

# TRAN - Ranga waka - Transport

## Introduction

This chapter contains transport provisions generally applicable to all activities that occur throughout the District (unless otherwise specified). The application of the transport provisions is discussed further below in the transport rules.

A functioning transport system and transport modes are essential facilities and services that assist in meeting the social and economic well-being of people and communities and promote the efficient functioning of the District. The transport system therefore forms an important component of the physical resources of the District.

Land use and subdivision also needs to be managed to avoid, remedy or mitigate adverse effects of potentially incompatible activities on the provision of an integrated, safe, responsive, and sustainable transport system, which includes strategic transport networks.<sup>1</sup>

The provisions in this chapter are consistent with the matters in Part 2 - District Wide Matters - Strategic Directions and give effect to matters in Part 2 - District Wide Matters - Urban Form and Development.

## Other potentially relevant District Plan provisions

As well as the provisions in this chapter, other District Plan chapters that contain provisions that may also be relevant to Transport include:

- Special Purpose Zone (Kāinga Nohoanga): how the transport provisions apply in the Special Purpose Zone (Kāinga Nohoanga) is set out in SPZ(KN)-APP1 to SPZ(KN)-APP5 of that chapter.
- Any other District wide matter that may affect or relate to the site.
- Zones: the zone chapters contain provisions about what activities are anticipated to occur in the zones.

<b>Objectives</b>	
<b>TRAN-O1</b>	<p><b>A safe, resilient, efficient, integrated and sustainable transport system</b></p> <p>An integrated transport system, including those parts of the transport system that form part of critical infrastructure, strategic infrastructure, regionally significant infrastructure, and strategic transport networks, that:</p> <ol style="list-style-type: none"> <li>1. is safe, resilient, efficient and sustainable for all transport modes;</li> <li>2. is responsive to future needs and changing technology;</li> <li>3. enables economic development, including for freight;</li> <li>4. supports healthy and liveable communities;</li> <li>5. reduces dependency on <u>private single-occupant<sup>2</sup></u> motor vehicles, including through <u>prioritising<sup>3</sup></u> public transport, and active transport; and</li> <li>6. enables the economic, social, cultural and environmental well-being of people and communities.</li> </ol>
<b>TRAN-O2</b>	<b>Parking, loading area and associated access and manoeuvring area</b>

<sup>1</sup> CIAL [254.32]. TRAN missed submissions memo (1 November 2024).

<sup>2</sup> Waimakariri District Council [367.31]. TRAN Reply Report.

<sup>3</sup> Waimakariri District Council [367.31]. TRAN Reply Report.

	<p>Parking, where provided, loading area and associated access and manoeuvring area that:</p> <ol style="list-style-type: none"> <li>1. caters for access, parking demand and manoeuvring in an efficient, functional and sustainable manner;</li> <li>2. enhances the amenity values and function of town centres and Residential Zones;</li> <li>3. results in safe places for people to use and move through;</li> <li>4. is accessible and convenient for pedestrians;</li> <li>5. provides secure, visible and convenient cycle parking, and cycling end-of-journey facilities for staff;</li> <li>6. supports greater use of public transport, including through park and ride facilities; and</li> <li>7. enables access, loading and manoeuvring without reducing amenity values or compromising safety.</li> </ol>
<b>TRAN-O3</b>	<p><b>Adverse effects from the transport system</b>                  The District's transport system provides for the transportation needs of people and freight whilst adverse effects from the transport system are avoided, remedied or mitigated.</p>
<b>TRAN-O4</b>	<p><b>Effects of activities on the transport system</b>                  Adverse effects on the District's transport system from <u>incompatible</u><sup>4</sup> activities, including reverse sensitivity <u>effects</u><sup>5</sup>, are avoided, remedied or mitigated, <u>so the safety, efficiency and resilience of the transport system is not constrained or compromised</u><sup>6</sup>.</p>
<b>TRAN-O5</b>	<p><b>Rangiora Airfield</b>                  Provide for the safe, efficient and effective development and use of Rangiora Airfield to ensure it continues to contribute to the social and economic well-being of the Waimakariri District.</p>
<b>Policies</b>	
<b>TRAN-P1</b>	<p><b>Recognising the benefits of, and providing for, transport</b>                  Recognise the benefits of transport by:</p> <ol style="list-style-type: none"> <li>1. enabling the maintenance, repair, removal or minor upgrade of the transport system including land transport infrastructure;</li> <li>2. ensuring adverse effects of more than minor or significant upgrades to, or the development of new, transport connections and land transport infrastructure are avoided, remedied or mitigated; <u>taking into account the functional need and operational need of the infrastructure</u><sup>7</sup> and</li> <li>3. recognising the social and economic importance of the transport system, including those parts of the transport system that form part of critical infrastructure, strategic infrastructure and regionally significant infrastructure, and the functions and responsibilities of the transport system as a lifeline utility during an emergency.</li> </ol>
<b>TRAN-P2</b>	<p><b>Environmentally sustainable outcomes</b>  <del>Seek more Encourage</del><sup>8</sup> environmentally sustainable outcomes associated with transport, including <del>by promoting</del>:</p> <ol style="list-style-type: none"> <li>1. the use of public transport, active transport and sustainable forms of transport;</li> <li>2. the use of green infrastructure;</li> <li>3. the increased utilisation of renewable resources;</li> </ol>

<sup>4</sup> CIAL [254.35]. TRAN missed submissions memo (1 November 2024).

<sup>5</sup> CIAL [254.35]. TRAN missed submissions memo (1 November 2024).

<sup>6</sup> Waka Kotahi NZ Transport Agency [275.17]. TRAN Reply Report.

<sup>7</sup> Waka Kotahi [275.17]. TRAN Reply Report.

<sup>8</sup> Kainga Ora [325.76]. TRAN Reply Report.

	<ol style="list-style-type: none"> <li>4. the use of low impact approaches (such as in site, route or structure selection or construction methodology); <u>and</u></li> <li>5. using low carbon materials in construction;<sup>8</sup></li> <li><del>6. changing the way activities that generate high greenhouse gas emissions are delivered;</del></li> <li><del>7. offsetting greenhouse gas emissions through activities such as planting carbon sequestering trees or the establishment and restoration of wetlands; and</del></li> <li>8. <u>energy efficiency and conservation practices.</u><sup>9</sup></li> </ol>
<p><b>TRAN-P3</b></p>	<p><b>District Plan Road Hierarchy</b>                  Maintain a road hierarchy in the District Plan and protect the functioning of the roads within it to enable the District's roads to function efficiently with minimal conflict between activities, traffic, and people through controls on activities according to the District Plan road hierarchy classification of roads adjoining those activities.</p>
<p><b>TRAN-P4</b></p>	<p><b>New activities</b>                  New activities:</p> <ol style="list-style-type: none"> <li>1. locate on or establish primary access to <del>the classification of road</del> <u>a road classified</u><sup>10</sup> within the District Plan road hierarchy <u>as</u><sup>11</sup> best able to accommodate the level and type of traffic generated;</li> <li>2. provide safe entry and exit for vehicles to and from a site to a road without compromising the safety or efficiency of the road corridor or rail corridor;</li> <li>3. where a site has two or more road frontages, provide access from the classification of road within the District Plan road hierarchy best able to accommodate the level and type of traffic generated;</li> <li>4. provide safe and efficient access, including ease of access by service and emergency service vehicles; and</li> <li>5. provide facilities for safe active transport, including through marked on-road cycle lanes, separated cycle lane, sealed road shoulders with sufficient width to safely accommodate cyclists, off-road formed cycle paths, cycling end-of-journey facilities for staff, shared use path and footpaths.</li> </ol>
<p><b>TRAN-P5</b></p>	<p><b>High traffic generating activities</b>                  Manage the adverse effects of high traffic generating activities on the transport system according to the extent that they:</p> <ol style="list-style-type: none"> <li>1. generate additional <u>equivalent car vehicle</u><sup>12</sup> movements beyond what the existing road design can safely or efficiently accommodate or what the classification of the road within the District Plan road hierarchy intends to accommodate;</li> <li>2. are accessible by a range of transport modes and encourage public and active transport use;</li> <li>3. do not compromise the safe, efficient or effective use of the transport system, including ease of access by service and emergency service vehicles;</li> <li>4. provide patterns of development that optimise the use of the transport system;</li> <li>5. maximise positive transport effects;</li> <li>6. avoid, remedy or mitigate adverse transport effects;</li> <li>7. mitigate other adverse effects, such as effects on communities, and on the amenity values of the surrounding environment, including through travel demand management measures;</li> <li>8. provide for the transport needs of people whose mobility is restricted; and</li> </ol>

<sup>9</sup> Consequential amendment Kainga Ora [325.83]. TRAN Reply Report.

<sup>10</sup> Christchurch City Council [360.6]. TRAN Reply Report.

<sup>11</sup> Christchurch City Council [360.6]. TRAN Reply Report.

<sup>12</sup> Consequential amendment Kainga Ora [325.83]. TRAN Reply Report.

	9. integrate and coordinate with the transport system, including proposed land transport infrastructure and service improvements.
<b>TRAN-P6</b>	<b>Road/rail level crossings</b> Maintain safe visibility at road/rail level crossings.
<b>TRAN-P7</b>	<b>Connections between new development and public transport</b> Achieve connections between public transport and new developments in major settlements by requiring: <ol style="list-style-type: none"> <li>1. new residential neighbourhoods to be designed to ensure convenient and safe walking distances from proposed residential allotments to public transport and other amenities; and</li> <li>2. roading design that facilitates the provision of an efficient and convenient public transport system into, out of, and around the development.</li> </ol>
<b>TRAN-P8</b>	<b>Parking and public transport</b> Encourage the use of public transport by enabling parking that supports public transport services and infrastructure, including the provision of park and ride facilities to support public transport that are convenient, accessible and connected.
<b>TRAN-P9</b>	<b>Cycle transport</b> Encourage cycle transport through measures such as: <ol style="list-style-type: none"> <li>1. the provision of wider sealed road shoulders, marked on-road cycle lanes, separated cycle lane, shared use path and off-road formed cycle paths <u>throughout the transport system</u><sup>13</sup>;</li> <li>2. <u>new development designed to maximise convenient and safe connections to the active transport network; and</u><sup>14</sup></li> <li>3. the provision of cycle parking that is safe, convenient, visible and secure; and</li> <li>4. the provision of cycling end-of-journey facilities for staff such as showers and lockers <u>at larger-scale office, commercial, health, and tertiary education and research activities</u><sup>15</sup>.</li> </ol>
<b>TRAN-P10</b>	<b>Pedestrian movement within and adjacent to parking and associated manoeuvring area</b> Ensure safe pedestrian movement within and adjacent to parking and associated manoeuvring area by providing: <ol style="list-style-type: none"> <li>1. pedestrian routes that provide safe separation from vehicle movements and which are unimpeded by vehicles;</li> <li>2. visibility between vehicles and pedestrians; and</li> <li>3. pedestrian routes that are designed and constructed to be accessible.</li> </ol>
<b>TRAN-P11</b>	<b>Parking and associated access and manoeuvring area</b> Parking (where provided) and associated access and manoeuvring area shall ensure the following: <ol style="list-style-type: none"> <li>1. safe and efficient access, parking and manoeuvring is provided, including ease of access for service and emergency service vehicles;</li> <li>2. provide efficient and effective layout of parking, manoeuvring and circulating areas including restriction of vehicle speed and avoidance of long 'blind aisles';</li> <li>3. enable on site manoeuvring, and avoid reverse manoeuvring where required onto or from any road or pedestrian or cycling environment where this would adversely affect safety;</li> </ol>

<sup>13</sup> Waimakariri District Council [367.33]. TRAN Reply Report.

