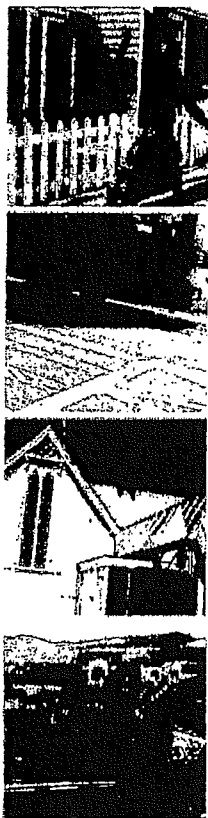




Taking responsibility for  
a sustainable future



Lincoln Envirotown Trust  
c/- Environment Society and Design Division  
PO Box 84, Lincoln University

2<sup>nd</sup> November 2006

Dear Selwyn District Council

The Lincoln Envirotown Committee have spent a number of hours talking with David Hobbs as well as visiting the proposed Liffey Springs development in Edward Street. Dr Colin Meurk (Landcare Research), Dr Maria Ignatieva and Assoc. Prof Glenn Stewart (both Lincoln University) prepared Ecological Design Recommendations. Colin and Maria presented these to a meeting of the committee with David.

David Hobbs and his design team have also visited the Landcare Research Low Impact Urban Design and Development team in Auckland and spent the day hearing about the latest research in the area.

Following these discussions, David agreed that he could implement most of these suggestions and said that they were very similar to suggestions already made by the LCC and Anne Greenup.

It was also suggested by Landcare Research (as part of a FRST funded LIUDD project) that David, with help from LET, provides an information pack to prospective buyers of sections that would help them make informed decisions about the benefits of various environmentally sustainable actions.

The Lincoln Envirotown Committee supports the design principles that David has proposed to improve the environment and mitigate environmental effects including:

- Large reserves totalling 5 hectares including stormwater treatment and detention areas which is 30% of the area occupied by residential lots, or 18% of the total site. This is approximately 3 times the minimum area of the RMA
- Two large reserves of more than 1 hectare
- Public ownership of the spring and stream boundaries as esplanade reserves. The proposal provides a significantly greater benefit to the community in perpetuity than is required in the PDP. The streams are arguably the most significant landscape feature of Lincoln and the extensive reserves in public ownership are likely to be seen very positively by the community.

www.lincolnenvirotown.org.nz



**\*\* The Lincoln Envirotown Trust considers this is a very generous offer and would increase the area of native planting, provide greater protection for the very important source of the LII and provide a greater recreational facility for the public as well as being an educational resource for local school students.**

- Walkways over the length of the L1 & L11 that abut the property. Two children's playgrounds and tennis court are being provided.
- The stream banks are being fenced to exclude stock on the east boundary of the L11. The streams have been cleaned by Council mechanical diggers over the years and the banks have become steeper than 1 in 1. It is proposed to reduce the gradient to 1 in 3 or 1 in 4 to prevent slumping.
- The streams and spring are to be extensively planted with native material to the area as detailed in Streamline Planting Guide developed by Dr Colin Meurk of Landcare Research and Lucas Associates.

**\*\* The Lincoln Envirotown Trust considers this a huge step towards reducing the negative effects of modifications to the local ecosystem by humans. This will provide an island of indigenous biodiversity and provide a link in the chain of habitats suitable for native plant and animal species leading towards the larger areas on the Port Hills and the Lake. This will help reverse the decline of biodiversity in this area.**

- The central roads are to have a swale in the middle of the road planted with natives.
- The stormwater treatment area at the south of the property on old title deeds was a lagoon and is therefore reverting to its original purpose.
- As developer, initial covenants on the sections require:
  - Concrete foundations (the mass passively moderates temperate extremes)
  - Insulation to: Ceilings R 3.6  
Walls R 2.6
  - Double glazing
  - Developer providing 3000 litre (or equivalent credit for larger tank) tank for rainwater harvesting for irrigation or any other purpose approved by SDC
- The developer is happy to provide brochures to purchasers outlining green roofs, individual rain gardens and solar heating options.
- The sections are virtually all orientated to have the longest side within 45 degrees of north for optimum solar harvesting as recommended by Dr Sumita Ghosh of Landcare Research, Auckland.
- The natural spring near the eastern boundary is the source of the L11, this is crystal clear, free flowing and not subject to flooding and is to be the centrepiece of a 1.6255 hectare reserve with large grassed area and plantings of native trees.
- There are excellent views of the Port Hills from the spring / reserve area. The developers propose to preserve this view by using a haha to exclude stock (a haha is a steep ditch that is below ground)

The Lincoln Envirotown Trust suggests that by producing an example of the use of low impact urban design in a Lincoln development, David is encouraging responsible and sustainable development in Lincoln and the Selwyn District. Also, by enhancing the springs at the source of the LII and the stream itself with locally sourced native planting, he will be restoring some native biodiversity values to this area.

