Part 54 Structure Plans

Part 54.1 to 54.5 Definition and Procedure for Structure Plans

Part 54.1 Structure Plan Defined

For the purposes of this rule a 'Structure Plan' is:

- a plan which aims to achieve integrated management of the effects of development, such that adverse effects are avoided, remedied or mitigated, and positive effects are optimised and assured, for a given area and locality; and which
- sets out in appropriate detail the intended pattern of development for a given area, showing 'trunk' underground or overhead services, the transport network and main design elements (e.g. roundabouts, bus bays, cycleways), public reserves and linkages, areas for preservation, protection or restoration/enhancement, particular development intensities (for residential or other activities, if appropriate), and such other matters as may be relevant to or significant for urban or 'lifestyle' development in the area; and which
- is generally accompanied by a report addressing the issues and effects associated with the proposed pattern of development; the statutory objectives and policies relevant to the area, the objectives determined specifically to guide the development of the area the subject of the plan; any assumptions that have been made; the steps taken to prepare the plan (particularly consultation and results thereof); the alternative forms of development considered for any part of the area; the specific 'capital' and 'maintenance' implications for existing and proposed infrastructure in the area and locality and methods of financing same; and the means of implementing the plan, and recommendations for further work; and which
- will generally incorporate the design principles, parameters or constraints that will guide the more detailed development of the area, determine the size, location and development of reserves for all purposes, formulas for the determination of financial contributions, and such other matters as are appropriate; and which
- is prepared in accordance with Rule 54.4 below.

Part 54.2 Structure Plan Required

Where this plan defines or provides for a growth area (or similar) then notwithstanding any other provisions of this plan, no subdivision consent may be granted for that area unless a structure plan has first been approved by the Council in accordance with the procedures set out in Rule 54.4 below.

Part 54.3 Interim Subdivision (Discretionary Activity)

Notwithstanding Rule 54.1 and Rule 54.2 the Council may grant consent for any rural subdivision that is specifically prescribed by this plan, where the applicant can demonstrate that consent will not compromise the achievement in the future of a suitable form of residential or urban development for the area, a form that is consistent with all the relevant objectives and policies of this plan, due to:

- the size of the whole growth or 'greenfields' area; and
- the nature of the subdivision (particularly the size of the lots and positioning of proposed new boundaries); and
- the likely future uses of and developments on the new lots; and
- such other special factors as may relate to the subdivision or land.

In assessing such applications the Council may require that some form of concept plan for the future subdivision and development of the area is submitted to demonstrate the above, along with such supporting documentation as suits the range and significance of issues that exist.

Any such application will be processed as Discretionary notwithstanding that it may have a lesser status under Part 22 or in terms of any other rule of this plan. For the avoidance of doubt, any subdivision which is non-complying by virtue of any rule of this plan shall not become Discretionary under this clause.

Part 54.4 Structure Plan Preparation Procedure

The procedure to be adopted for the preparation of a structure plan shall be as set out below provided always that the complexity of any plan and the assessment of effects that accompanies it shall correspond with the nature and range of the issues, and the scale and significance of the effects likely to be associated with development of the area, taking account of such things as the number and size of the properties to which the structure plan relates, the quality (or need for restoration or enhancement) of the resources affected, community aspirations, and the cost-implications for any existing or prospective users of utilities or services.

All steps or components of the procedure shall be documented, but need not occur in this order:

1. Consultation with and identification of issues of concern to relevant iwi.
2. Identification and scoping of natural and physical resource issues and anticipated impacts or effects, with particular emphasis on stormwater quality and flooding potential and land or vegetation disturbance effects.
3. Catchment management planning.
4. Identification of community expectations or concerns.
5. Identification and discussion of all relevant national, regional and district policy provisions (including financial policies).
6. Identification of any subsequent resource consents likely to be required and the probable timing of same.
7. Investigation of any actual or potential natural hazard or other relevant land development constraint including the location and area of the actual or potential hazard and identification of measures to be taken to avoid, remedy or mitigate any adverse effects of the hazard.
8. Dialogue with all relevant Council staff (particularly asset managers).
9. Preparation of a draft structure plan showing main trunk services, roads, reserves, and areas for protection, enhancement or restoration, any cycleways and walkways, and passenger transport infrastructure.
10. Consultation and/or workshopping with all landowners, both individually and collectively as

appropriate, of 2 or 3 options for the general design of all structural components, servicing options, and residential (or other landuse) character and density issues.

11. Formal reporting 'to date' of the progress/process in preparing the plan, or of the actual draft structure plan to the Council for 'information' and/or 'approval in principle' purposes, as directed by the Council's appointed project manager.
12. Identification 'to date' of, and consultation (as appropriate) on, the principal development objectives or policies for the area.
13. Preparation of such plan change or variation (and relevant section 32) documentation as the Council may deem appropriate for the stage of structure plan preparation reached.
14. Preparation of such specialist reports as may be necessary to address the environmental, transportation, financial or technical aspects of servicing the area, including consideration of alternatives.
15. General public consultation (publicly notified in the locality) of either the draft structure plan or the proposed design principles or parameters.
16. Report back to Council the results of consultation, and recommendations as to how Council should proceed from this point.
17. Further technical work or consultation as required to address any outstanding issues identified by any party.
18. Reporting for adoption of a final structure plan for Council adoption.
19. Preparation of relevant plan change material and reporting for its adoption and public notification.

Part 54.5 Recovery of Costs of Structure Plan Preparation

The Council will generally seek to recover actual and reasonable costs associated with the preparation of any structure plan and will use any appropriate methods to achieve this, which may include but is not limited to rating, resource consent conditions, and 'contributions'.

The following factors will be taken into account in determining the proportion of the costs that will be borne by those landowners and other 'stakeholders' directly benefitting from the structure plan:

- the number and areas of affected properties (and the number of separate landowners thereof) and the range and nature of the environmental issues pertaining to the locality, and the risks associated with not achieving integrated urban design and/or coherent development outcomes for the locality, for affected communities, or for the wider Franklin community;
- the extent to which ad hoc, piecemeal or premature development would exacerbate any existing or potential adverse natural, physical, cultural or infrastructural conditions (including social infrastructure such as education and health services) or reduce the potential of securing benefits from the urban development of the area;
- the extent to which Council can readily identify those who would benefit from the integrated management of the area and/or from the actual development of the area;
- the extent of new public open space or new physical infrastructure or

other services or amenities which would be beneficial to residents and ratepayers outside the locality;

- the economic impacts of the development of the area, and of the alternative cost-recovery measures available to the Council, and the timing of those impacts.

Parts 54.6 to 54.10 [Deleted]

Part 54.11 Whangarata Business Park Structure Plan (Tuakau)

Part 54.11 consists of the following sections:

54.11.1 Description of the Whangarata Business Park Structure Plan Area

The Whangarata Business Park structure plan area lies south-east of Tuakau township, adjacent to an existing Business Zone and between the railway line and Whangarata Road (map 54.11.1). Bollard Road traverses the area.

Two transmission gas pipelines, and network gas pipelines, are located in the area. An electricity substation is located on Bollard Road. A new substation is proposed for Whangarata Road and this site has been designated. The proposed relocation of this substation will require changes to the incoming electricity lines connecting the substation with the national grid and also the outgoing distribution lines from the substation to electricity customers.

The area is presently used for agricultural purposes and rural living.

The area is suitable for business activity for the following reasons:

- It is adjacent to an existing business area; the expansion of the business area will facilitate the development of a strong business cluster characterised by economies of scale and multiplier effects.
- It is relatively distant from any existing residential area and hence the potential for adverse effects on residential areas is minimised.
- The land is characterised by a slope that is suitable for the provision of water, wastewater, storm-water and roading infrastructure.
- The land is characterised by a slope that is suitable for industrial subdivision.
- Its location on Whangarata Road provides good access to SH1 and SH2, and from that point on, easy access to the port of Tauranga and other southern destinations as well as to Auckland and other northern destinations.
- The area straddles Bollard Road, which is a main road into Tuakau, providing excellent access to Tuakau's town centre, residential areas and community facilities enabling the development of physical and non-physical linkages. Examples of physical linkages are roads and water pipes. Examples of non-physical linkages are business processes and interpersonal relationships.
- The businesses that operate in the proposed business area in future will have the opportunity to provide products and services to future developments at Pokeno.
- There is opportunity for rail freighting.
- Gas can readily be provided to businesses.
- Telecommunications can readily be provided to businesses.
- Electricity can readily be provided to businesses and the land is at the centre of the substation service area (thereby promoting energy-efficient connection to the service area).

54.11.2 Key Resource Management Issues and how the Plan manages those Issues

Part 54.11.2 addresses the following issues:

(a) Gateway Status

(b) Interface between Activities

(c) Mix of Land Uses

(d) Connectivity

(e) Stormwater Management

(f) Wastewater Management

(g) Water Supply

(h) Provision of Open Space

(i) Provision of Gas

(j) Provision of Electricity

(k) Geology and Topography

a) Gateway Status

The structure plan area is located at one of the gateways into Tuakau. As such, its function and form is a contributor to the character of the town as a whole. The district plan provisions, including the structure plan, are aimed at managing the effects of development on the broader environment. For example, some of district plan provisions pertain to architectural design, others pertain to traffic and roading. All the provisions aim to facilitate the development of a high-quality, well-functioning environment.

b) Interface between Activities

Where the TIZ and TISZ activities interface with other activities, there is the potential for adverse effects to be experienced by one or more parties. The district plan provisions, including the structure plan, enable the management of those potential adverse effects.

Buffer areas are one mechanism used to manage interface effects. For example:

- the open space system will serve as a buffer between the TIZ and the TISZ in the vicinity of Tuakau Saleyards Road
- the open space system will serve as a buffer between the Business Zone and the TISZ in the vicinity of Tuakau Saleyards Road
- the open space system will serve as a buffer between the TIZ and the future living area to the west
- the open space system will serve as a buffer between business activities and some roads, thereby enhancing the amenity for road users, including pedestrians and cyclists
- landscaping requirements set out in the district plan provisions serve a buffering function; they mitigate potential adverse visual effects of business land uses on roads, reserves and other zones.

Where the Tuakau Industrial Zone interfaces with the railway line, and along the eastern boundary of the Tuakau Industrial Zone, as indicated with arrows on Map 54.11.1, a YARD with the following characteristics shall be observed, except that the YARD requirement does not apply to network utilities:

- The YARD shall follow a natural contour/s.
- The YARD shall average 7.5 metres wide and be no less than 5 metres wide.
- The YARD shall be planted with vegetation to a minimum depth of 5 metres.
- The YARD shall be planted and maintained to the satisfaction of Council and will not cause undue shading of neighbouring properties.

Residential activities close to business activities can create reverse-sensitivity effects, making it difficult or impossible for businesses to operate. The structure plan area was chosen as a business

area partly because it does not interface with the Residential Zone.

c) Mix of Land Uses

The structure plan provides for an appropriate mix of land uses.

The primary purpose of the structure plan area is to provide for manufacturing, processing, assembly, storage and distribution activities; these are provided for in the TIZ. Small-scale manufacturing, processing, assembly, storage and distribution activities are provided for in the TISZ. Business services that are required to support the TIZ activities are also provided for in the TISZ. The TISZ extends to the boundary of covenanted bush to maximise the environmental amenity of the TISZ; the activities typical of the TISZ are more compatible with the covenanted bush than are activities typical of the TIZ.

Residential activities close to business activities can create reverse-sensitivity effects, making it difficult or impossible for businesses to operate. The structure plan area was chosen as a business area partly because it does not interface with the Residential Zone.

To the west of the proposed business area is an area that is ‘wedged’ between the proposed business area and the existing Rural-residential Zone. It is separated from the proposed business area by part of the open space system. This ‘wedge’ of land is well-suited to some form of residential development; more detailed investigation is required in this regard.

The open space system provides recreation opportunities for people working in the TISZ and TIZ.

It is proposed that an area outside the structure plan area, north of the railway line, becomes Proposed Esplanade Reserve (in accordance with the Reserves Act) once further investigation has taken place so that the open space network can form a loop (map 54.11.1).

The structure plan sets out requirements for cycle lanes, walkways and landscaping that will enable the roads and the open space areas to form a network that can be used for walking, cycling and jogging.

The open space system also contributes to stormwater management.

The specifically designed transport network enables the safe and free movement of motor vehicles, pedestrians and cyclists. Its specific design also makes a positive contribution to the character of the area.

The location of the TISZ in relation to the TIZ facilitates pedestrian and cycle access between the TIZ and the TISZ. The TISZ is situated alongside or near to the open space system is support of the ‘lighter’ character of the TISZ (than that of the TIZ) as set out in Part 37A.

d) Connectivity

Connectivity is discussed in terms of the following elements:

(i) Compact Development

(ii) Pedestrian and Cycle Networks

(iii) Road Network

(iv) Public Transport

(v) Roading and Tuakau Town Centre

i. Compact Development

The structure plan area comprises a compact, walkable footprint; the area has a radius of about 700 metres. Two TISZ areas are provided for; one at the southern entrance and one at the northern entrance to the business area. The location of the TISZ in relation to the TIZ facilitates pedestrian and cycle access between the TIZ and the TISZ.

The compact nature of the structure plan area, and the design of the circulation system, provides employment opportunities within walking and cycling distance of Tuakau's resident population.

ii. Pedestrian and Cycle Networks

Walkways and cycle ways form an integral part of the structure plan and are part of the roading design.

Cycle ways and walkways are located along roads and in the open space network. Cyclists are provided with dedicated cycle lanes. Footpaths enable safe pedestrian movement. Raised medians provide pedestrian refuges.

The landscaping on both sides of roads contributes to the small-town character of the area, which enhances amenity for pedestrians and cyclists.

At the time of more detailed planning and development, the location of landscaped pedestrian refuges, pedestrian crossings, cycle ways and walkways should be co-ordinated to create an integrated and free-flowing cycle way and walkway system.

Some of the cycle ways and walkways are located within the open space system. Where feasible, roads are located alongside the open space system. This helps to:

- enhance surveillance and safety for pedestrians and cyclists using the open-space system and
- provide high visual amenity for road users, including cyclists and pedestrians

Cycle ways and walkways located in the open-space system provide opportunities for shading of cycle ways and walkways. This reduces risks related to exposure to the sun.

The district plan provisions serve to integrate buildings with roads and the open space network. For example, buildings facing roads are required to have glass frontages to enhance passive surveillance. Another example is the requirement for sites adjacent to reserves to have landscaped setbacks. The district plan provisions help to ensure stewardship, usability and safety of roads and the open space network for cyclists and pedestrians.

Where roads runs along open space, the landscaped road reserve acts as a buffer between business activity and open space, thereby enhancing the amenity of the open space and making it more user-friendly for pedestrians and cyclists.

iii. Road Network

This plan acknowledges that the road system has various functions, including:

- It enables people to get to places
- It contributes to the character of the area
- It provides for network utility infrastructure. The preferred land-use over the gas pipeline is open space. The second preference is road, to enable the gas pipeline to be located in the network utility corridor associated with the road. This open space and/or road corridor may also present an opportunity for an alternative route for the 110kV electricity line designated in 2008 to be developed along Bollard Road.

With that in mind, the following principles guided the design of the internal road system:

- Enable traffic to flow freely.
- Promote safety.
- Promote small-town character.
- Provide shade.
- Integrate walkways and cycle ways into the design of the roading system at the outset.
- Facilitate natural surveillance.
- Facilitate continued operation of existing network utilities.
- Promote efficient development of new infrastructure.

The road system within the existing Business Zone to the north is linked to the road system in the proposed business area, thus providing:

- a number of travel routes to choose from, which helps to distribute traffic rather than concentrate it and hence reduces the potential for congestion
- good linkages within the overall business area (existing and proposed), which reduces the length of trips and hence reduces fuel usage and emissions.

The road system within the proposed business area is linked to the network within the existing residential and rural-residential areas to the west. This has the same benefits as those listed under the two bullet points above.

The following description of the internal road system should be considered in conjunction with map 54.11.2 and diagrams 1 to 11.

The proposed internal road system consists of:

- a road (A) off Bollard Road
- a road (B) off Bollard Road

- road system C, linking the existing Business Zone, the proposed business area and the existing urban area to the west
- a road (D) that links the proposed business area to the future living area in the west
- a road (E) that provides access to the east of the area
- a road (F) that links the proposed business area to any future development to the east
- a road (G) that serves the future business area and provides an alternative
- access to and exit from Whangarata Road
- a road (H) that serves a central portion of the proposed business area and links Bollard Road to road A
- a road (I) that serves the north-western portion of the proposed business area and provides an alternative access to and exit from the area
- a road (J) into the centre of the development
- Bollard Road

The components of the internal road system are described in more detail below. The relevant roading components external to the proposed business area are also addressed.

It is re-iterated that in accordance with Council's Development Contributions policy, roading infrastructure will be funded by developers. Local financial contributions may be required.

Road A

Road A serves the existing and proposed business areas. This road enables traffic to enter and exit the new business area via the town centre and Bollard Road.

Cyclists are provided with a dedicated 2.5 metre cycle-lane on one side of the road.

A 2 metre wide footpath on both sides of the road enables safe and comfortable pedestrian movement.

The flush median helps motor vehicles to undertake right turns. There should be clear and obvious signage communicating the fact that the flush median is not a refuge for pedestrians. The use of the flush median as a pedestrian refuge will result in conflicts between heavy vehicles and pedestrians. Raised medians shall be provided at intervals to facilitate safe crossing for pedestrians.

Parallel parking (2.25 metres wide) is provided on both sides of the road. The cycle ways are not located between the carriage-way and the parking areas; this is to ensure that cyclists do not have to negotiate vehicles that are entering and exiting parking spaces. The parallel parking bays are relatively narrow to discourage heavy vehicles from parking on the road side.

The landscaping on both sides of the road is essential if the small-town character and human scale of the area is to be retained (see Parts 37A and 40A for further details on the character of the area).

The 3.5 metre carriageway on both sides of the flush median is designed to accommodate buses and other heavy vehicles.

Eastern Road B
Road B serves the eastern portion of the new business area.

The design of Road B is the same as Road A, described above.

Road C
Road C intersects Road A. Road C links the proposed and existing business areas to each other and to the urban area to the west.

Road C links up with Road B, providing an alternative route to access the east of the area and taking pressure off Bollard Road.

Road C enables traffic to enter and exit the business area in the vicinity of the Tuakau Salesyards and the Council-owned Dr. John Lightbody Reserve. This route will be located near to sensitive uses, e.g. residential and open space. It should therefore incorporate traffic calming mechanisms and the design should discourage heavy vehicles through sensitive areas.

Road D
Road D links the business area to the proposed future residential area and the existing Rural Residential Zone to the west. This route will be located near to sensitive uses. It should therefore incorporate traffic calming mechanisms and the design should discourage heavy vehicles through sensitive areas.

Road E
Road E provides access to the east of the area and provides a link to the centre of the area.

Road F
Road F provides access to the east of the area. It is located adjacent to open space, thereby enhancing the amenity for road users and users of the open space and promoting passive surveillance. Road F links the business area to any future development to the east. Its design is the same as Road A, described above.

Road G
Road G serves the west of the area and provides access to and from Whangarata Road, which in turn provides access eastwards to Pokeno and westwards to Port Waikato and the Waikaretu. Its design is the same as Road A, described above.

Road H
Road H connects Bollard Road to Road A.It serves a central portion of the proposed business area. Its design is the same as Road A, described above.

Road I

Road I serves the north-western portion of the business area and provides an alternative access to and exit from the area. Its design is the same as Road A, described above.

Road J

Road J is the gateway into the centre of the development and as such its treatment is vitally important. Its green, open space character conveys the rural Franklin country atmosphere. The 7.5 m setback and the planted-median will contribute to the rural character and country feel. It is focused on the central area of open space and provides a view shaft to this open space area, thereby contributing to the character of the TISZ, as set out in Part 37A.

Bollard Road

The majority of traffic from the internal road network will access the external road network using Bollard Road.

Bollard Road traffic can enter and exit the proposed business area to the south at the Bollard/Whangarata intersection or to the north through the town.

The proposed road system will intersect Bollard Road at 2 points within the proposed business area.

It is envisaged that Bollard Road will develop into a collector road, as it develops into a locally preferred route:

- between the proposed business area and the rest of Tuakau
- within the proposed business area.

It is also the main entrance into Tuakau from the south. Therefore it plays a significant role in establishing the character of Tuakau as a whole. The form and function of Bollard Road and the area flanking it is thus of critical importance to the town. The development of Bollard Road is managed by the district plan provisions.

Cyclists are provided with a 2.5 metre cycle lane on one side of the road.

A 2 metre wide footpath on both sides of the road enables safe and comfortable pedestrian movement.

The landscaping on both sides of the road contributes to the small-town character of the area.