<sup>14</sup> Waimakariri District Council [367.33]. TRAN Reply Report. Note reply report does not show this as a track change.

<sup>15</sup> Waimakariri District Council [367.33]. TRAN Reply Report.

	<ol style="list-style-type: none"> <li>4. use of off site parking, in lieu of on site parking, will not adversely affect pedestrian, cycle or public transportation, public safety, and the safe or efficient operation of the road network;</li> <li>5. for shared parking, a legally binding arrangement is established that protects ongoing access and use;</li> <li>6. manage <u>the</u> adverse effects on <u>water quality and</u><sup>16</sup> stormwater runoff, preferably through the use of low impact stormwater management methods, including water sensitive design, and stormwater collection and attenuation of runoff;</li> <li>7. be permanently marked and surfaced where required, and maintained to control <u>adverse effects such as</u><sup>17</sup> the generation of dust, excessive noise, or <u>the trafficking of loose material onto a sealed road other nuisance</u><sup>18</sup>;</li> <li>8. reduce opportunities for crime and improve safety, taking into account the principles of CPTED and best practice Urban Design principles;</li> <li>9. ensure visibility through natural lighting or illumination;</li> <li>10. ensure that parking spaces required for people with disabilities are conveniently located and accessible, and the route from the parking space to the destination served is also easily accessible for people using mobility devices;</li> <li>11. enable provision of charging facilities for electric vehicles;</li> <li>12. include landscaping that:             <ol style="list-style-type: none"> <li>a. incorporates establishment and maintenance practices to ensure plant survival, and replacement during the next planting season if plants are diseased, damaged or dead;</li> <li>b. visually softens the dominant effect of hard surfaces;</li> <li>c. uses plant species that avoid hazard or nuisance effects, preferably uses frangible vegetation for safety reasons, and enhances local or regional indigenous biodiversity through the preferred use of indigenous vegetation naturally occurring within the ecological district within which planting will take place or from a naturally occurring and ecologically similar origin;</li> <li>d. integrates with stormwater management and footpaths, and may include the use of raingardens for stormwater collection and attenuation of runoff;</li> <li>e. does not adversely affect vehicle or pedestrian safety by impeding visibility; and</li> </ol> </li> <li>13. be designed to positively contribute to town centre amenity values and support town centre consolidation and the development of continuous street frontages within town centres, by locating parking principally within public parking areas, or by locating parking and vehicle access to the rear of sites or buildings, and not providing parking and vehicle access on individual site frontages, particularly on sites identified as having frontages to a Principal Shopping Street.</li> </ol>
<p><b>TRAN-P12</b></p>	<p><b>Loading area and associated access and manoeuvring area</b>                  Loading area and associated access and manoeuvring area to support activities requiring delivery or collection by service vehicles shall:</p> <ol style="list-style-type: none"> <li>1. be permanently marked and surfaced where required, and maintained to control the generation of dust, excessive noise, or other nuisance;</li> <li>2. provide safe and efficient vehicle movements for the largest vehicle types expected to use the facility or site;</li> <li>3. avoid reverse manoeuvring onto or from any road or pedestrian or cycling environment where this would adversely affect safety;</li> <li>4. provide sufficient separation between service vehicles, car parking, pedestrians and cyclists to enable the safe use of the facility;</li> </ol>

<sup>16</sup> Kainga Ora [325.77]. TRAN Reply Report.

<sup>17</sup> Kainga Ora [325.77]. TRAN Reply Report.

<sup>18</sup> Kainga Ora [325.77]. TRAN Reply Report.

	<ol style="list-style-type: none"> <li>5. avoid obstruction of any accessway;</li> <li>6. for shared loading facilities, a legally binding arrangement is established that protects ongoing access and use; and</li> <li>7. be accessed from the rear of the site, service lane, public loading space, or shared loading space, especially where a site is located in a town centre or is identified as having frontage to a Principal Shopping Street, and sufficient access is available for the largest vehicle types expected to use the facility or site.</li> </ol>
<p><b>TRAN-P13</b></p>	<p><b>Activities within the transport system</b>                  Across the District:</p> <ol style="list-style-type: none"> <li>1. enable activities for transport purposes and ancillary activities within the transport system that seek to provide for, maintain or improve:                         <ol style="list-style-type: none"> <li>a. the safety, amenity values, efficiency or functionality of the transport system, in particular, those parts of the transport system that form part of critical infrastructure, strategic infrastructure and regionally significant infrastructure;</li> <li>b. the safety of road design, taking into account the principles of CPTED and best practice Urban Design principles;</li> <li>c. structures, facilities, services and installations of the transport system, including land transport infrastructure;</li> <li>d. ease of access for service and emergency service vehicles; and</li> <li>e. ease of navigation or route finding;</li> </ol> </li> <li>2. promote the preferred use of frangible vegetation for landscaping purposes within the road corridor for safety reasons, and the preferred use of indigenous vegetation naturally occurring within the ecological district within which planting will take place, or from a naturally occurring and ecologically similar origin, to enhance local or regional indigenous biodiversity; and</li> <li>3. integrate landscaping in the road corridor with stormwater management, to the extent considered reasonably practicable, and may include the use of raingardens for stormwater collection and attenuation of runoff.</li> </ol>
<p><b>TRAN-P14</b></p>	<p><b>Adverse effects on amenity values of adjacent activities</b>                  Ensure adverse effects of <del>more than minor or significant</del><sup>19</sup> upgrades to, or the development of new, transport connections and land transport infrastructure are avoided, remedied or mitigated so that the effects of the activity maintain the amenity values of adjacent activities to the extent considered reasonably practicable, whilst providing for the transport system to function efficiently and safely.</p>
<p><b>TRAN-P15</b></p>	<p><b>Effects of activities on the transport system</b>                  Ensure, to the extent considered reasonably practicable, that other activities do not compromise the safe, <u>effective</u><sup>20</sup> and efficient operation, maintenance, repair, upgrading or development of the transport system, including through:</p> <ol style="list-style-type: none"> <li>1. managing access to the road corridor, and activities and development adjacent to road/rail level crossings, particularly where it is necessary to achieve protection of the safe and efficient functioning of the transport system, including those parts of the transport system that form part of critical infrastructure, strategic infrastructure and regionally significant infrastructure;</li> <li>2. avoiding, remedying or mitigating adverse reverse sensitivity effects on the transport system; and</li> <li>3. providing for ease of access for service and emergency service vehicles.</li> </ol>
<p><b>TRAN-P16</b></p>	<p><b>Rangiora Airfield</b></p>

<sup>19</sup> Kainga Ora [325.78]. TRAN Reply Report.

<sup>20</sup> Christchurch International Airport Ltd [254.36]. TRAN missed submissions memo (1 November 2024).



	Recognise and provide for the social and economic benefits of Rangiora Airfield, and avoid adverse effects from incompatible activities, including reverse sensitivity effects on Airfield operations <u>except as provided for through the Special Purpose Zone (Rangiora Airfield).</u> <sup>21</sup>
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## Rules

### How to interpret and apply the rules

1. All District formed public roads are designated for roading purposes.
2. Any land vested in the District Council, *Waka Kotahi* or any other Crown entity, as formed road pursuant to either any enactment or provision in this District Plan, or held by any other party as formed road, shall be deemed to be part of the road corridor.
3. Any land vested in or held by the District Council as formed public road shall be deemed to be designated for roading purposes by the District Council.
4. References to road types (local road, collector road, arterial road, and strategic road) refers to road classifications in the District Plan road hierarchy. The road hierarchy shown on the planning map shows only those roads classified as collector roads, arterial roads, or strategic roads; any other road not shown is a local road.
5. The zoning of the road corridor or rail corridor will generally be the same zone as that of the adjoining land, as shown on the planning map. Where the zoning of the land that adjoins one side of the road corridor or rail corridor is different to that of the land that adjoins the other side of the road corridor or rail corridor, then the road corridor or rail corridor shall generally be deemed to be included in both zones on the basis that the zone boundaries shall generally be deemed as the centre line of the road corridor or rail corridor.
6. If a road within the road corridor has been lawfully stopped under any enactment, and any relevant roading designation removed, then the land shall no longer be part of the road corridor, and the zoning of the land will be the same zone as that of the adjoining land, as shown on the planning map, and subject to all the provisions for that zone (as well as any relevant District wide provisions) from the date of the road stopping and removal of any relevant roading designation. Where the zoning of the land that adjoins one side of the former road is different to that of the land that adjoins the other side of the former road, then the land shall be deemed to be included in both zones on the basis that the zone boundaries shall be deemed as the centre line of the former road.
7. Where the road corridor or rail corridor crosses a water body the relevant Transport provisions shall apply only to the bridge/road above the water body.
8. Unless otherwise specified in the District Plan, the Transport rules apply to all activities.
9. Activities are subject to compliance with all relevant Transport rules.
10. Activities that are subject to any relevant Transport rules are also subject to any relevant zone and District wide provisions.
11. The status of any activity not provided for under the District Wide Transport provisions, will be determined under the relevant Zone provisions.

### Separate approval from the relevant road controlling authority

1. Approval for any work in a road, including the establishment of access to properties, must be obtained from the relevant road controlling authority. Under section 317 of the Local Government Act 1974, the District Council is the road controlling authority for all roads in the District, with the following exceptions:

<sup>21</sup> Daniel Smith [10.1]. SPZ (Rangiora Airfield) Reply Report.

- a. state highways under the control of *Waka Kotahi*, unless *Waka Kotahi* has delegated control to the District Council;
  - b. central government roads are under the control of the Minister of Transport.
2. Under section 51(2) of the Government Roding Powers Act 1989, the written permission of *Waka Kotahi* must be obtained prior to the commencement of any work on any state highway. Early consultation with *Waka Kotahi* should be undertaken for subdivision or development proposals adjacent to, or seeking access to, state highways.
  3. Where the state highway has been declared a Limited Access Road, approval from *Waka Kotahi* is required for new accesses or changes to existing accesses. The objective of this control is to protect the operation of the state highway from uncontrolled property access that can affect the safety, efficiency, functionality and level of service of the state highway. Limited access roads are most commonly in areas with a heightened development pressure. *Waka Kotahi* should be consulted initially with respect to development along limited access roads.

