

APPENDIX 1

Evidence of Ms Isobel Stout



RMA 2017 3185

Woolworths New Zealand Limited

201 Halswell Road

**Land use and subdivision consent applications to establish a
residential and commercial mixed use development.**

**REPORT OF ISOBEL STOUT
ON CONTAMINATED LAND AND NOISE
Dated 18 November` 2019**

TABLE OF CONTENTS

INTRODUCTION 1

SUMMARY OF REPORT 1

SUMMARY OF APPLICATION..... 2

CONTAMINANTS IN SOILS 2

NOISE AND REVERSE SENSITIVITY 4

DUST EFFECTS..... 8

CONCLUSIONS 8

REFERENCES 9

RECOMMENDED CONDITIONS 9

INTRODUCTION

1. My full name is Isobel Louise Stout. I am a member of the Consenting and Compliance Unit at the Christchurch City Council (**Council**). I am here providing an assessment of contaminated land and noise matters as an input to the officers' report in relation to the application to establish a residential and commercial mixed use development and subdivision.
2. I hold a *Bachelor of Science degree and Post Graduate Diploma (majoring in Anatomy) from the University of Otago and a Post Graduate Diploma in Environmental Health from Wellington Polytechnic, now Massey University and a Diploma in Public Health from the University of Otago, Christchurch Medical School.*
3. I am employed as a Senior Environmental Health Officer with Council. I have worked in the role for the past 29 years. My work is centred on environmental health and in particular the application of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) and acoustics.
4. I have over 30 years' experience working as an Environmental Health Officer.
5. Whilst it is not directly relevant for the preparation of this report, I am aware that the Council has approved direct referral of this application to the Environment Court. I confirm that I have read and agreed to comply with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note (dated December 2014). I confirm that the issues addressed in this report are within my area of expertise. I have not knowingly omitted to consider facts or information that might alter or detract from the opinions expressed.

SUMMARY OF REPORT

6. The purpose of this report is to provide information and advice for the consent application, in relation to effects on human health from contaminants in soils on site and the potential adverse health effects of noise.
7. I have read the following documents when preparing this report:
 - 7.1 The original consent application as lodged on 22 December 2017, in particular Technical Report No. 9 Ground Contamination Assessment, Tonkin and Taylor, June 2017 and Technical Report No. 10, Contamination Site Management Plan, Tonkin and Taylor Ltd, December 2017 and Technical Report No. 5 Acoustic Assessment Rp 001 R04 2017192 Marshall Day Acoustics Ltd, December 2017.
 - 7.2 The amended consent application lodged 7 October 2019, in particular Addendum Report Ground Contamination-Related Implications of the 2019 Revised Development Plan, Tonkin and Taylor Ltd, dated 7 October 2019, Addendum to Noise Assessment, Marshall Day Acoustics Ltd, dated 13 August 2019 and email from Rob Hay of Marshall Day Acoustics Ltd dated 13 November 2019; 7:11 pm.
 - 7.3 The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS).
 - 7.4 Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

8. This report contains a summary of the application, an assessment of the contaminated land and noise matters associated with the application, an assessment of relevant District Plan rules, an assessment of the The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health and relevant submissions.

SUMMARY OF APPLICATION

9. The applicant seeks land use and subdivision consents to establish a residential and commercial development at 201 Halswell Road.
10. The application site is approximately 21 hectares in size. The land is flat and is predominantly grassed and is grazed, with a small residential dwelling and accessory structures located in the south west corner of the site and a small woolshed and sheep yards in the north west corner, both adjacent to Halswell Road.
11. The application proposes to subdivide the site into 13 lots including 10 residential super lots and two commercial lots, legal road and a number of reserves. Further subdivision would be expected to create the residential component of the development and its internal roading network.

CONTAMINANTS IN SOILS

12. The Ground Contamination Assessment, Tonkin and Taylor, June 2017 contains the relevant results of a Preliminary Site Investigation (PSI) that was conducted in 2013 by Tonkin and Taylor Ltd for Plan Change 68¹.
13. That PSI identified the woolshed area as meeting the criteria for an activity listed on the Ministry for the Environment's Hazardous Activities and Industries List (HAIL), namely sheep dips and races HAIL activity A8, and also identified the disused dwelling and farm or accessory buildings as possibly meeting HAIL criteria I from lead paint flaking off exterior timber or the storage of farm chemicals.
14. The Ground Contamination Assessment goes on to report on a Detailed Site Investigation (DSI), undertaken by a Suitably Qualified and Experienced Practitioner in contaminated land, in accordance the Ministry for the Environment Guidance on Contaminated Land Management²³. The DSI focussed on the

¹ Tonkin and Taylor report: Preliminary Site Investigation for Ground Contamination, Plan Change 68, Halswell, Christchurch, March 2013.

² Ministry for the Environment, updated 2011, Contaminated land management guidelines No. 1: Reporting on Contaminated Sites in New Zealand.

³ Ministry for the Environment, updated 2011, Contaminated land management guidelines No. 5: Site Investigation and Analysis of Soils.

- former woolshed area and carried out targeted soil sampling around the disused farm buildings.
15. Further soil contamination investigation work was carried out as the applicant's planned layout changed in response to other requirements and a summary of all the soil contaminant investigations is reported in the Addendum Report Table 4.1.⁴
16. The activities of subdivision (Regulation 5(4)) and soil disturbance (necessary for construction) (Regulation 5(3)) are activities to which the Regulations⁵ apply. The soil sampling results from the woolshed area showed some exceedances of the soil contaminant standards for a commercial land use⁶ (the land use anticipated in the application for this area). The contaminant of concern is arsenic. Where a contaminant is found in concentrations that exceed the proposed land use the activity requires resource consent as a restricted discretionary activity under Regulation 10.
17. The soil sampling results from the farm buildings area showed no exceedances of the soil contaminant standards for a residential land use⁷ (the land use anticipated in the application for this area). There are contaminants at levels above the published background levels however so control over the final destination of any surplus soils is a matter to be sought via conditions.⁸
18. NESCS Regulation 10 details the matters for discretion and I draw the Court's attention to Regulation 10(3)(c) – the approach to the remediation or ongoing management of the piece of land.
19. Remediation of contaminated soils typically involves their removal from the site altogether but this is not planned for this development. The applicant seeks to manage the contamination on site for the reasons that the levels of the contamination are not exceedingly high and the commercial nature of the proposed land use entails much paving and building over of soils thereby ensuring that people are separated from contact with the contaminated soils by a solid physical barrier. This methodology also reduces the potential risks and costs of soil movement and disposal off site and hence is a more environmentally sustainable solution in this case.
20. It is also important to note that metallic contaminants of this type are not readily soluble or mobile unless entrained in sediment runoff. Therefore I agree with the Ground Contamination Assessment at section 7.2 that all the soils can be managed on site during construction of the planned project and that post development, the risk to human health will be avoided through the soils being built

⁴ Addendum Report Ground Contamination-Related Implications of the 2019 Revised Development Plan, Tonkin and Taylor Ltd, dated 7 October 2019.

⁵ Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

⁶ Appendix G Ground Contamination Assessment, Tonkin and Taylor, May 2017.

⁷ Appendix G Ground Contamination Assessment, Tonkin and Taylor, May 2017.

⁸ NESCS Regulation 9.

- over or paved over however a Long Term Site Management Plan will be needed if this is the approach taken.
21. The full detail of the methodology and management of contaminated soils is contained within Technical Report No. 10 – Contamination Site Management Plan (CSMP). The matters for discretion from Regulation 10, particularly 10(3)(b), (c), (d) and (e) are matched in sections 4, 5, 6 and 9.
 22. The 2017 investigation created two Soil Contamination Management Areas and the 2019 additional investigation has created a further one to which the CSMP shall apply and this is illustrated on Figure 3 of the Addendum Report. This amended figure has yet to be added to the CSMP hence this will require a consent condition in order for the CSMP to be a complete plan prior to any earthworks in these areas commencing.
 23. The methodology and management measures in the CSMP remain completely applicable to the additional area particularly for the disposal of any surplus soils.
 24. Whilst the intent to reuse and manage contaminated soils on site is an environmentally sound aim, in my experience it is often the case that the top-soils, which contain most of the contaminants, are not deemed suitable for building on and are removed for engineering reasons.
 25. In this case the soils are definitely not suitable for disposal at a clean fill site and must go to a facility authorised to accept them for disposal. This is adequately addressed in the CSMP in that it reflects best industry practice and is a model that has been successfully used in similar developments in Christchurch such as the Metro Sports Complex and the QEII Pool rebuild.

NOISE AND REVERSE SENSITIVITY

26. The acoustic report⁹ and the addendum¹⁰ issued with the amended application lodged 7 October 2019, together with a later email¹¹ list the noise sources that could be expected from the activity such as vehicle movements, loading and unloading activities, patrons, children playing outdoors at the child care centre and mechanical plant and equipment.
27. Using modelling software and on site noise measurements, the report initially predicted that all the noise sources could comply with the relevant District Plan noise standards¹² with one exception.

⁹ *Technical Report No. 5 Acoustic Assessment Rp 001 R04 2017192, Marshall Day Acoustics Ltd, December 2017.*

¹⁰ *Addendum to Noise Assessment, Marshall Day Acoustics Ltd, dated 13 August 2019.*

¹¹ *Email from Rob Hay (Marshall Day Acoustics Ltd) to Matt Bonis (Planz Consultants Ltd) and Paul Lowe (Christchurch City Council) 13 November 2019, 7.11pm.*

¹² *Christchurch District Plan Chapter 6 – rule 6.1.5.2.1.*

28. There are now three exceptions after changes were made to the site layout. I shall comment here on the original exception as this is still relevant. The non-compliance occurs as there is a zone boundary between residential and commercial crossed by the development. The movement of heavy vehicles, at night over this zone boundary, will exceed the more restrictive night time residential noise standards that apply by more than 10 dB.¹³ This exceedance makes the entire activity non-complying.¹⁴
29. I agree with the acoustic report however in that this non-compliance is of no environmental health consequence as it occurs in an area where there are no sensitive receivers.
30. The altered layout created two additional areas of non compliance; one being the cinema operating after 10pm and hence into the night time period¹⁵ for the District Plan rules, the other being the desire not to erect an acoustic fence around the outdoor play area of the preschool.
31. Further comment was sought from the applicant's acoustic consultants on these two matters.¹⁶ Firstly the cinema itself is not expected to be a noise source, indeed they are typically well insulated in order that outside noises do not interfere with the audience's enjoyment of the soundtrack. Rather the noise source after 10pm will come from patron's vehicles leaving the carpark.
32. This noise has been assessed as potentially reaching 50 dBLAeq for the likely 15 minute period that patrons would be leaving at the dwellings nearest the car park exit. This is 10 dB above the night time residential noise standard and whilst I agree that existing back ground levels are already over the 40 dB LAeq and may increase with the increased development of the area, I submit that this is more reason to consider reverse sensitivity effects and to require dwelling facades that face car parks, internal roads and lanes to be acoustically insulated, as I have recommended in condition 11.
33. The preschool outdoor play area has an open boundary to the north and Days Drain and to the east towards a car park and apartments beyond. Without an acoustic fence noise levels on the walkway alongside Days Drain would be above the daytime noise standard of 50 dBLAeq by between 3 and 7 dB. The effect this would have upon passers by on the path would be much less adverse than upon static receivers and combined with the daytime ambient noise may be even less of an adverse effect.
34. On the eastern side of the preschool outdoor area is a carpark and then an apartment block. The apartments are expected to receive just 1 dB over the daytime standard of 50dBLAeq. This non compliance, whilst it would not be

¹³ Christchurch District Plan Chapter 6 - rule 6.1.4.1(c)

¹⁴ Christchurch District Plan Chapter 6 – rule 6.1.5.1.5

¹⁵ Christchurch District Plan Chapter 6 – rule 6.1.5.2.1

¹⁶ Email from Rob Hay (Marshall Day Acoustics Ltd) to Matt Bonis (Planz Consultants Ltd) and Paul Lowe (Christchurch City Council) 13 November 2019, 7.11pm.

- detectable in practice, does add weight to my recommendation that the facades of apartments and dwellings that face other land uses in these mixed use developments such as preschools, car parks, internal roads and lanes be constructed to an acoustic insulation standard such as I have recommended at condition 12.
35. The modelling software used to make the predictions of compliance at all other areas is built upon particular physical factors being included namely competent mechanical design, installation and maintenance of plant and equipment particularly on external facades and roofs. I recommend that these details be made a condition of consent and I have listed it below at recommended condition 10.
36. The noise potentially created by customers and patrons, service workers and delivery staff going about their business may not commonly breach the District Plan noise standards but may create a nuisance to both other users and residents of the development and neighbours.
37. At this stage of the development the exact operational details of the hospitality and retail areas are not known however I agree with the acoustic report that recommending conditions around the control of noise sources that are commonly complained about in mixed use developments is warranted in order to add certainty to the predictions of noise standards compliance. I have listed these below at recommended conditions 7, 8 and 9.
38. There are two sources of noise that can cause reverse sensitivity effects in that these are noises created off site and are at a level that could affect the future users of the site.
39. The noise generated by the cyclone belonging to Halswell Timber Ltd now falls across the boundary into a pedestrian pathway and a car parking space with the removal of a row of shops in the amended application. The noise levels measured indicate that the noise of the cyclone exceeds 55 dBLAeq, the District Plan daytime noise standard at the site boundary.
40. The addendum acoustic report includes details of the potential improvements that could be made to the cyclone with the cooperation of Halswell Timber Ltd. The applicant is actively assisting Halswell Timber in reducing the noise and to my mind this is the ideal outcome to ensure the noise impacts are resolved for all parties. Halswell Timber Ltd is a submitter in support of the application.
41. The applicant and Halswell Timber Ltd as recorded in the addendum noise report are working towards achieving a noise level of 60-65 dBLAeq at the shared boundary between the two properties. Whilst this is still 5-10 dBLAeq over the District Plan noise standard for the zone I consider that the level of 60 dBLAeq will be acceptable in the environment of the carpark and it will offer improved amenity for the users of the planned public outdoor pathways and spaces as well as protection of the residences situated further away. At this distance the effect of the noise difference from the District Plan noise standard of 5 dBLAeq upon the residences will be negligible.

42. The noise from the cyclone is likely to be audible in the public open spaces and is of an industrial nature that would not normally be expected to be present in a mixed use commercial development. The planned level of noise does not pose a health risk but it is likely to be noticeable.
43. The proximity of Halswell Road to the new residential development is going to generate noise that could lead to noise levels within dwellings that are in excess of both World Health Organisation Guideline Values for Community Noise (Berglund and Lindvall, 1999) and the New Zealand Standard NZS6802:2008 Acoustics – Environmental Noise referenced in the Christchurch District Plan for the protection of sleeping in particular.
44. The residential areas design at page 366 of the amended application shows a reduction in setback to 10m from Halswell Rd but still with the larger sections being parallel to Halswell Rd and the lower density of this area does reduce the number of dwellings that will be subject to traffic noise. I would support any such measures to increase the distance of dwellings from Halswell Rd and reduce the number of dwellings exposed to road noise but accept that with appropriate acoustic insulation the internal noise environment can be made to accord with international and national guidance for residential uses and the protection of sleep.
45. The District Plan anticipates the adverse effect of road noise and has rules requiring the acoustic insulation of new dwellings in proximity to busy roads¹⁷. The applicant, in consultation with NZTA, a submitter to the application, has provided proposed conditions that take into account the potential speed limit changes on Halswell Rd and provide for suitable acoustic insulation. I have recommended at No.11 in my list of recommended conditions below that these conditions be adopted, but the NZTA may wish to comment further on the width of the setback.
46. The development plans include dwellings and an apartment building that face narrow, internal vehicle laneways, internal roads and car parks where moving vehicles may cause a noise nuisance to occupants. The Acoustic Report considers it appropriate¹⁸ to ensure that critical facades meet a minimum sound insulation (30 dB Dtr2m,nTw + Ctr) performance consistent with District Plan rule 6.1.7.2.1 but not to make this a condition of consent.
47. The District Plan offers no rule to require the acoustic insulation of dwellings or apartments in this situation where there are laneways that are not roads listed in the District Plan Appendix 7.5.12 yet there is clearly the potential for traffic noise to intrude into living spaces owing the close proximity of the vehicle to the facades.
48. In this case there is the opportunity to build in protection from vehicle noise before the dwellings are occupied and the only way I can see for that to be

¹⁷ Christchurch District Plan Chapter 6 – rule 6.1.7.2.1

¹⁸ Technical Report No. 5 Acoustic Assessment Rp 001 R04 2017192, Marshall Day Acoustics Ltd, December 2017. Section 7.0.

ensured is by way of a consent condition. Hence I have listed two at recommended conditions 13 and 14.

DUST EFFECTS

49. The planner has asked me to comment about potential dust effects from Halswell Timber Ltd upon the proposed development. The cyclone is the principal piece of dust mitigation technology for the timber mill and has a permit to discharge to air from Environment Canterbury. CRC 980758. The conditions¹⁹ of which require that wood waste dust shall not cross the property boundaries. With these controls I would not anticipate any adverse reverse sensitivity effect from dust.

CONCLUSIONS

50. The land where contamination has been identified or suspected can be made suitable for the proposed commercial or residential land use with the use of the Contaminated Soils Management Plan.
51. Adverse effects of noise can be mitigated with conditions so that any residual adverse effects are acceptable.
52. A condition should be imposed to allow the cyclone to be upgraded on the Halswell Timber site so that it does not exceed a level of 60dB LAeq (15min)

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- ¹⁹ 1 The discharge shall only be wood waste as described in the application.
 - 2 Wood waste shall be filtered via a cyclone and collected in a hopper with a volume of at least 23 cubic metres as described in the application.
 - 3 Windbreak cloth shall be erected around the wood waste loading bay to prevent as far as practicable the escape of wood waste during transfer and removal.
 - 4 Any processes undertaken at the site shall not cause deposition of wood waste beyond the property boundary.
 - 5 A record of complaints relating to the wood waste shall be maintained, and shall include:(a) location where the wood waste were detected by the complainant;(b) date and time when the wood waste were detected ;(c) a description of the wind speed and wind direction when the wood waste was detected by the complainant;(d) the most likely cause of the wood waste detected; and(e) any corrective action undertaken by the consent holder to avoid, remedy or mitigate the wood waste detected by the complainant. This record shall be provided to the Canterbury Regional Council on request.
 - 6 The Canterbury Regional Council may annually, on the last working day of December, serve notice of its intention to review the conditions of this consent for the purposes of:(a) dealing with any adverse effect on the environment which may arise from the exercise of the consent and which is appropriate to deal with at a later stage; or(b) requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or(c) complying with the requirements of a relevant rule in an operative regional plan.
 - 7 Charges, set in accordance with section 36 of the Resource Management Act 1991, shall be paid to the Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of resource consents and for the carrying out of its functions under section 35 of the Act.

should that occupant seek that outcome. I left the specifics of that condition to the planner to resolve as it involves a third party.

Isobel Stout

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REFERENCES

The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health.

RECOMMENDED CONDITIONS

1. The consent holder shall notify the Environmental Compliance section of the Council, by email to rcmon@ccc.govt.nz, of works commencing and of the name of the [Contaminated Land Specialist](#) at least 5 working days in advance of the earthworks commencing in either the North (B), South (A) or East (C) Soil Contamination Management Areas shown on Figure 3 of the Addendum Report Ground Contamination-Related Implications of the 2019 Revised Development Plan.
2. All aspects of the earthworks within either the North, South or East Contamination Management Areas are to be conducted in accordance with the Contamination Site Management Plan (CSMP).
3. All contaminated soils removed from the site must be disposed of at a facility whose waste acceptance criteria permit the disposal of contaminated soils.
4. The consent holder shall provide to the Council evidence, which may include a waste manifest and/or weighbridge receipts, of the disposal of contaminated soils from the site to an authorised facility within 2 months of the excavation of any contaminated soils removed from the site. The evidence shall be provided to the Environmental Compliance Section of Council and may be by way of email to rcmon@ccc.govt.nz
5. Additional soil contaminant sampling is to be undertaken in the locations specified in the CSMP. All sampling is to be conducted by a Suitably Qualified and Experience Practitioner in accordance with the NESCS, Ministry for the Environment, updated 2011, Contaminated land management guidelines No. 1: Reporting on Contaminated Sites in New Zealand, and Ministry for the Environment, updated 2011, Contaminated land management guidelines No. 5: Site Investigation and Analysis of Soils. Results are to be forwarded to rcmon@ccc.govt.nz. Within three (3) months of the completion of the earthworks in the North, South and East Soil Contamination Management Areas a Site Completion Report shall be prepared and delivered to Council. The Site Completion Report shall include as a minimum;
 - Confirmation that the soil disturbance works are complete;

- Confirmation that all soil disturbance works were completed according to the CSMP and that there were no variations during the works. Or if variations to the CSMP procedures did occur a full description of the variation must be provided in addition to the reasons why such variation was necessary, the communication of these variations at the time and any associated adverse effects and mitigation methods;
- Confirmation that there were no environmental incidents during the works. If there was an environmental incident report the details of the nature of the incident and the measures taken to mitigate effects;
- Where soil is removed from the Soil Contamination Management Areas and reused on site a description of and plan showing the extent and depth of the location the soil was placed;
- Confirmation of the disposal destination of any soil from the Contaminated Soil Management Areas taken offsite and the verification test results (if any) undertaken for disposal/permitting; and
- Evidence the objectives of the final site capping have been met with regard to the relevant residential or commercial land use.

The Site Completion Report shall be written in accordance with the Ministry for the Environment Guidelines for Reporting on Contaminated Sites in New Zealand (revised 2011).

Delivery of the Site Completion Report may be by way of email to rcmon@ccc.govt.nz.

6. In the event that ongoing management is still required after the Site Completion Report has confirmed remedial goals are achieved, a Long Term Site Management Plan shall be provided no later than three months after completion of the site works. The Plan shall be prepared by a suitably qualified and experience practitioner, as defined in the User's Guide National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health; April 2012. The Plan shall include as a minimum;
 - Identification of the relevant hazards associated with residual contamination in soil;
 - Protection of maintenance/excavation workers undertaking subsurface works with the principal exposure pathways comprising direct contact and/or ingestion of contaminated soil;
 - Activities involving the handling of soil during excavation work;
 - Confirmation of the disposal destination of any soil from the Contaminated Soil Management Areas
7. The operating hours for any bar, restaurant or food and beverage outlet shall be restricted to 0700 to 2200 hours on any day.
8. The noise level within any bar shall be no greater than 95dBLAeq (15mins). External doors must be fitted with self closing devices and no bottles or cans are to be emptied outside after 2200hours.
9. Service vehicles (eg for rubbish and recycling) shall be restricted to entering the supermarket site between 0700 and 1900 on any day.
10. Mechanical plant for all commercial tenancies (including the supermarket) must be designed such that the mechanical plant associated with each tenancy must comply

with the Christchurch District Plan night time noise rules of 45dB LAeq(15mins) at the nearest Commercial Zone boundary and 40dB LAeq(15mins) at the nearest dwellings within the Residential Zone boundary.

11. For each dwelling within Lots 1 to 6 with a façade directly facing an access laneway or Road A, B or C, at least 30 working days prior to the lodgement of any residential building consent, the consent holder must submit via rcmon@ccc.govt.nz an acoustic report from a qualified acoustic engineer appointed by the consent holder identifying the construction measures required for that façade to achieve the acoustic insulation complying with (30 dB Dtr2m,nTw + Ctr).
12. For any apartment complex within Lots 1 to 6 with a façade directly facing an access laneway, internal road or carpark, at least 30 working days prior to the lodgement of any residential building consent, the consent holder must submit via rcmon@ccc.govt.nz an acoustic report from a qualified acoustic engineer appointed by the consent holder identifying the construction measures required for that façade to achieve the acoustic insulation complying with (30 dB Dtr2m,nTw + Ctr).
13. For each of the residential development lots contained within Lot 2, at least 30 working days prior to the lodgement of any residential building consent, the consent holder must submit via rcmon@ccc.govt.nz an acoustic report from a qualified acoustic engineer appointed by the consent holder identifying the construction measures required to achieve the acoustic insulation complying with Christchurch District Plan Rule 6.1.7.2.1:
 - (a) For any residential dwelling (or other sensitive activity as defined by the District Plan) located within 80m of the nearest marked lane of Halswell Road where the adjoining speed limit on Halswell Road is 80km/hr; otherwise.
 - (b) For any residential dwelling (or other sensitive activity as defined by the District Plan) located within 40m of the nearest marked lane of Halswell Road where the adjoining speed limit on Halswell Road is 60km/hr.
15. In addition a condition is required to allow the cyclone to be upgraded on the Halswell Timber site so that it does not exceed a level of 60dB LAeq (15min) at the southern boundary of Halswell Timber.

APPENDIX 2

Evidence of Ms Michele Ann McDonald

RMA 2017 3185

Woolworths New Zealand Limited

201 Halswell Road

**Land use and subdivision consent applications to establish a
residential and commercial mixed use development.**

**REPORT OF MICHELE ANN MCDONALD
ON WATER AND WASTEWATER SERVICES**

Dated 31 January 2019

Updated 17 October 2019

TABLE OF CONTENTS

INTRODUCTION 1

SUMMARY OF REPORT 1

SEWER SERVICING 2

SEWER CONSENT CONDITIONS 3

WATER SERVICING 6

WATER SUPPLY CONDITIONS..... 8

CONCLUSION 9

REFERENCES 10

INTRODUCTION

1. My full name is Michele Ann McDonald. I am a member of the Three Waters & Waste Unit at the Christchurch City Council (**Council**). I am herein providing an assessment of the proposed water supply and sewer services as an input to the officers' report in relation to the application to establish a residential and commercial mixed use development and subdivision.
2. I hold a Bachelor of Science degree in Civil Engineering and a Bachelor of Science Honours degree in Urban Engineering from the University of Pretoria, South Africa. I am a professional engineer and a Chartered Member of Engineering New Zealand.
3. I am employed as a Senior Planning Engineer with Council. I have worked in the role for the past 2 years. My work is centred on water and wastewater asset planning and includes capacity confirmation, growth determination and water- and wastewater infrastructure and servicing decisions. I am responsible for advising on, assessing and reviewing water and wastewater servicing for subdivision consents.
4. I have over 26 years' experience working as civil engineer specialising in water and wastewater engineering.
5. Whilst it is not directly relevant for the preparation of this report, I am aware that the Council has approved direct referral of this application to the Environment Court. I confirm that I have read and agreed to comply with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note (dated December 2014). I confirm that the issues addressed in this report are within my area of expertise. I have not knowingly omitted to consider facts or information that might alter or detract from the opinions expressed.

SUMMARY OF REPORT

6. The purpose of this report is to provide information and advice for the assessment of the consent application in relation to effects on water and wastewater services. I have considered the potential implications of this application which may or may not lead to further subdivision and how best the services should be established at this stage in order to ensure compliance with Council standards for the final development within each lot.

7. This report does not extend to the review of engineering compliance of infrastructure in terms of Council's Infrastructure Design Standards and Construction Standard Specifications which is generally more relevant to the post subdivision consent engineering and design process managed via the conditions of consent.
8. I have read the following documents when preparing this report:
 - 8.1 Planz subdivision and land use application dated December 2017 including an Eliot Sinclair Infrastructure Report dated 9 August 2017;
 - 8.2 Response to Request for Further Information from Planz Consultants, dated 27 April 2018 and specifically the sections dealing with water and sewer and the updated Drawing 426962-M4-01 of Eliot Sinclair included as Attachment G.
 - 8.3 Halswell Commercial Development - Amended Resource Consent Application dated 7 October 2019 including proposed staging of Subdivision and volunteered Conditions as Attachment 13: Conditions.

SEWER SERVICING

9. This property falls within the area of the North Halswell Outline Development Plan (ODP), earmarked to be serviced by the South East Halswell pressure sewer network (Appendix 8.10.4 North Halswell Outline Development Plan in Christchurch District Plan). As required in the Christchurch District Plan, "*A pressure pump system to service the neighbourhood and the pump chamber for each allotment shall have a minimum total storage volume equal to 24 hours average sewer flow from the source*". A DN400 OD PE100 pressure pipe has been provided by Council from Sparks Road to Halswell Road along the alignment for the new Augustine Drive to receive pumped sewage discharge from this subdivision, amongst others. Developers within the ODP area are required to make the connection to this pressure sewer main.
10. The applicant's engineer approached Council in June 2017 to confirm the connection point to the pressure sewer main established by Council. I advised the applicant that a connection will be needed through the neighbouring development and that coordination will be required with the development at 20 Franco Road being part of the Halswell Commons subdivision. I also confirmed that the sewer infrastructure to be established for this subdivision need not be sized to service the southern part of the ODP area.

11. The proposed servicing described in the application (as presented in the Eliot Sinclair Infrastructure Report dated 9 August 2017) confirms that the necessary trunk infrastructure will be established for future development lots to be serviced via local pressure sewer system.
12. The requirements of local pressure sewer infrastructure are outlined in Council's Infrastructure Design Standards and provide for each site to be serviced with a boundary kit (connection point) at the subdivision stage. The on-site pressure sewer pump complete with the required IOTA OneBox control panel necessary to connect to the boundary kit will be established at building consent stage. I recommend that in order to secure the servicing of each site with an on-site pressure sewer pump in compliance with Council requirements, on-going conditions be registered as consent notices on the titles of development lots to give effect to this requirement.
13. Council policy is that residential on-site pressure sewer pumps and IOTA OneBox control panels will be vested in Council, whereas commercial pressure sewer pumps will remain in private ownership but with Council accessing the IOTA OneBox control panel for monitoring and control purposes. I recommend that on-going conditions be registered as consent notices on the titles of development lots to reflect this.
14. The application states as part of the Eliot Sinclair Infrastructure Report that it is proposed that one pump station will service more than one commercial facility depending on the layout and ownership structure. I recommend a condition that a 24-hour storage capacity is provided.
15. Council will require each future residential unit to be supplied with its own on-site pressure sewer pump and chamber. The design of the local pressure sewer system complete with boundary kits to service each pressure sewer tank will therefore be dependent on the further development of each lot.
16. I have compiled below the sewer conditions that I recommend to align with Council's Infrastructure Design Standards and Council's requirements for on-site local pressure pumps, whilst recognising the staged approach of this and future subdivisions.

SEWER CONSENT CONDITIONS

1. The sewer system for this subdivision is to be a Local Pressure Sewer System designed in accordance with Council's Infrastructure Design Standards and Construction

Standard Specifications. Engineering drawings supported by hydraulic calculations shall be sent to the Subdivisions Engineer for Engineering Acceptance by the Three Water and Waste Planning Team prior to the commencement of any physical work.

2. The sanitary sewer outfall shall be the DN400 OD PE pressure sewer main within Augustine Drive.
3. The connection to the sanitary sewer outfall shall be within Road B (Lot 101) and shall follow the alignment of the future road network on the neighbouring lot up to the connection point.
4. The pressure main between this subdivision and the connection point must be protected by an easement in gross in favour of Christchurch City Council, until that property is vested as road.
5. The consent holder shall put in place measures to enable the initial operation of the local pressure sewer system within and from the subdivision during the build phase, including (but not limited to) ensuring self-cleansing flow and limiting sewage retention time within the system when the design number of pressure sewer tanks are not yet in operation. These measures shall be reported to the Subdivisions Engineer prior to seeking section 224(c) certification.
6. Installation of the pressure sewer mains shall be carried out by a Council Authorised Drainlayer (Pressure Sewer Reticulation).
7. Residential Activities on Lots 1, 2 to 10, 12 and 13
 - a. Each residential unit on Lots 1, 2 to 10, 12 and 13 shall have its own boundary kit to connect to the pressure sewer system. The boundary kits and associated connection to the pressure sewer main shall be located within the legal road or shared access outside the net site area associated with each residential unit. The lateral from the boundary kit (for future connection of the pressure sewer unit) is to extend at least 600mm into the net site area of each residential unit. Any shared connection to the pressure sewer main shall be located in shared access areas outside the net site area associated with each residential unit and shall be protected by an easement in gross in favour of the Christchurch City Council. An isolation valve shall be installed on the pressure sewer main at the boundary of the development lot and the public road. Engineering drawings shall be sent to the Subdivisions Engineer for Engineering

Acceptance by the Three Water and Waste Planning Team prior to the commencement of any physical work.

- b. Each residential unit is to be served by a local pressure sewer unit comprising a pump and storage chamber which can accommodate at least 24 hours average dry weather flow to be supplied by either Aquatec or EcoFlow and installed by a Council Authorised Drainlayer (Pressure Sewer Tanks) at building consent stage. The pressure sewer unit will be supplied complete with an IOTA OneBox Control Panel.
- c. Ownership and control of the local pressure pump, chamber and OneBox Control Panel will be vested with Council. The property owner shall enter into a Deed with the Christchurch City Council, drafted in terms approved by the Christchurch City Council, vesting ownership in the system prior to Code Compliance Certificate being issued for a dwelling on the relevant site.
- d. The Council and its agents or contractors shall have the right of access to the property for the purpose of maintenance, monitoring or renewal of any part of the local pressure sewer unit vested with Council.
- e. The electricity supply for the local pressure sewer unit shall be from the residential unit and metered to the residential unit serviced by the system. The property owner shall be responsible for the power costs of operating the local pressure sewer unit.
- f. The property owner shall ensure adherence with the operational requirements of the local pressure sewer unit and if in breach of this obligation, the property owner shall promptly at the property owner's expense properly and substantially repair and make good all injury or damage caused to the local pressure sewer unit. If the property owner fails to promptly comply with this obligation then the Council may perform the obligation and recover any costs incurred from the Property Owner.

Advice Note: This is an on-going condition and a consent notice will be issued under section 221 of the Act at the time of section 224(c) certification.

8. Non-Residential Activities on Lots 1, 2 to 10, 12 and 13

- a. Each non-residential activity shall connect to the pressure sewer system via a boundary kit and associated connection to the pressure sewer main which will service not more than one local pressure sewer unit. The boundary kits shall be located within the legal road, shared access and car park areas and not located under buildings or other similar structures which prevent physical access to the boundary kit and pipes. Any shared connection to the pressure sewer main within the lot shall be protected by

an easement in gross in favour of the Christchurch City Council. An isolation valve shall be installed on the pressure sewer main at the boundary of the development lot and the public road. Installation of the boundary kits and connections to the pressure sewer main shall be carried out by a Council Authorised Drainlayer (Pressure Sewer Reticulation). Engineering drawings shall be sent to the Subdivisions Engineer for Engineering Acceptance by the Three Water and Waste Planning Team prior to the commencement of any physical work.

- b. Each non-residential activity is to be served by a local pressure sewer unit comprising a pump (or pumps) and storage chamber which can accommodate at least 24 hours average dry weather flow to be supplied by either Aquatec or EcoFlow and installed by a Council Authorised Drainlayer (Pressure Sewer Tanks) at building consent stage. The local pressure sewer unit will be supplied complete with an IOTA OneBox Control Panel per pump.
- c. The property owner will retain ownership of the local pressure sewer unit complete with pump(s), chamber and OneBox Control Panel(s). The property owner will be responsible for the operations and maintenance of the complete unit.
- d. Council shall have remote access to the IOTA OneBox Control via its IOTA OneBox portal to monitor and control (when required) the pump (s) as part of the local pressure sewer catchment.

Advice Note: This is an on-going condition and a consent notice will be issued under section 221 of the Act at the time of section 224(c) certificate.

WATER SERVICING

9. This property falls within the area of the North Halswell Outline Development Plan (ODP) and is serviced as part of the West water supply zone that in future could be rezoned to form part of the Halswell water supply zone. Council's Halswell Zone Water Supply Master Plan provides the connectivity requirements for securing a compliant water supply for this ODP area as per the requirements of Annexure 8.10.4 of the Christchurch District Plan.
10. The applicant's engineers approached Council in May 2017 to confirm the future water supply point and pressure design parameters. Council advised that the modelling for the subdivision should be based on the future Halswell Zone pressure. Council also advised that one connection will be made to the existing DN200 PN12 uPVC main in

Halswell Road and that a second connection will have to be made to the neighbouring development at 53 Milns Road. Council staff provided layout information of the proposed development at 53 Milns Road to the applicant's engineers.

11. I advised the applicant's engineers in June 2017 that the Halswell Water Supply Master Plan recommends the establishment of a DN300 trunk water main through the ODP area and advised the proposed route for this connection through the ODP area.
12. The water supply layout in the initial application did not fully incorporate the requirement for a DN300 trunk water main connection through the development. A DN300 water main was shown in Road C but did not provide connectivity to the neighbouring northern property. I commented on this as part of the Request for Further Information. The applicant responded with a revised water layout which addressed this requirement (Response to Request for Further Information from Planz Consultants, dated 27 April 2018).
13. The applicant's initial engineering report and water layout maintained a dual water supply connection to Halswell Road, with the southern water connection crossing the proposed reserve (Lot 52) to be vested in Council. Council's Infrastructure Design Standards are clear that water mains should be located in legal road and that the preferred solution for water reticulation is to avoid easements in gross (in favour of Council) over private property. The amended application and volunteered conditions do not refer to the need for a second water supply connection to Halswell Road. The second Halswell connection will be required until such time as the main through Road C is connected to the north and south – this connection is not yet available. The applicant's water layout (as presented in the Eliot Sinclair Infrastructure Report dated 9 August 2017) provides adequately for future connections to the north into 20 Franco Road and to the south into 53 Milns Road. I have compiled my recommended water supply conditions to provide for an interim connection through the proposed Reserve Lot 52 as initially proposed by the applicant.
14. The application confirms that all water mains will be constructed to meet Council standards and in accordance with fire requirements (as presented in Eliot Sinclair Infrastructure Report dated 9 August 2017). It also states that submains will be constructed along property frontages with a connection point to be provided at the right of way entry points for each of the 12 lots, complete with a bank of water meters as per the requirements of the Infrastructure Design Standards.

15. I have compiled the recommended water supply conditions to align with Council's Infrastructure Design Standards and with the requirement to establish a DN300 trunk water main through the development.

WATER SUPPLY CONDITIONS

16. The points of water supply for the subdivision shall be the existing DN200 uPVC water main in Halswell Road and the future DN300 water main extending from Milns Road to Lot 105 (road to vest). However should the future DN300 water main from Milns Road not be available, a second connection shall be established to Halswell Road via Road E (Lot 102) and through Lot 52 (Local Purpose Utility Reserve). Such a connection, if established, shall be supplied with a suitable isolation valve and shall be protected by a right to convey water in gross easement over Lot 52.
17. All water mains and submains shall be installed in road to be vested in Council except for the connection to Halswell Road through Lot 52.
18. Water mains shall be extended along the full length of roads to vest and be terminated with temporary hydrants as per the requirements of the Infrastructure Design Standard.
19. The water main along Road C (Lot 104 and Lot 105) shall be a minimum DN355 OD PE100 and shall cross Days Drain to link into the neighbouring subdivision.

Advice Notes: For costs associated with the increase in diameter of the water main only, if over and above that required to service the subdivision, Council will enter into an Infrastructure Provider Agreement with the developer.

20. The water supply for the subdivision in its entirety and for each stage of the development, shall be designed by a suitably qualified person in accordance with the Infrastructure Design Standard and in accordance with the NZ Fire Service Fire Fighting Water Supplies Code of Practice NZS 4509:2008 to the satisfaction of the Water & Wastewater Asset Planning Team. Engineering drawings supported by hydraulic model outputs shall be sent to the Subdivisions Engineer for Engineering Acceptance by the Three Water & Waste Asset Planning Team prior to the commencement of any physical work.

21. Except where otherwise stated in these conditions, all water mains within the development shall be a minimum DN180 OD PE100.
22. The work described above shall be carried out by a Council approved water supply installer at the expense of the applicant.
23. Development Lots (Lots 1 to 10, 12 and 13) shall be served with a water supply to their boundary. Submains shall be installed to 1 metre past each lot boundary.
24. Any residential unit or commercial facility within a development lot without road frontage shall be serviced by its own lateral within a shared access. Laterals shall be installed by a Licensed Certified Plumber and shall not cross the boundary of the net site area of other sites.

Advice Note: This will require a Building Consent unless the consent holder obtains a Building Consent exemption for the installation of the private laterals.

10. Where the laterals are installed under a building consent exemption, construction shall be in accordance with the Construction Standard Specifications (CSS) and the Infrastructure Design Standard (IDS). Dummy connection boxes shall be installed at the entrance of the shared access at the public road boundary.

Advice Note: Conditions 9 and 10 are on-going conditions and a consent notice will be issued under section 221 of the Act at the time of section 224(c) certificate.

CONCLUSION

16. I have provided advice to the applicant's engineers regarding future water and sewer connections. I have assessed the application, and specifically the Eliot Sinclair Infrastructure Report dated 9 August 2017 and the indicative layout for water supply and local pressure sewer mains, as amended. I can confirm that adequate consideration has been given to the connectivity and servicing requirements for this proposed development.
17. I have provided recommended conditions to enable future staging of the subdivision. This includes consent notices to be registered on individual titles in order to secure the installation of a suitable water supply for each development lot and local pressure sewer units at the building stage.

Michele McDonald

Senior Planning Engineer

Asset Planning – Water & Wastewater; Three Waters & Waste

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Direct Dial: 03 941 8131

REFERENCES

Christchurch District Plan

Christchurch City Council Infrastructure Design Standard

Christchurch City Council Construction Standard Specifications

Requirements for a Local Pressure Sewer System Specified under Building Consent

Halswell Zone Water Supply Master Planning (Opus International Consultants, June 2015)

APPENDIX 3

Evidence of Mr Robert Brian Norton

RMA 2017 3185

Woolworths New Zealand Limited

201 Halswell Road

**Land use and subdivision consent applications to establish a
residential and commercial mixed use development.**

REPORT OF ROBERT BRIAN NORTON

ON STORMWATER

14-11-2019

TABLE OF CONTENTS

INTRODUCTION 1

SUMMARY OF REPORT 1

SUMMMARY OF APPLICATION..... 2

ASSESSMENT OF APPLICATION 3

**ASSESSMENT OF EFFECTS AGAINST RELVANT PROVISIONS
OF THE DISTRICT PLAN 13**

ANALYSIS OF SUBMISSIONS 15

CONCLUSION 17

REFERENCES 22

INTRODUCTION

1. My full name is Robert Brian Norton. I am a member of the Three Waters and Waste Unit of Christchurch City Council (**Council**). I am providing an assessment of stormwater matters related to the proposed subdivision and land-use application lodged by Woolworths (formerly Progressive Enterprises Limited) as an input to the officers' report in relation to the application to establish a residential and commercial mixed use development and subdivision.
2. I hold a Bachelor of Science degree in Civil Engineering from the University of Washington in Seattle, USA and have over 20 years' experience in the field of stormwater drainage, surface water quality management, flood mitigation and site development.
3. I am employed as a Senior Stormwater Planning Engineer with Council. I have worked in the role for the past 9 years.
4. Previously I have been employed for 11 years by the local government of King County in Washington State and by private engineering consultants.
5. My duties include implementation of the Council's operative Stormwater Management Plans through its capital programme, administration of operative network discharge consents, engineering review of subdivision, building and land use consent applications, providing advice on District Plan matters, and providing advice and technical support for the control of District Plan changes and development within Christchurch.
6. Whilst it is not directly relevant for the preparation of this report, I am aware that the Council has approved direct referral of this application to the Environment Court. I confirm that I have read and agreed to comply with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note (dated December 2014). I confirm that the issues addressed in this report are within my area of expertise. I have not knowingly omitted to consider facts or information that might alter or detract from the opinions expressed.

SUMMARY OF REPORT

7. The purpose of this report is to provide information and advice for the assessment of the consent application, in relation to effects on stormwater servicing and flooding.
8. I have read the following documents when preparing this report:
 - 8.1 The consent application as lodged on 22 December 2017, in particular the Infrastructure Report compiled by Eliot Sinclair and Partners Limited dated 8 December 2017
 - 8.2 The response to request for information submitted 13 April 2018
 - 8.3 The Section 95 notification decision/report dated 14 September 2018

- 8.4 The amended consent application lodged 7 October 2019, including the Engineering Design Report, Days Drain compiled by Eliot Sinclair and Partners Ltd.
9. This report contains a summary of the application, an assessment of the stormwater and flooding matters associated with the application, an assessment of relevant planning rules, objectives and policies, and an analysis of relevant submissions.

SUMMARY OF APPLICATION

10. The applicant seeks land use and subdivision consents to establish a residential and commercial development at 201 Halswell Road.
11. The application site is approximately 21 hectares in size. The land is flat, with a mild to moderate slope to the south-east. Total fall across the site is approximately 2 metres. The site is predominantly grassed and is grazed, with a small residential dwelling and accessory structures located in the south west corner of the site, adjacent to Halswell Road.
12. The land is encumbered by a public watercourse, Days Drain, which is located along the entire north boundary of the site (approximately 800m in length) and several private man-made earthen drains running perpendicular to and draining into Days Drain.
13. The application proposes to subdivide the site into 13 lots including 10 residential super lots and two commercial lots, legal road and a number of reserves. Further subdivision would be expected to create the residential component of the development and its internal roading network.
14. The lower half of the site is partially within a Flood Management Area as described in the District Plan. A discussion of flood protection measures is in my paragraphs 25-31 below.
15. The stormwater network to be constructed under this application will be a combination of private network (servicing the commercial area) and public network within the roads and reserves.
16. Stormwater generated from all areas of the development will be captured in a newly constructed stormwater network consisting of channels, pipes, drains and other structures and conveyed to a stormwater treatment basin to be located within a proposed local purpose utility reserve. The second stage of stormwater treatment and the detention storage required to fully mitigate the effects of the newly urbanised stormwater discharges will occur on other land downstream of the site within stormwater facilities constructed by others. A description of the full stormwater management and mitigation system is in my paragraphs 32-40 below.
17. Because the development of this site relies on offsite stormwater management facilities and conveyance networks to be constructed by others, the applicant has allowed for additional temporary onsite mitigation (stormwater detention) to be provided in the event that these facilities are not yet available at the time of development.

ASSESSMENT OF APPLICATION

Stormwater Network

18. The applicant proposes to construct a stormwater network consisting of road channels, sumps and pipes, manholes and open waterways. Stormwater from individual allotments will discharge via pipes into the kerb and channel of interior roads. From there, stormwater will be captured in sumps and discharge into the stormwater mains. The mains will convey stormwater into the treatment basin. In general, the primary stormwater network of road channels, sumps and pipes and will provide conveyance for storms up to the critical 20% annual exceedance probability (**AEP**) (“5-year”) storm or better.
19. The roading carriageways will act as secondary overland flow paths for stormwater in the event of sump or pipe blockage, or storm events that exceed the capacity of the reticulated network. Secondary stormwater network systems (open drains, roading carriageways and overland flow paths) will provide conveyance for storms that exceed the 20% AEP storms, up to the 2% AEP storm.
20. Overall, the stormwater conveyance network will provide conveyance for the critical 2% AEP (“50-year”) storm.
21. In addition to the performance standards of the primary and secondary stormwater networks, the design will ensure that the 10% AEP critical storm does not enter private property except where a specifically-designed overland flow path and easement allows for it.
22. The applicant’s engineering consultants and I have discussed the design in detail and have agreed the appropriate the hydrological parameters to be used in design of the conveyance and mitigation systems. As a result of that discussion, rainfall intensities used in the design will include a +16% factor to account for the increased moisture holding capacity of the atmosphere attributed to global climate change over 100 years, and runoff coefficients used to calculate stormwater flow rates and runoff volumes are representative of the proposed land use and consistent with the values provided in the Christchurch City Council Waterways, Wetlands and Drainage Guide (**WWDG**) Chapter 21.
23. Although the details of the hydrological design have not been included in the application, I and the applicant’s consultants have agreed on all parameters and the full design calculations will be provided in the engineering design report required by conditions of subdivision should the application be granted.
24. I consider that the proposed stormwater network (primary and secondary) will be adequate to meet or exceed the minimum conveyance and inundation standards of the Christchurch City Council Infrastructure Design Standard (**IDS**) Part 5 and the WWDG Chapters 20-22.

Flood Management Area

25. A portion of the site is designated as Flood Management Area in the District Plan as shown in grey hatch below (Fig.1). The purple colour is the Flood Ponding Area of Hendersons Basin.

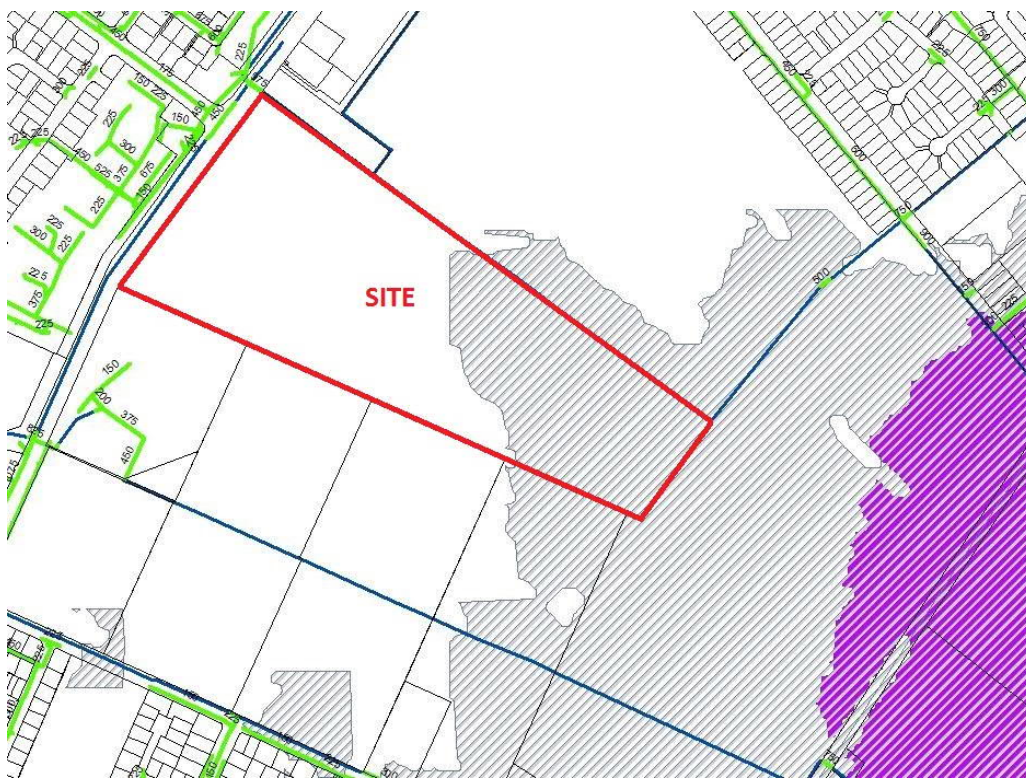


Figure 1: District Plan Flood Management and Flood Ponding Areas

26. The actual modelled flooding patterns are shown below (Fig.2), with the green-blue colours indicating areas of predicted surface flooding. The colour variations are representative of the predicted depth of that flooding.

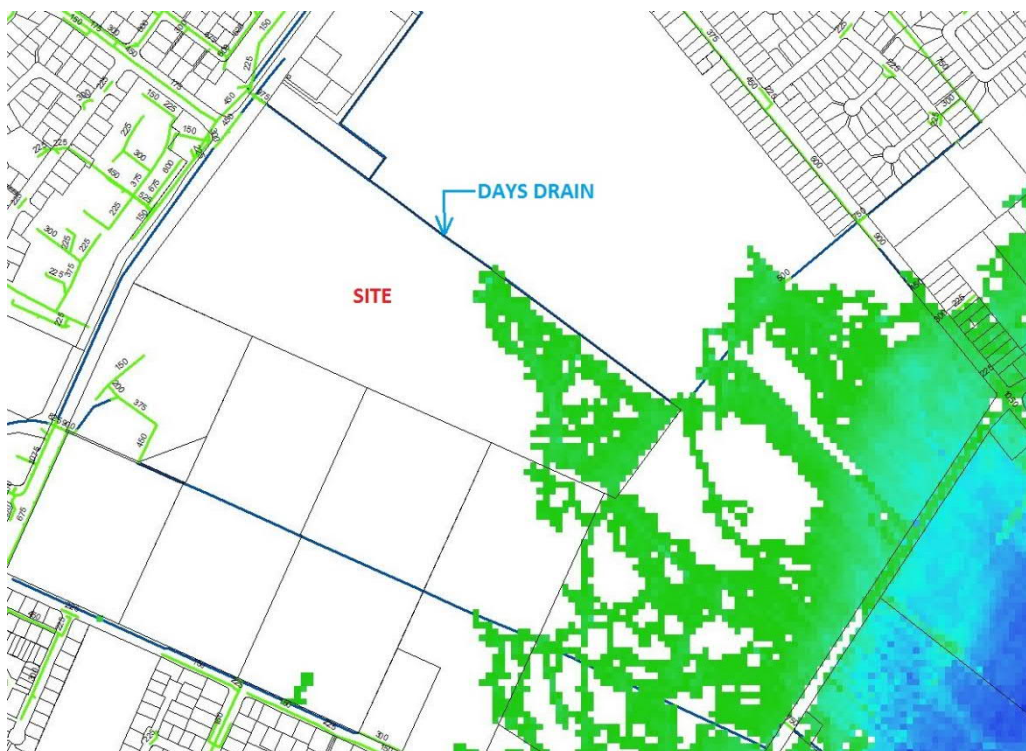


Figure 2: Modelled 200-year Flooding

27. The development site is not affected by the Hendersons Basin Ponding Area (the blue area of the above figure) as the entire site is at an elevation above the peak 0.5% AEP (“200-year”) ponding level of Reduced Level (RL) 19.02m Christchurch Drainage Datum (CDD).
28. The scattered, shallow flooding patterns identified in the model represent stormwater overtopping the banks of Days Drain and flowing across lower areas of the site. The predicted water depth of the flow is shallow, generally 100mm or less.
29. The applicant proposes to redevelop Days Drain to provide additional drain capacity to cater for the critical 2% AEP storm, and to fill and shape the land to ensure that buildings are protected from inundation in a critical 0.5% AEP storm. Once the Days Drain improvement works are complete and the site has been re-contoured by shaping the land to drain toward the internal roads which will serve as secondary flow paths for floodwaters, the shallow flood patterns indicated by the modelling will no longer exist.
30. By undertaking the earthworks and drain improvements proposed by the application, I consider the development will have fully mitigated against the predicted flooding indicated by the modelling. Because the areas of flooding indicated in the modelling are shallow and not created by ponding, I do not consider the filling and reshaping of land within the site will have adverse effects on other land. If the application is granted, I recommend a condition requiring new buildings to be constructed with finished floor levels a minimum of 400mm above the revised 0.5% AEP modelled flood levels.
31. If the application is granted, I recommend a condition requiring the net site area of all allotments within the Flood Management Area to be at or above the 0.5% AEP water levels. This will ensure new buildings in the Flood Management Area will comply with District Plan Policy 5.2.2.2.1(f). For clarity, I consider Policy 5.2.2.2.1(e) to be satisfied because the small amount of displaced flood water is compensated by the onsite stormwater storage volume provided.

Stormwater Quality Mitigation

32. The South West Area Christchurch Stormwater Management Plan (**SMP**) outlines the methods by which the Council will comply with its Canterbury Regional Council resource consent for stormwater discharge within this area of the city. The SMP has adopted a specific approach to water quality mitigation for South-West Christchurch utilising a “treatment train” consisting of a first flush sedimentation basin followed by a constructed stormwater wetland (or extended detention wet pond).
33. Sedimentation basins remove contaminants from stormwater by holding the stormwater generated from the first 25mm of rainfall in stilling basins for an extended period of time (between 48 and 96 hours), while releasing it slowly. The heavier particles settle to the bottom of the basin allowing the cleaner water to drain to the wetland. The wetland holds water for an additional 48 hours or longer, allowing further sediment capture through settling and binding to biofilms that form on plants. There is also an uptake of dissolved contaminants into the plant roots. The WWDG (Chapter 6) specifies the design standards for sedimentation basins and wetlands.
34. The applicant proposes to construct the first flush sedimentation basin within their development area on land which will vest to the Council as Local Purpose (Utility) Reserve. An integrated constructed stormwater wetland facility providing secondary treatment for the development is nearing completion at 270 Sparks Road.

Attenuation is defined¹ as “the capture of all stormwater runoff from critical design storms for different annual recurrence intervals, and its detention and slow release during and after the storm, to achieve a full release rate over 4 to 7 days.”

38. By capturing the increased volume of stormwater runoff generated by new impervious surfaces within the development and releasing it at a slow rate, the effects of the stormwater runoff on the peak flood levels in downstream waterways and floodplains is mitigated.
39. The applicant is providing a portion of this detention storage within the proposed first flush basin. The balance detention storage required to mitigate for this development will be provided in a new detention basin to be constructed on adjacent land by others. The Council has entered into an Infrastructure Provision Agreement with the owners of the adjacent land to ensure adequate stormwater storage capacity is provided for the 201 Halswell Road development.
40. If this offsite detention storage is not available at the time of development, the applicant agrees to provide² temporary mitigating storage within their site until the offsite facilities are completed. Conditions of subdivision consent will require the use of temporary mitigation if the application is granted and works begin prior to the commissioning of the permanent offsite stormwater systems.

Groundwater

41. Groundwater investigations undertaken by the applicant’s consultant geotechnical engineers reveal³ that average groundwater levels are approximately 900mm below ground level (BGL) across the site and that fluctuation could be on the order of +/- 200mm. This is not inconsistent with my experience of groundwater investigations undertaken by others within the same area.
42. The application does not discuss whether site groundwater will be artificially lowered using subsoil drainage (or other methods) within the site in order to achieve ground performance requirements or for any other purpose. I am therefore unable to assess any specific actual or potential effects of doing so. My below paragraphs 43-46 are therefore speculative based on my experience with other similar developments in this area.
43. Interception of groundwater and discharge to the surface water network can have adverse effects on downstream drainage systems, particularly where low lying properties rely on networks of land drainage systems such as shallow surface drains to manage their own groundwater. Prolonged changes in base flow in surface water systems can also potentially affect aquatic ecosystems by permanently or semi-

¹ South-West Christchurch SMP- Resource Consent Application Appendix E – Water Quantity Assessment (Technical Report No.4). (Golder 2011b)

² Section 9.3, Infrastructure Report 201 Halswell Road, Halswell Prepared for Progressive Enterprises Limited (Eliot Sinclair and Partners, 9 August 2017)

³ Section 2.5, 201 Halswell Road Geotechnical Site Investigation and Assessment, (Tonkin & Taylor, December 2017)

- permanently raising (or lowering) dry-weather water levels in local drains and receiving environments.
44. Other investigations within the same area predicted that if groundwater were to be artificially lowered to 1m BGL, the likely increase in surface water discharge would be on the order to 2 – 23 litres per second over an area of 100 hectares (or 0.02 – 0.23 litres per second per hectare). On that basis, the increase in surface water generated from 201 Halswell Road could be on the order of 0.42 l/sec to 4.8 l/sec, if subsoil drainage systems were widely used in the development.
45. The application mentions⁴ the potential use of low flow channels or other means to locally manage groundwater within the proposed stormwater first flush sedimentation basin. This is a common measure to ensure basins dry out between storms for mowing and is likely to generate only a very small increase in base flow in Days Drain (on the order of 0.02-0.25 l/sec using the above assumptions).
46. I consider there is limited potential for generation of small additional surface water flows (0.42 l/sec to 4.8 l/sec) from the use of local groundwater management within the site (should the applicant chose to). 0.42 l/sec to 4.8 l/sec increase in flow rate is not likely to result in a significant perceptible change in downstream water levels (Hendersons Drain or Cashmere Stream). I therefore do not consider the use of local groundwater management within the site will have adverse effects on downstream properties, their land drainage or flooding.

Waterways and Days Drain

47. The site contains a series of internal private drains which previously served the agricultural or grazing uses of the land. These drains will be filled in and their local drainage function replaced by a network of pipelines, channels, waterways and secondary overland flow paths. These drains would have performed a drainage function only during heavy rainfall when the surrounding land becomes saturated and generates overland flow. The drains may have also helped to locally draw shallow perched groundwater down to allow soils to stay dryer during winter months.
48. I do not have concerns regarding the replacement of these internal private drains with a reticulated pipe network as I consider the reticulated pipe network will provide an improved and efficient stormwater drainage required to service an urban developed area.
49. Days Drain provides the primary stormwater outfall for the Aidanfield treatment and detention basins on the north side of Halswell Road. Days Drain also conveys a small amount of groundwater intercepted in the Aidanfield facility subsoil system. This groundwater discharge appears to flow for a significant portion of the year based on my own observations.
50. The upper 200 metres of Days Drain is a man-made drain with a timber box lining similar to many box drains constructed within the city by the Christchurch Drainage Board. The lower 600 metres of Days Drain is a narrow channel with earthen banks vegetated with grasses and gorse. The waterway is located entirely within the

⁴ Section 9.2.1, *Infrastructure Report 201 Halswell Road, Halswell Prepared for Progressive Enterprises Limited (Eliot Sinclair and Partners, 9 August 2017)*

applicant's land until it reaches the southeast property boundary⁵. At this point the drain exits the site and takes a 90 degree turn to the northeast for 400 metres where it connects with a piped section of Hendersons Drain at Hendersons Road.

51. The applicant's amended application proposes to 'naturalise and enlarge' the lower 680 metres (approximate) of Days Drain and replace the upper 120 metres (approximate) of Days Drain with a pipeline where the drain abuts the existing Halswell Timber site⁶.
52. Days Drain is identified in the Outline Development Plan (ODP) for North Halswell as an "Existing waterway or drain to be enhanced in conjunction with urban development. Alignment may vary". Further, Part 8.10.4.D of the District Plan reads:

"Days Drain and Dunbars Drain shall be naturalised and enlarged to convey a critical two per cent annual exceedance probability storm event from their respective contributing catchments and the slopes of the waterway banks shall be 1m vertical in 4m horizontal average or flatter. Days and Dunbars Drains shall be realigned to discharge into the future Council stormwater wetland to be constructed at 270 Sparks Road."

53. The ODP envisioned a naturalised waterway channel with a suitable riparian corridor along with a public access walkway along Days Drain. The ODP was developed to be consistent with various guiding documents and strategies previously developed and adopted by the Council including:

1. Surface Water Strategy 2009-2039
<https://ccc.govt.nz/assets/Documents/The-Council/Plans-Strategies-Policies-Bylaws/Strategies/SurfaceWaterStrategy2009.pdf>
2. Waterways and Wetlands Natural Asset Management Strategy 1999
<https://cccgovtnz.cwp.govt.nz/assets/Documents/The-Council/Plans-Strategies-Policies-Bylaws/Strategies/NaturalAssetManagementStrategy2.pdf>
3. Waterways, Wetlands and Drainage Guide 2003
<https://ccc.govt.nz/environment/water/water-policy-and-strategy/waterways-wetlands-and-drainage-guide>
4. South West Area Plan 2009

⁵ Figure 1, Days Drain Design Report 201 Halswell Road, Halswell Prepared for Woolworths NZ Limited (Eliot Sinclair and Partners, 19 June 2019)

⁶ Part 1 Introduction, Days Drain Design Report 201 Halswell Road, Halswell Prepared for Woolworths NZ Limited (Eliot Sinclair and Partners, 19 June 2019)

<https://ccc.govt.nz/assets/Documents/The-Council/Plans-Strategies-Policies-Bylaws/Plans/area-plans/south-west/SWAP2009FinalDocumentLR-southwest.pdf>

54. The Surface Water Strategy (Executive Summary, page 5) contains nine goals for Christchurch City Council:
1. *Improve the water quality of our surface water resources;*
 2. *Reduce the adverse effects of flooding;*
 3. *Improve the ecosystem health of surface water resources;*
 4. *Protect and restore Ngāi Tahu values associated with surface water resources;*
 5. *Support a range of recreation activities on and around waterways;*
 6. *Protect heritage values associated with surface water;*
 7. *Protect and enhance the landscape values of surface water;*
 8. *Support community involvement in surface water management;*
 9. *Manage stormwater in an efficient manner that supports Goals 1-8.*
55. Further to the above, there are specific objectives in section 5.3 of the Surface Water Strategy to give effect to the goals. Specific objectives relevant to Days Drain are:
- 3.1 *Protect existing surface water habitats and indigenous species.*
 - 3.2 *Restore a range of indigenous riparian and aquatic habitats and species.*
 - 3.3 *Ensure maintenance of waterways and their margins supports their ecosystem health*
 - 4.1 *Protect, maintain and restore the mauri (life force) of waterways.*
 - 5.1 *Integrate surface water into the public open space network.*
 - 7.1 *Protect the outstanding natural landscapes and features of surface water.*
 - 7.2 *Enhance the natural character and visual amenity of waterways.*
 - 7.3 *Ensure surface water management enhances the ‘Garden City’ image of Christchurch.*
56. I consider that all of these goals, to varying degrees, are relevant to the development of the North Halswell ODP and its requirement for naturalisation and widening of Days Drain.

57. The Waterways and Wetlands Natural Asset Management Strategy devotes a chapter to sustainability, referencing the Resource Management Act, which highlights the Council's preference for the protection and restoration of waterways over piping.
58. Although the increased costs of pipeline systems over natural waterway systems are realised over very long periods of time (the asset life of a concrete pipeline, depending on environmental conditions, is between 80 and 150 years), the cumulative cost effects of pipeline renewal are currently being experienced by the Council for pipelines that were installed to replace waterways in the late 1800s and early 1900s.
59. The Waterways and Wetlands Asset Management Strategy also contains (page 64) specific guidance for the Halswell/Wigram Growth Area & Cashmere Stream and Ponding Areas, highlighting Days Drain as one of several "Green Corridors – Many Associated with Ponding Area and Restored/Developed Utility Waterways".



60. This document also contains (page 66) the following specific Strategies and Concept Vision for the area:

Strategies

- *Establish ecological corridors along waterway and wetlands through appropriate planting and improve public access for recreation*
- *Increase the diversity and abundance of terrestrial, wetland and migratory birds*
- *Protect and restore native fish habitat*
- *Define and implement practices to attain sustainable greenfields residential development which provides for flood detention within waterways either on or off site*

Concept Vision

- *Reduce the need for maintenance and renewal of drainage network*

- *Highlight with vegetation natural features such as old river terraces, waterways and wetlands*
 - *Provide significant habitat for wildlife.*
61. The foundation documents developed by Council for the purposes of steering the philosophy of development and surface water resource management intend for existing waterways to be protected and enhanced wherever feasible as part of a larger multi-value approach.
62. The applicant considers⁷ that, due to the proximity of the Halswell Timber site's buildings, it is not practicable to naturalise the adjacent section of waterway because:
1. The risk of seismically-induced lateral spread within the Halswell Timber site would be increased, and
 2. That the benefits of a narrow naturalised section of drain between commercial buildings would have limited amenity and would not facilitate activation, and;
 3. Such a narrow corridor could give rise to issues with Crime Prevention Through Environmental Design (**CPTED**) guidance.
63. Lateral spread risk is not within my area of expertise, therefore I am unable to comment on the relative risk of removing the timber lining versus removing it and changing the drain's batter slopes or replacing it with a pipeline. I note that the Halswell Timber site has two substantial commercial buildings within 2-3 metres of the existing drain edge.
64. The relative amenity of the water body and margins and CPTED issues are similarly not within my area of expertise and will have been addressed by others.
65. In discussions with the applicant's consultant engineers, I questioned whether the upper portion of Days Drain may function as a secondary flow path for stormwater spilling from Aidanfield Basins or Halswell Road. The applicant subsequently carried out an analysis⁸ of upstream topography, hydraulics and hydrology and included this analysis in their revised application. The applicant concluded that overland flow generated from Halswell Road or Aidanfield Basins is likely to drain along the Halswell Road corridor toward the proposed site access road intersection rather than into Days Drain. Therefore, the applicant's engineering consultant considers that secondary overland flow is able to be safely conveyed using the development's collector road network. I agree with this assessment based on my own analysis of local topography using 2018 LIDAR (Light Detection and Ranging) data and consider that Days Drain is not required to function as a secondary flow path.
66. Based on the above, and considering that the applicant has revised their application to increase the length of enhanced waterway to 680m (85% of the total length within the application site) I consider that on balance the proposed outcome is not inconsistent with the intent of the ODP, the District Plan and the various strategic and planning

⁷ Part 7 Conclusion, Days Drain Design Report 201 Halswell Road, Halswell Prepared for Woolworths NZ Limited (Eliot Sinclair and Partners, 19 June 2019)

⁸ Part 6 Aidanfield and Halswell Road Flood Flow Analysis, Days Drain Design Report 201 Halswell Road, Halswell Prepared for Woolworths NZ Limited (Eliot Sinclair and Partners, 19 June 2019)

documents referenced above. I consider that all hydraulic and flood mitigation requirements are able to be met through to detailed engineering design.

ASSESSMENT OF EFFECTS AGAINST RELVANT PROVISIONS OF THE DISTRICT PLAN

Chapter 5.4 Natural Hazards

67. With regard to Table 5.4.1.5a - RD1(b)(i): I do not consider that the development will result in the construction of any buildings that will be predicted to be flooded in a 1 in 200 year event. This will be mitigated by stormwater conveyance improvements and/or filling of land for building platforms.
68. With regard to table 5.4.1.5a – RD1(b)(ii): The combination of onsite mitigation proposed by the applicant along with further mitigation provided by others (Council and other developers) OR the additional temporary onsite detention storage provided by the applicant to meet the Full Flood Attenuation standard, I consider the overall net effect on the wider flood management area will be neutral (in the short term) and positive (in the long term).
69. With regard to table 5.4.1.5a – RD2(b): I consider that the proposed stormwater drainage networks to be implemented under the development will be an overall improvement to existing drainage systems and will result in controlled and/or reduced flooding of the development and adjacent land. Net flood storage capacity within the site will be increased over the pre-developed state, and the provision of stormwater storage with controlled release will have net benefit to downstream and adjacent properties affected by flooding.

Chapter 6.6 Water Body Setbacks

70. Section 6.6.7.1 – Water Body Setbacks - Natural Hazards of the District Plan seeks to address the effects of development near water bodies. While the proposed piping of 120m of Days Drain will affect the channel's ability to convey surface water, I consider the provision of a pipeline in conjunction with a suitable overland flow path, to be located within public road or protected by easement in gross and clear of buildings and other obstructions, is able to provide equivalent stormwater conveyance to that of the existing drain. For the lower 680m of Days Drain, I consider, subject to detailed design of the waterway channel, that the naturalised channel will be able to provide sufficient conveyance for the critical 2% AEP storm, which is an improvement over the existing drain capacity.
71. Section 6.6.7.2 – Water Body Setbacks – Natural Values seeks to address the effects of development on the natural qualities of water bodies. I consider the proposed piping of the upper 120m of Days Drain will reduce the natural qualities of that portion of the water body, however I believe this will be balanced by an increased natural amenity of the remaining 680m of Days Drain. Dr. Burrell's report discusses ecological effects of the proposal.
72. Section 6.6.7.5 – Water Body Setbacks – Maintenance Access ensures that the Council is able to access water bodies for both regular and emergency maintenance and repair. I consider that with proper placement of manhole structures for access, and sufficient protection of the drain corridor within a suitably sized Local Purpose

(Utility) Reserve, that access for maintenance of the drain will not be adversely affected by the piping of the upper 120m of Days Drain. The minimum width of easement to protect the pipeline is determined using Equation 1 in Section 5.9.6 of the Infrastructure Design Standard. Conditions of consent will ensure the IDS standards are met in the design.

73. Adequate access for maintenance is able to be provided to the lower 680m of drain with provision of roads, maintenance tracks and intermittent gaps in the riparian planting. Provision of safe and adequate access to stormwater infrastructure will be a recommend condition of consent.

Chapter 8 Subdivision and Earthworks

74. District Plan Sections 8.7.4 and 8.8.6 list matters of control and discretion for subdivision relating to servicing and infrastructure. I consider that all allotments within the development will be provided with appropriate servicing and connections to the stormwater management systems and that provision will be made for stormwater treatment and connection to a future catchment-based treatment network (8.7.4.3(a) and (c), and 8.8.6(a) and (b)).
75. Section 8.7.4.3(d) specifically addresses the Council's aim to implement an integrated and naturalised surface water network to manage stormwater and avoid a costly proliferation of smaller, unconnected stormwater systems. I consider the implementation of the first flush sedimentation basin, along with its connections to other downstream facilities and naturalisation of the majority of Days Drain satisfies this matter of control.
76. With adequate protection of public infrastructure using roading corridors and reserves, the ability for maintenance, inspection and upgrade of utilities will be ensured (8.7.4.3(h)).
77. With regard to Section 8.8.7a, I consider the application will mitigate the effects of flooding within the development by improving the performance of the local drainage network, and managing overland flow in extreme storm events by the shaping of land, raising of building platforms and provision of sufficient overland flow paths within the roading network and within reserves or easements.
78. Section 8.8.7b seeks to ensure that subdivision does not have flooding impacts on adjoining land. I do not consider that the filling of land within the site will have adverse effects on adjacent land as any flood water displaced by filling of land in a 2% AEP event will be compensated for by provision of storage within secondary flow paths, the roading network and the stormwater sedimentation/detention basin. I consider the increase in surface water runoff generated by the increased impervious surface coverage will be adequately mitigated by the planned network of onsite and offsite stormwater storage and control systems.
79. Further to Section 8.8.7b, I do not consider there will be any significant effects on adjacent land caused by filling, shaping or development. Land to the east of the application site is adjacent to the proposed Days Drain enhancement (Lot 114 DP 562950) which means it is hydraulically separated from 201 Halswell Road by the drain, and the drain will continue to provide any ongoing land-drainage function even after it is modified by the applicant. The Halswell Timber site (Pt RS 310 Canterbury District) relies on piped discharges into Days Drain and these piped connections will be re-established once the pipeline is installed (to be a condition of consent). Lot 1&4

DP 386717 is a Council stormwater treatment facility site which is effectively banded along the boundary with 201 Halswell Road, and discharges into Milns Drain. Lot 2 DP 495899 is the "Milns Park" subdivision development and has shaped its subdivision to drain away from 201 Halswell Road into internal roads and Milns Drain. The only remaining adjacent site is Lot 3 DP 5206 (51 Milns Road). According to my analysis of local topography, there appears to be a pre-existing bund on 201 Halswell Road which already prevents rural stormwater runoff from entering the application site. In summary, the filling or shaping of the application site is unlikely to cause an obstruction of existing overland flow paths from adjacent properties.

ANALYSIS OF SUBMISSIONS

Sparks Rd Garden, David Lee and the Lee Family

80. The submitter supports the commercial development portion of the application but opposes the stormwater component. The submitter raises concerns about the effects of stormwater discharge on their market garden at 288 Sparks Road. The applicant has lived in the area for over 50 years and considers that a rise in the water table and more stormwater flooding has affected their ability to grow vegetables. The submitter believes the "stormwater calculation 3000m²" should be larger. Specifically, the submitter asks:
1. If the development is able to reduce the ground water table;
 2. If the development is able to reduce the stormwater flooding level;
 3. If the development is mitigating its stormwater as required by the RMA;
 4. If stormwater tanks could be part of the housing component to increase stormwater capacity;
 5. If the detention pond could be constructed to cater for a 1 in 100 year stormwater event;
81. The submitter's property is within the Hendersons Basin Ponding Area. While historic unmitigated development is likely to have caused peak water levels in the ponding area to increase, the Council has implemented strategies and rules in various forms since the early 1990's to ensure that the ponding area is protected and that stormwater inputs from the network are controlled in such a way to avoid exacerbating the existing flooding. This strategy is most visibly recognized in the Council's South West Area SMP⁹ which aims to reduce flood levels in certain parts of the catchment to below those of 1991, shortly after Council first developed the Heathcote River Floodplain Management Strategy (November 1998).
82. The detention storage to be provided by the development is only one component of a larger, integrated stormwater mitigation system. With the full stormwater mitigation system functioning, the peak discharges from the developed site in the critical 2% AEP storm will be less than the predeveloped (greenfield) flow rates. I consider that the full mitigation system will not exacerbate and will actually reduce the site's contribution to

⁹ Part 4.2.1 South-West Christchurch SMP- Resource Consent Application Appendix B – Stormwater Management Plan (Golder 2011s)

- effects of flooding in Hendersons Basin. Furthermore, there are other Council projects not related to this application that being implemented on land it owns within the Hendersons Basin which are likely to further reduce flooding effects on properties affected by Hendersons Basin, Cashmere Stream and Ōpāwaho/Heathcote River flooding.
83. For the interim period prior to commissioning of the full stormwater mitigation system, the applicant proposes to provide additional temporary onsite storage to control peak flows back to pre-developed rates for all storms up to and including the 2% AEP storm of 36-hour duration. I consider that these measures will ensure that flooding over the submitter's land will not be exacerbated by the development for the interim period.
84. The submitter asks if there is a way to reduce their ground water table level (presumably at their property at 288 Sparks Road). It is unlikely in my opinion that the development could actively undertake any measures to substantively reduce ground water levels on the submitter's site. It is possible that by developing the site and increasing impervious surface coverage, that natural infiltration of rainfall into the soils will be reduced. This may result in a minor reduction of peak local groundwater levels as a larger proportion of rainfall will be converted to surface water instead of shallow groundwater. Because surface water is then managed and mitigated by the stormwater detention facilities, this would be an overall benefit to downstream properties by slightly reducing groundwater levels and significantly reducing peak flows of surface water.
85. I consider it unlikely that there will be significant changes in the base flow of drains affecting the submitter's land as a result of any measures employed to manage shallow groundwater within the development. Days Drain, which would be the receiving environment for any additional groundwater generated currently discharges to Hendersons Drain and will, in the future, be diverted into the Council's wetlands at 270 Sparks Road. Both of these drainage routes bypass the submitter's property at 288 Sparks Road.
86. The submitter suggests that stormwater tanks could be included in the development to increase stormwater capacity. I assume the submitter is referring to stormwater tanks for individual dwellings or commercial buildings, typically used to capture stormwater from building roofs.
87. While I consider that stormwater tanks on individual housing sites can be effective in reducing stormwater runoff for short duration storm events they are not appropriate for mitigating long-duration floods. The critical duration for ponding downstream of the site is 36 hours. Rain tanks are not an effective mitigation method for storms of this length because the low rainfall intensity (4.35mm/hr average design rate, including provision for climate change) and very small catchment area contributing to individual tanks (the size of a typical dwelling roof) means the size of orifice needed to control outflow would need to be infeasibly small and would be susceptible to blockage by leaves or debris.
88. To alleviate the orifice size issue above, an alternative configuration for rain tanks could consist of a manually or automatically controlled release, which would be activated after the peak of the storm has passed. This type of system, while technically feasible to implement, would in my opinion be complex and prone to failure or misuse due to its reliance on electronics, sensors and automated systems.

89. Notwithstanding the above, the amount of storage required to capture the 36 hour storm would be difficult to accommodate on a small site. For a 150m² roof area, a rain tank would need to be over 21,000 litres in size to capture and hold the runoff from the 2% AEP, 36-hour storm. Standard sizing for a 25,000 litre round plastic tank is 3m high x 3.5m diameter, which in my opinion is an impractical and imposing size for small residential properties.
90. The submitter asks if the development could be held to a 1 in 100 year (1% AEP) stormwater detention standard. While this is of course possible (as would a 500, 1000 or 10,000 year return period event), it would require even more land be set aside for stormwater storage potentially affecting the economic viability of development and making it inconsistent with the standards applied to all other developments within the Ōpāwaho/Heathcote River catchment and the greater city.

Halswell Timber

91. This submitter considers that there may be benefits of Days Drain being piped along their shared boundary as part of the application, provided any existing discharges are adequately catered for, along with any flow from Aidanfield, however the submitter does not mention those specific benefits.
92. In terms of catering for existing discharges from the Halswell Timber site, the applicant has identified¹⁰ ten small (75mm to 150mm diameter) stormwater pipes emanating from the Halswell Timber site into Days Drain along the shared boundary. Although the report does not explicitly state that all of those discharges will be reconnected to the new pipeline, I consider that it is feasible to do so, as the new pipeline will be laid near the existing invert of the drain. Should this application be granted, I recommend a condition requiring the consent holder to ensure all pre-existing discharges into Days Drain are reconnected after the drain works are complete.

CONCLUSION

93. I consider the overall application to generally be consistent with the Council's guiding documents, standards, strategies and management plans relevant to the management of stormwater and flooding. Most importantly, the application's proposed management and mitigation of stormwater effects is aligned with the South West Area Stormwater Management Plan which will allow the future stormwater infrastructure to vest as part of the Council's public stormwater network.
94. I consider the proposed development is able to appropriately remedy and mitigate effects on flooding within the Flood Management Area through a combination of conveyance network improvements, filling of land to protect dwellings and shaping of land to create secondary flow paths for stormwater.
95. I consider the flooding effects of the development on downstream properties will be adequately mitigated by the implementation of onsite and offsite storage systems, and that if offsite storage systems are not available at the time of development that the

¹⁰ Part 2.2.3, Days Drain Design Report 201 Halswell Road, Halswell Prepared for Woolworths NZ Limited (Eliot Sinclair and Partners, 19 June 2019)

applicant has proposed an acceptable scheme to provide temporary mitigation entirely within their site.

96. I consider, if the application is granted, that conditions of consent will be able to ensure that the filling, shaping of land and development of the site will avoid or mitigate adverse drainage or flooding effects on adjacent properties.
97. I consider the proposal to naturalise the lower 680m of Days Drain to be not inconsistent with Council's Waterways and Wetlands Natural Asset Management Strategy, Surface Water Strategy, Waterways and Wetlands Drainage Guide, South West Area Plan, South West Area Stormwater Management Plan and the North Halswell ODP.
98. The proposal overall provides the "integrated and naturalised surface water network" sought by General Matters Rule 8.7.4.3(d) of the District Plan.

Recommended Conditions

99. Should the decision maker choose to grant this application, I recommend the following conditions:
 1. *The stormwater management and mitigation system shall be comprised of channels, sumps, pipes, swales, and a first flush sedimentation basin. In addition to the below conditions, the system shall meet the requirements of the CCC Waterways, Wetlands and Drainage Guide (WWDG 2003 including Chapters 6, 21 and Appendix 10 updated 2011/12), the Infrastructure Design Standard (IDS 2018), the Construction Standard Specifications (CSS 2018) and the South West Area Christchurch Stormwater Management Plan.*
 2. *Prior to any construction or operational phase stormwater discharge, the consent holder shall demonstrate that authorisation for construction and operational phase stormwater discharge into the Christchurch City Council stormwater network has been obtained from Christchurch City Council as the operator of that network, otherwise separate authorisation from Environment Canterbury will be required.*
 3. *Stormwater generated from all roofs, roads and hardstanding areas within all allotments shall be collected via channels, sumps, pipes or swales and discharged into a first flush sedimentation basin to be constructed within an allotment to vest in Christchurch City Council as Local Purpose (Utility) Reserve.*
 4. *The first flush sedimentation basin shall:*

- (i) *Be designed to hold the volume of stormwater runoff generated from the first 25mm of rain falling on impervious areas within the development site;*
 - (ii) *Have average batter slopes of 1 vertical in 4 horizontal average, or flatter;*
 - (iii) *Be vegetated with an approved grass species mixture and/or landscape planting.*
 - (iv) *Have an average stormwater storage depth of 1 metre or less;*
 - (v) *Outfall via a choked outlet into Days Drain at discharge rates to be agreed by Council engineers at detailed design phase.*
5. *Stormwater in excess of the first flush basin capacity shall discharge to the CCC stormwater network to be constructed on adjacent land.*
6. *If the offsite stormwater network and mitigation systems required to service this development have not been commissioned at the time of s224c application, a temporary stormwater detention system shall be constructed within the site.*
7. *The temporary stormwater detention system, if used, shall consist of a detention basin designed in accordance with WWDG Chapter 6.*
8. *The temporary detention basin system, when calculated in conjunction with the first flush sedimentation basin, shall provide sufficient stormwater storage to control peak stormwater flows back to greenfield runoff rates for all storms up to and including a 2% annual exceedance probability return interval storm of 36 hours duration.*
9. *The consent holder shall identify the location and design of the connection point to the offsite stormwater network at the detailed engineering design phase.*
10. *The consent holder shall implement all permanent downstream network connection(s) within 6 months of being provided written notice by Council that the offsite stormwater network and mitigation systems have been commissioned.*

11. *The consent holder shall identify all offsite stormwater connections to Days Drain and ensure that stormwater service for the offsite properties using those connections is maintained and/or re-established as required to avoid or mitigate nuisance or flooding.*
12. *Any temporary stormwater facilities not located within Council-owned land or Local Purpose (Utility) Reserve shall be protected by registration of easement in gross.*
13. *The filling or development of the land shall not cause adverse drainage or flooding effects on other land. The consent holder shall provide a report summarizing any effects of disruption of overland flow caused by development of the site, and identify all measures proposed to avoid, remedy or mitigate those effects. This report shall include all measures to reconnect all pre-existing discharges into the section of Days Drain that is to be replaced by a pipeline. The report shall form part of the Engineering Design Report.*
14. *The consent holder shall provide a report summarising any effects on downstream surface water or groundwater networks resulting from groundwater management systems to be used within the development site. The report shall identify all measures proposed to avoid, remedy or mitigate those effects and shall form part of the Engineering Design Report.*
15. *The surface water management and mitigation system shall be designed to ensure complete capture and conveyance of all stormwater runoff from the site for all rainfall events up to and including the critical two percent annual exceedance probability storm. This will require internal reticulation and conveyance to meet Council's inundation standards as specified in the WWDG. The conveyance system shall be designed to ensure that even for events where the critical peak stormwater runoff flow rate occurs that all of the first flush stormwater shall reach the first flush sedimentation basin. A combination of primary and secondary conveyance systems may be used to ensure this level of service is achieved.*
16. *The primary stormwater reticulation network shall be designed to convey (at minimum) the critical twenty percent annual exceedance probability storm*

- event. No flooding of private property shall occur during the critical ten percent annual exceedance probability storm event and no flooding of buildings shall occur during the critical two percent annual exceedance probability storm event.
17. *The consent holder shall submit an Engineering Design Report for acceptance by 3 Waters and Waste Unit and Resource Consents Unit. The Engineering Design Report shall demonstrate how the design will meet all of the applicable standards and shall contain all of the plans, specifications and calculations for the design and construction of all stormwater infrastructure and mitigation systems.*
 18. *A buffer of 5 metres width shall be established between all stormwater basins and all residential, commercial or rural lot boundaries as mitigation for the utility works. The Council may at its discretion allow some variance to this buffer width.*
 19. *Stormwater laterals are to be laid to at least 600mm inside the boundary of all lots at the subdivision stage. Unless otherwise approved by Council Engineers, the laterals are to be laid at sufficient depth to ensure protection and adequate fall is available to serve the furthestmost part of the lot.*
 20. *Prior to issuance of s224c certification the designer of the surface water management system shall provide to Council a report which identifies all secondary flow paths proposed for storm events that exceed the capacity of the stormwater management and mitigation system. All secondary or emergency stormwater flow paths are to be identified and protected by an easement in favour of Christchurch City Council, if required.*
 21. *The net site area of all development lots within the Flood Management Area shall be at or above the 0.5% annual exceedance probability flood level plus 250mm freeboard.*
 22. *Safe and adequate access to stormwater mitigation facilities for maintenance and sediment removal shall be provided and designed in accordance with WWDG Sections 6.8 & 6.9.*

23. *The consent holder shall provide easements in gross over all stormwater infrastructure located outside of legal road or utility reserve areas to be vested with Council.*
24. *The consent holder shall operate all stormwater infrastructure to vest in Council for at least 12 months following the issue of the Section 224(c) certificate, after such time Council may accept responsibility for operation and maintenance.*
25. *Prior to issuance of s224c certification the consent holder shall provide as-built data of the stormwater management systems and confirm that they have been constructed in accordance with the approved plans and comply with the IDS, in particular Part 3: Quality Assurance and Part 12: As-Builts.*
26. *Prior to issuance of s224c certification the consent holder shall provide to Council a Maintenance and Operations manual for all stormwater water management and mitigation facilities and it shall form part of the Resource Consents Unit and 3 Waters Planning Unit acceptance. This manual is to include a description of the activity, the design assumptions, maintenance schedule and monitoring requirements.*

Brian Norton

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REFERENCES

CCC, (2009). Waterways Wetlands and Drainage Guide

CCC, (1999). Waterways and Wetlands Natural Asset Management Strategy

CCC, (2008). Surface Water Strategy 2009-2039

Golder Associates, (2011). South-West Christchurch SMP – Resource Consent Application, Appendix B, Stormwater Management Plan.

APPENDIX 4

Evidence of Mr Gregory Peter Burrell

RMA 2017 3185

Woolworths New Zealand Limited

201 Halswell Road

**Land use and subdivision consent applications to establish a
residential and commercial mixed use development.**

REPORT OF GREGORY PETER BURRELL

ON ECOLOGY

Dated 13 November 2019

TABLE OF CONTENTS

INTRODUCTION	1
SUMMARY OF REPORT	1
ECOLOGICAL VALUES	2
ECOLOGICAL EFFECTS	4
DESIGN OF ENHANCED WATERWAY.....	9
THE APPLICANT’S ECOLOGICAL ASSESSMENT	9
CONSENT CONDITIONS.....	10
CONCLUSION	12
REFERENCES	12
APPENDIX 1: WATERWAY PHOTOGRAPHS	14

INTRODUCTION

1. My full name is Gregory Peter Burrell. I am a consultant ecologist on contract with the Three Waters and Waste Unit at the Christchurch City Council (**Council**). I am here providing an assessment of ecological values as an input to the officers' report in relation to the application to establish a residential and commercial mixed use development.
2. I hold a Bachelor of Science, Post Graduate Diploma in Science, and a Doctor of Philosophy in Science, all majoring in Zoology (in particular Ecology) and all obtained from Canterbury University.
3. I am employed as a director and senior scientist at Instream Consulting Limited. I have worked in the role for the past five years. My work is centred on freshwater ecology and water quality, including assessing ecological values, assessments of environmental effects, restoration, and catchment planning.
4. I have over 20 years' experience working as an ecologist.
5. Whilst it is not directly relevant for the preparation of this report, I am aware that the Council has approved direct referral of this application to the Environment Court. I confirm that I have read and agreed to comply with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note (dated December 2014). I confirm that the issues addressed in this report are within my area of expertise. I have not knowingly omitted to consider facts or information that might alter or detract from the opinions expressed.

SUMMARY OF REPORT

6. The purpose of this report is to provide information and opinion for the assessment of the consent application, in relation to effects on freshwater ecology. This report covers the following matters:
 - 6.1 Ecological values of Days Drain.
 - 6.2 Ecological effects associated with the proposed development.
 - 6.3 Description of what an enhanced waterway could look like.
 - 6.4 Points of agreement and disagreement with the Applicant's ecological assessment.
 - 6.5 Matters to consider as consent conditions.
7. This report does not extend to a detailed review of District Plan provisions or hydrology, as these matters are covered by other Council experts.
8. I have read the following documents when preparing this report:
 - 8.1 The original consent application Assessment of Effects (AEE), dated December 2017.

- 8.2 Aquatic ecology assessment of effects by Boffa Miskell, dated December 2017.
- 8.3 Aquatic ecology memorandum from Boffa Miskell dated March 2018 (attached to the 27 April 2018 RFI response letter).
- 8.4 Aquatic ecology memorandum from Boffa Miskell dated August 2018 (in response to the Council Section 95 report).
- 8.5 Ecological design principles attached to minutes of a meeting at Kamo Marsh on 14 May 2019.
- 8.6 The updated consent AEE, dated 7 October 2019, including the following attachments:
 - An updated landscape design, described and illustrated in a letter from Kamo Marsh, dated 3 October 2019.
 - An updated aquatic ecology memorandum from Boffa Miskell, dated 13 August 2019.
- 8.7 The Council's Waterways, Wetlands and Drainage Guide, dated February 2003.
9. As detailed further in this report, I consider that the key ecology-related issue with this application is the proposed piping of Days Drain. It was proposed to pipe the upper 400 m of drain in the original application, but this has since been reduced to 120 m of piping.
10. Overall, I consider that the effect of piping is small in scale and significance, when considered in isolation. However, I initially had concerns about cumulative effects and the precedent effect in the broader catchment under development, based on the original application. Based on the updated application, I am no longer concerned about cumulative effects, as I consider that the extent of proposed naturalisation of Days Drain downstream of the piped section is an appropriate offset for piping. In particular, the riparian and wetland habitat gained by increasing the width of riparian planting beside the open reach of Days Drain on the applicant's property exceeds the value of aquatic habitat lost by piping.
11. Other potential ecological issues that I do not consider to be key issues include construction effects, loss of baseflow, and the design of enhanced sections of Days Drain. All of these issues can be addressed through detailed design, management plans, and consent conditions.

ECOLOGICAL VALUES

Days Drain

12. Days Drain is a tributary of Cashmere Stream, which is a tributary of the Ōpāwaho/Heathcote River. Days Drain arises from groundwater captured by drainage leading into the Aidenfield stormwater basin, immediately north of Halswell Road. Therefore, the headwaters of Days Drain are immediately downstream of Halswell Road, on the applicant's property. South and downstream of Halswell Road, the drain is open, flowing through a timber-lined section for approximately 200 m, with the rest of the drain having natural banks for the remainder of the development site. I have

visited the drain on several occasions, the most recent being on 11 January 2019, and the following observations are largely based on that site visit. Site photographs are attached as Appendix 1.

13. Average water depths were approximately 5 cm, but there were also shallow pools of approximately 10 cm depth in the timber-lined section. Average wetted widths were 0.8 m in the timber-lined section and 0.2 m in the unlined section downstream. Despite the low flows, a high degree of flow permanence was indicated by the presence of several macrophyte (aquatic plant) species, moss, and abundant aquatic snails (*Potamopyrgus antipodarum*). Fish habitat is currently limited due to the lack of adequate water depths, although this could be improved as part of any waterway enhancements.
14. I observed that well-shaded sections of the drain had only moderate (40%) cover with macrophytes (aquatic plants), and moss growing into the channel that provided some variation in form for the low flow channel. The open sections had up to 100% cover with mostly exotic macrophytes, and high cover with filamentous green algae. This highlights the value of shade, in terms of preventing nuisance growths of aquatic plants and algae.
15. Shortfin eels were reported in the upper 400 m of Days Drain by Boffa Miskell in October 2017. In addition, I observed adult inanga in the same section of drain during a site visit on 31 May 2018. Both species are relatively common and widespread native species, but inanga has a conservation status of At Risk – Declining (Dunn et al. 2018).

Comparison with Other Nearby Waterways

16. I visited several other nearby waterways on 11 January 2019, to provide some context for the current state of Days Drain and how other similar waterways have been managed. This section summarises results of that site visit, while photographs are attached as Appendix 1.
17. Miln Drain downstream of Halswell Road is very similar in size to Days Drain, but has been heavily planted with native flax, rushes, tussocks, and sedges. Heavy shading from plants means that there are no nuisance growths of algae or macrophytes. The width of streamside planting is approximately 2 m, which shows that even a narrow riparian buffer can provide good shade, if plantings are dense. Miln Drain could be further enhanced with the addition of a meandering channel and pools, but the native plantings on their own provide better habitat than currently provided at Days Drain.
18. Dunbar Waterway at Halswell Road is slightly larger than Days Drain, but it has been heavily planted with native wetland trees, shrubs, sedges, and rushes. The native plantings have their own biodiversity value, and their value will improve over time, as the larger tree species grow into tall, canopy-forming specimens. Deeper pools downstream of Halswell Road provide good potential habitat for eels and possibly also inanga (adult whitebait).
19. Quarry Road Drain at Sutherlands Road is also slightly larger than Days Drain and it is to be naturalised by Council as part of a large stormwater development in the area. In its current state, Quarry Road Drain is poorly shaded, so is often choked with macrophytes. However, native eels and bullies are currently found in the drain, and local landowners report seeing koura (freshwater crayfish) there too. Waterway

enhancement plans include creating a meandering channel, addition of instream habitat features (e.g., pools, boulders, bank undercuts), and native planting.

