locations SP7, SP10, SP13 and SP16 the underlying soils are slightly weaker with a geotechnical ultimate bearing capacity of 200 – 400 kPa to 1.0 m depth before effective refusal is encountered in the dense sandy gravels.

The ground water table was encountered at a depth of 1.7 – 2.5 m bgl at the time of the soil investigation.

[1] L.J.Brown, J.H.Weeber, "Geology of the Christchurch Urban Area", 1992.

4.3 ECan Well Database Desk Study

Kirk Roberts Consulting Engineers Ltd has completed a desk study of existing well logs taken from the Environment Canterbury (ECan) database. The purpose of the study is to supplement the onsite test results to develop a more comprehensive soil profile.

There are two ECan wells in the local area which provided soil profile information. The wells referenced are located along the northern site boundary (M35/6778), and 120 m south east (M35/6839) of the site. From the bore log information, the soil profile beneath the local area surrounding the property is relatively uniform and consists predominantly of topsoil and clay to 1.8 – 2.1 m bgl underlain by gravels and sand with interbedded clay lenses to depths of 8.0 – 17.0 m. Refer to Appendix B for the ECan well location plan and bore logs.

5. LATERAL SPREAD

Seismic shaking can induce loads on the soil which temporarily exceed available soil strength within the slope or behind a retaining wall. This may cause permanent downslope displacements, which will be exacerbated by liquefaction. In some cases, the strength loss will be so great that the soil will no longer be able to sustain static loads and lateral spreading will occur.

Lateral spreading can occur on relatively gentle slopes or even on virtually flat ground adjacent to free faces, such as river or stream banks. Movements may continue for some time after shaking has stopped until excess pore pressures generated during liquefaction have dissipated.

Lateral spread risk has been assessed in accordance with Section 12.2 of the MBIE guidelines "Repairing and Rebuilding houses affected by the Canterbury earthquakes" December 2012. Table 12.3 suggests a 50 m buffer beyond a free-edge of significant waterways where major to severe global lateral ground movement of TC3 properties is expected. Although the subject property is not located in a TC3 classified area it is situated within this buffer zone, however, no major evidence of lateral spread was observed during our site visits, and therefore a minor to moderate risk level is deemed suitable for this site.

This assessment cannot be confirmed by the Project Orbit Canterbury Geotechnical Database as the site is outside of areas where ground surface observations were made.

6. RECLASSIFICATION OF LAND DAMAGE FROM MINISTRY OF BUSINESS, INNOVATION AND EMPLOYMENT (MBIE)

Table 6.1 below indicates the three technical foundation categories (TC1 to TC3) assessed by the Ministry of Business, Innovation and Employment, which replace the 'orange zone' land classification prior to 28th October 2011. The three Technical Categories reflect both the liquefaction experienced to date and future performance expectations to guide foundation pathways.

The subject property is situated within the rural and unmapped zone as per the MBIE Northern Area Map, see Figure 6.1 below. The results of the shallow testing suggest that the subject area is not susceptible to significant future land damage from liquefaction following an Ultimate Limit State (ULS) or Serviceability Limit State (SLS) earthquake event.

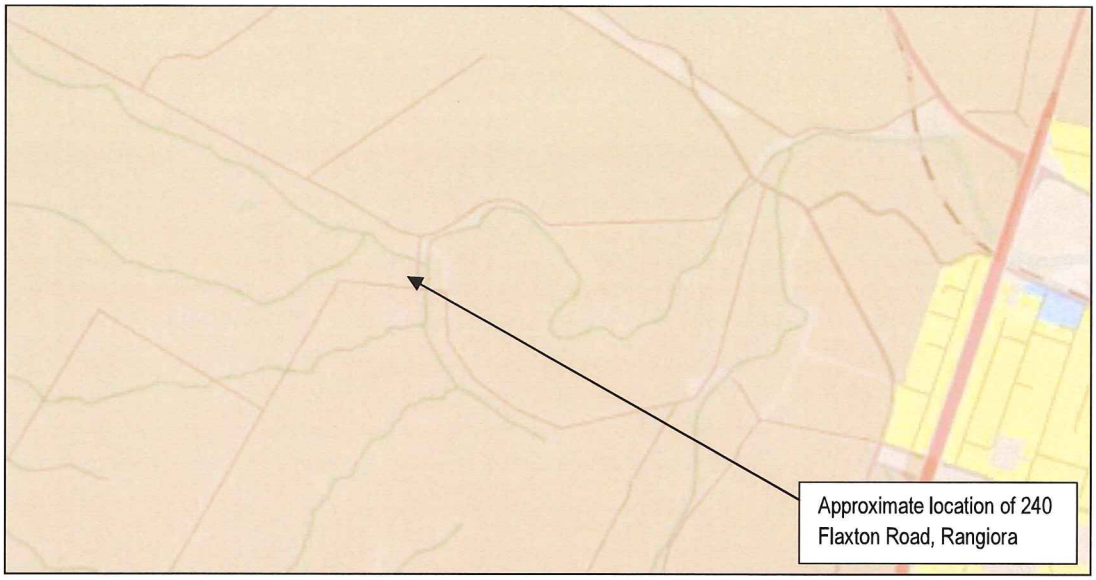


Figure 6.1: Technical Categories TC1 to TC3 from Ministry of Business, Innovation and Employment for foundation assessment.

7. FLOOD RISK ASSESSMENT

The Christchurch City Council (CCC) instated Variation 48 to the Proposed Christchurch City Plan on the 31st January 2011 to manage the potential effects of flooding and inundation in Christchurch. However, this document does not cover areas to the north of the Waimakariri River.

There is evidence of this area of Canterbury having flooded in the past. Reference to newspaper archives[2] indicates that during the flood event of 1886, "At Wilson's mill the height of the flood was so great as to preclude all work. It was apparent that most of the water encountered came from the River Eyre". There was further extensive flooding recorded in the area during late August 2008, impacting areas of the Cust Valley, Eyreton, Swannanoa and Rangiora.

However, accurate flood records may not exist for this specific site and therefore given the limited information available, the risk of flooding to this site should be confirmed on a site specific basis by the Environment Canterbury Regional Council or Waimakariri District Council.

8. FOUNDATIONS

The subject property is located within the rural and unmapped zone. Given the inferred soil profile from nearby ECan wells and as there were no obvious signs of significant ground damage to the subject property after the recent earthquake events, the risk of liquefaction damage to the property is considered to be minor.

8.1 Discussion

Consultation with the client revealed the intended development plan for the property may comprise of a series of two and three storey commercial buildings including; accommodation units, retail outlets and commercial and recreational buildings.

[2] "Floods at Kaiapoi", Star issue 5702, 20 August 1886, Accessed via National Library of New Zealand website

Given the site is unlikely to experience significant liquefaction settlement, including a low risk of lateral spread, and observed ground settlement damage at the site and adjacent properties, we consider the following foundation options to be most practical to support the proposed structures:

- Enhanced concrete raft foundation (Option 2, MBIE Guidelines Part A)
- Enhanced concrete foundation (Option 3, MBIE Guidelines Part A)
- Enhanced concrete foundation on reinforced gravel raft or piles

8.2 Enhanced Concrete Raft Foundation (Option 2, MBIE Guidelines Part A)

This foundation option is considered suitable for the subject property, given the predicted levels of ground settlement during SLS and ULS earthquake events.

The main advantage of this foundation option is:

- The 300 mm thick (400 mm thick if two storey with heavy cladding or three storey) concrete raft foundation requires minimal excavation subject to the underlying subgrade soil providing a minimum soil bearing capacity of 200 kPa to MBIE guidelines.

This foundation option will not mitigate ground settlement for a SLS or ULS earthquake event but would mitigate irreparable structural damage from both earthquake events. This foundation is also capable of withstanding moderate differential settlement (<100 mm) and moderate lateral spread (<300 mm).

8.3 Enhanced Concrete Foundation (Option 3, MBIE Guidelines Part A)

The surface structure consists of a concrete floor constructed over a series of specifically designed interconnecting strip foundations underlying the perimeter and internal parting walls (grid-beam arrangement – option 3 MBIE, Section 5.3.1).

The foundation beams are expected to re-distribute the imposed self-weight over localised areas of weak ground. The shallow concrete foundation shall be designed in accordance with Section 5.4 'Guidance for Specific Engineering Design' of the MBIE Guidance A. The following requirements shall be satisfied:

- Foundation beams shall support the house over an internal span of 4.0 m and cantilever span of 2.0 m whilst ensuring that the floor does not hog or sag more than 1 in 400 and 1 in 200 respectively.
- Foundation beams shall be spaced at no greater than 3.5 m spacing in each direction over the building footprint.

Following construction of the grid-beam foundation, AP40 hardfill shall be used to *infill* between the beams and up to the underside of the concrete slab. We recommend laying the hardfill in 150 mm thick layers and compacting to a target density of 2040 kg/m^3.

A minimum geotechnical ultimate bearing capacity of 200 kPa is recommended for the grid-beam foundation in accordance with the Ministry of Business, Innovation and Employment Guidance. Scala Penetrometer test results indicate a geotechnical ultimate bearing capacity of 300 kPa from 0.3 m bgl. A capacity reduction factor of 0.5 shall be applied to the geotechnical ultimate bearing capacity which shall be used in combination with imposed static loadings determined in accordance with AS/NZS 1170:2002, or a reduction factor of 0.8 for load combinations including seismic.

8.4 Enhanced Concrete Foundation on Reinforced Gravel Raft or Piles

For multi-storey buildings of heavyweight construction we recommend underpinning the concrete foundation, as described in section 8.3, with a reinforced gravel raft, driven concrete piles or steel screw piles.

The underlying gravel raft shall satisfy the following minimum requirements:

- Excavation of near-surface soils to 0.8 m below existing ground level.
- Compaction at the base of the excavation to enable a layer of Bidim A39 geocloth and one layer of Tensar Triaxial TriAx TX170 geogrid. The geogrid must be of sufficient length to enable a 3.0 m return at the concrete foundation embedment depth.
- The AP65 fill material shall be laid in 200 mm thick layers and compacted to 95% of the target density to NZS4431:1989.

Construction of the gravel raft would be to about 0.8 m bgl and therefore above the anticipated water table, therefore the requirement for de-watering on site will not be necessary.

Alternatively, the perimeter walls and internal load bearing columns may be underpinned by a pile foundation system with the imposed structural loads being transferred to a suitable bearing stratum at depth. A dense sand or gravel with corrected SPT N_{60} > 25 or CPT q_c > 15 MPa of a minimum thickness of 4.0 m bgl is recommended. Additional onsite testing consisting of dual tube boreholes to 15 m depth would be required to confirm a suitable bearing layer, with a minimum of two test piles to confirm the pile embedment depth at the time of installation.

9. CONCLUSIONS

The recent technical land category reclassification by the MBIE suggests the site is located within a rural unmapped zone, although the inferred predominantly non-liquefiable near surface soil profile from nearby ECan wells and on-site test pits, combined with observed land damage, suggests that minor to moderate land damage from liquefaction is possible during strong ground shaking. There was no evidence of lateral spreading or lateral stretch damage to the property and therefore the risk of lateral movement at the property is considered minor to moderate.

The near surface silt layers provide a geotechnical ultimate bearing capacity of 300 kPa at 0.3 m bgl, generally increasing with depth to in excess of 800 kPa at 1.0 m bgl. At test locations SP7, SP10, SP13 and SP16 the underlying soils are slightly weaker with a geotechnical ultimate bearing capacity of 200 – 400 kPa to 1.0 m depth before effective refusal is encountered in the dense sandy gravels.

The near surface soils are not considered to be at significant risk of liquefaction, due to the depth of the water table and their cohesive nature, with underlying deep gravels extending beneath the local area from a depth of 0.7 – 1.4 m bgl.

Several foundation systems have been discussed in this report and each one provides a different level of performance. Considering the encountered site conditions, combined with the nature of the proposed development we recommend adopting either the:

- Enhanced concrete raft foundation (Option 2, MBIE Guidelines Part A)
- Enhanced concrete foundation (Option 3, MBIE Guidelines Part A)
- Enhanced concrete foundation on reinforced gravel raft or piles.