Parallel parking spaces, 2.25 metres wide, are provided. Wider parallel parking is not provided as wider parking spaces could encourage heavy vehicles to park along the road and this would compromise the character and functionality envisaged for the area. The cycle ways are not located between the carriage-way and the parking areas; this is to ensure that cyclists do not have to negotiate vehicles that are entering and exiting parking spaces. The parallel parking is not intended to accommodate heavy vehicles.

The landscaping on both sides of the road is essential if the small-town character and human scale of the area is to be retained.

The 3.5 metre carriageway on both sides of the median is designed to accommodate buses and other heavy traffic.

Electricity infrastructure is located in Bollard Road. In addition, there is an approved designation that provides for above ground electricity infrastructure along Bollard Road (see Map 54.11.4).

Map 54.11.5 shows proposed widening along Bollard Road.

Whangarata Road

It is envisaged that Whangarata Road will develop into an arterial route, playing an increasingly strategic role as a link between Tuakau and Pokeno, as both these towns grow in the future. Arterial routes have strategic importance, linking urban centres and playing a significant role in the movement of goods and produce.

A service lane parallel to Whangarata Road is proposed where the business area interfaces with Whangarata Road. Access to Whangarata Road will be via a limited number of access points along the parallel service lane. This will reduce the number of accesses onto Whangarata Road and will provide access to Whangarata Road where visibility is good. This will facilitate safe access to and from Whangarata Road. The visual effects of the business development as viewed from the road are enhanced. Businesses are also provided with good exposure from Whangarata Road; thus the service lane is a valuable asset for businesses.

It is recommended that traffic calming mechanisms be instituted along Whangarata Road in the areas beyond the proposed business zone.

Electricity infrastructure is located in Whangarata Road. In addition, there is an approved designation that provides for above ground electricity infrastructure along Whangarata Road (see Map 54.11.4).

Map 54.11.6 shows proposed widening along Whangarata Road.

Roundabouts

Landscaped roundabouts with deep set-backs are proposed. Roundabouts provide the benefit of enabling vehicles to return in the direction from which they came. This minimises trip length and hence reduces fuel usage and emissions. It also helps vehicles to proceed more directly to their destinations (as opposed to having to continue in a direction which leads them away from their destination). This helps traffic to flow efficiently.

Deep set-backs at the roundabouts achieve the following:

- maximising the number of businesses that can locate around the traffic circle and thereby acquire high profile
- providing the opportunity to develop the spaces around different traffic circles in different ways, thereby individualising each traffic circle and thus creating landmarks and unique vistas.

The internal roading network and open space

Much of the roading system runs along open space. This achieves the following:

- a balance between providing for development and retaining a small - town character in keeping with Council's vision and mission statement
- passive surveillance over recreation and stormwater reserves, thereby minimising the potential for anti-social behaviour and maximising the usability of the open space areas by the community.

Where roads run along recreation/stormwater reserves, people travelling along the roads experience a varied and softened environment. The roads, because of the activity that occurs on them, provide passive surveillance of the open space areas.

Where roads runs along open space, the road, with its landscaping, acts as a buffer between business activity and open space, thereby enhancing the amenity of the open space and making it more user-friendly.

Cul-de-sacs

Cul-de-sacs are not generally provided for in the new business area because:

- large vehicles find them difficult to negotiate
- they hinder direct access which works against the objective of shorter trips and lowered fuel usage and emissions.

In the short term, roads that are only partly developed could operate as no-exit roads, but such roads should be provided with sufficiently large turning areas.

It is acknowledged that cul-de-sacs have the potential to achieve the following:

- a sense of community
- reduction in the number of vehicles passing any particular site; this in turn contributes to a small- scale town character
- traffic calming
- passive surveillance

These benefits of cul-de-sacs are significant and they can only be realised by relatively short cul-de-sacs; the benefits of cul-de-sacs are significantly reduced where a certain length is exceeded. The principle of shorter, rather than longer, cul-de-sacs is promoted.

Parking

On-site handling of freight is essential for the TIZ, hence larger site sizes are provided for in the TIZ than in the TISZ.

In the TIZ and TISZ, parallel parking is provided for.

For more details on parking see Road A and Bollard Road above.

iv. Public Transport

With the proximity of the North Island Main Trunk railway to the north, an opportunity exists for businesses within the proposed business area to utilise rail transport. Road C provides access to

the railway line and any rail sidings that might be constructed in future. Development in the vicinity of the rail corridor must be compatible with the railway activity and the district plan provisions facilitate this.

The 3.5 metre carriageway is designed to accommodate buses. The roading design facilitates the operation of bus passenger services from the residential centres where employees are likely to be drawn, including Tuakau, Pokeno, Mercer, Pukekohe and Waiuku.

All required engineering infrastructure (water, wastewater, stormwater, roading, gas, electricity and telecommunications) shall be developed and provided to the satisfaction of Council prior to all other development, including subdivision. Recognition of the likely need for additional capacity and connection points shall be incorporated during development (or at the time of subdivision), e.g. through provision of additional ducts and frequent connection points.

Where infrastructural limitations exist, such that the required roading infrastructure cannot be provided by Council within a particular time-frame, or within a particular budget, the provision of the required roading infrastructure will be the responsibility of the developer.

Unless specifically stated in the structure plan, all development will be in accordance with Council's current Engineering Code of Practice.

Advisory Note:
The Hamilton Infrastructure Technical Specifications is Council's current Engineering Code of Practice.

Roading infrastructure will be funded in accordance with Council's development contributions policy.

v. Roading and Tuakau town centre

Traffic calming mechanisms on the route to the town centre will be required to retain Tuakau's small-town character and to maintain safety and amenity.

e) Stormwater Management

Consent shall not be granted for urban subdivision and/or development until the required comprehensive stormwater discharge consent has been obtained from the regional council. Subdivision and development shall comply with the conditions of the comprehensive discharge consent.

- Off-stream ponds shall be established in accordance with the Tuakau catchment management plan, except that stormwater in the east of the Whangarata Business Park will be managed as per the maps in Part 54.11. Run-off shall be captured in stormwater ponds before being released into streams.
- Open waterways shall be retained within the open space system as set out in map 54.11.1.
- Where a waterway has a width of 3 metres or more, an esplanade reserve with a width of no less than 40 metres shall be provided along the waterway and shall be vested in Council.

- Where a waterway has a width of less than 3 metres, a riparian margin with a width of no less than 20 metres shall be provided along the waterway.
- In all other instances where the open space system is identified in the structure plan, the width of the open space system shall be no less than 20 metres.

The extent of esplanade reserves and riparian margins on each side of the relevant waterway shall be determined by Council. In other words, esplanade reserves and riparian margins might extend equally on both sides of the relevant waterway or they might extend further on one side of the waterway than on the other side.

Flow channels may be modified and channel landscaping provided to achieve required flow rates.

Where a roofing system is designed and constructed in a manner that significantly reduces or makes use of the stormwater run-off, for example a roofing system that includes stormwater retention tanks, annual stormwater drainage fees may be discounted at the discretion of Council.

All required engineering infrastructure (water, wastewater, stormwater, roading, gas, electricity and telecommunications) shall be developed and provided to the satisfaction of Council prior to all other development, including subdivision. Recognition of the likely need for additional capacity and connection points shall be incorporated during development (or at the time of subdivision), e.g. through provision of additional ducts and frequent connection points.

Where infrastructural limitations exist, such that the required stormwater infrastructure cannot be provided by Council within a particular time-frame, or within a particular budget, the provision of the required stormwater infrastructure will be the responsibility of the developer.

Unless specifically stated differently in the structure plan, all development will be in accordance with Council's current Engineering Code of Practice.

Advisory Note:
The Hamilton Infrastructure Technical Specifications is Council's current Engineering Code of Practice.

Stormwater infrastructure will be funded in accordance with Council's development contributions policy.

f) Wastewater Management

It is anticipated that the structure plan area will be able to accommodate businesses that need to discharge higher than average amounts of water.

Consent shall not be granted for urban subdivision and/or development until the required wastewater discharge consents have been obtained from the regional council. Subdivision and development shall comply with the conditions of the wastewater discharge consents.

In instances where wastewater discharge consents cannot be obtained by Council from the regional council within a particular timeframe, or within a particular budget, the developer shall be responsible for obtaining the required wastewater discharge consents.

All lots within the structure plan area shall be connected to the Tuakau sewerage system.

All required engineering infrastructure (water, wastewater, stormwater, roading, gas, electricity and telecommunications) shall be developed and provided to the satisfaction of Council prior to all other development, including subdivision. Recognition of the likely need for additional capacity and connection points shall be incorporated during development (or at the time of subdivision), e.g. through provision of additional ducts and frequent connection points.

Where infrastructural limitations exist, such that the required wastewater infrastructure cannot be provided by Council within a particular time-frame, or within a particular budget, the provision of the required wastwater infrastructure will be the responsibility of the developer.

Unless specifically stated differently in the structure plan, all development will be in accordance with Council's current Engineering Code of Practice.
Advisory Note: The Hamilton Infrastructure Technical Specifications is Council's current Engineering Code of Practice.

Wastewater infrastructure will be funded in accordance with Council's development contributions policy.

In the east, a large portion of stage 1 slopes away from the rest of the Tuakau Industrial Zone. Consequently, servicing this area is likely to require pumping, and the related infrastructure is more expensive to build and operate. It is re-iterated that in accordance with Council's Development Contributions policy, wastewater infrastructure will be funded by developers. All costs associated with the management of wastewater, e.g. public wastewater pump stations, rising mains and gravity connections, shall be borne by the developer.

g) Water Supply

It is anticipated that the structure plan area will be able to accommodate businesses that require higher than average amounts of water.

Consent shall not be granted for urban subdivision and/or development until the required water supply consents have been obtained from the regional council. Subdivision and development shall comply with the conditions of the water supply consents.

In instances where water supply consents cannot be obtained by Council from the regional council within a particular time-frame, or within a particular budget, the developer shall be responsible for obtaining the required water supply consents.

All lots within the structure plan area shall be connected to the Tuakau water supply system.

All required engineering infrastructure (water, wastewater, stormwater, roading, gas, electricity and telecommunications) shall be developed and provided to the satisfaction of Council prior to all other

development, including subdivision. Recognition of the likely need for additional capacity and connection points shall be incorporated during development (or at the time of subdivision), e.g. through provision of additional ducts and frequent connection points.

Where infrastructural limitations exist, such that the required water supply infrastructure cannot be provided by Council within a particular time-frame, or within a particular budget, the provision of the required water supply infrastructure will be the responsibility of developer.

Unless specifically stated differently in the structure plan, all development will be in accordance with Council's current Engineering Code of Practice.
Advisory Note: The Hamilton Infrastructure Technical Specifications is Council's current Engineering Code of Practice.

Water supply infrastructure will be funded in accordance with Council's development contributions policy.

In the east, a large portion of stage 1 slopes away from the rest of the Tuakau Industrial Zone. A consequence of this could be that water supply infrastructure in this area is more expensive to build and operate than in the rest of the Tuakau Industrial Zone. It is re-iterated that in accordance with Council's Development Contributions policy, water supply infrastructure will be funded by developers. All costs associated with water supply shall be borne by the developer.

h) Provision of Open Space

The open space system will form an integrated open space system in accordance with the general intent of the structure plan. The open space system will:

- contribute to stormwater management
- accommodate cycleways
- accommodate walkways
- provide linkages
- act as a buffer to aid in the management of potential adverse effects
- enable relaxation and informal recreation

The structure plan sets out the approximate location and extent of the open space system. The open space system consists predominantly of stormwater reserves and a network of cycle ways and walkways. It also incorporates covenanted bush and an open space area around the covenanted bush. The open space area around the covenanted bush serves the following functions:

- Central area of public open space, around which the business area is focussed
- Interesting element in the business area
- Landmark
- Connects various sub-areas within the business zone
- Contributes to the country feel of the area
- Used for recreation and relaxation by people in the TISZ and TIZ

The multi-functionality of the open space resource promotes an efficient use of resources and contributes to amenity for pedestrians and cyclists in the area. It also enhances the amenity for people in the business area generally, because open space areas utilised by pedestrians and cyclists are less likely to be compromised by anti-social behaviour due to the component of passive surveillance.

i) Provision of Gas

Two transmission gas pipelines, and network gas pipelines, are located in the area. These provide opportunities to utilise gas as a form of energy. Activities within 20m of a TRANSMISSION GAS PIPELINE must occur in consultation with the relevant service provider.

j) Provision of Electricity

An electricity substation is located on Bollard Road. A new substation is proposed and has been designated on Whangarata Road. The proposed location of this substation will impact on the routes of the incoming electricity lines connecting the substation with the national grid and outgoing lines from the substation to electricity customers.

k) Geology and Topography

Prospective sites in the area might have limitations resulting from instability and possible flooding adjacent to existing streams. Specific foundation design may be required for heavy structures or structures founded in deep cuts. Fill placement might cause settlement. Unsuitable recent alluvium is likely to be encountered within the drainage gullies.

Development on steep slopes is not provided for in the structure plan; steep slopes are incorporated into the open space system. All sites will require detailed geotechnical investigations prior to subdivision or development, in accordance with Council requirements.

54.11.3 Staging of Development

Timing of development and the establishment of services (including water, wastewater, transportation and recreation) will require the completion of a structure plan that sets out how the site can be serviced; this will include setting out the alignment and sizing of the infrastructure. Any infrastructure funding to be undertaken by Council will be dependent on commitment of the Council capital works programme. As with other infrastructure, the availability of electricity and telecommunications may necessitate the need for staging of development. In respect of these two infrastructure elements, the Council will require that developers meet the cost of undergrounding these services.

Currently, Council services are unsuitable to support wet industries.

Council is adhering to a staging programme (map 54.11.3) to ensure that the required infrastructure is in place to support new business activities.

The staging reflected in map 54.11.3 is intended to accomplish the following:

- a mix of land uses at the initial stages
- options for small and larger sites at the initial stages because some of the area that is included is flat, which enables larger footprint buildings, and some of the area included in the first stage consists of slightly

sloping topography, requiring smaller footprint buildings

- development that occurs in sequence (the first stage is contiguous with the current business area, thus areas closer to existing urban development will be developed before more outlying areas)
- good footpaths and cycle ways from the start
- the progressive provision of infrastructure to meet the requirements of each stage
- infrastructure costs spread over time

No development of buildings for business purposes shall take place until the required infrastructure has been provided to the satisfaction of Council.

Stage 1 shall not be developed until Council is satisfied that the infrastructure required to support stage 1 has been constructed and is in place. This includes infrastructure within stage 1 as well as infrastructure that might be required beyond the boundaries of stage 1.

Stage 2 shall not be developed until Council is satisfied that:

- stage 1 is sufficiently developed to warrant development of, and infrastructure provision for, stage 2, **and**
- the infrastructure required to support stage 2 has been constructed and is in place; this includes infrastructure within stage 2 as well as infrastructure that might be required beyond the boundaries of stage 2.

All required services shall be provided to the satisfaction of Council prior to all other development, including subdivision.

Where infrastructural limitations exist, such that the required infrastructure cannot be provided by Council within a particular time-frame, or within a particular budget, the provision of the required infrastructure shall be the responsibility of the developer.

However, there is flexibility in Council's approach because Council will continue to work with landowners and developers, formally, in accordance with the RMA and the LGA, and informally, consistent with good practice. For example, stage 1 could become available prior to the anticipated 2014 date if market demand for business land requires it and if the necessary infrastructure is in place. Similarly, parts of stage 2 could be developed prior to parts of stage 1 if the required infrastructure is provided by the land owner and/or committee developer to the satisfaction of Council. It is thus recognised that the staging shown in map 54.11.3 is subject to change as a result of more detailed investigations required for the preparation of subdivision and land-use plans. This process allows for landowner and developer participation in making decisions about staging.

As it will be the landowners and developers who will be preparing the subdivision and land-use plans for their land, they will be setting out a staging pattern they consider to best suit the contour of the land and provide efficient use of the land. It will be the role of Council to ensure that the staging is consistent with the outcomes sought by the structure plan. Therefore, a collaborative approach will

arise during the resource consent process.

If the distribution network is provided in an area before the particular land-uses are known, it is difficult to install underground plant because this might result in sub-optimal capacity (i.e. under or over the eventual capacity required by the land-use). This does not impact on the ability for lots to provide private connections underground.

54.11.4 Standard of Development

Unless specifically stated differently in the structure plan, all development will be in accordance with Council's current Engineering Code of Practice.

Advisory Note:
The Hamilton Infrastructure Technical Specifications is Council's current Engineering Code of Practice.

54.11.5 Funding of Development

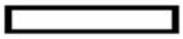
Infrastructure will be funded in accordance with Council's development contributions policy, except that the works required for Whangarata Road will be funded through infrastructure charging plans.

54.11.6 Infrastructural Limitations

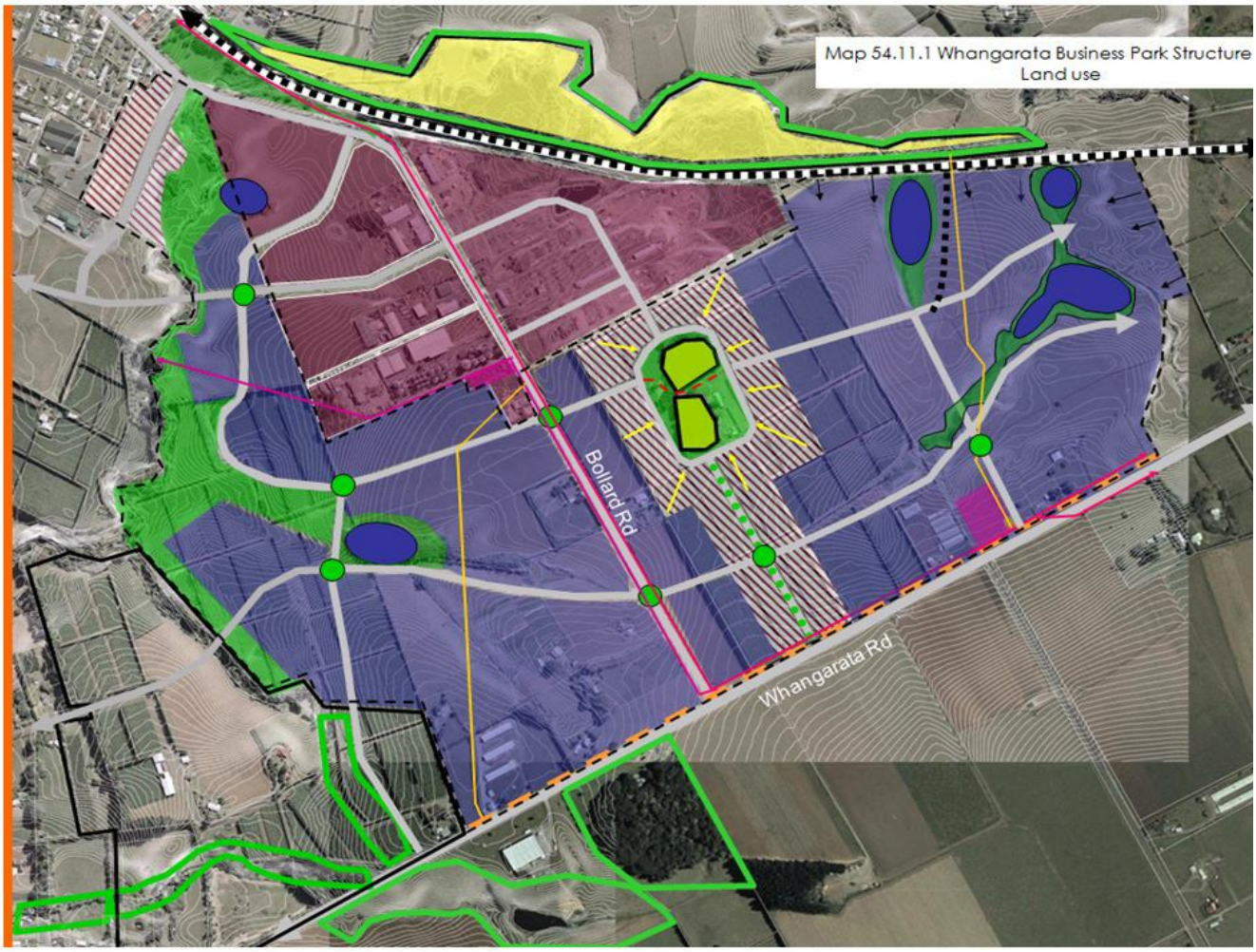
Infrastructure will be funded in accordance with Council's development contributions policy, except that the works required for Whangarata Road will be funded through infrastructure charging plans.

