



Appendix E

Landscape and Urban Design Assessment

ROLLESTON WEST PLAN CHANGE, ROLLESTON

ROLLESTON WEST RESIDENTIAL LIMITED

Landscape and Visual Impact Assessment

Project No. 2020_129 | C

ROLLESTON WEST PLAN CHANGE LVIA

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1. INTRODUCTION AND PROPOSAL

DCM urban has been commissioned by Rolleston West Residential Limited to prepare a Landscape and Visual Impact Assessment for a proposed Plan Change to provide a greater area of residential development in Rolleston West. The proposal seeks to create two new zones as an extension of the existing settlement of Rolleston. The areas, covering a total approximate area of 160ha in two blocks, are currently zoned Living 3 under the Selwyn District Plan. The proposal seeks to establish an Outline Development Plan (ODP) for each of the two areas and include both Living Z and Business 1 Zones, allowing for approximately 2,100 new households. The ODP's are shown on page 3 and 4 of the attached figures.

2. METHODOLOGY

2.1 INTRODUCTION

The landscape and visual impact assessment considers the likely effects of the proposal in a holistic sense. There are three components to the assessment:

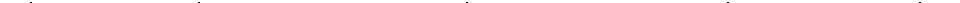
1. Identification of the receiving environment and a description of the existing landscape character, including natural character;
2. The landscape assessment is an assessment of the proposal against the existing landscape values;
3. The visual impact assessment is primarily concerned with the effects of the proposal on visual amenity and people, evaluated against the character and quality of the existing visual catchment.

The methodology is based on the Landscape Assessment and Sustainable Management 10.1, (NZILA Education Foundation), dated 2.11.2010 and Visual Assessment Best Practice Methodologies (Lisa Rimmer) dated 4.11.2007.

2.2 LANDSCAPE DESCRIPTION AND CHARACTERISATION

Landscape attributes fall into 3 broad categories: biophysical features, patterns and processes; sensory qualities; and spiritual, cultural and social associations, including both activities and meanings.

- Biophysical features, patterns and processes may be natural and/or cultural in origin and range from the geology and landform that shape a landscape to the physical artefacts such as roads that mark human settlement and livelihood.
- Sensory qualities are landscape phenomena as directly perceived and experienced by humans, such as the view of a scenic landscape, or the distinctive smell and sound of the foreshore.
- Associated meanings are spiritual, cultural or social associations with particular landscape elements, features, or areas, such as tupuna awa and waahi tapu, and the tikanga appropriate to them, or sites of historic events or heritage. Associative activities are patterns of social activity that occur in particular parts of a landscape, for example, popular walking routes or fishing spots. Associative meanings and activities engender a sense of attachment and belonging.

							
Natural	Near-natural	Semi-natural (including pastoral agriculture and exotic forests)		Agricultural (arable and intensive cropping)		Near-cultural	Cultural
Very high- pristine	High	Moderate High	Moderate	Moderate-low	Low	Very Low-ni	

Following the descriptive phase of landscape assessment, an evaluative phase is undertaken whereby values or significance is ascribed to the landscape.

An accepted approach, where the landscape value of the site is not identified in the District Plan under Section 6(b) of the RMA, is to use criteria identified in *Wakatipu Environmental Society Inc. & Ors v QLDC* [2000] NZRMA 59 (generally referred to as the Amended Pigeon Bay criteria). The assessment criteria have been grouped into 3 broad categories or 'landscape attributes' which are to be considered:

- ## 2.4 VISUAL ASSESSMENT METHODOLOGY

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professionally based using current and accepted good practice. Amenity values are defined in the Act as *“those natural or physical qualities and characteristics of an area that contribute to people’s appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.”* The visual assessment looks at the sensitivity of receptors to changes in their visual amenity through the analysis of selected representative viewpoints and wider visibility analysis. It identifies the potential sources for visual effect resulting from the Proposal and describes the existing character of the area in terms of openness, prominence, compatibility of the project with the existing visual context, viewing distances and the potential for obstruction of views.¹

The visual impact assessment involves the following procedures:

- Identification of key viewpoints: A selection of key viewpoints is identified and verified for selection during the site visit. The viewpoints are considered representative of the various viewing audiences within the receiving catchment, being taken from public locations where views of the proposal were possible, some of which would be very similar to views from nearby houses. The identification of the visual catchment is prepared as a desktop study in the first instance using Council GIS for aerials and contours. This information is then ground-truthed on site to determine the key viewpoints and potential audience. Depending on the complexity of the project a ‘viewshed’ may be prepared which highlights the ‘Theoretical Zone of Visual Influence’ (TZVI) from where a proposal will theoretically be visible from. It is theoretical as the mapping does not take into account existing structures or vegetation so is conservative in its results (given the scale and form of the proposal, the creation of a TZVI was not considered necessary).
- Assessment of the degree of sensitivity of receptors to changes in visual amenity resulting from the proposal: Factors affecting the sensitivity of receptors for evaluation of visual effects include the value and quality of existing views, the type of receiver, duration or frequency of view, distance from the proposal and the degree of visibility. For example, those who view the change from their homes may be considered highly sensitive. The attractiveness or otherwise of the outlook from their home will have a significant effect on their perception of the quality and acceptability of their home environment and their general quality of life. Those who view the change from their workplace may be considered to be only moderately sensitive as the attractiveness or otherwise of the outlook will have a less important, although still material, effect on their perception of their quality of life. The degree to which this applies also depends on factors such as whether the workplace is industrial, retail or commercial. Those who view the change whilst taking part in an outdoor leisure activity may display varying sensitivity depending on the type of leisure activity and a greater sensitivity to those commuting. For example, walkers or horse riders in open country on a long-distance trip may be considered to be highly sensitive to change while other walkers may not be so focused on the surrounding landscape. Those who view the change whilst travelling on a public thoroughfare will also display varying sensitivity depending on the speed and direction of travel and whether the view is continuous or occasionally glimpsed.
- Identification of potential mitigation measures: These may take the form of revisions/refinements to the engineering and architectural design to minimise potential effects, and/or the implementation of landscape design measures (e.g. screen tree planting, colour design of hard landscape features etc.) to alleviate adverse urban design or visual effects and generate potentially beneficial long-term effects.

¹ Reference: NZILA Education Foundation - Best Practice Guide – Landscape Assessment and Sustainable Management/ Best Practice Guide – Visual Simulations (2.11.2010)

- Prediction and identification of the effects during operation without mitigation and the residual effects after the implementation of the mitigation measures.

2.5 EFFECTS METHODOLOGY

Analysis of the existing landscape and visual environment is focused upon understanding the functioning of how an environment is likely to respond to external change (the proposal). The assessment assesses the resilience of the existing character, values or views and determines their capacity to absorb change. The proposal is assessed in its 'unmitigated' form and then in its mitigated form to determine the likely residual effects. The analysis identifies opportunities, risks, threats, costs and benefits arising from the potential change.

Assessing the magnitude of change (from the proposal) is based on the NZILA Best Practice Guide – Landscape Assessment and Sustainable Management (02.11.10) with a seven-point scale, being:

EXTREME / VERY HIGH / HIGH / MODERATE / LOW / VERY LOW / NEGLIGIBLE

In determining the extent of adverse effects, taking into account the sensitivity of the landscape or receptor combined with the Magnitude of Change proposed, the level of effects is along a continuum to ensure that each effect has been considered consistently and in turn cumulatively. This continuum may include the following effects (based on the descriptions provided on the Quality Planning website):

- **Indiscernible Effects** No effects at all or are too small to register.
- **Less than Minor Adverse Effects** Adverse effects that are discernible day-to-day effects, but too small to adversely affect other persons.
- **Minor Adverse Effects** Adverse effects that are noticeable but will not cause any significant adverse impacts.
- **More than Minor Adverse Effects** Adverse effects that are noticeable that may cause an adverse impact but could be potentially mitigated or remedied.
- **Significant Adverse Effects that could be remedied or mitigated** An effect that is noticeable and will have a serious adverse impact on the environment but could potentially be mitigated or remedied.
- **Unacceptable Adverse Effects** Extensive adverse effects that cannot be avoided, remedied or mitigated.

The following table assists with providing consistency between NZILA and RMA terms to determine where effects lie.

NZILA Rating	Extreme	Very High	High	Moderate			Low	Very Low	Negligible
				Moderate-High	Moderate	Moderate-Low			
RMA Effects Equivalent	Unacceptable	Significant		More than Minor		Minor	Less than Minor		Indiscernible

The NZILA rating of 'Moderate' has been divided into 3-levels as a 'Moderate' magnitude of change to always result in either 'More than Minor' or 'Minor' effects but maybe one or the other depending on site conditions, context, sensitivity or receiving character and its degree of change. Identification of potential

mitigation or offsetting measures: These may take the form of revisions/refinements to the engineering and architectural design to minimise potential effects, and/or the implementation of landscape design measures (e.g. screen tree planting, colour design of hard landscape features etc.) to alleviate adverse urban design or visual effects and/or generate potentially beneficial long-term effects.

Prediction and assessment identification of the residual adverse effects after the implementation of the mitigation measures. Residual effects are considered to be five years after the implementation of the proposed mitigation measures, allowing for planting to get established but not to a mature level.

2.6 PHOTOGRAPHY METHODOLOGY

All photos are taken using a SONY A6000 digital camera with a focal length of 50mm. No zoom was used. In the case of stitched photos used as the viewpoint images, a series of 4 portrait photos were taken from the same position to create a panorama. The photos were stitched together automatically in Adobe Photoshop to create the panorama presented in the figures.

2.7 STATUTORY DOCUMENTS

Relevant statutory documents in terms of Landscape Values and Visual Amenity are referred to below are the Resource Management Act 1991, and the Selwyn District Plan.

2.7.1 Resource Management Act 1991

Section 6 of the RMA identifies matters of national importance:

“In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

- s.6 (a) *The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use and development;*
- s.6 (b) *The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development;*
- s.6 (c) *The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.”*

Other matters are included under Section 7:

“In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to-

- (c) *The maintenance and enhancement of amenity values.”*

2.7.2 Selwyn District Plan

Under the Selwyn District Plan, the sites are zoned Living 3.

The Selwyn District Plan recognises Outstanding Natural Landscapes (ONL) and Visual Amenity Landscapes (VAL) but the proposal is not located in either an ONL or VAL. There are several policies in the Rural Objectives and Policies of the Selwyn District Plan which relate to Landscape Values and amenity which have been addressed in 3.3 below.

3. ASSESSMENT OF EFFECTS

3.1 EXISTING SITE CHARACTER

The receiving environment of the Lower Canterbury Plains is characterised by large open paddocks, with boundaries often delineated by well-established shelter belts of exotic species and rural dwellings surrounded by large trees. The relatively flat landforms flow from the base of the Southern Alps to the Port Hills in an assortment of agricultural fields, criss-crossed with roadways and shelterbelts. The existing northern site (Holmes Block) is bound by Dunns Crossing Road to the east and Burnham School Road to the south, while existing southern site (Skellerup Block) is bound by Dunns Crossing Road to the east. To the east of both sites lies the western edge of Rolleston Township where expansion with a typical suburban character increases the number of dwellings, hard surfaces, and infrastructure present in the landscape. The proposal is located on relatively flat topography, on sites which are typical of rural properties within the Canterbury Plains and includes shelterbelt plantings and structures associated with rural activities. Overall, the topographical attributes of the receiving environment are low with no defining features.

The existing land type of the Lower Canterbury Plains was acknowledged by Boffa Miskell in the Canterbury Regional Landscape Study Review (2010) as forming part of the L2 – Lower Plains Land Type. A landscape formed from low angle coalescing outwash fans and associated low terraces of the major rivers that slice through the plains, comprising Pleistocene glacial outwash gravels and minor inland dune belts.

Vegetation types in the receiving environment are predominantly exotic species, with small amounts of native species located near some waterways and paddock boundaries. Vegetation is used predominantly for shelter belts running along the paddock boundaries and includes species such as *Pinus radiata*, *Cupressus macrocarpa*, and *Eucalyptus* varying in height between 7 – 15m. The shelter belts are orientated to block the prevailing winds and are primarily located to delineate property boundaries, and along parts of the roads. The majority of the sites are open grass fields, which is disrupted occasionally by clusters of vegetation, and a water race in the Holmes Block north west corner.

Indigenous vegetation has been identified in the Canterbury Regional Landscape Study as being reduced to small, isolated, and scattered remnants because of the large-scale land use changes seen throughout the plains. This has resulted in 0.5% of the plains supporting native vegetation. This is seen in the existing vegetation patterns found on site, comprising largely of exotic species, which have been used for their ability to fulfil a role as fast growing shelterbelts. This is typical of the rural setting surrounding the site. Overall, the vegetation cover in the area has a low sensitivity to change, given the high level of fast growing introduced exotic species.

In terms of sensory qualities, the flat open geometric fields are back dropped by the Southern Alps to the west and the Port Hills to the east. Expansive views are often possible intermittently, being screened by existing development and shelterbelts. The infrastructure and shelter belts, though disrupting the continual views, have become integral to the rural aesthetic and identity. The natural characteristic of the environment is considered to

be modified, with a rural character as opposed to a natural character. The land surrounding the proposed site mirrors the overall character of the region.

