

BEFORE THE SELWYN DISTRICT COUNCIL

IN THE MATTER of the Local Government Act 2002

AND

IN THE MATTER of a submission by Pinedale
Enterprises and Kintyre Pacific
Holdings on the draft Rural
Residential Strategy 2013

**STATEMENT OF EVIDENCE OF NICOLE LAUENSTEIN
FOR**

Pinedale Enterprises and Kintyre Pacific Holdings on

9 APRIL 2014

1. QUALIFICATION AND EXPERIENCE

- 1.1 My name is Nicole Lauenstein. I have the qualifications of Dipl. Ing Arch. and Dipl. R.U.Pl. (equivalent to a Master in Architecture and Urban Design) from the University of Kaiserslautern / Germany. I am an elected member of the Urban Design Panel in Christchurch and a member of the Urban Design Forum UDF (**UDF**). Before moving to New Zealand I was a member of the BDA (German Institute of Architects).
- 1.2 I have practised as an urban designer and architect for the past 15 years in Germany, Spain, Australia and New Zealand. The first five years I established my own architectural and urban design practice in Germany, the last 10 years I have been a director of a + urban based in Christchurch.
- 1.3 In both practices I have undertaken many projects combining architectural and urban disciplines. Projects have varied in scale and complexity, and have included urban revitalisation of city centres, development of growth strategies for smaller communities, architectural buildings in the public realm and private residential projects in sensitive environments.
- 1.4 Prior to my arrival in New Zealand I worked for several European architects and urban designers and was involved in a range of urban studies and rural area assessments for the governance of the individual federal states in Germany, investigating urban sprawl of major cities such as Frankfurt, Darmstadt, Rostock and the effect on the urban and rural character. This work included developing mechanisms and criteria to facilitate sustainable development. Other work for private clients consisted of the design of sustainable developments in sensitive areas with very stringent development guidelines.
- 1.5 Since moving to New Zealand I have been involved in architectural and urban design consultancy for several architects and planners, including a large urban study and concept plans for the regeneration of the Walsh Bay area in Sydney with Peddle Thorpe Associates and consultancy to Boffa Miskell Christchurch on urban research and design and development for rural townships.

- 1.6 I have also been Faculty Director of Architecture at the Design and Arts College of New Zealand, taught as a guest lecturer at Christchurch Polytechnic for architecture and urban design and at Lincoln University Landscape Architecture Department teaching urban design at graduate and post graduate level.
- 1.7 I have a good understanding of the local and wider Christchurch area through professional involvement in public and private Plan Changes and urban design consultancy on projects in Lincoln, Rolleston, Taitapu, Ohoka, Cust, Rangiora, Kaiapoi
- 1.8 My experience includes working on growth strategies for urban and peri-urban areas including rural and urban residential developments with a mixture of densities from low, medium to high. I have prepared several urban analysis, development strategies and design concepts for urban and rural residential areas within the Canterbury region (Lincoln, Rolleston, Taitapu, Ohoka, Cust, Rangiora, Kaiapoi, Lake Hood, Akaroa, Ashburton)
- 1.9 Most recent urban design and architecture work includes:
- a. Papa Otakaro Avon River & East/North Frame concept design, Christchurch Central City
 - b. Kirimoko residential development in Wanaka - Stage 2
 - c. Urban analysis and strategic plans related to Selwyn District Council Rural Residential Strategy (RRS) submissions
 - d. Masterplans for gGreenfield development in Lincoln (Flemington)
 - e. Mixed Use development on Hagley Avenue, Christchurch
 - f. New Tait Building and Masterplan, north west Christchurch
 - g. Several commercial and residential 'rebuild' projects in Christchurch
 - h. Master Plans for Inner City block infill and brown field conversions in Christchurch.
 - i. ODP's for rebuild projects in the Christchurch CBD
- 1.10 Although this is a proceeding under the Local Government Act 2002, I nonetheless confirm that I have prepared this evidence in accordance

with the Code of Conduct for Expert Witnesses (Environment Court Consolidated Practice Note, November 2011). The evidence I will present is within my area of expertise, except where I state that I am relying on information provided by another party. I have not knowingly omitted facts of information that might alter or detract from the opinions I express.

Background

- 1.11 I was engaged by Pinedale Enterprises a few months ago to investigate the development options for its 68ha site (the Site) to the north of Rolleston that provide a strategy for the owner to develop the Site into rural residential properties that can be integrated into a denser medium density residential environment, as anticipated by the Rolleston Structure Plan, in the Future.
- 1.12 Due to my involvement in the Rolleston Structure Plan, and the subsequent PC7 process I have a clear understanding of aspects which contribute to the urban fabric in this area. I have continued to observe the development pattern of Rolleston including the accelerated growth since the Christchurch earthquakes, and through visits to the Site, the wider community and Rolleston township I have gained a good understanding of the current as the future development expectation Rolleston structure plan places on the land.

2. SCOPE OF EVIDENCE

2.1 My evidence will address:

- a. Site, location and Context;
- b. Rural Residential issues in principle
- c. Urban growth and urban form
- d. Development strategy/proposal;
- e. Matters raised in officers report
- f. Conclusion

3. ANALYSIS, METHODOLOGY AND BEST PRACTICE

3.1 In my analysis I have considered Best Practice guidelines from the Ministry for the Environment reference document such as :

- a. Urban design protocol.
- b. Urban design toolkit.
- c. Process strategy and action - creating great places to live work and play, liveable urban environments.
- d. A design guide for urban New Zealand - people, places and spaces.

As well as the guiding principles and outcomes of the Draft Rural Residential Strategy (RRS) and Land Use Recovery Plan (LURP)

3.2 The urban design protocol identifies a combination of design processes and outcomes known as the "7 C's" - seven essential design qualities that create quality urban design: context, connectivity, character, choice, creativity, custodianship and collaboration. Although they are not the only contributors that make up the complexity of an urban fabric, they are nationally recognised principles and provide a good general checklist of qualities that need to be considered for quality urban outcomes.

3.3 I have also considered the Greater Christchurch Urban Development Strategy which provides important information on the wider context of Rolleston with regard to all aspects of growth management such as transport, housing, open space, rural residential activities, culture and heritage, activity centres and their connection to Christchurch, integrated landuse, stormwater treatment, connectivity of green networks and sustainability in the widest sense.

3.4 I have also taken guidance from the references to urban design matters in the LURP and the RRS. In particular the RRS provides clear guiding principles and outcomes for rural residential development and its relationship to existing townships, as well as location criteria (appendix 1), discussion of urban and rural character and values, growth related issues analysis and a variety of relevant urban design and land development matters.

- 3.5 Finally I have taken guidance from the Rolleston StructurePlan with regard to the accommodation of future growth in Rolleston including future circulation networks, open space strategies, density allocation and distribution, landscape value and urban/rural character.
- 3.6 I have read the officers report and will respond to still outstanding matters related to urban design and urban planning at the end of my evidence unless they have been sufficiently addressed in earlier paragraphs.

4. **SITE, LOCATION AND CONTEXT**

Refer to graphic supplement location and site plan GS1 and GS2

- 4.1 The Pinedale trust owns ⁶⁸ ~~xxx~~ ha of land (The Site) located north of State Highway 1 (SH1) and railwayline in Rolleston between the Rolleston Prison to the west and the Industrial Zone (Izone) of Rolleston to the east. The Site is currently zoned Rural Inner Plains and is mainly used as a dairy runoff block The site and the surrounding area to the north features selected 4 ha rural lifestyle blocks and the Armack Drive rural residential development to the north east.
- 4.2 The Site covers most of the land in the block bounded by Two Chain Road, Walkers Road and Railway Road. There are two existing dwellings on the Site. Excluded are two lots at the eastern end (used for grazing) and two middle position blocks currently used for horse training and grazing, and the land at the north west corner (8ha) which adjoins the Rolleston Prison site. This land includes a pine woodlot along the Walkers Road frontage which provides appropriate visual and physical separation from Rolleston Prison. The Prison is for medium security prisoners, not high security.
- 4.3 The Site has limited agricultural value to the owners and they are exploring options for development of the site. In that context I have been asked to investigate what development option are available and how they would best suit the site at this urban-rural interface.

Urban development

- 4.4 The site is located north of SH1 and the railway which makes it unsuitable for residential development of an urban scale and density.

The combination of the highway and railway make a strong northern boundary to the township. Urban residential development requires strong connections, both visual and physical, which are not available and would be very difficult to establish in the future. However, extending the urban form across this boundary to fill the north west corner between Izone and the highway/railway would make for a concentric form and is not an issue as long as the landuse within this area is not reliant on daily easy access to the town centre and as such development to urban densities is not suitable. This leaves two options, extending the industrial use of the Izone into the north west corner or rural residential development.

