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Submission to Selwyn District Council

On: The Draft Rural Residential Strategy

Date: 3rd March 2014

Client: Mr B Harrington

Prepared by: Anna Mackenzie **Date: 03/03/14**

Reviewed by: Fiona Aston **Date: 03/03/14**

SUBMISSION ON SELWYN DISTRICT COUNCILS DRAFT RURAL RESIDENTIAL STRATEGY

To Selwyn District Council, submissions@selwyn.govt.nz
Attention: Craig Friedel, Strategy and Policy Planner

Full Name of Submitter: Mr B Harrington

This is a submission on the Draft Rural Residential Strategy ('RRS')

1. **The specific provisions of the RRS that our submission relates to are**:

Mr Harrington supports in part applies to the whole of the Rural Residential Strategy (RRS), subject to inclusion on the land the subject of this submission as a rural residential location in the RRS. Mr Harrington's support of the Draft RRS is subject to the comments and relief sought below.

2. **Our submission in SUPPORT IN PART is:**

Mr Harrington's support in part applies to the whole of the Rural Residential Strategy (RRS), and is subject to the comments and relief sought, and reasons, set out below.

Submitter

Bruce Harrington owns land at Moirs Lane, South Lincoln, (Lots 1 & 2 DP 445316 – 9734m^2) ('the Site'). A location plan showing the Site including existing development is attached in Appendix A.

The submission seeks that the Harrington property (see plan attached as Appendix A) be identified as a rural residential location, and retained as one title. The inclusion of this site, in conjunction with developments to the north (Allendale Lane) would create a total yield of 19-27 Lots. Mr Harrington agrees with and supports the submission made by Apton Developments Ltd. However, in the event that the submission relating to Allandale Lane (by Apton Developments Ltd) is not successful, Bruce Harrington seeks that his land at Moirs Lane (the Site) on its own be included as a rural residential location in the RRS. The Site is physically separate from the Allandale Lane properties and the planning circumstances are different in some respects (as outlined below). The Site is suitable for rural residential purposes either 'on its own' or with the Allandale Lane properties.

Background

The Site in Moirs Lane is in two parcels and comprises a total of 9734m^2. The Site was created by boundary adjustment in 2013. The boundary adjustment subdivision consent was

approved in July 2011 (copy attached as Appendix B). The intention was, and always has been, to erect a dwelling on the Site.

Bruce Harrington proposes to erect a dwelling on Lot 1 and has erected a large shed on Lot 2. A land use application was being prepared for the dwelling and shed at the time that the Land Use Recovery Plan (LURP) was gazetted in December 2013. The provisions of Chapter 6 of the Canterbury Regional Policy Statement (CRPS) as amended by the LURP now preclude a dwelling on the site unless the site is identified as a rural residential location in the SDC adopted RRS[1].

A discharge consent from Environment Canterbury has been granted to enable the use of a septic tank on the site (CRC084838) , and a Flood Risk assessment has been undertaken (copy attached in Appendix C)

Rural Residential Strategy

The Draft Rural Residential Strategy identifies five sites which meet the criteria for Rural Residential Development in the Selwyn District. At paragraph 6.2 the following pre-requisites for consideration are set out:

- can be economically serviced with reticulated water and wastewater services
- is able to be integrated with established Townships
- does not significantly undermine the urban consolidation and intensification principles of the LURP, Chapter 6 of the CRPS,SDP or RRS13
- is not affected by any significant constraints
- is owned by parties who have aspirations to rezone the land

The Site meets all of the above pre-requisites as follows:-

Reticulated services:
In this case the Site is located adjoining existing living zones and reticulated services can be extended to the Site.

Integration with Townships
The location of the Site, has potential to connect with Allendale Land, which connects to Lincoln Township via Southfield Drive. There is certainly scope for pedestrian and cycleway connections via the L2 Creek esplanade reserve which will be created if the Allandale Lane properties are subdivided, with the intention to include a public access link across the Jung/Lee property to the existing right of way, which it is proposed to be upgraded to a local minor road. Road access could also be potentially provided to the Jung/Lee site.

The Site is on the route of the proposed Rail Trail and can also include connectivity via the L1 Creek esplanade reserve areas included within the Broadfield residential development to the north, providing a second route to the existing township.

Consolidation/Intensification

[1] In accordance with Policies 6.3.1 and 6.3.9 of Chapter 6 of the CRPS

The proposal is for just one rural residential site which is insignificant in terms of any potential effect on the intensification principles of the LURP, in particular as set out in Objective 6.2.2 Urban form and settlement pattern of Chapter 6 of the Canterbury Regional Policy Statement (CRPS) as amended by the LURP. It will in any case consolidate with and achieve an appropriate southern edge to Lincoln and resolve ongoing issues as to the appropriate use of this land.

