

Section 32 Report – Part 2

Transport

prepared for the

Proposed Waikato District Plan

July 2018



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I OVERVIEW AND PURPOSE

This Section 32 evaluation report addresses the Waikato Proposed District Plan (PDP) provisions for the management of transport. The topic has a number of aspects to it and addresses both the management of roads, the design of sites including access and loading, and the traffic generation arising from activities.

This evaluation report pertains only to transport, all other aspects of infrastructure are evaluated in other the Section 32 evaluation reports regarding Infrastructure.

This evaluation report should be read in conjunction with Part I Section 32 Report – Introduction to the Evaluation Report, which provides the context and approach for the PDP as a whole.

1.1 Topic Description

At its very simplest, transportation is a means of getting from A to B by any mode.

Transportation issues fall into two broad categories:

1. The effects of transportation on the environment
2. The effects of the development and use of land on transportation.

Transport infrastructure is a physical resource under the Resource Management Act (RMA), and must therefore be sustainably managed. The operation of transport systems is considered a land use.

The District Plan provides a regulatory mechanism to manage land use activities and their relationship with transport, rather than focusing on transport projects; the Plan does not control upgrades for certain roads or where traffic signals will be installed. This is a function undertaken through the implementation of the Council's Long Term Plan. The District Plan provides a regulatory framework to manage activities that may generate effects that will affect the transport network such as generation of traffic. The District Plan also controls activities and development that can be undertaken within the Transport Zone (areas covered by road reserve and railways) that are likely to generate high levels of traffic and potentially significant effects.

There are five main matters pertaining to transportation which the PDP and this Section 32 evaluation report address:

1. New roads and the design of roads;
2. Activities and structures within the road corridor – these are usually undertaken by Council but can include network utility operators where services are located within the road reserve;
3. On-site design including access, parking and loading;
4. Traffic generated by activities; and
5. Networks for alternative modes of travel e.g. footpaths, cycle paths.

The PDP provisions pertaining to transport are largely contained in Chapter 6 (objectives and policies) and Section 14.12 of Chapter 14 (Infrastructure and Energy). Due to the structure of Chapter 14, there are also rules and standards in Sections

14.2 (Rules Applying to all Infrastructure) and 14.3 (General Infrastructure). These provisions are addressed in the Section 32 report for Infrastructure as they apply more broadly than just transport infrastructure.

1.2 Significance of this Topic

Waikato District has a number of nationally significant and regionally significant sections of transport infrastructure traversing the District – state highways and the main trunk railway line. But transport is not limited to just the nationally significant networks; there are thousands of kilometres of local roading network and a network of off-road transport networks such as bridlepaths, cycleways and footpaths.

The topic of transport affects every person and every part of the District. Activities focus traffic into certain areas. For example, new childcare centres generate vehicle movements and the PDP establishes a framework for determining whether the existing transport network can accommodate the increase of traffic in the particular location. Activities generate different types of traffic – for example, accountants offices will generate car trips for both employees and clients, while milk factories generate heavy vehicle movements. Even dwellings result in vehicle movements and the PDP manages these to ensure the network can cope and that traffic safety is maintained.

The design of the road corridor determines the number and type of vehicles that can use it. Roads in the urban areas will not and should not be the same as rural roads.

The transport network is not constrained to road and rail however and the District Plan ensures that off-road transport networks such as bridleways are in an appropriate location, are integrated and joined, and have appropriate dimensions for the users.

1.3 Resource Management Issues to be Addressed

There are eight main issues which need to be addressed in terms of transport:

1. Land use and transport integration issues

Land use activities including subdivision and development can significantly influence travel behaviour. Land uses can either reduce the need for private vehicle travel or increase walking, cycling and public transport patronage or conversely increase the reliance on private vehicles.

2. Network connectivity

Piecemeal development can lead to a reduction in connectivity for the network. This can increase the travel times as people need to take alternative less efficient routes.

3. Safety

Pedestrians and cyclists currently use parts of the road network that do not provide an appropriate level of service or are not fit for purpose because the walking and

cycling network is incomplete. This compromises safety of these vulnerable road users and contributes to a low uptake of walking and cycling.

4. Mode Choice

The reliance on private vehicle travel has adverse environmental and health effects. Further, gaps in the walking and cycling network and minimal provision of public transport contributes to low use of these more sustainable, lower energy and less polluting modes. Waikato District has a dispersed land use pattern. This often discourages many residents from using sustainable modes of transport and as a consequence results in relatively high rates of private vehicle travel, both within and out of the District.

5. Freight

Damage to road infrastructure, noise and amenity impacts occurs due to movement of large numbers of heavy vehicles through residential areas of the District.

6. Parking

The design, location and scale of vehicle parking areas can have a large impact on development form. The location and number of vehicle parks required by developments must be balanced with the demand for parking and visual and other environmental (e.g. stormwater run-off) effects.

7. Traffic generation

The integrated, safe, responsive and sustainable operation of the land transport network, particularly the road network, can be adversely affected by land use activities and subdivision. Every activity generates vehicle movements, but the road network may not be capable of accommodating the additional loading in that particular location. Additional unforeseen vehicles can exacerbate congestion or create safety issues.

8. The roading form and function needs to be appropriate to the users and the surrounding land uses

The transport network can come in many forms, ranging from a multi-lane grade separated expressway to a narrow cul-de-sac. The form and function of the road needs to reflect not only the type and volume of traffic that it will carry, but also how this form is appropriate to the surrounding environment.

Roads play an important role in meeting the needs of Waikato District residents and the economy. However, urban areas suffer poor amenity due to the domination of road infrastructure. High car usage also contributes to congestion and environmental degradation. More sustainable modes such as walking, cycling and public transport can be more effective ways of moving people especially when all effects and costs are considered. A wider range of people are able to use these modes, such as young and older people without cars, therefore making transport more equitable.

Urban form and transport are inextricably linked. Development of transport infrastructure is a considerable investment and is costly to maintain. Planning the integration of land use and transport can open opportunities to improve transport choice and enable the community to improve their wellbeing and reduce overall costs.

1.4 Current Objectives, Policies, Rules and Methods

The Waikato Section of the Operative District Plan addresses transport matters in objectives, policies and rules.

Objective 8.2.1 establishes the vision for transport:

An integrated, safe, responsive and sustainable land transport network is maintained, improved and protected.

The policies seek to deliver this vision by addressing:

- The design, construction and operation of roads
- A road hierarchy provides the framework for the design and management of roads
- Development is not to compromise the road function
- Existing or planned capacity of the roading network
- The safety and efficiency of the roading and railway networks
- Methods to create an integrated, safe, responsive and sustainable operation of the land transport network
- Obstruction of future road linkages to Hamilton City.
- Connecting development safely to an existing road.
- Providing adequate on-site parking.
- Signs and glare.
- Stock and pedestrians crossings.

The Waikato Section also has infrastructure rules and associated performance standards which are specific to the Coastal Zone.

The Waikato section manages its transport objective through Appendix B – Engineering Standards which contains a set of objectives and policies for road standards and other utilities such as network utilities, Technical specifications for these matters are contained in the Waikato District Council Supplement to the Infrastructure Technical Specifications. These specifications may also need to be reviewed in conjunction with the policy framework in Appendix B as well as relevant provisions throughout the District Plan.

The Franklin Section of the Operative Waikato District Plan has two objectives:

Objective 9.3.1 - Minimise Conflict

To minimise conflict between the movement and access functions of roads and ensure, as far as practicable, that activities are compatible with the predominant function of the roads they front.

Objective 9.3.2

To ensure a safe roading network.

The policies address the following matters:

- Establishing a road hierarchy.
- Compatibility of activities with the road hierarchy.
- Avoiding ribbon development to existing or proposed state highways and district arterial roads.

- Activities that generate high volumes of traffic or frequent trips should be prevented from establishing in locations where direct access from state highways and district arterial roads is necessary
- Designing the ingress/egress in accordance with the New Zealand Transport Agency standards or guidelines.
- Multi-lot subdivisions in rural and coastal areas be required to obtain access from state highways or district arterial roads via a local road
- Off road parking, loading facilities and access points must comply with Council's minimum standards.
- Front yards are used to minimising conflict between roads and land use activities.

1.5 Information and Analysis

A considerable amount of information has informed the development of the infrastructure and energy provisions in the PDP. While many of these are not specific to the management of transport, they nonetheless are relevant.

1.5.1 Waikato District Council discussion documents

The following sections detail the outcomes of the review of the relevant discussion documents prepared by Council in relation to the early development of the PDP.

As part of the District Plan Review process, Council prepared a discussion document entitled: "Discussion Document - Infrastructure".

This document generally summarises the relevant statutory drivers for the Project, the relevant iwi management plans and the current approaches to infrastructure within the Waikato and Franklin Sections of the Waikato District Plan. The discussion document identifies gaps between these documents and provides (with an appendix) the key Waikato Regional Policy Statement provisions to be considered.

The discussion document also highlights the relevance of the following statutory documents:

- National Environmental Standards for Telecommunication Facilities;
- National Environmental Standard for Electricity Transmission Activities;
- National Policy Statement for Electricity Transmission; and
- National Policy Statement for Renewable Electricity Generation.

1.5.2 Infrastructure Issues/Desired State document

This document/table, which was dated 29 April 2016, set out the following headings and structure:

Topic Specific Desired State/Outcomes:

- The positive and negative effects of the use and operation of infrastructure are recognised and provided for.
- A district where growth is coordinated and infrastructure is efficiently provided and utilised.

- The road network on the Hamilton Urban fringe is managed to ensure it does not compromise the city's future road network.
- Development such as land use and land use intensification including subdivision is well serviced by utilities to avoid the adverse effects on the environment.
- Regionally significant industry, infrastructure, primary production and research sites can develop and continue to operate through the provision of supporting infrastructure and resources and the careful consideration of adjacent land uses.
- The road network and land use development are designed and managed to ensure the efficient and effective operation of the Land Transport Network.

7.1 ISSUE: Development and Operation of Infrastructure

7.2 ISSUE: Coordinating Growth and Infrastructure

7.3 ISSUE: Urban Expansion

7.4 ISSUE: Managing Growth Pressures

7.5 ISSUE: Scattered Development

7.6 ISSUE: Provision of Utilities

7.7 ISSUE: Significant Industry and Primary Production

7.8 ISSUE: Significant Infrastructure

7.9 ISSUE: Land Transport Network

It is however noted that the desired state/outcomes, numbering and issue topics listed above appear to have been superseded in subsequent documentation prepared by WDC.

1.5.3 Objectives document

This document assesses the current objectives within the Waikato and Franklin sections to determine if new objectives are required. It is noted the infrastructure desired states and issues identified in this document differ from those listed above:

Infrastructure Desired States:

- Infrastructure is designed, developed, maintained, managed and utilised in a way that support a safe, connected, accessible, sustainable, resilient and integrated built environment and enhances community wellbeing and amenity values.
- Development of the built environment is focused in and around settlement nodes in an integrated manner.

ISSUE: Development and Operation of Infrastructure

- The development and operation of infrastructure has the potential to positively or negatively impact on our ability to sustainably manage natural and physical resources and to provide for community wellbeing

ISSUE: Provision of Utilities Avoids Adverse Effects

- Land uses and land use intensification, including subdivision, can have adverse effects on the environment if wastewater and stormwater disposal, water supply, energy supply and telecommunications are not adequately provided for or managed.

ISSUE: Significant Industry, Infrastructure, Primary Production and Research Sites

- Regionally significant industry and infrastructure, primary production and research sites are important for community wellbeing and provide significant social and economic benefits, yet the continued operation and development of these activities can be constrained by the inefficient access to supporting infrastructure, resources and incompatible adjacent land use activities.

ISSUE: Operation of the Land Transport Network

- The integrated, safe, responsive and sustainable operation of the land transport network, particularly the road network, can be adversely affected by inappropriate design and construction, and connection between the network and adjoining land, as well as through the adverse effects of land use activities and subdivision.

ISSUE: Design, Construction, Maintenance and Operation

- Design, construction, maintenance and operation of the land transport network can adversely affect the environment through earthworks and structures, increases in sediment and stormwater run-off, and property and community severance.

ISSUE: Urban Expansion

- New roads on the Hamilton urban fringe may compromise the later future construction of an urban standard and density road network.

1.5.4 Designations discussion document

This document provides background on designations and how they are used under the RMA, details on time limits (lapse periods) for designations under the RMA, and outlines the link between the designating of land and the land acquisition processes under the Public Works Act.

The document provides the lists of the existing requiring authorities which have designations within both the Waikato and Franklin Sections of the Waikato District Plan. It is noted the names of two requiring authorities will require updating: Waikato Regional Council and KiwiRail Holdings Limited (currently listed as Environment Waikato and The New Zealand Railways Corporation respectively).

The document also outlines the engagement Council have already had with the requiring authorities with regards to whether the existing designations within both the Waikato and Franklin Sections of the Waikato District Plan need to be rolled over. This section of the document notes that requiring authorities from the Franklin Section (Counties Power, Spark NZ Ltd., Chorus NZ Ltd., Auckland Council and Watercare Services Ltd.) will need to be added to the existing list of requiring authorities within Chapter 30 of the Waikato Section as part of the District Plan Review process.

1.5.5 Issues and Options Report

MWH (now Stantec) prepared this report on behalf of Waikato District Council in November 2016. This is attached to this report as Appendix 2.

The Issues and Options Report was prepared to inform the future drafting of transport, utility and energy provisions for the PDP and the associated preparation of Section 32 evaluation reports. The purpose was to:

- Provide a comprehensive summary of the baseline situation;
- Help clearly define any key issues;
- Identify and assess the benefits and disadvantages of various options to address key issues;
- Determine whether any new issue statements need to be added; and
- Provide a critical comparison of the options.

1.6 Consultation Undertaken

Council have been collating feedback from a range of stakeholders to inform the District Plan Review process since 2015. This feedback has been captured within a spreadsheet entitled the District Plan Issues Register (the register) and includes a tab for Infrastructure. The following issues were raised relating to transport:

- Ensure specific provision, including maintenance, of cycle-paths/shared paths
- Combine road hierarchies of Waikato and Franklin and look at the NZ Transport Agency's One Network Road Classification framework.
- Road standards need to be reviewed.
- Ensure provisions for structures within road reserve.
- Relook at the narrow road reserve widths as you cannot fit utilities in.
- Relook at entrance separation distances – they should be reduced and could be contained in ITS.
- Relook at parking requirements (e.g. one space per bedroom too much for dwellings yet one space per 35m² for conference centre insufficient)
- Vehicle access standards not achieving desired outcomes.
- Relook at tracking curves - static guides are outdated.
- Relook at manoeuvrability – should be able to reverse onto Local Roads.
- Retain Newell Road entrance prohibition.

Development of the Infrastructure and Energy provisions were informed by two stakeholder groups:

1. infrastructure providers (which included New Zealand Transport Agency and KiwiRail Limited) and surveyors; and
2. an internal Council group of planners and engineers.

Two workshops were held with both groups to initially identify issues with the Operative Waikato District Plan, then a subsequent workshop to look at the proposed provisions in more detail and provide feedback. This feedback is summarised in Table 1.

Table 1: Summary of transport-related feedback from the workshops

Date	Group	Feedback
11 July 2016	<p>Workshop with infrastructure providers and surveyors</p> <p>McCracken Surveys; Counties Power; Blue Wallace Surveys; NZ Transport Agency; Watercare Services; Auckland Transport; Waipa Networks; Hamilton City Council; Spark; Vodafone; and BCD Group Ltd.</p> <p>Purpose: To identify what is working well with the Operative District Plan, and areas where the structure or rules could be improved.</p>	<p>The participants of the workshop identified the following as being key matters in respect to transport provisions:</p> <ul style="list-style-type: none"> • Language – issues with the way wording is too specific – doesn't match – e.g. roading hierarchy. • Vehicle generation – issues with the fixed number per activity. • Needs to address road function not just capacity • Might be different type of vehicles but same volume due to growth. • Will need to travel by car for major service centre – reality of Waikato district. • Rural western hills will always need to be serviced by car • Infrastructure must lead or accompany development. • Don't let development dictate and precede infrastructure. • Arterial road controls – LAR, protecting the function, expressways change behaviour, induced traffic, Hamilton more accessible. • What does adequate parking mean? • Needs to be flexible carparking. • Connection link between PT and car usage / parking • Road classification needed, e.g. SHI through towns versus outside. • Roading would be a utility and should be included in a single infrastructure chapter. • Roading – permitted activities within roading corridor. Roading takes on rules of adjacent zone which has consequences. • Single development manual ethos. • Standardising of utility layouts of roading corridor – could it be brought together as a standard – would be useful – would know what to expect. • Recognising the form and function of the roads. • Need for accommodating multimodal transport. • Need for structure plans for connectivity of roading • Road classification hierarchy. • Technological changes. Vehicles are changing – how do we accommodate that? • Infrastructure lead in time is 10 years. • Don't start building until you have a plan to service it and pay for it. • Need for consistent cross-boundary rules. • Recognising the road corridor is a service corridor. Local authorities / private owners. • Form of function of roads will be different in 10 years' time. • Do network utilities determine urban form or vice versa. • Importance of strategic planning.

		<ul style="list-style-type: none"> • Different levels of expectation of infrastructure. Context and zones. • Local effects with wider community good/benefit. • Need to link anticipated land uses, e.g. permitted activities and their infrastructure requirements. • Enable maintenance, operation, upgrades.
14 July 2016	<p>Council engineers and planners from consents, compliance and monitoring and policy</p> <p>Purpose: To identify what is working well with the Operative District Plan, and areas where the structure or rules could be improved.</p>	<p>The following were identified by the internal stakeholders in attendance as being key matters in respect to transport:</p> <ul style="list-style-type: none"> • Most people prefer the Waikato Section to the Franklin Section as it is clear and easy to use • Like rules by zone. • General preference to have rules by zone. • Utilities and infrastructure – Appendix A and B are working well. • Structure of the plan – tables of activity, what is permitted etc. is good. • FS – some policies and objective work well as they are less wordy. • Parking table structure is good. • Differentiation between regular users and those who don't use it, e.g. car parking appendix. • App A & B provisions confusing – ITS vs planning provisions. Do they need to be split or combined in a different way? • Issues around on-site parking – questions around one car park per bedroom • RITS is a more technical document. • Plan not delivering as it should. • Provision, use of infrastructure – need to allow for changing technology. • Roadworks – competing needs – safety, LOS, stormwater, design, width.
17 November 2016	<p>New Zealand Transport Agency</p> <p>Review transport provisions.</p>	<ul style="list-style-type: none"> • NZTA are generally happy with the approach of a traffic generation trigger within the two district plans. • The approach allows for a more appropriate effects based assessment as opposed to requiring resource consent on the basis of a particular activity given the varying scales/amount of traffic generated. • ITA requirements have been included within both the Hamilton and Waipa plans. • The Waipa plan includes an appendix which provides guidelines on traffic generation rates (for specific activities) to assist plan users. • Consideration needs to be given to what the trigger is based on (i.e. total movements or equivalent car movements e.g. a HCV = 10 car movements). • Stated it is the Road Controlling Authority, and not another party, which should ultimately be determining what the effects of a proposal/development are on their own network. • The most important matter to NZTA is the location