## Activity Rules

<b>TRAN-R1</b>	<b>Maintenance of the existing transport system</b>	
<b>All Zones</b>	<b>Activity status: PER</b>	<b>Activity status when compliance not achieved: N/A</b>
<b>TRAN-R2</b>	<b>Provision of new, and additions or upgrades to existing, land transport infrastructure</b> <i>This rule applies to aspects of land transport infrastructure not otherwise provided for under TRAN-R3 to TRAN-R20. Where an aspect of land transport infrastructure is provided for under TRAN-R3 to TRAN-R20 then that other rule(s) takes precedence.</i>	
<b>All Zones</b>	<b>Activity status: PER</b> Where: <ol style="list-style-type: none"> <li>1. the activity complies with the following, as applicable:                         <ol style="list-style-type: none"> <li>a. TRAN-R3 to TRAN-R17 and TRAN-R20;</li> <li>b. TRAN-R18 and TRAN-R19.</li> </ol> </li> </ol>	<b>Activity status when compliance with TRAN-R2 (1)(a) not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD19 - Land transport infrastructure TRAN-MD20 - Extent of effects <b>Activity status when compliance with TRAN-R2 (1)(b) not achieved: DIS</b>
<b>TRAN-R3</b>	<b>Formation of a new road</b>	
<b>All Zones</b>	<b>Activity status: PER</b> Where: <ol style="list-style-type: none"> <li>1. any activity that includes the formation of a new road shall comply with the design standards for new roads in TRAN-S1 Table TRAN-3 or Table TRAN-4 (as applicable).</li> </ol>	<b>Activity status when compliance not achieved: as set out in TRAN-S1</b>
	<b>Advisory Notes</b> <ul style="list-style-type: none"> <li>• Check the ECOP for relevant road construction standards.</li> <li>• Check also CE-R5 in the Coastal Environment Chapter, and NFL-R9 in the Natural Features and Landscapes Chapter.</li> </ul>	
<b>TRAN-R4</b>	<b>Formation of a new road intersection</b>	



<p><b>All Zones</b></p>	<p><b>Activity status: PER</b> Where: 1. any activity that includes the formation of a new road intersection shall comply with the minimum road intersection separation distances in TRAN-S2 below.</p>	<p><b>Activity status when compliance not achieved: as set out in TRAN-S2</b></p>
<p><b>Advisory Note</b></p> <ul style="list-style-type: none"> <li>• Check the ECOP for relevant road construction standards.</li> </ul>		
<p><b>TRAN-R5 Formation of a new vehicle crossing</b></p>		
<p><b>All Zones</b></p>	<p><b>Activity status: PER</b> Where: 1. any activity that includes the formation of a new vehicle crossing shall comply with the design standards for new vehicle crossings in TRAN-S3 below.</p>	<p><b>Activity status when compliance not achieved: as set out in TRAN-S3</b></p>
<p><b>Advisory Notes</b></p> <ul style="list-style-type: none"> <li>• Check the District Council's Vehicle Crossing Bylaw 2019 for any other relevant requirements.</li> <li>• Check the ECOP for relevant construction standards.</li> <li>• Check TRAN-R7 below regarding the formation of a new vehicle crossing on a sealed road where the posted speed limit is 60km/hr or above.</li> <li>• Check TRAN-R8 below regarding provision of a new vehicle crossing on a site that has frontage to more than one road.</li> </ul>		
<p><b>TRAN-R6 Formation of a new vehicle accessway</b></p>		
<p><b>All Zones</b></p>	<p><b>Activity status: PER</b> Where: 1. any activity that includes the formation of a new vehicle accessway shall comply with the design standards for new vehicle accessways in TRAN-S4 below; 2. any new vehicle accessway that serves three or more sites shall achieve the minimum sight lines for pedestrian safety by way of a visibility splay as shown in Figure TRAN-4; and 3. in the circumstances specified in (a) and (b) below, a new vehicle</p>	<p><b>Activity status when compliance not achieved: as set out in TRAN-S4</b></p>

	<p>accessway shall be designed to the standard of a new road as per Table TRAN-3 or Table TRAN-4, with the applicable standard based on the posted speed limit of the road with which the accessway will connect:</p> <ul style="list-style-type: none"> <li>a. where any new vehicle accessway in <del>a Residential Zones or Rural Zones</del> will serve six or more sites; or <u>aa. where any new vehicle accessway in a Residential Zone will serve 11 or more sites:</u> <sup>or<sup>22</sup></sup></li> <li>b. where <u>equivalent car vehicle<sup>23</sup></u> movements on any new accessway will exceed 100 per day.</li> </ul>	
	<p><b>Advisory Notes</b></p> <ul style="list-style-type: none"> <li>• <del>The table in TRAN-APP6 provides a guide to the level of traffic generation that could be expected for a range of activities. The purpose of this table is to assist a plan user to estimate their traffic generation. This table has been based on information contained in the Waka Kotahi Research Report 453 'Trips and Parking Related to Land Use'. Where a proposed activity does not align with the listed activities, and/or f<sup>or</sup><sup>24</sup> greater certainty regarding the estimated level of traffic generation, it is recommended that guidance is sought from an independent suitably qualified and experienced transport engineer.</del></li> <li>• Check the ECOP for relevant construction standards.</li> </ul>	
<b>TRAN-R7</b>	<b>Formation of a new vehicle crossing on a sealed road where the posted speed limit is 60km/hr<sup>25</sup> or above</b>	
<b>All Zones</b>	<p><b>Activity status: PER</b> Where:</p> <ol style="list-style-type: none"> <li>1. any activity that includes the formation of a new vehicle crossing on a sealed road where the posted speed limit is 60km/hr<sup>26</sup> or above, shall comply with the design standards in TRAN-S5 below; except that where</li> </ol>	<p><b>Activity status when compliance not achieved: as set out in TRAN-S5</b></p>

<sup>22</sup> Kainga Ora [325.86]. TRAN Reply Report.

<sup>23</sup> Consequential amendment Kainga Ora [325.83]. TRAN Reply Report.

<sup>24</sup> Sports and Education Corporation [416.9]. TRAN Reply Report.

<sup>25</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

<sup>26</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

	<p>the new vehicle crossing is expected to carry more than 100 <u>equivalent car vehicle</u><sup>27</sup> movements per day or have peak hour flows of more than 20 <u>equivalent car vehicle</u><sup>28</sup> movements, the new vehicle crossing shall be treated as an intersection and meet the intersection design standards set out in the Austroads Guide to Road Design.</p>	
	<p><b>Advisory Notes</b></p> <ul style="list-style-type: none"> <li>• <del>The table in TRAN-APP6 provides a guide to the level of traffic generation that could be expected for a range of activities. The purpose of this table is to assist a plan user to estimate their traffic generation. This table has been based on information contained in the Waka Kotahi Research Report 453 'Trips and Parking Related to Land Use'. Where a proposed activity does not align with the listed activities, and/or f</del><sup>29</sup> greater certainty regarding the estimated level of traffic generation, it is recommended that guidance is sought from an independent suitably qualified and experienced transport engineer.</li> <li>• Check the ECOP for relevant construction standards.</li> </ul>	
<p><b>TRAN-R8</b></p>	<p><b>Formation of a new vehicle crossing on a site with frontage to more than one road</b></p>	
<p><b>All Zones</b></p>	<p><b>Activity status: PER</b> Where:</p> <ol style="list-style-type: none"> <li>1. for any activity that includes a new vehicle crossing to be formed on a site that has frontage to both a State Highway and any other road in the District Plan road hierarchy, the new vehicle crossing shall not be to the State Highway;</li> <li>2. other than in (1) above, for any activity that includes a new vehicle crossing to be formed on a site that has frontage to more than one road, the new vehicle crossing shall be to the road that has the lower classification in the District Plan road hierarchy; and</li> <li>3. the new vehicle crossing complies with TRAN-R5 and TRAN-R7 (as applicable).</li> </ol>	<p><b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD20 - Extent of effects <b>Notification</b> An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified only to the relevant road controlling authority where the consent authority considers this is required, absent its written approval.</p>
<p><b>TRAN-R9</b></p>	<p><b>Provision of accessible car parking space</b></p>	

<sup>27</sup> Consequential amendment Kainga Ora [325.83]. TRAN Reply Report.

<sup>28</sup> Consequential amendment Kainga Ora [325.83]. TRAN Reply Report.

<sup>29</sup> Sports and Education Corporation [416.9]. TRAN Reply Report.

<p><b>All Zones</b></p>	<p><b>Activity status: PER</b> Where:</p> <ol style="list-style-type: none"> <li>1. except in the circumstance specified in (3)(a) below, any activity (excluding residential activity) shall provide accessible car parking spaces on site;</li> <li>2. where on site car parking is provided, the required number of accessible car parking spaces to be provided shall be in accordance with the minimum requirements in TRAN-S6 below; and</li> <li>3. where on site car parking is not provided, the required number of accessible car parking spaces to be provided shall be in accordance with the following:             <ol style="list-style-type: none"> <li>a. where GFA is less than 200m<sup>2</sup>, no accessible car parking spaces are required;</li> <li>b. where GFA is 200-500m<sup>2</sup>, one accessible car parking space is required; and</li> <li>c. where GFA is more than 500m<sup>2</sup>, one accessible car parking space is required, plus one additional accessible car parking space is required for every additional 2,500m<sup>2</sup> GFA thereafter.</li> </ol> </li> </ol>	<p><b>Activity status when compliance not achieved: as set out in TRAN-S6</b></p>
<p><b>TRAN-R10 Provision of car parking space and associated manoeuvring area</b></p>		
<p><b>All Zones</b></p>	<p><b>Activity status: PER</b> Where:</p> <ol style="list-style-type: none"> <li>1. any activity that includes the provision of any on site car parking spaces, including accessible car parking spaces, shall comply with the dimensions for car parking spaces and associated manoeuvring area specified in TRAN-S7 below;</li> <li>2. for the location of parking spaces and associated manoeuvring area provided on sites with frontage to a Principal Shopping Street in:             <ol style="list-style-type: none"> <li>a. Oxford – see TRAN-R18 below;</li> <li>b. Rangiora or Kaiapoi – see TRAN-R19 below;</li> </ol> </li> <li>3. for any activity, on site manoeuvring area shall be provided to ensure that no vehicle is required to reverse onto or off a strategic road, State Highway, arterial road, or any road where there is a marked on-road cycle lane,</li> </ol>	<p><b>Activity status when compliance not achieved with TRAN-R10 (1) and (3) to (5): as set out in TRAN-S7</b> <b>Activity status when compliance not achieved with TRAN-R10 (2)(a): as set out in TRAN-R18</b> <b>Activity status when compliance not achieved with TRAN-R10 (2)(b): as set out in TRAN-R19</b></p>