20. The upper reaches of Miln Drain, Dunbar Waterway, and Quarry Road Drain are all good examples of contemporary enhancement of waterways by Council. In contrast, Ballintines Drain at Hoon Hay Park is an example of how headwaters were previously poorly-managed for ecological values. Ballintines Drain emerges from a pipe downstream of Kevin Street, and then flows along an open, timber-lined drain. Given the amount of flow present, the drain could support moderate to high ecological values, but ecological values are limited by the timber lining downstream of the road, and ecological values are non-existent in the piped section upstream. Piping and close fences in the open section greatly limit the ability to naturalise this waterway.

Summary

21. Days Drain currently supports low ecological values in the vicinity of the proposed development. However, it does have inherent value as a headwater site. Also, it does have value as a site for enhancement, based on similar nearby waterways. Existing or proposed naturalisation of nearby waterways provide clear guidance of what should reasonably be expected, in terms of future management of Days Drain. This includes avoiding piping.

ECOLOGICAL EFFECTS

Key Effects

22. The original application described a proposal to pipe the upper 400 m of Days Drain and enhancing the remaining 400 m of open waterway within a 10 m wide corridor on the applicant's property. The updated application proposes reducing the length of waterway piping and increasing the amount of waterway enhancement as follows:
 - Piping 120 m of Days Drain immediately downstream of Halswell Road.
 - Enhancing 280 m of Days Drain downstream of the piped section, within a 12 m wide corridor.
 - Enhancing the downstream 400 m of Days Drain, within a 10 m wide corridor.
23. I consider that the proposed piping of Days Drain is the key ecology-related issue with this application. That is because piping has the direct effect of removing open water habitat, plus it has a range of indirect effects, including impacts on catchment hydrology, habitat connectivity, and fish passage (Weitzell et al. 2016). I consider the scale and significance of this effect on its own to be small, but I consider the contribution to cumulative effects to be more substantial.
24. Piping of small, headwater streams was historically commonplace internationally, but is no longer considered sound environmental practice. That is because the adverse effects of piping on hydrology, water quality, habitat, and fish passage are now well understood (Meyer et al. 2005; Blakely et al. 2006; Kaushal & Belt 2012), plus society places greater value on water quality and biodiversity in the urban environment. Piping goes against the common restoration principle of protecting headwaters.

25. Approximately 40 km of Christchurch's waterways are piped¹, with piping more common in smaller tributaries and headwaters. Most of the headwater streams in Auckland are piped (Wilding & Parkyn 2006). A recent study in Wellington noted that Greater Wellington Regional Council consented the piping of almost 13 km of streams in the region between 2003 and 2008 (Greer et al. 2017). Small headwater streams are therefore often the victim of cumulative effects, whereby many small effects of waterway piping contribute to a large cumulative loss in natural values to urbanisation.
26. In addition to cumulative effects, I am also concerned about the precedent associated with piping Days Drain. Council strongly encourages land developers in all parts of the city to maintain and enhance open waterways. This encouragement occurs both in planning documents such as the District Plan and as part of the advice Council provides to developers through the consent application process. As a consequence, waterway protection and enhancement is occurring throughout the Cashmere Stream catchment, both by Council and by private landowners. Given the scale of land development in the broader Cashmere Stream catchment, if all land developers took a similar stance to the applicant, then several kilometres of open waterway could be lost to pipes, which would be a significant adverse effect.

Assessment

27. The applicant has proposed offsetting the loss of 120 m of waterway to piping by enhancing 680 m of waterway within a 10-12 m wide strip of their property downstream. This form of compensation is known as a "biodiversity offset" and Appendix 9.1.6.5 of the District Plan provides a framework for biodiversity offsetting. Key tenets of the offsetting framework include that the size and quality of the offset is commensurate to the scale of the effects of the activity, such that a minimum of a "no net loss" of biodiversity occurs. The framework also requires that restoration or enhancement activities undertaken as part of the offset are "...*demonstrably additional to what otherwise would occur, including that they are additional to any remediation or mitigation undertaken in relation to the adverse effects of the activity.*" Therefore, because Days Drain was to be enhanced as part of the District Plan's "Residential New Neighbourhood Outline Development Plan North Halswell" (Residential ODP), enhancement as mitigation should be greater than what would otherwise have occurred under the Residential ODP requirements².
28. Waterway enhancement for similar Network Waterways in the area would typically occur within a total width of approximately 10-12 m, comprising a stream channel that is approximately 1-2 m wide and a mix of native plantings and paths within a 5 m riparian strip either side of the stream. This is equivalent to what the applicant has proposed as mitigation. Therefore, the proposed mitigation on its own is not "demonstrably additional to what otherwise would occur", and might be considered inconsistent with Policy 9.1.2.2.14 – Offsetting and the associated biodiversity offsetting framework.
29. However, I consider the above assessment to be overly conservative, as it does not take into account additional enhancements that might reasonably be expected to occur

¹ The length of piped waterways was calculated within an area that roughly comprises the Avon, Heathcote, Styx, Halswell, and Sumner catchments. Data were calculated by Tom Parsons, a Council Surface Water Engineer.

² I understand there are differences in the amount of guidance given around waterways in the residential and commercial ODPs for the development area. This is not an area of my expertise, but such matters are discussed in Mr Lowe's planning report for Council.

on the neighbouring property to the north. Council would typically expect both properties bordering a Network Waterway to contribute at least a 5 m strip of land towards waterway enhancement. For Days Drain, Council would still expect the neighbouring property to contribute at least a 5 m strip towards waterway enhancement. Therefore, there will be at least an additional 5 m strip of waterway enhancement along the 680 m of drain being enhanced on the applicant's property (i.e., the 10 m strip offered by the applicant, less the 5 m minimum requirement that would be normally expected). This equates to a total additional area of 3,400 m².

30. The area of potential aquatic and riparian habitat lost to piping can be calculated as the 120 m length of open waterway to be piped multiplied by a restoration width of 12 m, giving a total area of 1,440 m². As noted above, the estimated area of the proposed biodiversity offset is 3,400 m², which is more than twice that of the potential habitat lost to piping. In my opinion, the proposed enhancement represents an appropriate offset for the piped section of waterway, taking into account the scale and significance of ecological effects caused by piping, and the size and quality of habitat being enhanced. Therefore, I consider that the ecological effects of piping are negligible to positive, taking into account the proposed waterway enhancements downstream.

Other Effects (Not Key)

Construction Effects: Erosion and Sediment Control

31. The construction phase of any land development project has the potential to generate a great deal of exposed soil that is prone to erosion and can wash into waterways. In my opinion, this potential effect can be adequately dealt with via standard conditions relating to erosion and sediment control. However, it is my experience that contractor adherence to erosion and sediment control conditions is very patchy. Therefore, I recommend that the erosion and sediment control conditions also have a monitoring requirement, with the monitoring conducted by a contractor that is independent from the earthworks contractor.

Construction Effects: Fish passage and fish stranding

32. Construction around and in waterways has the potential to block fish passage, both during the construction phase and in the long term. This is of concern, because many of New Zealand's native freshwater fish species must undertake migrations to and from the sea to complete their life cycle. Shortfin eel and inanga are both known to occur in Days Drain within the application site, and both undertake migrations to complete their life cycle. Based on my experience with similar developments elsewhere in Christchurch, I consider that potential impacts on fish passage can be adequately addressed via conditions that require fish passage is maintained or only temporarily interrupted.
33. Flow diversion and over-pumping of waterways during instream works can result in fish becoming stranded on the bed or banks. This is particularly an issue in small drains that contractors may think contain no fish, with several large fish kills in the last few years resulting from lack of fish salvage prior to works commencing. I therefore recommend a consent condition requiring fish salvage is conducted and overseen by a freshwater ecologist prior to works in any waterways.

Loss of baseflow

34. Waterway headwaters such as Days Drain are susceptible to reduced flow after urban development. That is because new subsoil drainage underneath the development often directs shallow groundwater away from the adjacent waterway to further down the catchment. This was a likely contributor to drying in the upper reaches of Kā Pūtahi Creek³ following the completion of the Northwood subdivision (Taylor 2007). Having spoken with the applicant's engineers, it is likely that there will be some loss of baseflow in Days Drain due to subsoil drainage, but the source from Aidenfield upstream will remain.
35. Given that Days Drain already has minimal flow, it is important that any development minimises potential impacts caused by subsurface drainage and reduced baseflow. I recommend against augmenting flows in Days Drain with an alternative water source. That is because augmented flows are often intermittent and subject to maintenance issues, which limits their value to aquatic biota. Rather, I consider it is more important to design the enhanced waterway so that it is resilient to reduced baseflow. This would include creating pools surrounded by overhanging vegetation that can act as a refuge during low flows. In general, having a low flow channel that is bordered with native grasses that overhang the channel will help buffer against the effects of reduced baseflow.
36. Overall, I consider that potential effects of the development on reduced baseflow can be mitigated through careful waterway design. As such, I am satisfied that this effect can be adequately addressed via consent conditions requiring that the waterway design includes features to mitigate the effects of reduced baseflow.

Design of enhanced reaches (can be dealt with via design plans and conditions)

37. The waterway design attached to the original consent application was lacking in detail. However, the updated proposal has more detailed designs and a set of ecological criteria that are to be included in the final design. These designs include creating a meandering channel with variation in depths, additional habitat features within the channel (e.g., wood and boulders), extensive riparian planting, use of low grasses along the low flow channel to provide fish cover and shade, and minimising the number and length of culverts. Overall, I am satisfied that the enhanced reach will provide significantly higher quality habitat than at present. I am confident that any details can be addressed via consent conditions.

Assessment Against District Plan Provisions

38. I have been asked to address relevant matters from chapters 6, 8, 14 and 15 in the District Plan that relate to the piping of Days Drain. I am an ecologist and not a planner, therefore my Plan analysis is brief and focusses on ecological effects and whether I consider the effects are consistent with relevant District Plan objectives. A more detailed Plan analysis is to be undertaken for the Council by Mr Lowe.
39. Chapter 6.6 of the District Plan concerns water body setbacks. Objective 6.6.2.1 requires that "*Activities and development in water body margins are managed in a way that protects and/or enhances...riparian or aquatic ecosystems...*". Policy 6.6.2.1.1

³ Kā Pūtahi was formerly known as Kaputone Creek, but Council has recently switched to using its original maori name.

further requires taking a “*catchment-wide approach to protecting and/or enhancing the natural form, function and ecology of water bodies and their margins in order to maintain or improve (where degraded) water quality, flood control, biodiversity, bank stability, mahinga kai, and amenity values...*”. I consider that the revised application is consistent with this objective and policy, given the size and quality of waterway enhancement proposed as offset mitigation.

40. Chapter 8 of the District Plan concerns land subdivision, development, and earthworks. Policy 8.2.3.4 requires, amongst other things, that activities avoid sediment and contaminants entering water bodies via stormwater, such that surface water quality is maintained or enhanced. I understand from Brian Norton (Council stormwater engineer) that the proposed stormwater treatment system will deliver the appropriate level of water quality treatment. It should therefore be consistent with Policy 8.2.3.4.
41. Policy 8.2.4.1 requires that subdivision earthworks “*do not result in erosion, inundation, or siltation, and do not have an adverse effect on surface water or groundwater quality.*” As noted above, such matters can be adequately addressed via conditions around erosion and sediment control, including independent monitoring provisions.
42. Chapter 14 of the District Plan concerns residential land use. Policy 14.2.5.1 requires that development shall be in accordance with the requirements of the relevant outline development plan (ODP). Appendix 8.10.4 contains the North Halswell ODP, which this proposal is located within. The North Halswell ODP provides direction on development form and design, including the general location of commercial and residential areas, transportation networks, stormwater facilities, and waterways. Appendix 8.10.4 (North Halswell ODP) states that “*Enhancements of existing waterways will provide recreational and amenity corridors...*”. More specifically, it states that Days Drain shall be naturalised and enlarged to carry stormwater and that the banks shall be 1 m vertical in 4 m horizontal or flatter on average. While the focus of the ODP statement is on amenity, recreation, and stormwater conveyance, any waterway enhancement is expected to be consistent with the Council’s Waterways, Wetlands, and Drain Guide, which anticipates enhanced ecological values too. I consider that the revised application is consistent with Policy 14.2.5.1 from an ecological perspective, given the size and quality of waterway enhancement proposed as offset mitigation.
43. Chapter 15 of the District Plan concerns commercial land use. There is very little of relevance to ecology in this chapter, with the exception that Policy 15.2.2.2 requires that commercial development is undertaken in accordance with the ODP. There are two relevant ODPs here: the Commercial Core Zone (North Halswell) ODP (Appendix 15.15.3) and this falls within the broader North Halswell ODP (Appendix 8.10.4) discussed in the previous paragraph. The Commercial Core Zone ODP does not state how waterways are to be managed, but the broader North Halswell ODP anticipates that Days Drain is to be enhanced, as discussed in the previous paragraph. I therefore consider that Policy 15.2.2.2 is being implemented from an ecological perspective, for the reasons provided in the previous paragraph.

DESIGN OF ENHANCED WATERWAY

44. I have been asked to comment on what form an enhanced version of Days Drain would look like, in terms of landscape treatment and dimension. The Council's Waterways, Wetlands and Drainage Guide provides considerable guidance on habitat restoration, and I consider it is a good starting place for enhancing Days Drain. Enhancement typically involves replacing timber-lined waterways with natural, low-gradient banks, a meandering channel form, riparian planting, and improved instream habitat complexity (e.g., the addition of pools and shallow riffle areas). Given the low grade/slope of the waterway and historic wetland landcover, the obvious restoration endpoint would be a well-planted open-water wetland, such as nearby Dunbars Waterway. However, if space for enhancement is very limited, then enhancement could be as simple as planting both banks with native trees and shrubs to provide shade and riparian habitat. It would be preferable to add channel meanders and instream structures to provide greater variation in aquatic habitat, but some habitat variation can still be achieved within an otherwise straight channel, using structures such as wood and boulders.
45. The applicant's ecologist has provided a list of ecological design principles (Boffa Miskell 2019) and the applicant is proposing these principles will be incorporated into consent conditions. If those principles are adhered to, then I consider that the design will enhance ecological values within Days Drain. It is particularly encouraging that the upper reaches of the waterway enhancement have been aligned to maximise the width of a planted riparian buffer on the applicant's (southern) side of waterway, to allow a similar width of planting on the northern side when the neighbour develops their land. This should result in a wider-than-usual riparian buffer for such a setting, which would be an appropriate offset for the piped section upstream.
46. In addition, I have recommended to the applicant that they plant fast-growing native grasses along the edge of the new waterway channel, to provide shade quickly and reduce the need for weed clearance in the waterway. I propose a consent condition that requires this. Plantings behind the grasses can provide the longer-term biodiversity value, and taller trees will eventually shade-out many of the grasses. This way, the plantings will provide vital shade and cover in the short term, as well as providing for enhanced biodiversity in the longer term. This shade will help prevent issues with nuisance weeds and algae growing in the new alignment, which often occurs in similar developments.

THE APPLICANT'S ECOLOGICAL ASSESSMENT

47. Boffa Miskell (2017) used the Stream Ecological Valuation (SEV) method to assess the ecological value of the section of Days Drain that is proposed to be piped. The SEV was developed for use in Auckland streams, but has since been applied in other cities across New Zealand. Using the SEV, Boffa Miskell concluded that the section to be piped has low to very low ecological value. In their March 2018 memorandum, Boffa Miskell noted that this assessment was *"likely to be, in part, due to limited habitat provision and the very low baseflow that the waterway carries."* In their August 2018 memorandum, Boffa Miskell stated that *"The best outcome would be to avoid piping of this waterway – seeking opportunities to realign and enhance the waterway. However, our remit was to assess the level of effects of piping 400 m of the waterway and the results of that assessment were as follows."* They then concluded that the combination of a moderate magnitude of effect on low ecological values would result in an overall

very low level of effect. Boffa Miskell (2019) have subsequently assessed the magnitude of effect of piping as being negligible, due to the reduced length of piping.

48. I agree with the applicant's assessment that the section of Days Drain of interest is currently of low ecological value and that the effect of piping is small, on its own. However, I disagree with the assessment in the Boffa Miskell memorandum from March 2018 that "...*enhancement, as required by the ODP, may not achieve ecological enhancement and substantive improvement of the ecological function of the upper reaches of Days Drain* [that the applicant proposes to pipe]." That is because the assessment is largely based on results of the SEV, which is a method developed for perennial streams and can underestimate the value of headwater sites with little flow.
49. The ecological assessment also ignores cumulative effects, which I consider are the key issue. Unless there are adequate provisions in planning documents, cumulative effects are difficult to manage on a consent-by-consent basis, resulting in the "death by a thousand cuts" of a natural resource. In the present situation, the North Halswell ODP in the District Plan provides an expectation that Days Drain will be naturalised up to Halswell Road. There are several other ODPs in the Southwest area that also indicate drains that are to be naturalised as part of development. These ODPs provide a clear directive that existing drains in the area, many of which currently have low ecological value, are to be enhanced. The simplest way to avoid cumulative effects of piping is to follow the ODP directive of waterway enhancement.
50. As noted above, since its initial application for consents, the applicant has amended its application. The amendments include: reducing the proposed length of piping from 400 to 120 m, increasing the length and width of enhancement of the waterway downstream, and providing more details on the nature of waterway enhancements that will occur. Based on the details in the updated application, I am now satisfied that effects of piping are adequately offset by the additional area of waterway enhancement downstream.

CONSENT CONDITIONS

51. I recommend the bulleted items below are incorporated into conditions of consent.
 - The ecological principles outlined in the Boffa Miskell (2019) report are to be adhered to for the entire 680 m length of the enhanced section of Days Drain (i.e., not just the upper 400 m assessed in that report), as follows:
 1. Maintain baseflow in headwaters: water levels and water permanence need to be considered.
 2. Include natural, gently graded banks to improve heterogeneity / diversity of in-stream habitat conditions.
 3. Where the banks are regraded, and the channel is designed to accommodate flood flows, ensure that a low-flow channel, or similar, is included to ensure adequate aquatic habitat (e.g. water depth) persists throughout the year for in-stream fauna; or develop as a wetland area.

4. Provide gentle meandering of this low-flow channel within the waterway corridor.
 5. Planting of riparian margins with ecologically sensitive, and appropriate indigenous species.
 6. Planting vegetation up to, and overhanging, the water's edge.
 7. Use plants with flexible and low-density foliage where it is important to maintain flood capacity.
 8. Low-flow channel should be well shaded to minimise nuisance aquatic weed (macrophyte) growth.
 9. Include planting nodes, with a variety of height tiers of native plant species. Avoid exotic, and especially deciduous, species.
 10. Avoid walking tracks and paths positioned immediately at the edge of the low-flow channel, with this area instead being well-planted with ecologically suitable species that also maintain flood capacity.
 11. Where shrubs along the waterway and adjacent foot path need to be removed for human safety reasons, replace with low-growing, shade-loving indigenous groundcover with taller indigenous trees to provide shading of the waterway and pedestrian areas.
 12. Ensure culverts and other in-stream structures maintain fish passage (as required by legislation). This may include using planting instead of rock armouring (e.g. at structure outlets, bank stabilisation), where possible.
 13. A suitably qualified and experienced ecologist should provide input into the Detailed Design, including (but not limited to) plant selection and aquatic habitat creation.
- Appropriate erosion and sediment control measures must be in place to avoid fine sediment entering waterways during construction.
 - Erosion and sediment control measures should be monitored by a contractor that is independent from the earthworks contractor.
 - Fish passage is to be maintained or only temporarily interrupted during construction. Any temporary interruption of fish passage should be assessed by a suitably qualified and experienced freshwater ecologist as having no adverse effects on fish.
 - Fish salvage is to be undertaken prior to any works commencing that could result in fish becoming stranded on the bed or banks of the waterway. Fish salvage is to be overseen by a suitably qualified and experienced freshwater ecologist.
 - The edges of the low flow channel should be planted with fast-growing native grasses, to provide shade quickly and reduce the need for weed clearance in the waterway.

CONCLUSION

52. The original application involved piping 400 m of Days Drain and provided little detail on how the remaining open sections of the drain would be enhanced. As such, I concluded that it was inconsistent with the District Plan, particularly in relation to the North Halswell ODP, which states that Days Drain is to be enhanced all the way to Halswell Road as part of urban development.
53. The amended application involves piping 120 m of Days Drain and details have been provided as to how the remaining 680 m of the drain will be enhanced. Based on the details in the amended application, I am now satisfied that effects of piping are adequately offset by the additional area of waterway enhancement downstream, and therefore consistent with the relevant provisions of the District Plan.
54. In my opinion, any residual uncertainties and effects can be adequately addressed via conditions of consent, as outlined above.

Dr Greg Burrell

Waterways Ecologist (Contractor) / Three Waters and Waste Unit, Christchurch City Council

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APPENDIX 1: WATERWAY PHOTOGRAPHS

Photographs of Days Drain and nearby waterways, taken on 14 January 2019



Figure 1: Timber-lined section of Days Drain, looking downstream from Halswell Road



Figure 2: Timber-lined section of Days Drain showing macrophytes and substrate.



Figure 3: Timber-lined section with less shading.



Figure 4: Timber-lined section of Days Drain, showing a sinuous low-flow channel created by sediment and macrophytes.



Figure 5: Unlined section of Days Drain, downstream of timber-lined section.



Figure 6: Unlined section of Days Drain showing fine substrate and litter from the timber yard.



Figure 7: Dunbar Drain downstream of Halswell Road.



Figure 8: Miln Drain, looking downstream from Halswell Road.



Figure 9: Quarry Road Drain, downstream of Sutherlands Road. This site is to be enhanced by Council in the near future.

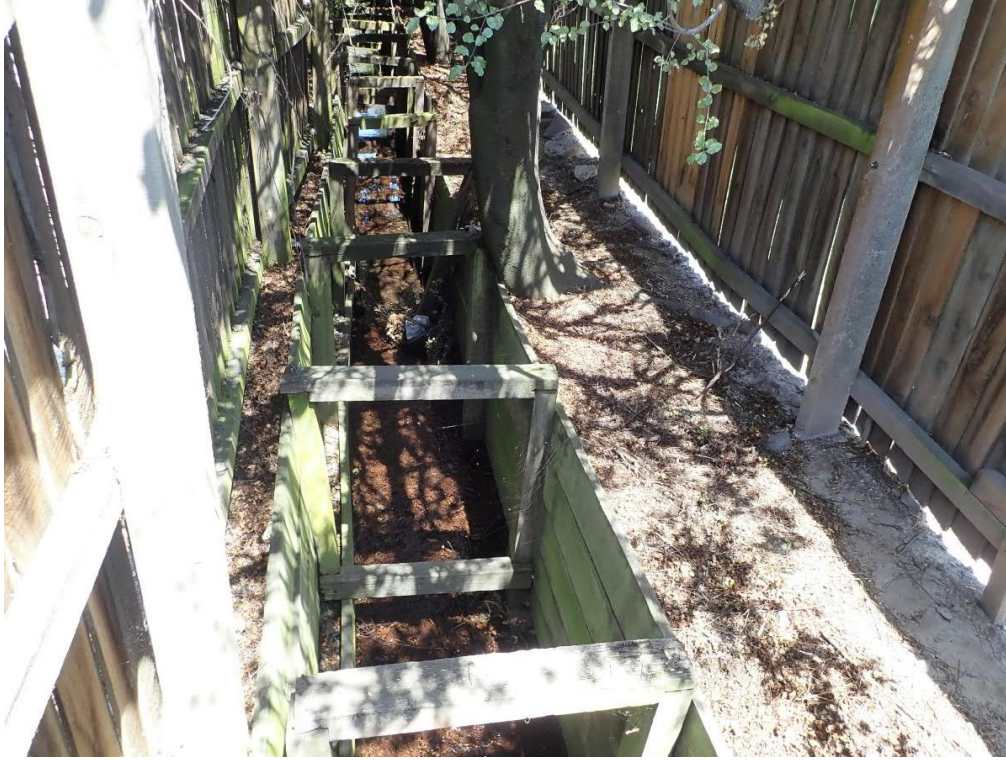


Figure 10: Ballintines Drain at Hoon Hay Park. This is an example of historic poor waterway design from an ecological perspective.

APPENDIX 5

Evidence of Ms Yvonne Dawn McDonald

RMA 2017 3185

Woolworths New Zealand Limited

201 Halswell Road

**Land use and subdivision consent applications to establish a
residential and commercial mixed use development.**

**REPORT OF YVONNE DAWN MCDONALD
ON GEOTECHNICAL, EARTHWORKS AND GENERAL CIVIL ENGINEERING
Dated 12 November 2019**

TABLE OF CONTENTS

INTRODUCTION 1

SUMMARY OF REPORT 1

GEOTECHNICAL 2

EARTHWORKS 9

GENERAL ENGINEERING 11

CONCLUSION 11

REFERENCES 18

INTRODUCTION

1. My full name is Yvonne Dawn McDonald. I am a member of the Resource Consents Unit at the Christchurch City Council (**Council**). I am here providing an assessment of the geotechnical, earthworks and general engineering matters as an input to the officers' report in relation to the application to establish a residential and commercial mixed use development and subdivision.
2. I hold a Bachelor of Engineering First Class Honours majoring in Civil Engineering from Canterbury University and am a member of Engineering New Zealand.
3. I am employed as a Senior Subdivisions Engineer with Council. I have worked in the role for the past 13 years. My work is centred on: providing specialist advice, expertise, judgement, and assessment for engineering conditions on subdivision consents and earthworks and geotechnical aspects of land-use consents; ensuring appropriate quality assurance is met for subdivision works constructed on private land; and enabling Council's asset units to be satisfied that infrastructure meets Council requirements.
4. I have over 35 years' experience working as a civil engineer.
5. Whilst it is not directly relevant for the preparation of this report, I am aware that the Council has approved direct referral of this application to the Environment Court. I confirm that I have read and agreed to comply with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note (dated December 2014). I confirm that the issues addressed in this report are within my area of expertise. I have not knowingly omitted to consider facts or information that might alter or detract from the opinions expressed.

SUMMARY OF REPORT

6. The applicant is applying for a joint land use and subdivision consent. The proposal is to develop 12 lots capable of being subdivided into 248 residential allotments, commercial development including a supermarket and an apartment building and stormwater basins. The development can potentially be carried out in stages.
7. The purpose of this report is to provide information and advice for the consent application, in relation to effects on geotechnical, earthworks and general engineering matters.
8. This report does not extend to specific advice on the engineering aspects of the proposed utility services including the waterway.
9. I have read the following documents when preparing this report:
 - 9.1 Ministry of Business, Innovation & Employment guidance Repairing and rebuilding houses affected by the Canterbury earthquakes, Issue 7, October 2014 (MBIE Guidance update Issue 7 October 2014).
 - 9.2 Planz subdivision and land use application dated December 2017 including an Eliot Sinclair Infrastructure Report dated 9 August 2017, an Eliot Sinclair Erosion, Sediment and Dust Management Plan (ESCP) dated 16 August 2017, a Tonkin and Taylor Geotechnical Site Investigation and Assessment dated December 2017.

- 9.3 Geotech Consulting Geotechnical Report Peer Review dated 28 November 2017 of version 4 of the Tonkin and Taylor Geotechnical Site Investigation and Assessment, dated 10 November 2017.

Note Version 4B, dated December 2017, was not materially different from revision 4.
- 9.4 Elliot Sinclair and Partners RFI Response dated 12 March 2018 including the plan Existing and Proposed Ground Levels.
- 9.5 Planz Addendum Comprehensive Mixed Use Development report dated 7 October 2019 including a Tonkin and Taylor Addendum Report, Geotechnical-Related Implications of the 2019 Revised Development Plan dated 7 October 2019.

GEOTECHNICAL

10. 201 Halswell Rd is zoned Residential New Neighbourhood, with a portion on the north boundary zoned Commercial Core. It is all in the Liquefaction Management Zone, with the eastern end in a Flood Management Area.

Geotechnical Reports

11. Tonkin and Taylor have carried out a Geotechnical Site Investigation and Assessment dated December 2017. This was based on site investigations carried out between April and October 2017 and is version 4 of this report. A previous version proposed an engineered gravel raft for liquefaction mitigation.
12. Tonkin and Taylor (T&T) undertook a desktop review, a site walkover and site specific ground investigations including: 17 cone penetrometer tests to 10m bgl (below ground level) or refusal with associated dissipation tests, three machine drilled boreholes to 18.75m bgl with associated standard penetration tests, 10 Scala penetrometer tests to 2.0m bgl, nine 1.2m test pits with associated 1.0m deep Scalas. Seven piezometers were installed in June and soil samples were tested off site. From this information a geotechnical model was created and a liquefaction analysis was carried out. Comment on earthworks methodology, foundation options and pavement design also came from this investigation.
13. At the time of the site investigation T&T found Days Drain flowing at 0.2-0.5m deep but they suggest this depth is due to uncharacteristically heavy rainfall and typically this would be 50-100mm base flow. The site also had water ponding (perched) and testing confirmed upper soil layers were saturated.
14. The subsoil materials are generalised as 0.3-0.4m topsoil over 5-7m depth variable soft/loose silt (Layer 1a) and sand. Below this is 1.5-5m of medium dense to dense gravel with some sand/silt then silt mixtures with some organic/peat or occasional sand lenses for 6-8m. This gravel layer is deeper and thinner towards the north. The base material is assumed as over 10m depth Riccarton Gravel from 15.3-17.4m bgl.
15. The New Zealand Geotechnical Database groundwater model has groundwater 1.0m below ground level (bgl) over the site i.e. falling from 22.0m (Christchurch Drainage Datum) in the northwest to 19.5m in the southeast but no piezometers supporting this model within 700m of the site. Groundwater was observed at 0.3-1.7m bgl although the piezometers recorded higher levels – T&T believe this is due to the saturated top soil layers. Standing groundwater in the test pits was recorded at 0.8-1.0m bgl. Tonkin and Taylor have assumed a groundwater level of 0.9m bgl for the liquefaction

assessment, with 0.7m bgl for static infrastructure design +/- 0.2m seasonal fluctuation. They highlight that the top soil saturation will affect earthwork methodologies.

16. T&T carried out a section 106 assessment with the following conclusions:
- The southeast section of the site is within a flood management area. T&T state that all finished floor levels will comply with Council provided levels and downstream waterway works are understood to mitigate the current site flooding.
 - The site subsoil class to New Zealand Standard 1170.5 is Class D (deep or soft soil).
 - Natural hazards are due to liquefaction with some minor potential lateral stretch at Days Drain.
 - There is no rockfall or landslip potential due to the location and topography of the site.
 - The flat topography also substantially reduces the potential for slope instability outside small scale excavations and the waterway banks.
 - The site is well separated from the coast.
17. The February quake in the Canterbury Earthquake Sequence generated several isolated sand boils in the west and north of the site, as well as in Halswell Rd and adjacent properties. T&T state that shaking intensities from this earthquake means the site is likely to have been “sufficiently tested to SLS (Serviceability Limit State)”. The measuring stations were over 3km from the site but T&T state they have allowed for the $\pm 50\%$ uncertainty in the values used. The adjacent land has been categorised as Technical Category 2, on the basis of its performance under the Canterbury Earthquake Sequence.

Liquefaction Assessment

18. The liquefaction assessment was carried out in accordance with the Ministry of Business, Innovation & Employment guidance Repairing and rebuilding houses affected by the Canterbury earthquakes, Issue 7, October 2014 (MBIE Guidance update Issue 7 October 2014).
19. The sand and silt mixtures (Layer 1a) are considered by T&T to be variably susceptible to liquefaction. T&T used the Idriss and Boulanger 2014 deterministic methodology (MBIE guidance update Issue 7 October 2014) for their initial assessment, to the following requirements:
- 19.1 At SLS for sites in the Canterbury earthquake region, both the $M_{7.5} / 0.13g$ (SLS1a) and a $M_6 / 0.19g$ (SLS1b) design case must be analysed (and the highest calculated total volumetric strain from either scenario adopted).
- 19.2 At ULS (Ultimate Limit State) T&T analysed the $M_{7.5} / 0.35g$ case (ULS Importance Level 2) and the $M_{7.5} / 0.35g$ case (ULS Importance Level 3).

20. The fines fitting parameter (C_{FC}) used was 0.0 and the probability of liquefaction triggering (P_L) used was 15%. The liquefaction index settlements were evaluated as 30-120mm under SLS1 level shaking and 50-160mm under ULS level shaking.
21. MBIE requires one deep investigation per 0.25 lots (for sites exceeding 1 ha) to support subdivision consents. The residential area is 14.2ha, proposed to be converted into 248 residential lots. This area would require 62 deep investigations. This level has not been achieved – 43 test results were analysed. T&T state that they believe the site is sufficiently consistent and increased testing density is not necessary at this stage. The test density is lowest in the eastern end.
22. T&T consider that, based on site performance observations under the Canterbury Earthquake Sequence and recent research on the performance of interbedded and silty soils in Christchurch, the recommended MBIE methods have over-estimated the liquefaction susceptibility of the site.
23. T&T consider, referring to Lees et al, that a fines fitting parameter (C_{FC}) of 0.2 is more appropriate in the Idriss and Boulanger 2014 deterministic methodology. They also state that site performance when “sufficiently tested” supports a probability of liquefaction triggering (P_L) of 50%. Using the revised C_{FC} and P_L values, the liquefaction index settlements were evaluated as 20-50mm under SLS1 level shaking and 50-120mm under ULS level shaking.
24. T&T have highlighted in clause 4.3.2 paragraph 2 of their Geotechnical Site Investigation and Assessment that *“Sand boils and sand ejecta ... may occur at the site in future strong earthquakes. This needs to be appropriately considered during the design of buildings and civil infrastructure.”*
25. When considering lateral spread, T&T note that Days Drain and the stormwater basin have the potential for damage under seismic loading. They have determined, using Zhang et al 2004, lateral displacements in the order of 100mm under ULS level shaking are possible within 20m of the free edge though SLS events are not expected to be significant.
26. The Tonkin and Taylor Addendum Report October 2019 related primarily to changes to the treatment of Days Drain. The land each side of the drain was expected to experience moderate to severe liquefaction induced ground damage (ground cracks >50mm wide) under a ‘future large earthquake’ (events with return periods of approximately 250 to 300 years or greater).
27. T&T state in clause 5.3 paragraph 2 of their Geotechnical Site Investigation and Assessment that the property is Technical Category (TC) 2 equivalent *“provided that the strategies in Section 5.4 ... are implemented.”* My understanding of this comment is that the land is not TC2 equivalent until the mitigation is carried out. They reiterate a number of times through the report that they have not followed the MBIE guidance and that their conclusions are based on professional judgement and the assessment discussed above.
28. The MBIE guidance recommends undertaking ground remediation to bring liquefaction deformation performance characteristics up to the equivalent of TC1 performance, but allows that where it is not practical or economic to provide TC1 compliant building platforms TC2 equivalent performance is accepted.

Liquefaction Mitigation

29. T&T note that buildings will require site specific investigations but they recommend generally light-weight construction and symmetrical footprints. A geotechnical ultimate bearing capacity of 200 kPa is available from 0.4-0.7m bgl and T&T state that standard TC2 type foundations are appropriate for residential structures.
30. They state that large or heavy structures, e.g. in the commercial zone, will require more detailed design and investigation, due to the thinness of the non-liquefiable 'crust' and the depth to the water table. They have provided some assumptions when considering these designs and note that concrete floor slabs will require special detailing to mitigate possible sand boils.
31. To achieve the residential land TC2 equivalency, T&T propose the following:
 - Topsoil stripping
 - Compaction of layer 1a soils
 - Minimisation of cuts to maximise the non-liquefiable 'crust'
 - Placement of imported hardfill in the first instance to those areas with free faces
 - Geogrid reinforcement of free faces to limit ground deformation
32. T&T state pavement construction should consider measures to ensure fines do not contaminate basecourse materials - they have suggested measures to address this. They also recommend pad foundations for any poles rather than penetrations below the water table and that tree pits be limited in depth when within 1m of building foundations. These aspects of design will require presentation to the relevant Council asset representatives under the engineering plan acceptance process, particularly for lighting as this 'solution' is not typical.
33. For below ground infrastructure, they state in clause 5.10.1 bullet list of their Geotechnical Site Investigation and Assessment that buoyancy will require considerations, any abrupt bends in pipes should be accommodated in structures and these structures should incorporate flexible connections. Groundwater inflows, if the capping layer is affected, will cause construction issues.
34. For the stormwater basin and potential lateral spread, T&T state "*Lateral ground displacements in the order of 100 mm are not expected to have any material effect on the capacities of Days Drain or the stormwater basin. We expect that any spreading-related ground damage could be readily repaired following a ULS level event if necessary, for example ground cracks could be filled with silt or topsoil. In addition, the naturalised Days Drain and the stormwater basin are proposed to have shallow batters, therefore the potential for any local or global slope instability is considered to be very low.*"
35. The T&T Addendum Report looked at the effect of the greater length of naturalisation of Days Drain on the carparking and the neighbouring land. They state that:
 - for the carpark areas, the land remediation options proposed in the previous report for the residential areas are appropriate to limit ground deformation.
 - the options for the commercial building foundations are as previously recommended.

36. For the replacement of the timber drain with a naturalised drain at a 4.1m offset from the boundary, T&T have undertaken a section 106 assessment. They state that the likelihood of lateral spreading in the adjacent property is 'no different than it is currently'.

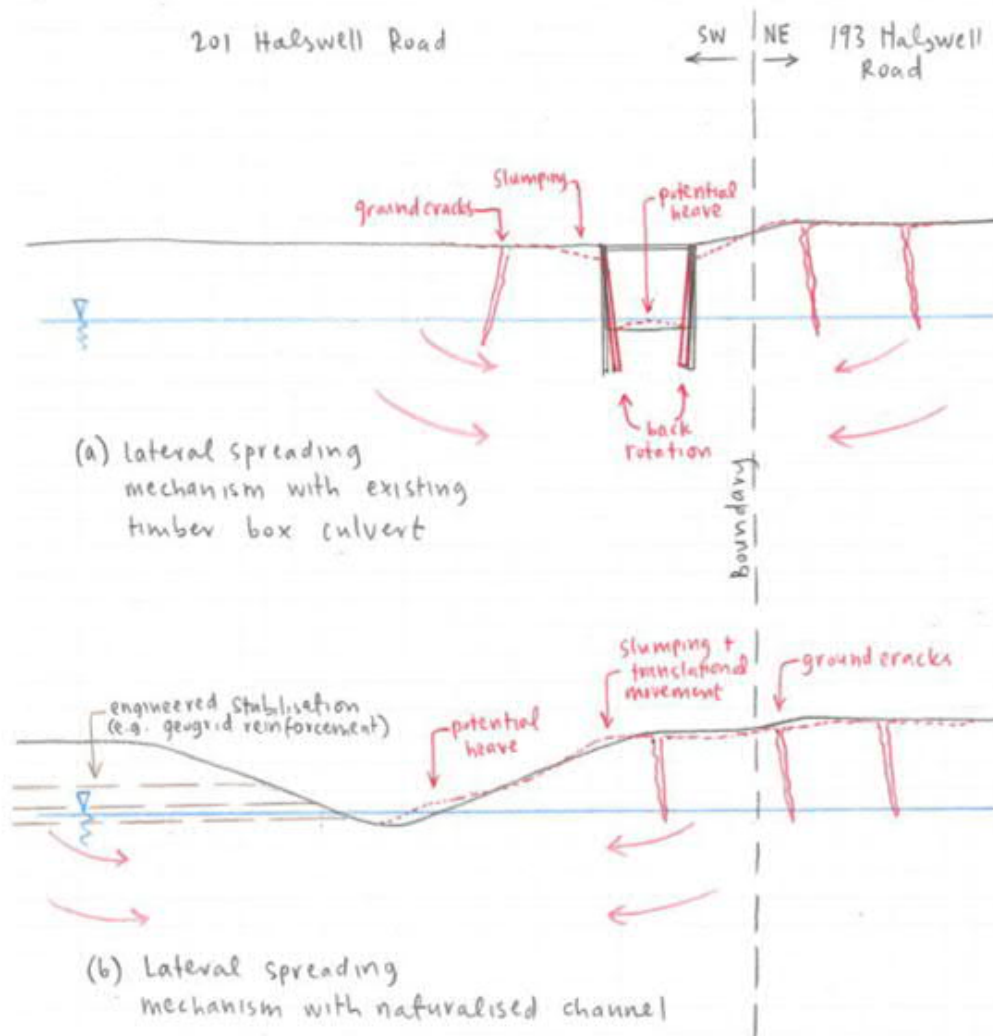


Figure 2: Expected likely lateral spreading mechanisms in a future earthquake

Geotechnical Peer Review

37. A Geotechnical Report Peer Review dated 28 November 2017 was received from Geotech Consulting Ltd. This is the second peer review commissioned by the applicant, with a previous review prompting revision of the T&T report.
- The peer review stated in clause 3 paragraph 3 that using the SLS and ULS events is appropriate, rather than the MBIE guideline recommended 100 and 500 year events, as Christchurch City Council utilises the MBIE Guidance for Canterbury.

- Geotech Consulting consider that, although the testing is ‘*on the light side*’, the consistency of the subsoils supports T&T’s assertion that the lower test density is justified (clause 4 paragraph 2). They state “that additional testing is planned for the detailed design stage, particularly in the central and eastern portions of the site where the test density is lower” and that the ‘intent’ of the MBIE guidelines is met. They note that “further testing during design stage may show a larger area of greater liquefaction that could impact on site preparation.”
 - Geotech Consulting agree with the groundwater assumptions.
 - The revised C_{FC} and P_L values adopted by T&T are generic and laboratory testing of soil samples from the site has not validated these assumptions. Lab testing was carried out by others under a separate application in the adjacent property to support using the same C_{FC} value that was adopted here. Geotech Consulting agree with T&T’s use of the C_{FC} value and assessment that site performance under the Canterbury Earthquake Sequence supports a P_L value of 50%.
 - Engineering design to mitigate lateral spread and liquefaction effects on vested assets is accepted as best done under the later design stages, with further investigation.
 - Ensuring optimum fill material moisture contents and working around the shallow groundwater are noted by Geotech Consulting as key matters when carrying out bulk earthworks.
38. Regarding the liquefaction assessment, Geotech Consulting found that using the revised C_{FC} and P_L values removes the bulk of the cone penetrometer tests locations from returning a TC3 equivalent categorisation (which were generally under the SLS_b event) through settlements and all but one from returning a TC3 equivalent categorisation under the SLS_b event through Liquefaction Severity Number analysis.
39. Geotech Consulting discussed the three liquefaction assessment validation methods previously used in adjacent subdivision applications: benchmark validation of the National Centre for Earthquake Engineering Research, Liquefaction Severity Number and surrounding categorisations. They also discussed recent research into the difference between the performance of land underlain by continuous liquefiable layers against interbedded liquefiable and non-liquefiable materials.
40. In summary, Geotech Consulting support T&T’s conclusion that the property is Technical Category 2 equivalent but liquefaction is a hazard to be mitigated using the measures T&T have provided. Geotech Consulting therefore believe that the suggested conditions from T&T, which directly refer to the recommendations in section 5 of the Tonkin and Taylor Geotechnical Site Investigation and Assessment dated December 2017, as suitable for a subdivision consent.

Council Evaluation

41. The testing density required under the MBIE guidelines to support subdivision consent applications is one deep investigation per 0.25 lots (for sites exceeding 1 ha). This test density was not achieved. Geotech Consulting agrees with T&T that, although the testing is ‘*on the light side*’, the consistency of the subsoils supports the lower test density. As “*further testing during design stage may show a larger area of greater liquefaction that could impact on site preparation*” (clause 9 Geotech Consulting

- Geotechnical Report Peer Review dated 28 November 2017) I have suggested a condition requiring the additional testing to achieve the required density to support the engineering design stage and to support the geotechnical completion report. This testing has been required at the engineering design stage, due to its large potential to influence the design of all infrastructure.
42. The boreholes found some peat lenses. T&T made no specific discussion of the peat presence or its treatment in their Geotechnical Site Investigation and Assessment. The site is prone to liquefaction and T&T have suggested measures to mitigate the related subsidence. I believe these measures could also address any potential subsidence due to the presence of peat.
 43. The T&T assumed groundwater depth of 0.9m is accepted by Geotech Consulting. I agree with this level and have used a value of 1.0m in the asset design condition, to reflect the depth at which liquefaction effects may become relevant.
 44. MBIE allows the liquefaction assessment to compare performance in the upper 10m of the soil profile with the index values when determining the technical category equivalence. Of the 42 deep tests, only three extended over 10m bgl, with three extending past 8.0m and one achieving only 2.1m penetration. The three boreholes indicate a gravel layer was found generally at the depth at which the bulk of the cone penetrometer tests stopped, with between 0.5-1.0m depth of silt under this gravel layer before the 10m depth bgl. This suggests that the liquefaction calculated may be slightly understated. The categorisations as suggested by T&T will probably not be significantly affected by this slight increase.
 45. MBIE guidelines 'Repairing and rebuilding houses affected by the Canterbury earthquakes' require the liquefaction assessment to be undertaken using Idris and Boulanger, corrected for the cone penetrometer tests data using Robertson and Wride and settlements calculated using Zhang et al. T&T propose that the liquefaction calculated using the MBIE analysis method is overstated and that the expected land categorisation should be better than returned through the analysis. Geotech Consulting concur with this proposition and I agree with these opinions.
 46. Because the method used by T&T is outside the current accepted method of determining settlement, land damage and the technical categorisation, the applicant provided a Geotech Consulting peer review of the liquefaction assessment methodology and the conclusions reached.
 47. T&T have adopted generic C_{FC} and P_L values in recalculating the liquefaction. I have suggested a condition requiring laboratory testing of the subsoils at sufficient frequency to validate these adopted values, to be utilised at the engineering design stage and to support the geotechnical completion report.
 48. There is the potential for lateral spread related damage in the order of 100mm under ULS level shaking at Days Drain and the stormwater basin under seismic loading. T&T, in their Addendum Report, state that the likelihood of lateral spreading in the timber yard to the north of the naturalised drain is '*no different than it is currently*'. I have suggested a condition requiring vested infrastructure to be designed to allow for lateral spread to ensure this potential is addressed, using the seismic events as endorsed by Geotech Consulting.
 49. The realignment of the drain will require excavation of the timbered drain and filling with engineered fill. Therefore the existing situation is likely to be improved through the

relocation of the drain. Control of the placement of the fill to the old drain alignment will be addressed under the earthworks conditions. I agree with T&T's assessment and that the conditions proposed in the application, and recommended as part of this report, are still appropriate.

50. A number of mitigation measures have been proposed by T&T in their Geotechnical Site Investigation and Assessment and they state that the proposed residential lots will be Technical Category 2 equivalent "*provided that the strategies in Section 5.4 ... are implemented.*" Minimising cuts is one measure suggested. I have suggested a condition relating to residential dwellings requiring these measures to be applied and the provision of a geotechnical report to validate the assertion and final land performance assessment. I have included a note referencing the measures, to aid in assessment of the proposed mitigation at engineering design stage.
51. I have also suggested site specific investigations and specific design to support the application of TC2 type foundations. If further site testing delineates areas that are not TC2 equivalent, I have suggested a condition that remediation will be required.
52. T&T have highlighted that the design of buildings and civil infrastructure must consider potential sand boils, particularly for concrete foundation slabs, and buoyancy under liquefaction uplift. I have included a note on the residential and commercial lot conditions referencing section 5 of the T&T Geotechnical Site Investigation and Assessment, which highlights consideration of these seismic effects and referenced the particular details as highlighted. I have included a requirement to address section 5 in the vested infrastructure conditions and the particular details as highlighted.
53. The extent of explanation in the geotechnical reports around the performance risks and proposed mitigation for this development causes me to consider that the factor of safety on this assessment is leaner than typically applied. I have suggested the involvement of an appropriately experienced geotechnical engineer in all aspects of the design to ensure these concerns are addressed.

EARTHWORKS

54. The site falls generally to the east, parallel to the long boundaries. Days Drain is on the north boundary. I anticipate no issues with the development contributing to cross boundary drainage issues as a condition requires filled lots to grade to internal roads. Potential flooding due to existing drainage into the applicant's property can be addressed during engineering design through the catch-all condition regarding cross-boundary drainage.
55. Earthworks to mitigate geotechnical hazards include 71,700m³ topsoil cut, 41,200m³ topsoil fill, 28,000m³ subsoil cut and 28,900m³ subsoil fill over the whole site (Eliot Sinclair and Partners Earthworks Plan). Due to the large volumes and potential for nuisance due to the corresponding traffic, I have recommended a condition that all truck loading movements be within the site and that a traffic management plan be applied, whilst appreciating that most movements will be internal.
56. The applicant has provided a comprehensive Erosion, Sediment and Dust Management Plan (ESDMP) and a Contamination Site Management Plan (CSMP). The applicant has obtained ECan dewatering, earthworks and construction phase discharge consents and refers to the permitted activity standards under the LWRP for construction stage discharges and the Regional Air Plan for discharges to air. Mitigation measures include stabilised site accesses, earthworks management,

- trucking effects and dust management, and sediment control. I have suggested a condition requiring an ESC plan, whilst acknowledging the strength and comprehensiveness of the supplied plan, as the details of the consent may make the proposed ESDMP redundant. I have also required certification of design and installation, to reflect the environmental risks at this site and the large scale of works proposed.
57. I have not addressed contaminated material although I note the contaminated areas are limited to the existing house site and the timber yard. There may be synergies from combining the earthworks conditions with NES conditions. I have not seen these conditions but am happy to revise my conditions to minimise conflicts and replication. I have suggested combining the ESDMP and the CSMP into an Environmental Management Plan, to facilitate this.
58. As the development may potentially be staged, I have suggested a condition regarding work cessation and measures to be maintained over that period, to mitigate potential dust and sediment creation.
59. The assumed watertable is 0.9m bgl +/- 0.2m. Substantial earthworks will be required, with imported fill and the challenges of working with wet site silts and the high watertable. I have recommended conditions that require fill certification and restated the requirement for clean fill, to provide a control framework and ensure long term land stability.
60. Groundwater levels and the saturated soils on this site will cause construction challenges. Dewatering consents have been obtained and substantial stockpiles, with reworking to dry material, may also be necessary. I have suggested a condition controlling stockpiles and reiterating topsoil removal prior to filling.
61. The Eliot Sinclair and Partners Existing and Proposed Ground Levels, provided in the Eliot Sinclair and Partners RFI Response dated 12 March 2018, illustrates the ground level comparison with the adjoining properties. The largest variation across the boundary is on Days Drain and adjacent to the timber mill. The applicant proposes to batter in this site. To ensure this battering is within the applicant's property, I have suggested a condition controlling batter profiles, to support correspondence between the applicant and the neighbour regarding that site's design levels.
62. I understand matters regarding adjoining works, Days Drain and secondary flow paths near the timber yard have been resolved. The applicant's answer to a request for further information provided a proposed cross-section through the naturalised drain, indicating that Days Drain will be realigned in the applicant's property. This will allow 'space' to address that boundary level transition.
63. The Eliot Sinclair and Partners Earthworks Plan set suggests residential areas to the west will be earthworked between 0.4m cut to 0.4m fill, with the eastern section excluding the basins being filled. I have suggested two conditions, to ensure the transition across the boundary does not cause land instability and a condition regarding retaining structures on external boundaries to ensure design and construction provides for long term land stability.
64. I have assumed noise arising from the construction works will be addressed by other staff in the officers' report.

GENERAL ENGINEERING

65. Section 8.3.2(a) of the District Plan sets out there are a number of guidance documents that assist developers when preparing applications for subdivision consent and understanding the required level of service for matters relating to their development and whether these are acceptable to the Council. Where conditions are placed on subdivision consents within the matters of control or discretion specified in this chapter, such conditions may reference documents, including the following, as a means of achieving the matter of control or discretion:
- i. Infrastructure Design Standard (IDS);
 - ii. Construction Standards Specifications (CSS);
 - iii. Stormwater Management Plans; and/or
 - iv. Waterways, Wetlands and Drainage Guide.
66. I note from Mr Norton's and Ms McDonald's reports that this requirement is integral to their assessments and is well reflected in their advice and suggested conditions.
67. Quality management is a key component in ensuring infrastructure to be vested with Council is fit for purpose and provides a net benefit to rate payers, as is reflected in the IDS. Quality assurance documentation is to be provided to Council as proof of the project's quality system, supporting the design and construction. As part of this record and to support the Council's future management of new assets, as-built data is required in compliance with the IDS.
68. My proposed earthworks conditions assess the effects of overland drainage on adjacent land in relation to altered ground levels within the development. Preventing localised drainage problems or flooding within the new development can be addressed through a condition suggested by Ms McDonald, which controls the finished lot surface.
69. The public's expectations for serviceability and design life have been adequately addressed through the application of the IDS and CSS to the design and construction, compatible with the adjacent vested infrastructure.

RECOMMENDED CONDITIONS

General Engineering - Quality Assurance

1. The design and construction of all assets is to be subject to a project quality system in accordance with Part 3: Quality Assurance of the IDS.
 - A. Prior to the commencement of physical works on site for the construction of the subdivision including infrastructure, the Consent Holder shall submit to the Planning Team – Subdivision Engineers for review a Design Report, Plans and Design Certificate complying with clause 3.3.1 of the IDS. The Design Report and engineering plans are to provide sufficient detail to confirm compliance with the requirements of the IDS and this consent, including compliance with Condition 2 Asset Design and Construction and condition 3 Ground Improvement. This report can be submitted as two individual design reports addressing infrastructure as one part and the second part as a Geotechnical Report.

- B. Prior to the commencement of physical works on site, the Consent Holder shall submit to the Council's Planning Team - Subdivision Engineers a Contract Quality Plan and supporting Engineer's Review Certificate, complying with clause 3.3.2 of the IDS, for review by Council.
- C. Physical works shall not commence until Council confirms that the above documentation has been received and accepted.
- D. Prior to the issue of certification pursuant to section 224(c) of the Resource Management Act, the Consent Holder shall submit to the Planning Team - Subdivision Engineers an Engineer's Report complying with clause 3.3.3 of the IDS and an Engineer's Completion Certificate complying with clause 3.3.3 of the IDS. The Engineer's Report shall provide sufficient detail to confirm compliance with the requirements of the IDS and this consent, including compliance with consent conditions requiring mitigation measures with respect to any liquefaction and lateral spread hazards.

Advice Note: Part 3 of the IDS sets out the Council's requirements for Quality Assurance. It provides a quality framework within which all assets must be designed and constructed. It also sets out the process for reporting to Council how the works are to be controlled, tested and inspected in order to prove compliance with the relevant standards. It is a requirement of this part of the IDS that the Consent Holder provides certification for design and construction as a prerequisite for the release of the section 224(c) certificate. The extent of the documentation required should reflect the complexity and/or size of the project.

Earthworks

- 2. The earthworks and construction work shall be under the control of a nominated and suitably qualified geotechnical engineer. All loading and unloading of trucks with excavation or fill material shall be carried out within the subject site.
- 3. An approved Traffic Management Plan (TMP) shall be implemented for this earthworks / construction activity and no works are to commence until such time as the TMP has been installed. The TMP shall be prepared by an STMS accredited person and submitted to and approved by the Christchurch Transport Operation Centre – please refer to www.tmpforchch.co.nz and send the request to tmc@ccc.govt.nz.
- 4. All filling and excavation work shall be carried out in accordance with an Environmental Management Plan (EMP) which shall include the Eliot Sinclair Erosion, Sediment and Dust Management Plan and Report (ESDMP) dated 20 October 2017, presented as part of this application. Unless approved as part of a separate ECan resource consent for stormwater discharge or ECan resource consent for excavation/filling, the EMP will require formal acceptance by Christchurch City Council's Subdivision Engineer (email to rcmon@ccc.govt.nz) prior to any work starting on site. The EMP shall be designed by a suitably qualified person and a design certificate (on the Infrastructure Design Standard Part 3: Quality Assurance Appendix IV template <https://www.ccc.govt.nz/assets/Documents/Consents-and-Licences/construction-requirements/IDS/IDS-Part-03-Quality-Assurance-V3-September-2016.PDF>) supplied with the EMP for acceptance at least 5 days prior to the works commencing. The performance criteria for erosion and

sediment control will be based on ECan's Erosion and Sediment Control Toolbox for Canterbury <http://esc.canterbury.co.nz/>. The EMP shall include (but is not limited to):

- The identification of environmental risks including erosion, sediment and dust control, spills, wastewater overflows, dewatering, and excavation and disposal of material from contaminated sites;
- A site description, i.e. topography, vegetation, soils, etc;
- Details of proposed activities;
- A locality map;
- Drawings showing the site, type and location of sediment control measures, on-site catchment boundaries and off-site sources of runoff;
- Drawings and specifications showing the positions of all proposed mitigation areas with supporting calculations if appropriate;
- Drawings showing the protection of natural assets and habitats;
- A programme of works including a proposed timeframe and completion date;
- Emergency response and contingency management;
- Procedures for compliance with resource consents and permitted activities;
- Environmental monitoring and auditing, including frequency;
- Corrective action, reporting on solutions and update of the EMP;
- Procedures for training and supervising staff in relation to environmental issues;
- Contact details of key personnel responsible for environmental management and compliance.

Advice Note: IDS clause 3.8.2 contains further detail on Environmental Management Plans. The Contamination Site Management Plan (CSMP) may also be included in the EMP.

5. The Erosion and Sediment Control Plan shall show the positions of all stockpiles on site. Temporary mounds shall be grassed or covered to prevent erosion until such time as they are removed. Stockpiles shall be placed as far as practicable from internal boundaries adjoining residential properties.

Advice note: Topsoil shall not be worked excessively, to protect the integrity of the soil microbes.

6. The accepted EMP shall be implemented on site over the construction phase. No earthworks shall commence on site until:

- The contractor has received a copy of all resource consents and relevant permitted activity rules controlling this work
 - The EMP has been installed.
 - An Engineering Completion Certificate (IDS – Part 3, Appendix VII), signed by an appropriately qualified and experienced engineer, is completed and presented to Council. This is to certify that the erosion and sediment control measures have been properly installed in accordance with the accepted EMP.
7. Any change in ground levels shall not cause a ponding or drainage nuisance to neighbouring properties.
 8. Any change in ground levels shall not affect the stability of the ground or fences on neighbouring properties.
 9. The consent holder shall submit as part of the Design Report in condition X, a report and calculations detailing any filling proposed against existing boundaries and the mitigation proposed to avoid adverse effects on adjoining properties. Any retaining wall construction shall be included and certified as part of the Earthfill Report.

Advice Note: Any retaining wall that exceeds 6m² is regarded as a building and requires a separate resource consent if not specifically addressed within the application supporting this consent.

Advice Note: This report may be presented as part of the Design Report for the subdivision works under condition 1.
 10. The fill sites shall be stripped of vegetation and any topsoil prior to filling. The content of fill shall be clean fill.
 11. All filling exceeding 300mm above excavation level shall be in accordance with the Code of Practice for Earthfill for Residential Purposes NZS 4431:1989. At the completion of the work, an Engineers Earthfill Report, including a duly completed certificate in the form of Appendix A of NZS 4431, shall be submitted to Council (at rcmon@ccc.govt.nz) for all lots, including utility reserves, within the subdivision that contain filled ground. This report shall detail depths, materials, compaction test results and include as-built plans showing the location and depth of fill and a finished level contour plan.
 12. At the completion of the earthworks operations, the berm areas outside the line of the roadway construction shall be sown down with grass seed.
 13. All bared surfaces shall be adequately topsoiled and vegetated as soon as possible to limit sediment mobilisation.
 14. Should the Consent Holder cease or abandon work on site for a period longer than 6 weeks, or be required to temporarily halt construction during earthworks, it shall first install preventative measures to prevent sediment discharge / run-off and dust emission, and shall thereafter maintain these measures for as long as necessary to prevent sediment discharge or dust emission from the site.

Geotechnical

15. Further investigation

Additional site investigations, including deep site tests to the required density recommended under MBIE Part D *Guidelines for the geotechnical investigation and assessment of subdivisions in the Canterbury region* and laboratory testing of the subsoils to validate the adopted C_{FC} and P_L values, shall be carried out and provided to support the engineering design of assets under condition 16 and ground improvement under condition 17.

16. Asset Design and Construction

All infrastructural assets to be vested in the Council shall be designed and constructed in accordance with the IDS 2018 and the Construction Standard Specifications (CSS) and the recommendations in section 5 of the Tonkin and Taylor 201 Halswell Road Geotechnical Site Investigation and Assessment dated December 2017 Job Number 1002584.v4b.

All infrastructure extending more than 1.0m below the finished ground surface shall be designed to resist the effects associated with earthquake induced liquefiable soils and lateral spread from a seismic event as defined below.

To mitigate liquefaction (vertical settlement) hazards and lateral spread (horizontal displacement), any proposed asset structures shall be designed for a seismic event with a 25 year return period under the serviceability limit state (SLS) and with a 500 year return period for the ultimate limit state (ULS) as defined by NZS 1170.5:2004.

“Asset structures” shall include but not be limited to gravity and pressure pipelines, manholes, chambers, valves, hydrants, stormwater treatment devices, culverts or any other physical asset to be vested in Council including road pavements.

Bridges and pump stations shall be designed to importance level 3 (IL3) as defined in NZS 1170.

Advice Note: the Tonkin and Taylor 201 Halswell Road Geotechnical Site Investigation and Assessment Section 5 elaborates on matters to be considered and mitigation to be provided when designing vested infrastructure. The following assets were particularly mentioned: pavement basecourses, pole foundations, tree pits, below ground structures and their connections, abrupt bends in pipes and free earth faces.

17. Ground Improvement

Site earthworks and remediation shall be carried out to improve the ground performance in terms of the MBIE guidelines ‘Repairing and rebuilding houses affected by the Canterbury earthquakes’ (3rd Edition 15 March 2017) or subsequent revisions. The liquefaction hazard and lateral spread mitigation on site shall be designed in accordance with the recommendations in the Tonkin and Taylor 201 Halswell Road Geotechnical Site Investigation and Assessment dated December 2017 Job Number 1002584.v4b. The technical category for residential lots will be confirmed in the Geotechnical Completion Report prepared for the section 224(c) certificate under condition 18.

Note: the Tonkin and Taylor 201 Halswell Road Geotechnical Site Investigation and Assessment Section 5 elaborates on matters to be considered and mitigation

to be provided when carrying out the earthworks for both residential and commercial structures: topsoil stripping, compaction in-situ, minimisation of cuts, location of imported fill, lateral spread mitigation.

18. Geotechnical Completion Report

Prior to the request for the section 224 certificate the Consent Holder shall supply a Final Geotechnical Report on the mitigation measures put in place during the construction phase to minimise both the liquefaction and lateral spread potential of the land during the SLS and a ULS seismic event. The report shall recommend the Technical Category of the residential land in terms of the MBIE guidance document 'Repairing and Rebuilding Houses Affected by the Canterbury Earthquakes', comment on the performance of all utility lots and include a Statement of Professional Opinion on the Suitability of Land for Building Construction, using the template in IDS Part 4 Appendix II. All development lots shall achieve the equivalent of a technical category 2 status.

19. Foundation Design – Lots 1 to 10, 12 and 13.

Foundation Design – commercial or large structures

Any structure requiring a Building Consent, in terms of Building Act provisions, shall have specific foundation design by a suitably experienced chartered engineer or by an appropriately qualified geotechnical engineer. The design shall take into consideration the potential for liquefaction and associated effects (vertical settlement and lateral spread).

Note: the Tonkin and Taylor 201 Halswell Road Geotechnical Site Investigation and Assessment Section 5 elaborates on matters to be considered when designing foundations for commercial and large structures or relating to concrete floor slabs and liquefaction ejecta.

This is an ongoing condition which will be secured by consent notice.

20. Foundation Design – residential dwellings

Any structure requiring a Building Consent, in terms of Building Act provisions, shall have specific foundation design by a suitably experienced chartered engineer or by an appropriately qualified geotechnical engineer. The foundation design shall be in accordance with the latest MBIE Technical Guidance for Repairing and Rebuilding Houses affected by the Canterbury Earthquakes for structures being constructed on land with a technical category 2 equivalent status.

This is an ongoing condition which will be secured by consent notice.

CONCLUSION

70. I have assessed the various reports on the geotechnical hazards defined through the Tonkin and Taylor section 106 evaluation. I consider these reports adequately define the hazards and set out methods to mitigate their effects on the potential land and infrastructure development. Tonkin and Taylor have made recommendations relating to the design and construction, which I have considered when drafting my suggested conditions. Subject to these conditions of consent related to Chapter 5 of the District Plan I consider any adverse effects as a result of the geotechnical risks will be

mitigated, avoided or remedied and there will be no adverse effects on neighbouring properties (taking into consideration the relevant matters of control and discretion).

71. The applicant has provided an Erosion, Sediment and Dust Management Plan (ESDMP) and a Contamination Site Management Plan (CSMP). They have also obtained the necessary ECan consents to discharge and carry out earthworks. I have assessed the ESDMP which should provide an adequate methodology for addressing potential nuisance effects. I support the application of this plan in conjunction with conditions suggested to control filling and potential nuisance to neighbours. Subject to these conditions of consent related to Chapter 8.2.4 and 8.2.5 of the District Plan I consider any adverse effects will be mitigated, avoided or remedied.
72. I have reviewed the three waters conditions and agree that they are appropriate to ensure any infrastructure can service the proposed development to the relevant standard.

Yvonne McDonald

Senior Subdivisions Engineer

CC-Planning Team 1, CC-Resource Consents Unit

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Direct Dial: 03 941 8361

REFERENCES

Christchurch District Plan

Christchurch City Council Infrastructure Design Standard

Christchurch City Council Construction Standard Specifications

APPENDIX 6

Evidence of Mr Russel Grant Wedge

RMA 2017 3185

Woolworths New Zealand Limited

201 Halswell Road

**Land use and subdivision consent applications to establish a
residential and commercial mixed use development.**

**REPORT OF RUSSEL GRANT WEDGE
ON PARKS OPEN SPACE AND RESERVE CLASSIFICATION
14-11-2019**

TABLE OF CONTENTS

INTRODUCTION 1

PURPOSE OF REPORT 2

SUMMARY OF ASSESSMENT 2

ASSEMENT OF APPLICATION 3

COMPLIANCE WITH THE OUTLINE DEVELOPMENT PLAN 3

CONCLUSION 7

RECOMMENDED CONDITIONS 8

REFERENCES 10

INTRODUCTION

1. My full name is Russel Grant Wedge. I am a member of the Parks Unit at the Christchurch City Council (Council). I am here providing an assessment of Parks Open Space and Reserve Classification as an input to the officers' report in relation to the application to establish a residential and commercial mixed use development.
2. I hold a Masters of Parks, Recreation and Tourism Management degree from Lincoln University.
3. I am employed as a Team Leader Parks Policy and Advisory with the Council. I have worked in the role for the past year. Previous to this role I was a Senior Network Parks Planner at the Council for 7 years. My work is centred on the application of the Reserves Act 1977 for reserve classification and associated management activities related to reserves under the Act.
4. I have over 9 years' experience working as a Senior Network Parks Planner and Team Leader for the Council in the area of reserve classification and strategic green open space planning for plan changes and subdivisions, including the provision of open space green network for parks and reserves throughout the district.
5. Whilst it is not directly relevant for the preparation of this report, I am aware that the Council has approved direct referral of this application to the Environment Court. I confirm that I have read and agreed to comply with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note (dated December 2014).
6. I confirm that the issues addressed in this report are within my area of expertise. I have not knowingly omitted to consider facts or information that might alter or detract from the opinions expressed.
7. I have reviewed the following documents in the preparation of this report: The Christchurch City Council Development Contributions Policy 2015 Amended 2016; The Christchurch City Council Public Open Space Strategy 2010-2040; Creating New Neighbourhoods - A design guide for Christchurch; The Christchurch City Council Construction Standard Specifications; The Christchurch City Council Infrastructure Design Standard; The Christchurch District Plan, Chapter 8, Appendix 8.10.4 – North

Halswell Outline Development Plan; Planz Consultants, Woolworths New Zealand, Addendum to RMA/2017/3185 dated 7 October 2019.

PURPOSE OF REPORT

8. The purpose of this report is to provide information and recommendations on the consent application for the lots proposed to be vested with the Council as reserve, under the Reserves Act 1977. My report assesses the proposed land classification for the reserve lots and the overall landscape plan, including the provision of open green space for lots to be vested with the Council.
9. My report will also comment on the proposed street tree species in the lots to be vested with the Council as Legal Road.
10. My report will not comment on open green space that is to remain in private ownership, where the land is not intended to be vested with the Council, such as the Central Reserve, pocket parks, squares or the street tree in the Laneways.

SUMMARY OF ASSESSMENT

11. The applicant has proposed Lot 52 is vested with the Council and classified as a Local Purpose (Utility) Reserve under the Reserves Act 1977. I support this classification as I believe Lot 52 is to mitigate the effects of State Highway 75 (Halswell Road) on the proposed adjoining residential properties in the subdivision development.
12. The applicant has proposed Lot 54 (1,656m²) is vested with the Council as a Recreation Reserve, under the Reserves Act 1977. I support Lot 54 as a community (neighbourhood) park that is providing a flat, open space, which has not been provided by the applicant in anywhere else in the development.
13. The applicant has proposed Day's Drain, Lots 51, 53 and 56 are vested with the Council as Local Purpose (Utility) Reserve(s) under the Reserves Act 1977. I support the vesting of these Lots provided the proposed outdoor area of the adjoining café does not encroach onto Lot 56. The outdoor seating area for the café is part of a commercial activity and for exclusive use, which are not compliant with the classification of a Local Purpose (Utility) Reserve under the Reserves Act 1977.

14. Day's Drain – Lot 56 – I do not support there being provision for the proposed café outdoor seating area on the land to be vested as reserve under the Reserves Act 1977. The commercial activity and exclusivity of the proposed use by the café is in conflict with the classification under the Reserves Act 1977. If the applicant wanted to retain the possibility of the outdoor area in Lot 56 applying for a ground lease from the Council, I would suggest Lot 56 is not vested as a reserve under the Reserves Act 1977, but the ownership of the land is transferred and held by the Council as Fee Simple.
15. The applicant has proposed Lot 55 is vested with the Council as a Local Purpose (Utility) Reserve under the Reserves Act 1977. I support the vesting of this Lot to provide a shorter access point for the residents from one area of the development to a future adjoining development.
16. The application proposes to vest Lot 50 with the Council as Local Purpose (Utility) Reserves, which I support as this Lot is providing a utilitarian function that has arisen through the development of the site.
17. The applicant has proposed to retain ownership of a number of pocket parks and squares throughout the development including the 'Common', a central park that includes a privately owned swimming pool and an adjoining park with a playground. I support the playground within the Common, central park provided that it remains open to the public and is not 'gated' to the local residents.

ASSEMENT OF APPLICATION

Compliance with the Outline Development Plan

18. The application is for activity on a site located within the North Halswell Outline Development Plan area (District Plan Section 8, Appendix 8.10.4) and is shown as Residential development area (Figure 1).

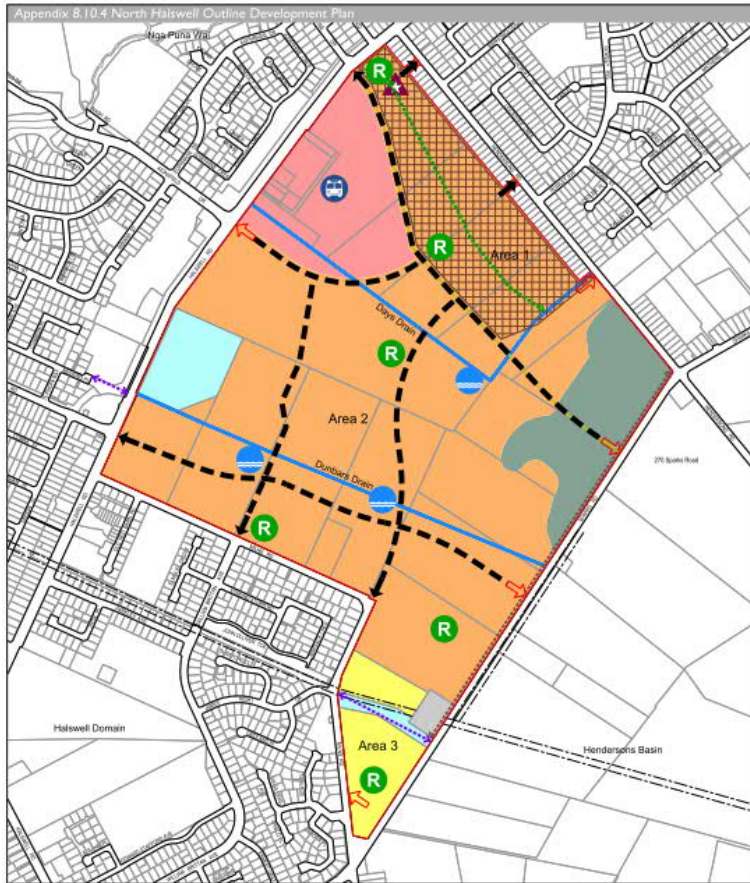


Figure 1: North Halswell Outline Development Plan (ODP)

19. The Outline Development Plan indicates an 'R' - Reserve indicative location. Size to be determined at time of subdivision. (shown as an 'R' within a green circle) within the applicant's area of development. The District Plan section 8.10.4.B Guidance (a), states: "Guidance on the means to achieve the development requirements and form and design elements is provided within the Christchurch City Council's New Neighbourhood Design Guide." (Design Guide). The Design Guide section 10.1 Type and Size of Open Spaces, states: "Neighbourhood Parks are the first priority for park provision... they should be relatively flat and square in shape and around 3000m²."

20. The size and type of the reserve indicated in the ODP as an 'R' is endorsed through Christchurch City Council Public Open Space Strategy 2010-2014 (OPS 2010), section 08 Public Open Space Guidelines and Levels of Service, which refers to "Local parks of about 3000m² or more in high density residential areas linked to an enhanced street network and other parks". The Development Contributions Policy 2015 Amended September 2015 (DCP 2016), Part 3.1.1 also provides information on the Council's preferred size for a neighbourhood park, which is at least 3,000m² to provide adequate space for a children's play equipment, substantial tree plantings and open space.

21. The applicant has not provided 3,000m² for a neighbourhood park. The applicant has provided a 'Common' that is a central park within its residential area for a playground and a swimming pool, located to the west of the 'R' indicated on the ODP. The applicant has indicated it will retain ownership of the Common and the facilities in this area and the Common will be open for the public to use.
22. The applicant has proposed the ownership and maintenance of the Common remains with them rather than vesting it with the Council. The applicant has stated they will keep the playground within the Common open to the public and the site will not become a 'gated' or closed park only accessible to the nearby residents. The Common does not meet the Council's guide for a neighbourhood park in terms of overall size, available area of flat open space and the location of the playground that is in close proximity to the residential boundary, as discussed in the documents in sections 19 and 20.
23. I support the concept of the Common to provide playground facilities for the residents, despite it not being the 3,000m² sought in the OPS 2010 and DCP 2016 but the area proposed for the Common does not provide a large enough flat open space area for informal recreational activities. A solution to this issue has been proposed by the applicant with the vesting of Lot 54.
24. I support the vesting of Lot 54 with the Council as Recreation Reserve under the Reserves Act 1977. Lot 54 is approximately 1,656m² of flat open space land. The 1,626m² of flat open space land will provide an area for residents to use for informal recreational activities. The location of Lot 54 adjacent to Lot 50 (which is for stormwater retention purposes) is desirable as there will be no fence or hard boundary between the two lots, therefore visually creating a large green public open space area.
25. Lot 54 – The agreed value of the recreation reserve land of approximately 1,656m² is to be credited against the reserve development contributions as per the *Council's Development Contributions Policy 2015 Amended September 2016, Part 3*.
26. Lot 54 – I do not consider that the applicant's proposed *Fence type 05* (0.6m high timber post and rail fence) around the reserve is appropriate (Refer to: *Indicative Fence Typologies, KamoMarsh Plans, Page 514, Planz Consultants, Woolworths New Zealand, Addendum to RMA/2017/3185 dated 7 October 2019*). The proposed timber post and rail fence creates a visual barrier that closes off the reserve to the public and

- restricts casual access into the reserve. The Parks Units preference is bollard and cable to prevent vehicles entering the reserve without creating a visual barrier to the public.
27. Lot 50 – Reserve planting – *Phormium tenax* should be restricted to the internal wetland planting within the stormwater basin due to the extremely large size it grows to and in a very short period of time.
 28. Lot 50 – The network of pedestrian/cyclist routes including Quarrymans Trail does not appear to be provided, which would link this development up with the adjoining property to the east. I recommend a pedestrian/cycle link through Lot 50, around the top of the stormwater retention reserve to the adjoining property, to the east is recommended to link up with the Quarrymans Trail.
 29. Lot 52 – I support the classification of Lot 52 as Local Purpose (Utility) Reserve to provide visual amenity relief between State Highway 75 (Halswell Road) and the proposed residential properties, and for the drivers travelling along Halswell Road. The shape, width and location of Lot 52 is consistent with other Local Purpose (Utility) Reserves along Halswell Road that have been provided through subdivision developments as a barrier for the residential properties from the high volume of traffic travelling along the adjoining main arterial.
 30. Lot 52 – Reserve planting – *Liquidambar styraciflua* is not accepted as a tree to be planted in land to be vested with the Council due to structural failure. It is listed in the Infrastructure Design Standard (IDS) Part 10: Reserves, Streetscape and Open Space, Appendix I, Inappropriate Trees and Plants. *Liquidambar worplesdon* is recommended as a replacement species. The other plant species are acceptable as proposed on the Reserve Planting Master Plan.
 31. Lot 55 – I support Lot 55 being vested as Local Purpose (Utility) Reserve. The 8 metre width of Lot 55 is acceptable and complies with the District Plan width for linkage reserves.
 32. Day's Drain – Lots 51, 53 and 56 – I support the vesting of Lots 51 and 53 as Local Purpose (Utility) Reserve as per the Reserves Act 1977.
 33. Day's Drain – Lot 56 – the proposed café outdoor seating area located in the Day's Drain as part of a commercial activity and for exclusive use, is not compliant with the

classification of a Local Purpose (Utility) Reserve under the Reserves Act 1977. The café activity would require a lease for exclusive use of the land but the commercial activity does not align with the Reserve Act 1977 classification. The land ownership of Lot 56 could be transferred to the Council as Fee Simple and not vested as a reserve under the Reserves Act 1977. If the land was Fee Simple, the café operator could apply to the Council for a lease to cover the area identified for outdoor seating. The lease application would be subject to the Council's leasing process, including public notification of the lease application and subject to the approval of the local Community Board.

34. Day's Drain – Lots 51, 53 and 56 – Landscape Concept Design, The Notes on the Plan indicate the planting species are indicative subject to the confirmation from Council staff. The Days Drain Margin plant species on the Plan indicates *Phormium tenax* is intended to be used. As mentioned in the planting species for Lot 50, this plant is not acceptable to the Council due to the excessive growth it produces where there is a high water table. I recommend changing *Phormium tenax* to *Phormium cookianum*, a smaller growing species.
35. I have reviewed the landscape plans in respect to the street furniture and confirm that I have not concerns with what is proposed within the public open space areas.

CONCLUSION

36. Lot 52 – I support the classification of Lot 52 as Local Purpose (Utility) Reserve. This classification is consistent with the proposed purpose of the reserve to provide land separation as a form of mitigation of the effects of State Highway 75 to the adjoining residents.
37. Lot 54 - I support the classification and vesting of Lot 54 (approximately 1,656m²) with the Council as Recreation Reserve under the Reserves Act 1977.
38. Day's Drain – Lots 51, 53 and 56 – I support the vesting of these Lots as Local Purpose (Utility) Reserve as per the Reserves Act 1977. The primary purpose of Day's Drain is as a utility service as part of the infrastructure of the development.
39. Day's Drain – Lot 56 – I do not support the proposed café outdoor seating area identified within the land to be vested as reserve under the Reserves Act 1977. The commercial

activity and exclusivity of the proposed use by the café is in conflict with the classification under the Reserves Act 1977.

40. Lot 55 – I support the vesting of Lot 55 as Local Purpose (Utility) Reserve as per the Reserves Act 1977.

Recommended Conditions

41. Should the decision maker choose to grant this application, I recommend the following conditions:
42. The 'Common', a central park that includes a privately owned swimming pool and an adjoining park with a playground is to remain open to the public and is not be a 'gated' park only accessible to the local residents.
43. Lot 54 is to be vested with the Council as Recreation Reserve, clear of any easements.

Advice Note: The agreed value of Lot 54, to be vested as Recreation Reserve and the accepted landscape improvements are to be credited against the Reserve Development Contributions Assessment for the development.

44. Lots 50, 51, 52, 53, 55, and 56 are to be vested with the Council as Local Purpose (Utility) Reserves.

Advice Note: Land to be vested as Local Purpose (Utility) Reserve, including any landscape improvements, shall hold no credits towards the final Reserve Development Contributions Assessment for the development.

45. Landscape plans for the Local Purpose (Utility) Reserves (Lots 50, 51, 52, 53, 55, and 56), Recreation Reserve (Lot 54) and streetscapes are to be submitted to the Council Asset and Network Unit (Parks) for acceptance. All landscaping is to be carried out in accordance with the Accepted plans
46. The Landscape Design Report and landscape plans are to provide sufficient detail to confirm compliance with the requirements of the IDS, the CSS: and the WWDG: 2003. All landscaping required by this condition is to be carried out in accordance with the Accepted report and plan(s) at the Consent Holder's expense, unless otherwise agreed.
Establishment Period (Defects Liability Period)

- 46.1 The Establishment Period (Defects Maintenance) for Lots 50, 51, 52, 53, 54, 55 and 56 may include an inspection by Parks Operations staff after the first 6 months. Any diseased, dead or replacement plantings are to be replaced at the Consent Holder's expense. The Consent Holder shall enter into a separate bond with Council Asset & Network Unit (Parks) Team to the value of 50% of the cost to replace and replant all trees and shrubs. The bond shall be held for the Establishment Period of a minimum of 12 months and may be extended by a further 12 months for the replacement planting(s), if required. The Consent Holder is to keep an accurate and up-to-date monthly report on plant and tree conditions during the Establishment Period of the works undertaken. The report shall be submitted, if requested, by the Engineer within five days of the end of each month during the Establishment Period (Refer sample report: Landscape Construction Monthly Establishment Report, CSS, Part 7 Appendix 1).
- 46.2 Street Trees - The Consent Holder shall submit a plan(s) for proposed street trees to the Council's Asset & Network Unit (Parks) Team for acceptance. The plan(s) are to provide sufficient details to confirm compliance with the requirements of the IDS (current version) and the CSS Part 7: Landscapes (current version). All street tree works are to be carried out in accordance with the accepted report and plan(s) at the Consent Holder's expense. The Consent Holder shall maintain the street trees for 12 months Establishment Period (Defects Maintenance) from the time the trees have been planted up until the final inspection and acceptance of the trees by the Council Parks Operations staff. The Establishment Period and the term on the bond shall be extended by a further 12 months for the replacement planting(s), if required.
- 46.3 The Consent Holder is to keep an accurate and up-to-date monthly report on tree conditions and establishment works undertaken. The report shall be submitted, if requested, by the Engineer within five days of the end of each month during the Establishment Period (Refer sample report: *Landscape Construction Monthly Establishment Report*, CSS, Part 7 Appendix 1).

Advice Note: Refer to IDS Part 10: Locations of trees in streets, and CSS Part 7: Supply of Tree and Plant Materials.

- 46.4 The Consent Holder shall enter into a separate bond with Council Asset & Network Unit (Parks) Team to the value of 50% of the cost to replace and replant all street trees. The bond shall be held for the Establishment Period of a minimum of 12 months and may be extended by a further 12 months for the replacement planting(s), if required. The bond shall be

released after the trees have been inspected and accepted by the Council Parks Operation staff.

47. Final Completion / Handover

47.1 The Consent Holder shall submit, if requested, the required completion documentation in accordance with IDS Part 2:2.12 Completion of Land Development Works and the Quality Assurance System to provide evidence that the work is completed in accordance with the agreed standards and conditions of this consent. This is to be submitted, if requested, on completion of the 12 month Establishment Period, prior to formal handover to Council and release of the Establishment Bond.

48. As – Builts

48.1 The Consent Holder shall submit As-Built plans for any landscape improvements on land to be vested as reserve and for any street trees in accordance with the IDS, Part 12 As-Built Records before section 224 Certificate is issued.

Russel Wedge

Team Leader Parks Policy and Advisory, Parks Unit

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Direct Dial: 03 914 8270

REFERENCES

The Reserves Act 1977

CCC, (2016) The Christchurch City Council Development Contributions Policy 2015 Amended 2016

CCC, (2018) The Christchurch City Council Infrastructure Design Standard.

CCC, (2018) The Christchurch City Council Construction Standard Specifications

CCC, (2010) The Christchurch City Council Public Open Space Strategy 2010-2040;

CCC, Creating New Neighbourhoods - A design guide for Christchurch;

The Christchurch District Plan, Chapter 8, Appendix 8.10.4

APPENDIX 7

Evidence of Mr Michael Grant Calvert

RMA 2017 3185

Woolworths New Zealand Limited

201 Halswell Road

**Land use and subdivision consent applications to establish a
residential and commercial mixed use development.**

REPORT OF MICHAEL GRANT CALVERT

ON TRANSPORT PLANNING

Dated 19 November 2019

1 TABLE OF CONTENTS

INTRODUCTION	1
SUMMARY OF REPORT	2
GENERAL COMMENTS	2
COMPLIANCE WITH THE OUTLINE DEVELOPMENT PLAN.....	4
ROAD SAFETY	10
PUBLIC TRANSPORT	10
CYCLE FACILITIES	12
PEDESTRIAN FACILITIES	12
NON-COMPLIANCES WITH THE DISTRICT PLAN.....	14
RULE 7.4.3.1(A(III)) – MOBILITY PARKING.....	14
RULE 7.4.3.7(A) – ACCESS DESIGN	14
RULE 7.4.3.8(E) – MAXIMUM NUMBER OF VEHICLE CROSSINGS.....	14
RULE 7.4.3.10 – HIGH TRIP GENERATOR.....	15
RULE 14.12.1.2 – CONTROLLED ACTIVITIES	15
EVALUATION OF EFFECTS RESULTING FROM NON- COMPLIANCES	15
RULE 7.4.3.1(A(III)) – MOBILITY PARKING.....	16
RULE 7.4.3.7(A) – ACCESS DESIGN	16
RULE 7.4.3.10 – HIGH TRIP GENERATOR.....	16
RULE 14.12.1.2 – CONTROLLED ACTIVITIES	18
SUBMISSIONS.....	19
NEW ZEALAND TRANSPORT AGENCY	19
ENVIRONMENT CANTERBURY.....	21
SPREYDON LODGE LIMITED	22
CONCLUSION.....	26
SUBDIVISION	26
LAND USE	28

INTRODUCTION

1. My full name is Michael Grant Calvert. I am a member of the Transport Unit at the Christchurch City Council (**Council**). I am here providing an assessment of the transport effects as an input to the officers' report in relation to the application to establish a residential and commercial mixed use development and subdivision.
2. I hold a Bachelor of Engineering (Civil) from Canterbury University and I am a member of the Transportation Group New Zealand.
3. I am employed as a Transport Network Planner with Council. I have worked in the role for the past eight years. My work is centred on the assessment of the transport aspects of resource consents, particularly the assessment of the design of subdivision development and the interaction of the developments with the existing transport network.
4. I have over 35 years' experience working as a transport planner and traffic engineer. My experience relevant to this evidence includes:
 - Team member for the development of Plan Change 68¹
 - Preparation and presentation of evidence to the District Plan Hearings Panel for the North Halswell Outline Development Plan (**ODP**)
 - Assessment of the design and transport impacts of over 50 commercial and residential subdivision applications in the past year
 - Transport planner on the team that designed and constructed the Augustine / Halswell intersection signals
5. Whilst it is not directly relevant for the preparation of this report, I am aware that the Council has approved direct referral of this application to the Environment Court. I confirm that I have read and agreed to comply with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note (dated December 2014). I confirm that the issues addressed in this report are within my area of expertise. I have not knowingly omitted to consider facts or information that might alter or detract from the opinions expressed.

¹ Plan Change 68 preceded the development of the North Halswell ODP for the District Plan

SUMMARY OF REPORT

6. The purpose of this report is to provide information and advice for the land use and subdivision consent application, in relation to effects on the transport network.
7. I have read the following documents when preparing this report:
 - The consent application including the Integrated Transport Assessment (ITA) by Flow Consulting, further information, amendments and addendum
 - Proposed Subdivision and Mixed Use Development Preliminary Design Road Safety Audit, Commute Transport Consultants, March 2018
 - North Halswell KAC Access Options Traffic Modelling Report, Quality Transport Planning, March 2017
 - Submissions relevant to transport issues
 - Planz Consultants, Addendum to RMA/2017/3185, 7 October 2019
8. I have also met with the applicant's traffic engineers (Michael Jongeneel, Flow Consulting and Andy Carr, Carriageway Consulting) and the planner for the applicant (Matt Bonis, Planz Consultants)².
9. I am familiar with the site and have visited it on numerous occasions.

GENERAL COMMENTS

10. The proposal provides for the subdivision and mixed use development of the site. The proposal is for the development of around 282 residential dwellings, 8,087 square metres Gross Floor Area (GFA) commercial and community activity, including a total proposed retail floor area of 5,155square metres GFA inclusive of a 3,490 square metre GLFA supermarket, a pre-school facility (353 square metres GFA), entertainment (6 screens, 395 seats), gym (670 square metres GFA) and a medical centre (985 square metres GFA). There is also a 32 unit apartment complex proposed on the land adjacent to the proposed commercial development. The general design and layout of the subdivision provides for an interlinking network of pedestrian and cycle paths, discussed further in paragraph 16.8. The alignments of the roads have been tested to ensure that they can link through to

² Bonis, 11 May 2018, Initial review of further information request
Jongeneel and Carr, 22 May 2018, Technical review of further information request
Jongeneel, 5 June 2018, Review of cycle facilities with Brendan Bisley, Council Major Cycle Routes Project Manager

consented subdivisions on either side of the application site (Halswell Commons to the north and Milns Estate to the south).

11. It should be noted that the modelling undertaken by consultants Quality Transport Planning (**QTP**)³ was based on a total floor area of 60,000 square metres Gross Leasable Floor Area (**GLFA**) of commercial development and 1,800 households. Whilst the level of development tested exceeds the likely development allowed for by the zoning it does provide a robust test of the transport network using the volumes generated to input into the Christchurch Assignment and Simulation Traffic (**CAST**) model. The modelling was similar to that undertaken to input into the District Plan hearings, but using an updated⁴ and more detailed version of the Christchurch Transportation Model (**CTM**). To ensure optimal access from Halswell Road (SH75) three options for access to the area were tested using the updated model:

Option 1 – a left in, left out access on Halswell Road to Aidanfield Drive and a second left in, left out access on Halswell Road to the Halswell Key Activity Centre (**KAC**). A signal controlled pedestrian crossing would be provided across Halswell Road.

Option 2 – a signal controlled T-intersection at Aidanfield Drive/Halswell Road, but with only left in, left out access on Halswell Road to the KAC.

Option 3 – A signal controlled cross-intersection at the intersection of Aidanfield Drive/ Halswell Road and the KAC access, Road A. This is the option proposed in the application.

12. The modelling supports the option of a signal controlled cross-intersection with Aidanfield Drive (Option 3), both in terms of efficiency and safety. There is further discussion regarding the options considered in paragraphs 41 to 45 of this evidence with respect to the discussion of the High Trip Generator assessment. I also support Option 3 and I propose a condition of consent that the intersection is constructed as a signal controlled cross-intersection by the applicant, along with

³ North Halswell KAC Access Options Traffic Modelling Report, Quality Transport Planning, March 2017

⁴ Christchurch Transportation Model v16a

minor changes to the bus infrastructure on Halswell Road and Aidanfield Drive, to facilitate the development at the time of subdivision.

13. The design of the proposed separated cycle facilities within the subdivision have been discussed in some detail between me, Mr Jongeneel and the Council's Major Cycle Routes project manager. As a result of these discussions I was advised the proposed design for Road A has been revised to locate the separated cycle path to the south side of Road A⁵ to avoid the busy vehicle accesses associated with the retail area. I note that the revised layout has not been reflected in the drawings associated with the application and recommend that a condition requiring the path to be located on the south side of Road A is included, should consent be given.
14. Road F was proposed as land to be dedicated for future road. The Council requested further information regarding the formation of the road and how it would be legally defined in the short term. Further discussions have also been held with the applicant regarding the proposed road and it has been agreed that proposed Road F would be vested as road⁶ and the design of the road altered to comply with the Council's Construction Standard Specifications (**CSS**) requirements.

COMPLIANCE WITH THE OUTLINE DEVELOPMENT PLAN

15. The application site sits within the North Halswell Outline Development Plan area and is shown as Commercial Core, which is identified as a Key Activity Centre (**KAC**) and New Neighbourhood Zone (**Figure 1**).

⁵ Paragraph 7.35(d), Addendum to RMA/2017/3185, Planz Consultants, 7 October 2019

⁶ Paragraph 7.35(b), Addendum to RMA/2017/3185, Planz Consultants, 7 October 2019

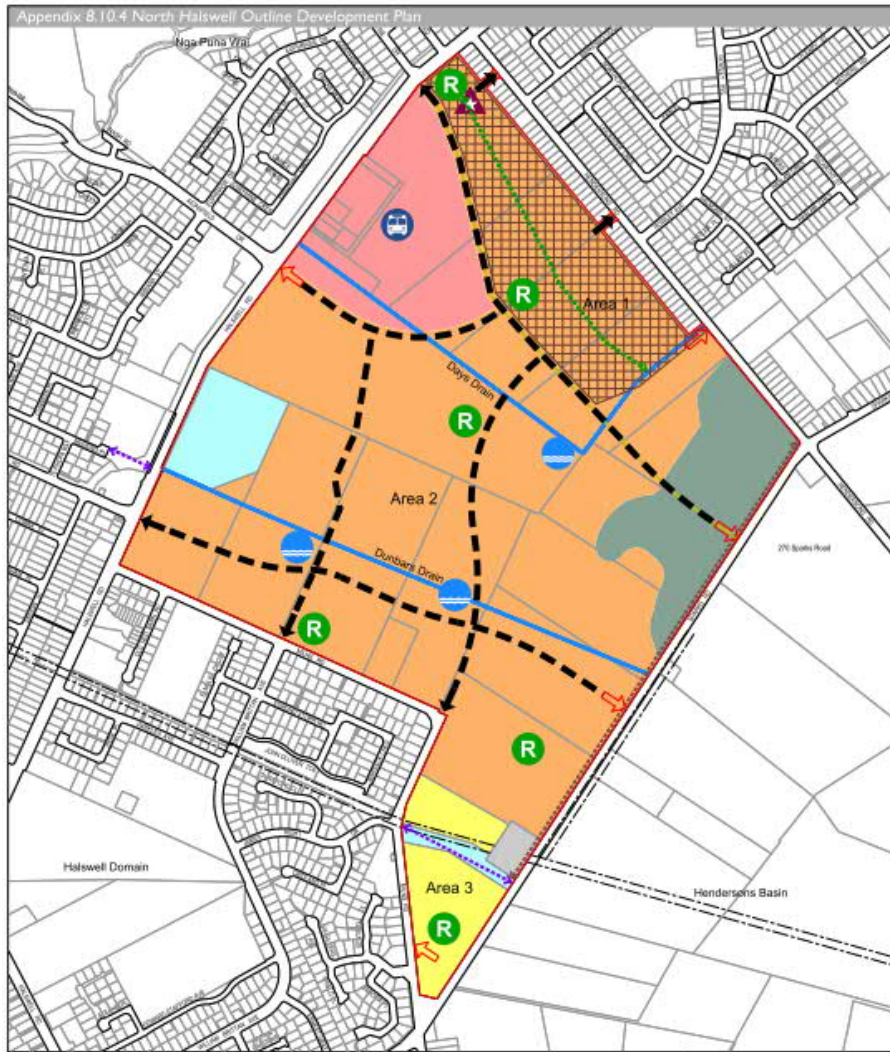


Figure 1: North Halswell Outline Development Plan

16. The matters of discretion for the North Halswell ODP are set out in Rule 14.15.36. The Access and Transport requirements of the ODP are outlined in Appendix 8.10.4 north Halswell Outline Development Plan of the District Plan. The Development Requirements for Access and Transport are included in Section 8.10.4.D.4 as follows:

(a) A collector road to run from the Halswell Road/Dunbars Road intersection to Sparks Road. This road to be capable of accommodating a bus route. This access will need to be integrated with the existing signals.