Extending the I-zone

- 4.5 I understand that the existing area of Izone still has some capacity and further expansion of Izone has been planned towards the east. This indicates that there is no real desire to expand towards the west. The existing lifestyle scattered throughout this north west area and the rural residential blocks on Armack Drive immediately adjacent to the industrial land would also complicate such an expansion significantly. This does not completely remove the ability for industrial expansion into this area to the west of Izone but makes it highly unlikely. The Site itself however is well suited for industrial expansion particular the eastern portion. The site is well contained within the confines of Two Chain Road, Walkers Road and the railway, it has direct access to the main trunk line and Two Chain Road provides good access to the adjacent Izone. However, the Selwyn District Council has so far indicated that there is no desire to expand industrial landuse into the Site. As a result of this the second development option was further investigated.

5. RURAL RESIDENTIAL in principle

- 5.1 The LURP only considers the earthquake recovery period to 2028 to manage rural residential development, the RRS however, in my opinion needs to take a longer-term approach in addressing the peri-urban areas and consider the long-term environment post 2028. Thinking within time frames of 14 years is a very short timeframe in urban and in planning matters and will not suffice to address matters such as urban

form and consolidation of urban and rural which establish over longer periods of time.

5.2 The RRS is an important document to manage rural residential development in the Selwyn District. There has been an evolution of documents and there are variety of references and directions in the LURP and Chapter 6 of the RPS to be taken into account but in essence it all comes down to managing rural residential development in particular in peri-urban areas for very clear and good reasons

- allow a range of choices of housing types
- avoid inefficient use of land and infrastructure
- protect future urban expansion options
- manage potential conflict with rural character and rural activities
- monitor supply and uptake of rural residential activity
- consolidate rural residential development and avoid dispersal

5.3 The RRS has identified several Rural Residential typologies, has correctly chosen the most appropriate typology for peri-urban areas Peri-urban rural residential type and decided on a selected few locations where these should be implemented in the next 5 years until the next review. This in itself is a first step forward introducing an appropriate type of rural residential development in peri-urban land but does not really manage the rural residential issues highlighted earlier. It leaves all the remaining peri-urban land unmanaged under the same regime of the 4ha block as before which will continue to cause the issues the RRS is meant to tackle.

5.4 If the RRS is to really manage RR development it should take the opportunity and responsibility to address all peri-urban land within the area identified within the LURP with the aim to guide rural residential development where suitable, to preserve urban growth paths and constrain urban and rural residential development where this is required.

5.5 The officer in paragraph 1.13 introductory statement sums up the main outcome the strategy aims at achieving.

One of the primary outcomes that SDC is aiming to achieve through the Strategy is to ensure that rural residential areas are able to be integrated with urban forms to achieve servicing efficiencies and community outcomes. Of equal importance is to ensure that rural residential locations do not:

- *undermine future consolidated settlement patterns*
- *derogate the function, form and character of townships*
- *hinder future residential growth paths*
- *reduce rural amenity, diminish the productive capacity by intensifying larger rural land holdings or to undermine rural or the rural environment and adverse reverse sensitivity effects*

- 5.6 Peri urban land is defined as the land immediately around the perimeter of urban settlement. It is the area under most development pressure from both, urban and rural residential developments as it offers logical growth paths, can be connected to the urban infrastructure, allows for good access and connectivity and provides space right at the interface between urban and rural environments. At the same time the peri-urban area has to perform other important urban functions. It needs to provide a discernible edge to the urban form, which in many cases is not well articulated and it needs to create a buffer to the rural activities to manage reverse sensitivities which cannot be addressed within the confined space of smaller urban lots. These, sometimes conflicting, requirements make development in the peri-urban areas more challenging but also makes appropriate management of those areas most important.

6. **4ha Rural residential lots - benefits and issues**

- 6.1 The peri-urban land around townships sits within the Inner Plains IP, which allows 4 ha lots be established as of right so they are the natural fallback position for all peri-urban land. However, 4 ha lots are neither rural nor residential, they fall into a category that puts the majority of the 4ha land into a holding pattern. The size makes agricultural use unsustainable, but makes them at the same time too large for residential use, which tends to establish itself at around a maximum of 2000-3000 m² all inclusive - dwelling and associated access and domestic curtelage. In summary it often is a waste of productive land.
- 6.2 As a result 4ha properties adjoining the urban limit of a township where services are available are often under pressure to further subdivide to make the remaining land viable and efficient. 4ha lots that are more

remote from rural towns tend to make better use of the remaining land and experience less pressure to subdivide.

- 6.3 4 hectare blocks are very difficult to intensify in density and retrofit with additional roading and infrastructure whilst integrating existing dwellings, which has been shown in several cases in the district and is currently the case with ODP 11 in Rolleston.
- 6.4 Depending on access, dwelling location and orientation setbacks etc. some 4ha lots are able to adapt to further infill but the majority are not set out to provide good links across boundaries to neighbours and create severe problems in connectivity. 4ha lots are by nature rural in character and mostly 'self-contained', They establish independent of each other at different times creating an introverted environment. If they are to be further subdivided to accommodate growth, they struggle to integrate and tend to create many cul-de-sacs, easements and back properties as each property tries to either maximise their yield whilst avoiding legal conflicts and time delays and others try to protect their rural outlook, status quo and/or future ability to subdivide. As such they are unsuitable to accommodate future urban growth paths without compromising.
- 6.5 The 4 hectare block does also not assist in curbing urban sprawl, as the remaining mostly 'unused' land is often an incentive for owners to further subdivide their land to maximise its development potential resulting in piecemeal developments. Add reasons for smaller lots,
- 6.6 In para 4.39 section 4 of the Draft RRS it states: *The Commissioners found that there was a clear indication from the evidence presented that people were seeking one of the following two categories of land holding for rural residential purposes:*
(a) parcels ranging from between 0.5 to 2ha that could support the running of a few animals and/or an extended garden or orchard
OR
(b) parcels ranging from between 0.2 to 1ha for a 'larger lot' lifestyle
The reasons given for the preference for either of the two above categories were that the people seeking the property tended to have off-site employment, and had time constraints that precluded their ability to maintain larger land holdings.

Size

6.7 Rural residential in the wider Christchurch area has become synonymous with either the 4ha property or the smaller sized lifestyle block. However, the table below clearly indicates that rural living is more about the lifestyle qualities rather than the need for land used for small-scale farming or other specific agricultural activities. This is also supported by the trend towards smaller rural residential lots.

Ranking	Reasons
1	Rural or country living
2	Peace and quiet, tranquility
3	Space, privacy, openness, no close neighbours
4	Clean air, no smog
5	Safe and healthier place to raise children
6	Learn about farming
7	Can have animals
8	Less pressure, relaxing
9	Wanted a larger section than you get in a city or town
10	Place to retire

RRS page 40 Table 3: Top 10 reasons for choosing a lifestyle block

6.8 This is a clear indication that within peri-urban environments directly adjoining urban limits the peri-urban rural residential development is the more desirable typology.

7. Peri-urban rural residential - benefits and issues

7.1 The RRS discusses a variety of rural residential typologies such as hamlets, clusters and farm parks – these are either smaller independent nodes or enclaves as part of rural/farming environments. They are surrounded by large areas of rural land and are not ‘attached’ or in proximity to urban areas, which makes them inappropriate for peri-urban land. The RRS defines peri urban as:

- *“Peri-urban environments occur where rural and urban activities merge at the interface between Townships and the countryside”*

- 7.2 This typology of peri-urban rural residential development provides a more appropriate and sustainable rural residential environment using less land whilst offering the benefits that people seek when opting for a rural residential lifestyle. The figures below (RRS page 25. Fig. 8 and 9) show the gradual decreasing density distribution from urban to rural and places the peri-urban rural residential developments with a density of 2 hh/ha at the interface between rural and urban environs.

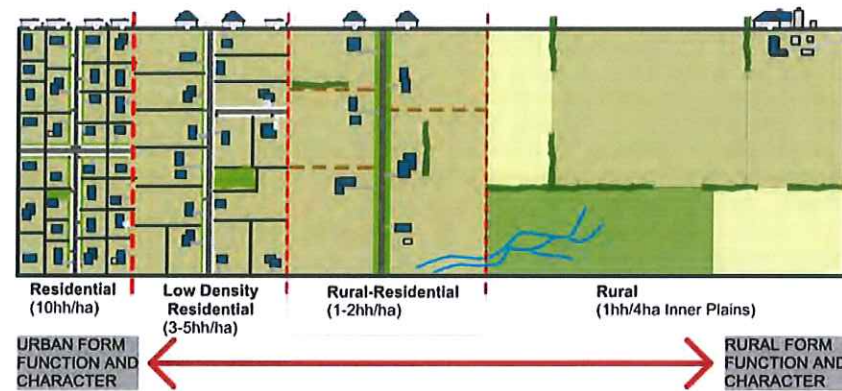


Figure 8: Land use spectrum

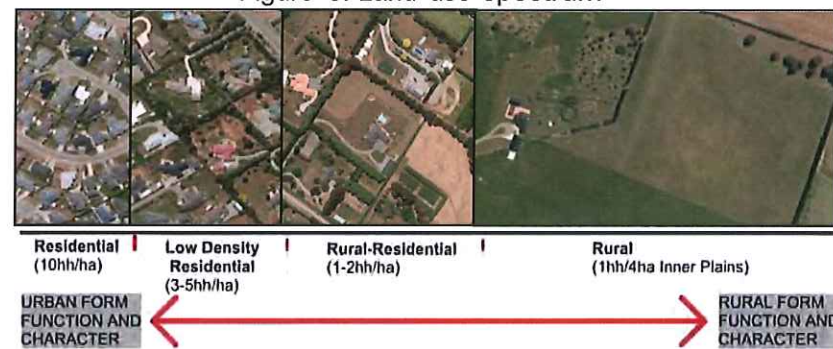


Figure 9: Photos illustrating the land use spectrum

- 7.3 The RRS concludes in section 5 (5.3) that 'the peri-urban form of rural residential development that integrates with Townships is the most sustainable typology within the area of the district that is subject to the LURP', as it will deliver the following benefits:
- *proximity to Townships promotes social wellbeing through the ability to access open space reserves, community facilities, employment opportunities and social networks*
 - *peri-urban nodes are better able to provide integrated living environments that reflect the peace, quiet, 'openness', 'ruralness'*