Constraints
The Site does not contain any significant vegetation or trees, cultural sites, designations, historical sites, strategic infrastructure or utilities, springs (as far as is known) but has boundaries with the L1 and L2 Creeks. Appropriate setbacks are proposed. The Site is not located in the vicinity of any intensive farming activities. It was created by boundary adjustment of the adjoining farmer to the south (Greenslade) with the intention of creating a rural residential site. The Site is lower lying and within RRS identified high groundwater areas. A flood report has been obtained attached as Appendix C. A suitable setback from the L2 Creek (likely to be minimum of 20m) will be required with respect to geotechnical matters. Geotech investigations (see Appendix E) indicate that there is a risk of lateral spread due to proximity to the free edges of streams. Enhanced foundations are recommended and derivations of systems detailed in the MBIE Guidelines have been used for the proposed design for the existing single storey weatherboard home to be relocated to the Site.

Landowner Aspirations
The current landowners have demonstrated their desire to develop this Site through their extensive involvement in planning processes over an extended period, as outlined above.

Conclusion
Given the Site meets the above noted pre-requisites, and meets the RRS criteria for identifying suitable rural residential sites (see Appendix D), the Submitter considers that this Site, in conjunction with Allendale Lane sites to the north, or 'on its own' is appropriate for rural residential development and seek its inclusion in the RRS as such.

Land Use Recovery Plan

The Land Use Recovery Plan sets out (page 25) that limited rural residential development will be provided for to allow a range of choices of housing types for those needing to relocate, but without creating an inefficient use of land or infrastructure, and to protect future urban expansion, and avoid reverse sensitivity effects with rural land. We consider that the use of the Site for rural residential development has been demonstrated through this submission to be an efficient use of land and infrastructure which, but virtue of its location, does not limit future urban growth. It is considered that the development of the site for rural residential purposes will not create adverse effects with surrounding rural land.

Task 18: Selwyn District Council of the LURP requires SDC to amend its district plan to the extent necessary to include zoning and outline development plans in accordance with chapter 6 of the Regional Policy Statement for the following greenfield priority areas shown on map A, appendix 1:

'viii. Implementation of SDC rural residential development strategy.

Details of any changes and variations to be provided to the Minister for Canterbury Earthquake Recovery within 6 months of Gazettal of this Recovery Plan for the Minister to determine any public process required to give effect to those amendments.'

The Submitter requests that SDC recommends to the Minister of Earthquake Recovery that a streamlined approach be adopted under the CER Act for rezoning the Site for residential purposes, including providing for this to be achieved by resource consent rather than plan change, for small proposals proposing a total of three or less rural residential lots.

The RRS hearing process is sufficient to consider the merits of this proposal, especially given the extensive planning history and opportunity for public to have input regarding the same. This has ensured that consideration of the development of this site has been well canvassed by the public, and specific concerns raised and addressed. It is considered that no further consultation is required. There is an urgent need for additional rural residential sections to provide for earthquake recovery housing needs which need to cover the full spectrum of housing types.

Relief Sought

That SDC adopt the Draft RRS as the approved RRS subject to:

- The site subject of this submission as identified in Appendix A be included in the RRS as a rural residential location.
- That in relation to Task 18 of the LURP, SDC recommends to the Minister of Earthquake Recovery that land subject of this submission be rezoned Living 3 without any further public process; and that for rural residential proposals involving 3 or less properties, Chapter 6 of the CRPS be amended to make provision for this occur by resource consent rather than plan change.
- Such other relief as gives effect to the intent of this submission.

Conclusion

The Submitted considers the site the subject to this submission is a suitable area for rural residential development on the edge of Lincoln. This site is an appropriate location at the south edge of the Township and will achieve appropriate consolidation with the Township. The site can be serviced with reticulated services without putting undue pressure on existing systems, and will provide appropriate sections to meet the market demand. The site meets the criteria of the RRS, and is appropriate in the context of the provisions of LURP, the Lincoln Structure Plan and the District Plan.

