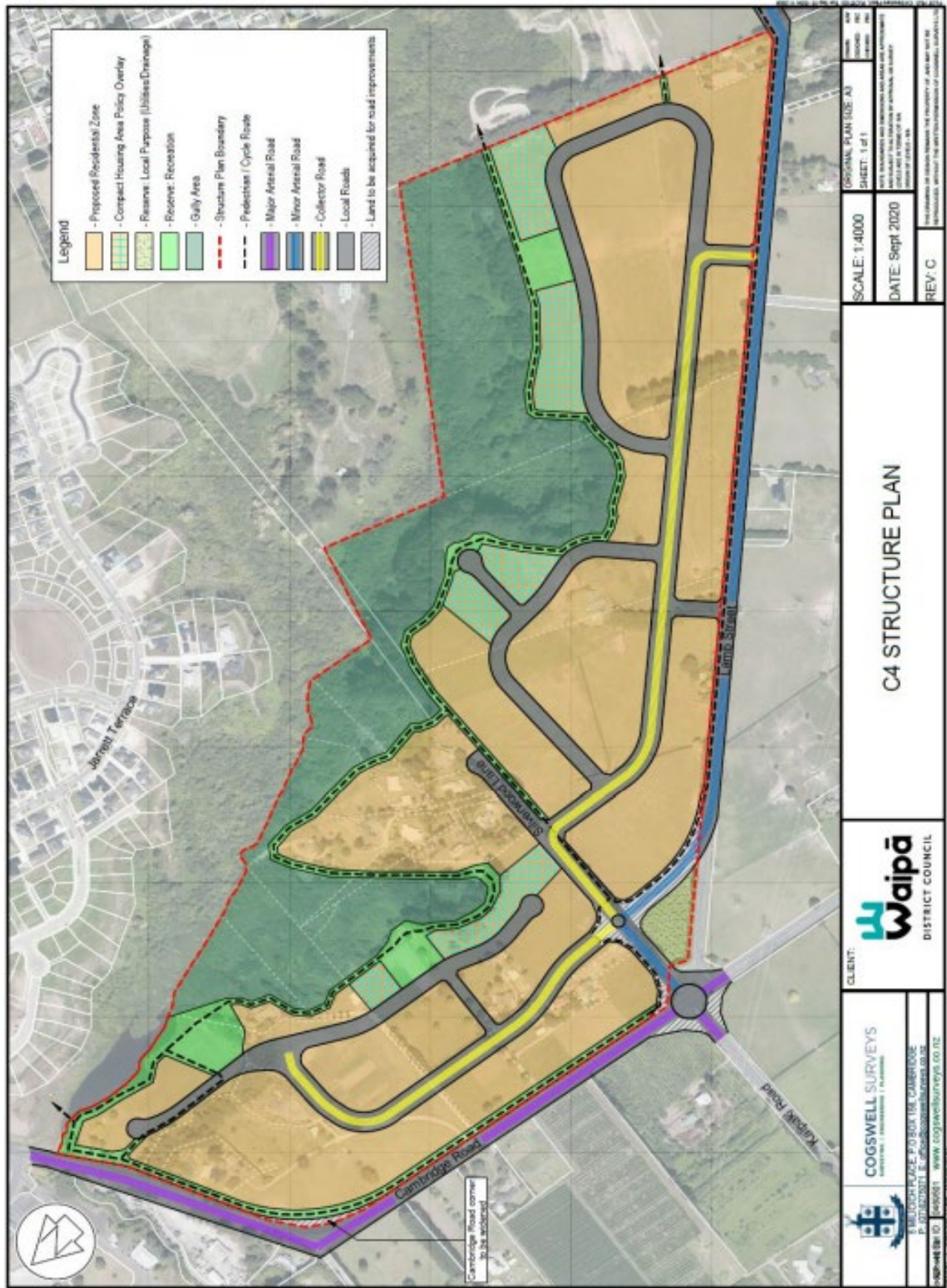


Appendix S23 – Cambridge C4 Growth Cell Structure Plan (NEW)