In terms of built form, dwellings and farm structures are common throughout the area. The scale, character, form, and materiality of these structures vary throughout the receiving environment. There are a number of existing dwellings adjacent to the proposal along Dunns Crossing Road, including Stonebrook, Kajens Country and The Boulevard subdivisions. Adjacent to the northern site (Holmes Block) dwellings are of typical suburban bulk and location, while those adjacent to the southern site (Skellerup Block) have typical rural residential character. These are separated by large fields and exotic vegetation, have an irregular bulk and location, and are often supported by additional infrastructure such as sheds and storage buildings. Holmes Block site is approximately 1.2km to the west of Rolleston Township and less than 25m from existing medium density development. Skellerup Block is approximately 2.5km to the south east of Rolleston Township and less than 50m from existing medium density development.

Overall, the receiving environment has a rural, semi-open character on the outskirts of rural suburban development. The existing environment has various structures including dwellings, auxiliary structures, power lines and exotic vegetation clustered throughout the landscape typical of rural landscapes.

3.2 EFFECTS ON LANDSCAPE CHARACTER

Landscape character is the combination and composition of biophysical elements such as topography, vegetation, built form and sensory qualities perceived by humans. Landscape character is also spiritual, cultural, and social associations.

The character of the receiving environment is semi-open, rural and is used principally for agricultural purposes. The proposed development modifies the landscape from one that is semi-open and agricultural in character to one that is denser and more suburban in nature, where infrastructure and amenities are more concentrated. Aspects of rural character can and will be maintained through the mitigation of fencing types/position and landscape planting. The character of existing housing is typically single storey detached dwellings, which the proposal intends to continue, albeit at a higher density.

Natural character is highly modified, having been cleared for agricultural use. This is reflective in the lack of native vegetation present in the wider area. Existing amenity of the natural landscape is to be enhanced and retained through the planting and development of green corridors through the proposal.

Overall, the character and land use of the area will shift from open and agriculturally focused to a more concentrated, high amenity development. Through mitigation measures, open character will be retained and enhanced, where possible.

3.3 EFFECTS ON LANDSCAPE VALUES

NATIONAL POLICY STATION – URBAN DEVELOPMENT

Policy 8: Local authority decisions affecting urban environments are responsive to plan changes that would add significantly to development capacity and contribute to well-functioning urban environments, even if the development capacity is:

- a. *unanticipated by RMA planning documents; or*
- b. *out-of-sequence with planned land release.*

The proposed plan change areas are considered to naturally extend existing residential development at Rolleston. At the edge of existing residential settlement, the continuation of residential dwellings at a similar density is likely to be seen as an anticipated natural extension when compared to the broader context. While the proposed density is higher than the existing living 3 land use, the proposed plan change retains similar levels of density when compared to surrounding development in Stonebrook and Farringdon. It is considered appropriate for its setting on the edge of the township when considering the significant addition to development capacity that contributes to well-functioning urban environments. It is considered that the Plan Change areas are in-sequence developments adding to developments capacity of Rolleston, while retaining a similar level to existing surrounding development.

SELWYN DISTRICT PLAN – TOWNSHIP VOLUME

The proposed plan change areas are both zoned Living 3. The Selwyn District Plan has identified Outstanding Natural Landscapes and Features. The ODP is not located within a Landscape of value. The Objectives and Policies which are considered relevant to this Plan Change from a Landscape perspective follow:

Objective B4.1.1

A range of living environments is provided for in townships, while maintaining the overall ‘spacious’ character of Living zones, except within Medium Density areas identified in an Outline Development Plan where a high quality, medium density of development is anticipated.

The proposed plan change has given careful consideration and application of design treatment to such matters as road hierarchy, diversity of density, spatial layout, and existing and proposed green and blue networks to help the retention of the open and spacious rural character. An overall ‘spacious’ character is likely to be maintained even with the increased density.

Policy B4.1.10

Ensure there is adequate open space in townships to mitigate adverse effects of buildings on the aesthetic and amenity values and “spacious” character.

The Plan Change includes green corridors and pedestrian connections through the development to retain a high level of public amenity and connectivity. There are limited ‘features’ of note within the Plan Change areas but green links are proposed, linking public open spaces, commercial amenities and schools using off-road facilities.

Policy B4.1.11

Encourage new residential areas to be designed to maintain or enhance the aesthetic values of the township, including (but not limited to):

- *Retaining existing trees, bush, or other natural features on sites; and*
- *Landscaping public places.*

There are no natural features in either of the two plan change areas. Existing 3m strips of native vegetation along the proposal boundaries will be retained and incorporated into green networks where possible, though some juvenile vegetation may be removed to aid accessibility and open character. The green network is to be landscaped to a high level of amenity, ensuring an open character is maintained. This also allows a high level of natural surveillance over the public space.

Policy B4.2.4

Encourage the retention of natural, cultural, historic, and other features within a subdivision and for allotment boundaries to follow natural or physical features, where it maintains the amenity of an area.

There are no natural, cultural or historic features of note within the Plan Change areas.

Policy B4.2.10

Ensure that new residential blocks are small in scale, easily navigable and convenient to public transport services and community infrastructure such as schools, shops, sports fields and medical facilities, particularly for pedestrians and cyclists.

The proposed plan change, though not displaying local roading, promotes the ability for residential blocks to have a north – south aspect and varying between 800 – 1200m. This provides block lengths that are small in scale to allow for walkability and easy navigation without overly relying on roading. The use of green networks throughout the sites also encourage a high degree of connectivity and permeability within and in/out of the proposal, with focus around connectivity to Rolleston West Primary School and Brookside Park. Off-road shared paths further encourage alternative modes of transport such as cycling and walking. Proposed community infrastructure has been centralised around open space networks and key nodes within the development, while existing community infrastructure and green open spaces are located within 1.5km of the proposals.

Policy B4.2.12

Ensure that subdivision designs encourage strong, positive connections between allotments and the street and other features, whilst avoiding rear allotments where practical.

Possible future connections to surrounding developments are included in the proposed plan change, helping to foster positive connections to existing development. Higher density units open onto high amenity spaces building on the positive relationships associated with these land uses. Allotments along Burnham School Road avoid access onto the road by facing internally providing for a stronger relationship to internal streets.

Policy B4.3.2

In areas outside the Greater Christchurch area, require any land rezoned for new residential or business development to adjoin, along at least one boundary, an existing Living or Business zone in a township, except that low density living environments need not adjoin a boundary provided they are located in a manner that achieves a compact township shape.

Both sites are zoned for residential purposes.

Policy B4.3.3

Avoid zoning patterns that leave land zoned Rural surrounded on three or more boundaries with land zoned Living or Business.

The proposed plan change adjoins existing Living Zones to the east. The proposal does not leave rural zoned land with three or more boundaries against living or business zones.

3.4 EFFECTS ON VISUAL AMENITY

The visual context of the receiving environment is considered to be a 1km offset from the edge of the proposed development. This distance has been used due to the receiving environment's flat topography, resulting in views from further away either not being possible or being indiscernible at distance. A series of key viewpoints were selected to show a representative sample of the likely visual effects which could result from the proposal (refer to Appendix 1 for the relevant photos). Viewpoints are generally located on public land, and where possible located as close as possible to existing or proposed residential dwellings. In assessing the potential effect of a proposal, the quality and openness of the view is considered. These were as follows:

- 1) View south west from 406 Dunns Crossing Road
- 2) View north west from 344 Dunns Crossing Road
- 3) View north west from 75 Burnham School Road
- 4) View north east from 65 Burnham School Road
- 5) View south west from 203 Dunns Crossing Road
- 6) View north west from 90 Dunns Crossing Road
- 7) View north east from 152 Edwards Road
- 8) View south east from 152 Edwards Road

In assessing the potential effects on visually sensitive receptors, the key viewpoints outlined above have been used as a reference point where it is considered that the effects are likely to be similar to the viewpoint and for a group of viewers. The viewpoint is a representative view, as close as possible to the view likely to be experienced from a private residence or property but obtained from a public location.

The following table outlines the potential visual effects each Visually Sensitive Receptor might receive. The effects take into account the likely sensitivity of the receptor (based on type), combined with the likely magnitude of effects (a combination of distance from the proposal and degree of change) to determine what the likely residual effects from the proposal will be.

Table 2: Assessment of Effects on Visually Sensitive Receptors

Viewpoint	Visually Sensitive Receptors (VSR)	Distance from Proposal (m)	Type of View (open, partial, screened)	Description of existing view (from public location)	Sensitivity of VSR	Magnitude of Change	Description of Effects
1. View south west from 406 Dunns Crossing Road	Vehicle users along Dunns Crossing Road	<50m	Open	The view from this point is of large open grassed paddocks, with boundaries delineated by open style post and wire fencing. Mature exotic trees frame the view to the right, creating a screen from State Highway 1. Established vegetation and shelterbelts form the skyline in the distance. Infrastructure related to rural activity is present throughout the view, including central pivot irrigation, sheds, and residential dwellings.	Low	Low	The proposed plan change area is openly visible. While development of dwellings will likely reduce the open character of the landscape, the management of roadside fencing and landscaping will retain a sense of openness. The implementation of acoustic treatment along SH1 will mitigate some visual effects of the development and maintain the integrity of the road. Given the nature of the surrounding environment the proposal will appear as a natural extension of existing development.
	Residents along Dunns Crossing Road				High		
2. View south west from 344 Dunns Crossing Road	Vehicle users along Dunns Crossing Road	<50m	Open	The existing view from this location has open sightlines over the proposed site. The view has a typical open character, consisting mainly of open grass fields with open style post and wire fencing which delineate boundaries. Mature shelterbelts in the distance form the skyline and create a boundary between the rural land and State Highway 1. Infrastructure such as power lines and central pivot irrigation is open visible.	Low	Low	Views of the proposal from this location are open. Incorporating existing infrastructure along Dunns Crossing Road into the development helps absorb the level of change. The character of this view would change from more open and rural in nature to a more dense, suburban development. Given the surrounding level of permitted baseline development surrounding the proposed site, including commercial activity, the proposal will appear as a natural extension of development.
	Residents along Dunns Crossing Road				High		
3. View north west from 75 Burnham School Road	Vehicle users along Burnham School Road	<50m	Open	This viewpoint has open views across the proposed site. The foreground is dominated by vegetation. Exotic shelterbelts frame the view to the right, while juvenile native planting frames the left as it runs adjacent to the fence line. Post and wire fencing delineates paddock boundaries, often sporadically lined with gorse. Mature vegetation forms the skyline in the distance. Irrigation infrastructure is present in the distant view.	Low	Low	The proposed plan change area is openly visible. Dwellings along Burnham School Road will retain a sense of openness through the management of boundary fencing and landscaping. The overall character of this view will shift from one open and rural in character to one that is suburban and higher in amenity. Development will form the skyline of this view.
4. View north east from 65 Burnham School Road	Vehicle users along Burnham School Road	<50m	Open	Views from this location openly look across the proposed site. Post and wire fencing spans the foreground and is lined with juvenile native planting. Central pivot irrigators are visible and stretch across the open grass paddocks in the distance. Mature shelterbelts and exotic vegetation is present and forms the skyline in the background of the view. Existing development is visible on the horizon, beyond the proposed site.	Low	Low	The proposal is openly visible from this view. Fencing along the boundaries of Burnham School Road will be managed to promote a more open character. The character of this view would change from more open and rural in nature to a more dense, suburban development. Development will form the skyline. The proposal will appear as a natural extension of the development visible in the background of the view.
5. View south west from 203 Dunns Crossing Road	Vehicle users along Dunns Crossing Road	<50m	Open	This viewpoint looks onto the proposed site over open grass fields. Post and wire fencing spans the foreground of the view and is lined with juvenile native vegetation. The background of the view is dominated by exotic shelterbelts and mature vegetation. Infrastructure such as power lines and central pivot irrigation are openly visible.	Low	Low	Views of the proposal from this location are open. Incorporating existing infrastructure along Dunns Crossing Road into the development helps absorb the level of change. The character of this view would change from more open and rural in nature to a more dense, suburban development. Area of more intensive development, such as commercial zones and medium density development, are clustered together to not only provide amenity in a centralised location, but to reduce the overall visual impact in the broader context of the site.
6. View north east from 90 Dunns Crossing Road	Vehicle users along Dunns Crossing Road	<50m	Open	Views from this point are open looking from Dunns Crossing Road across the proposed site. Open style post and wire fencing is frequent through the view, delineating boundaries. Juvenile native vegetation spans the fence line adjacent to the road, alongside power lines. Established shelterbelts and exotic vegetations is present in the distance, forming the skyline above open grass fields. Central pivot irrigation is present and spans the background of the view.	Low	Low	The proposal is openly visible from this view. While the development of dwellings reduces the open character of the landscape, the management of fencing along the Dunns Crossing Road boundary will retain a sense of openness. Incorporating existing infrastructure along Dunns Crossing Road into the development helps absorb the level of change. The character of the view would change from one more rural in nature to one more suburban. .
7. View north east from 152 Edwards Road	Vehicle users along Edwards Road	50-100m	Screened	This viewpoint looks across Edwards Road to the proposed site. Views are currently screened and dominated by established, exotic shelterbelts. Power line infrastructure is openly visible and spans the length of Edwards Road, breaking into the skyline. The narrow shingle road is lined on either side by mature vegetation, with large grass berms separating the two.	Low	Low	From this location the proposed plan change area will be openly visible. The character of this view is likely to change from one rural in character to one that is denser and more suburban in nature. There is anticipated to be little change in open character of the site as it changes from screened views of vegetation to open views of suburban development.
8. View south east from 152 Edwards Road	Vehicle users along Edwards Road	50-100m	Open	Open views from this point look directly onto the proposed site. Post and wire fencing is visible and delineates the boundaries of open grass fields. The background of the view is dominated by mature vegetation, breaking into the skyline. A large grass berm spans the length of Edwards Road.	Low	Low	From this view there are open views over the development. A sense of openness will be retained through the management of fencing and landscaping for dwellings along Edwards Road. The character of this view would change from more open and rural in nature to a more dense, suburban development. Development will form the skyline. Given the surrounding level of permitted baseline development surrounding the proposed site, including commercial activity, the proposal will appear as a natural extension of development.