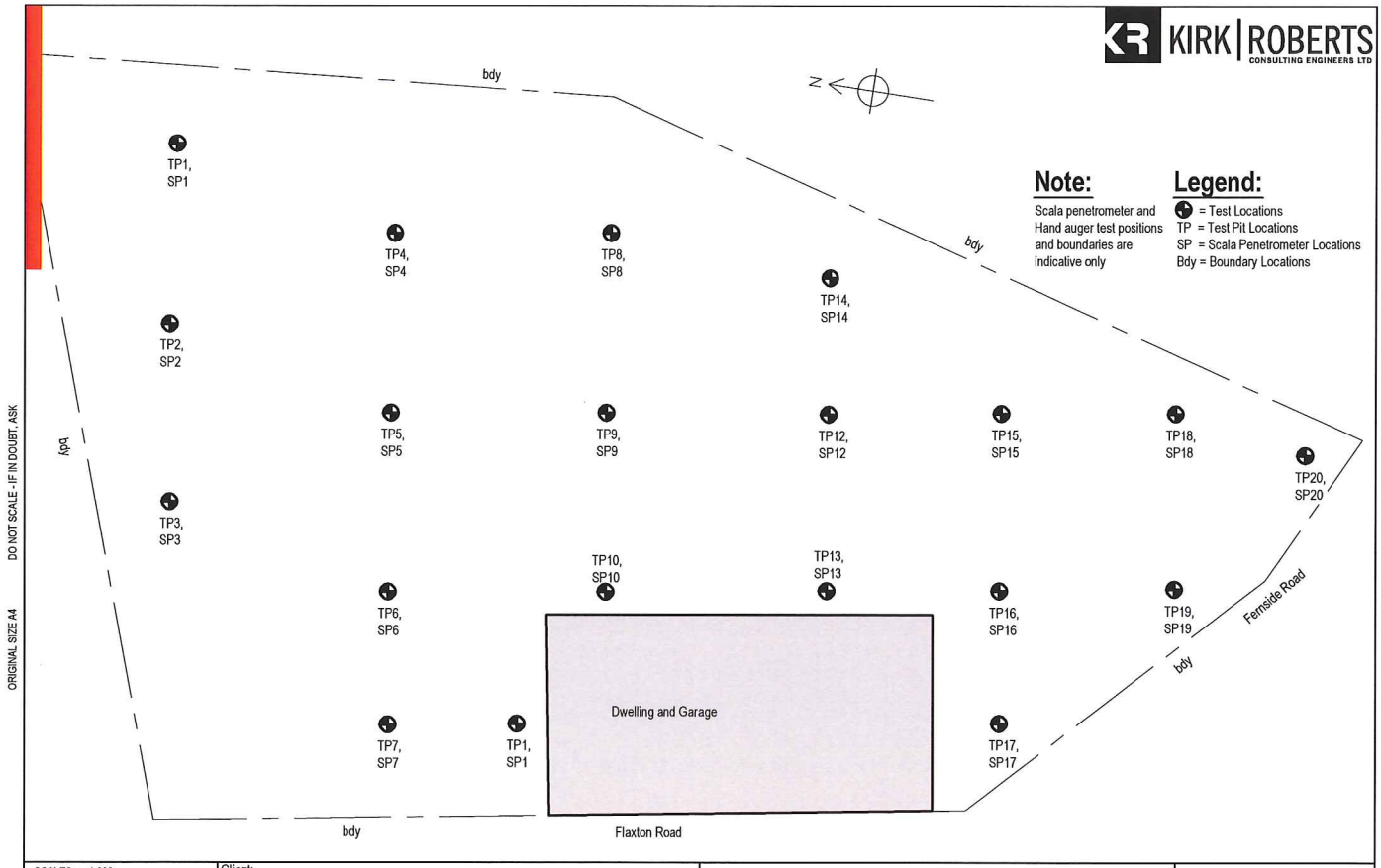
If a multi-storey building of heavyweight construction is to be considered, we recommend the Beam-Grid foundation underpinned by a gravel raft or piles, as outlined in Section 8.4. In this case the reinforced gravel raft would extend to about 0.8 m bgl, while additional onsite testing would be required to determine the embedment depth of the piles.

Kirk Roberts Consulting Engineers Ltd can complete both the structural and geotechnical design to satisfy a building consent application and issue of a Producer Statement Design (PS1).

If the contractor is uncertain of the ground conditions encountered on site, he should contact the design engineer for a site inspection to confirm the soil conditions before commencing placement of foundation formwork.

APPENDIX A

- Figure SK1: Soil Test Location Plan
- Test Pit and Scala Penetrometer Test Results



ORIGINAL SIZE A4 DO NOT SCALE - IF IN DOUBT, ASK

CAD REF :

SCALES : 1:900	
DATE	
DESIGNED	
DRAWN	26.12.13 - GJT
CHECKED	
APPROVED	

Client: DM & AD SMITH INVESTMENTS

Site: 240 FLAXTON ROAD

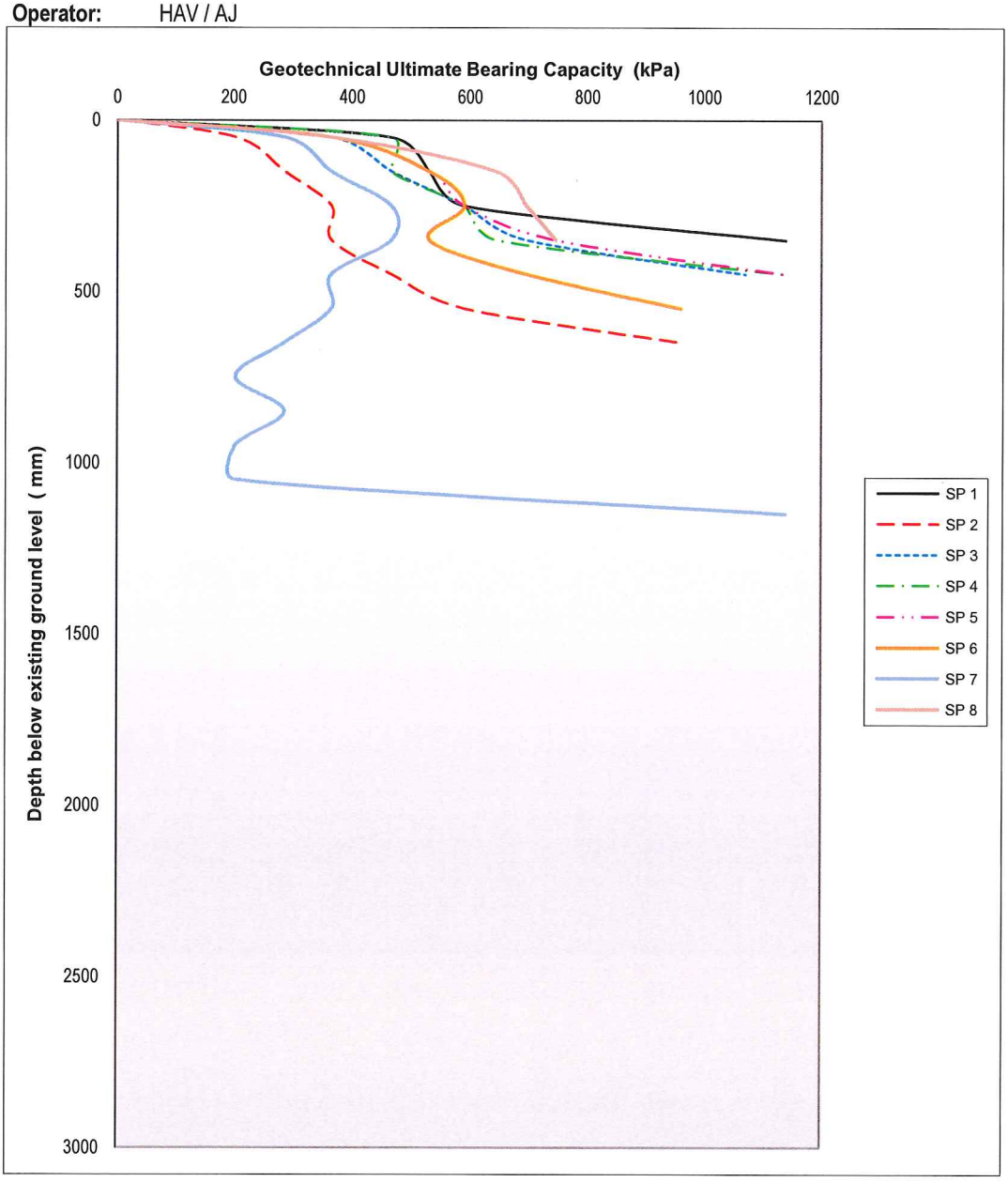
SOIL TEST LOCATIONS

Job No.	Sheet No.	Rev.
131388	SK1	1

SCALA PENETROMETER RESULTS - COMBINED

JOB NUMBER 131388

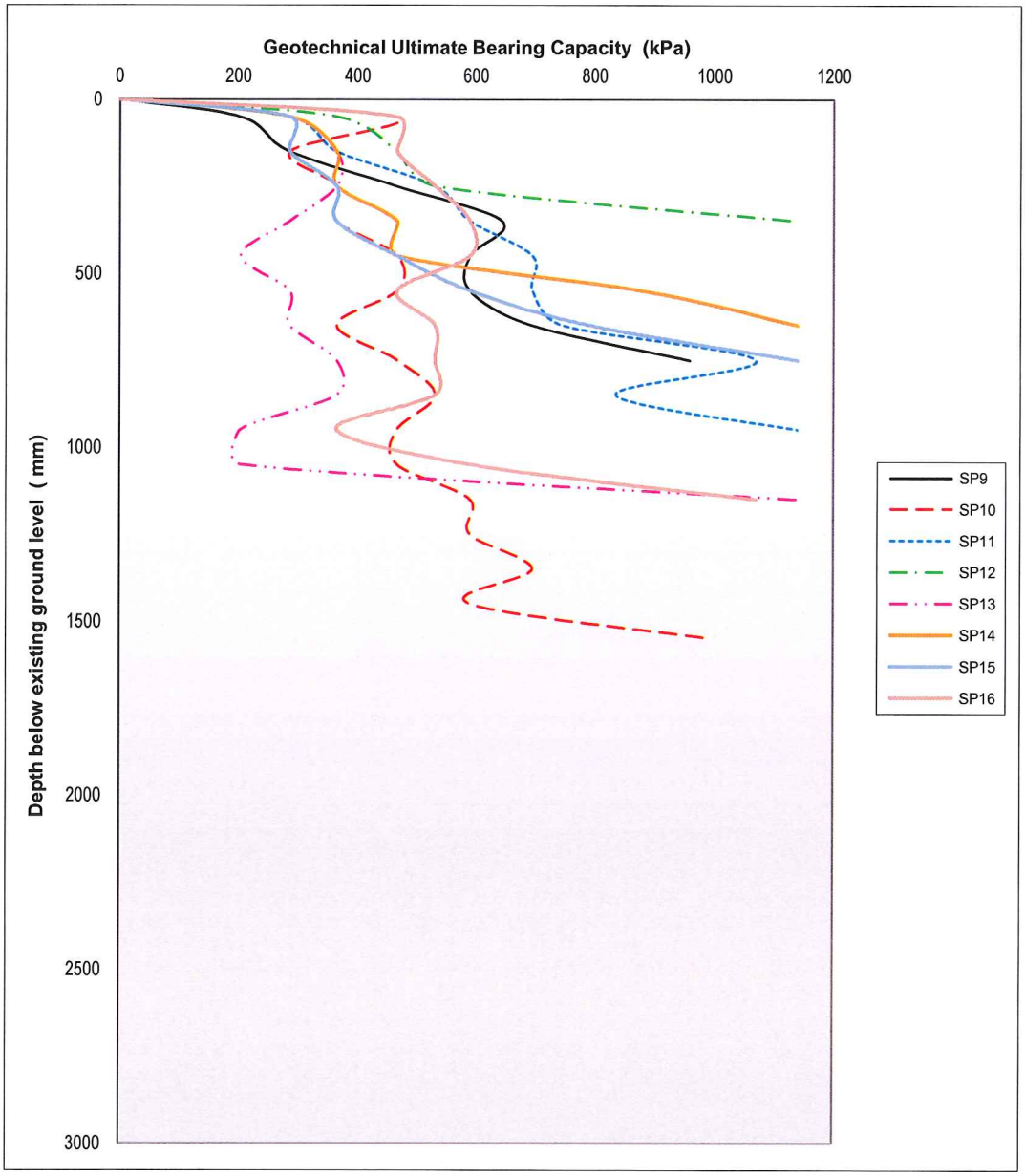
Job Name: DM & AD Smith Investments Ltd.
Site Address: 240 Flaxton Road
Town/City: Rangiora
Date: 18th December 2013
Weather: Fine
Operator: HAV / AJ



SCALA PENETROMETER RESULTS - COMBINED

JOB NUMBER 131388

Job Name: DM and AD Smith Investments Ltd.
Site Address: 240 Flaxton Road
Town/City: Rangiora
Date: 18th December 2013
Weather: Fine
Operator: HAV / AJ