16.1 This collector is outside the area being considered in this application. However, the proposed development does not inhibit the construction of this collector road from occurring in the future.

(b) A collector road to run from the Halswell Road/Augustine Drive intersection through the neighbourhood to Sparks Road or Hendersons Road, providing access to the Key Activity Centre. This intersection is to be signalised.

16.2 The construction of the signals at the intersection of Augustine Drive with Halswell Road have been completed and the signals are operational. A section of the collector road (Monsaraz Boulevard) has also been constructed on the land to the north of the application site and the layout of the proposed road network will not inhibit the collector road from being completed as outlined in the ODP.

(c) A collector road to run northwards extending from William Brittan Drive.

16.3 The proposed development includes a collector road (Road B) that generally extends from the alignment of the western collector running from the extension of William Brittan Drive through the Milns Estate subdivision. The alignment of the western collector (Road B) was the subject of discuss with the applicant's traffic engineer as it was not clear from the original application documents whether it could be could be aligned with the extension to William Brittan Avenue. Flow Transportation subsequently undertook extra design work showing that an alignment that meets the minimum geometric standards, as defined by The Christchurch City Council Infrastructure Design Standards (**IDS**) and Austroads Guide to Road Design, Part 3, Geometric Design could be achieved (**Figure 2**).



Figure 2: Possible link from Road B to extension to William Brittan Avenue

(d) A collector road to run northwards extending from Milns Road.

16.4 The eastern of the two north-south collector roads (Road C) continues the alignment of the extension to Milns Road through the Milns Estate subdivision. The cross-section for the proposed road does differ from the consented collector within the Milns Estate development. The constructed section of road does not include a separated cycle path as shown on Road C within the Halswell Gardens proposal and it would be difficult to adequately design the transition between the two designs. I raised this issue with Mr Jongeneel (Flow Transportation)⁷ but no response was received. I consider, however that the inconsistency can be addressed at the stage of detailed engineering design and the proposed road made consistent with the approved road design in the adjacent development. I recommend that a condition be added, should the application be consented, to revise the cross-section of Road C to extend the consented road.

⁷ Email dated 20/05/2019

(e) A third signalised connection with Halswell Road between Augustine Drive and Dunbars Road may be required to provide access to the Key Activity Centre.

16.5 The intersection of Road A with Halswell Road (SH75) is proposed in the application as a signal controlled cross-intersection with Aidanfield Drive. The ODP shows the road as a flexible access point (to include pedestrian/cycle access) with the location of this access as being generally opposite Aidanfield Drive. The inclusion as a 'flexible' access was agreed through the District Plan process to provide NZTA and Council with the opportunity to review the effects of various layouts at the time of development. The modelling and report from QTP that forms part of the ITA confirms that the cross-intersection provides the best network outcome.

16.6 The application does not include official NZTA sign-off as road controlling authority for the intersection of Road A with Halswell Road (SH75), although I note that the NZTA submission supports the proposed intersection in principle. The final detailed design of the intersection can be worked through with the applicant's engineers, NZTA and Council at a later date. If the subdivision does proceed with the intersection located as proposed Council and NZTA would require a consent condition that the applicant will pay for any costs associated with the design and construction costs of the intersection upgrade and any consequent work on Aidanfield Drive. I am satisfied that sufficient land is available along Halswell Road and within the proposed legal road to accommodate the intersection.

(f) A fully interconnected local road network across the site that achieves a high level of accessibility and connectivity for people, including opportunities for walking, cycling and public transport and services and that provides connections with Hendersons Road and Milns Road and the new collector roads.

16.7 The overall layout of the road network in the proposed development is in general compliance with the layout in Appendix 8.10.4 North Halswell ODP shown in **Figure 1**. The detailed alignments of the three proposed collector roads within the site differ from that shown in the ODP but, from a transport perspective, the three collector roads do generally align with the roads shown and achieve the same connectivity within the wider site. There will, however need to be co-ordination

between this proposed development (should it proceed) and the development of the balance of the commercial area to the north of this site in terms of detailed alignments of roads and walkways.

(g) A network of pedestrian/cyclist routes, including the major cycle way (Quarrymans Trail) within the new neighbourhood and linking the surrounding communities with each other, Halswell Domain, the Key Activity Centre, Nga Puna Wai Reserve and Sports Hub and Hendersons Basin.

16.8 The ITA for the proposed site development provides an overview of the proposed pedestrian, cycle and public transport facilities within the development site. These are mainly formal paths within the proposed road reserves which means that there are currently no east-west pedestrian/cycle linkages as there are no roads that extend to the eastern boundary of the site. I note that there are currently no paths shown linking through the stormwater management area to the land to the east of the site. Therefore direct linkages to the adjacent land and also to the Quarryman's Trail Major Cycle Route (**MCR**) on Sparks Road are not available from the application site. In my opinion, the provision of a pedestrian/cycle linkage through this area would improve the level of connection for people to the KAC from the east and also provide direct access to the MCR. I therefore recommend that a condition of consent is included, if the application is approved, to construct a 2.5 metre shared path from Road C to the eastern boundary of the site.

(h) Extension of the Quarrymans Trail being a major cycle way to follow along Sparks Road (where it will be part located within road reserve and partly within the ODP area) and/or through the ODP area.

16.9 The development site does not extend through to Sparks Road, where the Council has made the decision to construct the Quarrymans Trail on the south-eastern side of the road rather than the north-west (ODP) side of the road. Therefore, whilst the development can (and should) provide a pedestrian/cycle link through the stormwater management area to provide linkages to the adjacent land holding to the east it will not immediately link through to the Quarryman's Trail. It will, however provide for links to the major cycle route to be formed at a later time when that land is developed.

17. Overall, I consider that the proposed development of the site can meet the access requirements of the North Halswell Outline Development Plan in relation to

connectivity for all forms of transport. Should consent be granted I recommend that a condition of consent should require the construction of a shared path (minimum width of 2.5 metres) across the stormwater basin to link with future development to the east of the application site.

ROAD SAFETY

18. The ITA includes a crash analysis for the existing transport network to identify any existing crash trends in the immediate vicinity of the development site. Common trends identified were failure to give way and loss of control crashes. The trends are attributed in large part to the speed environment of 80kph along this section of Halswell Road and I agree with Mr Jongeneel⁸ that this is a contributing factor which will change when NZTA reduce the speed limit along this section of road.
19. A Preliminary Design Road Safety Audit of the proposed internal network has been undertaken by Commute Transportation Consultants as required by the Council's IDS. The audit has not raised any safety issues that cannot be addressed at the stage of detailed engineering design.

PUBLIC TRANSPORT

20. Halswell Road has been identified in the Canterbury Regional Public Transport Plan as a high frequency⁹ route which will be supported by priority measures along the corridor. The Commercial Core Zone (North Halswell) ODP (**Figure 3**) includes the future provision of a transport interchange located on the extension to Road F within the commercial core.

⁸ Section 2.3 Accident Analysis, Integrated Transport Assessment

⁹ The term 'high frequency' is defined in the Regional Passenger Transport Plan as one bus every 15 minutes during the day (7.00am to 7.00pm).

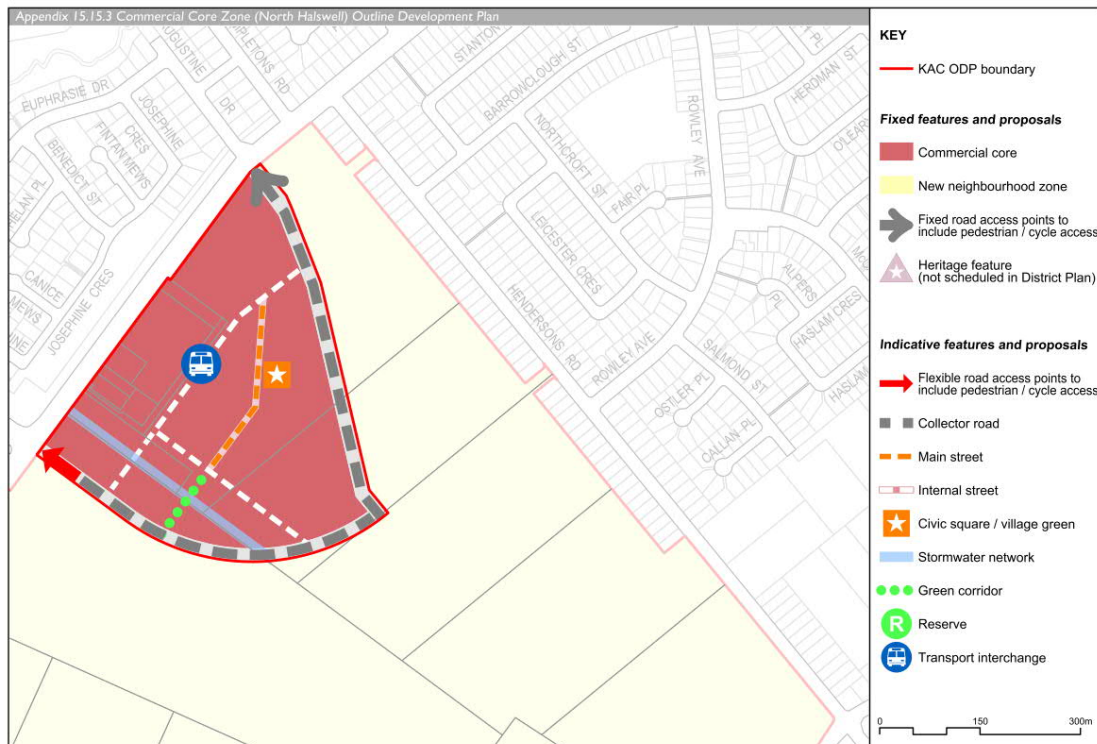


Figure 3: Commercial Core Zone (North Halswell) ODP

21. When Halswell Timber land is redeveloped in the future Road F will be completed as a through road enabling bus services to undertake a minor diversion from its present route to service the commercial development. In terms of certainty for the future use of the corridor it is my stated preference that the land is vested as road and it is constructed to Council standards as per the CSS. This would include surfacing with asphaltic concrete, rather than a concrete construction as shown in the original application documents. Pedestrian crossing points could be highlighted through the strategic use of concrete pavers along the road.
22. In the short to medium term it is likely that the bus route will continue along Halswell Road, rather than diverting onto the local network, to ensure the efficiency of the route is maintained. .
23. The area is currently serviced by the Orange Route along Halswell Road and Route 60 which travels along Halswell Road before diverting onto Aidanfield Drive. The current bus stops will need to be integrated into the construction works proposed for the installation of the signals at the intersection of Road A with Aidanfield Drive / Halswell Road.

CYCLE FACILITIES

24. The applicant has proposed that the collector roads include separated cycle facilities, similar in nature to the cycle facilities that have been developed by the Council for the Major Cycle Routes. The proposed cycle facility on Road A, which was originally planned for the north side of Road A has been switched to the south side of the road due to Council's concerns regarding the potential conflicts between the path users and the commercial vehicle crossings (this is discussed further in paragraph 71). The inconsistency in design between Road C and the consented road within the Milns Estate development has been discussed in paragraph 16.4 of this evidence.
25. On the low volume local roads the applicant has proposed a cross-section that provides for a shared path on one side of the road and a narrowed carriageway to assist in keeping vehicle speeds low. The applicant has suggested that a 30kph limit could be applied to this area, but this is a decision that is delegated to the local Halswell-Hornby-Riccarton Community Board and will be a separate process undertaken under the Local Government Act. I note that the Christchurch City Council has generally applied a 40kph speed limit in residential areas rather than 30kph.
26. The ITA and addendum states that the cycle parking for the retail development and the pool will comply with the minimum requirements of the District Plan, but it is unclear from the plans provided where the secure and covered staff parking will be located. I would therefore recommend a condition of consent that all cycle parking shall comply with the requirements of Appendix 7.5.2 – Cycle parking facilities.

PEDESTRIAN FACILITIES

27. All internal roads will include 2 footpaths and the residential area is proposed to include shared space accesses and interlinking bridleways that will be available for public access through these blocks. The footpaths along the frontage of the commercial area will be constructed to be a minimum width of 2.5 metres, as required by Council's IDS.
28. There is an 8.0 metre pedestrian / cycle link from the approved Milns Estate subdivision, to the south of the proposed development, to be matched by a similar

width link to Road E. This has been agreed to by the applicant, and has been shown on the scheme plan prepared by Eliot Sinclair, #426862, C1, Sheet 6, Revision J. I note that the proposed alignment creates an awkward angle at the boundary (Figure 4) which may create CPTED issues and care will be required with the design of the link.

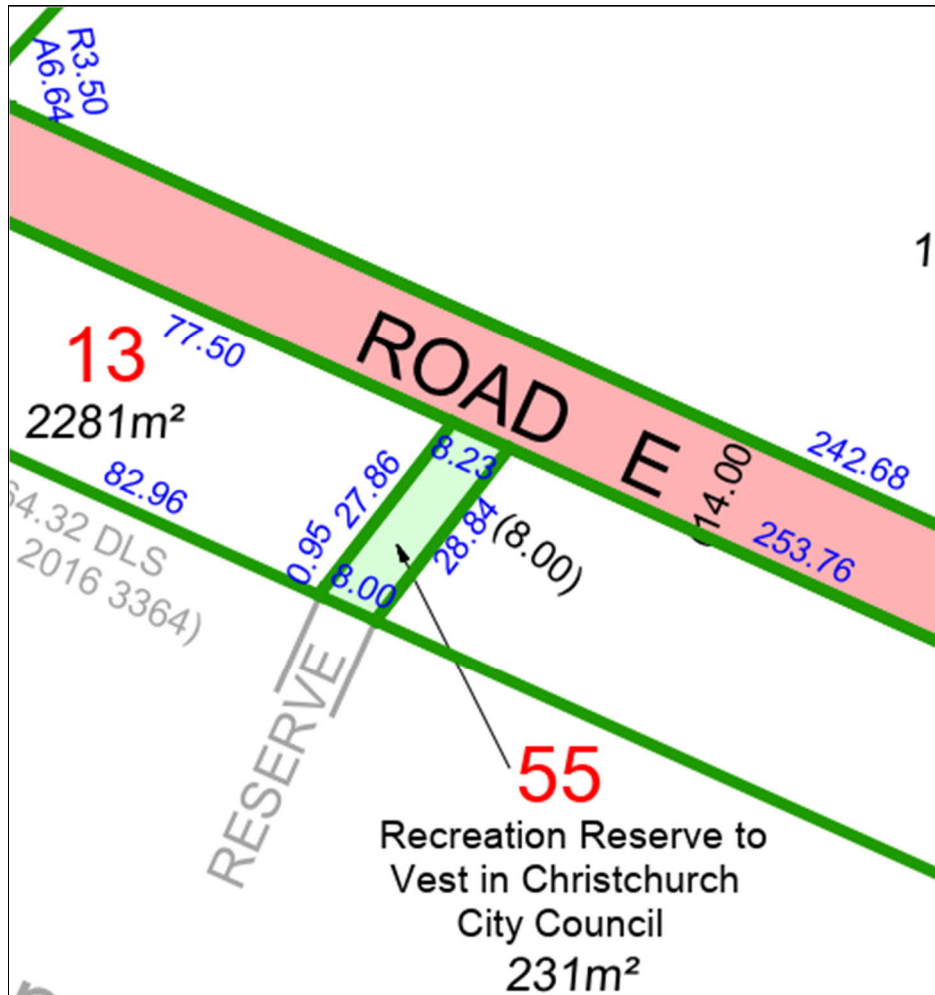


Figure 4: Reserve link to adjacent land

29. I note that other than at the proposed signals there is no footpath shown along the Halswell Road frontage. This is a busy arterial road and as such I propose that a condition of consent is included requiring the applicant to upgrade the frontage to urban standards at the time of subdivision, including the construction of a 2.5 metre shared path that will provide safe facilities for pedestrians and cyclists this section of road.

30. Four mid-block pedestrian crossing points across Road A adjacent to the commercial area are indicated on the plans provided in the application and addendum documents. It is currently unclear how these crossing points will be designed to achieve a safe environment for pedestrians, however I consider that it is an issue that can be addressed at the stage of detailed engineering design.
31. As noted in paragraph 16.8 of this evidence I also consider that there needs to be some form of pedestrian / cycle connection towards Sparks Road and the Quarryman's Trail to provide for future connection to this MCR.

NON-COMPLIANCES WITH THE DISTRICT PLAN

32. The following non-compliances have been identified by Flow Consulting for the proposed development. I have separately assessed the application and whilst I comment further on the individual non-compliances below.

Rule 7.4.3.1(a(iii)) – Mobility parking

33. There are currently 5 mobility spaces indicated on the plans for the commercial area, whereas 11 spaces are required for the 452 car parking spaces proposed to be provided in conjunction with the commercial area.

Rule 7.4.3.7(a) – Access design

34. Appendix 7.5.7 where more than 9 units are served by an access requires the vehicle access to be a maximum formed width of 6.0 metres and provide a minimum 1.5 metre space for pedestrians / cyclists. The applicant proposes that the private lanes are formed at a width of 7.0 metres.

Rule 7.4.3.8(e) – Maximum number of vehicle crossings

35. Flow have identified that there will be four vehicle crossings to the retail area, although I note that one of these will be a legal road (Road F). I therefore do not consider that there is a non-compliance in relation to this rule, as the rule allows three vehicle crossings for a frontage length over 100 metres.

Rule 7.4.3.10 – High trip generator

36. The High Trip Generator rule is triggered where there is in excess of 50 trips per peak hour, where the peak hour is defined as those hours between 15:00 and 19:00 hours in a weekday. This level of generation requires a full Integrated Transport Assessment (ITA) to be prepared for the development and has been included as an Appendix to the application document.

Rule 14.12.1.2 – Controlled Activities

37. Residential development standards requires a garage door setback of 5.5 metres from a shared access or road boundaries to enable a vehicle to be parked clear of the footpath and carriageway. Comprehensive developments are exempt from this requirement (14.12.2.10). Whilst Part (c) of the rule makes an exemption for comprehensive residential development (sites over 6,000 sqm) the Matters of Control and Discretion includes the Assessment Matter *'Whether the development integrates access, parking areas and garages to provide for pedestrian and cyclist safety and the quality of the pedestrian environment, and the access, parking areas and garages does not dominate the development, particularly when viewed from the street or other public spaces'*. There are a number of sites, particularly on Road E and within the shared accesses where the garage door setback does not meet the usual setback of 5.5 metres from the road boundary. The Addendum states that garage doors will now be set back by the minimum complying distance of 5.5 metres from road boundaries.

EVALUATION OF EFFECTS RESULTING FROM NON-COMPLIANCES

38. In evaluating the potential effects of the non-compliances I have taken into account the relevant matters of discretion.
- Mobility parking – 7.4.4.3
 - Vehicle access design – 7.4.4.10
 - High Trip Generators – 7.4.4.19
 - Allotments for utilities, roads and reserves – 8.7.3
 - General matters – 8.7.4
 - Comprehensive residential development – 14.15.36
 - Commercial Core Halswell – 15.13.4.3

Rule 7.4.3.1(a(iii)) – Mobility parking

39. I have discussed the shortfall in mobility parking spaces for the commercial development with Mr Jongeneel from Flow Consulting and I understand that the applicant intends to provide a complying number of spaces. I recommend that, should the development proceed, a condition is included to require the provision of 11 mobility spaces.

Rule 7.4.3.7(a) – Access design

40. The design of the laneways and residences served by the access have positioned a number the garage doors on the laneway and the 7 metre formation is required to enable drivers to turn into the garages. The proposal is to provide shared space rather than dedicating space specifically to each mode. Given the comprehensive nature of the development and the proposed design to locally narrow the laneways to limit speed and provide a shared use space I consider that the extra width would not create any safety issues. I also consider that due to the proposed design of the areas as shared spaces the need for separate pedestrian / cycle facilities will not be required.

Rule 7.4.3.10 – High trip generator

41. A full ITA has been provided by the applicant's transport planner, Flow Consulting, in accordance with the requirement of Rule 7.4.3.10. The ITA includes an overview of existing and proposed bus routes, pedestrian and cycle connections and also includes a review of the road network and potential connections to this network. A report by QTP on the outputs of CAST modelling of the effects of vehicle trips generated by the development on the surrounding transport network has also been included with the ITA. A preliminary design safety audit by Commute Transportation Consultants has also been provided, as required by Council's Infrastructure Design Standards. I have reviewed the ITA and the report from QTP and agree with the conclusions of these reports. The safety audit recommendations have also been reviewed by Council's Senior Transport Planner, Tim Cheesebrough and he agrees with the recommendations.
42. The transport network proposed in the development broadly aligns with the network proposed in the ODP and includes a signal controlled intersection with

Halswell Road. The ODP shows the location of this road as a flexible access and the text of the ODP discusses a “...*third signalised connection with Halswell Road between Augustine Drive and Dunbars Road...*” The QTP report reviews various options for the location and design of the proposed third signalised access to the North Halswell ODP. The modelling was initially carried out for the District Plan review that resulted in the rezoning of the land and the development of the North Halswell ODP. The results of the modelling indicate that a signal controlled cross-intersection with Aidanfield Drive was the safest and most efficient intersection choice and Council has subsequently supported this as the preferred option.

43. The initial design of the intersection included in the ITA was designed to arterial road standards and included left turn slip lanes for each approach. Whilst this provided for a high level of service for drivers and delineated the maximum amount of land that would be required for a signal controlled intersection the Council does not, and I do not, generally support slip lanes in areas of high pedestrian and cyclist numbers. This is due to the potential safety issues associated with slip lanes, particularly for the very young and elderly pedestrians, and more generally for cyclists. An alternative layout that does not include left slip lanes was therefore tested by Flow to ensure that whichever design is agreed with NZTA it will not have a more than minor effect on the safety and efficiency of the transport network, particularly Halswell Road (State Highway 75).
44. The location of the intersection and design are issues that need to be approved by NZTA as the Road Controlling Authority and I note that the submission from them notes that ‘*The Transport Agency generally agrees with the location of the proposed signalised intersection into the subject site*’. This is covered in more detail in the comments on the NZTA submission in paragraphs 48 – 53 of this report.
45. I note that the Addendum states that one of the amendments to the plans as a result of the safety audit and discussions with Council is “*the installation of a solid median on Halswell Road at the approaches to the Aidanfield Drive / Road A intersection.*”¹⁰ I agree that the installation of solid islands on the approaches will provide a safer driving environment, but care will be required at the detailed design

¹⁰ Page 34, 201 Halswell Road, Addendum to RMA/2017/3185, Planz Consulting, 7 October 2019

stage to ensure that existing access to the Halswell Timber Company is not compromised unduly by the construction of the medians.

Rule 14.12.1.2 – Controlled Activities

46. The minimum setback of the garage doors from the road boundary provides an area that drivers can stop clear of the carriageway and the footpath to provide for safe passage for all users along the public corridors. Where the setbacks have been reduced, as has been the case in areas of the Wigram Skies subdivision¹¹, this typically leads to issues with residents parking across footpaths as seen in **Figure 5**.

47. The issue has been discussed with the applicant and I understand that the garages have now been set back sufficiently to enable drivers to park clear of the road reserve, although it is difficult to ascertain distances from the plans provided, I would therefore recommend a consent condition that requires all garage doors to be set back by 5.5 metres from legal road boundaries,.

¹¹ Webster Road and Kittyhawk Avenue in Wigram Skies subdivision



Figure 5: Residents cars blocking footpath in Wigram Skies subdivision

SUBMISSIONS

48. A total of eleven submissions have been received by the Council regarding the proposed development and of these three submitters have raised concerns or commented regarding transport issues associated with the proposal.

New Zealand Transport Agency

49. The New Zealand Transport Agency have raised a number of issues concerning the proposed development and suggested conditions to address these concerns.
50. NZTA have accepted, in principle, that a signal controlled cross-intersection is appropriate, but are concerned that the design and construction of the intersection is undertaken to an appropriate standard. They have therefore suggested that the

following condition is included as part of any decision on the approval of the consent application.

51. *Detailed engineering plans for the proposed changes to Halswell Road / Aidanfield Drive intersection (**Intersection**) shall be designed by an appropriately qualified professional, prepared in accordance with the NZ Transport Agency's Applicable design standards, and shall be submitted to and certified by both the Council's Transport Manager and NZ Transport Agency prior to any construction commencing on the site and shall include:*

a) All necessary alterations to the intersection required as consequence of the proposed development;

b) Full design details regarding the operation/phasing of the signalisation of the Intersection and site access;

c) A detailed design safety audit of the detailed engineering plans undertaken at the applicant's cost by a suitable trained and experienced independent safety auditor.

52. I agree that there needs to be a condition to ensure design and construction standards are met and suggest that the issue of costs should fall with the applicant as the intersection of Aidanfield /Halswell currently operates safely and efficiently and the need for signals is driven by the development. Whilst the submission also seeks that a detailed design safety audit is undertaken I note that there will also be the need for a post construction safety audit in line with the NZTA Guidelines and the IDS and recommend that this also forms part of any condition.

53. The current speed limit along the section of Halswell Road outside the site is 80kph. With further development of the North Halswell ODP area (including the installation of signals at Aidanfield Drive) the speed limit is likely to reduce to 60kph. Speed limits in the area will be investigated by the Transport Agency at a later time as speed limits are set through the Land Transport Rule: Setting of Speed Limits 2017. The Safety Audit Team raised a concern regarding the installation of signals in an 80kph speed environment and I would therefore suggest that the speed limit is reviewed at the time of the detailed design of the signals. I note that the speed limit at the intersection of Augustine Drive/ Halswell

Road was reduced to 50kph for safety reasons by NZTA prior to those signals becoming operational.

54. I further note that whilst it is not an issue that has been raised through their submission NZTA will also need to approve the design and location of any temporary construction access points to Halswell Road. I would therefore recommend that should the consent be approved a consent condition is included that the applicant provide a temporary traffic management plan for approval by the Christchurch Transport Operations Centre (CTOC)¹².

Environment Canterbury

55. The submission from Ecan is neutral towards the application, but rather seeks to ensure that they continue to be involved in the planning process going forward. They have also pointed out that the 'temporary' bus route shown in the application documents is not likely to be used by bus services in the short to medium term and bus routes are unlikely to traverse the development until Road F is completed. That is, until the Halswell Timber yard is redeveloped.
56. Ecan staff were involved in the development of the original ODP and Council will continue to include Ecan in any discussions around the development of both this growth area and other developments in the city.
57. In terms of infrastructure, I agree that to encourage the use of alternative modes there needs to be the infrastructure in place to support it. The Collector roads and Road F will be constructed to a geometric standard that will support a bus route and cater for the anticipated vehicles using it.
58. Footpaths are also proposed within the development and in my opinion (supported in Section 2 General Commentary in the safety audit) there needs to be a shared path provided along the Halswell Road frontage of the site with direct access points into the site.

¹² CTOC is a joint partnership between the Christchurch City Council, Canterbury Regional Council (Environment Canterbury) and the NZ Transport Agency to operate the road network as an integrated whole.

59. There are currently bus stops located on Halswell Road approximately 160 metres south west of the Aidanfield intersection. The bus stops are located so that passengers disembarking on the south-east side of Halswell Road have to cross a busy high speed road with no facilities to help them cross safely. Whilst this has not resulted in any safety issues to date it is not conducive to encouraging people to use public transport. These stops should be relocated to be adjacent to the intersection so that people using the stops can safely and easily cross Halswell Road to access the retail facilities. The infrastructure for the bus stops could be included in the design for the signalisation of the intersection, as was the case for the signal design at the Augustine Drive /Halswell Road/ Monsaraz Boulevard intersection.

60. The existing bus stops on Aidanfield Drive (located north of Halswell Road) are currently in the traffic lane and can delay drivers due to the deep swale in the middle of the road preventing drivers from passing the stopped bus. Currently the volumes are low and delays are minimal, but the installation of signals at the Aidanfield Drive /Halswell Road intersection will result in increased traffic volumes on Aidanfield Drive and therefore lead to a potential increase in delays. The applicant has therefore volunteered a condition to change the stops to be semi-indented to enable traffic to go around stopped buses.

Spreydon Lodge Limited

61. The Spreydon Lodge submission raises a number of issues related to the transport network that I have addressed as follows (submission points in *italics*):

62. *Proposed "Road F" connecting the Proposed Development to the rest of the KAC to the north is reliant on the redevelopment of the timber mill site (owned separately) to complete this road link. It is understood that redevelopment is not anticipated to happen in the near future, thus preventing this road from providing any practical connection with the adjacent commercial development.*

63. The owners of the Halswell Timber Company have indicated that they have no plans to redevelop their site in the short to medium term and this is consistent with their views when the ODP was developed. One of the reasons for developing an ODP is to ensure that areas of land under multiple ownership are developed in a manner that will provide an interconnected area when all of the land is developed.

This recognises that different landowners will want to develop at different times and that a network of interlinking roads and paths may take some time to achieve. This should not be a reason to inhibit development, but rather ensure that the infrastructure is aligned appropriately to enable future links to be constructed in an orderly manner.

64. I note, however that the alignment of Road F at the boundary of the proposed development at 201 Halswell Road with the Halswell timber Company land does not align with the approved and constructed road within the Spreydon Lodge site. The alignment of proposed Road F is approximately five metres north-west of the alignment of the road constructed within the site to the north, as indicated in **Figure 6**. The alignment of either, or both, roads could be adjusted to ensure they meet, but the corridor owned by the Halswell Timber Company limit the realignment of the road in the Spreydon Lodge site until such time as the timber company redevelops or relinquishes the right of way. This currently leaves an awkward misalignment between the two sections of road that would require a further set of reverse curves to bring the two roads together on the same alignment. To avoid the need for a series of reverse curves I recommend that road F is realigned to line up with the constructed section of road within the Spreydon Lodge development.

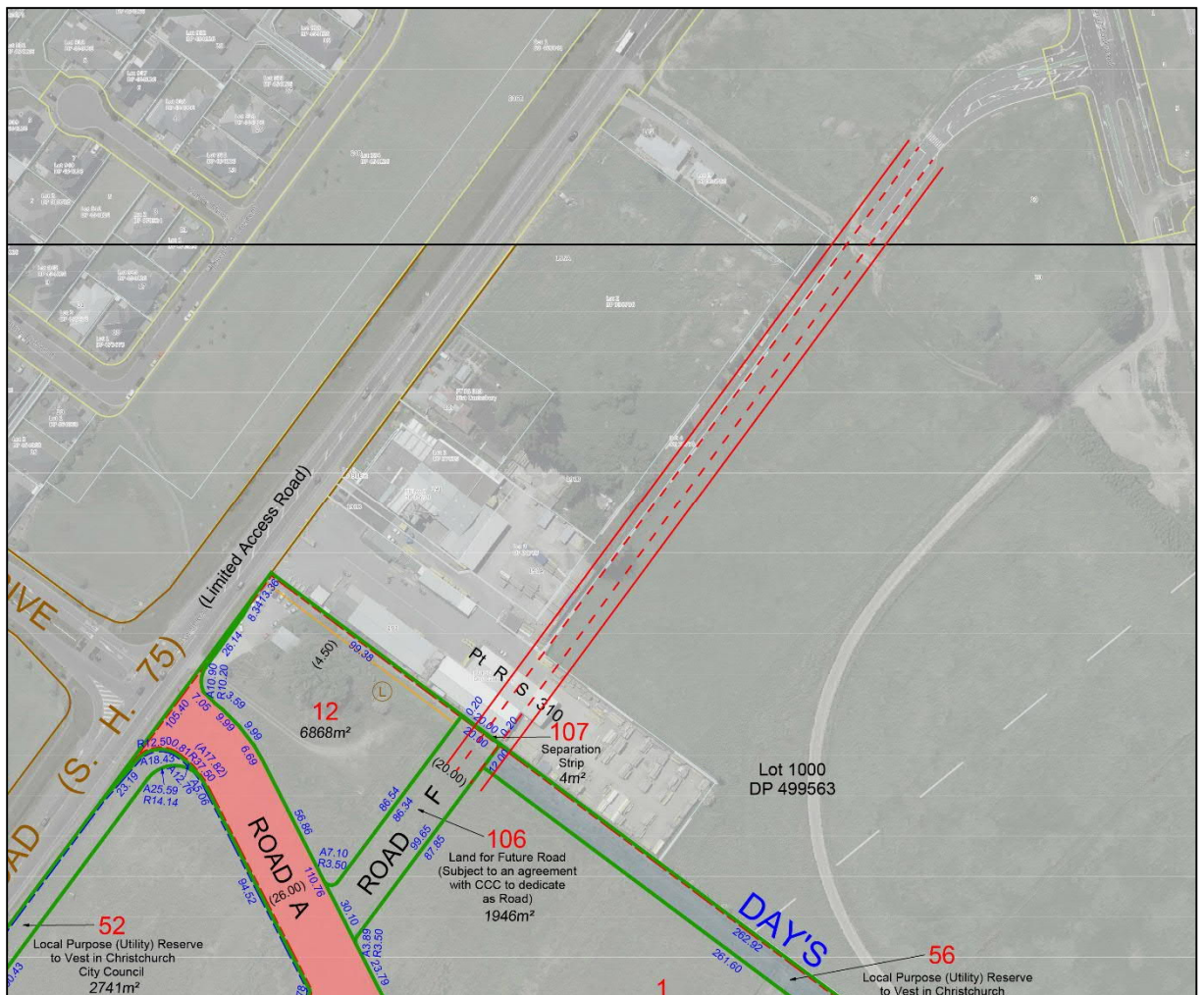


Figure 6: Alignment of Road F relative to the road in Spreydon Lodge land

65. *The Proposal indicates a connection to the “green spine” in the adjoining commercial core, providing access by active modes to the main-street corridor. The current plans are not however sympathetic to providing a useful walking and cycling connection between the commercial core and the adjacent residential areas to the south, effectively running through untreated car-parking areas.*
66. I agree that the proposed layout did not lend itself to the provision of a pleasant, or necessarily safe environment, however I understand that the recent changes to the design as encapsulated in the Addendum to the application have sought to address this matter. My colleague, Mr John Lonink (Senior Urban Designer) has addressed this issue further in his evidence.

67. *The internal network connectivity (or lack of), for all modes, are likely to result in inefficient driving patterns or more use of driving over other more sustainable transport modes.*
68. Due to the general nature of this comment I am unsure whether there are specific examples of a lack of connectivity. In my opinion the proposed layout does provide a level of connectivity anticipated in the ODP for the area. The road layout is generally aligned with the ODP in terms of the provision of the collector roads and the walkable perimeter of the residential blocks are less than 800 metres. The residential blocks also have numerous rights of way and bridle ways that link through the blocks. The main area where connectivity is lacking is in the connections to the east towards Sparks Road and I have discussed this in paragraph 16.8 of this evidence.
69. *The loading zones for the commercial developments are serviced by means of the same accesses to these developments used for driving/biking/walking access by the general public, thus introducing potential conflicts with heavy vehicles.*
70. I agree that this is not desirable, although it is also not an unusual issue with commercial developments.
71. *The off-road two-way cycleway along "Road A" has numerous conflict points with busy commercial accesses including what appears to be a very poorly-defined and unsafe crossing of "Road F". This is particularly an issue for cyclists travelling in the "opposite" (westbound) direction who are less likely to be noticed by crossing motorists.*
72. I recognised this issue early in the consenting process and raised it with the applicant's traffic engineer Mr Jongeneel. A meeting between Council staff and Mr Jongeneel was held specifically to discuss the design of the proposed separated cycle infrastructure and this meeting was also attended by Council's Major Cycle Routes Project Manager¹³. At this meeting Mr Bisley and I proposed that to overcome the safety issues around cycle paths crossing busy commercial driveways the proposed paths on Road A should be shifted to the south side of

¹³ Jongeneel, 5 June 2018, Review of cycle facilities with Brendan Bisley, Council Major Cycle Routes Project Manager

the road. This would place the separated cycleway adjacent to residential development and while it would still cross driveways they would be low volume accesses. The suggested change was accepted by the applicant¹⁴, although I note that the cycle path is still shown on the north side of the road in a number of plans in the application and addendum. Should the development be consented I recommend a condition to require the design of the cycle facilities to be on the south side of Road A. To ensure that the design meets Council standards the detailed engineering design will need to be approved by Council engineering staff who have developed expertise in this area through the design and construction of the Major Cycle Routes in Christchurch over the past five years.

CONCLUSION

73. Based on the information provided by the applicant, including the modelling undertaken by QTP and the Addendum, I consider that the effects of the proposed development on the transport network will be less than minor and can be supported from a transport perspective, subject to the following conditions.

Subdivision

1. All proposed works shall be carried out in accordance with an approved Traffic Management Plan (TMP). The consent holder shall prepare a TMP and submit this to Council, Attention: Christchurch Transport Operation Centre (CTOC) by way of email to rcmon@ccc.govt.nz, at least 10 working days prior to the commencement of construction work associated with this consent. The TMP shall identify the nature and extent of temporary traffic management and how all road users will be managed by the use of temporary traffic management measures and comply with the NZTA Code of Practice for Temporary Traffic Management (CoPTTM). The TMP shall also identify the provision of on-site parking for construction staff. Activities on any public road should be planned so as to cause as little disruption, peak traffic delay or inconvenience to road users as possible without compromising safety.
2. At the time of subdivision the Halswell Road frontage of the site is to be upgraded at the applicant's expense to an urban standard with kerb and channel, a 2.5

¹⁴ Paragraph 7.35(d), Addendum to RMA/2017/3185, Planz Consultants, 7 October 2019

- metre shared path along frontage of site. Direct pedestrian access to the retail development from Halswell Road is to be provided.
3. The intersection of Aidanfield Drive / Halswell Road is to be upgraded to a signal controlled intersection and the signals are installed and operational prior to the commencement of any activity within the site, with all costs associated with this work to be met by the applicant.
 4. Scheme plans and detailed engineering plans for the proposed changes to Halswell Road / Aidanfield Drive intersection (**Intersection**) shall be designed by an appropriately qualified professional, prepared in accordance with the NZ Transport Agency's Applicable design standards, and shall be submitted to and certified by both the Council's Transport Manager and NZ Transport Agency prior to any construction commencing on the site and shall include:
 - a) All necessary alterations to the intersection required as consequence of the proposed development;
 - b) Full design details regarding the operation/phasing of the signalisation of the Intersection and site access;
 - c) A design safety audit of the detailed engineering plans and a post-construction safety audit is to be undertaken at the applicant's cost by a suitable trained and experienced independent safety auditor in accordance with the NZTA Road Safety Audit Procedure for Projects Guidelines.
 5. The intersection design is to include the indenting of the bus stops on Aidanfield Drive and all infrastructure associated with the relocation of the bus stops on Halswell Road.
 6. The cycle path on Road A is to be designed and constructed on the south side of the road in general accordance with the NZTA Cycling Standards and Guidance for Separated Cycleways.
 7. The detailed design of the pedestrian crossing facilities along Road A are to be designed and constructed in general accordance with the NZTA Pedestrian Planning and Design Guide.
 8. The alignment of Road F is to generally align with the extension of the approved alignment of the equivalent public transport road in the Spreydon Lodge development.
 9. Road F is to be constructed in asphaltic concrete with concrete pavers or similar highlighting the pedestrian crossing areas.

10. A shared path with a minimum width of 3.0 metres is to be included in the design and development of the stormwater management area to connect to provide an east-west pedestrian/cycle corridor to the land to the east of the application site.
11. A design road safety audit of the detailed engineering plans and a post-construction road safety audit is to be undertaken of the transport network associated with the development at the applicant's cost by a suitable trained and experienced independent safety auditor in accordance with the NZTA Road Safety Audit Procedure for Projects Guidelines.

Land use

1. All proposed works shall be carried out in accordance with an approved Traffic Management Plan (TMP). The consent holder shall prepare a TMP and submit this to Council, Attention: Christchurch Transport Operation Centre (CTOC) by way of email to rcmon@ccc.govt.nz, at least 10 working days prior to the commencement of construction work associated with this consent. The TMP shall identify the nature and extent of temporary traffic management and how all road users will be managed by the use of temporary traffic management measures and comply with the NZTA Code of Practice for Temporary Traffic Management (CoPTTM). The TMP shall also identify the provision of on-site parking for construction staff. Activities on any public road should be planned so as to cause as little disruption, peak traffic delay or inconvenience to road users as possible without compromising safety.
2. That 11 mobility spaces are provided as part of the car parking provision for the commercial development.
3. That a complying number of cycle parks is provided and that all staff cycle parking is to be covered and secure, with associated trip end facilities provided in accordance with the District Plan, Appendix 7.5.2.
4. Garage doors generally facing road boundary shall be set back 5.5 metres from the road boundary.
5. Visibility splays at accesses serving more than 15 car parking spaces are to be provided.

Michael Calvert

Transport Network Planner, Transport Unit

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APPENDIX 8

Evidence of Ms Jennifer Geraldine Dray

RMA 2017 3185

Woolworths New Zealand Limited

201 Halswell Road

Land use and subdivision consent applications to establish a residential and commercial mixed use development.

**REPORT OF JENNIFER GERALDINE DRAY
ON LANDSCAPE AND VISUAL ASSESSMENT**

Dated 14 November 2019

TABLE OF CONTENTS

INTRODUCTION	1
SUMMARY OF REPORT.....	2
DESCRIPTION OF THE PROPOSAL.....	3
DESCRIPTION OF THE RECEIVING ENVIRONMENT	4
ASSESSMENT OF LANDSCAPE AND VISUAL EFFECTS.....	4
ASSESSMENT OF PROPOSED CONDITIONS	17
SUMMARY OF RECOMMENDATIONS	17
CONCLUSION.....	21
REFERENCES	22

INTRODUCTION

1. My full name is Jennifer Geraldine Dray. I am a member of the Technical Services and Design Unit at the Christchurch City Council (**Council**). I am here providing an assessment of the landscape and visual amenity as an input to the officers' report in relation to the application to establish a residential and commercial mixed use development.
2. I hold a Bachelor of Science in Physical Geography from Canterbury University and a Bachelor of Landscape Architecture from Lincoln University. I am also qualified in the field of Crime Prevention through Environmental Design (CPTED) with my most recent training being an Advanced CPTED Workshop in 2018.
3. I am employed as a Senior Landscape Architect with Council. I have worked in the role for the past 15 years, and I have over 20 years' experience working as landscape architect.
4. My work is mostly centred on both landscape design and landscape assessment. I have been involved in reviewing many landscape and visual assessments for Council for applications relating to both residential and commercial zoned land, as well as rural developments and developments within areas of outstanding natural landscape (ONL) around the Port Hills and Banks Peninsula. In 2015 I appeared before the Independent Hearings Panel (IHP) while contributing to the Rural Chapter 17 of the District Plan Review.
5. Whilst it is not directly relevant for the preparation of this report, I am aware that the Council has approved direct referral of this application to the Environment Court. I confirm that I have read and agreed to comply with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note (dated December 2014). I confirm that the issues addressed in this report are within my area of expertise. I have not knowingly omitted to consider facts or information that might alter or detract from the opinions expressed.
6. I have visited the site and am generally familiar with the area.

SUMMARY OF REPORT

7. The purpose of this report is to provide information and advice on the land use and subdivision consent applications to establish a residential and commercial development at 201 Halswell Road. I have been asked by Mr Lowe particularly to provide advice on the merits of this proposal in relation to landscape and visual amenity effects with regards to the following;
 - 7.1 Landscape quality and practicality of public spaces,
 - 7.2 Landscape quality and practicality of private spaces,
 - 7.3 Landscape Amenity connection to Halswell Road via Days Drain waterway,
 - 7.4 CPTED considerations,
 - 7.5 The visual amenity towards the timber yard.
8. This report does not extend to an assessment of the proposal against the relevant Christchurch District Plan Objectives and Policies. In this matter, I will defer to the assessment of relevant urban design and landscape related Objectives and Policies prepared by the Council Urban Design specialist.
9. This report also does not extend to an assessment of the ecological or hydrological aspects of the Days Drain enhancement which will be assessed by Council's waterways ecologists and planners. Nor does it extend to appropriateness of park furniture or other structures as these will be assessed by the Council's parks planner.
10. I have read the following documents when preparing this report:
 - 10.1 The consent application including further information and amendments as follows,
 - 10.2 Addendum to RMA/2017/3185 prepared by Planz Consultants (7 October 2019)
 - 10.3 Addendum to Landscape Design Package prepared by Kamo-Marsh Landscape Architects (3 October 2019 – A4 format)

- 10.4 Halswell Road Development, Concept Design - Days Drain prepared by Kamo-Marsh Landscape Architects (10 October 2019 – A3 format – 8 sheets)
- 10.5 Halswell Road Development Design Package Resource Consent Issue prepared by Kamo-Marsh Landscape Architects (Revision 3 – A3 format – 25 Sheets)
- 10.6 Residential Assessment, Halswell Garden Village prepared by CMA+U (October 2019 – A3 format – 135 sheets)

DESCRIPTION OF THE PROPOSAL

- 11. Land use and subdivision consents are sought to establish a residential and commercial development.
- 12. The subdivision includes the creation of 12 development lots, roads, local purpose (utility) reserves (including for storm-water and the Days Drain enhancement and Halswell Road) and a recreation reserve. The landscape design masterplan outlines material and plant palettes, paving and fencing treatment of roads and pedestrian network, the storm-water treatment areas and drainage corridors, in addition to the landscape treatment of public reserve and public spaces.
- 13. The commercial component of the proposal (on Lots 1 and 12) seeks to provide a supermarket as well as a mix of food and beverage outlets and small retail, all as part of the North Halswell Key Activity Centre (KAC). Lot 12 also includes residential units (two levels), a medical centre and gym.
- 14. The residential development (on Lots 2 to 10 and 13) within the Residential New Neighbourhood zoned part of the site includes the construction of lane-ways and bridle-ways, the provision of single house sites and dwellings, provision of a covered pool facility, and open spaces in the form of private squares and pocket parks. An 8.0m wide and 28m long pedestrian/cycle link (Lot 55) has also been provided as a corridor from the approved Milnes Road subdivision to the south of the proposed development to Road E within the application site.
- 15. The applicant has since added further refinement following the s92 requests and submitter feedback to the masterplan including; amendments to landscaping

associated with changes to the commercial area and apartment, design responses relating to the daylighting of Days Drain, the Green-link Corridor, the frontage to Halswell Road, Road A and connectivity to the remainder of the North Halswell KAC and design responses for the interface with the established industrial timber mill to the north.

DESCRIPTION OF THE RECEIVING ENVIRONMENT

16. A description of the receiving environment has been outlined within the application which I adopt for the purposes of these comments.

ASSESSMENT OF LANDSCAPE AND VISUAL EFFECTS

17. In this section I make reference to the assessment of the key changes to the masterplan, provided within the Addendum to Landscape Design Package¹.

Landscape quality and practicality of public spaces

18. These comments are in relation to the following public spaces;

18.1 SH 75 Halswell Road Frontage (Lot 52). These comments are in relation to the area to the front of the Retail block (northern side of main entrance), as well as the 10m strip of land separating the Halswell Road from the residential lots comprising Village A (southern side of entrance).

- a) Northern Side of entrance - Halswell Road frontage to Retail block. The retail outlets have been reconfigured to provide an enhanced relationship to Halswell Road with improved pedestrian connections. A deeper area of landscaping has been provided on the corner which provides room to accommodate an increased amount of landscape and tree planting, and a visual connection to further tree planting within the site. This corner could be further improved by additional tree planting to enhance the gateway

¹ Para 4 Addendum to Landscape Design Package prepared by Kamo-Marsh Landscape Architects (3 October 2019 – A4 format)

experience, and enhancing the relationship with the southern side of the Halswell Road entrance.

- b) Southern side of entrance – Halswell Road frontage to Village A. This landscape strip has been reduced in width from 20m to 10m, with the extra 10m now being incorporated into the residential lots. Areas of open lawns are to be interspersed with low (max. 800mm high) earth mounds. Clusters of specimen trees are to include *Quercus robur* 'Fastigiata', *Liquidambar styraciflua* and *Podocarpus totara*. Further indigenous buffer planting has also been added to provide visual softening of proposed boundary fencing. Fencing is to be 1.2-1.4m in height and 50% visually permeable.

The reduction in the extent of road frontage will have some impact on public amenity, and surveillance and sightlines, with dwellings now being located a further 10m from boundary fence line. However there is physical connectivity with multiple openings through the fence connecting with the bridle-ways. The landscape treatment on this boundary will be appropriate to provide some screening and privacy while allowing for physical and visual connectivity.

- 18.2 Streetscapes (roads and streets). The Streetscape Planting Strategy² outlines proposed tree species for the roads and streets. All proposed species are to be exotic tree species that are capable of growing to 15-30m at maturity. Some fastigate (upright columnar) forms have also been proposed. The applicants propose to plant all street trees at a grade of 2.0m at the time of planting, and that Road A species may be planted slightly larger to provide “a more immediate effect”. It would be appropriate to require that these trees are planted at a minimum 2.5m in height to provide a more immediate screening effect.

- 18.3 The proposed exotic tree species are suitable for the difficult growth conditions within streetscapes (and car parks) and will provide shade and amenity, in

² Sheet 04 Halswell Road Development Design package Resource Consent Issue prepared by Kamo-Marsh Landscape Architects (Revision 3 – A3 format – 25 Sheets)

addition to assisting with legibility and screening. Recommendations regarding tree matters are as follows;

- a) All street trees to be planted along Road A to have a minimum height of 2.5m at time of planting, with a minimum calliper of 35 - 40mm. All other street trees shall have a minimum height of 2.0m at the time of planting, with a minimum calliper of 35 - 40mm.
- b) All trees that are to be planted within 1.5m of a sealed area should be planted in Stratavault tree pits (or equivalent style of structural cell tree planting system).
- c) All other trees should be planted in tree pits that are three times the width of the root ball of the tree, with a minimum depth of 1.5 times the depth of the root ball. These tree pits are to be back filled with an 80% unscreened topsoil and 20% soil conditioner mix.
- d) All street trees and other trees to be planted as visual mitigation shall not be topped, and shall be allowed to mature to their full natural height.
- e) All street trees (once they are established) are to be pruned to lift the tree canopy (lower-most limbs) to a minimum 2.5m from the ground. Trees with a columnar growth form will not require this type of pruning.
- f) All planting should also be managed to comply with rules relating to visibility splays at vehicle entrances.

18.4 Days Drain (Lots 56, 53 and 51). These comments do not extend to an assessment of the ecological or hydrological aspects of the Days Drain enhancement. Nor does it extend to appropriateness of park furniture or other structures as these will be assessed by the CCC parks planner.

18.5 Further refinement of the enhancement of Days Drain following the s92 requests and submitter feedback has resulted in the second (or central) commercial block being removed, enabling a 12m wide shared ecological/connective corridor along Days Drain. A set of Landscape Design and Ecological Principles have

been submitted³ to be used to guide the development works within the Days Drain corridor. These Principles are intended to “provide direction to best practice planting layout, channel formation, grading of banks, CPTED initiatives and consistency of materiality and furniture to create an attractive, safe, activated and ecologically sound space”⁴.

18.6 I generally find the submitted set of Landscape Design and Ecological Principles to be appropriate. I understand that planting species listed within the Updated Proposal have been agreed with the Council Landscape Architects and Ecologists, however I re-iterate the following matters;

- a) *Phormium tenax* to be used sparingly and to be located away from water way channels and footpaths (minimum 2.0m offset).
- b) *Coprosma virescens*, *Myrsine divaricata* and any other divaricating species can cause issues with trapping debris and blocking flow and are to be located away from water way channels (minimum 2.0m offset).
- c) Fern species such as *Blechnum minus* and *Polistichum vestitum* are likely to have difficulty establishing in areas of full sun, and are likely to be out-competed by other riparian plants such as *Carex virgata*. Ferns species should be grown in discrete clumps, with a minimum offset of 1.5m from other larger riparian plants. They should also be grown in shady positions.
- d) Plants with arching strap-like leaves such as *Astelia fragrans* and *Phormium* species can form a tripping hazard when leaves grow over footpaths. These plants should be planted with a minimum offset of 1.5m from the edge of footpaths.

³ Sheet 08 Addendum to Landscape Design Package prepared by Kamo-Marsh Landscape Architects (3 October 2019 – A4 format)

⁴ Page 5 Addendum to Landscape Design Package prepared by Kamo-Marsh Landscape Architects (3 October 2019 – A4 format)

- 18.7 Green-link Corridor. The updated Proposal for the Green Corridor abuts the Green Corridor at the boundary with the Halswell Timber Mill site and includes the removal of parking outside the supermarket frontage, and providing additional landscaped area, planting and street furniture. Visual connection to the Days Drain Corridor is improved, however the physical connection is “dog-legged”. The application discusses this matter⁵ and considers that the 12.0m wide corridor will provide adequate choice in movement options. I am in general agreement with this assessment, and consider that with the proviso that visual connections are unobstructed, a “dog-leg” type of arrangement should not impact greatly on landscape amenity or safety. I will discuss this further within additional CPTED comments below.
- 18.8 The Green Corridor proposal includes surface material treatment and tree planting that will assist with legibility, amenity, screening and mitigation for building bulk mitigation of the adjacent commercial building. Landscape beds appear to be of an adequate width to support tree planting and under-planting. Planting notes⁶ include requirements regarding locating and pruning of trees and shrubs to ensure clear sightlines. These notes are appropriate, and I will further discuss these CPTED related matters further within these comments.
- 18.9 Public Reserve (Lot 54) and Storm-water Reserve (Lot 50). These comments are mostly in relation to the plans labelled Halswell Road Development Greenspace Design – Storm-water Reserve Resource Consent Issue⁷. The Storm-water Reserve is intended to treat storm water, and to provide a large open space for visual amenity and recreation space as well as a physical connection between the development and views across to the Port Hills to the East and Southeast. Native margin plantings of specimen trees and ground covers are provided, except to the north-western edge where exotic and native

⁵ Para 6.10 Addendum to RMA/2017/3185 prepared by Planz Consultants

⁶ Sheet 07 Halswell Road Development, Concept Design - Days Drain prepared by Kamo-Marsh Landscape Architects (10 October 2019 – A3 format – 8 sheets)

⁷ Sheet 12 Halswell Road Development Design package Resource Consent Issue prepared by Kamo-Marsh Landscape Architects (Revision 3 – A3 format – 25 Sheets)

trees will provide a transition between street and reserve planting. This treatment is all generally appropriate.

- 18.10 A flat surface comprising a grass path is to be provided to the top of the bank enclosing the basin, wide enough also for maintenance vehicles. The contours of the earth mounding are shown, but gradients not specified. The grass slopes should be no greater than 1:4-1:5 for ease of mowing and pedestrian comfort.
- 18.11 Circulation around the top of the mound is interrupted by planting at the side of Days Drain. This planting should be modified or removed to ensure continuous circulation for pedestrians and vehicles (if required) around the top of the earth mound.
- 18.12 Sections of fence type 5⁸ is to be provided around the perimeter of the reserve. This fence is to be a 600mm high single rail fence, which I consider an appropriate fencing style. Gaps should be provided to allow for pedestrian permeability. I note that Council Parks Planner Russel Wedge has also made an assessment on this fence style, and considers that bollards (with no railing) would be a more appropriate solution. I consider that either the bollards, or a low post and rail fence would be appropriate, with the proviso that multiple openings within the fence are provided to allow for easy pedestrian movement.
- 18.13 Further pedestrian connectivity should also be provided with a gap in the planting at the eastern end of the turning area/pocket park situated in the south east corner of the reserve.
- 18.14 Further comments in relation to planting for the storm-water reserve area as follows;
- a) *Anemantele lessoniana* (wind grass) should not be planted, as it self-seeds, and becomes a fire hazard as the plant dries over summer months.

⁸ Sheet 07 Halswell Road Development Design package Resource Consent Issue prepared by Kamo-Marsh Landscape Architects (Revision 3 – A3 format – 25 Sheets)

- b) *Baumea articulata* is an Australian native plant and should not be used.
- c) *Cordyline australis* (cabbage tree) should only be used in the centre of plant beds where leaf drop onto lawn area will not affect lawn mowing operations.

Landscape quality and practicality of private spaces

19. These comments are in relation to the following private spaces;

- 19.1 Commercial/Retail precinct carpark area. The amended design provides a landscape strip of between 1.5m to 13.3m wide between the commercial area carpark and Road A. The original proposal provided a green strip of between 1.5m to 4.2m wide. The increased width allows for planting of larger specimen trees. The proposed trees are mostly large growing exotic species with a spreading canopy. These tree species are suitable for large carpark areas as they suit the growth conditions, provide shade and amenity, provide a sense of scale to the large sealed area and commercial buildings behind, and can be pruned to lift the lower limbs to allow for sightlines underneath.
- 19.2 This landscape strip provides a green buffer between the large sealed car park area and the residential lots on the opposite side of Road A. This landscape strip also assists with the gateway entry experience for road users and visitor, and provides some connectivity with pedestrian network.
- 19.3 The proposed planting of the larger exotic trees on the boundary shared the commercial area carpark and Road A are spaced with trees at 25-30m centres. This is an overly generous spacing; as a comparison, mature trees growing on Linwood Avenue in Christchurch are planted 15m apart, which still provides room for full canopy growth, while allowing sightlines though and underneath the canopy.
- 19.4 The proposed trees on the Road A boundary should be planted at a greater density similar to Linwood Avenue, to provide further amenity, particularly to the front of the Commercial/retail precinct. I recommend a maximum spacing of 12-15m. These trees should also be planted in appropriate tree pits and allowed to

grow to their mature height without being reduced or topped. I will make recommendations below regarding these matters.

- 19.5 Amenity would also be enhanced by providing these trees in staggered rows or groupings to provide further texture and depth to the tree planting (assuming this strip is not required for pathway connectivity).
- 19.6 Further tree planting has been provided within the car park area with larger tree species assisting in the legibility of the pedestrian access ways, and smaller trees adding amenity to the car park aisles. The area of car parking to the north west of the commercial block (supermarket building) contains a smaller quantity of trees when compared to the remainder of the car park. A further two pairs (4 x trees) of car park trees should be added to line either side of the pedestrian walkway which runs west to east in this car park area.
- 19.7 These car park trees may be a combination of native and exotic species, and should be capable of growing to 8.0m at maturity. As they are to be grown in sealed areas where compaction of tree roots is likely, they should also be grown in Stratavault tree pits (or an equivalent style of structural cell tree planting system).
- 19.8 Residential lots. These comments are in relation to the Halswell Road Development Design Package⁹ and include the following;
- a) Residential Sites. Lots sizes generally range from <300m² to >600m², and comprise four villages (A-D), each with their own unique material palette. Differing material palettes will assist with legibility and place-finding within each village.
 - b) Modular residential buildings are generally to be placed close to boundaries to optimise usable outdoor area. The boundaries are shared with neighbouring residences and adjacent lanes and bridle-ways, which

⁹ Sheets 14-17 Halswell Road Development Design Package Resource Consent Issue prepared by Kamo-Marsh Landscape Architects (Revision 3 – A3 format – 25 Sheets)

- will assist with activating these areas and providing causal surveillance opportunities.
- c) Landscape planting within the residential lots will be subject to owner preference. In my view, the species choice of any hedging or shrub planting on the boundaries shared with lane-ways or bridle-ways should be subject to some control, particularly in regard to height of hedges and density of vegetation, to ensure sightlines are maintained. I will make further comment on this matter in terms of CPTED and safety further within these comments.
 - d) In response to Council concerns regarding privacy and CPTED, the applicant has volunteered a Residential Certification Management Process Condition (Condition B. 4.1 - 4.2). This condition provides the Council the ability to confirm aspects of the residential design concerning dwelling size and configuration, and fencing height. In particular condition 4.2(vii) *“Any fencing within 4m of a lane, bridleway or road does not exceed 1.2m in height”*. In my view, this condition is appropriate.
 - e) Lane-ways and Bridle-ways. The proposed lane-ways, bridle-ways and pocket parks are to create extensive linkages and connections through the residential areas. Lane-ways are to be 7.0m wide, and act as shared spaces for vehicle and pedestrian use. Bridle-ways are to be 2.0m wide.
 - f) In general, the interconnected network of pedestrian routes will provide an appropriate level of landscape amenity and connectivity for users. The 2.0m wide bridle-ways may result in some conflicts between users, or groups of users, which will need to be self-managed by the users, and will be commented on further within these comments in relation to CPTED matters.
 - g) Surface treatment is to comprise of cobbles and in-situ concrete paving, with cobbled thresholds at entry and exit points. Bridle-ways are to be provided with a loose gravel chip or aggregate, and are to intersect with the laneways and terminate at village courtyards and pocket parks.

- h) The differing surface treatments will in general assist with the legibility and safety of the pathway network.
- i) The proposed fence types are all to be 1.2m high, visually permeable and composed of several different materials¹⁰. Hedges on the lane-ways are proposed to be a maximum 1.6m in height, and on the bridle-ways to be a maximum 1.2m in height. Specimen trees are to be provided, with locations to be considered to reduce shading of the lane. I consider these fence and hedge types and heights to be mostly appropriate.
- j) Lane lighting is privately owned and is intended to be managed by the incorporated society. No lighting is proposed for the bridle-ways. I consider this to mostly be an appropriate CPTED response to bridle-ways, as lighting of the bridle-ways would encourage night-time use. Some illumination of the bridle-ways may occur from individual residences internal and exterior lighting. I make further recommendations in relation to the lighting of bridle-ways within the CPTED matters below.
- k) My view is that the unique material palettes within each village will assist with legibility and way-finding. The interconnected nature of the lanes ways, combined with the strong edges provided by the residential dwellings will assist with activation and surveillance in regards to CPTED matters.
- l) Pocket Parks and Squares (Village Courts). Types and treatments are to vary across the developments, and include active or passive areas, and productive or recreational areas. The village courts are intended to provide village “hubs” and will be shared spaces with traffic entering from laneways. The pocket parks will comprise a small corner of each court. Communal picnic tables and other furniture is to be provided.
- m) Plant palette and material palettes will be unique to each village, assisting with legibility and wayfinding. In general these spaces should provide

¹⁰ Sheet 07 Halswell Road Development Design package Resource Consent Issue prepared by Kamo-Marsh Landscape Architects (Revision 3 – A3 format – 25 Sheets)

useful community hubs. Trees are to be planted consistent with the village theme. Selected trees species are a combination of exotic and native, deciduous and evergreen (conifers) in addition to fruit trees, which will provide some bio-diversity and landscape amenity to the villages. I consider the design response for each community hub to be mostly appropriate.

Landscape Amenity connection to Halswell Road via Days Drain waterway

20. The open/day-lighted Days Drain corridor is to be interrupted at the section which connects Halswell Road to the remainder of the corridor. The landscape treatment at the Halswell Road frontage currently makes no reference to the underlying river corridor. Within the relevant Management Plans and the Outline Development Plan, Days Drain has been assigned to remain as an open waterway alongside future development. One of the major benefits of retaining the open waterway was identified within these documents to be the protection of the sightlines through to the Port Hills, as well as the contribution of an enhanced waterway to the landscape character and natural character qualities of the area.
21. The removal of a water body from any area removes the potential to appreciate the water body for its natural patterns and processes. The removal of the Days Drain as a recreation and water corridor removes the ability to interact with the waterbody, in addition to removing potential sightlines and views. The presence of the underlying waterway which traverses under the retail area at the Halswell Road frontage should be referenced through methods such as building design, paving design, lighting, signage, and planting schemes.

CPTED considerations

22. Bridle-ways. The connectivity provided by the bridle-ways will generally assist with the activation and safety of the network. The bridle-ways comprise a movement predictor, potentially to be utilised by pedestrians and cyclists. The 2.0m wide paths to be provided could be considered narrow. As a comparison, public shared paths (cycles and pedestrians) developed by Council are generally 3.0m to 4.0m in width and often sit within a wider public corridor. In addition, lighting is not currently proposed for the bridle-ways.

23. CPTED concerns are related to width of the bridle-ways, length and configuration of some bridle-ways, heights of hedges on residential boundaries and lighting. The 2.0m width bridle-ways will be enclosed on either side by fences and hedges. There is the potential for some discomfort or conflict for users when passing other groups, cyclists or prams. The longer bridle-ways provide few escape routes, and those bridle-ways configured with changes in alignment (bends or corners) will limit sightlines and visibility.
24. Additionally, while proposed fencing and hedging would be limited to 1.2m in height, (and 50% permeable), there is concern that within their own private lots, residents may increase the height and density of their fences and vegetation to ensure their own privacy.
25. In regards to this matter, the proposed Residential Certification Management Process Condition (Condition B. 4.1-4.2) should be re-worded to include controls over the height of hedging in addition to controls on fencing height. In particular condition 4.2(vii) *“Any fencing within 4m of a lane, bridleway or road does not exceed 1.2m in height”* should be re-worded to include *“hedging and shrubs also not to exceed 1.2m in height”*. In addition, hedges and shrubs should be managed so that they don't grow outwards to constrict the 2.0m width bridle-ways.
26. Safety matters are considered within the application¹¹, having being addressed through the hierarchy of movement networks and connectivity, living areas of windows facing onto streets and lane-ways, materiality providing legibility to village planning, pocket parks and reserves providing informal activity and surveillance, quality materials, ownership of spaces, and some physical security methods including fences and gates.
27. With regards to the lighting of bridle-ways, my view is that it is appropriate to provide no lighting to bridleways, to discourage night-time use. Some illumination of the bridle-ways may occur from individual residences internal and exterior light spill onto the bridle-ways. I consider that it would also be appropriate to provide illumination of some

¹¹ Section 5.2 Residential Assessment, Halswell Garden Village prepared by CMA+U (October 2019 – A3 format – 135 sheets)

- form at corners or bends in the bridle-ways, to improve sightlines and visibility, and to provide a sense of care and safety.
28. I also suggest that another means of addressing CPTED concerns are by the provision of additional gates or openings into private lots as alternative means of escape routes.
29. Days Drain Corridor. The updated proposal for the daylighting of Days Drain will provide for a more open corridor with enhanced sightlines and connectivity. A café on the NW corner of the supermarket building will provide further activation and engagement with the public. Addition proposed adjustments to the building design will also provide enhanced opportunities for surveillance over the corridor.
30. I understand that the corridor is to be lit at night. I consider that there are opportunities to enhance the illumination of the corridor with various forms of lighting, such as illuminated artworks, fairy-lights, and the like, to encourage further engagement from the public and provide further landscape amenity.
31. In addition, the Landscape Design and Ecological Principles¹² provided by the applicant outline matters regarding paving, seating and lighting, as well as the placement and management of planting. I consider all these interventions proposed for the Days Drain corridor are consistent with CPTED guidelines for creating safer spaces, and will ensure the Days Drain corridor fulfils CPTED requirements.
32. Access lots between residential sites (Lot 55). I understand that access lots between residential sites shall be at least 8m wide, and generally the length of the adjoining residential lot (approximately 25-30m). This width is generally adequate to provide a path and some tree planting. The path should be a minimum 3.0m in width to allow for shared use, and trees or other planting should be placed to allow for clear sightlines. All boundary fencing should be a minimum of 50% visually permeable. The CCC Infrastructure Design Standards¹³ (IDS) is a useful guide for the placement of trees

¹² Sheet 08 Halswell Road Development, Concept Design - Days Drain prepared by Kamo-Marsh Landscape Architects (10 October 2019 – A3 format – 8 sheets)

¹³ (Christchurch City Council, 2018)

and other items (furniture) in relation to paths and boundary fences in order to allow for maintenance (lawn mowers) and safety. In instances where these access lots do not intersect with road boundary at a 90 degree angle, extra care should be taken to enhance sightlines and to reduce speed of cyclists before entering the road corridor.

33. Overall conclusion on CPTED matters. Overall I consider that safety concerns with regards to the bridle-ways, Days Drain corridor and access lots can mostly be addressed through activation of spaces, and the management of lighting and vegetation.

The visual amenity towards the timber yard

34. The common boundary shared with the existing industrial timber mill (Halswell Timber) to the north was also considered further within the revised proposal¹⁴. Riparian planting is also now to be provided within the enhanced Days Drain corridor. Larger native shrubs and trees are to be located on the upper banks of the water way, against the shared fence. The proposed tree and shrub selection will be generally suitable for screening the timber yard.

ASSESSMENT OF PROPOSED CONDITIONS

35. Volunteered conditions have been provided with regards to the subdivision consent, and the commercial and residential consents in relation to landscape and CPTED matters. The below section is a summary of recommendations in relation to landscape and CPTED matters.

SUMMARY OF RECOMMENDATIONS

36. In relation to all car park and street tree planting;

36.1 A further 3 trees should be planted at the northern corner of the Halswell Road frontage to enhance the gateway experience. These trees should be selected from the submitted indicative street tree list.

¹⁴ ¹⁴ Para 4 Addendum to Landscape Design Package prepared by Kamo-Marsh Landscape Architects (3 October 2019 – A4 format)

- 36.2 All street trees to be planted along Road A to have a minimum height of 2.5m at time of planting, with a minimum calliper of 35 - 40mm. All other street trees shall have a minimum height of 2.0m at the time of planting, with a minimum calliper of 35 - 40mm.
- 36.3 All trees that are to be planted within 1.5m of a sealed area should be planted in Stratavault tree pits (or equivalent style of structural cell tree planting system). All other trees should be planted in tree pits that are three times the width of the root ball of the tree, with a minimum depth of 1.5 times the depth of the root ball. These tree pits are to be back filled with an 80% unscreened topsoil and 20% soil conditioner mix.
- 36.4 All street trees and other trees to be planted as visual mitigation shall not be topped, and shall be allowed to mature to their full natural height.
- 36.5 *Liquidambar styraciflua* (Sweet Gum) to be replaced with the 'Worpleston' cultivar of this tree as this cultivar display a more up-right form, and is less brittle and subject to damage.
- 36.6 All street trees (once established) are to be pruned to lift the tree canopy (lower-most limbs) to a minimum 2.5m from the ground to allow for sightlines underneath as a CPTED consideration. Trees with a columnar growth form will not require this type of pruning.
- 36.7 All planting should also be managed to comply with rules relating to visibility splays at vehicle entrances.
37. Days Drain;
- 37.1 *Phormium tenax* to be used sparingly and to be located away from water way channels and footpaths (minimum 2.0m offset),
- 37.2 *Coprosma virescens*, *Myrsine divaricata* and any other divaricating species can cause issues with trapping debris and blocking flow and are to be located away from water way channels (minimum 2.0m offset),

- 37.3 Ferns species should be grown in discrete clumps, with a minimum offset of 1.5m from other larger riparian plants. They should also be grown in shady positions.
 - 37.4 Plants with arching strap-like leaves such as *Astelia fragrans* and *Phormium* species should be planted with a minimum offset of 1.5m from the edge of footpaths to avoid trip hazards.
 - 37.5 All trees and other planting should be placed to allow for clear sightlines.
 - 37.6 Explore and implement opportunities to enhance the illumination of the corridor with various forms of lighting, such as illuminated artworks, fairy-lights, and the like, to encourage further engagement from the public and to provide further landscape amenity and perception of safety.
38. Green-link Corridor;
- 38.1 All planting and all structures at the “dog-leg” of the green-link corridor to be located and managed in such a way as to ensure there are clear views and sightlines for the length of the corridor
39. Storm-water Reserve;
- 39.1 The grass batter slopes surrounding the storm-water basin should have a gradient of no greater than 1:4 - 1:5 for ease of mowing and pedestrian comfort.
 - 39.2 Pedestrian connections at the end of the turning area/pocket park into the south east corner of the reserve should be provided by ensuring the placement of planting allows for the pedestrian path connection.
 - 39.3 Either a low post and rail fence or bollards to be provided to the perimeter of the reserve to exclude unauthorised vehicles. Multiple openings within the fence are to be provided to allow for easy pedestrian movement.
 - 39.4 Storm-water reserve planting;

- a) *Anemanthele lessoniana* (wind grass) should not be planted, as it self-seeds, and becomes a fire hazard as the plant dries over summer months.
- b) *Baumea articulata* is an Australian native plant and should not be used.
- c) *Cordyline australis* (cabbage tree) should only be used in the centre of plant beds where leaf drop onto lawn area will not affect lawn mowing operations.
- d) Planting on the batter slopes surrounding the storm water basin should be located so as to ensure continuous circulation for pedestrians and vehicles (if required) around the top of the earth mound.

40. Road A and Commercial Precinct Carpark Area;

40.1 Street trees on the Road A boundary to the front of the Commercial/retail precinct are to be planted at maximum spacing of 12-15m. These trees may also be planted in staggered rows or groupings to provide further texture and depth to the tree planting.

40.2 Tree planting provided within the car park area to include a further two pairs (4 x trees) of car park trees to be located either side of the pedestrian walkway which runs west to east in the car park area to the north west of the commercial block (supermarket building).

40.3 These car park trees may be a combination of native and exotic species, and should be capable of growing to 8.0m at maturity.

41. Access lots between residential sites (including Lot 55);

41.1 All paths should be a minimum 3.0m in width to allow for shared use.

41.2 All trees and other planting should be well placed so as to allow for clear sightlines through and underneath the vegetation.

41.3 All boundary fencing should be a minimum of 50% visually permeable.

- 41.4 Where access lots do not intersect with the road boundary at a 90 degree angle, resulting in compromised sightlines, extra care should be taken to enhance sightlines and to reduce speed of cyclists before entering the road corridor.
42. Bridle-ways;
- 42.1 No formal lighting of bridle-ways to be provided, to discourage night-time use. However, some illumination of the bridle-ways may occur from individual residences internal and exterior light spill onto the bridle-ways. It would also be appropriate to provide illumination of some form at corners or bends in the bridle-ways, to improve sightlines and visibility, and to provide a sense of care and safety.
- 42.2 Additional gates or openings into private lots to be provided as an alternative means of escape routes.
- 42.3 Residential Certification Management Process Condition (Condition B. 4.1-4.2) should be re-worded, in particular condition 4.2(vii) *“Any fencing within 4m of a lane, bridleway or road does not exceed 1.2m in height”* should be re-worded to include *“hedging and shrubs also not to exceed 1.2m in height”*.
- 42.4 Hedges and shrubs should be managed along bridle-ways so that they don't grow outwards to constrict the 2.0m width bridle-ways.
43. Days Drain link to Halswell Road (Lot 12);
- 43.1 The presence of the underlying waterway which traverses under the retail area at the Halswell Road frontage should be referenced within the design and construction of the area through methods such as building design, paving design, lighting, signage, and planting schemes.

CONCLUSION

44. Land use and subdivision consents are sought to establish a residential and commercial development. The landscape design masterplan outlines material and plant palettes, paving and fencing treatment of roads and pedestrian network, the storm-water treatment areas and drainage corridors, in addition to the landscape treatment of public reserve and public spaces.

45. The above comments outline an assessment of the landscape matters and CPTED matters associated with these consents, and provides a series of recommendations to better manage or mitigate these effects. If the development proceeds in accordance with these recommendations, I consider that the proposal will have acceptable landscape and visual amenity effects.

46. My overall conclusion is that that CPTED and safety concerns with regards to the bridle-ways, Days Drain corridor and access lots can mostly be addressed through the activation of spaces and the management of lighting and vegetation.

Jennifer Geraldine Dray

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REFERENCES

Christchurch City Council. (2018). Infrastructure Design Standards. Christchurch: CCC.

APPENDIX 9

Evidence of Mr Timothy James Heath

RMA 2017 3185
Woolworths New Zealand Limited
201 Halswell Road

**Land Use And Subdivision Consent Applications To Establish A
Residential And Commercial Mixed-Use Development.**

REPORT OF TIMOTHY JAMES HEATH
ON RETAIL ECONOMIC MATTERS

Dated 13 NOVEMBER 2019

TABLE OF CONTENTS

INTRODUCTION 1

ECONOMIC REVIEW 1

ME ECONOMIC EFFECTS ADDENDUM 3

KEY ECONOMIC ISSUES 4

COMMERCIAL ACTIVITY IN RESIDENTIAL ZONE 6

SUBMISSIONS 7

INTEGRATION OF NORTH HALSWELL CENTRE 8

KEY DISTRICT PLAN POLICY CONSIDERATIONS - ECONOMIC 9

CONCLUSION 10

APPENDIX 1 12

INTRODUCTION

- 1.1 My full name is name is Timothy James Heath. I am a Property Consultant, Retail Analyst and Urban Demographer for Property Economics Limited, based in Auckland. I hold the following degrees from the University of Auckland:
 - Bachelor of Arts 1991 (Geography); and
 - Bachelor of Planning 1993.
2. I have 22 years' experience as a Property Consultant, Retail Analyst and Urban Demographer. I advise district and regional councils throughout New Zealand in relation to retail, industrial and business land use issues as well as strategic forward planning. I also provide consultancy services to a number of private sector clients in respect of a wide range of property issues, including retail economic impact assessments, commercial and industrial market assessments, residential and business NPS UDC capacity modelling, and forecasting market growth and land requirements across all property sectors.
3. Whilst it is not directly relevant for the preparation of this report, I am aware that the Council has approved direct referral of this application to the Environment Court. I confirm that I have read and agreed to comply with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note (dated December 2014). I confirm that the issues addressed in this report are within my area of expertise. I have not knowingly omitted to consider facts or information that might alter or detract from the opinions expressed.

ECONOMIC REVIEW

4. The purpose of this report is to firstly provide information and advice to Christchurch City Council (**CCC**) for the consent application in relation to retail economic related effects and potential impacts on the commercial centre network of the city. Secondly, CCC has requested I consider the Woolworths NZ application in conjunction with the Commercial Core Zone (**CCZ**) and Outline Development Plan (**ODP**) for North Halswell and provide any (economic) comments on how the potential integration of the proposal with the ODP would work from an economic performance, integration and centre functionality perspective.

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5. I have read the following documents when preparing this report:
 - 5.1 The latest consent application by Woolworths NZ Limited (**the applicant**)
 - 5.2 The supporting Economic Effects Assessment Addendum by Market Economics (**ME**)
 - 5.3 The original consent application by the applicant and supporting economic assessment by ME
 - 5.4 Relevant components of the Christchurch District Plan and North Halswell Key Activity Centre (**KAC**) ODP
 6. My involvement to date has been to review the economic impact assessment from the applicant's retail expert (ME) and assess the retail implications of the proposed commercial development at 201 Halswell Road, Christchurch by Woolworths NZ Limited (**the proposal**).
 7. I am very familiar with the area to which the resource consent application relates and the wider Christchurch market having undertaken retail economic assessments across the city for private and public sector organisations for nearly two decades. One of my more recent projects was to provide the economic analysis and justification for the new Strategic Directions (Chapter 3) and Commercial Chapter (Chapter 15) within the Operative District Plan, and gave evidence of my economic methodology, interpretation and opinions through the Independent Hearing Panel processes.
 8. As part of my retail economic analysis for the Christchurch Replacement District Plan process, I undertook a specific assessment of the Halswell market and 30-year growth potential which was relied upon to justify the extent of the North Halswell KAC CCZ. This formed the basis of the 17.3ha scale of zoned commercial land area of the North Halswell KAC I recommended as reflected in the ODP in the District Plan¹. This analysis has given me a deep understanding of the area's growth, market dynamics and retail requirements over the next 30 years.

¹ I note paragraph 37 of the ME Addendum states the land area of the North Halswell CCZ in the District Plan is 16.57ha and this figure has been confirmed by Council. This is lightly under my 17.3ha recommendation at the Replacement District Plan Independent Hearing Panel hearings.

-
9. I was initially instructed by CCC in early 2018 to undertake a peer review of the economic assessment supporting the original proposal by Woolworths NZ. The main economic issues I raised at the time were around justification for the extent of carparking beyond the CCZ given the carparking was more than required in the District Plan, the requirement to extend the commercial component of the development beyond the North Halswell CCZ, the requirement for 20 retail stores on top of the supermarket and the associated concern that the surplus carparking outside the CCZ (relative to District Plan requirements) could be used in the future to enable further development of retail activity within the CCZ on the Woolworths site without the need to provide additional carparking.
 10. These concerns were largely addressed by Council indicating to me that any potential additional retail stores sought by the applicant relying on the surplus carparking is not considered an issue from a planning perspective as the proposal is restricted to the layout in the application, and any additional retail activity proposed for the site would require a new resource consent and the opportunity for Council to reevaluate the entire development, i.e. there are suitable planning mechanisms in place to ensure the merits (or otherwise) of any additional retail activity is appropriately assessed.
 11. As a result of ongoing discussions between the applicant and Council over a wide range of concerns with the original application, the applicant altered their proposal into the current application. The current application has a reduced retail Gross Floor Area (GFA) and fewer retail stores than the original application. Overall, the net reduction in retail GFA equates to just under 1,300sqm between the original and current proposals.

ME ECONOMIC EFFECTS ADDENDUM

12. The first component of the ME addendum discusses the changes in the current proposal (from the original application). I have no concerns with that part of the analysis from an economic perspective, albeit I note the current proposal includes a gym and cinema complex and these activities offset some of the reduced retail GFA. I have no issues with these activities being included in the current application from an economic perspective as these activities would make a positive contribution to the wider composition of the North Halswell KAC, and would add vibrancy and amenity to the centre, particularly in the evenings.

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13. The second part of the ME addendum discusses the Request for Information (RFI) from the original application. The relevancy of these requests has diminished somewhat now the application has changed, however as identified earlier the key economic impact concerns raised in the original RFI have been addressed by the new plan or in my view are not considered likely to result in material adverse consequences on centres.
 14. There is some commentary within this component of the ME addendum I do not agree with such as ME suggesting the economic benefits are unique to this consent² or how there is no certainty on how efficiently the balance of the CCZ will be developed³, but while I hold an alternative view to ME these are not material to my conclusions in relation to economic matters.
 15. In the conclusions section of the ME addendum, paragraph 53(b) suggests the updated proposal is designed to integrate with the wider CCZ. I find this conclusion perplexing given paragraph 3(g) states *“there are no future opportunity costs on the urban form outcomes sought for the main street provided the design and layout ensure opportunities for connectivity / integration with future stages of development (not addressed in this report).”* As such despite the addendum report not addressing connectivity and integration, it concludes the updated proposal integrates with the wider CCZ. There appears no economic justification for reaching this conclusion in the ME addendum. I will discuss this issue in more detail later in this report.

KEY ECONOMIC ISSUES

16. The key economic consideration relates to the potential effects of the non-CCZ retail GFA to cause adverse retail distribution effects on the centres network, including the North Halswell CCZ. The scale of the retail GFA in the applicant’s current proposal outside the North Halswell CCZ is very small in retail terms estimated at circa 710sqm⁴.
17. There is a retail cap or maximum floor space that can be developed in the North Halswell CCZ in the District Plan. This is 25,000sqm GFA. To factor into this

² *Economic Effects Addendum, ME, paragraph 44, pages 13/14.*

³ *Economic Effects Addendum, ME, paragraph 39, pages 13*

⁴ *Email from John Lonink, CCC Senior Urban Designer, 16 October 2019*

consideration is the recently submitted Halswell Commons Stage 1 proposal which falls entirely within the North Halswell KAC CCZ. However, it is my understanding the both the Halswell Commons Stage 1 proposal and the Woolworths NZ proposal combined fall below the 25,000sqm GFA cap in the District Plan for the North Halswell KAC, and as such the 25,000sqm GFA threshold is not breached and both proposals can be accommodated within this limit.

18. Technically, the circa 710sqm retail GFA, being outside the CCZ, is additional to the 25,000sqm CCZ retail potential within zone. However, given the Halswell Commons and Woolworths NZ proposals fall below 25,000sqm GFA threshold, in my view this circa 710sqm is unlikely to push the North Halswell KAC over 25,000sqm in the foreseeable future (i.e. not likely in the life of this District Plan, as the localised residential population base around the centre is unlikely to be developed to a level where it attracts further retail activity within that timeframe).
19. Overall, from a retail economic perspective the vast majority of the Woolworths NZ proposal is within the CCZ, the retail GFA cap of 25,000sqm would not be breached (factoring in Halswell Commons proposal), no existing commercial centres including the Central City would have their role and function undermined as a result of the proposal, and nor would the ongoing development potential of the North Halswell KAC be compromised to any (economic) consequential degree.
20. In terms of the Woolworths NZ proposal, the development seeks to establish a modern full department supermarket on the edge of the North Halswell CCZ. In terms of commercial and operational practicalities I consider this an appropriate location for such a frequently utilised / visited store type. Edge of centre anchor stores attract shoppers to a centre that promotes cross shopping opportunities and advance centre familiarity and travel patterns to a centre but does not bring all the subsequent vehicle traffic through the '*heart*' of the centre, nor all the frequent truck movements delivering product to the store.
21. Supermarkets immersed in major suburban shopping centres are finding it increasingly difficult to operate and function without material compromise, particularly as an example due to other centre shoppers occupying supermarket carparks for extended periods of time.
22. These anchor stores are important to the economic performance and success of suburban centres as long as vehicle connectivity and integration with the balance of

the centre is strong. This enables the centre as a whole to operate and function in an efficient and more productive manner.

COMMERCIAL ACTIVITY IN RESIDENTIAL ZONE

23. CCC has also asked my (economic) view on the implications of the proposal on Policy 14.2.6.4(a) which relates to the establishment of commercial activities (among others) within the residential zone.
24. Policy 16.2.6.4(a) states *“Restrict the establishment of other non-residential activities, especially those of a commercial or industrial nature, unless the activity has a strategic or operational need to locate within a residential zone, and the effects of such activities on the character and amenity of residential zones are insignificant”*.
25. In this instance the encroachment of commercial activity into the residential zone appears to be driven by the shape and extent of the CCZ component on the Woolworths NZ site and its relatively narrow width for a large footprint supermarket.
26. At face value it is questionable whether you could provide (economic) justification for encroachment into the residential zone for retail activity when there is circa 17ha of vacant CCZ land available based on strategic and operational requirements as identified in Policy 16.2.6.4.
27. It would seem the requirement to encroach into the residential zone in this instance is so a modern full department supermarket can be accommodated within the Woolworths NZ site and the operational and functional requirements for that store type in that location. This would appear different to a strategic requirement to allow retail activity in the residential zone based on Policy 16.2.6.4(a).
28. However, from an economic perspective, there are no material economic costs of the encroachment of commercial activity into the residential zone in this instance as a result of (as I understand) the applicant delivering higher residential density than required under the District Plan on the balance of the Woolworths NZ site. Also, there is sufficient residential capacity around the balance of the city to meet future residential requirements over the next 30 years, and the applicant cannot provide any additional retail GFA on their site without a further resource consent.

SUBMISSIONS

29. The submissions against the applicant's proposal were made in response to the original application and not the current proposal. However, given both proposals are similar in nature and scale (albeit retail GFA is lower by 1,300sqm), many of the concerns raised are likely to still be relevant for the current application, and therefore are considered to still have merit.
30. The submissions opposing the application can generally be grouped into the proposed Woolworths NZ development having adverse effects on centres, and in particular the Central City, and the commercial elements of the proposal go beyond the identified North Halswell CCZ.
31. The North Halswell CCZ zone is in place in the District Plan with a 25,000sqm GFA cap, and the effects of this limit on the Central City and other centres has already been assessed and accepted as part of the Replacement District Plan process, i.e. the economic effects associated with this level of retail provision are already in-built in the District Plan and form part of the existing environment from an economic impact perspective. As such given the application is itself well below this threshold and technically the 25,000sqm GFA is only potentially breached by circa 710sqm GFA, in my opinion this is not a level (i.e. 25,000sqm + 710sqm) that would result in significant adverse retail distribution effects on the Central City and other commercial centres in the network in the context of the economic effects under the RMA.
32. The Spreydon Lodge Limited submission, while largely identifying urban design matters, raises a couple of other issues that have flow on economic implications. These primarily revolve around connectivity with the main street identified in the ODP and their (Spreydon Lodge Ltd) view that this connection is impaired, creates a weak 'visual map' through the site, limits physical and visual integration, creates a stand alone centre of economic activity and undermines the orderly development of the KAC. My (economic) position on this submission is outlined in the following section.

INTEGRATION OF NORTH HALSWELL CENTRE

33. This further aspect CCC requested I consider is the economic implications of the integration of the North Halswell KAC ODP in the District Plan (refer Appendix 1 – top figure) with the Woolworths NZ proposal. The lower figure in Appendix 1 is the ODP super imposed with the Woolworths NZ proposal to show how the proposal would integrate with the balance of the ODP.
34. Integration of different components of a centre is a very important concept to help with the functionality, connectivity and economic performance of a centre. A centre should be legible from both a pedestrian and vehicular perspective as both are vital to a suburban centres' economic performance and success.
35. The North Halswell KAC represents a greenfield site that is a blank canvas which enables the centre as a whole to be designed and developed in a way that ensures a high level of integration, connectivity and flow through and around the centre for pedestrians and vehicles. North Halswell KAC represents an opportunity to create a modern suburban centre that operates and functions as a coherent single entity to the benefit of all and delivers a community asset that can maximise the centre's economic and social success well into the future.
36. Integration is very important in respect of the Main Street as identified in the ODP given the proposal's additional carparking proposed (above District Plan requirements) is only useful for the centre as a whole if the application and the ODP are integrated, otherwise the extra parking on the applicant's site would have limited, if any, benefit to the Halswell KAC as a whole. One of the key reasons behind the justification for carparking going beyond the CCZ was for not only supermarket operational and functional requirements, but also to provide additional carparking provision for the entire centre. That reasoning could be undermined if vehicle integration between the proposal and the ODP is compromised to a material degree.
37. A key concern I have from an economic perspective when analysing the proposal in conjunction with the ODP on Appendix 1's lower figure is the Main Street almost runs into the back of the proposed Countdown supermarket in the Woolworths NZ proposal. This limits the (economic) potential for the Main Street of the KAC and reduces its effectiveness and desirability from a retail operator viewpoint. I cannot think of another successful centre in NZ that has its main street cut short by the back of a supermarket preventing the Main Street from traversing through the centre. This would limit the

Main Street's ability to attract quality retailers and therefore effect the economic performance of the Main Street. This flows onto lowering the Main Street's vitality, vibrancy and amenity afforded the community, relative to what could have been achieved with a more integrated Main Street.

38. The North Halswell ODP does not make it clear if the green corridor identified in the District Plan's ODP is or should be a road, a pedestrian link, or both. If not a road link, then the Woolworths NZ proposal appears not to be inconsistent with the ODP in relation to this matter, and my concern would fall on the ODP itself rather than the Woolworths NZ proposal.
39. Either way, thinking of the North Halswell KAC as a whole and fully developed, in my view it would be important to have a vehicle and pedestrian connection on the green corridor shown in the ODP for the KAC to improve the integration and connectivity of all elements of the centre once fully developed. Only having a smaller pedestrian link running along the back of a supermarket and across Day's Drain would result in an inferior economic outcome for the centre as a whole and for the community in my professional opinion.

KEY DISTRICT PLAN POLICY CONSIDERATIONS - ECONOMIC

40. Firstly, being a zoned centre and KAC with a GFA cap, the higher order objectives in the District Plan (3.3.7, 15.2.1 and 15.2.2) are consistent with the North Halswell KAC's development as proposed from an economic impact perspective. The Strategic Directions focus retail development in a consolidated manner and within the existing centre network, especially KACs, while Chapter 15 seeks to manage commercial activity through a centres-based approach. On balance, both these chapter's objectives appear consistent with the Woolworths NZ application.
41. Policy 15.2.2.2 relates specifically to the North Halswell KAC. It includes:
- a. Require development within the North Halswell KAC to:
 - i. Be planned and coordinated in accordance with an ODP;
 - ii. Provide for a high quality, safe commercial centre, which is easily accessible by a range of transport modes and is well connected to the surrounding area; (*underline emphasis added*)

-
- b. Require development within the North Halswell KAC to:
- ii. Provide high quality public open spaces, a strong main street with a concentration of finer grain retailing, and strong linkages between anchor stores; *(underline emphasis added)*
42. The above policies indicate a clear desire for strong linkages and connectivity both within the North Halswell KAC and the surrounding area. This would improve the economic performance of centre stores and improve the social amenity and economic wellbeing of the community using the centre if achieved. My concern is the integration and connectivity between the proposal and the Main Street in the ODP do not achieve the integration / connectivity potential to the detriment of the centre's economic performance as a whole.

CONCLUSION

43. From an economic impact perspective in the context of the District Plan and RMA, I consider that the circa 710sqm GFA additional activity above the 25,000sqm GFA cap is not material as it would not undermine the role and function (or recovery) of any commercial centre in the network hierarchy, and does not undermine the development potential of the balance of the North Halswell KAC or the Central City's recovery. The reality is the proposed development is for primarily convenience retail activities that are more efficiently provided at the localised level the North Halswell KAC is primarily designed to service.
44. The primary economic issue as I view it is the potential negative economic effects of having a disjunct between the proposal and the Main Street in the ODP in that they do not appear to connect to each other in a coherent manner. This leads to a compromised integration between the two. Furthermore, these negative economic effects would be enduring as the balance of the North Halswell KAC is further developed over time, i.e. the issue cannot be rectified in the development of future stages.
45. However, given the ODP in the District Plan, it is not clear whether the Woolworths NZ proposal has to provide a road connection through its site to join the proposed Main Street in the ODP to satisfy the ODP provisions. Either way, from an economic perspective an integrated road connection of the Main Street through the North Halswell KAC is in my opinion an important outcome.