		<p>of growth and ensuring it is appropriately planned for with the necessary infrastructure. Development needs to be encouraged in the areas identified for growth. This needs to be 'given teeth' through strong objectives and policies.</p> <ul style="list-style-type: none"> • Development needs to be aligned with infrastructure to support it is the ideal scenario. • NZTA would like WDC to be able to say no developers if need be to avoid adverse outcomes; and that growth should be paid for by the growth (i.e. development contributions) • Noted previous examples of where rural subdivision and development under the current District Plan had not provided the best outcomes for WDC. • NZTA are keen to help enable growth, but in the right places. NZTA are also keen to ensure optimisation of their existing investments. • Frontage and set-back rules - or any provisions relating to development adjacent to State highways - need to be clear to ensure no unintended consequences (dwellings in close proximity, but without an actual boundary to a State highway, could be exempt for example). • NZTA have Reverse Sensitivity Guidelines but there is considered to be an element of flexibility to them depending on the location/environment (noted recent involvement with Thames-Coromandel District Plan). • Measurement in District Plan could be measured either from designation boundary (like current provisions) or from the carriageway edge line or centre line • NZTA confirmed the current setback rules have generally work well within WDC. • Suggested any known/designated future roads (like Southern Links) are identified in the District Plan's road hierarchy table so that there is clarity on what specific set back rules would apply (given there is currently a distinction between a State highway and an Expressway). • In terms of Limited Access Roads (LAR), confirmed that there is a separate process NZTA have under the Government Roding Powers Act. • WDC have a vehicle access approval process. • NZTA would be concerned that WDC could potentially give approval to something they would not support. Notwithstanding this, developing on a LAR was not in itself necessarily something that should require resource consent in its own right. • LAR should possibly be defined or identified in the District Plan to ensure plan users understand if the rules apply. • Needs to be consistency within the District Plan with the terminology and the rules need to
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		<p>recognise/take into consideration heavy vehicle movements.</p> <ul style="list-style-type: none"> • In terms of road hierarchy, acknowledged that NZTA's One Network Road Classification (ONRC) does not sit easily within a District Plan context. ONRC has been developed by engineers for asset management/funding purposes. • Suggested the road hierarchy within the District Plan provides a clear description as to what the functions of each road classification are, and that there could possibly be alignment with the ONRC descriptions. • The objectives and policies of the District Plan should support these functions/descriptions. • Protecting the rural-residential fringe is also very important to NZTA. • Concern that applicants are now approaching WDC in respect to proposals for charging facilities/kiosks for electric cars. There would be political pressure to support such facilities.
14 July 2017	<p>Council engineers and planners from consents, compliance and monitoring and policy.</p> <p>Purpose: Review of the draft Infrastructure and Energy provisions.</p>	<ul style="list-style-type: none"> • Questioned whether the construction of new roads to be permitted? • Need to allow minor upgrading as a permitted activity • Don't complicate it beyond effects. • Need to make sure that we don't lose the ability to re-form a paper road and take a reserve. • The number of carparks becomes a subjective questions – if we specify 20 people will come back to us and say they only have room for 17. Consents team needs to defend every decision that they make. • WDC seems to have lower parking requirements than other local councils. • Discussed required parking spaces and loading bays
21 July 2017	<p>Workshop with infrastructure providers and surveyors.</p> <p>Madsen Lawrie Birch Surveyors McCracken Surveys; Counties Power; Blue Wallace Surveyors; NZ Transport Agency; Watercare Services; Auckland Transport; Waipa Networks;</p>	<ul style="list-style-type: none"> • Ensure consideration of scheduled areas, trees, heritage items, Maaori sites of significance. May need to add to rows on the table – specific performance standards. • Road widths in separate Business/Industrial and Residential Zones. • Standards for access pavement design. • Requirement for kerb/channel/water table – question about N/A. • Compulsory or mandatory kerb and channel in all residential subdivisions. • Details left for infrastructure technical specifications? • Access lot width and numbers of users. Regional infrastructure technical specifications still being developed. • Flexibility for on-site stormwater management for multiple lots in greenfield development. • Unintended problem with a definition – want to

	<p>Hamilton City Council; Spark; Vodafone; Ultrafast Broadband BCD Group Ltd</p> <p>Purpose: Review of the draft Infrastructure and Energy provisions.</p>	<p>make sure that roads are not captured by the general infrastructure performance standard limiting above ground area performance standards need to be clear that roads are excluded from these (given the limits on above ground area).</p> <ul style="list-style-type: none"> • No need for rain tank provisions specific to Te Kauwhata structure plan area • Impervious surface area requirements within Te Kauwhata structure plan area are not realistic. • Concern that vehicle access and manoeuvring areas, irrespective of type, will be considered impervious surface. • Above-ground telecommunications structures shouldn't be required to comply with setbacks of zone (i.e. if it is a small structure then makes sense to have up alongside boundary (which is better than further into site)) • On-site car parking for non-residential activities should be screened by planting or fence if practicable, but not appropriate in all instances. • It should be clear that parking requirements for outdoor sports field (done on per hectare basis) apply to the field only – parking area not included in that total. • Separation distances are always hard to achieve.
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A draft district plan was published in November 2017 for the purposes of receiving early feedback. The feedback received on the transport provisions is summarised in Table 2.

Table 2: Summary of transport-related feedback received on the Draft Proposed District Plan

Provision / Issue	Feedback
Alternative transport modes	<p>Wants more facilities for walking/cycling in Raglan</p> <p>Requests encouragement of cycling by improving road surfaces</p> <p>Matangi Road and Tauwhare Road is used as a regional cycling route and should have wide shoulders to cater for this so that it adds to the safety for all road users.</p> <p>Use the DPR as an opportunity to take into account cycling it is just as important as driving.</p>
Indicative roads	<p>Add wording to provide for context of when the road is built the line becomes obsolete.</p> <p>Removed the Indicative road that is located off Redwood Grove</p>
Traffic generation rules	<p>supports the retaining of specific traffic generation rules for Huntly Power Station</p>
Road specifications	<p>Roads made wider to have carparks on both sides.</p> <p>Table - Access and road performance standards (res) Some local roads don't need 20m width.</p>

	<p>Too many categories of access and road performance standards simplify.</p>
Parking standards	<p>Parking performance standards Parking should be setback behind the dwelling, where possible, to be consistent with HCC</p> <p>Table required parking spaces Equitable provision required depending on bedrooms, location</p> <p>On site manoeuvring and queuing - considers there should be exemption for certain roads for no reversing.</p> <p>Separation distances table - Distances require revision - excessive. Need to be supported by regulatory standards</p> <p>sight distances table - NZCI Insurance stopping distances are less - should align</p>
Public transport	<p>Public transport growth.</p>
Management of the railway corridor	<p>Seeks amendments to ensure trees planted for forestry are back at least 10m from railway corridor boundary.</p> <p>Seek amendments to policies and rules ensure a restriction is placed on new accesses within 30m of level crossings. Consistent with NZTA Manual and will manage potential conflicts</p> <p>Seek addition of rules and diagrams around maintaining clear, safe areas adjacent to level crossings (one for stop/give way controlled crossing, one for others). Diagrams are included</p> <p>Seek addition of rules (includes tables) requiring new sensitive activities to be appropriately mitigated against noise and vibration. Seeks addition of criteria to subdivision rules in zone chapters to recognise the safety and efficiency of land transport networks.</p> <p>Seek amendments to the general earthworks rules within zone chapters to acknowledge infrastructure and ensure stabilisation</p> <p>Supports the inclusion that standards (2) and (4) of new infrastructure performance standards do not apply to road and rail network activities</p> <p>Kiwirail note their corridor runs through areas identified as Natural Character Areas, High or Outstanding Natural areas etc, and consider the proposed earthworks limits are too restrictive. KiwiRail propose exclusion for them and lineal operators supports rule</p> <p>Wants amendments to ensure accesses are not created gaining access directly to a level crossing. Also amend assessment criteria to cover 'land transport' and not just 'road'.</p> <p>Wants 'Integrated' included at start of objective.</p>

	<p>Seeks insertion of two new sub-policies to reflect additional safety rules sought by KiwiRail</p> <p>Seeks addition of policies to provide specific reference to KiwiRail matters when considering how reverse sensitivity is managed. Supports or seeks amendments to various other provisions within plan outside of the Infrastructure chapter</p> <p>seeks amendments to maps and designations chapter</p>
Definitions	<p>Want definition of Infrastructure, in terms of transport matters, amended as it covers a greater range of activities than included and can be both above and underground.</p> <p>Want definition of reverse sensitivity altered to acknowledge railways</p> <p>Want definition of road network activities expanded to be Road and rail network activities given these activities are equally what could be expected within the rail corridor. Notes there would be consequential amendments to rule references</p> <p>Support for definition of “noise sensitive activities”</p>

1.7 Iwi Authority Consultation and Advice

1.7.1 Consultation

Clause 3 of Schedule 1 of the RMA sets out the requirements for local authorities to consult with tangata whenua through and iwi authorities. Clause 3 also requires Local Authorities to consult with any person, group or ministry that may be affected by changes made to the District Plan.

Council used the following methods to create an Iwi Reference Group.

- Joint Management Agreement
- Tai Tumu Tai Pari Tai Ao (Waikato Tainui Environmental Plan)
- Partnerships
- Collaboration

The purpose of the Iwi Reference Group was to provide Council with a single forum to socialise the proposed changes to the Operative District Plan.

The Iwi Reference group was made up of all iwi and hapuu within the district that council currently consults with via the Resource Consent Process.

Engagement and consultation with the Iwi Reference group took place between December 2014 and December 2017. (See Part I Section 32 Report – Introduction to the Evaluation Report)

1.7.2 Advice

Under Clause 4A of Schedule I of the RMA sets out the requirements for local authorities to consult with iwi authorities before notifying a proposed plan. Clause 4A(1)(b) requires Council to have particular regard to any advice received on a draft proposed policy statement or plan from those iwi authorities.

Council held discussions with the relevant Iwi and Hapuu and through Te Kahui Mangai website:

Iwi authorities within Waikato District:

- Waikato Tainui
- Ngaati Tamaoho

Iwi for the purpose of RMA list on Te Kahui Mangai

- Tainui o Tainui

Iwi that have relationship from other districts

- Hauraki
- Ngaati Maniapoto
- Ngaati Paoa - Hauraki

The above Iwi groups were consulted with and a summary of their comments issues and Council's consideration are listed in Part I Section 32 Report – Introduction to the Evaluation Report.

The following amendments have been made to the PDP provisions in response to advice received from iwi (additions are underlined):

6.4.5 Policy – Roading Infrastructure

(a) *Ensure that roading infrastructure is developed so that:*

- (i) *the design, location, alignment and dimensions of new roads provide safe vehicle, pedestrian and cycling access and manoeuvring to every site;*
- (ii) *the roading pattern provides good connectivity to the site and integrates with adjacent land identified as future growth areas including public transport such as bus stops;*
- (iii) *there is adequate provision of on-site parking and manoeuvring for land use activities; and*
- (iv) *contaminants generated, are appropriately mitigated*

1.8 Decision-making

While the matter of transport was not taken to any council meetings for a formal resolution, it was covered at the workshops with Councillors. The following table outlines the dates of those workshops and the content.

Table 3 Summary of decision-making processes

Meeting / Feedback	Document	Decision/direction
23 August 2016 Presentation to Councillors	<ul style="list-style-type: none"> • The Infrastructure chapter will include what was previously the utilities and land transport network provisions; • The Infrastructure provisions are required to address a number of higher order planning documents; • New provisions relating to 'Essential Infrastructure' are proposed as well as amendments to the existing infrastructure objectives; • The Significant Industry, Infrastructure, Primary Production and Research Sites issue requires further refining; • A new issue and objective relating to Reverse Sensitivity of Land Use with Regionally Significant Infrastructure is proposed; • The existing Urban Expansion issue and objective within the Waikato Section is no longer required specifically for the Infrastructure chapter; and • The existing objectives contained within in Appendix B of the Waikato Section are either covered by the other objectives or they can be developed as policies. 	Support for the stand alone Infrastructure chapter
7 August 2017 Presentation to Councillors	<ul style="list-style-type: none"> • Update on progress • Feedback from the stakeholder workshops • Findings from the Issues and Options Report • Principles to guide development of the chapter • Statutory considerations including the RPS, NPS, NES, NZCPS • Broad approach of objectives • The draft issues, objectives and policies • Draft definitions 	
15 August 2017 Presentation to the Councillors	<ul style="list-style-type: none"> • Structure of the rules • Organisation of chapter by the type of infrastructure • Approach to the chapter • General themes 	

	<ul style="list-style-type: none"> • Rules associated with general infrastructure • Rules associated with National Grid • Electricity distribution • Electricity generation • Small-scale renewable electricity • Wastewater, water supply and stormwater • Infrastructure standards • Development standards • Telecommunications • Transportation • Parking and access • Liquid fuels and gas • Meteorological • Matters that were still being worked on 	
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1.9 Reference to Other Relevant Evaluations

This Section 32 topic report should be read in conjunction with the Section 32 evaluations for:

- Infrastructure;
- Historic heritage;
- Tangata whenua;
- Landscapes and natural character; and
- Biodiversity.

2 ISSUES, OBJECTIVES, POLICIES AND RULES

2.1 Higher Level Planning Documents and Legislation

Under section 75(3) of the RMA, a district plan must give effect to the following:

- (a) any national policy statement; and
- (b) any New Zealand coastal policy statement; and
- (c) any regional policy statement.

In respect to infrastructure provisions, these statutory documents are discussed in terms of their relevance to transport.

2.1.1 National Policy Statement for Urban Development Capacity

The National Policy Statement for Urban Development Capacity (NPS-UDC) recognises the national significance of well-functioning urban environments, with particular focus on ensuring that local authorities, through their planning, both:

- enable urban environments to grow and change in response to the changing needs of the communities, and future generations; and
- provide enough space for their populations to happily live and work. This can be both through allowing development to go “up” by intensifying existing urban areas, and “out” by releasing land in greenfield areas.

This national policy statement covers development capacity for both housing and business, to recognise that mobility and connectivity between both are important to achieving well-functioning urban environments. Planning should promote accessibility and connectivity between housing and businesses. It is up to local authorities to make decisions about what sort of urban form to pursue.

This national policy statement recognises that the benefits of the statement are greatest in urban areas experiencing the highest levels of growth. It takes a tiered approach to the application of policies using the Statistics New Zealand urban areas classification, and population projections to target different policies to different local authorities. This classification also informs local authorities that they must work together. The boundaries of the urban areas do not restrict the area in which the local authorities apply the policies.

Local authorities that have a high-growth urban area within their jurisdiction are expected to meet all of the requirements of policies in this national policy statement, while local authorities with medium-growth urban areas in their jurisdiction, and all other local authorities, have lesser requirements, as per the table below.

Waikato District Council is identified as a high growth Council in relation to the NPS-UDC. There is strong objective and policy support in the NPS-UDC for land use and infrastructure to be coordinated, and for growth to be serviced by appropriate infrastructure. “Development infrastructure” in the NPS-UDC includes transport:

Development infrastructure means network infrastructure for water supply, wastewater, stormwater, and land transport as defined in the Land Transport Management Act 2003, to the extent that it is controlled by local authorities.

The most relevant provisions in relation to transport are:

ODI: Urban environments where land use, development, development infrastructure and other infrastructure are integrated with each other.

PAI: Local authorities shall ensure that at any one time there is sufficient housing and business land development capacity according to the table below:

<i>Short term</i>	<i>Development capacity must be feasible, zoned and serviced with development infrastructure</i>
<i>Medium term</i>	<i>Development capacity must be feasible, zoned and either:</i> <ul style="list-style-type: none"> • <i>serviced with development infrastructure, or</i> • <i>the funding for the development infrastructure required to service that development capacity must be identified in a Long Term Plan required under the Local Government Act 2002.</i>

Long-term	<i>Development capacity must be feasible, identified in relevant plans and strategies, and the development infrastructure required to service it must be identified in the relevant Infrastructure Strategy required under the Local Government Act 2002.</i>

PA3: When making planning decisions that affect the way and the rate at which development capacity is provided, decision-makers shall provide for the social, economic, cultural and environmental wellbeing of people and communities and future generations, whilst having particular regard to:

b) Promoting the efficient use of urban land and development infrastructure and other infrastructure;

PD4: Local authorities shall work with providers of development infrastructure, and other infrastructure, in preparing a future development strategy under policy PC12.

2.1.2 New Zealand Coastal Policy Statement

The purpose of the New Zealand Coastal Policy Statement (NZCPS) is to state objectives and policies in order to achieve the purpose of the RMA in relation to the coastal environment of New Zealand. The NZCPS 2010 took effect on 3 December 2010.

The NZCPS has relevance to transport; recognising the provision of infrastructure within the coastal environment is important to the social, economic and cultural well-being of people and communities, and addressing issues such as the risk to existing infrastructure from coastal erosion and coastal hazards.

The provisions of the NZCPS which are considered to be applicable are outlined below. The identification of the extent of the coastal environment (as required by Policy 1 of the NZCPS) will be critical for application of the NZCPS. Indeed, Objective 1(2)(i) recognises that the coastal environment contains physical resources and built facilities, including infrastructure, that have modified the coastal environment.

The King Salmon Supreme Court decision has had wide ranging consequences and has changed the way policies are interpreted. This decision has set a precedent that applying an overall judgment of is not appropriate when giving effect to provisions in higher order planning documents and prescriptive policies are likely to be awarded more weight than flexible ones (e.g. highly directive verbs such as avoid, protect etc). The decision has indicated that the use of the word “avoid” adverse effects is an absolute for the matters listed. This is of particular relevance to policies which require adverse effects to be *avoided* (Policies 5, 11, 13 and 15). What this means for transport is that infrastructure activities in the following areas in the coastal environment will need to be managed differently from the rest of the district:

- land or waters in the coastal environment held or managed under the Conservation Act 1987 and any Act listed in the 1st Schedule to that Act; or other Acts for conservation or protection purposes (Policy 5)
- areas of outstanding natural character (Policy 13(1)(a))

- outstanding natural features and outstanding natural landscapes in the coastal environment (Policy 15(a))

All of the NZCPS policies referring to activities or use and development are relevant to infrastructure. However there are a number which are specific to infrastructure which are set out in Table 4 below.