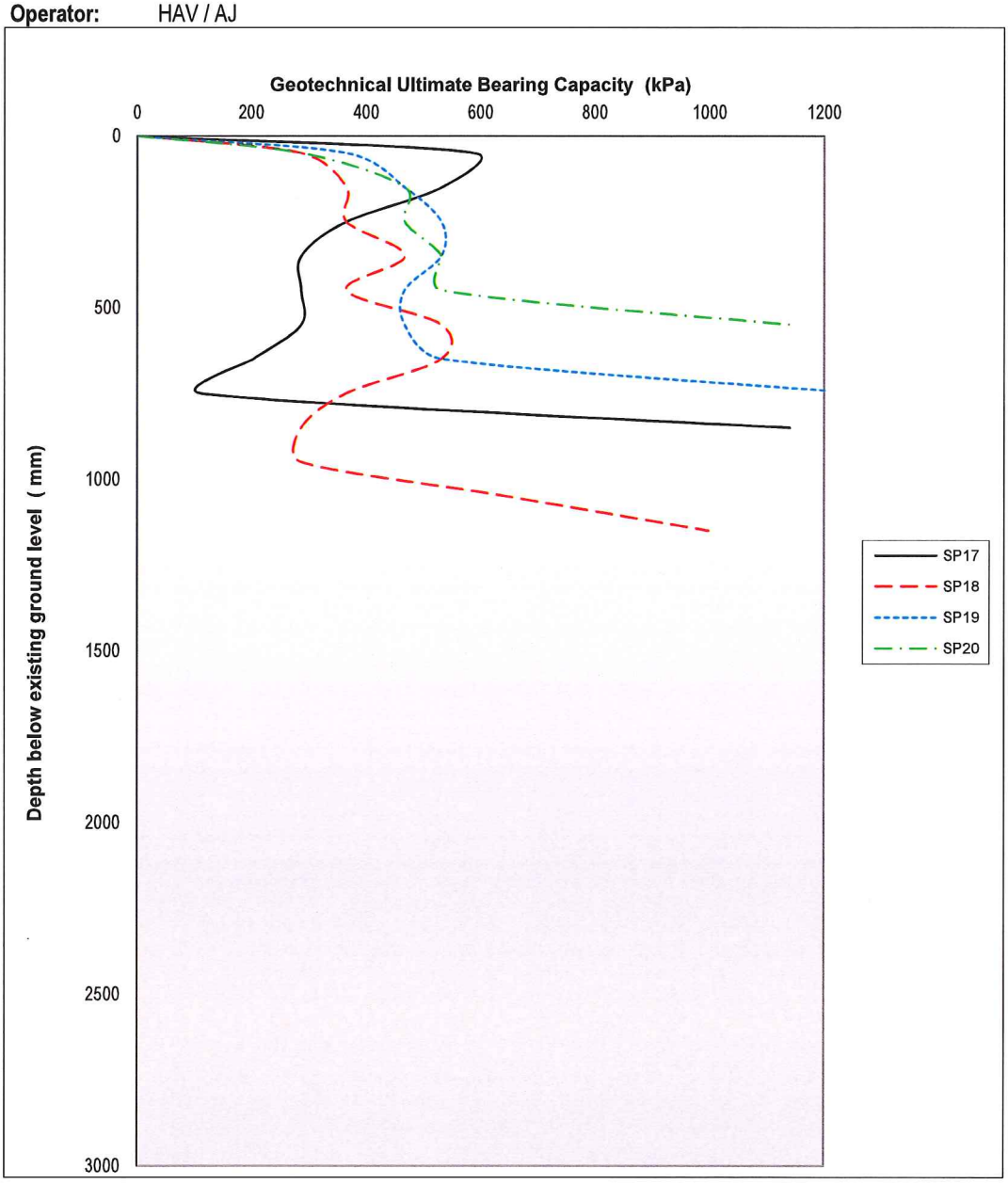
THIS REPORT IS PREPARED SOLEY FOR THE CLIENT WHO COMMISSIONED IT AND KIRK ROBERTS CONSULTING ENGINEERS LTD WILL NOT ACCEPT ANY LIABILITY OF ANY KIND FOR THE USE OF ITS CONTENTS BY ANY OTHER PERSON.

BORE LOGS AND SCALA PENETROMETER TESTS ARE DISCRETE TESTS OF THE GROUND AT THE LOCATION OF THE TESTS ONLY. WHILE THEY ARE REPRESENTATIVE OF TYPICAL CONDITIONS, THEY DO NOT IDENTIFY VARIATIONS IN THE GROUND IN LOCATIONS AWAY FROM THE TEST AREAS.

SCALA PENETROMETER RESULTS - COMBINED

JOB NUMBER 131388

Job Name: DM and AD Smith Investments Ltd
Site Address: 240 Flaxton Road
Town/City: Rangiora
Date: 18th December 2013
Weather: Fine
Operator: HAV / AJ



THIS REPORT IS PREPARED SOLEY FOR THE CLIENT WHO COMMISSIONED IT AND KIRK ROBERTS CONSULTING ENGINEERS LTD WILL NOT ACCEPT ANY LIABILITY OF ANY KIND FOR THE USE OF ITS CONTENTS BY ANY OTHER PERSON.

BORE LOGS AND SCALA PENETROMETER TESTS ARE DISCRETE TESTS OF THE GROUND AT THE LOCATION OF THE TESTS ONLY. WHILE THEY ARE REPRESENTATIVE OF TYPICAL CONDITIONS, THEY DO NOT IDENTIFY VARIATIONS IN THE GROUND IN LOCATIONS AWAY FROM THE TEST AREAS.

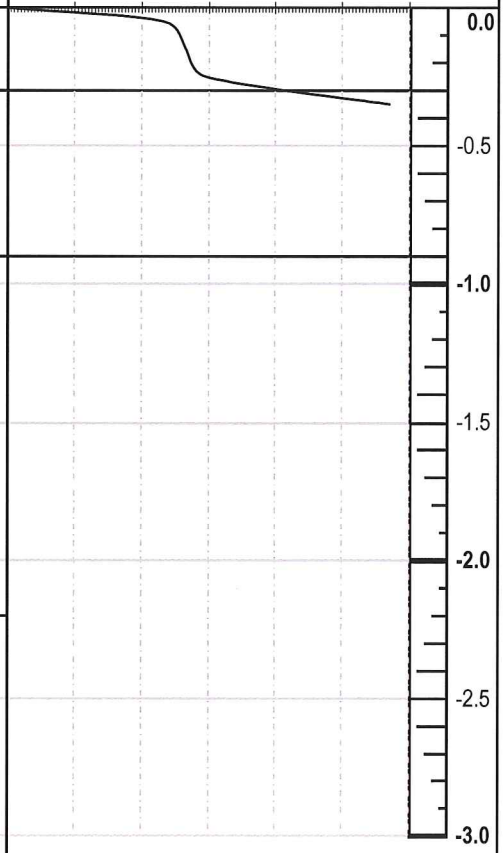
SCALA PENETROMETER & TEST PIT RESULTS

KIRK | ROBERTS
CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP1
		Test Pit:	TP1
		Project No.:	131388
Client:	DM & AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, dry, firm.		OL		
	-0.5	**SILT** Grey brown silt with mottled orange staining, firm to stiff, dry some fine gravel at 0.7m with minor trace of fine sand. Moist.		M		
	-1.0	**sandy GRAVEL** Light grey sandy gravel, medium to coarse sand, fine to very fine gravel. wet.		GS		
	-1.5	becoming saturated at 1.9m			18th December 2013 ▼	
	-2.0	**EOH at 2.2m in saturated dense sandy gravel**				
	-2.5					
	-3.0					
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

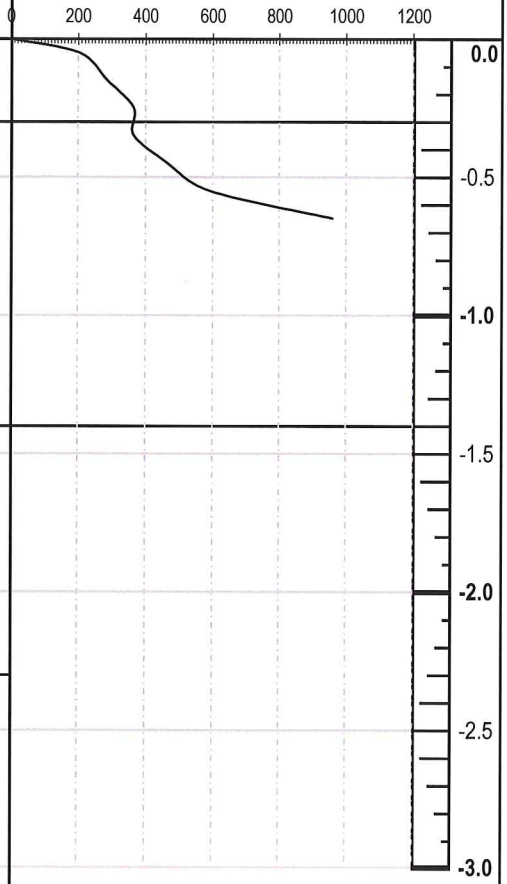
SCALA PENETROMETER & TEST PIT RESULTS

KIRK ROBERTS CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP2
		Test Pit:	TP2
		Project No.:	131388
Client:	DM & AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, dry, firm.		OL		
	-0.5	**SILT** Grey brown sandy silt with mottled orange staining, firm to stiff, moist. some fine gravel at 0.8m.		ML		
	-1.0	becoming wet at 1.0m				
	-1.5	**sandy GRAVEL** Light grey sandy gravel, medium to coarse sand, well graded gravel. saturated, dense.		GS	18th December 2013 ▼	
	-2.0	sand content reducing at 2.1m				
	-2.5	**EOH at 2.3m in saturated dense sandy gravel.**				
	-3.0					
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

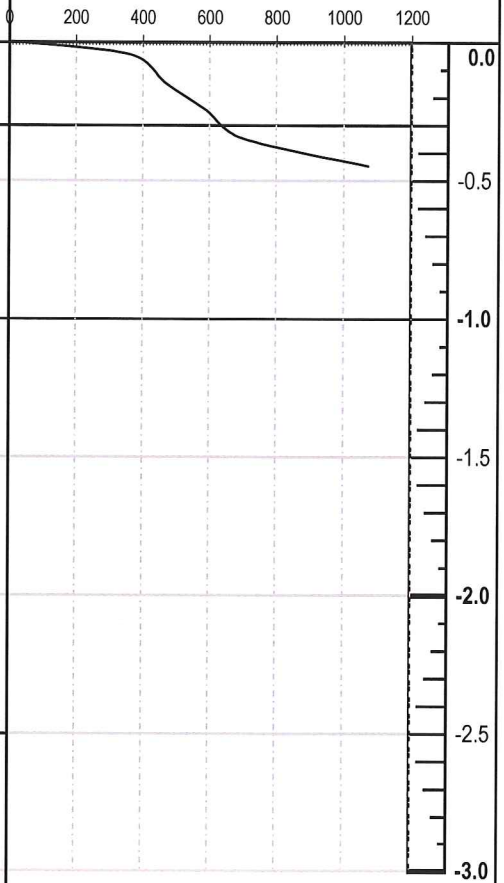
SCALA PENETROMETER & TEST PIT RESULTS

KIRK ROBERTS CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP3
		Test Pit:	TP3
		Project No.:	131388
Client:	DM & AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, dry, firm.		OL		
	-0.5	**SILT** Light brown silt with mottled orange staining, firm to stiff, dry to moist. minor clay inclusion, slightly plastic. some fine gravel at 0.9m		M		
	-1.0	sandy GRAVEL Light grey sandy gravel, medium to coarse sand, fine gravel. wet becoming saturated.		GS	18th December 2013 ▼	
	-2.0	sand content reducing, well graded gravel,				
	-2.5	EOH at 2.5m in washed, well graded, dense gravel.				
	-3.0					
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

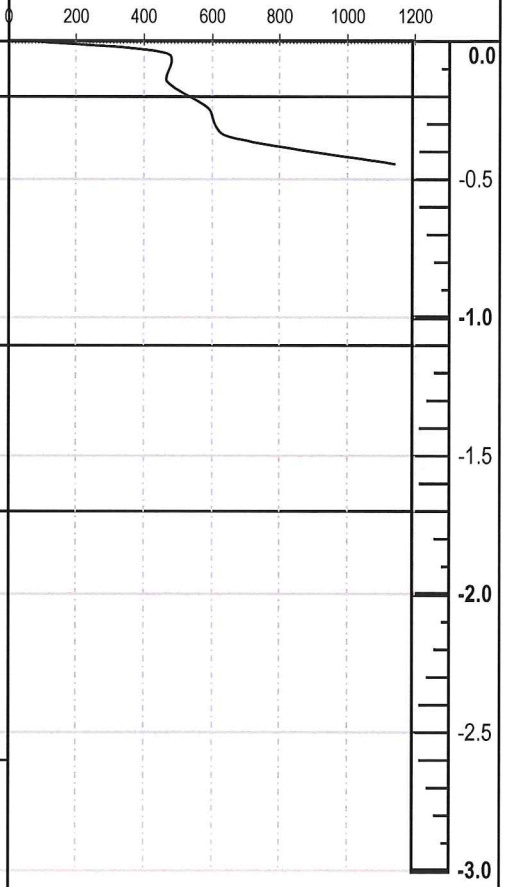
SCALA PENETROMETER & TEST PIT RESULTS

KIRK ROBERTS CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP4
		Hand Auger:	TP4
		Project No.:	131388
Client:	DM & AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, dry, firm.		OL		
	-0.5	**SILT** Light grey brown silt with some minor clay inclusion. Firm to stiff, dry. some fine to medium gravel at 0.7m		M		
	-1.0					
	-1.5	**sandy GRAVEL** Light grey sandy gravel, medium to coarse sand, fine gravel. wet becoming saturated. sand content reducing.		GS		
	-2.0	**GRAVEL** Grey brown fine to course gravel, rounded to Subrounded gravel, well graded, saturated, dense.		G	18th December 2013 ▼	
	-2.5					
	-3.0	EOH at 2.6m in saturated dense gravel.				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