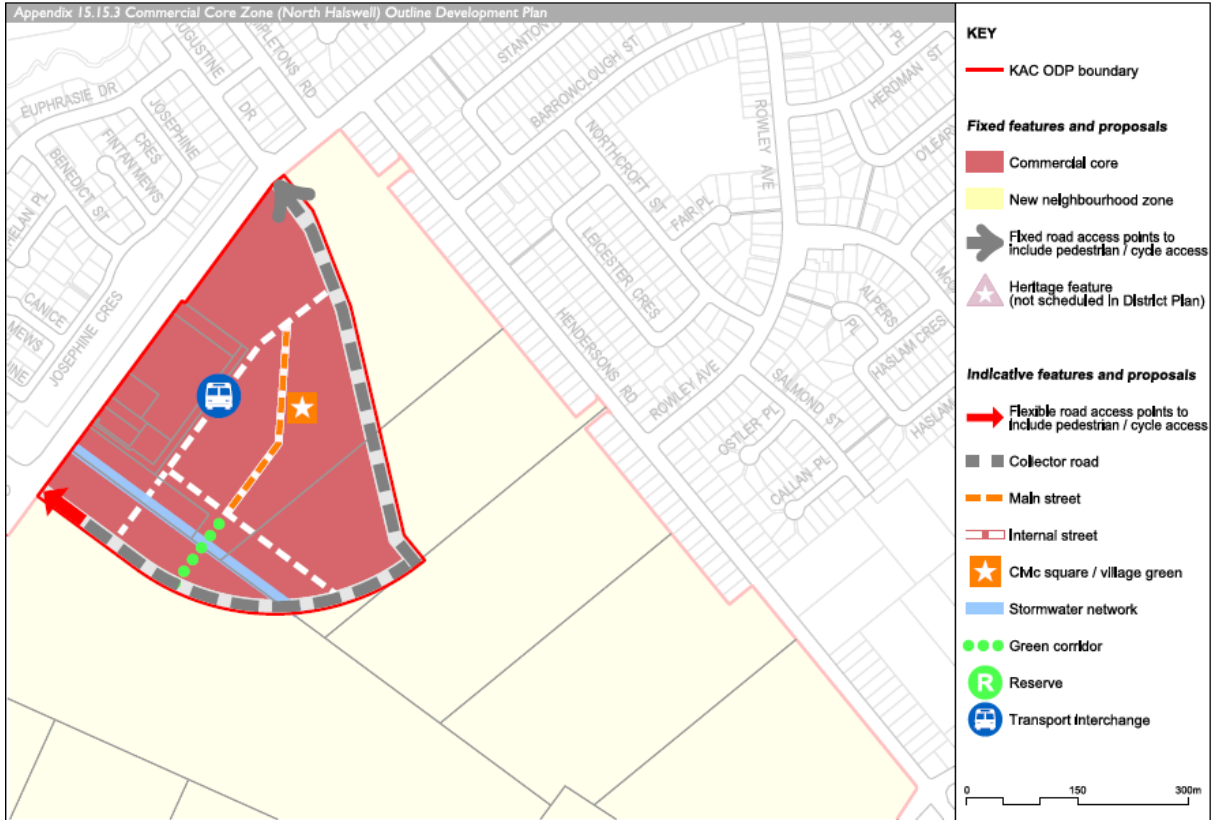
Tim Heath

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APPENDIX 1

North Halswell KAC ODP & PROPOSALS SUPER IMPOSED ON ODP



APPENDIX 10

Evidence of Mr John Lonink

RMA 2017 3185

Woolworths New Zealand Limited

201 Halswell Road

**Land use and subdivision consent applications to establish a
residential and commercial mixed use development.**

REPORT OF John Lonink

ON URBAN DESIGN

Dated 20/11/ 2019

TABLE OF CONTENTS

INTRODUCTION	1
SUMMARY OF REPORT	1
THE PURPOSE OF THIS REPORT.....	3
THE APPLICATION	4
INTERACTION WITH APPLICANT AND CHANGES MADE TO THE APPLICATION	4
THE APPLICATION CONTEXT	4
NEIGHBOURING SUBDIVISIONS	7
PLANNING AND POLICY FRAMEWORK.....	8
ASSESSMENT OF THE PATTERN OF DEVELOPMENT FOR SUBDIVISION.....	10
LAND-USE CONSENT.....	14
COMMERCIAL / MIXED USE	14
RESIDENTIAL	28
CONCLUSION OF BOTH LANDUSE AND SUBDIVISION CONSENT.....	32

INTRODUCTION

1. My full name is John Lonink. I am a member of the Urban Regeneration, Urban Design and Heritage Unit at the Christchurch City Council (the **Council**).
2. I hold a Masters of Science in Architecture, Building and Planning from Eindhoven University, and a Bachelor of Science in Engineering from Hogeschool Brabant, Tilburg. I am a registered architect in the Netherlands and a member of the New Zealand Urban Design Forum.
3. I am employed as a Senior Urban Design Advisor with the Council. I have worked in the role for the past 6 years. In this role I provide urban design advice from strategic policy to detailed design advice, particularly in relation to transport, district planning, capital delivery programmes, and resource consents including:
 - Strategic vision and public realm design for Cathedral Square.
 - Billboard application for Entx cinema building in the central city including mediation.
 - Preparing evidence for the independent Hearings Panel for the Christchurch District Plan Review process
4. I have ten years' experience in the field of urban design, within both the public and private sector. In the private sector I've worked on a large variety of urban design projects from town centre masterplans, structure visions, spatial plans and revitalisation projects. Prior to that I worked as an architectural technician/ graduate architect.
5. Whilst it is not directly relevant for the preparation of this report, I am aware that the Council has approved direct referral of this application to the Environment Court. I confirm that I have read and agreed to comply with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note (dated December 2014). I confirm that the issues addressed in this report are within my area of expertise. I have not knowingly omitted to consider facts or information that might alter or detract from the opinions expressed.

SUMMARY OF REPORT

6. This report deals with the urban design aspects of the land use and subdivision consent application RMA/2017/3185, to establish a residential and commercial mixed use development.
7. I consider that, with the exception of the Green Corridor, the layout of the Proposal generally provides the anticipated level of connectivity in respect to the street and block pattern, for both the residential and commercial components of the ODP. I consider the green corridor needs to be secured for public access through the subdivision consent application.

8. In regards to the residential component of the land use consent, I consider the proposal will result in a high quality residential environment that will provide a good level of amenity for future residents. With the proposed conditions to the land use consent volunteered by the applicant and a minor addition relating to maintenance of planting around the bridle paths, a good level of connectivity and an overall safe environment will be provided.
9. For the commercial component of the land use consent, I consider the proposal will be consistent with the North Halswell ODP and the matters of discretion for the Commercial ODP in regard to the enhancement of Days Drain, the proposed mix of scale of commercial development and the provision of higher density living through apartments along the Road B boundary of the commercial area.
10. I do not consider the commercial land use component of the proposal will be consistent with the North Halswell ODP and matters of discretion for the Commercial ODP and Commercial Core zone in regards to achieving an integrated commercial entity that is easy to navigate, with strong visual and physical connections with the wider neighbourhood.
11. In addition, the proposal does not align the Green Corridor with the intended location within the Commercial ODP, nor with the intended location of the Main Street of the proposed development by the neighbour's lodged consent application along their northern boundary. Currently the Green Corridor terminates at the Halswell Timber boundary. In my view Days Drain can't sufficiently compensate for this misalignment of the Main Street.
12. From an urban design perspective I consider there is a dominance of car parking for almost the whole length of the commercial part of the development along the collector Road A, and in particular when entering the site from Halswell Road.
13. Overall I consider that the residential components of the Proposal will meet the intent of the New Neighbourhood Zone. However in my opinion the commercial components of the Proposal will not result in a well-integrated Key Activity Centre, with a focus on the 'Main Street' as anticipated by the Commercial ODP and the provisions of the Christchurch District Plan. As such I consider that the current design and conditions for the proposed subdivision consent and commercial land use consent are inappropriate.

THE PURPOSE OF THIS REPORT

14. This report is to provide an assessment of the Proposal in respect to urban design matters, against the provisions of the Christchurch District Plan.
15. The application is for both a land use and a subdivision consent to establish a residential and commercial mixed use development within the area of the North Halswell Outline Development Plan (8.10.4).
16. I have structured my report into the following areas for urban design assessment as two decisions will need to be made, one for the overall subdivision and one for the land use consent:
 - Area context, pattern of development and site layout
 - Subdivision
 - Land use
17. For convenience the land use consent part of this report has been separated into the residential component and the commercial component.



Figure 1: Commercial - residential split

18. I have read the following documents when preparing this report:
 - 18.1 The consent application[, further information and amendments];
 - 18.2 RMA/2017/3185 All Submissions.pdf
 - 18.3 Report of Timothy James Heath on retail economic matters dated 1 November 2019

THE APPLICATION

19. Interaction with applicant and changes made to the application
20. No pre-application discussion was undertaken.
21. The application was lodged in December 2017. Throughout the consent process changes have been made to the application. The application was publicly notified in November 2018. Since then the applicant has made further changes to the application as is summarized below:
 - The retail block alongside the western boundary has been widened towards Halswell Road to accommodate an entrance to the building from Halswell Road.
 - A 'glass house' has been added to the retail block to connect this block towards the neighbouring property along the northern boundary in the future.
 - A cinema has been added at the first floor alongside Road F.
 - Days Drain has been day lighted and enhanced up to Road F where it previously was intended to be piped between Halswell Road and Road B.
 - Commercial activity west of the supermarket has been removed to provide space for car parking and the above daylighting and enhancement of Days Drain.
 - Increased landscaping has been provided along the 'Green Corridor'.
 - The supermarket has been moved further south to accommodate space for Days Drain.
 - Retail tenancy has been added on the northwest corner of the supermarket facing out onto Days Drain
 - Office space associated with the supermarket has been re-located to the northern edge at the first floor of the supermarket looking out onto Days Drain.
 - The Gym and outdoor play area of the childcare centre now provide an 'active edge' along Days Drain
 - Access to car park from Road B has been removed and replaced by 8 additional apartment units of which 4 will look out onto Days Drain.
 - Increase in the amount of landscaping along Road A

The Application Context

22. The site sits east of Halswell Road, a state highway, and directly to the north is 193 Halswell Road, known as Halswell Timber. To the north east, the subject site abuts an area referred to as Halswell Commons. This includes commercial and residentially zoned land, with residential development underway, and for which a commercial resource consent application has been lodged with the Council.
23. The site is located within a new urban growth area denoted within the Appendix 8.10.4 as the North Halswell Outline Development Plan (ODP) of the Christchurch District Plan. A small part of the site is zoned Commercial Core Zone (CC zone) and the larger part is zoned Residential New Neighbourhood Zone (RNN zone).

North Halswell Outline Development Plan (ODP) Appendix 8.10.4

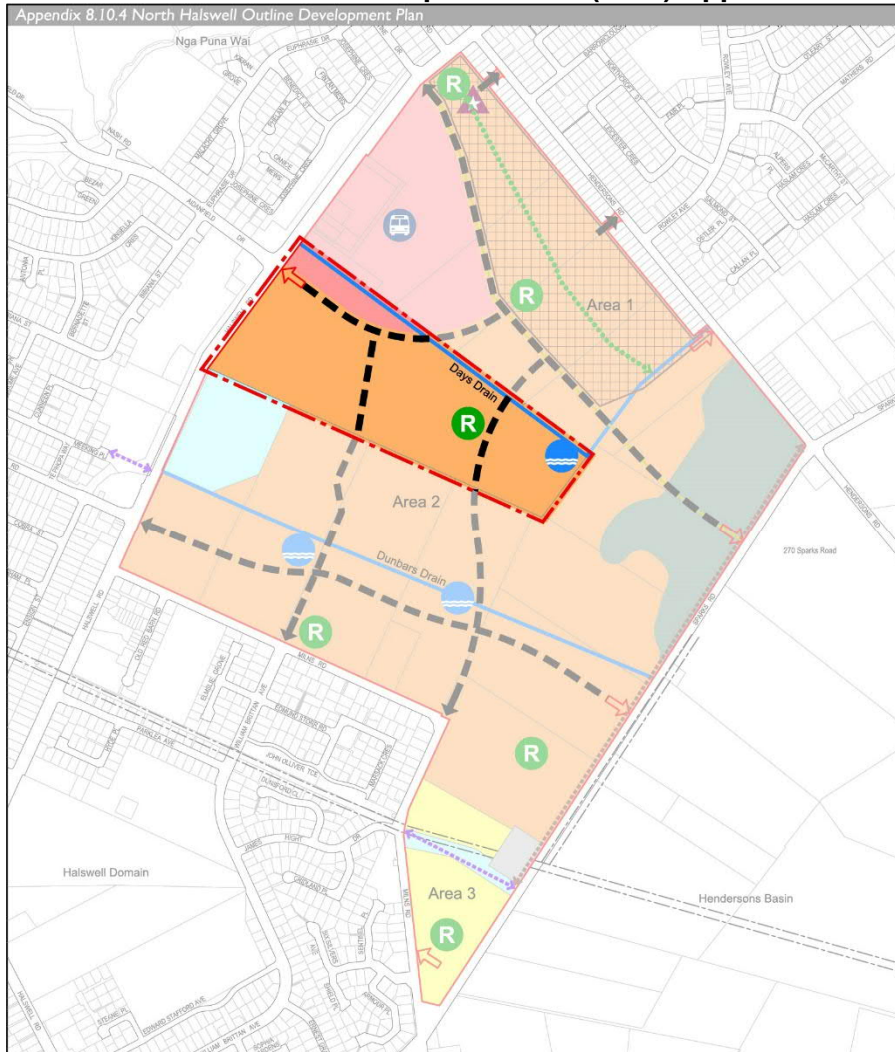


Figure 2: Site shown on North Halswell ODP

24. The ODP that applies to the residential zone is illustrated above in orange and is hereon referred to as the North Halswell ODP.
25. The ODP shows two collector roads orientated in the north south direction that connect with the other subdivisions and link up with William Britten Ave and Milns Road outside of the ODP area.
26. As part of the North Halswell ODP (8.10.4 Christchurch District Plan) there is a requirement to enhance the existing waterways to provide recreational and amenity corridors aligned to provide views towards Henderson's Basin and of the Port Hills. This includes Days Drain, which is located along the northern boundary with Halswell Timber and Halswell Commons.
27. The part of the site within the CC zone is subject to a separate ODP which is set out below. This forms part of a Key Activity Centre (KAC) that sits within the northern part of the North Halswell ODP.

Commercial Core Zone (North Halswell) Outline Development Plan

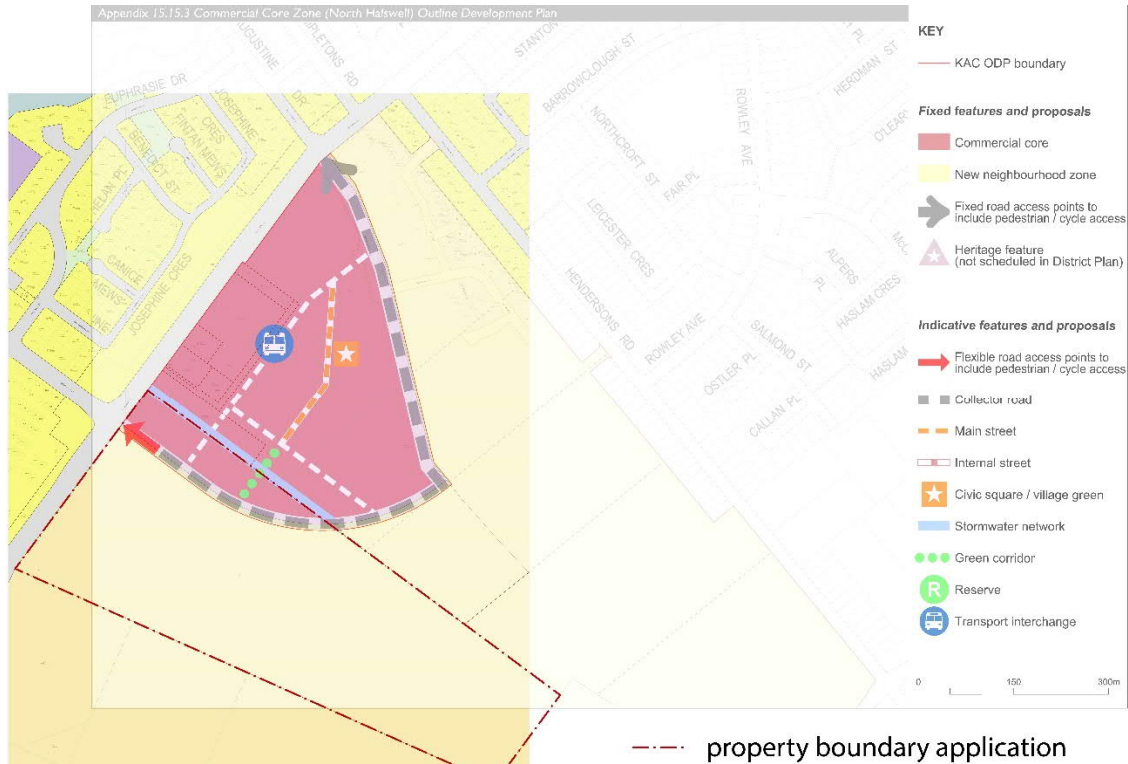


Figure 3: Site location on Commercial ODP

28. Figure 3 above shows the portion of the application site located within Commercial Core Zone that is within the Applicant's control. With most of the commercially zoned land being in the ownership of others.

29. Key elements on the Commercial ODP are: the collector road that connects with Aidenfield Drive; the Main Street that through the Green Corridor visually and physically links up with the Collector Road and the Civic Square, located along the main street; and an internal street network that includes a bus route through the KAC.

Neighbouring subdivisions

30. To the north of the site a Neighbourhood Plan¹ provides the development intent for Halswell Commons. To the south-east is an approved subdivision of Milns Park Limited². Figure 4 below provides an overlay of each of the plans to illustrate the relationship between proposed and consented developments.



Figure 4: Proposed subdivision on Commercial ODP including consented neighbouring subdivisions

¹ Which I understand has been submitted under the requirements of the landuse and subdivision consent application for those sites.

² Under subdivision consent RMA/2016/3384

Planning and policy framework

31. I refer to the evidence of Mr Lowe for a full policy appraisal, however in respect to the context of this proposal, I have drawn from the policy framework to provide guidance as to the design intent for the KAC, with the following objectives and policies being the most pertinent from an urban design perspective:

- **8.2.2 Objective** – Design and amenity and the meadowlands Exemplar
- **8.2.2.2 Policy** - Design and amenity / Tohungatanga
- **8.2.2.3 Policy** - Allotments
- **8.2.2.4 Policy** - Identity
- **8.2.2.5 Policy** - Sustainable design
- **8.2.2.6 Policy** - Integration and connectivity
- **8.2.2.7 Policy** - Open space
- **8.2.2.10 Policy** - Comprehensive Residential Development
- **8.2.2.11 Policy** - Access to waterways / Mana whakahaere
- **14.2.5 Objective** - Residential New Neighbourhood Zone
- **14.2.5.4 Policy** - Neighbourhood quality and design
- **14.2.5.6 Policy** - Integration and connectivity
- **15.2.2.2 Policy** - Comprehensive approach to development of the North Halswell and Belfast/ Northwood Key Activity Centres
- **15.2.4 Objective** - Urban form, scale and design outcomes
- **15.2.4.1 Policy** - Scale and form of development
- **15.2.4.2 Policy** - Design of new development

32. The selection of objectives and policies above are to my knowledge the most relevant for this application in relation to design and connectivity. When looking at these objectives and policies in more detail the following matters in my view would be key when considering the design aspects of a development of a new neighbourhood, established around this Key Activity Centre:

- Create or extend neighbourhoods which respond to their context and have a distinct identity and sense of place (8.2.2.4 a)
- Enable resource efficiency, use of renewable energy, and community safety and development, by (8.2.2.5 a)
- Residential developments need to contribute to a sense of place that is coherent, safe with a high level of amenity providing a diversity of housing. (15.2.5.4)
- Residential developments need to be effectively integrated with other developments and existing areas through public open space, movement and infrastructure networks. (14.2.5.6 a and 8.2.2.6a)
- developments in the North Halswell Key Activity centre need to provide for a high quality, safe commercial centre which is easily accessible by a range of transport modes and is well connected to the surrounding area (15.2.2.2 a ii)

- Development in the North Halswell KAC need to provide high quality public open spaces, a strong main street with a concentration of finer grain retailing, and strong linkages between key anchor stores. (15.2.2.2 b ii)
- In general commercial development needs to contribute to an urban environment that is visually attractive, safe, easy to orientate, conveniently accessible, and responds positively to local character and context (15.2.4 a ii)
- Development needs to recognise the functional and operational requirements of activities and the existing built form (15.2.4 a iii)
- In general, development needs to be of significant scale in the core of district centres and of lesser scale and form on the fringe of these centres. (15.2.4.1 a).
- While enabling large floor plates a KAC needs to maintain a high level of amenity in the centre and manage adverse effects on the surrounding environment. (15.2.4.1 b iv and v)
- Overall, pedestrian activity and amenity is encouraged in appropriate locations. (15.2.4.2 a i)
- Developments need to have principal street facing facades of visual interest that contribute to the character and coherence of a centre (15.2.4.2 a ii)
- Facilitation of movement for people of all mobilities and ages through well-defined, convenient and safe routes that are easy to orientate through strong visual and physical connections (15.2.4.2 a iii and iv)
- Achieving a visually attractive setting when viewed from the street and other public spaces (15.2.4.2 a viii)

ASSESSMENT OF THE PATTERN OF DEVELOPMENT FOR SUBDIVISION

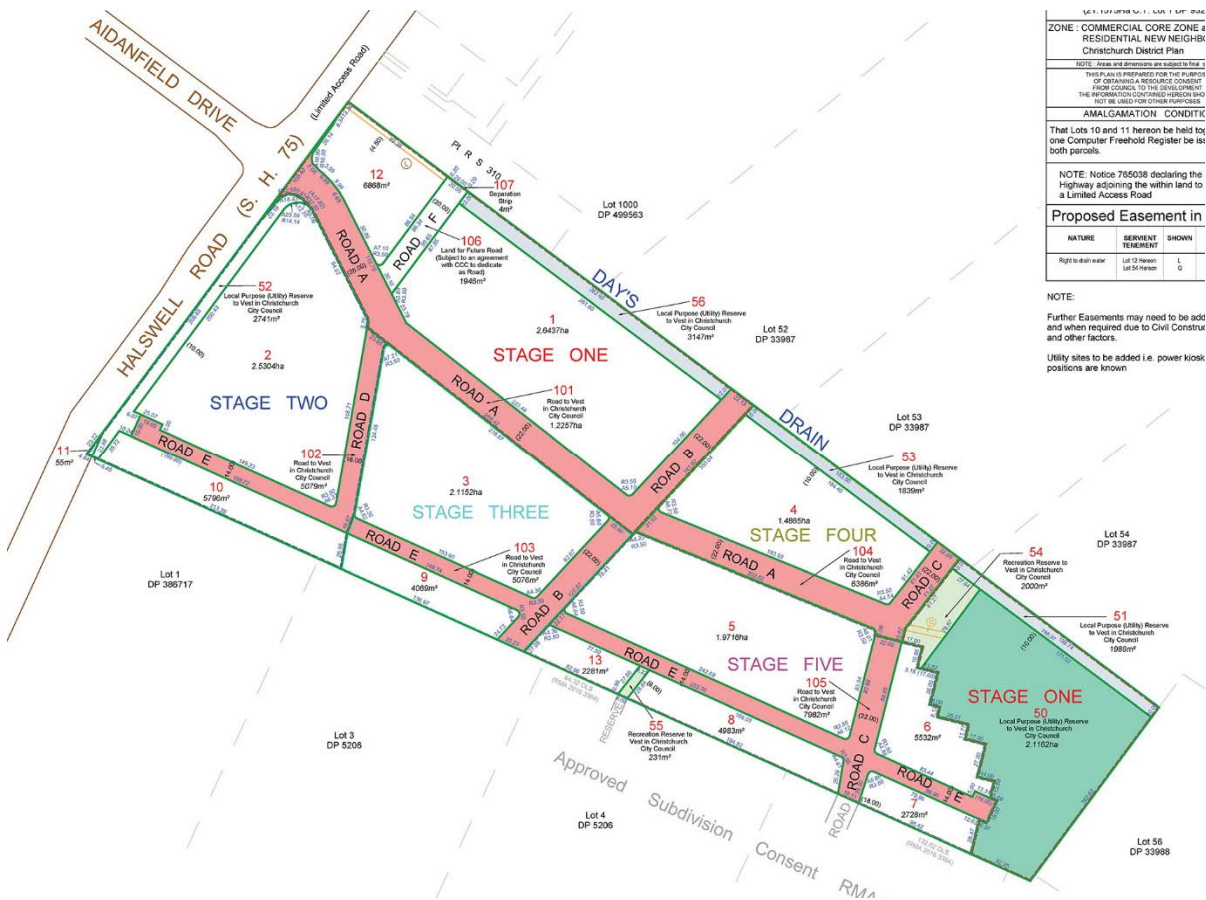


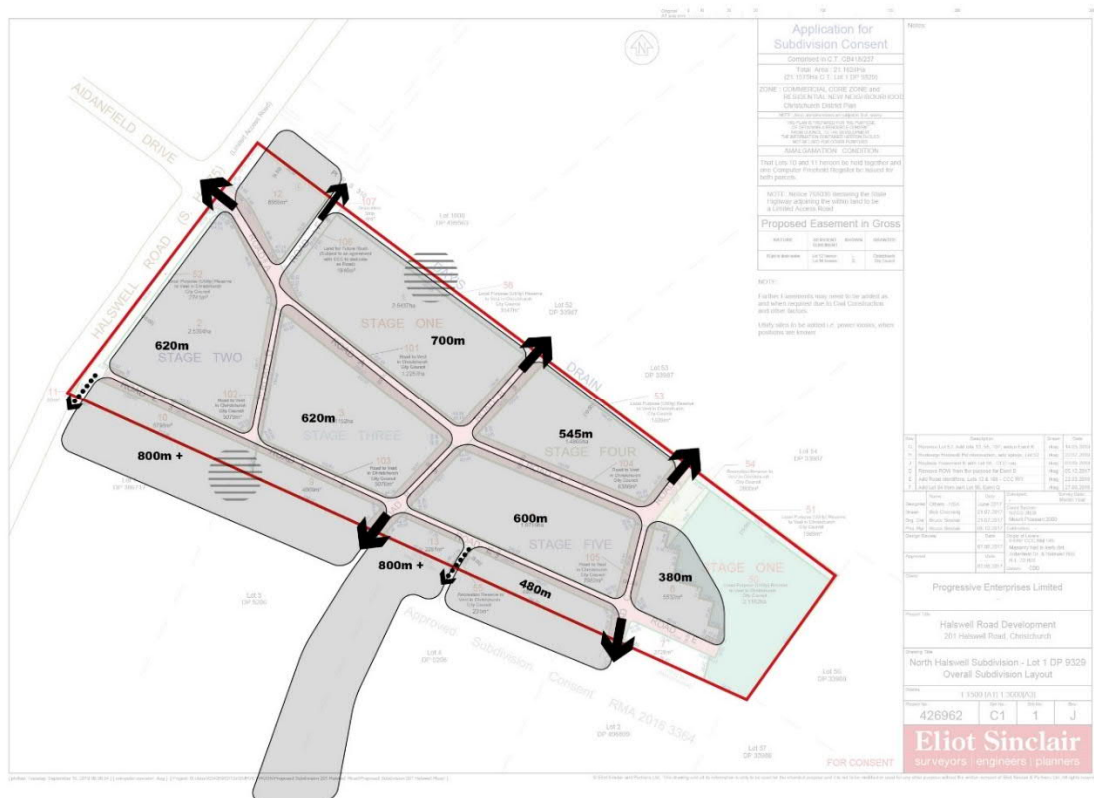
Figure 5: Proposed subdivision

33. I have considered the subdivision design of this application in terms of the matters of discretion in 8.7.3, 8.7.4 and 8.8.9 as required for this application.
34. I consider that the Proposal is largely consistent with the District Plan's anticipated level of physical and visual connectivity in respect to the street and block pattern for both the residential and commercial components of the ODP, with some exceptions which I have outlined below.
35. When looking at the residential component of the subdivision proposal I'm of the view that all the collector and local roads connect up well with the surrounding subdivision developments. The block pattern is well connected and highly permeable, creating the potential for very walkable residential neighbourhoods, with an average block perimeter below 800 metres.
36. These development lots are further broken up with privately owned laneways and bridle paths that are publicly accessible. The only block that is not sufficiently broken up is the

- block comprised of Lot 9 and 10. To resolve this a pedestrian/ cycle connection to the neighbouring lots at the end of Road D similar to the solution used for Lot 8 could be adopted.
37. However, in terms of the commercial component of the subdivision Proposal there are two key issues in my view:
 - a. The misalignment of the north and south subdivision consents for the Key Activity Centre in regard to the Main Street and the Green Corridor.
 - b. Lack of a land tenure arrangement in place for the Green Corridor i.e. a public road to be vested in Council that provides for appropriate public use and connection.
 38. Figure 4 illustrates the level of connection both within and to adjacent sites.
 39. The subdivision Proposal provides almost all of the required road network connections through the provision of collector roads and local roads under the ODP. Figure 4 in my opinion, illustrates that the proposed roads connect up well with the road networks to neighbouring consented residential subdivisions to the north and south.
 40. Noting that Days Drain is now proposed as part of the subdivision pattern and is to be enhanced for pedestrian access, all the proposed subdivision blocks now comply with additional standard for the Residential new Neighbourhood Zone of a 800m walkable block (8.6.11 i). As such a relatively permeable subdivision pattern can be achieved.
 41. The subdivision pattern of Stage 1 shows only Road F as a permanent road reserve link, creating a connection between the north and south commercial areas. The application proposes that Days Drain is enhanced and opened as reserve land up to road F although not all the way up to Halswell Road.
 42. The applicant proposes a change in alignment to the east-west orientated collector road south of the KAC, positioning the collector road further south to allow for more space for commercial development north of it. This allows an encroachment of commercial activity into the residential zone.
 43. However, I consider that the key connection to the Main Street, the Green corridor, has not been adequately addressed as part of the overall subdivision pattern. The Green Corridor provides the connection to the Main Street of the northern area of the ODP. The Main Street is a key design and commercial component anticipated for the KAC

which I already identified in regard to the policy framework (15.2.2.2 b ii) and which is clearly pointed out in the matters of discretion for the North Halswell ODP (15.13.4.3.2 a i). I note that Mr Heath in his evidence in paragraph 39, has stated that a strong physical connection is imperative to ensure the economic success of the Main Street commercial offering. Furthermore, I consider that a direct physical and visual connection provides both the access and legibility required to promote an appropriate level of activity.

44. I do not consider the Green Corridor shown in the ODP to be part of the subdivision pattern as no land tenure arrangements are proposed to secure it through the subdivision consent application (such as a legal road, reserve or easement).



45. *Figure 6: Walkable blocks shown over subdivision plan*

46. Within the commercial ODP, the green corridor aligns with the main street of the KAC. When observing figure 7 these do not align and the green link terminates further to the west at the Timber Yard boundary. Although the exact location of the open space link and Main Street can vary in alignment this will likely create connectivity issues within the near future. The complexity in this alignment is the property boundary of the timber yard

of Halswell Timber. If the Timber Yard is to remain operational for the foreseeable future the direct physical and visual connection with any future location of Main Street will not be achieved.

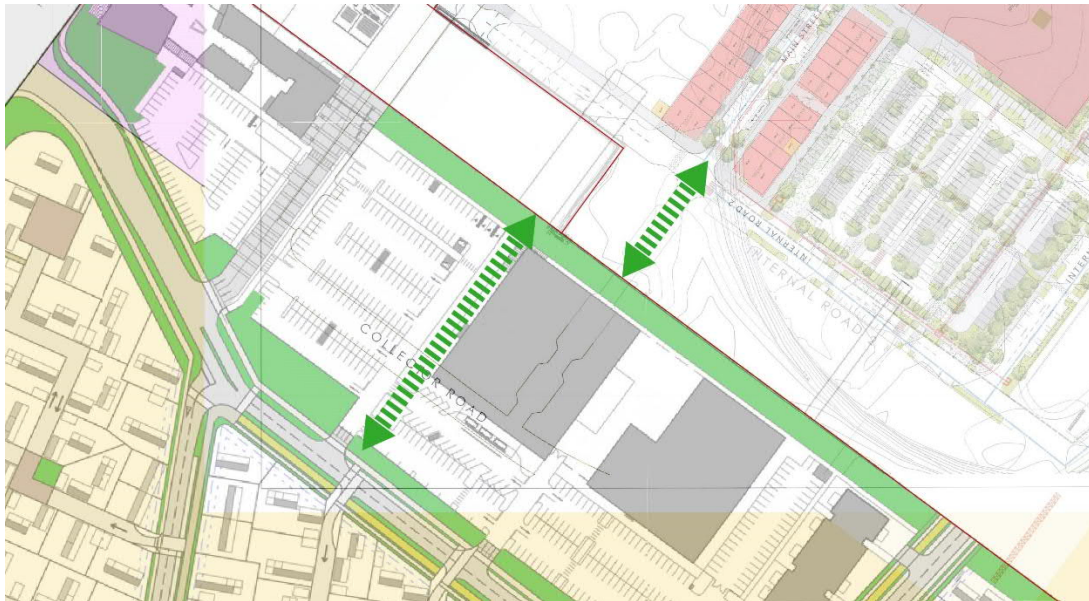


Figure 7: Misalignment of Green Corridor and Main Street between the two proposals

47. On the 16th of September 2019 a land use consent was lodged for the northern part of the KAC (RMA/2019/2125). Although no resource consent has been granted for this application at the time of writing, it is important to note that the Main Street-Green Corridor link between the northern and southern proposals do not align and are only linked through the landscaped area of Days Drain. The location of the Main Street and Green Corridor in that application is very similar to what is shown in the Commercial ODP.
48. In order for the KAC to be properly integrated into the wider area subdivision pattern and to ensure sufficient focus on and access to the Main Street, I consider a direct open space connection should be provided through the Green Corridor, preferably as road reserve for the reasons noted above.

LAND-USE CONSENT

49. The land-use component of this development is broken up into two parts (see figure 1). The first section is focussed on the mixed use commercial area of the development (lots 1 and 12) and second section focusses on the residential area (Lots 2 to 10 and 13).

Commercial / Mixed use

50. The proposed commercial development is primarily located within the North Halswell Outline Development Plan (8.10.4) and sits between Halswell Road and two proposed Collector Roads. This ODP sets the scene for how the Key Activity Centre (KAC) sits within the wider area and what other elements are of key consideration.
51. In 8.10.4.C Development form and design the ODP describes the KAC as a mixed use village centred focused around a main street.
52. Besides the land use zoning the three main elements shown on the applicant's plan are the enhancement of Days Drain (which provides multiple benefits including as a recreation corridor and provision of views through the KAC to the Port Hills), the establishment of two collector roads and the location of a reserve within the residential area.
53. Although the District Plan envisages the KAC to be a mixed use zone that includes residential use, a clear distinction is made between commercial on one side of the collector road and residential on the others side. In 8.10.4.C.a.ix it is stated that residential use is to border the KAC and on this border the residential use needs to be of a design and scale that is compatible with retail development on one side and residential development on the other, effectively providing a transition zone.
54. For the KAC the commercial ODP provides further design detail and requirements for commercial developments. (15.15.3) This ODP shows a more detailed plan of the different elements in the KAC that are required including:
- Two collector roads that form the edge of the KAC.
 - The proposed network of internal streets and links including the Main Street, the Green Corridor and a Civic Square / village green.
 - The location of Days Drain.
 - A transport interchange.

Summary of Key Urban Design Matters

55. Having regard to the reports of the applicant's architect John Sofo, the applicant's urban designer Richard Knott, and the economic report of Timothy Heath, I consider the key urban design considerations for this development in my view relate to: the alignment, character and function of the 'Main Street'- 'Green Corridor' link; the level of interaction of the Supermarket with the surrounding environment; the large area of land allocated to car parking along the collector road (Road A); the interface between the residential development to the south and the proposed commercial development; and the enhancement of Days Drain and the overall interaction between the commercial development and Days Drain.

The Green Corridor

56. In the ODP for the KAC shown in Appendix 15.15.3 *Commercial Core Zone (North Halswell) Outline Development Plan* it is unclear what the intent for the 'Green Corridor' is. It is clear that it links the 'Main Street' with the collector road (Road A in the subdivision plan) although it is not clearly defined as being part of the local road network. Analysing the ODP plan further, I consider the Green Corridor is not intended to be the 'Main Street' either as it has not been indicated as such.
57. Mr Knott considers the Green Corridor to be a key linkage that provides a landscaped and green-space break between urban blocks, with a primary use of increasing connectivity throughout the KAC as associated with the movement of pedestrians / cyclists (para 2.18 of his Urban Design Report – Addendum, North Halswell).
58. Mr Heath in his evidence (para 38-39) acknowledges the ambiguity in the purpose of the Green Corridor, but is of the view that for the North Halswell KAC as a whole and when fully developed, a vehicle and pedestrian connection on the green corridor would be important to provide the necessary level of integration to support the economic offering.
59. When considering the ODP's intent for enhancement of Days Drain and the use of the terminology of the Green Corridor in the North Halswell ODP as a recreational open space corridor, I prefer the view that the Green Corridor intended by the ODP is an extension of the Main Street with a different character to that of Days Drain.
60. Given the importance of the physical connection of the Green Corridor that all experts seem to agree on, I consider it to be of importance that its access, location and size can

accommodate a variety of users (pedestrians, cyclists, private vehicle), and is available for this use in perpetuity, providing visual and physical links to the Main Street.

61. However, the complexity of the land use of the supermarket and the location of the Green Corridor on its doorstep as currently proposed, make it highly unlikely that vehicle access between the Main Street and the collector road can be conveniently accommodated. Having vehicle access through the centre in front of the supermarket in my view would sever the majority of car parking from the supermarket.
62. Besides the physical link to the Main Street I also consider that in order for a good visual connection to occur more retail should be focussed on the Green Corridor to introduce the commercial character and density of the centre from the edge of the centre preferably starting from the collector Road A.
63. I understand from Mr Knott's report that he considers there is no need for a direct visual and physical link between the Main Street and the Green Corridor, which differs from my view in this matter. Mr Knott considers that dog legs and curves provide a series of revelations along the route, adding interest and refers for this to the concept of 'Serial Vision' (in footnote 4 of his addendum report). I'm of the view that a 'dog leg'/ disjoint of the size that would currently occur is too substantial to effectively achieve the design approach he states. As I understand Serial Vision, it is more about smaller variations that incentivise continuous exploration of a street rather than T-junctions.

Level of interaction of the supermarket with the surrounding public spaces.

64. The supermarket has only one main active frontage, its entrance which logically faces the car parking area west of the building. An additional retail component has been added to the north-west corner of the building to create interaction with Days Drain, which is a positive change in my view. The offices for the supermarket have been located to the north façade to increase the level of interaction with Days Drain. Although beneficial, these offices are located at the first floor so the level of interaction and activation will be limited.
65. The south façade of the supermarket does not provide any form of interaction (although there is some level of modulation) resulting in an inactive frontage.

Car parking along collector Road A

66. The development is located at the fringe of the KAC an appropriate location according to Mr Heath (para 20) and as such any car parking associated with the development sits at the fringe of the KAC. Although this could attract shoppers to the centre and allow for easy pedestrian access to the Main Street, which would be a good urban design outcome, I do not consider the proposed design achieves this in the appropriate way. The expanse of car parking located between the supermarket and Road A does not contribute to a high quality pedestrian environment and the spread out nature of the development fully fringed by car parking results, in my view, in a dominance of car parking.

Interface between residential and commercial

67. The ODP states the need for a higher density of living towards the KAC that is of a design and scale that is compatible with the retail development on one side and the residential development on the other. The apartment building resolves this quite well along the eastern boundary of the development, however this is not achieved for the continuous length of the Road A.

Enhancement of and interaction with Days Drain

68. The changes to the proposal have resulted in the enhancement of a larger area of Days Drain and only 120 meters now proposed to be piped which is positive and it provides the opportunity for a valuable east west recreational link.
69. The piped area of Days Drain sits along the service area of the commercial development along Halswell Road. Mr Knott notes in para 2.6 and 2.7 of his addendum report, that Days Drain should not be enhanced along the boundary of the Halswell Timber facility and accepts the drain being piped for the 120 meters. I am of a different view and believe the enhancement of the piped last section would provide equal benefits to the recreational corridor if also day lighted and enhanced along the timber yard boundary.
70. However I understand the Dr Burrell assesses the ecological benefits of the current proposal as being acceptable and I consider the recreational corridor could also go along side the southern boundary of commercial building. This would create a more direct link with the Halswell Road intersection.
71. However, I would advise a wider footpath and more landscaping to be provided along this boundary to properly link with Days Drain.

72. I consider that the proposed improvements to the supermarket, day care centre, gym and apartment block provide a level of surveillance over Days Drain and will be of great benefit to ensure this area is overlooked to a degree. However more than half of the full length of the Drain is not activated or overlooked which is of concern from a safety perspective and from an activation perspective, as a strong connection is needed to the Main Street.
73. I consider that an increased level of activity and passive surveillance should be provided adjacent to Days Drain to achieve a safe, comfortable environment for pedestrians.

15.13.1 Urban Design – Matters of Assessment

Assessment according to 15.13.1

74. **15.13.1 Urban Design** gives direction to how the commercial development sits with the urban design framework for the Commercial Zones. I have undertaken a detailed assessment against the relevant matters in respect to the proposal:
75. The extent to which the development:
- i. Recognises and reinforces the centre's role and character, including any natural, heritage or cultural assets.*
76. As noted earlier the intent of the KAC is to provide a high intensity area of commercial activity, with a mixed-use village centred focused around a main street.
77. I understand from the economics report of Mr Heath (paragraph 43) that the amount of retail floor space currently proposed is not inconsistent with the ODP.
78. However, the car parking area extends well beyond the zoning resulting in a spread out nature of development rather than focused towards the Green Corridor and on to the Main Street.
79. The site layout in relation to the retail component is also spread out along the northern boundary. As such it doesn't create a compact focussed area that will incentivise people to walk and explore. Rather, in my view both the environment and distances creates a commercial area focussed on driving in and moving around by car.

80. Days Drain is proposed to be enhanced up to Road F providing potential for a good level of amenity for the centre and can be designed in such a way that it becomes an enhancing urban element for the centre.
81. Overall I consider that the spread out nature of the proposed development and the lack of focus on the Green Corridor and adjoining Main Street will not reinforce a high intensity commercial centre.
- ii. *Promotes active engagement with, and contributes to the vibrancy and attractiveness of, any adjacent streets, lanes or public spaces.*
82. The development shows a finer grain commercial, mall-like development close to Halswell Road. This building includes substantial glazing, a variety of shopfronts facing south to the car park area with many entry points creating an acceptable level of activity.
83. The supermarket sits one block over from the finer grain commercial building, on the other side of road F. It has an active frontage, including glazing, facing west towards the main car park and for a small part of the façade, towards Day Drain. The supermarket however does not have an active frontage towards the collector road A, reducing the potential to achieve an appropriate level of vibrancy and activity within this vicinity.
84. The supermarket frontage towards Days Drain has a small scale commercial unit on the north-west corner and the offices of the supermarket at the first floor looking out onto the enhanced area Days Drain on the north-east corner. The medical centre, day-care facility and the gym all have active frontages with high levels of glazing facing out towards the public spaces they front, creating a sense of activity

My main concern in regard to this assessment matter is the level of activity facing Days Drain and the inactive southern elevation of the supermarket.

iii. Takes account of nearby buildings in respect of the exterior design, architectural form, scale and detailing of the building

85. As a new ODP area, there is minimal established architectural style to draw from. However the design of the commercial development reflects some of the design elements of the residential character of the adjacent future residential development.

iv. Provides a human scale and minimises building bulk while having regard to the functional requirements of the activity

86. Overall the development shows buildings that provide a good sense of human scale and that provide a lot of visual interest. The only building that does not do this as well is the supermarket. Although the bulk of the building has been slightly broken up by a level of modulation it does not do this sufficiently. Although understandably the requirements of a supermarket would result in blank facades these in general can be covered or 'sleeved' by smaller scale retail.

v. Is designed to incorporate Crime Prevention Through Environmental Design (CPTED) principles, including encouraging surveillance, effective lighting, management of public areas and boundary demarcation;

87. Overall the commercial development does not have any significant CPTED issues along the southern side of the development. However the large area of car parking between collector road A and the development designed and maintained in such a way that lines of sight are maintained between the residential area to the south and the retail area and that the parking area is well lit. This to ensure sufficient surveillance of the area at night time. Along Days Drain there is some active frontage provided however just over half of the length of the area will not be directly overlooked.

88. For a more detailed assessment of the CPTED concerns of the development I refer to the report of Jennifer Geraldine Dray on landscape and visual assessment

vi. Incorporates landscaping or other means to provide for increased amenity, shade, and weather protection;

89. There is a level of amenity provided through a substantial amount of landscaping around the car parking area. However the car parking itself, in particular directly in front (west

of) the supermarket does not provide much landscaping to break up the expanse of car parking.

The applicant now proposes to enhance Days Drain which will provide good opportunity to create an area with a good level of landscape amenity.

90. No weather protection is proposed in the form of a continuous veranda. However overall I consider the level of amenity provided within the application is adequate.

vii. Provides safe, legible, and efficient access for all transport users;

91. Although the current design does provide access for pedestrians and is providing space for public transport, the main focus is on the car. The design of the main movement paths are shown as shared space, however their primary function as car park circulation. The lack of building edges at the street reduces the legibility of the roads. I do not consider this matter is adequately addressed in the proposed development.

92. To further evaluate how the commercial development fits in with this specific area below an assessment of the relevant Area specific rules.

93. **15.13.4.3.1 General:**

The extent to which the development:

- i. supports the role of the North Halswell Key Activity Centre as a high intensity area of commercial activity and community activity; and*
 - ii. enables people to orientate themselves and find their way with strong visual and physical connections with the surrounding neighbourhoods and wider area.*
94. As mentioned above the proposed amount and type of commercial is not inconsistent with the area of land zoned as commercial however the amount of car parking provided and the configuration of retail is not located and directed at the main street. The proposal is spread out along the northern boundary with a large area of car park between the buildings and the collector road (Road A). The internal streets are not very well articulated with built form but seem part of the car parking area that is located between

the collector road and the commercial area. The green corridor, which for a well-integrated KAC should visually and physically connect the Main Street with the residential area to the south, is not very well articulated and is moved away from its intended location shown in the ODP. Although it is to be expected that not everything located on the ODP map would land exactly where it is shown, it is vital that connections like these are aligned with the intentions and plans of the developer of the northern part of the KAC. A consent has been lodged for this northern part and although that does align with the commercial ODP it does not line up with the Green Corridor in this application.

95. As mentioned above this is where there is a significant issue with the design. The current landholding shows that the Halswell Timber Yard owns a large area of land along Days Drain, almost beyond the small retail tenancy within the supermarket layout facing Days Drain. Realistically this will result in the loss of opportunity for a direct link with the main street for the foreseeable future.

As mentioned before I am not of the same view as Mr Knott and I do not consider that Days Drain could adequately provide a connection to bridge the misalignment.

96. **15.13.4.3.2 Commercial layout**

The extent to which development:

- i. ensures a critical mass of activity is centred upon the open air Main Street including an appropriate balance of large format retail activity and concentration of finer grain commercial activities;*
- ii. supports a retail mix (large format and finer grain retailing) which ensures the centre meets its role as a District Centre and Key Activity Centre and meets the needs of the catchment population; and*
- iii. functions operationally and visually as an integrated commercial entity.*

97. Because the proposal has expanded the area for commercial uses, and relocated the collector road, so too should the main street /green corridor be extended as a connection and to facilitate anchor tenants and a finer grain of retail.

98. As mentioned above although the development has the right kind of mix of large format and finer grain retailing it is not focussed towards the main street. And although visually there is a consistent design language proposed, as a result of the spread out nature of the development and the misalignment with the intended location on the Commercial

ODP, this application will not likely achieve the aim for the wider KAC to operate as an integrated commercial entity.

99. My recommendation is to focus the retail activities along the green corridor towards the Main Street.

100. 15.13.3.3 Design and Amenity

a. *The extent to which development:*

i. *provides a strong visual relationship and high quality urban interface with State Highway 75;*

101. The development fronts State Highway 75 and activates this edge. However it does not define the corner and the entrance to the area very well. And although all the proposed commercial development has active frontages it is of a suburban nature. Generally all the commercial buildings are only 1 storey high and as such do not form a strong urban interface.

ii. *provides primary active ground floor frontages on all sites intended for commercial and community focussed activity where they face an accessible public open space;*

102. As mentioned before the development shows buildings with active frontages on all sides providing for surveillance and activity.

103. The green corridor has been fronted by the supermarket however is also largely occupied and fronted by car park, and not active frontages. Days Drain is to be enhanced and some consideration has been given to activate the frontages towards this new open space. However more than half of the length of Days Drain will be fronted by blank walls or car parking.

iii. *enables a continuous frontage of retailing on the main street in order to ensure a high intensity of commercial activity;*

104. This part of the KAC does not show the requirement for a main street however it does show a green corridor in alignment with the Main Street. The proposal is intending to move the Green Corridor out of alignment with the location of the Main Street and as such removes the visual link with the Main Street and Civic Square. As no agreement to move the main street has been agreed with the neighbouring owner this solution creates a disconnect between the northern and southern part of the KAC. The development does not emphasize the Green Corridor and through that the Main Street very well. In order to create a strong connection with the Main Street the Green Corridor will need to become a clearly define space that can direct people and likely even vehicles. However the complexity of the land use of the supermarket and the location of the Green Corridor on its doorstep will make it highly unlikely that vehicle access between the main street and the collector road can be conveniently accommodated. Having vehicle access through the centre in front of the supermarket in my view would sever the majority of car parking from the supermarket. A considerable amount of retail would need to be focused along or in close proximity to the Green Corridor, to ensure a visual extension of the Main Street

iv. orientates buildings, streets, and open space to take advantage of solar access and views, and to mitigate other climatic effects such as wind;

105. The opportunity to use Days Drain as a high amenity space that retail can focus on has been used for the new retail unit in the north west corner of the supermarket, the gym, the Day Care centre and the apartment block that has been extended. However the design of the largest part of the development does not appear to take these matters strongly into consideration. Most of the retail is orientated to the south and the car park and hardly any kind of continuous weather protection is proposed. The design emphasises a car orientated retail approach.

v. provides high quality public open space, including streets, squares and lanes;

106. The development is showing three connections through the KAC besides the collector road and the enhanced Days Drain. However these three connections are not defined by built form and are mainly accentuated by distinct paving. Besides Days Drain, most of these connection are part of the car parking area.

107. The underlying subdivision does not ensure public access or legal road reserve for all but road F.

- vi. *provides for a multi-value approach to stormwater management that supports objectives of stormwater retention, water quality treatment, biodiversity enhancement, and landscape amenity, and that recognises Ngāi Tahu/mana whenua values.*

108. This application is now intending to naturalize a large part of Days Drain. Through this there is added value of enhancement of the water quality and biodiversity and landscape amenity. However the connection to Halswell Road shown in the plans goes through the commercial development and the lobby of the cinema missing the opportunity to further link the natural/ recreational values visually with the western side of Halswell Road

- vii. *provides for the protection of springs and associated Ngāi Tahu/Manawhenua values through the use of landscaping and setbacks;*

109. As far as I'm aware there are no springs located within the area of the commercial centre and further consideration would need to be directed at the relevant experts.

15.13.4.3.4 Transport

110. I'm of the view that the layout of the development is predominately focussed on catering for the private car. All retail has been aligned along the northern boundary facing south towards the car parking area that sits between the collector road and the retail area. This kind of layout does not incentivise lingering and exploring the rest of the key activity centre.

111. Adding to that I have a concern with the proposed links through to the northern part of the KAC. Currently there is nothing proposed to ensure these links are retained in perpetuity. A preferred way to resolve this would be to have these streets and lanes in ownership of Council.

112. The development is not providing the car parking as shared spaces, available as shared use. I'm of the view that the car parking dominates the development as it is continuous along almost the full length of the main collector Road A.

113. The apartment building.
114. I have reviewed the apartment building with consideration of 14.15.36 Comprehensive residential development in the Residential New Neighbourhood Zone.
115. Overall the apartment building appears to reflect the design style of the commercial area and provide a good relationship with the street and open spaces. From a bulk and scale perspective it seems well modulated and provides visual interest.
116. However information in the application about this apartment block is not very detailed and as such some of the matters like residential amenity and safety are hard to assess. The additional information provided dated on the 8th of May by ASC Architects shows a typical floorplan layout for a ground floor apartment. It show that these apartments will be spacious so likely will have a high level of amenity. However this particular layout only works on corners not within the block as some of the bedrooms would not have windows. Adding to that no information has been provided around the stair or lift cores making it hard to assess anything relating to safety.

Conclusion:

117. I consider that the commercial development proposed provides a size and mix of commercial uses that is appropriate for this location. However I consider that the configuration of uses and layout is not consistent with the requirements of the ODP and supporting provisions in providing an active mixed use village centre focussed on a main street.
118. The applicant's proposed enhancement of Days Drain could, with some minor changes, provide a good east-west recreational corridor.
119. The applicant has in the amended application improved the proposed landscape character of the Green Corridor, but hasn't proposed a connection of a scale and size that would support a well-connected centre focussed on the Main Street.
120. The Green Corridor does not align with the intended location identified in the ODP and the location proposed in the current application creates connectivity issues because of the landholding of Halswell Timber. These connectivity issues in my view can't be resolved through the Days Drain recreational corridor that is currently proposed.

121. The misalignment with the Main Street as proposed by the landowner to the north will likely result in poor connections between the two developments and I consider this to be a key issue in ensuring a coherent KAC. In this my views do not align with those of Mr Knott.
122. The retail units are spread out along the northern boundary and as such do not provide the needed focus on the Green Corridor and through that to the Main Street. All retail however, besides the supermarket, has appropriate amounts of active frontage assisting with CPTED matters, however most of this retail fronts onto the car park, not onto a street or open space.
123. There is a continuous dominance of car parking along Road A which in my view can't be mitigated by landscaping.
124. Although the apartment development appears to be of high quality and would provide good surveillance over part of Days Drain, there is not enough information to properly assess this particular land use.
125. Overall I do not consider the proposed commercial development will result in a well-connected high density mixed use commercial development.
126. As such and having regard to the ODP, urban design related provisions in the District Plan consider that the proposal is inappropriate from an urban design perspective for the following key reasons: Poor physical and visual focus on and connection with the Main Street through the green corridor, dominance of car parking along Road A, insufficient active frontage to Days Drain,

Residential

127. The proposed residential development within Lots 1 to 10 and 13 is located within the North Halswell ODP. It's located east of Halswell Road and south and east of the KAC. It is roughly broken up into 10 development lots that are defined by the 3 collector roads and 2 local roads. The 10 development lots are further broken up by laneways and bridle paths. The laneways are envisioned as shared space solutions and the bridle paths are pedestrian and cycle links throughout the development. From an open space perspective the development shows a whole series of pocket parks with the intent that they provide visual and recreational amenity at a street level rather than a wider neighbourhood level.
128. **14.15.36 Comprehensive residential development in the Residential New Neighbourhood Zone**
- a. Whether the comprehensive residential development is consistent with the relevant outline development plan.*
129. Overall the development achieves a high level of permeability for all modes of traffic, being it cars cyclist or pedestrians. It also provides a high level of amenity for the street through the use of shared streets and pocket parks.
130. Although the development is not intending to orientate dwellings towards Halswell Road and is providing a landscaped buffer towards it, it is providing pedestrian connections and views onto the road from within the adjacent residential area. This follows a similar approach to other developments established along Halswell Road.
131. The typology and intended flexibility of dwelling types provides a good framework for high quality living within close proximity to the KAC. All dwellings face out onto the streets and laneways and pocket parks, creating a strong active interface with these spaces.
132. The only design elements / feature from the OPD that I consider is not met is the need for a higher density of living towards the KAC that is of a design and scale that is compatible with the retail development on one side and the residential development on the other.

133. Although the apartment on the commercial side of the collector road does achieve this change in typology it is limited to the east section of the overall commercial – residential interface.

b. Whether the comprehensive residential development demonstrates that every site or residential unit will experience appropriate levels of sunlight, daylight, privacy, outlook and access to outdoor open space and overall a high level of amenity for the development.

134. First of all the development shows a typology not commonly seen in New Zealand. All the main living spaces have a very strong visual connection with the adjacent publicly accessible spaces (laneways, pocket parks and bridle paths) to such an extent that it could be considered causing privacy issues. However my view is that all private and public spaces are well defined by boundary treatments, including fences and hedges. Although none of these will fully screen windows looking out onto these spaces (which would be a poor outcome) there is clearly a level of separation. Adding to that all spaces that have this level of interaction are the living areas and kitchens. All sensitive and private spaces like bedrooms are located further away from boundaries with these public spaces, ensuring privacy where needed. All dwellings show a high level of residential amenity with spacious outdoor living spaces that are directly accessible from the main living area.

135. The current design ensures all units will be provided with access to direct sunlight for at least part of the time throughout the year. The development provides a wide variety of bedroom number options to cater for the needs of a diverse community. The only matter of concern is that of privacy along the bridle paths, as a 1.2 meter high hedge is proposed that will be maintained by the Body Corporate. In some cases this could result in privacy issues with no way of filtering views from the bridle paths.

c. Whether sites proposed to exceed the maximum site coverage in Rule 14.12.2.2 are internal to the application site and will not compromise the achievement of a high level of amenity within or beyond the development.

136. The development is not proposing to breach the maximum site coverage and as mentioned above the level of residential amenity is high.

d. Whether buildings proposed to exceed the maximum permitted height in Rule 14.12.2.1 will contribute positively to the overall coherence, design, layout and density of the development and surrounding sites.

137. None of the buildings breach the height limit.

e. Whether the development engages with and contributes to adjacent streets, lanes and public open spaces, through the building orientation and setback, boundary and landscape treatment, pedestrian entrances, and provision of glazing from living areas.

138. The development shows dwellings that are designed to activate all publicly accessible spaces they front by providing a substantial amount of glazing along active spaces within the dwellings.

139. Throughout the consent process I and other council officers have raised some concern about the intended interaction with the Bridle paths and the dwellings that face them. The bridle paths are clearly intended to be well overlooked to provide safe movement corridors. However overall the detail around these bridle paths has been missing. The latest RFI information provided gives a little bit more insight into the intended use and interaction with these bridle paths.

140. My main concern around these paths is that a 1.2 metre high fence all along these paths in many cases will not provide sufficient privacy for the outdoor living spaces of the dwellings that front them. This in general creates the desire for occupants to block out or screen the interface with these bridle paths, especially as they are expected to be well used.

141. My recommendation would be to monitor the use of the bridle paths and outdoor living spaces and provide tailored screening for occupants if desired without compromising the needed level of surveillance. This could be part of some form of certification process for this project.

f. Whether the development, in terms of its built form and design, generates visual interest through the separation of buildings, variety in building form and in the use of architectural detailing, glazing, materials, and colour;

142. As mentioned above the development provides a wide variety of building forms and materials to provide a good level of visual interest and a good sense of human scale. I have some concerns around the density of housing facing the KAC, as it is not

proposed to have a typology that creates a transition between commercial and residential as required in the ODP.

g. Whether the development integrates access, parking areas and garages to provide for pedestrian and cyclist safety and the quality of the pedestrian environment, and the access, parking areas and garages does not dominate the development, particularly when viewed from the street or other public spaces;

143. All parking is hidden, screened, or subservient to the main façade of buildings so as to not create a dominance of car parking. The shared space laneways and the bridle paths provide additional amenity/ priority benefits for pedestrians and cyclists.

h. Whether there is sufficient infrastructure provision to service the development and ensure the health and safety of residents, visitors and neighbouring properties, including water supply for fire fighting purposes; and

144. This is not a matter for Urban Design consideration.

Conclusion

145. Overall I consider that residential proposal will result in a high quality residential environment with a good level of amenity for future residents. There is a good level of connectivity and overall a safe environment is provided by a good level of surveillance from within the dwellings, if the detailed design intent is met.

146. My only concerns, which are relatively minor, relate to the future level of surveillance of the bridle paths and the lack of a higher denser typology that can create a good transition from the lower density residential environment to the commercial environment.

147. In regard to the bridle paths, a monitoring regime could help to identify if any issues around privacy and surveillance may occur.

148. In regard to the transition into the commercially zoned area, I consider that an appropriate medium density typology could address these concerns. The apartment typology proposed alongside Road B is a good potential example of this.

149. However, overall I do consider that the residential part of this application appropriately achieves the urban design related objectives and policies of the District Plan.

CONCLUSION OF BOTH LANDUSE AND SUBDIVISION CONSENT

150. I consider that the Proposal is largely consistent with the anticipated level of connectivity in respect to the street and block pattern for both the residential and commercial components of the ODP. The key exception to this is the misalignment of the Green Corridor and the Main Street, identified in the land use consent application for the neighbouring property. Although currently not proposed, I consider the Green Corridor should have a land tenure arrangement in place to secure it through the subdivision consent application that would provide a multi modal transport link.
151. When looking at the overall development the land use consent relating to the residential shows a highly permeable and well considered development. Some minor concerns around the bridle paths remain, but those can likely be addressed through conditions of consent.
152. The transition between the residential and commercial component of the development does not provide a sufficient level of higher density residential on the boundary between commercial and residential.
153. The commercial component of the application shows a size and mix of commercial uses that are appropriate for this location, however the configuration and layout do support the intent of ODP or design matters for the KAC.
154. Days Drain has been enhanced and with some minor changes could provide a good east-west recreational corridor.
155. The changes to the application in regard to the supermarket, the gym, the day care centre and the apartment building have resulted in an increase of surveillance of Days Drain. However over 50% of the drain interface is not activated. My recommendation is to increase the level of visual interaction and activity along Days Drain by either introducing or providing the opportunity for more commercial activity facing out onto the enhanced drain along the service area, or by a full reconfiguration of the commercial activities.

156. The applicant has improved the landscape character of the Green Corridor, but hasn't provided a connection of a location and design that would be needed to create a well-connected centre focussed on the Main Street.
157. The Green Corridor does not align with the intended location that is proposed by the ODP and the current location creates connectivity issues because of the landholding of Halswell Timber. These connectivity issues in my view can't be resolved through the Days Drain recreational corridor that is currently proposed.
158. The retail units are spread out along the northern boundary and as such do not provide the needed focus on the Green Corridor and through that on the Main Street. All retail besides the supermarket has appropriate amounts of active frontage, however most of this retail fronts onto the car park, not onto a street or open space.
159. The expanse of car parking located between the supermarket and Road A does not contribute to a high quality pedestrian environment and the spread out nature of the development fully fringed by car parking results in my view in a dominance of car parking.
160. Overall, in respect to urban design, in my opinion the proposed application will not achieve the intended levels of connectivity, activity and safety that are appropriate to a new KAC in this location.

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APPENDIX 11

Legal Advice on Trade Competition and Submissions

Legal Services Unit – Corporate Services

Memo

Date: 20 November 2019
From: Brent Pizzey (Associate General Counsel)
To: Paul Lowe (Principal Advisor resource consents)

Summary of trade competition provisions (lex20474)

Purpose of memo

1. To summarise trade competition provisions of the Resource Management Act (Act) for inclusion in the officers' report for the assistance of the decision maker on the Halswell mixed use development proposal by Progressive Enterprises Ltd (Applicant).

Summary

2. Submissions from the Carter Group, Anthony Gough, Lichfield Holdings Limited, Central City Business Association and Spreydon Lodge Limited (**Submitters**) appear at first sight to be from trade competitors of the Applicant. In the absence of further explanation they appear to raise matters that would breach s308B of the Act. Unless the Submitters can provide evidence that they are not trade competitors, they will have the onus to explain what matters raised in their submissions do not breach the restrictions imposed by s308B(2) of the Act.

Background

3. The Applicant seeks land use and subdivision consents to establish a comprehensive mixed-use development at 201 Halswell Road. The proposal involves a commercial development of 6,437m² gross floor area with associated parking and landscaping. The commercial development includes (approximately):
 - a 3,700m² Countdown supermarket with ancillary offices;
 - a 200m² café;
 - 1,900m² of specialty retail tenancies comprising up to 21 tenancies; and
 - a 400m² tavern.
4. You have provided me with research on the Submitters, which is **attached** to this memo. You have asked me to advise whether the Submitters are "trade competitors" for the purposes of ss 96(4), 308A and 308B of the Act, and whether their submissions breach s 308B.

Trade competition provisions

5. The trade competition provisions of the Act are appended to this memo.
6. The Act does not define "trade competitor". The general test applied by the Courts as to whether two entities are in trade competition is whether there is a competitive activity having a commercial element¹. Owners of commercial properties and commercial lessors competing within the same catchment can be considered trade competitors. Typical examples of trade competitors include competing supermarket entities², or rival commercial/retail centre owners and developers³.
7. There is uncertainty in case law regarding whether shareholders, directors or other persons sharing a common interest with an entity in trade competition with an applicant can themselves be considered trade competitors. In *Kapiti Coast Airport Holdings Ltd v Alpha Corporation Limited*⁴, the Court took a restrictive and literal approach to interpreting the Act. In that case, the applicant sought declarations that six opposing submitters were trade competitors on its private plan change proposal to enable department stores, supermarkets and other retailing. The Court declared that three of the submitters were trade competitors because they were companies carrying on business as owners, developers and lessors of retail land in a competing town centre who were seeking to restrict the applicant's proposed commercial activities. However, the Court declined to issue declarations regarding the other three submitters as follows:
 - (a) The Court declined to declare a parent company that owned all of the shares in two of the three trade competitors and 50% of the shares in the third was itself a trade competitor. The Court considered that the parent company was engaged in the trade of being an investor, not a commercial lessor, and so was not in "trade competition" with the applicant. The Court reached this conclusion despite being "*fully conscious of the incongruity of the situation where wholly owned subsidiaries might be deemed to be competitors but the primary entity is not*"⁵.
 - (b) The Court declined to declare that a trust that owned 50% of the shares in one of the trade competitors, and 6% of the parent company, was itself a trade competitor, again on the basis that the trust was an investor rather than a commercial lessor⁶.
 - (c) The Court declined to declare a director of the parent company, a CEO of one of the trade competitors, and a director of all three trade competitors was himself a trade competitor. The Court noted that the applicant's counsel conceded that directorship interests could not make a director personally a trade competitor of the applicant⁷.
8. However there is a line of cases where the Courts have adopted a broader, more purposive approach to interpreting the Act, relying on the broad definition of "person" in section 2 of the Act, which is:

"Person includes the Crown, a corporation sole, and also a body of persons, whether corporate or unincorporate"

¹ *Kapiti Coast Airport Holdings v Alpha Corporation Limited* [2016] NZRMA 505.

² *Queenstown Property Holdings Limited v Queenstown Lakes District Council* [1998] NZRMA 145; *Baker Boys Limited v Christchurch City Council* (1998) 4 ELRNZ 297; *Kapiti Coast Airport Holdings v Alpha Corporation Limited* [2016] NZRMA 505.

³ *Westfield (New Zealand) Limited v North Shore City Council* [2005] NZSC 17. Generally referred to as the "Discount Brands" Supreme Court decision.

⁴ *Kapiti Coast Airport Holdings Ltd v Alpha Corporation Limited* [2016] NZEnvC 137 at [25].

⁵ *Ibid* at [24] to [25].

⁶ *Ibid* at [26].

⁷ *Ibid* at [27].

9. In *General Distributors Limited v Foodstuffs Properties (Wellington) Limited*⁸, Foodstuffs argued that it was not a trade competitor of supermarket retailer General Distributors Limited (**GDL**) because Foodstuffs was not engaged in supermarket retail trading. Foodstuffs argued that it only owned supermarket sites, and these were leased to franchisees who conducted the retail trading. The Court rejected Foodstuffs' argument, and considered that "*exactly what structure or form a would-be competitor chooses to adopt is irrelevant*". Groups of individuals or corporates forming either the GDL or Foodstuffs camps would be a "person" for the purposes of the trade competition provisions of the Act. The Court considered that its approach to interpretation best fits the purpose of the trade competition provisions which is to prevent trade competitors using the Act for purposes other than protection of the environment.
10. The *General Distributors* case was followed and extended by the Environment Court in *Bunnings Limited v Queenstown Lakes District Council*⁹ which held that separate entities sharing the same mind and will as a trade competitor, can themselves be a trade competitor. In that case, Bunnings sought resource consent for a trade supplier activity and the parties accepted that Shotover Hardware Ltd, as owner and operator of Mitre 10, was a trade competitor of Bunnings. Although Shotover Hardware Ltd did not lodge a submission, its "sister company" H&J Smith Ltd did. Both Shotover Hardware and H&J Smith were fully owned subsidiaries of a parent company, sharing the same directorship and shareholdings¹⁰. The Court held that Shotover Hardware, H&J Smith and their parent company are one person for the purposes of s 2 of the Act, and that each was a trade competitor of Bunnings¹¹.
11. In my opinion, the broader purposive interpretation of the trade competition provisions adopted by the Court in the *General Distributors* and *Bunnings* cases should be preferred over the restrictive and literal interpretation adopted by *Kapiti Coast*, because it is consistent with section 5(1) of the Interpretation Act 1999 which states:
- "The meaning of an enactment must be ascertained from its text and in the light of its purpose."*

Applying the trade competition provisions here

12. As noted at paragraph 6 above, the general test applied by the Courts as to whether trade competition exists between two entities is whether there is a competitive activity having a commercial element. The information you have provided to me suggests that there potentially is a competitive activity having a commercial element between the Submitters and the Applicant. Applying the broader purposive interpretation of the trade competition provisions, and in the absence of evidence to the contrary, it is my opinion that all of the Submitters are, or potentially are¹², trade competitors of Progressive:
- Carter Group, Lichfield Holdings and Anthony Gough are either owners or are 100% shareholders in companies owning large commercial properties in Christchurch that are, or potentially are, in competition with activities in the Applicant's commercial development. The recorded statement in their submissions that they "*could not gain an advantage in trade competition through this submission*" warrants further evidence¹³;
 - Spreydon Lodge Ltd owns neighbouring land zoned commercial core. The fact that there are no commercial buildings on the land at present does not prevent Spreydon Lodge from being, or

⁸ *General Distributors Limited v Foodstuffs Properties (Wellington) Limited* [2011] NZEnvC 212, at [14] to [16]

⁹ *Bunnings Limited v Queenstown Lakes District Council* [2018] NZEnvC 135.

¹⁰ *Ibid* at [39].

¹¹ *Ibid* at [43] to [46].

¹² It is possible the Submitters hold information to explain why they are not trade competitors, notwithstanding first appearances.

¹³ *Ibid*.

potentially being, a trade competitor, particularly if Spreydon Lodge hopes to build a competing development. For example, in *Queenstown Property Holdings Limited v Queenstown Lakes District Council*¹⁴, the Court noted that a joint venture which hopes to build a supermarket can be a trade competitor or a potential trade competitor of an applicant also seeking to establish a supermarket in the relevant catchment;

- The Central City Business Association is, or potentially is, a trade competitor on the basis that it represents or shares the same mind and interests of owners of commercial properties in Christchurch who are, or potentially are, in competition with Progressive's Proposed Commercial Activities.
13. It is possible the Submitters hold information to support an argument that they may not be trade competitors of Progressive or that Progressive holds information explaining why the Submitters are its trade competitors.
 14. To assist the ultimate decision maker, if this memo is attached to the officers' report it will provide parties an opportunity to respond to this issue at the hearing. The decision maker can then assess the facts and use its expertise and judgement to determine whether there is a competitive activity having a commercial element between the Submitters and the Applicant that makes them trade competitors.

Do the submissions breach s 308B(2)?

15. Section 308B of the Act provides that a trade competitor may make a submission on a competitor's application only if:
 - The trade competitor is "directly" affected by an effect of the activity that adversely affects the environment (s 308B(2)(a)); and
 - That effect does not relate to trade competition or the effects of trade competition (s 308B(2)(b)).
16. Factors (a) and (b) above are cumulative. The presence of only one will not suffice. A trade competitor can lodge a submission regarding how it would be "directly" affected by an adverse effect on the environment of the activity, but if that effect also relates to trade competition or the effects of trade competition, then the submission will breach s 308B¹⁵.
17. The term "*directly*" in part (a) is intended to reduce the sets of effects which permits participation by a trade competitor. It excludes indirect effects, and consequential effects¹⁶.
18. The phrase "*does not relate to*" in part (b) can mean "*has no connection with*"¹⁷.
19. Unless the Submitters can provide evidence to satisfy the decision-maker that they are not trade competitors, then the Submitters will have the onus to demonstrate that their submissions do not breach s308B. Submitters would need to explain how they are *directly* affected by an adverse effect on the environment created by the Proposal *and* that the adverse effect *does not relate to* trade competition or its effects.

¹⁴ C11/98.

¹⁵ *General Distributors Limited v Foodstuffs Properties (Wellington) Limited* [2011] NZEnvC 212, at [17].

¹⁶ *Bunnings Limited v Queenstown Lakes District Council* [2018] NZEnvC 135 at [53].

¹⁷ *General Distributors Limited v Foodstuffs Properties (Wellington) Limited* [2011] NZEnvC 212, at [19].

20. At first sight, and in absence of any further explanation from the Submitters, all of their submissions raise matters that breach s 308B of the Act (assuming that it is determined that they are trade competitors):
- The submissions raise Plan integrity issues; however, issues about Plan integrity do not necessarily result in any adverse effects on the environment and are not effects that "directly" affect the submitters as required by s 308B(2)(a);
 - Submission points raising inconsistencies with the Plan/recovery plans or the potential to harm the function and viability of retail centres and/or the primacy of the Central City which are submitted to "directly" affect the submitters, appear to have some relationship to trade competition or the effects of trade competition, in breach of s 308B(2)(b);
 - Submitters with central city interests (e.g. Carter Group, Anthony Gough, Lichfield Holdings Limited, Central City Business Association) appear to raise concerns about effects that do not "directly" affect them (e.g. concerns about urban design).
21. However, it may be that Spreydon Lodge, as a neighbour to the commercial development, could raise adverse environmental effects arising from (for example) the design, form and function of the development that "directly" affect Spreydon Lodge and which are unrelated to trade competition or its effects.

Related consideration for direct referral

22. If the Applicant lodges a notice of motion to directly refer the application to the Environment Court then ss 308E and 308F of the Act may also need to be assessed. These seek to prevent non-trade competitor parties from acting as surrogates for trade competitors. These provisions only apply to proceedings in the Environment Court, not to the submission process at Council level.¹⁸

Conclusion

23. It is for the decision-maker to assess the factual situation in light of information received, then use its expertise and judgement to determine whether the Submitters are trade competitors of the applicant and whether matters raised in trade competitors' submissions breach s 308B(2). Both the Council hearings panel and the Environment Court have the option to strike out those parts of trade competitor's submissions/cases in breach of s 308B(2).¹⁹

Brent Pizzey
Associate General Counsel
Legal Services Unit

Extension 5550

¹⁸ *Kapiti Coast Airport Holdings Ltd v Alpha Corporation Limited* [2016] NZEnvC 137 at [28].

¹⁹ See ss 41D(1) and 279(4) of the Act.

APPENDIX – TRADE COMPETITION PROVISIONS

96 Making submissions

- (1) If an application for a resource consent is publicly notified, a person described in subsection (2) may make a submission about it to the consent authority.
- (2) Any person may make a submission, but the person's right to make a submission is limited by section 308B if the person is a person A as defined in section 308A and the applicant is a person B as defined in section 308A.
- (3) ...

308A Identification of trade competitors and surrogates

In this Part,—

- (a) person A means a person who is a trade competitor of person B:
- (b) person B means the person of whom person A is a trade competitor:
- (c) person C means a person who has knowingly received, is knowingly receiving, or may knowingly receive direct or indirect help from person A—
 - (i) to bring an appeal or be a party to an appeal against a decision under this Act in favour of person B:
 - (ii) to be a party to a proceeding before the Environment Court that was lodged by person B under section 87G, 149T, 165ZFE(9)(a)(ii), 198E, or 198K.

308B Limit on making submissions

- (1) Subsection (2) applies when person A wants to make a submission under section 96 about an application by person B.
- (2) Person A may make the submission only if directly affected by an effect of the activity to which the application relates, that—
 - (a) adversely affects the environment; and
 - (b) does not relate to trade competition or the effects of trade competition.
- (3) Failure to comply with the limits on submissions set in section 149E or 149O or Schedule 1 is a contravention of this Part.

Christchurch City Council

Memorandum

Date: 20 November 2019
To: Brent Pizzey, Associate General Counsel
From: Paul Lowe, Principal Advisor Resource Consent

Information on Trade Competition and Submitters

Purpose

The purpose of this memorandum is to provide information to assist with establishing whether any of the submitters could potentially be a trade competitor of the applicant.

Method

The information obtained in this assessment has been obtained from Smartmap¹, the New Zealand Companies Register online² and internet searches.

I have sought to establish whether the submitter owns land or is related to an entity that owns land and/or buildings (including potential future buildings) which is zoned or used for commercial purposes or represents the interests of such an entity.

Results

There are five submitters related to an entity that owns commercial land or buildings (including future buildings) or represents the interests of such an entity as set out below.

Spreydon Lodge Limited: Spreydon Lodge Limited is an owner of adjoining land that is zoned Commercial Core under the District Plan.

Mr Anthony Gough: M Gough is a shareholder and/or director of a strip of commercial developments at 126 Oxford Terrace and 134 Oxford Terrace in the Central City. These properties include food and beverage /retail activities.

Carter Group Limited: Carter Group has a relationship to 'The Crossing' a large retail development at 71 Lichfield Street in the Central City. The relationship as follows:

- a. PCML Limited has a 100% shareholding in Carter Group Limited.
- b. 71 Lichfield Street (The Crossing) is owned by A.B. Investments Limited
- c. PCLM Ltd has a 25% shareholding in A.B. Investments Limited. PCLM is listed as the ultimate holding company.
- d. A.B. Investments is also 75% owned by Nectar Limited.
- e. PCML has a 100% shareholding in Nectar Limited.

Litchfield Holdings Ltd: Lichfield Holdings Limited own a number of commercial buildings including 120 Hereford Street, 99 Cashel Street and 109 Cashel Street.

The review of property ownership above is not exhaustive. There could be other related commercial buildings that have not been identified.

Central City Business Association: I consider that there is a probable relationship between this organisation and other commercial landowners and developers in the Central City. Their website³ identifies that the association: ...

¹ Council's Geographical Information System which included ownership and property data

² <https://companies-register.companiesoffice.govt.nz/>

³ <https://chchcentral.co.nz>

'supports businesses and property owners in Christchurch's Central City' and that the association is an *'... effective representative body for the central business community focused on strategy, advocacy, accessibility, marketing and safety'*. It is not entirely clear from the website but it would appear that the Association Board secretary is a representative of the Carter Group and Mr Gough is a member of Association Board.

I have not reviewed the circumstances of any other submitters.

Regards

A handwritten signature in black ink, appearing to be 'PL', written in a cursive style.

Paul Lowe
Principal Advisor Resource Consents
20/11/2019 01:51 p.m.

APPENDIX 12

Figures 12.1 to 12.9 (Site Locality in relation to Locality, Zoning Maps and Outline Development Plans)

Figure 12.1 Location of Application Site on Aerial Photograph 2018 (source: Smart Map 2019)

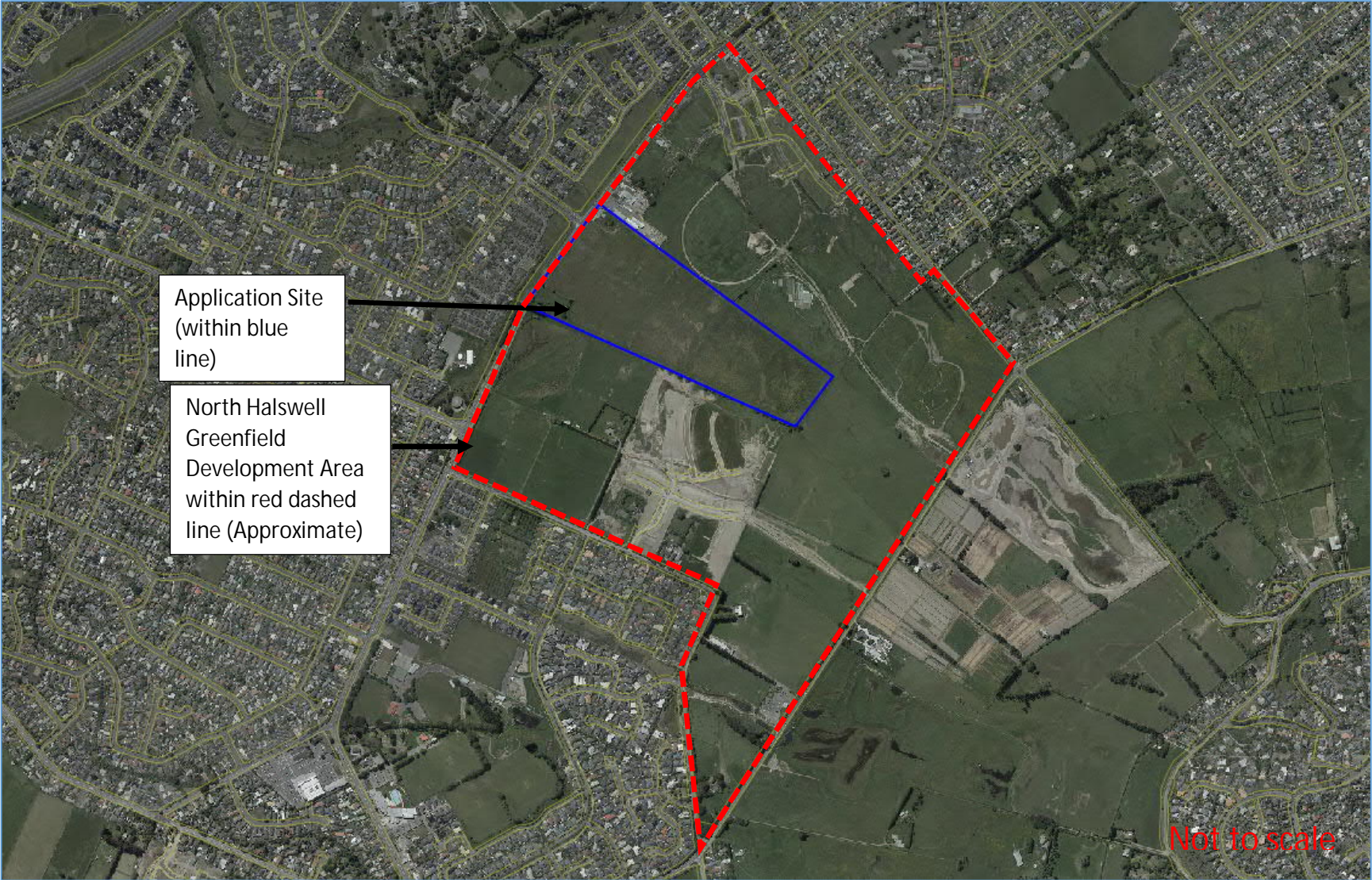


Figure 12.2 Location of Application Site and Neighbouring Properties on Aerial Photography 2018 (Source: Smart map 2019)

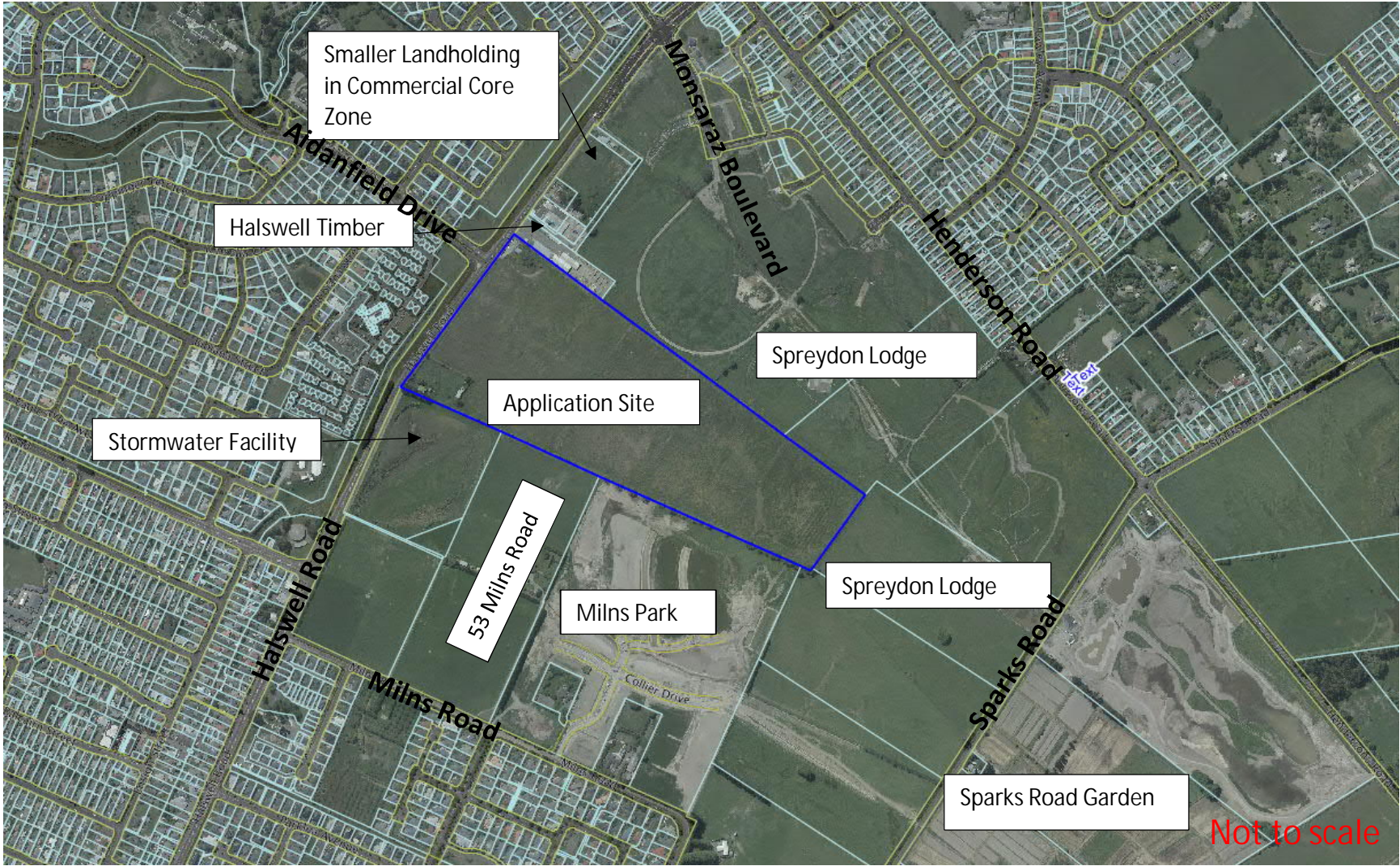


Figure 12.3 Location of Commercial Core Zone overlaid onto Aerial Photography 2018 and in relation to Application Site and Neighbouring Properties (Source: Smart Map 2019)

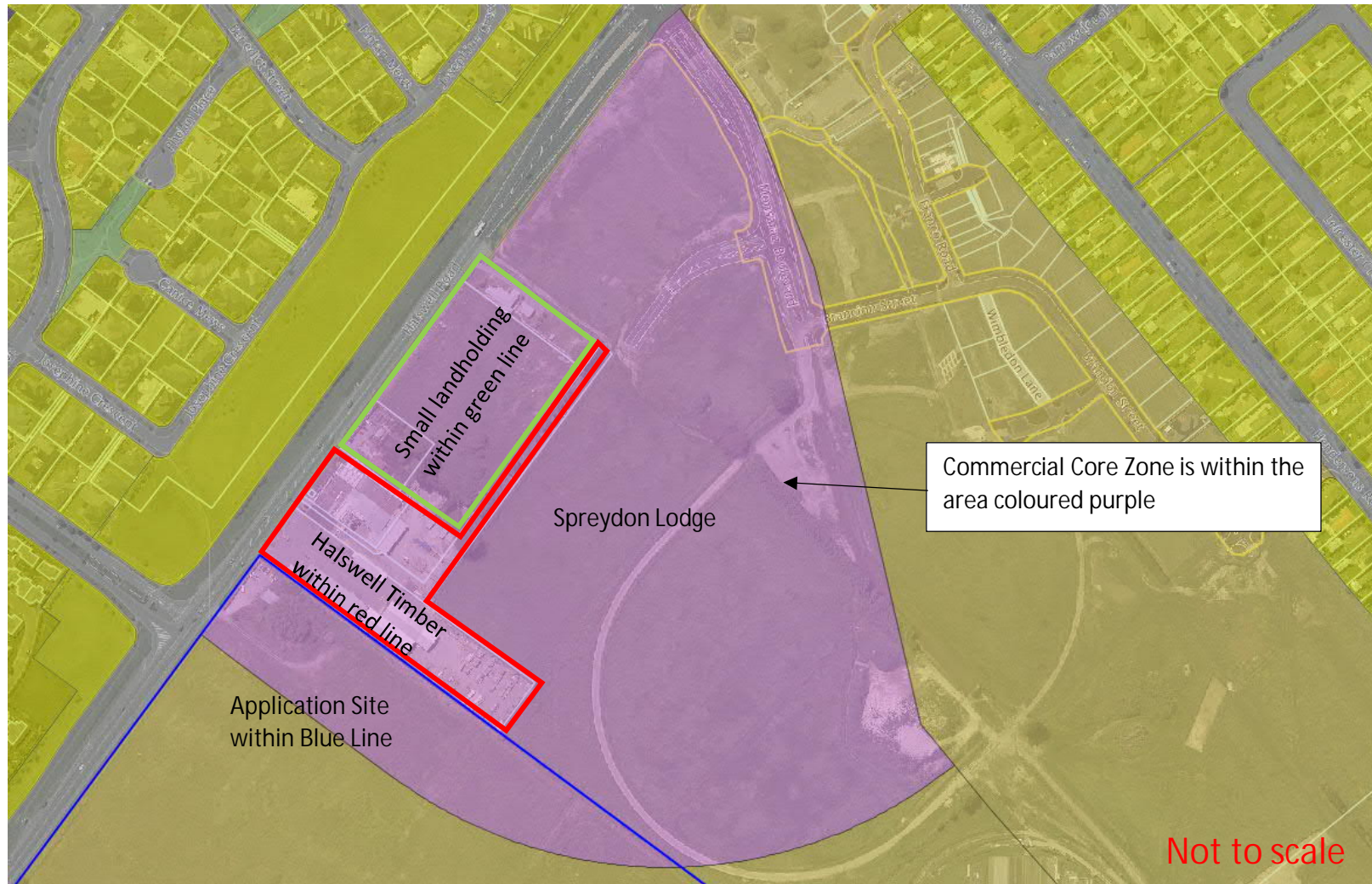


Figure 12.4 Location of Application Site and Zoning (Source: Christchurch District Plan, property search tool: www.districtplan.ccc.govt.nz)

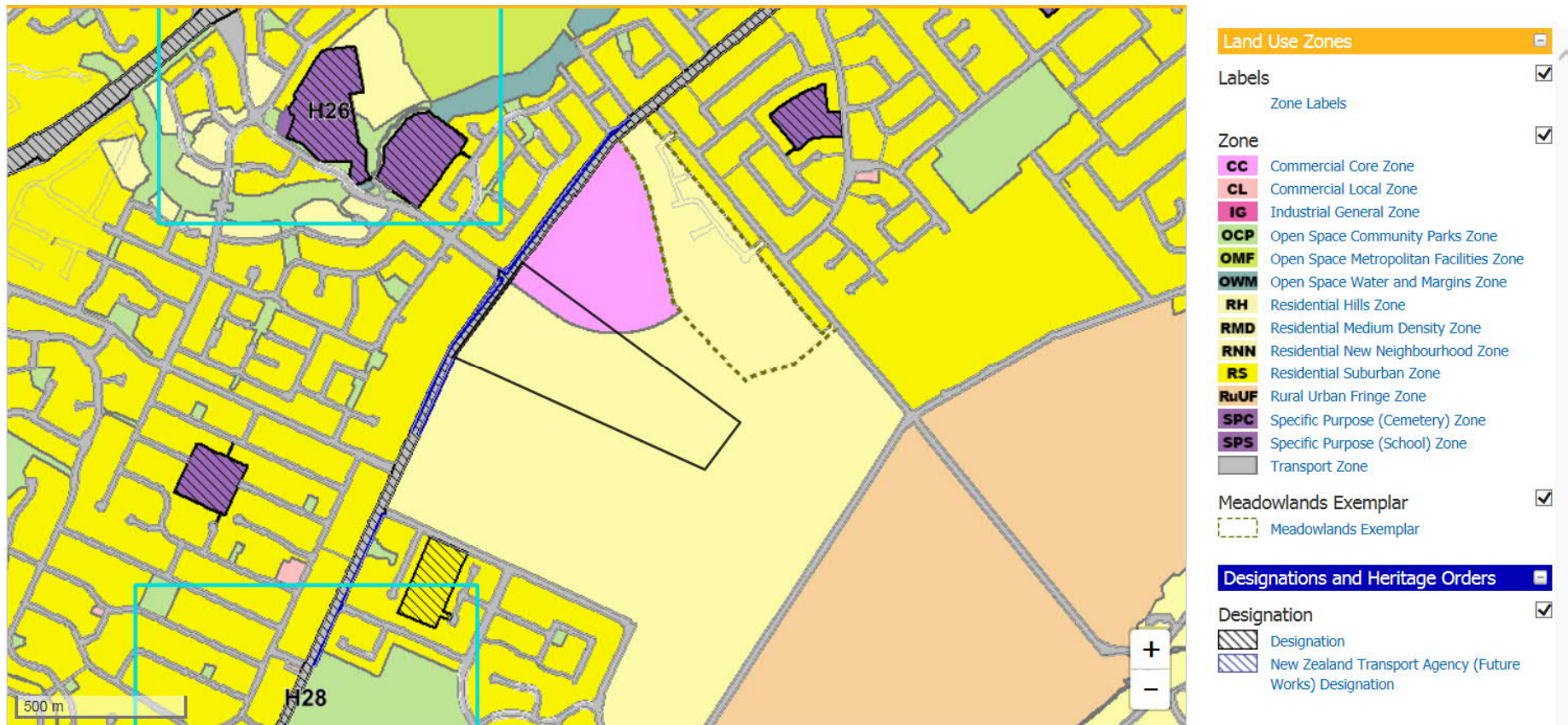


Figure 12.5 Location of Application Site and Other Notations Overlays (Source: Christchurch District Plan, property search tool: www.districtplan.ccc.govt.nz)

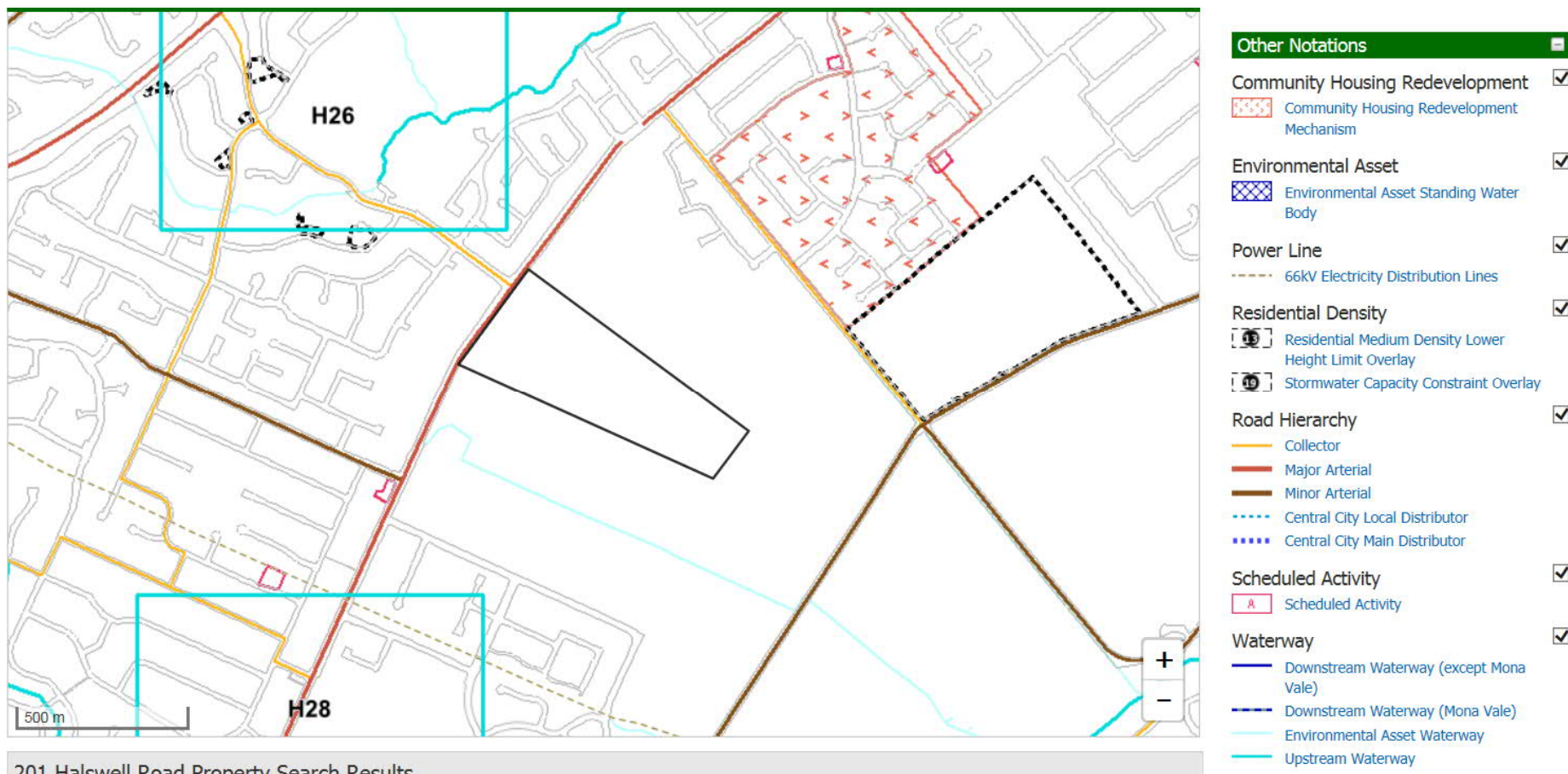


Figure 12.6 Location of Application Site and Natural Hazard Overlays (Source: Christchurch District Plan, property search tool: www.districtplan.ccc.govt.nz)

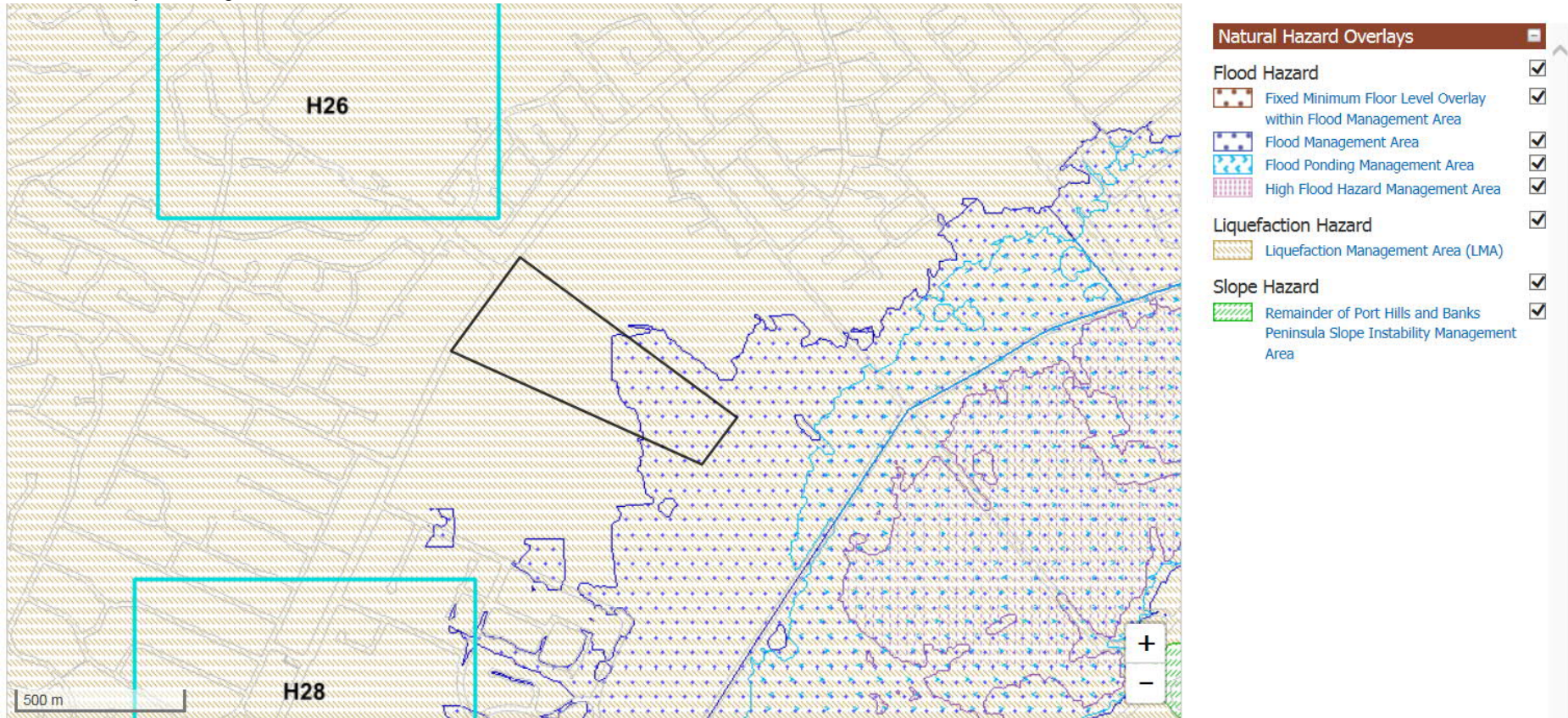
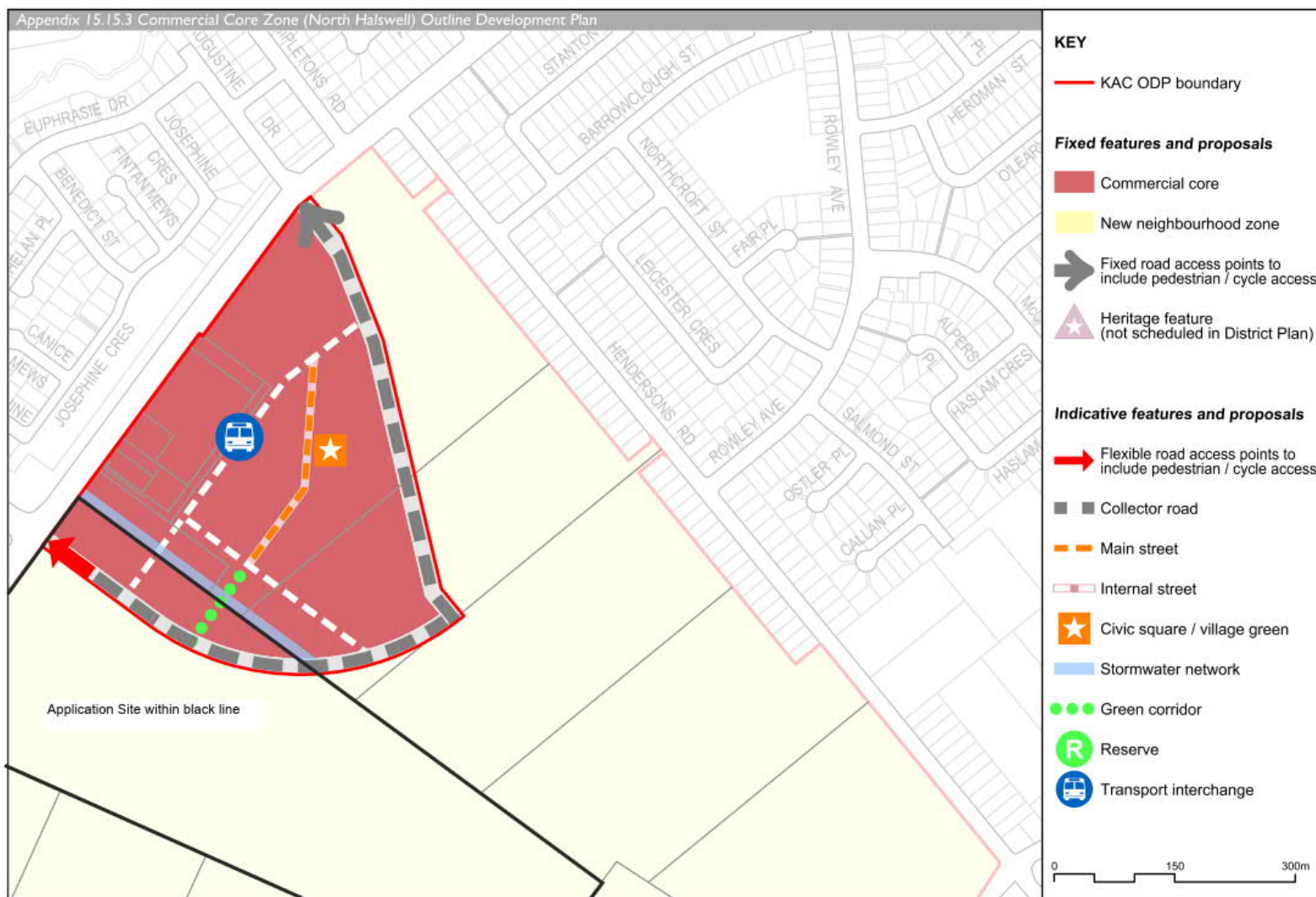


Figure 12.7 Location of Application Site and Natural and Cultural Heritage Overlays (Source: Christchurch District Plan, property search tool: www.districtplan.ccc.govt.nz)



Figure 12.9 Location of Application Site (Annotated) on Appendix 15.15.3 Commercial Core (North Halswell) Outline Development Plan (Source: Christchurch District Plan: www.districtplan.ccc.govt.nz)



APPENDIX 13

Matters of Discretion for the NES

Regulation 10(3) Restricted discretionary activities

....