3. **We do wish to be heard in support of our submission.**

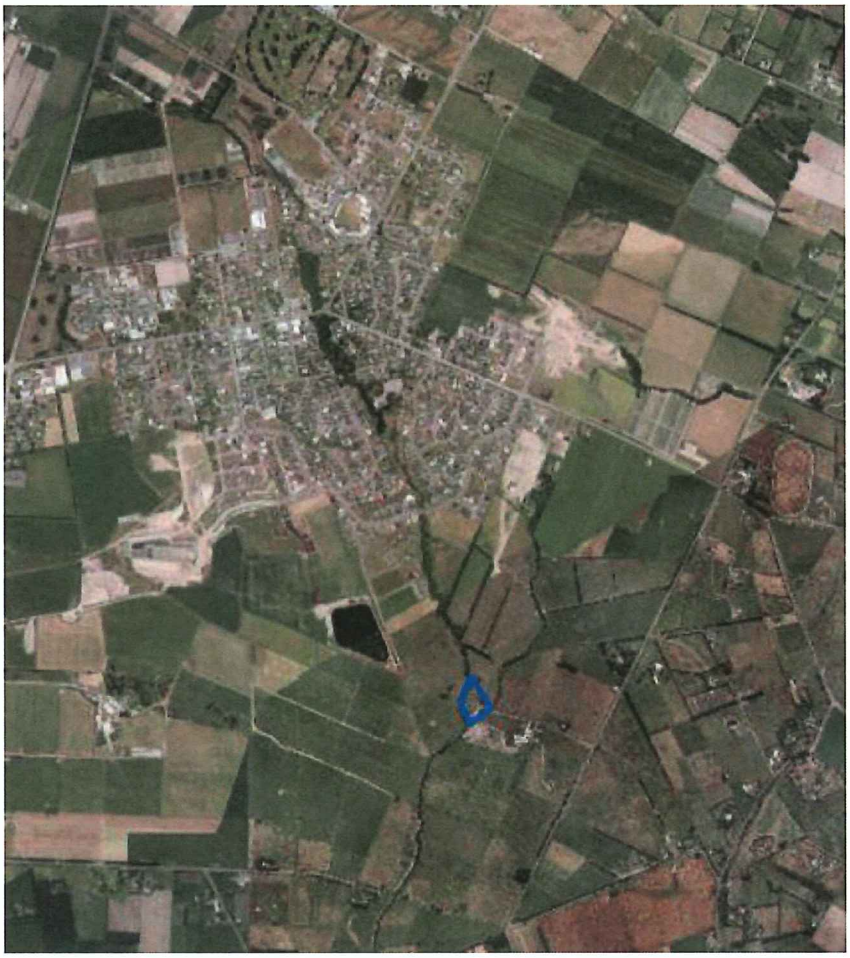
4. **If others make a similar submission, we will consider presenting a joint case with them at a hearing.**

5. Signed:...  3 March 2014

6. Address for service of submitter:

Postal Address: C/- Fiona Aston Consultancy Ltd PO Box 1435 Christchurch
Telephone: 03 3322618
Email: fiona@fionaaston.co.nz

Appendix A – Location Plan



Appendix B – Harrington Subdivision Consent

115140

4 July 2011

B Harrington
C/- Survus Consultants
PO Box 5558
CHRISTCHURCH 8542

Attn: Andrew Cain

Dear Sir/Madam

RE: RESOURCE CONSENT APPLICATION – 115140

APPLICANT:	B Harrington
LOCATION:	Moirs Lane, Flaxmere
LEGAL DESCRIPTION:	RS 20697, 38994, 40020 and 40021
ZONING:	The property is zoned Rural Outer Plains under the provisions of the Partially Operative District Plan – Rural Volume.
PROPOSAL:	To undertake a boundary adjustment of the above mentioned allotments so as to create two titles of 1.1327 ha and 1.4884 ha.
TYPE OF APPLICATION:	This application has been assessed as a subdivision consent for a controlled activity under the Partially Operative District Plan. As such the relevant provisions of the Partially Operative District Plan – Rural Volume and the Resource Management Act 1991, have been taken into account.

COUNCIL DECISION

This application was formally received by the Selwyn District Council on 2 June 2011. Assessment and approval took place 4 July 2011 under a delegation given by the Council.

The full text of the decision is as follows:

"Resource consent 115140 is granted pursuant to sections 104 and 104A of the Resource Management Act 1991 subject to the following conditions imposed under sections 108 and 220 of the Act.

1. That the following conditions of consent shall be met prior to the issue of the section 224(c) Completion Certificate, at the expense of the consent holder.
2. That the subdivision proceeds in substantial accordance with the attached approved plan (Survus Consultants Job Ref 8842/02 Sheet 1 Revision A Dated June 2011) and the details submitted with the application, except where varied by the following conditions.
3. That all required easements be created and granted or reserved.
4. That Lots 1 and 2 hereon be amalgamated and one certificate of title issue to include both parcels.
5. That RS 38994 (CT CB4B/759) and RS 40021 (balance CT CB10K/327) be amalgamated and one certificate of title issue to include both parcels."