	<p>separated cycle lane or a shared use path across the site road frontage;</p> <ol style="list-style-type: none"> <li>4. for any activity, on site manoeuvring area shall be provided for a 99 percentile design vehicle as shown in Appendix TRAN-APP3 to ensure that no such vehicle is required to reverse either onto or off any collector road; and</li> <li>5. for any activity, on site manoeuvring area shall be provided for a 99 percentile design vehicle as shown in Appendix TRAN-APP3 to ensure that no such vehicle is required to reverse either onto or off any local road where:             <ol style="list-style-type: none"> <li>a. ten or more parking spaces are to be serviced by a single accessway; or</li> <li>b. five or more residential units share a single accessway; or</li> <li>c. the activity is on a rear site.</li> </ol> </li> </ol>	
<b>TRAN-R11</b>	<b>Provision of loading space and associated manoeuvring area</b>	
<b>All Zones</b>	<p><b>Activity status: PER</b> Where:</p> <ol style="list-style-type: none"> <li>1. for any activity (excluding a residential unit), loading space and associated manoeuvring area shall be provided that complies with the minimum loading space and associated manoeuvring area dimensions in TRAN-S8 below;</li> <li>2. the dimensions that apply shall be based on the largest vehicle expected to visit the site, and shall as a minimum accommodate a medium rigid truck;</li> <li>3. the loading space and associated manoeuvring area shall be provided on site;</li> <li>4. for the location of loading spaces and associated manoeuvring area on sites with frontage to a Principal Shopping Street in:             <ol style="list-style-type: none"> <li>a. Oxford – see TRAN-R18 below;</li> <li>b. Rangiora or Kaiapoi – see TRAN-R19 below; and</li> </ol> </li> <li>5. the loading space and associated manoeuvring area provided shall ensure that no vehicle is required to reverse either onto or off a site where vehicle access is to a strategic road,</li> </ol>	<p><b>Activity status when compliance not achieved with TRAN-R11 (1) to (3) and (5): as set out in TRAN-S8</b> <b>Activity status when compliance not achieved with TRAN-R11 (4)(a): as set out in TRAN-R18</b> <b>Activity status when compliance not achieved with TRAN-R11 (4)(b): as set out in TRAN-R19</b></p>

	<p>arterial road or collector road, or to any road where there is a marked on-road cycle lane, separated cycle lane or a shared use path across the site frontage, or where the site gains access by a right of way or shared accessway.</p>	
<b>TRAN-R12</b>	<b>Formation of parking area, loading area, manoeuvring area, vehicle crossing or accessway</b>	
<b>All Zones</b>	<p><b>Activity status: PER</b> Where:</p> <ol style="list-style-type: none"> <li>1. except where specified in (2) and (3) below, for all activities:             <ol style="list-style-type: none"> <li>a. any vehicle crossing, accessway, and on site parking area, loading area, and manoeuvring area shall be formed, sealed and drained;</li> <li>b. parking space and loading space shall be permanently marked;</li> <li>c. where parking space and loading space are used at night these shall be illuminated and shall comply with the relevant provisions in the Light Chapter;</li> </ol> </li> <li>2. except where specified in (3) below, for all activities in Rural Zones, Special Purpose Zone (Kāinga Nohoanga), <del>or</del> Special Purpose Zone (Pines Beach and Kairaki Regeneration) <u>or Natural Open Space Zone<sup>30</sup></u>:             <ol style="list-style-type: none"> <li>a. any vehicle crossing shall be formed, sealed and drained;</li> <li>b. any accessway, and on site parking area, loading area, and manoeuvring area, shall be either:                 <ol style="list-style-type: none"> <li>i. formed, sealed and drained; or</li> <li>ii. formed to an all weather standard, and maintained to avoid:                     <ol style="list-style-type: none"> <li>a. stormwater ponding on parking area, loading area, or manoeuvring area;</li> <li>b. stormwater runoff onto an adjoining site or road;</li> </ol> </li> </ol> </li> </ol> </li> </ol>	<p><b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b></p> <p>TRAN-MD15 - Formation of parking, loading and manoeuring areas and associated vehicle crossings and accessways</p> <p>TRAN-MD16 - Illumination of parking or loading areas</p>

<sup>30</sup> Te Kohaka o Tuhaitara Trust [113.1]. TRAN Reply Report.



	<ul style="list-style-type: none"> <li>c. adverse dust or noise effects being experienced beyond the boundaries of the site;</li> <li>d. vehicle traffic spreading loose gravel onto an adjoining sealed road;</li> </ul> <p>3. the requirements in (1) and (2) above shall not apply to the following:</p> <ul style="list-style-type: none"> <li>a. sites where vehicle access is obtained from an unsealed road; and</li> <li>b. activities provided for as temporary activities under the provisions of the Temporary Activities Chapter of the District Plan.</li> </ul>	
<p><b>Advisory Note</b></p> <ul style="list-style-type: none"> <li>• Check the ECOP for relevant road construction standards.</li> </ul>		
<p><b>TRAN-R13 Landscaping of a new car parking area</b></p>		
<p><b>All Zones</b></p>	<p><b>Activity status: PER</b> Where:</p> <ol style="list-style-type: none"> <li>1. for any activity (excluding residential activity) providing more than 5 new car parking spaces on a site, landscaping shall be provided within a landscaping strip(s) or within a planting protection area(s);</li> <li>2. landscaping strip(s) shall have a minimum width, and planting protection area(s) shall have a minimum diameter, of 1.5m;</li> <li>3. landscaping shall be within, or immediately adjacent to, the parking area;</li> <li>4. landscaping shall consist of a combination of trees, shrubs and ground cover species;</li> <li>5. trees shall:             <ul style="list-style-type: none"> <li>a. be placed at regular spacings along a road boundary or within a parking area;</li> <li>b. have a minimum height of 1.5m above ground level and be in a healthy state at the time of planting;</li> <li>c. be a species capable of attaining a minimum height above ground level at maturity of at least 4m;</li> </ul> </li> </ol>	<p><b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD20 - Extent of effects</p>

	<p>d. be planted no closer than 2m from an underground service or 1m from a footpath or kerb;</p> <p>6. landscaping shall be maintained so as to not obscure visibility or impede the movement of drivers or pedestrians;</p> <p>7. landscaping placed within the vicinity of electricity lines shall be selected and maintained to ensure the Electricity (Hazards from Trees) Regulations 2003 are not breached; and</p> <p>8. all landscaping shall be maintained and, if diseased, damaged or dead, shall be replaced during the next planting season.</p>	
	<p><b>Advisory Notes</b></p> <ul style="list-style-type: none"> <li>• It is recommended landscaping be comprised of indigenous vegetation naturally occurring within the ecological district within which planting will take place, or from a naturally occurring and ecologically similar origin, to enhance local or regional indigenous biodiversity.</li> <li>• Landscaping may be integrated with stormwater management for the parking area, and may include the use of raingardens or other devices for stormwater collection and attenuation of runoff.</li> </ul>	
<p><b>TRAN-R14 Provision of new footpaths</b></p>		
<p><b>All Zones</b></p>	<p><b>Activity status: PER</b> Where:</p> <ol style="list-style-type: none"> <li>1. for any activity that includes the creation of a new road in Residential Zones, Special Purpose Zones, or Commercial and Mixed Use Zones, new footpaths (where none currently exist) shall be provided within the <del>road reserve</del><sup>31</sup> road corridor in accordance with the requirements for new footpaths in TRAN-S9 below.</li> </ol>	<p><b>Activity status when compliance not achieved: as set out in TRAN-S9</b></p>
	<p><b>Advisory Note</b></p> <ul style="list-style-type: none"> <li>• Check the ECOP for relevant road construction standards.</li> </ul>	
<p><b>TRAN-R15 Provision of new cycle parking</b></p>		
<p><b>All Zones</b></p>	<p><b>Activity status: PER</b> Where:</p> <ol style="list-style-type: none"> <li>1. for any activity, cycle parking shall be provided in accordance with the</li> </ol>	<p><b>Activity status when compliance not achieved: as set out in TRAN-S10</b></p>

<sup>31</sup> Waka Kotahi NZ Transport Agency [275.3]. TRAN Reply Report.

	<p>requirements in TRAN-S10 below. Where the calculation of the required number of cycle parks results in a fraction of a space, any fraction that is less than one half shall be disregarded and any fraction of one half or more shall be counted as 1 space. The cycle parking requirements for each different type of user shown in TRAN-S10 shall be calculated and rounded separately; and</p> <ol style="list-style-type: none"> <li>2. any required cycle parking shall be designed and constructed as follows:             <ol style="list-style-type: none"> <li>a. short stay * cycle parking shall:                 <ol style="list-style-type: none"> <li>i. be located within 15m of the entrance to an activity or bus stops;</li> <li>ii. be visible when approaching or leaving an activity or bus stops;</li> </ol> </li> <li>b. cycle parks shall:                 <ol style="list-style-type: none"> <li>i. be a "staple" type of cycle stand as shown in Appendix TRAN-APP5 and physically support the cycle frame and not the front wheel only;</li> <li>ii. provide for cycle security where the cycle stand is constructed of durable material and is securely anchored to the ground or other immovable object, and allows the cycle frame to be secured to the</li> </ol> </li> </ol> </li> </ol>	
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	<p>cycle stand by a "D-lock" or "U-lock";</p> <ul style="list-style-type: none"> <li>iii. not require lifting of the cycle for the cycle to be secured to the cycle stand;</li> <li>iv. be under lighting when used at night;</li> <li>v. be protected ** from motor vehicles;</li> <li>vi. not create a safety hazard or impede pedestrian thoroughfares;</li> </ul> <p>c. long stay *** cycle parking shall be in a secure covered facility with external access to the street;</p> <p>d. cycle stands shall have the dimensions shown in Appendix TRAN-APP5.</p>	
<p><b>Advisory Notes</b></p> <p>* Short stay cycle parking (<a href="#">see TRAN-S10 Table TRAN-13</a>)<sup>32</sup> is anticipated to be for 1 hour or less.</p> <p>** Protection of cycle parks from motor vehicles may be achieved by methods such as the placement of bollards between a road and cycle parks adjacent to a road, or cycle parks being set well back from a road, or the location of cycle parks within a secure covered facility.</p> <p>*** Long stay cycle parking, <a href="#">such as</a><sup>33</sup> for staff (<a href="#">see TRAN-S10 Table TRAN-13</a>)<sup>34</sup>, is anticipated to be for 4 hours or more.</p>		
<p><b>TRAN-R16 Provision of cycling end-of-trip facilities for staff</b></p>		
<p><b>All Zones</b></p>	<p><b>Activity status: PER</b> Where:</p> <ul style="list-style-type: none"> <li>1. in circumstances where staff cycle parks are required under TRAN-R15 above, cycling end-of-trip facilities for staff shall be provided in accordance with TRAN-S11 below.</li> </ul>	<p><b>Activity status when compliance not achieved: as set out in TRAN-S11</b></p>

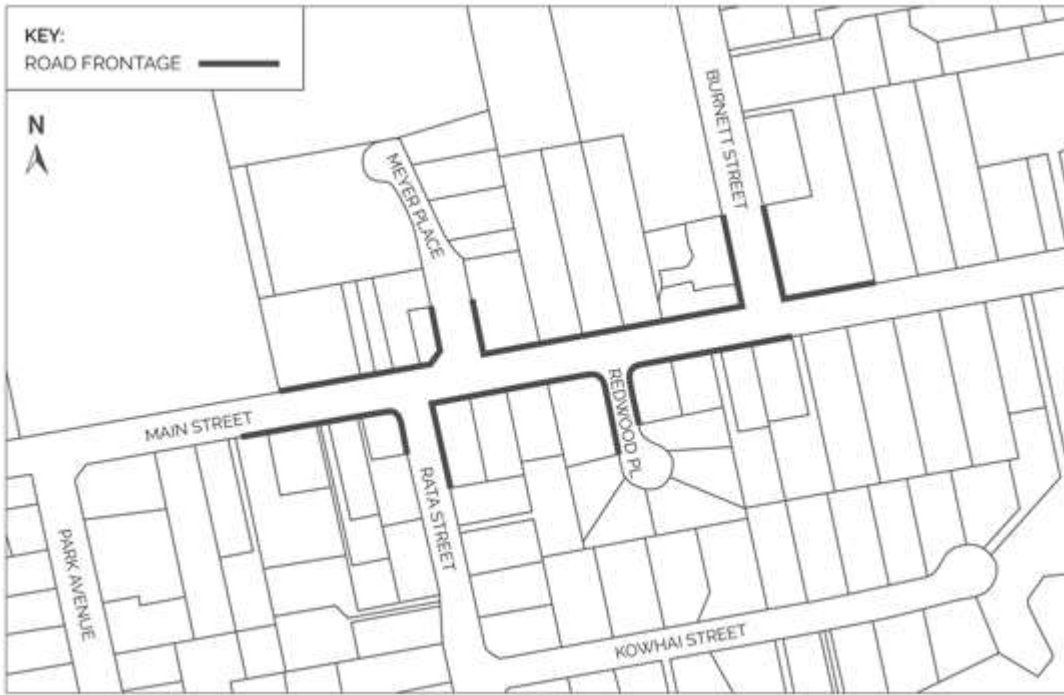
<sup>32</sup> Sports and Education Corporation [416.12]. TRAN Reply Report.