- (3) The matters over which discretion is restricted are as follows:
- (a) the adequacy of the detailed site investigation, including:
 - (i) site sampling:
 - (ii) laboratory analysis:
 - (iii) risk assessment:
 - (b) the suitability of the piece of land for the proposed activity, given the amount and kind of soil contamination:
 - (c) the approach to the remediation or ongoing management of the piece of land, including—
 - (i) the remediation or management methods to address the risk posed by the contaminants to human health:
 - (ii) the timing of the remediation:
 - (iii) the standard of the remediation on completion:
 - (iv) the mitigation methods to address the risk posed by the contaminants to human health:
 - (v) the mitigation measures for the piece of land, including the frequency and location of monitoring of specified contaminants:
 - (d) the adequacy of the site management plan or the site validation report or both, as applicable:
 - (e) the transport, disposal, and tracking of soil and other materials taken away in the course of the activity:
 - (f) the requirement for and conditions of a financial bond:
 - (g) the timing and nature of the review of the conditions in the resource consent:
 - (h) the duration of the resource consent.

APPENDIX 14

Key Objectives and Policies

Chapter 3 Strategic Directions

3.3 Objectives

Interpretation

- a. For the purposes of preparing, changing, interpreting and implementing this District Plan:
 - i. All other objectives within this Chapter are to be expressed and achieved in a manner consistent with Objectives 3.3.1 and 3.3.2; and
 - ii. The objectives and policies in all other Chapters of the District Plan are to be expressed and achieved in a manner consistent with the objectives in this Chapter.

3.3.1 Objective - Enabling recovery and facilitating the future enhancement of the district

- a. The expedited recovery and future enhancement of Christchurch as a dynamic, prosperous and internationally competitive city, in a manner that:
 - i. Meets the community's immediate and longer term needs for housing, economic development, community facilities, infrastructure, transport, and social and cultural wellbeing; and
 - ii. Fosters investment certainty; and
 - iii. Sustains the important qualities and values of the natural environment.

3.3.2 Objective - Clarity of language and efficiency

- a. The District Plan, through its preparation, change, interpretation and implementation:
 - i. Minimises:
 - A. transaction costs and reliance on resource consent processes; and
 - B. the number, extent, and prescriptiveness of development controls and design standards in the rules, in order to encourage innovation and choice; and
 - C. the requirements for notification and written approval; and
 - ii. Sets objectives and policies that clearly state the outcomes intended; and
 - iii. Uses clear, concise language so that the District Plan is easy to understand and use.

3.3.3 Objective - Ngāi Tahu mana whenua

- a. A strong and enduring relationship between the Council and Ngāi Tahu mana whenua in the recovery and future development of Ōtautahi (Christchurch City) and the greater Christchurch district, so that:

- i. Ngāi Tahu mana whenua are able to actively participate in decision-making; and
- ii. Ngāi Tahu mana whenua's aspirations to actively participate in the revitalisation of Ōtautahi are recognised; and
- iii. Ngāi Tahu mana whenua's culture and identity are incorporated into, and reflected in, the recovery and development of Ōtautahi; and
- iv. Ngāi Tahu mana whenua's historic and contemporary connections, and cultural and spiritual values, associated with the land, water and other taonga of the district are recognised and provided for; and
- v. Ngāi Tahu mana whenua can retain, and where appropriate enhance, access to sites of cultural significance.
- vi. Ngāi Tahu mana whenua are able to exercise kaitiakitanga.

3.3.4 Objective - Housing capacity and choice

- a. For the period 2012 to 2028, an additional 23,700 dwellings are enabled through a combination of residential intensification, brownfield and greenfield development; and
- b. There is a range of housing opportunities available to meet the diverse and changing population and housing needs of Christchurch residents, including:
 - i. a choice in housing types, densities and locations; and
 - ii. affordable, community and social housing and papakāinga.

3.3.5 Objective - Business and economic prosperity

- a. The critical importance of business and economic prosperity to Christchurch's recovery and to community wellbeing and resilience is recognised and a range of opportunities provided for business activities to establish and prosper.

3.3.6 Objective - Natural hazards

- a. New subdivision, use and development (other than new critical infrastructure or strategic infrastructure to which paragraph b. applies):
 - i. is to be avoided in areas where the risks from natural hazards to people, property and infrastructure are assessed as being unacceptable; and
 - ii. in all other areas, is undertaken in a manner that ensures the risks of natural hazards to people, property and infrastructure are appropriately mitigated.
- b. New critical infrastructure or strategic infrastructure may be located in areas where the risks of natural hazards to people, property and infrastructure are otherwise assessed as being unacceptable, but only where:
 - i. there is no reasonable alternative; and

- ii. the strategic infrastructure or critical infrastructure has been designed to maintain, as far as practicable, its integrity and form during natural hazard events; and
 - iii. the natural hazard risks to people, property and infrastructure are appropriately mitigated.
- c. There is increased public awareness of the range and scale of natural hazard events that can affect Christchurch District.
- d. The repair of earthquake damaged land is facilitated as part of the recovery.

3.3.7 Objective - Urban growth, form and design

- a. A well-integrated pattern of development and infrastructure, a consolidated urban form, and a high quality urban environment that:
- i. Is attractive to residents, business and visitors; and
 - ii. Has its areas of special character and amenity value identified and their specifically recognised values appropriately managed; and
 - iii. Provides for urban activities only:
 - A. within the existing urban areas; and
 - B. on greenfield land on the periphery of Christchurch's urban area identified in accordance with the Greenfield Priority Areas in the Canterbury Regional Policy Statement Chapter 6, Map A; and
 - iv. Increases the housing development opportunities in the urban area to meet the intensification targets specified in the Canterbury Regional Policy Statement, Chapter 6, Objective 6.2.2 (1); particularly:
 - A. in and around the Central City, Key Activity Centres (as identified in the Canterbury Regional Policy Statement), larger neighbourhood centres, and nodes of core public transport routes; and
 - B. in those parts of Residential Greenfield Priority Areas identified in Canterbury Regional Policy Statement Chapter 6, Map A; and
 - C. in suitable brownfield areas; and
 - v. Maintains and enhances the Central City, Key Activity Centres and Neighbourhood Centres as community focal points; and
 - vi. Identifies opportunities for, and supports, the redevelopment of brownfield sites for residential, business or mixed use activities; and
 - vii. Promotes the re-use and re-development of buildings and land; and
 - viii. Improves overall accessibility and connectivity for people, transport (including opportunities for walking, cycling and public transport) and services; and
 - ix. Promotes the safe, efficient and effective provision and use of infrastructure, including the optimisation of the use of existing infrastructure; and
 - x. Co-ordinates the nature, timing and sequencing of new development with the funding, implementation and operation of necessary transport and other infrastructure.

3.3.8 Objective - Revitalising the Central City

- a. The Central City is revitalised as the primary community focal point for the people of Christchurch; and
- b. The amenity values, function and economic, social and cultural viability of the Central City are enhanced through private and public sector investment, and
- c. A range of housing opportunities are enabled to support at least 5,000 additional households in the Central City between 2012 and 2028.
- d. The Central City has a unique identity and sense of place, incorporating the following elements, which can contribute to a high amenity urban environment for residents, visitors and workers to enjoy:
 - i. a green edge and gateway to the City defined by the Frame and Hagley Park;
 - ii. a variety of public spaces including the Avon river, squares and precincts and civic facilities;
 - iii. built form and historic heritage that reflects the identity and values of Ngai Tahu, and the City's history as a European settlement; including cathedrals and associated buildings at 100 Cathedral Square and 136 Barbadoes Street;
 - iv. a wide diversity and concentration of activities that enhance its role as the primary focus of the City and region; and
 - v. a range of options for movement within and to destinations outside the Central City that are safe, flexible, and resilient and which supports the increased use of public transport, walking and cycling.

3.3.9 Objective - Natural and cultural environment

- a. A natural and cultural environment where:
 - i. People have access to a high quality network of public open space and recreation opportunities, including areas of natural character and natural landscape; and
 - ii. Important natural resources are identified and their specifically recognised values are appropriately managed, including:
 - A. outstanding natural features and landscapes, including the Waimakariri River, Lake Ellesmere/Te Waihora, and parts of the Port Hills/Nga Kohatu Whakarakaraka o Tamatea Pokai Whenua and Banks Peninsula/Te Pātaka o Rakaihautu; and
 - B. the natural character of the coastal environment, wetlands, lakes and rivers, springs/puna, lagoons/hapua and their margins; and
 - C. indigenous ecosystems, particularly those supporting significant indigenous vegetation and significant habitats supporting indigenous fauna, and/or supporting Ngāi Tahu mana whenua cultural and spiritual values; and
 - D. the mauri and life-supporting capacity of ecosystems and resources; and

- iii. Objects, structures, places, water/wai, landscapes and areas that are historically important, or of cultural or spiritual importance to Ngāi Tahu mana whenua, are identified and appropriately managed.

3.3.10 Objective - Commercial and industrial activities

- a. The recovery and stimulation of commercial and industrial activities in a way that expedites recovery and long-term economic and employment growth through:
 - i. Enabling rebuilding of existing business areas, revitalising of centres, and provision in greenfield areas; and
 - ii. Ensuring sufficient and suitable land development capacity.

3.3.11 Objective - Community facilities and education activities

- a. The expedited recovery and establishment of community facilities and education activities in existing and planned urban areas to meet the needs of the community; and
- b. The co-location and shared use of facilities between different groups is encouraged.

3.3.12 Objective - Infrastructure

- a. The social, economic, environmental and cultural benefits of infrastructure, including strategic infrastructure, are recognised and provided for, and its safe, efficient and effective development, upgrade, maintenance and operation is enabled; and
- b. Strategic infrastructure, including its role and function, is protected from incompatible development and activities by avoiding adverse effects from them, including reverse sensitivity effects. This includes:
 - i. avoiding noise sensitive activities within the Lyttelton Port Influences Overlay area; and
 - ii. managing activities to avoid adverse effects on the National Grid, including by identifying a buffer corridor within which buildings, excavations sensitive activities will generally not be provided for; and
 - iii. avoiding new noise sensitive activities within the 50dB Ldn Air Noise Contour and the 50dB Ldn Engine Testing Contour for Christchurch International Airport, except:
 - A. within an existing residentially zoned urban area; or
 - B. within a Residential Greenfield Priority Area identified in the Canterbury Regional Policy Statement Chapter 6, Map A; or
 - C. for permitted activities within the Specific Purpose (Golf Resort) Zone of the District Plan, or activities authorised by a resource consent granted on or before 6 December 2013; and

- D. for permitted, controlled, restricted discretionary and discretionary activities within the Specific Purpose (Tertiary Education) Zone at the University of Canterbury; and
- iv. managing the risk of birdstrike to aircraft using Christchurch International Airport; and
- v. managing activities to avoid adverse effects on the identified 66kV and 33kV electricity distribution lines and the Heathcote to Lyttelton 11kV electricity distribution line, including by identifying a buffer corridor within which buildings, excavations and sensitive activities will generally not be provided for; and
- c. The adverse effects of infrastructure on the surrounding environment are managed, having regard to the economic benefits and technical and operational needs of infrastructure.

3.3.13 Objective - Emergency services and public safety

- a. Recovery of, and provision for, comprehensive emergency services throughout the city, including for their necessary access to properties and the water required for firefighting.

3.3.14 Objective - Incompatible activities

- a. The location of activities is controlled, primarily by zoning, to minimise conflicts between incompatible activities; and
- b. Conflicts between incompatible activities are avoided where there may be significant adverse effects on the health, safety and amenity of people and communities.

3.3.15 Objective - Temporary recovery activities

- a. Temporary construction and related activities (including infrastructure recovery), and temporarily displaced activities, as a consequence of the Canterbury earthquakes are enabled by:
 - i. Permitting a range of temporary construction and related activities and housing, accommodation, business, services and community facilities, recognising the temporary and localised nature of such activities, and the need to manage any significant adverse effects; and
 - ii. Providing an additional transitional period for consideration of temporary construction and related activities and temporarily displaced activities, taking into account:
 - A. the need for the activity to remain for a longer period; and
 - B. the effects on the surrounding community and environment; and
 - C. any implications for the recovery of those areas of the district where the activity is anticipated to be located; and

- iii. Accommodating the adverse effects associated with the recovery of transport and infrastructure networks recognising:
 - A. the temporary and localised nature of the effects of these activities; and
 - B. the long-term benefits to community wellbeing; and
 - C. the need to manage and reduce adverse effects; and
- iv. Recognising the importance of aggregate extraction, associated processing (including concrete manufacturing) and transportation of extracted and processed product to support recovery.

3.3.16 Objective - A productive and diverse rural environment

- a. A range of opportunities is enabled in the rural environment, primarily for rural productive activities, and also for other activities which use the rural resource efficiently and contribute positively to the economy.
- b. The contribution of rural land to maintaining the values of the natural and cultural environment, including Ngai Tahu values, is recognised.

3.3.17 Objective - Wai (Water) features and values, and Te Tai o Mahaanui

- a. The critical importance of wai (water) to life in the District, including surface freshwater, groundwater, and Te Tai o Mahaanui (water in the coastal environment) is recognised and provided for by:
 - i. taking an integrated approach to managing land use activities that could adversely affect wāi (water), based on the principle of 'Ki Uta Ki Tai' (from the mountains to the sea);
 - ii. ensuring that the life supporting and intrinsic natural and cultural values and characteristics associated with water bodies and coastal waters, their catchments and the connections between them are maintained, or improved where they have been degraded;
 - iii. ensuring subdivision, land use and development of land is managed to safeguard the District's potable wai (water) supplies, waipuna (springs), and water bodies and coastal waters and their margins; particularly Ōtākaro (Avon River), Ihutai (Avon-Heathcote Estuary), Whakaraupō (Lyttelton Harbour), Whakaroa (Akaroa Harbour) and Te Tai o Mahaanui;
 - iv. ensuring that Ngāi Tahu values and cultural interests in wai (water) as a taonga are recognised and protected.

Chapter 4 Hazardous Substances and Contaminated Land

4.1.2 Objectives and Policies

4.1.2.1 Objective - Adverse environmental effects

- a. The residual risks associated with the storage, use, or disposal of hazardous substances in the district are managed to acceptable levels to not adversely affect people, property and the environment while recognising the benefits of facilities using hazardous substances.

4.1.2.1.1 Policy - Location of new facilities using, storing or disposing of hazardous substances

- a. Locate new facilities using, storing, or disposing of hazardous substances on appropriate sites to ensure that any residual risks to strategic infrastructure are managed to acceptable levels.

4.1.2.1.2 Policy - Identifying and managing individual and cumulative effects of facilities using, storing, or disposing of hazardous substances

- a. Identify the individual and cumulative effects associated with facilities using, storing or disposing of hazardous substances and manage residual risks to people, property and the environment to acceptable levels.

4.1.2.2 Objective - Risk and reverse sensitivity effects

- a. Sensitive activities are established at suitable locations to minimise reverse sensitivity effects on and avoid unacceptable risks from established facilities using, storing or disposing of hazardous substances.

4.1.2.2.1 Policy - Establishment of sensitive activities

- a. The establishment of sensitive activities in close proximity to existing major facilities using, storing or disposing of hazardous substances shall be:
 - i. avoided in the first instance when that facility or area includes strategic infrastructure or where the sensitive activity may be exposed to unacceptable risk; and
 - ii. minimised, to allow such facilities to carry out their operations without unreasonable reverse sensitivity constraints.

4.1.2.2.2 Policy - Risk Management Areas

- a. Avoid sensitive activities locating within Risk Management Areas where these have the potential to be exposed to unacceptable risk and /or may otherwise constrain the development, operation, upgrading or maintenance of bulk fuel and gas terminals.

Advice note:

- 1. The Risk Management Areas are shown on Planning Map 47A. The geographic extent of these areas may be subject to a future plan change to have effect by 31st March 2019 and any such plan change would need to be based on the findings of a Quantitative Risk Assessment.

4.1.2.3 Objective - Acceptable slope stability risks in relation to hazardous substances

- a. Residual risks of adverse effects from the use, storage, or disposal of hazardous substances are managed to acceptable levels in areas affected by slope instability.

4.1.2.3.1 Policy - Risks and adverse effects within areas affected by natural hazards

- a. Design, construct and manage any proposal involving use, storage or disposal of hazardous substances within areas affected by slope instability to ensure residual risks are managed to acceptable levels.

4.2 Contaminated land

4.2.2 Objectives and Policies

4.2.2.1 Objective - Contaminated land - managing effects

- a. Land containing elevated levels of contaminants is managed to protect human health and the environment, which includes significant natural and Ngāi Tahu cultural values from the adverse effects of subdivision, development and use of contaminated land and natural hazards, including from site investigations, earthworks and soil disturbance, and to enable the land to be used in the future.

4.2.2.1.1 Policy - Best practice approach

- a. Require any proposal to subdivide, use or develop contaminated land or potentially contaminated land to apply a best practice approach to investigate the risks, and either remediate the contamination or manage activities on contaminated land to protect people and the environment.

Advice note:

1. The status of some activities will be determined by the requirements of the Resource Management (National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011. Reference should be made to the Ministry for the Environment website for a copy of these regulations, a user's guide, and documents incorporated by reference in these regulations.

4.2.2.1.2 Policy - Remediation

- a. Remediation of contaminated land should not pose a more significant risk to human health or the environment than if remediation had not occurred.

4.2.2.1.3 Policy - Future use

- a. Use or development of contaminated land that has been remediated or has an existing management plan in place, must not damage or destroy any containment works, unless comparable or better containment is provided.

Chapter 5 Natural Hazards

5.2 Objectives and Policies

5.2.1 Natural hazards objective

5.2.1.1 Objective - Natural hazards

- a. The Objective for this chapter is Objective 3.3.6 in Chapter 3 Strategic Directions.

5.2.2 Natural hazards policies

5.2.2.1 General natural hazards policies

5.2.2.1.1 Policy - Avoid new development where there is unacceptable risk

- a. Avoid new subdivision, use and development, including new urban zonings, where the risk from a natural hazard is assessed as being unacceptable.

5.2.2.1.2 Policy - Manage activities to address natural hazard risks

- a. Manage activities in all areas subject to natural hazards in a manner that is commensurate with the likelihood and consequences of a natural hazard event on life and property.

5.2.2.1.3 Policy - Infrastructure

- a. Avoid locating new critical infrastructure where it is at risk of being significantly affected by a natural hazard unless, considering functional and operational requirements, there is no reasonable alternative location or method.
- b. Enable critical infrastructure to be designed, maintained and managed to function to the extent practicable during and after natural hazard events.
- c. Recognise the benefits of infrastructure and the need for its repair, maintenance and ongoing use in areas affected by natural hazards.

5.2.2.1.4 Policy - No transferring of natural hazard risk

- a. Ensure that subdivision, use and development (including proposals for hazard mitigation works or hazard removal) do not transfer or create unacceptable natural hazard risk to other people, property, infrastructure or the natural environment.

5.2.2.1.5 Policy - Natural features providing hazard resilience

- a. Protect natural features which assist in avoiding or reducing the risk of natural hazards, such as natural ponding areas, coastal dunes, wetlands, water body margins and riparian vegetation from inappropriate subdivision, use and development and where appropriate restore, maintain or enhance the functioning of these features.

5.2.2.1.6 Policy - Awareness of natural hazards

- a. Ensure people are informed about the natural hazards relating to their properties and surrounding area, including through provision of relevant information on Land Information Memoranda and hazard mapping on the Council's website.
- b. Encourage property owners to incorporate measures into buildings including earthquake damaged buildings beyond existing use rights or minimum building standards to avoid or mitigate natural hazards affecting their property.

5.2.2.1.7 Policy - Repair of earthquake damaged land

- a. Facilitate recovery by enabling property owners to make repairs to earthquake damaged land for residential purposes, where these repairs will appropriately manage adverse effects on people, property or the natural environment.
- b. Recognise that the repair of other earthquake damaged land is necessary as part of recovery.

5.2.2.1.8 Policy - Assessment of hazards

- a. Ensure that the level of assessment undertaken for plan changes, subdivision or development reflects the potential scale and significance of the hazard; and the nature and scale of the rezoning, subdivision or development and its susceptibility to those hazards.

5.2.2.2 Policy for managing risk from flooding

5.2.2.2.1 Policy - Flooding

- a. Map hazard risk for the Flood Management Area based on:
 - i. a modelled 0.5% AEP (1 in 200-year) rainfall event plus a 5% AEP (1 in 20-year) tide event plus 250mm freeboard; OR a modelled 5% AEP (1 in 20-year flood event) plus a 0.5% AEP (1 in 200-year) tide event plus 250mm freeboard; OR 11.9m above Christchurch City Council Datum (the maximum 200-year tidal contour) plus 250mm freeboard; whichever is the greater; and
 - ii. allowance for 1 metre of sea level rise and an increase in rainfall intensity by 16% through to 2115 as a result of climate change; and
 - iii. a maximum buffer extension of the modelled rainfall event areas by 60 metres in a north/south and east/west direction.
- b. In the High Flood Hazard Management Area:
 - i. provide for development of a residential unit on residentially zoned land where the flooding risk is predominantly influenced by sea-level rise and where appropriate mitigation can be provided that protects people's safety, well-being and property from unacceptable risk; and
 - ii. in all other cases, avoid subdivision, use or development where it will increase the potential risk to people's safety, well-being and property.
- c. Avoid activities locating where they could undermine the integrity of the Waimakariri River primary stopbank system, and restrict activities locating where they could undermine the integrity of the Waimakariri River secondary stopbank system.
- d. Maintain the flood storage capacity and function of natural floodplains, wetlands and ponding areas, including the Hendersons Basin, Cashmere Stream Floodplain, Hoon Hay Valley, Cashmere-Worsleys Ponding Area, Cranford Basin and Lower Styx Ponding Area¹.
- e. Except for filling required to meet minimum floor levels, ensure that filling in urban areas at risk of flooding in a major flood event does not transfer flooding risk to other people, property, infrastructure or the natural environment.

- f. Reduce potential flood damage by ensuring floor levels for new buildings or additions to buildings, except those unlikely to suffer material damage, are above flooding predicted to occur in a major flood event, including an allowance for appropriate freeboard.

¹ This policy does not foreclose compensatory storage being provided for where filling is required.

5.2.2.3 Policy for managing risk from liquefaction

5.2.2.3.1 Policy - Management of liquefaction risk

- a. Map the Liquefaction Management Area based on a district-wide assessment of where damaging liquefaction is more likely to occur.
- b. Provide for rezoning, subdivision, use and development on flat land where liquefaction risk has been appropriately identified and assessed, and can be adequately remedied or mitigated.

Chapter 6 General Rules and Procedures

6.1 Noise

6.1.2 Objectives and Policies

6.1.2.1 Objective - Adverse noise effects

- a. Adverse noise effects on the amenity values and health of people and communities are managed to levels consistent with the anticipated outcomes for the receiving environment.

6.1.2.1.1 Policy - Managing noise effects

- a. Manage adverse noise effects by:
 - i. limitations on the sound level, location and duration of noisy activities;
 - ii. requiring sound insulation for sensitive activities or limiting their location relative to activities with elevated noise levels.

6.1.2.1.2 Policy - Noise during night hours

- a. Achieve lower noise levels during night hours to protect sleep, and the amenity values of residential and other sensitive environments, so far as is practicable.

6.1.2.1.4 Policy - Activities in key locations outside the Central City

- a. Enable land use activities at identified facilities (Refer to Rule 6.1.6.2.3 Temporary activities) outside the Central City that contribute to Christchurch's economic, social, and cultural wellbeing while ensuring the adverse noise effects of activities on the surrounding community and environment are managed to levels consistent with the anticipated outcomes for the receiving environment.

6.6 Water Body Setbacks

6.6.2 Objectives and Policies

6.6.2.1 Objective - Protection of water bodies and their margins from inappropriate use and development

- a. Activities and development in water body margins are managed in a way that protects and/or enhances the following values and functions of the water body and its margins: flood management; water quality; riparian or aquatic ecosystems; the natural character and amenity values of the water body; historic heritage or cultural values; and access where appropriate for recreation activities, customary practices including mahinga kai, or maintenance.

6.6.2.1.1 Policy - Naturalisation of water bodies and their margins

- a. Take a catchment-wide approach to protecting and/or enhancing the natural form, function and ecology of water bodies and their margins in order to maintain or improve (where degraded) water quality, flood control, biodiversity, bank stability, mahinga kai, and amenity values, while:
 - i. in City and Settlement areas (see Rule 6.6.4), supporting the provision of ecological corridors and public access where possible, recognising this may not be fully achievable for some classifications of water body because of historic development patterns or adjoining land uses.
 - ii. in Rural areas (see Rule 6.6.5), providing for rural activities while:
 - A. ensuring adverse effects of land uses on the functions of water bodies are managed; and
 - B. recognising that protecting or improving water quality is a priority matter.
 - iii. in Natural areas (see Rule 6.6.6), minimising development in water body setbacks.

6.6.2.1.2 Policy - Setbacks from water bodies

- a. Manage adverse effects of activities on water bodies and their margins within water body setbacks in a manner that is consistent with the classification of the water body.

	<p><u>Water body</u> classification</p> <p>(The characteristics of each <u>water body</u> classification are described in Appendix 6.11.5.1)</p>	<p>Functions of the <u>water body setback</u></p>
i.	All	<ol style="list-style-type: none"> 1. Providing a buffer zone for natural erosion, sedimentation and land movement in the weak saturated soils that border <u>water bodies</u>; and minimising the risk that these processes pose to <u>buildings</u> or other structures. 2. Minimising flood risk and damage by providing flood storage capacity, dispersal and effective land drainage; and managing risk and damage from structures that transfer flood hazard. 3. Improving water quality and catchment-wide ecosystem health by filtering potential contaminants. 4. Allowing space for riparian planting where possible in a continuous corridor to improve ecological values, and bank and slope stability. 5. Providing access for the maintenance of <u>water bodies</u> and any associated hazard protection works.
ii.	Downstream waterway	<ol style="list-style-type: none"> 1. Maintaining or enhancing habitat for terrestrial and aquatic animals and plants.
iii.	Upstream waterway	<ol style="list-style-type: none"> 2. Encouraging the establishment, retention and maintenance of significant appropriate riparian vegetation. 3. Contributing to the open space character and <u>amenity values</u> of the surrounding area. 4. Supporting customary uses, including mahinga kai, within the <u>water body</u>, its margins and catchment. 5. Providing recreational opportunities for the public where this is consistent with the other functions of the <u>water body setback</u>.
iv.	Environmental asset waterway	<ol style="list-style-type: none"> 1. Maintaining or enhancing habitat for terrestrial and aquatic animals and plants. 2. Encouraging the establishment, retention and maintenance of appropriate riparian vegetation. 3. Contributing to the open space character and <u>amenity values</u> of the immediate area.

	<p><u>Water body</u> classification</p> <p>(The characteristics of each <u>water body</u> classification are described in Appendix 6.11.5.1)</p>	Functions of the <u>water body setback</u>
v.	<u>Network waterway</u>	1. Where feasible, creating or enhancing ecological corridors for terrestrial and aquatic animals and plants.
vi.	<u>Hill waterway</u>	<ol style="list-style-type: none"> Contributing to the open space character and <u>amenity values</u> of the surrounding area. Maintaining or enhancing habitat for terrestrial and aquatic animals and plants.
vii.	Environmental asset standing water body	<ol style="list-style-type: none"> Providing habitat for a wide range of terrestrial and aquatic animals and plants. Encouraging the establishment, retention and maintenance of appropriate riparian vegetation. Contributing to the open space character and <u>amenity values</u> of the surrounding area. Supporting customary uses including mahinga kai within the <u>water body</u>, its margins and catchment. Providing recreational opportunities for the public where this is consistent with the other functions of the <u>water body setback</u>.
viii.	Banks Peninsula waterway	<ol style="list-style-type: none"> Providing interim protection of values for waterways on <u>Banks Peninsula</u> that have not yet been classified. Maintaining or enhancing habitat for terrestrial, and aquatic animals and plants. Encouraging the establishment, retention and maintenance of appropriate riparian vegetation. Contributing to the open space character and <u>amenity values</u> of the immediate area.

6.6.2.1.3 Policy - Management of activities in water body setbacks

- a. Where buildings, earthworks, other structures, impervious surfaces, or maintenance and enhancement works are undertaken within a water body setback, manage the activity so that:

- i. any identified cultural significance of the water body to tangata whenua is appropriately recognised and provided for, including provision for customary access and use where applicable;
- ii. water quality, biodiversity, and mahinga kai values are maintained or enhanced;
- iii. connectivity between land, natural freshwater systems and the coast are retained or enhanced;
- iv. the stability of water body banks and adjacent land is maintained and sedimentation and erosion minimised;
- v. access for maintenance is enabled;
- vi. the ability of water body margins, channels or ponding areas to store and/or convey surface water safely and efficiently is not impeded;
- vii. flood events are not exacerbated;
- viii. adverse effects of flooding or erosion are not transferred to another site;
- ix. amenity values and natural character values, including riparian planting, are retained or enhanced;
- x. activities do not, to more than a minor extent, disturb or visually detract from:
 - A. Sites of Ecological Significance listed in Schedule A of Appendix 9.1.6.1;
 - B. Outstanding Natural Landscapes identified in Appendix 9.2.9.2.2;
 - C. Outstanding Natural Features identified in Appendix 9.2.9.2.1;
 - D. Significant Features identified in Appendix 9.2.9.2.3;
 - E. Rural Amenity Landscapes identified in Appendix 9.2.9.2.4;
 - F. Areas of Outstanding, or High and Very High, Natural Character in the Coastal Environment identified in Appendices 9.2.9.2.7 and 9.2.9.2.8;
 - G. Heritage items or heritage settings listed in Appendix 9.3.7.2;
 - H. Significant Trees listed in Appendix 9.4.7.1;
 - I. Wāhi Tapu/Wāhi Taonga sites of Ngāi Tahu Cultural Significance identified in Schedule 9.5.6.1 and, in the case of earthworks, Kaitōrete Spit (ID 64) identified in Schedule 9.5.6.2;
 - J. Ngā Wai sites of Ngāi Tahu Cultural Significance identified in Schedule 9.5.6.4;
- xi. provision is made for public access appropriate to the classification and location of the water body and having regard to:
 - A. the relationship of tangata whenua with their ancestral lands, water and sites;
 - B. protection of Sites of Ecological Significance listed in Schedule A of Appendix 9.1.6.1;
 - C. residential amenity;
 - D. Outstanding Natural Landscapes identified in Appendix 9.2.9.2.2;
 - E. Outstanding Natural Features identified in Appendix 9.2.9.2.1
 - F. bank and land stability;
 - G. public safety;
 - H. the operational or security requirements of infrastructure;

- I. property ownership and the safe and efficient operation of rural and industrial sites.

6.8 Signs

6.8.2 Objectives and Policies

6.8.2.1 Objective - Signage

- a. Signage collectively contributes to Christchurch's vitality and recovery by:
 - i. supporting the needs of business, infrastructure and community activities;
 - ii. maintaining public safety; and
 - iii. enhancing the visual amenity values and character of the surrounding area, building or structures.

6.8.2.1.1 Policy - Enabling signage in appropriate locations

- a. Enable signage:
 - i. as an integral component of commercial and industrial environments, strategic infrastructure and community activities throughout the Christchurch District; and
 - ii. that is necessary for public health and safety and to provide direction to the public.

6.8.2.1.2 Policy - Controlling signage in sensitive locations

- a. Ensure the character and amenity values of residential, open space and rural zones are protected from adverse visual and amenity effects from large areas or numbers of signs, or off-site signs within these zones.

6.8.2.1.3 Policy - Managing the potential effects of signage

- a. In considering Policies 6.8.2.1.1 and 6.8.2.1.2, ensure that the size, number, height, location, design, appearance and standard of maintenance of signs:
 - i. do not detract from, and where possible contribute to, the character and visual amenity of the surrounding area and public realm;
 - ii. integrate within the façade of the building, do not detract from the integrity of the building design, and maintain the building as the primary visual element;
 - iii. are in proportion to the scale of buildings and the size of the site; and
 - iv. enhance the Central City.

6.8.2.1.4 Policy - Transport safety

- a. Ensure that signs do not cause obstruction and/or distraction for motorists and pedestrians and other road users.

6.8.2.1.6 Policy - Managing off-site signage

- a. Limit off-site signs in the sensitive zones specified in Policy 6.8.2.1.2 and to enable such signage where it:
 - i. is compatible with the surrounding environment and is located within a commercial or industrial context;
 - ii. is appropriately maintained;
 - iii. will not cause or contribute to visual clutter and other cumulative adverse effects; and
 - iv. is consistent with the outcomes sought in Policy 6.8.2.1.3.

Chapter 7 Transport

7.2 Objectives and Policies

7.2.1 Objective - Integrated transport system for Christchurch District

- a. An integrated transport system for Christchurch District:
 - i. that is safe and efficient for all transport modes;
 - ii. that is responsive to the current recovery needs, future needs, and enables economic development, in particular an accessible Central City able to accommodate projected population growth;
 - iii. that supports safe, healthy and liveable communities by maximising integration with land use;
 - iv. that reduces dependency on private motor vehicles and promotes the use of public and active transport;
 - v. that is managed using the one network approach.

Advice note:

1. The "One Network Approach" is an approach where the transport network is considered as a whole. The aim of this approach is to ensure that the management and provision of all transport infrastructure (including all transport modes) is well connected and undertaken in an efficient and integrated manner. For more guidance on how the "one network approach" is applied, please refer to the Greater Christchurch Transport Statement 2012 and Christchurch Transport Strategic Plan 2012.

7.2.1.1 Policy - Establishment of a road classification system

- a. Identify a road network that connects people and places and recognises different access and movement functions for all people and transport modes, whilst:
 - i. supporting the safe and efficient operation of the transport network;
 - ii. providing for public places in accordance with the function of the road to enable community activities including opportunities for people to interact and spend time;
 - iii. providing space for utility services;
 - iv. reflecting neighbourhood identity and amenity values;
 - v. recognising cross-boundary connections with adjoining districts; and
 - vi. providing for the efficient and effective functioning of the strategic transport network, including for freight.
- b. Recognise the Central City in the road classification system by establishing a people-focused and slow vehicle inner zone which provides safe and effective access and movement for all forms of transport.

Advice note:

1. Refer to Appendix 7.5.12 for a description of the road classification system.
2. Policy 7.2.1.1 also achieves Objective 7.2.2.

7.2.1.2 Policy - High trip generating activities

- a. Manage the adverse effects of high trip generating activities, except for permitted activities within the Central City, on the transport system by assessing their location and design with regard to the extent that they:
 - i. are permitted¹ by the zone in which they are located;
 - ii. are located in urban areas and generate additional vehicle trips beyond what is already established or consented, unless the already established or consented vehicle trips are specifically included in rule thresholds;
 - iii. are accessible by a range of transport modes and encourage public and active transport use;
 - iv. do not compromise the safe, efficient and effective use of the transport system;
 - v. provide patterns of development that optimise use of the existing transport system;
 - vi. maximise positive transport effects;
 - vii. avoid significant adverse transport effects of activities where they are not permitted by the zone in which they are located;
 - viii. mitigate other adverse transport effects, such as effects on communities, and the amenity values of the surrounding environment, including through travel demand management measures;
 - ix. provide for the transport needs of people whose mobility is restricted; and

- x. integrate and coordinate with the transport system, including proposed transport infrastructure and service improvements.

¹ Refers to the activity being listed as a permitted activity in the activity status table for the zone in which it is located.

Advice note:

- 1. Policy 7.2.1.2 also achieves Objective 7.2.2.

7.2.1.3 Policy - Vehicle access and manoeuvring

- a. Provide vehicle access and manoeuvring, including for emergency service vehicles, compatible with the road classification, which ensures safety, and the efficiency of the transport system.

Advice note:

- 1. Policy 7.2.1.3 also achieves Objective 7.2.2.

7.2.1.4 Policy - Requirements for car parking and loading

- a. Outside the Central City:

- i. Require car parking spaces and loading spaces which provide for the expected needs of an activity in a way that manages adverse effects.
- ii. Enable a reduction in the number of car parking spaces required in circumstances where it can be demonstrated that:
 - A. the function of the surrounding transport network and amenity of the surrounding environment will not be adversely affected; and/or
 - B. there is good accessibility by active and public transport and the activity is designed to encourage public and active transport use; and/or
 - C. the extent of the reduction is appropriate to the characteristics of the activity and its location; and/or
 - D. the extent of the reduction will maintain on-site parking to meet anticipated demand.

- b. Within the Central City:

- i. Enable activities to provide car parking spaces and loading spaces, whilst minimising any adverse effects on the efficiency and safety of the transportation networks, including public transport, to the extent practicable.
- ii. Manage the development of commercial car parking buildings and parking lots within the Central City so that they:
 - A. support the recovery of the Central City;
 - B. are easily accessible for businesses within the Central City;

- C. minimise any adverse effects on the efficiency and safety of the transportation networks of all users, to the extent practicable;
 - D. protect the amenity values of the Central City;
 - E. reduce the need for activities to provide their own on-site parking;
 - F. do not significantly adversely affect the demand for public transport to, from or within the Central City.
- iii. Allow for temporarily vacant sites to be used for car parking areas within the Central City until 30 April 2018.

Advice note:

1. Policy 7.2.1.4 also achieves Objective 7.2.2.

7.2.1.5 Policy - Design of car parking areas and loading areas

- a. Require that car parking areas and loading areas are designed to:
- i. operate safely and efficiently for all transport modes and users;
 - ii. function and be formed in a way that is compatible with the character and amenity values of the surrounding environment; and
 - iii. be accessible for people whose mobility is restricted.

Advice note:

1. Policy 7.2.1.5 also achieves Objective 7.2.2.

7.2.1.6 Policy - Promote public transport and active transport

- a. Promote public and active transport by:
- i. ensuring new, and upgrades to existing, road corridors provide sufficient space and facilities to promote safe walking, cycling and public transport, in accordance with the road classification where they contribute to the delivery of an integrated transport system;
 - ii. ensuring activities provide an adequate amount of safe, secure, and convenient cycle parking and, outside the Central City, associated end of trip facilities;
 - iii. encouraging the use of travel demand management options that help facilitate the use of public transport, cycling, walking and options to minimise the need to travel; and
 - iv. requiring new District Centres to provide opportunities for a public transport interchange.
 - v. encouraging the formation of new Central City lanes and upgrading of existing lanes in the Central City, where appropriate, to provide for walking and cycling linkages and public spaces.
 - vi. developing a core pedestrian area within the Central City which is compact, convenient and safe, with a wider comprehensive network of pedestrians and cycle linkages that are

appropriately sized, direct, legible, prioritized, safe, have high amenity, ensure access for the mobility impaired and are free from encroachment.

Advice note:

1. Policy 7.2.1.6 also achieves Objective 7.2.2.

7.2.1.7 Policy - Rail level crossings

- a. Improve or maintain safety at road/rail level crossings by:
 - i. requiring safe visibility at uncontrolled level crossings;
 - ii. managing vehicle accesses close to level crossings; and
 - iii. managing the creation of new level crossings.

Advice note:

1. Policy 7.2.1.7 also achieves Objective 7.2.2.

7.2.1.8 Policy - Effects from transport infrastructure

- a. Avoid or mitigate adverse effects and promote positive effects from new transport infrastructure and changes to existing transport infrastructure on the environment, including:
 - i. air and water quality;
 - ii. connectivity of communities;
 - iii. noise, vibration and glare;
 - iv. amenity and effects on the built environment;
 - v. well-being and safety of users.

Advice note:

1. Policy 7.2.1.8 also achieves Objective 7.2.2.

7.2.2 Objective - Adverse effects from the transport system

- a. Enable Christchurch District's transport system to provide for the transportation needs of people and freight whilst managing adverse effects from the transport system.

7.2.2.1 Policy - Effects from the strategic transport network

- a. To manage any adverse effects from the ongoing use, repair, and development of the strategic transport network, whilst recognising the national and regional scale and economic importance of this network, and the role of the strategic transport network in the recovery of Christchurch.

7.2.2.2 Policy - Activities within the Transport Zone

- a. Enable activities for transport purposes and ancillary activities within the Transport Zone that seek to provide, maintain or improve:
 - i. the safety, amenity values, efficiency and functionality of the Transport Zone, in particular the strategic transport network; and
 - ii. structures, facilities, services and installations of the transport network.
- b. Enable non-transport related activities which contribute to public amenity values and/or provide a public place for community activities, including opportunities for people to interact and spend time whilst not having an adverse effect on:
 - i. the safety, amenity, efficiency and functionality of the transport function of the Zone; and
 - ii. the potential for the full width of the Transport Zone to be utilised for transport use in the future.
- c. Outside the Central City, where land in the Transport Zone is not immediately required for transport purposes, enable non-transport related activities that:
 - i. will not give rise to reverse sensitivity effects that would undermine transport activities in the zone;
 - ii. do not prevent land designated for transport purposes reverting to a transport use when required;
 - iii. do not undermine the future transport use of the land designated for transport purposes; and
 - iv. are consistent with the activities provided for in the adjoining zones.
- d. Ensure the development of the Central City South Frame Pedestrian Precinct as shown on the planning maps provides, in particular, for safe and convenient pedestrian and cycle access through the South Frame.

7.2.2.3 Policy - Effect on adjacent land uses to the Transport Zone

- a. Manage the adverse effect(s) of an activity within the Transport Zone so that the effects of the activity are consistent with the amenity values and activity of adjacent land uses, whilst providing for the transport network, in particular the strategic transport network to function efficiently and safely.
- b. To ensure adjacent land uses are designed, located and maintained in such a way as to avoid reverse sensitivity effects on the strategic transport network.

Advice note:

1. Policies 7.2.1.1, 7.2.1.2, 7.2.1.3, 7.2.1.4, 7.2.1.5, 7.2.1.6, 7.2.1.7, 7.2.1.8 also apply to Objective 7.2.2.

2. Policies 7.2.2.2, 7.2.2.3 also apply to Objective 7.2.1.
3. For more details on the Council's vision, expectation and plans for transport, during the recovery period and longer term, please refer to the 'Christchurch Transport Strategic Plan'.

Chapter 8 Subdivision, Development and Earthworks

8.2 Objectives and Policies

8.2.1 Objectives and Policies - Chapter 9 Natural and Cultural Heritage

Advice note:

1. Reference should also be made to the objectives and policies in Chapter 9 Natural and Cultural Heritage.

8.2.2 Objective - Design and amenity and the Meadowlands Exemplar Overlay

- a. An integrated pattern of development and urban form through subdivision and comprehensive development that:
 - i. provides allotments for the anticipated or existing land uses for the zone;
 - ii. consolidates development for urban activities;
 - iii. improves people's connectivity and accessibility to employment, transport, services and community facilities;
 - iv. improves energy efficiency and provides for renewable energy and use; and
 - v. enables the recovery of the district.
- b. A comprehensively planned development in the Meadowlands Exemplar Overlay in the Residential New Neighbourhood (North Halswell) Zone that is environmentally and socially sustainable over the long term.

8.2.2.1 Policy - Recovery activities

- a. Ensure that subdivision processes enable recovery initiatives including by facilitating:
 - i. subdivision of greenfield and intensification areas;
 - ii. the issue of fee simple title where the following permitted or approved initiatives occur:
 - A. conversion of a residential unit into two residential units;

- B. conversion of a family flat into a residential unit;
 - C. replacement of a residential unit with two residential units;
 - D. comprehensive development using the Enhanced development mechanism; or
 - E. comprehensive development using the Community housing redevelopment mechanism.
- iii. conversion of the type of tenure from a cross lease or unit title to fee simple; and
 - iv. subdivision of a cross lease or unit title site arising from the updating of a flat plan or unit plan;
- b. Recognise that quarrying and other interim activities may be a suitable part of preparing identified greenfield priority areas for urban development, provided that their adverse effects can be adequately mitigated and they do not compromise use of the land for future urban development.

8.2.2.2 Policy - Design and amenity / Tohungatanga

- a. Ensure that subdivision;
 - i. incorporates the distinctive characteristics of the place's context and setting;
 - ii. promotes the health and wellbeing of residents and communities; and
 - iii. provides an opportunity to recognise Ngāi Tahu culture, history and identity associated with specific places, and affirms connections between mana whenua and place, particularly with sites of Ngāi Tahu cultural significance identified in Appendix 9.5.6.

8.2.2.3 Policy - Allotments

- a. Ensure that the layouts, sizes and dimensions of allotments created by subdivision are appropriate for the anticipated or existing land uses.
- b. In residential subdivisions (outside the Central City), provide for a variety of allotment sizes to cater for different housing types and affordability.

8.2.2.4 Policy - Identity

- a. Create or extend neighbourhoods which respond to their context and have a distinct identity and sense of place, by ensuring that subdivision, where relevant:
 - i. incorporates and responds to existing site features (including trees, natural drainage systems, buildings), cultural elements and values and amenity values (including by taking advantage of views and outlooks);
 - ii. incorporates public spaces that provide opportunities for formal and informal social interaction;
 - iii. has a pattern of development that responds to the existing urban context;

- iv. is designed with a focus on the use of open space, commercial centres, community facilities, and the use of views;
- v. outside the Central City, in addition to iv., is designed with a focus on density, roads, land form, stormwater facilities and, in the Residential New Neighbourhood Zone, development requirements in an outline development plan, as key structuring elements; and
- vi. incorporates and responds to Rangatiratanga – the expression of te reo kawa, tikanga, history, identity and the cultural symbols of Ngāi Tahu.

8.2.2.5 Policy - Sustainable design

- a. Enable resource efficiency, use of renewable energy, and community safety and development, by:
 - i. ensuring that the blocks and allotments maximise solar gain, including through orientation and dimension;
 - ii. providing a development pattern that supports walking, cycling and public transport; and
 - iii. ensuring visibility and interaction between private and public spaces, and providing well-lit public spaces.

8.2.2.6 Policy - Integration and connectivity

- a. Ensure effective integration within and between developments and existing areas, including in relation to public open space networks, infrastructure, and movement networks.
- b. Ensure that the boundaries between new and existing developments are, where appropriate, managed to avoid or mitigate adverse effects.
- c. Outside the Central City, avoid significant adverse effects and remedy or mitigate other adverse effects on existing businesses, rural activities or infrastructure.

8.2.2.7 Policy - Open space

- a. Ensure, where appropriate, the provision and development of public open space networks which:
 - i. are accessible and safe and provide for various forms of recreation, including active recreation, for the health and wellbeing of communities;
 - ii. outside the Central City, are within 400m of new residential allotments in greenfield and brownfield areas;
 - iii. recognise the landscape and natural features in the wider area and link or connect to other green or open space, community facilities, commercial centres, areas of higher density residential development, landforms and roads;

- iv. recognise and protect values associated with significant natural features and significant landscapes, and protect or enhance ecological function and biodiversity;
- v. reinforce and uphold the Garden City landscape character of urban Christchurch City and the heritage landscapes and plantings of Banks Peninsula townships and settlements;
- vi. provide access to heritage places and natural and cultural landscapes including the coastline, lakes and waterways and wetlands; and
- vii. strengthen the relationship that Ngāi Tahu and the community have with the land and water, including by protecting or enhancing natural features, customary access, mahinga kai and sites of Ngāi Tahu cultural significance identified in Schedule 9.5.6.1, and by recognising other sites of Ngāi Tahu cultural significance identified in Appendix 9.5.6 where practicable.

8.2.2.8 Policy - Urban density

- a. Subdivision in the Residential Medium Density Zone must enable development which achieves a net density of at least 30 households per hectare.
- b. In the Residential New Neighbourhood Zone residential development areas:
 - i. a minimum net density of 15 households per hectare shall be achieved when averaged across the whole of the residential development area within the relevant outline development plan, except:
 - A. in the Residential New Neighbourhood (Prestons) Zone a minimum net density between 13 and 15 households per hectare shall be achieved; and
 - B. in areas shown on an outline development plan as being subject to development constraints;
 - ii. any subdivision, use and development which results in a residential net density lower than the required density shall demonstrate, through the use of legal mechanisms as appropriate, that the residential net density required across residential development areas of the outline development plan can still be achieved; and
 - iii. except as provided for in (ii) above, where an application is made for subdivision that would not achieve the required residential density, Council will regard all owners of greenfield (undeveloped) land within the outline development plan area as affected parties.
- c. In the Residential New Neighbourhood Zone, encourage higher density housing to be located to support, and have ready access to, commercial centres, community facilities, public transport and open space, and to support well-connected walkable communities.
- d. Subdivision in the Residential Central City Zone must enable development which achieves a net density of at least 50 households per hectare.

8.2.2.9 Policy - Outline development plans

- a. An outline development plan (as relevant) must demonstrate that:
- i. land uses will be distributed in a way that is consistent with Policy 8.2.2.8;
 - ii. land for community uses will be provided in locations convenient to the community and of an adequate size to serve the intended population;
 - iii. adequate infrastructure capacity will be available to service the intended population and/or business activities;
 - iv. infrastructure and transport connections will be integrated effectively with networks in neighbouring areas, and with strategic infrastructure;
 - v. infrastructure and transport connections through the outline development plan area will support co-ordinated development between different landowners;
 - vi. natural hazards will be managed in an integrated way across the area; and
 - vii. significant natural and cultural heritage features, sites of Ngāi Tahu cultural significance identified in Schedule 9.5.6.1, and the quality of surface water and groundwater, will be protected;
- and where required to give effect to the Canterbury Regional Policy Statement Policy 6.3.3, include the necessary information set out in that policy.
- b. Information in outline development plans:
- i. should be presented in the form of one or two plans that show a distribution of land uses, infrastructure and transport networks and connections, areas set aside from development and other land use features; and
 - ii. may include an accompanying narrative that:
 - A. is concise and addresses matters in Policy 8.2.2.9(a) and any matters required to give effect to the Canterbury Regional Policy Statement Policy 6.3.3 that cannot be shown on the plans;
 - B. describes the context and provides guidance on the outcomes sought;
 - C. specifies development requirements that must be achieved to be considered as being in accordance with the outline development plan; and
 - D. states any staging requirements that give consideration to the provision, funding, implementation and operation of new and upgraded infrastructure and will guide infrastructure planning processes of the Council and other network providers.
- c. Subdivision, use and development shall be in accordance with the development requirements in the relevant outline development plan, or otherwise achieve similar or better outcomes.
- d. Any quarrying or other interim activity shall not compromise the timely implementation of, or outcomes sought by, the outline development plan.

8.2.2.10 Policy - Comprehensive Residential Development

- a. In the Residential New Neighbourhood Zone, encourage comprehensive residential developments that are in accordance with the relevant outline development plan as a means of achieving co-ordinated, sustainable and efficient development outcomes.

8.2.2.11 Policy - Access to waterways / Mana whakahaere

- a. Provide for appropriate public access and customary access to and along the margins of rivers, lakes, waterways and the coastline, including through esplanade reserves and strips, except in respect of Lyttelton Port of Christchurch where such provision is inappropriate due to the necessity to ensure public safety and the security of adjoining cargo and adjoining activities.

8.2.3 Objective - Infrastructure and transport

- a. Subdivision design and development promotes efficient provision and use of infrastructure and transport networks.
- b. A legible, well connected, highly walkable, and comprehensive movement network for all transport modes is provided.
- c. Outside the Central City, land is set aside for services which can also be used for other activities, such as pedestrian or cycle ways.

8.2.3.2 Policy - Availability, provision and design of, and connections to, infrastructure

- a. Manage the subdivision of land to ensure development resulting from the creation of additional allotments:
 - i. does not occur in areas where infrastructure is not performing, serviceable or functional; and
 - ii. will be appropriately connected to and adequately serviced by infrastructure, including through any required upgrade to existing infrastructure.
- b. Ensure that new network infrastructure provided in relation to, or as part of, subdivision development is constructed, designed and located so that it is resilient to disruption from significant seismic or other natural events including by ensuring that, as far as practicable, damage from such events is minimised.
- c. Ensure that, as part of subdivision, there is adequate provision, with sufficient capacity, to service the scale and nature of anticipated land uses resulting from the subdivision, for:
 - i. wastewater disposal, including lawful trade waste disposal for anticipated industrial development, consistent with maintaining public health and minimising adverse effects on the environment;
 - ii. water supply, including water of a potable standard for human consumption, and water for fire fighting purposes;

- iii. telecommunication services including connection to a telecommunication system, with new lines being generally underground in new urban areas; and
 - iv. electric power supply, with new lines being generally underground in new urban areas - including, if necessary, ensuring the provision of new or additional or the upgrading of existing infrastructure in a manner that is appropriate for the amenities of the area.
- d. Where wastewater disposal is to a reticulated system, ensure all new allotments are provided with a means of connection to the system.
 - e. Where a reticulated wastewater system is not available, ensure appropriate onsite or standalone communal treatment systems are installed.
 - f. Promote use of appropriate on-site measures to manage the effects of trade wastes and reduce peak flows and loading on wastewater systems.

8.2.3.3 Policy - Transport and access

- a. Ensure the provision and development of comprehensive movement networks for all transport modes that:
 - i. are legible, well connected, highly walkable, safe and efficient; and
 - ii. enable access by people of all ages and physical abilities to public open space facilities, public transport, suburban centres, and community facilities and to move between neighbourhoods and the wider urban area.
- b. Ensure movement networks enable:
 - i. vehicle parking, which in the Central City should be in accordance with the road classification;
 - ii. access to properties, including for fire appliances;
 - iii. street landscaping, including street trees;
 - iv. safety and visibility;
 - v. ease of navigation;
 - vi. surface water management, in relation to movement networks; and
 - vii. utility services.
- c. Ensure that, where road or property access to an existing road is created, the existing road is of an appropriate standard.

8.2.3.4 Policy - Stormwater disposal

- a. District wide:
 - i. Avoid any increase in sediment and contaminants entering water bodies as a result of stormwater disposal.
 - ii. Ensure that stormwater is disposed of in a manner which maintains or enhances the quality of surface water and groundwater.

- iii. Ensure that any necessary stormwater control and disposal systems and the upgrading of existing infrastructure are sufficient for the amount and rate of anticipated runoff.
 - iv. Ensure that stormwater is disposed of in a manner which is consistent with maintaining public health.
- b. Outside the Central City:
- i. Encourage stormwater treatment and disposal through low-impact or water-sensitive designs that imitate natural processes to manage and mitigate the adverse effects of stormwater discharges.
 - ii. Ensure stormwater is disposed of in stormwater management areas so as to avoid inundation within the subdivision or on adjoining land.
 - iii. Where feasible, utilise stormwater management areas for multiple uses and ensure they have a high quality interface with residential activities or commercial activities.
 - iv. Incorporate and plant indigenous vegetation that is appropriate to the specific site.
 - v. Ensure that realignment of any watercourse occurs in a manner that improves stormwater drainage and enhances ecological, mahinga kai and landscape values.
 - vi. Ensure that stormwater management measures do not increase the potential for birdstrike to aircraft in proximity to the airport.
 - vii. Encourage on-site rain-water collection for non-potable use.
 - viii. Ensure there is sufficient capacity to meet the required level of service in the infrastructure design standard or if sufficient capacity is not available, ensure that the effects of development are mitigated on-site.

8.2.3.5 Policy - Adverse effects on infrastructure

- a. Ensure that the requirements of infrastructure, including their ongoing operation, development and maintenance, are recognised in subdivision design, including any potential for adverse effects (including reverse sensitivity effects) from subdivision.
- b. Ensure that the operation, development and maintenance of the Lyttelton Port is not compromised by subdivision, including in relation to reverse sensitivity effects.

8.2.4 Objective - Earthworks

- a. Earthworks facilitate subdivision, use and development, the provision of utilities, hazard mitigation and the recovery of the district.

8.2.4.1 Policy - Water quality

- a. Ensure earthworks do not result in erosion, inundation or siltation, and do not have an adverse effect on surface water or groundwater quality.

8.2.4.2 Policy - Repair of earthquake damaged land

- a. Facilitate recovery by enabling property owners to make repairs to earthquake damaged land for residential purposes, where the repairs will have acceptable adverse effects on people, property and the natural environment.
- b. Recognise the need for the repair of other earthquake damaged land as part of recovery.

8.2.4.3 Policy - Benefits of earthworks

- a. Recognise that earthworks are necessary for subdivision, use and development, the provision of utilities, hazard mitigation and the recovery of the district.

8.2.4.4 Policy - Amenity

- a. Ensure, once completed, earthworks do not result in any significant shading, visual impact, loss of privacy or other significant detraction from the amenity values enjoyed by those living or working in the locality.

8.2.5 Objective - Earthworks health and safety

- a. People and property are protected during, and subsequent to, earthworks.

8.2.5.1 Policy - Land stability

- a. Avoid earthworks that will create a significant risk to people and property through subsidence, rockfall, cliff collapse, erosion, inundation, siltation or overland flows.

8.2.5.2 Policy - Nuisance

- a. Subject to Policy 8.2.4.3, ensure that earthworks avoid more than minor adverse effects on the health and safety of people and their property, and do not generate continuous or persistent noise, vibration, dust or odour nuisance.

8.2.5.3 Policy - Vehicle movement

- a. Subject to Policy 8.2.4.3, ensure that the transportation to and from a site of earth, construction or filling material is safe and minimises adverse transport network and local amenity value effects.

8.2.5.4 Policy - Earthworks design

- b. Ensure that earthworks over identified thresholds are designed to enable the anticipated land use.

8.2.5.5 Policy - Management of contaminated land

- a. Enable earthworks where necessary to appropriately manage land contamination.

Chapter 14 Residential

14.2 Objectives and Policies

14.2.1 Objective - Housing supply

- a. An increased supply of housing that will:
 - i. enable a wide range of housing types, sizes, and densities, in a manner consistent with Objectives 3.3.4(a) and 3.3.7;
 - ii. meet the diverse needs of the community in the immediate recovery period and longer term, including social housing options; and
 - iii. assist in improving housing affordability.

14.2.1.1 Policy - Housing distribution and density

- a. Provide for the following distribution of different areas for residential development, in accordance with the residential zones identified and characterised in Table 14.2.1.1a, in a manner that ensures:
 - i. new urban residential activities only occur in existing urban areas or in greenfield priority areas identified in Map A of the Canterbury Regional Policy Statement;
 - ii. high density residential development in the Central City, that achieves an average net density of at least 50 households per hectare for intensification development;
 - iii. medium density residential development in and near identified commercial centres in existing urban areas where there is ready access to a wide range of facilities, services, public transport, parks and open spaces, that achieves an average net density of at least 30 households per hectare for intensification development;

- iv. a mix of low and medium residential density development in greenfield neighbourhoods, that achieves a net density (averaged over the Outline development plan) of at least 15 households per hectare;
- v. greenfield land that is available for further residential development up to 2028;
- vi. low density residential environments in other existing suburban residential areas and in the residential areas of Banks Peninsula, and in small settlements are maintained, but limited opportunities are provided for smaller residential units that are compatible with the low density and township suburban environment; and
- vii. within Banks Peninsula, limited low density residential development adjacent to existing residential townships and small settlements, that complements the surrounding environment, is able to be efficiently serviced by public infrastructure and in some limited circumstances private infrastructure; and is in locations not subject to significant risks to life safety and property damage from natural hazards.

Table 14.2.1.1a

Residential Suburban Zone	<p>Provides for the traditional type of housing in Christchurch in the form of predominantly single or two storeyed detached or semi-detached houses, with <u>garage</u>, ancillary <u>buildings</u> and provision for gardens and <u>landscaping</u>.</p> <p>The changing demographic needs and increasing demand for housing in Christchurch are provided for through a range of housing opportunities, including better utilisation of the existing housing stock. A wider range of housing options will enable a typical family home to be retained, but also provide greater housing stock for dependent relatives, rental accommodation, and homes more suitable for smaller households (<u>including older persons</u>).</p>
Residential Suburban Density Transition Zone	<p>Covers some inner suburban residential areas between the Residential Suburban Zone and the Residential Medium Density Zone, and areas <u>adjoining</u> some <u>commercial centres</u>.</p> <p>The zone provides principally for low to medium density residential development. In most areas there is potential for infill and redevelopment at higher densities than for the Residential Suburban Zone.</p>

Residential Medium Density Zone	<p>Located close to the <u>Central City</u> and around other larger <u>commercial centres</u> across the city. The zone provides a range of housing options for people seeking convenient access to services, facilities, employment, <u>retailing</u>, entertainment, parks and public transport.</p> <p>The zone provides for medium scale and density of predominantly two or three storey <u>buildings</u>, including semi-detached and terraced housing and low-rise apartments, with innovative approaches to comprehensively designed, high quality, medium density residential development also encouraged.</p> <p>Residential intensification is anticipated through well-designed redevelopments of existing <u>sites</u>, and more particularly through comprehensive development of multiple adjacent sites. Zone standards and urban design assessments provide for new residential development that is attractive, and delivers safe, secure, private, useable and well landscaped <u>buildings</u> and settings.</p>
Residential <u>Central City</u> Zone	<p>Located within the <u>Central City</u>, the Residential Central City Zone has been developed to contribute to Christchurch's liveable city values. Providing for a range of housing types, including attractive, high density living opportunities, the zone utilises the potential for living, working and playing in close proximity to the commercial centre of the city. The</p> <p>character, scale and intensity of non-residential activities is controlled in order to mitigate effects on the character and amenity of the inner city residential areas.</p>
Residential New Neighbourhood Zone	<p>The Residential New Neighbourhood Zone generally includes new areas of <u>greenfield</u> land where large-scale residential development is planned. The zone will allow a wide range of residential house types and section sizes to provide for a wide spectrum of household sizes and affordable housing. People will therefore be able to remain within the neighbourhood throughout their lifetime as they move to housing types that suit their life stage. These areas are intended to achieve higher overall residential densities than traditionally achieved in suburban developments.</p>

<p>Residential <u>Banks Peninsula</u> Zone</p>	<p>Includes urban and suburban living, commuter accommodation and the small harbour settlements.</p> <p>The zone includes the settlements of Lyttelton and Akaroa which each have a distinctive urban character. Lyttelton has a more urban atmosphere and a distinct urban-rural boundary. The residential areas are characterised by small lot sizes and narrow streets. Akaroa is a smaller settlement characterised by its historic colonial form and architecture, relatively narrow streets, distinctive residential <u>buildings</u> and well-treed properties. Akaroa is a focal point for visitors to the region and the district. The character of these two settlements is highly valued and the <u>District Plan</u> provisions seek to retain that character. Opportunities for residential expansion around Lyttelton and Akaroa are constrained by the availability of reticulated services and land suitability.</p> <p>The smaller settlements around Lyttelton harbour provide a variety of residential opportunities. Residential areas at Cass Bay, Corsair Bay, Church Bay and Diamond Harbour offer a lower density residential environment with relatively large lots. Each settlement differs as a reflection of its history, the local topography, the relationship with the coast and the type of residential living offered.</p> <p>Non-residential activities that are not compatible with the character of the Residential <u>Banks Peninsula</u> Zone are controlled in order to mitigate adverse effects on the character and amenity of the area.</p>
<p>Residential Hills Zone</p>	<p>Covers all the living environments that are located on the slopes of the Port Hills from Westmorland in the west to Scarborough in the east. It provides principally for low density residential development that recognises the landscape values of the Port Hills, including opportunities for planting and <u>landscaping</u>, and control of reflectivity of roof finishes in order to blend <u>buildings</u> into the landscape. Provision is made for a range of housing options that will enable a typical family home to be retained, but also provide greater housing stock for dependent relatives, rental accommodation, and homes more suitable for smaller households (including <u>older persons</u>). Provision is also made for a range of appropriate non-residential activities.</p>
<p>Residential Large Lot Zone</p>	<p>Covers a number of areas on the Port Hills where there is an existing residential settlement that has a predominantly low density or semi-rural character as well as the Akaroa Hillslopes and rural residential areas of Samarang Bay and Allandale on <u>Banks Peninsula</u>.</p>

Residential Small Settlement	<p>Covers the many small settlements on <u>Banks Peninsula</u>, as well as the settlements of Kainga and Spencerville to the north of Christchurch. Lot sizes within the settlements are typically larger than urban areas reflecting their existing character and providing a lower density semi-rural living environment, with the exception of Kainga, where smaller lots are provided for. New development is consolidated in and around existing settlements. Control of roof reflectivity seeks to blend <u>buildings</u> into the rural landscape.</p> <p>Non-residential activities that are not compatible with the character of the settlements are controlled in order to mitigate adverse effects on amenity and the environment of the settlements.</p>
Residential <u>Guest Accommodation</u> Zone	<p>Comprises a number of <u>sites</u> situated in residential locations that were previously either zoned or scheduled for <u>guest accommodation</u> purposes in earlier district plans and continue to be used for <u>guest accommodation</u>. The zone provides for the ongoing operation, intensification or redevelopment of these established activities, compatible with the character and amenity of <u>adjoining</u> residential zones.</p>

14.2.3 Objective - Strategic infrastructure

- a. Development of sensitive activities does not adversely affect the efficient operation, use, and development of Christchurch International Airport and Port of Lyttelton, the rail network, the National Grid and the identified 66kV and 33kV electricity distribution lines and the Heathcote to Lyttelton 11kV electricity distribution line, the state highway network, and other strategic infrastructure.

14.2.3.1 Policy - Avoidance of adverse effects on strategic infrastructure

- a. Avoid reverse sensitivity effects on strategic infrastructure including:
 - i. Christchurch International Airport;
 - ii. the rail network;
 - iii. the major arterial road and minor arterial road network;
 - iv. the Port of Lyttelton;
 - v. the National Grid and the 66kV and 33kV electricity distribution lines and Heathcote to Lyttelton 11kV electricity distribution line identified on the planning maps.

14.2.4 Objective - High quality residential environments

- a. High quality, sustainable, residential neighbourhoods which are well designed, have a high level of amenity, enhance local character and reflect the Ngāi Tahu heritage of Ōtautahi.

Note: Policies 14.2.6.1, 14.2.6.2, 14.2.6.3, 14.2.6.6, and 14.2.6.8 also implement Objective 14.2.4.

14.2.4.1 Policy - Neighbourhood character, amenity and safety

- a. Facilitate the contribution of individual developments to high quality residential environments in all residential areas (as characterised in Table 14.2.1.1a), through design:
 - i. reflecting the context, character, and scale of building anticipated in the neighbourhood;
 - ii. contributing to a high quality street scene;
 - iii. providing a high level of on-site amenity;
 - iv. minimising noise effects from traffic, railway activity, and other sources where necessary to protect residential amenity;
 - v. providing safe, efficient, and easily accessible movement for pedestrians, cyclists, and vehicles; and
 - vi. incorporating principles of crime prevention through environmental design.

14.2.4.2 Policy - High quality, medium density residential development

- a. Encourage innovative approaches to comprehensively designed, high quality, medium density residential development, which is attractive to residents, responsive to housing demands, and provides a positive contribution to its environment (while acknowledging the need for increased densities and changes in residential character), through:
 - i. consultative planning approaches to identifying particular areas for residential intensification and to defining high quality, built and urban design outcomes for those areas;
 - ii. encouraging and incentivising amalgamation and redevelopment across large-scale residential intensification areas;
 - iii. providing design guidelines to assist developers to achieve high quality, medium density development;
 - iv. considering input from urban design experts into resource consent applications;
 - v. promoting incorporation of low impact urban design elements, energy and water efficiency, and life-stage inclusive and adaptive design; and
 - vi. recognising that built form standards may not always support the best design and efficient use of a site for medium density development, particularly for larger sites.

14.2.4.3 Policy - Scale of home occupations

1. Ensure home occupation activity is secondary in scale to the residential use of the property.

14.2.4.4 Policy - Character of low and medium density areas

- a. Ensure, consistent with the zone descriptions in Table 14.2.1.1a, that:
 - i. low density residential areas are characterised by a low scale open residential environment with predominantly one or two storey detached or semi-detached housing, and significant opportunities for landscaping and good access to sunlight and privacy are maintained; and
 - ii. medium density areas are characterised by medium scale and density of buildings with predominantly two or three storeys, including semi-detached and terraced housing and low rise apartments, and landscaping in publicly visible areas, while accepting that access to sunlight and privacy may be limited by the anticipated density of development and that innovative approaches to comprehensively designed, high quality, medium density residential development are also encouraged in accordance with Policy 14.2.4.2.

14.2.4.5 Policy - Character of residential development on the Port Hills

- a. Ensure that residential development on the Port Hills:
 - i. maintains the visual dominance of the Port Hills rural environment as a backdrop to the City;
 - ii. avoids buildings and structures on skylines of significant and outstanding natural landscapes;
 - iii. is of a density that provides opportunity for ample tree and garden planting;
 - iv. integrates with existing residential areas and where possible provides connections to public open space; and
 - v. where practicable, creates and improves connections to recreational, open space, ecological, and mahinga kai areas and recognises Sites of Ngāi Tahu Cultural Significance identified in Appendix 9.5.6.

14.2.4.6 Policy - Character of residential development in Banks Peninsula

- a. Ensure that residential development in Banks Peninsula:
 - i. maintains and complements the rural and coastal character elements that are distinct and unique to the local area and existing residential settlements;
 - ii. maintains the landscape setting and does not visually dominate views from land and water;
 - iii. avoids buildings and structures on skylines of significant and outstanding natural landscapes;
 - iv. encourages innovative design and sustainable land-use development; and
 - v. where practicable, creates and improves connections to recreational, open space, ecological, and mahinga kai areas and recognises Sites of Ngāi Tahu Cultural Significance identified in Appendix 9.5.6.

14.2.4.7 Policy - Residential character areas in Christchurch City, Akaroa and Lyttelton

- a. Maintain and enhance the identified special character values of residential areas arising from the following elements:
 - i. the continuity or coherence of the character;
 - ii. the pattern of subdivision, open space, buildings and streetscape;
 - iii. the landforms or features that contribute to the qualities of the landscape and built form;
 - iv. the scale, form and architectural values of buildings and their landscape setting;
 - v. the qualities of the streetscape; and
- b. Within the Lyttelton and Akaroa Character Areas:
 - i. maintains and enhances the relationship to historic heritage;
 - ii. retains buildings and settings of high character value;
 - iii. retains important views from public places;
 - iv. reflects the existing small scale of development and integration with the landscape.

14.2.4.8 Policy - Best practice for health, building sustainability, energy and water efficiency

- a. Promote new residential buildings that:
 - i. provide for occupants' health, changing physical needs, and life stages; and
 - ii. are energy and water efficient;
 - iii. through non-regulatory methods including incentives.

14.2.5 Objective - Residential New Neighbourhood Zone

- a. Co-ordinated, sustainable and efficient use and development is enabled in the Residential New Neighbourhood Zone.

14.2.5.1 Policy - Outline development plans

- a. Use and development shall be in accordance with the development requirements in the relevant Outline development plan, or otherwise achieve similar or better outcomes, except as provided for in Clause b. in relation to any interim use and development.
- b. Interim use and development shall not compromise the timely implementation of, or outcomes sought by, the Outline development plan.
- c. Recognise that quarrying activities and other interim activities may be a suitable part of preparing identified greenfield priority areas for urban development, provided that their adverse effects can be adequately mitigated and they do not compromise use of the land for future urban development.

14.2.5.2 Policy - Comprehensive residential development

- a. Encourage comprehensive residential developments that are in accordance with the relevant outline development plan as a means of achieving co-ordinated, sustainable and efficient development outcomes.

14.2.5.3 Policy - Development density

- a. In residential development areas, achieve a minimum net density of 15 households per hectare, when averaged across the whole of the residential development area within the relevant outline development plan, except:
 - i. in the Residential New Neighbourhood (Prestons) Zone where the minimum net density is between 13 and 15 households per hectare; and
 - ii. in areas shown on an Outline development plan as being subject to development constraints.
- b. Except as provided for in (a)(i) and (ii) above, any use and development which results in a net density lower than the required net density shall demonstrate, through the use of legal mechanisms as appropriate, that the net density required across residential development areas of the outline development plan can still be achieved.
- c. Except as provided for in (a) and (b) above, a proposal for use and development which results in a net density lower than the required net density will result in other owners of greenfield (undeveloped) land within the outline development plan area being identified as affected parties (where they have not given written approval).
- d. Encourage higher density housing to be located to support, and have ready access to, commercial centres, community facilities, public transport and open space; and to support well-connected walkable communities.

14.2.5.4 Policy - Neighbourhood quality and design

- a. Ensure that use and development:
 - i. contributes to a strong sense of place, and a coherent, functional and safe neighbourhood;
 - ii. contributes to neighbourhoods that comprise a diversity of housing types;
 - iii. retains and supports the relationship to, and where possible enhances, recreational, heritage and ecological features and values; and
 - iv. achieves a high level of amenity.

14.2.5.5 Policy - Infrastructure servicing for developments

- a. Ensure that developments are serviced with all required infrastructure in an effective and efficient manner.

14.2.5.6 Policy - Integration and connectivity

- a. Ensure effective integration within and between developments and existing areas, including in relation to public open space networks, infrastructure and movement networks.
- b. Ensure that the boundaries between new and existing developments are, where appropriate, managed to avoid or mitigate adverse effects.
- c. Avoid significant adverse effects and remedy or mitigate other adverse effects on existing businesses, rural activities or infrastructure.

14.2.5.7 Policy - Ngā kaupapa / protection and enhancement of sites, values and other taonga of significance to tangata whenua

- a. Ensure:
 - i. protection of Sites of Ngāi Tahu Cultural Significance identified in Schedule 9.5.6.1, and recognition of other Sites of Ngāi Tahu Cultural Significance identified in Appendix 9.5.6 using culturally appropriate methods;
 - ii. identification and utilisation of opportunities to enhance sites, values and other taonga of cultural significance to Ngāi Tahu; and
 - iii. protection of the relationship of tangata whenua with freshwater, including cultural wellbeing and customary use opportunities.

14.2.6 Objective - Non-residential activities

- a. Residential activities remain the dominant activity in residential zones, whilst also recognising the need to:
 - i. provide for community facilities and home occupations which by their nature and character typically need to be located in residential zones; and
 - ii. restrict other non-residential activities, unless the activity has a strategic or operational need to locate within a residential zone or is existing guest accommodation on defined sites.

Note: this objective and its subsequent policies do not apply to brownfield sites.

14.2.6.1 Policy - Residential coherence character and amenity

- a. Ensure that non-residential activities do not have significant adverse effects on residential coherence, character, and amenity.

Note: This policy also implements Objective 14.2.4

14.2.6.2 Policy - Community activities and community facilities

- a. Enable community activities and community facilities within residential areas to meet community needs and encourage co-location and shared use of community facilities where practicable.
- b. Enable larger scale community activities and community facilities within defined arterial locations that:
 - i. are within walking distance of the Central City and suburban commercial centres;
 - ii. front onto core public transport routes; and
 - iii. are not dominated by residential development.

Note: This policy also implements Objective 14.2.4

14.2.6.3 Policy - Existing non-residential activities

- a. Enable existing non-residential activities to continue and support their redevelopment and expansion provided they do not:
 - i. have a significant adverse effect on the character and amenity of residential zones; or
 - ii. undermine the potential for residential development consistent with the zone descriptions in Table 14.2.1.1a.

Note: This policy also implements Objective 14.2.4

14.2.6.4 Policy - Other non-residential activities

- a. Restrict the establishment of other non-residential activities, especially those of a commercial or industrial nature, unless the activity has a strategic or operational need to locate within a residential zone, and the effects of such activities on the character and amenity of residential zones are insignificant.

14.2.6.5 Policy - Retailing in residential zones

- a. Ensure that small scale retailing, except for retailing permitted as part of a home occupation, is limited in type and location to appropriate corner sites on higher order streets in the road hierarchy.

14.2.6.6 Policy - Memorial Avenue and Fendalton Road

- a. Maintain the war memorial and visitor gateway roles of Memorial Avenue and Fendalton Road and their very high amenity values, by limiting the establishment of non-residential activities and associated outdoor advertising and vehicle parking on sites in residential zones with frontage to these roads.

Note: This policy also implements Objective 14.2.4

14.2.6.7 Policy - Guest accommodation

- a. In the Accommodation and Community Facilities Overlay, provide for guest accommodation within defined arterial locations that:
 - i. are within walking distance of the Central City and suburban commercial centres;
 - ii. front onto core public transport routes; and
 - iii. are not dominated by residential development.
- b. In the Residential Guest Accommodation Zone, provide for the ongoing operation, intensification or redevelopment of existing guest accommodation sites, compatible with the character and amenity of adjoining residential zones.

14.2.6.8 Policy - Non-residential activities in Central City residential areas

- a. Within Central City residential areas:
 - i. ensure non-residential activities are of a small scale and compatible with residential activities;
 - ii. ensure non-residential activities are focussed on meeting the needs of the local residential community or depend upon the high level of amenity inherent in the Residential Central City Zone;
 - iii. ensure new non-residential activities do not compromise the role of the Residential Central City Zone, the Central City Business Zone, or the aim of consolidating that area of the Central City or the Central City Mixed Use Zones;
 - iv. enable the on-going operation, use and redevelopment of existing fire service facilities; and
 - v. protect residential amenity by controlling the character, scale and intensity of non-residential activities.

14.2.7 Objective - Redevelopment of brownfield sites

- a. On suitable brownfield sites, provide for new mixed use commercial and residential developments that are comprehensively planned so that they are environmentally and socially sustainable over the long term.

14.2.7.1 Policy - Redevelopment of brownfield sites

- a. To support and incentivise the comprehensive redevelopment of brownfield sites for mixed use residential activities and commercial activities where:
 - i. natural hazards can be mitigated;
 - ii. adequate infrastructure services and capacity are available;
 - iii. reverse sensitivity effects on existing industrial areas are managed;
 - iv. the safety and efficiency of the current and future transport system is not significantly adversely affected;
 - v. there is good walking and cycling access to public transport routes, commercial and community services, and open space;
 - vi. if necessary, contaminated land is remediated in accordance with national and regional standards; and
 - vii. the redevelopment does not impact on the vitality and strategic role of commercial centres.
- b. Ensure the redevelopment is planned and designed to achieve:
 - i. high quality urban design and on-site amenity; and
 - ii. development that is integrated and sympathetic with the amenity of the adjacent neighbourhoods and adjoining sites.

14.2.8 Objective - Central City residential role, built form and amenity

- a. A predominantly residential environment offering a range of residential opportunities, including medium to high density living, within the Central City to support the restoration and enhancement of a vibrant city centre;
- b. A form of built development in the Residential Central City Zone that enables change to the existing environment, while contributing positively to the amenity and cultural values of the area, and to the health and safety, and quality and enjoyment, for those living within the area.

14.2.8.1 Policy - Building heights

- a. Provide for different maximum building heights in areas of the Residential Central City Zone with some areas requiring a reduced height compatible with the existing predominant character.

14.2.8.2 Policy - Amenity standards

- a. Prescribing minimum standards for residential development which:
 - i. are consistent with higher density living;
 - ii. protect amenity values for residents;
 - iii. integrate development with the adjacent and wider neighbourhood;

- iv. provide for a range of current and future residential needs; and
- v. recognise cultural values.

Chapter 15 Commercial

15.2 Objectives and Policies

15.2.1 Objective - Recovery of commercial activity

- a. The critical importance of commercial activity to the recovery and long term growth of the City is recognised and facilitated in a framework that supports commercial centres.

15.2.2 Objective - Centres-based framework for commercial activities

- a. Commercial activity is focussed within a network of centres (comprising the Central City, District Centres, Neighbourhood Centres, Local Centres and Large Format centres) to meet the wider community's and businesses' needs in a way and at a rate that:
 - i. supports intensification within centres;
 - ii. enables the efficient use and continued viability of the physical resources of commercial centres and promotes their success and vitality, reflecting their critical importance to the local economy;
 - iii. supports the function of District Centres as major focal points for commercial activities, employment, transport and community activities, and Neighbourhood Centres as a focal point for convenience shopping and community activities;
 - iv. gives primacy to the Central City, followed by District Centres and Neighbourhood Centres identified as Key Activity Centres;
 - v. is consistent with the role of each centre as defined in 15.2.2.1 Policy – Role of centres Table 15.1;
 - vi. supports a compact and sustainable urban form that provides for the integration of commercial activity with community activity, residential activity and recreation activity in locations accessible by a range of modes of transport;
 - vii. supports the recovery of centres that sustained significant damage or significant population loss from their catchment, including the Central City, Linwood, and Neighbourhood Centres subject to 15.2.4.3 Policy Suburban centre master plans;
 - viii. enhances their vitality and amenity and provides for a range of activities and community facilities;
 - ix. manages adverse effects on the transport network and public and private infrastructure;

- x. is efficiently serviced by infrastructure and is integrated with the delivery of infrastructure;
and
- xi. recognises the values of, and manages adverse effects on, sites of Ngāi Tahu cultural significance identified in Appendix 9.5.6 and natural waterways (including waipuna).

15.2.2.1 Policy - Role of centres

- a. Maintain and strengthen the Central City and commercial centres as the focal points for the community and business through intensification within centres that reflects their functions and catchment sizes, and in accordance with a framework that:
 - i. gives primacy to, and supports, the recovery of the Central City;
 - ii. supports and enhances the role of District Centres; and
 - iii. maintains the role of Neighbourhood Centres, Local Centres and Large Format Centres
- b. as set out in Policy 15.2.2.1, Table 15.1 - Centre's role.

Table 15.1 - Centre's role

Role	Centre and size (where relevant)
<p>A. Central Business District</p> <p>Principal employment and business centre for the City and wider region and to become the primary destination for a wide range and scale of activities including comparison shopping, dining and night life, <u>entertainment activities</u>, <u>guest accommodation</u>, events, <u>cultural activities</u> and tourism activities.</p> <p>Provides for high density <u>residential activity</u>, <u>recreation activities</u> and <u>community activities</u> and <u>community facilities</u> (including health and social services) as well as civic and cultural venues/ facilities (including museums, art galleries).</p> <p>Serves the district's population and visitors.</p> <p>The focus for the district, sub-regional and wider transport services with a central <u>public transport interchange</u>, providing access to large areas of the district and the surrounding districts of Selwyn and Waimakariri.</p>	<p>Centre: <u>Central City</u></p>

Role	Centre and size (where relevant)
<p>B. <u>District Centre - Key Activity Centre</u></p> <p>Major retail destination for comparison and convenience shopping and a focal point for employment (including <u>offices</u>), <u>community activities</u> and <u>community facilities</u> (including libraries, meeting places), entertainment (including movie theatres, <u>restaurants</u>, bars), and <u>guest accommodation</u>.</p> <p>Medium density housing is contemplated in and around the centre.</p> <p>Anchored by large retailers including <u>department store(s)</u> and <u>supermarket(s)</u>.</p> <p><u>Accessible</u> by a range of modes of transport, including multiple bus routes. <u>Public transport facilities</u>, including an interchange, may be incorporated.</p> <p>The extent of the centre:</p> <ol style="list-style-type: none"> 1. is the Commercial Core Zone and Commercial Retail Park Zone at Hornby, Belfast/ Northwood and Papanui/Northlands; and 2. is the Commercial Core Zone in all other <u>District centres</u>; and 3. includes <u>community facilities</u> within walking distance (400 metres) of the commercial zone. 	<p>Centres: Riccarton, Hornby, Papanui/Northlands, Shirley/Palms, Eastgate/Linwood, Belfast/ Northwood, North Halswell (emerging)</p> <p>(All Key Activity Centres)</p> <p>Size: Greater than 30,000m²</p>

Role	Centre and size (where relevant)
<p>C. <u>Neighbourhood Centre</u></p> <p>A destination for weekly and daily shopping needs as well as for <u>community facilities</u>.</p> <p>In some cases, <u>Neighbourhood Centres</u> offer a broader range of activities including comparison shopping, entertainment (cafes, <u>restaurants</u> and bars), <u>residential activities</u>, small scale <u>offices</u> and other <u>commercial activities</u>.</p> <p>Anchored principally by a <u>supermarket(s)</u> and in some cases, has a second or different <u>anchor store</u>.</p> <p>Serves the immediately surrounding suburbs and in some cases, residents and visitors from a wider area.</p> <p>Medium density housing is contemplated in and around the centre.</p> <p><u>Accessible</u> by a range of modes of transport, including one or more bus services.</p> <p>The extent of the centre:</p> <ol style="list-style-type: none"> 1. is the Commercial Core Zone in the identified centres, Commercial Local Zone at Wigram and Beckenham and Commercial Banks Peninsula Zone at Lyttelton and Akaroa; and 2. <u>Community facilities</u> within walking distance (400 metres) of the centre. 	<p>Centres: Spreydon/ Barrington (<u>Key Activity Centre</u>), New Brighton (<u>Key Activity Centre</u>), Bush Inn/Church Corner, Merivale, Bishopdale, Prestons (emerging), Ferrymead, Sydenham (Colombo Street between Brougham Street and Moorhouse Avenue);</p> <p>Addington, Avonhead, Sumner, Akaroa, Colombo/Beaumont (Colombo Street between Devon Street and Angus Street), Cranford, Edgware, Fendalton, Beckenham, Halswell, Lyttelton, Ilam/Clyde, Parklands, Redcliffs, Richmond, St Martins, Stanmore/Worcester, Sydenham South (Colombo Street between Brougham Street and Southampton Street), Wairakei/Greers Road, Wigram (emerging), Woolston, Yaldhurst (emerging), West Spreydon (Lincoln Road), Aranui, North West Belfast.</p> <p>Size: 3,000 to 30,000m².</p>

Role	Centre and size (where relevant)
<p>D. <u>Large format centre</u></p> <p>Standalone retail centre, comprising stores with large footprints, <u>yard-based suppliers</u>, <u>trade suppliers</u> including building improvement centres, and other vehicle oriented activities.</p> <p>Provision of other <u>commercial activities</u> and residential and community uses is limited. This includes limiting <u>offices</u> to an <u>ancillary</u> function, and at Tower Junction, providing for a limited amount of <u>commercial services</u>.</p> <p>Serves large geographical areas of the city.</p> <p>Not necessarily connected to a residential catchment.</p> <p>Primarily accessed by car with limited public transport services.</p> <p>The extent of the centre is the Commercial Retail Park Zone.</p>	<p>Centres: Moorhouse Avenue, Shirley Homebase, Tower Junction.</p>

Role	Centre and size (where relevant)
<p>E. <u>Local centre</u></p> <p>A small group of primarily convenience shops and, in some instances, <u>community facilities</u>.</p> <p><u>Accessible</u> by walking, cycling from the area served and on a bus route in some instances.</p> <p>Also includes standalone <u>supermarkets</u> serving the surrounding residential community.</p> <p>The extent of the centre is the Commercial Local Zone, except Wainoni and Peer Street where the Commercial Core Zone applies.</p>	<p>Centres: Wainoni (174 Wainoni Road), Upper Riccarton (57 Peer Street), both zoned Commercial Core,</p> <p>All other <u>commercial centres</u> zoned Commercial Local.</p> <p>Size: Up to 3,000m² (Excluding Wainoni and Upper Riccarton)</p>

15.2.2.2 Policy - Comprehensive approach to development of the North Halswell and Belfast/ Northwood Key Activity Centres

- a. Require development within the Belfast/Northwood and North Halswell Key Activity Centre to:
 - i. be planned and co-ordinated in accordance with an outline development plan;
 - ii. provide for a high quality, safe commercial centre which is easily accessible by a range of transport modes and is well connected to the surrounding area; and
 - iii. be integrated with the transport network and developed in a manner aligned with improvements to the transport network in order to avoid adverse effects on the safe, efficient and effective functioning of the road network.
- b. Require development within the North Halswell Key Activity Centre to:
 - i. be developed to a scale that:
 - A. protects the Central City's role as the region's primary commercial area; and
 - B. ensures the role of District Centres and Neighbourhood Centres within the city and commercial centres in Selwyn District is maintained.
 - ii. provide high quality public open spaces, a strong main street with a concentration of finer grain retailing, and strong linkages between key anchor stores;
 - iii. achieve a supply of both large and finer grain retail activity that provides for the long term needs of the population in the south west.
- c. Require development within the Belfast/ Northwood Key Activity Centre to:

- i. provide for Ngāi Tahu/ mana whenua values through high quality landscaping;
- ii. avoid adverse effects on the natural character, ecology and amenity values of the Styx River corridor; and
- iii. for office and retail activity at the Styx Centre, be developed to a scale that:
 - A. protects the Central City's role as the region's primary commercial centre; and
 - B. ensures the role of District Centres and Neighbourhood Centres within the City and commercial centres in the Waimakariri District are maintained.