A handwritten signature in black ink, reading "Sue Jarvis". The signature is stylized with a large, flowing "S" and a long horizontal line extending from the end of the name.

Dr Sue Jarvis, Sir Peter Blake Trust Environmental Educator  
Chair Lincoln Envirotown Trust  
[www.lincolnenvirotown.org.nz](http://www.lincolnenvirotown.org.nz)  
ph: 325 2811 ext 8901  
Environment Society and Design Division  
PO Box 84, Lincoln University

# Lincoln Community Committee

C/- Dr A.S. Campbell,  
(Secretary),  
P.O. Box 52,  
Lincoln, 7640.

alandpat@xtra.co.nz  
Phone: (03) 325 2773

Our Ref. No. O 004/2007

Mr David Hobbs,  
Broadfield Estates Ltd,  
P.O. Box 25-028,  
Christchurch.

Dear Mr Hobbs,

On behalf of the Committee, may I thank you for once again attending one of our meetings, and for providing us with a copy of the plans for the proposed subdivision.

The Committee resolved to approve, in principle, that the Railtrail travels through the proposed subdivision, provided it is located on an Esplanade reserve.

Yours sincerely,

*A.S. Campbell 17/2/07*

Dr A.S. Campbell  
Secretary.

# **Lincoln Community Committee**

C/-Mrs S Hadfield  
9 Millstream Drive  
Lincoln 8152  
Christchurch

21 June 2006

Mr David Hobbs  
Broadfield Estates Ltd  
PO Box 25 028  
CHRISTCHURCH

Dear David

RE: 86A EDWARD STREET, LINCOLN

Thank you for bringing your proposed plans to our Committee meeting. The suggestions discussed at the meeting are included in this letter for your information.

The Committee (LCC) like the idea of having larger reserves and support the larger reserves in option F. We would like to see at least two children's playarea's in the plan with equipment that is challenging to a variety of ages. LCC are in favour of including a Tennis Court as well as a picnic area for families.

Both the LII and LI are features in the area , LCC suggest that a walkway beside the waterway leading to the reserves would give the people of Lincoln further walking tracks off the road with the possibility to connect with other existing walkways on the west side. Already existing walkways of this kind are very popular and including this would be an asset for the people of Lincoln.

We appreciate having the ability to discuss with you our views and we hope it assists you in planning a great place to live for the people of Lincoln.

Yours sincerely



Sue Hadfield  
Acting Secretary/ViceChairman

# Broadfield Estates Ltd.

*Quality residential section developments*

21 July 2006

Sue Hadfield  
Acting Secretary / Vice Chairman  
Lincoln Community Committee  
9 Millstream Drive  
LINCOLN 8152

Dear Sue

**86A EDWARD STREET, LINCOLN**

Thanks for the opportunity to present our plan for the old orchard.

For my part I am happy to provide:

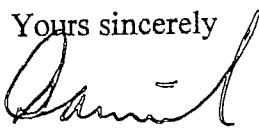
- Walkways over the length of my boundaries on the L1 & L11
- Two children's play areas
- Range of play equipment that is challenging to variety of ages
- Tennis court
- Picnic areas for families
- Connections east and west

SDC will have their own views of what they want, I have provided them with a copy of your letter.

The feedback that you have provided assists me evolving a plan that is likely to be more attractive to the Lincoln community than if I developed the plan in isolation.

Thank you for your input. We will keep you informed of progress.

Yours sincerely



David Hobbs

ESL L210706 Lincoln Community Committee

N.B. This information is derived from the Low Impact Urban Design and Development (LIUDD) team at Lincoln University and Landcare Research and should be appropriately acknowledged in any subsequent communications.