<sup>33</sup> Sports and Education Corporation [416.12]. TRAN Reply Report.

<sup>34</sup> Sports and Education Corporation [416.12]. TRAN Reply Report.

<b>TRAN-R17 Installation of new charging facilities for electric vehicles</b>		
<b>All Zones</b>	<b>Activity status: PER</b> Where: 1. the new charging facility is installed immediately adjacent to an existing, permitted or consented vehicle parking space located in a road corridor, vehicle depot, garage, parking lot, parking area or parking building.	<b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD19 (10) - Land transport infrastructure
<b>TRAN-R18 Provision of a parking area or loading area and associated manoeuvring area on a site with frontage to a Principal Shopping Street in Oxford</b>		
<b>Local Centre Zone</b>	<b>Activity status: PER</b> Where: 1. for any activity, any new parking area or loading area and associated manoeuvring area provided on a site with frontage to a Principal Shopping Street in Oxford (see Figure TRAN-1 below) shall be located to the rear of the site or any building and not on the 'Principal Shopping Street' frontage (with the exception of access).	<b>Activity status when compliance not achieved: DIS</b>

**Figure TRAN-1: Principal Shopping Street frontages in Oxford**



<b>TRAN-R19</b>	<b>Provision of a parking area or loading area and associated manoeuvring area on a site with frontage to a Principal Shopping Street in Rangiora or Kaiapoi</b>	
<b>Town Centre Zone</b>	<p><b>Activity status: RDIS</b> Where:</p> <ol style="list-style-type: none"> <li>1. except as specified in (2) below, for any activity, any new parking area or loading area and associated manoeuvring area provided on a site with frontage to a Principal Shopping Street in Rangiora (see Figure TRAN-2 below) or Kaiapoi (see Figure TRAN-3 below) shall be located to the rear of the site or any building and not on the 'Principal Shopping Street' frontage (with the exception of new pedestrian access);</li> <li>2. loading space and associated manoeuvring area shall not be required to be located on site, where loading and manoeuvring for the largest vehicle expected to visit the site can be undertaken from a service lane, public loading space, or shared loading space, and this can as a minimum accommodate a medium rigid truck based on the minimum dimensions in TRAN-S8 below; and</li> <li>3. a new vehicle crossing for an on site parking area, loading area and associated manoeuvring area shall</li> </ol>	<b>Activity status when compliance not achieved: DIS</b>



<p>not be located across the 'Principal Shopping Street' frontage.  <b>Matters of discretion are restricted to:</b>                  TRAN-MD21 - Location of parking or loading and associated manoeuvring area on a site with frontage to a Principal Shopping Street in Rangiora or Kaiapoi.</p>
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**Figure TRAN-2: Principal Shopping Street frontages in Rangiora**



**Figure TRAN-3: Principal Shopping Street frontages in Kaiapoi**



<b>TRAN-R20</b>	<b>High traffic <u>generators generating activities</u><sup>35</sup></b>		
<b>All Zones</b>	<p><b>Activity status: RDIS</b> Where:</p> <ol style="list-style-type: none"> <li>any activity <u>that requires a Basic ITA or Full ITA as indicated in Table TRAN-1 generates an average daily traffic volume that exceeds the thresholds contained in Table TRAN-1 below</u><sup>36</sup>; and</li> <li>for the activities in (1) above:                     <ol style="list-style-type: none"> <li>either a Basic ITA or Full ITA shall be</li> </ol> </li> </ol>		<p><b>Activity status when compliance not achieved: N/A</b></p>

<sup>35</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

<sup>36</sup> NOTE: If the additional table supported by Ms Williams is preferred by the Panel, this reference would be to 'Table TRAN-1(a) or (b)'. TRAN Reply Report.

	<p>required <u>as indicated in Table TRAN-1; and</u></p> <p>b. <del>the type of ITA to be provided shall be determined by the circumstances set out in Table TRAN-2 below; and</del></p> <p>c. the ITA shall be prepared by an independent suitably qualified and experienced <del>transport engineer</del> <u>transport planner, transport engineer or other suitably qualified and experienced professional<sup>37</sup>.</u></p> <p><b>Matters of discretion are restricted to:</b>                  TRAN-MD11 – High traffic <del>generators</del> <u>generating activities<sup>38</sup></u></p>		
<p><b>Advisory Notes</b></p> <ul style="list-style-type: none"> <li><del>The following is a guide to determining whether an activity is a high traffic generator, and whether a Basic ITA or Full ITA is required. Any activity that generates an average daily traffic volume that exceeds the traffic generation thresholds contained in Table TRAN-1 below is a high traffic generator, and requires resource consent as a restricted discretionary activity under TRAN-R20. For the purposes of that resource consent application either a Basic ITA or Full ITA is required. The type of ITA required is determined under Table TRAN-2 below. Unless otherwise specified, any activity is subject to all applicable District Plan rules, therefore to correctly apply Table TRAN-2 the status of the activity must first be determined under all other applicable rules. Under Table TRAN-2, if an activity requiring resource consent under TRAN-R20 would (for example) be a permitted activity under all other applicable rules, a Basic ITA would be required; or if that activity would (for example) be a discretionary activity under all other applicable rules, a Full ITA would be required.</del></li> <li>The intended scope of a Basic ITA or Full ITA is identified in TRAN-MD11. Consultation with the District Council may be undertaken to confirm the scope of the ITA.</li> </ul>			

<sup>37</sup> Kainga Ora [325.83]. TRAN Reply Report.

<sup>38</sup> Schedule 1 Clause 16(2)

• The table in TRAN-APP6 provides a guide to the level of traffic generation that could be expected for a range of activities. The purpose of this table is to assist a plan user to estimate their traffic generation. This table has been based on information contained in the *Waka Kotahi Research Report 453 'Trips and Parking Related to Land Use'*. Where a proposed activity does not align with the listed activities, and/or for<sup>39</sup> greater certainty regarding the estimated level of traffic generation, it is recommended that guidance is sought from an independent suitably qualified and experienced transport engineer.

**Table TRAN-1: High Traffic Generation Thresholds**

<u>Equivalent Car Movements per day</u>	<u>Access is to a road classified as:</u>			
	<u>Local</u>	<u>Collector</u>	<u>Arterial</u>	<u>Strategic</u>
0-100	n/a	n/a	n/a	n/a
101-200	n/a	Basic	Basic	Basic
201-400	Basic	Basic	Full	Full
>400	Full	Full	Full	Full
<b><u>Advisory Notes</u></b>				
• <u>Any activity that requires a Basic ITA or Full ITA as indicated in Table TRAN-1 above is considered a high traffic generating activity<sup>40</sup></u>				

	<b>Residential Zones / Special Purpose Zone (Kāinga Nohoanga), Special Purpose Zone (Pines Beach and Kairaki Regeneration)<sup>41</sup></b>	<b>Commercial and Mixed Use Zones / All other Special Purpose Zones / Industrial Zones</b>	<b>Rural Zones</b>
<b>Average daily traffic generation</b>	> 200 vmpd > 50 hvmpd	> 250 vmpd > 50 hvmpd	> 200 vmpd > 50 hvmpd

**Table TRAN-2: ITA Requirement<sup>42</sup>**

<b>Activity status under all other applicable rules</b>	<b>Type of ITA required</b>
Permitted	Basic
Controlled	Basic
Restricted discretionary	Full
Discretionary	Full
Non-complying	Full

<sup>39</sup> Sports and Education Corporation [416.9]. TRAN Reply Report.

<sup>40</sup> Kainga Ora [325.83]. TRAN Reply Report.

<sup>41</sup> Kainga Ora [325.83]. TRAN Reply Report

<sup>42</sup> Kainga Ora [325.83]. TRAN Reply Report

**Managing effects of activities on the road corridor, rail corridor, Rangiora Airfield**

<b>TRAN-R21</b>	<b>Activities adjacent to a road/rail level crossing</b>	
<b>All Zones</b>	<p><b>Activity status: PER</b> Where:</p> <ol style="list-style-type: none"> <li>1. any activity adjacent to a road/rail level crossing, including a new building, other structure, road intersection, vehicle crossing or vegetation, shall comply with the road/rail level crossing 'approach' and 're-start' sight triangles in TRAN-APP7 below.</li> </ol>	<p><b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD18 - New buildings, structures, road intersections, vehicle crossings or vegetation adjacent to road/rail level crossings  TRAN-MD19 - Land transport infrastructure</p> <p><b>Notification</b> An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified only to KiwiRail where the consent authority considers this is required, absent its written approval.</p>
<b>TRAN-R22</b>	<b>Installation of a new stock underpass beneath a road corridor or rail corridor</b>	
<b>All Zones</b>	<p><b>Activity status: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD22 - New stock underpass beneath a road corridor or rail corridor</p> <p><b>Notification</b> An application for a restricted discretionary activity under this rule is precluded from being publicly notified, but may be limited notified only to the relevant road operator or KiwiRail (as applicable) where the consent authority considers this is required, absent its written approval.</p>	<p><b>Activity status when compliance not achieved: N/A</b></p>
<b>TRAN-R23</b>	<b>Rangiora Airfield</b>	
<b>All Zones</b>	<p><b>Activity status: NC</b> Where:</p> <ol style="list-style-type: none"> <li>1. any land use where any structure or vegetation penetrates the Rangiora Airfield Obstacle Limitation Surfaces as shown in TRAN-APP8 and described as:             <ol style="list-style-type: none"> <li>a. take-off climb/approach surface, commencing at ground level at the end of the runway and rising at a gradient of 1 in 20 for a horizontal distance of 1,200m, and splayed outwards at the rate</li> </ol> </li> </ol>	<p><b>Activity status when compliance not achieved: N/A</b></p>

	of 1:20 from each side of the runway; and b. side surfaces, commencing at the edge of each runway and rising at a gradient of 1 in 4 until it reaches a height of 2m above the level of the runway.	
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**Transport Standards**

TRAN-S1	Design standards for new roads	
<b>All Zones</b>	Refer to Table TRAN-3 or Table TRAN-4 below, as applicable.	<b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD1 - Road design

**Table TRAN-3: Design standards for new roads where the posted speed limit is 50km/hr or less**

Design element					
Road type	Low Volume Local Road	Local Road	Collector Road	Arterial Road	Strategic Road
Typical design AADT	<150	<1,500			
Maximum length (m)	150				
Maximum number of residential units served	20	200			
Road <b>reserve corridor</b> <sup>43</sup> width (m) <sup>2</sup>	16.0	18.0	23.0	24.0	25.0
Footpath (m)	2 x 1.8	2 x 1.8	1 x 1.8 (one side)	1 x 2.0 (one side)	1 x 2.0 (one side)
Shared use path (m) <sup>3</sup>			1 x 2.5 (one side)	1 x 2.5 (one side)	1 x 2.5 (one side)
Parking (m) <sup>4</sup>	2.5 (within carriageway, one side only)	<del>2.0</del> <sup>44</sup> (within carriageway, each side)	Indented parking bays (outside carriageway, each side)	Indented parking bays (outside carriageway, each side)	Indented parking bays (outside carriageway, each side)

<sup>43</sup> Waka Kotahi NZ Transport Agency [275.3]. TRAN Reply Report.