3.5 SUMMARY OF EFFECTS ON VISUAL AMENITY

The likely visual effects are described above in the Assessment of Effects table.

The proposal would result in an overall change in character from open and rural to one that is more dense and suburban in nature but is anticipated to a degree with the current Living 3 zoning. The receiving environment is to maintain aspects of openness through the restoration and retention of green corridors and providing connectivity and accessibility throughout the wider site. Management of fencing and bulk and location of the development will also help create a sense of openness throughout the site. The highest likely effects after mitigation will be experienced by those residential properties closest to the proposal, along Dunns Crossing Road. Though there is a change from rural to suburban, from this location the magnitude of change is considered low as the proposal is an extension of the existing development present on the other side of Dunns Crossing Road. Motorists have a temporary view of the development and are anticipated to expect change in land from rural to suburban as they travel to/from Rolleston township.

Overall, the scale and bulk and location of the proposal would allow it to appear as a natural extension of existing development within Rolleston, with an anticipated low magnitude of change.

4. MITIGATION MEASURES

The following mitigation measures are suggested to either avoid, remedy, or mitigate any potential effects on Urban Design, Landscape Character, Landscape Values and/or Visual Amenity from the proposed Plan Change:

MM1	<p>Provide a diversity of house size and lot size to provide choice, with higher density development located close to high amenity and business areas.</p> <ul style="list-style-type: none">• This is provided for through the proposed location of low and medium density housing.
MM2	<p>Create streets which have a high level of amenity, provide for different modal allocation, and allow for an efficient use of land by having a street hierarchy with different road reserve widths depending on their classification. Encourage the use of low impact design techniques including grass swales and detention basins</p> <ul style="list-style-type: none">• These considerations would be addressed through the detailed design and consenting of any subdivision proposal(s) within the plan change areas.
MM3	<p>Create a well-connected walking and cycling network which combines with the green / blue network and existing facilities connecting to key destinations (school, childcare, town centre), prioritising walking and cycling with a mix of on-road, separate, and off-road facilities to promote active transport modes</p> <ul style="list-style-type: none">• Key connections are identified on the ODPs and may be supplemented through additional connections provided for at the time of subdivision consent.
MM4	<p>Avoid direct vehicle access onto Burnham School Road for individual properties to allow for a high-quality landscape treatment along this corridor and minimize potential effects on this road.</p>

MM5	<p>Provide a quantity of greenspace and facilities appropriate for the future population with green links extending through the plan change area and connecting with adjoining residential and rural areas.</p> <ul style="list-style-type: none"> • This is provided for on the ODPs.
MM6	<p>Solid fencing should preferably be restricted to rear and side yards to retain an open character along streets and existing roads or at a minimum front boundary fencing will have restrictions. Side fencing should not extend forward of the front wall closest to the street of a house or would need to be limited in height.</p> <ul style="list-style-type: none"> • This is a matter that would be incorporated into developer covenants that manage and implement specific design outcomes sought within the plan change areas.

5. CONCLUSIONS

In terms of the National Policy Statement: Urban Development, Policy 8, the proposed Plan Change will add significant residential capacity with a proposed density ranging between 12 and 15 hh/Ha. This is higher than the recommended density in the Township objectives and policies for the Living Z zone, but is considered appropriate to meet the outcomes desired by the NPS:UD (2020). Any amenity effects on existing and future residents can be successfully mitigated through the proposed mitigation measures.

In terms of landscape character and values of the area, subject to the mitigation measures proposed, the proposal will result in an acceptable magnitude of change on the existing rural landscape character and values. The existing character of the Plan Change areas are already highly modified with no natural features of note. The partially open character of the site will change to a character which is more compartmentalised into smaller units, but which can be partially mitigated through fencing controls and landscape planting to retain a high level of amenity. This change to the open character is already anticipated in the current Living 3 zoning.

In terms of visual amenity, the adjacent rural properties will experience a change in the openness of views across the space. Adjoining suburban residential properties, current and future, overlooking the Plan Change areas will have a mix of open, partial, and screened views of future development. Changes to experience by these residents are considered Low given the character of existing views and existing boundary treatment.



APPENDIX ONE - LANDSCAPE AND VISUAL IMPACT ASSESSMENT FIGURES

ROLLESTON WEST PLAN CHANGE
FOR ROLLESTON WEST RESIDENTIAL LIMITED
16 NOVEMBER 2020

REVISION C



ROLLESTON WEST PLAN CHANGE

Project no: 2020_129
Document title: LANDSCAPE AND VISUAL IMPACT ASSESSMENT
Revision: C
Date: 16 NOVEMBER 2020
Client name: Rolleston West Residential Limited

Author: David Compton-Moen
File name: \\GOOSE\Storage\4_DCM - Projects\2020_129 Carters Rolleston West Plan Change\3_Working Files\3_InDesign\ 2020_129 Carter Rolleston West Plan Change_LVIA_B.indd

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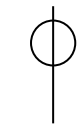
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LEGEND

-  Plan Change Boundary
 - Living Z**
 -  General Residential Density
(Minimum 12 Households/Ha)
 -  Medium Residential Density
(Minimum 15 Households/Ha)
 - Business**
 -  Commercial / Business
 -  Primary Road
 -  Secondary Road
 -  2.5m Shared Path (off road)
 -  Possible Future Connection
 -  Potential Intersection Upgrade
 -  Recreation Reserve
 -  Pocket Park
 -  Green Link
 -  Water Race
 -  Water Race Realigned
 -  Avoid access onto Burnham
School Road from site
 -  Odour Constrained Area
 -  Bunding and Dense Planting
 -  40m Noise Abatement Setback
 -  Acoustic Bund or Fencing



A. OUTLINE DEVELOPMENT PLAN

LANDSCAPE AND VISUAL IMPACT ASSESSMENT

PROPOSAL - HOLMES BLOCK OUTLINE DEVELOPMENT PLAN

ROLLESTON WEST PLAN CHANGE



LEGEND

- Plan Change Boundary
- Living Z**
 - General Residential Density (Minimum 12 Households/Ha)
 - Medium Residential Density (Minimum 15 Households/Ha)
- Business**
 - Commercial / Business
- Primary Road
- Secondary Road
- Planned Future Road Connection (via other developments)
- Shared 2.5m Path (off road)
- Possible Future Connection
- Recreation Reserve
- Green Link
- Odour Constrained Area