## **Liffey Springs Village – Suggestions for David Hobbs**

Dr. Colin Meurk  
Landcare Research  
Dr. Maria Ignatieva & Assoc. Prof. Glenn Stewart  
Lincoln University

15<sup>th</sup> August, 2006

### **Introduction**

- The development is utilising a significant natural feature of the district for landscaping and marketing.
- It would be appropriate to ensure that the whole village is in keeping with that image and that landscaping is employed to strengthen that integration and connection.
- The natural conditions of the site are springs and slowly draining silts with a high water table especially in winter. This places limitations on stormwater drainage systems but also dictates appropriate species.
- The original vegetation of the site would have been kahikatea-matai-totara floodplain forest near the shores of a larger Lake Ellesmere (Te Waihora). But fires and floods from around a thousand years ago reduced the vegetation to one dominated by NZ flax, tussock sedges, raupo, cabbage trees, manuka and mikimiki. It remained this way until European settlement at which time very wet places were used for land fill or planted with willows and poplars.

### **Ecological Design Recommendations**

***1. Address organisation of a pedestrian/bike recreational loop (public walkway) and pedestrian zones in all roads within the subdivision***

***2. Emphasis on the organisation of common open spaces with native reserves***

***3. Stormwater best sustainable management practices***

- Main roads and secondary roads biofiltration swale system
- Detention Pond
- Rain gardens for an individual property (optional)
- Rain cisterns for an individual property (optional)
- Green Roofs for an individual property (optional)

- Permeable ecological surfaces (driveways) for an individual property (optional)

#### **4. Biodiversity**

The key ecological, biodiversity and landscape considerations/opportunities are:

- Ensuring appropriate species composition in the riparian environment (e.g. using the CCC streamside planting guides) that includes plants that provide the berries and nectar needed by native wildlife – but which don't also pose a weed risk as many exotic berry producers do.
- Having some substantial pure *patches of bush habitat* (as large and as compact as possible to ensure there is core protected habitat for sensitive plants and wildlife). For example in native reserves (common public spaces).
- Providing for windows and open spaces for recreation and views without jeopardising the ecological integrity of the above patches (NB there is no objective evidence that completely open sites are any less dangerous than dense areas – European urban parks have winding secluded paths in them; the most important requirements for safety are safe behaviour, frequency of use, vigilance by local community of whole neighbourhood, and publicising the fact that there are ears and eyes watching).
- Providing connectivity between patches, while recognising that many birds can utilise discontinuous stepping stones. This continuity can be achieved visually and recreationally as well as by vegetation. For example, using hedges (to separate individual properties) with native plants instead of walls or fences. Even small patches with native plants in the back or front yards or in the roundabouts could provide valuable stepping stones for native birds.

#### **5. Visual character**

Culturally it is important that the formal living part of the village is on the one hand separate/distinct from nature but that nature also penetrates in a more controlled but recognisable way into the living spaces. In most countries the formal trees are also indigenous, but in NZ they are frequently not, so it reinforces a colonial attitude that the 'natives' are inferior.

- **Entrances:**

Formal uses of native trees should be explored further both at the entrance, to reinforce the natural character of the village highlight (springs), and along the internal streets – to avoid turning our back on the one element of our landscape that is unique to NZ and Canterbury.

It is proposed that this be achieved by feathering – so that the riparian reserves are 90% indigenous, key features and visual foci are 50% exotic/native, and the avenues and streets are 10-20% native. These would then provide a feature and a gradient from nature to culture rather than an abrupt threshold or dichotomy between nature and culture.

- **Street Trees**



Suggested formal street trees are: lowland ribbonwood (deciduous), narrow-leaved lacebark (white blossoms in mid summer), kanuka (white blossoms at Christmas time), cabbage trees, kowhai (SI – yellow blossoms in late winter-early spring), totara (not golden totara as these are sterile and provide no value to wildlife), broadleaf, pokaka (on wet soils), lemonwood (lemon fragrant blossoms in spring), lancewood (need protection from vandalism at early stage), black beech or red beech.