<sup>44</sup> Waimakariri District Council [367.34]. TRAN Reply Report.



Cycle lane (m) <sup>1</sup>			2 x 1.8	2 x 1.8	2 x 1.8
Traffic lane (m)	4.0 minimum	4.0 minimum	2 x 3.3	2 x 3.5	2 x 3.5
Median (m)				2.0	2.0
Minimum carriageway width (m)	6.5	8.0	10.2	12.6	12.6

1. Where cycle lanes are required these shall be permanently marked.  
2. The balance of the road **reserve-corridor**<sup>45</sup> not occupied by the carriageway, indented parking bays, footpaths and shared use path, may be used for landscaping and installation of services. Services should not be installed under footpaths or shared use path.  
3. Consultation should be undertaken with the District Council to confirm the location of a shared use path.  
4. Parking design standards are shown in TRAN-S7, Table TRAN-10.

**Table TRAN-4: Design standards for new roads where the posted speed limit is 60km/hr or above**

Design element					
Road type	Low Volume Local Road	Local Road	Collector Road	Arterial Road	Strategic Road
Typical design AADT	<150	<1,500			
Maximum length (m)	150				
Maximum number of residential units served	20	150			
Road <b>reserve corridor</b> <sup>46</sup> width (m)	20.0	20.0	23.0	24.0	<b>2530.0</b> <sup>47</sup>
Shared use path (m) (one side) <sup>1</sup>			2.5	2.5	2.5
Traffic lane (m)	1 x 3.5	2 x 3.3	2 x 3.5	2 x 3.5	2 x 3.5
Total shoulder width (m)	2 x 1.5	2 x 1.5	2 x 1.5	2 x 2.0	2 x 2.5

<sup>45</sup> Waka Kotahi NZ Transport Agency [275.3]. TRAN Reply Report.

<sup>46</sup> Waka Kotahi NZ Transport Agency [275.3]. TRAN Reply Report.

<sup>47</sup> Waimakariri District Council [367.35]. TRAN Reply Report.

Minimum sealed shoulder width (m)	2 x <del>0.75</del> 0.5 <sup>48</sup>	2 x 1.0	2 x 1.0	2 x 1.5	2 x 2.5
Minimum carriageway width (m)	6.5	9.6	10.0	11.0	12.0
1. Consultation should be undertaken with the District Council to confirm the location of a shared use path.					
<b>TRAN-S2</b>	<b>Minimum road intersection separation distances</b>				
<b>All Zones</b>	Refer to Table TRAN-5 below.	<b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD1 - Road design TRAN-MD20 - Extent of effects			

Table TRAN-5: Minimum road intersection separation distances

Posted speed limit (km/h <sup>49</sup> )	Intersecting road	Minimum separation (m)
100	All	800
70 or 80	All	550
60	All	160
50	Local road / Arterial road, Collector road, roads adjoining Commercial and Mixed Use Zones	125
50	Local road / Local road	75
<b>TRAN-S3</b>	<b>Design standards for new vehicle crossings</b>	
<b>All Zones</b>	Refer to Table TRAN-6 below.	<b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD2 - Maximum number of vehicle crossings TRAN-MD3 - Minimum separation distance between vehicle crossings TRAN-MD4 - Minimum separation distance for vehicle crossings from road intersections and pedestrian crossing facility TRAN-MD5 - Vehicle crossing design

<sup>48</sup> Waimakariri District Council [367.35]. TRAN Reply Report.

<sup>49</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

		TRAN-MD7 - Sight distance from vehicle crossings TRAN-MD8 - Visibility at vehicle crossings TRAN-MD17 - Queuing space
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**Table TRAN-6: Design standards for new vehicle crossings**

Maximum number of vehicle crossings per site road frontage	TRAN-APP1, Table TRAN-15
Minimum separation distance between vehicle crossings	TRAN-APP1, Table TRAN-16
Minimum separation distance for vehicle crossings from road intersections	TRAN-APP1, Table TRAN-17
Minimum and maximum width of vehicle crossings	TRAN-APP1, Table TRAN-18
Minimum sight distances from vehicle crossings	TRAN-APP1, Table TRAN-19
Measurement of sight distances and sight lines from vehicle crossings	TRAN-APP1, Figure TRAN-6
Minimum separation distance for a new vehicle crossing from an existing pedestrian crossing facility	TRAN-APP1, Table TRAN-20
Measurement of separation distance for a new vehicle crossing from an existing pedestrian crossing facility	TRAN-APP1, Figure TRAN-7
<b>TRAN-S4</b>	<b>Design standards for new vehicle accessways</b>
<b>All Zones</b>	Refer to Table TRAN-7 below.  <b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD6 - Vehicle accessway design TRAN-MD8 - Visibility at vehicle crossings TRAN-MD17 - Queuing space

**Table TRAN-7: Design standards for new vehicle accessways**

Zone	Number of residential <u>units sites</u> <sup>50</sup>	Number of marked parking spaces provided	Minimum legal width (m)	Minimum formed width (m)	Maximum formed width (m)	Passing bays <sup>1</sup>

<sup>50</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

Residential Zones, Special Purpose Zone (Kāinga Nohoanga), Special Purpose Zone (Pines Beach and Kairaki Regeneration)	1 - 3 2 <u>&lt;50m long</u>		<u>5.5</u> <u>4.0</u>	<u>3.0</u> <u>3.5</u> <sup>51</sup>	5.0	Yes (for 2 or more residential units)
	1-2 <u>&gt;50m long</u>		<u>4.5</u>	<u>4.0</u>	<u>5.0</u>	Passing bay at the front and one per 50m
	3-4 – 6 <u>&lt;50m long</u>		<u>6.0</u> <u>5.0</u>	<u>4.5</u> <u>3.5</u>	5.5	Yes-No
	3-6 <u>&gt;50m long</u>		<u>5.0</u>	<u>4.0</u>	<u>5.5</u>	Passing bay at the front and one per 50m
	<u>&gt;6</u> <u>7-10</u>		<u>7.0</u> <u>8.0</u>	<u>5.5</u> <u>4.5</u>	<u>6.0</u> <sup>52</sup> <u>5.5</u>	Physically separated footpath 1.5m wide Passing bay at the front of the site and one additional passing bay per 50m
Commercial and Mixed Use Zones, all other Special Purpose Zones <sup>2</sup>		< 15	8.0	5.5	8.0	
		≥ 15	8.0	6.0	8.0	
Rural Zones			10.0	4.0	8.0	Yes

1. ~~Where an accessway does not provide sufficient width for two-way vehicle movement, then in order to allow vehicles to pass, accessways in Residential Zones and Commercial and Mixed Use Zones shall provide passing bays in the form of widening of~~ Where passing is, required this shall not be less than 5.5m over a 15m length at not more than 50m spacing. Accessways in Rural Zones may have passing bays at up to 100m distances where visibility is available from bay to bay.

2. Access can be provided by two separate one-way crossings each with a minimum width of 3.5m.

3. Where any new vehicle accessway in Residential Zones or Rural Zones will exceed the above thresholds, see TRAN-R6.<sup>53</sup>

4. Where a footpath is required, this can be provided within the minimum legal width but is additional to the minimum formed width.<sup>54</sup>

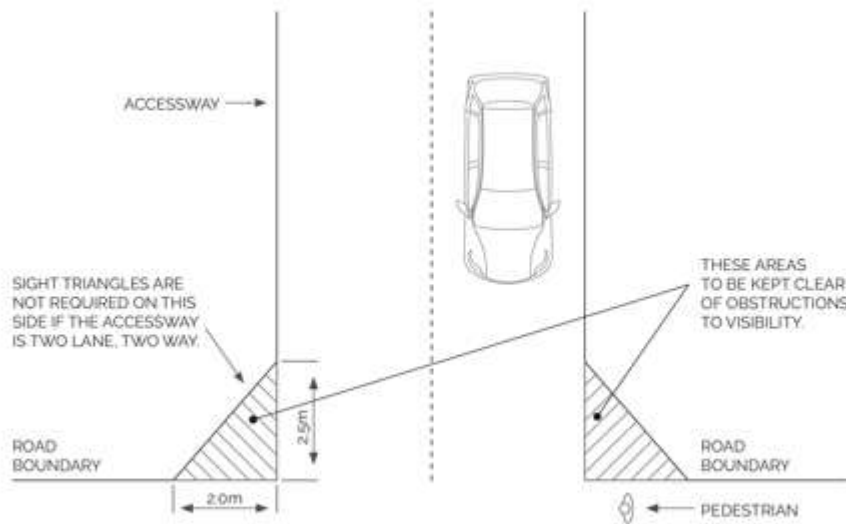
<sup>51</sup> Fire and Emergency NZ [303.27]. TRAN Reply Report.

<sup>52</sup> George Jason Smith [270.15]. TRAN Reply Report.

<sup>53</sup> Schedule 1 Clause 16(2) and Kainga Ora [325.86]. TRAN Reply Report.

<sup>54</sup> Kainga Ora [325.86]. TRAN Reply Report.