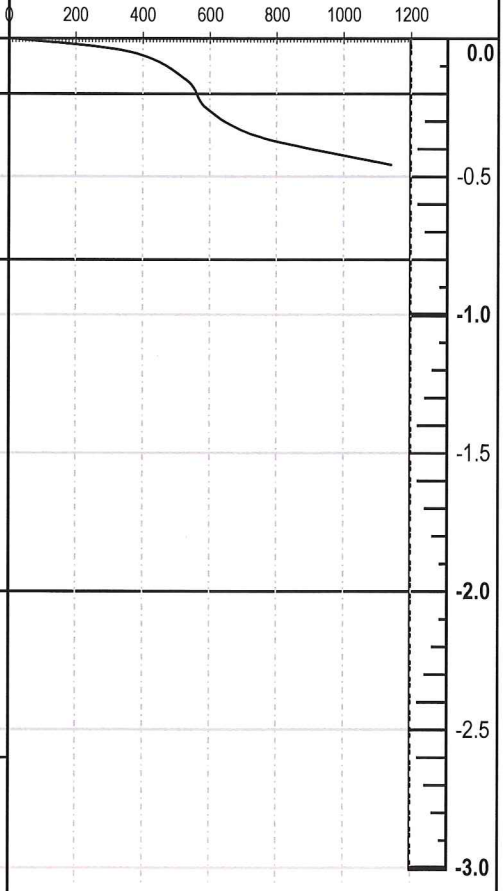
SCALA PENETROMETER & TEST PIT RESULTS

KIRK ROBERTS CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP5
		Test Pit:	TP5
		Project No.:	131388
Client:	DM & AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, dry, firm.		OL		
	-0.5	**SILT** Light grey brown silt with some minor clay inclusion. Firm to stiff, dry.		M		
	-1.0	**sandy GRAVEL** Orangey brown sandy gravel, medium to coarse sand, fine gravel. wet becoming saturated.		GS	18th December 2013 ▼	
	-2.0	**GRAVEL** Grey brown fine to course gravel, rounded to Subrounded gravel, well graded, saturated, dense.		G		
	-2.5					
	-3.0	EOH at 2.6m in saturated dense gravel.				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

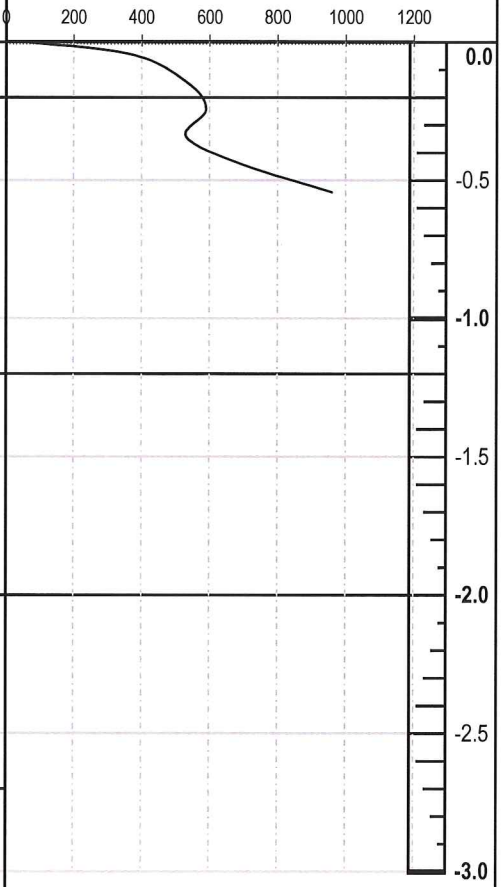
SCALA PENETROMETER & TEST PIT RESULTS

KIRK ROBERTS CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP6
		Test Pit:	TP6
		Project No.:	131388
Client:	DM & AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, dry, firm.		OL		
	-0.5	**SILT** Light brown grey silt,with some mottled orange staining and minor clay inclusion. moist to wet.		MH		
	-1.0	some grey clayey silt at 0.9m with fine gravel inbedded.				
	-1.5	**sandy GRAVEL** Grey brown sandy gravel, coarse sand, dense, wet to saturated. thin lens layer of coarse grey sand at 1.7m		GS	18th December 2013 ▼	
	-2.0	**GRAVEL** Grey brown fine to course gravel, rounded to Subrounded gravel, well graded, saturated, dense.		G		
	-2.5					
	-3.0	**EOH at 2.7m in saturated dense gravel.**				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



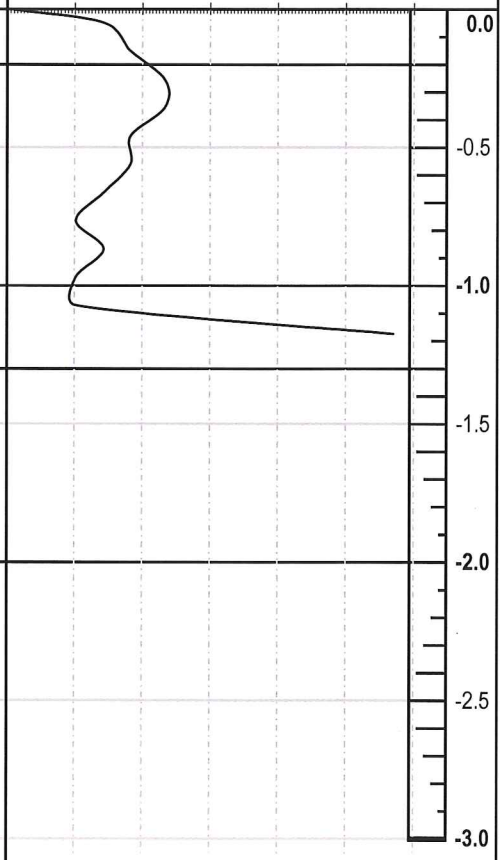
Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

SCALA PENETROMETER & TEST PIT RESULTS

KIRK | ROBERTS
CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP7
		Test Pit:	TP7
		Project No.:	131388
Client:	DM & AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, dry, firm.		OL		
	-0.5	**SILT** Light grey brown silt with mottled orange staining, dry to moist, firm minor trace of grey clay at 0.9m, slightly plastic.		M		
	-1.0	**SILT** Light grey brown silt,with some clay and gravel, firm, wet.		MH		
	-1.5	**sandy GRAVEL** Light grey sandy gravel, course sand, subrounded gravel,wet. sand content reducing.		GS		
	-2.0	**GRAVEL** Grey fine to course gravel, rounded to Subrounded gravel, well graded, saturated.		G	18th December 2013 ▼	
	-2.5					
	-3.0					
	-3.5	**EOH at 3.1m in saturated dense gravel.**				
	-4.0					
	-4.5					



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

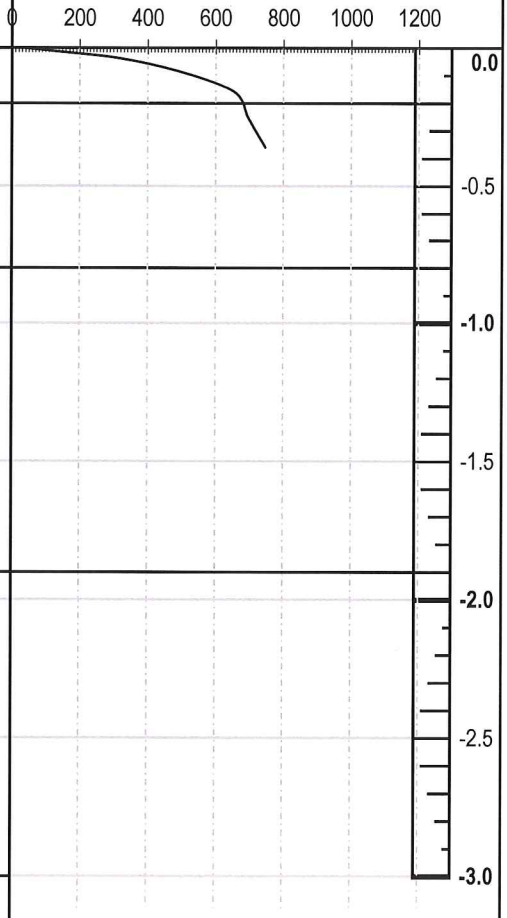
SCALA PENETROMETER & TEST PIT RESULTS

KIRK | ROBERTS
CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP8
		Test Pit:	TP8
		Project No.:	131388
Client:	DM & AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, dry, firm.		OL		
	-0.5	**SILT** Light brown silt, with some mottled orange staining and minor trace of fine sand. some gravel at 0.8m		M		
	-1.0	**sandy GRAVEL** Light grey sandy gravel, course sand,subrounded gravel,wet.		GS		
	-1.5	some cobbles at 1.9m, saturated.			18th December 2013 ▼	
	-2.0	**GRAVEL** Light grey fine to course gravel, rounded to Subrounded gravel, saturated, dense, well graded, washed.		G		
	-2.5					
	-3.0	**EOH at 3.0m in washed, well graded, dense gravel.**				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

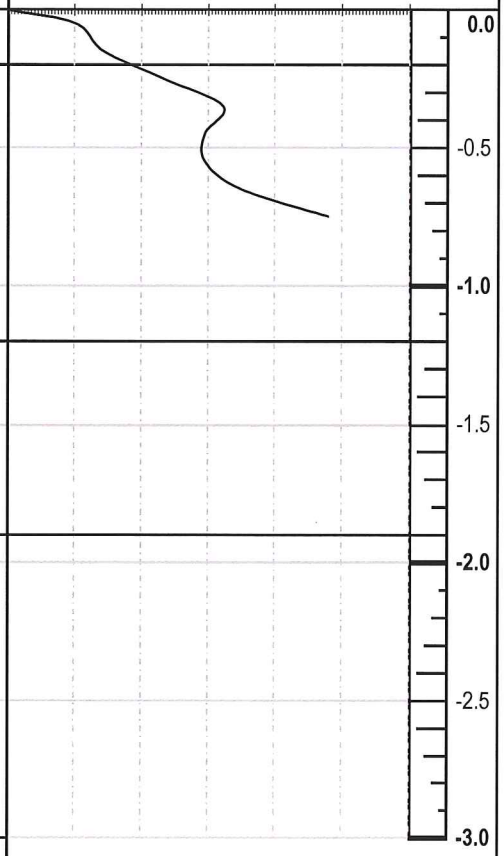
SCALA PENETROMETER & TEST PIT RESULTS

KIRK | ROBERTS
CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP9
		Test Pit:	TP9
		Project No.:	131388
Client:	DM and AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, firm, dry.		OL		
	-0.5	**SILT** Light brown mottled orange silt, firm, dry. minor trace of fine sand at 0.6m some gravel at 0.8m, dense.		M		
	-1.0					
	-1.5	**sandy GRAVEL** Grey brown sandy gravel, medium to coarse, wet. some cobbles at 1.9m		GS		
	-2.0	**GRAVEL** Light grey fine to course gravel, rounded to Subrounded gravel, dense, well graded, saturated.		G	18th December 2013 ▼	
	-2.5					
	-3.0	**EOH at 3.0m in dense, saturated gravel.**				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

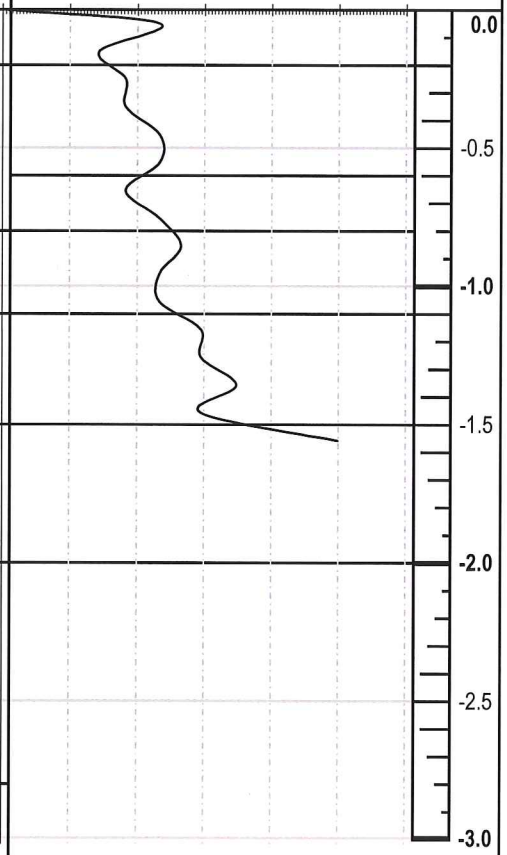
SCALA PENETROMETER & TEST PIT RESULTS

KIRK ROBERTS CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP10
		Test Pit:	TP10
		Project No.:	131388
Client:	DM and AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, firm, dry.		OL		
	-0.5	**SILT** Light brown silt with mottled orange staining, firm dry. some fibrous material at 0.6m		M		
	-1.0	**sandy GRAVEL** Orangey brown sandy gravel, medium to coarse sand, rounded to Subrounded gravel. Dense, wet		GS		
	-1.5	**GRAVEL** Grey round to Subround gravel, minor sand, wet to saturated			18th December 2013 ▼	
	-2.0					
	-2.5					
	-3.0	**EOH at 2.8m in saturated dense gravel.**				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