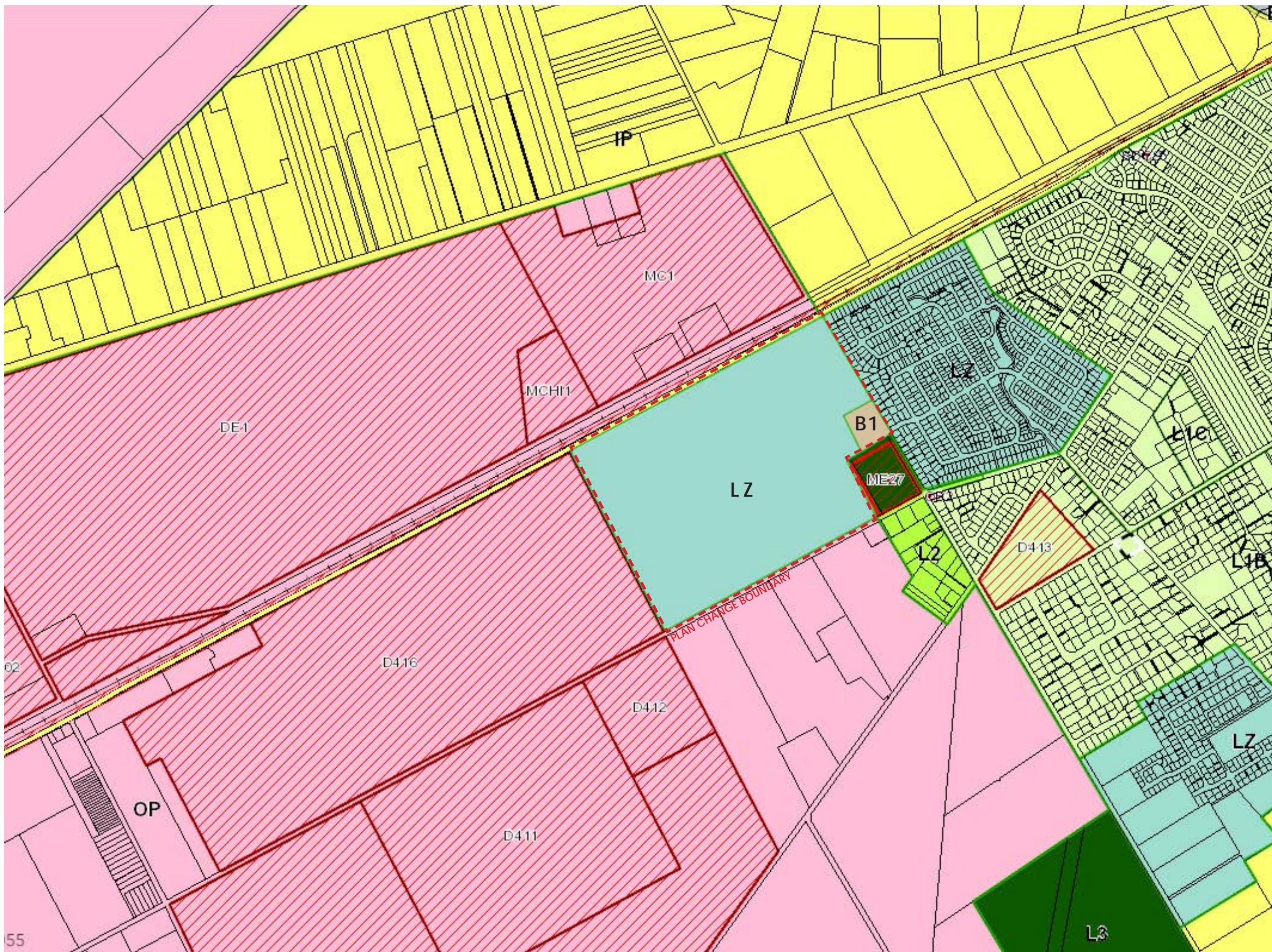
A. OUTLINE DEVELOPMENT PLAN

LANDSCAPE AND VISUAL IMPACT ASSESSMENT

PROPOSAL - SKELLERUP BLOCK OUTLINE DEVELOPMENT PLAN

ROLLESTON WEST PLAN CHANGE





LEGEND

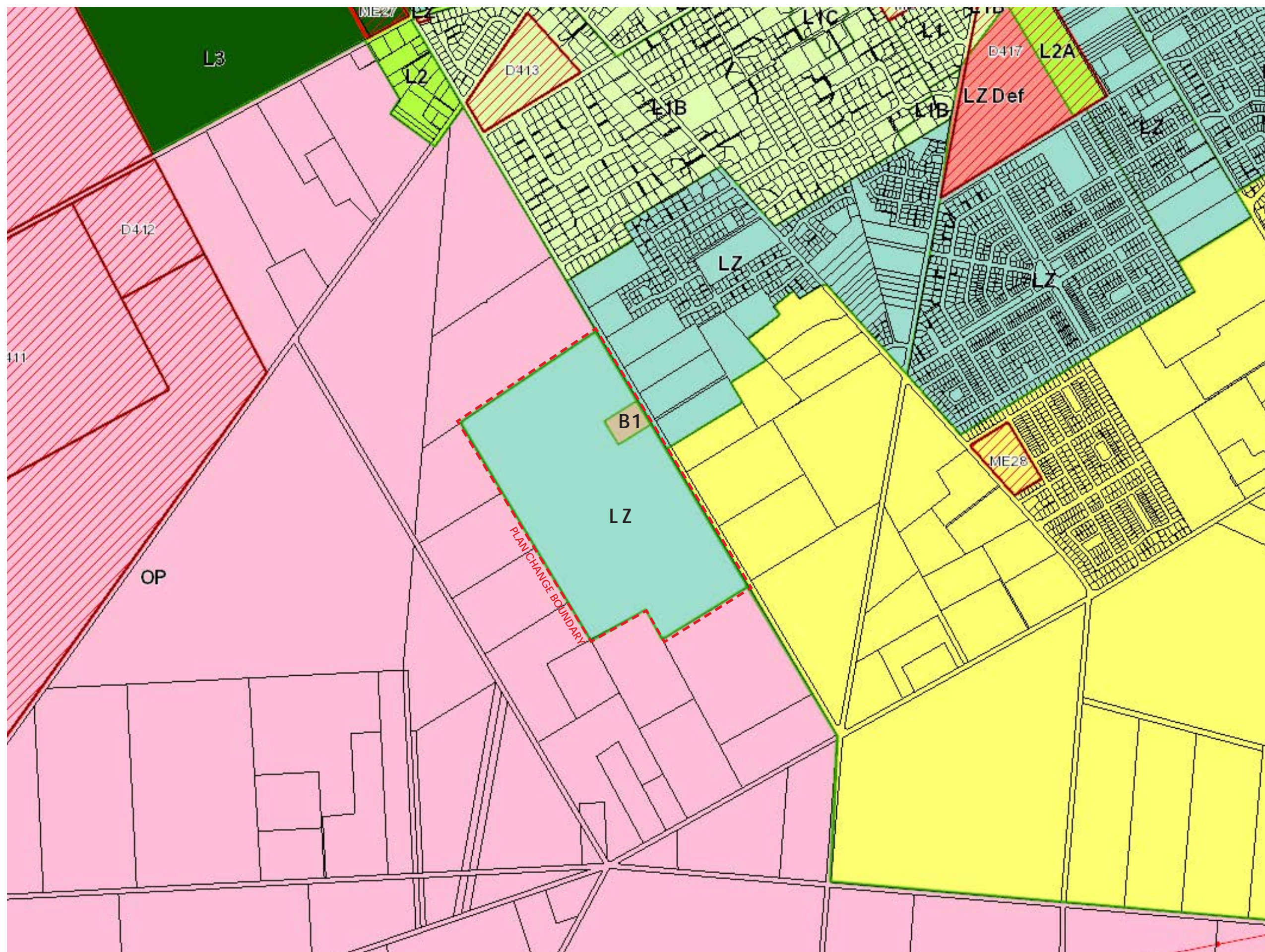
- Living 1
- Living 2
- Living 3
- Living X
- Living Z
- Living Z Deferred
- Deferred Living
- Business 1
- Business 2
- Business 3
- Inner Plains
- Outer Plains
- Operative

Map / image source: Selwyn District Council

LANDSCAPE AND VISUAL IMPACT ASSESSMENT

PROPOSAL - HOLMES BLOCK DISTRICT PLAN ZONING

ROLLESTON WEST PLAN CHANGE



LEGEND

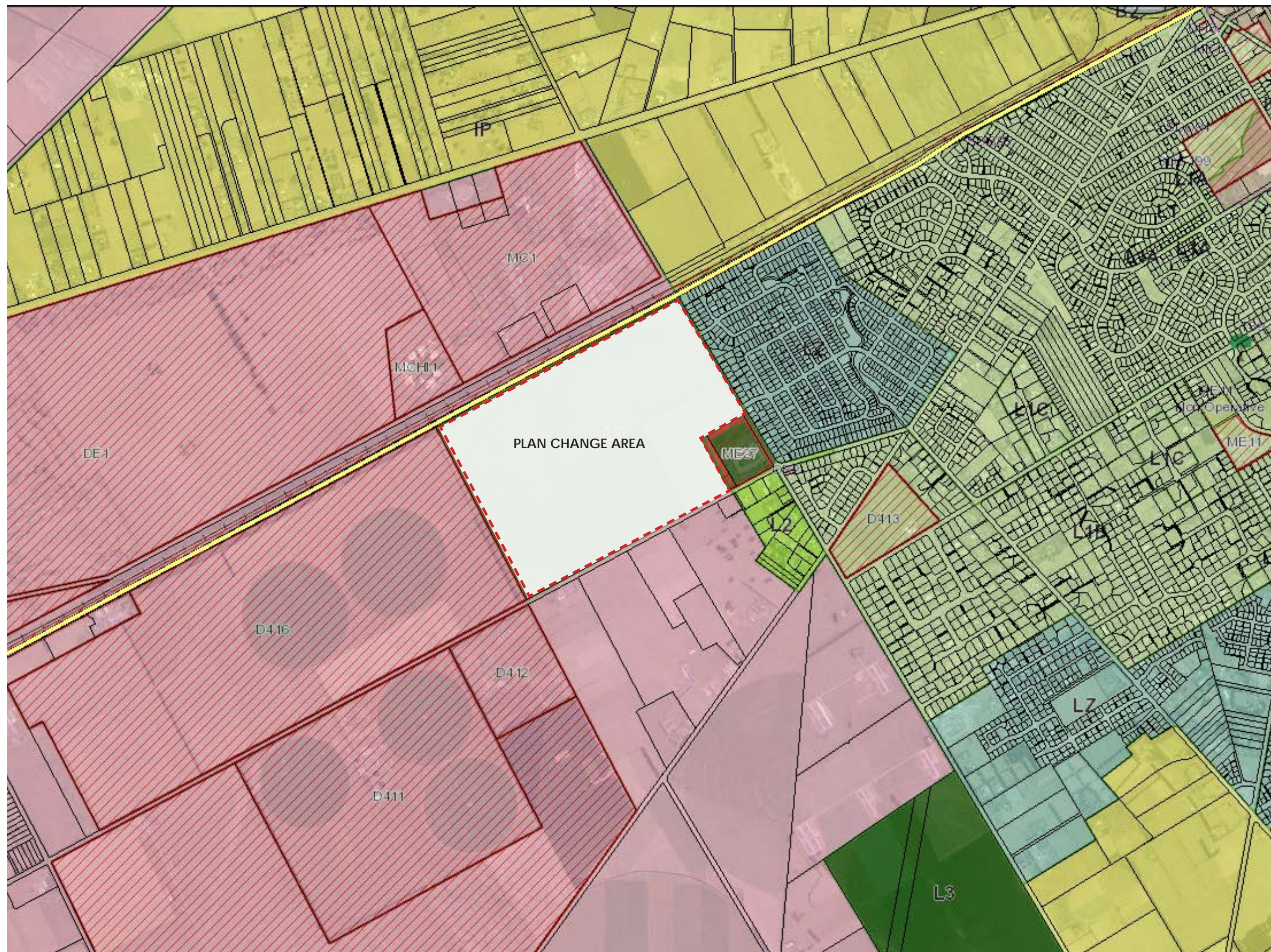
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- Living 2
- Living 3
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- Business 1
- Business 2
- Business 3
- Inner Plains
- Outer Plains
- Operative

Map / image source: Selwyn District Council

LANDSCAPE AND VISUAL IMPACT ASSESSMENT

PROPOSAL - SKELLERUP BLOCK DISTRICT PLAN ZONING

ROLLESTON WEST PLAN CHANGE



LEGEND

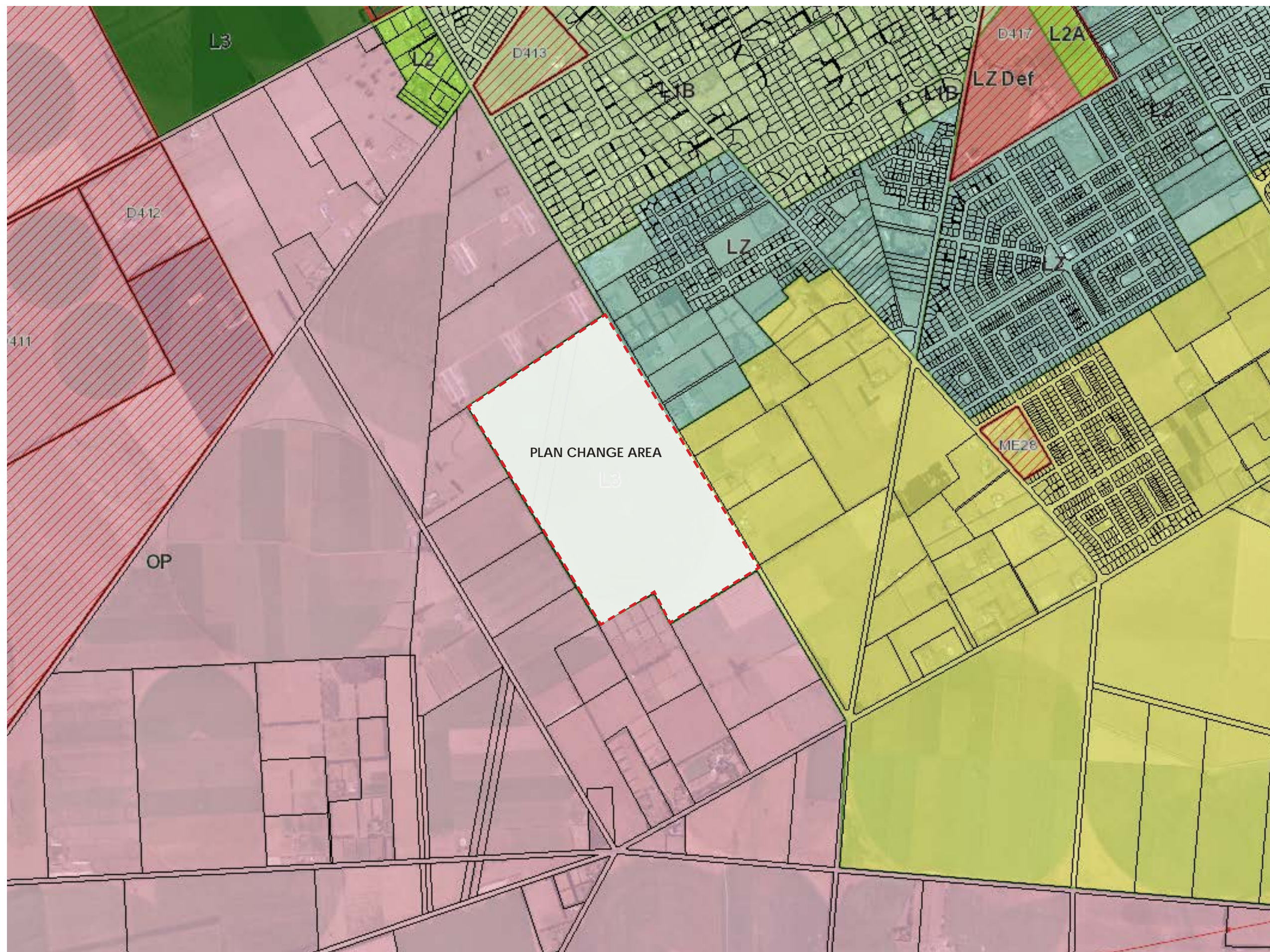
- Living 1
- Living 2
- Living 3
- Living X
- Living Z
- Living Z Deferred
- Deferred Living
- Business 1
- Business 2
- Business 3
- Inner Plains
- Outer Plains
- / Operative

Map / image source: Selwyn District Council

LANDSCAPE AND VISUAL IMPACT ASSESSMENT

CONTEXT - HOLMES BLOCK DISTRICT PLAN MAP

ROLLESTON WEST PLAN CHANGE



LEGEND

- Living 1
- Living 2
- Living 3
- Living X
- Living Z
- Living Z Deferred
- Deferred Living
- Business 1
- Business 2
- Business 3
- Inner Plains
- Outer Plains
- Operative

Map / image source: Selwyn District Council

LANDSCAPE AND VISUAL IMPACT ASSESSMENT

CONTEXT - SKELLERUP BLOCK DISTRICT PLAN MAP

ROLLESTON WEST PLAN CHANGE



LEGEND

CHARACTER PHOTOS

- A West Rolleston Primary School
- B Residential Development in Stonebrook
- C Existing Planting Along SDC WWTP Land
- D State Highway 1 and Bund

VIEWPOINT LOCATIONS

- 1 View South West from 406 Dunns Crossing Road
- 2 View North West from 344 Dunns Crossing Road
- 3 View North West from 75 Burnham School Road
- 4 View North East from 65 Burnham School Road

A. LOCATION MAP FOR CHARACTER PHOTOS AND KEY VIEWPOINTS



- A** Primary School - West Rolleston Primary School has around 400 students ranging from Year 1 to Year 8. The predominant mode of transport to the school by students and parents is by walking, bike or scooter. This is due to the school's close proximity to neighbouring residential developments.