Figure TRAN-4: Accessway visibility splay to achieve minimum sight lines for pedestrian safety



<b>TRAN-S5</b>	<b>Design standard for a new vehicle crossing on a sealed road where the posted speed limit is 60km/h<sup>f55</sup> or above</b>	
<b>All Zones</b>	Refer to Table TRAN-8 below.	<b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD1 - Road design TRAN-MD5 - Vehicle crossing design TRAN-MD6 - Vehicle accessway design TRAN-MD17 - Queuing space

Table TRAN-8: Design standard for a new vehicle crossing on a sealed road where the posted speed limit is 60km/h<sup>f56</sup> or above

Heavy vehicle movements per week	Average daily traffic volume (vmpd)	Located on State Highway	Design standard
≤ 1	≤ 30	No	TRAN-APP2, Diagram C, Perspective C

<sup>55</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

<sup>56</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

$\leq 1$	$\leq 30$	Yes	TRAN-APP2, Diagram E, Perspective E <sup>57</sup>
> 1	31 – 100	No	TRAN-APP2, Diagram D, Perspective D
> 1	31 – 100	Yes	TRAN-APP2, Diagram E, Perspective E
<b>TRAN-S6</b>	<b>Minimum accessible car parking space requirements where on site car parking is provided</b>		
<b>All Zones</b>	Refer to Table TRAN-9 below.	<b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD13 - Accessible parking spaces	

**Table TRAN-9: Minimum accessible car parking space requirements where on site car parking is provided**

Source: NZS 4121:2001 Design for Access and Mobility - Buildings and Associated Facilities

Total number of car parking spaces	Number of accessible car parking spaces	
1-20	Not less than 1	
21-50	Not less than 2	
For every additional 50 car parks or part of a car park	Not less than 1	
<b>TRAN-S7</b>	<b>Minimum car parking space and associated manoeuvring area dimensions</b>	
<b>All Zones</b>	Refer to Table TRAN-10 below.	<b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD10 - Manoeuvring areas for parking or loading spaces TRAN-MD12 - Parking space dimensions TRAN-MD17 - Queuing space

**Table TRAN-10: Minimum car parking space and associated manoeuvring area dimensions**

User type	Parking angle (degrees)	Manoeuvring area / Aisle width (m)	Stall width (m) <sup>4</sup>	Stall depth (m) <sup>5 6 7</sup>
All Users	Parallel	3.3 one way aisle 5.5 two way aisle	2.5	5.0 unobstructed 6.1 obstructed

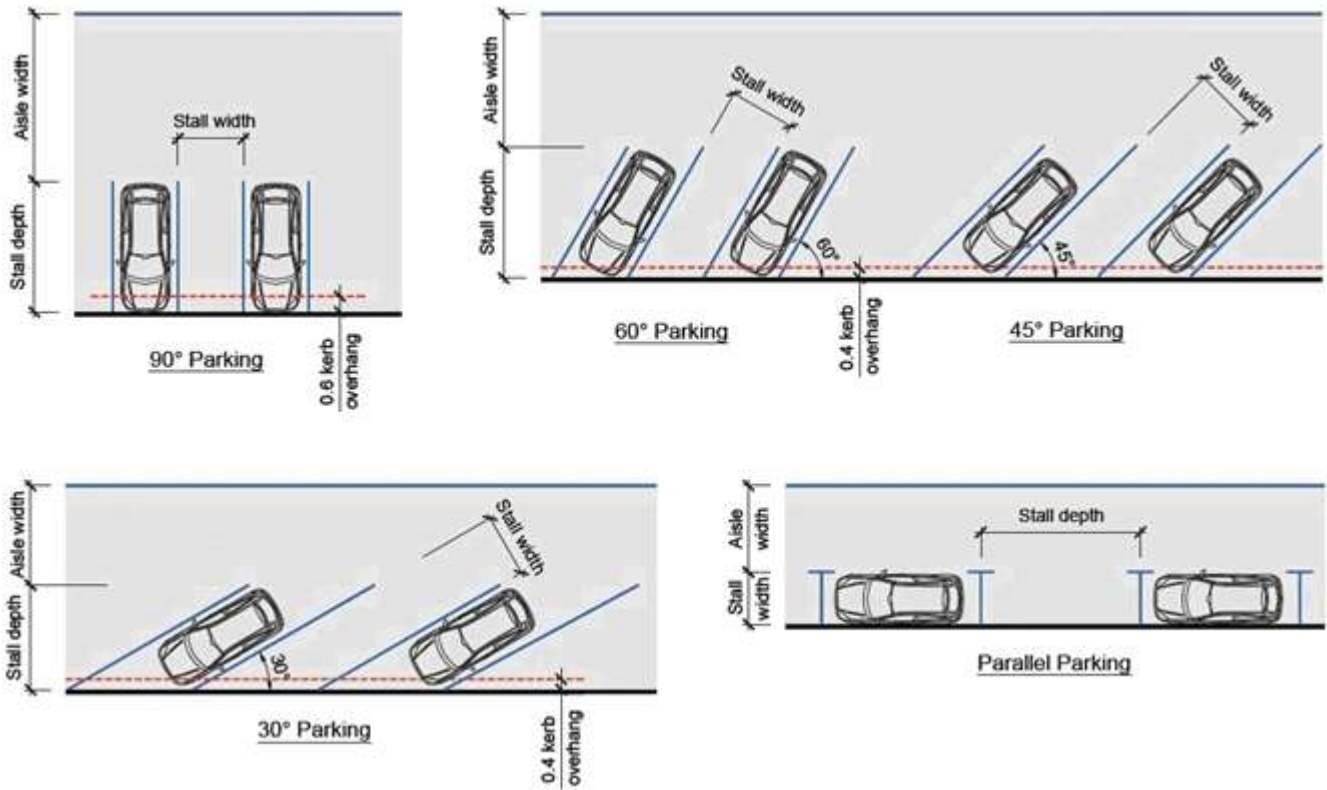
<sup>57</sup> Waka Kotahi NZ Transport Agency [275.01]

Long term <sup>1</sup>	30	3.5	2.1	5.0
	45	4.5	2.4	5.0
	60	5.6	2.4	5.0
	90	7.0	2.4	5.0
Medium term <sup>2</sup>	30	3.4	2.3	5.0
	45	4.3	2.5	5.0
	60	5.3	2.5	5.0
	90	6.6	2.5	5.0
Short term <sup>3</sup>	30	3.9	2.5	5.0
	45	4.8	2.6	5.0
	60	5.8	2.6	5.0
	90	7.0	2.6	5.0
Accessible	As above	As above	3.6	5.0

1. Tenant, employee and commuter parking (generally all-day parking).
2. Medium-term town centre parking, sports facilities, entertainment centres, hotels, motels.
3. Short term town centre parking, shopping centres, supermarkets, hospitals and medical centres, activities involving drop off or collection of children or goods.
4. Stall width shall be increased by 300mm where a parking space abuts a permanent obstruction such as a wall, column or other permanent obstruction. Where there is such an obstruction on both sides of a parking space, the minimum stall width shall be increased by 600mm.
5. Stall depth may be reduced by the corresponding vehicle overhang length if a low kerb allows overhang, up to 600mm, but this overhang shall not encroach another parking space, path or landscaping.
6. Parking spaces (other than parallel) immediately adjacent to paths or landscaping shall include wheel stop barriers located at least 600mm from the path or landscaping to avoid or mitigate obstruction of paths or damage to landscaping by parked vehicles.
7. Different car parking space and manoeuvring area layouts are illustrated in Figure TRAN-5 below.

**Figure TRAN-5: Illustration of different car parking space and associated manoeuvring area layouts (not to scale)**





TRAN-S8 Minimum loading space and associated manoeuvring area dimensions		
All Zones	Refer to Table TRAN-11 below.	<p><b>Activity status when compliance not achieved: RDIS</b></p> <p><b>Matters of discretion are restricted to:</b></p> <ul style="list-style-type: none"> <li>TRAN-MD9 - Loading spaces</li> <li>TRAN-MD10 - Manoeuvring area for parking or loading spaces</li> <li>TRAN-MD17 - Queuing space</li> </ul>

**Table TRAN-11: Minimum loading space and associated manoeuvring area dimensions**

Vehicles to be accommodated	Length of loading space	Width of loading space	Manoeuvring area
Small rigid truck	6.5m	3.5m	TRAN-APP4
Medium rigid truck	9m	3.5m	TRAN-APP4
Large rigid truck	12m	3.5m	TRAN-APP4
Semi-trailer (Articulated truck)	19m	3.5m	TRAN-APP4

TRAN-S9 New footpath requirements		
All Zones	Refer to Table TRAN-12 below.	<p><b>Activity status when compliance not achieved: RDIS</b></p>

		<b>Matters of discretion are restricted to:</b> TRAN-MD20 - Extent of effects
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**Table TRAN-12: New footpath requirements**

Local activity	Number of footpaths	Footpath width
Residential Zones, Special Purpose Zone (Kāinga Nohoanga) and Special Purpose Zone (Pines Beach and Kairaki Regeneration)		
< 20 residential units	1	1.8m
20 - 200 residential units	2	1.8m
> 200 residential units	2	1.8m
Town Centre Zones	2	2.5m
All other Commercial and Mixed Use Zones and Special Purpose Zones	2	2.0m
<b>TRAN-S10</b>	<b>Minimum cycle parking requirements</b>	
<b>All Zones</b>	Refer to Table TRAN-13 below.	<b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD14 - Minimum cycle parking facilities required TRAN-MD16 - Illumination of parking or loading areas

**Table TRAN-13: Minimum cycle parking requirements**

Activity	Cycle parking required
<b>Residents/visitors/students/customers <u>(short stay cycle parking – see TRAN-R15)<sup>58</sup></u></b>	
Residential Place of assembly, recreation activities and educational facility	None. Where on site car parking is provided: minimum of 2 cycle spaces, then 1 additional cycle space for every 5 car parking spaces provided. Where on site car parking is not provided: minimum of 2 cycle spaces, then 1 additional cycle space per 250m <sup>2</sup> GFA.
Any other activity	Where on site car parking is provided: minimum of 2 cycle spaces, then 1 additional cycle space for every 5 car parking spaces provided up to 150 car parking spaces; no additional cycle spaces

<sup>58</sup> Sports and Education Corporation [416.12]. TRAN Reply Report.

	required for additional car parking spaces over 150 car parking spaces. Where on site car parking is not provided: minimum of 2 cycle spaces, then 1 additional cycle space per 250m <sup>2</sup> GFA.
<b>Staff (long stay cycle parking – see TRAN-R15)<sup>59</sup></b>	
Office/commercial activity	1 cycle space per 200m <sup>2</sup> GFA. Minimum of 2 cycle spaces to be provided.
Hospital, Health care facility, Care facility and Integrated family health centre	1 cycle space per 300m <sup>2</sup> GFA. Minimum of 2 cycle spaces to be provided.
Tertiary education and research activity	1 cycle space per 4 FTE staff. Minimum of 2 cycle spaces to be provided.
<b>TRAN-S11</b>	<b>Minimum cycling end-of-trip facilities for staff</b>
<b>All Zones</b>	Refer to Table TRAN-14 below.  <b>Activity status when compliance not achieved: RDIS</b> <b>Matters of discretion are restricted to:</b> TRAN-MD14 - Minimum cycle parking facilities required

**Table TRAN-14: Minimum cycling end-of-trip facilities for staff**

Number of staff cycle parks required	Cycling end-of-trip facilities for staff required
1 - 10	None.
11 - 100	1 shower <sup>1 2</sup> per every 10 staff cycle parks required. 1 locker <sup>3</sup> per every staff cycle park required.
> 100	10 showers for the first 100 staff cycle parks required + 2 showers for each additional 50 staff cycle parks required. 1 locker per every staff cycle park required.
<ol style="list-style-type: none"> <li>1. Showers only need to be shown on any building consent plans. If an activity requires resource consent, the location and design of any required showers do not need to be shown at that stage as long as the application states the number of showers proposed to be provided.</li> <li>2. Where the calculation of the required number of showers results in a fraction of a shower, any fraction that is less than one half shall be disregarded and any fraction of one half or more will be counted as one shower.</li> <li>3. The minimum internal dimensions of a single locker shall be: 85cm high x 45cm deep x 20cm wide.</li> </ol>	

<sup>59</sup> Sports and Education Corporation [416.12]. TRAN Reply Report.