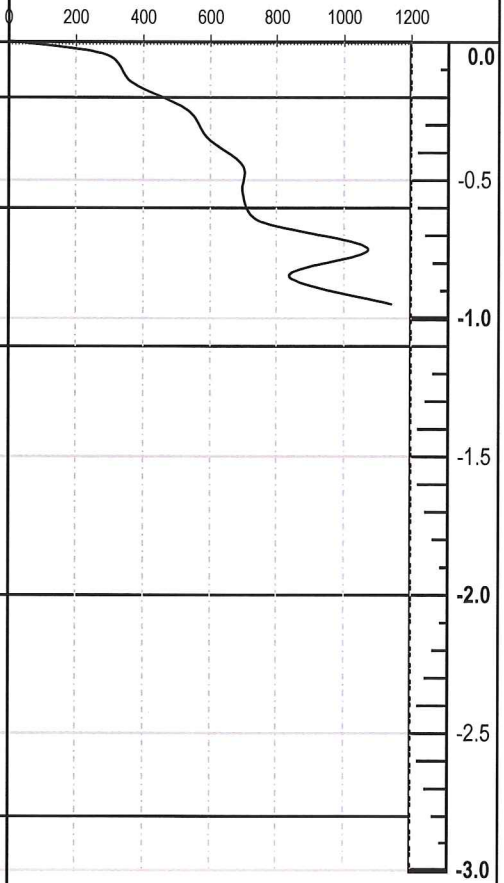
SCALA PENETROMETER & TEST PIT RESULTS

KIRK ROBERTS CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP11
		Test Pit:	TP11
		Project No.:	131388
Client:	DM and AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, firm, dry.		OL		
	-0.5	**SILT** Grey clayey silt, with some mottled orange staining. Firm to stiff, moist. moderate plasticity.		MH		
	-1.0	**SILT** Grey brown sandy silt, firm, wet,		ML		
	-1.5	**sandy GRAVEL** Orangey brown sandy silt, firm, wet . becoming saturated at 1.5m		GS		
	-2.0	**GRAVEL** Grey round to subround gravel, minor sand, saturated		G	18th December 2013 ▼	
	-2.5					
	-3.0	**EOH at 2.8m in saturated dense grey gravel.**				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

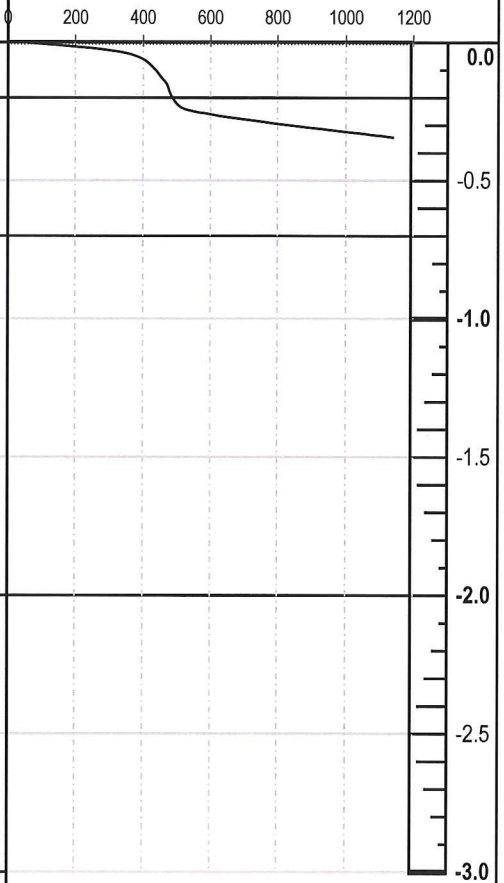
SCALA PENETROMETER & TEST PIT RESULTS

KIRK ROBERTS CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP12
		Test Pit:	TP12
		Project No.:	131388
Client:	DM and AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, firm, dry.		OL		
	-0.5	**SILT** Light brown mottled orange silt, firm, dry, some minor sand and gravel at 0.6m		M		
	-1.0	**sandy GRAVEL** Brown sandy gravel, medium to coarse, wet, dense. becoming saturated at 1.2m		GS	18th December 2013 ▼	
	-1.5	thin lens of coarse grey sand at 1.7m				
	-2.0	**GRAVEL** Light grey fine to coarse gravel, rounded to Subrounded gravel, saturated, well graded.		G		
	-2.5					
	-3.0	**EOH at 3.0m in saturated dense grey gravel.**				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

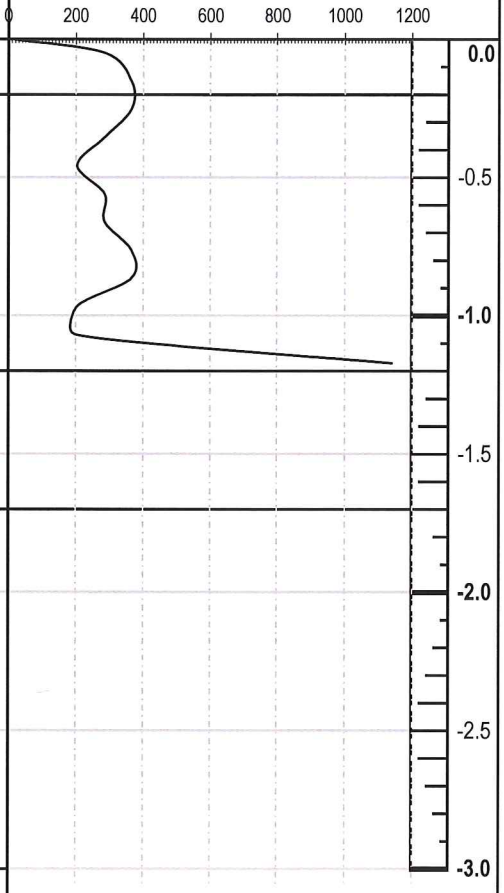
SCALA PENETROMETER & TEST PIT RESULTS

KIRK ROBERTS CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP13
		Test Pit:	TP13
		Project No.:	131388
Client:	DM and AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, firm, dry.		OL		
	-0.5	**SILT** Grey silt with minor grey clay inclusion, some mottled orange staining, moist, firm to stiff.		M		
	-1.0	some gravel at 1.0m				
	-1.5	**sandy GRAVEL** Grey brown sandy gravel, rounded to sub round, medium to coarse sand, wet. dense.		GS	18th December 2013 ▼	
	-2.0	**GRAVEL** Light grey fine to course gravel, rounded to Subrounded gravel, well graded, washed.		G		
	-2.5					
	-3.0	**EOH at 3.0m in saturated well graded gravel.**				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

SCALA PENETROMETER & TEST PIT RESULTS

KIRK ROBERTS CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP14
		Test Pit:	TP14
		Project No.:	131388
Client:	DM and AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)	Ultimate Bearing Capacity (kPa)
	0.0	**TOPSOIL** Light brown organic silt, firm, dry.		OL			
	-0.5	**SILT** Grey brown silt, with mottled orange staining, firm to stiff, dry to moist. some medium to coarse sand at 0.7m		M			
	-1.0	**sandy GRAVEL** Grey brown sandy gravel, fine to medium coarse, wet, dense		GS			
	-1.5	becoming saturated at 1.7-1.8m			18th December 2013 ▼		
	-2.0	**GRAVEL** Grey fine to course gravel, minor sand rounded to Subrounded gravel, saturated, dense.		G			
	-2.5						
	-3.0	**EOH at 3.0m in saturated well graded gravel.**					
	-3.5						
	-4.0						
	-4.5						

Ultimate Bearing Capacity (kPa): 0, 200, 400, 600, 800, 1000, 1200

Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

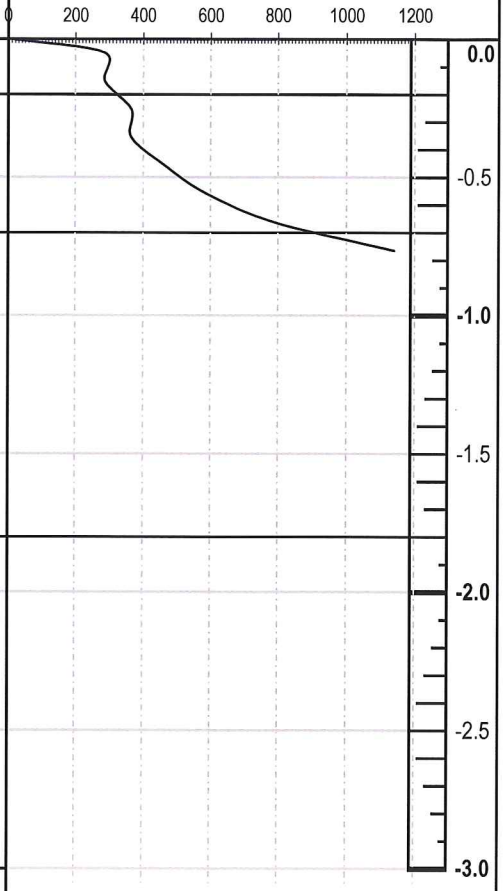
SCALA PENETROMETER & TEST PIT RESULTS

KIRK ROBERTS CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP15
		Test Pit:	TP15
		Project No.:	131388
Client:	DM and AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, firm, dry.		OL		
	-0.5	**SILT** Grey silt with minor grey clay inclusion, some mottled orange staining, moist, firm to stiff.		M		
	-1.0	**sandy GRAVEL** Grey brown sandy gravel, rounded to sub round, medium to coarse sand, moist. to wet.		GS		
	-1.5	becoming saturated at 1.6m			18th December 2013 ▼	
	-2.0	**GRAVEL** Grey brown fine to course gravel, rounded to Subrounded gravel, well graded, saturated.		G		
	-3.0	**EOH at 3.0m in saturated well graded gravel.**				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

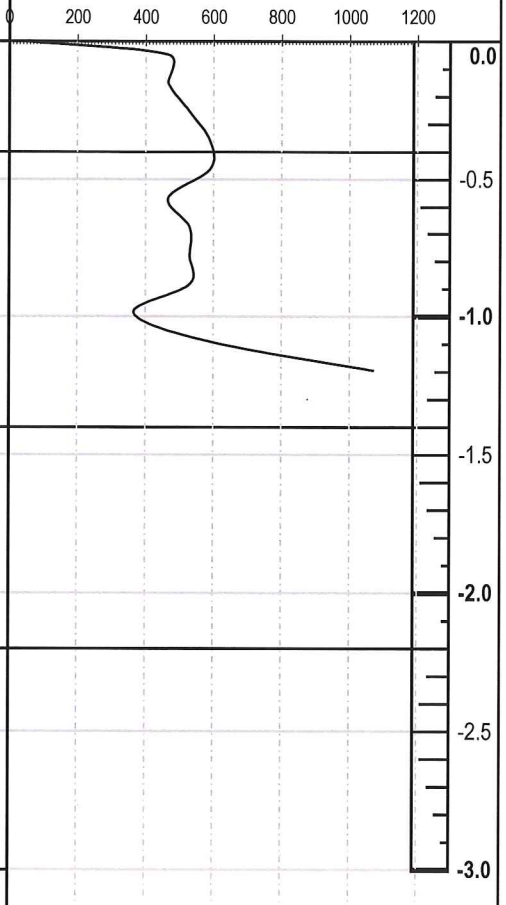
SCALA PENETROMETER & TEST PIT RESULTS

KIRK | ROBERTS
CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP16
		Test Pit:	TP16
		Project No.:	131388
Client:	DM and AD Smith Investments Ltd.	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, firm, dry. some fine sand at 0.3m		OL		
	-0.5	**SILT** Grey sandy silt, with minor clay inclusion, firm, moist.		ML		
	-1.0					
	-1.5	**sandy GRAVEL** Grey sandy gravel, medium to coarse. rounded to Sub rounded, wet. becoming saturated at 1.8m. sand content reducing at 2.2m		GS		
	-2.0					
	-2.5	**GRAVEL** Grey fine to course gravel, rounded to Subrounded gravel, saturated.		G	18th December 2013 ▼	
	-3.0	**EOH at 3.0m in saturated well graded gravel.**				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

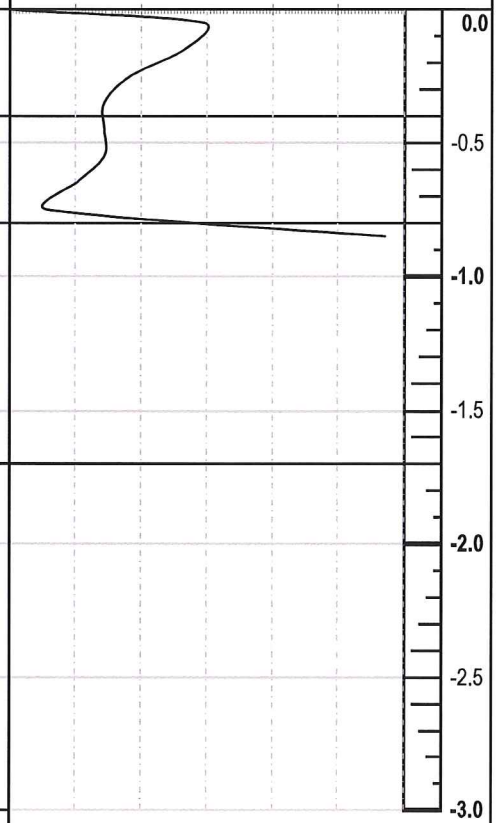
SCALA PENETROMETER & TEST PIT RESULTS

KIRK | ROBERTS
CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP17
		Test Pit:	TP17
		Project No.:	131388
Client:	DM and AD Smith Investments Ltd	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, firm, dry.		OL		
	-0.5	**SILT** Brown to light brown silt, minor sand firm becoming soft, moist, some medium gravel at 0.8m		M		
	-1.0	**sandy GRAVEL** Grey sandy gravel, minor fine sand subrounded gravel,wet.		GS		
	-1.5	becoming saturated at 1.6m			18th December 2013 ▼	
	-2.0	**GRAVEL** Grey fine to medium gravel, rounded to subrounded, some coarse sand. saturated.		G		
	-3.0	**EOH at 3.0m in dense, grey saturated gravel.**				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