and privacy that residents expect

- *peri-urban nodes are better able to deliver efficiencies in the provision of infrastructure due to increased proximity to reticulated services*
- *sensitive gateways to Townships are able to be avoided, with there being opportunities to integrate rural residential areas into both the rural and urban environments through semi-formal links, riparian margins, ecological corridors and 'greenspace' networks*
- *the absence of topographical and natural features to screen intensified development results in alternative typologies that are severed from settlements having a greater risk of adversely affecting the visual distinctiveness of the open rural landscape through the 'domestication' of productive rural land holdings*
- *peri-urban nodes can take advantage of definitive boundaries to manage growth and reduce the risk of urban sprawl, with appropriate location selection enabling long term residential growth paths to be preserved*
- *appropriate densities, layouts, development controls and mitigation measures can deliver the anticipated rural residential character, which is distinct from conventional urban environments or rural land holdings*
- *localised natural features, greenbelt buffers, design elements and interface treatments are able to make rural residential areas distinctly different from rural and urban areas and to reduce the blurring of the rural/urban boundary of Townships*
- *typologies that are consolidated and integrated with settlements are better able to avoid 'ribbon' development, adverse reverse sensitivity effects with productive rural land uses and strategic infrastructure and to assist in achieving compact urban forms for existing residential settlements*

7.4 In these statements the RRS introduces the concept that peri-urban rural residential development is not only more desirable than 4ha

blocks at the perimeter of townships but it also introduces the concept of using peri-urban rural residential development to contain urban sprawl, achieving a compact urban form as well consolidating rural residential development.

- 7.5 The RRS From an urban perspective peri-urban rural residential developments require connectivity, access and circulation patterns that are to some extent similar to the adjacent urban networks but have a more generous size/spacing and more rural feel and character. Peri-urban RR developments therefore have the ability to structurally integrate to a sufficient level so as to become part of the built fabric and to assist in defining the urban form of a township. This connectivity to the urban environment is what differentiates this denser type of rural residential form from the more independent larger 4ha lot.
- 7.6 Whilst peri urban RR developments can structurally integrate into the urban fabric of a township they still remain distinctly different in visual and physical amenity and character. As such they are well suited to constrain urban sprawl where discernible boundaries to urban development are missing unless they are intentionally designed to accommodate further infill (future proofing).
- 7.7 To clarify this point; there are two different categories of peri urban RR
- A) Peri-urban development that is intended to create a clear boundary to urban development in a sense creating a 'developed RR buffer' this type of peri urban RR provides:
- An underlying structure (roading, services, lot layout and connectivity) that connects the development to the township but does not allow further physical connections to the rural surroundings to discourage sprawl.
 - Creates clear landscape buffers to the rural interface to mitigate potential reverse sensitivities
 - Support or creates clear gateways into the township
- B) Peri-urban development that is intended to preserve a future urban growth path for the rural Township provides
- An underlying structure (roading, services, lot layout and connectivity) that connects the development to the township and is

future proofed, so it does allow further physical connections to its surroundings and residential intensification to an urban density should this be required.

- Interim landscape buffers to the rural interface to mitigate potential reverse sensitivities

7.8 The RRS has not identified these inherent characteristics of the peri-urban rural development form and has therefore restricted the use of peri-urban development to small pockets where no future growth paths have been identified and discernible boundaries to the urban form are already established. This results in the majority of the peri-urban land that is under most development pressure to remain unmanaged.

7.9 Using this rural residential development type to its full potential of gives the planning authority tools to properly direct urban growth into the most appropriate locations on the perimeter of rural townships and also gives clear direction to landowners in peri urban areas how heir land is to be treated and what type of development is to occur should they choose to develop. Providing this level of certainty does not 'open up' all peri- urban land for development it just indicates what type of peri urban development to consider. Plan Changes, ODPs and other requirements still apply and give the Planning Authority controls over timing and other detail.

7.10 From an urban design perspective this level of certainty will assist with the strengthening of township boundaries, containing urban sprawl and guiding development. For that reason all peri-urban that falls into the criteria blow should be included in the RRS in principle to ensure it is managed appropriately –this includes peri-urban land that:

- has clearly been identified as an urban growth path (i.e. structure plan)
- is a potential growth path for future urban development based on the preferred long-term growth strategy and preferred urban form
- needs to be developed to create a preferred urban form
- has no discernible boundaries towards the urban environment where urban development needs to be constraint and is therefore vulnerable to urban growth pressure

- has no obvious constraints to development (i.e. flooding geotech) and is therefore vulnerable to urban growth pressure

- 7.11 Proactively managing the vulnerable peri-urban area is prudent, and good urban planning and best urban design practice. Identifying peri-urban land 'in principle' for peri urban rural residential development, unless strong discernible boundaries already exist between the rural and urban environment would enable the council to differentiate the peri-urban development from the standard 4ha rural residential development and utilize it to either future proof existing growth paths or curtail urban growth both in the interest to strengthen urban for.
- 7.12 The additional benefits of the peri-urban rural residential form are that it will provide the more desirable smaller sized rural residential lifestyle in a more consolidated form with less urban dispersal in the long term.

8. URBAN GROWTH AND URBAN FORM

- 8.1 As both of these terms Growth and Form are frequently used in the RRS and other Planning documents I consider it important to explain them from an urban design perspective which needs to be taken into consideration when Planning Documents are to guide the physical and visual urban and rural outcomes.

Urban growth

- 8.2 Structure plans are the main tools to manage anticipated growth and this has been done for Rolleston, Lincoln and Prebbleton, where the development pressure is the highest in the district. But these Structure Plans by their nature are urban plans and only address matters concerning the urban form and function within the new urban limits and zoning. They are not in sync with the existing landuse or the environment on other side of the line, the peri-urban land. But they do heavily rely on the peri-urban land to work in partnership and provide the necessary response such as forming a boundary, dealing with reverse sensitivity, allowing for future growth, forming gateways etc.

Urban form

- 8.3 There is no one form that fits all, on flat terrain urban form is often concentric as it maximises efficiency, achieves 'proximity' and

connectivity but there are many variables that effect the urban form natural features, economics, hazards and constraints, planning regimes, ideologies and many more. Albeit slow, urban form is also dynamic and changes in response to events, growth patterns planning changes. Although it is to some extent dynamic, urban form should always be legible, discernible and as compact as possible to remain efficient.

- 8.4 Although cities and townships with a good urban form share many common elements, every place has its own distinct characteristics and its urban form needs to be assessed on its own merit within its context.
- 8.5 The one thing all urban form has in common is that it needs to be to be legible and consolidated and for that it requires limits, boundaries or edges. For these boundaries to be legible they need to be defined. This naturally occurs through either a strong natural features which in itself is a boundary (i.e. mountain, a river, the coastline) or smaller changes in the environment which become thresholds that need to be crossed/passed to go from one to the other i.e. stream, a contour change, strong vertical elements such as trees and dense vegetation, against uninterrupted open space. Abrupt Change and contrast are the two elements that create boundaries and are most successful at defining and containing urban form.
- 8.6 A distinct change in the character of development can also create such a contrast, change or threshold. Peri-urban rural residential developments have the ability to create such distinctly different environments. Whilst they can connect physically to the township on it is important that they provide their own distinctive rural character which differentiates them from the urban environment and assist in the creation of gateways/thresholds from rural to urban.

Urban form and growth – Rolleston North

Refer to graphic supplement plan GS3 to GS6

- 8.7 With regard to urban growth there is no expectation that this north west corner of Rolleston will be a future growth path. It is rather the opposite, the Rolleston Structure Plan clearly states that urban growth into this area across SH 1 is to be avoided. With regard to urban form however Izone stretches the urban form of Rolleston towards the north creating a unbalanced overall form. It could be argued that the Izone is not part of the urban environment due to the fact that it has no urban

residential functions but Urban Form is not defined through landuse but through built form and development. The built up environment of the Izone clearly constitutes part of the urban form of Rolleston. Further expansion of the Izone to the east along SH1 will further accentuate this.