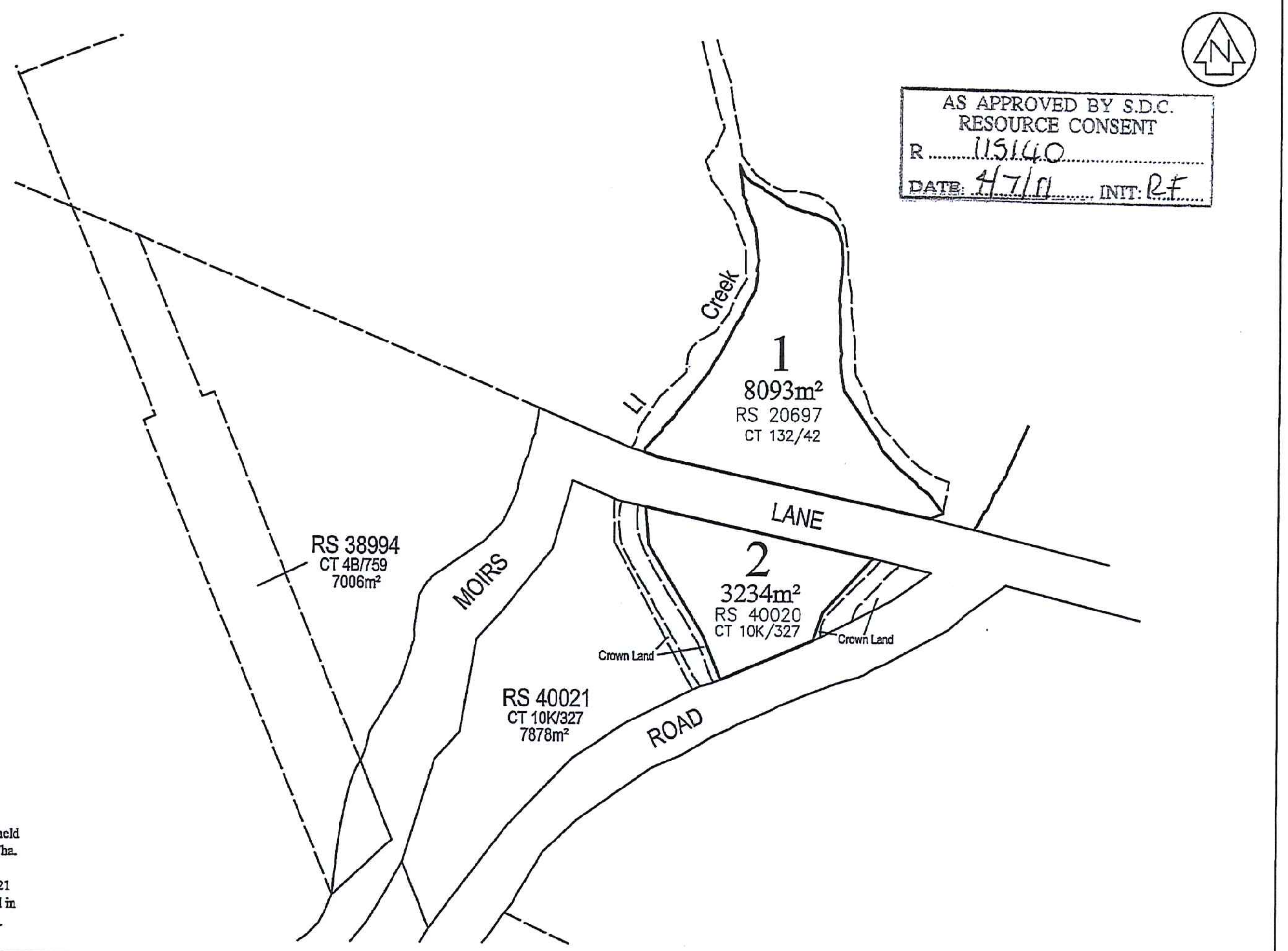
NOTES TO THE CONSENT HOLDER

a. Pursuant to section 125 of the Resource Management Act 1991, if not given effect to, this resource consent shall lapse five years after the date of this decision unless a longer period is specified by the Council upon application under section 125 of the Act.
b. In accordance with Section 36 of the Resource Management Act 1991, the Council's basic monitoring fee has been charged.
c. Regarding Conditions 4 and 5 above, the amalgamations are pursuant to Section 220(1)(b)(i) of the Resource Management Act 1991. The Land Information New Zealand request number is **1000343**.
d. Please note that all of Land Information New Zealand's normal requirements apply to the issuing of amalgamated titles. These include requirements that the land is in the same ownership and that any existing joint family home settlements are cancelled or extended to include all the land being amalgamated.
e. All new property numbers identifying new dwelling lots as a result of subdivision adjoining legal roads and/or private roads and/or rights of way will be issued property numbers by Council in accordance with Council policy. Please supply Council with a finalised lot Deposited Plan to enable numbers to be generated for issue and adoption.
f. The consent holder is reminded of the need to transfer all water take, use and discharge permits to new owners.
g. The Council does not require physical connections to power and telephone services in the rural area and all prospective purchasers should investigate likely costs.

h. The LI and LII rivers run through or adjacent to these properties. There is therefore the potential for these sites to flood. Any flood assessment undertaken before the 4 September 2010 earthquake is unable to be relied upon in determining the suitability of these properties for dwellings or other principal buildings.

Yours Faithfully
Selwyn District Council

Rosie Flynn
Team Leader, Resource Consents



Notes:
Amalgamation Conditions:
That Lot 1 and Lot 2 be amalgamated and held in one certificate of title. Total area 1.1327ha.

That RS38994 (CT CB4B/759 and RS 40021 (CT CB10K/327) be amalgamated and held in one certificate of title. Total area 1.4884ha.