Table 4: New Zealand Coastal Policy Statement provisions relevant to transport

NZCPS Provision	Significance for PDP transport provisions
<p><i>Objective 4</i></p> <p><i>To maintain and enhance the public open space qualities and recreation opportunities of the coastal environment by:</i></p> <ul style="list-style-type: none"> • <i>recognising that the coastal marine area is an extensive area of public space for the public to use and enjoy;</i> • <i>maintaining and enhancing public walking access to and along the coastal marine area without charge, and where there are exceptional reasons that mean this is not practicable providing alternative linking access close to the coastal marine area; and</i> • <i>recognising the potential for coastal processes, including those likely to be affected by climate change, to restrict access to the coastal environment and the need to ensure that public access is maintained even when the coastal marine area advances inland.</i> 	<p>Walking and public access within the coastal environment is relevant to transport in so much as the Proposed District Plan will need to contain provisions relating to footpaths/shared paths.</p>
<p><i>Objective 6</i></p> <p><i>To enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety, through subdivision, use, and development, recognising that:</i></p> <ul style="list-style-type: none"> • <i>the protection of the values of the coastal environment does not preclude use and development in appropriate places and forms, and within appropriate limits;</i> • <i>some uses and developments which depend upon the use of natural and physical resources in the coastal environment are important to the social, economic and cultural wellbeing of people and communities;</i> 	<p>There are transport networks which are required in the coastal environment.</p>
<p><i>Policy 4 Integration</i></p> <p><i>Provide for the integrated management of natural and physical resources in the coastal</i></p>	<p>The key theme of this policy is integration with adjoining councils. This is been highlighted as an issue, particularly for the roading network on the boundary with</p>

<p><i>environment, and activities that affect the coastal environment. This requires:</i></p> <p><i>(a) co-ordinated management or control of activities within the coastal environment, and which could cross administrative boundaries, particularly:</i></p> <p><i>(i) the local authority boundary between the coastal marine area and land;</i></p> <p><i>(ii) local authority boundaries within the coastal environment, both within the coastal marine area and on land; and</i></p> <p><i>(iii) where hapū or iwi boundaries or rohe cross local authority boundaries;</i></p> <p><i>(b) working collaboratively with other bodies and agencies with responsibilities and functions relevant to resource management, such as where land or waters are held or managed for conservation purposes; and</i></p> <p><i>(c) particular consideration of situations where:</i></p> <p>...</p> <p><i>(iii) development or land management practices may be affected by physical changes to the coastal environment or potential inundation from coastal hazards, including as a result of climate change; or</i></p> <p>...</p> <p><i>(v) significant adverse cumulative effects are occurring, or can be anticipated.</i></p>	<p>adjoining councils to compromise optimum networks and development within Waikato.</p>
<p>Policy 6</p> <p><i>1. In relation to the coastal environment:</i></p> <p><i>b. consider the rate at which built development and the associated public infrastructure should be enabled to provide for the reasonably foreseeable needs of population growth without compromising the other values of the coastal environment;...</i></p> <p><i>2. Additionally, in relation to the coastal marine area:</i></p> <p><i>a. recognise potential contributions to the social, economic and cultural wellbeing of people and communities from use and development of the coastal marine area, including the potential for renewable marine energy to contribute to meeting the energy needs of future generations;</i></p> <p><i>b. recognise the need to maintain and</i></p>	<p>There are multiple components to Policy 6 The NZCPS Guidance Notes explain the rationale for this policy as recognising that a number of activities occur within or affect the coastal environment. The guidance notes give examples of those activities with a functional need to be located in the coastal marine area as ports, marine aquaculture and marine energy. Such activities can be very important contributors to the existing and future health and well-being of communities so long as they are located and managed appropriately.</p> <p>Policy 6(2) requires recognition of the potential contributions to the social, economic and cultural wellbeing of people and communities from use and development of the coastal marine area.</p> <p>The concept of “appropriate places” is</p>

<p><i>enhance the public open space and recreation qualities and values of the coastal marine area;</i></p> <p><i>c. recognise that there are activities that have a functional need to be located in the coastal marine area, and provide for those activities in appropriate places;</i></p> <p><i>d. recognise that activities that do not have a functional need for location in the coastal marine area generally should not be located there; and...</i></p>	<p>introduced in this Policy – in that it requires activities which have a functional need to be located in the coast to be provided for in appropriate places. The weakness of this Policy is that it provides no guidance as to what constitutes an “appropriate place”. However given that this Policy applies to a range of activities including aquaculture, appropriate places for one activity will not be the same for another activity, which is possibly why Policy 6(2)(c) is left deliberately broad.</p> <p>This policy also recognises, in relation to the coastal environment, the importance of infrastructure and energy generation to wellbeing whilst ensuring other values of the coastal environment are not compromised.</p>
<p>Policy 9 Ports</p> <p><i>Recognise that a sustainable national transport system requires an efficient national network of safe ports, servicing national and international shipping, with efficient connections with other transport modes, including by:</i></p> <p><i>a. ensuring that development in the coastal environment does not adversely affect the efficient and safe operation of these ports, or their connections with other transport modes; and</i></p> <p><i>b. considering where, how and when to provide in regional policy statements and in plans for the efficient and safe operation of these ports, the development of their capacity for shipping, and their connections with other transport modes.</i></p>	<p>This policy highlights, in the context of ports, the importance of a transport network which operates safe and efficiently and is well connected.</p>
<p>Policy 18 Public open space</p> <p><i>Recognise the need for public open space within and adjacent to the coastal marine area, for public use and appreciation including active and passive recreation, and provide for such public open space, including by:</i></p> <p><i>(a) ensuring that the location and treatment of public open space is compatible with the natural character, natural features and landscapes, and amenity values of the coastal environment;</i></p> <p><i>(b) taking account of future need for public open space within and adjacent to the coastal</i></p>	<p>This policy is particularly relevant for multi-modal transport networks including walking and cycling.</p>

<p>marine area, including in and close to cities, towns and other settlements;</p> <p>(c) maintaining and enhancing walking access linkages between public open space areas in the coastal environment;</p> <p>(d) considering the likely impact of coastal processes and climate change so as not to compromise the ability of future generations to have access to public open space; and</p> <p>(e) recognising the important role that esplanade reserves and strips can have in contributing to meeting public open space needs.</p>	
<p><i>Policy 19</i></p> <p><i>1. Recognise the public expectation of and need for walking access to and along the coast that is practical, free of charge and safe for pedestrian use.</i></p> <p><i>2. Maintain and enhance public walking access to, along and adjacent to the coastal marine area, including by:</i></p> <p><i>a. identifying how information on where the public have walking access will be made publicly available;</i></p> <p><i>b. avoiding, remedying or mitigating any loss of public walking access resulting from subdivision, use, or development; and</i></p> <p><i>c. identifying opportunities to enhance or restore public walking access, for example where:</i></p> <p><i>i. connections between existing public areas can be provided; or</i></p> <p><i>ii. improving access would promote outdoor recreation; or</i></p> <p><i>iii. physical access for people with disabilities is desirable; or</i></p> <p><i>iv. the long-term availability of public access is threatened by erosion or sea level rise; or</i></p> <p><i>v. access to areas or sites of historic or cultural significance is important; or</i></p> <p><i>vi. subdivision, use, or development of land adjacent to the coastal marine area has reduced public access, or has the potential to do so.</i></p> <p><i>3. Only impose a restriction on public walking</i></p>	<p>Walking and public access within the coastal environment is relevant to this Project in so much as the Proposed District Plan will need to contain provisions relating to footpaths/shared paths</p>

<p><i>access to, along or adjacent to the coastal marine area where such a restriction is necessary:</i></p> <p><i>a.to protect threatened indigenous species; or</i></p> <p><i>b.to protect dunes, estuaries and other sensitive natural areas or habitats; or</i></p> <p><i>c.to protect sites and activities of cultural value to Māori; or</i></p> <p><i>d.to protect historic heritage; or</i></p> <p><i>e.to protect public health or safety; or</i></p> <p><i>f.to avoid or reduce conflict between public uses of the coastal marine area and its margins; or</i></p> <p><i>g.for temporary activities or special events; or</i></p> <p><i>h.for defence purposes in accordance with the Defence Act 1990; or</i></p> <p><i>i.to ensure a level of security consistent with the purpose of a resource consent; or</i></p> <p><i>j.in other exceptional circumstances sufficient to justify the restriction.</i></p>	
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Policy 25 relates to coastal hazards and encourages infrastructure to be located away from areas of hazard risk where practicable. The matter of coastal hazards will be progressed through a second stage notification of the PDP.

2.1.3 Waikato Regional Policy Statement

The Operative Waikato Regional Policy Statement (RPS) provides an overview of the resource management issues in the Waikato region, and the ways in which integrated management of the region’s natural and physical resources will be achieved.

The provisions of the RPS which applicable to transport are outlined below. Significant transport corridors as defined in Map 6.1 and 6.1A of the RPS are included in the term “regionally significant infrastructure” so all the objectives and policies relevant to regionally significant infrastructure also apply to that portion of the transport network.

The RPS highlights providing for energy demand and managing the built environment as key issues for the Waikato Region.

A large number of the issues, objectives and policies of the RPS are relevant to the management of transport to some degree, but the most relevant are discussed below.

Table 5: RPS provisions relevant to transport

Objective 3.12 Built Environment	<p><i>Development of the built environment (including transport and other infrastructure) and associated land use occurs in an integrated, sustainable and planned manner which enables positive environmental, social, cultural and economic outcomes, including by:</i></p> <p><i>c) integrating land use and infrastructure planning, including by ensuring that development of the built environment does not compromise the safe, efficient and effective operation of infrastructure corridors;</i></p> <p><i>e) recognising and protecting the value and long-term benefits of regionally significant infrastructure;</i></p>
Policy 6.1 Planned and co-ordinated subdivision, use and development	<p><i>Subdivision, use and development of the built environment, including transport, occurs in a planned and co-ordinated manner which:</i></p> <p><i>a) has regard to the principles in section 6A;</i></p> <p><i>b) recognises and addresses potential cumulative effects of subdivision, use and development;</i></p> <p><i>c) is based on sufficient information to allow assessment of the potential long-term effects of subdivision, use and development; and</i></p> <p><i>d) has regard to the existing built environment.</i></p>
6.3 Co-ordinating growth and infrastructure	<p><i>Management of the built environment ensures:</i></p> <p><i>a) the nature, timing and sequencing of new development is co-ordinated with the development, funding, implementation and operation of transport and other infrastructure, in order to:</i></p> <p style="padding-left: 40px;"><i>i) optimise the efficient and affordable provision of both the development and the infrastructure;</i></p> <p style="padding-left: 40px;"><i>ii) maintain or enhance the operational effectiveness, viability and safety of existing and planned infrastructure;</i></p> <p style="padding-left: 40px;"><i>iii) protect investment in existing infrastructure; and</i></p> <p style="padding-left: 40px;"><i>iv) ensure new development does not occur until provision for appropriate infrastructure necessary to service the development is in place;</i></p> <p><i>b) the spatial pattern of land use development, as it is likely to develop over at least a 30-year period, is understood sufficiently to inform reviews of the Regional Land Transport Plan. As a minimum, this will require the development and maintenance of growth strategies where strong population growth is anticipated;</i></p> <p><i>c) the efficient and effective functioning of infrastructure, including transport corridors, is maintained, and the ability to maintain and upgrade that infrastructure is retained; and</i></p> <p><i>d) a co-ordinated and integrated approach across regional and district boundaries and between agencies; and</i></p> <p><i>e) that where new infrastructure is provided by the private sector, it does not compromise the function of existing, or the planned provision of, infrastructure provided by central, regional and local government agencies.</i></p>

<p>Policy 6.6 Significant infrastructure and energy resources</p>	<p>Management of the built environment ensures particular regard is given to:</p> <p>a) that the effectiveness and efficiency of existing and planned regionally significant infrastructure is protected;</p> <p>b) the benefits that can be gained from the development and use of regionally significant infrastructure...</p>
<p>Implementation methods</p> <p>6.6.1 Plan provisions</p>	<p>Regional and district plans shall include provisions that give effect to Policy 6.6, and in particular, that management of the built environment:</p> <p>a) avoids, as far as practicable, adverse effects on the function of significant transport corridors as defined in Maps 6.1 and 6.1A (section 6B), and otherwise remedies or mitigates any adverse effects that cannot be practicably be avoided;</p> <p>b) avoids, as far as practicable, the adverse effects of ribbon development along the defined significant transport corridors, and otherwise remedies or mitigates any adverse effects that cannot practicably be avoided;</p> <p>c) avoids as far as practicable, the need for additional access points onto the defined significant transport corridors, and otherwise remedies or mitigates the adverse effects of any additional access points that cannot practicably be avoided;</p> <p>d) avoids as far as is practicable, the exacerbation of community severance caused by defined significant transport corridors, and otherwise remedies or mitigates the adverse effects of any exacerbated community severance that cannot practicably be avoided;</p>
<p>6.14 Adopting Future Proof land use pattern</p>	<p>Within the Future Proof area:</p> <p>f) new industrial development outside the strategic industrial nodes must avoid, remedy or mitigate adverse effects on the arterial function of the road network, and on other infrastructure;</p> <p>h) where land is required for activities that require direct access to Hamilton Airport runways and where these activities cannot be accommodated within the industrial land allocation in Table 6-2, such activities may be provided for within other land adjacent to the runways, providing adverse effects on the arterial road network and other infrastructure are avoided, remedied or mitigated.</p>
<p>6A Development Principles</p>	<p>New development should:</p> <p>d) not compromise the safe, efficient and effective operation and use of existing and planned infrastructure, including transport infrastructure, and should allow for future infrastructure needs, including maintenance and upgrading, where these can be anticipated;</p> <p>i) promote compact urban form, design and location to:</p> <ul style="list-style-type: none"> i) minimise energy and carbon use; ii) minimise the need for private motor vehicle use; iii) maximise opportunities to support and take advantage of public transport in particular by encouraging employment activities in locations that are or can in the future be served efficiently by public

	<p><i>transport;</i></p> <p><i>iv) encourage walking, cycling and multi-modal transport connections; and</i></p> <p><i>v) maximise opportunities for people to live, work and play within their local area;</i></p> <p><i>Principles specific to rural-residential development</i></p> <p><i>As well as being subject to the general development principles, new rural-residential development should:</i></p> <p><i>d) avoid ribbon development and, where practicable, the need for additional access points and upgrades, along significant transport corridors and other arterial routes;</i></p>
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The emphasis of the RPS is to:

- Integrate infrastructure with land use;
- Infrastructure enables people and communities to provide for their well-being;
- Manage reverse sensitivity with regards to infrastructure corridors;
- Development maintain and enhances the safe, efficient and effective use of existing infrastructure;
- Recognise and protect regionally significant infrastructure;
- Protect the function of significant transport corridors through avoiding ribbon development and additional access points
- Protect existing and planned infrastructure corridors;

2.1.4 Vision and Strategy

As set out in Section 2 of the RPS, the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 (the Settlement Act) gives effect to the Deed of Settlement signed by the Crown and Waikato-Tainui on the 17 December 2009. The Settlement Act has an overarching purpose to restore and protect the health and wellbeing of the Waikato River for future generations. Section 9(2) of the Settlement Act confirms that the vision and strategy for Waikato River (Te Ture Whaimana o Te Awa o Waikato) applies to the Waikato River and activities within its catchment affecting the Waikato River.

Those objectives and policies specific to transport infrastructure in the Waikato-Tainui Environmental Plan are outlined below in Table 6.

Table 6: Provisions specific to transport infrastructure in the Waikato-Tainui Environmental Plan

Objective – Waikato-Tainui	<i>26.3.1 Infrastructure development, upgrade, and maintenance within the Waikato-Tainui rohe occurs in partnership with Waikato-Tainui.</i>
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engagement	
Policy – Waikato-Tainui engagement	<i>26.3.1.1 To ensure that infrastructure development, upgrade and maintenance within the Waikato-Tainui rohe occurs in partnership with Waikato-Tainui.</i>
Objective – infrastructure development, upgrade, and maintenance	<i>26.3.2 Infrastructure development, upgrade, and maintenance manages economic, social, cultural, spiritual, and environmental effects.</i>
Policy – infrastructure development, upgrade and maintenance	<p><i>26.3.2.1 To ensure that infrastructure development, upgrade, and maintenance manages economic, social, cultural, spiritual, and environmental effects.</i></p> <p><i>Methods</i></p> <p><i>(a) Infrastructure development shall avoid land in Maaori ownership except with the agreement of the Maaori owners.</i></p> <p><i>(b) New infrastructure development shall take into account the enhancement principles contained in Chapter 7 “Te Whakapakari i Te Taiao - Towards environmental enhancement”. As a minimum all existing infrastructure shall be managed to sustain the ability of the environment to provide for future generations.</i></p> <p><i>(c) Ensure that, in the development of new infrastructure, best practice approaches and appropriate environmentally sustainable and enhancing technologies are applied to ensure, as far as practicable, any adverse impacts on the environment or cultural and/or spiritual resources are avoided.</i></p> <p><i>(d) Infrastructure development and management shall be planned to manage adverse effects on water bodies, stormwater, water supply and wastewater systems.</i></p> <p><i>(e) The cumulative effect of infrastructure provision shall be considered as well as the effect of a single piece of infrastructure.</i></p> <p><i>(f) When assessing infrastructure needs or making decisions on designations or consents regarding infrastructure, the adverse effects should be managed so as to achieve the objectives in this Plan. In particular adverse effects should be avoided on:</i></p> <ul style="list-style-type: none"> <i>i. Land held in Maaori title or in the ownership of Waikato-Tainui;</i> <i>ii. Waahi tapu and other sites of significance to Waikato-Tainui;</i> <i>iii. Oceans, rivers, lakes, and wetlands that would hinder achieving the objectives and policies contained in the water management, fisheries and cultural chapters of the Plan;</i> <i>iv. Areas of significant indigenous vegetation or habitats of taonga species;</i> <i>v. Customary activities or fisheries;</i> <i>vi. Natural hazards; and</i> <i>vii. Culturally and/or spiritually significant landscapes and view shafts.</i> <p><i>(g) In the event that adverse effects cannot be avoided, discussions shall be held with Waikato-Tainui to agree if the effects can be managed.</i></p> <p><i>(h) Any local adverse effects of infrastructure that cannot be avoided, remedied, or minimised should be discussed with Waikato-Tainui to discuss whether the effect can be mitigated and compensated near the locality where the adverse effects occur, or elsewhere as agreed with</i></p>

	<i>Waikato-Tainui.</i>
Objective 26.3.4	<i>Transportation infrastructure is developed and managed in a manner that provides for social, cultural, spiritual, economic, and environmental needs.</i>
Policy – transportation	<p><i>26.3.4.1 To ensure that transportation infrastructure is developed and managed in a manner that provides for social, cultural, spiritual, economic, and environmental needs.</i></p> <p><i>Method</i></p> <p><i>(a) The methods for policy 25.3.2.1 and the policies and methods for Chapter 25, ‘Ngaa whakaritenga moo ngaa whenua o Waikato-Tainui – land use planning’ shall apply for this policy.</i></p> <p><i>(b) Sustainable transport options should be incorporated into subdivisions and developments including options for public transport, carpooling, walking, and cycling.</i></p>

2.1.5 Maniapoto Environmental Management Plan

The Maniapoto Environmental Management Plan was prepared by Maniapoto Māori Trust Board on behalf of the people of Maniapoto and is a high level direction setting document and describes issues, objectives, policies and actions to protect, restore and enhance the relationship of Maniapoto with the environment including their economic, social, cultural and spiritual relationships.

The objectives and policies most relevant to transport are outlined in Table 7.

Table 7: Provisions specific to transport in the Maniapoto Environmental Management Plan

22.3.4 Objective: Transport networks	<i>To ensure transport infrastructure connects Maniapoto communities and enables industry and businesses to develop while minimising negative impacts on the environment</i>
22.3.4.1 Policy	<p><i>Transport networks reduce costs and impacts on the environment through improved energy efficiency.</i></p> <p><i>Actions</i></p> <p><i>(a) Promote energy efficient transport networks and environmental enhancement initiatives</i></p> <p><i>(b) Ensure subdivision and land-use planning supports and enables all relevant modes of transport as a viable options for daily activities</i></p>
22.3.4.2 Policy	<p><i>Transport infrastructure avoids unacceptable adverse effects on the environment.</i></p> <p><i>Actions</i></p> <p><i>(a) Ensure transport infrastructure projects avoid adverse effects on significant sites, wāhi tapu, mahinga kai, kura, marae, urupā. If adverse effects cannot be avoided, then mitigation measures are to be agreed with Maniapoto.</i></p> <p><i>(b) Provide best practice waste and effluent disposal facilities for transport network users, including stock trucks, campervans, buses and boats</i></p>
22.3.4.3 Policy	<p><i>Land transport effects on air quality are managed effectively.</i></p> <p><i>Actions</i></p> <p><i>(a) Ensure vehicle emissions do not adversely impact upon customary use areas, marae, papakāinga, kura and kōhanga reo</i></p>

	<p>(b) Identify, investigate and remedy air pollution hotspots</p> <p>(c) Promote multi modal transport options that avoid emissions (e.g., walking and cycling) in all subdivision and similar land-use activities</p>
22.3.4.4 Policy	<p>Dependency on private vehicle use is reduced.</p> <p>Actions</p> <p>(a) Plan layout and design of subdivisions and developments to provide, enable and promote access to more sustainable means of transport, including public transport, walking and cycling</p> <p>(b) Install best practice cycling infrastructure that meets the needs of all users</p> <p>(c) Design public transport services to be efficient and effective</p>
22.3.5 Objective: Transport networks	To minimise adverse effects on Maniapoto of transportation
22.3.5.1 Policy	<p>Risks that Maniapoto are exposed to from transport users are reduced.</p> <p>Actions</p> <p>(a) Ensure public agencies provide traffic management at all special Maniapoto events in recognition of the public safety benefits</p> <p>(b) Ensure appropriate speed limits and other signage is posted and enforced near marae, kura and other Maniapoto facilities</p>
22.3.5.2 Policy	<p>Adverse effects of transport infrastructure are reduced.</p> <p>Actions</p> <p>(a) Ensure safety and design of transport infrastructure around marae, kura and other Maniapoto facilities, and sites of significance protects human safety and health.</p> <p>(b) Work with communities to regularly review mitigation measures for transport, including heavy traffic bypasses and engine braking restrictions</p>

2.1.6 Waikato Regional Land Transport Plan 2015 – 2045

The Waikato Regional Land Transport Plan (WRLTP) has been developed for the region by the Waikato Regional Transport Committee, and sets out:

- How it intends to develop the region’s land transport system over the next 30 years; and
- What regional transport activities are proposed for investment (local and/or central government) over the next six years.

The WRLTP replaces the previous Regional Land Transport Strategy and Regional Land Transport Programme.

Whilst the WRLTP is not a document specifically required under the RMA for the Proposed District Plan to give effect to, it is considered relevant given it has been prepared to complement and implement key WRPS built environment policies.