- 8.8 This leaves this northwest corner in limbo as it is a natural part of a concentric urban form but cannot and should not be developed as an urban residential environment. However, peri-urban rural residential development could fill the gap. This area already has a mixture of rural residential development from farm houses to 4ha lots and the smaller peri-urban sized development on Armack Drive.

Rural residential development on the Site

- 8.9 The site has not been included in the RRS as a preliminary peri-urban rural residential site although it meets many of the location criteria. The main reason for the exclusion of the Site from the RRS seems to be the fact that the Site is located north of SH1, severed from Rolleston town centre and lacks connectivity and the potential issues of reverse sensitivities with the functions of the railway line and SH1 to the south.
- 8.10 Although the Site has no direct connections to the Town centre of Rollston, Two Chain Road provides good connectivity to Izone, a potential workplace, and Izone itself has good vehicular connections to Rolleston and will in future also have a good pedestrian cycle connection in the form of an overbridge. (Rolleston Structure Plan)
- 8.11 The triangle between Two Chain Road, Walkers Road and the railwayline consists of 10 lots, of which 6 lots are owned by Pinedale Enterprises. For the purpose of a rural residential development the most eastern and one western lot have been excluded as they form good buffers to the Rolleston Prison to the west and Izone to the east. The 2 central lots, although not part of the PE landholdings have been included in the conceptual /strategy for RR development in this triangle.
- 8.12 The current Inner Plains zoning allows the Site to be developed as 4 ha rural lifestyle blocks. However, in the context of the discussion earlier I consider the peri-urban rural residential typology to be better suited for the site due to:
- Proximity to the urban edge of Rolleston

- Ability to connect to the Izone
- Maximises the use of land which is not suitable for agricultural purpose
- Assist in the definition of the wider urban form of Rolleston
- Assist in the formation of thresholds and gateways along SH1

9. DEVELOPMENT PROPOSAL

Refer to graphic supplement plan GS 7 and GS 8

- 9.1 A peri urban development strategy has been prepared to show how such a typology can be implemented on the Site. The design strategy for the Site is to provide strong buffers towards Two Chain Road and the railwayline as well as using the western and eastern lots as buffers towards Izone and Rolleston Prison. This creates a well defined enclave which can contain 4 small clusters of dwellings and at the same time protect them from surrounding activities.

Clusters

- 9.2 Clustering will allow the dwellings to group together around an access lane minimising the need for individual access points to be formed along Two Chain Road which is classified as an arterial route. Clustering also makes servicing of lots more efficient and leaves large open spaces between clusters to enable views to the Southern Alps as well as providing a rural character that is distinctly different from the urban environment to the south and different to the surrounding rural character.

Access and connectivity

- 9.3 Access to the clusters is via small rural lanes off Two Chain Road which creates a direct connection to Izone and further on via the main intersection across SH 1 which allows residents to access the town centre of Rolleston. This journey is approximately 3.8 km from the furthestmost access point onto Two Chain Road.
- 9.4 Pedestrian and cycle access can be achieved by a dedicated shared pathway on the southern wide grass berm of Two Chain Road and lead directly to the new proposed pedestrian and cycle overpass to Tennyson Street and the Town centre. This journey is just under 3km

which is a reasonable distance to travel on foot within a rural context and a short distance by bike. Such a shared path would also create a save and direct connection to Izone and its amenities.

- 9.5 There is a bus connection from Rolleston to Christchurch with a stopping point at Izone which again provides a connecting point for the rural residential development. The RSP also introduces a future rail connection to Christchurch at the Tennyson/SH/Izone intersection a mere 1.8 km from the Site.
- 9.6 The overall connectivity of the Site to Rolleston does rely to some extent on the connectivity of Izone to Rolleston and as such will improve over time as Izone grows and the RSP intention for cycle and pedestrian circulation are implemented. It is also important to include the very good connectivity the Site has to the wider Rolleston Christchurch public transport and roading network. It can be expected that the majority of residents within this rural residential enclave will regularly commute to Christchurch for work.

Reverse sensitivity

- 9.7 Any development on site would have to consider a generous physical setback from the railway line and SH1. Along the southern boundary there is already a well established vegetation screen of 30 -35 m within the property plus another 20 m vegetated strip between the SH1 and the railwayline. The development concept proposes to further intensify this landscape buffer to increase the noise buffer and to mitigate any potential noise effects from the railway and SH. Larger lots have been positioned along the southern boundary to ensure the required minimum 40m dwelling setback can be achieved without any impediment to the dwelling location on individual lots. In addition excavated soil can be used as bunds along this boundary to deflect sound if considered necessary.
- 9.8 Along the northern boundary towards Two Chain Road a similar setback is proposed to set dwellings well back from the Road and present a landscaped edge towards the street. This measure is to ensure Two Chain Road retains its rural character.
- 9.9 The two existing lots to the east provide a sufficient buffer to the Izone activities, in particular the eastern most property has a large amount of established mature trees creating a visual screen. In addition small tree

plantations on the northern side of two Chain Road further screen the larger buildings within Izone. The distance to Izone is approximately 1.2 km which is sufficient to establish a sense of separation for future residents.

- 9.10 The Rolleston Prison to the west does create more of a 'perceived reverse sensitivity' as the activity in itself does not affect its surroundings apart from not allowing connectivity which is understandable. Nevertheless the proposal responds to this matter by extending the existing vegetation pattern along Walkers Road further towards SH in the form of a dense shelterbelt and identifies the southwest corner of the Site as a potential stormwater attenuation area should this be required.

Gateways and Urban Form

- 9.11 The proposed design strategy creates a peri-urban development that provides the right level and intensity of development to complete the urban form without introducing an urban character to the area.
- 9.12 The edge treatment towards the south will not result in visual changes apart from additional planting to further close the gaps within this visual screen. Existing and proposed gateways into Rolleston will not be affected. To the contrary, the planting enhancements could be coordinated with other SDC measures to strengthen the gateways (by plant selection and general arrangement).

10. URBAN DESIGN MATTERS RAISED BY OFFICER'S REPORT

10.1 The Officer's Report opposes the inclusion of the nominated land for the following reasons:

a. Although the land is contained within a definitive road boundary, the extended length of this area may contribute to 'ribbon' development along SH1 south as far as Dunns Crossing Road, which is recognized as the southern gateway to Rolleston (refer to RRS13 Appendix 1 – Rolleston Urban Form and Growth Management Locations Criteria and Appendix 2 – Map 28)

10.2 The development would fall into an area that is part of the wider urban form of Rolleston to achieve a concentric form. The northwest corner is a 'wedge' currently 'in limbo' and peri-urban development can provide the right level and intensity of development to complete the urban form without introducing an urban character to the area. Development on this Site in this context therefore would not constitute ribbon development. In addition, the individual clusters allow for large open areas in between breaking the built forms and avoiding the appearance of continuous development.

b. Inclusion of the land may give rise to potentially adverse reverse sensitivity effects that could compromise strategic infrastructure and assets, including specifically the operation of SH1, the South Island Main Trunk Line (SIMTL), I-Zone business park and Rolleston Prison. This has occurred in Armack Drive, which is an established rural residential node on the southern periphery of the I-Zone business park, where complaints relating to nuisance effects associated with the railway siding and other activities taking place within I-Zone creating amenity conflicts and reverse sensitivity effects (refer to RRS13 Appendix 1 – Chapter 6 and Rolleston Urban Form and Growth Management Locations Criteria and Appendix 2 – Maps 15 & 28)

10.3 As explained in detail in my evidence earlier a wide landscaped buffer already exists between the SH and the railway, and a generous setback is proposed for dwellings on the southern boundary. In addition, gentle bunds can be introduced to deflect sound if needed. The railway along the southern boundary currently does not have any sidings so noise from such activity is not expected. I have looked in more detail at the Armack Drive development and found that although dwellings are well set back from the railway line and Izone the eastern boundary of the development is fairly open and allows in particular sound to travel aided by the prevalent northeasterly wind.

c. Although the location appears close geographically it is relatively severed from Rolleston, with the SH1 and SIMTL corridor presenting a barrier to achieving an integrated and well connected rural residential node when compared to alternative locations that directly adjoin the township boundary – future upgrades to the connection point at SH1 and Rolleston Drive are anticipated in the longer term, but are unlikely to reduce the distance having to be travelled between the site and the town centre. There are no alternative connection points in reasonably close proximity to the site other than Dunns Crossing Road, which would be no closer to the town centre or other community facilities (such as schools, libraries or open space reserves) than the Rolleston Drive connection. Increased vehicle numbers using this intersection is likely to reduce the safety and efficiency of SH1 (refer to RRS13 Appendix 1 – Rolleston Urban Form and Growth Management Locations Criteria and Appendix 2- Map 28)

10.4 There are definite limitations in connectivity to the town centre affecting primarily pedestrian movement due to distance, but at the same time, the location provides very good connectivity to Izone as well as important public transport and road connections to Christchurch and Rolleston itself. The severance by SH1 does not really affect cycle movement as the distance is short for a cycle trip and it builds on the connections between Izone and the town centre, which will continue to improve in the future.