SURVUS CONSULTANTS
surveying engineering property development
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TOLLFREE 0505 787 887 DARFIELD 03 318 8151
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Proposed Boundary Adjustment of
RS 20697, RS 38994, RS 40020 & RS 40021
Comprised in CT CB132/42, CB4B/759 & CB10K/32712F/1167, 2.6214ha
#Moirs Lane, Flaxmere

Rev	Date	By	Amendments
A	01/06/11	ADC	For Subdivision Consent

Scale	Job Ref		
1 : 1500	8842/02		
Date	Sheet	Revision	
June 2011	1 of 1	A	A3

Appendix C – Ecan Flood Risk Assessment

10 December 2013

Fiona Aston Consultancy
P O Box 1435
Christchurch 8140

Attention: Anna Mackenzie

Dear Anna

FLOOD RISK – LOTS 1 & 2 DP 445316, MOIRS LANE, LINCOLN

Reference your inquiry seeking any information that Environment Canterbury may hold on flood risk in relation to Lots 1 & 2 DP 445316 located at Moirs Lane, Lincoln.

Historical information that Environment Canterbury holds on flooding at this locality is limited to photographs taken following flood events in 1986, 1994 and 2013.

Attached are Photograph No's 606 and 607 taken on 24 August 1986, and photograph No.707 taken on 28 July 1994. Unfortunately they appear to only show the area just downstream of the property. Estimated return periods of the 24hr, 48hr and 72hr rainfalls for these events in the area between Burnham and Tai Tapu were generally in the range of 2 to 5 years. It should be noted that the photographs may not necessarily show flooding at its peak.

Environment Canterbury did take some photographs of the area on 23 June 2013 following a significant flood event in the Halswell River catchment that resulted in flood levels in that catchment being the highest since 1977. Environment Canterbury does not have flood level data for the LI and LII catchments so is not able to comment on the frequency of the event in that catchment. Attached for your information are photographs IMG_4645 and IMG_4649 taken on 23 June 2013.

Environment Canterbury has recently completed floodplain modelling for the Halswell River Catchment. This modelling shows that there is the potential for overflows from the Halswell River catchment to the LII catchment to occur in the 0.5% Annual Exceedance Probability (AEP) (200 year return period) event and the 0.2%AEP (500 year) event. Modelled peak flood depths at the proposed building location are approximately 0.2 metres in the 0.5%AEP event and 0.3 metres in the 0.2%AEP event.

Floor Levels

Chapter 11 of the Canterbury Regional Policy Statement provides a framework for managing natural hazard risk in Canterbury. Policy 11.3.1 of this document seeks to avoid new subdivision, use and development in 'High Hazard' areas. An area where the water depth is greater than 1 m (or where the water depth (m) x velocity (m/sec) is greater than 1) in a 0.2% AEP flood event would be classified as a 'High Hazard Area'. For flooding associated with the Halswell River the proposed building site is not high hazard.

Our Ref: HAZA/FLD/ASS/CHC/13607
Your Ref:
Contact: R Holmes

Policy 11.3.2 states that development should be avoided in areas subject to inundation in a 0.5% AEP flood event unless a range of conditions are met. These include the requirement for new buildings to have a floor level above the 0.5% AEP design flood level.

These provisions have yet to be carried through into the Selwyn District Plan and my understanding is that the present standard is that required by the Building Act.

If mitigation is to be provided for a 0.5% AEP event for Halswell River related flooding then at least 300mm freeboard should be added to the 0.2 metre flood depth.

Environment Canterbury does not have sufficient information to determine what level of mitigation this floor level would provide for flood events occurring from rainfall in the LII catchment.

It should be noted that:

1. The information provided is the best information Environment Canterbury has available at this time.

2. Environment Canterbury is not the only organisation holding information on flooding. The Selwyn District Council or neighbours may have details of flooding which may have occurred at this site.

3. Flood depths and associated return periods may change as further investigations into flooding and hydrology in this area are undertaken.

4. Flood size is measured as a volume of water flowing past a point when a flood is at its peak. The unit of flow is cubic metre of water per second (m^3/sec or cumec).

5. Flooding can occur in smaller floods if premature failure of stopbanks occurs during a flood. Failure may occur through lateral (sideways) erosion of the stopbank or internal erosion of the stopbank.

6. This assessment assumes the river control works are maintained at least in their present standard in the future.

7. The location of a stopbank failure or overtopping may vary for different flood events. This may alter flood depths at the site.

8. Flood flows may be diverted by debris or build up against obstacles such as fences or hedges. This may alter flood depths at the site.

9. Changes in the floodplain e.g. raising roads, may alter flood levels at the site.

10. Seasonal variations e.g. height of crops, may alter flood depths at the site.

11. **There are many uncontrollable factors that influence flooding. The prediction of flood depths requires many assumptions and is not an exact science.**

Yours sincerely

R G Holmes.