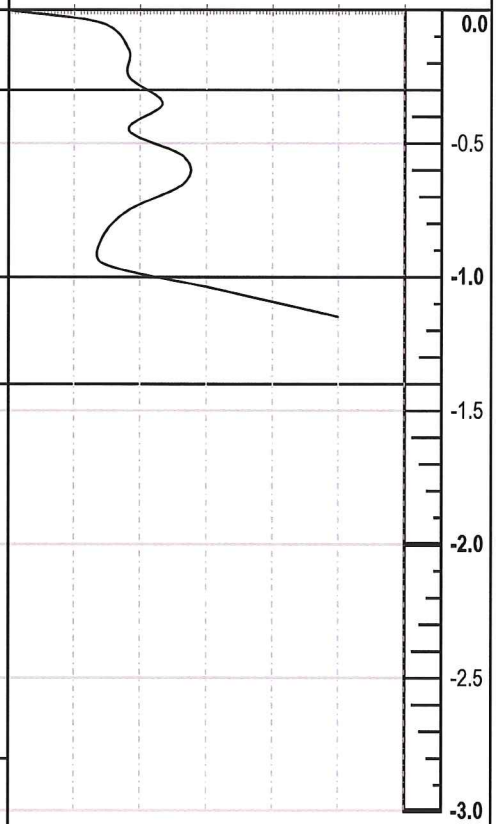
SCALA PENETROMETER & TEST PIT RESULTS

KIRK | ROBERTS
CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP18
		Hand Auger:	TP 18
		Project No.:	131388
Client:	DM and AD Smith Investments Ltd	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Dark brown organic silt, firm, moist.		OL		
	-0.5	**SILT** Light brown silt, some minor grey clay, firm, moist. trace of medium sand at 0.7m		ML		
	-1.0	**sandy GRAVEL** Grey brown sandy gravel, fine to coarse sand. Moist, dense. Becoming wet at 1.3m		GS		
	-1.5	**GRAVEL** Grey brown gravel, dense, wet.		G		
	-2.0	Saturated at 1.9m			18th December 2013 ▼	
	-2.5					
	-3.0	**EOH at 2.8m in dense, saturated gravel.**				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

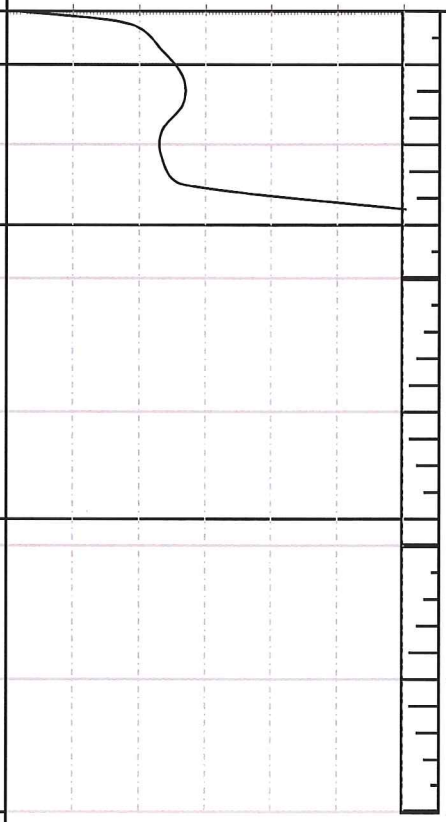
SCALA PENETROMETER & TEST PIT RESULTS

KIRK | ROBERTS
CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP19
		Test Pit:	TP19
		Project No.:	131388
Client:	DM and AD Smith Investments Ltd	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, firm, dry.		OL		
	-0.5	**SILT** Brown grey silt, minor sand, firm becoming stiff, dry to moist.		ML		
	-1.0	**sandy GRAVEL** Grey sandy gravel, medium to coarse sand, dense, wet		GS		
	-1.5	becoming saturated at 1.4m sand content reducing at 1.9m			18th December 2013 ▼	
	-2.0	**GRAVEL** Grey fine to course gravel, rounded to Subrounded, saturated dense.		G		
	-2.5					
	-3.0	**EOH at 3.0m in dense, saturated gravel.**				
	-3.5					
	-4.0					
	-4.5					

Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

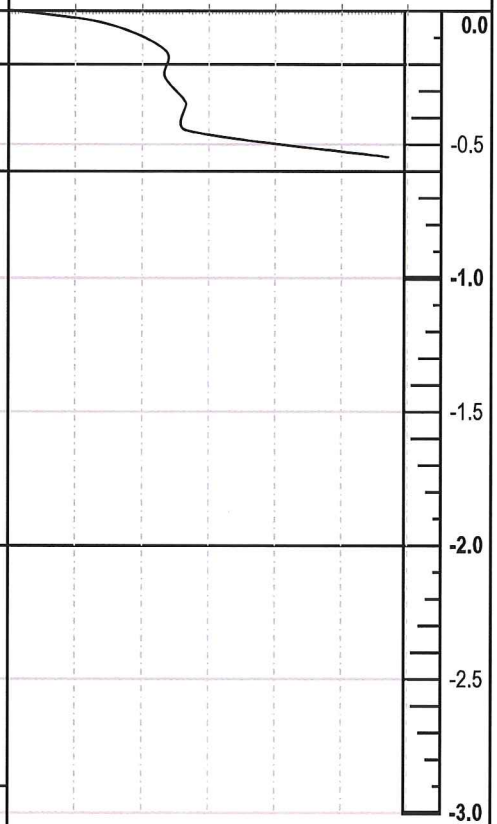
SCALA PENETROMETER & TEST PIT RESULTS

KIRK | ROBERTS
CONSULTING ENGINEERS LTD

		Scala Penetrometer:	SP20
		Hand Auger:	TP20
		Project No.:	131388
Client:	DM and AD Smith Investments Ltd	**Date:**	18th December 2013
Site Address:	240 Flaxton Road	**Weather:**	Fine
Town/City:	Rangiora	**Operator:**	HAV / AJ

Geological Formation:	Depth (m)	Sample Description:	Graphic:	USCS	Water Table	Undrained Shear Strength Su (kPa)
	0.0	**TOPSOIL** Light brown organic silt, firm, dry.		OL		
	-0.5	**SILT** Brown grey silt, with minor trace of sand firm, dry .		ML		
	-1.0	**sandy GRAVEL** Grey sandy gravel, coarse sand, subrounded gravel,wet.		GS		
	-1.5	becoming saturated at 1.7m			18th December 2013 ▼	
	-2.0	**GRAVEL** Grey fine to medium gravel, some minor sand, dense. Saturated.		G		
	-2.5					
	-3.0	**EOH at 2.9m in dense, grey saturated gravel.**				
	-3.5					
	-4.0					
	-4.5					

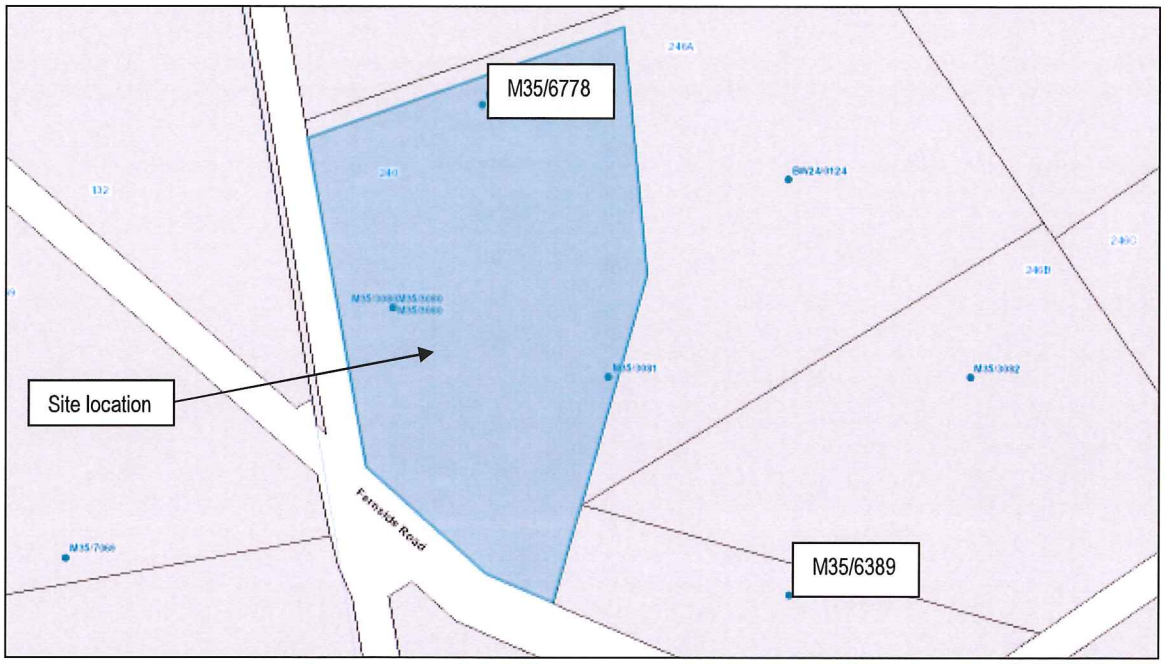
Ultimate Bearing Capacity (kPa)



Scala Penetrometer and Test Bore log tests give an indication of the ground condition at the location of the tests only. While they are representative of typical conditions across the site, they do not identify variations in the ground away from the test locations.

APPENDIX B

- Supplementary ECan Test Location Plan
- ECAN Borehole Logs

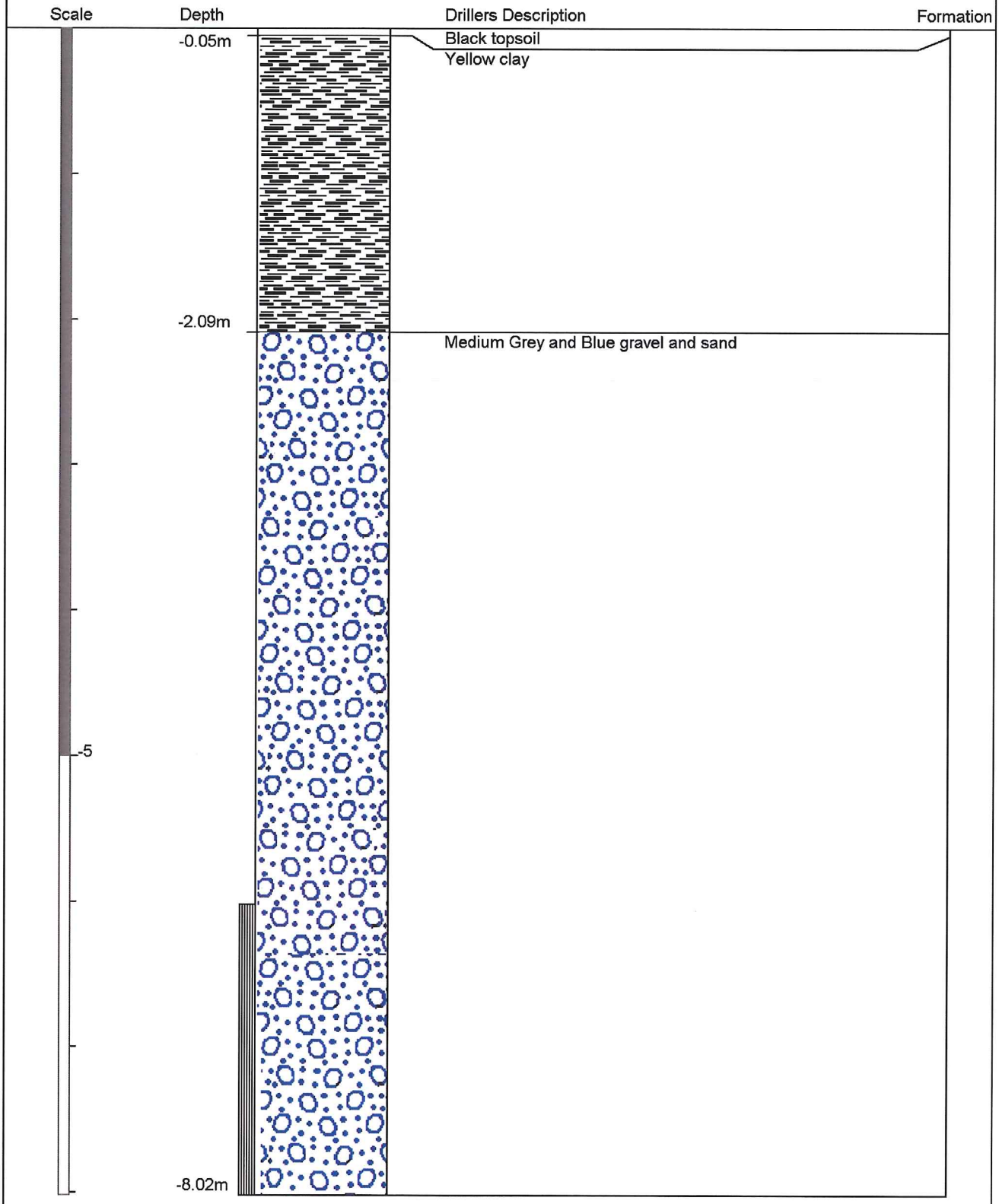


Referenced ECan Well Location Plan

Borelog for well M35/6778

Gridref: M35:7783-6325
Ground Level Altitude 16 +MSD
Driller : Canterbury Groundwater Ltd.
Drill Method: Unknown
Drill Depth : -8.02m Drill Date : 27/11/1992