15.2.2.3 Policy - New centres in residential greenfield areas

- a. In new residential greenfield areas, land identified through zoning and/or on an outline development plan for a commercial centre shall be developed and primarily used for commercial activities and community activities including health care facilities, to serve the needs of existing and future residents.
- b. The development of new commercial centres in residential greenfield areas shall recognise and provide for Ngāi Tahu/ mana whenua values while not impacting on the character, coherence or amenity of the adjoining residential area.

15.2.2.4 Policy - Accommodating growth

- a. Growth in commercial activity is focussed within existing commercial centres.
- b. Any outward expansion of a commercial centre must:
 - i. ensure the expanded centre remains commensurate with the centre's role within a strategic network of centres, while not undermining the function of other centres;
 - ii. be integrated with the provision of infrastructure, including the transport network;
 - iii. be undertaken in such a manner that manages adverse effects at the interface with the adjoining zone; and
 - iv. be consistent with:
 - A. the scale of increasing residential development opportunities to meet intensification targets in and around centres, and
 - B. revitalising the Central City as the primary community focal point.

15.2.2.5 Policy - Banks Peninsula commercial centres

- a. Recognise and protect the special character and role of the commercial centres in Banks Peninsula, including Lyttelton and Akaroa, which provide a range of activities and services meeting the needs of their respective communities as well as visitors to the townships and the wider area of Banks Peninsula.

15.2.3 Objective - Office parks and mixed use areas

1. Recognise the existing nature, scale and extent of commercial activity within the Commercial Office and Commercial Mixed Use Zones, but avoid the expansion of existing, or the development of new, office parks and/or mixed use areas.

15.2.3.1 Policy - Office parks

- a. Recognise and enable office activities in the existing Addington and Russley office parks that are within the Commercial Office Zone.

15.2.3.2 Policy - Mixed use areas

- a. Recognise the existing nature, scale and extent of retail activities and offices in Addington, New Brighton, off Mandeville Street and adjoining Blenheim Road, while limiting their future growth and development to ensure commercial activity in the City is focussed within the network of commercial centres.

15.2.4 Objective - Urban form, scale and design outcomes

- a. A scale, form and design of development that is consistent with the role of a centre, and which:
 - i. recognises the Central City and District Centres as strategically important focal points for community and commercial investment;
 - ii. contributes to an urban environment that is visually attractive, safe, easy to orientate, conveniently accessible, and responds positively to local character and context;
 - iii. recognises the functional and operational requirements of activities and the existing built form;
 - iv. manages adverse effects on the surrounding environment; and
 - v. recognises Ngāi Tahu/ mana whenua values through landscaping and the use of low impact urban design, where appropriate.

15.2.4.1 Policy - Scale and form of development

- a. Provide for development of a significant scale and form in the core of District Centres and Neighbourhood Centres, and of a lesser scale and form on the fringe of these centres.
- b. The scale and form of development in centres shall:
 - i. reflect the context, character and the anticipated scale of the zone and centre's function;
 - ii. increase the prominence of buildings on street corners;
 - iii. for Local Centres, maintain a low rise built form to respect and integrate with their suburban residential context;

- iv. for Key Activity Centres and Large Format Centres, enable larger floor plates while maintaining a high level of amenity in the centre; and
- v. manage adverse effects on the surrounding environment, particularly at the interface with residential areas, sites of Ngāi Tahu cultural significance identified in Appendix 9.5.6 and natural waterways.

15.2.4.2 Policy - Design of new development

- a. Require new development to be well-designed and laid out by:
 - i. encouraging pedestrian activity and amenity along streets and in adjoining public spaces, to a degree that is appropriate to the location and function of the road;
 - ii. providing a principal street facing façade of visual interest that contributes to the character and coherence of a centre;
 - iii. facilitating movement within a site and with the surrounding area for people of all mobilities and ages, by a range of modes of transport through well-defined, convenient and safe routes;
 - iv. enabling visitors to a centre to orientate themselves and find their way with strong visual and physical connections with the surrounding area;
 - v. promoting a safe environment for people and reflecting principles of Crime Prevention through Environmental Design (CPTED);
 - vi. enabling the re-use of buildings and sites while recognising the use for which the building is designed;
 - vii. incorporating principles of low impact design including energy efficiency, water conservation, the reuse of stormwater, on-site treatment of stormwater and/or integration with the wider catchment based approach to stormwater management, where practicable;
 - viii. achieving a visually attractive setting when viewed from the street and other public spaces, while managing effects on adjoining environments; and
 - ix. providing adequate and convenient space for storage while ensuring it is screened to not detract from the site's visual amenity values.
- b. Recognise the scale, form and design of the existing built form within a site and the immediately surrounding area and the functional and operational requirements of activities.
- c. Require residential development to be well-designed and laid out by ensuring a high quality healthy living environment through:
 - i. the provision of sufficient and conveniently located internal and outdoor living spaces;
 - ii. good accessibility within a development and with adjoining areas; and
 - iii. minimising disturbance from noise and activity in a centre (and the potential for reverse sensitivity issues to arise).

15.2.4.3 Policy - Suburban centre master plans

- a. Support the recovery and long term growth of, and ensure a high level of amenity in, the following suburban centres:
 - i. Lyttelton;
 - ii. Sydenham;
 - iii. Linwood Village;
 - iv. Selwyn Street shops;
 - v. Sumner;
 - vi. Edgware;
 - vii. Ferry Road
 - viii. Main Road; and
 - ix. New Brighton
- b. by having regard to the relevant suburban centre Master Plan developed by the Council under the Suburban Centres Programme when considering resource consent applications for development within those centres.

15.2.4.4 Policy - Recognition of Ngāi Tahu/ mana whenua values

- a. To encourage the use of indigenous species, appropriate to the local environment, in landscaping and tree planting to recognise sites of Ngāi Tahu cultural significance identified in Appendix 9.5.6 and the cultural values of Ngāi Tahu/ manawhenua.

15.2.4.5 Policy - Greenfield development/ strategic infrastructure

- a. Support a comprehensive approach to the planning, design and implementation of development and infrastructure in greenfield areas, including stormwater management, through measures such as low impact design.
- b. Provide for the effective development, operation, maintenance and upgrade of strategic infrastructure and avoid adverse effects of development on strategic infrastructure through managing the location of activities and the design of stormwater areas. This includes but is not limited to, avoiding sensitive activities within commercial zones located within the 50 dB Ldn Air Noise Contour and within the Lyttelton Port Influences Overlay Area.

APPENDIX 15

Chapter 2 Abbreviations and Definitions

Chapter 2 Abbreviations and Definitions

The provisions in this chapter give effect to the [Chapter 3 Strategic Directions objectives](#).

This chapter lists, and explains the meaning of, abbreviations and definitions used in the [District Plan](#).

The introductions to the Abbreviations and Definitions Lists are to assist the lay reader to understand how this chapter works and what it applies to. They are not an aid to interpretation in a legal sense.

Abbreviations List

This part of the [District Plan](#) explains the meaning of abbreviations used in it.

The abbreviations used are identified in ePlan using [dotted underline](#) with hyperlinking.

AANC

means the Annual Aircraft Noise Contours ([L_{dn}](#)) produced annually by [CIAL](#) based on the previous year's [aircraft operations](#). The AANC is calculated in accordance with the rules in the [District Plan](#).

AC

means advisory circular.

AEP

means [annual exceedance probability](#).

AIFR

means [annual individual fatality risk](#).

AMSL

means above mean sea level.

AS/NZS 1547:2000

means the [Australian Standard/New Zealand Standard On-site domestic wastewater management](#).

ASTM

means American Society for Testing and Materials.

C

means controlled activity (e.g. C1 means controlled activity 1).

CB

means [Commercial Central City Business Zone](#).

The Christchurch District Plan

CBP

means [Commercial Banks Peninsula Zone](#).

CCMU

means [Commercial Central City Mixed Use Zone](#).

CCRP

means [Christchurch Central Recovery Plan](#).

CHRM

means community housing redevelopment mechanism.

CIAL

means Christchurch International Airport Limited.

CNG

means compressed natural gas.

CoCA

means Centre of Contemporary Art.

CPTED

means [Crime Prevention through Environmental Design](#).

CRC

means Canterbury Regional Council (also known as Environment Canterbury).

CSA

means Canterbury Society of Arts.

CSF

means [Commercial Central City \(South Frame\) Mixed Use Zone](#).

D

means discretionary activity (e.g. D1 means discretionary activity 1).

dB

means decibel.

DC

The Christchurch District Plan

means district council.

DIN 4150-2:1999

means [Standard Vibrations in buildings – Part 2: Effects on persons in buildings.](#)

DP

means deposited plan.

EDM

means enhanced development mechanism.

ETCMP

means [engine testing](#) compliance monitoring position.

FTE

means full-time equivalent.

GFA

means [gross floor area](#).

GGFA

means gross [ground floor area](#).

GHz

means gigahertz.

GLFA

means [gross leasable floor area](#).

HF

means high frequency.

HNC

means high (and very high) natural character in the coastal landscape.

HSNO

means [Hazardous Substances and New Organisms Act 1996](#).

Hz

The Christchurch District Plan

means hertz.

ICNIRP

means International Commission on Non-Ionising Radiation Protection.

ICOMOS

means International Council on Monuments and Sites.

IG

means [Industrial General Zone](#).

IH

means [Industrial Heavy Zone](#).

INM

means Integrated Noise Model.

IP

means [Industrial Park Zone](#).

IPENZ

means Institution of Professional Engineers New Zealand.

ISO

means International Organisation for Standardisation.

ITA

means Integrated Transport Assessment.

kHz

means kilohertz.

kV

means kilovolt.

l

means litre/s.

LPG

means liquefied petroleum gas.

LPRP

The Christchurch District Plan

means [Lyttelton Port Recovery Plan](#).

LRV

means light reflective value.

LURP

means [Land Use Recovery Plan](#).

m2

means square metre/s.

m3

means cubic metre/s.

NC

means non-complying activity (e.g. NC1 means non-complying activity 1).

NCCE

means natural character in the coastal environment.

NES

means National Environmental Standard/s.

NESETA

means [National Environmental Standard for Electricity Transmission Activities](#).

NESTF

means [National Environmental Standard for Telecommunications Facilities](#).

NIWA

means National Institute of Water and Atmospheric Research.

NZEC/NCECP 34:2001

means [New Zealand Electrical Code of Practice for Electrical Safe Distances](#).

NZMS

means New Zealand map survey.

NZS

means New Zealand Standard.

NZS 3112.4:1986

means the [New Zealand Standard Methods of test for concrete – Tests relating to grout.](#)

NZS 4431:1989

means the [New Zealand Standard Code of Practice for Earth Fill for Residential Development.](#)

NZS 6802:2008

means the [New Zealand Standard Acoustics – Environmental Noise.](#)

NZS 6803:1999

means the [New Zealand Standard Acoustics – Construction Noise.](#)

NZTA

means New Zealand Transport Agency.

OCP

means [Open Space Community Parks Zone.](#)

ODP

means outline development plan.

ONC

means outstanding natural character in the coastal environment.

ONF

means outstanding natural feature.

ONL

means outstanding natural landscape.

P

means permitted activity (e.g. P1 means permitted activity 1).

PFA

means public floor area.

PIM

means Project Information Memorandum.

Pr

The Christchurch District Plan

means prohibited activity (e.g. Pr1 means prohibited activity 1).

Pt

means part (with respect to a legal description).

QEII

means Queen Elizabeth II.

RAL

means rural amenity landscape.

RBP

means [Residential Banks Peninsula Zone](#).

RCC

means [Residential Central City Zone](#).

RD

means restricted discretionary activity (e.g. RD1 means restricted discretionary activity 1).

REPA

means Runway End Protection Area.

RH

means [Residential Hills Zone](#).

RL

means reduced level.

RMD

means [Residential Medium Density Zone](#).

RMS

means root mean square.

RNN

means [Residential New Neighbourhood Zone](#).

RNZAF

means Royal New Zealand Air Force.

RS

The Christchurch District Plan

means [Residential Suburban Zone](#).

RSDT

means [Residential Suburban Density Transition Zone](#).

RSS

means [Residential Small Settlement Zone](#).

RuBP

means [Rural Banks Peninsula Zone](#).

RuT

means [Rural Templeton Zone](#).

RuUF

means [Rural Urban Fringe Zone](#).

s

means section (of an Act).

Sec

means section (with respect to a legal description).

SF

means significant feature.

SNZ PAS 4509:2008

means means the [New Zealand Fire Service Firefighting Water Supplies Code of Practice](#).

Spp

means species.

TML

means transport monitoring line.

UC

means University of Canterbury.

Definitions List

This part of the District Plan explains the extended meaning of words and phrases developed specifically for, and as used in the context of, it. The definitions herein replace the ordinary dictionary meaning of the subject word or phrase.

Definitions only apply where identified via the following means:

1. in some cases, a qualifier in the definition itself (i.e. "X in relation to Y, means..."); and
2. in the ePlan, dotted underline with hyperlinking.

In all other instances, words and phrases used in the District Plan are best defined using their ordinary dictionary meaning.

Advice note:

1. Where a word or phrase is defined in this chapter, its definition includes any variations of the word or phrase that are plural or vice versa.
2. Where a word or phrase is defined in NZ government legislation or related documents arising therefrom, and is relied upon for the purpose of interpretation in this District Plan, these terms are identified accordingly but are not repeated in it. Users should refer to the latest version of the relevant legislation or related documents (which are hyperlinked in blue font).
3. Where a general activity (such as retail activity) is listed in an activity status table, it includes all of the more specific activities included therein (such as food and beverage outlets and second-hand goods outlets) unless otherwise specified in the activity status table for that zone.
4. The word 'includes' (or variations thereof, where appropriate in the context) followed by a list (whether bullet pointed or not) is not limited to those matters specified in the list.
5. Other definitions on which each definition relies (reliant definitions) are identified through green font and underlining and hyperlinking in the definition for information purposes, to assist interpretation of the primary definition and to illustrate the interrelationship between some definitions.
6. Please refer to [Section 1.2 Ngāi Tahu mana whenua](#) of Chapter 1 Introduction for an explanation of Māori terms and concepts relevant to the management of natural resources in the Christchurch District.

A

Access

means that area of land over which vehicular and/or pedestrian access to legal road is obtained. It includes:

- a. an access strip;
- b. an access lot; and
- c. a right-of-way.

Accessibility

means the ability for all people, including people with disabilities, to reach a location or service in a reasonable amount of time, cost and effort.

Accessible

means the ability for all people, including people with disabilities, to reach a location in a reasonable amount of time.

Access lot

means any separate lot used primarily for access to a lot or lots having no legal frontage but excludes any area of land that is

wider than 6 metres and not legally encumbered to prevent the construction of buildings.

Accessory

has its ordinary dictionary meaning, except that it excludes any activity or any part of an activity carried out on another site.

Accessory building

means a building which is incidental to the principal building or buildings on the site. In respect of land used for residential activity, accessory building includes a sleep-out, garage or carport, shed, greenhouse, fence, solar panels and solar water-heating devices not attached to a building and an indoor swimming pool, but not a family flat, balcony or similar structure (whether free-standing or attached to any building). An accessory building is not a residential unit. On a vacant site, an accessory building is a building that is ancillary or accessory to any activity that may be permitted on a site regardless of whether the principal building or buildings have yet to be constructed.

Accessory sports and fitness health care services

means a commercial activity that is accessory to a permitted or consented sports activity on the same site and which provides physical or advisory services for the promotion of sports or general fitness and well-being to the general public. It includes:

- a. physiotherapy;
- b. sports massage;
- c. hydrotherapy;
- d. nutritional and/or weight control clinics;
- e. health and well-being advice; and
- f. beauty clinics.

Access strip

means an access lot or an area of land defined by a legal instrument providing or intended to provide access to a site or sites, but excludes any area of land that is wider than 6 metres and not legally encumbered to prevent the construction of buildings.

Access way

means an area of land set aside for pedestrian access between a road, service lane, reserve, railway station or public place; and another road, service lane, reserve, railway station or public place.

Act

means the [Resource Management Act 1991](#).

Active transport

means transport modes that rely on human power, primarily walking and cycling.

Addiction services

in relation to the Salvation Army site in Addington, means the use of land and/or buildings for the provision of services, including overnight accommodation, for clients attending a counselling programme, or otherwise seeking help for alcohol, drugs or gambling addiction.

Adjoining

The Christchurch District Plan

has its ordinary dictionary meaning but, if the context requires, includes land separated from other land only by a road, railway, drain, water race, river or stream.

Aggregate piers

means aggregate without grout or cement formed into vertical columns below ground level as part of the repair of land damaged by earthquakes.

Aggregates-processing activity

in relation to the [Rural Quarry Zone](#), means the processing, and associated storage, sale and transportation, of natural sand, gravel, clay, silt and rock and/or recycled/recovered aggregates brought in from other properties where 50% or more of the total volume of aggregates processed on the property is imported from another property or properties.

Aircraft operations

means:

- a. the landing and take off-of aircraft; and
- b. aircraft flying along any flight path associated with a landing or take-off.

For the purposes of [Rule 6.1.6](#) Activity specific noise rules, it excludes:

- c. aircraft operating in an emergency for medical or national/civil defence reasons;
- d. air shows;
- e. military operations;
- f. Antarctic operations;
- g. helicopter operations;
- h. aircraft using the airport as an alternative to a scheduled airport elsewhere;
- i. aircraft taxiing; and
- j. aircraft engine testing.

Air noise boundary

means a composite line formed by the outer extremity of the 65 dB L_{dn} noise contour and the 95 dB LAE noise contour.

Advice note:

1. The Air Noise Boundary defines an area around Christchurch International Airport in which the future daily aircraft noise exposure from aircraft operations is sufficiently high as to require prohibition on new sensitive activities, to avoid adverse noise effects and reverse sensitivity issues.

Airport operator

in relation to [Sub-chapter 6.1](#) Noise, [Appendix 6.11.14](#) Airport noise management plan and [Appendix 6.11.15](#) Acoustic treatment programme of Chapter 6 General Rules and Procedures, means the operator of Christchurch International Airport.

Allotment

has the same meaning as defined in s218 of the [Resource Management Act 1991](#).

Alteration of a heritage item

in relation to [Sub-chapter 9.3](#) Historic Heritage of Chapter 9 Natural and Cultural Heritage, means any modification or addition to

The Christchurch District Plan

a heritage item, which impacts on heritage fabric.

Alteration of a heritage item includes:

- a. permanent modification of, addition to, or permanent removal of, exterior or interior heritage fabric which is not decayed or damaged and includes partial demolition of a heritage item;
- b. changes to the existing surface finish and/or materials; and
- c. permanent addition of fabric to the exterior or interior.

In relation to a building, structure or feature which forms part of an open space heritage item, alteration includes:

- d. modifications or additions to buildings, structures or features;
- e. permanent modification or addition to garden or landscaping layout, paths, paving, circulation or on-site access, walkways or cycle ways;
- f. earthworks which change the profile of the landform (other than earthworks approved by subdivision consent);
- g. removal or transplanting of mature trees unless the tree is dead;
- h. in relation to cemeteries, new planting on, or immediately adjoining, plots; and
- i. new buildings, structures or features.

Alteration of a heritage item excludes:

- j. maintenance;
- k. repairs;
- l. restoration;
- m. heritage upgrade works;
- n. heritage investigative and temporary works; and
- o. reconstruction of new or replacement headstones, plaques or panels in church graveyards and cemeteries other than closed cemeteries.

Amateur radio configurations

in relation to [Chapter 11 Utilities and Energy](#), means the antennas, aerials (including rods, wires and tubes) and associated supporting structures which are owned and used by licenced amateur radio operators.

Amateur radio operator

in relation to [Chapter 11 Utilities and Energy](#), means persons who have been granted a license under the [Radiocommunications Act 1989](#) to operate an amateur radio station.

Amenity tree planting

means the planting and tending of trees to provide shelter, landscaping or screening around buildings, roads or open space, or for the mitigation of a natural hazard.

Amenity values

has the same meaning as defined in [§2](#) of the [Resource Management Act 1991](#).

Anchor store

means a supermarket or department store.

Ancillary

has its ordinary dictionary meaning, except that it excludes any activity or any part of an activity carried out on another site.

Ancillary aggregates-processing activity

means the processing, and associated storage, sale and transportation of natural sand, gravel, clay, silt and rock and/or recycled/recovered aggregates brought in from other properties provided that at least 50% of the total volume of aggregates processed on the property originates from that property.

Ancillary equipment

in relation to [Chapter 11 Utilities and Energy](#), includes power distribution units, microwave units, DC and surge arrestors, cable trays, cables, mounts, fibre access terminals, ducting, cable loops, combiner/junction boxes, remote radio units, tower-mounted amplifiers or mast head amplifiers, lightening surge units, filters or similar types of equipment required to support the technology and frequencies deployed at the site.

Annual exceedance probability

means the probability that a flood event of a certain scale will occur at a specified location in any year. For example:

- a. a 5% AEP event has a 5% chance of occurring in any one year (or is a 1 in 20 year flood event);
- b. a 0.5% AEP event has a 0.5% chance of occurring in any one year (or is a 1 in 200 year flood event); and
- c. a 0.2% AEP event has a 0.2% chance of occurring in any one year (or is a 1 in 500 year flood event).

Annual individual fatality risk

means the probability or likelihood that an individual will be killed at their place of residence in any one year as a result of cliff collapse, rock fall/boulder roll or mass movement.

Antenna

means a device that receives or transmits radiocommunication or telecommunication signals. It includes any mount or shroud.

Apartment

in relation to the [Residential New Neighbourhood Zone](#), means a residential building that contains two or more residential units where those units are aligned vertically one on top of the other.

Approved building

means any building associated with a permitted activity or approved as part of a resource consent.

Archaeological site

has the same meaning as defined in s6 of the [Heritage New Zealand Pouhere Taonga Act 2014](#).

Arterial roads

means both major arterial roads and minor arterial roads.

Artificial crop protection structures

in relation to [Chapter 17 Rural](#), means structures with material used to protect crops and/or enhance growth (excluding greenhouses).

Automotive and/or marine supplier

The Christchurch District Plan

means a business primarily engaged in selling automotive vehicles and/or marine craft, and accessories to and parts for such vehicles and craft. It includes suppliers of:

- a. boats and boating accessories;
- b. cars and motor cycles;
- c. auto parts and accessories;
- d. trailers and caravans; and/or
- e. tyres and batteries.

B

Bach

in relation to [Chapter 18](#) Open Space, means a building used for temporary residential occupation where the residents or the principal resident has an alternative permanent place of fixed abode.

Balcony

means a structure, which is part of a building, which provides outdoor living space for a residential unit and is located above ground floor level, roofed or unroofed, and completely open to the weather on at least one side, except for a balustrade.

Banks Peninsula

means that part of Christchurch District in the Banks Peninsula Ward, as shown on [Appendix 2.1](#) Area-related definitions.

Bed and breakfast

means the use of part of a residential unit for the provision of transient residential accommodation, at a tariff. It excludes the sale of alcohol.

Billboard

means an outdoor display board of not less than 18m² in area which is used to advertise goods, services, products or events that are not directly related to the use or activities occurring at the site on which the board is physically located. It includes both the display board and any associated supporting device whether permanent, temporary or moveable.

Biodiversity offset

means a measurable conservation outcome resulting from actions designed to compensate for residual adverse biodiversity effects arising from development after all appropriate avoidance, remediation and mitigation measures have been taken. The goal of a biodiversity offset is to achieve no net loss.

Birdstrike

means when a bird or flock of birds collide with an aircraft.

Boarding house

means one or more buildings, used for paid lodgings or boarding, providing accommodation on a site whose aggregated total contains more than two boarding rooms and is occupied by six or more tenants.

Boarding of domestic animals

The Christchurch District Plan

means the use of land and/or buildings for the boarding of domestic animals for a tariff.

Boarding room

means accommodation in a boarding house that is used as sleeping quarters by one or more people and used only by a person or people whose tenancy agreement relates to that room.

Boundary

means any boundary of the net site area of a site.

- a. Internal boundary means any boundary of the net site area of a site other than a road boundary.
- b. Road boundary means any boundary of a site abutting a legal road (other than an access way or service lane), road reserve or road designation. Frontage or road frontage shall have the same meaning as road boundary.

Where a point strip exists between a site and any internal or road boundary, any building setback or recession plane requirement shall apply as if the point strip does not exist.

Site boundary or boundaries of a site shall have the same meaning as boundary.

Brownfield

means abandoned or underutilised commercial or industrial land, or land no longer required by a requiring authority for a designated purpose.

Building

means as the context requires:

- a. any structure or part of a structure, whether permanent, moveable or immovable; and/or
- b. any erection, reconstruction, placement, alteration or demolition of any structure or part of any structure within, on, under or over the land; and
- c. any vehicle, trailer, tent, marquee, shipping container, caravan or boat, whether fixed or moveable, used on-site as a residential unit or place of business or storage; but

excludes:

- d. any scaffolding or falsework erected temporarily for maintenance or construction purposes;
- e. fences or walls that have no structural function other than as a fence or wall for boundary demarcation, privacy or windbreak purposes, of up to 2 metres in height;
- f. retaining walls which are both less than 6m² in area and less than 1.8 metres in height;
- g. structures which are both less than 6m² in area and less than 1.8 metres in height;
- h. utility cabinets;
- i. masts, poles, radio and telephone aerials less than 6 metres above mean ground level;
- j. any public artwork located in that part of the city contained within Bealey, Fitzgerald, Moorhouse, Deans and Harper Avenues;
- k. artificial crop protection structures and crop support structures; and

in the case of Banks Peninsula only, excludes:

- l. any dam that retains not more than 3 metres depth, and not more than 20,000 m³ volume of water, and any stopbank or culvert;
- m. any tank or pool (excluding a swimming pool as defined in Section 2 of the [Fencing of Swimming Pools Act 1987](#)) and any structural support thereof, including any tank or pool that is part of any other building for which building consent is required:
 - i. not exceeding 25,000 litres capacity and supported directly by the ground; or

The Christchurch District Plan

- ii. not exceeding 2,000 litres capacity and supported not more than 2 metres above the supporting ground; and
- n. stockyards up to 1.8 metres in height.

Advice note:

1. This definition of building is different from the definition of building provided in Sections 8 and 9 of the [Building Act 2004](#), and the effect of this definition is different from the effect of Schedule 1 of the [Building Act 2004](#) in that some structures that do not require a building consent under the [Building Act 2004](#) may still be required to comply with the provisions of the District Plan.

Building line restriction

means a restriction imposed on a site, by reference to a particular site boundary, to ensure that when new buildings are erected, or existing buildings are altered or substantially or wholly rebuilt, no part of any such building shall stand in the area between the building line and the relevant site boundary.

Building supplier

means a business primarily engaged in selling goods for consumption or use in the construction, modification, cladding, fixed decoration or outfitting of buildings. It includes:

- a. glaziers;
- b. locksmiths; and
- c. suppliers of:
 - i. awnings and window coverings;
 - ii. bathroom, toilet and sauna installations;
 - iii. electrical materials and plumbing supplies;
 - iv. heating, cooling and ventilation installations;
 - v. kitchen and laundry installations, excluding standalone appliances;
 - vi. paint, varnish and wall coverings;
 - vii. permanent floor coverings;
 - viii. power tools and equipment;
 - ix. safes and security installations;
 - x. timber and building materials; and
 - xi. any other goods allowed by any other definition under trade supplier.

Burial

(see Interment).

C

Cabinet

in relation to [Chapter 11](#) Utilities and Energy, means equipment affixed to, or within, the ground that is necessary to operate part of a utility or infrastructure network, including any casing.

Café

means a small food and beverage outlet that primarily provides breakfast, lunch, light meals, snack foods and drinks for sale. It excludes a restaurant.

Care facility

means a facility providing rest home care within the meaning of the [Health and Disability Services \(Safety\) Act 2001](#), or a home for the residential care of people with special needs, and/or any land or buildings used for the care during the day of elderly persons or people with special needs.

Care home within a retirement village

means a facility providing rest home care within the meaning of the [Health and Disability Services \(Safety\) Act 2001](#), or a home for the residential care of older persons and/or any land or buildings used for the care of older persons within a retirement village.

Carriageway

means that portion of the road that is formed and able to be used by vehicles (including cyclists). It includes areas shared with pedestrians, on-street parking areas, shoulders and auxiliary lanes, but excludes footpaths. In urban areas the carriageway is generally defined by kerbs.

Cemetery

has the same meaning as defined in s2 of the [Burial and Cremation Act 1964](#).

Central City

means that part of the city contained within Bealey, Fitzgerald, Moorhouse, Deans and Harper Avenues.

Central City lane

means a narrow road within the Central City which is laid out or constructed either by the authority of the Council or the Minister of Transport for the purpose of providing access and which provides a high level of amenity for pedestrians.

Christchurch City

means that part of Christchurch District shown on [Appendix 2.2](#) Area of Christchurch City.

Christchurch City Council Datum

means a drainage reference level 9.043 metres below Mean Sea Level (1937 Lyttelton Datum).

Christchurch District

means the area under the jurisdiction of the Christchurch City Council, as shown on [Appendix 2.1](#) Area-related definitions.

Christchurch District excluding Banks Peninsula Ward

means that part of Christchurch District excluding Banks Peninsula Ward, as shown on [Appendix 2.1](#) Area-related definitions.

Clean fill

means material that, when buried, will have no adverse effects on people or the environment. Clean fill material includes virgin natural materials such as clay, soil and rock, and other inert materials, such as concrete or brick, that are free of:

The Christchurch District Plan

- a. combustible, putrescible, degradable or leachable components;
- b. hazardous substances;
- c. products or materials derived from hazardous waste treatment, hazardous waste stabilisation, or hazardous waste disposal practices;
- d. materials that may present a risk to human or animal health, such as medical and veterinary waste, asbestos or radioactive substances; or
- e. liquid waste.

Closed cemetery

has the same meaning as defined in s2 of the Burial and Cremation Act 1964.

Club room/Clubhouse

means any building or part thereof which is accessory to recreation facilities on the same site and which is intended to be used by members of a sports club or recreation-related organisation for locker facilities, amenities, meetings and/or social events.

Coastal hazard mitigation works

means works and structures designed to prevent or mitigate coastal hazards, such as coastal erosion and seawater inundation. It includes beach re-nourishment, dune replacement, sand fences, seawalls, groynes, gabions and revetments.

Coastal recreation activities

means the use of land and/or water for recreation and leisure of a casual nature, such as walking, cycling, swimming, surfing, fishing, kite flying, picnics, passive enjoyment of the outdoors, and beach sports and competitions.

Collector roads

means roads classified as a collector road in Figure 7.20 Road classification map, [Appendix 7.5.12 Road classification system](#).

Advice note:

1. Collector roads are generally the roads classified as Main or Local Distributors in the road classification system in the [Christchurch Transport Strategic Plan](#).

Commercial activities

means retail activities, offices and commercial services. It excludes industrial activities, high technology industrial activities and heavy industrial activities.

Commercial centre

means district centres, neighbourhood centres, local centres and large format centres zoned [Commercial Core](#), [Commercial Local](#), [Commercial Banks Peninsula](#) and/or [Commercial Retail Park](#).

Commercial film or video production

means activities associated with the creation of a film or video product where undertaken by a professional production company. It excludes filming by news organisations, students or private individuals.

Commercial fishing

has the same meaning as defined in s2(1) of the [Fisheries Act 1996](#).

Commercial services

means a business providing personal, property, financial, household, private or business services to the general public. It includes:

- a. authorised betting shops;
- b. copy and quick print services;
- c. financial and banking facilities;
- d. postal services;
- e. counter insurance services;
- f. dry-cleaning and laundrette services;
- g. electrical goods repair services;
- h. footwear and leather goods repair services;
- i. hairdressing, beauty salons and barbers;
- j. internet and computer services;
- k. key cutting services;
- l. real estate agents and valuers;
- m. travel agency, airline and entertainment booking services;
- n. optometrists;
- o. movie and game hire; and
- p. animal welfare and/or grooming services.

It excludes gymnasiums.

Communication facility

means a radiocommunications or telecommunication facility.

Communication kiosk

means a publicly accessible structure, whether free-standing or attached to a building, for the provision of telecommunication and radiocommunication services to the public. It includes phone boxes and public wifi access points.

Community activity

means the use of any land and/or buildings principally by members of the community for recreation, entertainment, health care, safety and welfare, spiritual, cultural or deliberation purposes.

Community corrections facility

means buildings used for non-custodial community corrections purposes. This includes probation, rehabilitation and reintegration services, assessments, reporting, workshops and programmes. Community corrections facilities may be used for the administration of, and a meeting point for, community work groups.

Community facility

means any land and/or buildings used for community activities or education activities. Community facilities include reserves, recreation facilities, libraries, community infrastructure such as community halls, health care facilities, care facilities, emergency service facilities, community corrections facilities, community welfare facilities and facilities used for entertainment activities or

spiritual activities. Community facilities exclude privately (as opposed to publicly) owned recreation facilities, entertainment activities and restaurants.

In relation to the open space zones of [Chapter 18 Open Space](#), community corrections facilities and community welfare facilities are excluded from this definition.

Community garden

means a privately or publicly held piece of land used collectively and not for profit by a group of people, whose members are from more than one household, for growing fruit, vegetables and flowers.

Community housing unit

in relation to the Community Housing Redevelopment Mechanism, means a residential unit owned, let or to be let by or on behalf of the Council, Housing New Zealand Corporation, a not-for-profit housing entity or a registered community housing provider (under Part 10 of the [Housing Restructuring and Tenancy Matters Act 1992](#)) as social housing.

Community infrastructure

has the same meaning as defined in [s197](#) of the [Local Government Act 2002](#).

Community market

means a regular and ongoing market with multiple vendors using moveable buildings or structures. It excludes retail activity ancillary to a permanent activity on the same site.

Community welfare facility

means the use of land and/or buildings for providing information, counselling and material welfare of a personal nature. This includes personal and family counselling, citizens advice bureaux, legal aid and the offices of charitable organisations where the facility is operated by a non-profit making organisation.

Comprehensive residential development

in relation to the [Residential New Neighbourhood Zone](#), means a development of three or more residential units which have been, or will be, designed, consented and constructed in an integrated manner (staged development is not precluded). It may include a concurrent or subsequent subdivision component.

Conservation activities

means the use of land and/or buildings for the management, maintenance and enhancement of ecological values for indigenous vegetation and indigenous fauna and their habitats. It includes:

- a. weed and pest control;
- b. fencing;
- c. restoration planting;
- d. associated environmental research and education activities; and
- e. access tracks and associated structures.

Contaminated land

has the same meaning as defined in [s2](#) of the [Resource Management Act 1991](#).

Context and site analysis

in relation to the Meadowlands Exemplar Overlay, means the analysis of the key existing elements and influences in the vicinity of the proposed development (context analysis) and the key existing elements and influences of the development site (site analysis).

Continuous building length

in relation to the Central City, means a continuous façade along any elevation of a building.

Convenience activities

means the use of land and/or buildings to provide readily accessible retail activities and commercial services required on a day to day basis. It excludes:

- a. booking services for airlines, recreation activities and entertainment activities;
- b. travel agency services;
- c. real estate agents;
- d. betting shops;
- e. gymnasiums;
- f. dry-cleaning and laundrette services (but not agencies for these services);
- g. electrical goods repair services;
- h. premises licensed to serve alcohol;
- i. counter insurance services;
- j. financial and banking facilities; and
- k. copy and quick printing services.

Core public transport route

means a core route (along high-demand corridors, connecting key activity centres and operating at high frequencies) as defined in Appendix 1 of the Regional Public Transport Plan 2012 (or any change to those routes during the lifetime of the District Plan). Core public transport routes generally have at least a 15 minute frequency during peak periods and daytime inter-peak.

Corner site

means a site at the intersection of two roads with legal frontage to both roads.

Council

means the Christchurch City Council or any committee, subcommittee, commissioner, officer or person to whom the Christchurch City Council's powers, duties or discretions under the Act have lawfully been delegated.

Coverage

means that portion of a site which is covered by buildings, including accessory buildings, and the area protected by the eaves of buildings.

Crematorium/Crematoria

has the same meaning as defined in s2 of the [Burial and Cremation Act 1964](#).

The Christchurch District Plan

In relation to [Sub-chapter 13.2 Specific Purpose \(Cemetery\) Zone](#), this definition applies only to crematoria having memorial gardens for the purpose of ash interment adjacent to the buildings where such appliances, machinery or furnaces are fixed.

Critical infrastructure

means infrastructure necessary to provide services which, if interrupted, would have a serious effect on the communities in Christchurch District and which would require immediate reinstatement. This includes any structures that support, protect or form part of critical infrastructure. It includes:

- a. Christchurch International Airport;
- b. Lyttelton Port of Christchurch;
- c. gas storage and distribution facilities;
- d. electricity sub-stations, networks and distribution installations, including the electricity distribution network;
- e. supply and treatment of water for public supply;
- f. storm water and sewage disposal systems;
- g. telecommunications and radiocommunications installations and networks;
- h. strategic road network and rail networks (as defined in the [Canterbury Regional Land Transport Strategy](#));
- i. petroleum storage and supply facilities;
- j. public health care facilities, including hospitals and medical centres;
- k. emergency service facilities; and
- l. New Zealand Defence Force facilities.

Crop support structures

in relation to [Chapter 17 Rural](#), means open structures on which plants are grown.

Cultural activity

means the use of land and/or buildings for public performances, demonstrations or displays/exhibitions of cultural, historic, scientific or artistic significance, whether a charge is made for admission or not.

It includes:

- a. museums;
- b. cultural centres;
- c. galleries;
- d. the open-air operation of heritage vehicles, trains and machinery; and
- e. ancillary workshops, offices, storage, retail activity and staff accommodation.

Customary harvesting

means the harvesting of indigenous vegetation or indigenous fauna by mana whenua, in accordance with tikanga, for traditional uses. These include:

- a. food gathering;
- b. carving;
- c. weaving; and
- d. traditional medicine.

Cycle lane

The Christchurch District Plan

means part of a roadway to be used by cycles, in which other traffic is not necessarily excluded. A cycle lane is indicated by pavement markings, texture or colour, or by raised pavement markers.

Cycle route

means a recommended route for cyclists through an area consisting of cycle ways, cycle lanes and/or streets, identified by signs.

Cycle way

means a physically separate track for cyclists to which pedestrians usually have access, but from which motor vehicles are excluded. It may be adjoining a roadway or on a separate allotment.

D

Deconstruction

in relation to a heritage item, means to carefully dismantle a building or feature in such a way that the deconstructed materials may be later used in reconstruction or restoration.

Defence against water

means any structure or equipment, including any bund, weir, spillway, floodgate, bank, stopbank, retaining wall, rock or erosion protection structure, groyne, vegetation (including anchored tree protection) or reservoir, that is designed to have the effect of stopping, diverting, controlling, restricting or otherwise regulating the flow, energy or spread of water, including floodwaters, within, into or out of a water body, artificial watercourse, or artificial lake, for the purposes of flood mitigation.

Demolition

in relation to a heritage item, means permanent destruction, in whole or of a substantial part, which results in the complete or significant loss of the heritage fabric and form .

Department store

means a retail store carrying a wide variety of merchandise, organised into various departments that sell goods such as apparel, furniture, appliances, electronics, household goods, toiletries, cosmetics, jewellery, toys and sporting goods, and where no one merchandise line dominates.

Development contribution

has the same meaning as defined in §197 of the [Local Government Act 2002](#).

Digital sign

means an internally lit sign that displays electronic messages and/or images.

Discrete

in relation to the Central City, means not directly associated with a premise or site.

Disinterment

in relation to [Sub-chapter 13.2](#) Specific Purpose (Cemetery) Zone, means the removal of a human body, or a container of ashes,

The Christchurch District Plan

from a grave or a vault.

District centre

in relation to [Chapter 15 Commercial](#), means the [Commercial Core Zone](#) and, where applicable, the [Commercial Retail Park Zone](#) at Belfast/Northwood (emerging), Eastgate/Linwood, Hornby, North Halswell (emerging), Papanui/Northlands, Riccarton and Shirley/Palms.

District Plan

means the proposed or operative district plan for Christchurch District.

Disturbance of soil

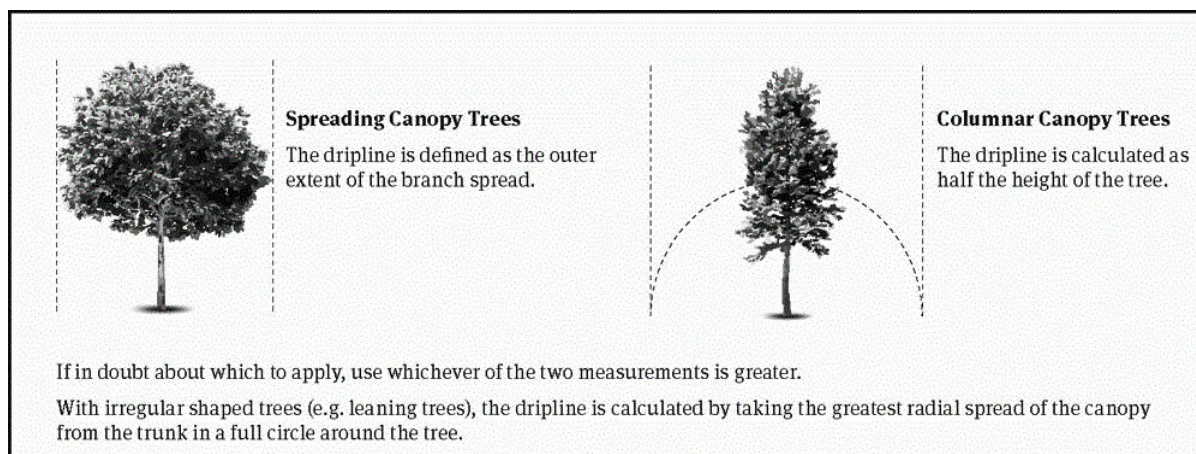
means any activity, including excavation and filling, which results in soil being shifted, moved, mixed, turned or disturbed.

Drag racing

means vehicles which race over 400 metre distance, with a maximum of two vehicles at a time.

Dripline

means the dripline of a tree, being a circular area, where the radius is equivalent to either the outer extent of the branch spread or half the height of the tree, whichever is the greater. This is illustrated in the diagram below.



Drive-through services

means a retail activity or commercial service where the goods/services are offered and/or are sold to a customer while remaining within their vehicle. It includes facilities that may form part of another facility, including food and beverage outlets, but excludes service stations.

Dtr,2m,nT,w+Ctr

means the Weighted Standardised Level Difference of the external building envelope (including windows, walls, roof/ceilings and floors where appropriate) and is a measure of the reduction in sound level from outside to inside a building, assessed in accordance with [ISO 140-5:1998 Acoustics – Measurement of sound insulation in buildings and of building elements – Part 5](#) and [ISO 717-1:2013 Acoustics – Rating of sound insulation in buildings and of building elements – Part 1](#). Dtr,2m,nT,w + Ctr is also known as the external sound insulation level.

Duplex

The Christchurch District Plan

in relation to the [Residential New Neighbourhood Zone](#), means a single residential building containing two residential units, each with its own entrance and habitable space on the ground floor.

E

Earthquake waste

in relation to [Sub-chapter 13.12](#) Specific Purpose (Burwood Landfill and Resource Recovery Park) Zone, means:

- a. solid waste resulting from the Canterbury earthquakes, including liquefaction silt;
- b. solid waste resulting from any construction work (within the meaning of Section 6 of the [Construction Contracts Act 2002](#)) undertaken as a result of the Canterbury earthquakes (within the meaning of Section 4 of the [Canterbury Earthquake Recovery Act 2011](#));
- c. hardfill from Christchurch District's sewer, water and road network; and
- d. liquid waste extracted from Christchurch District's infrastructure network; but

excludes any of the following unless it is not reasonably practicable to separate it from the waste specified in a. – d.:

- e. general domestic refuse;
- f. human waste;
- g. building insulation and building materials containing asbestos; or
- h. hazardous substances and waste; or
- i. waste material from an industrial process or trade process.

Earthquake waste processing activities

in relation to [Sub-chapter 13.12](#) Specific Purpose (Burwood Landfill and Resource Recovery Park) Zone, means:

- a. the storage, stockpiling, sorting and processing (including recycling) of earthquake waste; and
- b. any ancillary activities (including buildings and transportation) for the purpose of the activities specified in a.; and
- c. any remediation work required as a result of the effects of the activities specified in a. and b.

Earthworks

means any filling, excavation, disturbance of, deposition on or change to the profile of, the land of a site by:

- a. moving, removing, placing or replacing earth, rock or soil; or
- b. root raking and blading; or
- c. inserting cement, bentonite grout, timber or other foundation piles and/or undertaking other methods, either for earthquake repair or to strengthen the land to allow for construction of a building on the site; or
- d. constructing a track, firebreak or landing; or
- e. installing services or utilities.

EDM core public transport route

means a core route (along high-demand corridors connecting key activity centres and operating at high frequencies) as defined in Appendix 1 of the Regional Public Transport Plan 2012.

EDM walking distance

means a distance as measured along any continuous accessible and walkable route, including footpaths and open space, over

which the general public has a legal right of walking access.

Education activity

means the use of land and/or buildings for the provision of regular instruction or training. It includes ancillary spiritual activities, recreation activities, health activities and cultural activities, offices, out of school care (all of which may be shared) and boarding/residential accommodation. It also includes preschools in the [Specific Purpose \(School\) Zone](#) and [Specific Purpose \(Tertiary Education\) Zone](#).

Education facility

means land and/or buildings primarily used for education activities.

Elderly person's housing unit

means an older person's housing unit that was consented or otherwise permitted prior to the District Plan becoming operative.

Electricity distribution

means the conveyance of electricity via electricity distribution lines, cables, support structures, substations, transformers, switching stations, kiosks, cabinets and ancillary buildings and structures, including communication equipment, by a network utility operator. This includes Orion New Zealand Limited assets shown on the Planning Maps.

Electricity distribution line

means the lines and associated support structures utilised by a network utility operator to distribute electricity. This includes Orion New Zealand Limited assets shown on the planning maps.

Electricity transmission

has the same meaning as defined in the [National Policy Statement on Electricity Transmission 2008](#).

Emergency

means a situation that:

- a. is the result of any happening, whether natural or otherwise, including any accident, explosion, earthquake, eruption, tsunami, land movement, flood, storm, tornado, cyclone, fire, leakage or spillage of any dangerous gas or substance, technological failure, infestation, plague, epidemic, failure of or disruption to an emergency service or a lifeline utility, or actual or imminent attack or warlike act; and
- b. causes or may cause loss of life or injury or illness or distress or in any way endangers the safety of the public or property in New Zealand or any part of New Zealand.

Emergency service facilities

means the facilities of authorities that are responsible for the safety and welfare of people and property in the community. It includes fire stations, ambulance stations, police stations and emergency coordination facilities.

Engine testing

means on-aircraft engine testing only. It excludes off-aircraft engine testing.

Entertainment activity

means the use of land and/or buildings principally for leisure and amusement activities other than sports, regardless of whether

a charge is made for admission or not. It includes public performances, exhibitions, movie and live theatres, and ancillary workshops, storage, offices and retail activity.

Equestrian facility

means the use of land and buildings for training, racing or showing horses for commercial or competitive purposes. It may include:

- a. providing horse-riding lessons for a tariff; and
- b. ancillary retail activity and outdoor storage areas.

It excludes:

- c. pony clubs;
- d. the grazing of horses; and
- e. keeping or training horses where not open to the public.

Erection of a building

in relation to subdivision, means the completion of all framing, fire walls, fire ceilings and fire floors, and the affixing of all roof materials.

Esplanade reserve

has the same meaning as defined in s2 of the [Resource Management Act 1991](#).

Excavation

means the removal or disturbance of soil or material at or below the surface of the land, including in relation to land which has already been filled or excavated.

Existing forestry

means the tending, maintenance and harvesting of forest commercially planted as at 2 May 2015. It includes any earthworks ancillary thereto and wholly contained within the existing forestry boundaries.

F

Family flat

means self-contained living accommodation, whether contained within a residential unit or located separately to a residential unit on the same site, which is occupied by family member/s who are dependent in some way on the household living within that residential unit, and which is encumbered by an appropriate legal instrument which ensures that the use of the family flat is limited to dependent family members of the household living in the residential unit.

Family Store

in relation to the Salvation Army site in Addington, means the sale of second-hand goods that have been donated for sale, that would normally be associated with a charity shop.

Farm building

means a building integral to the primary use of the site for farming. It excludes residential units.

Farming

means the use of land and/or buildings for horticulture (including viticulture) and agriculture (including the rearing of animals), whether for profit or not. It includes:

- a. fencing and stock yards;
- b. shelterbelt and amenity tree planting;
- c. field-based horticultural and agricultural research;
- d. ancillary outdoor storage areas and offices; and
- e. horticultural structures.

Farming excludes intensive farming.

Farm stay

means transient accommodation offered at a tariff that is accessory to farming, conservation activity or rural tourism activity and in association with a residential unit on the site.

Filling

means the placing or disturbance of material upon the surface of the land above natural ground level, or upon land which has been excavated below natural ground level, or the placing or disturbance of material upon land below natural ground level where excavation has not taken place.

Financial contribution

has the same meaning as defined in s108(9) of the Resource Management Act 1991.

Flood management area

means an area identified on the planning maps which is at risk of flooding in a major flood event, where specific minimum floor level rules and earthworks rules apply.

Food and beverage outlet

means the use of land and/or buildings primarily for the sale of food and/or beverages prepared for immediate consumption on or off the site to the general public. It includes restaurants, taverns, cafés, fast food outlets, takeaway bars and any ancillary services. It excludes supermarkets.

Formed / Formation

in relation to a road, means construction of all or part of the legal road for use by motor vehicles. It includes gravelling, metalling, sealing or permanently surfacing the road.

Freeboard

means an allowance added to predicted flood water levels to account for uncertainties, such as:

- a. flood modelling error margins;
- b. inaccuracies in surveying land levels;
- c. construction tolerances;
- d. obstructions within drainage networks and waterways; and
- e. natural phenomena (e.g. wave and wind effects).

Free-standing sign

means a sign which is fixed to the ground rather than a building (see [Appendix 6.11.8 Signage - Diagram 8](#)). It may be erected on a pole or other support structure. It excludes signs which are erected on or over the [Transport Zone](#).

Freight depot

in relation to the Specific Purpose (Airport) Zone means sites where the primary use is receiving, despatching or consolidating goods in transit by road, rail, air or sea, and includes:

- a. carrier's depots;
- b. courier depots;
- c. mail distribution centres;
- d. bus and truck depots.

This definition excludes:

- e. composting plants;
- f. refuse transfer stations.

Freight handling activities

in relation to [Chapter 7 Transport](#), means the use of land, plant, equipment, buildings, infrastructure and structures for freight handling and distribution. It includes ancillary:

- a. storage areas and facilities, including warehouses;
- b. maintenance and repair facilities;
- c. parking areas; and
- d. administration facilities.

Freight hub

means an area where the transferring of freight between vehicles or transport modes is the primary activity of the site. Freight hubs are generally ports, airports, inland ports and rail depot facilities (such as the Middleton Railway).

Frontage

(see Boundary).

Front site

means a site having one or more frontages to a road or private road.

Full-time equivalent student

in relation to [Chapter 7 Transport](#), means:

- a. for a full-time student, one student; and
- b. for a part-time student, the proportion of a full-time student that is equivalent to the portion of a full-time course that that part-time student undertakes.

For the purposes of provisions that require the calculation of the total number of full-time equivalents at a tertiary education and research activity, such calculation can be undertaken using the New Zealand Qualifications Authority method of the sum of the totals of the student credit value for each enrolled student during the calendar year then divided by 120 (which is the standard number of credits for a full-time student).

Future development allotment

in relation to the Meadowlands Exemplar Overlay, means an allotment encumbered to achieve the density required by the zone.

G

Garage

means an accessory building, or part of a building, designed or used for housing motor vehicles and other miscellaneous items. It may include a carport, workshop, laundry and/or sleep-out ancillary to any associated residential unit. Garages may be located on a site other than the site of the residential unit.

Garden allotment

means a site used by an individual or members of a single household for growing fruit, vegetables and flowers, which are not sold to consumers (including restaurants).

Greenfield

means undeveloped urban land that is located in a Greenfield Priority Area for future residential or business development on Map A in Chapter 6 of the Canterbury Regional Policy Statement.

Greenhouse

means a totally enclosed structure where plants are grown within a controlled environment.

Gross floor area

means the sum of the total area of all floors of all buildings, measured from the exterior faces of the exterior walls or from the centre line of walls separating two buildings. For the purposes of calculating loading spaces, car and cycle parking spaces and the high trip generator thresholds only, it excludes off-street parking areas and/or loading areas contained within the building.

Gross floor area of the habitable space

means the sum of the total area of all floors of all spaces of a residential unit, excluding any bathroom, laundry, toilet, pantry, walk-in wardrobe, corridor, hallway, lobby, clothes drying room or garage (except any portion of a garage that includes a sleep-out).

Gross leasable floor area

means the sum of the total area of all floors (within the external walls for buildings or within the boundary for outdoor areas) designed or used for tenant occupancy, but excluding:

- a. common lift wells and stairwells (including landing areas);
- b. common corridors and halls (other than food court areas);
- c. common toilets and bathrooms;
- d. any parking areas and/or loading areas; and
for the purposes of calculating loading, car and cycle parking requirements and the high trip generator thresholds, it also excludes:
- e. common seating areas (including food court seating areas); and
- f. lobby areas within cinemas.

Ground floor area

means the total area of the building measured from the exterior faces of the exterior walls at ground level.

Ground level

means the natural ground level or, where the land has been subdivided, the level of the ground existing when works associated with any prior subdivision of the land were completed, but before filling or excavation for new buildings on the land has commenced.

Grout

means a material which consists of water and at least 20% cement, and which may also contain aggregate, inert additives or bentonite.

Guest accommodation

means the use of land and/or buildings for transient residential accommodation offered at a tariff, which may involve the sale of alcohol and/or food to in-house guests, and the sale of food, with or without alcohol, to the public. It may include the following ancillary activities:

- a. offices;
- b. meeting and conference facilities;
- c. fitness facilities; and
- d. the provision of goods and services primarily for the convenience of guests.

Guest accommodation includes hotels, resorts, motels, motor and tourist lodges, backpackers, hostels and camping grounds. Guest accommodation excludes bed and breakfasts and farm stays.

Gymnasium

means a building or room/s used for organised or instructed indoor exercise, including aerobics or weight/circuit training, and ancillary facilities such as health care services, spa/sauna, a small apparel sales area and cafeteria for patrons. Specialised facilities, such as squash courts, are considered ancillary to the gymnasium for the purposes of calculating parking requirements.

H

Habitable building

means any building occupied by persons for residential activity or guest accommodation.

Habitable space

means all the spaces of a residential unit or guest accommodation unit except any bathroom, laundry, toilet, pantry, walk-in wardrobe, corridor, hallway, lobby or clothes drying room (but including any portion of a garage used as a sleep-out).

Hazard mitigation works

in relation to slope instability hazards in [Chapter 5](#) Natural Hazards, means engineering works to prevent and control land instability, rock falls/boulder roll and the extent of debris travel. It includes the building of rock fall/boulder roll protection structures, the mechanical fixing of rocks in situ, the re-contouring of slopes and/or land and any necessary on-site geotechnical investigations required as part of the works. Retaining walls not required for a hazard mitigation purpose are excluded from this

definition.

Hazardous substance

means:

- a. any substance or mixture or formulation of substances which has one or more of the following intrinsic properties, and exceeds any of the minimum degrees of hazard for the following hazards prescribed in the [Hazardous Substances \(Minimum Degrees of Hazard\) Regulations 2001](#):
 - i. explosiveness;
 - ii. flammability;
 - iii. a capacity to oxidise;
 - iv. corrosiveness;
 - v. acute and chronic toxicity; and
 - vi. eco-toxicity, with or without bio-accumulation;
- b. substances which, in contact with air or water (other than air or water where the temperature or pressure has been artificially increased or decreased), generate a substance or reaction with any one or more of the properties specified in a. above;
- c. substances that, when discharged to surface or groundwaters, have the potential to deplete oxygen as a result of the microbial decomposition of organic materials (for example, milk or other foodstuffs); and
- d. radioactive substances.

In the [Specific Purpose \(Lyttelton Port\) Zone](#) and the Bulk Liquid Storage Area identified in [Appendix 13.8.6.5](#) Bulk liquids storage area, the following:

- e. storage of substances within or on vehicles being used in transit on public roads;
- f. installations where the combined transformer oil capacity of the electricity transformers is less than 1,000 litres;
- g. fuel within mobile plant, motor vehicles, boats and small engines;
- h. the accessory use and storage of hazardous substances in minimal domestic scale quantities;
- i. fire-fighting substances, and substances required for emergency response purposes on emergency service vehicles and at emergency service facilities;
- j. activities involving substances of HSNO sub-classes 1.6, 6.1D, 6.1E, 6.3, 6.4, 9.1D and 9.2D unless other hazard classification applies;
- k. waste within trade waste sewers; and
- l. vehicles applying agrichemicals and fertilisers for their intended purpose are:
 - i. deemed to be permitted activities for the purpose of [Rule 13.8.4.1.4](#) Discretionary activities D5;
 - ii. excluded from the calculation of quantities in [Rule 13.8.4.1.1](#) Permitted activities P10; and
 - iii. excluded from the application of [Rule 13.8.4.1.2](#) Controlled activities C3.

Health care facility

means land and/or buildings used for the provision of physical and mental health services, or health-related welfare services, for people by registered health practitioners (approved under the [Health Practitioners Competence Assurance Act 2003](#)). These include:

- a. medical practitioners;
- b. dentists and dental services;
- c. opticians;
- d. physiotherapists;
- e. medical social workers and counsellors;
- f. midwives;
- g. paramedical practitioners; and

include the following facilities:

- h. diagnostic laboratories;
- i. day care facilities for the elderly and disabled;
- j. integrated family health centres; and
- k. accessory offices and retail activity to the above; but

exclude facilities used for:

- l. the promotion of physical fitness, such as gymnasiums and/or pools (except where ancillary to a hospital service or treatment programme);
- m. beauty clinics; and
- n. health care within retirement villages.

Heavy industrial activity

means:

- a. blood or offal treating; bone boiling or crushing; dag crushing; fellmongering; fish cleaning or curing; gut scraping and treating; and tallow melting;
- b. flax pulping; flock manufacture or teasing of textile materials for any purpose; and wood pulping;
- c. storage and disposal of sewage, septic tank sludge or refuse;
- d. slaughtering of animals; storage, drying or preserving of bones, hides, hoofs or skins; tanning; and wool scouring;
- e. the burning of waste oil in the open air or in any combustion processes involving fuel-burning equipment;
- f. any other processes involving fuel-burning equipment, which individually or in combination with other equipment, have a fuel-burning rate of up to 1000 kg/hr;
- g. the open burning of coated or covered metal cable or wire, including metal coated or covered with varnish, lacquers, plastic or rubber;
- h. any activity with the potential to discharge asbestos to air, including the removal or disposal of friable asbestos, except where it complies with the [Health and Safety in Employment \(Asbestos\) Regulations 1998](#) and is supervised and monitored by Occupational Safety and Health staff;
- i. burning out of the residual content of metal containers used for the transport or storage of chemicals;
- j. the burning of municipal, commercial or industrial wastes, whether by open fire or the use of incinerators for disposal of waste;
- k. any industrial wood pulp process in which wood or other cellulose material is cooked with chemical solutions to dissolve lining, and the associated processes of bleaching and chemical and by-product recovery;
- l. crematoriums; and
- m. any industrial activity which involves the discharge of odour or dust beyond the site boundary.

Heavy vehicle

means a motor vehicle (other than a motor car that is not used, kept or available for the carriage of passengers for hire or reward), the gross laden weight of which exceeds 3,500 kilograms. It includes a traction engine or a vehicle designed solely or principally for the use of fire brigades in attendance at fires (refer to [Heavy Motor Vehicle Regulations 1974](#)).

Heavy vehicle movement

(see Heavy vehicle and Vehicle movement).

Heavy vehicle trip

(see Heavy vehicle and Vehicle trip).

Height

in relation to a building, means the vertical distance between ground level at any point and the highest part of the building immediately above that point, except that for the purpose of calculating height in all zones, account shall be taken of parapets, but not of:

- a. radio and television aerials, provided that the maximum height normally permitted by the rules for the zone is not exceeded by more than 2.5 metres; and
- b. finials, provided that the maximum height normally permitted by the rules for the zone is not exceeded by more than 1.5 metres;
- c. lift shafts, plant rooms, water tanks, air conditioning units, ventilation ducts, chimneys, antennas and similar architectural features on buildings in all open space zones of [Chapter 18 Open Space](#); commercial and industrial zones of [Chapter 15](#)

The Christchurch District Plan

[Commercial](#) and [Chapter 16 Industrial](#); residential zones of [Chapter 14 Residential](#) within the [Central City](#); and the [Specific Purpose \(Defence Wigram\) Zone](#), [Specific Purpose \(Tertiary Education\) Zone](#), [Specific Purpose \(Hospital\) Zone](#) and [Specific Purpose \(Airport\) Zone](#);

- d. chimneys (not exceeding 1.1 metres in any direction);
- e. any [utility](#) or part of a [utility](#) with a horizontal dimension of less than 55 millimetres;
- f. the spires or towers of [spiritual activities](#) that exceed the allowed zone height by no more than 3 metres or 20% of the [building](#) height (whichever is greater); and
- g. any pole or support structure for flood or training lights [accessory](#) to a sports facility, provided that their height does not exceed 40 metres.

Helicopter movement

means the landing or take-off of a helicopter.

Heli-landing area

means an area of land, [building](#) or structure used for the take-off and landing of helicopters for primary purposes other than:

- a. [emergency](#) landings;
- b. [medical emergencies](#);
- c. search and rescue operations;
- d. firefighting, police or civil defence purposes;
- e. advertised community events providing educational activities for schoolchildren and/or fundraising activities such as arts and craft shows, fairs and A & P shows; and
- f. [farming](#), forestry, the construction of [buildings](#) and the construction or maintenance of [utilities](#).

Heritage area

means an area of land that is identified in [Appendix 9.3.7.3](#) Schedule of significant historic heritage areas because it comprises an inter-related group of historic places, [buildings](#), structures and/or sites that make a significant contribution towards an understanding and appreciation of [Christchurch District's](#) history and cultures.

Heritage fabric

in relation to [Sub-chapter 9.3](#) Historic Heritage of Chapter 9 Natural and Cultural Heritage, means any physical aspect of a [heritage item](#) or [heritage setting](#) which contributes to its [heritage values](#). In the case of the interior of a [heritage item](#), it includes only that heritage fabric which is in [Appendix 9.3.7.2](#) Schedule of significant historic heritage for that [heritage item](#). Heritage fabric includes:

- a. original and later material and detailing which forms part of, or is attached to, the interior or exterior of a [building](#), structure or feature;
- b. the patina of age resulting from the weathering and wear of construction material over time;
- c. fixtures and fittings that form part of the design or significance of a [heritage item](#), but excludes inbuilt museum and artwork exhibitions and displays; and
- d. for open space [heritage items](#), built or nonbuilt elements independent of [buildings](#), structures or features, such as historic paths, paving and garden layout.

Heritage fabric excludes fabric certified in accordance with [Appendix 9.3.7.6](#) Certification of non-heritage fabric.

Heritage investigative and temporary works

in relation to a [heritage item](#), means temporary removal, recording, storage and reinstatement of undamaged [heritage fabric](#)

The Christchurch District Plan

where necessary for associated works to the heritage item. It may include:

- a. temporary removal for investigation of building condition and determining the scope of works; and
- b. temporary removal of heritage fabric where the heritage fabric cannot be satisfactorily protected in situ; and
- c. core drilling.

It excludes the following activities where they are undertaken as part of heritage upgrade works:

- d. core drilling;
- e. temporary lifting and/ or temporary moving off foundations; and
- f. temporary lifting and/or temporary moving of a heritage item to allow for ground, foundation and retaining wall remediation.

Heritage item

means an entry in [Appendix 9.3.7.2](#) Schedule of significant historic heritage which has met the significance threshold for listing in the District Plan. Heritage items can be:

- a. a building, buildings or group of interrelated buildings;
- b. a structure or feature, such as a bridge, monument, gun emplacement, whale pot or lamp stand; and
- c. an open space, such as a square, park, garden or cemetery.

Heritage professional

in relation to [Rule 9.3.4](#) Historic heritage, [Appendix 9.3.7.5](#) Heritage works plan and [Appendix 9.3.7.6](#) Certification of non-heritage fabric, means:

- a. a registered architect with a recognised post-graduate qualification in a field related to heritage conservation or management and at least three years of experience, including experience on at least three projects where he/she has acted as the principal heritage advisor for works involving a heritage building listed by Heritage New Zealand and/or in a district plan; and/or
- b. a person with a degree or with a recognised post-graduate qualification in a field related to heritage conservation or management and at least five years of experience in heritage conservation or management, including experience on at least five projects where he/she has acted as a principal heritage advisor for works involving a heritage building listed by Heritage New Zealand and/or in a district plan.

Heritage setting

means an entry in [Appendix 9.3.7.2](#) Schedule of significant historic heritage which, together with the associated heritage item, has met the significance threshold for listing in the District Plan. A heritage setting is the area around and adjacent to a heritage item that is integral to its function, meaning and relationships and may include individually listed heritage items. Heritage settings include:

- a. buildings;
- b. structures or features, such as fences, walls and gates, bridges, monuments, gun emplacements, whale pots, lamp stands and public artworks;
- c. gardens, lawns, mature trees and landscaping, water features, historic landforms;
- d. access, walkways and cycle ways, circulation, paths and paving;
- e. open space; and
- f. spatial relationships.

Heritage upgrade works

in relation to a heritage item or heritage setting, means works undertaken to satisfy or increase compliance with [Building Act](#)

The Christchurch District Plan

2004 and Building Code requirements. It may include:

- a. structural seismic upgrades, core drilling, temporary lifting and/or moving off foundations or permanent realignment of foundations;
- b. fire protection;
- c. provision of access; and
- d. temporary lifting and/or temporary moving of a heritage item to allow for ground, foundation and retaining wall remediation.

It excludes Building Code upgrade works undertaken as part of repairs, reconstruction or restoration.

Heritage values

means the following tangible and intangible attributes which contribute to the significance of a heritage item and its heritage setting:

- a. historical and social values;
- b. cultural and spiritual values;
- c. architectural and aesthetic values;
- d. contextual values;
- e. technological and craftsmanship values; and
- f. archaeological and scientific values.

High flood hazard management area

means an area subject to inundation events where the water depth (metres) x velocity (metres per second) is greater than or equal to 1, or where depths are greater than 1 metre, in a 0.2% AEP (1 in 500-year) flood event (as identified in the [Canterbury Regional Policy Statement](#), Chapter 11) and shown on the planning maps.

High technology industrial activity

means:

- a. communications technology development;
- b. computer and information technology development; and
- c. associated manufacturing, electronic data storage and processing, and research and development.

Hill waterway

means any waterway, watercourse, gully, swale, open drain, spring or waterfall that:

- a. is not identified or defined in the District Plan under any other water body classification; and
- b. has an average gradient over a distance of 100 metres of 1 in 50 or steeper, where the gradient is measured from 50 metres upstream and 50 metres downstream from the centre of the waterway where it passes through the site. Where a waterway is less than 100 metres long, the gradient shall be measured over the entire length of the waterway.

The upstream extremity of a hill waterway is at the point of channelisation of overland sheet flow.

Historic heritage

has the same meaning as defined in s2 of the [Resource Management Act 1991](#).

Home occupation

means any occupation, including a profession, undertaken within a residential unit by a person who resides permanently within

that residential unit.

Horticultural structures

in relation to [Chapter 17 Rural](#), means artificial crop protection structures and crop support structures.

Hospital

means land and/or buildings used for the provision of medical or surgical treatment of, and health services for, people. It includes:

- a. helicopter landing and ambulance facilities;
- b. medical research and testing facilities;
- c. first aid and other health-related training facilities;
- d. rehabilitation facilities, including gymnasiums and pools;
- e. palliative facilities;
- f. supported residential care;
- g. hospital maintenance and service facilities;
- h. mortuaries;
- i. accessory offices and retail activities, including pharmacies, food and beverage outlets and florists; and
- j. accessory commercial services, including banks and dry-cleaners.

It excludes:

- k. hospitals within retirement villages.

Hospital within a retirement village

means any facility providing hospital care within the meaning of the [Health and Disability Services \(Safety\) Act 2001](#) within a retirement village.

Hotel

means any building and associated land where guest accommodation is provided and which is the subject of an alcohol licence. It may include restaurants, bars, bottle stores, conference and other ancillary facilities as part of an integrated complex.

I

Identified building area

means an area identified on an approved plan of subdivision on which a building is anticipated.

Impervious surface

means a continuous surface of concrete, bitumen, paving (with slabs, bricks, 'gobi' or similar blocks) or hardfill (excluding gravel or other loose stone surfaces that have not been mechanically compacted) that effectively puts a physical barrier on the surface of any part of a site. It excludes shade, tunnel or greenhouses that do not have solid floors.

Improved pasture

in relation to [Sub-chapter 9.1](#) Indigenous Biodiversity and Ecosystems of Chapter 9 Natural and Cultural Heritage, means an area of pasture:

The Christchurch District Plan

- a. where exotic pasture grass and herb species are the visually predominant vegetation cover; and
- b. that:
 - i. is used for livestock grazing and has been routinely so used since 1 June 1996; or
 - ii. at any time on or after 1 June 1996 was modified or enhanced for the purpose of livestock grazing by cultivation, irrigation, oversowing, top-dressing and/or direct drilling.

Indigenous biodiversity

means organisms of New Zealand origin, the variability among these organisms and the ecological complexes of which they are a part. It includes diversity within species, between species, and of ecosystems, and includes their related indigenous biodiversity values.

Indigenous fauna

means all animals that occur naturally in New Zealand and have evolved or arrived without any assistance from humans. It includes migratory species visiting New Zealand on a regular or irregular basis.

Indigenous vegetation

means vegetation containing plant species that are indigenous or endemic to the area/site.

Indigenous vegetation clearance

means the felling or clearing of indigenous vegetation by cutting, crushing, cultivation, irrigation, chemical application, artificial drainage, stop banking or burning.

Industrial activity

means the use of land and/or buildings for manufacturing, fabricating, processing, repairing, assembly, packaging, wholesaling or storage of products. It excludes high technology industrial activity, mining exploration, quarrying activity, aggregates-processing activity and heavy industrial activity.

Infrastructure (Rule 5.6)

in relation to [Rule 5.6](#), means water mains, sewerage mains, pump stations and reservoirs, electricity networks and sub-stations, telecommunications networks, the strategic road network, other roads, rail, and bulk storage fuel facilities and associated pipelines. It excludes services from the street to residential units.

In situ mixing

means removal or disturbance of soil on the site of a repair, in order to combine that soil with other material as part of the repair of land damaged by earthquakes.

Installed

means permanently added to the physical structure of the building or parking building.

Integrated family health centre

means a health care facility primarily serving the local community where multiple health care services are located within one building (or networked) and function together in an integrated manner to meet the needs of the consumer. It will contain general practice clinical staff and services and may include community nursing and medical specialists, a day surgery, a pharmacy, a

blood collection centre and physiotherapy, midwifery and counselling services.

Intensive farming

means the intensive production of livestock and/or plants, or aquatic animals, within a building or structure (excluding greenhouses, shade houses and poultry hatcheries) or on animal feed lots with limited or no dependence on natural soil quality on the site and food required to be brought to the site. It includes:

- a. intensive pig farming;
- b. intensive poultry farming;
- c. land-based aquaculture; and
- d. mushroom farming.

Interment

means depositing a human body, or a container of ashes resulting from the cremation of a human body, within a grave or a vault

Intersection

in relation to two or more intersecting or meeting roadways or railway lines, means that area contained within the prolongation or connection of the lateral boundary lines of each roadway or railway.

J

K

Key activity centres

means the following key existing and proposed commercial centres identified as focal points for employment, community activities and the transport network, and which are suitable for more intensive mixed-use development, as identified in the [Canterbury Regional Policy Statement](#), Chapter 6, on Map A:

- a. Papanui;
- b. Shirley;
- c. Linwood;
- d. New Brighton;
- e. Belfast/Northwood;
- f. Riccarton;
- g. North Halswell;
- h. Spreydon; and
- i. Hornby.

The key activity centre in each location is land zoned [Commercial Core](#) and, where applicable, [Commercial Retail Park](#).

Key pedestrian frontage

means street frontages in the [Commercial Core Zone](#) defined on the planning maps.

Key structuring elements

means the existing or proposed above ground infrastructure, such as stormwater ponds, roads and reserves, that contribute to

the layout of new urban areas.

L

LAE

means the Sound Exposure Level (SEL) in decibels. LAE is the sound level of one second duration which has the same amount of energy as the actual noise event measured. This is usually used to measure the sound energy of a particular event, such as a train pass-by or an aircraft flyover.

LAeq

means the equivalent continuous A-weighted sound level in decibels. This is commonly referred to as the time-average sound level. LAeq is often assessed over a reference time interval of 15 minutes, in accordance with [NZS 6802:2008](#).

LAm_{ax}/LAF_{max}

means the A-weighted maximum noise level in decibels measured with a 'fast' response time. It is the highest noise level that occurs during a measurement period.

Land management activities

in relation to [Sub-chapter 13.11](#) Specific Purpose (Flat Land Recovery) Zone, means property clearance activities undertaken by the legally responsible entity, on behalf of the Crown. This entails:

- a. removal and disposal of all [buildings](#), fences, paths or other debris;
- b. removal of vegetation that is not being retained;
- c. fencing of areas for safety, to deter illegal activities and to improve visual amenity; and
- d. ongoing land management responsibilities, including security and community reassurance patrols, maintaining vegetation, managing weeds and pests, and removing excessive rubbish.

Landscaped area

(see [Landscaping](#)).

Landscaping

means the provision of predominantly trees and/or shrub plantings. It may include some ancillary areas of lawn or other amenity features.

Landscaping strip

(see [Landscaping](#)).

Large format centre

means those [commercial centres](#) at Moorhouse Avenue, Shirley Homebase, Tower Junction, zoned [Commercial Retail Park](#) on the planning maps.

Large format retail activity

means any individual retail tenancy with a specified minimum floor area, where the tenancy is created by freehold, leasehold,

licence or any other arrangement to occupy.

Ldn

means the day-night average sound level in decibels over a 24-hour period, which is calculated from the day (07:00-22:00) LAEq(15h) and night (22:00-07:00) LAEq(9h) values with a 10 dB penalty applied to the night-time LAEq(9h). Ldn values can be used to describe long term noise exposure by averaging over days, weeks or months.

Level crossing

in relation to [Chapter 7 Transport](#), has the same meaning as defined in [s4](#) of the [Railways Act 2005](#).

Light manufacturing and servicing

in relation to the [Specific Purpose \(Airport\) Zone](#), means sites in which articles, goods or produce are prepared and/or repaired for sale or rent, and, apart from required parking and manoeuvring, the light manufacturing and servicing activity will be contained entirely within a building.

Limit line

in relation to [Chapter 7 Transport](#), means a line marked on the surface of the roadway to indicate the place where traffic is required to stop for the purpose of complying with a stop sign, give-way sign, pedestrian crossing, railway crossing, school crossing point or traffic signal.

Living area

means habitable space, excluding bedrooms.

Living space

means all the lounge, dining room, kitchen, bedroom, bathroom, toilet and hallway spaces within a residential unit.

Loading

means the loading or unloading or fuelling of a vehicle, or the adjustment or covering or tying of its load or any part or parts of its load. Load, in relation to a vehicle, has a corresponding meaning.

Loading area

means that part of a site on which all vehicle loading facilities are accommodated. It includes all loading spaces and manoeuvring areas.

Loading space

means that portion of a site clear of any road or service lane upon which a vehicle can stand while being loaded or unloaded, whether covered or not. Such loading space shall have vehicular access to a road or service lane.

Local centre

means those areas zoned [Commercial Local](#) (excluding those areas at Beckenham and Wigram that are zoned [Commercial Local](#) but are categorised as a neighbourhood centre) and [Commercial Core](#) at Wainoni and Peer Street.

Local roads

The Christchurch District Plan

means any road not classified as either an arterial road, distributor road or collector road in [Appendix 7.5.12 Road classification system](#).

Advice note:

1. Local roads are generally the roads classified as Typical or Slow Streets in the road classification system in the [Christchurch Transport Strategic Plan](#).

Low impact urban design

means using recognised best practice techniques in urban development to promote the efficient use of natural and physical resources and to reduce environmental impacts. It includes freshwater, energy use and conservation values.

M

Maintenance

in relation to a heritage item or heritage setting, means regular and ongoing protective care of the item or setting to prevent deterioration and to retain its heritage value. It includes the following, where there is no permanent damage or loss of heritage fabric:

- a. cleaning, washing or repainting exterior or interior fabric using a method which does not damage the surface of the heritage fabric;
- b. reinstating existing exterior or interior surface treatments;
- c. temporary erection of freestanding scaffolding;
- d. laying underground services and relaying paved surfaces to the same footprint;
- e. upkeep of gardens, including pruning of trees, pruning or removal of shrubs and planting of new trees or shrubs (except planting within, or adjoining, plots within cemeteries); and
- f. in relation to crematoria and cemeteries, maintenance also includes:
 - i. protective care and routine works to enable their ordinary functioning, such as temporary and reversible modifications or additions to buildings;
 - ii. installation of plaques;
 - iii. restoration, repair and reinstatement of monuments; and
 - iv. disturbance of soil for burials and interment of ashes.

Major arterial roads

means roads classified as a major arterial road in Figure 7.20 Road classification map, [Appendix 7.5.12 Road classification system](#).

Advice note:

1. Major arterial roads are generally the roads classified as State Highways and District Arterials in the road classification system in the [Christchurch Transport Strategic Plan](#).

Major cycle route

in relation to [Chapter 7 Transport](#), means a cycle route that predominantly consists of cycle ways and is at least two kilometres in continuous length.

Advice note:

1. [The Christchurch Transport Strategic Plan](#) identifies major cycle routes proposed by the [Council](#).

Major flood event

means either a 1 in 200 year (0.5% [AEP](#)) rainfall event concurrent with a 1 in 20 year (5% [AEP](#)) tidal event, or a 1 in 200 year tidal event concurrent with a 1 in 20 year rainfall event.

Major sports facility

means a large single or multi-purpose [recreation facility](#) used for the purposes of participating in or viewing sports, active recreation and/or entertainment, whether indoor or outdoor, public or private, and whether a charge is made for admission or not. It includes:

- a. stadiums (covered and open air);
- b. indoor sports and [recreation facilities](#) where the [gross floor area](#) of a single [building](#) is more than 800m²;
- c. swimming pool complexes/aquatic centres (covered and open air);
- d. golf driving ranges and/or golf courses;
- e. showgrounds and/or equestrian raceways, including stables and servicing facilities;
- f. athletics complexes;
- g. boat ramps, jetties and recreational boat launching facilities;
- h. boat storage, sheds, and repair and maintenance facilities; and
- i. [accessory](#) facilities such as [club rooms/clubhouses](#), spectator seating, and lighting and associated support structures.

Manoeuvre area

means that part of a [site](#) used by vehicles to move from the [vehicle crossing](#) to any [parking space](#), [garage](#) or [loading space](#). It includes all driveways and aisles, and may be part of an [access](#). [Parking areas](#) and [loading areas](#) may be served in whole or in part by a common manoeuvre area. Manoeuvring area has the same meaning.

Manufacturing

in relation to the Specific Purpose (Airport) Zone means making items by physical labour or machinery, and includes assembly of items.

Māori land

in relation to [Chapter 12](#) Papakāinga/Kāinga Nohoanga Zone, means land with the following status:

- a. Māori communal land gazetted as Māori reservation under [s338 Te Ture Whenua Maori Act 1993](#); and
- b. Māori customary land and Māori freehold land as defined in [s4](#) and [s129 Te Ture Whenua Maori Act 1993](#).

Marine structures

in relation to the [Open Space Coastal Zone](#), means structures in coastal areas owned and maintained by the [Council](#) for public recreation and commercial purposes. It includes New Brighton Pier, boat ramps and jetties.

Market garden

in relation to residential zones, means a business growing a diverse range of fruit, vegetables and flowers as cash crops for general sale.

Mass assembly of people

in relation to the provisions relating to Runway End Protection Areas at Christchurch International Airport, means gatherings associated with recreation activities, entertainment activities, events or markets. It excludes golf course recreation.

Mast

in relation to [Chapter 11](#) Utilities and Energy, means any pole or tower designed to carry antennas and any ancillary equipment.

Mechanical ventilation

means a mechanical system or systems designed, installed and operating so that a habitable space (with windows and doors closed) is ventilated with fresh air in accordance with the Building Code under the [Building Act 2004](#).

Minor arterial roads

means roads classified as a minor arterial road in Figure 7.20 Road classification map, [Appendix 7.5.12](#) Road classification system.

Advice note:

1. Minor arterial roads are generally the roads classified as Minor Arterials in the road classification system in the [Christchurch Transport Strategic Plan](#).

Minor upgrading of the existing electricity network

in relation to [Rule 5.6.1](#) Activity status for Slope Instability Management Areas, means increasing the carrying capacity, efficiency and security of electricity and associated telecommunications facilities, and utilising the existing support structures or structures of a similar scale and character. It includes the:

- a. addition of circuits and/or conductors;
- b. re-conductoring of the line with higher capacity conductors;
- c. re-sagging of conductors;
- d. addition of longer or more efficient insulators;
- e. addition of earthwires (which may contain telecommunication lines, earthpeaks and lightning rods); and
- f. replacement or alteration of existing telecommunication antennas.

Minor upgrading excludes an increase in voltage of the line.

Mixed modal link

in relation to [Rule 15.4.4.1.1](#) Area-specific permitted activities, means streets, lane ways, paths or access ways that provide for shared movement, which may include facilities for a combination of walking, cycling, motor vehicles and public transport.

Mixed-use

means development which combines, within a building, buildings or development area, a range of activities, including residential activity, commercial activities and/or community facilities.

Mobile irrigators

in relation to [Chapter 17](#) Rural, means irrigators that are vehicles. It includes pivot or linear irrigators.

Mobility parking space

The Christchurch District Plan

in relation to [Chapter 7 Transport](#), means a parking space designed and reserved for the exclusive use of people whose mobility is restricted and who have a mobility permit issued. It also means 'accessible park/parking' and 'disabled/disability park/parking' as referred to in various external standards and guidance documents.

Monument

means any headstone, plaque, panel, memorial or associated concrete kerbing.

Motorised sports facility

means a recreation facility used for participating in or viewing land-based motor sports. It includes car, truck, go-kart and motorbike racing tracks and accessory facilities such as club rooms/clubhouses, spectator stands, lighting and associated support structures, mechanical workshops and fuel storage and pumps.

Motorised water craft

means any boat or water craft powered by an engine exceeding 1.5 horse power.

Motor racing vehicle

means a vehicle purpose-built or modified to compete in motor racing.

Motor-servicing facility

means land and/or buildings used for the servicing, repair (including panel beating and spray painting repair) of motor vehicles, agricultural machinery or boats and ancillary activities (including the sale and/or fitting of accessories).

Multi-unit residential complex

means a group of two or more residential units where the group is either held under one title or unit titles under the [Unit Titles Act 2010](#) with a body corporate.

N

National Grid

has the same meaning as defined in the [National Policy Statement on Electricity Transmission 2008](#).

Navigation aid

means:

- a. a device or system (such as a radar beacon) that provides an aviation operator with data to support navigation of aircraft; or
- b. 'navigational aid' as defined in the [Maritime Transport Act 1994](#) (as amended).

Neighbourhood centre

means:

- a. the [Commercial Core Zone](#) at Addington, Aranui, Avonhead, Bishopdale, Bush Inn/Church Corner, Colombo/Beaumont, Cranford, Edgware, Fendalton, Ferrymead, Halswell, Ilam/Clyde, Merivale, New Brighton, North West Belfast, Parklands, Prestons (emerging), Redcliffs, Richmond, Stanmore/Worcester, Spreydon (Barrington), St Martins, Sumner, Sydenham, Sydenham South, Wairakei/Greers Road, West Spreydon (Lincoln Road), Wigram (emerging), Woolston and Yaldhurst

(emerging);

- b. the [Commercial Local Zone](#) at Beckenham and Wigram; and
- c. the [Commercial Banks Peninsula Zone](#) at Lyttelton and Akaroa.

Neighbourhood plan

in relation to the Meadowlands Exemplar Overlay, means a plan covering an area of no less than 8 hectares which identifies the expected residential development for that land.

Net density

means the number of lots or household units per hectare (whichever is the greater). The area (ha) includes land for:

- a. residential purposes, including all open space and on-site parking associated with residential development;
- b. local roads and roading corridors, including pedestrian access ways and cycle ways, but excluding state highways and major arterial roads; and
- c. local (neighbourhood) reserves.

The area (ha) excludes land that is:

- d. stormwater retention and treatment areas;
- e. geotechnically constrained (such as land subject to subsidence or inundation);
- f. set aside to protect significant ecological, cultural, historic heritage or landscape values;
- g. set aside for esplanade reserves or access strips that form part of a larger regional or sub-regional reserve network;
- h. for local community facilities and retail activities, or for schools, hospitals or other district, regional or sub-regional facilities; and
- i. identified on an outline development plan as an area that is subject to development constraints.

Net floor area

unless otherwise specified, means the sum of the floor areas, each measured to the inside of the exterior walls of the building or buildings. It includes the net floor area of any accessory building, but excludes any floor area used for:

- a. lift wells, including the assembly area immediately outside the lift doors for a maximum depth of 2 metres;
- b. tank rooms, boiler and heating rooms, machine rooms and bank vaults;
- c. those parts of any basement not used for residential activities, commercial activities or industrial activities;
- d. parking areas and/or loading areas, including basement parking which extends no more than 1 metre above ground level;
- e. 50% of any pedestrian arcade, or ground floor foyer, which is available for public thoroughfare;
- f. covered access ways;
- g. roof terraces that are for residential or staff use only, are uncovered and open (apart from a balustrade) to the outside air on at least three sides; and
- h. decks that are for residential or staff use only, are uncovered and open (apart from a balustrade) to the outside air on at least three sides and which do not extend more than 800 millimetres in height above ground level and cover less than 15% of the net site area.

It excludes the following for commercial activities and guest accommodation only:

- i. all stairwells (including landing areas);
- j. toilets and bathrooms, provided that in the case of any guest accommodation the maximum area permitted to be excluded for each unit shall be 3m²; and
- k. that part of a balcony that is within 2 metres from an exterior wall of a building, provided that the balcony is open to the

The Christchurch District Plan

outside air (apart from a balustrade) on at least one side.

It excludes the following for residential activities only:

- l. shared stairwells;
- m. garages and carports; and
- n. all balconies.

Net site area

in relation to a site or allotment, means the total area of the site or allotment less:

- a. any area subject to a designation intended to be taken under the [Public Works Act 1981](#) for any purpose;
- b. any entry/exit strip of land 6 metres or less in width; and/or
- c. any area of land where that land is the shared access for more than one site.

Network infrastructure

has the same meaning as defined in [§197](#) of the [Local Government Act 2002](#).

Network utility operator

has the same meaning as defined in [§166](#) of the [Resource Management Act 1991](#).

Network waterway

means any man-made open channel within the ground, whether containing a continuous flow of water or not, and which:

- a. is for the purposes of capturing and/or directing water (excluding sewerage); and
- b. forms part of, or drains into, the public stormwater network or the coastal environment; and
- c. has not otherwise been classified under the District Plan.

It includes water races not otherwise classified by the District Plan.

No complaints covenant

in relation to the Lyttelton Port Influences Overlay Area, means a covenant which is:

- a. registered against the title/s of the land upon which the proposal is situated; and
- b. entered into by the resource consent applicant, in favour of the Lyttelton Port Company Limited, to the effect that no owner or occupier or successor in title of the covenanted land shall object to, complain about, bring or contribute to any proceedings under any statute or otherwise oppose any relevant adverse environmental effects (for example noise, dust, traffic, vibration, glare or odour) resulting from any lawfully established port activities.

Noise-sensitive activities

in relation to [Sub-chapter 13.10](#) Specific Purpose (Ruapuna Motorsport) Zone, means:

- a. residential activities, other than those existing in conjunction with rural activities that comply with the rules in the relevant District Plan as at 23 August 2008;
- b. education activities including preschools, but excluding flight training, trade training or other industry-related training facilities;
- c. guest accommodation, except that which is designed, constructed and operated to a standard that mitigates the effects of noise on occupants; and
- d. health care facilities and any elderly person's housing unit.

No net loss

in relation to indigenous biodiversity, means no reasonably measurable overall reduction in:

- a. the diversity of indigenous species or recognised taxonomic units; and
- b. indigenous species' population sizes (taking into account natural fluctuations) and long term viability; and
- c. the natural range inhabited by indigenous species; and
- d. the range and ecological health and functioning of assemblages of indigenous species, community types and ecosystems.

Notional boundary

in relation to [Chapter 6](#) General Rules and Procedures, means a line 20 metres from any wall of a residential unit or a building occupied by a sensitive activity, or the site boundary where this is closer to the residential unit or sensitive activity.

O

Office

means any of the following:

- a. administrative offices where the administration of an organisation, whether trading or non-trading, is conducted, including bank administration offices; and
- b. professional offices where professional services are available and carried out. These include the offices of accountants, solicitors, architects, surveyors, engineers and consultants.

Off-site sign

means a sign which is used to advertise activities, goods, services, products or events that are not directly related to the use or activities occurring at the site on which the sign is physically located. It includes posters and poster boards and any other associated supporting device whether permanent, temporary or moveable.

Older person

means a person over the age of 60 years or a person who qualifies for a permanent supported living payment on health grounds. It includes the partner, spouse, dependants or caregiver of such a person, notwithstanding that the partner, spouse, dependents or caregiver may be under the age of 60 years.

Older person's housing unit

means one of a group of residential units developed or used for the accommodation of older persons, where the group is held under either one title or unit titles under the [Unit Titles Act 2010](#) with a body corporate, and which is encumbered by a bond or other appropriate legal instrument which ensures that the use of the unit is confined to older persons. It includes any unit previously defined as an elderly person's housing unit.

Outdoor living space

means an area of open space for the exclusive use of the occupants of the residential unit to which the space is allocated. In the [Residential Medium Density Zone](#), outdoor living space may include indoor communal recreation and leisure areas for the benefit of all residents of the site.

Outdoor service space

means the area identified on a site for outdoor drying of washing and the storage of items, such as BBQs and gardening tools and equipment.

Outdoor storage area

means any land used for the purpose of storing vehicles, equipment, machinery and/or natural or processed products outside of fully enclosed buildings for periods in excess of 12 weeks in any year. It excludes yard-based suppliers and vehicle parking associated with an activity.

Outline development plan

means a plan (including any associated narrative description provided) which guides the form and staging, where applicable, of subdivision and development in the [Residential New Neighbourhood Zone](#) and/or Greenfield Priority Areas identified in the [Canterbury Regional Policy Statement](#), Chapter 6, Map A.

P

Park and ride facilities

means a parking building and/or parking lot (and associated facilities, including any cycle parking) provided primarily for the patrons of a nearby public transport service to assist their modal transfer to the public transport service.

Parking area

means that part of a site or building within which vehicle parking spaces and manoeuvring areas are accommodated.

Parking building

means a building that has single or multiple storeys used primarily for parking of motor vehicles and which is not provided to meet demand associated with an activity or development on the same site. It includes parking areas, access and landscaped areas associated with the parking.

Parking lot

means stand-alone single level parking facilities at ground level used primarily for parking of motor vehicles and which are not provided to meet demand associated with an activity or development on the same site. It includes parking areas, access and landscaped areas associated with the parking.

Parking space

means an area capable of accommodating one stationary 85 percentile motor vehicle and which is provided and used solely for the purpose of accommodating vehicles (excluding any spaces set aside for the display of vehicles).

Park management activities

means the day to day management, operations and maintenance of parks and reserves. It includes:

- a. vegetation and amenity tree planting, maintenance and removal;
- b. removal/control of exotic, noxious or nuisance species;
- c. wild animal and pest control operations;
- d. maintenance of walkways, cycle ways or vehicle tracks and associated earthworks; and
- e. maintenance of public amenities.

Park management facility

means land and/or buildings used for, and ancillary to, park management activities. It includes:

- a. vehicle, machinery and equipment depots;
- b. storage sheds;
- c. greenhouses and propagation sheds; and
- d. offices.

Partial demolition

in relation to a heritage item, means the permanent destruction of part of the heritage item which does not result in the complete or significant loss of the heritage fabric and form which makes the heritage item significant.