- ✓ These might be interspersed with exotic species and/or used at street corners, traffic islands, road narrowings and other focal points. Red gums and some hardy proteas and myrtles will also provide food for honey eating birds.
- ✓ Entranceways could feature cabbage trees, narrow-leaved lacebark, *Coprosma propinqua*, *Coprosma virescens*, *Olearia bullata*, *Olearia fragrantissima*, *Hebe* spp, *Teucrium parvifolium*, NZ flax, totara (or matai or kahikatea depending on drainage).
- ✓ NB exotic species shed large quantities of foliage in winter creating problems for drainage and gutterings; sporadic or clustered evergreen trees will not create continuous shade and they can be preferentially placed on north sides of roads so private sections are not shaded.

## **6. Preparation of Planting Guides for Residential Properties**

- We have a (FRST) research grant for preparing generic information, applicable throughout New Zealand, for guiding the *planting composition, design and connectivity* across cultural (urban and rural) landscapes that promotes sustainability and biodiversity.
- This will be reproducible in brochures with specific information customised to local conditions and needs.
- It is intended that we will have this information available by the end of this calendar year.

## Ideas for David

1. Info pack for section buyers containing: promotion of the advantages of the "eco" environment, suggestions to section buyers of things they can do, with the advantages, and brochures from suppliers such as "green" builders/architects, water tanks, solar water heating, solar voltaic panels, Motukarara DOC Nursery with a suggested list of natives (if they want to plant them, obviously optional), rain gardens, permeable paving, house design to incorporate passive solar energy absorption, info on insulation, double glazing etc
2. Planting: Ecosourced (local genetic stock) natives: by springs and stream and walkways, swales, other areas in sub-division. If possible keep the native biodiversity, natural environment theme throughout the public areas of the development, rather than mixing with lines of exotics which would look incongruous.
3. Storm water: Reduce run off from roofs by suggesting water tanks (and suppliers) in the info pack. Slow the run off down with swales to reduce the sediment, also filtration. Plants also reduce the pollution by taking up nitrates, phosphates etc Add details of how to make a rain garden to brochure. Wide corridor next to the stream of suitable natives. Permeable paving for parking areas, brochure added to kit.
4. Energy: check the orientation/size of sections so that houses can be orientated correctly to allow passive solar energy use. Out info on "green" builders/architects in info kit. Encourage the installation of solar water heating (brochure, could there be a group discount?) and efficient space heating systems, such as heat pumps.
5. Transport (and energy): Plan for walkeays and cycle ways and connections to other areas to reduce car use.
6. Air quality: promote low pollution options (brochures)



6 March 2007

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David Hobbs  
Broadfield Estates Ltd  
P O Box 25-028  
**CHRISTCHURCH**

Dear David

**RE: LIFFEY SPRINGS DEVELOPMENT**

Thank you for sending through a copy of the subdivision plan for Liffey Springs, Lincoln. Below are some comments regarding future public transport provision in the area which Environment Canterbury would like you to consider when planning this development.

At present, the 81 Lincoln Metro service travels from Lincoln University along Gerald Street, onto James Street and then follows Birchs Road to Prebbleton on its way into the city. There are no plans in the near future to change this route through Lincoln township, as the current route provides good coverage of the town and the most direct route to the city. We would therefore not be able to provide access to public transport for residents in Liffey Springs. Residents would face a lengthy walk out to Gerald/James Street to reach the Metro service, and Environment Canterbury would recommend that future residents are advised of this fact.

As this township expands, it may become more viable to add a loop at the end of the route to improve coverage of new subdivisions in Lincoln. Any possible changes would depend on the amount of growth the town experiences, location of the growth and the timing of this development. If significant development occurs south of Gerald Street and Edward Street, it may become viable to loop the bus through this area. This would require connectivity between adjacent subdivisions to allow the bus to travel along a direct route through the area, rather than having to travel in and out of several separate subdivisions.

Environment Canterbury would therefore recommend that Liffey Springs should connect through to Southfield Drive, as shown on the plan provided. We also recommend that the main access road off Edward Street and the road connecting to Southfield Drive should be of adequate width, strength and appropriate layout to allow for buses so that this could become a routing option in the future. Good pedestrian access to and along these streets should be provided so that if public transport travelled through here in the future, all residents could easily access the service.

Yours sincerely

Shannon Ussher  
**OPERATIONS PLANNER PASSENGER SERVICES**

**Our Ref:** PL5C-54  
**Your Ref:** ESL L020307 ECan - Ussher  
**Contact:** Shannon Ussher