The following are the six regional land transport objectives identified in the WRLTP. These are intended to help achieve the purpose of the Land Transport Management Act aim of an effective, efficient, and safe land transport system in the public interest.

1. Integration and forward planning – "An integrated and aligned land use and transport system."
2. Facilitating Economic Development – "An effective and efficient land transport system that enhances economic wellbeing, and supports growth and productivity within the Waikato region and upper North Island."

3. Road safety – “To achieve a significant reduction in risk, deaths and injuries across the Waikato region.”
4. Affordability – “An adaptable and flexible approach to managing and developing the land transport system that optimises funding options and provides innovative management approaches to best meet the needs of the region in an affordable way.”
5. Access and mobility – “Communities in the Waikato have access to a multi-modal land transport system that functions effectively to meet their social, cultural and economic needs.”
6. Environmental sustainability and resilience – “An environmentally sustainable and energy efficient land transport system that is robust and resilient to external influences.”

The WRLTP highlights the importance of integrated land use and transport planning: an integrated regional land transport system that enables a range of economic, social and environmental outcomes to be met at local, regional and wider spatial scales.

There are a number of policies which are relevant, however the key messages are:

- Ensure land development takes into account the existing transport hierarchy and future requirements of the transport network;
- Ensure land development does not compromise the safety and efficiency of strategic transport corridors;
- Ensure the transport network provides for all modes of transport;
- Develop, maintain and protect key strategic corridors;
- Protect and promote the development of the regional rail network for the transportation of freight;
- Adopt the one network approach to ensure ‘whole of journey’ people and goods movements within the region.
- Develop efficient processes and freight routes for the movement of high productivity motor vehicles through the region.
- Improve travel demand management measures between Hamilton and satellite towns.
- Plan and develop the region’s transport network to enable appropriate connectivity between local networks and strategic corridors.
- Manage transport demand in the Future Proof sub-region and improve transport choices.
- Recognise and plan for the anticipated effects arising from system resilience issues, such as climate change, alternative fuels and technological change.

While the objectives of the WRLTP are high-level and are addressing land transport issues at a regional level, the themes (in bold above) of integration, wellbeing and productivity, safety, multi-modal accessibility and sustainability are relevant to the Project in the context of the Proposed District Plan.

Some of these themes/matters are either addressed within the current District Plan provisions or can readily be included.

2.1.7 Future Proof

Waikato District Council is required to, in consultation with Waikato Regional Council, tangata whenua and the NZ Transport Agency, review or prepares changes to their district plans and structure plans to identify locations and limits for future

urban development, including future areas of major commercial and industrial development. The district plans shall ensure that urban development is located and managed in accordance with Policy 6.14.

2.2 Issues

The evaluation of objectives and provisions in the following sections relate to the resource management issue stated below:

Issue statement	Land use needs to be integrated with transport
	Land use activities including subdivision and development can significantly influence travel behaviour. Land uses can either reduce the need for private vehicle travel or increase walking, cycling and public transport patronage or conversely increase the reliance on private vehicles.
	Urban form and transport are inextricably linked. Development of transport infrastructure is a considerable investment and is costly to maintain. Planning the integration of land use and transport can open opportunities to improving transport choice and enabling the community to improve their wellbeing and reduce overall costs.
Issue statement	Piecemeal development can lead to a reduction in connectivity for the network.
	The network needs to be connected to enable choices of route and resilience when a portion of the roading network is blocked.
Issue statement	Pedestrians and cyclists currently use parts of the road network that do not provide an appropriate level of service or are not fit for purpose because the walking and cycling network is incomplete.
	This compromises safety of these vulnerable road users and contributes to a low uptake of walking and cycling.
Issue statement	The characteristics of the transport network limits the choices of modes of travel
	The reliance on private vehicle travel has adverse environmental and health effects. Further, gaps in the walking and cycling network and minimal provision of public transport contributes to low use of these more sustainable, lower energy and less polluting modes. Waikato District has a dispersed land use pattern. This often discourages many residents from using sustainable modes of transport and as a consequence results in relatively high rates of private vehicle travel, both within and out of the District.
Issue statement	Damage to road infrastructure, noise and amenity impacts occurs due to movement of large numbers of heavy vehicles through residential areas of the District.
	The form and function of the residential roads is often not suited to heavy vehicles. In addition, heavy vehicles can create amenity effects with vibration, noise, air brakes, gear changing and diesel fumes. Dedicated and connected freight routes need to be provided that provide heavy vehicle access to key destinations such as industrial zones.
Issue statement	The design, location and scale of vehicle parking areas can have a large impact on development form, and the number of parks needs to be sufficient for the proposed activity.
	The location and number of vehicle parks required by developments must be balanced with

the demand for parking and visual and other environmental (e.g. stormwater run-off) effects.	
Issue statement	The integrated, safe, responsive and sustainable operation of the land transport network, particularly the road network, can be adversely affected by land use activities and subdivision
Every activity generates vehicle movements, but the road network may not be capable of accommodating the additional loading in that particular location. Additional unforeseen vehicles can exacerbate congestion or create safety issues.	
Issue statement	The roading form and function needs to be appropriate to the users and the surrounding land uses
The transport network can come in many forms, ranging from a multi-lane grade separated expressway to a narrow cul-de-sac. The form and function of the road needs to reflect not only the type and volume of traffic that it will carry, but also how this form is appropriate to the surrounding environment.	

3 EVALUATION OF OBJECTIVES

Below is a summary of the objectives that have been identified as the most appropriate to address this resource management issue and achieve the purpose of the Resource Management Act 1991.

The following objectives are considered to be the most appropriate way to achieve the purpose of the Act.

Table 8 Summary of objectives

Objective	Summary of evaluation
<p data-bbox="252 248 639 342">6.1.1 Objective – Development, Operation and Maintenance of Infrastructure</p> <p data-bbox="252 387 596 551">Infrastructure is developed, operated and maintained to benefit the social, economic, cultural and environmental well-being of the district.</p>	<p data-bbox="694 248 1409 517">The transport network consists of the physical structures and networks that support and provide essential connections to the communities of the district. Recognising the need to develop, operate and maintain the transport network is critical to the District’s economic productivity, environmental outcomes and wellbeing of the community. The benefits of this infrastructure to the functioning of the district are therefore substantial.</p> <p data-bbox="694 555 1409 719">A connected and reliable transport network is vital to the functioning of the District. It enables people and communities to provide for their social, economic and cultural wellbeing in accordance with Section 5(2) of the Act.</p> <p data-bbox="694 757 1409 1061">The recognition of the need to develop, operate and maintain the transport network (in all its forms and modes of transport) is fundamental to both present and future communities. Given the wear and tear from vehicles, maintaining the transport network is vital for retaining levels of service. In this respect the Objective achieves the part of Section 5(2)(a) which seeks to sustain the potential of natural and physical resources to meet needs of future generations.</p> <p data-bbox="694 1099 1409 1339">The importance of the transport network is recognised by the RPS, and this Objective gives effect to this higher order planning documents. RPS recognises the importance through Policy 6.3(c) which seeks to maintain the efficient and effective functioning of infrastructure including transport corridors. This policy also seeks to retain the ability to maintain and upgrade that infrastructure.</p>
<p data-bbox="252 1346 564 1406">6.1.6 Objective – Reverse Sensitivity</p> <p data-bbox="252 1451 639 1615">Infrastructure is protected from reverse sensitivity effects, and infrastructure (including the National Grid) is not compromised.</p>	<p data-bbox="694 1346 1409 1711">The protection of the transport network from reverse sensitivity effects is critical to the District’s economic productivity, environmental outcomes and wellbeing of the community. The benefits of this infrastructure to the functioning of the district are substantial. The matter of reverse sensitivity is not just relevant to the properties adjacent to the transport network; the mitigation of reverse sensitivity could have implications for the wider network. For example, the exclusion of heavy vehicles from a particular route may have wider consequences as those heavy vehicles are forced to use alternative routes.</p> <p data-bbox="694 1749 1409 1912">A reliable and well-functioning transport network supply is vital to the functioning of the District. It enables people and communities to provide for their social, economic and cultural wellbeing in accordance with Section 5(2) of the Act.</p> <p data-bbox="694 1951 1409 2022">In this respect the Objective achieves this part of Section 5 ((s5(2)(a)) sustain the potential of natural and physical</p>

	<p>resources to meet needs of future generations.</p> <p>Protecting the transport network from reverse sensitivity issues also ensures the health and safety of people and communities in accordance with Section 5(2) of the Act. Activities such as building a dwelling too close to a state highway (for example) can adversely affect the health of the occupants. Adverse effects include noise, odour, light spill, glare and vibration.</p> <p>The potential for reverse sensitivity effects is recognised by the RPS. This Objective gives effect to this higher order planning documents. The RPS recognises the potential for reverse sensitivity in Objective 3.5(g) and Policy 4.4(g).</p>
<p>6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development</p> <p>Infrastructure is provided for, and integrated with, subdivision, use and development.</p>	<p>The integration and co-ordination of land uses with transport will enable people and communities to provide for their social, economic and cultural well-being in accordance with Section 5(2) of the Act. This objective ensures that the transport network is appropriate (both existing and future) to service the current and future land uses. It also ensures that development is in appropriate and accessible locations.</p> <p>The integration of transport infrastructure and land uses is addressed explicitly in the RPS. RPS Policy 6.3 requires the nature, timing and sequencing of new development is co-ordinated with the development, funding, implementation and operation of transport and other infrastructure. Similarly RPS Policy 6.1 requires subdivision, use and development of the built environment, including transport, to occur in a planned and co-ordinated manner. RPS Method 6.3.2 is explicit in its requirements for territorial authorities:</p> <p><i>Territorial authorities should, in association with Waikato Regional Council, the NZ Transport Agency and other infrastructure providers, ensure infrastructure planning and land use planning initiatives are aligned, and should co-ordinate the provision of appropriate infrastructure and services for new development prior to development occurring.</i></p> <p>The PDP gives effect to the RPS and is considered the most appropriate objective to achieve the Purpose of the Act.</p>
<p>6.1.8 Objective – Infrastructure in the Community and Identified Areas</p> <p>Infrastructure takes into account the qualities and characteristics of surrounding environments and community well-being.</p>	<p>While this objective is not specific to transport, it nonetheless is relevant to the transport network. This approach supports Section 5(2) of the Act which promotes the supports the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being. Roothing infrastructure is a prominent feature of development and its design can contribute to or detract from the character of an area. For example, a satellite coastal development such as Raglan will have a different roading layout and form from urban</p>

	Huntly. The transport network therefore can reflect the culture, characteristics and amenity of an area.
<p>6.51 Objective – Land Transport Network</p> <p>An integrated land transport network where:</p> <p>(a) All transport modes are accessible, safe and efficient; and</p> <p>(b) Adverse effects from the construction, maintenance and operation of the transport network are managed.</p>	<p>A reliable and well-functioning transport network supply is vital to the functioning of the District. It enables people and communities to provide for their social, economic and cultural wellbeing in accordance with Section 5(2) of the Act.</p> <p>The Objective achieves Section 5(2)(a) which seeks to sustain the potential of natural and physical resources to meet needs of future generations. An accessible, safe and efficient transport network will meet current and future generation's needs.</p> <p>Section 5(2) recognises the importance of the health and safety of people and communities. This objective is in accordance with that part of Section 5 as it ensures a safe transport network. Recognising the importance of all modes of transport is important too, as it enables people to exercise using walking and cycling as a viable alternative to the private vehicle, or for recreation reasons.</p> <p>The objective recognises the potential for adverse effects to be generated from construction, maintenance and operation of the transport network, and therefore achieves Section 5(2)(c).</p> <p>The importance of the transport network is recognised by the RPS, and this Objective gives effect to this higher order planning documents. The RPS recognises the importance through Policy 6.3(c) which seeks to maintain the efficient and effective functioning of infrastructure including transport corridors.</p> <p>This objective is considered the most appropriate for achieving the Purpose of the Act.</p>

4 SCALE AND SIGNIFICANCE EVALUATION

The level of detail undertaken for the evaluation of the proposed District Plan provisions has been determined by an assessment of the scale and significance of the implementation of the proposed District Plan provisions. The scale and significance assessment considered the environmental, economic, social and cultural effects of the provisions. In making this assessment regard has been had to the following, namely whether the provisions:

- (a) Are of regional or district wide significance;
- (b) Have effects on resources that are considered to be a matter of national importance in terms of Section 6 of the Act;
- (c) Adversely affect people's health and safety;
- (d) Result in a significant change to the character and amenity of local communities;

- (e) Adversely affect those with particular interests including Maori;
- (f) Limit options for future generations to remedy effects;
- (g) Whether the effects have been considered implicitly or explicitly by higher order documents; and
- (h) Include regulations or other interventions that will impose significant costs on individuals or communities.

The evaluation has focused on those provisions that will result in a substantial change to the management and development of the transport network and are of greater importance to ensure the relevant infrastructure objectives are achieved.

Policies and rules have been evaluated as a package, as together they address a particular issue and seek to meet a specific objective. Some rules implement more than one policy, and therefore have been referred to multiple times.

The following table contains a summary of the policies and rules considered to be of a scale and significance to justify a more comprehensive evaluation of options.

Table 9 Scale and significance assessment

Issue	Provisions evaluated	Scale and Significance Reasoning
Land use needs to be integrated with transport	<p>6.1.1 Objective – Development, Operation and Maintenance of Infrastructure</p> <p>6.5.1 Objective – Land Transport Network</p> <p>6.1.2 Policy - Development, Operation and Maintenance</p> <p>6.1.4 Policy – Infrastructure Benefits</p> <p>6.5.2 Policy – Construction and Operation of the Land Transport Network</p> <p>6.5.3 Policy – Road Hierarchy and Function</p> <p>6.5.4. Policy – Road Standards</p> <p>6.5.5 Policy - Road Safety</p> <p>6.5.6 Policy – Network Utility Location</p> <p>6.5.7 Policy – Vehicle Access</p> <p>6.1.6. Objective – Reverse Sensitivity</p> <p>6.1.7 Policy – Reverse Sensitivity and Infrastructure</p> <p>6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development</p> <p>6.4.2 Policy – Provide Adequate Infrastructure</p> <p>6.4.3 Policy – Infrastructure Location and Services</p> <p>6.4.4 Policy – Road and Rail Network</p> <p>6.4.5 Policy – Roading Infrastructure</p> <p>6.1.13 Policy –Future Growth Areas</p> <p>4.1.4 Policy – Staging of development</p> <p>4.7.5 Policy – Servicing requirements</p> <p>4.7.6 Policy – Co-ordination between servicing and development and subdivision</p>	<p>This is a moderately significant issue for the District for the following reasons:</p> <p>a) It is of regional or district wide significance;</p> <p>b) There is the potential to adversely affect people's health and safety;</p> <p>c) Higher order documents direct the integration of transport with land use; and</p> <p>d) The integration of transport with land use may require funding from communities where additional transport networks are not directly attributable to (and funded by) a single development.</p>

	<p>Rules: Table 14.12.5.13 – Traffic generation rates Table 14.12.5.14 and 15 – Access and road conditions 14.3.1 Service connections for subdivision</p>	
<p>Piecemeal development can lead to a reduction in connectivity for the network.</p>	<p>6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.5.1 Objective – Land Transport Network 6.1.2 Policy - Development, Operation and Maintenance 6.1.4 Policy – Infrastructure Benefits 6.5.2 Policy – Construction and Operation of the Land Transport Network 6.5.3 Policy – Road Hierarchy and Function 6.5.4 Policy – Road Standards</p>	<p>This has low significance for the District for the following reasons:</p> <ol style="list-style-type: none"> While there is the potential for this issue to arise anywhere in the District, it only is likely to have local effects; and Limit options for future generations to remedy effects – once a roading network is in place it is very unlikely to change.
<p>Pedestrians and cyclists currently use parts of the road network that do not provide an appropriate level of service or are not fit for purpose because the walking and cycling network is incomplete.</p>	<p>6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.5.1 Objective – Land Transport Network 6.1.2 Policy - Development, Operation and Maintenance 6.1.4 Policy – Infrastructure Benefits 6.5.2 Policy – Construction and Operation of the Land Transport Network 6.5.3 Policy – Road Hierarchy and Function 6.5.4 Policy – Road Standards 6.5.5 Policy - Road Safety</p> <p>Rules: Table 14.12.5.14 and 15 – Access and road conditions Figure 14.12.5.17 – Tamahere Country Living Zone - Road cross sections</p>	<p>This issue has low significance for the District for the following reasons:</p> <ol style="list-style-type: none"> While the issue applies to the whole District, the dispersed nature of the District and large area of rural land means that it is most relevant to the urban towns and villages; This issues does partially apply to Section 6(d) of the Act relating to public access to and along coastal marine area, lakes and rivers; and This issue contributes to people's health and safety by enabling physical activity.
<p>The characteristics of the transport network limits the</p>	<p>6.1.1 Objective – Development, Operation and Maintenance of Infrastructure</p>	<p>This issue has low significance for the District for the following reasons:</p>

<p>choices of modes of travel</p>	<p>6.5.1 Objective – Land Transport Network 6.1.2 Policy - Development, Operation and Maintenance 6.1.4 Policy – Infrastructure Benefits 6.5.2 Policy – Construction and Operation of the Land Transport Network 6.5.3 Policy – Road Hierarchy and Function 6.5.4 Policy – Road Standards 6.5.5 Policy - Road Safety</p> <p>6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.4.2 Policy – Provide Adequate Infrastructure 6.4.3 Policy – Infrastructure Location and Services 6.4.4 Policy – Road and Rail Network 6.4.5 Policy – Roading Infrastructure</p> <p>Rules: Rule 14.12.1 Off-road pedestrian and cycle facilities Table 14.12.5.14 and 15 – Access and road conditions Figure 14.12.5.17 – Tamahere Country Living Zone - Road cross sections Figure 14.12.5.18 – Lorenzen Bay Structure Plan - Road cross sections Figure 14.12.5.19 – Te Kauwhata Structure Plan</p>	<p>a) While the issue applies to the whole District, the dispersed nature of the District and large area of rural land means that it is most relevant to the urban towns and villages;</p> <p>b) This issues does partially apply to Section 6(d) of the Act relating to public access to and along coastal marine area, lakes and rivers;</p> <p>c) This issue contributes to people's health and safety by enabling physical activity; and</p> <p>d) It is an issue addressed in the RPS.</p>
<p>Damage to road infrastructure, noise and amenity impacts occurs due to movement of large numbers of heavy vehicles through residential areas of the District.</p>	<p>6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.5.1 Objective – Land Transport Network 6.1.2 Policy - Development, Operation and Maintenance 6.1.4 Policy – Infrastructure Benefits 6.5.2 Policy – Construction and Operation of the Land Transport Network 6.5.3 Policy – Road Hierarchy and Function 6.5.4 Policy – Road Standards 6.5.5 Policy - Road Safety</p>	<p>This issue is of moderate significance to the District for the following reasons:</p> <p>a) It is a localised issue, restricted to the towns and villages;</p> <p>b) It does have the potential to adversely affect people's health and safety; and</p> <p>c) Lack of management of this issue could result in a significant change to the character and amenity of local communities.</p>

	<p>6.1.6 Objective – Reverse Sensitivity 6.1.7 Policy – Reverse Sensitivity and Infrastructure</p> <p>6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.1.9 Policy - Environmental Effects, Community Health, Safety and Amenity 6.1.10 Policy – Infrastructure in Identified Areas</p> <p>Rules: Rule 14.12.1 Operation, maintenance and minor upgrading of existing public roads, State Highways and associated road network activities (P5) Rule 14.12.2 Operation, maintenance and minor upgrading of existing public roads, State Highways and associated road network activities that does not comply with one or more conditions in Rule 14.12.1 (RD5) Table 14.12.5.5 - Functions of roads within the Road Hierarchy Table 14.12.5.6 - Road Hierarchy list Table 14.12.5.14 and 15 – Access and road conditions</p>	
<p>The design, location and scale of vehicle parking areas can have a large impact on development form, and the number of parks needs to be sufficient for the activity proposed.</p>	<p>6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.5.1 Objective – Land Transport Network 6.4.2 Policy – Provide Adequate Infrastructure 6.4.3 Policy – Infrastructure Location and Services 6.4.4 Policy – Road and Rail Network 6.4.5 Policy – Roading Infrastructure</p> <p>Rules: Rule 14.12.1 Vehicle access (P1) Rule 14.12.2 Vehicle access that does not comply with one or more conditions of Rule 14.12.1 (RD1) Rule 14.12.1 On-site parking and loading (P2) Rule 14.1.2.2 On-site parking and loading that does not comply with one or more conditions of Rule 14.12.1 (RD2)</p>	<p>This issue is of moderate significance to the District for the following reasons:</p> <ol style="list-style-type: none"> a) It is of district wide significance; b) It does have the potential to adversely affect people's health and safety; c) Lack of management of this issue may result in a significant change to the character and amenity of local communities; d) Limit options for future generations to remedy effects. Once land uses are in place, it can be assumed that they will continue indefinitely.