54.11 Maps and Diagrams

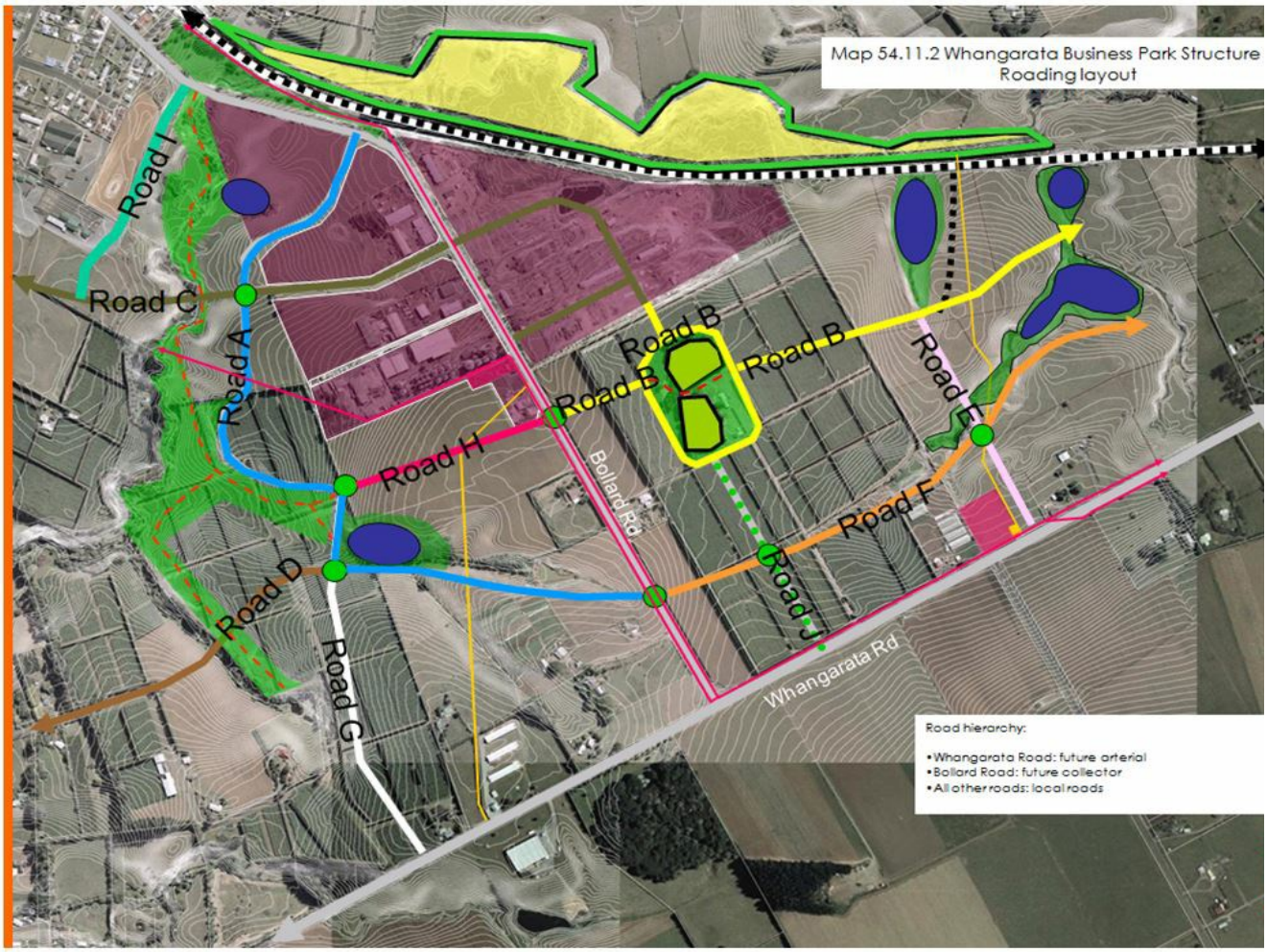
Map Legend

Legend	
Existing Business Zone	
Manufacturing, processing, assembly, storage, distribution & wholesale	
Retail to serve the above Small-scale manufacturing, processing, assembly, storage, distribution & wholesale	
Future open space, residential and business; not part of Plan Change 22 (specific boundaries between open space, residential and business to be determined upon more detailed investigation)	
Stormwater reserves with detention ponds (approximate location and size), cycleways and pedestrian paths	
Covenanted bush	
Publicly-accessible open space, walkways, cycle ways and orientation of buildings to open space	
Intersections with special landscape treatment	
Roads	
Railway line and railway siding	
Raised planted median (planted with vegetation)	
Notable vegetation and lower-lying areas for possible future linkages	
To become "Proposed esplanade reserve" (Reserves Act) subject to further investigation	
Gas designation and infrastructure	
Electricity designation and infrastructure	
4.25 metre road widening	
YARD along natural contour/s, averaging 7.5 metres wide and being no less than 5 metres wide	
Structure plan boundary	

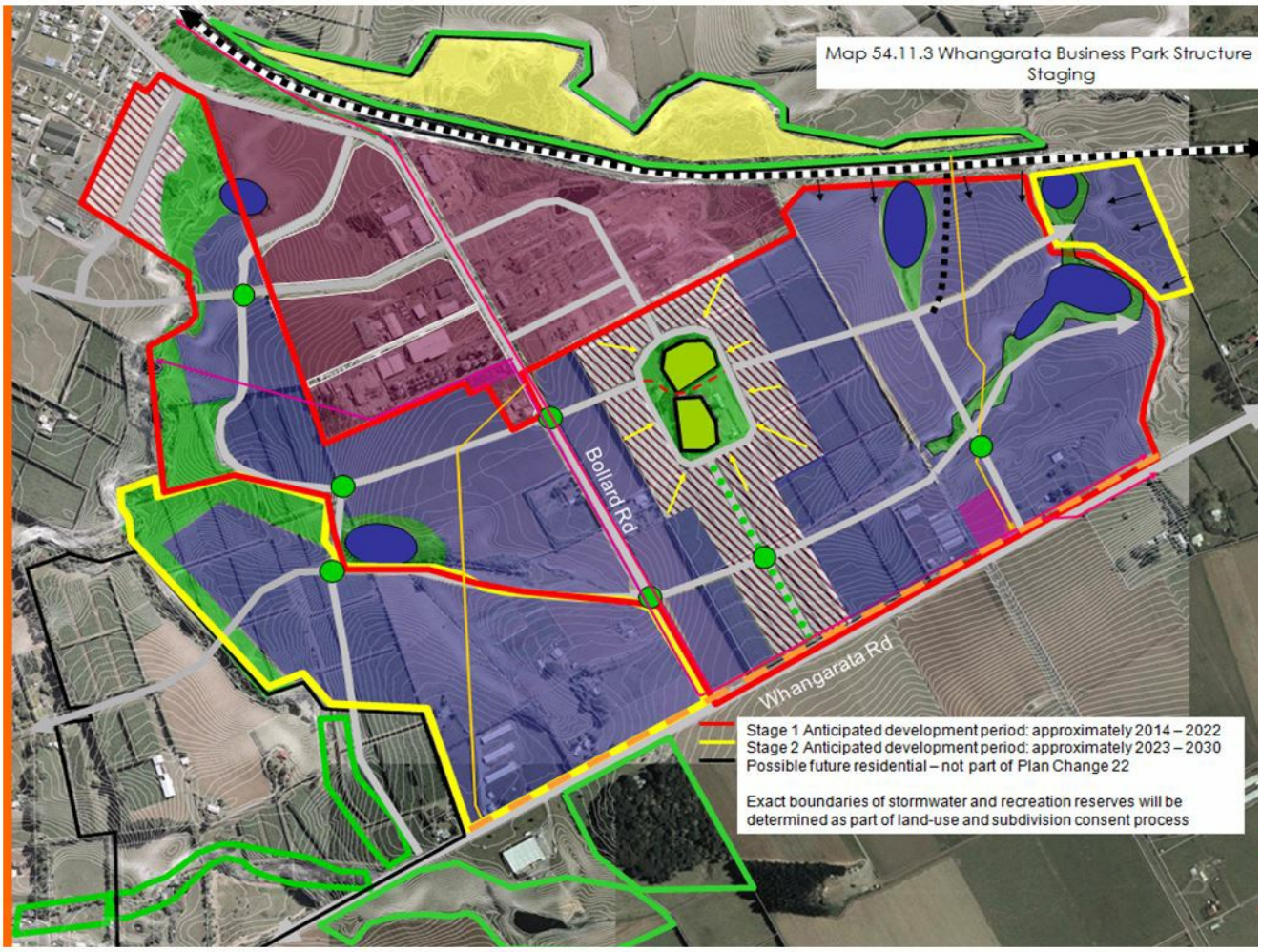
Map 54.11.1 Whangarata Business Park Structure Plan - Land use



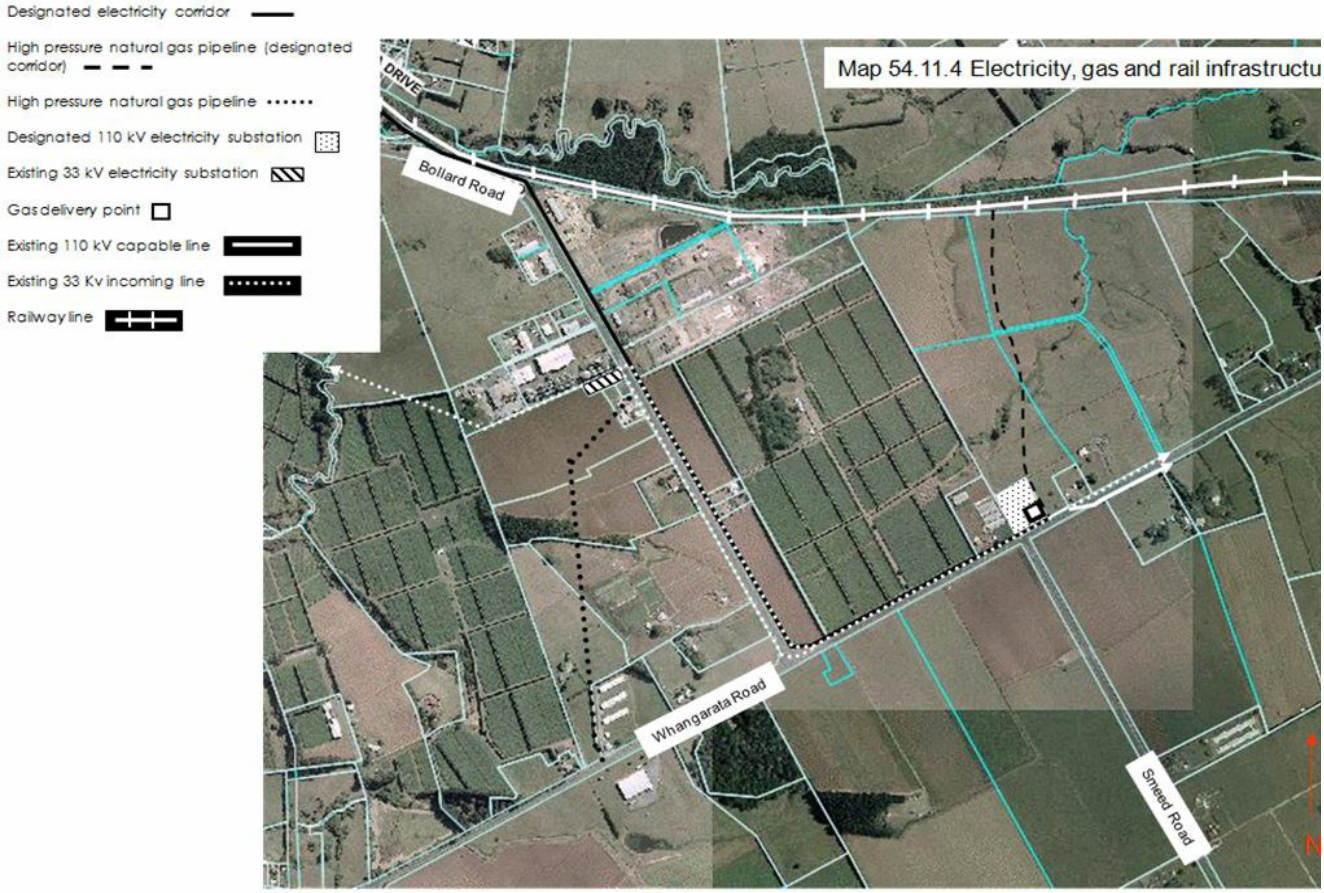
Map 54.11.2 Whangarata Business Park Structure Plan - Roading Layout



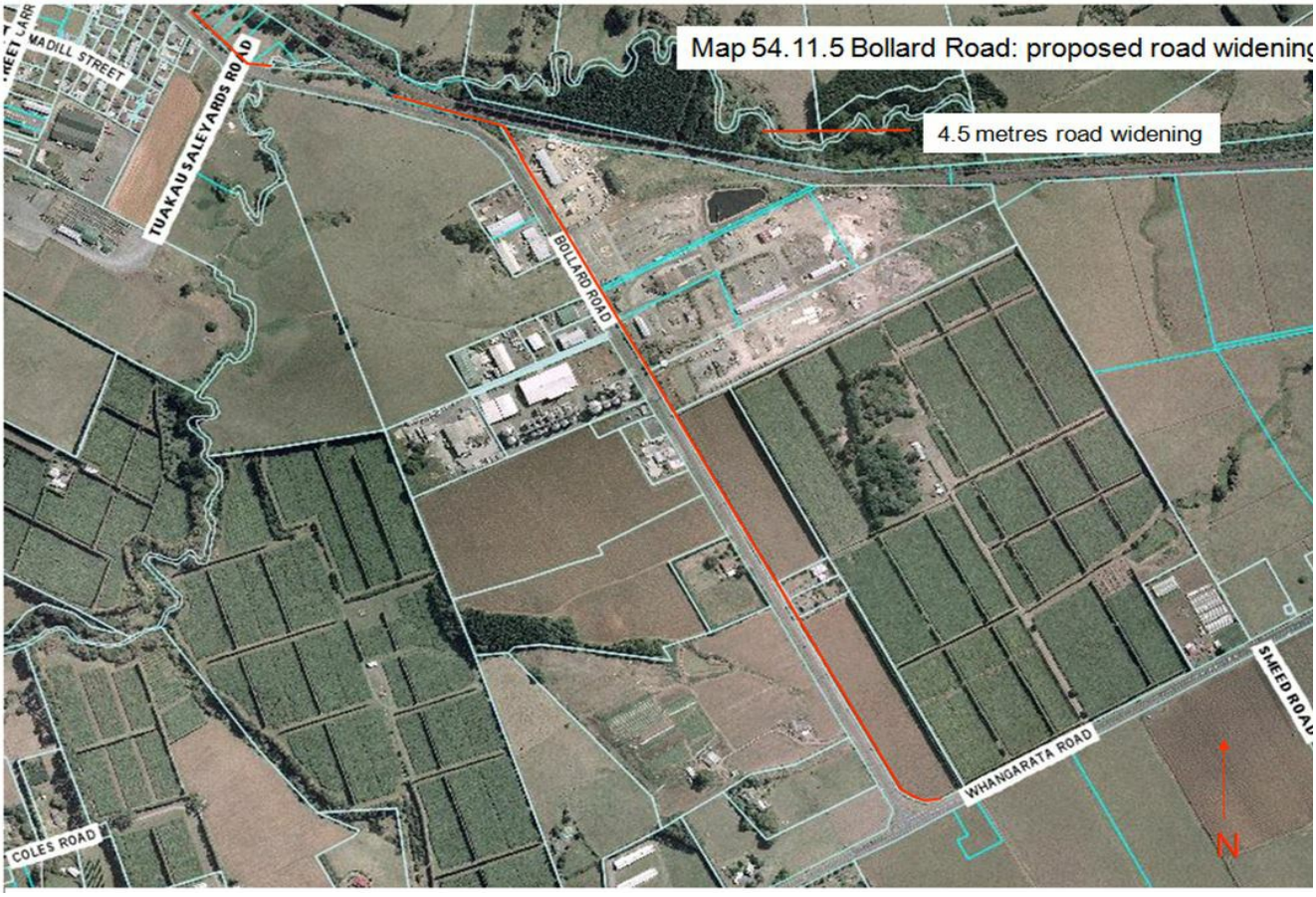
Map 54.11.3 Whangarata Business Park Structure Plan - Staging



Map 54.11.4 Electricity, gas and rail infrastructure



Map 54.11.5 Bollard Road: proposed road widening



Map 54.11.6 Whangarata Road: road widening

Diagram 1: Examples of rumble strips or markers between footpaths and cyle paths




Diagram 2: Typical road e.g. Bollard Road & Road E (dimensions given in metres)

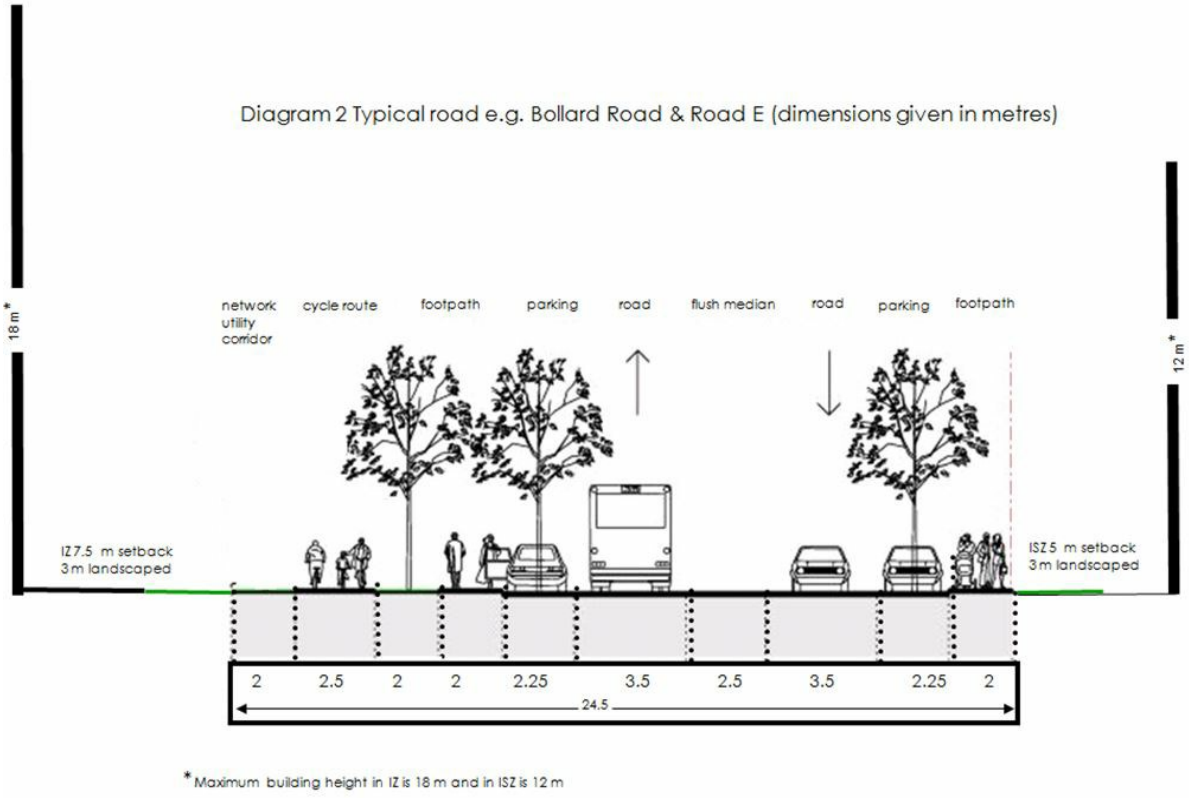


Diagram 3: Planted median road (Road J)