Richard Holmes
Hazards Analyst

606. LII River in foreground. Hudsons/Ellesmere Road junction centre left. (East)

24/08/1986

24/08/1986

607. LII River in centre. Collins road lower centre. (East)

707 Halswell river on left, Ellesmere Road on right (West) **28/07/1994**

Appendix D – Assessment Against RRS criteria for Lincoln

Rural Residential Strategy (2013) Location Criteria (reproduced)

The criteria are categorised into the following three groups:

C = The critical outcomes required to achieve the goals of the UDS and Appendix 1 of the Land Use Recovery Plan - Chapter 6 of the CRPS

SS = Site specific issues that require detailed assessments and contextual analysis to determine how any identified potentially adverse effects could be avoided, remedied or mitigated

NA = Matters that do not apply to certain geographic locations within the UDS area of the District

Generic Criteria	Lincoln	Proposed Site
Chapter 6 of the CRPS (LURP)		
Located outside the identified priority areas for development and existing urban areas	C	The site is located outside the Township boundary.
Located so that it can be economically provided with reticulated sewer and water supply integrated with a publicly owned system, and appropriate stormwater treatment and disposal	C	The site adjoins properties on Allendale lane which adjoins the township boundary, and are also seeking to be included as rural residential. It also adjoins the Broadfields LZ development to the north. Clearly, the Site can readily connect to existing reticulated services, although onsite wastewater has also been consented by Ecan.. Suitable stormwater management can be provided on site.
Access provided to a sealed road but not directly to Strategic and Arterial Roads (as identified in the District Plan), and State Highways	SS	No access to strategic or arterial roads involved.
Avoid noise sensitivity activities occurring within the 50 dBA Ldn air noise contour so as not to compromise the efficient operation of the Christchurch International Airport, or the health, well-being and amenity of people	NA	This criteria does not apply to this site.

Avoid the groundwater recharge zone for Christchurch City's drinking water	NA	This criteria does not apply to this site.
Avoid land required to protect the landscape character of the Port Hills	NA	This criteria does not apply to this site.
Not compromise the operational capacity of the West Melton Military Training Area or Burnham Military Camp	NA	This criteria does not apply to this site.
Support existing or upgraded community infrastructure and provide for good access to emergency services	C	The proximity to the Lincoln town centre and pedestrian/walkway access at least via the Southfield Drive area and/or Broadfields development and the L1 and L2 Creek existing proposed esplanade reserves presents an opportunity to achieve strong connections between the proposed rural residential node and Lincoln, including the necessary access to education facilities, shopping centre's, employment opportunities, community facilities, public transport connections and other services.
Not give rise to significant adverse reverse sensitivity effects with adjacent rural activities, including quarrying and agricultural research farms, or strategic infrastructure	SS	Surrounding land is zoned and being developed for residential purposes.
Avoid significant natural hazard areas, including steep or unstable land	Na	This criteria does not apply to this site. An Ecan Flood risk assessment has been attached.
Avoid significant adverse ecological effects	SS	The site does not contain any identified Significant Natural Areas.
Not significantly adversely affect ancestral land, water, sites, wahi tapu and wahi taonga to Ngai Tahu	SS	There are no identified cultural features on the site.
Avoid adverse effects on existing surface water quality	SS	These will be addressed as part of further development of the proposal, and appropriate stormwater management provisions incorporated into the proposal, including dwelling setbacks.
Integrate into, or consolidate with, existing settlements	C	The site is well integrated with and will be consolidated with the existing township. See discussion above under "Integration with Township'.
Development site supports the development of an ODP and is not seen as a transition to full residential	C	The RRS (paragraph 5.27) seeks that rural residential developments *"retain an appropriate urban/rural interface edge on the periphery of*

forms of development		*Townships – rural residential development should not be a transition to higher more urban development, with definitive boundaries making urban areas more distinct from rural environments."* Rural residential development of the Site will secure an appropriate definitive southern boundary at the southern edge of the township. An ODP is not considered necessary, but can be provided, if only the Harrington site is identified as a rural residential location. Lot 2 is on the southern side of the proposed Lincoln southern bypass but is logical for inclusion within the rural residential area as it is part of the small 9700m^2 existing title.
Rural residential form, function and character		
Avoid locations that are obvious residential growth paths	C	The site is not an obvious future residential growth path identified in the Lincoln Structure Plan, and is not appropriate for residential development due to the boundaries with L1 and L2 Creek..
Support locations that directly adjoin and are able to consolidate with Townships and residential Priority areas to support the provision of economically viable infrastructure and to promote social cohesion and ready access to recreational, employment and other services established within Townships	C	Achieved – see discussion under 'integration with Townships' above.
Support locations that can sustain a mixture of housing densities ranging from 0.3ha to 2ha in size whilst achieving an overall density of 1 to 2 hh/ha, but where the overall area supports sustainable enclaves in respect to the overall number of households to enable the anticipated rural residential form, function and character to be achieved	SS	This is small rural residential node which is partly rural residential in character already, and only one rural residential site is just the Harrington land. The ODP design will ensure appropriate rural residential form, function and character.
Avoid locations that may compromise the quality of ecosystems or indigenous biodiversity and ensure that rural residential areas do not adversely affect	SS	Matters relating to this criteria will be addressed by appropriate stormwater design. It is understood that there are no springs within the site.