	<p>Rule 14.12.1 On-site manoeuvring and queuing (P3) Rule 14.12.2 On-site manoeuvring and queuing that does not comply with one or more conditions of Rule 14.12.1 (RD3) Table 11.4.5.1 Separation distance of an access onto a road from an intersection or between accesses Table 14.12.5.3 - Minimum sight distances Table 14.12.5.7 – Required parking spaces and loading bays Figure 14.12.5.8 – 90th Percentile car tracking curve minimum radius Table 14.12.5.9 – Required accessible parking spaces Table 14.12.5.10 – Required bicycle spaces Table 14.12.5.11 – Car manoeuvring and parking space dimensions Table 14.12.5.12 – Queuing space</p>	
<p>The integrated, safe, responsive and sustainable operation of the land transport network, particularly the road network, can be adversely affected by land use activities and subdivision</p>	<p>6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.5.1 Objective – Land Transport Network 6.4.2 Policy – Provide Adequate Infrastructure 6.4.3 Policy – Infrastructure Location and Services 6.4.4 Policy – Road and Rail Network 6.4.5 Policy – Roading Infrastructure 6.1.13 Policy –Future Growth Areas</p> <p>Rules: Rule 14.12.1 Traffic Generation (P4) Rule 14.12.2 Traffic generation that does not comply with one or more conditions of Rule 14.12.1 (RD4) Rule 14.12.1 Stock underpasses (P9) Rule 14.2.3 Stock underpasses not provided for in Rule 14.12.1.9 (D1) Table 14.12.5.13 – Traffic generation rates Table 14.12.5.14 and 15 – Access and road conditions</p>	<p>This is a moderately significant issue for the District for the following reasons:</p> <ol style="list-style-type: none"> It is of regional or district wide significance; There is the potential to adversely affect people's health and safety; Higher order documents direct the integration of transport with land use; and The integration of transport with land use may require funding from communities where additional transport networks are not directly attributable to (and funded by) a single development.
<p>The roading form and function needs to be appropriate to the users and</p>	<p>6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.5.1 Objective – Land Transport Network</p>	<p>This issue is of moderate significance to the District for the following reasons:</p> <ol style="list-style-type: none"> It is of district wide significance;

<p>the surrounding land uses</p>	<p>6.1.2 Policy - Development, Operation and Maintenance 6.1.4 Policy – Infrastructure Benefits 6.5.2 Policy – Construction and Operation of the Land Transport Network 6.5.3 Policy – Road Hierarchy and Function 6.5.4 Policy – Road Standards 6.5.5 Policy - Road Safety</p> <p>6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.4.2 Policy – Provide Adequate Infrastructure 6.4.3 Policy – Infrastructure Location and Services 6.4.4 Policy – Road and Rail Network 6.4.5 Policy – Roading Infrastructure 6.1.13 Policy – Future Growth Areas</p> <p>Rules: Rule 14.12.1 Operation, maintenance and minor upgrading of existing public roads, State Highways and associated road network activities (P5) Rule 14.12.2 Operation, maintenance and minor upgrading of existing public roads, State Highways and associated road network activities that does not comply with one or more conditions in Rule 14.12.1 (RD5) Rule 14.12.1 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities (P6) Rule 14.12.2 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities (RD6) Rule 14.12.3 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities (D2)</p>	<p>b) It does have the potential to adversely affect people's health and safety; and c) Lack of management of this issue may result in a significant change to the character and amenity of local communities.</p>
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	<p>Rule 14.12.1 Access and New Roads – Te Kowhai Airpark Zone (P7)</p> <p>Rule 14.12.2 Access and new roads - Te Kowhai Airpark Zone that do not comply with one or more of the conditions of Rule 14.12.1 (RD7)</p> <p>Rule 14.12.1 Stock underpasses (P9)</p> <p>Rule 14.2.3 Stock underpasses not provided for in Rule 14.12.1.9 (D1)</p> <p>Table 14.12.5.5 - Functions of roads within the Road Hierarchy</p> <p>Table 14.12.5.6 - Road Hierarchy list</p> <p>Table 14.12.5.14 and 15 – Access and road conditions</p> <p>Figure 14.12.5.17 – Tamahere Country Living Zone - Road cross sections</p> <p>Figure 14.12.5.18 – Lorenzen Bay Structure Plan - Road cross sections</p> <p>Figure 14.12.5.19 – Te Kauwhata Structure Plan</p>	
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5 EVALUATION OF PROPOSED POLICIES, RULES AND METHODS

Section 32 (1)(b) requires an evaluation of whether the provisions are the most appropriate way to achieve the objectives by identifying other reasonably practicable options, assessing the efficiency and effectiveness of the provisions in achieving the objectives, and summarising the reasons for deciding on the provisions. The assessment must identify and assess the benefits and costs of environmental, economic, social and cultural effects that are anticipated from the implementation of the provisions, including opportunities for economic growth and employment. The assessment must if practicable quantify the benefits and costs and assess the risk of acting or not acting if there is uncertain or insufficient information available about the subject matter.

5.1 Identification of Reasonably Practicable Options – for Achieving Objectives

The following assessment consists of an examination of all reasonably practicable options for achieving the objectives relevant to the transport network. This high-level screening process considers the effectiveness of each option. Only those options considered to be reasonably practicable will be evaluated in this section.

The options for achieving the five objectives relevant to transport have been addressed together because most of the options were the same. There is a range of options considered – ranging from how the transport provisions were structured in the PDP to detail of rules.

Table 10 Reasonably Practicable Options for Achieving Objectives

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
Option 1: Do nothing (remove all policies and associated methods)	This approach would not address the issue at all. There would be no acknowledgement of the issues associated with transport, or rules to manage the transport effects of land uses or activities in the road corridor.	Highly ineffective. There would be no certainty or guidance on how the objectives are to be achieved.	Council have a requirement under Section 31(1)(a) of the Act to achieve integrated management of the effects of the use, development or protection of land and associated natural and physical resources of the District. This approach would not	This would not be an acceptable approach for any part of the community. Council would not be able to strategically plan and manage the transport network. This would create the potential for greater adverse effects from the transport system such as congestion, including potential	Discard. This approach would not promote a sustainable and efficient approach to the development of the transport network and its relation to surrounding land use.

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
			fulfil this requirement. In addition, this approach would not give effect to the RPS requiring integration of land use and transport.	reduction in safety to users.	
Option 2: Status quo (retain existing policies)	The Waikato Section has District wide issues in Chapter 1 (Part 1), but also topic specific chapters with issues,	Partially effective. There are many policies and rules in the Operative District Plan which do give effect to the	This approach would be entirely within Council's powers and responsibilities. Section 79(1) of the	This approach would be largely acceptable for the development community and the wider community. It is familiar and well	Discard. The district plan review is an opportunity to revise the policies

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
	objectives and policies (e.g. Chapter 6 - Built Environment and Chapter 8 - Land Transport Network). Four issues and objectives relating to utilities and three issues and objectives relating transport. Franklin Section District wide Transport chapter	RPS. Feedback from the internal and external stakeholders suggested that most rules (particularly in the Waikato section of the Operative District Plan) are working well.	RMA requires councils to commence a review of their district plan provisions if they have not been a subject of a review or change during the previous 10 years. Regardless of whether the council wishes to alter the provision or retain it, the provisions	understood.	and rules and more fully give effect to the RPS and NZCPS.

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
	(Part 9) contains transport and roading issues as well as three objectives. Activities throughout the District chapter (Part 15) contains an issue and two objectives relating to Network and Other Utilities and Essential Services.		must still be notified as if they were amended.		
Option 3 – Revise	This option is a full	Highly effective.	This approach	This approach would	Retain.

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
the provisions to give better effect to the RPS	review of the policies and rules to ensure the provisions achieve the objectives.	Reviewing all the policies, rules and other methods enables a comprehensive suite of provisions to achieve the objectives and give effect to the RPS.	would be entirely within Council's powers and responsibilities.	be acceptable to the community. There may be provisions which are challenged through the submissions process but this is to be expected. The standards have been revised to be largely in accordance with the RITS, but tailored to the characteristics of Waikato District.	

Table I I: Structure of the transport provisions

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
Option 1: Retain the Waikato Section structure with all infrastructure provisions in one location in the Plan	Council favoured the retention of the current structure and 'effects based' format of the Waikato Section; in which a chapter(s) contains the relevant infrastructure issues, objectives and policies but the rules are replicated within the subsequent chapters for each	Depending on the content of the provisions, this approach would effectively achieve the objectives. This would enable all transport matters to be considered comprehensively in one location of the Plan.	This option is within Council's powers and responsibilities.	This approach was clearly favoured by the infrastructure providers who regularly use the transport related provisions because they have infrastructure in the road corridor. Fundamental to consideration of the structure of the district plan with	Retain. This option would avoid repetition of the rules throughout each zone, leading to a more streamlined document. This approach also enables all the transport provisions to be collated in one location in the

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
	zone. The zone specific rules are supported by appendices containing additional traffic (Appendix A) and engineering (Appendix B) rules and development standards. Feedback received during the July external and internal stakeholder			regards to infrastructure provisions is the principle of a district plan being intuitive, with things being where users of the plan intuitively expect them to be. Users of the plan must have some confidence that they have found all the relevant provisions and be able to answer	Plan.

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
	workshops in relation to this topic was split in terms of a strong desire by a number of infrastructure stakeholders to see WDC adopt a standalone chapter covering this topic.			the following questions with certainty: <ul style="list-style-type: none"> • Have I found all the rules that apply to the activity? • Have I got the right classification for the activity? • Have I missed anything? • Is there a clear link between the rules and 	

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
				the policy framework? These factors are best achieved by containing as many of the provisions in one chapter as possible. This approach, based on the review of other relevant district plans and the feedback of key infrastructure stakeholders, appears to constitute best	

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
				practice.	
Option 2: Insert transport provisions into each zone chapter	This option would require each zone chapter to have a full suite of rules regarding transport e.g. parking standards, access location and width etc.	This would be effective in achieving the objectives.	This option is within Council's powers and responsibilities.	This approach was not favoured by the infrastructure providers as it could result in a different approach for each zone. It would be an easier approach for other users of the plan as the rules for traffic generation, parking etc	Discard. This option would increase duplication. There is also the possibility of inconsistent approaches with different standards applying to each zone.

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
				would be in one location with the zone rules.	

Table 12 Management of the road corridor

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
Option 1: Applying zoning of adjacent sites	This is the approach in the Waikato Section of the Operative District Plan.	Depending on the provisions, this would not be an effective approach. There is the potential for the objectives and policies to be muddled in their relevance as there would be objectives and policies for the road, and others for zones.	This option is within Council's powers and responsibilities.	This approach is familiar to current Waikato Section users. It uses the current zones so is an efficient approach. The most significant advantage is that no plan change is required to change the zoning when roads are vested as part of a subdivision, or if roads are stopped.	Discard While there are advantages for vesting roads in the Council, it does not allow clear tailored provisions for the roads.

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
Option 2: Specific road zone	This approach requires all roads to be zoned as roads. There could be more than one zone to reflect the different hierarchy of each road.	This would be an effective approach to managing roads.	This option is within Council's powers and responsibilities.	This approach would allow clear identification of which activities are appropriate and which are not, and places controls on these activities. It would allow appropriate objectives and policies to be developed. This approach would provide clarity for network utility	Retain. Council has chosen to not zone the roads, but refer to them as "roads" or "unformed roads" in the rules. This has the same effect.

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
				operators placing structures or working within the transport corridor. The most significant disadvantage of this approach is that a plan change would be required when roads were vested in Council to change the zone.	
Option 3: Road designation	This approach designates all roads	This would be an effective approach	This option is within Council's powers	This approach would allow future as well as	Discard While designations

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
	as the Council is a designating authority. Designations were applied to Waikato's roads as part of the proposed plan development in 1996, but was never shown on any of the planning maps produced by the Council as being a designation. This has possibly led to plan	and would allow Council to carry out the maintenance and upgrade works within the road corridor that it needs to without the need to comply with the rules in the district plan.	and responsibilities as a Designating Authority. Designations will enable any works that would fall under Section 9 of the RMA but will require an outline plan of works. Designations act in many respects like a zone but the most significant benefit of	current routes to be protected. All information pertaining to the transport corridor would be included with the Notice of Requirement (for new roads). There is the ability to make changes through an alteration to a designation.	are often used by councils to cover roads, there are limitations with this method. conditions are often placed on designations to deal with specific effects A designation may be more appropriate for significant roading

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
	users and council officers overlooking whether the road is designated for outline plan approval processes. Since the plan became operative in 1999 the local road designation has also not been modified or amended in any way to take any account of any new roading		this approach is the control Council has in the process as the designating authority.	The retention of the underlying zoning would enable land to revert to that zoning if a designation is uplifted.	connections, developments or modifications that are not able to be exclusively delivered through a private subdivision development, and where the Public Works Act might have to be used to secure the necessary land needed for the

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
	developments in the city. As these designations were not rolled over or otherwise modified during subsequent district plan review processes they have lapsed.				development.

Table 13: Integration of the infrastructure technical specifications

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
Option 1: Incorporation by reference	The RITS sets standards for design and construction of public infrastructure and is intended to provide clarity and consistency for contractors, developers and consultants in the Waikato region. This option would rely on the RITS through incorporation by	This is an efficient approach in that information in the RITS does not need to be verbatim included in the PDP. However any subsequent changes to the RITS would require a plan change using the Schedule 1 process in the Act.	This is within Council's powers and responsibilities. This approach would ensure consistency and alignment with other Waikato councils.	Depending on the user of the Plan, there will be varying levels of acceptability for this approach. For surveyors (for example) who work across the Waikato Region it will be an effective approach. For a landowner, there is added complexity in having to locate an external document.	Discard. The RITS is in the process of being updated so a plan change would be required to change the reference. In addition, the Council does not support all the specifications in the RITS.

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
	reference in the PDP.			There are usually difficulties/complexities in rule drafting to give effect to external documents.	
Option 2: Importing appropriate standards from the RITS into the PDP	This would involve repeating certain standards and specifications into the PDP.	This is an efficient approach in that Council can select those standards which are appropriate for Waikato District.	This is within Council's powers and responsibilities. This approach could result in inconsistencies with other Waikato councils as the standards may	Depending on the user of the Plan, there will be varying levels of acceptability for this approach. For surveyors (for example) who work across the Waikato Region it will increase	Retain. It is a good planning principle to have all the rules in one place. This makes a simpler process for Plan users.

Objective(s)	6.1.1 Objective – Development, Operation and Maintenance of Infrastructure 6.1.6 Objective – Reverse Sensitivity 6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development 6.1.8 Objective – Infrastructure in the Community and Identified Areas 6.5.1 Objective – Land Transport Network				
Options Approach to achieve objective(s)	Description (brief) Describe the option and acknowledge the source of this option (if there is one e.g. feedback from consultation, suggestions from workshops with elected members etc).	Relevance How effective provisions are in achieving the objective(s).	Feasibility Within council's powers, responsibilities and resources, degree of risk and uncertainty of achieving objectives, ability to implement, monitor and enforce.	Acceptability Level of equity and fair distribution of impacts, level of community acceptance. Where possible identify at a broad level social, economic, environmental, cultural effects.	Recommendation Discard or evaluate further (with brief explanation).
			change through the submission, hearing and decision process.	complexity as each District may have different standards. For a landowner, there the simplicity of having all the relevant standards in one place.	

5.2 Evaluation of Selected Options

This section contains an evaluation of those options identified above for further evaluation. The short list of options has been developed further to include (where relevant) policies, rules and methods. In some instances, provisions have been bundled where they are expected to work together to achieve the objective(s). For efficiency, this second tier evaluation focuses on the approach and the policies and rules which implement that approach as a package, rather than a detailed analysis of every policy and every rule. How this section is approached in terms of level of detail depends to what extent the options are departing from the existing District Plans and the significance of the alternative options. The following table provides a summary of the evaluation results.

5.3 Objective: Development, Operation and Maintenance of Infrastructure

The following provisions assist in achieving Objective 6.1.1:

- 6.1.2 Policy - Development, Operation and Maintenance
- 6.1.4 Policy – Infrastructure Benefits
- 6.5.2 Policy – Construction and Operation of the Land Transport Network
- 6.5.3 Policy – Road Hierarchy and Function
- 6.5.4 Policy – Road Standards
- 6.5.5 Policy - Road Safety
- 6.5.6 Policy – Network Utility Location
- 6.5.7 Policy – Vehicle Access
- 6.1.5 Policy – Natural Hazards and Climate Change
- 6.5.4 Policy – Roading Infrastructure
- 6.1.10 Policy – Infrastructure in Identified Areas
- 6.1.13 Policy – Future Growth Areas
- Rule 14.12.1 Operation, maintenance and minor upgrading of existing public roads, State Highways and associated road network activities (P5) and the associated standards
- Rule 14.12.1 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities (P6) and the associated standards
- Rule 14.12.1 Access and New Roads – Te Kowhai Airpark Zone (P7) and the associated standards
- Rule 14.12.1 Off-road pedestrian and cycle facilities (P8) and the associated standards
- Rule 14.12.2 Operation, maintenance and minor upgrading of existing public roads, State Highways and associated road network activities that do not comply with one or more of the conditions of Rule 14.12.1.5 (RD5) and associated assessment criteria
- Rule 14.12.2 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities that are not located within an Identified Area; and do not comply

with one or more of the conditions of Rule 14.12.1.6 (RD6) and associated assessment criteria

- Rule 14.12.2 Access and New Roads – Te Kowhai Airpark Zone that do not comply with one or more of the conditions of Rule 14.12.1.7 (RD7)
- Rule 14.12.2 Off-road pedestrian and cycle facilities that do not comply with one or more of the conditions of Rule 14.12.1.8 (RD8) and associated assessment criteria
- Rule 14.12.3 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities that are located within an Identified Area (D2)
- Table 14.12.5.5 - Functions of roads within the Road Hierarchy
- Table 14.12.5.6 - Road Hierarchy list
- Table 14.12.5.14 – Access and road conditions (Residential, Village, Business, Business Town Centre and Industrial Zones)
- Table 14.12.5.15 – Access and road conditions (Rural and Country Living Zones)
- Figure 14.12.5.16 – Attachment to Tables 14.12.5.14 and 14.12.5.15
- Figure 14.12.5.17 – Tamahere Country Living Zone - Road cross sections
- Figure 14.12.5.18 – Lorenzen Bay Structure Plan - Road cross sections
- Figure 14.12.5.19 – Te Kauwhata Structure Plan – Road cross sections – Collector Roads
- Figure 14.12.5.20 – Te Kauwhata Structure Plan – Road cross sections – Local Roads
- Figure 14.12.5.21 – Te Kauwhata Structure Plan – Road cross sections – Greenway Corridor and Whangamarino Margin Roads

5.3.1 Identification of Options

In considering options for managing and enabling the development, operation and maintenance of infrastructure a number of factors were taken into account including:

- Ease of undertaking work that is routine everyday maintenance
- Purpose of going through a resource consent process
- Likely effects of routine maintenance and acceptability / expectation from the community
- Clarity of design expectations
- Role and function of each road
- The road hierarchy
- Relevance of the RITS
- Need for the roading design to reflect specific characteristics of certain locations or areas
- Ease of interpretation of rules
- The likely users of this section of the plan
- Ability to rely on standards rather than a consent process

Options considered for managing and enabling the development, operation and maintenance of infrastructure included:

- An activity status that required resource consent for the maintenance of roads and the construction of new roads

- Reliance on / reference to the RITS
- Absence of a road hierarchy

5.3.2 Policy, Rule and Method Evaluation

This section assists to identify the provisions (i.e. policies, rules and methods) that are the most appropriate to achieve the objective.