10.5 Dunns Crossing is not really an alternative connection as it is counterintuitive and not a natural way to travel. I would therefore not expect this pathway to be used often – I am however not a traffic engineer so cannot comment on traffic safety.

10.6 Other rural residential locations to the west (PC 8 and PC9) and the proposed preliminary site to the east are 3km and 3.7 km and 1.2 km away from the Town centre measured from the closest point. The PE Site is 2.1 km via Rolleston Drive and would be 1.7km via a Tennyson Street pedestrian over bridge. Travel distances would be further diminished and the amenity for pedestrians improved if a shared walk and cycle way was located along the southern boundary of the proposed development within the generous setback.

d. Council's Asset Manager Transportation has also confirmed that the development of this block to rural residential densities could give rise to reverse sensitivity effects associated with the southern freight connection from SH1 and/or SIMTL to I-Zone business park, where Port of Tauranga and Port of Lyttleton have inland ports proposed that will require roading connections and railway sidings either through or in close proximity to the nominated land.

10.7 If the land is intended to support future industrial functions the owners should be made aware of this as a matter of urgency to preserve the land for such purposes and avoid the development of 4ha lots on the site as a default solution. Ms Aston has advised me that more specific information has been sought from the Council's Traffic Engineer regarding what is proposed. He advises that both inland port sites will be within Izone and both will require rail siding across Railway Road (Port of Tauranga) and Jones Road (Port of Lyttleton). These new industrial activities will occur within Izone, some way from the Site and thus reverse sensitivity should not be a significant issue (accepting however, that such an assessment is outside my direct area of expertise).

e. there is sufficient Living 3 zoned land and land supported for inclusion in the Strategy within Rolleston that better aligns with the Locations Criteria to provide housing choice in the short term than the nominated sites, with on-going monitoring and reviews determining the necessity and appropriateness of additional sites within the suggested 5 year timeframe.

- 10.8 Land supported for inclusion in the RRS for peri-urban rural residential development has been included as a result of already undergoing a private plan change. This is not to say it should not be included it just means that it has not been included because it 'better aligns' based on the location criteria. Interestingly the chosen location does extend development along SH1 beyond the Urban Form of Rolleston and could be considered a ribbon development.
- 10.9 A review of the RRS in 5 years is generally a good approach and will assist in improving the document and ensure it remains valid and appropriate. It also allows making adjustments to respond to the emerging growth patterns since the 2010/11 earthquakes. But as the draft RRS only really addresses and resolves a minor part of the existing peri-urban land it means that in 5 years time this entire exercise will have to be repeated. This could be avoided if the Draft RRS would appropriately address all peri-urban land now and either definitely include or exclude the land for peri-urban rural residential development using the principles of the peri-urban rural residential typologies presented earlier. The review in 5 years could then focus on ironing out the details such as timing, evaluation and refinement of future proofing requirements, protection of landscape values, formation of gateways etc.

11. CONCLUSION

- 11.1 The Draft RRS seems to only address selected peri-urban rural residential developments versus providing a solution for peri-urban land, which, as a result, will continue to be under development pressure. Through the RRS the Council has the opportunity to look further into the relationship between the peri-urban land and natural urban growth patterns and the necessity to control urban sprawl – identifying a few parcels to be developed a peri-urban rural residential will not solve this tension. Using PURR strategically around the perimeter of rural Townships to future proof growth paths or constraining urban expansion makes far more sense.
- 11.2 The Site is well suited for periurban rural residential development, is strictly confined and will consolidate rural residential development in this area. Development of this nature will also integrate into the urban form of Rolleston and assist in the legibility of the urban fabric. Gateways along SH1 can be strengthened and links to the Izone and the other facilities in Rolleston although physically separated by SH and railway, are still within reasonable travel distance by cycle and foot. Matters of connectivity will further improve in the near future as new and more direct connections between the towncentre and Izone will be implemented.