ancestral land, water, and the Wahi Tapu and Wahi Taonga of Te Rununga o Ngai Tahu and Te Taumutu Rununga. These include the need to protect and enhance rivers, streams, groundwater, wetlands and springs within the catchment of Lake Ellesmere/Te Waihora, springs and any associated mahinga kai sites.		
Support locations that utilise existing road layouts and physical features as buffers and definitive boundaries between urban and rural residential activities to limit peri-urban sprawl	SS	The site has very strongly defined existing physical and natural boundaries, in particular the L1 and 2 Creeks which surround the Site.
Landscape values		
Discernibly logical boundaries determined by strong natural or physical features	C	Achieved – see discussion immediately above
Exclude land required to maintain the open space landscape character either between or surrounding the areas of urban activity within Greater Christchurch	SS	Achieved – not this locality
Protection of natural features, significant trees and vegetation	SS	The site does not contain any known natural features, significant trees or vegetation of note.
Manage the amount of households within single locations to avoid the collective visual effects of intensified land use	C	The RRS (paragraph 5.27) notes that it is important to manage the number of dwellings within any single location to avoid the collective effects of intensified land uses (ideally no greater than 50hh) – large nodes are less able to provide the necessary degree of 'ruralness' that is required to meet the anticipated rural residential character and to satisfy the expectations of future land owners This Site, and development in Allendale lane represents a small rural residential node of around 19-27 lots
Address the constraints to development identified in the Landscape Constraints Map prepared by Andrew Craig Landscape Architect (see Appendix 1 RRS13)	ss	There are no identified landscape constraints which affect the site.

Locations to adjoin Township boundary's by have an ability to achieve a degree of 'ruralness' as a consequence of adjoining land use and natural attributes	c	Achieved – the L2 Creek will result in a high degree of open space for the site.

LINCOLN ENVIRONS STUDY AREA CRITERIA		
Urban from and growth management	**Critical or site specific matter**	**Proposal site**
Rural residential development nodes to: (a) adjoin the residential priority areas and Living zone land; and (b) be consistent with the urban settlement patterns and strategic planning outcome outlined in the Lincoln Structure Plan and the Growth of Township objectives and policies of the District Plan	C	Achieved.
Lincoln has capacity to support an increased population base within rural residential living environments as it is an identified Key Activity Centre that has the community infrastructure, services and business areas to support a large self-sustaining community	C	Achieved

Preclude rural residential development south of the proposed Lincoln by-pass that would be severed from Lincoln and would contribute to poor integration and connectivity with the Township (refer to Appendix 2 – Map 26)	SS	Lot 2, which is 3234m^2 is immediately south of the by-pass, however, this should be included within the rural residential area as it part of the title covering land north of the Bypass (total size 9734m^2).
Avoid ribbon development along the alignment of reticulated services and strategic roads that may undermine the contrast between rural and urban forms of development and the distinctiveness of the primary gateways to Lincoln (refer to Appendix 2 – Map 26)	SS	Achieved
Avoid locations that may contribute to the long term coalescence of Lincoln with the Townships of Rolleston, West Melton, Templeton and Springston (refer to Appendix 2 – Map 28)	C	Achieved – the site is located on the southern side of the township away from other urban centres.
Rural character and productivity		
Support locations that maintain appropriate separation from the Intensive Farming Activities legitimately established on the periphery of Lincoln (see Appendix 2 – Map 5)	SS	Achieved.
Maintain the visual distinction and amenity contrast between the rural periphery of Lincoln and the urban forms of Prebbleton, Springston, Rolleston and Christchurch City	C	Achieved – the site is located on the southern side of the township away from other urban centres.
Preserve the rural character and productive capacity of large rural land holdings and the Rural (Outer Plains) zoned land to the west and south of Lincoln (refer to Appendix 2 – Map 26)	SS	Achieved –the Site is zoned Inner Plains and does not have productive potential due to existing lot size and location, bound by existing rivers.
Strategic Infrastructure		
Avoid locations that may not be able to connect to strategic infrastructure where it is available and cost effective to do so, including roading, stormwater management and reticulated water	C	Achieved