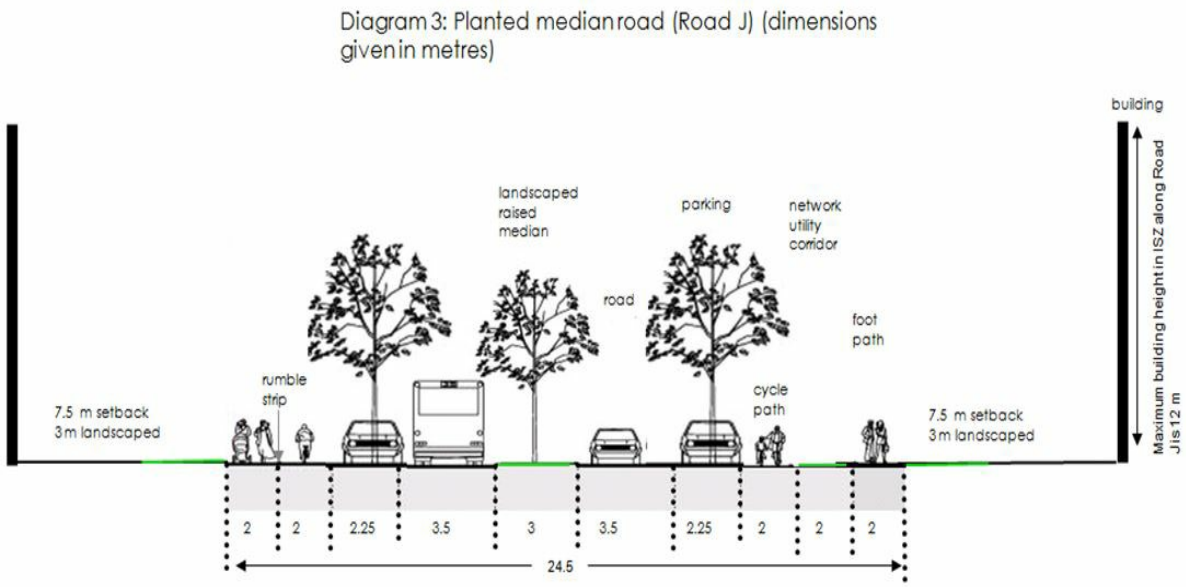


Diagram 4: Whangarata Road with service lane at interface with the IZ and ISZ

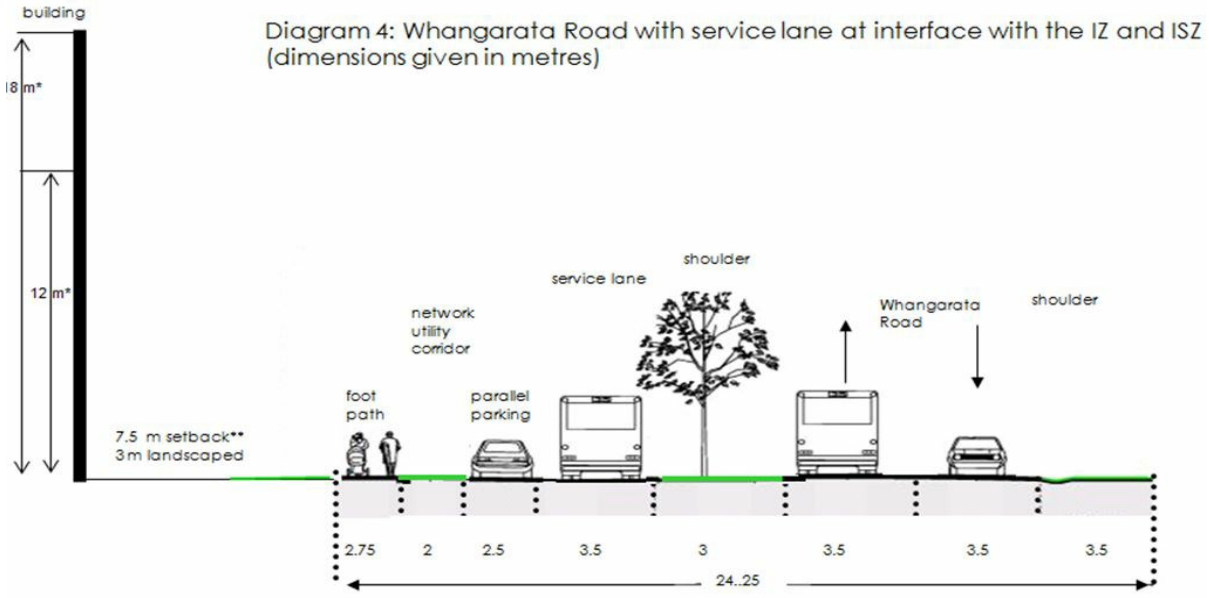


Diagram 4: Whangarata Road with service lane at interface with the IZ and ISZ (dimensions given in metres)

Diagram 5: Typical road shorter than 250 metres

Diagram 5: Typical road shorter than 250 metres (dimensions given in metres)

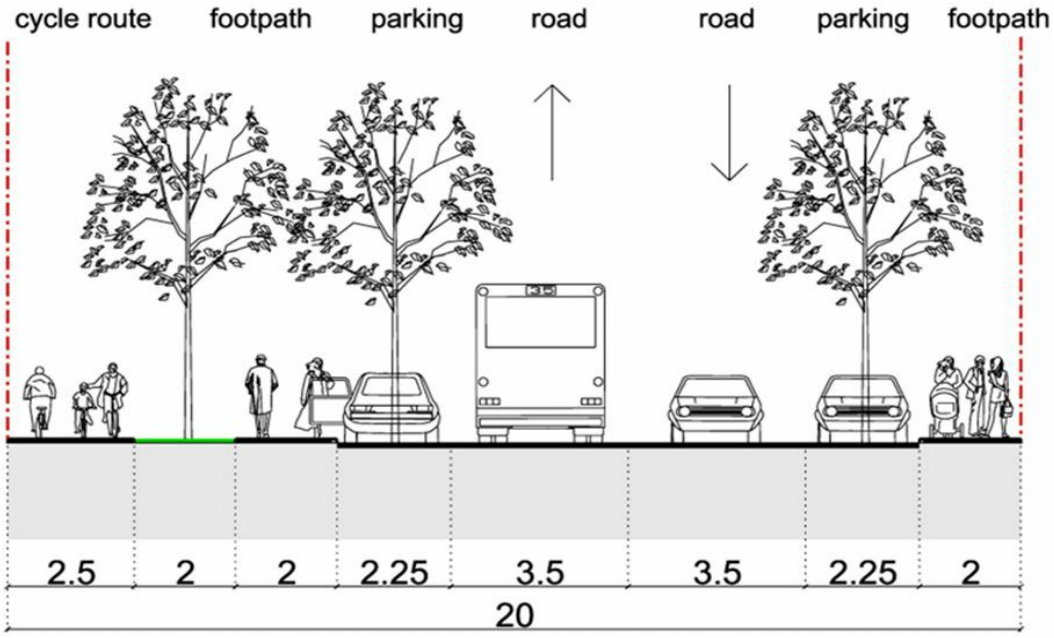


Diagram 6: Intersection of planted median road and typical road

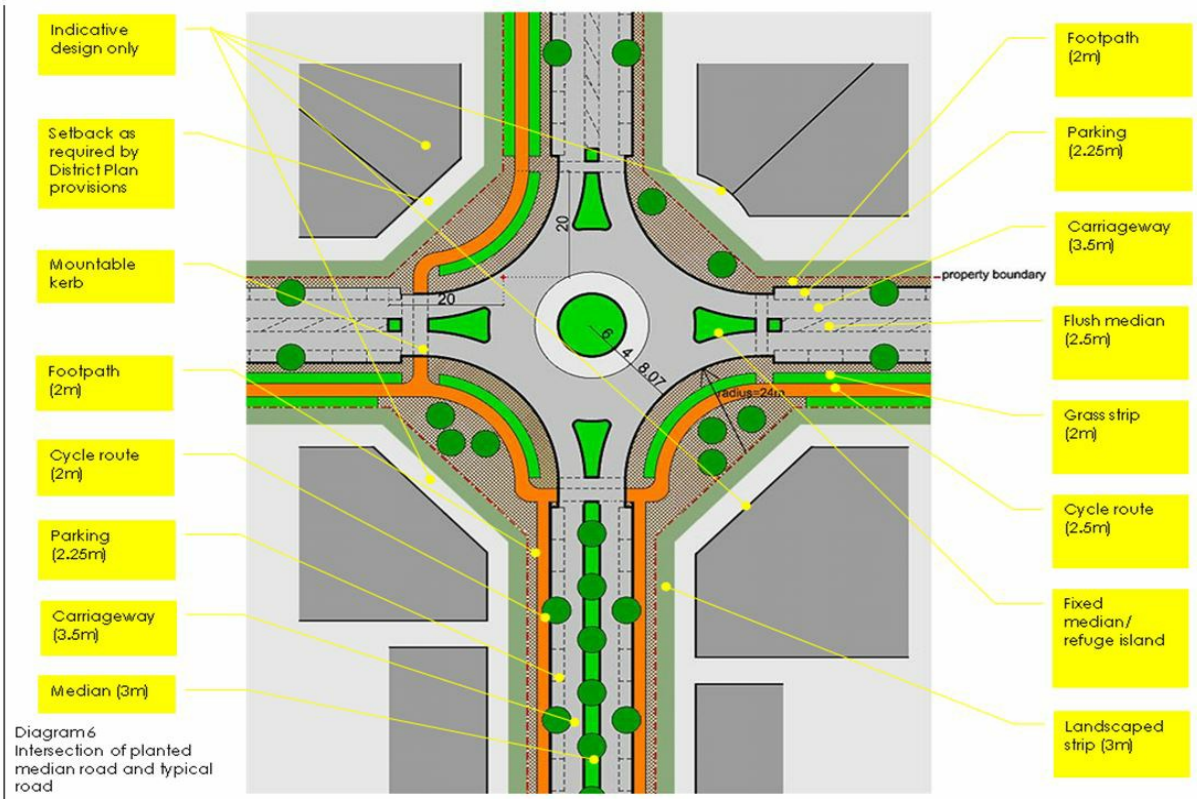
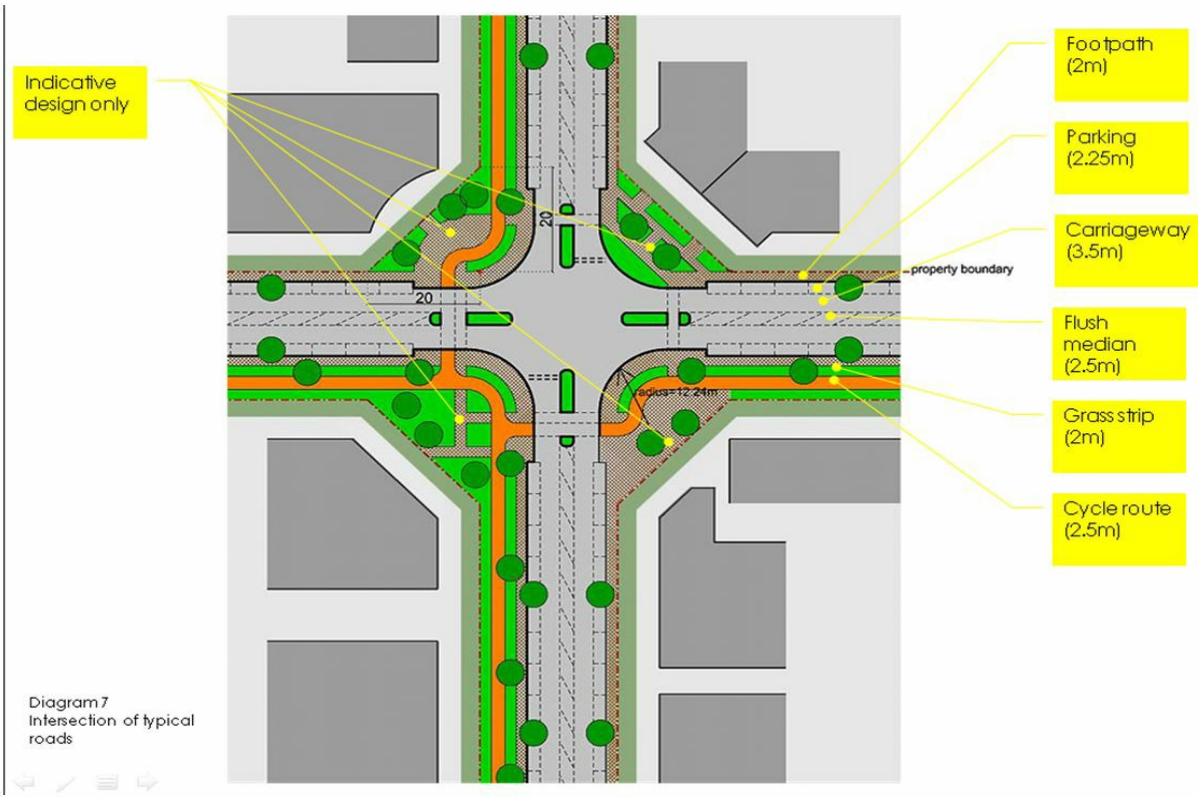


Diagram 6
Intersection of planted median road and typical road

Diagram 7: Intersection of typical roads



Diagrams 8-11: On-site and off-site parking in the IZ and ISZ

Diagram 8: Off-site parking for customers in the Industrial Zone

Diagram 9: On-site and off-site parking in the Indus and Industrial Services Zones

Diagram 10: On-site parking for owners, occupiers, employees in the Industrial Services Zone

Diagram 11: Off-site parking for customers in the In Services Zone

Part 54.12 [Deleted]

Part 54.13 and 54.14 [Intentionally blank]

Part 54.15 Pokeno Structure Plan Area

54.15.1 Context

The Pokeno Structure Plan Document (October 2008) sets out a vision for the Pokeno Structure Plan Area which is based on Council's aspirations, community feedback and technical studies to provide a comprehensive framework for the staged growth of the village into a town.

Although situated along State Highway 1, Pokeno is located within a rural setting. The green backdrop and ridgelines that surround the village provide it with a distinctly rural feel. The Pokeno Structure Plan Document envisages growth within this rural setting, contained within clear boundaries and having strong physical and visual connections to the surrounding rural environment.

The Structure Plan Document envisages that this growth will be guided by the following general principles:

1. That growth of Pokeno should be compact and contained within legible boundaries.
2. That Pokeno should provide a mix of residential densities and housing types, employment, commercial, services, social infrastructure and recreational opportunities to support a sustainable community.
3. That Pokeno should provide opportunities for urban infrastructure whilst retaining its rural setting.
4. That Pokeno should develop in an integrated manner, particularly with respect to land use and transport to support a multimodal (private vehicles, public transport, walking and cycling) transport system.

The provisions of this section of the PLAN are intended to apply these principles.

54.15.2 Issues, Objectives, Policies and Expected Environmental Results

In addition to the objectives and policies of the respective zones contained within the Pokeno Structure Plan, six resource management issues of particular relevance to the Pokeno Structure Plan Area have been identified. These are set out below together with the objectives, policies and a summary of methods that have been adopted to manage these issues.

These issues, objectives and policies (below) should be read in conjunction with one another and those relevant from the Plan.

54.15.2.1 Accommodating growth in a compact and contained urban form

1. **Issue**

   It is anticipated that the population of Franklin will increase to 108,000 by 2051. The Pokeno Structure Plan Area is one of a limited number of strategically-located areas that have been identified by the Franklin District Growth Strategy 2007 as appropriate locations to accommodate population growth and employment opportunities within the district. Land at Pokeno is part of a limited and scarce resource in which to accommodate a share of the district's projected population growth.

   The uncontrolled development of land has the potential to undermine the compact and contained form of Pokeno, adversely affecting rural character and amenity, rural activities and strategic infrastructure. It is also likely to undermine the coordinated and efficient provision of infrastructure.

Development at lower intensities has the potential to undermine objectives of containing growth at these strategic locations and achieving more intensive residential development in locations that have the potential to support more sustainable modes of transport and patterns of travel.

2. **Objective**

To achieve subdivision and development within the Pokeno Structure Plan Area which:

(a) Accommodates its share of the district's projected population growth;

(b) Maintains a compact and contained urban form;

(c) Maintains the quality, function and integrity of the adjoining rural environment;

(d) Makes provision for a choice of living environments, commercial, social and community facilities and employment opportunities;

(e) Does not undermine the potential for urban intensification, provides a range of densities and supports an integrated multimodal (private vehicles, public transport, walking and cycling) transport system;

(f) Enables the expansion of Pokeno into a more sustainable and self-sufficient town that provides for the social, cultural and economic well-being of its residents; and

(g) Is accompanied by the coordinated provision of infrastructure.

3. **Policy**

Subdivision and development should:

(a) be in general accordance with the Pokeno Structure Plan (refer to Appendix 54.15A).

(b) be contained within the area identified on the Pokeno Structure Plan map for the development and expansion of Pokeno (i.e. the Pokeno Structure Plan Area).

(c) be of a density, design and type that is consistent with the district's objectives of accommodating population growth and integrating land use and transport to support a multimodal transport system.

(d) provide opportunities for a choice of residential environments, social and community facilities and services, and employment opportunities.

(e) be accompanied by the provision of appropriate infrastructure to service the needs of an urban area, and where such infrastructure is not provided with or in advance of subdivision and development, such activities should be avoided.

(f) make provision for recreation reserves and contribute towards the provision of social infrastructure (community facilities) through financial or development contributions.

4. **Explanation**

Pokeno is one of the limited areas that have been identified as appropriate for urban expansion in Franklin. It has been identified in the Franklin District Growth Strategy (August 2007) as having the potential to accommodate a population of approximately 5,200 by 2051. Pokeno also has the potential to provide additional land for business and industrial uses and therefore employment, allowing the opportunity for residents to both live and work in the town.

It is important that development at Pokeno is undertaken in a way that achieves and does not undermine this potential.

A range of densities and disposition of activities are illustrated within the Pokeno Structure Plan (refer to Appendix 54.15A) to accommodate growth (both residential and employment) while maintaining the spacious rural character of Pokeno's surroundings. The provision of land for business activities ensures that employment opportunities are provided for the town.

The Pokeno Structure Plan sets out the structural elements that the plan seeks to achieve, including the key roading and open space network, sports fields and stormwater facilities and main land uses. A Town Centre Overlay (refer to the planning maps) is identified in which specific rules apply.

At the time of subdivision and/or DEVELOPMENT (in all zones), all applications will be assessed (among other things) with regard to the extent to which they are in general accordance and consistent with the Pokeno Structure Plan. In particular the expectation is that any subdivision and/or DEVELOPMENT proposals will achieve the structural elements that are identified on the Pokeno Structure Plan.

The zones utilised in the Pokeno Structure Plan Area are described below.

Residential 2 Zone

The Residential 2 Zone is applied to the majority of the Structure Plan Area. The major elements of this zone are as follows:

1. Subdivision applications are assessed with regard to the detailed design criteria.
2. Minimum lot sizes are specified and a minimum average density per hectare required.
3. In order to provide some transition between the surrounding rural area and the Residential 2 Zone, buffer measures have been adopted.
4. In order to encourage a more compact form of development close to the Town Centre, the structure plan identifies a Town Centre Overlay (refer to in the planning maps) which provides for increased housing densities.
5. Similarly, to encourage a greater choice of house type and lot sizes, the structure plan identifies areas around NEIGHBOURHOOD CENTRES and certain neighbourhood parks in the residential growth areas around which the rules provide for medium density housing developments. Provision is also made for medium density housing elsewhere as a Discretionary Activity, but with the intention that this be enabled on sites adjacent to the reserve network only, and only up to a maximum density of one DWELLING HOUSE per 300m^2 of the NET AREA.

Business Zone

The Business Zone is applied to existing and future business areas within the Pokeno Business Centre area which is shown on the planning maps. It seeks to provide for the main retail activities and other compatible commercial uses. The main elements of the Business Zone are as follows:

1. All new buildings require resource consent as a Restricted Discretionary Activity (provided they comply with the development controls). This requirement for consent enables assessment in relation

to design assessment criteria.

2. Frontage controls are applied to properties fronting part of Great South Road. These are applied in order to ensure that a suitable main street environment is achieved. The key elements of this are: verandah coverage across the frontage of the buildings; buildings built to the front boundary; parking areas located at the rear of buildings; glazed (display) frontages.

Industrial 2 Zone

The Industrial 2 Zone is applied to the southern-most portion of the structure plan area, to the south of the railway and to the north of the Aggregate Extraction and Processing Zone.

Light Industrial Zone

The Light Industrial Zone is applied to the land to the northwest of the Industrial 2 Zone, and is intended to provide a buffer or transition area between the Industrial 2 Zone and the Residential 2 and the Business Zone.

Infrastructure

Development and subdivision will need to provide appropriate infrastructure in a timely and coordinated manner. It is essential that growth and infrastructure keep pace with each other, so that development rights and resource consents are considered in light of available or planned infrastructure.

The Council reserves the right to decline applications for subdivision, development, and non-complying activities on the basis of inadequate infrastructure or being otherwise premature in terms of growth being ahead of planned infrastructure (including the funding of infrastructure).

5. **Methods**

The following methods have been adopted to implement this policy:

(a) Structure Plan

(b) Zoning

(c) Subdivision Rules

(d) Land Use Rules

(e) Design Criteria

(f) Financial or Development Contributions, or Development Agreement(s)

54.15.2.2 Environmental Constraints

1. **Issues**

Urban development can give rise to adverse effects on the environment. These can include the loss of vegetation and habitats, or adverse effects on water quality through sediment discharges during the development process and through pollutant run-off from impervious surfaces arising from development.

The Pokeno Structure Plan Area contains some locally significant landforms, vegetation and watercourses which are sensitive to development and warrant protection, conservation or a limitation on development. Development can enhance existing watercourses in the Pokeno Structure

Plan Area, introducing open space elements to the urban form of Pokeno, enhancing ecological resources and restoring degraded ecosystems.

The Pokeno Structure Plan and adopted Stormwater Catchment Management Plan for the Pokeno Structure Plan Area identifies the main perennial stems of the Tanitewhiora and Helenslee Streams in particular.