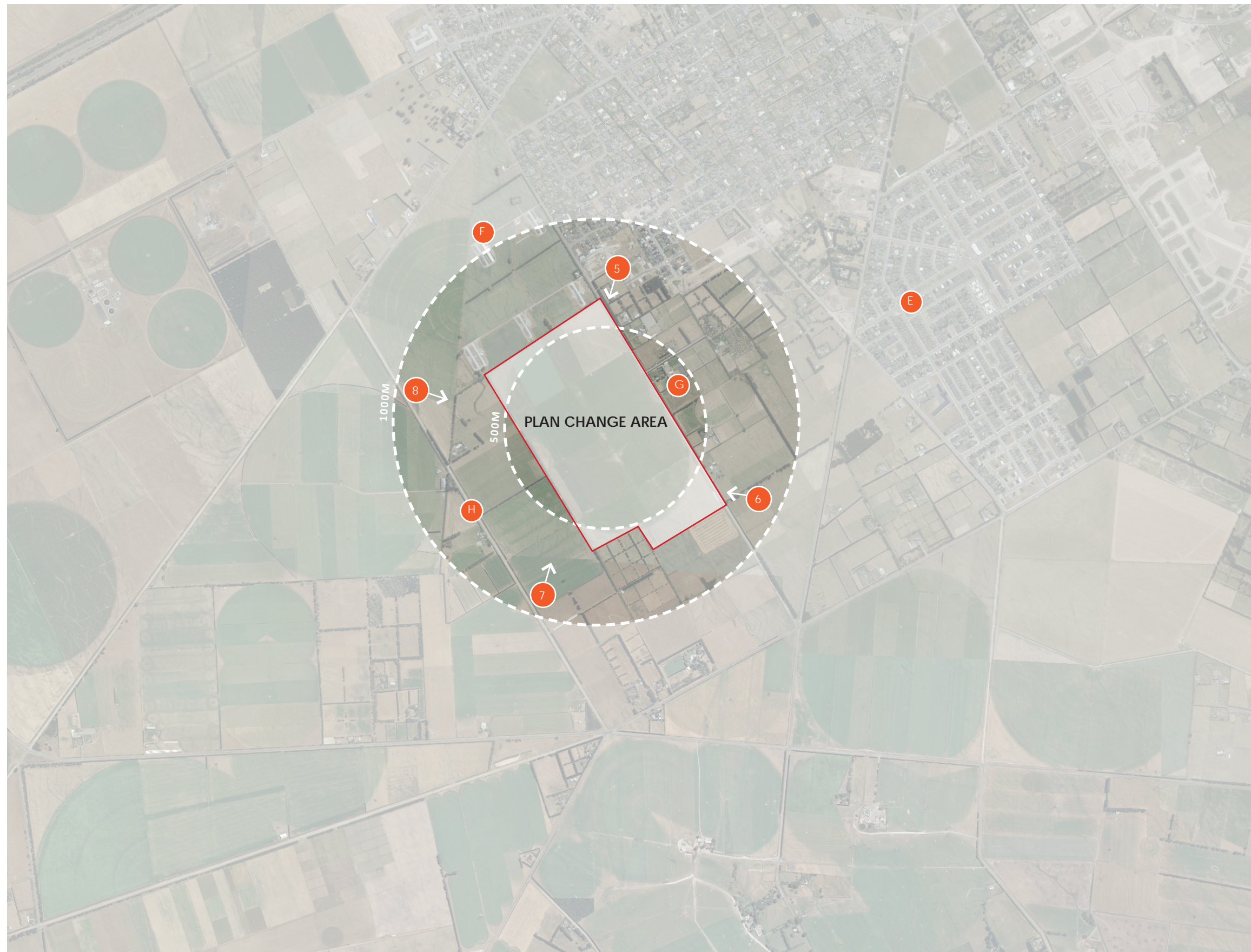
- B** Residential Development - Existing housing within Stonebrook is predominantly single storey, 3-4 bedrooms with double garage on lots typically ranging from 400m² to 800m². There are a variety of materials, colours and forms present throughout the development.



- C** Blue Network - There is one water race running through and adjacent to the Holmes Block. These are typical in agricultural land and are an integral element for livestock and overall viability of the land.



- D** State Highway - State Highway 1 is the primary route running the length of the South Island, resulting in high levels of traffic daily. Bunding has been implemented adjacent to existing residential development to provide a buffer to aid privacy and noise pollution.



LEGEND

CHARACTER PHOTOS

- E** Residential Development in Faringdon
- F** Chicken Farms
- G** Rural Residential / Planting
- H** Edwards Road

VIEWPOINT LOCATIONS

- 5** View South West from 203 Dunns Crossing Road
- 6** View North West from 90 Dunns Crossing Road
- 7** View North East from 152 Edwards Road
- 8** View South East from 152 Edwards Road

A. LOCATION MAP FOR CHARACTER PHOTOS AND KEY VIEWPOINTS



- E** Residential Development - Existing housing within Faringdon is predominantly single storey, 3-4 bedrooms with a double garage on lots typically ranging from 270m² to 800m². There are a variety of materials, colours and forms present throughout the development.



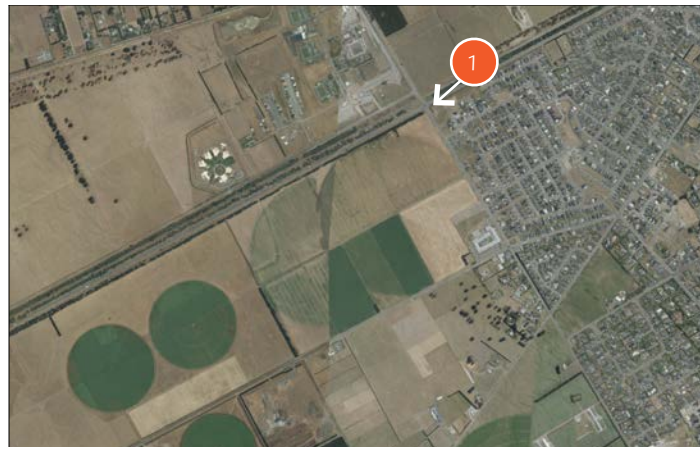
- F** Land Use - Approximately 40ha of rural land is occupied for chicken farming, surrounded by dairy farms equipped with central pivot irrigation. The property consists of several sheds around 100m in length, illustrating the diversity of structures and associated land use within surrounding landscapes.



- G** Rural Residential - Properties are typically screened by mature vegetation and are setback from the roadside. Housing changes between single and double storey and has a variety of colours and styles present. Vegetation around the dwellings is predominantly exotic and is sporadically clustered.



- H** Rural Roading - Edwards Road is a typical narrow gravel road, consistent with other rural roads throughout the wider area. The road runs between Selwyn Road and Brookside Road and has low levels of vehicle use.



A. IMAGE LOCATION

APPROXIMATE PROPOSAL LOCATION

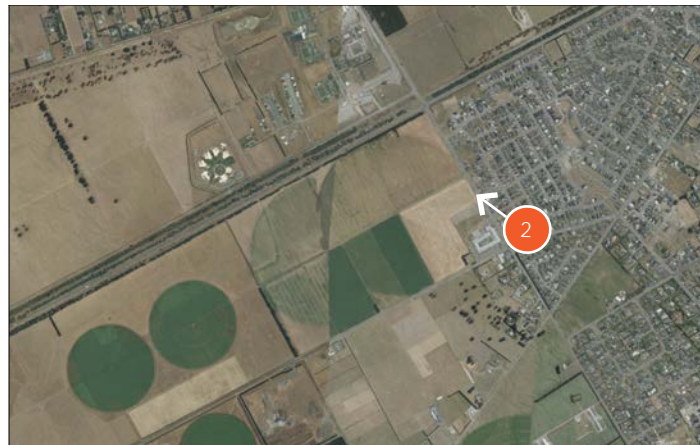


LANDSCAPE AND VISUAL IMPACT ASSESSMENT

VP1 - VIEW SOUTH WEST FROM 406 DUNNS CROSSING ROAD

ROLLESTON WEST PLAN CHANGE

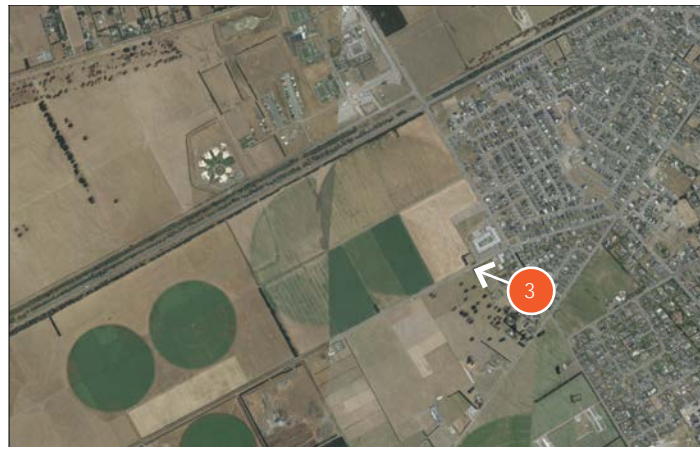
Image captured on Sony A6000
Focal length of 50mm
Date: 4th November 2020 at 9:23 am
Height of 1.7 metres
Photos merged in Photoshop CS to create panorama



A. IMAGE LOCATION

APPROXIMATE PROPOSAL LOCATION

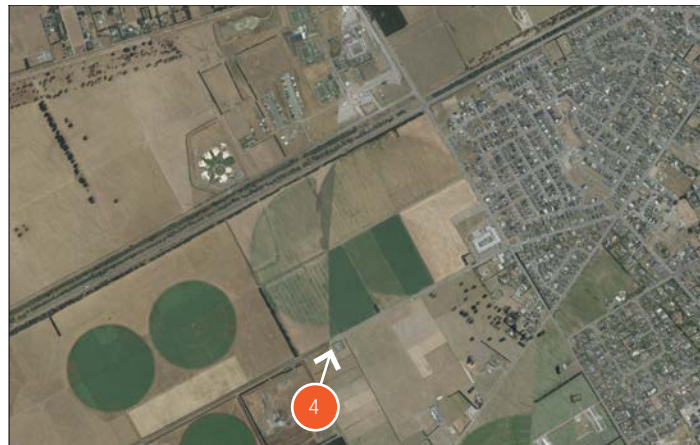




A. IMAGE LOCATION

APPROXIMATE PROPOSAL LOCATION





A. IMAGE LOCATION

APPROXIMATE PROPOSAL LOCATION

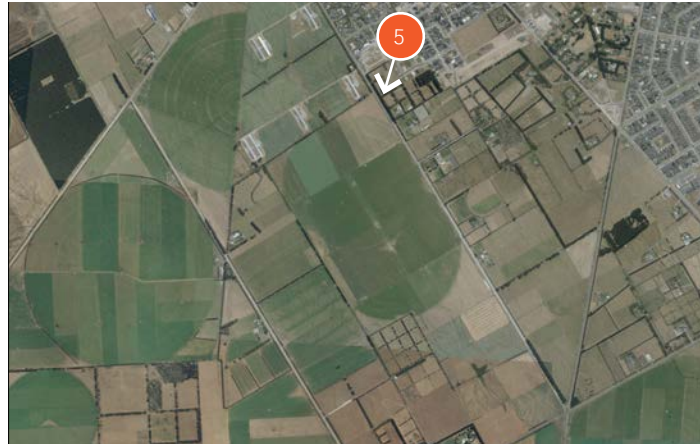


LANDSCAPE AND VISUAL IMPACT ASSESSMENT

VP4 - VIEW NORTH EAST FROM 65 BURNHAM SCHOOL ROAD

ROLLESTON WEST PLAN CHANGE

Image captured on Sony A6000
Focal length of 50mm
Date: 4th November 2020 at 9:15 am
Height of 1.7 metres
Photos merged in Photoshop CS to create panorama



A. IMAGE LOCATION

APPROXIMATE PROPOSAL LOCATION

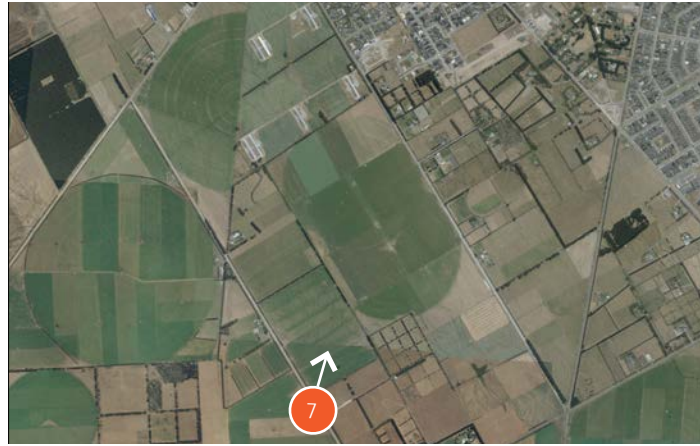




A. IMAGE LOCATION

APPROXIMATE PROPOSAL LOCATION





A. IMAGE LOCATION

APPROXIMATE PROPOSAL LOCATION





A. IMAGE LOCATION

APPROXIMATE PROPOSAL LOCATION



The INOVO logo features the word "INOVO" in a bold, black, sans-serif font. Below the text is a horizontal bar with a green-to-white gradient.