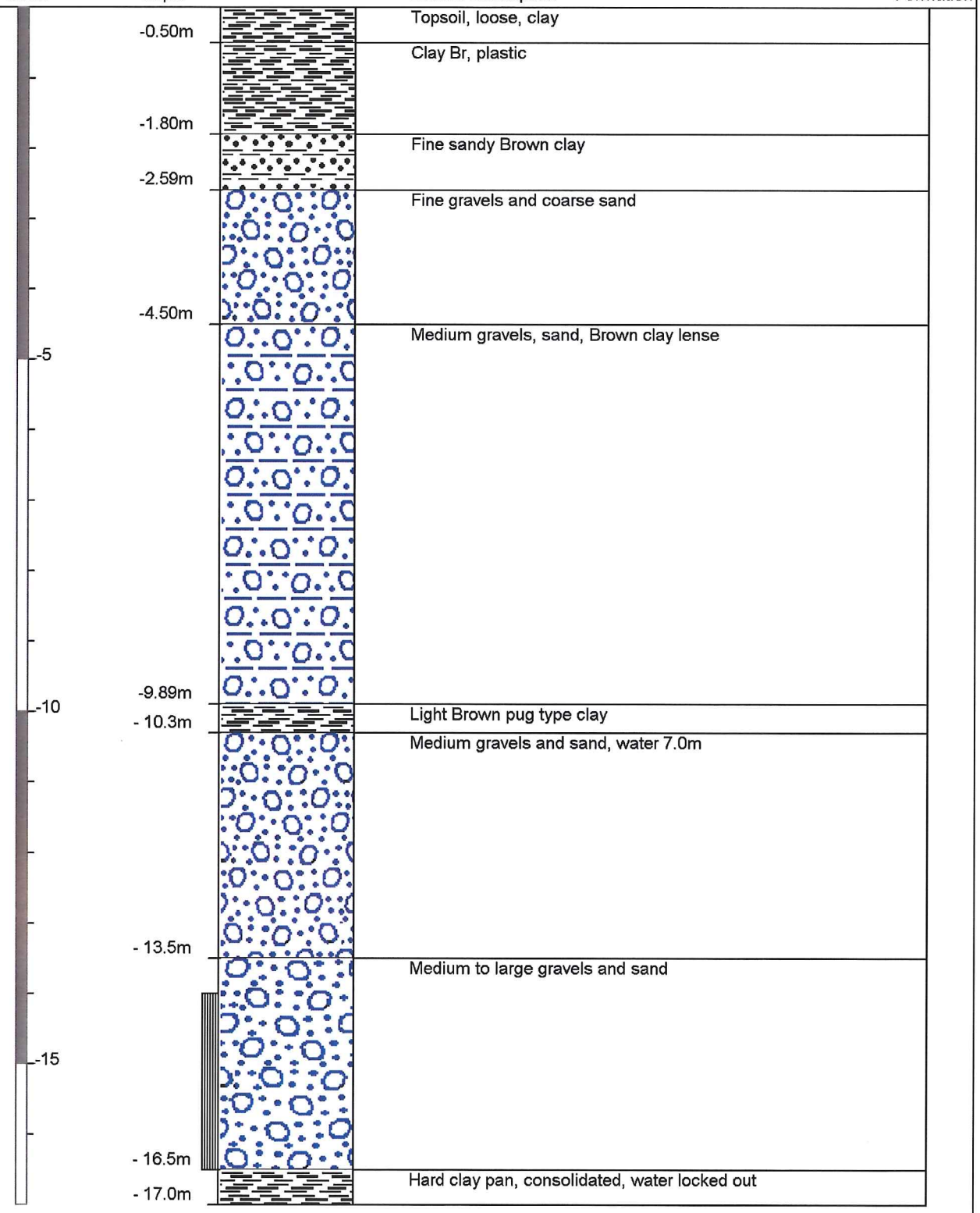
Environment Canterbury
Your regional council



Borelog for well M35/6839

Gridref: M35:7800-6298
Ground Level Altitude 14 +MSD
Driller : Canterbury Groundwater Ltd.
Drill Method: Cable Tool
Drill Depth : -17m Drill Date : 26/03/1993

Environment Canterbury
Your regional council



Appendix I
Kirk Roberts Geotechnical report

Appendix II
Abley's transportation Consultants Report

Our Ref: ad01_wmk flaxton road lurp pc

Tuesday, 25 February 2014

Waimakariri District Council
Private Bag 1005
RANGIORA 7440

Attention: Matthew Bacon

TRANSMITTAL: **EMAIL**
matthew.bacon@wmk.govt.nz

Dear Matthew

PROPOSED FLAXTON ROAD BUSINESS 6 ZONE
ASSESSMENT OF ACCESS ARRANGEMENTS AND PARKING DEMAND

Waimakariri District Council (Council) have asked Abley Transportation Consultants (Abley) to assess the access arrangements and establish the potential parking demand for the proposed Business 6 Zone located at 240 Flaxton Road. This Plan Change has been initiated as part of Statutory Direction 25 of the Land Use Recovery Plan (LURP), which directs Council to rezone this area of land from Rural Zone to Business 6 Zone.

The Plan Change site is located 4km south of Rangiora Town Centre and has a size of approximately 41,000m^2. The surrounding areas of land to the south and east are currently zoned Rural, however the area bounding the north and west of the site are zoned Business 2. The extents of the Plan Change site and location of the proposed access points are shown in **Figure 1**.

Figure 1 Location of Proposed Flaxton Road Business 6 Zone

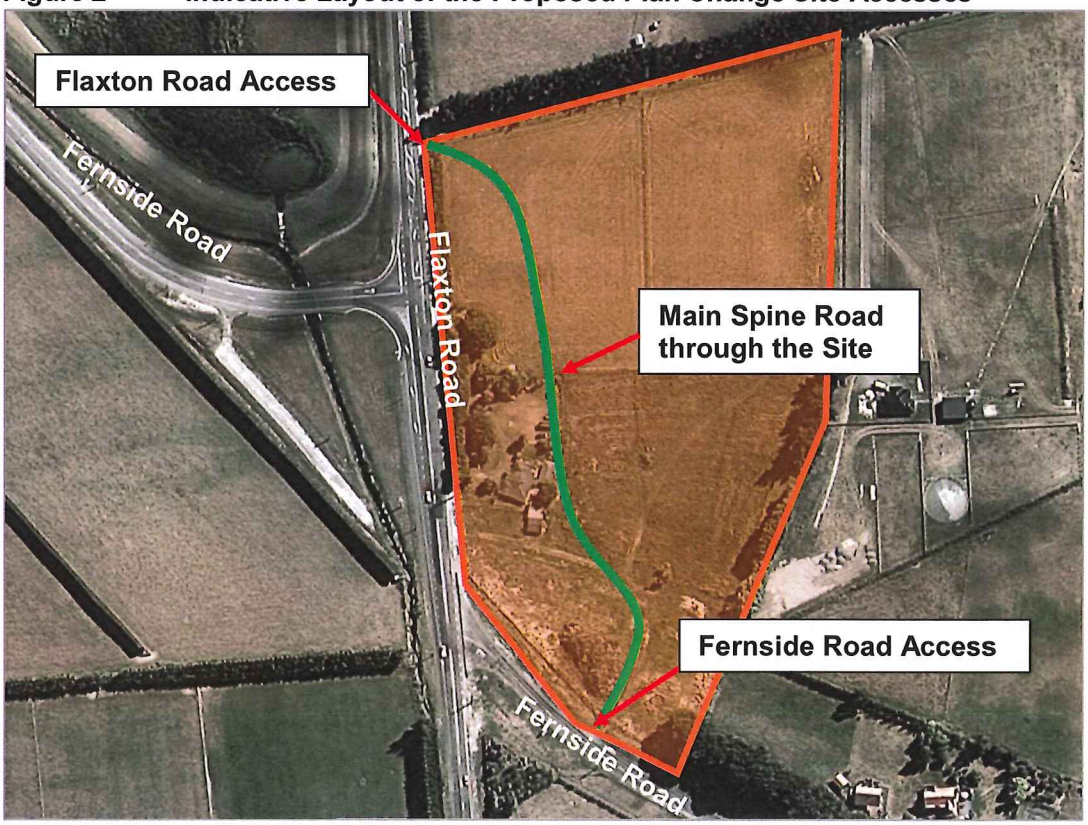
Abley Transportation Consultants Limited
www.abley.com info@abley.com
Christchurch phone +64(0)3 377 4703 fax +64(0)3 377 4700
Level 1 and 2, 30a Carlyle Street, PO Box 25350, Christchurch 8144, New Zealand
Auckland phone +64(0)9 974 9820 fax +64(0)9 974 9824
PO Box 911336, Auckland 1142, New Zealand

Plans for the establishment of activities on the site are already well advanced. These plans show a variety of activities are proposed to be established on site, including the following:

- Museum
- Conference Centre
- Tavern
- Chapel
- Retail Area
- Accommodation
- Van Parking
- Gymnasium

The assessment carried out has taken into consideration the potential parking demand generated by the activities identified above and has also been based upon the preliminary layout of the site which indicates two access points into the site, one from Flaxton Road and one from Fernside Road. The indicative layout of the site with the proposed location of the accesses are shown in **Figure 2**.

Figure 2 Indicative Layout of the Proposed Plan Change Site Accesses



Flaxton Road Access

Distance of Vehicle Access from Intersection

The proposed Flaxton Road access is situated at the north-western corner of the site, adjacent to an existing accessway which runs along the northern boundary of the site. This existing accessway currently serves two residential properties and surrounding farmland.

Rule 30.6.1.13 of the District Plan states that the distance between two accesses within a Business Zone should be less than 6m or greater than 12m. A distance of less than 6m can be achieved between the two accesses. The volume of traffic movements using the adjacent accessway have not been surveyed but are assumed to be minimal. Given the very low traffic generation of the adjacent site the proposed location of the site access is not expected to give rise to any operational or safety issues.

Under Rule 30.6.19 of the District Plan a minimum separation distance of 180m is required between an access joining an Arterial Road (Flaxton Road) and an intersecting Collector Road (Fernside Road) where the speed limit is 100km/h. The nearest intersection on the same side of Flaxton Road as the proposed site access is the Flaxton Road / Fernside Road intersection, which is located approximately 200m to the south. The location of the proposed access therefore meets the required separation distance.

On the western side of Flaxton Road, approximately 60m south of the proposed access, is the other leg of the Flaxton Road / Fernside Road intersection. A formal right turn bay is provided on Flaxton Road for vehicles turning right into Fernside Road. This right turn bay commences almost directly opposite the location of the site access. Typically this type of arrangement is not recommended as it may lead to conflict between vehicles turning right into Fernside Road and right turning vehicles into the site. However, it is understood that the Flaxton Road access will be designed to allow for left in and left out movements only. Consequently this alleviates any concerns regarding conflicting right turning movements and is therefore considered to be an acceptable configuration.

Road Widening

Given the potential number of movements in and out of the access and the volume of traffic on Flaxton Road, which is classified as an Arterial Road with a posted speed limit of 100km/h, it is considered that acceleration and deceleration tapers are appropriate for an access in this location and should be included as part of the Plan Change.

The grass berms either side of the access (between the seal edge and the road reserve boundary) are approximately 2.5m wide and can accommodate the necessary widening. As the access will only facilitate left in and left out movements, widening along the western side of Flaxton Road, directly opposite the access is not necessary.

Alterations to Flaxton Road

The number of right turning movements from Flaxton Road into Fernside Road (east) is likely to increase, as right turns into the site will not be permitted through the Flaxton Road access. Consequently, a formal right turn bay on Flaxton Road for vehicles turning right in to Fernside Road (east) is considered necessary to safely accommodate the increased number of right turn movements in this high speed environment.

The distance between the intersections of Flaxton Road with Fernside Road (west) and Fernside Road (east) is 140m. It is advised that a flush median between both of these intersections on Flaxton Road should be implemented as part of the alterations required to facilitate development on the site. The flush median will improve the overall through

alignment on Flaxton Road and provide the opportunity for vehicles turning right out of Fernside Road to wait or accelerate clear of through movements.

Sight Distance

Flaxton Road is a flat, straight section of road in the vicinity of the site and provides for excellent visibility either side of the Flaxton Road access. Views from the proposed access towards the north and south of Flaxton Road are shown in **Figure 3** and **Figure 4** respectively. The minimum sight distance required for an access on this section of Flaxton Road which is subject to a 100km/h speed limit is 250 metres. This can be easily achieved in both directions from the proposed access location on Flaxton Road.

Figure 3 View of Flaxton Road from the proposed access towards the north

Figure 4 View of Flaxton Road from the proposed access towards the south

Vehicle Accessway Width

Rule 30.6.1.9 of the District Plan states that the minimum access formation widths required for Business Zones for any land use or activity is 6m or separate entry and exit carriageways of 3m each. The minimum legal width is 8m or two separate carriageways of 5m. Given the ample size of the site, there is no reason why these minimum accessway widths cannot be achieved.

As the Flaxton Road access will only permit left turn movements in and out of the site, it is recommended that a raised triangular shaped island be constructed to separate these movements. This will assist in discouraging any right turn movements through the access.