2. **Objective**

To achieve development which maintains locally significant landforms and vegetation and maintains or enhances water quality and identified watercourses.

3. **Policy**

Subdivision and development should avoid, remedy or mitigate the effects of urban development by:

(a) having regard to the adopted Pokeno Stormwater Catchment Management Plan (and/or approved discharge consent);

(b) establishing the open space and stormwater reserves and the stormwater infrastructure (quality and detention) in an appropriate and timely manner;

(c) protecting, maintaining and enhancing significant vegetation and landforms;

(d) protecting, maintaining and enhancing watercourses identified on the Pokeno Structure Plan;

(e) maintaining water quality and managing earthworks to avoid siltation and sedimentation of watercourses and adjoining properties; and

(f) appropriately managing earthworks during subdivision to avoid, as far as practicable, the need for further significant earthworks and retaining during the development of buildings.

4. **Explanation**

The Pokeno Structure Plan Area is relatively unconstrained in environmental terms, and can accommodate the level of subdivision and development proposed within the Pokeno Structure Plan Area. However, it contains some areas of locally significant vegetation, landforms and two locally significant watercourses. Downstream are the Mangatawhiri Wetlands which are recognised as a Site of Special Wildlife Interest in the Plan. The protection and enhancement of streams can maintain and enhance water quality within them. The protection of streams and vegetation also has the potential to provide ecological linkages and improve habitat quality, and will contribute to the green spacious character of the area. Development also has the potential to adversely affect water quality (and ultimately to damage downstream ecology) through sediment run-off during development and pollutant run-off from impervious surfaces.

Development can enhance existing watercourses in the Pokeno Structure Plan Area, introducing open space elements to the urban form of Pokeno, enhancing ecological resources and restoring degraded ecosystems. Water quality and riparian areas will be safeguarded through the incorporation of stormwater treatment mechanisms in the structure plan srea through the subdivision consent process, through the requirement for detention devices, for riparian enhancement of identified streams (perennial), through appropriate building setbacks and through the avoidance of earthworks in these areas. Areas of locally significant vegetation will be protected through the requirements to

retain them at subdivision stage, and through the addition of these to the Council's protected tree schedule (Schedule 8A). Subdivision and development should have regard to the recommendations of the adopted Stormwater Catchment Management Plan and/or discharge consent for the area which includes measures to avoid or mitigate the potential for flooding.

The Pokeno Structure Plan anticipates modification of ephemeral streams to allow development.

5. **Methods**

The following methods have been adopted to implement this policy;

(a) Structure Plan

(b) Pokeno Stormwater Catchment Management Plan (and/or approved discharge consent)

(c) Zoning

(d) Subdivision Rules

(e) Land Use Rules

(f) Scheduling and incorporation of significant trees (Schedule 8A) and vegetation into the open space network

(g) Design Criteria

(h) Silt and Sediment Control Techniques

54.15.2.3 Existing Amenity Values and Character

1. **Issue**

The structure plan area consists of the existing village of Pokeno, together with areas to the north, south and west. The growth areas have their own amenity values and character. With urban development and intensification with Pokeno growing to the size of a town, this character will change. The structure planning process and plan provisions seek to maintain identified elements of this character.

2. **Objective**

To achieve subdivision and development which maintains or enhances identified elements of the existing amenity values and character of Pokeno village and the surroundings.

3. **Policy**

Subdivision and development should be designed to maintain identified elements of the existing amenity values and character of Pokeno and its surroundings. Key elements that should be maintained and where appropriate enhanced are:

(a) The varied topography comprising areas of flat, rolling and steeper land;

(b) Significant trees and vegetation;

(c) Significant visual elements: views of the rural backdrops (in particular Mt William and the surrounding ridgelines) from the town centre and residential areas; two identified knolls, stream corridors;

(d) Heritage elements and sites of historical value (the old Pokeno Post Office, Pokeno War

Memorials, Queen's Redoubt);

(e) Market Square; and

(f) The existing historical grid pattern of roads (formed and unformed) in the Town Centre.

4. **Explanation**

Existing character, amenity and landscape values within the structure plan area are identified and incorporated into the structure plan document. The PLAN recognises that it is appropriate to maintain and where appropriate enhance identified elements of this character and values by managing subdivision and development within the Structure Plan Area.

5. **Methods**

The following methods have been adopted to implement this policy:

(a) Identification of features on the structure plan

(b) Zoning

(c) Scheduling and incorporation of significant trees, areas and buildings (Schedule 8A) and vegetation into the open space network.

(d) Subdivision Rules and Assessment Criteria

(e) Land Use Rules and Assessment Criteria

54.15.2.4 Urban Form and Amenity

54.15.2.4.1 Issue

The quality, layout and design of an urban area can strongly influence the attractiveness and functioning of the area and the safety and wellbeing of people. Structure planning can provide an effective method of integrating opportunities for the provision of residential, service, community, recreation and employment activities in a manner that manages effects on the environment and integrates land uses with the development of a multimodal transport system. The Pokeno Structure Plan provides a basis for the establishment of an expanded settlement with a positive local identity, high levels of amenity, walkability, safety and convenience.

54.15.2.4.2 Objective

To achieve subdivision and development which provides a high standard of amenity, walkability, safety and convenience, and contributes to the creation of a positive sense of place and identity.

54.15.2.4.3 Policy - General

Subdivision and development should:

(i) Be of a type and design so as to achieve a high standard of connectivity, amenity, walkability, safety and convenience, and contribute to a positive sense of place and identity in general accordance with the Pokeno Structure Plan.

(ii) Support and consolidate retailing activities and commercial development in the town centre.

(iii) Incorporate Crime Prevention Through Environmental Design.

54.15.2.4.4 Policy - Town Centre

Subdivision and development should support a town centre (having a "Business Centre"

Classification) which provides accessible, walkable and conveniently-located community facilities, retailing activities, service and commercial activities, provided that:

(a) Great South Road should be the focus of retailing activities within Pokeno;

(b) Great South Road should be lined with a continuous retailing activities strip from Market Square to Cambridge Street. This retailing activities strip should include active building frontages at ground level, with buildings generally built to the street boundary and pedestrian footpaths sheltered by verandahs.

(c) Vehicle access and driveways should avoid breaks in the continuous retail frontage from Market Square to Cambridge Street. Parking and loading should be located at the rear of buildings and wherever practical accessed by a side street or rear lane.

(d) Development elsewhere in the town centre should be appropriately designed to enhance pedestrian amenity.

(e) Signs in the town centre should enhance the amenity of the area and be compatible with the historic scale and sense of place, avoid clutter and inappropriate illumination, and be of an appropriate scale;

(f) The opportunity is retained for the development of a Train Station and Park and Ride Facility at Lot 1 DP 147726.

(g) Development and activities (particularly retailing activities) located in 'Area B' (illustrated on the planning maps) shall be of a design, type and scale to complement Great South Road as the focus of retail activities and pedestrian amenity. Smaller format retail should be located on the Great South Road main street unless the retail activities have operational or design characteristics that would undermine the pedestrian orientation of the main street.

54.15.2.4.5 Policy - Neighbourhood Centres

(a) Subdivision and development should provide Neighbourhood Centres in general accordance with the Pokeno Structure Plan.

(b) Subdivision and development should protect land identified as Neighbourhood Centres to preserve the long-term opportunity for the Neighbourhood Centres to establish.

54.15.2.4.6 Policy - Road, Pedestrian and Cycle Network

(a) Subdivision and development should provide a connected road and pedestrian network in general accordance with the Pokeno Structure Plan (including a connected local roading network), providing footpaths, cycle routes and vehicular access to the town centre and neighbourhood centres, open spaces, and main transport routes.

(b) Subdivision and development should implement the Pokeno Structure Plan to achieve the safe and efficient movement of motor vehicles, pedestrians and cyclists and:

(i) Transport routes should reflect urban design legibility considerations and not just satisfy traffic requirements;

(ii) The street network should enable traffic to flow freely, be appropriate for the purpose and promote safety of all users;

(iii) New routes should connect with the existing routes and movement patterns and roading

(including the local road network) should be highly connected. These routes and connections are additional to connections illustrated on the Pokeno Structure Plan;

(iv) Roads should generally be lined with houses or buildings that have "public fronts and private backs", thereby promoting passive surveillance;

(v) Roads should be public and vested with Council;

(vi) Cyclists should generally be accommodated on the carriageway of streets in areas of low speed and volume, without any need for dedicated cycle lanes;

(vii) Off-road cycle paths and pedestrian routes should be safe, direct, barrier-free, have smooth surfaces and be overlooked from roads, by adjacent housing or other active land uses.

(viii) Heavy vehicles, particularly those associated with industrial activity, should be discouraged from using the road network within the town centre of Pokeno.

54.15.2.4.7 Policy - Reserves and Street Interface

(a) Subdivision and developments should provide quality public open spaces in locations in general accordance with the Pokeno Structure Plan and the design criteria and provide for the active and passive recreational needs of residents.

(b) Reserves should generally be designed so as to provide opportunities for passive surveillance (e.g. with the majority of their boundaries generally adjacent to streets or fronted onto by buildings across open driveways, rather than backed onto by the rear of lots).

(c) Development should address and engage the street and public realm through quality urban design at the interface.

(d) Subdivision and developments should provide a network of connected stormwater reserves providing pedestrian and cycle routes based around the enhancement of significant sections of both Helenslee and Tanitewhiora Streams.

(e) Subdivision and developments should provide complementary, consistent and legible landscaping themes within the road reserve and open spaces throughout the structure plan area.

54.15.2.4.8 Policy - Electric Lines

A new electric lines network will be required to provide electricity to activities in Pokeno and this should be enabled. Electric lines within the Pokeno Structure Plan Area should generally be underground, however it is recognised that in the short to medium term new lines traversing undeveloped areas of Pokeno may be above ground so as to provide an efficient and effective means of servicing those areas subject to subdivision and development. These above ground lines will be temporary and as the staging of subdivision and development occurs, electric lines shall be placed underground. This Policy does not apply to any ELECTRIC LINE that is part of the national grid transmission line network.

54.15.2.4.9 Explanation

Urban form can strongly influence the desirability and liveability of an area, and ultimately the success of a newly developed urban area.

In its establishment of a vision for Pokeno, the Structure Plan Document (October 2008) identified core urban development principles which may be summarised as follows:

(a) Growth should be compact and contained and should be focused around the existing settlement.

(b) Growth should include a mix of residential, employment and recreational opportunities to support a sustainable community.

(c) Growth should establish urban-type infrastructure and density while retaining its visual and physical links to its rural setting.

(d) Land use and transport should be integrated such that a safe and efficient range of transport options, including walking and cycling, is available, while avoiding the need for unnecessary motor vehicle travel.

(e) Lots and dwelling houses should provide a high level of amenity for residents and not result in adverse effects on adjoining properties or the environment.

(f) Great South Road is the focus of the Pokeno town centre, with a main street form of development establishing active building frontages to the street and a quality pedestrian environment. Great South Road will be the focus on retail activities, however some limited retail activities are available in 'Area B' (illustrated on the planning maps) to form the eastern periphery of the town centre. Activities (particularly retailing activities) in Area B should complement the Great South Road main street and development should establish connections to the town centre. Some retail activities of a particular style or type are enabled in Area B. Smaller format retail activities should avoid locating in Area B unless they have specific characteristics which are not conducive to delivering a main street form of development.

Elements of urban layout and design that help achieve this vision, establish a positive sense of place and promote a high standard of amenity have been identified and described through the above policies.

To provide for the provision of electricity in Pokeno, the policy recognises that a new electric line network needs to be established. This involves the development of new lines traversing the road network, the Rural Zone and areas within the Pokeno Structure Plan Area through to the areas of subdivision and development. Given that subdivision and development will be staged over several decades and the layout of all roads may not be known, the policy anticipates that in the short to medium term above ground lines may be established across the undeveloped areas of the Pokeno Structure Plan Area. Within the areas of subdivision and development electric lines are to be underground, and when a new stage of subdivision and development is proposed, any existing above ground lines and new lines shall be undergrounded with the implementation of that stage to achieve the long term amenity outcomes anticipated by the Objective.

54.15.2.4.10 Methods

The following methods have been adopted to implement these policies:

(a) Structure Plan

(b) Zoning

(c) Subdivision Rules and Assessment Criteria

(d) Land Use Rules and Assessment Criteria

(e) Design Criteria

54.15.2.5 Residential Density

1. **Issue**

Residential areas are often made up of a broad range of communities and neighbourhoods, reflecting different lifestyles, aspirations and needs. A number of demographic factors including declining household sizes, changing lifestyles, an ageing population and house prices have resulted in demands for a wider range of housing forms and styles.

The efficient provision and long-term sustainability of infrastructure and services is dependent on achieving appropriate urban densities and establishing a critical mass of residential and employment population.

2. **Objective**

To ensure a range of urban densities within Pokeno which are appropriate to their locations in order to maintain amenity whilst supporting pedestrian, cycle and public transport, the viability and vibrancy of the town centre and neighbourhood centres and areas of open space, while achieving or exceeding an overall minimum density of ten dwellings per gross hectare across the developable parts of the town.

3. **Policy**

Subdivision and development should:

(a) Achieve an average gross density of ten dwelling houses per hectare in residential areas;

(b) Provide a range of lot sizes and urban densities;

(c) Provide larger low-density lots to provide a buffer between the Light Industry Zone and urban residential areas.

(d) Provide for higher housing densities in locations where it is supportive of pedestrian, cycle and public transport and the viability and vibrancy of the town centre.

(e) Provide for higher housing densities within walkable catchments of proposed neighbourhood centres and neighbourhood parks.

(f) Generally limit the spatial extent of development with higher housing densities to identified areas so as to maintain a variety of urban densities and housing choice across the structure plan area. Additional areas of medium density housing development (to a density no greater than 1:300m^2) may be appropriate in smaller pockets adjacent to or across the road from the reserve network.

4. **Explanation**

The Franklin District Growth Strategy requires a minimum density of ten dwelling houses per gross hectare to be achieved in Pokeno. The Pokeno Structure Plan anticipates that a variety of lot sizes and urban densities will result from subdivision and development. This includes the provision of larger lots, standard lots and medium density housing in Pokeno. The provisions are designed to support housing choice to achieve overall densities that allow the efficient use of resources, enable the efficient and sustainable provision of infrastructure and services and support the integration of land uses and land transport to support a multimodal transport system.

Applying this requirement as a blanket across the town is likely to result in a homogenous environment that provides limited choice of housing type and cannot easily accommodate changes in resident demographics and housing needs.

Providing a range of densities and typologies within residential environments can avoid this and is, therefore, encouraged for Pokeno. Variety of housing opportunities enables long term resilience and flexibility and results in more interesting – and more "liveable" - residential environments, encompassing the full life-cycle needs of the population.

In order to achieve a variety of densities and housing choice within future residential developments, a number of different housing typologies and corresponding lot sizes were developed for Pokeno as part of the structure plan. These typologies also have particular locational requirements, which need to be recognised - the objective is that medium density developments should locate close to Neighbourhood Centres, public transport opportunities and the Town Centre in particular, where large lots sizes will be discouraged.

Medium density housing could also locate around areas of amenity (in particular neighbourhood parks) because:

(a) The proximity to open space compensates for any lack of on-site open space;

(b) The open space mitigates the apparent scale and intensity of the development;

(c) It maximises the population using and overlooking the focal point of the neighbourhood.

5. **Methods**

The following methods have been adopted to implement these policies:

(a) Structure Plan

(b) Zoning

(c) Subdivision Rules and Assessment Criteria

(d) Land Use Rules and Assessment Criteria

(e) Design Criteria

54.15.2.6 Interface with Aggregate Extraction and Processing Zone

1. **Issue**

A valuable aggregate resource on Bluff Hill Volcanic Cone constrains growth in the south- west of the structure plan area. There is potential, if sensitive land uses were to be located nearby (particularly residential or other sensitive community, educational or medical activities), that people's health, safety and amenity could be adversely affected, or conversely the operational efficiencies of any Mineral Extraction and Processing activities would (in order to avoid or mitigate any adverse effects) be compromised.

2. **Objective**

To avoid the potential for adverse health, safety and amenity effects, reverse sensitivity and operational inefficiencies that can arise from locating residential and some business activity in close proximity to the Aggregate Extraction and Processing Zone.

3. **Policy**

Residential, community, business and other activities requiring a high standard of amenity should be

located at a sufficient distance from the Bluff Hill aggregate resource to ensure that these are not subject to adverse health, safety or amenity effects arising from the extraction and processing of the resource, and also ensure that the efficient operation of quarrying activities within the zone is not compromised by reverse sensitivity effects.

Heavy vehicle traffic associated with aggregate extraction and processing activities should be discouraged from using roads within the town centre of Pokeno.

4. **Explanation**

Reverse sensitivity issues can arise where new residential development or other sensitive business and community activities are located in close proximity to quarrying activities. Residents and occupants may suffer adverse health, safety and amenity effects (particularly noise effects) and there is potential for the operational efficiency of the quarry activity to be adversely affected by residents seeking to resolve these effects.

The approach taken by the Plan is to ensure adequate separation between the Aggregate Extraction and Processing Zone and the Pokeno Residential Zone, the establishment of a Large Lot Overlay Area on Hitchen Road and discouragement of residential activities and limitation of sensitive community, educational or medical activities in the Industrial 2 and Light Industrial Zones. Some provision is made for more sensitive education and medical facilities in the Light Industrial Zone, but in a location that is well separated from the Aggregate Extraction and Processing Zone.

5. **Methods**

(a) Structure Plan

(b) Zoning;

(c) Subdivision Rules and Assessment Criteria

(d) Land Use Rules and Assessment Criteria

54.15.2.7 Queen's Redoubt Heritage Site

1. **Issue**

The Queen's Redoubt at Pokeno is a site of national historic significance due to its role in the Waikato War of 1863-64, the major campaign of the 19th century New Zealand Wars. These wars shaped the subsequent history of this country and the site is therefore one of New Zealand's most important military history sites. The archaeological evidence must be protected and understanding of the site's significance promoted. Any buildings and/or activities on the Queen's Redoubt must be carried out in a way that protects and, where possible, enhances these heritage values.

2. **Objectives**

To enable development and activities for the purpose of interpreting and promoting understanding of the significance of Queen's Redoubt as a site of national heritage importance.

3. **Policy**

(a) The archaeological evidence is protected from damage or destruction, and that archaeological information is retrieved whenever appropriate.

(b) The location, scale and design of new buildings and structures be controlled so as to not adversely affect the heritage values of the site.

(c) The design, scale and nature of alterations to existing buildings be limited so as to ensure the retention of the heritage values of the site.

(d) The heritage values of the site are not adversely affected by inappropriate landscaping, placement of parking and manoeuvring areas, and outdoor advertising signage.

(e) Public access is enabled where this is compatible with protecting the heritage resource.

(f) Enable activities and the display of information conveying the history of the site and its national historic significance.

(g) Activities associated with the heritage centre be undertaken in a manner that avoids inappropriate noise disturbance to the Residential 2 zone.

(h) Development and activities should be carried out in a way that is compatible with the surrounding development and, in the Residential 2 zone, has only minor adverse effects on the character and amenity values of the neighbourhood.

(i) Subdivision in the site does not result in adverse effects on historic heritage values from the construction of buildings and development.

4. **Explanation**

In Part 8 of this PLAN, the Queen's Redoubt is scheduled as an area of historic significance and therefore resource consent is required to undertake any modifications including earthworks. Further, any disturbance of the archaeological record requires an 'authority to modify' under the Heritage New Zealand Pouhere Taonga 2014 Act. Thus, there are provisions protecting the existing archaeological resource.

However, there is limited public knowledge of this site's significance and the Queen's Redoubt Trust wishes to establish a heritage interpretation centre to redress this. The Queen's Redoubt Heritage Zone enables development and activities that assist with interpretation of, and education about, this important place.

5. **Methods**

(a) Structure Plan

(b) Queen's Redoubt Heritage Zone;

(c) Land Use Rules and Assessment Criteria (Part 8 and Part 43)

(d) Development and Performance Standards

54.15.2.8 Expected Environmental Results

The expected environmental results for the Pokeno Structure Plan Area are as follows:

1. The establishment of a choice of housing types, commercial activities, social and community facilities within a compact and contained urban form.
2. Ultimate accommodation of a resident population of a minimum of approximately 5,200 and significant new employment opportunities within the structure plan area.