ROLLESTON WEST PLAN CHANGE FOR ROLLESTON WEST RESIDENTIAL LIMITED

4 February 2021
PROJECT. 2020_129
REVISION D

ROLLESTON WEST PLAN CHANGE - URBAN DESIGN STATEMENT

Project no: 2020_129
Document title: 2020_129 Rolleston West Plan Change_Urban Design Statement_D
Revision: D
Date: 4 February 2021
Client name: Rolleston West Residential Limited

Author: David Compton-Moen / Peter McAuley

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C	16/11/2020	MINOR AMENDMENTS	DCM / PM		
D	4/02/2021	Council RFI	DCM / PM		



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INTRODUCTION

DCM Urban and Inovo Projects Limited have been commissioned by Rolleston West Residential Limited to prepare an Urban Design Statement and Outline Development Plan (ODP) for approximately 160Ha area, in two blocks, on the western edge of the existing settlement. Input into this plan and statement has also been provided by:

- Novo Group Limited - Planning and Traffic



LOCATION MAP (nts)

LOCATION AND CONTEXT

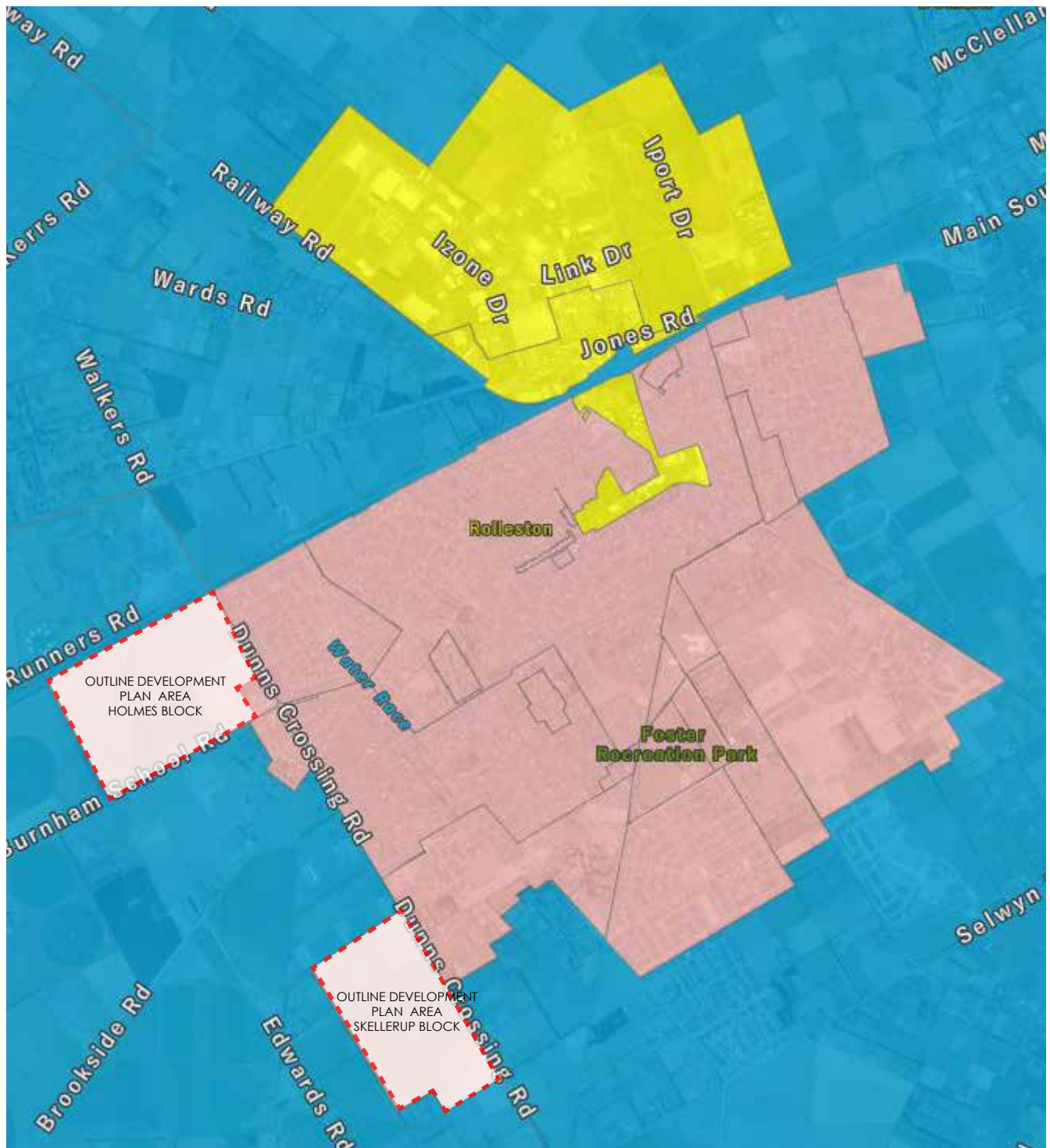
Located on the western edge of Rolleston, the two ODP blocks of Holmes and Skellerup are 2.2km and 2.9km respectively from the town centre. There are several residential developments on the eastern side of Dunns Crossing Road, including Stonebrook, Kajens Country, The Boulevard as well as a recent proposal to rezone the southwestern corner of Farringdon from Rural to Living Z. Adjacent to the Holmes Block, dwellings are of typical suburban bulk and location, while those adjacent to the Skellerup Block have typical rural residential character. These are separated by large fields and exotic vegetation, have an irregular bulk and location, and are often supported by additional infrastructure such as sheds and storage buildings.

Overall, the receiving environment has a rural, semi-open character on the outskirts of residential suburban development. The existing environment has various structures including dwellings, auxiliary structures, power lines and exotic vegetation clustered throughout the landscape typical of rural landscapes.

There are no natural features of site on either block, being relatively flat paddocks with limited vegetation of note. The existing Holmes Block is bound by Dunns Crossing Road to the east and Burnham School Road to the south, while existing Skellerup Block is bound by Dunns Crossing Road to the east and centrally located between Brookside Road to the north and Selwyn Road to the south. To the east of both sites lies the western edge of Rolleston Township where expansion with a typical suburban character increases the number of dwellings, hard surfaces, and infrastructure present in the landscape.

Vegetation types in the receiving environment are predominantly exotic species, with small amounts of native species located near some waterways and paddock boundaries. Vegetation is used predominantly for shelter belts running along the paddock boundaries and includes species such as *Pinus radiata*, *Cupressus macrocarpa*, and *Eucalyptus* varying in height between 7 – 15m. The shelter belts are orientated to block the prevailing winds and are primarily located to delineate property boundaries, around existing dwellings and along parts of the roads. The majority of the site is open grass fields, which is disrupted occasionally by clusters of vegetation, water races, and infrastructure such as sheds and residential dwellings.




The image on the following page was sourced from the Operative Selwyn District Plan, highlighting the current residential and commercial zones in Rolleston. The underlying zone of the two ODP areas is Living 3.

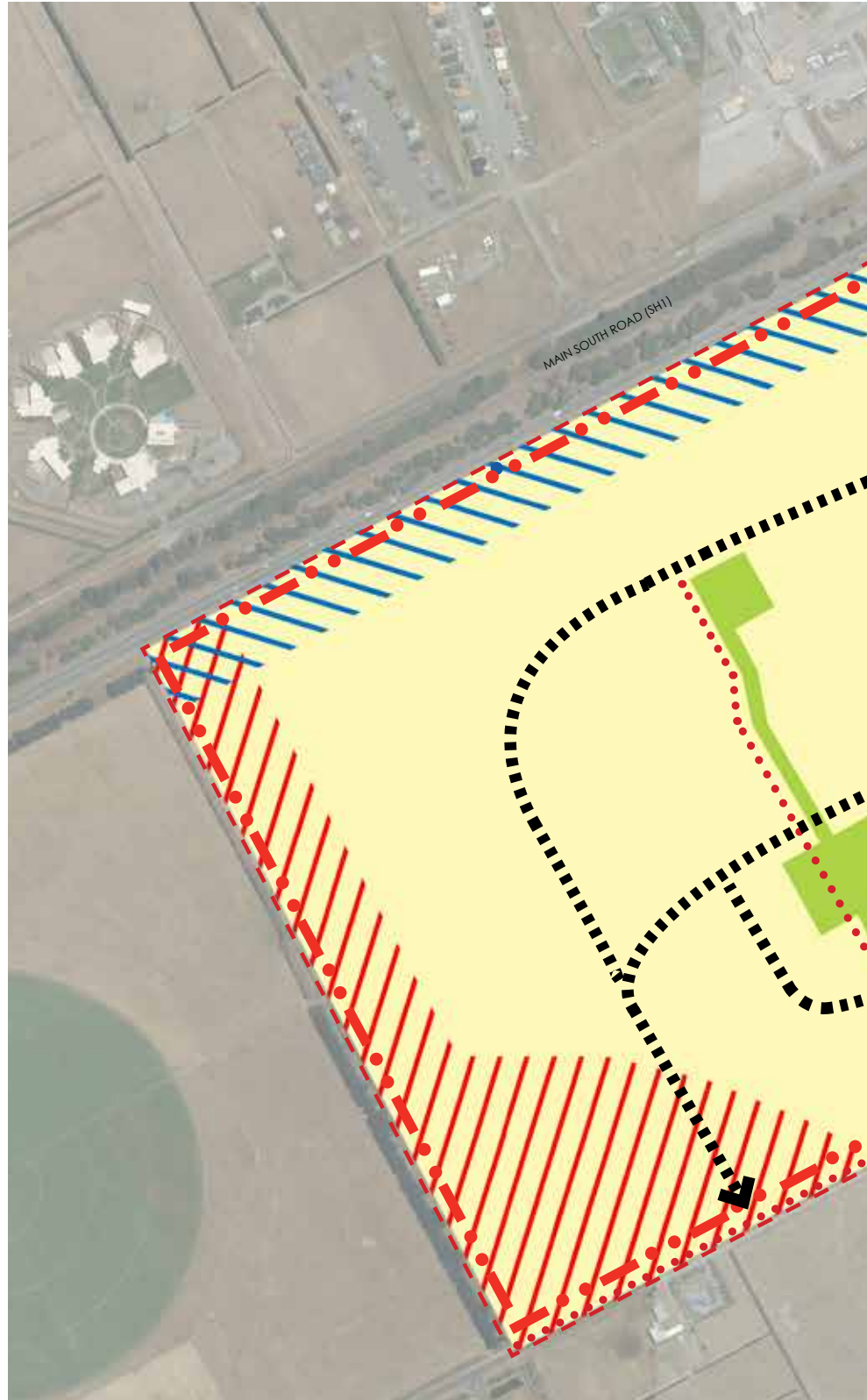


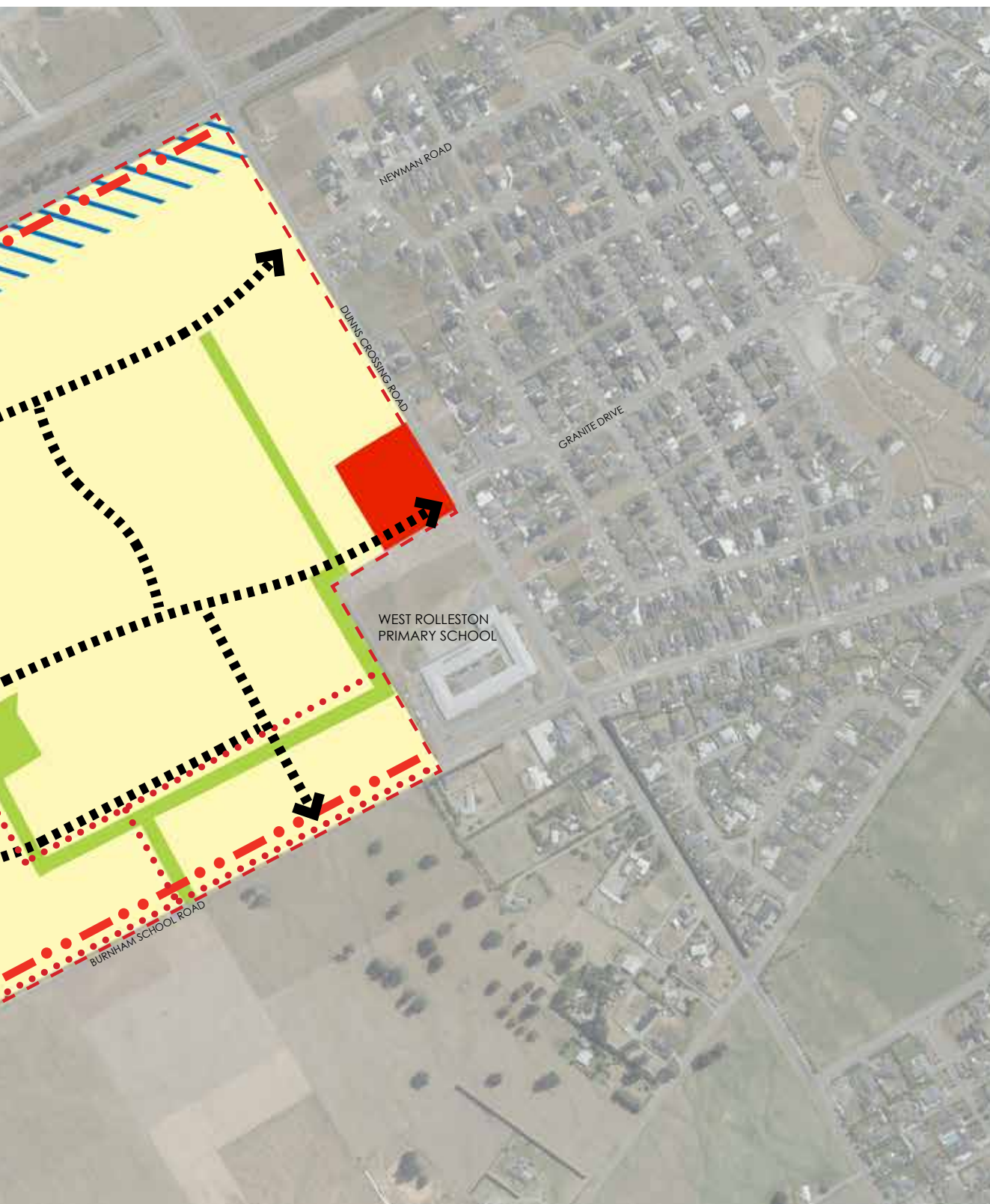
CURRENT RESIDENTIAL & COMMERCIAL ZONES MAP
(source: eplan.selwyn.govt.nz)