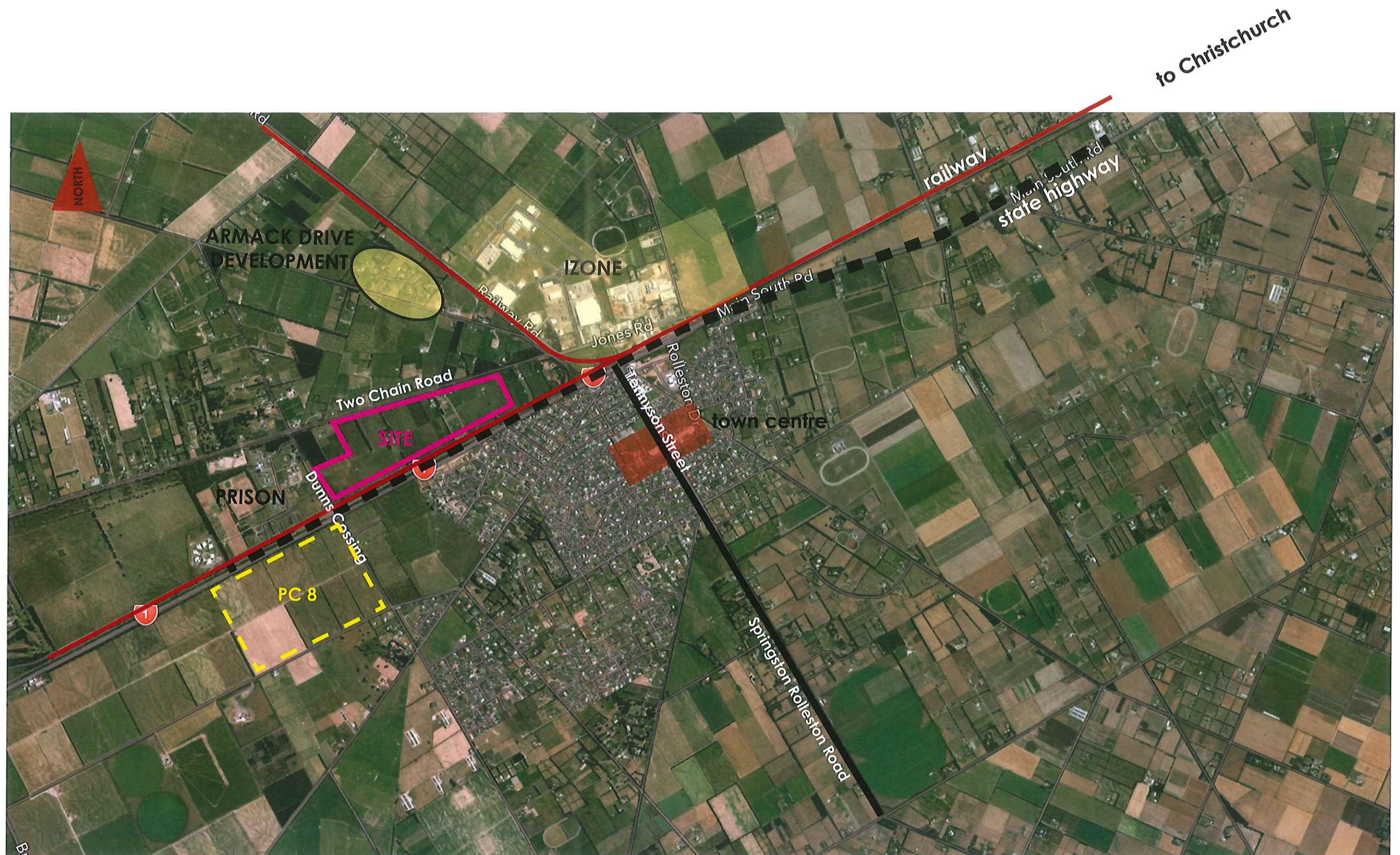
Nicole Lauenstein

9 April 2014

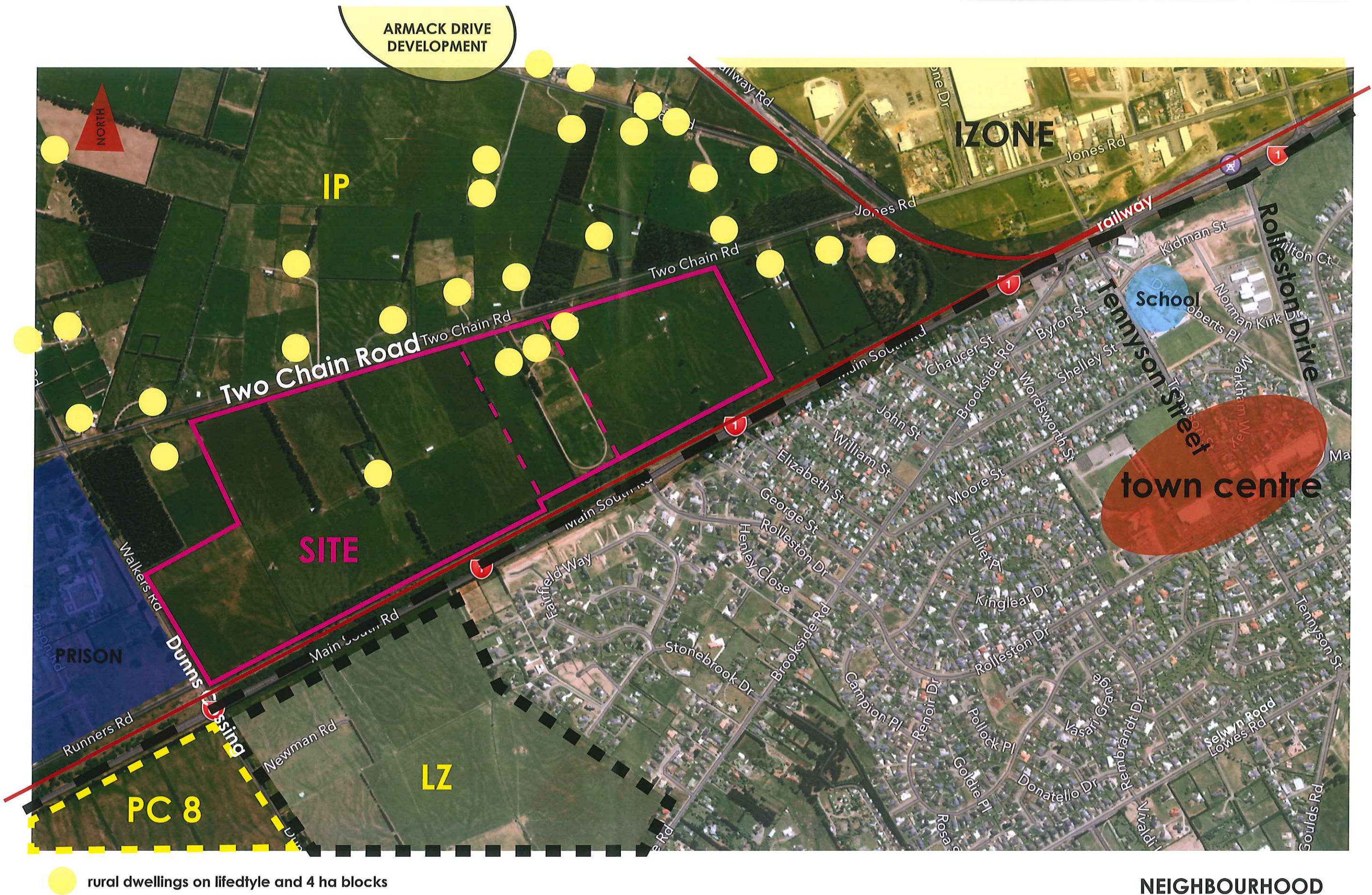
URBAN DESIGN EVIDENCE
Nicole Lauenstein

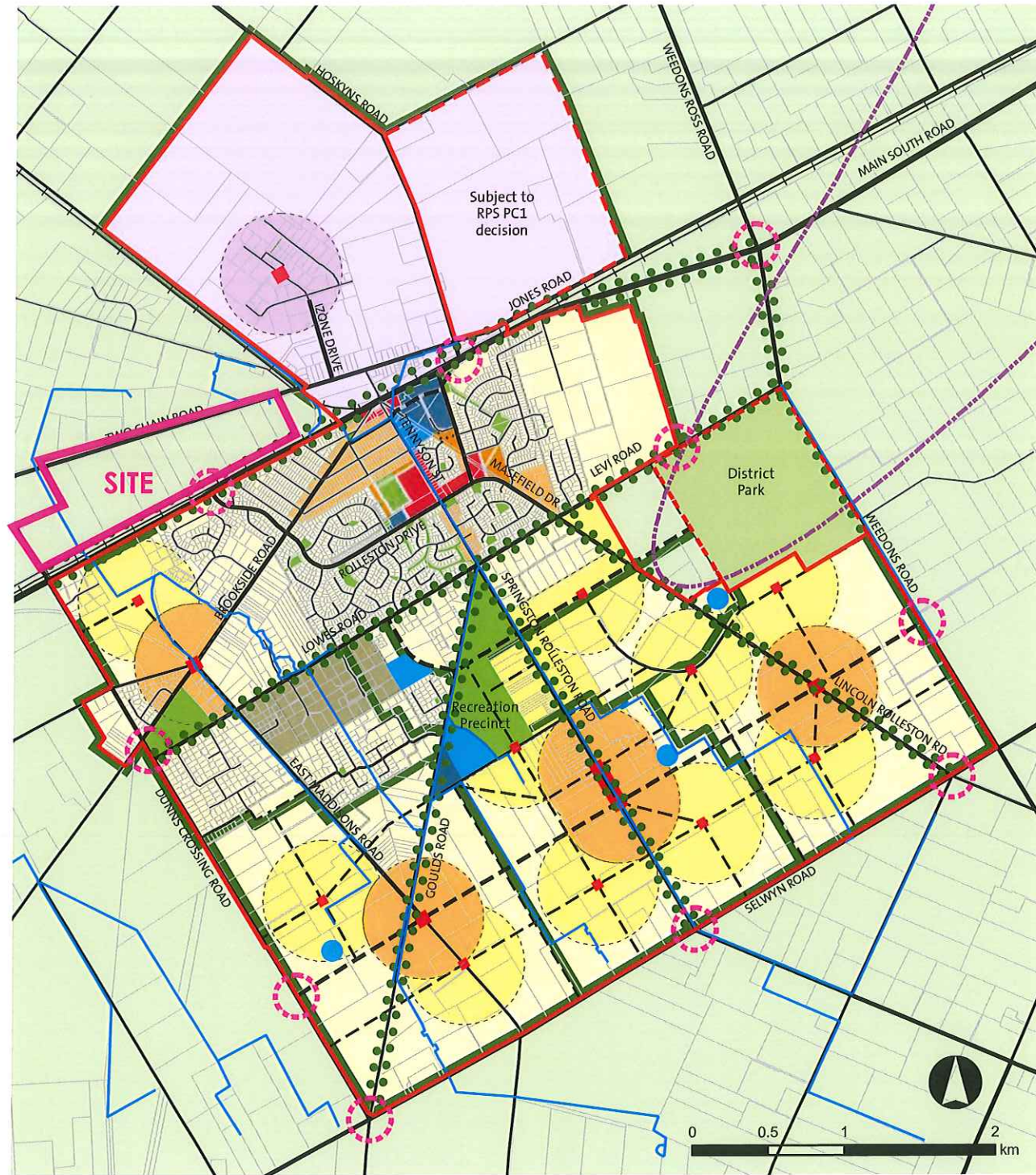
GRAPHIC SUPPLEMENT PINEDALE ENTERPRISE

SDC Rural Residential Strategy
HEARING



LOCATION AND WIDER CONTEXT

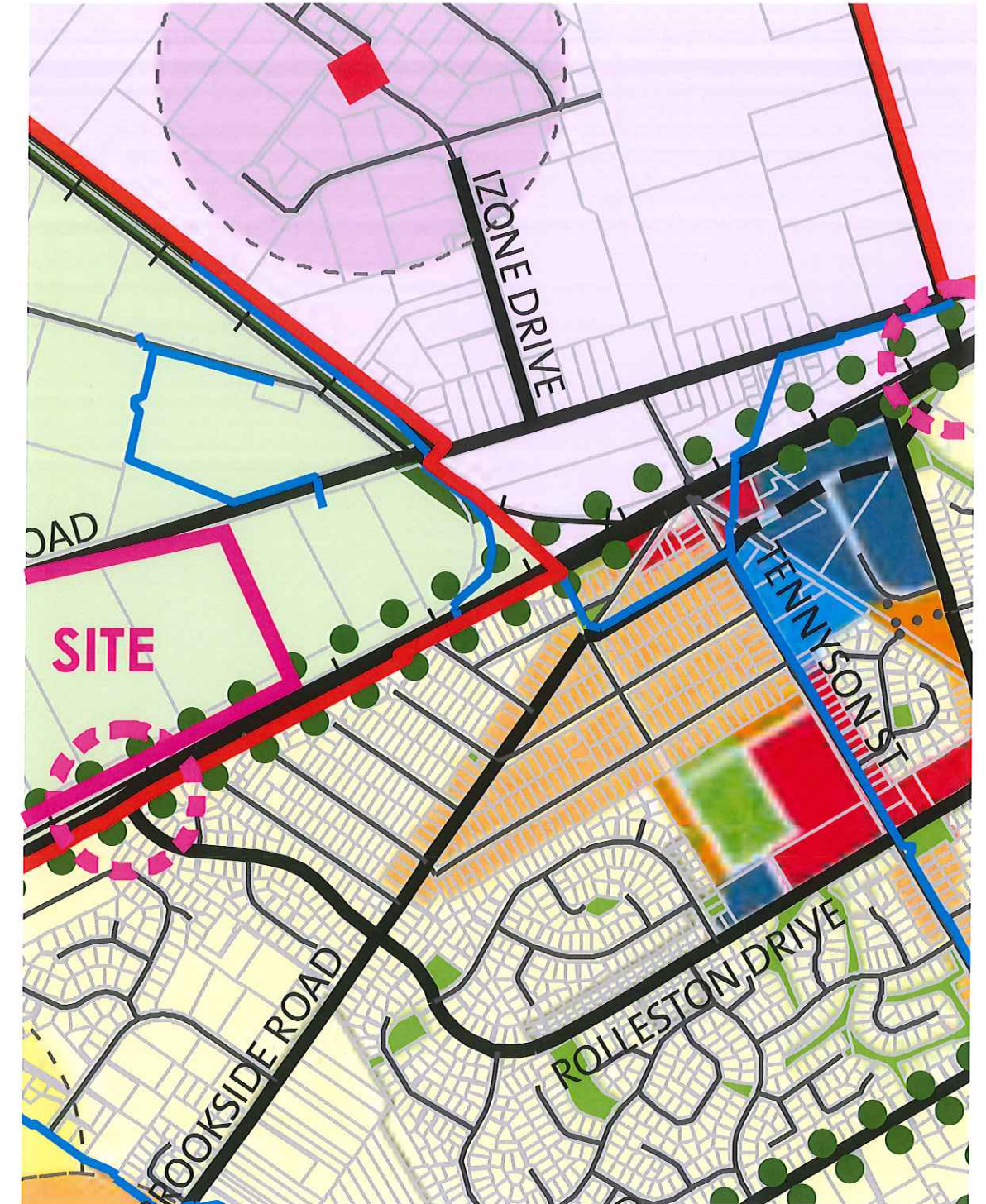




ROLLESTON STRUCTURE PLAN

Rolleston Structure Plan

- Study Area
- Railway
- National Arterial
- Main (primary) roads
- Proposed main (primary) roads
- Local (secondary) roads
- Proposed local (secondary) roads
- Local (minor) roads
- Walking and Cycling Link
- Town Centre
- Neighbourhood Centre
- Local Centre
- Comprehensive Housing
- Medium Density Residential (20HH/Ha)
- Medium Density Residential (15HH/Ha)
- Low Density Residential (10HH/Ha)
- Low Density Residential (7HH/Ha)
- Community Facilities
- Education Facilities
- Green Corridors and Green Belt
- District Park
- Recreation Precinct and Reserves
- Rural land
- Avenue Planting