Peripheral boundary length

means the length of the entire peripheral boundary of an area of land that is completely enclosed by other land and to which the general public have a permanent right of access.

Place of assembly

means land and/or buildings used principally for the public or private assembly of people for recreation activities, cultural activities or entertainment activities. It includes community centres and halls.

Plantation forestry

means the use of land and buildings for planting, maintenance and harvesting of timber tree species for commercial wood production.

Plot

in relation to [Sub-chapter 13.2](#) Specific Purpose (Cemetery) Zone, means a numbered lot within a cemetery where an interment can occur.

Plot ratio

means the relationship between net floor area of the building and the net site area, expressed by the formula:

$$\text{plot ratio} = \frac{\text{net floor area}}{\text{net site area}}$$

Pool area

in relation to calculating loading, car and cycle parking requirements in [Chapter 7](#) Transport for a swimming pool, means the surface area of water within a swimming pool. It excludes any associated poolside area, changing room facilities or storage areas.

Port activities

means the use of land, buildings and structures for:

- a. cargo handling, including the loading, unloading, storage, processing and transit of cargo;
- b. passenger handling, including the loading, unloading and transit of passengers, and passenger or cruise ship terminals;

The Christchurch District Plan

- c. maintenance and repair activities, including the maintenance and repair of vessels;
- d. port administration;
- e. marine-related trade and industry training activities;
- f. marine-related industrial activities, including ship and boat building;
- g. warehousing in support of a.-f., h. and i., and distribution activities, including bulk fuel storage and ancillary pipeline networks;
- h. facilities for recreational boating, including yachting;
- i. activities associated with the surface navigation, berthing, manoeuvring, refuelling, storage, servicing and providing of vessels;
- j. ancillary transport infrastructure, buildings, structures, signs, utilities, parking areas, landscaping, hazardous facilities, offices and other facilities, and earthworks; and
- k. ancillary food and beverage outlets in support of the above.

Port quarrying activity

in relation to [Sub-Chapter 13.8 Specific Purpose \(Lyttelton Port\) Zone](#), means the use of land, buildings and plant for the extraction of rock. It may include the associated processing, storage and transportation of the same material and:

- a. earthworks associated with the removal and storage of overburden or the creation of platforms for buildings and plant;
- b. extraction of rock materials by excavation or blasting;
- c. landscaping;
- d. quarry site rehabilitation and ecological restoration;
- e. hazard mitigation works; and
- f. the maintenance, upgrading and realignment of a haul road.

Potentially contaminated

means that part of a site where an activity or industry described in Schedule 3 of the [Canterbury Land and Water Regional Plan](#) (refer Section 16, Schedule 3 Hazardous Industries and Activities, pp 253 to 255) has been or is being undertaken on it or where it is more likely than not that an activity or industry in the list is being or has been undertaken on it. It excludes any site where a detailed site investigation has been completed and reported and which demonstrates that any contaminants within or on the site are at, or below, background concentrations.

Preschool

means the use of land and/or buildings for early childhood education or care of three or more children (in addition to any children resident on the site or the children of the persons providing the education or care) under the age of six years by the day or part of a day, but not for any continuous period of more than seven consecutive days. It includes a crèche, kindergarten, play centre, education and care service or kohanga reo.

Primary building frontage

in relation to signs and signage only, means any building frontage facing towards a public road or customer parking area.

Primary living level

means the level within a residential unit on which the kitchen is contained.

Principal building

means a building, buildings or part of a building accommodating the activity for which the site is primarily used.

Private parking area

in relation to [Chapter 7](#) Transport, means a parking area which is not open to the general public or casual users.

Private way

has the same meaning as in s315 of the [Local Government Act 1974](#).

Property

in relation to quarrying activity, means any contiguous area of land, including land separated by a road, railway, drain, water race, river or stream held in one or more than one ownership, that is utilised as a single site or operating unit, and may include one or more certificates of title.

Public amenities

means land, buildings and/or structures used to provide amenity and assist the public. It includes:

- a. public toilets;
- b. changing rooms;
- c. visitor information centres;
- d. erection of information and directional signs (excluding billboards);
- e. shelters and shade structures;
- f. exterior security and amenity lighting (excluding training or flood lights);
- g. outdoor furniture and structures, such as seats, picnic or barbeque area equipment, rubbish bins, pergolas, fences (including predator and animal enclosure fences), steps, retaining walls, viewing platforms and boardwalks;
- h. walking, cycling and maintenance tracks, including cycle ways;
- i. bridges;
- j. playground and outdoor fitness equipment; and
- k. public memorials.

Public artwork

means any object, figure, image, character, outline, spectacle, display, delineation, audio or visual installation (including projection or illumination, static or otherwise), announcement, poster or sculpture that is used principally to enhance public spaces, whether it is placed on, affixed or tethered to any land, building, footpath or pavement (subject to any Council bylaws or traffic management requirement) and/or incorporated in the design of any building (whether by painting or otherwise). It excludes use as a sign or for any purpose other than as public artwork.

Public floor area

means the sum of the total area of all floors contained within the external walls of any building or within the boundaries of any outdoor area available for the use of the general public in association with the activity, excluding any areas used for:

- a. lift wells, including the assembly area outside the lift doors for a maximum depth of 2 metres;
- b. stairwells, including landing areas;
- c. toilets and bathrooms;
- d. parking areas and/or loading areas; and
- e. all areas used exclusively by staff, such as kitchens, storage areas, internal loading areas/unloading areas, rubbish

areas, staff rooms/offices and amenities.

Publicly accessible space

means courtyards, lane ways, access ways or areas that are in private or public ownership, through which the public can commonly pass, and which are free of physical barriers such as gates.

Public open space

means any open space, including parks and reserves (but excluding local purpose reserves for utility purposes), accessible to the public either freely or in accordance with a charge via the [Reserves Act 1977](#).

Public transport facility

means land and/or buildings used for, or ancillary to, scheduled passenger transport services. It may include a public transport interchange, park and ride facilities, bus bays, taxi ranks, drop-off and pick-up points, cycle parking, shelters, waiting rooms, ticket office, information centre, luggage lockers, public toilets, showers and changing rooms.

Public transport interchange

means a public transport facility with a building that provides shelter for waiting passengers, where two or more public transport routes and/or modes converge and which enables passengers to change between different routes and modes, including public transport, walking and cycling.

Q

Quarry

means a site or property where quarrying activity is undertaken.

Quarrying activity

means the use of land, buildings and plant for the purpose of the extraction of natural sand, gravel, clay, silt and rock, the associated processing, storage, sale and transportation of those same materials and quarry site rehabilitation. It may include:

- a. earthworks associated with the removal and storage of over-burden;
- b. extraction of natural sand, gravel, clay, silt and rock materials by excavation or blasting;
- c. processing of those extracted materials by screening, crushing, washing and/or mixing them together;
- d. the addition of clay, lime, cement and recycled/recovered aggregate to extracted materials;
- e. ancillary aggregates-processing activity;
- f. workshops required for the repair of equipment used on the same property;
- g. site management offices;
- h. parking areas;
- i. landscaping; and
- j. quarry site rehabilitation and any associated clean-filling.

Quarry site rehabilitation

in relation to the [Rural Quarry Zone](#) and [Rural Quarry \(Templeton\) Zone](#), means returning the land to a stable and free-draining landform capable of supporting light pastoral farming or an alternative permitted or consented activity.

Queuing space

means the length of an access internal to the site, between the site boundary and the vehicle control point, available for the circulation and queuing of vehicles.

R

Radiocommunications

means any transmission or reception of signs, signals, writing, images, sounds or intelligence of any nature by radio waves.

Rail siding

means a (generally short) section of rail, off a main rail line, that provides access to and from a site, yard or development (including industrial activities, quarries and wharves) and which is used to store stationary rolling stock whilst it is loaded or unloaded.

Rear site

means a site which is situated generally to the rear of another site, both sites having access to the same road or private road. The rear site shall have access to such road or private road by means of an access strip.

Reconstruction

in relation to a heritage item or heritage setting, means to rebuild part of a building, structure or feature which has been lost or damaged, as closely as possible to a documented earlier form and using mainly new materials. It includes:

- a. deconstruction for the purposes of reconstruction; and
- b. Building Code upgrades which may be needed to meet relevant standards as part of the reconstruction.

Recreation activity

means the use of land, water bodies and/or buildings for the purpose of the active or passive enjoyment of sports, recreation or leisure, whether competitive or non-competitive, casual or organised, and whether a charge is made for admission or not.

Recreation facility

means land and/or buildings used for recreation activities.

Relocatable building

means a building easily capable of and intended for relocation, either in part or whole, to another site.

Relocation of a building

means the removal and re-siting of any building from any site to a new permanent site, but excludes new (i.e. immediately habitable) buildings constructed elsewhere specifically for, and subsequently relocated permanently onto, another site.

Relocation of a heritage item

in relation to a heritage item or heritage setting, means permanently moving part or all of a structure either within or beyond the heritage setting. It excludes:

- a. temporary lifting and/or temporary moving of a heritage item off its foundations; or

- b. permanent realignment of foundations of a heritage item where this is required for heritage upgrade works.

Renewable electricity generation

in relation to [Chapter 11 Utilities and Energy](#), means the generation of electricity through either solar or wind energy.

Renewable electricity generation activities

in relation to [Chapter 11 Utilities and Energy](#), means the construction, operation and maintenance of structures associated with renewable electricity generation. It includes small or community-scale renewable electricity generation activities, the system of electricity conveyance required to convey electricity to the distribution network and/or the National Grid and electricity storage technologies associated with renewable electricity.

Repair and maintenance of existing infrastructure (Rule 5.6)

in relation to Rule 5.6 concerning infrastructure (Rule 5.6), means repairing and keeping a structure, land or vegetation in good and safe condition. It includes upgrading and minor alterations, provided that any upgrading or minor alteration does not materially increase the footprint, height or external envelope of the structure.

Repair and maintenance services

in relation to the [Specific Purpose \(Airport\) Zone](#), means sites where the primary business is servicing or repairing vessels, vehicles or machinery.

Repairs

in relation to a heritage item or heritage setting, means to replace or mend in situ decayed or damaged heritage fabric, using materials (including identical, closely similar or otherwise appropriate material) which resemble the form, appearance and profile of the heritage fabric as closely as possible. It includes:

- a. temporary securing of heritage fabric for purposes such as making a structure safe or weathertight; and
- b. Building Code upgrades which may be needed to meet relevant standards, as part of the repairs.

Reserve

means a reserve within the meaning of the [Reserves Act 1977](#).

Residential activity

means the use of land and/or buildings for the purpose of living accommodation. It includes:

- a. a residential unit, boarding house, student hostel or a family flat (including accessory buildings);
- b. emergency and refuge accommodation; and
- c. sheltered housing; but

excludes:

- d. guest accommodation;
- e. the use of land and/or buildings for custodial and/or supervised living accommodation where the residents are detained on the site; and
- f. accommodation associated with a fire station.

Residential building platform

in relation to [Rule 5.4.1 Activities and earthworks in the Flood Management Areas](#) and [Rule 5.4.2 Activities and earthworks in the](#)

The Christchurch District Plan

Te Waihora/Lake Ellesmere and Wairewa/Lake Forsyth Flood Management Areas, means that area of a site equal to the ground floor area of the residential unit plus up to 1.8 metres extending at ground level beyond its foundations.

Advice note:

1. This definition differs from the clarification of 'building consent platform' provided in [Rule 5.4.4](#) Repair of land used for residential purposes damaged by earthquakes within Flood Management Areas in rural and residential zones and [Rule 8.9.2.1](#) Permitted activities P2.

Residential thoroughfare

means a way through the residential unit linking two or more of a lounge, dining room, bedroom, bathroom, toilet and hallway or passageway.

Residential unit

means a self-contained building or unit (or group of buildings, including accessory buildings) used for a residential activity by one or more persons who form a single household. For the purposes of this definition:

- a. a building used for emergency or refuge accommodation shall be deemed to be used by a single household;
- b. where there is more than one kitchen on a site (other than a kitchen within a family flat or a kitchenette provided as part of a bed and breakfast or farm stay) there shall be deemed to be more than one residential unit;
- c. a residential unit may include no more than one family flat as part of that residential unit;
- d. a residential unit may be used as a holiday home provided it does not involve the sale of alcohol, food or other goods; and
- e. a residential unit may be used as a bed and breakfast or farm stay.

Residual risk

in relation to [Chapter 4](#) Hazardous Substances and Contaminated Land, means any risk of an adverse effect that remains after other industry controls and legislation, such as the [Hazardous Substances and New Organisms Act 1996](#), the [Land Transport Act 1998](#) and regional planning instruments, have been complied with.

Resort apartment

in relation to [Sub-chapter 13.9](#) Specific Purpose (Golf Resort) Zone, means a self-contained apartment, within a building or buildings, normally used for a residential activity by one or more persons who form a single household unit. Resort apartments may be leased by a management company to visitors for short term stays at the resort hotel.

Resort hotel

in relation to [Sub-chapter 13.9](#) Specific Purpose (Golf Resort) Zone, means a hotel including any land and/or buildings associated with facilities or amenities that operate and are serviced regularly under a hotel management agreement or hotel lease, having for their primary purpose the attraction to, and/or accommodation of people for, conferences, visits or stays.

Restaurant

means any land and/or buildings, or part thereof, principally used for the sale of meals to the general public and the consumption of those meals on the premises. Such premises may be licensed under the [Sale and Supply of Alcohol Act 2012](#).

Restoration

in relation to a heritage item or heritage setting, means to return the item or setting to a known earlier form, using mainly existing materials, by reassembly and reinstatement. It includes deconstruction for the purposes of restoration. It may also include removal of heritage fabric that detracts from its heritage value and Building Code upgrades which may be needed to meet

relevant standards, as part of the restored area.

Retail activity

means the use of land and/or buildings for displaying or offering goods for sale or hire to the public. It includes food and beverage outlets, second-hand goods outlets, food courts and commercial mail order or internet-based transactions. It excludes trade suppliers, yard-based suppliers and service stations.

Retailing

means both retail activities and commercial services.

Retirement village

means any land, building or site that:

- a. is used for accommodation predominantly for persons in their retirement, or persons in their retirement and their spouses or partners; and
- b. satisfies either of the following:
 - i. it is registered as a retirement village under the [Retirement Villages Act 2003](#) or will be so registered prior to it being occupied by any resident; or
 - ii. it is a rest home within the meaning of [s58\(4\)](#) of the [Health and Disability Services \(Safety\) Act 2001](#); and
- c. includes not less than two residential units; and
- d. may include any or all of the following facilities or services for residents on the site:
 - i. a care home within a retirement village;
 - ii. a hospital within a retirement village;
 - iii. nursing, medical care, welfare, accessory non-residential and/or recreation facilities and/or services.

Reverse sensitivity

means the effect on existing lawful activities from the introduction of new activities, or the intensification of existing activities in the same environment, that may lead to restrictions on existing lawful activities as a consequence of complaints.

Right-of-way

(see Access).

Right turn offset

means a situation where a vehicle waiting to turn right at an intersection may queue in such a way as not to obstruct the path of vehicles turning left or heading straight through the intersection.

Road

has the same meaning as defined in [s315](#) of the [Local Government Act 1974](#).

Road boundary

(see Boundary).

Road reserve

means a Local Purpose Reserve (Road) within the meaning of the [Reserves Act 1977](#).

Road safety testing

in relation to [Sub-chapter 13.10](#) Specific Purpose (Ruapuna Motorsport) Zone, means the physical testing of safety hardware for road use. It includes the impact of motor vehicles against the hardware.

Roadway

(see [Carriageway](#)).

Ruapuna club rooms

in relation to [Sub-chapter 13.10](#) Specific Purpose (Ruapuna Motorsport) Zone, means any [building](#) or part thereof which is [accessory](#) to motorsport and which is intended to be used by members of a motorsport club for locker facilities, amenities, meetings and/or social events.

Rural produce

means fruit, vegetables, flowers or other similar farm products primarily grown and/or processed on a property in a rural zone.

Rural produce manufacturing

means the use of land and/or [buildings](#) for the manufacturing of products from [rural produce](#) grown on the same [site](#) or:

- a. on other [sites](#) in the same ownership; or
- b. on other [sites](#) leased by the owner of the primary [site](#).

Rural produce retail

means the use of land and/or [buildings](#) on, or within which, [rural produce](#) grown or produced on [site](#), and products manufactured from it, are offered for sale.

Rural productive activities

means [farming, plantation forestry, intensive farming and quarrying activities](#).

Rural roads

means all [roads](#) outside the existing urban area as shown on Map A of Chapter 6 of the [Canterbury Regional Policy Statement](#), except for [roads adjoining](#) any residential and/or commercial zone in [Christchurch District](#).

Advice note:

1. Rural roads are generally the [roads](#) classified as Rural or Semirural in the road classification system in the [Christchurch Transport Strategic Plan](#).

Rural tourism activity

means the use of land and/or [buildings](#) for agri-tourism, eco-tourism, nature tourism, wine tourism and adventure tourism activities, which may be provided at a tariff, with participants attracted to experience farming or [conservation activities](#) and/or the rural or natural environment. It includes:

- a. guiding, training, education and instructing;
- b. [ancillary](#) services such as booking [offices](#) and transportation;

The Christchurch District Plan

- c. ancillary retail activity, including sale of alcohol to participants;
- d. walking and cycling tracks; and
- e. facilities to provide opportunities for viewing scenery.

S

Second-hand goods outlet

means a retail activity primarily engaged in selling pre-used merchandise. It includes:

- a. antique dealers;
- b. auctioneers;
- c. charity shops;
- d. pawnbrokers; and
- e. suppliers of:
 - i. demolition goods and materials; and
 - ii. trade-in goods.

Sensitive activities

means:

- a. residential activities, unless specified below;
- b. care facilities;
- c. education activities and preschools, unless specified below;
- d. guest accommodation, unless specified below;
- e. health care facilities which include accommodation for overnight care;
- f. hospitals; and
- g. custodial and/or supervised living accommodation where the residents are detained on the site;

but excludes in relation to airport noise:

- h. any residential activities, in conjunction with rural activities that comply with the rules in the relevant district plans as at 23 August 2008;
- i. flight training or other trade and industry training activities located on land zoned or legally used for commercial activities or industrial activities, including the [Specific Purpose \(Airport\) Zone](#); and
- j. guest accommodation which is designed, constructed and operated to a standard to mitigate the effects of aircraft noise on occupants.

Service industry

means the use of land and/or buildings for the transport, storage, maintenance or repair of goods and vehicles and the hire of commercial and industrial equipment and machinery.

Service lane

means any lane laid out or constructed either by the authority of the Council or the Minister of Transport for the purpose of providing the public with a side or rear access for vehicular traffic to any land.

Service station

means any site where the primary activity is the retail sale of motor vehicle fuels, including petrol, LPG, CNG and diesel. It may include any one or more of the following ancillary activities:

- a. the sale or hire of kerosene, alcohol-based fuels, lubricating oils, tyres, batteries, vehicle spare parts, trailers and other accessories normally associated with motor vehicles;
- b. the mechanical repair, servicing and cleaning of motor vehicles (other than heavy vehicles) and domestic garden equipment, but not panel beating, spray painting and heavy engineering, such as engine reboring and crankshaft grinding;
- c. truck stops;
- d. inspection and certification of motor vehicles; and
- e. the sale of other goods for the convenience and comfort of service station customers.

It excludes any industrial activity or heavy industrial activity. In relation to [Sub-chapter 6.5](#) Scheduled activities, service station includes both the activities set out above and activities that would otherwise meet this definition but do not rely on the retail sale of motor vehicle fuels as the primary activity (e.g. mechanics, tyre shops and inspection centres).

Setback

means the distance between a building and the boundary of its site or other specified item.

Shared space street

in relation to the Central City, means a street where there is no delineation between traffic lanes or any areas for walking and cycling, and is designed so that vehicles and people walking or cycling can safely share and mix in the same physical space.

Sheltered housing

means a residential unit or units used solely for the accommodation of persons for whom on-site professional emergency care, assistance or response is available, but not where residents are detained on the site.

Show home

means a building or part of a building constructed as a residential unit, that is displayed and promoted to encourage people to buy or construct similar residential units at a different site (although upon sale, a show home may remain on the same site or be relocated).

Sign/Signage

means any device, graphic or display of whatever nature visible from a public place, for the purposes of:

- a. identification of, and provision of information about, any activity, site or building;
- b. providing directions;
- c. promoting goods, services or forthcoming events; or
- d. containing a message directed at the general public, whether temporary or otherwise.

A sign or signage may be three-dimensional or otherwise, that is, manufactured, painted, written, printed, carved, embossed, inflated, projected onto or otherwise fixed to or attached upon any external surface of any building or, in the open, on any site, wall, pole, hoarding or structure, or onto any rock, stone, tree or other object. It includes:

- e. any method of illumination, whether by an internal or external non-neutral light source;
- f. any sign displayed upon any parked vehicle and/or trailer for the express purpose of directing attention to any activity, site or building; and

- g. any tethered balloon of more than 0.5m in diameter.

Significant indigenous vegetation

means indigenous vegetation that has been assessed as meeting any one or more of the criteria set out in Appendix 3 of the [Canterbury Regional Policy Statement](#).

Site

means an area of land or volume of space shown on a plan with defined boundaries, whether legally or otherwise defined boundaries. It includes:

- a. an area of land which is:
 - i. comprised in a single allotment, or other legally defined parcel of land, and held in a single certificate of title; or
 - ii. comprised in a single allotment or legally defined parcel of land for which a separate certificate of title could be issued without further consent of the Council; beingin any case the smaller land area of i. or ii.; or
- b. an area of land which comprises two or more adjoining legally defined parcels of land held together in one certificate of title in such a way that the lots cannot be dealt with separately without prior consent of the Council; or
- c. an area of land which is comprised of two or more adjoining certificates of title where such titles are:
 - i. subject to a condition imposed under Section 77 of the [Building Act 2004](#); or
 - ii. held together in such a way that they cannot be dealt with separately without the prior consent of the Council; or
- d. in the case of land subdivided under the cross-lease or company lease systems (other than strata titles), site shall mean an area of land containing:
 - i. a building or buildings for residential or business purposes with any accessory building/s, plus any land exclusively restricted to the users of that/those building/s; or
 - ii. a remaining share or shares in the fee simple creating a vacant part/s of the whole for future cross-lease or company lease purposes; or
- e. in the case of land subdivided under the [Unit Titles Act 1972](#) and [Unit Titles Act 2010](#) (other than strata titles), site shall mean an area of land containing a principal unit or proposed unit on a unit plan together with its accessory units; or
- f. in the case of strata titles, or where one or more residential units are proposed to be erected above another residential unit, site shall mean the underlying certificate of title of the entire land containing the strata titles, immediately prior to subdivision; or
- g. for the purposes of the activity standards (but not the built form or general city-wide standards) in the [Specific Purpose \(School\) Zone](#) and [Specific Purpose \(Tertiary Education\) Zone](#), site means all of the land used by a particular education facility and tertiary education or research activity, whether or not those parcels of land are contiguous with each other. For the purposes of car parking space requirements at the University of Canterbury [Specific Purpose \(Tertiary Education\) Zone](#), [Appendix 7.5.1](#) (9) applies.

Site includes the access to the site.

For the purposes of the [Specific Purpose \(Ōtākaro Avon River Corridor\) Zone](#), a site is as per the above, except that in respect of otherwise defined boundaries it shall be the area that is used for all the buildings and activities in a particular proposal.

Sites of Ngāi Tahu cultural significance

means sites identified in [Appendix 9.5.6](#) Schedules of sites of Ngāi Tahu cultural significance and [Appendix 9.5.7](#) Aerial maps of sites of Ngāi Tahu cultural significance, and shown on the planning maps, as:

- a. Wāhi Tapu/Wāhi Taonga;

The Christchurch District Plan

- b. Mahaanui Iwi Management Plan Silent Files and Kaitōrete Spit;
- c. Ngā Tūranga Tūpuna; and
- d. Ngā Wai.

Sleep-out

means an accessory building or part of an accessory building designed for sleeping accommodation only, which is not self-contained except for the provision of a toilet and/or bathroom, and which is located no more than 40 metres from the residential unit on the same site, to which it is accessory.

Social housing complex

means a group of residential units that are:

- a. owned or operated by Housing New Zealand Corporation, the Council, a not-for-profit housing entity or a registered community housing provider (under Part 1 of the [Housing Restructuring and Tenancy Matters Act 1992](#)), including where one of these parties is in a public/private development relationship to provide mixed tenure housing; and
- b. provided to help low and modest income households and other disadvantaged groups to access appropriate and secure housing that is affordable.

Soil mixing

means removal or disturbance of soil in order to combine that soil with other material as part of the repair of land damaged by earthquakes, either on or off the site of the repair.

Sound amplified activity

in relation to [Sub-chapter 6.1 Noise](#), means any activity undertaken outside any buildings which involves the use of sound amplification, including any amplification system checks, which is clearly audible at any other site.

Special interest vehicle

means historical vehicles for which it is impracticable to achieve noise limits associated with standard racing vehicles. It includes a F5000 vehicle.

Spiritual activity

means the use of land and/or buildings primarily for worship and spiritual meditation and deliberation purposes. It includes:

- a. ancillary social and community support services associated with the spiritual activity; and
- b. ancillary hire/use of church buildings for community groups and activities.

Spring

means the point where groundwater, driven by artesian pressure, emerges to the surface and forms a pool, the head of a water body, or discharges within or into a water body on a permanent or intermittent basis.

Standalone house

means a single residential unit that is unattached to another residential unit.

Strategic infrastructure

means those necessary infrastructure facilities, services and installations which are of greater than local importance. It includes

The Christchurch District Plan

infrastructure that is nationally significant.

Advice note:

1. The following are non-exclusive examples of strategic infrastructure:
 - a. strategic transport networks;
 - b. Christchurch International Airport;
 - c. Lyttelton Port of Christchurch;
 - d. bulk fuel supply and storage infrastructure, including terminals, wharf lines and pipelines;
 - e. defence facilities;
 - f. strategic telecommunication and radiocommunication facilities;
 - g. the National Grid;
 - h. the 66kV and 33kV electricity distribution lines and the Heathcote to Lyttelton 11kV electricity distribution line, as identified on the Planning Maps; and
 - i. public water supply, wastewater and stormwater networks and associated facilities.

Strategic road network

means state highways and major arterial roads.

Strategic transport networks

means:

- a. the strategic road network;
- b. the rail network;
- c. the region's core public passenger transport operations and significant regional transport hubs (including freight hubs), such as Christchurch International Airport and Lyttelton Port of Christchurch; and
- d. the strategic cycle network of major cycle routes.

Street

(see Road).

Street furniture

in relation to [Chapter 7 Transport](#), means seating, rubbish bins, cycle facilities and café-related outdoor dining furniture in the street environment.

Student hostel accommodation

in relation to calculating parking space and loading space requirements in [Chapter 7 Transport](#), means hostels that are not ancillary and/or accessory to an education activity, including a tertiary education and research activity.

Subdivision

has the same meaning as defined in [§218](#) of the [Resource Management Act 1991](#).

Substance

has the same meaning as defined in [§2\(1\)](#) of the [Hazardous Substances and New Organisms Act 1996](#).

Supermarket

means an individual retail outlet that sells a comprehensive range of food, beverage and other disposable goods such as fresh meat and produce; chilled, frozen, packaged, canned and bottled foodstuffs and beverages; and general housekeeping and personal goods.

Support structure

means a utility pole or tower that supports conductors as part of an electricity distribution line or transmission line which forms part of the electricity distribution network or National Grid.

Supportive housing

in relation to the Salvation Army site in Addington, means housing for individuals supported by the Salvation Army, whether individual housing (inclusive of kitchen and ablution facilities) or shared housing (which provides for shared meals and recreation rooms). It includes reintegration housing for recently released inmates supported by the Salvation Army.

T

Tavern

means any land or building which is the subject of an alcohol licence authorising the sale of alcohol to, and consumption of it by, the general public on the premises. It may include a bottle store, restaurant and staff accommodation (but not guest accommodation).

Technician arborist

in relation to [Sub-chapter 9.4](#) Significant and other trees of Chapter 9 Natural and Cultural Heritage, means a person who:

- a. by possession of a recognised arboricultural degree or diploma and on the job experience, is familiar with the tasks, equipment and hazards involved in arboricultural operations; and
- b. has demonstrated proficiency in tree inspection and evaluating and treating hazardous trees; and
- c. has demonstrated competency to Level 6 NZQA Diploma in Arboriculture standard (or be of an equivalent arboricultural standard).

Telecommunication

means the conveyance by electromagnetic means from one device to another of any encrypted or non-encrypted sign, signal, impulse, writing, image, sound, instruction, information, or intelligence of any nature, whether for the information of any person using the device or not, but it excludes any conveyance that constitutes broadcasting.

Templeton rural activity

means the use of land and/or buildings within the [Rural Templeton Zone](#) for:

- a. farming;
- b. activities that directly and primarily service farming, including offices and the warehousing (excluding general freight or distribution activities), wholesale and retail activity of rural supplies or rural produce;
- c. food and beverage outlets, excluding taverns;
- d. private parks, reserves and recreation facilities;
- e. a limited number of residential units for security/custodial purposes;

The Christchurch District Plan

- f. boarding of domestic animals; and
- g. rural research facilities and laboratories that do not have an education or health care component.

Templeton strategic infrastructure

in relation to the [Rural Templeton Zone](#), means the use of land and/or buildings for small-scale facilities, services and installations ancillary to strategic infrastructure.

Temporary activities and buildings

in relation to [Chapter 6](#) General Rules and Procedures, means activities and their ancillary buildings that are intended to have a limited duration and incidence (one-off, infrequent, transitional or with a defined end date, as opposed to regular and ongoing) and:

- a. are not part of a permanent activity that occurs on the site; and
- b. create no, or only negligible, lasting alteration or disturbance to any site, building or vegetation.

It includes:

- c. public artworks, recreation activities and entertainment activities; and
- d. the provision of car parking areas ancillary to a temporary activity, whether sealed or unsealed, provided in accordance with an approved Traffic Management Plan, except as otherwise specified in [Sub-chapter 6.4](#) Temporary earthquake recovery activities.

It excludes:

- e. temporary utilities, which must comply with the relevant provisions in [Chapter 11](#) Utilities and Energy.

Advice note:

1. Temporary buildings are required to comply with the provisions of the Building Act 2004.

Temporary military training activities

means training activities undertaken for defence purposes as described by s5 of the [Defence Act 1990](#).

Terrace

means a single residential building:

- a. that contains three or more residential units;
- b. where the residential units are aligned horizontally side by side; and
- c. where each residential unit has its own entrance and habitable rooms on the ground floor.

Tertiary education and research activity

means the use of land and/or buildings for:

- a. the provision of teaching or training and/or related research;
- b. commercial research and laboratories; and
- c. ancillary retailing, cultural activities, recreation activities and entertainment activities, offices and accommodation facilities.

Tertiary education and research facility

means land and/or buildings used for tertiary education and research activities.

Total area of a sign

means that area of an imaginary rectangle enclosing the sign (see [Appendix 6.11.8 Signage - Diagrams](#)).

Trade and industry training activity

means land and/or buildings used for occupational training in the skills of engineering, building, aviation, manufacturing and other industrial activities. It includes ancillary offices, cultural activities and recreation activities.

Trade supplier

means a business engaged in sales to businesses and institutional customers (but may also include sales to the general public) and consists only of suppliers of goods in one or more of the following categories:

- a. automotive and/or marine suppliers;
- b. building suppliers;
- c. catering equipment suppliers;
- d. farming and agricultural suppliers;
- e. garden and patio suppliers;
- f. hire services (except hire or loan of books, videos, DVDs and other similar home entertainment items);
- g. industrial clothing and safety equipment suppliers; and
- h. office furniture, equipment and systems suppliers.

Transmission line

has the same meaning as defined in the [Resource Management \(National Environmental Standards for Electricity Transmission Activities\) Regulations 2009](#).

Transport infrastructure

means any infrastructure, building, equipment or device which supports the operation of the transport system. It includes:

- a. cycle ways, cycle parking, cycle hire stations and cycle maintenance stands;
- b. railway signalling, railway tracks and facilities;
- c. roads and pedestrian access ways;
- d. street lighting, traffic signals and signs, hand rails, safety cameras, bollards and crash barriers; and
- e. ancillary facilities such as poles.

It excludes bus depots that are not located on road reserve where buses are parked overnight.

Transport system

means all transport infrastructure, services, mechanisms and institutions that contribute to providing for transport. It includes key transport hubs, such as ports, airports and public transport interchanges.

Travel demand management

in relation to [Chapter 7 Transport](#), means using a range of methods to change travel behaviour (i.e. how, when and where people travel).

Travel plan

in relation to [Chapter 7 Transport](#), means a plan which sets out how travel demand is to be managed for a site or activity to:

- a. maximise the efficient use of the transport system; and

- b. promote the use of more sustainable transport modes, such as active transport, public transport and carpooling, as alternatives to sole occupancy private cars.

U

Unformed legal road

means land that has been legally established as a public road prior to 1996 but which is not formed or maintained by the Council or the New Zealand Transport Agency as a public road.

Urban activities

means activities of a size, function, intensity or character typical of those in urban areas. It includes:

- a. residential units at a density equivalent to more than one residential unit per 4 hectares of site area;
- b. industrial activities and commercial activities, except rural activities;
- c. sports fields and recreation facilities that service the urban population (but excluding activities that require a rural location); and
- d. any other land use that is to be located in the existing urban area or Greenfield Priority Areas identified in the [Canterbury Regional Policy Statement](#), Chapter 6, on Map A.

Urban block

means the area of land enclosed by public open space or streets.

Urban roads

in relation to [Chapter 7](#) Transport, means all roads in the existing urban area as shown on Map A of Chapter 6 of the [Canterbury Regional Policy Statement](#), as well as roads adjoining any residential and/or commercial zone in Christchurch District (i.e. roads classified in the urban 'place function category' in [Appendix 7.5.12](#) Road classification system).

Utility

means:

- a. transformation, transmission, generation or distribution of electricity provided by network utility operators or requiring authorities, including:
 - i. transmission lines and electricity distribution lines and associated equipment; and
 - ii. private connections to such utilities;
- b. telecommunication and radiocommunication facilities, including:
 - i. transmitting/receiving devices such as aerials, antennas, dishes (including cables), insulators, castings, tunnels and associated equipment; and
 - ii. support structures such as towers, masts and poles, accessory buildings and private receiving dish antennas;
- c. storage tanks and pipes for the distribution or transmission of petroleum or natural or manufactured gas, including necessary incidental equipment provided by network utility operators or requiring authorities, and private connections to such utilities;
- d. reticulated water for supply or irrigation, stormwater management basins, swales or reticulated open channelised drainage, and reticulated sewerage provided by network utility operators or requiring authorities, including:
 - i. private stormwater facilities connecting to such utilities; and
 - ii. necessary incidental equipment, including pumping stations provided by network utility operators or requiring

authorities, and private connections to such utilities; and

- e. lighthouses, meteorological facilities, navigation aids and beacons, including approach control services within the meaning of the [Civil Aviation Act 1990](#).

Utility structure

means a power pole, telecommunications pole, street light pole or similar structure.

V

Vault

means a structure approved by the Council for the deposit of specially sealed coffins containing a human body, or containers of ashes resulting from the cremation of a human body.

Vehicle access

(see Access).

Vehicle control point

in relation to [Chapter 7](#) Transport, means a point on a vehicle access route controlled by a barrier (or similar means) at which a vehicle is required to stop, or a point where conflict with vehicles already on the site may arise (e.g. a point where vehicles on the access route may need to stop to wait for a vehicle reversing from a parking space on the site).

Vehicle crossing

means the formed and properly constructed vehicle entry/exit point from the carriageway of any road up to and including that portion of the road boundary of the site across which a vehicle entry or exit point is permitted or consented. It includes any culvert, bridge or kerbing.

Vehicle movement

means a single journey to or from a particular site by a person or persons within a motor vehicle. Vehicle trip has the same meaning.

Vehicle trip

(see Vehicle movement).

Veterinary care facility

means land and/or buildings used for the provision of specialist care and/or surgery for animals, under the supervision of a qualified veterinarian.

Visibility splay

means an area to be kept clear from obstruction to allow good visibility of other road users.

W

Warehousing and distribution activities

means the storage and sorting of materials, goods or products pending distribution.

Waste management area

means the area identified on a site for the storage of rubbish and recycling for collection.

Water body

has the same meaning as defined in §2 of the [Resource Management Act 1991](#).

In relation to [Sub-chapter 6.6](#) Water body setbacks of Chapter 6 General Rules and Procedures, water body means any downstream waterway, upstream waterway, environmental asset waterway or environmental asset standing water body identified on the planning maps and any Banks Peninsula waterway (see [Rule 6.6.5a.vii](#) and [Rule 6.6.6a.vii](#)), hill waterway or network waterway.

Water body bank maintenance or enhancement work

means works required to either maintain or enhance the banks of water bodies for ecological or amenity reasons. It includes:

- a. margin and berm planting;
- b. bank excavation and regrading;
- c. bank and toe protection;
- d. beach formation;
- e. temporary and permanent channel realignment, placement of geotextiles, gabions and other features that provide hydraulic variation for ecological purposes, and rock placement for the purposes of habitat improvement; and
- f. amenity features such as public artworks, interpretation panels and seating along or around water bodies.

Water body margin

means land adjacent to the bank of a water body or estuary which is affected by water table variations, flooding, erosion and/or sedimentation processes, and often contains distinctive vegetation which helps protect aquatic environments and control sedimentation while supporting a diversity of species. The size of the margin will vary but may extend to the limits demarcated by natural river terraces and constructed stop banks. In relation to the water body setback provisions in [Sub-chapter 6.6](#) Water body setbacks of Chapter 6 General Rules and Procedures, it means the identified water body setback area.

Water body setback

in relation to [Sub-chapter 6.6](#) Water body setbacks of Chapter 6 General Rules and Procedures, means an area of defined width running parallel to the bank of a water body from an origin point set out in [Appendix 6.11.5.3](#) Interpretation of banks of water bodies in which specified activities, including buildings and earthworks, are controlled or restricted. For the purposes of this definition, water body means any downstream waterway, upstream waterway, environmental asset waterway or environmental asset standing water body identified on the Planning Maps and any Banks Peninsula waterway (see [Rule 6.6 5avii](#) Activity status tables - rural water body setbacks and [Rule 6.6 6avii](#) Activity status tables - natural area water body setbacks), hill waterway or network waterway.

Wetland

has the same meaning as defined in §2 of the [Resource Management Act 1991](#).

Wildlife park/zoo

The Christchurch District Plan

means the use of land, buildings and/or structures to provide a sanctuary to, and/or maintain a collection of, wild animals and/or birds, typically within a park or gardens, for study, conservation, or display to the public.

Window

means a glazed section within any exterior wall of a building except, in the case of rules relating to minimum building, window and balcony setbacks, impacts on adjoining neighbours and the overlooking of streets in [Sub-chapter 6.4](#) Temporary earthquake recovery activities of Chapter 6 General Rules and Procedures, [Chapter 14](#) Residential, [Chapter 15](#) Commercial, and [Sub-chapter 13.13](#) Specific Purpose (Ngā Hau e Whā) Zone, it excludes windows where the sill is more than 1.6 metres vertically from the floor.

Work bay

in relation to [Chapter 7 Transport](#), means the area, including access, within a service station or motor-servicing facility used for the repair and/or maintenance of motor vehicles.

Works arborist

in relation to [Sub-chapter 9.4](#) Significant and other trees of Chapter 9 Natural and Cultural Heritage, means a person who:

- a. by possession of a recognised arboricultural degree, diploma or certificate and on the job experience, is familiar with the tasks, equipment and hazards involved in arboricultural operations; and
- b. has demonstrated competency to Level 4 NZQA Certificate in Horticulture Services (Arboriculture) standard (or be of an equivalent arboricultural standard).

X

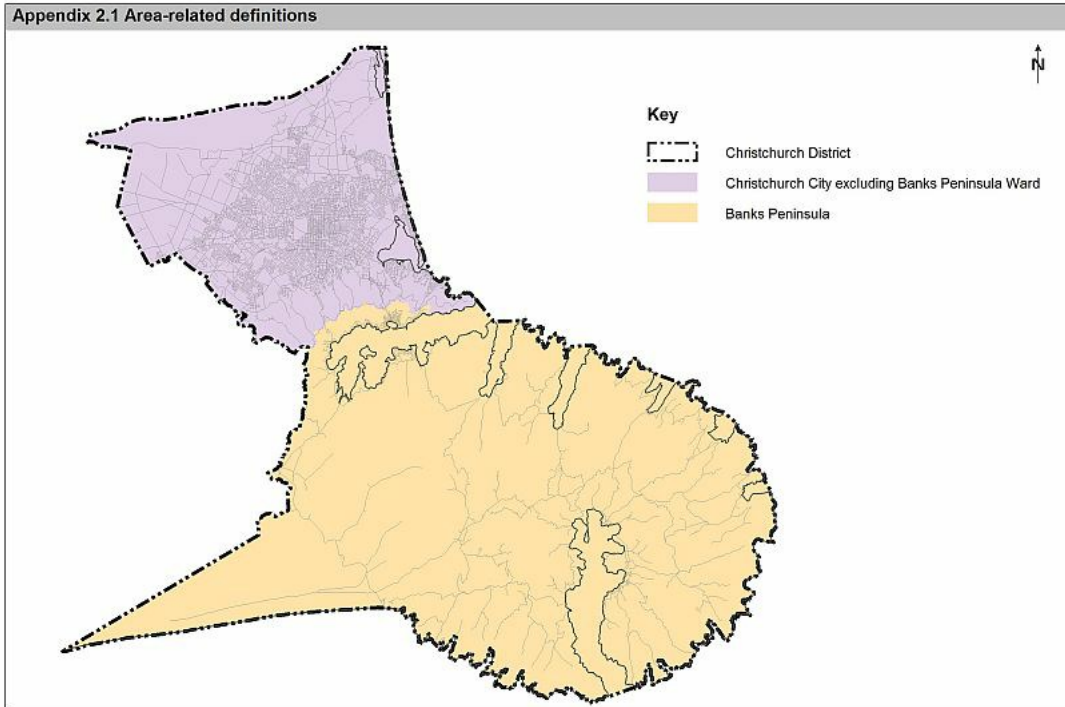
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Yard-based supplier

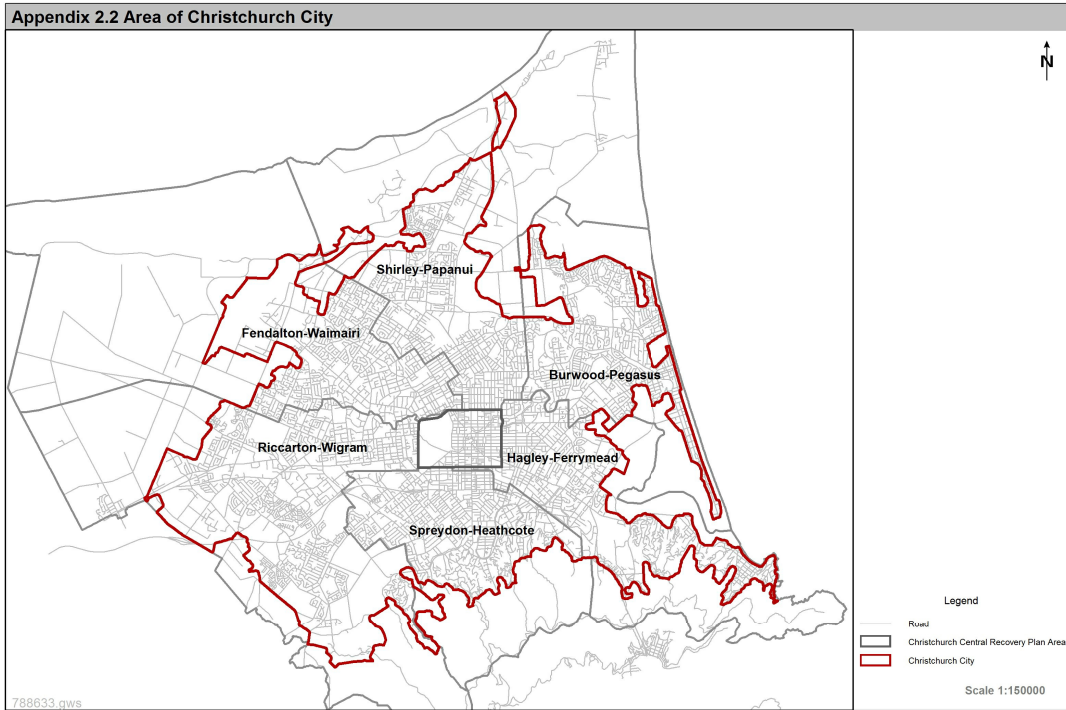
means the use of any land and/or building for selling or hiring products for construction or external use (which includes activities such as sale of vehicles and garden supplies), where more than 50% of the area devoted to sales or display is located within covered or uncovered external yard or forecourt space, as distinct from within a secured and weatherproof building. Drive-in or drive-through covered areas devoted to storage and display of construction materials (including covered vehicle lanes) will be deemed yard area for the purpose of this definition.

Z

Appendix 2.1 Area related definitions



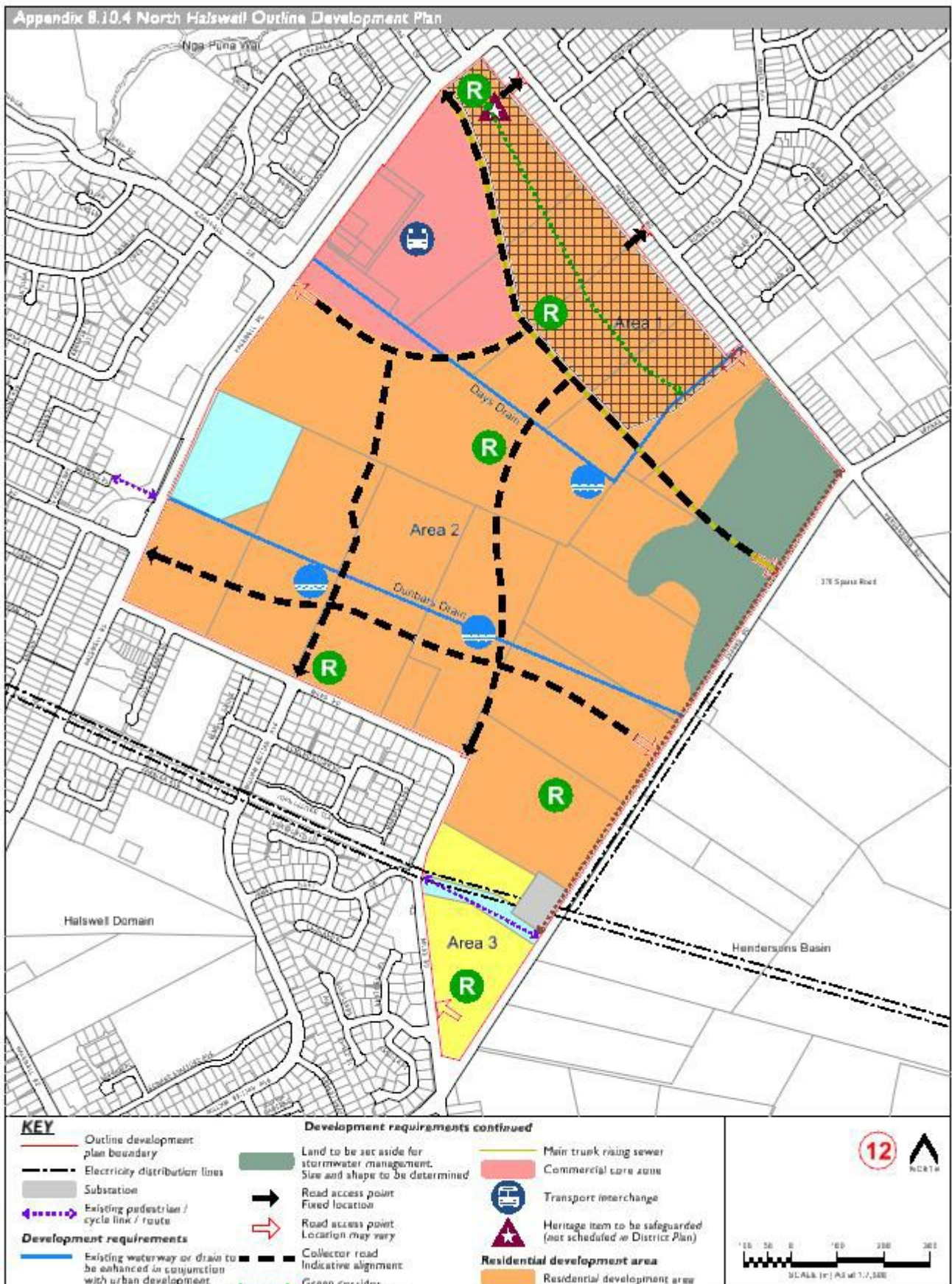
Appendix 2.2 Area of Christchurch City

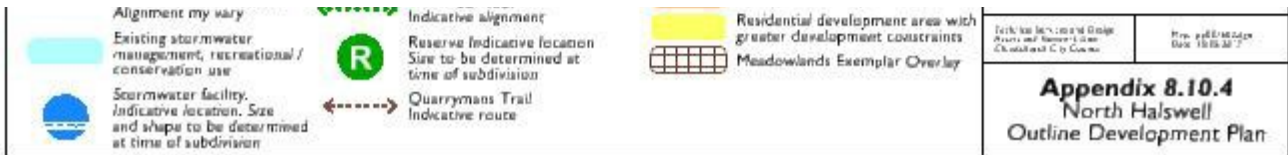


APPENDIX 16

Outline Development Plans

Appendix 8.10.4 North Halswell Outline Development Plan





8.10.4.A CONTEXT

- a. North Halswell new neighbourhood is located between the established settlements of Hillmorton and Halswell and immediately opposite the newer neighbourhoods of Aidanfield and Milns Estate. The extensive Hendersons Basin ponding area lies to the east. Nga Puna Wai Reserve and Sports Hub is located to the North West and Halswell Domain to the south. Views are afforded across Hendersons Basin to the Port Hills. Two watercourses traverse the neighbourhood from west to east - Days Drain and Dunbars Drain. High voltage distribution lines cross the southern end of the neighbourhood and there is an associated substation fronting Sparks Road. A new Key Activity Centre and an adjacent exemplar comprehensive housing development (Meadowlands) are planned at the northern end of the neighbourhood. This area has been farmed since the mid-19th Century. Spreydon Lodge, at the northern end of the neighbourhood dates back to 1856 and was the farmhouse for Spreydon Farm. It is now one of the oldest houses remaining in South West Christchurch. Harness racing stables were established here in the 1980's.

8.10.4.B GUIDANCE

- a. Guidance on the means to achieve the development requirements and form and design elements is provided within the Christchurch City Council's New Neighbourhood Design Guide. Further background and guidance is provided in the [South West Area Plan, Christchurch City Council, April 2009](#).

8.10.4.C DEVELOPMENT FORM AND DESIGN

- a. The following design elements and features are relevant considerations in exercising control over the matters in [8.7.1 - 8.7.4](#) or the matters for discretion in [8.8](#). They are not requirements for the purposes of Rule [8.6.11\(a\)](#) or Rule [14.12.2.16](#).
 - i. This new neighbourhood is to be established around the Key Activity Centre (zoned Commercial Core) proposed as a mixed use village centred focused around a main street. This will form a focus for the community.
 - ii. Enhancement of the existing waterways will provide recreational and amenity corridors aligned to provide views to Hendersons Basin and the Port Hills.
 - iii. Spreydon Lodge is to become a feature of the new neighbourhood, providing a link to the past.
 - iv. There are trees along field boundaries and in the southern corner of the neighbourhood, some of which may be suitable for retention.
 - v. Development is to have a good interface with adjacent roads and the subdivision design is to encourage a consistent interface treatment along the length of the road.
 - vi. Along Sparks Road and Halswell Road, where there is to be no direct vehicle access from properties, the neighbourhood is not to turn its back on the road. Instead appropriate treatment is required to complement the frontage of Hendersons Basin and Aidanfield and provide a high quality approach to the Key Activity Centre.
 - vii. Where existing properties are to remain or where the boundary of the RNN abuts properties in the Residential Suburban Zone (Hendersons Road), larger section sizes adjacent to them, and planting buffers may be required.
 - viii. To help mitigate the impact of distribution lines, special interface treatments such as deeper allotments and boundary planting may be required for adjacent properties.
 - ix. Residential development is to border the Key Activity Centre. It is to be of a design and scale which is compatible with retail development on one side and residential development on the other.
 - x. Higher density is to be focused around the Key Activity Centre. Smaller pockets of higher density can be located throughout the area, this may be close to collector roads or where there are open outlooks.

8.10.4.D DEVELOPMENT REQUIREMENTS

- a. The development requirements for the purposes of Rule 8.6.11(a) and Rule 14.12.2.16 are described below and shown on the accompanying plan.

1. INTEGRATION

- a. Properties are to front onto Milns Road.
- b. There are multiple land owners within this ODP area and a number of existing properties. Subdivision designs shall provide for good connectivity between different land ownership areas through road, open space and pedestrian and cycleway linkages. Vegetation to be planted around electricity distribution lines must be selected and/or managed to ensure that it will not result in that vegetation breaching the [Electricity \(Hazards from Trees\) Regulations 2003](#).

2. DENSITY VARIATIONS

- a. The shape of Area 3, coupled with access limitations and its proximity to the substation and distribution lines may limit its development capacity. Rule 8.6.11(b) density exemptions apply to this constrained area.

3. OPEN SPACE, RECREATION AND COMMUNITY FACILITIES

- a. Community (neighbourhood) parks throughout the neighbourhood and recreational routes along enhanced waterways, including the green corridor through and in association with the Meadowlands Exemplar development.

4. ACCESS AND TRANSPORT

- a. A collector road to run from the Halswell Road/Dunbars Road intersection to Sparks Road. This road to be capable of accommodating a bus route. This access will need to be integrated with the existing signals.
- b. A collector road to run from the Halswell Road/Augustine Drive intersection through the neighbourhood to Sparks Road or Hendersons Road, providing access to the Key Activity Centre. This intersection is to be signalised.
- c. A collector road to run northwards extending from William Brittan Drive.
- d. A collector road to run northwards extending from Milns Road.
- e. A third signalised connection with Halswell Road between Augustine Drive and Dunbars Road may be required to provide access to the Key Activity Centre.
- f. A fully interconnected local road network across the site that achieves a high level of accessibility and connectivity for people, including opportunities for walking, cycling and public transport and services and that provides connections with Hendersons Road and Milns Road and the new collector roads.
- g. A network of pedestrian/cyclist routes, including the major cycle way (Quarrymans Trail) within the new neighbourhood and linking the surrounding communities with each other, Halswell Domain, the Key Activity Centre, Nga Puna Wai Reserve and Sports Hub and Hendersons Basin.
- h. Extension of the Quarrymans Trail being a major cycle way to follow along Sparks Road (where it will be part located within road reserve and partly within the ODP area) and/or through the ODP area.

5. STORMWATER

- a. Within the ponding area of Hendersons Basin, there shall not be a net increase in the flood water elevations for any storm events up to and including a two per cent annual exceedance probability design storm of 36 hour duration.
- b. Days Drain and Dunbars Drain shall be naturalised and enlarged to convey a critical two per cent annual exceedance probability storm event from their respective contributing catchments and the slopes of the waterway

banks shall be 1m vertical in 4m horizontal average or flatter. Days and Dunbars Drains shall be realigned to discharge into the future Council stormwater wetland to be constructed at 270 Sparks Road.

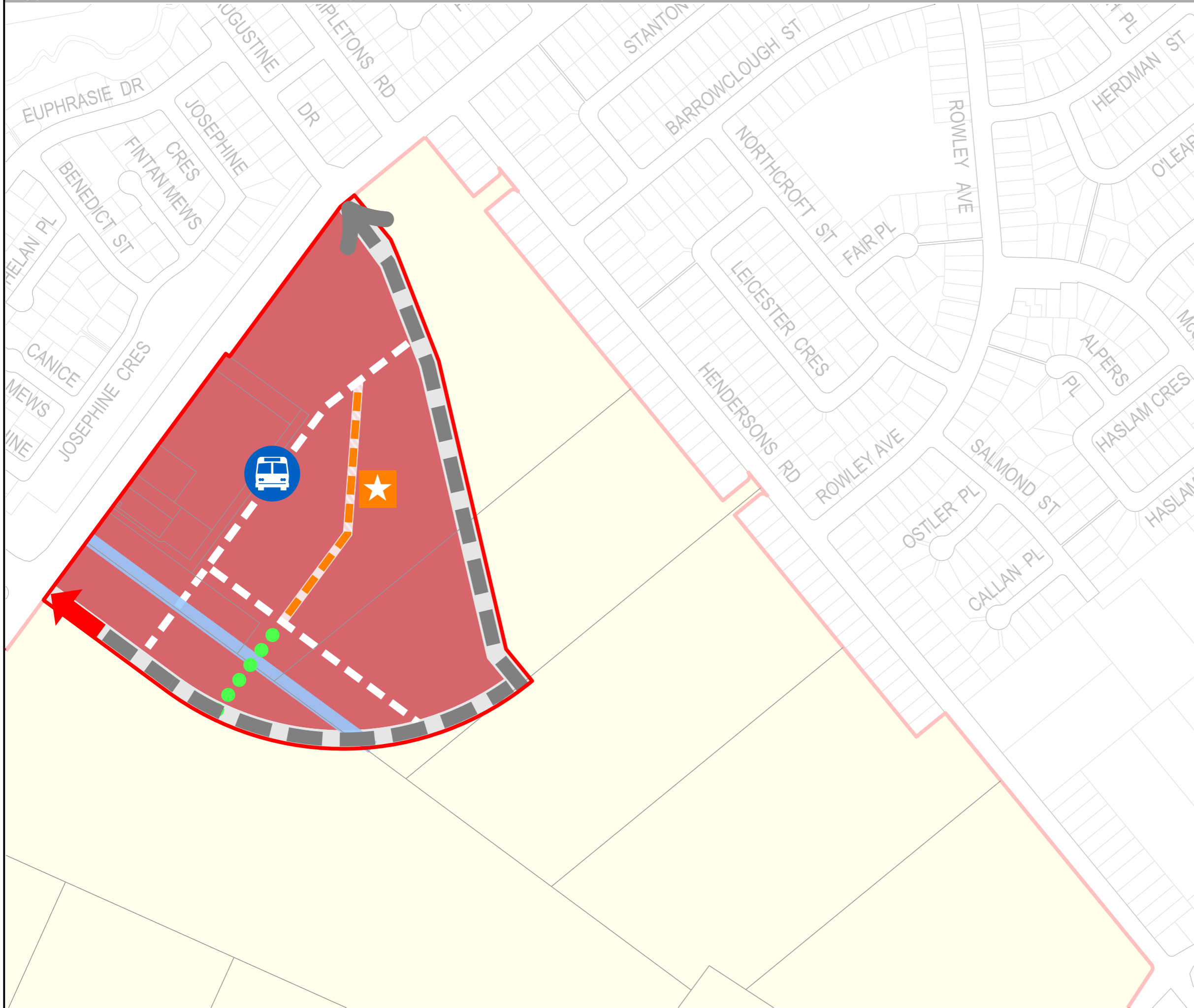
- c. First flush sedimentation and detention basins adjacent to Sparks Road to service new development and 38 hectares of existing developed catchment, excepting the sub-catchment in the southernmost part of the ODP area draining to the Milns stormwater facility.
- d. There are known to be springs throughout the neighbourhood, these are to be identified and safeguarded
- e. The indicative stormwater management area at the eastern corner of the Outline Development Plan Area is to be the primary treatment and detention area for the full development area. As an alternative option which will reduce the overall area of stormwater land required along Sparks Road, first flush treatment basins may be shifted upstream to service sub-catchments, as indicated on the Outline Development Plan Area, subject to engineering design acceptance from the Council. It is expected that any upstream (first flush) treatment basins will discharge directly to the Council wetland at 270 Sparks Road either via separate pipe system or via Dunbars or Days Drains, with overflow discharging into the detention basins.
- f. All first flush and detention facilities shall be designed with regard to the 'six values' approach to stormwater management and other relevant design criteria outlined in the CCC Waterways, Wetlands and Drainage Guide. The overall first flush and detention system shall provide "Full Flood Attenuation" for a 2 percent annual exceedance probability storm of 36 hour duration in accordance with Council's South West Area Stormwater Management Plan. Internal and external batter slopes of basins shall be 1m vertical in 4m horizontal average or flatter and 5 metre average landscaped setbacks from all residential allotments is required.

6. WATER AND WASTEWATER


- a. A pressure pump system to service the neighbourhood and the pump chamber for each allotment shall have a minimum total storage volume equal to 24 hours average sewer flow from the source.
- b. The approved sanitary sewer outfall for any proposed residential allotments will be the South East Halswell pressure sewer network. This includes pressure mains along Sparks Road and along the northern collector road, which will be constructed by Council. In the case of the Meadowlands Exemplar Zone the outfall will be to the Pump Station 42 catchment until the South East Halswell pressure sewer network is available, at which time these sites shall be connected to the South East Halswell pressure sewer network.
- c. Full high pressure water reticulation will be required to service development within the Outline Development Plan area. Water supply infrastructure requirements and any upgrades needed will be determined following the development of a water supply master plan for the Halswell Residential New Neighbourhoods.





7. STAGING










- a. Except for the Meadowlands Exemplar, there are no staging requirements other than those relating to the provision of infrastructure.

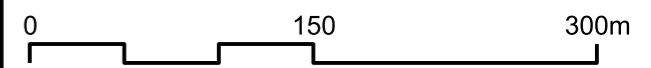


KEY

-  KAC ODP boundary

- Fixed features and proposals**
-  Commercial core
-  New neighbourhood zone
-  Fixed road access points to include pedestrian / cycle access
-  Heritage feature (not scheduled in District Plan)

- Indicative features and proposals**
-  Flexible road access points to include pedestrian / cycle access
-  Collector road
-  Main street
-  Internal street
-  Civic square / village green
-  Stormwater network
-  Green corridor
-  Reserve
-  Transport interchange



APPENDIX 17

Information regarding Overlay of Zone Boundaries with Proposal from John Lonink

Lowe, Paul

From: Lonink, John
Sent: Wednesday, 16 October 2019 4:09 p.m.
To: 'Tim Heath'; Lowe, Paul
Subject: Difference in area calculations Halswell KAC

Hi Paul and Tim,

First of all these numbers are not 100% accurate but an approximation.

What I have done is the following:

I've taken the map on Page 45 of the updated application called 'HALSWELL DEVELOPMENT AREA CALCULATIONS' drafted by ASC architects dated October 2019 and superimposed it on a zoning map to the same scale (1-1000) I found there is about a 5.5 meter offset between the zone map from our council system and the map drafted by ASC architects.

So taking into account an average offset difference of 5.5 meters measured on the plan I calculated the additional commercial area in RNN:

- Supermarket = 710sqm
- Gym = 70sqm
- Child care = 575sqm
- Medical centre = 860sqm
- Hallway/laneway in between child care and medical centre = 90sqm

Adding to that I have also measured the total difference between the two maps in land zoned for commercial up to Days Drain = 1600sqm

Hope this helps with the assessment

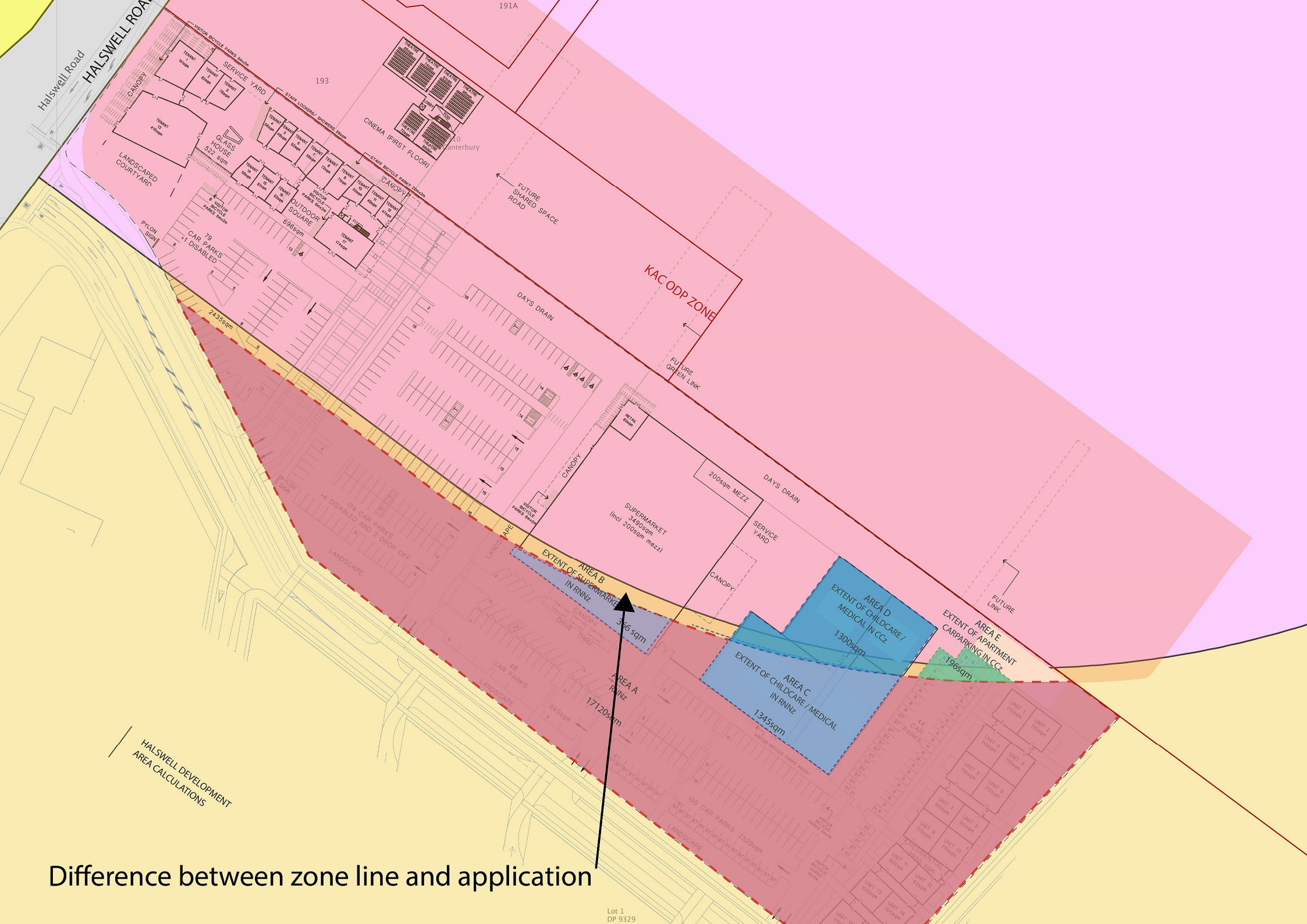
Regards
John

Senior Urban Designer
Urban Regeneration, Urban Design and Heritage Unit
Strategy & Transformation

DDI: 03 941 8151

Christchurch City Council
53 Hereford Street, Christchurch
PO Box 73012, Christchurch, 8154

Please consider the environment before printing this email



HALSWELL DEVELOPMENT
AREA CALCULATIONS

Difference between zone line and application

APPENDIX 18

Matters of Discretion and Control for Subdivision

Chapter 5 Natural Hazards

- a. The Council's control is limited to the following matters:
 - i. location, size and design of allotments, structures, roads, access, services or foundations as they relate to the liquefaction hazard;
 - ii. timing, location, scale and nature of earthworks as they relate to the liquefaction hazard; and
 - iii. liquefaction hazard remediation methods.
- b. These controlled activities will be assessed against the following criteria:
 - i. Whether techniques proposed for remediation and/or mitigation of the effects of any liquefaction hazard identified are appropriate, including but not limited to:
 - A. provision for ground strengthening, foundation design, provision of resilient services and the ability of these to be incorporated into the subdivision consent as conditions or consent notices; and
 - B. setbacks in relation to any waterway or water body, or any sharp change in ground elevation, sloping ground or free face. Alternatively, whether ground-strengthening or other proposed engineering or geotechnical solutions are identified to address any identified potential for lateral spread.
 - ii. The extent to which the layout of the subdivision in relation to the liquefaction hazard is appropriate, including the proposed location of earthworks, roads, access, servicing and building platforms in relation to the liquefaction hazards identified.
 - iii. The effect of the remediation and/or mitigation on the reasonable use of the site.

Chapter 8 Subdivision, Development and Earthworks

8.7 Rules as to matters of control - subdivision

- a. When considering applications for controlled activities, the Council's power to impose conditions is restricted to the matters over which control is reserved as set out in the table in Rule 8.5.1.2 and as set out for that matter below.

8.7.3 Allotments for access, utilities, roads and reserves

- a. Whether the allotments (including any balance allotment) are of sufficient size and dimension to provide for the existing or proposed purpose.
- b. Whether any easement is required.

- c. The relationship of the proposed allotments within the site and their compatibility with the pattern of the adjoining subdivision and existing or anticipated land use activities, including in relation to safety and visibility.

8.7.4 General matters

8.7.4.1 Subdivision design

- a. Whether the allotments (including any balance allotment) are of sufficient size and dimension to provide for any existing land use or a permitted land use such as might reasonably be expected to establish on a site, and provision of access, storage space and service connections.
- b. Whether the dimensions and orientation of the allotments will ensure the capture of solar gain appropriate to the subsequent land uses.
- c. Outside the Central City, whether any corner allotments have an appropriate corner rounding.
- d. The relationship of the proposed allotments within the site and their compatibility with the pattern of the adjoining subdivision and land use activities.
- e. The degree to which natural topography, drainage and other features of the natural environment, sites of Ngāi Tahu cultural significance identified in Appendix 9.5.6, or existing built features of significance, determine site boundaries where that is practicable.
- f. Whether any local purpose reserves, or easements are required, such as for services, stormwater, access, party walls, floors or ceilings, and that they are sufficiently designed for their purpose.
- g. The extent to which the subdivision design mitigates adverse effects, including reverse sensitivity to nearby National Grid or electricity distribution lines shown on the planning maps, Radio New Zealand Limited's Gebbies Pass Road facilities or other strategic infrastructure.
- h. In an outline development plan area, integration and connection to and within the site and whether the subdivision would preclude or discourage development in another part of the outline development plan area.
- i. The extent to which conditions are appropriate on a subdivision consent in a Residential New Neighbourhood Zone in order to give effect to the development requirements specified in the relevant outline development plan.
- j. The extent to which the subdivision in a Residential New Neighbourhood Zone is designed in accordance with the principles in 8.8.9 Residential New Neighbourhood Zone.
- k. In zones other than the Residential New Neighbourhood Zone, the extent to which a development needs to comply with any flexible element of an outline development plan, including for phasing or location of infrastructure or other internal elements; and consideration of the effects of the movement of any elements on other landowners of land located within or adjacent to the outline development plan area, or on the safe, efficient or effective operation of infrastructure.

- l. Outside the Central City, whether the application provides allotments of a size and dimension that promotes building typologies with a high level of visual interaction with the street and other public spaces, while providing for a cohesive street scene and neighbourhood.
- m. Outside the Central City, whether the subdivision meets the required household density target, the housing typologies proposed to meet that target and location and mix of typologies within the subdivision, including whether the typologies cater for all life stages, physical abilities, and opportunities for socio-economic diversity.
- n. In the Residential New Neighbourhood Zone, the means of achieving overall outline development plan densities as required by Policy 8.2.2.8, including the adequacy of any legal mechanism proposed to give effect to a density transfer or density staging proposal.
- o. Outside the Central City, where the allotment is to be used for residential purposes, whether the application supports the provision of residential allotments which would allow garaging and parking to be secondary to habitable spaces both with respect to size and expression of form, and which are able to be incorporated into the overall building design especially when accessed directly from the street.
- p. Whether fire safety requirements are met in relation to the conversion of existing residential units into multiple residential units.
- q. Outside the Central City, the extent to which the subdivision design and construction allows for earthworks, buildings and structures to comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001).
- r. Where the subdivision is of land which includes a Site of Ngāi Tahu Cultural Significance identified in Appendix 9.5.6, the matters set out in Rule 9.5.5 as relevant to the site classification:
 - i. Rule 9.5.5.1 - Wāhi Tapu / Wāhi Taonga, Mahaanui Iwi Management Plan Silent Files and Kaitōrete Spit;
 - ii. Rule 9.5.5.2 - Ngā Tūranga Tūpuna; and
 - iii. Rule 9.5.5.3 - Ngā Wai.

8.7.4.2 Hazard constraints

- a. For any site that has been identified as contaminated or potentially contaminated, whether the site is safe for habitation, and the adequacy of any proposed mitigation and remediation.
- b. The extent to which any hazard or geotechnical constraints exist on the land and the appropriateness of measures to reduce risk, including liquefaction, flooding, rockfall, cliff collapse and other matters addressed in Chapter 5 (Natural Hazards).

8.7.4.3 Servicing and infrastructure

- a. Whether each allotment has appropriate servicing and connections to water supply, wastewater disposal, stormwater management systems and other services; whether it is necessary to provide

or upgrade services or utilities to enable the allotment to be serviced, and whether the design, location, capacity, type and construction of services and infrastructure, including the suitability of the proposed water supply for fire-fighting purposes, and any required infrastructure upgrades, are acceptable to the Council.

- b. Whether the electricity and telecommunications supply and connection to any new allotment(s) are appropriate and provide adequate capacity, including whether it is appropriate to require additional space for future connections or technology and whether any ducting or easements are required to achieve connection.
- c. Whether appropriate provision is made for onsite storm water treatment or connection to a catchment based treatment network.
- d. Outside the Central City, the contribution of proposals towards the development of an integrated naturalised surface water network of soil absorption, sedimentation and detention basins, wet-ponds, swales and/or wetlands to treat and manage surface water and avoid (where practicable) a proliferation of smaller facilities.
- e. Outside the Central City, the extent to which the construction or erection of utilities for servicing a site incorporate and/or plant appropriate indigenous vegetation.
- f. Outside the Central City, whether any proposed ponding area will be attractive to birdlife that might pose a birdstrike risk to the operation of Christchurch International Airport Limited.
- g. Outside the Central City, where wastewater capacity is close to reaching a limit, whether to reduce the lapsing period of the subdivision consent below five years to enable that capacity to be utilised by others if the development opportunity that is the subject of the consent is not implemented.
- h. The ability for maintenance, inspection and upgrade of utilities and infrastructure to occur, including ensuring continued access for the same.
- i. The extent to which the design will minimise risk or injury and/or property damage from utilities or infrastructure.
- j. The extent to which potential adverse effects of electricity lines, including visual impacts, are mitigated, for example through the location of building platforms and landscape design.
- k. The suitability of the proposed water supply for fire-fighting purposes (the Council may obtain a report from the Chief Fire Officer), including the extent of compliance with SNZ PAS:4509:2008 in respect of the health and safety of the community, including neighbouring properties.
- l. The extent to which conditions are appropriate on a subdivision consent in a Residential New Neighbourhood Zone in order to give effect to the development requirements specified in the relevant outline development plan.
- m. In zones other than the Residential New Neighbourhood Zone, the extent to which a development needs to comply with any flexible element of an outline development plan, including for phasing or location of infrastructure; and consideration of the effects of the movement of any elements on other landowners of land located within or adjacent to the outline development plan area, or on the safe, efficient or effective operation of infrastructure.

- n. Within the Lyttelton Port Influences Overlay, the imposition of an appropriate, volunteered condition prohibiting noise sensitive activities on the allotments, to be complied with on a continuing basis, for the purpose of incorporation into a consent notice to be issued by the Council.
- o. Whether wastewater disposal and stormwater management systems recognise the cultural significance of Ngā Wai sites of Ngāi Tahu cultural significance identified in Schedule 9.5.6.4, and do not create additional demand to discharge directly to Ngā Wai.

8.7.4.4 Transport networks

- a. Whether the provision, location, design, safety and efficiency of any road, frontage road, access (including access for fire-fighting), pedestrian access way, service lane, cycle way/route/lane, corner rounding, intersections, landscaping or parking area including the formation and construction, is suited to the development it serves and is acceptable to the Council.
- b. Whether service lanes, cycle ways and pedestrian access ways are required or appropriate and are located and constructed in a safe and efficient manner.
- c. Whether the subdivision layout and road network supports walking, cycling and public transport, including access to reserves, facilities, commercial areas, public transport facilities.
- d. Whether provision of a cycle way or pedestrian access way encourages active modes of transport, including to community facilities.
- e. Any works or upgrades to the Council's road network required, including in relation to any network utility, state highway or rail line.
- f. In the case of multiple site subdivision where parking is provided as a common facility, whether that parking area has appropriate access to a formed road and has an appropriate layout and number of parking spaces.
- g. For the Industrial General Zone (Stanleys Road) and Industrial Park Zone (Tait Campus): the extent of the developer's contribution to the costs of Wairakei/Wooldridge Roads intersection upgrading will be agreed with the Council in accordance with the Council Development Contribution Policy, which may include a Private Developer Agreement.
- h. The extent to which conditions are appropriate on a subdivision consent in a Residential New Neighbourhood Zone in order to give effect to the development requirements specified in the relevant outline development plan.
- i. In zones other than the Residential New Neighbourhood Zone, the extent to which a development needs to comply with any flexible element of an outline development plan, including for phasing or location of internal elements; and consideration of the effects of the movement of any elements on other landowners of land located within or adjacent to the outline development plan area, or on the safe, efficient or effective operation of transport networks.

8.7.4.5 Open space, reserves and recreation (including esplanade reserves, strips or additional land)

a. Outside the Central City:

- i. The need, type, location and layout of any land to be provided for reserves for open space and recreation purposes, including whether an active frontage is provided and any requirements for the formation of that land prior to it vesting in the Council, where applicable.
- ii. The degree to which the subdivision encourages active frontages to reserves for open space and recreation purposes.
- iii. The provision and / or width of an esplanade reserve or esplanade strip.
- iv. The manner in which the subdivision responds, in particular, to the place making and context, block layout, and relationship to street and public open spaces.
- v. Any impact of subdivision works on land for open space and recreation, on sites or areas of cultural value to tangata whenua, or on waterways, springs, sites of Ngāi Tahu cultural significance identified in Appendix 9.5.6, indigenous biodiversity, mahinga kai and the coastline.
- vi. The need for land to be set aside and vested in the Council as a reserve for open space and/or recreation where it will provide for one or more of the following:
 - A. land for a local neighbourhood park, accessible to the user population and of a size adequate to accommodate children's play equipment, substantial tree plantings and open space;
 - B. a linkage or potential linkage along or to significant natural features, or between other areas of public open space and community facilities;
 - C. protection and enhancement of significant mature trees, significant areas of indigenous vegetation, margins of waterways or other significant natural features;
 - D. protection or enhancement of historic or cultural features of significance to the population;
 - E. a usable area of open space for planting as visual relief from a built or highly developed environment;
 - F. a flat usable area of land for district sports fields, accessible with full road frontage, and of a size adequate to accommodate at least two rugby-sized sports fields and associated user facilities and training field, tree planting, a playground and open space required for other recreation activities;
 - G. recognition of Ngāi Tahu cultural values, and historic and contemporary identity associated with sites of Ngāi Tahu cultural significance identified in Appendix 9.5.6; and
 - H. smaller sized public spaces that allow for community interaction, including seating and planted areas.

- vii. Whether appropriate mechanisms are in place to ensure the maintenance of open space areas and reserves not being vested in Council.
- viii. The extent to which conditions are appropriate on a subdivision in a Residential New Neighbourhood Zone in order to give effect to the development requirements specified in the relevant outline development plan.
- ix. In zones other than the Residential New Neighbourhood Zone, the extent to which a development needs to comply with any flexible element of an outline development plan, including for phasing or location of internal elements; and consideration of the effects of the movement of any elements on other landowners of land located within or adjacent to the outline development plan area, or on the safe, efficient or effective operation of open space and reserves.

8.7.4.6 Natural and cultural values

- a. The extent to which springs are protected, maintained and enhanced, including in relation to ecological, cultural and amenity values and the extent to which the development provides for pathways, for the water to flow from the spring head, that have regard to the existing natural flow path.
- b. Any adverse effects of the proposal on the quality of surface and ground water, mahinga kai, including within waterways, on drainage to, or from, adjoining land, existing drains, waterways, and/or ponding areas
- c. The extent to which the proposal would protect and provide for the flood storage and conveyance capacity of waterways, or on drainage to, or from, adjoining land, existing drains, waterways, and/or ponding areas.
- d. The extent to which the proposal manages erosion and sediment discharge to waterways.
- e. Recognition of Ngāi Tahu's history and identity and cultural values.
- f. The extent to which Ngāi Tahu cultural values associated with waterways, springs, indigenous biodiversity and mahinga kai are protected.
- g. The extent to which the subdivision enables the retention of archaeological sites.
- h. The manner in which the subdivision responds to values provided for in Chapter 9 (Natural and Cultural Heritage), including any requirement for a consent notice where a condition is to be complied with on a continuing basis.
- i. In relation to the removal of consent notices created through subdivision to protect trees whether the effect on amenity values can be offset by other trees on or surrounding the site or the replacement of the tree or trees with appropriate species on-site or other appropriate locations. The appropriateness of species will include consideration of the time required for any new trees to reach a size where the negative impact of tree removal would be offset.
- j. In relation to the Industrial General Zone (North Belfast) only, whether a protocol has been agreed with Te Ngāi Tūāhuriri Rūnanga for managing any accidental discovery. This may include a

cultural monitor, who shall be a representative approved by Te Ngāi Tūāhuriri Rūnanga and contracted by the applicant to be on site if deemed necessary by the Rūnanga.

- k. Where the subdivision is of land which includes a Site of Ngāi Tahu Cultural Significance identified in Appendix 9.5.6, the matters set out in Rule 9.5.5 as relevant to the site classification:
- i. Rule 9.5.5.1 - Wāhi Tapu / Wāhi Taonga, Mahaanui Iwi Management Plan Silent Files and Kāitorete Spit;
 - ii. Rule 9.5.5.2 - Ngā Tūranga Tūpuna; and
 - iii. Rule 9.5.5.3 - Ngā Wai.

8.7.4.7 Consent notices

- a. The requirement for any consent notice where a condition is to be complied with on a continuing basis.

8.8 Rules as to matters of discretion - subdivision

- a. When considering applications for restricted discretionary activities, the Council's power to grant or decline consent is restricted to the matters over which discretion is specifically restricted for that purpose in the table in Rule 8.5.1.3 and as are set out for those matters in Rule 8.8 below.
- b. When considering applications for restricted discretionary activities, the Council's power to impose conditions on the consent is restricted to the matters over which discretion is specifically restricted for that purpose in the table in Rule 8.5.1.3 and as are set out for those matters in Rule 8.7 (matters of control to be treated as matters of discretion) and Rule 8.8 below.

8.8.7 Flood Management Area

- a. Whether the subdivision includes measures that will reduce susceptibility to flooding.
- b. Whether the subdivision would have an impact on adjoining land in terms of flooding, and any measures to mitigate that impact.
- c. The extent to which flood hazard areas will impinge on the intended activities on any allotment.

8.8.8 Compliance with outline development plans and density

- a. For subdivision in a residential zone, whether the subdivision precludes the required household density target to be met across residential development areas of the outline development plan area, including the housing typologies required to meet that target, and whether the typologies cater for all life stages, physical abilities, and opportunities for socio-economic diversity.
- b. Whether the subdivision precludes or discourages development in another part of the outline development plan area.

- c. Whether the subdivision integrates and connects appropriately to other parts of the outline development plan area, and the surrounding area, and any layering diagrams.
- d. Whether the proposed layout is practicable and provides for the existing or intended purpose or land use.
- e. Whether the potential effects of natural hazards will be appropriately avoided or mitigated.
- f. The extent to which the subdivision affects the ability of any future subdivision stages by other landowners in the outline development plan area to be in accordance with the outline development plan.
- g. The extent to which a development complies with any fixed or flexible elements of an outline development plan, or with the development requirements of an outline development plan in a Residential New Neighbourhood Zone, including for phasing or location of infrastructure or other internal elements; and consideration of the effects of the movement of any elements on other landowners of land located within or adjacent to the outline development plan area, or on the safe, efficient or effective operation of infrastructure.

8.8.9 Additional matters - Residential New Neighbourhood Zone

8.8.9.1 Integration, context and placemaking

- a. Whether the subdivision integrates with the existing context including retention of existing natural and built features, adjacent patterns of development and potential visual and physical connections.
- b. Whether the subdivision responds to and complements the design and layout of adjacent blocks, streets and open spaces.
- c. Whether the subdivision provides for adjoining land within the outline development plan to be developed in accordance with Residential New Neighbourhood standards and the outline development plan.
- d. Whether the subdivision contributes to the sense of place envisaged in the outline development plan, drawn from its context and delivered through the block, street and open space layout, to the configuration of allotments and elements of the open space.

8.8.9.2 Subdivision design (including provision for range of housing types)

- a. Whether the subdivision provides allotments that will enable diversity of housing types.
- b. Whether the subdivision provides allotments that are orientated to provide for solar gain.
- c. Whether the subdivision distributes allotments for higher density building typologies to support community and commercial facilities and public transport, and create a critical mass of activity and focus for development, and provide a logical and legible development form.

- d. Whether the subdivision locates larger allotments on corner sites to provide for larger scale building typologies to assist neighbourhood legibility.
- e. Whether the subdivision has dimensions and orientation which will provide for efficient vehicle access and parking that is safe for pedestrians and cyclists, and that does not compromise the quality of current or future public or private space.
- f. Whether the subdivision provides allotments that retain the central areas of blocks for open space or shared vehicle accesses.
- g. Whether the subdivision provides an allotments pattern that will promote complementary housing typologies to protect the privacy and outlook of adjacent sites and existing residential properties.
- h. Whether the subdivision provides an allotments pattern that will promote a consistent built interface with the street and minimises the use of rear allotments.

8.8.9.3 Movement networks

- a. Whether the subdivision provides for a comprehensive network of vehicle, cycle and pedestrian routes that provide, maintain or enhance safe and efficient physical and visual links within the neighbourhood and to surrounding neighbourhoods.
- b. Whether the subdivision includes road widths which are sufficient for the current and any identified future function of the road.
- c. Whether the subdivision includes road design which contributes toward a speed environment that is compatible with street function and adjacent land uses.
- d. Whether the subdivision minimises the use of rights of way.

8.8.9.4 Public spaces (including interaction between private and public spaces)

- a. Whether the subdivision provides public open space that can incorporate large scale tree planting, and low impact design features.
- b. Whether the subdivision provides allotments that enable a high level of visual interaction with the street and other public open spaces, without unnecessary visual barriers.
- c. Whether the subdivision promotes a cohesive street scene and neighbourhood.

APPENDIX 19

Matters of Discretion and Control for Landuse

5.4 Rules - Flood hazard

5.4.1.5 Restricted discretionary activities

- a. The [Council's](#) discretion is limited to the following matters:
 - i. timing, location, scale and nature of [earthworks](#);
 - ii. [earthworks](#) method; and
 - iii. mitigation of effects as they impact flooding and surface drainage
- b. These restricted discretionary activities will be assessed against the following criteria:
 - i. Whether any effects arise from [filling](#) or [excavation](#) on land stability, flooding, [water bodies](#), groundwater and natural [ground levels](#) on and/or off site, including:
 - A. any likelihood of exacerbation of flooding, erosion, or siltation either upstream or downstream of the [site](#);
 - B. any likelihood of affecting the stability of [adjoining](#) land, including its susceptibility to subsidence or erosion;
 - C. any adverse effects on other properties from disturbances to surface drainage patterns;
 - D. effects on flood storage capacity and function in the immediate area, and any wider effects on the flood storage in the catchment including any compensatory storage proposed; and any effects on existing stormwater and flood protection works;
 - E. any implications for groundwater and the water table, on or off site; and
 - F. any benefits associated with flood management.
 - ii. Whether there are any benefits arising that enable the reasonable use of the [site](#).

Whether any mitigation measures are proposed, their effectiveness and whether, and to what extent there is a transfer of adverse effects to other properties.

Chapter 6 General Rules and Procedures

6.1 Noise

6.1.8 Rules - Matters of discretion

- a. When considering applications for restricted discretionary activities, the Council's discretion to grant or decline consent, or impose conditions, is restricted to the matters over which discretion is restricted in the tables in Rules 6.1.5.1.3, 6.1.6.1.3 and 6.1.7.1.3, and as set out for that matter below.
 - i. The level, duration and character of the noise, and proximity and nature of nearby activities, and the adverse effects that may arise from these factors on activities anticipated in the receiving environment and associated amenity.
 - ii. Whether the noise generated would be of such a level as to create a threat to the health or well-being of persons living or working in the vicinity.
 - iii. The proposals made by the applicant to reduce noise generation, including:
 - A. reduction of noise at source;
 - B. alternative techniques or machinery which may be available;
 - C. insulation or enclosure of machinery;
 - D. mounding or screen fencing/walls;
 - E. hours of operation;
 - F. in the Central City, the management of outdoor areas, including by closing outdoor serving areas, turning off outdoor heaters, turning off outdoor speakers, and minimising the size of outdoor areas;
 - G. in the Central City, the management of external doors and windows and other avenues for noise to emanate from within a building; and
 - H. in the Central City, any other management required to address issues such as rubbish and recycling disposal.
 - iv. Outside the Central City, the adequacy of measures to address the adverse effects of noise on the natural character of the coastal environment.
 - v. The value and nature of entertainment activities and their benefit to the wider community, having regard to the frequency of noise intrusion and the practicality of mitigating noise, or utilising alternative sites.
 - vi. The extent to which achieving the standard is appropriate where the existing noise environment is subject to significant noise intrusion from road traffic, or Transport Zone activities in the Central City.
 - vii. Any relevant standards, codes of practice or assessment methods based on sound acoustic principles, including those which address the reasonableness of the noise in terms of community health and amenity and/or sleep protection.

- viii. In the Central City, the level of noise from the activity in relation to ambient noise in its vicinity.
- ix. In the Central City, the reasonableness of the noise in terms of recommendations and guidelines for community health and amenity and sleep protection, including guidance given by the World Health Organisation.
- x. Additional criteria where sound insulation is required by the rules:
 - A. The extent to which a reduced level of acoustic insulation may be acceptable due to mitigation of adverse noise impacts through other means, e.g. screening by other structures, or distance from noise sources.
 - B. The ability to meet the appropriate levels of acoustic insulation through alternative technologies or materials.
 - C. The provision of a report from an acoustic specialist which provides evidence that the level of acoustic insulation is appropriate to ensure the amenity of present and future residents of the site.
 - D. In the Central City, the impact of any residential accommodation or education activity that does not provide the required noise insulation on the ability of existing or future permitted business activities to operate or establish without undue constraint.
 - E. In the Central City, the location of any nearby business activities and the degree to which the amenities of the sensitive activities may be adversely affected.
 - F. Outside the Central City, the appropriateness of a legal instrument to be registered against the title that is binding on the owner and the owner's successors in title, containing a 'no complaint' clause relating to the noise of aircraft using Christchurch International Airport.
- xi. In the case of shooting ranges, whether the shooting range and associated activities will adversely affect the captive bird breeding programme within the Peacock Springs Conservation Area (identified in Chapter 17 Appendix 17.12.1) in terms of noise disturbance.

6.6 Water Body Setbacks

6.6.7.1 Natural hazards

All activities

- a. Any adverse effects on surface drainage.
 - i. Earthworks, buildings, or other structures including fences, decks, posts and struts, located in water body setbacks shall not impede the capability of waterway channels or ponding areas to store or convey surface water.
 - ii. Adverse effects shall not be displaced to adjacent properties.
- b. The cumulative effect of developments adjacent to the water body on land drainage or flood risk.

- c. Any adverse effects likely as a result of tidal influences during flood periods including the potential for exacerbation of effects with sea level rise.
- d. The likely effects on the natural functioning of the water body, including any likelihood of work undertaken exacerbating inundation, erosion, alluvion or avulsion, whether upstream or downstream of the site.
- e. Any beneficial effects of the proposal for the function of the water body, such as decreased likelihood of blockage or improved surface drainage where these effects remain consistent with protecting the ecological health of the water body.
- f. Any functional necessity for the activity to locate within the water body setback.

Additional for buildings, other structures and impervious surfaces

- g. The risk of damage to buildings and property posed by natural hazards including flooding, liquefaction (including lateral spread) and slumping and the scale and likelihood of that potential damage.

Additional within a Flood Management Area:

- h. Matters of discretion that apply to buildings and/or filling and excavation in a Flood Management Area (Rules 5.4.1.5, 5.4.2.4 and 5.4.3.3, as relevant to the Flood Management Area).

6.6.7.2 Natural values

- a. Any beneficial or adverse effects on the natural qualities of the water body and the ecology of areas within and adjacent to the water body including cumulative effects.
- b. The extent to which naturalisation of the water body is achieved at the time of development, or potential for naturalisation in the future is retained.
- c. Any adverse effects of discharge of sediment to the water body and the downstream receiving environment.
- d. The timing and duration of any proposed earthworks or construction and its implication for seasonal and long-term natural cycles in the water body habitat.
- e. Proximity of any proposed earthworks or buildings to significant trees listed in Appendix 9.4.7.1.
- f. The extent to which the proposal has regard to any relevant operative Council-approved master plans or management plans.
- g. The extent to which the proposal avoids, or has minimal adverse effect (including cumulative effects) on, the natural values of the area, including:
 - i. biodiversity and any measures proposed to protect, enhance and provide for indigenous vegetation and indigenous fauna;
 - ii. nesting, feeding and breeding areas;
 - iii. the habitat of threatened or protected species, both terrestrial and aquatic; and
 - iv. disruption of ecological corridors or other potential connections between ecosystems.

6.6.7.5 Maintenance access

- a. Any adverse effects on access to or along the water body for maintenance of the water body or any associated natural hazard protection works.

6.8 Signs

6.8.5 Rules - Matters of discretion

6.8.5.1 All signs and ancillary support structures

- a. Whether the scale, design, colour, location and nature of the signage will have impacts on the architectural integrity, amenity values, character, visual coherence, and heritage values of:
 - i. the building and the veranda on which the signage is displayed and its ability to accommodate the signage;
 - ii. the surrounding area (including anticipated changes in the area);
 - iii. residential activities; and
 - iv. heritage items or heritage settings, open spaces, protected trees or areas possessing significant natural values.
- b. Whether the extent of the impacts of the signage are increased or lessened due to:
 - i. the design, dimensions, nature and colour of the sign or support structure;
 - ii. the level of visibility of the sign; and
 - iii. vegetation or other mitigating features.
- c. Whether the signage combines with existing signage on the building, the site or in the vicinity, to create visual clutter or set a precedent for further similar signage.
- d. Whether there are any special circumstances or functional needs relating to the activity, building, site or surroundings, which affect signage requirements, including:
 - i. operational, safety, directional, and functional requirements;
 - ii. its size, scale or nature; and
 - iii. the length of the road frontage.
- e. Whether the signage:
 - i. enlivens a space or screens unsightly activities;
 - ii. will result in an orderly and co-ordinated display; and
 - iii. relates to the business or activity on the site and the necessity for the business or activity to identify and promote itself.
- f. For small-scale, grouped poster signage, the nature and extent of any management and maintenance regime in place including keeping the posters current, and the posters and sites on which they are installed clean and free of graffiti.
- g. The potential of the signage to cause distraction or confusion to motorists and/or adversely affect traffic safety due to its location, visibility, and/or content, including size of lettering, symbols or other graphics.
- h. Where the site is within the Akaroa Heritage Area, the matters set out in Rule 9.3.6.3.