OUTLINE DEVELOPMENT PLAN 39 - HOLMES BLOCK

LEGEND








-  Outline Development Plan Area
-  Living Z Zone
-  Business 1 Zone
-  Indicative Road
-  Indicative Cycle/Pedestrian Route
-  Reserve Location (size to be determined at time of subdivision)
-  Setback
-  Boundary Treatment
-  Noise Control Boundary



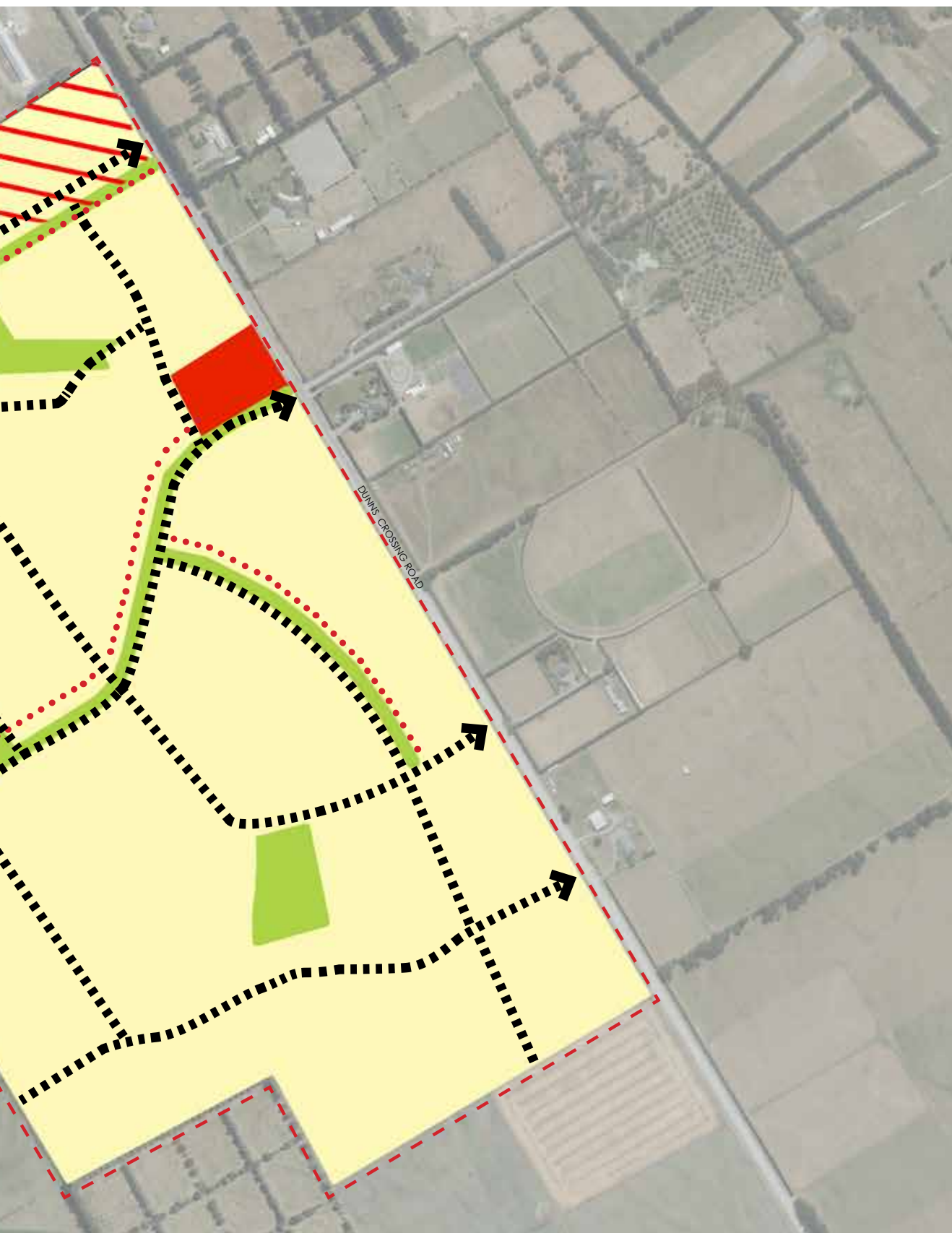


OUTLINE DEVELOPMENT PLAN 40 - SKELLERUP BLO

LEGEND

-  Outline Development Plan Area
-  Living Zone Z
-  Business 1 zone
-  Indicative Road
-  Indicative Cycle/Pedestrian Route
-  Reserve Location (size to be determined at time of subdivision)
-  Setback





LANDUSE AND DENSITY

(CONTEXT, CHARACTER, CHOICE)

The ODP area is designed to achieve a minimum net density of 12 households per hectare with higher density residential units located within Medium density (minimum 15hh/Ha) areas adjacent to key open spaces and green corridors. Two residential densities are proposed within the ODP being Living Z Low Density and Living Z Medium Density. The aim is to create diversity and variety of housing typology without compromising lifestyle. The provision of smaller residential lot sizes are recognised as an important method to reduce sale prices and meet the demands of a greater proportion of the community, particularly first home buyers seeking a warm, energy efficient home that meets modern lifestyle needs. The density provides for a mix of dwelling types and lot sizes to cater to a wide range of the residential market. It allows for people of different ages and incomes to mix and create a diverse community, as well as for people to move within the development as their needs change.









LANDUSE	MINIMUM INDIVIDUAL LOT SIZE	AVERAGE LOT SIZE
Living Z - Low Density	550m ²	650m ²
Living Z - Medium Density (small lot)	400m ²	500m ² (maximum)
Living Z - Medium Density (comprehensive)	None	350m ² (maximum)

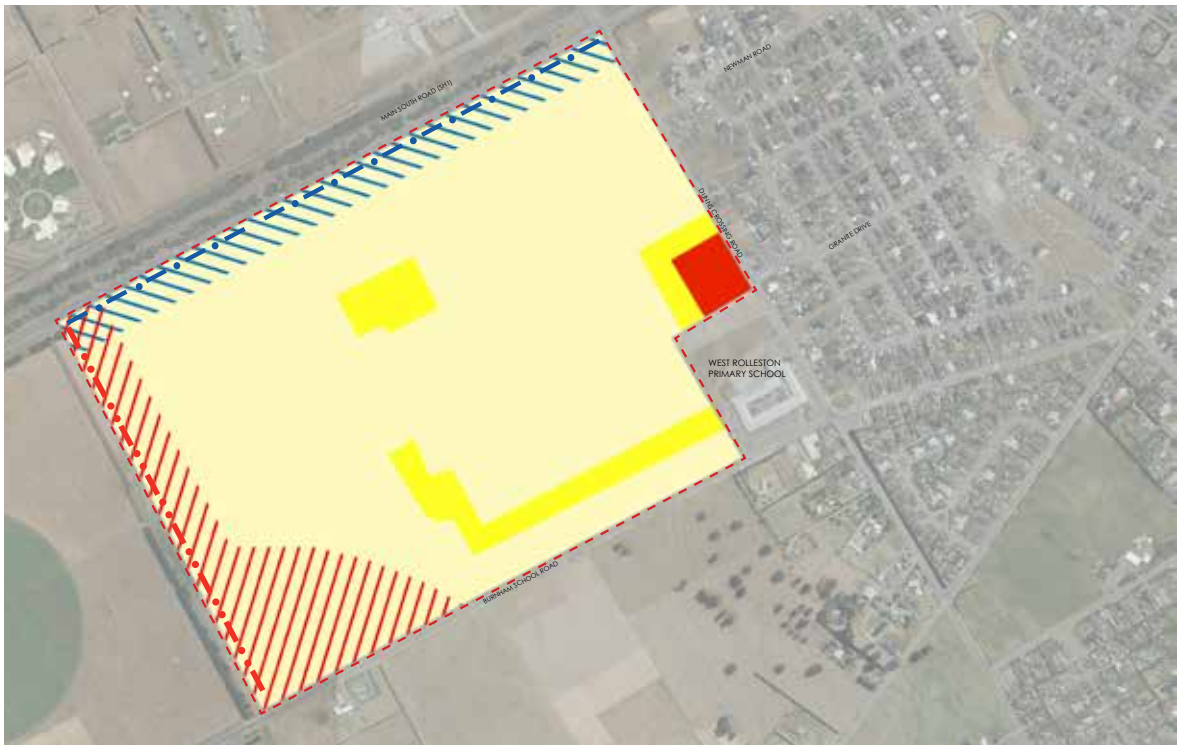
The ODP adopts two zone types from the District Plan, being: Living Z, and Business. The Living Z zone is a natural extension of the existing Stonebrook and Farringdon developments. Small commercial areas, or neighbourhood shops, are proposed in each block on key intersections with the proposed primary road. These developments will be designed to serve the new community with day to day products, with likely tenants being a dairy, takeaways and a café.

KEY ASPECTS

- Diversity of house size and lot size to provide choice
- Provision of higher density with higher amenity areas
- Small commercial areas providing day to day amenities

LEGEND

 Study Boundary	 <u>LIVING Z</u> Low Density (Minimum 12 Households/Ha)	 <u>BUSINESS</u> Commercial / Business	 Bunding and Dense Planting
	 Medium Density (Minimum 15 Households/Ha)	 Odour Constrained Area (Refer to ODP Text)	 40m Noise Abatement Setback
			 Acoustic Bund or Fencing



HOLMES BLOCK (nts)



SKELLERUP BLOCK (nts)

LANDUSE AND DENSITY MAPS (nts)

THE FOLLOWING DIAGRAMS ARE INDICATIVE ONLY BUT SHOW THE POTENTIAL DIFFERENCE IN DENSITIES, PROVIDING A VARIETY OF HOUSING TYPOLOGIES TO MEET THE NEEDS OF DIFFERENT HOUSEHOLDS, INCLUDING ALL AGE GROUPS

A. LOW DENSITY RESIDENTIAL (>550m² LOTS)



B. MEDIUM DENSITY RESIDENTIAL (>400m² LOTS)



C. COMPREHENSIVE MEDIUM DENSITY RESIDENTIAL (250m² TYPICAL LOTS)



	A. LOW DENSITY	B. MEDIUM DENSITY	C. MEDIUM DENSITY (COMPREHENSIVE)
BLOCK SIZE	60m X 175m; 10,500m ²	60m X 175m; 10,500m ²	60m X 175m; 10,500m ²
LOT SIZE (MINIMUM)	550m ²	400m ²	None
AVERAGE LOT SIZE	650m ²	500m ²	350m ² (maximum)
NUMBER OF HOUSEHOLDS	16	21	30
DENSITY (HH/Ha)*	11	14	21

NOTE

- * Based on 30% of developable land given over to open space (both green and blue networks) and movement networks (public roads)
1. Vehicle access to all Comprehensive Medium Density units is via a shared R.O.W. to consolidate vehicle crossings and provide a high-quality, highly accessible streetscape;
 2. Blocks typically run north-south to maximise the amount of sunlight entering into private outdoor living ares at the rear of dwellings.

MOVEMENT AND CONNECTIVITY

(CHOICE, CONNECTIONS, CUSTODIANSHIP AND COLLABORATION)

Walkability and connectivity are key principles of the ODP with a hierarchy of street types and connections provided throughout the area. The aim of the movement network is to provide a range of modal options for residents, to reduce car-dependancy for short local trips while recognising private vehicle use is necessary for longer trips. The ODP encourages connectivity using primary and secondary routes running through the area from west to east, with primary connections from Dunns Crossing Road to adjoining major roads . The routes will connect through to existing roads where possible in Stonebrook and any future subdivisions to the east of the Skellerup Block. The primary road route will include a 2.5m wide minimum shared path separate from the main carriageway, and is likely to function as a collector road. The development of housing in this location would be developed to minimise interruption to pedestrian/cycle/vehicle movements by encouraging the use of consolidated vehicle crossings or laneways depending on the adjoining typology. Both primary and secondary routes will provide pedestrian and cycle facilities on both sides of the road, street trees and parking.

Smaller tertiary streets (not shown) or local/neighbourhood streets will ideally run north-south to create a highly connected and permeable neighbourhood. These roads are not shown to allow future design flexibility at the final subdivision stage. The design of the local streets will encourage slow vehicle movements combined with pedestrian and cycle facilities, either separate or shared depending on the design of the street. The layout of the blocks will have a predominantly north-south orientation where possible to maximise solar gain into rear yards (outdoor living spaces) of all properties.

Supporting the road network, off road pedestrian and cycle paths connect through to existing networks.