- Izone Southern Business Hub
- Water Races
- Noise Contour
- 5 Minute Walk (400m)
- Key Gateways



ROLLESTON STRUCTURE PLAN



Figure 8.4: Cycleway Routes

- Study area
- Noise Contour
- Town Centre
- Neighbourhood Centre
- Local Centre
- 5 Minute Walk (400m)
- Rural land
- Cycle Routes
- Railway
- National Arterial
- Main (primary) roads
- Proposed main (primary) roads
- Local (secondary) roads
- Proposed local (secondary) roads
- Local (minor) roads
- Indicative local (minor) roads
- Walking and Cycling Link



Figure 8.5: Public Transport Route Patterns

- Study area
- Noise Contour
- Town Centre
- Neighbourhood Centre
- Local Centre
- 5 Minute Walk (400m)
- Rural land
- Railway
- National Arterial
- Main (primary) roads
- Proposed main (primary) roads
- Local (secondary) roads
- Proposed local (secondary) roads
- Local (minor) roads
- Indicative local (minor) roads

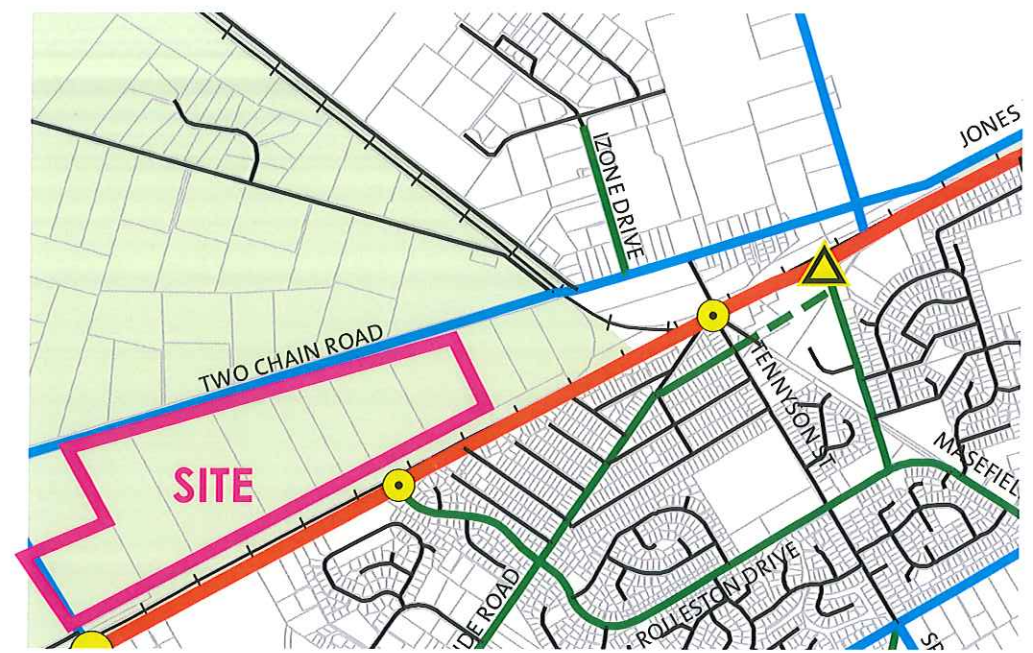
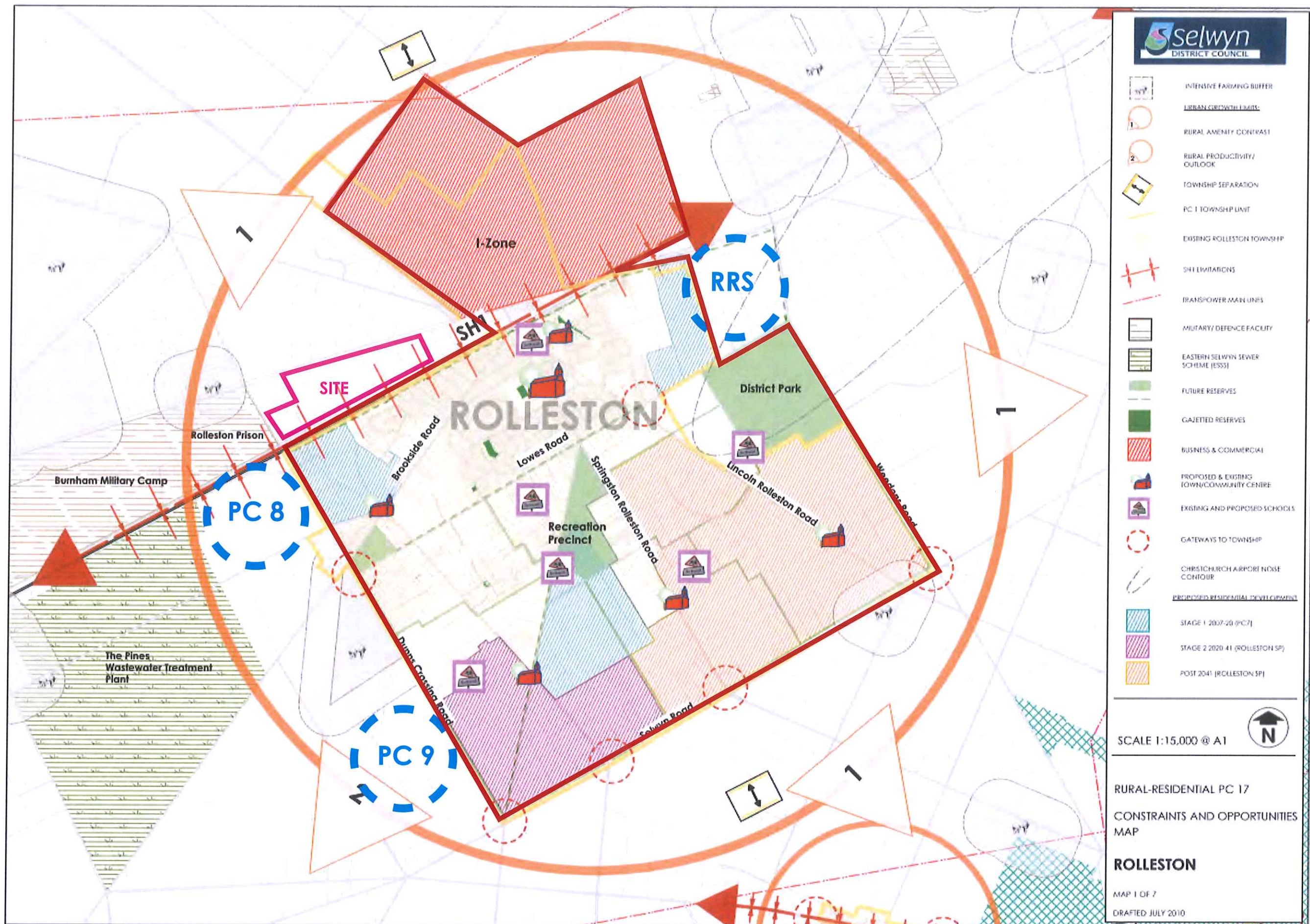
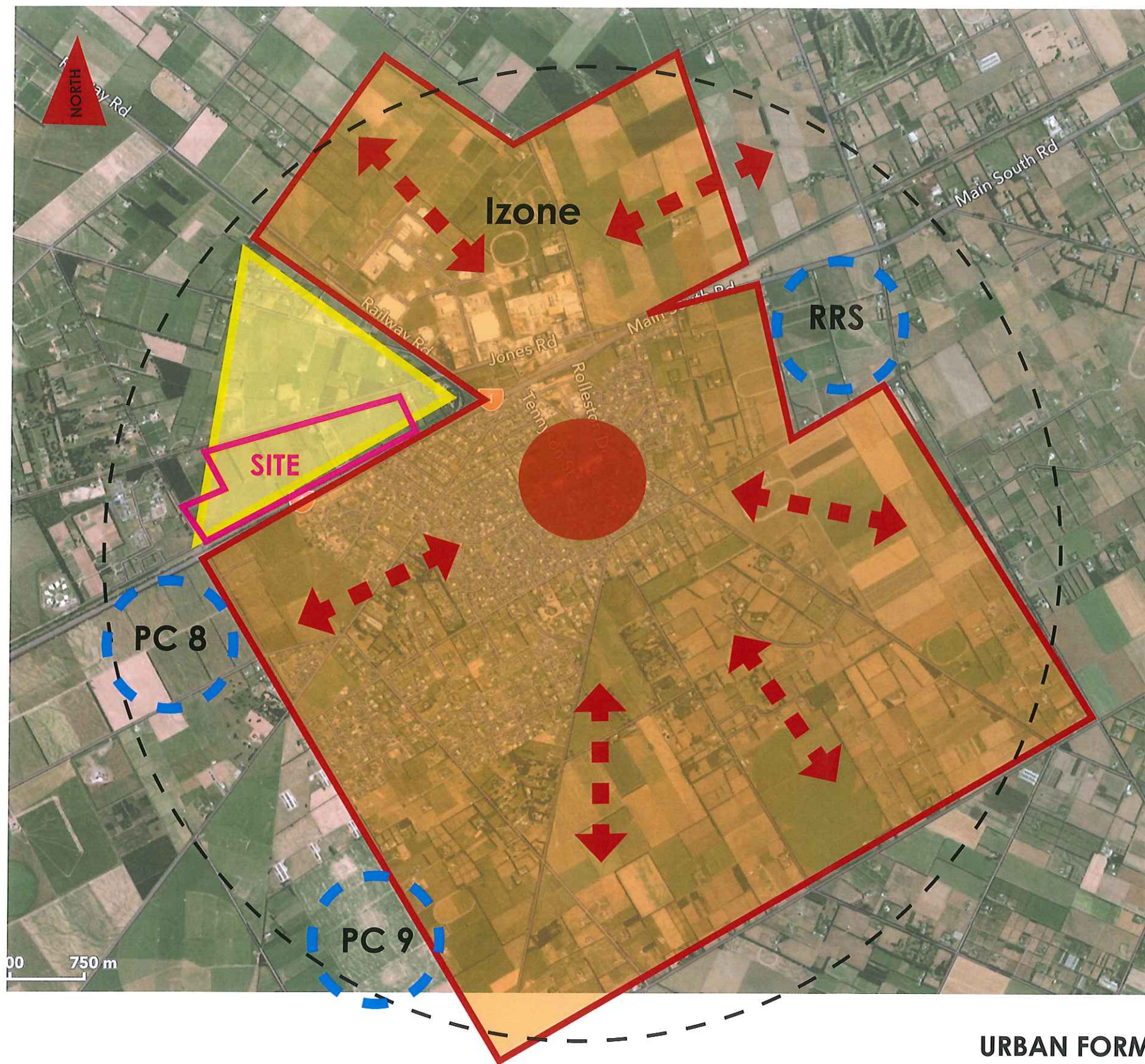