Table 14 Evaluation of provisions

Provisions most appropriate for achieving Objective 6.1.1	Effectiveness and Efficiency	
	Benefits	Costs
6.1.2 Policy - Development, Operation and Maintenance 6.1.4 Policy – Infrastructure Benefits 6.5.2 Policy – Construction and Operation of the Land Transport Network 6.53 Policy – Road Hierarchy and Function 6.5.4 Policy – Road Standards 6.5.5 Policy - Road Safety 6.5.6 Policy – Network Utility Location 6.5.7 Policy – Vehicle Access 6.1.5 Policy –Natural Hazards and Climate Change 6.5.4 Policy – Roading Infrastructure 6.1.10 Policy – Infrastructure in Identified Areas 6.1.13 Policy –Future Growth Areas Rule 14.12.1 Operation, maintenance and minor upgrading of existing public roads, State Highways and associated road network activities (P5) and the associated standards Rule 14.12.1 New public roads, including	Environmental: Environmental effects are well understood of maintenance and new roads Corridor and carriageway design which is sufficient to enable provision of public transport which reduces the environmental effects Management of lighting and glare of streetlights through standards Environmental effects of regional arterial roads will be assessed through a resource consent process Adverse operational effects, particularly on residential or other sensitive land uses, including effects of vibration, noise, glare and vehicle emissions will be addressed for restricted discretionary activities.	Environmental: There may still be environmental effects of road maintenance such as runoff of silt-laden stormwater Categorisation of roads may not reflect the unique characteristics of any given transport corridor.

<p>where the road has been identified on the planning maps as an Indicative road, and associated road network activities (P6) and the associated standards</p> <p>Rule 14.12.1 Access and New Roads – Te Kowhai Airpark Zone (P7) and the associated standards</p> <p>Rule 14.12.1 Off-road pedestrian and cycle facilities (P8) and the associated standards</p> <p>Rule 14.12.2 Operation, maintenance and minor upgrading of existing public roads, State Highways and associated road network activities that do not comply with one or more of the conditions of Rule 14.12.1.5 (RD5) and associated assessment criteria</p> <p>Rule 14.12.2 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities that are not located within an Identified Area; and do not comply with one or more of the conditions of Rule 14.12.1.6 (RD6) and associated assessment criteria</p> <p>Rule 14.12.2 Access and New Roads – Te Kowhai Airpark Zone that do not comply with one or more of the conditions of Rule 14.12.1.7 (RD7)</p> <p>Rule 14.12.2 Off-road pedestrian and cycle facilities that do not comply with one or more of the conditions of Rule 14.12.1.8 (RD8) and associated assessment criteria</p> <p>Rule 14.12.3 New public roads, including</p>	<p>A higher level of rigour for roads in an Identified Area (which is more sensitive to change)</p>	
	<p>Economic: Enables routine maintenance to be undertaken on the roading network without the cost of consents</p> <p>There are considerable economic advantages of a fully functioning and effective transport networks</p> <p>Enabling the functioning of business and growth and development</p> <p>Enables the transportation of freight, goods and people</p> <p>Consistent design of roads across the District in accordance with the role and function</p> <p>Economic efficiencies with a consistent roading design across the District</p>	<p>Economic: Maintenance may cause disruption to businesses with client and customers being unable to access</p>
	<p>Social: A fully functioning and effective transport network allows people to meet their social needs.</p> <p>A functioning transport system allows access to fundamental activities such as education,</p>	<p>Social: Because maintenance can be undertaken without prior warning, the community may have no warning and it may cause disruption</p> <p>Is not responsive to changes in traffic volume or changes in desirable routes.</p>

<p>where the road has been identified on the planning maps as an Indicative road, and associated road network activities that are located within an Identified Area (D2)</p> <p>Table 14.12.5.5 - Functions of roads within the Road Hierarchy</p> <p>Table 14.12.5.6 - Road Hierarchy list</p> <p>Table 14.12.5.14 – Access and road conditions (Residential, Village, Business, Business Town Centre and Industrial Zones)</p> <p>Table 14.12.5.15 – Access and road conditions (Rural and Country Living Zones)</p> <p>Figure 14.12.5.16 – Attachment to Tables 14.12.5.14 and 14.12.5.15</p> <p>Figure 14.12.5.17 – Tamahere Country Living Zone - Road cross sections</p> <p>Figure 14.12.5.18 – Lorenzen Bay Structure Plan - Road cross sections</p> <p>Figure 14.12.5.19 – Te Kauwhata Structure Plan – Road cross sections – Collector Roads</p> <p>Figure 14.12.5.20 – Te Kauwhata Structure Plan – Road cross sections – Local Roads</p> <p>Figure 14.12.5.21 – Te Kauwhata Structure Plan – Road cross sections – Greenway Corridor and Whangamarino Margin Roads</p>	<p>healthcare, etc</p> <p>Provides for public health and safety</p> <p>Traffic signage, road marking, lighting, rest areas and parking as appropriate</p> <p>Corridor and carriageway design which is sufficient to enable provision of public transport</p> <p>Specific design features to reflect the community and vision for the town / village</p> <p>The design of off-road walkways and cycleways are appropriate for the users</p> <p>Cultural: Results in a design more appropriate to the road function and the surrounding character of the area.</p> <p>New roads located in sensitive environments require a consent and can be assessed in terms of the effects.</p>	<p>Cultural:</p>
<p>Opportunities for economic growth and employment</p>		
<p>There are significant opportunities for economic growth and employment through the creation of new roads. Initially the construction will need to be carried out, but a connected transport network allows shorter travel times, alternative routes and supports economic development.</p>		
<p>Options less or not as appropriate to achieve the objective</p>		
<p>Options were considered in Section 5.1 of this report. Other options considered were:</p> <ul style="list-style-type: none"> • An activity status that required resource consent for the maintenance of roads and the construction of new roads 		

- Roads covered by a designation
- Reliance on / reference to the RITS
- Absence of a road hierarchy

Appropriateness:

These options were discarded as not being the most appropriate way to achieve the objective.

Risk of acting or not acting

Uncertainty or insufficiency of information:

There is not uncertainty or insufficiency of information.

Risk of acting or not acting:

The risk of not acting is an inability to effectively manage the transport network.

Efficiency and effectiveness

Efficiency

The use of a road hierarchy that recognises the form and function of each road will assist in a road design appropriate for the volume and type of traffic. This approach will also assist in the consideration of resource consents for activities with traffic generation that exceed the permitted standards. To remove the hierarchy of the road would remove the priority of the road, making it harder to ensure integration with the movement function of the roads. It would also remove certainty as to the function of the transport system for the wider community including key freight routes and public transport routes. This approach provides support to the overarching objectives.

For simplicity and consistency, the Council is using the existing road hierarchy terminology as the Operative District Plan.

The approach to classifying operation, maintenance and minor upgrading of existing roads and associated road network activities as a permitted activity is an efficient approach. There is little value in making routine maintenance activities go through a consent process when the works and the effects are well understood. Similarly new public roads are a permitted activity provided they comply with the design specifications outlined in the Plan. However where the new road traverses a more sensitive area (Identified Areas) then it is entirely appropriate that these go through a consent process as a discretionary activity to allow the adverse effects to be assessed. Many of the areas listed as an Identified Area are Section 6 RMA matters.

Effectiveness

The transport hierarchy is an effective means of managing the form and function of the transport network in a consistent manner across the district. It provides a clear expectation of the form and function of any given transport corridor and will result in street typologies which will reflect the desired

amenity and high level design for each section of the road corridor. This is an effective approach in achieving the objectives and ensuring an efficient transport network.

The policies and rules will be effective in enabling routine maintenance and development of the existing transport network as well as new roads.

The policies and rules pertaining to the cycling and walking network will be effective in ensuring that alternative transport modes are facilitated with appropriately located and design routes.

5.4 Objective: Reverse Sensitivity

The following provisions achieve Objective 6.1.6 addressing reverse sensitivity:

- 6.1.7 Policy – Reverse Sensitivity and Infrastructure
- Setback requirements from roads in each zone chapter for sensitive land uses. These require different sized setbacks from:
 - Local roads;
 - The designated boundary of the railway corridor;
 - National route or regional arterial boundary; and
 - The designated boundary of the Waikato Expressway;
- Discretionary activity status for those buildings / activities not complying with these setbacks.

5.4.1 Identification of Options

In considering options for managing and enabling reverse sensitivity from transport networks a number of factors were taken into account including:

- The activities which are likely to be sensitive to effects associated with the transport network
- The sterilisation of land in front of dwellings
- The volume and type of traffic on each road type
- The form and function of each roading type
- Ease of use of the rules
- Indoor noise standards as an alternative approach

Options considered for managing reverse sensitivity from the transport network included:

- Indoor noise standards as an alternative approach
- Lesser setbacks
- Greater setbacks

5.4.2 Policy, Rule and Method Evaluation

This section assists to identify the provisions (i.e. policies, rules and methods) that are the most appropriate to achieve the objective.

Table 15 Evaluation of provisions

Provisions most appropriate for achieving Objective 6.1.6	Effectiveness and Efficiency	
	Benefits	Costs
<p>6.1.7 Policy – Reverse Sensitivity and Infrastructure</p> <p>Setback requirements from roads in each zone chapter for sensitive land uses. These require different sized setbacks from:</p> <ul style="list-style-type: none"> Local roads; The designated boundary of the railway corridor; National route or regional arterial boundary; and The designated boundary of the Waikato Expressway; <p>Discretionary activity status for those buildings / activities not complying with these setbacks.</p>	<p>Environmental:</p> <p>Increased amenity from the road with larger setbacks</p> <p>Higher amenity for residents with less noise, vibration, odour and dust from the road.</p>	<p>Environmental:</p>
	<p>Economic:</p>	<p>Economic:</p> <p>Inability to use the front portion of the site adjoining the road for sensitive uses so limits development options and opportunities for landowners</p>
	<p>Social:</p>	<p>Social:</p> <p>Changes the character of the area</p>
	<p>Cultural:</p>	<p>Cultural:</p>
<p>Opportunities for economic growth and employment</p>		
<p>This approach may potentially decrease economic growth in the sites adjoining roads, particular those with the larger setback requirements such as the expressway. The setbacks mean that the front portion of the site will not be able to be used for sensitive land uses.</p>		
<p>Options less or not as appropriate to achieve the objective</p>		
<p>Options were considered in Section 5.1 of this report. Other options considered were:</p> <ul style="list-style-type: none"> Indoor noise standards as an alternative approach Lesser setbacks Greater setbacks 		

Appropriateness:

These options were disregarded due to difficulty of implementation. A setback approach is easily implemented and understood. The setbacks in the PDP have been adopted from the Waikato Section of the Operative District Plan for consistency. These setbacks have already resulted in a certain type of development and character and retaining the rules maintains this character.

Risk of acting or not acting**Uncertainty or insufficiency of information:**

There is uncertainty as to whether these setbacks will reduce the noise and nuisance to an acceptable level. There are many other factors which can influence internal noise levels such as the design and orientation of the house, double glazing, planting, fencing, air conditioning and ventilation systems.

Risk of acting or not acting:

The risk of not acting is that sensitive uses establish close to transport corridors. This will result in poor amenity for the occupants and a reduced value of the development. The health and safety of people can also be adversely affected. Acting also ensures the continued operation of the transport network. Complaints could lead to mitigation measures which affect the efficient functioning of the network.

Efficiency and effectiveness**Efficiency:**

The use of setbacks to help reduce reverse sensitivity effects from transport corridors is an efficient approach. Setbacks are easily understood and measurable. The approach enables consideration of alternative solutions through a discretionary activity status.

Effectiveness:

This is an effective approach to achieve the objective. There are a number of objectives and policies in the RPS seeking to avoid reverse sensitivity issues and this approach will give effect to those provisions.

5.5 Objective: Integration of Infrastructure with Subdivision, Land Use and Development

The following provisions assist in achieving Objective 6.4.1:

- 6.4.2 Policy – Provide Adequate Infrastructure
- 6.4.3 Policy – Infrastructure Location and Services
- 6.4.4 Policy – Road and Rail Network
- 6.4.5 Policy – Roading Infrastructure
- 6.5.3 Policy – Road Hierarchy and Function
- 6.5.4 Policy – Road Standards
- 6.5.7 Policy – Vehicle Access
- 6.1.7 Policy – Reverse Sensitivity and Infrastructure
- 6.1.2 Policy - Development, Operation and Maintenance
- 6.1.13 Policy –Future Growth Areas
- 4.1.4 Policy – Staging of development
- 4.7.5 Policy – Servicing requirements
- 4.7.6 Policy – Co-ordination between servicing and development and subdivision
- Rule 14.3.1 Service connections for subdivision
- Rule 14.12.1 Vehicle access for all activities (P1) and associated standards
- Rule 14.12.1 On-site parking and loading (P2) and associated standards
- Rule 14.12.1 On-site manoeuvring and queuing (P3) and associate standards
- Rule 14.12.1.4 Traffic generation (P4) and associated standards
- Rule 14.12.1.4 Access and New Roads – Te Kowhai Airpark Zone (P7) and associated standards
- Rule 14.12.1.4 Stock underpasses located within road and unformed road and the Rural Zone (p9) and associated standards
- Rule 14.12.2 Vehicle access that does not comply with one or more of the conditions of Rule 14.12.1.1 (RD1) and associated matters of discretion
- Rule 14.12.2 On-site parking and loading that does not comply with one or more of the conditions of Rule 14.12.1.2 (RD2) and associated matters of discretion
- Rule 14.12.2 On-site manoeuvring and queuing that does not comply with one or more of the conditions of Rule 14.12.1.3 (RD3) and associated matters of discretion
- Rule 14.12.2 Traffic generation that does not comply with one or more of the conditions of Rule 14.12.1.4 (RD4) and associated matters of discretion
- Rule 14.12.2 Access and New Roads – Te Kowhai Airpark Zone that do not comply with one or more of the conditions of Rule 14.12.1.7 (RD7) and associated matters of discretion
- Rule 14.12.2 Off-road pedestrian and cycle facilities that do not comply with one or more of the conditions of Rule 14.12.1.8 (RD8) and associated matters of discretion
- Rule 14.12.3 Stock underpasses not provided for under Rule 14.12.1.9 (D1)
- Table 14.12.5.13 – Traffic generation rates
- Table 14.12.5.5 - Functions of roads within the Road Hierarchy
- Table 14.12.5.6 - Road Hierarchy list

- Table 14.12.5.14 – Access and road conditions (Residential, Village, Business, Business Town Centre and Industrial Zones)
- Table 14.12.5.15 – Access and road conditions (Rural and Country Living Zones)
- Figure 14.12.5.16 – Attachment to Tables 14.12.5.14 and 14.12.5.15

5.5.1 Identification of Options

In considering options for managing and enabling the integration of transport infrastructure with subdivision, land use and development a number of factors were taken into account including:

- Feedback from NZTA;
- Feedback from the Council transport planners and engineers;
- Review and comments from consultant transport engineers;
- Feedback from surveyors and planning consultants;
- The RPS directives to integrate transport with land use;
- The Regional Land Transport Plan;
- Future Proof; and
- The iwi management plan for Tainui and Maniapoto

Options considered for integrating transport with land use included:

- Deleting traffic generation rules;
- Deleting the parking standards
- Relying on Integrated Transport Assessments only to control access
- Deleting access standards
- All commercial activities to produce an Integrated Traffic Assessment

<p>Rule 14.12.1 On-site parking and loading (P2) and associated standards</p> <p>Rule 14.12.1 On-site manoeuvring and queuing (P3) and associated standards</p> <p>Rule 14.12.1.4 Traffic generation (P4) and associated standards</p> <p>Rule 14.12.1.4 Access and New Roads – Te Kowhai Airpark Zone (P7) and associated standards</p> <p>Rule 14.12.1.4 Stock underpasses located within road and unformed road and the Rural Zone (p9) and associated standards</p>	<p>Enables traffic engineers to plan and secure funding for the likely traffic volumes for each road with some certainty.</p> <p>Ensures the road network is optimised as the likely vehicle numbers can be estimated with some certainty.</p> <p>Enables the road to be designed and constructed appropriate for the volume and type of vehicles.</p>	<p>trip generation limits.</p>
<p>Rule 14.12.2 Vehicle access that does not comply with one or more of the conditions of Rule 14.12.1.1 (RD1) and associated matters of discretion</p> <p>Rule 14.12.2 On-site parking and loading that does not comply with one or more of the conditions of Rule 14.12.1.2 (RD2) and associated matters of discretion</p>	<p>Social: Ensures that development is appropriately serviced for transport allowing people to move</p> <p>Ensures safe vehicle, pedestrian and cycling access to each site</p>	<p>Social: Does not reduce the dependence on private vehicles</p> <p>Inability to reduce safety risk completely</p>
<p>Rule 14.12.2 On-site manoeuvring and queuing that does not comply with one or more of the conditions of Rule 14.12.1.3 (RD3) and associated matters of discretion</p> <p>Rule 14.12.2 Traffic generation that does not comply with one or more of the conditions of Rule 14.12.1.4 (RD4) and associated matters of discretion</p> <p>Rule 14.12.2 Access and New Roads – Te Kowhai Airpark Zone that do not comply with one or more of the conditions of Rule 14.12.1.7 (RD7) and associated matters of</p>	<p>Cultural: Encourages the use of cycles by requiring space for cycles</p> <p>Encourages cycling by accommodating cycling and walkways in the design of roads</p>	<p>Cultural: The development of society remain car-based.</p>

<p>discretion Rule 14.12.2 Off-road pedestrian and cycle facilities that do not comply with one or more of the conditions of Rule 14.12.1.8 (RD8) and associated matters of discretion Rule 14.12.3 Stock underpasses not provided for under Rule 14.12.1.9 (D1) Table 14.12.5.13 – Traffic generation rates Table 14.12.5.5 - Functions of roads within the Road Hierarchy Table 14.12.5.6 - Road Hierarchy list Table 14.12.5.14 – Access and road conditions (Residential, Village, Business, Business Town Centre and Industrial Zones) Table 14.12.5.15 – Access and road conditions (Rural and Country Living Zones) Figure 14.12.5.16 – Attachment to Tables 14.12.5.14 and 14.12.5.15</p>		
Opportunities for economic growth and employment		
These policies and rules are unlikely to encourage economic growth and employment but transport networks are required to support any growth.		
Options less or not as appropriate to achieve the objective		
<ul style="list-style-type: none"> • Deleting traffic generation rules; • Deleting the parking standards • Relying on Integrated Transport Assessments only to control access • Deleting access standards • All commercial activities to produce an Integrated Traffic Assessment <p>Appropriateness: These options were disregarded as they were not an efficient way to achieve the objective. They also did not give effect to the RPS provisions requiring the integration of transport with land use.</p>		

Risk of acting or not acting

Uncertainty or insufficiency of information:

There is uncertainty whether the traffic generation figures accurately reflect those of the activities. Many assumptions underpin the figures such as every customer or client arriving by private vehicle, or a certain number of people and therefore cars in each household.

Risk of acting or not acting:

Even though there is some uncertainty as to the accuracy of the vehicle generation rates, the risk of not acting is an inefficient transport system, that is not appropriately designed for the volume or type of vehicles. This approach would not achieve the RPS objectives and policies requiring integration of transport and land use. The risk of not acting is adverse effects on safety and efficiency for the network.

Efficiency and effectiveness

How will the suite of provisions be efficient at achieving the objective?

The approach achieves an appropriate balance between providing for a wide range of development through straightforward permitted standards, while providing an element of control where needed to protect network efficiency, safety and promote integration and accessibility.

The recognition of the road hierarchy and the range of different roads ensures there is an appropriate design for safe ingress and exit from sites. The function of roads is less likely to be compromised by the location and design of vehicle crossings. The use of standards is clear, measurable and enforceable.

How will the suite of provisions be effective at achieving the objective?