and wastewater networks (refer to the 5Waters Activity Management Plan and Transportation Activity Management Plan)		
Avoid locations that may undermine the efficient operation of the strategic Infrastructure referenced in the District Planning Maps and the associated Study Area Maps contained in Appendix 2 – Map 5: Transpower high voltage transmission lines, Transpower electricity substation (TP5), Crown Research Institutes and Lincoln University research facilities, Weedons Road Cemetery (D171), Lincoln Golf Course (D126), Landfill to the west of the Township (D385), Lincoln Wastewater Treatment plant (D153), Integrated stormwater management scheme on the eastern boundary of Lincoln, Broadfield Primary School (ME17) and consideration of the strategic importance of Ellesmere Junction Road as a collector route between SH1 and SH75 (Christchurch to Akaroa)	C	Achieved – none of the identified infrastructure applies to the site.
Natural hazards		
Avoid locations that are constrained by the high groundwater table, SDC recorded flood sites, Lower Plains and Lake Ellesmere Flood Areas and associated land drainage issues (including drains, springs and waterways) (see Appendix 2 – Map 17)	SS	Achieved – see discussion above under 'Constraints'
Avoid locations where liquefaction and lateral spreading was observed during the Canterbury Earthquakes, in addition to areas made up of fine saturated soils and where there is a high groundwater that may be susceptible to significant damage during further earthquake events (see Appendix 2 – Map 20)	SS	Geotechnical investigations will be required but indications are that they should not be a constraint to rural residential use of the land (see discussion under Constraints' above.)
Environmental, cultural and heritage values		
Avoid Land that may compromise the health, longevity or setting of the registered Protected Tree located on Shands Road to the north-west of Lincoln (T81) (See Appendix 2 – Map 5)	SS	Achieved

Avoid locations that may compromise the cultural values attributed to the Wahi Taonga Management Site to the north-east of Lincoln (Oven C65) (see Appendix 2 – Map 5)	SS	Achieved
Avoid locations that may compromise the historic values attributed to the registered Heritage Buildings in proximity to Lincoln, including specifically Wheatsheef House (H302), Greenpark War memorial and gates (H316 &H318) and green Park Memorial gates (H317) (see Appendix 2 – Map 5)	SS	Achieved
Consider the extent to which any locations may reduce the productive capacity of Class I and II versatile soils on the periphery of Lincoln (see Appendix 2 – Map 21)	SS	Achieved – productive capacity of the soils is seriously constrained by existing size of the Site.
Investigate the environmental impacts of facilitating rural residential growth on land that may be potentially contaminated, including sites identified to the north-west and south of Lincoln(see Appendix 2 – Map 5)	SS	No known site contamination which can is in th letter attached as Appendix F confirming the site history.

Appendix E: Geotechnical letter

Design Features Report

A Babbage Company

Project: **HARRINGTON HOUSE**

MOIRS LANE, LINCOLN

Job No: 3555/36

Date: 8 Oct 2013

1. Structural Concept:

The project involves provision of new foundations for a relocated timber framed single storey house. The house is being transported in two parts which when re-sited will be joined by a 3.7m long extension constructed between the two parts. A new oversize double garage will be constructed onto the end of the house.

Gravity System:
The structural system comprises corrugated steel roofing on timber framed and trussed roofs supported on load bearing perimeter and internal walls. Walls are timber framed and supported on a timber framed house floor structure and a reinforced concrete garage floor slab.

Stability System:
The lateral loads from wind and earthquake are resisted in both directions by GIB plaster board lined walls acting as shear walls. The garage has a ceiling diaphragm to transfer the out of plane loads from the long side walls to the end walls.

Foundations:
There is a risk of lateral spread of the ground in an earthquake due to the close proximity of free edges of the streams. Enhanced foundations are therefore recommended and derivations of systems detailed in the MBIE Guidelines have been used. The house has 125mm square timber piles in concrete footing to minimum 400mm below ground level. The garage uses a reinforced concrete slab and beam over a gravel mat to get the bearing down to 400mm b.g.l.

Refer also to the Soli Investigation Report by OTS Group Ltd dated 19 April 2013.

2. Means of Compliance

The design of the structure is in compliance with the New Zealand Building Code (NZBC), section B1.

The following design standards have been used:

- AS/NZS 1170 SET – Loadings
- NZS 3101: Parts 1 & 2: 2006 – Concrete Structures
- NZS 3404-1:1997 – Steel Structures
- NZS 3603:1993 – Timber Structures
- NZS 3604:2011 – Timber Framed Buildings

3. Construction Monitoring

The design is based on the verification of specific design aspects of the construction by a suitably qualified Chartered Professional Engineer in accordance with ACENZ/IPENZ level CM 3. A Producer Statement, PS4, will be provided based undertaking the following schedule of inspections:

- Excavations to piles and gravel mat.
- Piles & sub-floor connections.

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- Floor slab & beam reinforcement.
- SED framing (steel & timber beams).
- Bracing (pre and post lining).

This report was written by:

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Appendix F: Letter re history of agricultural use of Site

I, John Watkins owned this land from 1955 and this block was only used as grazing land. It never had any yards or shed on this site.

The grazing was only beef and sheep.

J. O. ~~Watkins~~

J. O. Watkins

2-11-13.

PH 03. 34332392.