Figure 8.1: Transport Network – CRETS Road Hierarchy and State Highway Connections

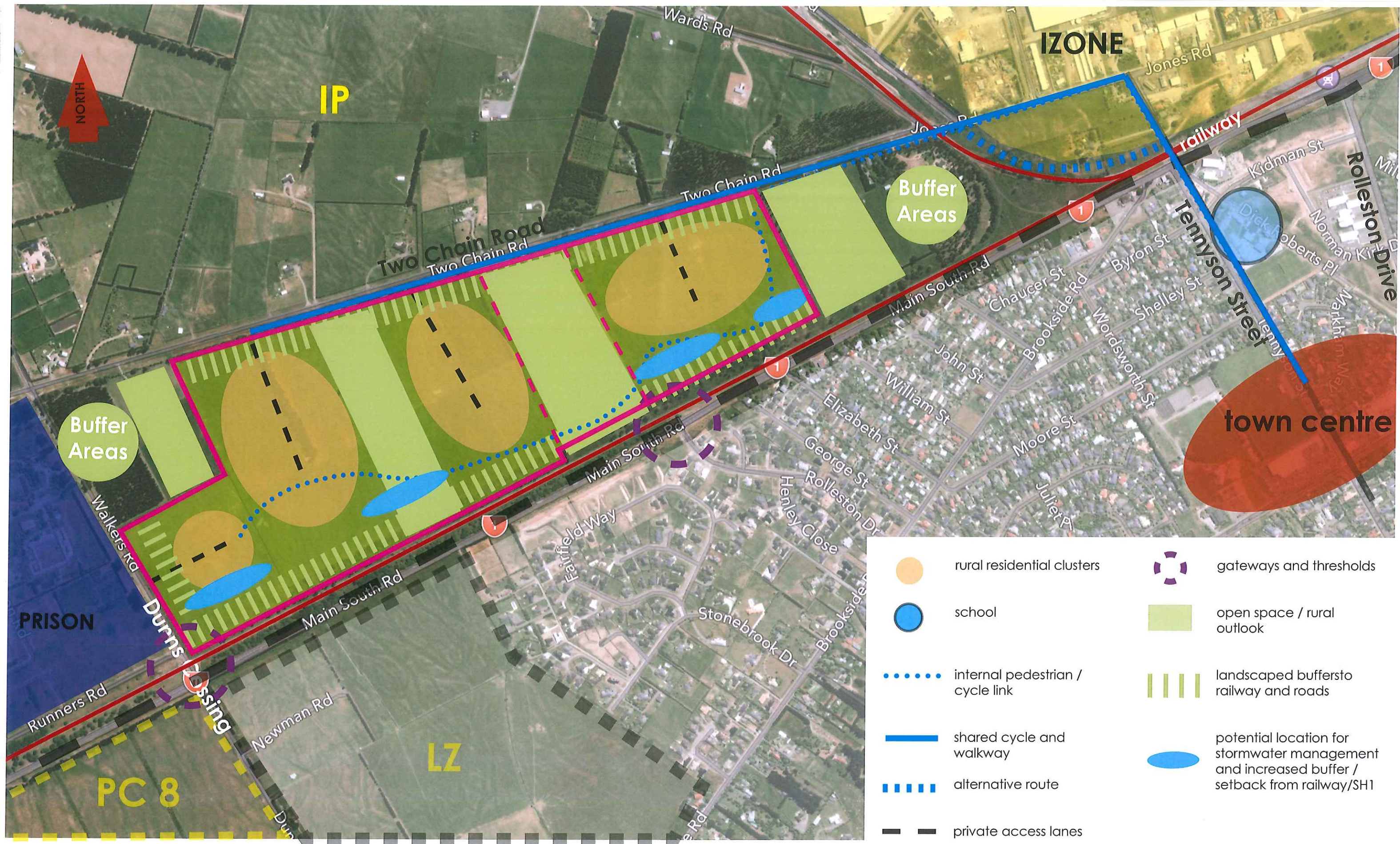
- Urban limit
- Full Intersection - all movements
- Grade Separated Interchange
- Grade Separated Link
- Restricted Access (left in, left out only)
- Existing Local Road
- National Arterial
- District Arterial
- Collector (Distributor)
- Collector (Distributor) Proposed
- Proposed Collector in Southern Rolleston Transportation Strategy
- Possible Connections (road \ cycleway)
- Railway



RRS APPENDIX 2 STUDY AREA MAP 28 PERI_URBAN CONTEXT ROLLESTON and rural residential locations overlay



-  The SITE
-  urban form as per Structure Plan and RRS
-  gap in the urban form
-  rural residential developments
-  Town Centre



RURAL RESIDENTIAL DESIGN STRATEGY



INDICATIVE CONCEPT MASTERPLAN