3. Maintenance and enhancement (as far as is practicable) of water quality and perennial water courses.
4. Maintenance and enhancement of the habitat value of significant streams and water courses.
5. Establishment and maintenance of residential neighbourhoods with a high standard of amenity.
6. Well-designed higher density housing development within, or in close proximity to, the Town Centre, Neighbourhood Centres and neighbourhood reserves.
7. A functional, viable and vibrant Town Centre with a high standard of amenity.
8. Well-designed Neighbourhood Centres providing conveniently accessible focal points for the new growth areas of the town.
9. Maintenance and enhancement of the amenity values and significant elements of the character of Pokeno.
10. The ongoing efficient use of the State Highway, Aggregate Extraction Zone and electricity transmission lines.
11. Environmental results as anticipated in the Pokeno Stormwater Catchment Management Plan namely:
    (a) Maintenance and enhancement of freshwater aquatic environments in significant streams.
    (b) Prevention or mitigation of excessive erosion of stream channels.
    (c) Mitigation of the risk to life and property from stormwater flows.
12. Protection of the Queen's Redoubt site and features.
13. Re-creation of the structures associated with the Queen's Redoubt site.
14. The establishment of an education and heritage interpretation centre on the Queen's Redoubt site.
15. Increased awareness of the heritage values of the Queen's Redoubt site.

54.15.2.9 Procedures for Monitoring

Part 13 of the plan applies.

54.15.3 Implementation

The objectives and policies set out above will be implemented through the application of zones within the Structure Plan Area and with rules applying to the zones. Each of the zones may have more specific objectives and policies which apply in addition to those set out above. The zones within the Structure Plan Area are as follows:

(a) Residential 2 Zone

(b) Business Zone

(c) Light Industrial Zone

(d) Industrial 2 Zone

(e) Recreation Zone

(f) Queen's Redoubt Heritage Zone

54.15.4 General Rules

1. The subdivision rules are contained in Part 26 of the plan.
2. The land use rules for the Residential 2 Zone are contained in Part 27A of the plan.
3. The land use rules for MEDIUM DENSITY HOUSING are contained in Part 27B of the plan.
4. The land use rules for the Business Zone are contained in Part 29 of the plan.
5. The land use rules for the Industrial 2 Zone are contained in Part 29B of the plan.
6. The land use rules for the Light Industrial Zone are contained in Part 29C of the plan.
7. The land use rules for NEIGHBOURHOOD CENTRES are contained in Part 29D of the plan.
8. The land use rules for the Recreation Zone are contained in Part 34 of the plan.
9. The land use rules for the Queen's Redoubt Heritage Zone are contained in Part 43 of the plan.
10. In addition to the relevant RULES specified in Part 54.15, RULES in the following parts of the plan apply:

    - Part 7: Natural Hazards
    - Part 8: Cultural Heritage
    - Part 9: Transportation
    - Part 11: Recreation and Reserves
    - Part 12: Designations and Requirements
    - Part 14: General Duty regarding Adverse Effects
    - Part 15: Activities throughout the District
    - Part 51: RULE 51 – Parking LOADING and Access
    - Part 52: Information Requirements for Resource Consent Applications
    - Part 53: Assessment Criteria for Resource Consent Applications

54.15.5 Design Assessment Criteria

1. Applications for resource consent will be assessed against relevant design assessment criteria of Appendices 27B.1, 29.2, 29D.1 and in the appendices listed below.

APPENDICES

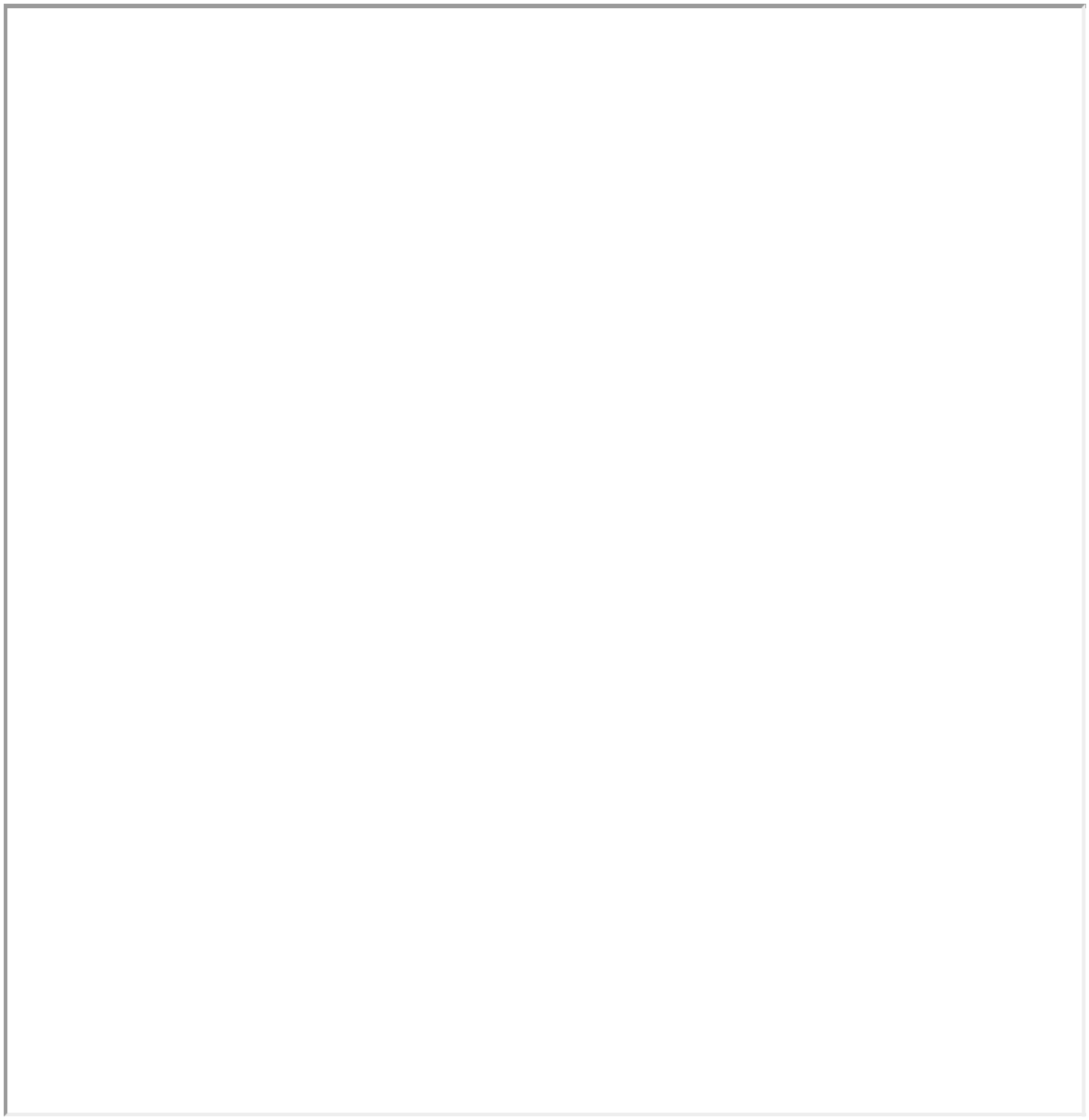
Appendix 54.15A Pokeno Structure Plan Map

Appendix 54.15B Subdivision Design Assessment Criteria for Residential 2 Zone (excluding the Town Centre Overlay Area), Light Industrial Zone and Industrial 2 Zone within the Pokeno Structure Plan Area

Appendix 54.15C Subdivision Design Assessment Criteria for Residential 2 Zone (Town Centre Overlay Area) and Business Zone within the Pokeno Structure Plan Area

54.15 Appendices

Appendix 54.15A: Pokeno Structure Plan Area



Appendix 54.15B Subdivision Design Assessment Criteria for Residential 2 Zone (excluding the Town Centre Overlay Area), Light Industrial Zone and Industrial 2 Zone within the Pokeno Structure Plan Area

Purpose of Appendix 54.15B

Within the Pokeno Structure Plan Area, applications for restricted discretionary activity subdivision resource consent will be assessed in terms of a series of matters, to which the Council will restrict the exercise of its discretion. One of the matters which the Council will have regard to is:

"Design and Layout

Whether the subdivision is in accordance with the relevant subdivision design assessment criteria in Part 54 as relevant …"

The criteria will be utilised for the consideration of subdivision in the:

- Residential 2 Zone (excluding the Town Centre Overlay Area – refer to Appendix 54.15A and the planning maps)
- Light Industrial and Industrial 2 Zones in Pokeno (Design Elements 5 and 6)

In addition, the criteria will also be used in the consideration of discretionary activity applications for subdivision, as appropriate.

The Appendix sets out assessment criteria under several "Design Elements". Accompanying illustrations are intended to support the text and represent good design solutions, but are not intended to represent the only design solution. All illustrations are illustrative and indicative only.

Each design element includes an explanation that summarises the rationale for the particular design element, and expands on the individual criteria. The explanation should be used as further guidance in interpreting the intention of the criteria and assessing the extent to which the proposal accords with them. Any references in the explanations to the "Pokeno Structure Plan" refer to Appendix 54.15A.

54.15B Information Requirements

The applicant shall provide a written assessment describing how the criteria for each design element are addressed. Applicants will have to demonstrate that the provisions of the criteria have been acknowledged.

It is recognised that certain proposals will not achieve absolute accordance with all criteria. Where necessary, in regard to a criterion demonstrably not met, the applicant shall explain with reference to the explanation for the particular design element:

- whether site constraints inhibit the ability to address the criterion, and/or;
- how the intention of the criterion is met by the proposal, and/or;
- whether the proposal represents a better design solution than that suggested by the criterion.

Planting plans and maintenance plans for stormwater reserves and riparian margins will need to be submitted with applications and approved by Council.

54.15B Design Element 1: Road, Reserve and Access Networks

1. Roading, development patterns and earthworks should respond to and reinforce identified topographical features and landscape patterns.

2. Earthworks should be undertaken principally at the initial subdivision stage, and where appropriate, the creation of reasonably flat sites should occur at the bulk earthworks stage (subject to avoiding excessively high retaining walls).

3. The design of roading and open space networks should achieve connectivity within and between neighbourhoods.

4. Road patterns should maximise convenient access to arterial and collector roads, Pokeno School, parks/reserves, Neighbourhood Centres and the Town Centre.

Indicative "Pedestrian Sheds" to Town Centre and Neighbourhood Centres

5. Road patterns should cater for a future bus route located within convenient walking distance of residents.
6. Neighbourhood Centres should be located on collector roads, a future bus route, and directly abut the relevant Neighbourhood Park.
7. Road patterns should be logical and contribute to the legibility of the area.
8. Road patterns should avoid situations where industrial traffic uses residential roads.
9. Layout design should achieve an interconnected open space and movement network.
10. Safe pedestrian and cycle routes should be integrated with road and reserve design and should match desire lines.
11. Layouts should retain existing mature trees, preferably in reserve or road, where these contribute to amenity.

Indicative Bus Route

Explanation:

Design Element 1 pertains to the general layout of the networks of roads, reserves and other access linkages that make up the public space of a subdivision. These public routes should be considered in an integrated fashion together with the development blocks they create.

Criterion 1 reinforces the distinct character of Pokeno. For the residential growth areas this character is predominantly derived from the landscape setting, rolling topography (often incised with gullies), and particular landscape features (e.g. two existing knolls). The enhancement and reinforcement of natural stream networks is sought. The nature of the rolling contour generally, incised with some steep gullies in the Helenslee Block (located northwest of the existing town centre, north and east of Helenslee Road) and lesser gullies in the Hitchen Block (located southwest of the existing town centre and south of the North Island Main Trunk Railway) generally will, and should,

dictate the roading pattern. Following natural drainage patterns and topography should inform the layouts. Earthworks should be designed to create a blending with the slope of existing features.

Criterion 2 encourages the undertaking of earthworks to create building sites that are as flat as can be practically achieved given the contour. If appropriate, flat building platforms should be created at the initial subdivision stage, as this is more efficient, the effects of such earthworks can be more effectively controlled, and the total extent of retaining can be reduced (relative to extensive site-by-site earthworks and retaining undertaken by builders).

Criterion 3 refers to connectivity - (i.e. multiple road linkages between points so that there are a number of travel routes to choose from) which should be one of the key aims of any subdivision, as it reduces the length of trips and reduces fuel usage and emissions, and promotes convenience, safety and social interaction. In general this will mean that as many roads as possible should be through routes. Recognising the rolling topography of the land means acknowledging that culs-de-sac may also be included. Cul-de-sacs should be generally limited in length, ideally serving fewer than 15 households. Very short court-style cul-de-sacs are preferred over longer ones, as the former are better able to promote a sense of community and safety. Cul-de-sacs should only be used to improve land use efficiency or overcome topographical issues.

In considering the appropriate degree and nature of connections in regard to Criteria 3 and 4, consideration should be given to probable destination. For the Residential 2 Zone outside the Town Centre Overlay, connections to the Town Centre and nearest Neighbourhood Centre, to Pokeno School, and in the Helenslee Block to any open space (stormwater reserve) network, are a particular priority. In practice this will be achieved by roads and pedestrian and cycle routes including interconnected reserves and roads. The road connections and indicative linkages shown on the structure plan should form a starting point for the layout of any subdivision proposals – there will be a much more extensive roading network than the key routes shown on the structure plan. In order to achieve the identified connected pattern, connections to adjoining undeveloped blocks of land will be required upon subdivision.

Regarding Criteria 5 and 6, the Pokeno Structure Plan Document identifies a suitable indicative route for a future bus route which would cater for almost all residents. A route of this nature should be allowed for in layout design and roading detailing, such that the bus route is located within a 400m walk of the majority of households. The positioning of the two Neighbourhood Centres, on that route, also aims to ensure that many residents are within either a 400m (5 minute) walking distance from local shops, or at most an 800m (10 minute) walk, as shown on the diagram on the previous page.

A legible road pattern, as called for in Criterion 7, is one that is easily understood by the people that use it. Consistent road designs and landscape themes can further emphasise the position of each street in the road hierarchy and in the wider area. Road patterns that are logical and easy to understand and navigate make a neighbourhood feel more comfortable and help provide a sense of identity for it. Long, straight roads with long sight lines can encourage speeding. Bends that limit driver sightlines to 100m on arterials and collectors, or 75m on local roads will be encouraged.

The Helenslee Block is characterised by a network of gully-based watercourses and ponding areas which have the potential to form part of an integrated open space and movement network sought

under Criterion 9. This should be realised to the fullest extent practical. Integration of the open space network in the Hitchen and School Blocks should be achieved with greater recourse to legible road linkages between and along the edge of the recreational and stormwater-based open spaces within these blocks.

Within Pokeno cycling and walking are expected to be a safe and viable option, and routes should incorporate pedestrian and cycle facilities (Criterion 10). Pedestrians should generally be accommodated on roads rather than along segregated routes, as being seen by drivers affords a greater sense of security. Where links are provided separately from vehicular traffic routes they should be short, wide and direct (refer to Design Element 4) and through the utilisation of links through reserves, will often result in a shorter travelling distance between destinations than by road. Pedestrian crossings, cycle ways and walkways should be co-ordinated to create an integrated and free-flowing cycle way and walkway system.

Layouts that are actively planned to incorporate existing mature trees (Criterion 11) can also ensure an “instant amenity” for the subdivision, and so are encouraged. Trees and groups of trees identified in the Inventory of Historic Buildings, Structures, Trees and Areasshould be retained in the design of layouts.

54.15B Design Element 2: Block Size, Lot Type and Orientation

1. Blocks should be of a scale and shape to achieve a permeable street layout.

2. Blocks and lots should be designed to enable future dwellings with good solar access.

3. As many lots as possible should front onto and be accessed directly from a legal road. Rear lots should generally be avoided.

4. Through lots (lots with dual road frontage) should be avoided.

Neighbourhood Centre (smallest lots nearest this)

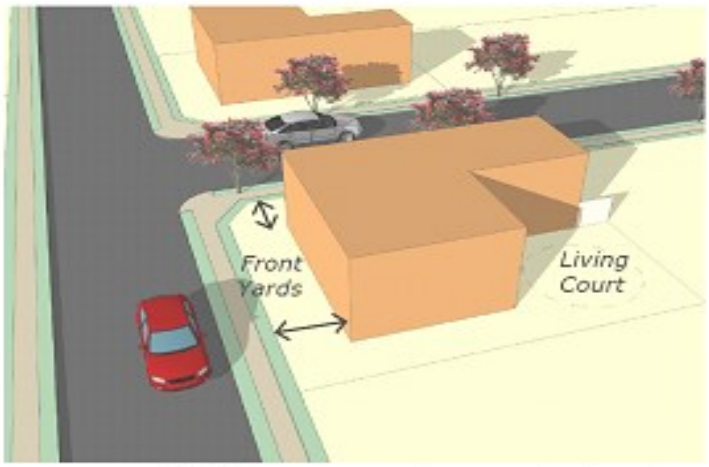
North-South block orientation where possible, for optimum solar access

Wider lots on corner sites maintain on-site space with privacy from road

Blocks have two lot depth (50-60m) to limit the number of rear lots

Rear Lots (minimised)

Medium Density Housing Development Parent Lots



Wider lots on corner sites to maximise private spaces screened from road by the house

5. Corner lots should be designed to maximise opportunities to create private outdoor space on-site without the need for high front fences.

6. A variety of lot sizes should be provided. Larger lots should generally be located furthest from open space amenity features and Neighbourhood Centres, and smaller lots closer to them.

7. A suitably-sized lot for a Neighbourhood Centre should be set aside in locations shown on the Structure Plan.

8. Lots intended for medium density housing should be of an appropriate size, shape and orientation and should have adequate frontage with a road to support the development of medium density housing in accordance with the design assessment criteria of Part 27B.

Explanation:
Design Element 2 describes principles for consideration in the layout of blocks and lots within a subdivision, and is mostly relevant to vacant lot subdivision (where residential subdivision applications are accompanied or preceded by a land use consent application the house designs and layout will determine lot size and shape).

To accord with Criteria 1 and 2, blocks should be generally not more than 250m long. Elongating blocks in a north-south direction minimises the number of south-facing lots and so is encouraged. However, it should be recognised that for the Residential 2 Zone's growth areas the reality of the rolling topography and the intentions to retain landscape features and will affect the ability to achieve these in many locations.

Blocks should not be more than two lots deep (i.e. lots fronting roads only) to achieve Criterion 3. Maximising the potential number of dwellings that can front the road, and minimising the use of rear lots adds to safety, orientation and streetscape amenity, so as a guide, subdivisions should be designed such that not less than 80% of lots in a subdivision will be front lots.

Vacant lots with dual road frontage at the front and the rear should be avoided because of interface issues where a rear area intended for private use abuts a second road.

Corner lots should be typically larger than nearby mid-block lots and the size and proportion of corner lots should also be carefully considered in the light of front yard controls potentially affecting the ability to achieve houses with private open space on-site.

For vacant lot proposals, a wide variety of lot sizes and shapes should be provided to avoid monotony and ensure a variety of living options in Pokeno. As a guide, lots smaller than, for example, 500m2 should be located adjacent to or opposite an open space.

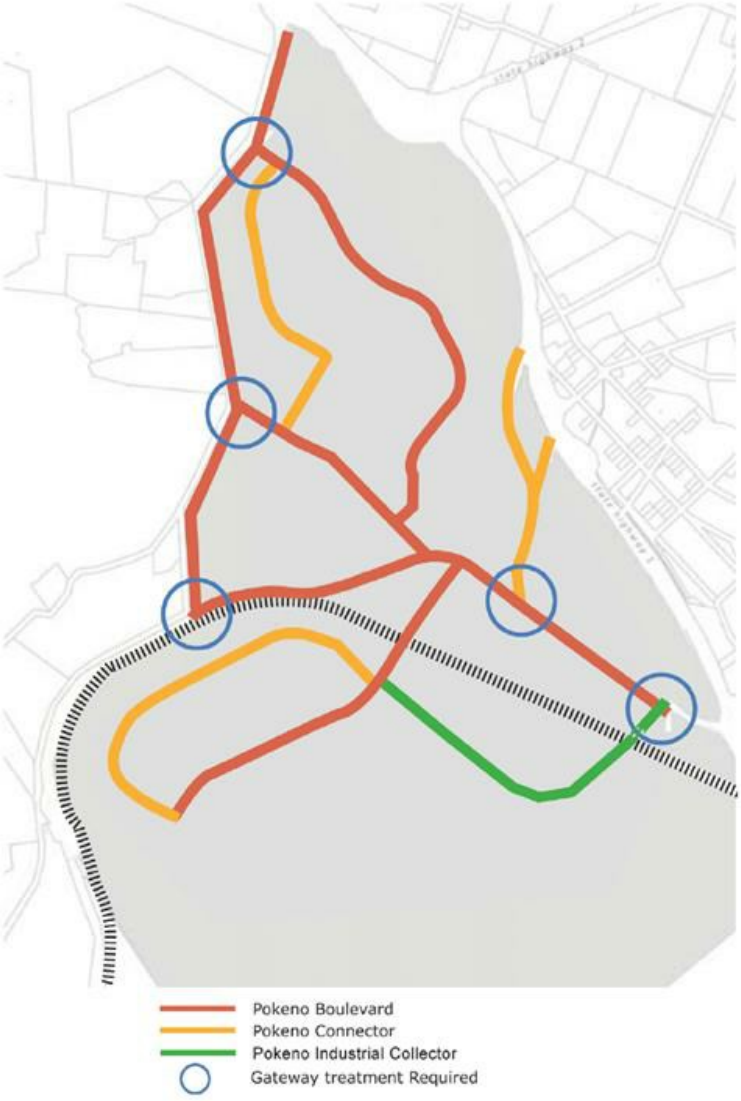
The structure plan identifies the location of two Neighbourhood Centres. At the time of subdivision around these locations, a site should be set aside for a Neighbourhood Centre. If the exact future use is not known at the time of subdivision, regard should be had for the Design Assessment Criteria in Appendix 29D.1 and the relevant Objectives and Policies in Part 19 for Neighbourhood Centres as appropriate when determining a suitable size, shape and location. As a guide, the lot should be at least 2500m² in area, and located with a boundary to the Neighbourhood Park, a boundary to a collector road and a boundary to at least one other road.