The standards are clear with no ambiguity. The proposed policies are clear and directive and will be effective tools in directing how the objectives will be achieved with regard to access and network management. They will provide support to the consideration of access as part of an integrated traffic assessment where activities exceed the trip generation standards.

The standards will be effective tools to provide for a suitable level of access management as a permitted activity i.e. without triggering the need for resource consent, while continuing to provide sufficient control over activities that require a greater level of assessment.

5.6 Objective: Infrastructure in the Community and Identified Areas

The following provisions assist in achieving Objective 6.1.8:

- Policy 6.1.9 - Environmental Effects, Community Health, Safety and Amenity
- Policy 6.1.10 – Infrastructure in Identified Areas
- Rule 11.4.1 New public roads, including where the road has been identified on the planning maps as an Indicative Road, and associated road network activities (P6) and associated standards
- Rule 11.4.1 Access and New Roads – Te Kowhai Airpark Zone (P7) and associated standards
- Rule 11.4.2 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities that:
 - Are not located within an Identified Area; and
 - Do not comply with one or more of the conditions of Rule 14.12.1.6
- (RD6) and associated matters of discretion
- Rule 11.4.2 Access and New Roads – Te Kowhai Airpark Zone that do not comply with one or more of the conditions of Rule 14.12.1.7 (RD7) and associated matters of discretion
- Rule 14.12.3 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities that are located within an Identified Area (D2)
- Table 14.12.5.14 – Access and road conditions (Residential, Village, Business, Business Town Centre and Industrial Zones)
- Table 14.12.5.15 – Access and road conditions (Rural and Country Living Zones)
- Figure 14.12.5.17 – Tamahere Country Living Zone - Road cross sections
- Figure 14.12.5.18 – Lorenzen Bay Structure Plan - Road cross sections
- Figure 14.12.5.19 – Te Kauwhata Structure Plan – Road cross sections – Collector Roads
- Figure 14.12.5.20 – Te Kauwhata Structure Plan – Road cross sections – Local Roads
- Figure 14.12.5.21 – Te Kauwhata Structure Plan – Road cross sections – Greenway Corridor and Whangamarino Margin Roads

5.6.1 Identification of Options

In considering options for ensuring transport infrastructure is appropriate for the surrounding environments a number of factors were taken into account including:

- Section 6 matters
- The RPS
- The iwi management plans

Options considered for ensuring transport infrastructure is appropriate to the surrounding environment included:

- Enabling roads as a permitted activity anywhere
- Requiring all new roads to go through a resource consent

5.6.2 Policy, Rule and Method Evaluation

This section assists to identify the provisions (i.e. policies, rules and methods) that are the most appropriate to achieve the objective.

Table 17 Evaluation of provisions

Provisions most appropriate for achieving Objectives 6.1.8	Effectiveness and Efficiency	
	Benefits	Costs
<p>Policy 6.1.9 - Environmental Effects, Community Health, Safety and Amenity</p> <p>Policy 6.1.10 – Infrastructure in Identified Areas</p> <p>Rule 11.4.1 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities (P6) and associated standards</p> <p>Rule 11.4.1 Access and New Roads – Te Kowhai Airpark Zone (P7) and associated standards</p> <p>Rule 11.4.2 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities that:</p> <ul style="list-style-type: none"> • Are not located within an Identified Area; and • Do not comply with one or more of the conditions of Rule 14.12.1.6 (RD6) and associated matters of discretion <p>Rule 11.4.2 Access and New Roads – Te</p>	<p>Environmental:</p> <p>Protects the values and characteristics of:</p> <ul style="list-style-type: none"> • Urban Expansion Area • Significant Natural Area • Outstanding Natural Feature • Outstanding Natural Landscape • Significant Amenity Landscape • Outstanding Natural Character • High Natural Character • Heritage Precinct • Heritage Items • Maaori Sites of Significance • Maaori Areas of Significance • Notable Trees <p>Enable the effects of transport infrastructure in these areas to be assessed in terms of the effects on the feature</p> <p>Economic:</p>	<p>Environmental:</p> <p>May result in routes or locations with significant environmental effects (e.g. substantially increased earthworks, visual effects, amenity effects)</p> <p>Economic:</p> <p>May increase the cost of infrastructure in these areas</p> <p>May result in alternative routes or alignments with</p>

<p>Kowhai Airpark Zone that do not comply with one or more of the conditions of Rule 14.12.1.7 (RD7) and associated matters of discretion</p> <p>Rule 14.12.3 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities that are located within an Identified Area (D2)</p> <p>Table 14.12.5.14 – Access and road conditions (Residential, Village, Business, Business Town Centre and Industrial Zones)</p> <p>Table 14.12.5.15 – Access and road conditions (Rural and Country Living Zones)</p> <p>Figure 14.12.5.17 – Tamahere Country Living Zone - Road cross sections</p> <p>Figure 14.12.5.18 – Lorenzen Bay Structure Plan - Road cross sections</p> <p>Figure 14.12.5.19 – Te Kauwhata Structure Plan – Road cross sections – Collector Roads</p> <p>Figure 14.12.5.20 – Te Kauwhata Structure Plan – Road cross sections – Local Roads</p> <p>Figure 14.12.5.21 – Te Kauwhata Structure Plan – Road cross sections – Greenway Corridor and Whangamarino Margin Roads</p>		greater cost
	Social: Protects sensitive areas	Social: May add substantial distance and time to journeys
	Cultural: Protects culturally significant areas	Cultural:
Opportunities for economic growth and employment		
These policies and rules are unlikely to encourage economic growth and employment but transport networks are required to support any growth.		
Options less or not as appropriate to achieve the objective		
<ul style="list-style-type: none"> • Enabling roads as a permitted activity anywhere • Requiring all new roads to go through a resource consent 		

Appropriateness:

The first option was disregarded due to the Section 6 matters and the RPS. Requiring all roads to be consented is not an efficient process. It adds substantial time and cost.

Risk of acting or not acting**Uncertainty or insufficiency of information:**

There is no uncertainty.

Risk of acting or not acting:

The risk of not acting is that the value and characteristics of the identified areas are eroded or destroyed by insensitive location of transport infrastructure.

Efficiency and effectiveness**How will the suite of provisions be efficient at achieving the objective?**

The policies generally provide an efficient way to achieve the Objective, as the benefits of providing for the efficient development of transport networks outweighs the costs. The primary benefits from the policies and rules is that new transport infrastructure is guided away from the most sensitive parts of the District, and a more lenient and enabling rule framework for more appropriate locations.

How will the suite of provisions be effective at achieving the objective?

The approach of the provisions is that a more lenient activity status apply to new transport infrastructure not located within Identified Areas and a discretionary activity status within Identified Areas. This more stringent activity status indicates that these are not places where new transport infrastructure is appropriate. Identified areas include those more sensitive environments that are sensitive to change and have certain values that need to be protected. They include:

- Urban Expansion Area
- Significant Natural Area
- Outstanding Natural Feature
- Outstanding Natural Landscape
- Significant Amenity Landscape
- Outstanding Natural Character
- High Natural Character
- Heritage Precinct
- Heritage Items
- Maaori Sites of Significance

- Maaori Areas of Significance
- Notable Trees

In conclusion, the recommended approach constitutes an effective way to give effect to the RPS and is in accordance with Section 6 of the Act, by creating a policy and rule framework to guide the development of transport infrastructure into appropriate locations.

5.7 Objective: Land Transport Network

The following provisions assist in achieving Objective 6.5.1:

- Policy 6.1.2 - Development, Operation and Maintenance
- Policy 6.1.4 – Infrastructure Benefits
- Policy 6.1.5 – Natural Hazards and Climate Change
- Policy 6.5.2 – Construction and Operation of the Land Transport Network
- Policy 6.5.3 – Road Hierarchy and Function
- Policy 6.5.4 – Road Standards
- Policy 6.5.5 - Road Safety
- Policy 6.5.6 – Network Utility Location
- Policy 6.5.7 – Vehicle Access
- Policy 6.1.7 – Reverse Sensitivity and Infrastructure
- Policy 6.4.2 – Provide Adequate Infrastructure
- Policy 6.4.3 – Infrastructure Location and Services
- Policy 6.4.4 – Road and Rail Network
- Policy 6.4.5 – Roading Infrastructure
- Policy 6.1.9 - Environmental Effects, Community Health, Safety and Amenity
- Policy 6.1.10 – Infrastructure in Identified Areas
- Section 14.12 Transport

5.7.1 Identification of Options

In considering options for ensuring transport infrastructure is appropriate for the surrounding environments a number of factors were taken into account including:

- Section 6 matters
- The RPS
- The iwi management plans
- Feedback from the Council transport engineers

5.7.2 Policy, Rule and Method Evaluation

This section assists to identify the provisions (i.e. policies, rules and methods) that are the most appropriate to achieve the objective.

Table 18 Evaluation of provisions

Provisions most appropriate for achieving Objective 6.5.1	Effectiveness and Efficiency	
	Benefits	Costs
Policy 6.1.2 - Development, Operation and Maintenance Policy 6.1.4 – Infrastructure Benefits Policy 6.1.5 – Natural Hazards and Climate Change Policy 6.5.2 – Construction and Operation of the Land Transport Network Policy 6.5.3 – Road Hierarchy and Function Policy 6.5.4 – Road Standards Policy 6.5.5 - Road Safety Policy 6.5.6 – Network Utility Location Policy 6.5.7 – Vehicle Access Policy 6.1.7 – Reverse Sensitivity and Infrastructure Policy 6.4.2 – Provide Adequate Infrastructure Policy 6.4.3 – Infrastructure Location and Services Policy 6.4.4 – Road and Rail Network Policy 6.4.5 – Roading Infrastructure Policy 6.1.9 - Environmental Effects, Community Health, Safety and Amenity	Environmental: Protects the values and characteristics of: <ul style="list-style-type: none"> • Urban Expansion Area • Significant Natural Area • Outstanding Natural Feature • Outstanding Natural Landscape • Significant Amenity Landscape • Outstanding Natural Character • High Natural Character • Heritage Precinct • Heritage Items • Maaori Sites of Significance • Maaori Areas of Significance • Notable Trees Enable the effects of transport infrastructure in these areas to be assessed in terms of the effects on the feature	Environmental: May result in routes or locations with significant environmental effects (e.g. substantially increased earthworks, visual effects, amenity effects)

<p>Policy 6.1.10 – Infrastructure in Identified Areas Section 14.12 Transport</p>	<p>The parking requirements reduces the need for parking on the street which affects character and amenity</p> <p>Enables alternative modes of transport through incorporating walkways in the design of roads</p> <p>Encourages cycling through cycle park requirements</p> <p>Reduces dependence on private vehicles</p>	
	<p>Economic: Provides for small to medium development in terms of traffic generation as a permitted activity. This will enable those smaller businesses to establish without the need for traffic management plans and resource consents.</p> <p>Enables traffic engineers to plan and secure funding for the likely traffic volumes for each road with some certainty.</p> <p>Ensures the road network is optimised as the likely vehicle numbers can be estimated with some certainty.</p> <p>Enables the road to be designed and constructed appropriate for the volume and type of vehicles.</p>	<p>Economic: May increase the cost of infrastructure in these areas</p> <p>May result in alternative routes or alignments with greater cost</p> <p>The parking requirements may not match the actual trip generation resulting in wasted empty carparks.</p> <p>The manoeuvring and loading requirements may be too large for the actual needs.</p> <p>Could limit the size of commercial operations due to trip generation limits.</p>
	<p>Social:</p>	<p>Social:</p>

	<p>Protects sensitive areas</p> <p>Ensures that development is appropriately serviced for transport allowing people to move</p> <p>Ensures safe vehicle, pedestrian and cycling access to each site</p> <p>Enables use of transport networks for recreation</p>	<p>May add substantial distance and time to journeys</p> <p>Does not ensure a reduction of dependence on private vehicles</p> <p>Inability to reduce safety risk completely</p>
	<p>Cultural: Protects culturally significant areas</p> <p>Encourages the use of cycles by requiring space for cycles</p> <p>Encourages cycling and walking by accommodating cycling and walkways in the design of roads</p>	<p>Cultural: The development of society remain car-based.</p>
<p>Opportunities for economic growth and employment</p>		
<p>These policies and rules are unlikely to encourage economic growth and employment but transport networks are required to support any growth.</p>		
<p>Options less or not as appropriate to achieve the objective</p>		
<ul style="list-style-type: none"> • Enabling roads as a permitted activity anywhere • Requiring all new roads to go through a resource consent • Deleting traffic generation rules; • Deleting the parking standards • Relying on Integrated Transport Assessments only to control access • Deleting access standards • All commercial activities to produce an Integrated Traffic Assessment 		

Appropriateness:

These options were disregarded as they were not an efficient way to achieve the objective. They also did not give effect to the RPS provisions requiring the integration of transport with land use.

Risk of acting or not acting**Uncertainty or insufficiency of information:**

There is no uncertainty.

Risk of acting or not acting:

The risk of not acting is that the value and characteristics of the identified areas are eroded or destroyed by insensitive location of transport infrastructure. The risk of not acting is an inefficient transport system, that is not appropriately designed for the volume or type of vehicles. This approach would not achieve the RPS objectives and policies requiring integration of transport and land use. The risk of not acting is adverse effects on safety and efficiency for the network.

Efficiency and effectiveness**How will the suite of provisions be efficient at achieving the objective?**

The policies generally provide an efficient way to achieve the Objective, as the benefits of providing for the efficient development of transport networks outweighs the costs. The primary benefits from the policies and rules is that new transport infrastructure is guided away from the most sensitive parts of the District, and a more lenient and enabling rule framework for more appropriate locations. The Objective considers every aspect of the transport network from safety, through to adverse effects of its development and operation.

How will the suite of provisions be effective at achieving the objective?

The approach of the provisions is that a more lenient activity status apply to new transport infrastructure not located within Identified Areas and a discretionary activity status within Identified Areas. This more stringent activity status indicates that these are not places where new transport infrastructure is appropriate. Identified areas include those more sensitive environments that are sensitive to change and have certain values that need to be protected. They include:

- Urban Expansion Area
- Significant Natural Area
- Outstanding Natural Feature
- Outstanding Natural Landscape
- Significant Amenity Landscape

- Outstanding Natural Character
- High Natural Character
- Heritage Precinct
- Heritage Items
- Maaori Sites of Significance
- Maaori Areas of Significance
- Notable Trees

The recommended approach constitutes an effective way to give effect to the RPS and is in accordance with Section 6 of the Act, by creating a policy and rule framework to guide the development of transport infrastructure into appropriate locations. It also recognises the need for an integrated and safe transport network.

6 CONCLUSION

After undertaking an evaluation as required by Section 32 of the RMA, the Objectives are considered the most appropriate way to achieve the Purpose of the RMA (Section 5) for addressing transport.

It is considered that the recommended policies and methods outlined above are the most appropriate way for achieving the objectives, having considered:

- (i) other reasonably practicable options for achieving the objective; and
- (ii) assessing the efficiency and effectiveness of the provisions in achieving the objective.

APPENDIX I PROVISION CASCADE

Objective	Policies	Rules	Standards / Assessment Criteria
<p>6.1.1 Objective – Development, Operation and Maintenance of Infrastructure</p> <p>Infrastructure is developed, operated and maintained to benefit the social, economic, cultural and environmental well-being of the district.</p>	6.1.2 Policy - Development, Operation and Maintenance	Rule 14.12.1 Operation, maintenance and minor upgrading of existing public roads, State Highways and associated road network activities (P5)	14.12.1.5 standards
	6.1.4 Policy – Infrastructure Benefits		
	6.5.2 Policy – Construction and Operation of the Land Transport Network	Rule 14.12.1 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities (P6)	14.12.1.6 standards
	6.5.3 Policy – Road Hierarchy and Function		
	6.5.4 Policy – Road Standards		
	6.5.5 Policy - Road Safety	Rule 14.12.1 Access and New Roads – Te Kowhai Airpark Zone (P7)	14.12.1.7 standards
	6.5.6 Policy – Network Utility Location	Rule 14.12.1 Off-road pedestrian and cycle facilities (P8)	14.12.8 standards
	6.5.7 Policy – Vehicle Access		
6.1.5 Policy –Natural Hazards and Climate Change			
6.4.5 Policy – Roading Infrastructure	Rule 14.12.2 Operation, maintenance and minor upgrading of existing public roads, State Highways and associated road network activities that do not comply		Discretion is restricted to: (a) Adverse effects on amenity values, including construction effects such as vibration and noise; (b) Adverse operational effects, particularly on residential or other sensitive land uses, including effects of vibration, noise, glare and vehicle emissions;
6.1.10 Policy – Infrastructure in Identified Areas			

	6.1.13 Policy –Future Growth Areas	with one or more of the conditions of Rule 14.12.1.5 (RD5)	<ul style="list-style-type: none"> (c) Severance and changes to drainage patterns; (d) The benefits provided by the activity, including safety and efficiency of the road network; (e) Management of sediment and dust, including the staging of works; (f) The volume, extent and depth of the earthworks activities; (g) The location of the earthworks activities, taking into account any effects on the values, qualities and characteristics of the site.
		Rule 14.12.2 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities that are not located within an Identified Area; and do not comply with one or more of the conditions of Rule 14.12.1.6 (RD6)	<p>Discretion is restricted to:</p> <ul style="list-style-type: none"> (a) Adverse effects on amenity values, including construction effects such as vibration and noise; (b) Adverse operational effects, particularly on residential or other sensitive land uses, including effects of vibration, noise, glare and vehicle emissions; (c) Severance and changes to drainage patterns; (d) The benefits provided by the activity, including safety and efficiency of the road network; (e) Management of sediment and dust, including the staging of works; (f) The volume, extent and depth of the earthworks activities; (g) The location of the earthworks activities, taking into account any effects on the values, qualities and characteristics of the site.