S23.1 Cambridge C4 Growth Cell Structure Plan



S23.2 Background

- S23.2.1 The Cambridge C4 Growth Cell comprises approximately 66ha located to the south west of Cambridge township, adjacent to the Leamington neighbourhood. Situated to the east of Cambridge Road and north of Lamb Street, the area consists of approximately 50ha of gently contoured farmland and lifestyle development adjoining a deeply incised gully to the east, beyond which is the Cambridge Park residential area.
- S23.2.2 The eastern extent of the C4 growth cell adjoins the Green Belt and presents an extensive frontage to the deeply incised un-named gully extending from the Green Belt towards the Waikato River. Being approximately 20m deep and identified as a Significant Natural Area, the gully itself is not identified for urban development. Nevertheless, it will have a key role in defining the character of future residential development in terms of visual amenity and a focus for community use.
- S23.2.3 Land outside of the gully includes two areas of former sand extraction adjacent to the gully slope. Some low density residential development has occurred in a triangular shaped enclave situated between these extraction areas. The enclave is relatively recently established. While it is not anticipated that significant change will occur within this area in the short to medium term, it is included within the Structure Plan area and a transition to higher densities can be expected over the longer term. Elsewhere the balance of the Structure Plan area is predominantly farmed pasture, with a single farm holding being situated to the south of Silverwood Lane and a number of smaller farm and lifestyle blocks being located to the north. Towards the northern end, a steep vegetated slope defines the edge of a lower lying terrace adjacent to an artificial lake. Some historical uncontrolled filling has occurred in this area.
- S23.2.4 The landform of the upper terrace consists of a gently rolling contour sloping generally towards the gully. Stands of mature trees are generally located close to existing dwellings or along accessways with the majority of the land being in open pasture with typical post and wire fencing.
- S23.2.5 The developable area of the Structure Plan extends to approximately 50ha, part of which is already developed as a low density, lifestyle enclave which is unlikely to change in the short to medium term. Meeting the residential densities required by the Waipā District Plan indicates the long term potential for around 600 new dwellings, with approximately 42% (250 dwellings) being to the north of Silverwood Lane and 58% (350 dwellings) being to the south.

S23.3 Key design principles

- S23.3.1 Taking account of the technical assessments undertaken, and the feedback received through community engagement, the following general design principles underpin the proposed Structure Plan.

Local Identity

- S23.3.2 Optimising the gully environment as the focal point for recreational provision and vistas. Establishing direct connectivity with and along the gully edge through a continuous linear shared path with direct connections from internal roads and paths. Recognising heritage landmarks and natural features.

Community Cohesion

S23.3.3 Establishing recreational reserves in support of higher density residential development, that provide safe and interesting places for play and integrate as open space areas with the gully.

Connectivity

S23.3.4 Through an internal network of roads and paths that prioritises pedestrian and cycle movement and safety while enabling accessibility for future public transport services. Aligning roads and paths with vistas and connections to the gully edge reserve. Establishing physical access connection to Cambridge Park and the Cambridge Green Belt.

Environmental Responsibility

S23.3.5 Stormwater management concepts prioritise on site disposal, with the conveyance and treatment of storm events via swales integrated into the streetscape design and discharge to the gully via strategically located and ecologically friendly treatment trains. Buffer planting to the Cambridge Road frontage will reduce the visibility of the major arterial road and industrial activities to the north, minimising the potential for reverse sensitivity effects.

S23.4 Open Space Network

S23.4.1 Pivotal to the establishment of local identity, community cohesion and connectivity is the establishment of a coherent framework of open spaces. The gully provides the focal point in terms of vistas and connectivity with the natural environment but it is largely inaccessible and opportunities to provide access to it and through it are likely to be long term. Nevertheless, development within the Structure Plan area provides the opportunity to establish a clear interface between the natural and built environment and provide context within which future decisions can be made regarding investment in wider access.

S23.4.2 To achieve this, the Structure Plan provides for the establishment of a linear shared path along the entirety of the gully edge, utilising land that would otherwise be subject to building line restrictions. The path itself will require a minimum width of 3m but will sit within a linear corridor that will provide opportunities for seating and observation areas, with planted margins on the landward side to assist in stormwater management as well as define the edge of public and private space.

S23.4.3 Wider visual connectivity to the gully and adjoining path will be required to enable passive surveillance and enhance the safety of users. This is to be achieved via an open frontage to parts of the internal road network, footpath connections from residential streets and restrictions on fencing height or design for properties bounding the route.

S23.4.4 The gully edge reserve will anchor two neighbourhood reserves, each between 3,500m² to 5,000m². The reserves will be located within easy walking distance of residential areas developed to the north and south of Silverwood Lane. Both reserves will connect directly with the gully edge shared path without necessitating the crossing of roads. Passive surveillance of these areas will be achieved by requirements for adjoining development, which may include higher density forms of housing, to have a direct ground floor level outlook to the reserve. If demand emerges for small scale commercial or community activities, a location adjacent to either of the two neighbourhood reserves will support community cohesion and local identity without affecting the viability of the town centre or residential amenity values.

- S23.4.5 While the neighbourhood reserves will provide the key elements for recreational purposes, additional open space corridors providing footpath connections between residential streets and swale or rain garden designs for the streetscape design will complement the overall network. Streetscape design of these features will be expected to provide a consistent design theme throughout the Structure Plan area to reinforce local identity and ensure consistent management and maintenance. To ensure that reference points to the historical use of the Structure Plan area are not lost, future development proposals will be expected to consider how existing trees or archaeological features can be incorporated into the reserves network, streetscape design or internal footpath connections.
- S23.4.6 Along the Lamb Street and Cambridge Road periphery, a shared path will provide safe pedestrian connectivity to surrounding areas without affecting arterial traffic flows. The path will be established within a planted buffer margin to the Cambridge Road frontage, continuing the design approach established in the Cambridge Park residential area. Along Lamb Street, modification of the existing berm will enable the path to be accommodated within the road corridor, offset from the property boundary to enable visibility from direct property access.