Criterion 8 would be achieved by lots intended for medium density housing being designed in a manner that ensures that future development can be undertaken in accordance with the design assessment criteria of Part 27B.

54.15B Design Element 3: Roads and Accessways

1. In addition to transport engineering and NZS4404:2010 requirements, road cross-sections should be appropriate to the nature of the service they provide and also reflect urban design legibility considerations.

Advisory Note: The Hamilton Infrastructure Technical Specifications is Council's current Engineering Code of Practice.



Road Treatment Diagram

2. Parking should be provided clear of traffic lanes on both “Boulevard” and “Connector” roads clearly demarcated from the moving lanes, and positioned with regard to probable driveway positions on adjacent lots. Parking should be provided informally on lesser roads.

3. Cyclists should generally be accommodated on the carriageway.

4. Local traffic management measures such as road narrowing, tightened intersection corners, chicanes, raised table pedestrian crossing points and material differentiation should be applied to limit the speed of vehicles on local roads to enhance safety, movement and amenity for pedestrians and cyclists.

5. A consistent palette of traffic management tools should be used in a development area or neighbourhood.

6. Generous avenue planting should be provided on Boulevard and Connector roads and street tree planting should be provided on all roads.

Boulevard

7. Street trees and landscaping with slender trunks and foliage 1.5m to 1.8m should be utilised.

Boulevard at Urban - Rural Interface

8. Where jointly-owned accessways are required, they should be generous in width, and comply with Council's standards.

Connector

Industrial Collector

9. Key junctions (as identified in the diagram above) should be designed to recognise a "gateway'' function. Gateways can be created in a number of ways, including but not limited to:

- Signaling the change through feature planting such as groups of trees and shrubs that are different to those used in the street;
- Feature signage and / or public art;
- Memorable architectural forms.

Local Connector

10. For road types with identified parking bays, the position of parking bays should be designed to take account of the likely position of driveway crossings onto lots.

Explanation:

Design Element 3 pertains to principles for the design of road treatments and private vehicle accessways within subdivisions.

The proposed main road treatment diagram is shown on the previous page. Note that from a traffic perspective only the state highways are defined as strategic routes. Pokeno Road is a collector road (which may be upgraded in the future). Helenslee Road (as well as the future main roads that penetrate the North and South of the railway) are classified as collector roads.

Whilst the primary function of the road network is to allow free flowing and safe movement between places, the road network contributes greatly to the character of the area. This character is defined not only by the carriageway and footpaths, but also the parking arrangements, street trees, planting and lighting. The road reserve offers opportunities to help establish the look and feel of an environment and make it legible for users.

For the Pokeno Structure Plan, the envisaged road treatments are of six broad types:

1. Boulevard
2. Boulevard at Urban - Rural Interface
3. Connector
4. Industrial Collector
5. Local Connector
6. Local Road

The road cross sections above are recommended as the main cross section treatments. Further design differentiation may be appropriate in the consideration of resource consent applications for subdivision. Council will exercise discretion in respect of NZS4404:2010 and the Pokeno Structure Plan. (Advisory Note:
The Hamilton Infrastructure Technical Specifications is Council's current Engineering Code of Practice.) Should development seek to depart from this treatment, the cross sections on the previous page may be used as a guide in assessment of proposals. They have been derived recognising that roading should be appropriate to function and specific location and provide practical widths for vehicles, planting, and services. People should be able to easily interpret that they are on a

main road or a local road.

Indicative locations for the main routes are shown on the diagram on the previous page and on the Structure Plan. All remaining roads should be regarded as local roads.

The Boulevard treatment has an important function in terms of through traffic but is also a showcase for the town, contributing to the overall image. This type of road treatment is intended to be applied to the existing routes of Pokeno Road and parts of Helenslee Road, and the new main collector routes within the residential growth areas. These routes are often aligned with ridgelines and spurs and as such have a strong part to play in defining the image of Pokeno. Street tree planting themes will play a significant role in defining the boulevards as more significant streets.

As the Boulevard would be a connecting element through various character areas, the dimensions and placement of trees and street features should remain generally consistent, but species of trees should be related to the adjacent neighbourhood.

The Boulevard treatment is also applied to the already existing (reserve width 20m) routes of Munro Road and Helenslee Road. It defines the western boundary of the structure plan area and is therefore “one-sided” in terms of urban development. A specific adaptation to its treatment would therefore be expected.

Connector Roads are of a higher order than normal local roads as they loop through and connect the neighbourhoods to the collectors and arterials.

Local Roads provide for the movement of vehicular traffic and road treatments that encourage slower speeds and create high amenity environments for pedestrians and cyclists.

All roads should generally be through roads - cul-de-sac roads should serve a maximum of 15 houses.

Criteria 4 and 5 note further that local traffic management measures may be appropriate in the Local Roads, where a slower traffic environment is sought. A consistent palette of tools should be utilised in a given development area so that drivers become accustomed to them.

Criteria 6 and 7 note that street trees should be utilised to differentiate areas from one another. Street trees provide amenity, shelter, mitigate pollutants and carbon. The provision of a holistic landscaping approach including a themed street tree planting plan will be sought by Council. Such an approach should reinforce the individual character of the separate parts of Pokeno and assist residents and visitors intuitively understand and navigate their way through the town. Slender trees with higher canopies are sought to maintain sight lines and avoid potential entrapment spots.

Regarding Criterion 8, jointly-owned accessways should be of generous legal width, ideally straight (sharp bends should be avoided at least) and with appropriately dimensioned sealed carriageways. Sharing access between rear lots is encouraged to minimise paved areas.

Criterion 9 recognises that certain existing and future intersections should be designed with a gateway function in mind, to help define the identity of Pokeno.

The Boulevard and Connector road types may include specifically formed parking bays. Criterion 10 notes the importance of designing these parking bays in conjunction with the adjoining lots, so that development on the lots in future does not result in vehicle crossings in positions that leave short unusable sections of bay. In general, the location of the driveway at the southern side of the frontage should be assumed. Council may require demonstration and assurance that the future driveways will be located in the preferred positions. Legal mechanisms may be necessary to protect the parking bays from the development of inappropriate driveway crossings.

54.15B Design Element 4: Pedestrian Links and Routes

1. Pedestrian and cycle paths should be primarily accommodated on roads.

2. Links should be short (no greater than 60 to 80 metres in length), wide (6 metre wide corridor accommodating a 2 metre wide footpath) and direct, match desire lines as closely as possible, be of easy gradient (without steps and not exceeding a gradient of 1:12), and include clear and coherent signage.

3. Links should run along the fronts of lots if possible, the sides where necessary, and never the rear.

4. Where lots abut links, these should be designed so that boundary fences of not more than 1.2m height can be provided along the significant majority of the boundary without compromising privacy on adjacent lots.

5. Adequate lighting provision for links should be made for safe night time use.

6. Where the pedestrian network has to cross heavily trafficked roads, appropriate surface level crossings should be provided. Underpass crossings should be avoided, and footbridges only used for railway crossings.

7. Cycle routes off-street should be safe, direct, barrier-free, have smooth surfaces, and be located above the average yearly storm event.

8. Cycle storage facilities should be provided at appropriate locations.

Explanation:
Design Element 4 pertains to matters for consideration for locating, sizing and designing pedestrian and cycle links.

Designing for walking is an integral intention of the Pokeno Structure Plan, giving residents the option of accessing jobs, retail, services, public transport, community facilities and recreational opportunities on foot, in a direct, safe and enjoyable manner.

The term ‘link’ principally refers to pathway routes which are a genuine “short cut” for pedestrian or cyclists and thus anticipated to be an important part of the pedestrian network and, through the utilisation of links through reserves, will often result a shorter travelling distance between destinations than by road.

Other routes through reserves are also envisaged, for amenity and recreational purposes.

As noted in Criterion 1, pedestrian and cycle paths should primarily be accommodated on roads. Where links and routes are provided separately from vehicular traffic routes, they should be designed to ensure that an appropriate level of personal security of users is a first priority.

Criterion 2 calls for links that are short, wide and direct. Ensuring that the link is straight allows visual connection from end to end, and avoids dangerous entrapments spots. Planting should also be cognisant of retaining these views.

Criteria 3 and 4 also note that boundary treatment and location relative to lots is important. The aim is that pedestrian routes should be safe, and overlooked by adjacent housing or other active land uses. Council may require demonstration of typical house position and orientation to satisfy Criterion 3 and may require covenants on titles to prevent later development of high fences on lots as described under Criterion 4.

Lighting, as called for by Criterion 5, may need to be low-level bollard lighting to avoid creating nuisances in adjacent properties.

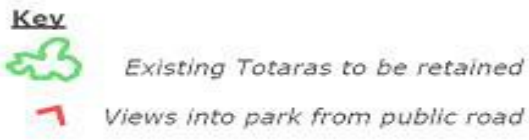
Pokeno Road and the main trunk railway line are anticipated under the structure plan to require pedestrian crossings at key points. Criterion 6 recommends the appropriate design outcome.

Criteria 7 and 8 highlight also that Pokeno is also intended to be a town that it is easy and safe to get around by cycle. Storage facilities for cycles (typically bike racks) should be included in the design of the Sports Park, Neighbourhood Parks (refer Design Elements 5 and 6) and at Neighbourhood Centres.

54.15B Design Element 5: Reserves

1. Reserves should be distributed throughout the Residential 2 Zone in accordance with the locations and types shown on the Pokeno Structure Plan, and as described further in the explanation below, to provide a variety of recreation opportunities.

Neighbourhood Park and Neighbourhood Centre Concept (Helenslee Block)



Neighbourhood Park and Neighbourhood Centre Concept (Hitchen Block)

2. Neighbourhood parks, excluding those identified as knolls on the Pokeno Structure Plan, should generally be reasonably flat, and be designed and located to provide a focal point for the neighbourhood.

Smaller Neighbourhood Park Concept (Helenslee Block)

3. Neighbourhood parks associated with Neighbourhood Centres should be larger (say 2500m² in area) than other neighbourhood parks (excluding those identified as knolls on the Pokeno Structure Plan) in recognition of their central community function.

4. Clear sight lines into all areas of reserves should generally be available from public roads (as a first priority) or nearby dwellings. Neighbourhood parks should generally be fronted by two public roads.

5. Trees and any structures should be positioned for winter shelter and summer shade, to maximise the focal qualities of any reserve, and to reinforce any linkages from the reserve to other areas.

6. Reserves should be located and designed to retain any existing significant vegetation and to promote the regeneration of existing bush remnants. Notwithstanding the protection of significant vegetation, sufficient land should be available outside the protected vegetation to ensure that the recreation needs of the community can be fulfilled by the neighbourhood park.

7. Reserves should have relatively low maintenance planting.

Explanation:
Design Element 5 pertains to matters for consideration for locating, sizing and designing all reserves within subdivisions. Regard should also be had to Design Element 8 when considering reserves and their relationship to roads and lots.

The Pokeno Structure Plan identifies the general location of all neighbourhood parks and a sports park. These were derived with reference to the Franklin District Reserves Acquisition and Development (RAD) Plan. Further criteria for stormwater reserves are described in Design Element 6. The development of the sports park will be undertaken under processes outside the district plan.

Neighbourhood parks are described in the RAD Plan as “contoured, developed and maintained as places for active and passive recreation for the surrounding residential neighbourhood.” The structure plan proposes that two neighbourhood parks be located within the new residential areas of Helenslee and Hitchen Blocks adjacent to the envisaged neighbourhood centres - i.e. small groups of local shops serving the respective blocks – with which they should have a strong visual and physical link. An existing stand of significant totara trees, central to the Helenslee Block, provides the basis for a large neighbourhood park in the Helenslee Block.

Other neighbourhood parks shown on the Pokeno Structure Plan may also be the focus of residential medium density overlay areas. They are intended for informal passive amenity with seating, and provide a focus for the surrounding housing. Appropriate locations for these parks are proposed in the Structure Plan, with two situated in the Helenslee Block and two within the Hitchen Block.

The Structure Plan also shows two neighbourhood parks in locations associated with existing knolls which are landmarks in the local areas of Helenslee and Hitchen and contribute significantly to local character and site identity. These are intended to maintain the raised landform and natural topography and thus allow residents to enjoy passive recreation and lookout opportunities across Pokeno and to the rural backdrop. Tree planting should be sensitive to the lookout function of the park. Footpaths/accessways should follow the contour up the hill for minimal disturbance, with lookout areas/rest spots along the way as well as at the top.

As noted by Criterion 2, particular attention should be given to the design of the parks in terms of their importance as focal points for nearby residents. A small, well-proportioned flat reserve designed as a focal point for a small neighbourhood through the use of planting, shelters, pergolas etc. is almost always more appropriate than a large area of left over rolling rear land.

Criterion 4 calls for careful consideration of the park, whichever type, in terms of ensuring that as much as possible of it is highly visible from public spaces as a priority, and also from lots. This will help ensure it is seen and valued by the nearby neighbourhood. This is also important from a personal security and crime prevention perspective.

Criterion 5 stresses the importance of tree selection and positioning and position of structures to reinforce a number of functions, particularly of the Neighbourhood Parks. As noted, the neighbourhood park adjacent to the Neighbourhood Centre for Helenslee will encompass most or all of a stand of totara.

54.15B Design Element 6: Stormwater Reserves

1. Stormwater detention treatment devices and associated reserves and linkages should be distributed throughout the Pokeno Structure Plan Area in general accordance with the locations shown on the Pokeno Structure Plan, and in general accordance with the adopted Catchment Management Plan, NZS4404:2010, relevant regional technical publications and as described further below. *Advisory Note: The Hamilton Infrastructure Technical Specifications is Council's current Engineering Code of Practice.*

Concept for Stormwater Reserve in Helenslee Block

Concept for Stormwater Reserve in Hitchen Block

Key:

Pedestrian Access

2. The Helenslee Block stormwater reserves should be developed as a connected system with pedestrian access along the whole system, creating green corridors to enhance the ecology of the area and providing a visual connection of green network to the surrounding rural areas.

3. Where the Tanitewhiora Stream and the Helenslee Stream channels are identified as “perennial stream with riparian margin” on the Structure Plan, they should be retained and a vegetated buffer should be provided on both sides of the channel.

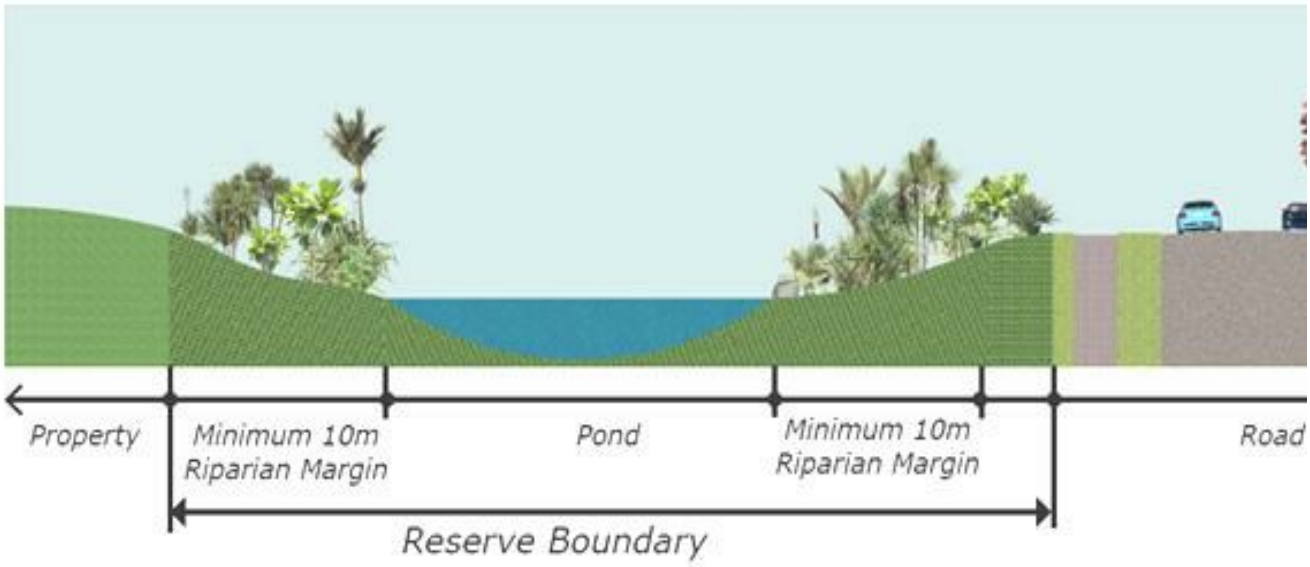
4. Vegetated buffers should also be provided on the margins of streams, ponds and wetlands which should:
   - Include native specimen trees on the lower and upper banks of ponds predominantly to the north and west of the pond to provide shade;
   - Provide a minimum 10m of native planting including shallow water rushes and sedges;
   - For wetlands and ponds include native wetland species planted in the different planting zones within wetlands as per Environment Waikato's wetland planting guide.

5. Stormwater ponds should be designed to fit in with the surrounding landscape and appear as a natural component of the overall setting.

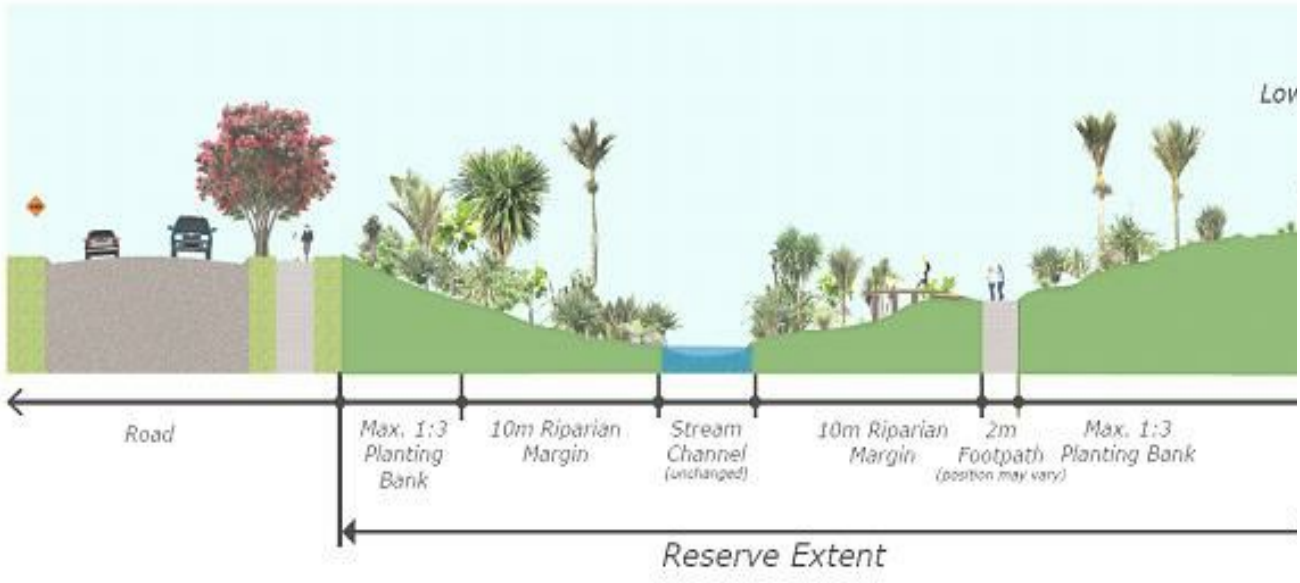
6. Walkways through buffer vegetation should be designed to minimise any impacts on any ecological function of the pond or buffer, and personal security should be a priority in walkway design.

7. Vegetated buffers in close proximity to lots should be designed to minimise shading effects on probable living areas and to allow visual connection with any walkway passing through the buffer.