		<p>Rule 14.12.2 Access and New Roads – Te Kowhai Airpark Zone that do not comply with one or more of the conditions of Rule 14.12.1.7 (RD7)</p>	<p>Discretion is restricted to:</p> <ul style="list-style-type: none"> (a) The extent to which the Te Kowhai Airpark Framework Plan is not complied with; (b) The extent to which connectivity can safely and practically be achieved between Te Kowhai aerodrome and Te Kowhai village; (c) Adverse effects on amenity values, including construction effects such as vibration and noise; (d) Adverse operational effects, particularly on residential or other sensitive land uses, including effects of vibration, noise, glare and vehicle emissions; (e) Severance and changes to drainage patterns; (f) The benefits provided by the activity, including safety and efficiency of the road network; (g) Management of sediment and dust, including the staging of works; (h) The volume, extent and depth of the earthworks activities; (i) The location of the earthworks activities, taking into account any effects on the values, qualities and characteristics of the site.
		<p>Rule 14.12.2 Off-road pedestrian and cycle facilities that do not comply with one or more of the conditions of Rule 14.12.1.8 (RD8)</p>	<p>Discretion is restricted to:</p> <ul style="list-style-type: none"> (a) Design, construction and materials; (b) Safety for cyclists and pedestrians; (c) Connectivity with other off-road pedestrian and cycle facilities and the road network; and (d) Visual and amenity effects.
		<p>Rule 14.12.3 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities that are located within an Identified Area (D2)</p>	

	Table 14.12.5.5 - Functions of roads within the Road Hierarchy	
	Table 14.12.5.6 - Road Hierarchy list	
	Table 14.12.5.14 – Access and road conditions (Residential, Village, Business, Business Town Centre and Industrial Zones)	
	Table 14.12.5.15 – Access and road conditions (Rural and Country Living Zones)	
	Figure 14.12.5.16 – Attachment to Tables 14.12.5.14 and 14.12.5.15	
	Figure 14.12.5.17 – Tamahere Country Living Zone - Road cross sections	
	Figure 14.12.5.18 – Lorenzen Bay Structure Plan - Road cross sections	
	Figure 14.12.5.19 – Te Kauwhata Structure Plan – Road cross sections – Collector Roads	
	Figure 14.12.5.20 – Te Kauwhata Structure Plan – Road cross sections – Local Roads	
	Figure 14.12.5.21 – Te Kauwhata Structure Plan – Road cross sections – Greenway Corridor and Whangamarino Margin Roads	

<p>6.1.6 Objective – Reverse Sensitivity</p> <p>Infrastructure is protected from reverse sensitivity effects, and infrastructure (including the National Grid) is not compromised.</p>	<p>6.1.7 Policy – Reverse Sensitivity and Infrastructure</p>	<p>Setback requirements from roads in each zone chapter for sensitive landuses. These require different sized setbacks from:</p> <ul style="list-style-type: none"> • Local roads; • The designated boundary of the railway corridor; • National route or regional arterial boundary; and • The designated boundary of the Waikato Expressway; <p>Discretionary activity status for those buildings / activities not complying with these setbacks.</p>	
<p>6.4.1 Objective – Integration of Infrastructure with Subdivision, Land Use and Development</p> <p>Infrastructure is provided for, and integrated with, subdivision, use and development.</p>	<p>6.5.3 Policy – Road Hierarchy and Function</p> <p>6.5.4 Policy – Road Standards</p> <p>6.5.7 Policy – Vehicle Access</p> <p>6.4.2 Policy – Provide Adequate Infrastructure</p> <p>6.4.3 Policy – Infrastructure Location and Services</p> <p>6.4.4 Policy – Road and Rail Network</p> <p>6.4.5 Policy – Roading</p>	<p>Rule 14.3.1 Service connections for subdivision (PI2)</p>	<p>14.3.1.8</p> <p>(1) All new lots created as part of a subdivision other than a utility allotment, access allotment or reserve allotment, must be designed and located so that provision is made for access and service connections up to the boundary of the lot for:</p> <p>(a) Wastewater;</p> <p>(b) Water supply;</p> <p>(c) Stormwater (a management system that complies with Rule 14.10.1.1);</p> <p>(d) Electricity supply;</p> <p>(e) Telecommunications that is hard-wired or wireless; and</p> <p>(f) Vehicle access that complies with Rule 14.12.1.1.</p> <p>(2) Rule 14.3.1.8(1)(a) does not apply to any allotment that is served by a site-contained wastewater system in</p>

	Infrastructure		accordance with Rule 14.10.1.3.
	6.1.7 Policy – Reverse Sensitivity and Infrastructure		(3) Within all zones, except the Rural and Country Living Zones, the water supply required under Rule 14.3.1.8(1)(b) must be adequate for fire fighting purposes.
	6.1.2 Policy - Development, Operation and Maintenance	Rule 14.12.1 Vehicle access for all activities (P1)	14.12.1.1 standards
	6.1.13 Policy –Future Growth Areas	Rule 14.12.1 On-site parking and loading (P2)	14.12.1.2 standards
	4.1.4 Policy – Staging of development	Rule 14.12.1 On-site manoeuvring and queuing (P3)	14.12.1.3 standards
	4.7.5 Policy – Servicing requirements	Rule 14.12.1.4 Traffic generation (P4)	14.12.1.4 standards
	4.7.6 Policy – Co-ordination between servicing and development and subdivision	Rule 14.12.1.4 Access and New Roads – Te Kowhai Airpark Zone (P7)	14.12.1.7 standards
		Rule 14.12.1.4 Stock underpasses located within road and unformed road and the Rural Zone (p9)	14.12.1.9 standards
		Rule 14.12.2 Vehicle access that does not comply with one or more of the conditions of Rule 14.12.1.1 (RD1)	Discretion is restricted to: (a) Traffic generation by the activities to be served by the access; (b) Location, design, construction and materials of the vehicle access; (c) Safety for vehicles and pedestrians; (d) Road network safety and efficiency; and (e) Mitigation to address safety.
		Rule 14.12.2 On-site parking and loading that does not comply with one or more of the conditions of Rule 14.12.1.2	Discretion is restricted to: (a) The number, area, type, location and marking of parking spaces; (b) The area, design, gradient, stormwater management,

		(RD2)	<p>construction and materials of parking and loading spaces,</p> <p>(c) Accessibility of parking areas from on-site activities;</p> <p>(d) Safety for vehicles and pedestrians;</p> <p>(e) Mitigation to address amenity and connectivity.</p>
		Rule 14.12.2 On-site manoeuvring and queuing that does not comply with one or more of the conditions of Rule 14.12.1.3 (RD3)	<p>Discretion is restricted to:</p> <p>(a) Location, area, design, construction and materials of the manoeuvring and queuing space;</p> <p>(b) Type and frequency of use;</p> <p>(c) Safety design for vehicles and pedestrians;</p> <p>(d) Road network safety and efficiency.</p>
		Rule 14.12.2 Traffic generation that does not comply with one or more of the conditions of Rule 14.12.1.4 (RD4)	<p>Discretion is restricted to:</p> <p>(a) The trip characteristics of the proposed activity on the site;</p> <p>(b) Safety design for vehicles and pedestrians;</p> <p>(c) Road network safety and efficiency, particularly at peak traffic times;</p> <p>(d) Mitigation to address adverse effects, such as:</p> <ul style="list-style-type: none"> • Travel planning; • Providing alternatives to private vehicle trips, including accessibility to public transport; • Staging development; and • Contributing to improvements to the road network
		Rule 14.12.2 Access and New Roads – Te Kowhai Airpark Zone that do not comply with one or more of the conditions of Rule 14.12.1.7 (RD7)	<p>Discretion is restricted to:</p> <p>(a) The extent to which the Te Kowhai Airpark Framework Plan is not complied with;</p> <p>(b) The extent to which connectivity can safely and practically be achieved between Te Kowhai aerodrome and Te Kowhai village;</p> <p>(c) Adverse effects on amenity values, including construction effects such as vibration and noise;</p> <p>(d) Adverse operational effects, particularly on residential or other sensitive land uses, including effects of vibration, noise, glare and vehicle emissions;</p> <p>(e) Severance and changes to drainage patterns;</p> <p>(f) The benefits provided by the activity, including safety</p>

			<p>and efficiency of the road network;</p> <p>(g) Management of sediment and dust, including the staging of works;</p> <p>(h) The volume, extent and depth of the earthworks activities;</p> <p>(i) The location of the earthworks activities, taking into account any effects on the values, qualities and characteristics of the site.</p>
		<p>Rule 14.12.2 Off-road pedestrian and cycle facilities that do not comply with one or more of the conditions of Rule 14.12.1.8 (RD8)</p>	<p>Discretion is restricted to:</p> <p>(a) Design, construction and materials;</p> <p>(b) Safety for cyclists and pedestrians;</p> <p>(c) Connectivity with other off-road pedestrian and cycle facilities and the road network; and</p> <p>(d) Visual and amenity effects.</p>
		<p>Rule 14.12.3 Stock underpasses not provided for under Rule 14.12.1.9 (DI)</p>	
		<p>Table 14.12.5.13 – Traffic generation rates</p>	
		<p>Table 14.12.5.5 - Functions of roads within the Road Hierarchy</p>	
		<p>Table 14.12.5.6 - Road Hierarchy list</p>	
		<p>Table 14.12.5.14 – Access and road conditions (Residential, Village, Business, Business Town Centre and Industrial Zones)</p>	
		<p>Table 14.12.5.15 – Access and road conditions (Rural and Country Living Zones)</p>	

		Figure 14.12.5.16 – Attachment to Tables 14.12.5.14 and 14.12.5.15	
<p>6.1.8 Objective – Infrastructure in the Community and Identified Areas</p> <p>Infrastructure takes into account the qualities and characteristics of surrounding environments and community well-being.</p>	<p>6.19 Policy - Environmental Effects, Community Health, Safety and Amenity</p> <p>6.1.10 Policy – Infrastructure in Identified Areas</p>	Rule 11.4.1 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities (P6)	Standards 14.12.1.6
		Rule 11.4.1 Access and New Roads – Te Kowhai Airpark Zone (P7)	Standards 14.12.1.7
		<p>Rule 11.4.2 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities that:</p> <ul style="list-style-type: none"> • Are not located within an Identified Area; and • Do not comply with one or more of the conditions of Rule 14.12.1.6 (RD6) 	<p>Discretion is restricted to:</p> <ul style="list-style-type: none"> (a) Adverse effects on amenity values, including construction effects such as vibration and noise; (b) Adverse operational effects, particularly on residential or other sensitive land uses, including effects of vibration, noise, glare and vehicle emissions; (c) Severance and changes to drainage patterns; (d) The benefits provided by the activity, including safety and efficiency of the road network; (e) Management of sediment and dust, including the staging of works; (f) The volume, extent and depth of the earthworks activities; (g) The location of the earthworks activities, taking into account any effects on the values, qualities and characteristics of the site.

		<p>Rule 11.4.2 Access and New Roads – Te Kowhai Airpark Zone that do not comply with one or more of the conditions of Rule 14.12.1.7 (RD7)</p>	<p>Discretion is restricted to:</p> <ul style="list-style-type: none"> (a) The extent to which the Te Kowhai Airpark Framework Plan is not complied with; (b) The extent to which connectivity can safely and practically be achieved between Te Kowhai aerodrome and Te Kowhai village; (c) Adverse effects on amenity values, including construction effects such as vibration and noise; (d) Adverse operational effects, particularly on residential or other sensitive land uses, including effects of vibration, noise, glare and vehicle emissions; (e) Severance and changes to drainage patterns; (f) The benefits provided by the activity, including safety and efficiency of the road network; (g) Management of sediment and dust, including the staging of works; (h) The volume, extent and depth of the earthworks activities; (i) The location of the earthworks activities, taking into account any effects on the values, qualities and characteristics of the site.
		<p>Rule 14.12.3 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities that are located within an Identified Area (D2)</p>	
		<p>Table 14.12.5.14 – Access and road conditions (Residential, Village, Business, Business Town Centre and Industrial Zones)</p>	

		Table 14.12.5.15 – Access and road conditions (Rural and Country Living Zones)	
		Figure 14.12.5.17 – Tamahere Country Living Zone - Road cross sections	
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		Figure 14.12.5.19 – Te Kauwhata Structure Plan – Road cross sections – Collector Roads	
		Figure 14.12.5.20 – Te Kauwhata Structure Plan – Road cross sections – Local Roads	
		Figure 14.12.5.21 – Te Kauwhata Structure Plan – Road cross sections – Greenway Corridor and Whangamarino Margin Roads	
6.5.1 Objective – Land Transport Network An integrated land transport network where: (a) all transport modes are accessible, safe and efficient; and (b) adverse effects from the construction, maintenance and operation of the transport network are managed.	6.1.2 Policy - Development, Operation and Maintenance 6.1.4 Policy – Infrastructure Benefits 6.1.5 Policy –Natural Hazards and Climate Change 6.5.2 Policy – Construction and	Rule 14.12.1 Vehicle access for all activities (PI)	14.12.1.1 standards

	Operation of the Land Transport Network	Rule 14.12.1 On-site parking and loading (P2)	14.12.1.2 standards
	6.5.3 Policy – Road Hierarchy and Function		
	6.5.4 Policy – Road Standards	Rule 14.12.1 On-site manoeuvring and queuing (P3)	14.12.1.3 standards
	6.5.5 Policy - Road Safety	Rule 14.12.1.4 Traffic generation (P4)	14.12.1.4 standards
	6.5.6 Policy – Network Utility Location	Rule 14.12.1 Operation, maintenance and minor upgrading of existing public roads, State Highways and associated road network activities (P5)	14.12.1.5 standards
	6.5.7 Policy – Vehicle Access		
	6.1.7 Policy – Reverse Sensitivity and Infrastructure		
	6.4.2 Policy – Provide Adequate Infrastructure	Rule 14.12.1 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities (P6)	14.12.1.6 standards
	6.4.3 Policy – Infrastructure Location and Services		
	6.4.4 Policy – Road and Rail Network	Rule 14.12.1 Access and New Roads – Te Kowhai Airpark Zone (P7)	14.12.1.7 standards
6.4.5 Policy – Roading Infrastructure			
Policy - Environmental Effects, Community Health, Safety and Amenity	Rule 14.12.1 Off-road pedestrian and cycle facilities (P8)	14.12.8 standards	

<p>6.1.10 Policy – Infrastructure in Identified Areas</p> <p>Section 14.12 Transport</p>	<p>Rule 14.12.1.4 Stock underpasses located within road and unformed road and the Rural Zone (P9)</p>	<p>14.12.1.9 standards</p>
	<p>Rule 14.12.2 Vehicle access that does not comply with one or more of the conditions of Rule 14.12.1.1 (RD1)</p>	<p>Discretion is restricted to:</p> <p>(a) Traffic generation by the activities to be served by the access;</p> <p>(b) Location, design, construction and materials of the vehicle access;</p> <p>(c) Safety for vehicles and pedestrians;</p> <p>(d) Road network safety and efficiency; and</p> <p>(e) Mitigation to address safety.</p>
	<p>Rule 14.12.2 On-site parking and loading that does not comply with one or more of the conditions of Rule 14.12.1.2 (RD2)</p>	<p>Discretion is restricted to:</p> <p>(a) The number, area, type, location and marking of parking spaces;</p> <p>(b) The area, design, gradient, stormwater management, construction and materials of parking and loading spaces,</p> <p>(c) Accessibility of parking areas from on-site activities;</p> <p>(d) Safety for vehicles and pedestrians;</p> <p>(e) Mitigation to address amenity and connectivity.</p>
	<p>Rule 14.12.2 On-site manoeuvring and queuing that does not comply with one or more of the conditions of Rule 14.12.1.3 (RD3)</p>	<p>Discretion is restricted to:</p> <p>(a) Location, area, design, construction and materials of the manoeuvring and queuing space;</p> <p>(b) Type and frequency of use;</p> <p>(c) Safety design for vehicles and pedestrians;</p> <p>(d) Road network safety and efficiency.</p>
	<p>Rule 14.12.2 Traffic generation that does not comply with one or more of the conditions of Rule 14.12.1.4 (RD4)</p>	<p>Discretion is restricted to:</p> <p>(a) The trip characteristics of the proposed activity on the site;</p> <p>(b) Safety design for vehicles and pedestrians;</p> <p>(c) Road network safety and efficiency, particularly at peak traffic times;</p> <p>(d) Mitigation to address adverse effects, such as:</p> <ul style="list-style-type: none"> • Travel planning;

			<ul style="list-style-type: none"> • Providing alternatives to private vehicle trips, including accessibility to public transport; • Staging development; and • Contributing to improvements to the road network
		<p>Rule 14.12.2 Operation, maintenance and minor upgrading of existing public roads, State Highways and associated road network activities that do not comply with one or more of the conditions of Rule 14.12.1.5 (RD5)</p>	<p>Discretion is restricted to:</p> <ul style="list-style-type: none"> (a) Adverse effects on amenity values, including construction effects such as vibration and noise; (b) Adverse operational effects, particularly on residential or other sensitive land uses, including effects of vibration, noise, glare and vehicle emissions; (c) Severance and changes to drainage patterns; (d) The benefits provided by the activity, including safety and efficiency of the road network; (e) Management of sediment and dust, including the staging of works; (f) The volume, extent and depth of the earthworks activities; (g) The location of the earthworks activities, taking into account any effects on the values, qualities and characteristics of the site.
		<p>Rule 14.12.2 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities that are not located within an Identified Area; and do not comply with one or more of the conditions of Rule 14.12.1.6 (RD6)</p>	<p>Discretion is restricted to:</p> <ul style="list-style-type: none"> (a) Adverse effects on amenity values, including construction effects such as vibration and noise; (b) Adverse operational effects, particularly on residential or other sensitive land uses, including effects of vibration, noise, glare and vehicle emissions; (c) Severance and changes to drainage patterns; (d) The benefits provided by the activity, including safety and efficiency of the road network; (e) Management of sediment and dust, including the staging of works; (f) The volume, extent and depth of the earthworks activities; (g) The location of the earthworks activities, taking into

			account any effects on the values, qualities and characteristics of the site.
		Rule 14.12.2 Access and New Roads – Te Kowhai Airpark Zone that do not comply with one or more of the conditions of Rule 14.12.1.7 (RD7)	Discretion is restricted to: (a) The extent to which the Te Kowhai Airpark Framework Plan is not complied with; (b) The extent to which connectivity can safely and practically be achieved between Te Kowhai aerodrome and Te Kowhai village; (c) Adverse effects on amenity values, including construction effects such as vibration and noise; (d) Adverse operational effects, particularly on residential or other sensitive land uses, including effects of vibration, noise, glare and vehicle emissions; (e) Severance and changes to drainage patterns; (f) The benefits provided by the activity, including safety and efficiency of the road network; (g) Management of sediment and dust, including the staging of works; (h) The volume, extent and depth of the earthworks activities; (i) The location of the earthworks activities, taking into account any effects on the values, qualities and characteristics of the site.
		Rule 14.12.2 Off-road pedestrian and cycle facilities that do not comply with one or more of the conditions of Rule 14.12.1.8 (RD8)	Discretion is restricted to: (a) Design, construction and materials; (b) Safety for cyclists and pedestrians; (c) Connectivity with other off-road pedestrian and cycle facilities and the road network; and (d) Visual and amenity effects.
		Rule 14.12.3 Stock underpasses not provided for under Rule 14.12.1.9 (D1)	

		Rule 14.12.3 New public roads, including where the road has been identified on the planning maps as an Indicative road, and associated road network activities that are located within an Identified Area (D2)	
		Table 14.12.5.1 - Separation distances	
		Figure 14.12.5.2 - Separation distances	
		Table 14.12.5.3 - Minimum sight distances	
		Figure 14.12.5.4 - Minimum sight distances	
		Table 14.12.5.5 - Functions of roads within the Road Hierarchy	
		Table 14.12.5.6 - Road Hierarchy list	
		Table 14.12.5.7 – Required parking spaces and loading bays	
		Figure 14.12.5.8 – 90th Percentile car tracking curve minimum radius	
		Table 14.12.5.9 – Required accessible parking spaces	
		Table 14.12.5.10 – Required bicycle spaces	

		Table 14.12.5.11 – Car manoeuvring and parking space dimensions	
		Table 14.12.5.12 – Queuing space	
		Table 14.12.5.13 – Traffic generation rates	
		Table 14.12.5.14 – Access and road conditions (Residential, Village, Business, Business Town Centre and Industrial Zones)	
		Table 14.12.5.15 – Access and road conditions (Rural and Country Living Zones)	
		Figure 14.12.5.16 – Attachment to Tables 14.12.5.14 and 14.12.5.15	
		Figure 14.12.5.17 – Tamahere Country Living Zone - Road cross sections	
		Figure 14.12.5.18 – Lorenzen Bay Structure Plan - Road cross sections	
		Figure 14.12.5.19 – Te Kauwhata Structure Plan – Road cross sections – Collector Roads	
		Figure 14.12.5.20 – Te Kauwhata Structure Plan – Road cross sections – Local Roads	

		<p>Figure 14.12.5.21 – Te Kauwhata Structure Plan – Road cross sections – Greenway Corridor and Whangamarino Margin Roads</p>	
		<p>Setback requirements from roads in each zone chapter for sensitive landuses. These require different sized setbacks from:</p> <ul style="list-style-type: none"> • Local roads; • The designated boundary of the railway corridor; • National route or regional arterial boundary; and • The designated boundary of the Waikato Expressway; <p>Discretionary activity status for those buildings / activities not complying with these setbacks.</p>	
		<p>Rule 14.3.1 Service connections for subdivision (P12)</p>	<p>14.3.1.8 (1) All new lots created as part of a subdivision other than a utility allotment, access allotment or reserve allotment, must be designed and located so that provision is made for access and service connections up to the boundary of the lot for:</p> <ul style="list-style-type: none"> (a) Wastewater; (b) Water supply; (c) Stormwater (a management system that complies with Rule 14.10.1.1); (d) Electricity supply; (e) Telecommunications that is hard-wired or wireless;

			<p>and</p> <p>(f) Vehicle access that complies with Rule 14.12.1.1.</p> <p>(2) Rule 14.3.1.8(1)(a) does not apply to any allotment that is served by a site-contained wastewater system in accordance with Rule 14.10.1.3.</p> <p>(3) Within all zones, except the Rural and Country Living Zones, the water supply required under Rule 14.3.1.8(1)(b) must be adequate for fire fighting purposes.</p>
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APPENDIX 2 ISSUES AND OPTIONS REPORT

APPENDIX 3 CONSULTATION FEEDBACK