S23.5 Movement Network

- S23.5.1 Integrating the Structure Plan area into the wider fabric of the Cambridge township will require alterations to the surrounding road network as well as the creation of new points of connection for passive transport modes. Cambridge Road will continue to serve a major arterial function in the wider transport network and is the main access route to the Matos Segedin Industrial Area. To ensure that traffic from development of the full Structure Plan area and anticipated traffic growth on the network is able to be accommodated safely, widening of the road corridor will be required at the bend in Cambridge Road and a new roundabout will be required at the Kaipaki Road / Cambridge Road intersection. The new roundabout will incorporate the realignment of Lamb Street to provide safe directions of entry and exit. Up to 300 sections may be capable of development prior to the improvements although no new points of entry will be acceptable onto Cambridge Road.
- S23.5.2 Subject to the reduction of current speed limits, access from Lamb Street will provide direct property access to frontage properties where sightlines can be achieved, with the balance served from internal roads connecting to two new intersections onto Lamb Street.
- S23.5.3 Internally, new roads will be required. The Structure Plan identifies the preferred layout, taking account of engineering requirements and the achievement of high degrees of permeability and connectivity. All streets will be expected to provide for motorised and passive transport modes with a streetscape and pavement design to achieve low vehicle speeds and priority for pedestrian movement. With the potential for new development to have reduced on-site car parking provision, corridor design should provide for parking embayments, with landscaping and lighting design following a consistent theme and integrating with recreational space.
- S23.5.4 Maximum permeability will be achieved by the provision of footpath connections provided mid-block between residential streets, aligned to enable accessibility to and visibility of the open space network and gully system.
- S23.5.5 Shared path connections at the northern and southern end of the Structure Plan area are critical to achieving integration with Cambridge Park, across the stream, and with the Green Belt. These connections will require high visibility and prominence in the overall site layout.

S23.6 Stormwater Network

- S23.6.1 While the entirety of the Structure Plan area drains towards the gully system, the natural values associated with this system require a sensitive and integrated approach to stormwater management to ensure that opportunities for ecological enhancement are taken. The whole area is suitable for on-lot stormwater soakage. This will manage stormwater from private lots for the 2yr ARI events as close to the point of origin as possible to minimise the need for conveyance and treatment. Future development proposals will be required to demonstrate how this will be achieved, either through engineered devices or through development controls regarding site coverage and permeability.
- S23.6.2 Public spaces such as road and reserves will, similarly, be expected to be designed to capture maximum contaminant loads at source. Swales and rain garden designs will provide for soakage or treatment prior to conveyance. Conveyance devices such as overland flow paths and swales will be expected to be designed as part of the overall open space network rather than as engineered corridors.
- S23.6.3 Significant storm events will result in flows towards the gully. Two points of collection are proposed, one within the unformed Silverwood Lane corridor and one towards the north of the Structure plan area. Both points of collection will require careful design to address the change in elevation and slope towards the gully floor and incorporate sufficient treatment to ensure that contaminants do not reach the stream and that discharge volumes do not result in erosion or scour of the gully floor. Maximising the opportunity for soakage as part of the overall network will reduce the operational requirements of the treatment and discharge devices.

S23.7 Supporting Documents

- S23.7.1 This Structure Plan should be read in conjunction with the following technical reports which are available from Council on request:
- (a) Cambridge C4 Structure Plan Context Report, prepared by Mitchell Daysh, dated 9 September 2020 (Council document number 10469506);
 - (b) C4 Growth Cell Transportation Assessment, prepared by Gray Matter, dated 20 December 2019 (Council document number 10364904);
 - (c) C4 Structure Plan – Concept Layout for Internal Intersection, prepared by Gray Matter, dated 10 August 2020 (Council document number 10452899);
 - (d) Geotechnical Report – Preliminary Findings, prepared by Mark T Michell Ltd, dated 3 September 2019 (Council document number 10107014);
 - (e) Ecological impacts of the proposed C4 Growth Cell, prepared by National Institute of Water & Atmospheric Research Ltd, dated July 2019 (Council document number 10106941);
 - (f) Cambridge C4 Three Waters Assessment, prepared by Te Miro Water, dated September 2020 (Council document number 10476599); and
 - (g) Cambridge, Growth Cell C4 Structure Plan: Preliminary Archaeological Assessment, prepared by Clough & Associates Ltd, dated August 2019 (Council document number 10106935).