Chapter 7 Transport

7.4 Rules – Transport

7.4.4.10 Vehicle access design

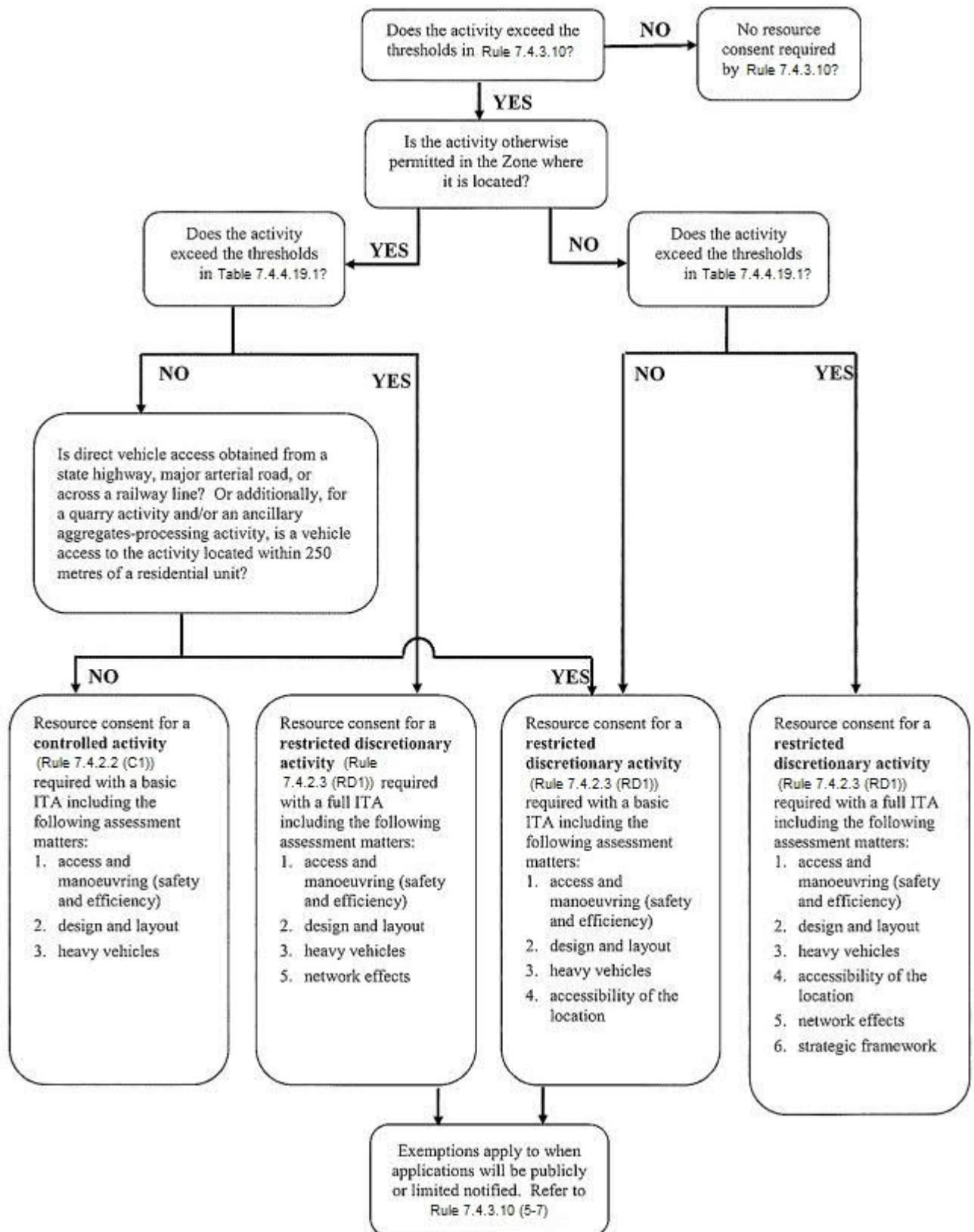
- a. The following are matters of discretion for Rule 7.4.3.7 a.:
- i. Whether the driveway serves more than one site and the extent to which other users of the driveway may be adversely affected.
 - ii. Whether there are any adverse effects on the safety and amenity values of neighbouring properties and/or the function of the transport network.
 - iii. The effects on the safety and security of people using the facility.
 - iv. Whether the access disrupts, or results in conflicts with, active frontages, convenient and safe pedestrian circulation and cycling flows or will inhibit access for emergency service vehicles where on-site access is required.
 - v. Whether the safety of pedestrians, particularly the aged and people whose mobility is restricted, will be compromised by the length of time needed to cross a wider driveway.
 - vi. Whether the legal width of access is restricted by the boundaries of an existing site and/or an existing building.
 - vii. Where the access exceeds the maximum gradient standards, in addition to i. to vi. above:
 - A. whether the gradient will make the use of the access impracticable, including inhibiting access for emergency service vehicles where on-site access is required.
 - B. whether the drainage facilities are adequately designed and will not cause adverse effects on neighbouring sites.

7.4.4.15 Maximum number of vehicle crossings

- a. The following are matters of discretion for Rule 7.4.3.8 e.:
- i. Whether the extra crossing(s) will adversely affect the efficient and safe operation of the road for all road users.
 - ii. Any cumulative effects of the introduction of extra vehicle crossings when considered in the context of existing and future vehicle crossings serving other activities in the vicinity.
 - iii. Whether the physical form of the road will minimise the adverse effects of the extra vehicle crossings for example the presence of a solid median to stop right hand turns.
 - iv. Outside the Central City, whether the landscaping adjacent to the road will be adversely affected by the vehicle crossings.

7.4.4.19 High trip generators

- a. The following are matters of control for Rule 7.4.2.2 C1 or matters of discretion for Rule 7.4.2.3 RD1. The following diagram shows the matters of control or discretion that apply to each activity.
- b.



- i. Access and manoeuvring (safety and efficiency): Whether the provision of access and on-site manoeuvring area associated with the activity, including vehicle loading and servicing deliveries, affects the safety, efficiency, accessibility (including for people whose mobility is restricted) of the site, and the transport network (including considering the road classification of the frontage road).
- ii. Design and Layout: Whether the design and layout of the proposed activity maximises opportunities, to the extent practicable, for travel other than by private car, including providing safe and convenient access for travel by such modes.
- iii. Heavy vehicles: For activities that will generate more than 250 heavy vehicle trips per day, whether there are any effects from these trips on the roading infrastructure.
- iv. Accessibility of the location: Whether the proposed activity has demonstrated the accessibility of the site by a range of transport modes and whether the activity's location will minimise or reduce travel to and from the activity by private vehicles and encourage public and active transport use.
- v. Network effects: Having particular regard to the level of additional traffic generated by the activity and whether the activity is permitted by the zone in which it is located, whether measures are proposed to adequately mitigate the actual or potential effects on the transport network arising from the anticipated trip generation (for all transport modes) from the proposed activity, including consideration of cumulative effects with other activities in the vicinity, proposed infrastructure, and construction work associated with the activity.
- vi. Strategic framework: Whether the proposal is consistent with the local and regional transport policy framework.

Advice note:

1. For clarity, the following table also shows which matters of control or discretion apply to which situations:

	Matters of Control or Discretion	Activities that are otherwise permitted in the Zone's Activity Status Table		Activities that are not permitted in the Zone's Activity Status Table	
		Basic ITA / Controlled activity	Full ITA	Basic ITA	Full ITA
i.	Access and manoeuvring (safety and efficiency)	Yes	Yes	Yes	Yes

ii.	Design and Layout	Yes	Yes	Yes	Yes
iii.	Heavy vehicles	Yes	Yes	Yes	Yes
iv.	Accessibility of the location			Yes	Yes
v.	Network effects		Yes		Yes
vi.	Strategic framework				Yes

Table 7.4.4.19.1 - Thresholds for full Integrated Transport Assessments

	Activity	Thresholds
a.	<u>Education Activities (Schools).</u>	More than 450 students
b.	<u>Education Activities (Pre-School).</u>	More than 150 children
c.	<u>Education Activities (Tertiary Education and Research Activities).</u>	More than 750 <u>FTE</u> students
d.	<u>Health Care Facilities.</u>	More than 1,000m ² <u>GFA</u>
e.	<u>Industrial Activities (excluding Warehousing and Distribution Activities).</u> <u>High Technology Industrial Activities.</u> <u>Heavy Industrial Activities.</u>	More than 10,000m ² <u>GFA</u>
f.	<u>Industrial Activities (Warehousing and Distribution Activities).</u>	More than 20,000m ² <u>GFA</u>
g.	<u>Offices.</u>	More than 4000m ² <u>GFA</u>
h.	<u>Residential Activities.</u>	More than 120 <u>Residential Units</u>

	Activity	Thresholds
i.	<p><u>Retail Activities</u> (excluding factory shops, retail park zones, <u>trade suppliers</u> and <u>food and beverage outlets</u>).</p>	<p>More than 1000m² <u>GLFA</u> and/or in a <u>Local Centre</u> or <u>Neighbourhood Centre</u> identified in Chapter 15, where the total area of development* over any three year period exceeds 1000m² <u>GLFA</u>.</p> <p>Advice note:</p> <ol style="list-style-type: none"> * Development refers to either consented or constructed developments.
j.	<p><u>Retail Activities</u> (factory shops and retail park zones, but excluding <u>trade suppliers</u> and <u>food and beverage outlets</u>).</p>	<p>More than 2000m² <u>GLFA</u></p>
k.	<p>All other activities (not covered by the thresholds above or the thresholds in (l) below).</p>	<p>More than 120 <u>vehicle trips</u> per peak hour or 1000 <u>vehicle trips</u> per day (whichever is met first). 'Peak hour' are those hours between 15:00 and 19:00 hours on a weekday.</p>
l.	<p>Yaldhurst Recreation and Sports Facility at 466-482 Yaldhurst Road, as shown in Appendix 18.11.4 (all activities within the <u>site</u>, including existing, consented and proposed activities).</p>	<ol style="list-style-type: none"> More than 650 <u>vehicle trips</u> per peak hour will be generated by all the activities on the <u>site</u>; and/or More than 650 car <u>parking spaces</u> are proposed on the <u>site</u>. For the avoidance of doubt, if the existing number of <u>vehicle trips</u> and/or the existing number of car <u>parking spaces</u> already exceed these limits, any increase in <u>vehicle trips</u> and/or car <u>parking spaces</u> as a result of a new proposal will trigger the need for a full Integrated Transport Assessment. <p>'Peak hour' is the continuous 60 minute period between 15:00 and 19:00 hours on a weekday when the greatest number of <u>vehicle trips</u> occurs.</p>

Chapter 8 Subdivision, Development and Earthworks

8.9 Rules – Earthworks

8.9.4 Matters for discretion

8.9.4.1 Nuisance

- a. The extent to which any potential dust nuisance, sedimentation and water or wind erosion effects can be avoided or mitigated.
- b. The extent to which effects on neighbouring properties, and on the road network, of heavy vehicle and other vehicular traffic generated as a result of earthworks can be avoided or mitigated.
- c. The extent to which any potential changes to the patterns of surface drainage or subsoil drains can be avoided or mitigated if those changes would put the site or adjoining land at higher risk of drainage problems, inundation run-off, flooding, or raise that site's or adjoining land's water table.
- d. Whether any change in ground level would be likely to impact on trees in terms of access to water and drainage.
- e. The extent of any potential adverse effects on the quality of groundwater and whether any such can be avoided or mitigated.
- f. The extent to which any adverse effects from noise and vibration associated with earthworks and land improvement can be avoided or mitigated, and the effectiveness of any methods to mitigate such effects.
- g. The extent to which earthworks in the Open Space Avon River Precinct (Te Papa Ōtākaro) Zone have an adverse effect on the Avon River and its margins.

8.9.4.2 Resources and assets

- a. Whether versatile soils would be lost to production, or have their physical and biochemical qualities compromised.
- b. In relation to National grid transmission lines and electricity distribution lines
 - i. the risk to the structural integrity of the National grid or electricity distribution lines;
 - ii. compliance with NZECP 34:2001;
 - iii. any implications arising from technical advice provided by the utility operator;
 - iv. the effects on the ability of the utility operator to operate and upgrade and develop the National grid and/or electricity distribution lines, including on-going safe and direct access; and
 - v. the effects on the ability of the utility operator to operate, upgrade and develop its utility, including on-going safe and direct access.

8.9.4.3 Land stability

- a. Whether the earthworks affect the stability of adjoining land and its susceptibility to subsidence or erosion upon excavation taking place.
- b. The extent of any alteration to natural ground levels in the vicinity and, consequently, to the height and bulk of buildings that may be erected on the site.
- c. Whether the earthworks affect the future development potential of land for permitted activities, taking account of the nature of filling material proposed and the degree of compaction.

8.9.4.4 Coastal hazard

- a. Whether the earthworks affect the risk to life, property and the environment posed by coastal hazards.
- b. The extent to which earthworks would remedy or mitigate coastal hazard or be compatible with existing mitigation works or structures.
- c. Whether or not the work would be carried out under the supervision of either a Chartered Professional Engineer with experience in coastal processes or a professional Engineering Geologist (IPENZ registered).
- d. The extent to which the earthworks would protect structures, buildings and their occupants.
- e. The extent to which the proposed earthworks will protect the sandy beach, dunes or rocky shore from further damage, such as from coastal erosion or seawater inundation in a storm event, or remediate it from previous damage.
- f. The extent to which the earthworks will affect the nature, form and resilience of the sandy beach, dunes or rocky shoreline.
- g. Whether the earthworks will result in increased erosion of the sand dunes and land to the landward side of the dunes.

8.9.4.5 Quarries

- a. Whether the final rehabilitated landform is appropriate having particular regard to:
 - i. the location, gradient and depth of the quarry pit;
 - ii. the availability of clean fill material and consequent timeframes for rehabilitation;
 - iii. any other adverse effects of rehabilitation including traffic, dust, risk to groundwater, drainage and landscape effects.

8.9.4.6 Amenity

- a. The level of alteration to existing ground levels and the degree to which the resultant levels are consistent with the surrounding environment.
- b. The resultant effects that result from the earthworks in terms of visual amenity, landscape context and character, views, outlook, overlooking and privacy.

8.9.4.7 Indigenous biodiversity, natural character, and landscape features

- a. The relevant matters of discretion in Rules 9.1.5.2, 9.2.8.1, 9.2.8.3 and 6.6.7.

8.9.4.8 Historic Heritage

- a. The relevant matters of discretion in Rule 9.3.6.1.

8.9.4.9 Sites of Ngāi Tahu Cultural Significance

- a. Where the earthworks are within a Site of Ngāi Tahu Cultural Significance identified in Appendix 9.5.6, the matters set out in Rule 9.5.5 as relevant to the site classification:
 - i. Rule 9.5.5.1 - Wāhi Tapu / Wāhi Taonga, Mahaanui Iwi Management Plan Silent Files and Kaitōrete Spit;
 - ii. Rule 9.5.5.2 - Ngā Tūranga Tūpuna; and
 - iii. Rule 9.5.5.3 - Ngā Wai.

8.9.4.10 Coastal environment

- a. The relevant matters of discretion in Rule 9.6.3.1 – Effects of activities on the coastal environment.

Chapter 14 Residential

14.15 Rules - Matters of control and discretion

14.15.5 Scale of activity

- a. Whether the scale of activities and their impact on residential character and amenity are appropriate, taking into account:
 - i. the compatibility of the scale of the activity and the proposed use of the buildings with the scale of other buildings and activities in the surrounding area;

- ii. the ability for the locality to remain a predominantly residential one; and
 - iii. the appropriateness of the use in meeting needs of residents principally within the surrounding living environment.
- b. The adverse effects of additional staff, pedestrian and traffic movements during the intended hours of operation on:
 - i. the character of the surrounding living environment; and
- c. noise, disturbance and loss of privacy of nearby residents.
- d. For home occupations, whether the non-compliance is an integral and necessary part of the home occupation.
- e. For residential units with more than six bedrooms, whether there should be a limit on the number of bedrooms over six bedrooms based on the impact on the surrounding neighbourhood and residential character.
- f. The ability to avoid, remedy or appropriately mitigate any adverse effects of the extended hours of operation; and other factors which may reduce the effect of the extended hours of operation, such as infrequency of the activity or limited total hours of operation.
- g. The opportunity the activity provides to support an existing nearby commercial centre.
- h. The opportunity the activity provides to support and compliment any existing health-related activities and/or community activities in the surrounding area.
- i. For Residential Guest Accommodation Zone sites only, the extent to which any additional bedrooms and quantum of floorspace proposed avoids adverse effects on the function and recovery of the Central City.

14.15.35 Outline development plan

1. The appropriateness of the proposal taking into account the outcomes sought by the outline development plan and relevant environmental effects with respect to those outcomes.

14.15.36 Comprehensive residential development in the Residential New Neighbourhood Zone

For the avoidance of doubt, these are the only matters of discretion that apply to comprehensive residential development in the Residential New Neighbourhood Zone.

- a. Whether the comprehensive residential development is consistent with the relevant outline development plan.
- b. Whether the comprehensive residential development demonstrates that every site or residential unit will experience appropriate levels of sunlight, daylight, privacy, outlook and access to outdoor open space and overall a high level of amenity for the development.
- c. Whether sites proposed to exceed the maximum site coverage in Rule 14.12.2.2 are internal to the application site and will not compromise the achievement of a high level of amenity within or beyond the development.

- d. Whether buildings proposed to exceed the maximum permitted height in Rule 14.12.2.1 will contribute positively to the overall coherence, design, layout and density of the development and surrounding sites.
- e. Whether the development engages with and contributes to adjacent streets, lanes and public open spaces, through the building orientation and setback, boundary and landscape treatment, pedestrian entrances, and provision of glazing from living areas.
- f. Whether the development, in terms of its built form and design, generates visual interest through the separation of buildings, variety in building form and in the use of architectural detailing, glazing, materials, and colour;
- g. Whether the development integrates access, parking areas and garages to provide for pedestrian and cyclist safety and the quality of the pedestrian environment, and the access, parking areas and garages does not dominate the development, particularly when viewed from the street or other public spaces;
- h. Whether there is sufficient infrastructure provision to service the development and ensure the health and safety of residents, visitors and neighbouring properties, including water supply for fire fighting purposes; and
- i. In relation to the built form standards that do not apply to comprehensive residential developments, consideration of these standards as a flexible guideline to achieve good design and residential amenity.

Chapter 15 Commercial

15.13 Rules - Matters of control and discretion

15.13.4.3 Area-specific rules - Matters of discretion - Commercial Core Zone (North Halswell) Outline Development Plan area

15.13.4.3.1 General

- a. The extent to which development:
 - i. supports the role of the North Halswell Key Activity Centre as a high intensity area of commercial activity and community activity; and
 - ii. enables people to orientate themselves and find their way with strong visual and physical connections with the surrounding neighbourhoods and wider area.

15.13.4.3.2 Commercial layout

- a. The extent to which development:
 - i. ensures a critical mass of activity is centred upon the open air Main Street including an appropriate balance of large format retail activity and concentration of finer grain commercial activities;

- ii. supports a retail mix (large format and finer grain retailing) which ensures the centre meets its role as a District Centre and Key Activity Centre and meets the needs of the catchment population; and
- iii. functions operationally and visually as an integrated commercial entity.

15.13.4.3.3 Design and amenity

- a. The extent to which development:
 - i. provides a strong visual relationship and high quality urban interface with State Highway 75;
 - ii. provides primary active ground floor frontages on all sites intended for commercial and community focussed activity where they face an accessible public open space;
 - iii. enables a continuous frontage of retailing on the main street in order to ensure a high intensity of commercial activity;
 - iv. orientates buildings, streets, and open space to take advantage of solar access and views, and to mitigate other climatic effects such as wind;
 - v. provides high quality public open space, including streets, squares and lanes;
 - vi. provides for a multi-value approach to stormwater management that supports objectives of stormwater retention, water quality treatment, biodiversity enhancement, and landscape amenity, and that recognises Ngāi Tahu/manā whenua values.
 - vii. provides for the protection of springs and associated Ngāi Tahu/Manawhenua values through the use of landscaping and setbacks;
 - viii. recognises and enables existing land use activities to continue while managing effects on those activities; and
 - ix. At the intersection of Augustine Drive/Halswell Road provides a high quality gateway to the North Halswell Key Activity Centre and a high quality interface with the proposed Spreydon Lodge Heritage Park.

15.13.4.3.4 Transport

- a. The extent to which development:
 - i. provides for an easily accessible, readily visible public transport interchange located centrally within the commercial core of the Key Activity Centre;
 - ii. provides car parking areas as shared spaces, available for shared use, which does not visually or physically dominate the area;
 - iii. provides for pedestrian priority within the retail core, particularly in respect to the open air main street environment;
 - iv. provides a high level of physical connectivity between the Key Activity Centre, surrounding neighbourhoods and the wider area including the need for and effects of the third access point;

- v. identifies safe crossing facilities on Halswell and Sparks Road between the North Halswell outline development plan area and adjacent areas/communities and within the development;
- vi. supports a high level of permeability within the Key Activity Centre;
- vii. supports the strategic importance of the Dunbars Road extension as the primary link through the outline development plan area;
- viii. provides opportunities for walking, cycling and public transport use; and
- ix. supports the construction and operation of the movement network as shown on the outline development plan.

15.13.4.3.5 Civic Square

- a. The extent to which development:
 - i. connects the civic square and the Main Street, both visually and physically;
 - ii. provides for a civic square of a sufficient size to allow for a range of community activities, events and interaction; and
 - iii. provides a high quality civic square laid out and designed in a manner that achieves a high quality and safe, open space environment.

APPENDIX 20

Recommended Conditions – Working Draft

WORKING DRAFT RECOMMENDED CONDITIONS: SUBDIVISION CONSENT

1. Compliance with Application Information

- 1.1 The survey plan, when submitted to Council for certification, shall be in accordance with the stamped Approved Plans 1 to 9 (Eliot Sinclair, Halswell Road Development 201 Halswell Road, Christchurch, Project 426962 Set C1 Sheet 1 to 9 Rev X).

2. Staging

- 2.1 Any staging of the subdivision shall be in accordance with Approved Plans 1 to 9.

3. Reserve to Vest

- 3.1 Lots 11, 50, 51, 52 53, 55 and 56 shall be shown on the survey plan as Local Purpose (Utility) reserve to vest.

Advice Note: Land to be vested as Local Purpose (Utility) Reserve, including any landscape improvements, shall hold no credits towards the final Reserve Development Contributions Assessment for the development.

- 3.2 Lot 54 shall be shown in the survey plan as recreation reserve to vest and shall be free of easements.

Advice Note: The agreed value of Lot 54 (to be vested as Recreation Reserve) and the accepted landscape improvements are to be credited against the Reserve Development Contributions.

4. New Road to Vest

- 4.1 The new roads (being Lots 101 to 106) are to be formed and vested with underground wiring for electricity supply and telecommunications.

5. Point Strip

- 5.1. Lot 179 is a point strip and shall be transferred to the ownership of Council. A solicitor's undertaking or other appropriate legal mechanism shall be provided at the time of the s224(c) certificate to ensure that the transfer of ownership is completed.

6. Engineering General

- 6.1 The design and construction of all assets is to be subject to a project quality system in accordance with Part 3: Quality Assurance of the Infrastructure Development Standard (IDS).

a. Prior to the commencement of physical works on site for the construction of the subdivision including infrastructure, the Consent Holder shall submit to the Planning Team – Subdivision Engineers for review and acceptance a Design Report, Plans and Design Certificate complying with clause 3.3.2 of the IDS. The Design Report and engineering plans are to provide sufficient detail to confirm compliance with the requirements of the IDS and this consent, including compliance with Condition 12.2 and condition 12.3. This report can be submitted as two individual design reports addressing infrastructure as one part and the second part as a Geotechnical Report.

b. Prior to the commencement of physical works on site, the Consent Holder shall submit to the Council's Planning Team - Subdivision Engineers a Contract Quality Plan and supporting Engineer's Review Certificate, complying with clause 3.3.3 of the IDS, for review and acceptance by Council.

c. Physical works shall not commence until Council confirms that the documentation required by condition 6.1 (a) and (b) has been received and accepted.

- d. Prior to the issue of certification pursuant to section 224(c) of the Resource Management Act, the Consent Holder shall submit to the Planning Team - Subdivision Engineers an Engineer's Report complying with clause 3.3.3 of the IDS and an Engineer's Completion Certificate complying with clause 3.3.4 of the IDS. The Engineer's Report shall provide sufficient detail to confirm compliance with the requirements of the IDS and this consent, including compliance with consent conditions requiring mitigation measures with respect to any liquefaction and lateral spread hazards.

Advice Note: Part 3 of the IDS sets out the Council's requirements for Quality Assurance. It provides a quality framework within which all assets must be designed and constructed. It also sets out the process for reporting to Council how the works are to be controlled, tested and inspected in order to prove compliance with the relevant standards. It is a requirement of this part of the IDS that the Consent Holder provides certification for design and construction as a prerequisite for the release of the section 224(c) certificate.

Any reference to 'Engineering Acceptance' under further conditions of consent refers to the process set out in condition 6.1 a-c above.

7. Water Supply

- 7.1 The points of water supply for the subdivision shall be the existing DN200 uPVC water main in Halswell Road and the future DN300 water main extending from Milns Road to Lot 105 (road to vest). However should the future DN300 water main from Milns Road not be available at the time of any subdivision stage, a second connection shall be established to Halswell Road via Road E (Lot 102) and through Lot 52 (Local Purpose Utility Reserve). Such a connection, if established, shall be supplied with a suitable isolation valve and shall be protected by a right to convey water in gross easement over Lot 52.
- 7.2 All water mains and submains shall be installed in road to be vested in Council except for the connection to Halswell Road through Lot 52.
- 7.3 Water mains shall be extended along the full length of roads to vest and be terminated with temporary hydrants as per the requirements of the Infrastructure Design Standard.
- 7.4 The water main along Road C (Lot 104 and Lot 105) shall be a minimum DN355 OD PE100 and shall cross Days Drain to link into the neighbouring subdivision.

Advice Note: For costs associated with the increase in diameter of the water main only, if over and above that required to service the subdivision, Council will enter into an Infrastructure Provider Agreement with the developer.

- 7.5 The water supply for the subdivision in its entirety and for each stage of the development, shall be designed by a suitably qualified person in accordance with the Infrastructure Design Standard and in accordance with the NZ Fire Service Fire Fighting Water Supplies Code of Practice NZS 4509:2008 to the satisfaction of the Water & Wastewater Asset Planning Team. Engineering drawings supported by hydraulic model outputs shall be presented to the Subdivisions Engineer as part of the Design Report under condition 6 for Engineering Acceptance by the Three Water & Waste Asset Planning Team.
- 7.6 Except where otherwise stated in these conditions, all water mains within the development shall be a minimum DN180 OD PE100.
- 7.7 The work described in conditions 7.1 to 7.6 shall be carried out by a Council approved water supply installer at the expense of the applicant.
- 7.8 Development Lots (Lots 1 to 10, 12 and 13) shall each be served with a water supply to their boundary. Submains shall be installed to 1 metre past each lot boundary.
- 7.9 Any residential unit or commercial facility within a development lot without road frontage shall be serviced by its own lateral within a shared access. Laterals shall be installed by a

Licensed Certified Plumber and shall not cross the boundary of the net site area of other sites.

Advice Note: This will require a Building Consent unless the consent holder obtains a Building Consent exemption for the installation of the private laterals.

- 7.10 Where the laterals are installed under a building consent exemption, construction shall be in accordance with the Construction Standard Specifications (CSS) and the Infrastructure Design Standard (IDS). Dummy connection boxes shall be installed at the entrance of the shared access at the public road boundary.

Advice Note: Conditions 7.9 and 7.10 are on-going conditions and a consent notice will be issued under section 221 of the Act at the time of section 224(c) certificate.

8. Sewer

- 8.1 The sewer system for this subdivision is to be a Local Pressure Sewer System designed in accordance with Council's Infrastructure Design Standards and Construction Standard Specifications. The Consent Holder shall provide engineering drawings supported by hydraulic calculations to the Subdivisions Engineer as part of the Design Report under condition 6, for Engineering Acceptance by the Three Waters and Waste Planning Team prior to the commencement of any physical work.
- 8.2 The sanitary sewer outfall shall be the DN400 OD PE pressure sewer main within Augustine Drive.
- 8.3 The connection to the sanitary sewer outfall shall be within Road B (Lot 101) and shall follow the alignment of the future road network on the neighbouring land to the outfall.
- 8.4 The pressure main between this subdivision and the connection point must be protected by an easement in gross in favour of Christchurch City Council, until that property is vested as road.
- 8.5 The consent holder shall put in place measures to enable the initial operation of the local pressure sewer system within and from the subdivision during the build phase, including (but not limited to) ensuring self-cleansing flow and limiting sewage retention time within the system when the design number of pressure sewer tanks are not yet in operation. These measures shall be reported to the Subdivisions Engineer prior to seeking section 224(c) certification.
- 8.6 Installation of the pressure sewer mains shall be carried out by a Council Authorised Drainlayer (Pressure Sewer Reticulation).
- 8.7 Residential Activities on Lots 1, 2 to 10, 12 and 13:
- a. Each residential unit on Lots 1, 2 to 10, 12 and 13 shall have its own boundary kit to connect to the pressure sewer system. The boundary kits and associated connection to the pressure sewer main shall be located within the legal road or shared access outside the net site area associated with each residential unit. The lateral from the boundary kit (for future connection of the pressure sewer unit) is to extend at least 600mm into the net site area of each residential unit. Any shared connection to the pressure sewer main shall be located in shared access areas outside the net site area associated with each residential unit and shall be protected by an easement in gross in favour of the Christchurch City Council. An isolation valve shall be installed on the pressure sewer main at the boundary of the development lot and the public road.
 - b. Engineering drawings in accordance with the system specified in (a), shall be sent to the Subdivisions Engineer for Engineering Acceptance by the Three Waters and Waste Planning Team prior to the commencement of any physical work.

- c. Each residential unit is to be served by a local pressure sewer unit comprising a pump and storage chamber, which can accommodate at least 24 hours average dry weather flow. This is to be supplied by either Aquatec or EcoFlow and installed by a Council Authorised Drainlayer (Pressure Sewer Tanks) at building consent stage. The pressure sewer unit shall be supplied complete with an IOTA OneBox Control Panel.
- d. Ownership and control of the local pressure pump, chamber and OneBox Control Panel will be vested with Council. The property owner shall enter into a Deed with the Christchurch City Council, drafted in terms approved by the Christchurch City Council, vesting ownership in the system prior to Code Compliance Certificate being issued for a dwelling on the relevant site.
- e. The Council and its agents or contractors shall have the right of access to the property for the purpose of maintenance, monitoring or renewal of any part of the local pressure sewer unit vested with Council.
- f. The electricity supply for the local pressure sewer unit shall be from the residential unit and metered to the residential unit serviced by the system. The property owner shall be responsible for the power costs of operating the local pressure sewer unit.
- g. The property owner shall ensure adherence with the operational requirements of the local pressure sewer unit and if in breach of this obligation, the property owner shall promptly at the property owner's expense properly and substantially repair and make good all injury or damage caused to the local pressure sewer unit. If the property owner fails to promptly comply with this obligation then the Council may perform the obligation and recover any costs incurred from the Property Owner.

Advice Note: This is an on-going condition and a consent notice will be issued under section 221 of the Act at the time of section 224(c) certification.

8.8 Non-Residential Activities on Lots 1, 2 to 10, 12 and 13

- a. Each non-residential activity shall connect to the pressure sewer system via a boundary kit and associated connection to the pressure sewer main which will service not more than one local pressure sewer unit. The boundary kits shall be located within the legal road, shared access and car park areas and not located under buildings or other similar structures which prevent physical access to the boundary kit and pipes. Any shared connection to the pressure sewer main within the lot shall be protected by an easement in gross in favour of the Christchurch City Council. An isolation valve shall be installed on the pressure sewer main at the boundary of the development lot and the public road. Installation of the boundary kits and connections to the pressure sewer main shall be carried out by a Council Authorised Drainlayer (Pressure Sewer Reticulation).
- b. Engineering drawings in accordance with (a) shall be sent to the Subdivisions Engineer for Engineering Acceptance by the Three Waters and Waste Planning Team prior to the commencement of any physical work.
- c. Each non-residential activity is to be served by a local pressure sewer unit comprising a pump (or pumps) and storage chamber which can accommodate at least 24 hours average dry weather flow to be supplied by either Aquatec or EcoFlow and installed by a Council Authorised Drainlayer (Pressure Sewer Tanks) at building consent stage. The local pressure sewer unit will be supplied complete with an IOTA OneBox Control Panel per pump.
- d. The property owner will retain ownership of the local pressure sewer unit complete with pump(s), chamber and OneBox Control Panel(s). The property owner will be responsible for the operations and maintenance of the complete unit.

- e. Council shall have remote access to the IOTA OneBox Control via its IOTA OneBox portal to monitor and control (when required) the pump (s) as part of the local pressure sewer catchment.

Advice Note: This is an on-going condition and a consent notice will be issued under section 221 of the Act at the time of section 224(c) certificate.

9. Stormwater

- 9.1 The stormwater management and mitigation system shall be comprised of channels, sumps, pipes, swales, and a first flush sedimentation basin. In addition to the below conditions, the system shall meet the requirements of the CCC Waterways, Wetlands and Drainage Guide (WWDG 2003 including Chapters 6, 21 and Appendix 10 updated 2011/12), the Infrastructure Design Standard (IDS 2018), the Construction Standard Specifications (CSS 2018) and the South West Area Christchurch Stormwater Management Plan.
- 9.2 Prior to any construction or operational phase stormwater discharge, the consent holder shall provide to the Subdivision Engineer a copy of authorisation for construction and operational phase stormwater discharge into the Christchurch City Council stormwater network obtained from Christchurch City Council as the operator of that network, or a copy of separate discharge consent from Environment Canterbury.
- 9.3 Stormwater generated from all roofs, roads and hardstanding areas within all allotments shall be collected via channels, sumps, pipes or swales and discharged into a first flush sedimentation basin to be constructed within an allotment to vest in Christchurch City Council as Local Purpose (Utility) Reserve.
- 9.4 The first flush sedimentation basin shall:
 - a. Be designed to hold the volume of stormwater runoff generated from the first 25mm of rain falling on impervious areas within the development site;
 - b. Have average batter slopes of 1 vertical in 4 horizontal average, or flatter;
 - c. Be vegetated with an approved grass species mixture and/or landscape planting.
 - d. Have an average stormwater storage depth of 1 metre or less;
 - e. Outfall via a choked outlet into Days Drain at discharge rates to be agreed by Council engineers at detailed design phase.
- 9.5 Stormwater in excess of the first flush basin capacity shall discharge to the CCC stormwater network to be constructed on adjacent land.
- 9.6 If the offsite stormwater network and mitigation systems required to service this development have not been commissioned at the time of an application by the consent holder for certification under s224(c) of the RMA, the consent holder shall construct a temporary stormwater detention system within the site.
- 9.7 The temporary stormwater detention system, if used, shall consist of a detention basin designed in accordance with WWDG Chapter 6.
- 9.8 The temporary stormwater detention system, when calculated in conjunction with the first flush sedimentation basin, shall provide sufficient stormwater storage to control peak stormwater flows back to greenfield runoff rates for all storms up to and including a 2% annual exceedance probability return interval storm of 36 hours duration.
- 9.9 The consent holder shall identify the location and design of the connection point to the offsite stormwater network prior to the commencement of works.

- 9.10 The consent holder shall implement all permanent downstream network connection(s) within 6 months of being provided written notice by Council that the offsite stormwater network and mitigation systems have been commissioned.
- 9.11 The consent holder shall identify all offsite stormwater connections to Days Drain and ensure that stormwater service for the offsite properties using those connections is maintained and/or re-established as required to avoid or mitigate nuisance or flooding.
- 9.12 Any temporary stormwater facilities not located within Council-owned land or Local Purpose (Utility) Reserve shall be protected by registration of easement in gross.
- 9.13 The filling or development of the land shall not cause adverse drainage or flooding effects on other land. The consent holder shall provide a report summarizing any effects of disruption of overland flow caused by development of the site, and identify all measures proposed to avoid, remedy or mitigate those effects. This report shall include all measures to reconnect all pre-existing discharges into the section of Days Drain that is to be replaced by a pipeline. The report shall form part of the as part of the Design Report submitted to the Subdivision Engineer under condition 6 for Engineering Acceptance by the Three Waters & Waste Asset Planning Team.
- 9.14 The consent holder shall provide a report summarising any effects on downstream surface water or groundwater networks resulting from groundwater management systems to be used within the development site. The report shall identify all measures proposed to avoid, remedy or mitigate those effects and shall form part of the Design Report submitted to the Subdivision Engineer under condition 6 for Engineering Acceptance by the Three Waters & Waste Asset Planning Team.
- 9.15 The surface water management and mitigation system shall be designed to ensure complete capture and conveyance of all stormwater runoff from the site for all rainfall events up to and including the critical two percent annual exceedance probability storm. This will require internal reticulation and conveyance to meet Council's inundation standards as specified in the WWDG. The conveyance system shall be designed to ensure that even for events where the critical peak stormwater runoff flow rate occurs that all of the first flush stormwater shall reach the first flush sedimentation basin. A combination of primary and secondary conveyance systems may be used to ensure this level of service is achieved.
- 9.16 The primary stormwater reticulation network shall be designed to convey (at minimum) the critical twenty percent annual exceedance probability storm event. No flooding of private property shall occur during the critical ten percent annual exceedance probability storm event and no flooding of buildings shall occur during the critical two percent annual exceedance probability storm event.
- 9.17 The consent holder shall submit an Engineering Design Report to the Subdivision Engineer under condition 6 for Engineering Acceptance by the Three Water & Waste Asset Planning Team. The Engineering Design Report shall demonstrate how the design will meet all of the applicable stormwater conditions and shall contain all of the plans, specifications and calculations for the design and construction of all stormwater infrastructure and mitigation systems.
- 9.18 A buffer of at least 5 metres width shall be established between all stormwater basins and all residential, commercial or rural lot boundaries as mitigation for the utility works.
- 9.19 Stormwater laterals are to be laid to at least 600mm inside the boundary of all lots at the subdivision stage. Unless otherwise approved by Council Engineers, the laterals are to be laid at sufficient depth to ensure protection and adequate fall is available to serve the furthestmost part of the lot.
- 9.20 All secondary or emergency stormwater flow paths are to be identified and protected by an easement in favour of Christchurch City Council, if required. Prior to issuance of s224c

certification the designer of the surface water management system shall provide to Council a report which identifies all secondary flow paths proposed for storm events that exceed the capacity of the stormwater management and mitigation system.

- 9.21 The net site area of all development lots within the Flood Management Area shall be at or above the 0.5% annual exceedance probability flood level plus 250mm freeboard.
- 9.22 Safe and adequate access to stormwater mitigation facilities for maintenance and sediment removal shall be provided and designed in accordance with WWDG Sections 6.8 & 6.9.
- 9.23 The consent holder shall provide easements in gross over all stormwater infrastructure located outside of legal road or utility reserve areas to be vested with Council.
- 9.24 The consent holder shall operate all stormwater infrastructure to vest in Council for at least 12 months following the issue of the Section 224(c) certificate, after such time Council may accept responsibility for operation and maintenance.
- 9.25 Prior to issuance of s224c certification the consent holder shall provide as-built data of the stormwater management systems and confirm that they have been constructed in accordance with the approved plans and comply with the IDS, in particular Part 3: Quality Assurance and Part 12: As-Builts.
- 9.26 Prior to issuance of s224c certification the consent holder shall provide to Council a Maintenance and Operations manual for all stormwater management and mitigation facilities and it shall form part of the documentation provided in accordance with Condition 6(d). This manual is to include a description of the activity, the design assumptions, maintenance schedule and monitoring requirements.

10. Days Drain

- 10.1 The consent holder shall construct and design Days Drain in accordance with the principles contained in the 'Days Drain Concept Plan' as outlined in Approved Plans 10 to 18 (Kamo Marsh Plans labelled *Indicative Design Concept – Days Drain*, dated 06.08.19 Reference 4742 pages 1 to 8, Issue RC Revision 2) and including the design principles Stamped Approved Plan 18 which apply to all of Days Drain. In addition:
 - a. Erosion and sediment control measures must be in place to avoid fine sediment entering waterways during construction.
 - b. Fish passage is to be maintained or only temporarily interrupted during construction.
 - c. Any temporary interruption of fish passage is authorised only if it has been assessed by a suitably qualified and experienced freshwater ecologist as having no adverse effects on fish and documentation provided at the section 224(c) stage to demonstrate compliance with this condition by that ecologist.
 - d. Fish salvage is to be undertaken prior to any works commencing that could result in fish becoming stranded on the bed or banks of the waterway. Fish salvage is to be overseen by a suitably qualified and experienced freshwater ecologist.
 - e. The edges of the low flow channel should be planted with fast-growing native grasses, to provide shade quickly and reduce the need for weed clearance in the waterway.
- 10.2 Prior to any works being undertaken within 20.0m of Days Drain (including dewatering of any segment of Days Drain), the consent holder shall submit to the Subdivision Engineer Council for acceptance an Engineering and Ecological Management Plan (EEMP). The EEMP shall be prepared by a suitably qualified and experienced freshwater ecologist and shall confirm compliance with condition 10.1 and also include the following:

- a. Measures to capture and relocate shortfin eels and other freshwater fish residing in the waterway to an alternative site.
 - b. Providing contact details of a suitably qualified freshwater ecologist undertaking the trap or transfer, or alternative specified capture method to salvage shortfin eels and other freshwater fish.
 - c. Identification of a relocation site for the shortfin eels based on a consideration of the local, resident eel population (e.g. local habitat carrying capacity).
 - d. Provide the contact details of a suitably qualified freshwater ecologist to be present for the construction of any proposed crossing (culverts and other structures).
 - e. The design report and plans submitted under conditions 9 and the landscape plans submitted under condition 14 are in accordance with Condition 10.1. In addition for Lot 53 and Lot 51 compliance shall be achieved with Approved Plans 19 and 20 (Kamo Marsh Plans labelled 'Days Drain – Concept Design' and 'Stormwater Reserve Concept' Ref 4742, Issue RC Rev 1, Dated 21 June 2018);
- 10.3 The prior to the issue of certification pursuant to section 224(c), The Engineer's Report to be provided under condition 6(d) shall be accompanied by a report from a suitably qualified and experienced freshwater ecologist that the works have been completed in accordance with conditions 10.1 and 10.2.

11. Earthworks

- 11.1 Earthworks shall be carried out in accordance with Approved Plans 21 to 25 (the Eliot Sinclair plans labelled *Halswell Road Development Project*, Project no 426962, Sets: M7 Rev A Sheet 1, M4 Rev B Sheet 1, M5 Rev B Sheet 1 M2 Rev D Sheets 1 and 2) except where varied by the conditions X for *Days Drain*.
- 11.2 The earthworks and construction work shall be under the control of a nominated and suitably qualified geotechnical engineer. All loading and unloading of trucks with excavation or fill material shall be carried out within the subject site.
- 11.3 All proposed works shall be carried out in accordance with an approved Traffic Management Plan (TMP). The consent holder shall prepare a TMP and submit this to Council, Attention: Christchurch Transport Operation Centre (CTOC) by way of email to tmc@ccc.govt.nz, at least 10 working days prior to the commencement of construction work associated with this consent. The TMP shall identify the nature and extent of temporary traffic management and how all road users will be managed by the use of temporary traffic management measures and comply with the NZTA Code of Practice for Temporary Traffic Management (CoPTTM). The TMP shall also identify the provision of on-site parking for construction staff. Activities on any public road should be planned so as to cause as little disruption, peak traffic delay or inconvenience to road users as possible without compromising safety.
- 11.4 All filling and excavation work shall be carried out in accordance with an Environmental Management Plan (EMP) which shall include the Eliot Sinclair Erosion, Sediment and Dust Management Plan and Report (ESDMP) dated 20 October 2017. Unless approved as part of a separate resource consent from Environment Canterbury for stormwater discharge and/or for excavation/filling, earthworks shall not occur until and unless the EMP has been reviewed and accepted by Christchurch City Council's Subdivision Engineer (email to: rcmon@ccc.govt.nz).
- 11.5 The EMP shall be prepared by a suitably qualified person and a design certificate (on the Infrastructure Design Standard Part 3: Quality Assurance Appendix IV template <https://www.ccc.govt.nz/assets/Documents/Consents-and-Licences/construction-requirements/IDS/IDS-Part-03-Quality-Assurance-V3-September-2016.PDF>) supplied with the EMP for acceptance at least 5 days prior to the works commencing. The

performance criteria for erosion and sediment control in the EMP shall be based on ECan's Erosion and Sediment Control Toolbox for Canterbury <http://esc.canterbury.co.nz/>.

- 11.6 The EMP shall include (but is not limited to):
- a. The identification of environmental risks including ecological effects and management, erosion, sediment and dust control, spills, wastewater overflows, dewatering, and excavation and disposal of material from contaminated sites;
 - b. A site description, i.e. topography, vegetation, soils, etc;
 - c. Details of proposed activities;
 - d. A locality map;
 - e. Drawings showing the site, type and location of sediment control measures, on-site catchment boundaries and off-site sources of runoff;
 - f. Drawings and specifications showing the positions of all proposed mitigation areas with supporting calculations if appropriate;
 - g. Drawings showing the protection of natural assets and habitats;
 - h. A programme of works including a proposed timeframe and completion date;
 - i. Emergency response and contingency management;
 - j. Procedures for compliance with resource consents and permitted activities;
 - k. Environmental monitoring and auditing, including frequency;
 - l. Corrective action, reporting on solutions and update of the EMP;
 - m. Procedures for training and supervising staff in relation to environmental issues;
 - n. Contact details of key personnel responsible for environmental management and compliance.

Advice Note: IDS clause 3.8.2 contains further detail on Environmental Management Plans. The Contamination Site Management Plan (CSMP) shall also be included in the EMP.

- 11.7 The EMP shall show the positions of all stockpiles on site. Temporary mounds shall be grassed or covered to prevent erosion until such time as they are removed. Stockpiles shall be placed as far as practicable from internal boundaries adjoining residential properties.

Topsoil shall not be worked excessively, to protect the integrity of the soil microbes.

- 11.8 The accepted EMP shall be implemented on site over the construction phase. No earthworks shall commence on site until:
- a. The consent holder has provided to the contractor a copy of all resource consents and relevant permitted activity rules controlling this work.
 - b. The works required by the EMP have been installed.
 - c. An Engineering Completion Certificate (IDS – Part 3, Appendix VII), signed by an appropriately qualified and experienced engineer, is completed and presented to

Council. This is to certify that the erosion and sediment control measures have been properly installed in accordance with the accepted EMP.

- 11.9 Any change in ground levels shall not affect the stability of the ground or fences on neighbouring properties.
- 11.10 The consent holder shall submit as part of the Design Report in condition 6.1, a report and calculations detailing any filling proposed against existing boundaries and the mitigation proposed to avoid adverse effects on adjoining properties. Any retaining wall construction shall be included and certified as part of the Earthfill Report.
- Advice Note: Any retaining wall that exceeds 6m² is regarded as a building and requires a separate resource consent if not specifically addressed within the application supporting this consent.
- 11.11 The fill sites shall be stripped of vegetation and any topsoil prior to filling. The content of fill shall be clean fill.
- 11.12 All filling exceeding 300mm above excavation level shall be in accordance with the Code of Practice for Earthfill for Residential Purposes NZS 4431:1989. At the completion of the work, an Engineers Earthfill Report, including a duly completed certificate in the form of Appendix A of NZS 4431, shall be submitted to Council (at rcmon@ccc.govt.nz) for all lots, including utility reserves, within the subdivision that contain filled ground. This report shall detail depths, materials, compaction test results and include as-built plans showing the location and depth of fill and a finished level contour plan.
- 11.13 At the completion of the earthworks operations, the berm areas outside the line of the roadway construction shall be sown down with grass seed.
- 11.14 All bared surfaces shall be adequately topsoiled and vegetated as soon as possible to limit sediment mobilisation.
- 11.15 Should the Consent Holder cease or abandon work on site for a period longer than 6 weeks, or be required to temporarily halt construction during earthworks, it shall first install preventative measures to prevent sediment discharge / run-off and dust emission, and shall thereafter maintain these measures for as long as necessary to prevent sediment discharge or dust emission from the site.
- 11.16 Minimum ground levels shall be based on a level of 100mm above the kerb at the street frontage, plus a grade of 1:500 to the rear boundary.
- 11.17 No construction work, other than dust and erosion and sediment control measures, pre-inspection of plant (but not the operation of plant) and staff briefings/meetings, shall be undertaken outside the hours of 7.00am to 6.00pm Monday to Friday and 8.00am to 5.00pm Saturday. No work, other than dust and erosion and sediment control measures shall be undertaken on Sundays or Public Holidays.
- 11.18 All construction work shall be designed, managed and conducted to ensure that construction noise complies with the requirements of NZS 6803:1999 Acoustics – Construction Noise (see Table 3, Page 11 of this standard).
- 11.19 Vibration from construction work shall not exceed the limits of, and shall be measured and assessed in accordance with, German Standard DIN 4150 1999-02 Structural Vibration – Effects of Vibration on Structures.

12. Geotechnical

- 12.1 Additional Investigations: Additional site investigations, including deep site tests to the required density recommended under MBIE Part D *Guidelines for the geotechnical investigation and assessment of subdivisions in the Canterbury region* and laboratory testing of the subsoils to validate the adopted C_{FC} and P_L values, shall be carried out by

the consent holder and provided to Council to support the engineering design of assets under condition 12.2 and 12.3.

- 12.2 Assets: All infrastructural assets to be vested in the Council shall be designed and constructed in accordance with the IDS 2018 and the Construction Standard Specifications (CSS) and the recommendations in section 5 of the Tonkin and Taylor 201 Halswell Road Geotechnical Site Investigation and Assessment dated December 2017 Job Number 1002584.v4b. In addition:
- a. All infrastructure extending more than 1.0m below the finished ground surface shall be designed to resist the effects associated with earthquake induced liquefiable soils and lateral spread from a seismic event as defined below.
 - b. To mitigate liquefaction (vertical settlement) hazards and lateral spread (horizontal displacement), any proposed asset structures shall be designed for a seismic event with a 25 year return period under the serviceability limit state (SLS) and with a 500 year return period for the ultimate limit state (ULS) as defined by NZS 1170.5:2004.
 - c. 'Infrastructure assets' shall include but not be limited to gravity and pressure pipelines, manholes, chambers, valves, hydrants, stormwater treatment devices, culverts or any other physical asset to be vested in Council including road pavements.
 - d. Bridges and pump stations shall be designed to importance level 3 (IL3) as defined in NZS 1170.

Advice Note: the Tonkin and Taylor 201 Halswell Road Geotechnical Site Investigation and Assessment Section 5 elaborates on matters to be considered and mitigation to be provided when designing vested infrastructure. The following assets were particularly mentioned: pavement basecourses, pole foundations, tree pits, below ground structures and their connections, abrupt bends in pipes and free earth faces.

- 12.3 Ground Improvement: Site earthworks and remediation shall be carried out to improve the ground performance in terms of the MBIE guidelines 'Repairing and rebuilding houses affected by the Canterbury earthquakes' (3rd Edition 15 March 2017) or subsequent revisions. The liquefaction hazard and lateral spread mitigation on site shall be designed in accordance with the recommendations in the Tonkin and Taylor 201 Halswell Road Geotechnical Site Investigation and Assessment dated December 2017 Job Number 1002584.v4b. The technical category for residential lots will be confirmed in the Geotechnical Completion Report prepared for the section 224(c) certificate under condition 12.4 below).

Note: the Tonkin and Taylor 201 Halswell Road Geotechnical Site Investigation and Assessment Section 5 elaborates on matters to be considered and mitigation to be provided when carrying out the earthworks for both residential and commercial structures: topsoil stripping, compaction in-situ, minimisation of cuts, location of imported fill, lateral spread mitigation.

- 12.4 Geotechnical Completion Report: Prior to the request for the section 224 certificate the Consent Holder shall supply a Final Geotechnical Report on the mitigation measures put in place during the construction phase to minimise both the liquefaction and lateral spread potential of the land during the SLS and a ULS seismic event. The report shall recommend the Technical Category of the residential land in terms of the MBIE guidance document 'Repairing and Rebuilding Houses Affected by the Canterbury Earthquakes', comment on the performance of all utility lots and include a Statement of Professional Opinion on the Suitability of Land for Building Construction, using the template in IDS Part 4 Appendix II. All development lots shall achieve the equivalent of a technical category 2 status.

- 12.5 Foundation Design – Lots 1 to 10, 12 and 13:

- a. Foundation Design – Commercial or Large Structures

Any structure requiring a Building Consent, in terms of Building Act provisions, shall have specific foundation design by a suitably experienced chartered engineer or by an appropriately qualified geotechnical engineer. The design shall take into consideration the potential for liquefaction and associated effects (vertical settlement and lateral spread).

Note: the Tonkin and Taylor 201 Halswell Road Geotechnical Site Investigation and Assessment Section 5 elaborates on matters to be considered when designing foundations for commercial and large structures or relating to concrete floor slabs and liquefaction ejecta.

b. Foundation Design – Residential

Any structure requiring a Building Consent, in terms of Building Act provisions, shall have specific foundation design by a suitably experienced chartered engineer or by an appropriately qualified geotechnical engineer. The foundation design shall be in accordance with the latest MBIE Technical Guidance for Repairing and Rebuilding Houses affected by the Canterbury Earthquakes for structures being constructed on land with a technical category 2 equivalent status.

This is an ongoing condition which will be secured by consent notice.

13. Human Health

13.1 The consent holder shall notify the Environmental Compliance section of the Council, by email to rcmon@ccc.govt.nz, of works commencing and of the name of the Contaminated Land Specialist at least 5 working days in advance of the earthworks commencing in either the North or South Soil Contamination Management Areas shown on page 15 of the Tonkin and Taylor Contamination Site Management Plan 201 Halswell Road Development (Approved Plans 26 to 49).

13.2 All aspects of the earthworks within either the North, South or East Contamination Management Areas are to be conducted in accordance with the Contamination Site Management Plan (CSMP).

13.3 All contaminated soils removed from the site must be disposed of at a facility whose waste acceptance criteria permit the disposal of contaminated soils.

13.4 The consent holder shall provide to the Council evidence, which may include a waste manifest and/or weighbridge receipts, of the disposal of contaminated soils from the site to an authorised facility within 2 months of the excavation of any soils removed from the site. The evidence shall be provided to the Environmental Compliance Section of Council and may be by way of email to rcmon@ccc.govt.nz

13.5 Additional soil contaminant sampling is to be undertaken in the locations specified in the CSMP. All sampling is to be conducted by a Suitably Qualified and Experience Practitioner in accordance with the NESCS, Ministry for the Environment, updated 2011, Contaminated land management guidelines No. 1: Reporting on Contaminated Sites in New Zealand, and Ministry for the Environment, updated 2011, Contaminated land management guidelines No. 5: Site Investigation and Analysis of Soils. Results are to be forwarded to rcmon@ccc.govt.nz. Within three (3) months of the completion of the earthworks in the North, South and East Soil Contamination Management Areas a Site Completion Report shall be prepared and delivered to Council. The Site Completion Report shall include as a minimum;

a. Confirmation that the soil disturbance works are complete;

b. Confirmation that all soil disturbance works were completed according to the CSMP and that there were no variations during the works. Or if variations to the CSMP procedures did occur a full description of the variation must be provided in addition to the reasons why such variation was necessary, the communication of these variations at the time and any associated adverse effects and mitigation methods;

- c. Confirmation that there were no environmental incidents during the works. If there was an environmental incident report the details of the nature of the incident and the measures taken to mitigate effects;
 - d. Where soil is removed from the Soil Contamination Management Areas and reused on site a description of and plan showing the extent and depth of the location the soil was placed;
 - e. Confirmation of the disposal destination of any soil from the Contaminated Soil Management Areas taken offsite and the verification test results (if any) undertaken for disposal/permitting; and
 - f. Evidence the objectives of the final site capping have been met with regard to the relevant residential or commercial land use.
- 13.6 The Site Completion Report shall be written in accordance with the Ministry for the Environment Guidelines for Reporting on Contaminated Sites in New Zealand (revised 2011). Delivery of the Site Completion Report may be by way of email to rcmon@ccc.govt.nz.
- 13.7 In the even that ongoing management is still required after the Site Completion Report has confirmed remedial goals are achieved, a Long Term Site Management Plan shall be provided. The Plan shall be prepared by a suitably qualified and experience practitioner, as defined in the User's Guide National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health; April 2012. The Plan shall include as a minimum;
- a. Identification of the relevant hazards associated with residual contamination in soil;
 - b. Protection of maintenance/excavation workers undertaking subsurface works with the principal exposure pathways comprising direct contact and/or ingestion of contaminated soil;
 - c. Activities involving the handling of soil during excavation work;
 - d. Confirmation of the disposal destination of any soil from the Contaminated Soil Management Areas
- 13.8 For any lot identified as being subject to the Long Term Site Management Plan:
- All activities shall be in accordance with the Long Term Site Management Plan that applies to that Lot under condition 13.7 above.
- Note: This is an ongoing condition which will be secured by consent notice at the time of section 224(c). All necessary changes can be made on the consent notice to appropriately reference the subject lot and deposited plan, the name of the Long Term Management Plan under condition 13.7 and its location on the Council property file.
- 14. Public Open Space (Roads and Reserves)**
- 14.1 Landscaping of roads and reserves shall be in accordance with Approved Plans 50 to 75 (Kamo Marsh drawings labelled *Halswell Road Development* Ref No. 4742, sheets 1 to 25) except that:
- a. All street trees to be planted along Road A to have a minimum height of 2.5m at time of planting, with a minimum calliper of 35 - 40mm. All other street trees shall have a minimum height of 2.0m at the time of planting, with a minimum calliper of 35 - 40mm.

- b. Street trees on the Road A boundary to the front of the Commercial/retail precinct are to be planted at maximum spacing of 12-15m. These trees may also be planted in staggered rows or groupings to provide further texture and depth to the tree planting.
 - c. *Liquidambar styraciflua* (Sweet Gum) to be replaced with the 'Worpleston' cultivar of this tree as this cultivar display a more up-right form, and is less brittle and subject to damage.
 - d. Bollards (not fencing) shall be provided to the perimeter of the Lot 54 to exclude unauthorised vehicles.
 - e. In respect to Lot 50:
 - (i) *Anemantbele lessoniana* (wind grass) shall not be planted, as it self-seeds, and becomes a fire hazard as the plant dries over summer months.
 - (ii) *Baumea articulata* is an Australian native plant and shall not be used.
 - (iii) *Cordyline australis* (cabbage tree) shall only be used in the centre of plant beds where leaf drop onto lawn area will not affect lawn mowing operations.
 - (iv) Planting on the batter slopes surrounding the storm water basin shall be located so as to ensure continuous circulation for pedestrians and vehicles (if required) around the top of the earth mound.
 - (v) *Phormium tenax* shall be restricted to the internal wetland planting within the stormwater basin due to the extremely large size it grows to and in a very short period of time
 - f. In respect to Lot 52, *Liquidambar styraciflua* shall be replaced with *Liquidambar worplesdon*.
 - g. In respect to Lots 51, 53 and 56:
 - (i) *Phormium tenax* shall not be used and shall be replaced with *Phormium cookianum*.
 - (ii) *Coprossma virescens*, *Myrsine divaricata* and any other divaricating species can cause issues with trapping debris and blocking flow and shall be located a minimum of 2m away from waterway channels,
 - (iii) Ferns species shall be grown in discrete clumps, with a minimum offset of 1.5m from other larger riparian plants. They shall also be grown in shady positions.
 - (iv) Plants with arching strap-like leaves such as *Astelia fragrans* and *Phormium* species shall be planted with a minimum offset of 1.5m from the edge of footpaths to avoid trip hazards.
 - (v) All trees and other planting shall be placed to allow for clear sightlines.
 - h. In respect to Lot 55:
 - (i) The path shall be a minimum 3.0m in width to allow for shared use.
 - (ii) All trees and other planting shall be well placed so as to allow for clear sightlines through and underneath the vegetation.
 - (iii) All boundary fencing shall be a minimum of 50% visually permeable.
 - (iv) The design shall incorporate sightlines and methods to reduce speed of cyclists before entering the road corridor.
 - i. The road formations shall be controlled through condition 6.1 and 15.
 - j. Include variations accepted under condition 10.
- 14.2 A landscape design report and landscape plans for the Local Purpose (Utility) Reserves (Lots 50, 51, 52, 53, 55, and 56), Recreation Reserve (Lot 54) and streetscapes are to be submitted to the Council Asset and Network Unit (Parks) for acceptance. All landscaping is to be carried out in accordance with the accepted report and plans.
- 14.3 The landscape design report and landscape plans are to provide sufficient detail to confirm compliance with the requirements of the IDS, the CSS: and the WWVG: 2003. All

landscaping required by this condition is to be carried out in accordance with the accepted report and accepted plan(s) at the Consent Holder's expense, unless otherwise agreed.

14.4 Establishment Period (Defects Liability Period):

- a. The Establishment Period (Defects Maintenance) for Lots 50, 51, 52, 53, 54, 55 and 56 may include an inspection by Parks Operations staff after the first 6 months. Any diseased, dead or replacement plantings are to be replaced at the Consent Holder's expense. The Consent Holder shall enter into a separate bond with Council Asset & Network Unit (Parks) Team to the value of 50% of the cost to replace and replant all trees and shrubs. The bond shall be held for the Establishment Period of a minimum of 12 months and may be extended by a further 12 months for the replacement planting(s), if required. The Consent Holder is to keep an accurate and up-to-date monthly report on plant and tree conditions during the Establishment Period of the works undertaken. The report shall be submitted, if requested, by the Engineer within five days of the end of each month during the Establishment Period (Refer sample report: *Landscape Construction Monthly Establishment Report*, CSS, Part 7 Appendix 1).
- b. Street Trees - The Consent Holder shall submit a plan(s) for proposed street trees to the Council's Asset & Network Unit (Parks) Team for acceptance. The plan(s) are to provide sufficient details to confirm compliance with the requirements of the IDS (current version) and the CSS Part 7: Landscapes (current version). All street tree works are to be carried out in accordance with the accepted report and plan(s) at the Consent Holder's expense. The Consent Holder shall maintain the street trees for 12 months Establishment Period (Defects Maintenance) from the time the trees have been planted up until the final inspection and acceptance of the trees by the Council Parks Operations staff. The Establishment Period and the term on the bond shall be extended by a further 12 months for the replacement planting(s), if required.
- c. The Consent Holder is to keep an accurate and up-to-date monthly report on tree conditions and establishment works undertaken. The report shall be submitted, if requested, by the Engineer within five days of the end of each month during the Establishment Period (Refer sample report: *Landscape Construction Monthly Establishment Report*, CSS, Part 7 Appendix 1).

Advice Note: Refer to IDS Part 10: Locations of trees in streets, and CSS Part 7: Supply of Tree and Plant Materials.

- 14.5 The Consent Holder shall enter into a separate bond with Council Asset & Network Unit (Parks) Team to the value of 50% of the cost to replace and replant all street trees. The bond shall be held for the Establishment Period of a minimum of 12 months and may be extended by a further 12 months for the replacement planting(s), if required. The bond shall be released after the trees have been inspected and accepted by the Council Parks Operation staff.
- 14.6 The Consent Holder shall submit, if requested, the required completion documentation in accordance with IDS Part 2:2.12 Completion of Land Development Works and the Quality Assurance System to provide evidence that the work is completed in accordance with the standards and conditions of this consent. This is to be submitted, if requested, on completion of the 12 month Establishment Period, prior to formal handover to Council and release of the Establishment Bond.
- 14.7 The Consent Holder shall submit As-Built plans for any landscape improvements on land to be vested as reserve and for any street trees in accordance with the IDS, Part 12 As-Built Records.

15. Transport

- 15.1 The Halswell Road frontage of the site is to be upgraded at the applicant's expense to an urban standard with kerb and channel, and a 2.5 metre shared path along the frontage of site. Direct pedestrian access to Lot 12 is to be provided.

- 15.2 No subdivision of land shall occur until the intersection of Aidanfield Drive / Halswell Road has been upgraded to a signal controlled intersection and the signals are installed and operational, with all costs associated with this work to be met by the applicant.
- 15.3 Prior to the commencement of works, scheme plans and detailed engineering plans for the proposed changes to Halswell Road / Aidanfield Drive intersection (Intersection) shall be designed by an appropriately qualified professional, prepared in accordance with the NZ Transport Agency's Applicable design standards, and shall be submitted to and certified by both the Council's Transport Manager and NZ Transport Agency prior to any construction commencing on the site and shall include:
- a. All necessary alterations to the intersection required as consequence of the development;
 - b. Full design details regarding the operation/phasing of the signalisation of the Intersection and site access;
 - c. A design safety audit of the detailed engineering plans and a post-construction safety audit is to be undertaken at the applicant's cost by a suitable trained and experienced independent safety auditor in accordance with the NZTA Road Safety Audit Procedure for Projects Guidelines.
- 15.4 The intersection design is to include the indenting of the bus stops on Aidanfield Drive and all infrastructure associated with the relocation of the bus stops on Halswell Road.
- 15.5 The cycle path on Road A is to be designed and constructed on the south side of the road in general accordance with the NZTA Cycling Standards and Guidance for Separated Cycleways.
- 15.6 The detailed design of the pedestrian crossing facilities along Road A are to be designed and constructed in general accordance with the NZTA Pedestrian Planning and Design Guide.
- 15.7 The alignment of Road F is to generally align with the extension of the approved alignment of the equivalent public transport road in the Spreydon Lodge development.
- 15.8 Road F is to be constructed in asphaltic concrete with concrete pavers or similar to highlight the pedestrian crossing areas.
- 15.9 A shared path with a minimum width of 3.0 metres is to be included in the design and development of the stormwater management area (Lots 50, 51, 54) to provide an east-west pedestrian/cycle corridor from Road C to the east boundary of the application site.
- 15.10 A design road safety audit of the detailed engineering plans submitted under condition 6(a) to (c) and a post-construction road safety audit is to be undertaken of the transport network associated with the development at the applicant's cost by a suitable trained and experienced independent safety auditor in accordance with the NZTA Road Safety Audit Procedure for Projects Guidelines.
- 15.11 Street lighting is to be installed in the new road(s) and Halswell Road frontage to vest in compliance with Part 11 (Lighting) of the Infrastructure Design Standard.
- 16. Telecommunications and Energy Supply**
- 16.1 All lots shall be provided with the ability to connect to a telecommunications and electrical supply network at the boundary of the net area of each lot. "Ability to connect" means that ducts or cables must be laid to the boundary of the net area.
- 16.2 As evidence of the ability to connect, the consent holder is to provide a copy of the reticulation agreement letter from the telecommunications network operator and a letter from the electrical energy network operator, or their approved agent.

17. Service Easements

- 17.1 The service easements as set out on the application plan or required to protect services crossing other lots shall be duly granted or reserved.
- 17.2 Easements over adjoining land or in favour of adjoining land are to be shown in a schedule on the Land Transfer Plan. A solicitor's undertaking will be required to ensure that the easements are created on deposit of the plan.

18. Easements over Reserves

- 18.1 Easements over land that is to vest in the Council as reserve are to be shown on the survey plan in a Schedule of Easements. Evidence of approval from the Team Leader, Policy & Advisory Parks to create the easements is required.

19. Easements in Gross

- 19.1 The legal instruments for easements in gross in favour of the Council are to be prepared by Council's consultant solicitor at the consent holder's cost.

Advice Note: The consent holder's solicitor is to contact Council's Lawyers (currently Anderson Lloyd Lawyers) requesting the preparation of the easement instruments.

20. Road and/or Lane Names

- 20.1 The new roads are to be named and shown on the survey plan at the time of section 223 certification. Evidence shall be provided that the road names have been approved by Council.

Advice Notes:

- a. The consent holder is required to submit an application for road naming to the Council.
- b. A selection of names in order of preference is to be submitted for each new roads/private way/access lot. For historical purposes a brief explanation of the background for each submitted name is preferred. The names are to be in accordance with the Council's Policy on *Naming of Roads and Rights of Way* dated 2 November 1993.
- c. Road names are required to be approved by the Community Board. Community meetings are only held approximately once a month. It would be in your interest to start the naming process early so that this process does not hold up this development.

21. Public Utility Sites

- 21.1 The subdivision plan may include public utility site and associated rights of way easements and/or service easements required by a network operator provided that they are not within any reserves to vest in the Council.

22. Residential Development

- 22.1 Any residential development or subdivision of Lots 1 to 10 and 13 shall provide for a minimum of number of residential units or allotments as set out below:

Development Lot	Minimum Number of Residential Units of Allotments
Lot 1	32
Lot 2	50
Lot 3	49
Lot 4	34
Lot 5	51
Lot 6	22
Lot 7	6
Lot 8	11

Lot 9	9
Lot 10	13
Lot 13	5

- 22.2 Buildings for residential development on Lots 1 and 12 shall be a minimum of two storeys high for the whole of the building and shall be restricted to terrace housing, which means a minimum of three adjoining units, or apartments.
- 22.3 Any residential development of Lot 5 shall include a playground located in the northwest corner that is to remain open to the public at all times. The area containing the playground shall abut legal road to the north and west and shall be fully visible from these abutting roads.

Advice Note: A consent notice will be issued at the time of section 224(c) to give effect to conditions 22.1 to 22.3 which need to be complied with on an ongoing basis.

23. Cultural Values

- 23.1 Should any archaeological material or sites be discovered during the course of work on the site, work in that area of the site shall stop immediately and the appropriate agencies, including Heritage New Zealand Pouhere Taonga and the Mana Whenua, shall be contacted immediately, in accordance with the Accidental Discovery Protocol set out in Appendix 3 of the Mahaanui Iwi Management Plan: http://www.mkt.co.nz/wp-content/uploads/2016/05/Mahaanui-IMP-web_Part32.pdf".

Advice Note: To better accommodate cultural values it is recommended that the consent holder undertakes planting onsite which consists of appropriate indigenous vegetation.

24. Plans for Geodata Plot

- 23.1 As soon as practical after the Section 223 certificate has been issued the consent holder is to advise the handling officer that the digital dataset for the subdivision is available in Land online and can be used for creation of the parcels in Council's digital database.

24. Consent Notice

- 24.1 The following consent notice pursuant to Section 221 of the Resource Management Act 1991 will be issued by the Council:

INSERT ALL CONSENT NOTICE CONDITIONS HERE

25. Goods and Services Taxation Information

- 25.1 The subdivision will result in non-monetary contributions to Council in the form of land and/or other infrastructure that will vest in Council. Council's GST assessment form is to be completed to enable Council to issue a Buyer Created Tax Invoice.

26. Lapsing of Consent

- 26.1 The period within which this consent may be given effect to shall be 5 years from the date on which consent was granted. The consent will be given effect to when the survey plan has been certified pursuant to Section 223 of the Resource Management Act 1991.

Your Rights of Objection

If you do not agree with the Council's decision on this resource consent application, the conditions, or any additional fees that have been charged, you may lodge an objection with the Council under Section 357 or 357B of the Resource Management Act 1991. You have 15 working days from the date you receive this letter within which to lodge your objection **to the decision**. Objections **to additional fees**

must be received within 15 working days of the date on which you receive the invoice. Your objection must be in writing and should clearly explain the reasons for your objection.

Commencement of this consent

The commencement date for your resource consent is the date of this letter advising you of the Council's decision, unless you lodge an objection against the decision. The commencement date will then be the date on which the decision on the objection is determined.

Lapsing of this consent

This resource consent for subdivision will lapse 5 years after the date of commencement of consent (i.e. the date of this letter) unless it has been given effect to by the Council issuing a certificate pursuant to Section 223 of the Resource Management Act 1991.

Application may be made under Section 125 of the Resource Management Act 1991 to extend the duration of the resource consent, and this must be submitted and approved prior to the consent lapsing.

Lapsing of s223 Certification

The s223 certification will lapse 3 years after the date of issue, the Section 223 certificate will lapse (if that certified plan has not been deposited in accordance with Section 224 of the Resource Management Act 1991). The s223 certificate can be re-certified only if the subdivision consent has not lapsed.

WORKING DRAFT RECOMMENDED CONDITIONS: LANDUSE

1. Except as required by subsequent conditions, the development shall proceed in accordance with the information and plans submitted with, and subsequent to the lodgement of the application. The Approved Consent Documentation has been entered into Council records as **RMA/2017/3185 (XX pages)** and stamped approved plans are set out below:
 - a. **Approved Plans 1 to 9 (Eliot Sinclair, *Halswell Road Development 201 Halswell Road, Christchurch*, Project 426962 Set C1 Sheet 1 to 9 Rev X)**
 - b. **Approved Plans 10 to 18 (Kamo Marsh Plans labelled *Indicative Design Concept – Days Drain*, dated 06.08.19 Reference 4742 pages 1 to 8, Issue RC Revision 2)**
 - c. **Approved Plans 19 and 20 (Kamo Marsh Plans labelled '*Days Drain – Concept Design*' and '*Stormwater Reserve Concept*' Ref 4742, Issue RC Rev 1, Dated 21 June 2018)**
 - d. **Approved Plans 21 to 25 (the Eliot Sinclair plans labelled *Halswell Road Development Project*, Project no 426962, Sets: M7 Rev A Sheet 1, M4 Rev B Sheet 1, M5 Rev B Sheet 1 M2 Rev D Sheets 1 and 2)**
 - e. **Approved Plans 50 to 75 (Kamo Marsh drawings labelled *Halswell Road Development* Ref No. 4742, sheets 1 to 25).**
 - f. **Approved Plans 76 to 110 (being pages 40, 44, 58, 59, 60, 61, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 106 to 119, 130, 132 of the Residential Assessment Updated Proposal' dated October 2019 Residential Assessment 'Updated Proposal' dated October 2019).**
 - g. **Approved Plans 110 to 114 (being pages 54, 120 – 123 of the Residential Assessment Updated Proposal' dated October 2019)**
 - h. **Approved Plans 115 to 160 (ASC Architects drawings labelled *Amended Resource Consent Application*, dated 07/10/2019, project no: 17803, Sheets RC02-A to RC46-A)**

For legal road and reserves, where there is any inconsistency between the detail on the approved plans in condition 1 of this consent and that approved in subdivision consent

RMA/2017/3185 (refer to conditions X and X), the conditions of the subdivision consent shall instead be applied.

Occupation of Buildings

2. No building shall be constructed on any development lot until such time as a section 224(c) certificate has been issued for that development lot and a new intersection on Halswell Road has been installed and is operational.
3. No building shall be occupied on Lot 1 and 12 until the the cyclone on adjoining land at Halswell Timber site is either removed or it is acoustically treated so that it does not exceed a level of 60dBLAeq (15min) at the north boundary of the application site. A suitably qualified and experienced acoustic engineer shall certify in writing (with evidence including noise measurements) that this condition has been achieved. The evidence shall be provided to the Environmental Compliance Section of Council and may be by way of email to rcmon@ccc.govt.nz

Earthworks and Construction within Development Lots at Building Phase

4. In the flood management area, finished ground levels in any development lot shall be maintained at the 0.5% annual exceedance probability event plus 250mm except for excavations to form driveways, outdoor parking, access and pocket parks.
5. For each individual site on Lots 2 to 6, minimum finished ground levels shall be based on a level of 100mm above the kerb at the street frontage or access, plus a grade of 1:500 to the rear boundary.
6. Any access and pocket park shall drain to a legal road.
7. Existing ground levels established at the time of subdivision shall be maintained for Lots 7 to 10 and 13 except for driveways.
8. The earthworks and construction work shall be under the control of a nominated and suitably qualified geotechnical engineer.
9. All loading and unloading of trucks with excavation or fill material shall be carried out within the subject site.
10. All proposed works shall be carried out in accordance with an approved Traffic Management Plan (TMP). The consent holder shall prepare a TMP and submit this to Council, Attention: Christchurch Transport Operation Centre (CTOC) by way of email to tmc@ccc.govt.nz, at least 10 working days prior to the commencement of construction work associated with this consent. The TMP shall identify the nature and extent of temporary traffic management and how all road users will be managed by the use of temporary traffic management measures and comply with the NZTA Code of Practice for Temporary Traffic Management (CoPTTM). The TMP shall also identify the provision of on-site parking for construction staff. Activities on any public road should be planned so as to cause as little disruption, peak traffic delay or inconvenience to road users as possible without compromising safety.
11. All filling and excavation work shall be carried out in accordance with an Environmental Management Plan (EMP). Unless approved as part of a separate ECan resource consent for stormwater discharge or ECan resource consent for excavation/filling, the EMP will require formal acceptance by Christchurch City Council's Subdivision Engineer (email to rcmon@ccc.govt.nz) prior to any work starting on site.
12. The EMP shall be designed by a suitably qualified person and a design certificate (on the Infrastructure Design Standard Part 3: Quality Assurance Appendix IV template <https://www.ccc.govt.nz/assets/Documents/Consents-and-Licences/construction-requirements/IDS/IDS-Part-03-Quality-Assurance-V3-September-2016.PDF>) supplied

with the EMP for acceptance at least 5 days prior to the works commencing. The performance criteria for erosion and sediment control will be based on ECan's Erosion and Sediment Control Toolbox for Canterbury <http://esc.canterbury.co.nz/>.

13. The EMP shall include (but is not limited to):
 - a. The identification of environmental risks including ecological effects and management, erosion, sediment and dust control, spills, wastewater overflows, dewatering, and excavation and disposal of material from contaminated sites;
 - b. A site description, i.e. topography, vegetation, soils, etc;
 - c. Details of proposed activities;
 - d. A locality map;
 - e. Drawings showing the site, type and location of sediment control measures, on-site catchment boundaries and off-site sources of runoff;
 - f. Drawings and specifications showing the positions of all proposed mitigation areas with supporting calculations if appropriate;
 - g. Drawings showing the protection of natural assets and habitats;
 - h. A programme of works including a proposed timeframe and completion date;
 - i. Emergency response and contingency management;
 - j. Procedures for compliance with resource consents and permitted activities;
 - k. Environmental monitoring and auditing, including frequency;
 - l. Corrective action, reporting on solutions and update of the EMP;
 - m. Procedures for training and supervising staff in relation to environmental issues;
 - n. Contact details of key personnel responsible for environmental management and compliance.

Advice Note: IDS clause 3.8.2 contains further detail on Environmental Management Plans.

14. The EMP shall show the positions of all stockpiles on site. Temporary mounds shall be grassed or covered to prevent erosion until such time as they are removed. Stockpiles shall be placed as far as practicable from internal boundaries adjoining residential properties.

Advice note: Topsoil shall not be worked excessively, to protect the integrity of the soil microbes.

15. The accepted EMP shall be implemented on site over the construction phase. No earthworks shall commence on site until:
 - a. The contractor has received a copy of all resource consents and relevant permitted activity rules controlling this work.
 - b. The EMP has been installed.
 - c. An Engineering Completion Certificate (IDS – Part 3, Appendix VII), signed by an appropriately qualified and experienced engineer, is completed and presented to

Council. This is to certify that the erosion and sediment control measures have been properly installed in accordance with the accepted EMP.

16. Any change in ground levels shall not affect the stability of the ground or fences on neighbouring properties.
17. The fill sites shall be stripped of vegetation and any topsoil prior to filling. The content of fill shall be clean fill.
18. At the completion of the earthworks operations, the berm areas outside the line of the roadway construction shall be sown down with grass seed.
19. All bared surfaces shall be adequately topsoiled and vegetated as soon as possible to limit sediment mobilisation.
20. Should the Consent Holder cease or abandon work on site for a period longer than 6 weeks, or be required to temporarily halt construction during earthworks, it shall first install preventative measures to prevent sediment discharge / run-off and dust emission, and shall thereafter maintain these measures for as long as necessary to prevent sediment discharge or dust emission from the site.
21. No construction work, other than dust and erosion and sediment control measures, pre-inspection of plant (but not the operation of plant) and staff briefings/meetings, shall be undertaken outside the hours of 7.00am to 6.00pm Monday to Friday and 8.00am to 5.00pm Saturday. No work, other than dust and erosion and sediment control measures shall be undertaken on Sundays or Public Holidays.
22. All construction work shall be designed, managed and conducted to ensure that construction noise complies with the requirements of NZS 6803:1999 Acoustics – Construction Noise (see Table 3, Page 11 of this standard).
23. Vibration from construction work shall not exceed the limits of, and shall be measured and assessed in accordance with, German Standard DIN 4150 1999-02 Structural Vibration – Effects of Vibration on Structures.
24. Should any archaeological material or sites be discovered during the course of work on the site, work in that area of the site shall stop immediately and the appropriate agencies, including Heritage New Zealand Pouhere Taonga and the Mana Whenua, shall be contacted immediately, in accordance with the Accidental Discovery Protocol set out in Appendix 3 of the Mahaanui Iwi Management Plan: http://www.mkt.co.nz/wp-content/uploads/2016/05/Mahaanui-IMP-web_Part32.pdf”.

Land Contamination

25. The consent holder shall notify the Environmental Compliance section of the Council, by email to rcmon@ccc.govt.nz, of works commencing and of the name of the Contaminated Land Specialist at least 5 working days in advance of the earthworks commencing in either the North or South Soil Contamination Management Areas shown on page 15 of the Tonkin and Taylor *Contamination Site Management Plan 201 Halswell Road Development*.
26. All aspects of the earthworks within either the North, South or East Contamination Management Areas are to be conducted in accordance with the Contamination Site Management Plan (CSMP).
27. All contaminated soils removed from the site must be disposed of at a facility whose waste acceptance criteria permit the disposal of contaminated soils.
28. The consent holder shall provide to the Council evidence, which may include a waste manifest and/or weighbridge receipts, of the disposal of contaminated soils from the site to an authorised facility within 2 months of the excavation of any soils removed from the

site. The evidence shall be provided to the Environmental Compliance Section of Council and may be by way of email to rcmon@ccc.govt.nz

29. Additional soil contaminant sampling is to be undertaken in the locations specified in the CSMP. All sampling is to be conducted by a Suitably Qualified and Experience Practitioner in accordance with the NESCS, Ministry for the Environment, updated 2011, Contaminated land management guidelines No. 1: Reporting on Contaminated Sites in New Zealand, and Ministry for the Environment, updated 2011, Contaminated land management guidelines No. 5: Site Investigation and Analysis of Soils. Results are to be forwarded to rcmon@ccc.govt.nz. Within three (3) months of the completion of the earthworks in the North, South and East Soil Contamination Management Areas a Site Completion Report shall be prepared and delivered to Council. The Site Completion Report shall include as a minimum;
 - a. Confirmation that the soil disturbance works are complete;
 - b. Confirmation that all soil disturbance works were completed according to the CSMP and that there were no variations during the works. Or if variations to the CSMP procedures did occur a full description of the variation must be provided in addition to the reasons why such variation was necessary, the communication of these variations at the time and any associated adverse effects and mitigation methods;
 - c. Confirmation that there were no environmental incidents during the works. If there was an environmental incident report the details of the nature of the incident and the measures taken to mitigate effects;
 - d. Where soil is removed from the Soil Contamination Management Areas and reused on site a description of and plan showing the extent and depth of the location the soil was placed;
 - e. Confirmation of the disposal destination of any soil from the Contaminated Soil Management Areas taken offsite and the verification test results (if any) undertaken for disposal/permitting; and
 - f. Evidence the objectives of the final site capping have been met with regard to the relevant residential or commercial land use.
30. The Site Completion Report shall be written in accordance with the Ministry for the Environment Guidelines for Reporting on Contaminated Sites in New Zealand (revised 2011). Delivery of the Site Completion Report may be by way of email to rcmon@ccc.govt.nz.
31. In the even that ongoing management is still required after the Site Completion Report has confirmed remedial goals are achieved, a Long Term Site Management Plan shall be provided no later than three months after completion of the site works. The Plan shall be prepared by a suitably qualified and experience practitioner, as defined in the User's Guide National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health; April 2012. The Plan shall include as a minimum;
 - a. Identification of the relevant hazards associated with residual contamination in soil;
 - b. Protection of maintenance/excavation workers undertaking subsurface works with the principal exposure pathways comprising direct contact and/or ingestion of contaminated soil;
 - c. Activities involving the handling of soil during excavation work;
 - d. Confirmation of the disposal destination of any soil from the Contaminated Soil Management Areas

32. For any development lot identified as being subject to the Long Term Site Management Plan under condition 32: All activities shall be in accordance with the Long Term Site Management Plan.

Residential Development on Lots 2 to 10 and 13

33. The site layout including pocket parks, access, net site area, building layout and housing type and design shall be in accordance with Approved Plans 76 to 110
34. The vehicle access layout, as shown in the Residential Assessment 'Updated Proposal' dated October 2019 of the Approved Consent Documents, shall be designed and constructed in accordance with the Christchurch City Council's Infrastructure Design Standard (IDS).
35. Lanes illustrated in grey within development lots on Approved Plan 58 shall be constructed and maintained by the consent holder in accordance with the Christchurch City Council's Infrastructure Design Standard (IDS) – with a surface treatment of 200 x 100mm precast or concrete cobbles on insitu metal course and a formed width of any shared lane may be up to 7.0m in width and in accordance with Approved Plan 63.
36. A 2.0m formed path on 'courtyard Aggrok' or similar shall be formed and maintained within each Bridleway and in accordance with Approved Plan 64.
37. One way vehicle access shall be provided and maintained in accordance with Approved Plans 85, 88, 91 and 94. Signs shall be erected at the entry and exit of points of one way access to direct the flow of traffic.
38. Pocket Parks shall have a minimum width not less than 9m, and be shall be landscaped (with any specimen tree to be a minimum 2m in height at time of planting), formed and maintained consistent with the Updated Proposal 'Landscape Assessment' as follows:
 - a. Village A – Approved Plan 65;
 - b. Village B – Approved Plan 66;
 - c. Village C – Approved Plan 67;
 - d. Village D – Approved plan 68;
39. For each of Development Lots 2 to 10 and 13: At least 30 working days prior to the lodgement of any residential building consent within that development lot, the consent holder must submit to the Council via rcmon@ccc.govt.nz a Residential Management Plan (RMP) for the certification of the Head of the Resource Consents Unit or nominee.
40. The RMP shall include detailed plans for each dwelling within the Development Lot, either individually, as a sub-stage, or the entire Development Lot which illustrates:
 - a. Compliance with condition 33 to 38 including the Development Data Schedule in Approved Plans 109 to 110.
 - b. The scale dimensions and area of the net site area of each respective site within the development lot.
 - c. Internal configuration, external windows and orientation of the proposed residential unit and in accordance with Approved Plan 76.
 - d. The access to the net site area of each residential unit.

- e. The formation of the access for each parking space can be accessed by a single movement and exit with one reverse movement in accordance with Chapter 7 of the District Plan.
 - f. The material and colour palette of buildings accords with Approved Plan 77 and 78.
 - g. Confirmation that dwellings facing an internal boundary provide a minimum 8m distance between the living areas (being any space identified in detailed plans as 'Lounge', 'Dining' or 'Kitchen') or any adjacent residential unit.
 - h. Confirmation that any windows (including dormer windows) above ground level are setback a minimum of 4m from any internal boundary.
 - i. Any fencing, hedge and shrubs within 4m of a lane, bridleway or road that does not exceed 1.2m in height.
 - j. A pedestrian level light (2 lux) shall be installed wherever there is a bend in a bridle path.
 - k. At least one gateway for each bridle path to provide an alternative means of escape.
 - l. Landscaping planted and maintained so that the bridle path is kept clear of vegetation for the 2m wide width.
 - m. Ground levels which comply with conditions 4 to 8.
41. Works shall not commence until the plans have been certified by the Head of Resource Consents or nominee that the RMP is in accordance with conditions 41 and 42.
42. The each residential unit shall be maintained in accordance with the certified plan under condition 41.
43. For each dwelling within Lots 1 to 6, with a façade directly facing a vehicle access laneway or Road A, B or C, at least 30 working days prior to the lodgment of any residential building consent, the consent holder must submit via rcmon@ccc.govt.nz an acoustic report from a qualified acoustic engineer appointed by the consent holder identifying the construction measures required for that façade to achieve the acoustic insulation complying with (30 dB Dtr2m,nTw + Ctr).
44. For each of the residential development lots contained within Lot 2, at least 30 working days prior to the lodgment of any residential building consent, the consent holder must submit via rcmon@ccc.govt.nz an acoustic report from a qualified acoustic engineer appointed by the consent holder identifying the construction measures required to achieve the acoustic insulation complying with Christchurch District Plan Rule 6.1.7.2.1:
- a. For any residential dwelling (or other sensitive activity as defined by the District Plan) located within 80m of the nearest marked lane of Halswell Road where the adjoining speed limit on Halswell Road is 80km/hr; otherwise.
 - b. For any residential dwelling (or other sensitive activity as defined by the District Plan) located within 40m of the nearest marked lane of Halswell Road where the adjoining speed limit on Halswell Road is 60km/hr.

Landscaping on Lots 2 to 10 and 13

45. Landscaping shall be provided and maintained in accordance with Approved Plans 50 to 75.

46. Any trees shall be a minimum height of 1.5m of at the time of planting and once established must be maintained at a height of at least 4m thereafter.
47. All landscaping required for this consent shall be maintained. Any dead, diseased, or damaged landscaping shall be replaced by the consent holder within the following planting season (extending from 1 April to 30 September) with trees/shrubs of similar species to the existing landscaping and capable of achieving a minimum height of 4m.
48. Landscaping shall be planted and maintained so that bridle paths are kept clear of vegetation for the 2m width.
49. Any hedge or shrub within 4m of a lane, bridle path or road shall be no higher than 1.2m.

Swimming Pool and the Common on Lot 5

50. The 'common' illustrated on page 56 of the Residential Assessment dated October 2019 shall include a playground that is available for the general public at all times.
51. The pool building shall be available for use only in association with residents and occupants of Lots 1 to 10, 12 and 13.
52. The pool building shall be constructed in accordance with Approved Plan 110 to 114.

Commercial Development on Lot 1 and Lot 12

53. On Lot 1, 34 car parking spaces shall be designated and marked for residential use only.
54. A minimum of 39 car park spaces shall be marked for staff car parking.
55. Bicycle and mobility parking shall be provided in accordance with standard 7.4.3.1 and 7.4.3.2 in the District Plan.
56. Buildings and signs shall be constructed and maintained in with Approved Plan 115 to 160.

Landscaping on Lot 1 and 12

57. Landscaping shall be provided and maintained in accordance with the Kamo Marsh drawing labelled Masterplan reference 4742, page 25, Issue RC Revision 3 dated 03/10/2019 except that:
 - a. A further 3 trees shall be planted at the northern corner of the Halswell Road frontage to enhance the gateway experience. These trees should be selected from the submitted indicative street tree list.
 - b. All trees to be planted adjacent to Road A to have a minimum height of 2.5m at time of planting, with a minimum calliper of 35 - 40mm. All other trees shall have a minimum height of 2.0m at the time of planting, with a minimum calliper of 35 - 40mm.
 - c. All trees that are to be planted within 1.5m of a sealed area shall be planted in Stratavault tree pits (or equivalent style of structural cell tree planting system). All other trees should be planted in tree pits that are three times the width of the root ball of the tree, with a minimum depth of 1.5 times the depth of the root ball. These tree pits are to be back filled with an 80% unscreened topsoil and 20% soil conditioner mix.
 - d. All trees to be planted as visual mitigation shall not be topped, and shall be allowed to mature to their full natural height.
 - e. All trees adjacent to Road A (once established) are to be pruned to lift the tree canopy (lower-most limbs) to a minimum 2.5m from the ground to allow for sightlines

underneath as a CPTED consideration. Trees with a columnar growth form will not require this type of pruning.

- f. All planting shall be managed to comply with rules relating to visibility splays at vehicle entrances.
 - g. The presence of the underlying waterway which traverses under the retail area at the Halswell Road frontage should be referenced within the design and construction of the area through methods such as building design, paving design, lighting, signage, and planting schemes.
 - h. Tree planting provided within the car park area shall include a further two pairs (4 trees) of car park trees to be located either side of the pedestrian walkway which runs west to east in the car park area to the north west of the commercial block (supermarket building).
 - i. Car park trees shall be capable of growing to 8.0m at maturity.
 - j. *Liquidambar styraciflua* (Sweet Gum) to be replaced with the 'Worpleston' cultivar of this tree as this cultivar display a more up-right form, and is less brittle and subject to damage.
 - k. All planting should also be managed to comply with rules relating to visibility splays at vehicle entrances.
58. All landscaping on Lot 1 and 12 shall be established on site within the first planting season (extending from 1 April to 30 September) following the final, passed building inspection associated with building development on Lots 1 and 12 respectively.
59. All landscaping required for this consent shall be maintained. Any dead, diseased, or damaged landscaping shall be replaced by the consent holder within the following planting season (extending from 1 April to 30 September) with trees/shrubs of similar species to the existing landscaping.

Advice Note: It is recommended that on private land, opportunities to enhance the illumination of the Days Drain corridor are investigated with various forms of lighting, such as illuminated artworks, fairy-lights, and the like, to encourage further engagement from the public and to provide further landscape amenity and perception of safety.

Advice Note: To better accommodate cultural values it is recommended that the consent holder undertakes planting onsite which consists of appropriate indigenous vegetation.

Light, Noise and Operational for Lots 1 and 12

- 60. At least 20 working days prior to opening of any specific premise to the public, the consent holder shall provide a statement from a suitably qualified and experienced lighting consultant confirming that the lighting associated with that specific premise and any associated carparking area has been installed in accordance with Rules 6.3.4 and 6.3.5 of the District Plan. This statement shall be provided to Council, Attention: Team Leader - Environmental Compliance, by way of email to rcmon@ccc.govt.nz.
- 61. All lighting is required to be aimed, adjusted and/or screened to direct lighting away from the windows of habitable spaces of sensitive activities.
- 62. All staff bicycle parking areas shall be lit with automatic sensor lighting, with a range of between 2.0 to 2.5 lux light spill associated with the Staff Bicycle parking spaces.
- 63. Lighting shall be provided at the four vehicle accesses, in accordance with the lighting design requirements within the IDS.

64. The operating hours for any bar, restaurant or food and beverage outlet shall be restricted to 0700 to 2200 hours on any day.
65. The noise level within any bar shall be no greater than 95dB LAeq (15mins).
66. External doors to the food and beverage retail activity must be fitted with self-closing devices and no bottles or cans are to be emptied outside after 2200hours and until 0700 the following day.
67. Service vehicles (eg for rubbish and recycling) shall be restricted to entering the supermarket site between 0700 and 1900 on any day.
68. Mechanical plant for all non-residential tenancies (including the supermarket) must be designed such that the mechanical plant associated with each tenancy must comply with the Christchurch District Plan night time noise rules of 45dB LAeq(15mins) at the nearest Commercial Zone boundary and 40dB LAeq(15mins) at the nearest dwellings within the Residential Zone boundary.
69. No more than 80 children and 18 staff are permitted on the childcare site at any one time.
70. For the apartments on Lot 1 with a façade directly facing an access laneway, road or carpark, at least 30 working days prior to the lodgment of any residential building consent, the consent holder must submit via rcmon@ccc.govt.nz an acoustic report from a qualified acoustic engineer appointed by the consent holder identifying the construction measures required for that façade to achieve the acoustic insulation complying with (30 dB Dtr2m,nTw + Ctr).
71. Any outdoor waste storage area shall be screened by a 1.5m high solid fence or landscaping at least 1.5m high.