Vehicle Crossing Numbers and Width

A maximum number of 2 crossings per site per road frontage is permitted under Rule 30.6.1.13 of the District Plan. However, access to individual developments within the Plan Change site should be via the proposed Flaxton Road access. The establishment of direct accesses from Flaxton Road into individual sites should be avoided. By minimising the number of access points along this section of Flaxton Road, a safer more efficient road environment can be provided. Vehicle crossings located within a Business Zone should be a minimum of 5m and a maximum of 8m. These widths can be easily accommodated in the design of the access.

Directional Signage

It is important that directional signage is implemented on all approach roads advising drivers of the appropriate access to use. This is particularly important for visitors travelling to the site from Fernside Road (west) who will be required to turn right at the Flaxton Road / Fernside Road (west) intersection and then turn left onto Fernside Road (east) and enter via the Fernside Road access.

Similarly, visitors travelling from the south will have to turn right at the Flaxton Road /. Fernside Road (east) intersection and use the Fernside Road access as right turn movements into the site will not be permitted through the Flaxton Road access.

Fernside Road Access

Distance of Vehicle Access from Intersection

The proposed Fernside Road access is situated approximately 77m to the east of the Flaxton Road / Fernside Road intersection and will allow for all turning movements into and out of the site. The minimum separation distance required between an access onto a Collector Road (Fernside Road) and an Arterial Road (Flaxton Road) is 75m where the speed limit is 100km/h. Therefore, the location of the access meets the minimum requirements.

Alterations to Fernside Road

The width of Fernside Road along the frontage of the site is only 6.5m. Consequently, a vehicles turning into the site are likely to impede through traffic movements. However, the traffic flows on Fernside Road are relatively low meaning the likelihood of through traffic being delayed by vehicles using the Fernside Road access to enter the site is low. However, should this become an issue in the future, the road reserve is sufficiently wide to accommodate a right turn lane.

As the Flaxton Road access will only allow for left out movements, all drivers wishing to travel northbound will be required to exit onto Fernside Road and turn right at the Flaxton Road / Fernside Road intersection. The number of right turning movements at the Flaxton Road / Fernside Road is therefore likely to increase significantly from current levels. It is recommended that separate left and right turn lane should be indicated at the intersection with localised widening to allowing for queuing vehicles.

Sight Distance

Views from the location of the proposed access towards the west and east are shown in **Figure 5** and **Figure 6** respectively. The required sight distance for an access on Fernside Road is 250m. Although Fernside Road curves slightly as it approaches the intersection with Flaxton Road, visibility remains excellent due to the particularly wide grass berms either side of the access. The sight distance requirements at this point are easily achievable.

Figure 5 View of Fernside Road towards the west from the proposed access

Figure 6 View of Fernside Road towards the east from the proposed access

Vehicle Accessway Width

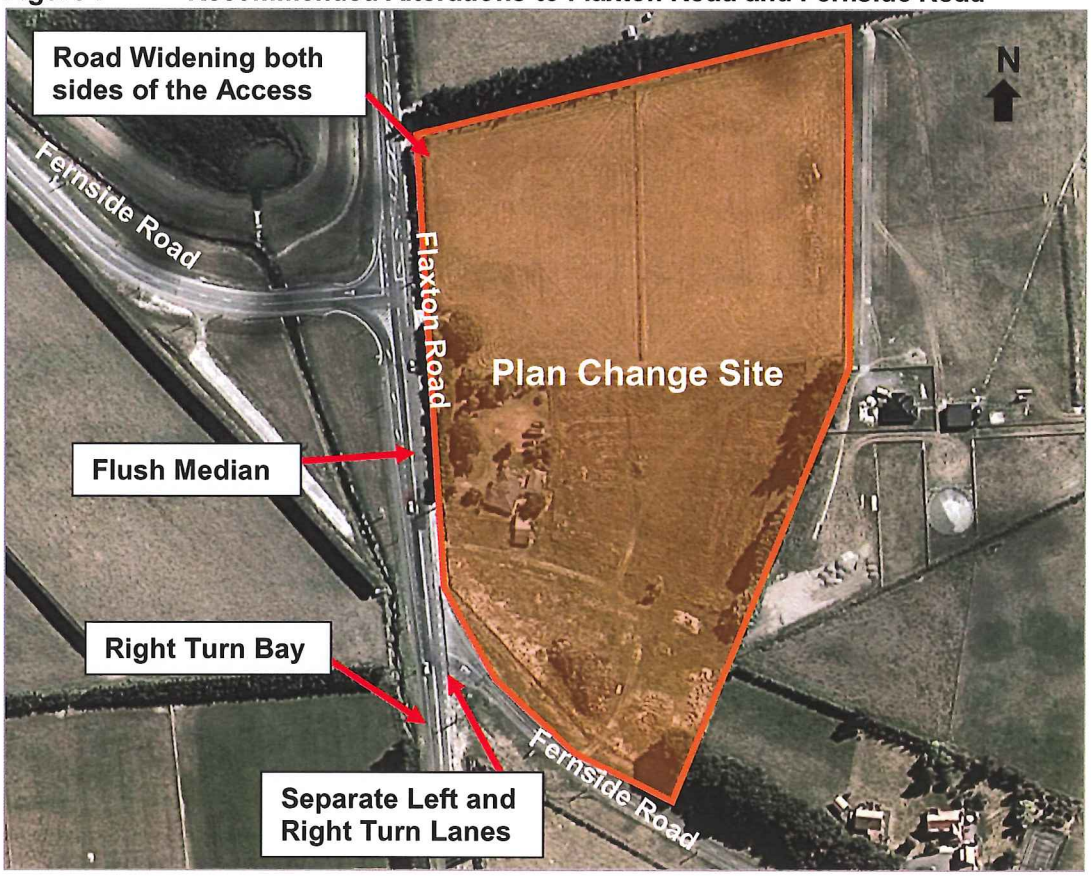
The required accessway widths are the same as those required for the Flaxton Road access and can be accommodated within this part of the site. Given the ample size of the site, there is no reason why these minimum accessway widths cannot be achieved.

Vehicle Crossing Numbers and Width

A maximum number of 2 crossings per site per road frontage is permitted under Rule 30.6.1.13 of the District Plan. However, access to individual developments within the Plan Change site should be via the proposed Fernside Road access. The establishment of direct accesses from Fernside Road into individual sites should be avoided. By minimising the number of access points along this section of Fernside Road, a safer more efficient road environment can be provided. Vehicle crossings located within a Business Zone should be a minimum of 5m and a maximum of 8m. These widths can be easily accommodated in the design of the access.

The recommended alterations to both Flaxton Road and Fernside Road are shown in **Figure 7.**

Figure 7 Recommended Alterations to Flaxton Road and Fernside Road



Parking Demand

The anticipated parking demand generated by the activities expected to establish on the Plan Change site has been determined using the Trips Database Bureau (TDB) and NZTA Research Report 453 "Trips and parking related to land use".

The Trips Database Bureau (TDB) is New Zealand's pre-eminent source of trips and parking information for land use activities. The values taken from TDB for each activity have been from sites of a similar size and location environment where possible. However, it is important to note that the majority of the sites within the TDB database are within an urban or suburban environment and not a semi - rural environment. Because of this, parking demand in a semi - rural area, such as Southbrook, could potentially be higher as it is less likely that customers or visitors would walk or cycle to the Business Zone due to the dispersed nature of residential dwellings within the Business Zone catchment.

NZTA Research Report 453 provides practical peak parking design demand rates relating to various land uses. These rates are based on surveys, including TDB and include variations between inner, suburban, small town and rural situations.

Table 1 shows the peak parking demand rates for each activity as proposed by TDB and NZTA Research Report 453. A comparison of the peak parking demand rates with the parking provision required by the District Plan is also shown. The recommended number of spaces for each activity after evaluation of rates advised by TDB, NZTA and the District Plan is shown in the Final Value column.

Table 1 Comparison of peak parking demand rates & District Plan requirements

Activity	GFA / Units	TDB	NZTA Report	District Plan	Final Value
Museum (and conference centre including café and shop)	4,000 m^2	-*	80	400	80
Tavern	400 m^2	37	44	40	40
Chapel	150 m^2	43	75	15	59
Retail Area**	1150 m^2	50	58	26	54
Non-Permanent Accommodation	20 Units	8	28	5	28
Van Parking***	10 Vans	10	10	10	10
Gym	200 m^2	9	7	2	8
Total		**157**	**302**	**498**	**279**

*Value unavailable for similar activity

**Assuming 7 retail tenancies of 50m2 and 8 retail tenancies of 100m2

***Assuming 1 space required for each van

The comparison of the NZTA Research Report 453 parking demands for individual land use activities against the District Plan parking requirements shows that provision of the District Plan parking requirements would result in over provision of on-site parking resources for the museum and conference centre.

As Table 1 shows the parking demand rates of TDB and NZTA are broadly comparable. However there are significant differences between these rates and those required by the District Plan. In relation to the museum activity, 400 spaces are required by the District Plan. This is considered to be well in excess of the likely parking demand for this particular activity and the NZTA rate of 80 spaces is felt to be more representative of the demand. Similarly the District Plan requirement of 15 spaces for the Chapel may be an under provision when

compared to the TDB and NZTA Research Report 453 rates of 43 and 75 spaces respectively.

Further, this TDB parking demand estimate is likely to overestimate the actual parking demand, as it does not account for the parking demand occurring at different times for separate activities within the site meaning the overall peak parking demand will be less than the sum of the parts.

There is potential for parking to be shared between various activities on the site. Most parking spaces are only used part time by a particular activity as the parking demand for the each activity is likely to vary throughout the day. For example, the tavern will have a high demand for parking mainly after 6pm and therefore can allow its parking spaces to be used on Sunday mornings by attendees of the chapel. Shared parking allows for a more efficient use of the parking facilities provided.

The exact extent of the parking demand reductions that would be attributable to these factors is difficult to estimate. However, in an attempt to quantify the level of reduction that could be expected, percentage occupancy rates for each activity during the day, evening and night times of a typical week were estimated and are shown in **Table 2.** The number of car park spaces required during each time period based on the expected occupancy levels is shown in **Table 3**.

Table 2 Predicted parking occupancy rates

Activity	Percentage Parking Occupancy					
	Mon - Fri	Mon - Fri	Mon - Fri	Sat & Sun	Sat & Sun	Sat & Sun
	8am – 5pm	6pm – 12am	12am – 6am	8am – 5pm	6pm – 12am	12am – 6am
Museum & Conference Centre	100%	100%	0%	100%	100%	0%
Tavern	70%	100%	10%	70%	100%	20%
Chapel	5%	5%	0%	100%	50%	0%
Retail Area	90%	40%	5%	100%	40%	5%
Non-Permanent Accommodation	70%	100%	100%	70%	100%	100%
Van Parking	100%	100%	100%	100%	100%	100%
Gym	70%	100%	0%	70%	70%	0%

Table 3 Number of spaces required to meet demand

Activity	No. of Spaces Required					
	Mon - Fri	Mon - Fri	Mon - Fri	Sat & Sun	Sat & Sun	Sat & Sun
	8am – 5pm	6pm – 12am	12am – 6am	8am – 5pm	6pm – 12am	12am – 6am
Museum & Conference Centre	80	80	0	80	80	0
Tavern	28	40	4	28	40	8
Chapel	3	3	0	59	29	0
Retail Area**	48	21	3	54	21	3
Non-Permanent Accommodation	20	28	28	20	28	28
Van Parking***	10	10	10	10	10	10
Gym	6	8	0	6	6	0
Total	**195**	**191**	**45**	**256**	**215**	**49**

Table 3 shows that the overall peak parking demand for the site is likely to occur at the weekend from 8am to 5pm. On this basis it is concluded that an overall provision of 256 parking spaces is highly likely to adequately accommodate the expected peak parking demand of the Plan Change site.

Recommendations

Overall, the location of the accesses on Flaxton Road and Fernside Road can be supported from a traffic and transport perspective. It is recommended that acceleration and deceleration tapers should be included as part of the Flaxton Road access due to the speed environment and anticipated volume of movements through this access. Left turn movements in and out through the Flaxton Road access should be separated by means of a raised island to discourage right turn movements.

The number of right turns from Flaxton Road onto Fernside Road (east) is likely to increase and a formal right turn bay is considered necessary due to the 100km/h speed environment. The number of right turn movements from Fernside Road onto Flaxton Road is also expected to increase considerably. Consequently, it is advised that separate left and right turn lanes should be implemented at the Fernside Road / Flaxton Road intersection to minimise queuing. The implementation of a flush median on Flaxton Road between Fernside Road east and west intersections is also recommended.

Directional signage will be required on all approach roads, including Fernside Road (west) advising drivers of the appropriate access to use as right turn movements through the Flaxton Road access will not be permitted.

The peak parking demand generated by the types of activity expected to establish on site was determined. As times of peak parking demand vary for each activity, there is the opportunity for shared parking to occur. Therefore a recommended maximum number of 256 car park spaces should to be provided on site. It is considered that this parking provision will be able to accommodate the typical peak parking demand likely to occur on site without vehicles being required to park off site on the surrounding road network.

If you have any questions please do not hesitate to contact us. We look forward to hearing from you.

Regards
Abley Transportation Consultants Limited

Paul Durdin
Director

Direct 03 367 9004
Mobile 027 302 4313
Email paul.durdin@abley.com