Typical Cross Section – Pond or Wetland



Typical Cross Section – Stream (where included in reserve)



Explanation:
Design Element 6 pertains to matters for consideration for locating and designing stormwater reserves and their planted margins.

The structure plan area is bisected by two streams, referred to as the Tanitewhiora Stream and the Helenslee Stream. These streams are important ecological corridors and should therefore be retained and enhanced. They flow through to the Mangatawhiri Swamp/Wetland which in turn feeds the Waikato River. The wetland is regarded as one of the rarest and most at-risk ecosystems and the Waikato River also has ecological significance.

The proposed stormwater reserves can provide residents with passive recreation opportunities, and (particularly in the case of the linear stream areas in the Helenslee Block) may form part of the pedestrian and cycle, and passive recreation, networks. Design of related walkways requires careful consideration in respect of potential impacts on buffer vegetation, and on making the experience safe and pleasant for users (Criteria 2, 6 and 7).

The Catchment Management Plan requires that the perennial watercourses (as shown on the Structure Plan) be re-vegetated with riparian planting, as also sought by Criterion 3. Farm stream crossings will need to be removed.

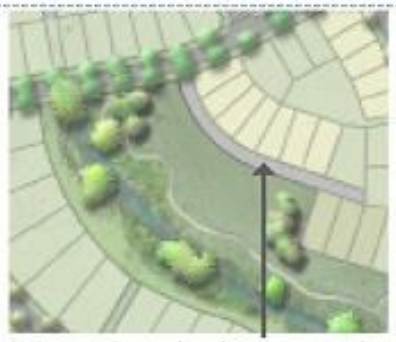
Planting on the northern and western side of any ponds provides shade and the intention of the buffer planting should also be to enable more self-sustaining habitat once established (Criterion 4). Planting should also take into account the relationship of the stormwater reserve to adjoining lots and, as with walkways, design and selection of species for vegetated buffers should maximise personal safety and surveillance and minimise loss of light to adjoining properties (Criterion 7).

54.15B Design Element 7: Interface Design

Reserve Interface

1. Reserves/Parks should be bounded by public roads as much as possible given topographical constraints.

Road around reserve edge where possible



Where lots back on to the south side of a reserve, ensure road or at least driveway edge to the north side

2. Where a road boundary is not practical, the lot layout should ensure that the fronts of houses face onto the reserve across driveways as a next preference, and these driveways must remain unfenced so a clear line of sight and physical access is maintained.

Road around south edge, driveway round north edge

3. If lots “back on” to reserves, they should only do so on the southern edges of the reserve, maximising the likelihood that the house will provide north-facing glazing looking onto the reserve.

Railway Interface

1. Residential subdivision in the vicinity of the North Island Main Trunk Railway line should either:
    - As a preference be separated from the Railway by a road running along the edge of the railway; or

- Back onto the railway boundary (only where the land being subdivided is higher than the level of the railway).

Explanation:
Design Element 7 pertains to design matters which arise with development at the interface with certain urban elements in the Residential 2 Zone growth areas, namely reserves and the North Island Main Trunk Railway Line.

Reserve Interface
Reserves that are largely bounded by public roads are more secure, because of informal surveillance from the road and from the houses nearby, and are thus likely to discourage crimes against people, vandalism, burglary, dumping, and littering. In such locations, and clearly visible to as many properties as possible, they are likely to attract the maximum number of users and be more valued by the community enhance surveillance and safety for pedestrians and cyclists using the open-space system. Ideally, reserves should not directly adjoin residential lots, (Criterion 1) but as a guide, not less than half the total length of legal boundary of any reserve should adjoin legal road. However, given the topography of the Residential 2 Zone growth areas, it is recognised that there are other ways to provide an active edge (Criterion 2) and that there are certain circumstances and orientations where directly “backing” a lot onto a reserve boundary is appropriate (Criterion 3).

Railway Interface
The Pokeno Structure Plan Area is bisected by the North Island Main Trunk Railway Line. In terms of those parts of the Residential 2 Zone outside the Town Centre Overlay Area, the NIMT forms a curved boundary for the Hitchen Block. This, together with varied topography, means that a variety of edge conditions have to be considered.

The criterion recognises this and sets out relative preferences.

Appendix 54.15C Subdivision Design Assessment Criteria for Residential 2 Zone (Town Centre Overlay Area) and Business Zone within the Pokeno Structure Plan Area

Purpose of Appendix 54.15C

Within the Pokeno Structure Plan Area, applications for restricted discretionary activity subdivision resource consent will be assessed in terms of a series of matters, to which the Council will restrict the exercise of its discretion. One of the matters which the Council will have regard to is:

> "Design and Layout
>
> Whether the subdivision is in accordance with the relevant subdivision design assessment criteria in Part 54 as relevant …".

The criteria will be utilised for the consideration of subdivision in the:

- Residential 2 Zone Town Centre Overlay Area – refer to Appendix 54.15A and the planning maps
- Business Zone

In addition, the criteria will be used as appropriate in the consideration of discretionary activity applications for subdivision.

The Appendix sets out assessment criteria under several Design Elements. The illustrations are intended to support the text and represent good design solutions, but are not intended to represent the only design solution. All illustrations are illustrative and indicative only.

Each design element includes an explanation that summarises the rationale for the particular design element, and expands on the individual criteria. The explanation should be used as further guidance in interpreting the intention of the criteria and assessing the extent to which the proposal accords with them. For any references in the explanations to the "Pokeno Structure Plan" refer to Appendix 54.15A.

54.15C Information Requirements

The applicant shall provide a written assessment describing how the criteria for each design element are addressed. Applicants will have to demonstrate that the provisions of the criteria have been acknowledged.

It is recognised that certain proposals will not achieve absolute accordance with all criteria. Where necessary, in regard to a criterion demonstrably not met, the applicant shall explain with reference to the explanation for the particular design element:

- whether site constraints inhibit the ability to address the criterion, and/or;
- how the intention of the criterion is met by the proposal, and/or;
- whether the proposal represents a better design solution than that suggested by the criterion.

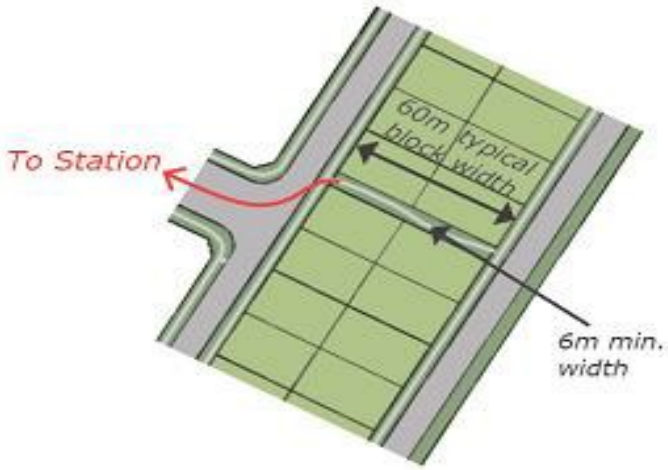
54.15C Design Element 1: Road and Access Networks

1. Patterns of roads and links should reinforce, re-establish and where necessary supplement the historical pattern of roads and blocks in the Town Centre.

Original Subdivision Design for Pokeno, 1863

2. Pedestrian and cyclist paths should generally be accommodated on roads as a first choice for movement.

3. Any additional pedestrian or cycle links should be short, wide and direct, visible from one end to the other and match desire lines as closely as possible, and be safe, direct, barrier free and have smooth surfaces.



4. Where lots abut links, these should be designed so that boundary fences of not more than 1.2m in height can be provided along the significant majority of the boundary without compromising privacy on adjacent lots.

5. Adequate lighting provision for links should be made for safe night time use.

6. Layouts should retain existing mature trees where these contribute to existing site amenity.

Explanation:

Design Element 1 pertains to the general layout of the networks of roads and pedestrian and cycle links for the Town Centre. These public routes should be considered in an integrated fashion together with the development blocks they re-create.

Criterion 1 is developed from any intention identified early in the structure planning process, to reinforce the character of Pokeno. For Pokeno Town Centre a key component of that character is the historical pattern of roads created by the original subdivision of 1863.

The intention of the structure plan is to transform many of the paper roads in the Town Centre Overlay Area into formed roads. Subdividers will be required to upgrade road frontages in

accordance with Council's requirements. However, as is common to 19th century subdivision designs, the original layout pays little regard to topography, and as such there are areas where the road pattern drops sharply into gullies and/or where the road pattern is transected by the route of the Helenslee Stream. In locations like this it is proposed to retain the paper roads in Council ownership. Council may establish them as open space walkways, cycle ways and in many cases to provide access to adjoining properties by lanes along the edges.

Re-establishing this historical pattern is important not just from a heritage and identity perspective, but because it will achieve legibility and connectivity - i.e. multiple linkages between points so that there are a number of travel routes to choose from - throughout the Town Centre. The road and link patterns should maximise convenient access to Great South Road (identified as a possible bus route, and the principal focus for Town Centre retail), Market Square, Pokeno School and the possible future railway station site.
Where routes are provided separately from vehicular traffic routes they should be short, wide and direct and will often result in a shorter travelling distance between destinations than by road (Criterion 3).

Whilst all future formed roads will accommodate pedestrians, there are a number of alternative routes which offer short cuts and recreational walking opportunities.

The term link principally refers to pathway routes which are a genuine short cut for pedestrians or cyclists and thus anticipated to be an important part of the non-vehicle movement network. For the Pokeno Town Centre most links will be located within existing paper roads (i.e. with a 20m legal width corridor that in many cases the pathway will share with driveway-like lanes on one or both sides, accessing houses fronting on to them). This provides good surveillance. In a few cases new pedestrian-only links will be suitable.

Where links and routes are provided separately from vehicular traffic routes, they should be designed to ensure that an appropriate level of personal security of users is a first priority.

Criteria 4 and 5, also note that boundary treatment and location relative to lots is important. The aim is that pedestrian routes should be safe, and overlooked by adjacent housing or other active land uses. Council may require demonstration of the typical house positioning and orientation to satisfy Criterion 4, and may require covenants on titles to prevent later developments of high fences on lots as described under Criterion 4.

Lighting, as called for by Criterion 5 may need to be low level bollard lighting to avoid creating nuisances in adjacent properties. Ensuring that the link is straight and well lit allows visual connection from end to end, and avoids dangerous entrapment spots. Planting should also be cognisant of retaining these views.

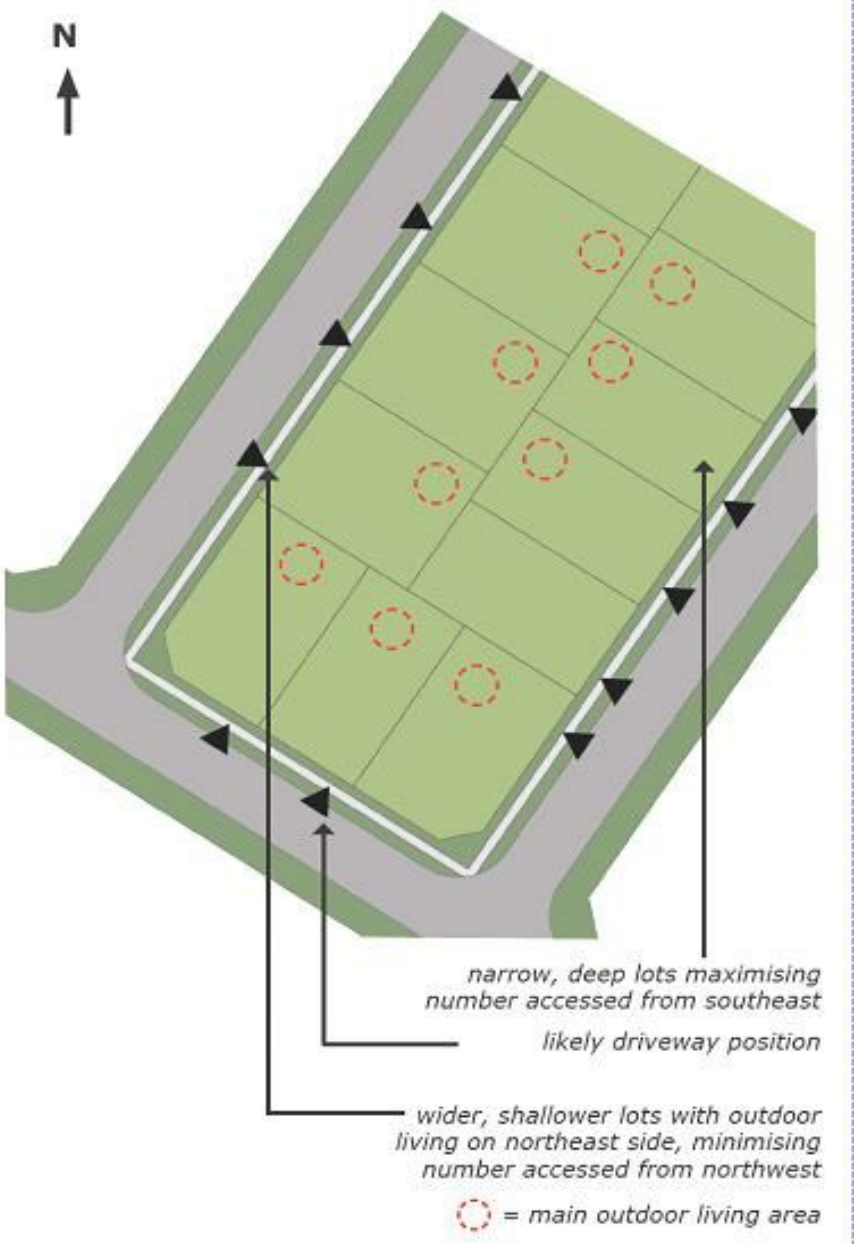
Layouts that are actively planned to incorporate existing mature trees (Criterion 6) are encouraged.

54.15C Design Element 2: Block Size, Lot Type and Orientation

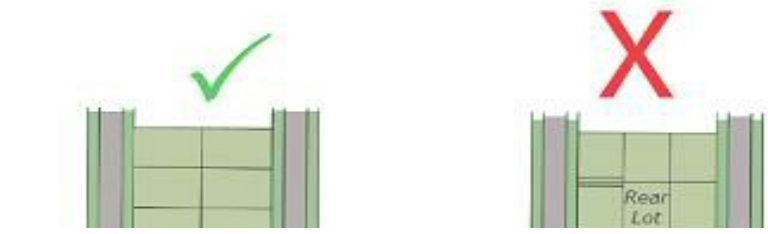
1. Lots should be laid out generally parallel to or perpendicular to the roads adjoining the parent block.

2. The majority of the lots in a subdivision of a typical Residential 2 Zone block in the Town Centre Overlay Area should be designed to be accessed from the southwest and southeast, not the northwest and northeast.

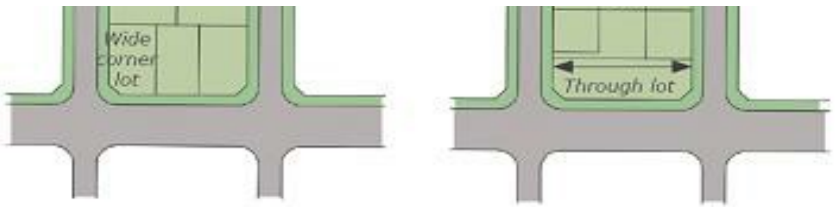
Typical Town Centre Lot Layout



Lot Frontage Options



3. Residential lots should be designed to enable dwellings with good solar access.



4. As many lots as possible should front onto and be accessed directly from a legal road. Rear lots should generally be avoided.

5. Through lots (lots with dual road frontage) should be avoided.

6. Residential corner lots should be designed to maximise opportunities to create private outdoor space on site without the need for high front fences.

Explanation:
Design Element 2 describes principles for consideration in the layout of lots within a subdivision, and is mostly relevant to vacant lot subdivision. Where subdivision applications are accompanied or preceded by a land use consent application the building designs and layout will determine lot size and shape.

The Town Centre Overlay Area is particularly characterised by pre-existing development blocks created by the historic grid pattern of the roads. These blocks are elongated in a generally south-southwest to north-northeast direction and this will set the basic orientation of the lots. Criterion 1 seeks to reinforce this historic pattern by the orientation of the buildings and future lots on the blocks. In combination with other criteria, it is expected that the outcome will be in most cases dwellings fronting the boundary roads and creating private space at the rear, in a “public fronts and private backs” arrangement.

Criteria 2 and 3 refer to residential lot design techniques to maximise the potential for good daylight and sunlight access to future dwellings. A useful first principle in achieving solar access to dwellings is by planning for layouts with vehicle access on the southernmost side of the lot.

Blocks should not be more than two lots deep (i.e. lots fronting roads only) to achieve Criteria 4 and 5. Maximising the potential number of dwellings that can front the road, and minimising the use of rear lots adds to safety, orientation and streetscape amenity, and reinforces the historical intension of the subdivision pattern. As such, the creation of rear lots will only be accepted where there is no viable alternative.

Corner lots should be typically larger than nearby mid-block lots and the size and proportion of residential corner lots should also be carefully considered in the light of front yard controls potentially affecting the ability to achieve houses with private open space on-site.

54.15C Design Element 3: Roads and Accessways

1. Road cross-sections of existing and new roads should be limited to a simple road treatment.

2. Except on Great South Road, and on collector roads linking into the Town Centre from south of the railway line, parallel parking should be provided informally (not in bays) on all Town Centre roads.

3. Where dead ends occur, these should accommodate turning heads.

4. Street trees with a consistent theme should be provided on all formed roads and street trees with slender trunks and foliage above 1.5 to 1.8m should be utilised.

5. Where jointly-owned access ways are required, they should be generous in width and if passing between adjacent lots, be short and avoid sharp bends, and comply with Council's standards.

Explanation:

Design Element 3 pertains to principles for the design of public roads and private vehicle access ways.

In the Town Centre, Council will exercise discretion in respect of NZS4404:2010 the Structure Plan. Subdividers will be required to upgrade existing road frontages in accordance with Council's standards.

Advisory Note:
The Hamilton Infrastructure Technical Specifications is Council's current Engineering Code of Practice.

Criterion 3 recognises that the historic road pattern includes some dead end streets creating a need to ensure that these are provided with turning heads.

Criterion 4 notes that consistent street trees should be utilised to differentiate the Town Centre from other areas. Street trees provide amenity, shelter, mitigate pollutants and carbon. The provision of a holistic landscaping approach including a themed, street tree planting plan will be sought by Council. Slender trees with higher canopies are sought to maintain sight lines and avoid potential entrapment

spots.

Regarding Criterion 5, jointly-owned access ways should be of generous legal width, ideally straight (sharp bends should be avoided at least) and with narrow, sealed carriageways. Sharing access between rear lots is encouraged to minimise paved areas.

54.15C Design Element 4: Stormwater Infrastructure

1. Stormwater detention and treatment devices should be incorporated into the design, consistent with the adopted Catchment Management Plan, NZS4404:2010, relevant regional technical publications and as described further below.
   Advisory Note: The Hamilton Infrastructure Technical Specifications is Council's current Engineering Code of Practice.

2. Where the Tanitewhiora Stream and the Helenslee Stream channels are identified as "perennial stream with riparian margin" on the Structure Plan, they should be retained and a vegetated buffer should be provided on both sides of the channel, as further outlined in the explanation below.

3. Vegetated buffers should also be provided on the margins of streams, ponds and wetlands. These should:
   - Include native specimen trees on the lower and upper banks of ponds predominantly to the north and west of the pond to provide shade;
   - Provide a minimum 10m of native planting including shallow water rushes and sedges;
   - For wetlands and ponds include native wetland species planted in the different planting zones within wetlands as per Waikato Regional Council's wetland planting guide.

4. Stormwater ponds, where proposed with subdivision, should be designed to fit in with the surrounding landscape and appear as a natural component of the overall setting.

5. Vegetated buffers in close proximity to lots should be designed to minimise shading effects on probable living areas and to allow visual connection with any walkway passing through the buffer.

Explanation:
Design Element 4 pertains to matters for consideration for locating and designing stormwater reserves and their planted margins, should these be required in the Town Centre.

The structure plan area is bisected by two streams, referred to as the Tanitewhiora Stream and the Helenslee Stream. These streams are important ecological corridors and should therefore be retained and enhanced. They flow through to the Mangatawhiri Swamp/Wetland which in turn feeds the Waikato River.

The catchment management plan notes that significant lengths of the perennial watercourses will be re-vegetated with riparian planting, as also sought by Criterion 3.

Planting on the northern and western side of any ponds provides shade and the intention of the buffer planting should also be to enable more self-sustaining habitat once established (Criterion 4). Planting should also take into account the relationship of the stormwater reserve to adjoining lots and as with walkways, design and selection of species for vegetated buffers, should maximise personal safety and surveillance and minimise loss of light to adjoining properties (Criterion 5).

Part 54.16 [Intentionally blank]

Part 54.17 [Deleted]