KEY ASPECTS

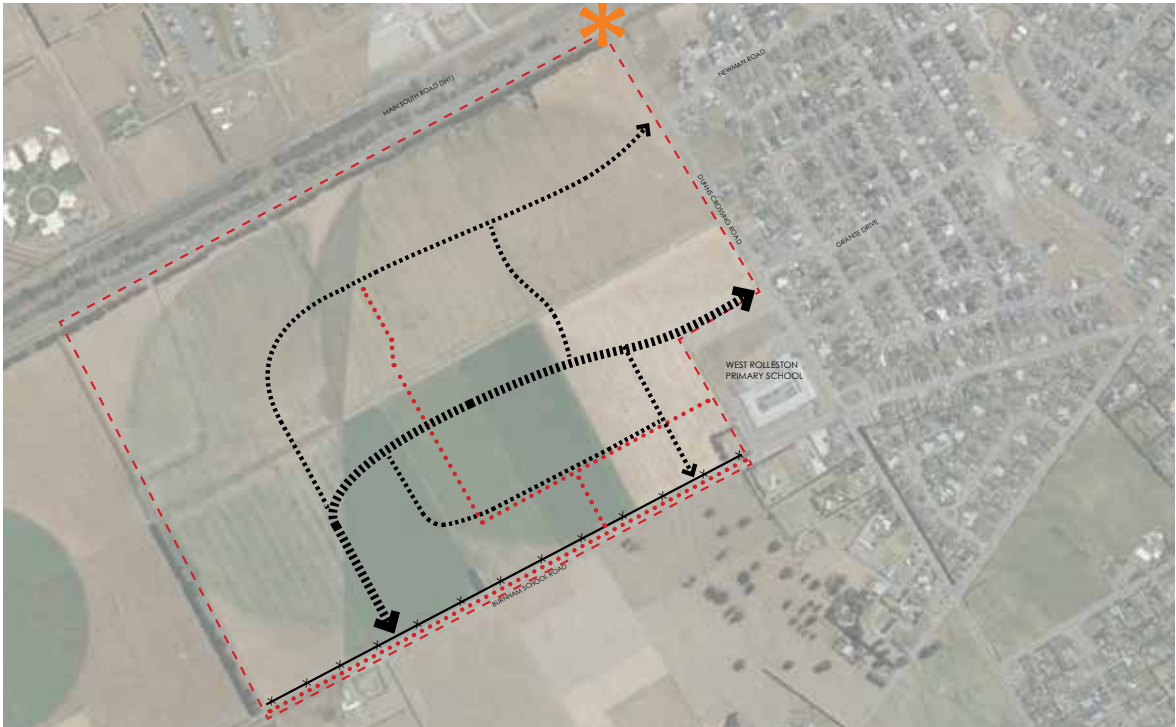
- Street heirarchy providing different modal allocation
- Possible future connections with adjoining properties
- A well-connected network which combines with the green network and existing facilities connecting to key destinations (school, parks, childcare, town centre)
- A high level of legibility created through street heirarchy
- Prioritising walking and cycling with a mix of on-road, separate, and off-road facilities to promote active transport modes
- Direct access onto Burham School Road for individual properties should be avoided
- Streets with a high level of amenity

Cross section showing landscape treatment along Burnham School Road. No direct access is proposed along the road given the existing character/function of the road and to allow for the installation of a shared cycle/ pedestrian path which is largely free from any vehicle crossings reducing potential conflicts

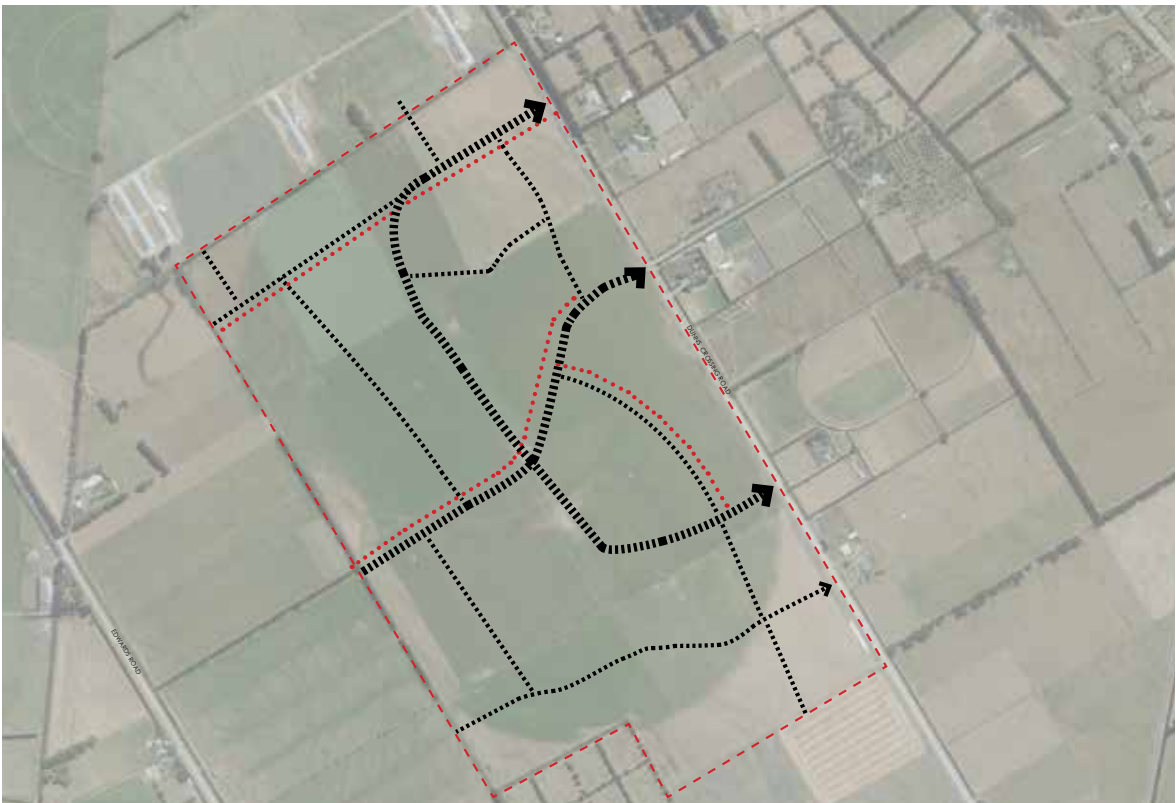


LEGEND

- Study Boundary
- Primary Road
- Secondary Road
- 2.5m Shared Path (off road)
- Avoid access onto Burnham School Road from site (5m landscape area proposed containing a 2m high bund/fence combination)
- Potential Intersection Upgrade



HOLMES BLOCK (nts)



SKELLERUP BLOCK (nts)

MOVEMENT AND CONNECTIVITY MAPS (nts)

BLUE AND GREEN / OPEN SPACE NETWORK

(Choice, Connections, Custodianship and Collaboration)

The Green network proposes several local reserves and pocket parks to provide amenity to a large number of future residents, linked by a green network. The network also combines with the movement network to provide shared off-road facilities connecting through to West Rolleston Primary School and other amenities.

The ODP proposes five additional Neighbourhood reserves within the project boundaries to provide amenity for residents, the majority of residents being within a 5minute walk, or 500m radius of the spaces. It is likely the sizes of the reserves will range between 3,000m² and 6,000m² with the exact size and position of these reserves being determined at the time of subdivision. These reserves will be 'tied' to the location of higher density developments, providing amenity for residents on smaller sections.

Linking future residents of the Holmes Block to the existing West Rolleston Primary School, green links 5-10m wide are proposed. It is not anticipated that a Sport and Recreation Park (2.5Ha or more) is required within the study area, given the site's close proximity to Brookside Reserve and Foster Park.

The blue network, consisting of one water race, is proposed to be diverted and realigned to the western boundary of the Holmes Block site.



KEY ASPECTS

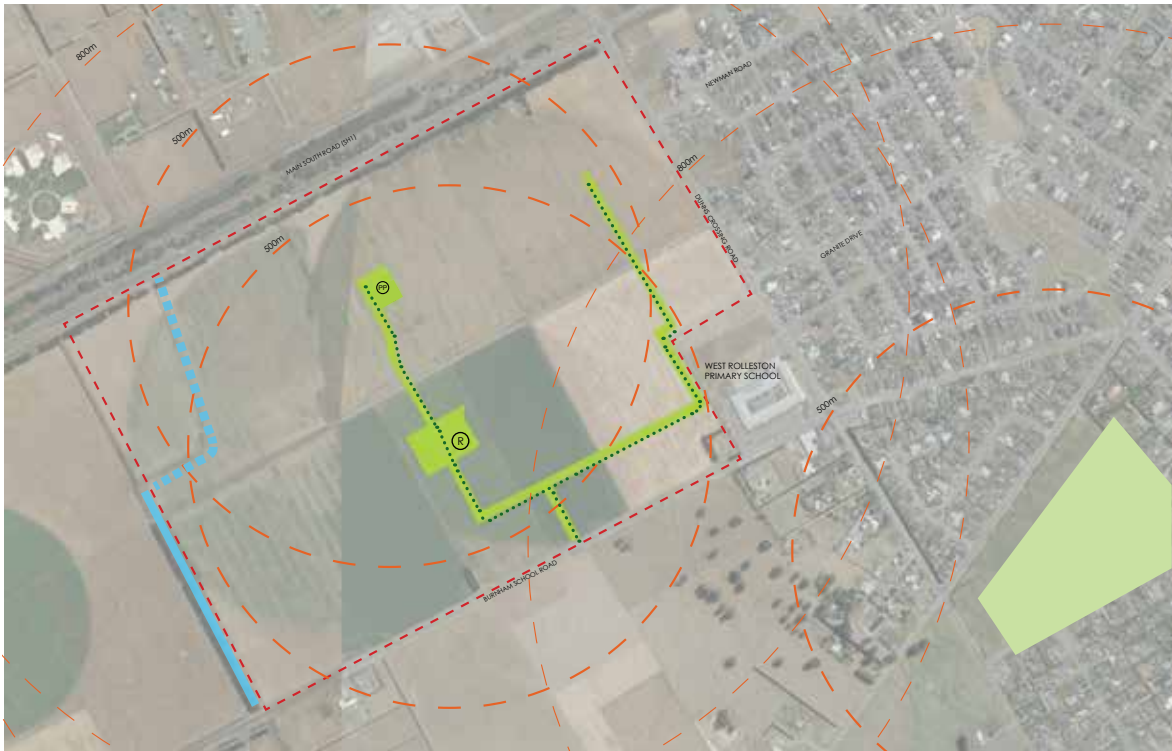
- Integrating green and movement networks to create a high level of connectivity, amenity and active travel options
- Provides sufficient open space for future residents at regular intervals
- Provides a significant link to West Rolleston Primary School



10M WIDE GREENWAYS ARE PROPOSED THROUGH THE ODP AREAS PROVIDING ADDITIONAL AMENITY TO RESIDENTIAL AREAS AS WELL AS OFF-ROAD SHARED PEDESTRIAN AND CYCLE FACILITIES. THE GREENWAYS LINK PROPOSED RESERVES AND IN THE CASE OF THE HOLMES BLOCK, TO WEST ROLLESTON SCHOOL.

LEGEND

- | | | | |
|--|---|--|--|
|  Study Boundary |  Green Link (10m wide) |  500m and 800m Walkable Catchment |  Water Race Realigned |
|  Recreation Reserve |  Existing Green Space |  Water Race |  Pocket Park |



HOLMES BLOCK (nts)



SKELLERUP BLOCK (nts)

BLUE AND GREEN / OPEN SPACE MAP (nts)

SUMMARY AND CONCLUSIONS

The proposed Rolleston West Plan Change blocks are a natural extension of existing residential development occurring to the west of Stonebrook and Farringdon in Rolleston. Covering an area of approximately 160Ha, the ODPs will provide a mix of house and lot sizes in a location which is well served by existing and future amenities. A strong green and movement network provides a base for the development, recognising the residential character of the receiving environment.

The ODP's will:

- Provide a diversity of house size and lot size to provide choice
- Locate higher density with higher amenity areas
- Create a street hierarchy providing different modal allocation
- Continue a well-connected network which combines with the green network and existing facilities connecting to key destinations (school, parks, childcare, town centre)
- Create a high level of legibility created through street hierarchy
- Prioritise walking and cycling with a mix of on-road, separate, and off-road facilities to promote active transport modes
- Avoid direct access onto Burham School Road for individual properties whilst providing a high amenity landscape edge to the road
- Create streets with a high level of amenity
- Provide a quantity of greenspace and facilities appropriate for the future population
- Integrate the green and movement networks to create a high level of connectivity, amenity and active travel options
- Encourage the use of low impact design techniques including grass swales and soakage pits

URBAN DESIGN PRINCIPLES

The design principles that underpin these ODP's are in line with the Ministry for the Environment's design guide for urban New Zealand "People Places Spaces" which is endorsed by the 'New Zealand Urban Design Protocol'.

PRINCIPLE	PURPOSE
Consolidation and dispersal	Density and Landuse - To promote higher-intensity development around existing or new nodes and lower density on the periphery. This allows local communities, businesses and public transport to be strengthened and resource efficiencies achieved, while reducing environmental impacts on peripheral areas.
Integration and connectivity	Movement Networks – To promote development that is integrated and connected with its surrounding environment and community. This facilitates ease of access, economy of movement and improved social interaction.
Diversity and adaptability	Variation in typology and lot size - To promote choice through the provision of a diverse mix of compatible activities and uses, so built environments can adapt over time. This facilitates the ability to respond efficiently to social, technical and economic changes.
Legibility and identity	Strong Green Network - To promote environments that are easily understood by their users, and that display a strong local identity and appropriate visual character. This facilitates an enhanced usage, enjoyment and pride in local places.
Environmental responsiveness	Strong Green Network - To promote urban environments that are responsive to natural features, ecosystems, reduced energy usage and waste production.