## Matters of Discretion

TRAN-MD1	<p><b>Road design</b></p> <ol style="list-style-type: none"> <li>1. The extent to which the road will be safe, functional and maintainable at reasonable cost.</li> <li>2. The extent to which use of the road will adversely affect the environment and/or character of the location and surrounding area.</li> <li>3. The extent to which design and use of the road will adversely affect safe and efficient access and use for other current and potential users of the road, including pedestrians and cyclists.</li> <li>4. The extent to which cul-de-sacs with a maximum length greater than 150m will achieve a good urban design and traffic design outcome.</li> <li>5. The extent to which the road design can efficiently and safely accommodate off site parking, particularly for residents or nearby businesses, and provide for unobstructed movement including for service, delivery, or emergency service vehicles.</li> </ol>
TRAN-MD2	<p><b>Maximum number of vehicle crossings</b></p> <ol style="list-style-type: none"> <li>1. The extent to which the number of vehicle crossings will adversely affect the efficient and safe operation of the road.</li> <li>2. The extent of any cumulative effects of the number of vehicle crossings when considered in the context of existing and <b>future anticipated</b><sup>60</sup> vehicle crossings in the vicinity.</li> <li>3. The extent to which any aspect(s) of road design or formation will mitigate adverse effects of the number of vehicle crossings.</li> <li>4. The extent to which any existing landscaping, stormwater management or other infrastructure will be affected by the formation of vehicle crossings.</li> </ol>
TRAN-MD3	<p><b>Minimum separation distance between vehicle crossings</b></p> <ol style="list-style-type: none"> <li>1. The extent to which any existing landscaping or stormwater management or other infrastructure will be affected by the location of vehicle crossings.</li> <li>2. The extent to which safety will be adversely affected by conflict between manoeuvring vehicles at vehicle crossings.</li> <li>3. The extent to which there will be sufficient space to accommodate on-street parking demand between vehicle crossings.</li> <li>4. The extent to which lack of complying separation distance between vehicle crossings may contribute to significant adverse cumulative effects with regards the ability to accommodate on-street parking demand in future.</li> <li>5. The extent to which pedestrian and cycle safety may be adversely affected by a lack of complying separation distance between vehicle crossings.</li> </ol>
TRAN-MD4	<p><b>Minimum separation distance for vehicle crossings from road intersections and pedestrian crossing facility</b></p> <ol style="list-style-type: none"> <li>1. The extent to which conflict may be created by vehicles queuing across the vehicle crossing.</li> <li>2. The extent to which any potential confusion between vehicles turning at the crossing or the intersection may adversely affect safety.</li> <li>3. The extent of effects on the safety of users of all transport modes.</li> <li>4. The extent to which the number and type of vehicles generated by the activity on the site will adversely affect the safe and efficient use of the frontage road, particularly at times of peak traffic flows.</li> </ol>

<sup>60</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

	<ol style="list-style-type: none"> <li>5. The extent to which the speed and volume of vehicles on the road will exacerbate adverse effects of the vehicle crossing on the safety of users of all transport modes.</li> <li>6. The extent to which the geometry of the frontage road and intersections will mitigate adverse effects of the vehicle crossing.</li> <li>7. The extent to which there are present, or planned, traffic controls along the road corridor where the vehicle or pedestrian crossing is proposed.</li> <li>8. The extent of any cumulative effects when considered in the context of existing and future vehicle crossings serving other activities in the vicinity.</li> <li>9. The extent to which traffic mitigation or calming measures are proposed.</li> <li>10. The extent to which the proximity of a vehicle crossing to a pedestrian crossing facility may adversely affect the safe use of the pedestrian crossing facility.</li> </ol>
<b>TRAN-MD5</b>	<p><b>Vehicle crossing design</b></p> <ol style="list-style-type: none"> <li>1. The number of pedestrian and cycle movements across the site frontage and the number and type of vehicles using the vehicle crossing.</li> <li>2. The extent to which use of the vehicle crossing will adversely affect the safety and/or efficiency of the frontage road or an adjacent road/rail level crossing including with respect to visibility from the vehicle crossing or proximity of the vehicle crossing to a road/rail level crossing or volume of vehicles using the vehicle crossing.</li> <li>3. The speed at which vehicles will be able to enter/exit the site and the effect of this on the safety of pedestrians, cyclists and other road users.</li> <li>4. The extent to which design takes into account and safely provides for any marked on-road cycle lane, separated cycle lane or shared use path across the site road frontage and the extent to which design may have been modified to adequately address these matters.</li> </ol>
<b>TRAN-MD6</b>	<p><b>Vehicle accessway design</b></p> <ol style="list-style-type: none"> <li>1. The extent to which the accessway serves more than one site and the extent to which other users of the accessway may be adversely affected.</li> <li>2. The extent to which there are adverse effects on the safety and amenity values of neighbouring sites and/or the function of the transport system.</li> <li>3. The extent of effects on the safety and security of people using the accessway.</li> <li>4. The extent to which the design or use of the accessway disrupts, or results in conflicts with active frontages, convenient and safe pedestrian circulation and cycling flows, or will inhibit access for emergency service vehicles where on site access is required.</li> <li>5. The extent to which the safety of pedestrians, particularly the aged and people whose mobility is restricted, will be compromised by the length of time needed to cross a wider accessway or multiple accessways closely spaced.</li> <li>6. The extent to which the required legal width of the accessway is restricted by the boundaries of an existing site or building.</li> <li>7. The extent to which the gradient or width or other design aspect of the accessway will make the use of the accessway impractical, including inhibiting access for emergency service vehicles where on site access is necessary.</li> <li>8. The extent to which accessway drainage is adequately designed and will not cause adverse effects on neighbouring sites.</li> <li>9. The extent to which vehicles exiting the accessway, and cyclists on the frontage road or shared use path or pedestrians on the footpath, are likely to be aware of each other in time to avoid conflicts.</li> <li>10. The extent to which the speed and volume of vehicles using an accessway and/or the volumes of cyclists and pedestrians on the footpath or shared use path or frontage road, will exacerbate the adverse effects of the accessway on people's safety.</li> </ol>

	<ol style="list-style-type: none"> <li>11. If a visibility splay is unable to be provided, the extent to which alternative adequate methods of improving pedestrian and cycle safety at the accessway have been provided.</li> <li>12. <u>Where the accessway serves six or more sites in the rural zone and 11 or more sites in the residential zone, the extent to which the accessway will fulfil the requirements of a road.</u><sup>61</sup></li> </ol>
<b>TRAN-MD7</b>	<p><b>Sight distance from vehicle crossings</b></p> <ol style="list-style-type: none"> <li>1. The extent to which the operating speed environment of the road is such that the sight distance requirements can be safely reduced.</li> <li>2. The extent to which sight distance requirements at the vehicle crossing are adequate to provide safe ingress/egress.</li> </ol>
<b>TRAN-MD8</b>	<p><b>Visibility at vehicle crossings</b></p> <ol style="list-style-type: none"> <li>1. The extent to which vehicles exiting the vehicle accessway, pedestrians on the footpath, and cyclists on a shared use path or frontage road, are likely to be aware of each other in time to avoid conflicts.</li> <li>2. The extent to which the speed and volume of vehicles using a vehicle accessway, or the volumes of cyclists on a shared use path or frontage road or pedestrians on a footpath, will exacerbate adverse effects of the use of the accessway on safety.</li> <li>3. The extent to which the height or permeability of fencing or landscaping affects visibility.</li> <li>4. The extent to which alternative adequate methods of improving pedestrian and cycle safety at the vehicle accessway have been provided.</li> </ol>
<b>TRAN-MD9</b>	<p><b>Loading spaces</b></p> <ol style="list-style-type: none"> <li>1. The extent to which the nature and operation of the particular activity will require loading spaces of a different size, number or frequency of use.</li> <li>2. The extent to which an on site shared loading area can be safely and efficiently provided in conjunction with an adjacent activity.</li> <li>3. The nature of any legal agreement that has been entered into securing mutual usage of any loading area shared with other activities.</li> <li>4. The extent to which loading can be safely and efficiently undertaken on the street.</li> <li>5. The extent to which the movement function and/or safety of the surrounding transport system may be adversely affected by extra parked and manoeuvring vehicles on the street.</li> <li>6. The extent to which loading and service functions on the street will disrupt pedestrian and cycling traffic, frontages, or detract from amenity values.</li> <li>7. The extent to which there is an existing on street loading facility near to the site that can be used safely, and the route between the loading facility and the site does not require crossing any road.</li> </ol>
<b>TRAN-MD10</b>	<p><b>Manoeuvring area for parking or loading spaces</b></p> <ol style="list-style-type: none"> <li>1. The extent to which there would be adverse effects on the efficiency, safety and amenity values of transport users including pedestrians and cyclists within and passing the site, or on accessibility, or on the function of the road.</li> <li>2. The number and type of vehicles using the parking, loading or manoeuvring area.</li> <li>3. The extent to which the required manoeuvring area can physically be accommodated on site.</li> <li>4. The extent to which any strategic, arterial or collector road corridor or rail corridor is adversely affected, including by manoeuvring on to or off a site.</li> </ol>

<sup>61</sup> George Jason Smith [270.15]. TRAN Reply Report.

<p><b>TRAN-MD11</b></p>	<p><b>High traffic generators-generating activities<sup>62</sup></b></p> <ol style="list-style-type: none"> <li>1. The findings of an ITA, and the extent to which the ITA addresses the following matters:             <ol style="list-style-type: none"> <li>a. Basic ITA and Full ITA:                 <ol style="list-style-type: none"> <li>i. The estimated number of trips generated by each transport mode to and from the development (public transport, walking, cycling and private vehicles, including heavy vehicles).</li> <li>ii. The extent to which any additional <b>equivalent car vehicle<sup>63</sup></b> movements will affect the capacity of the road network.</li> <li>iii. The extent of effects on the operation of public transport infrastructure and any vehicle and pedestrian/cyclist conflicts likely to arise from vehicle movements to and from the development.</li> </ol> </li> <li>iv. Access and manoeuvring (safety and efficiency):                 <ol style="list-style-type: none"> <li>a. The extent to which the provision of access and on site manoeuvring area associated with the activity, including vehicle loading and servicing deliveries, affects the safety, efficiency, accessibility of the site (including for people whose mobility is restricted and for emergency service vehicles) and the transport system (including considering the classification of the frontage road in the District Plan road hierarchy).</li> </ol> </li> <li>v. Design and layout:                 <ol style="list-style-type: none"> <li>a. The extent to which the design and layout of the proposed activity maximises opportunities, to the extent practicable, for travel other than by private vehicle, including providing safe and convenient access for travel by such modes.</li> <li>b. The extent to which the design of the development will encourage public transport use.</li> <li>c. The extent to which the design of the proposed development will encourage walking and cycling to nearby destinations.</li> </ol> </li> <li>vi. Heavy vehicles:                 <ol style="list-style-type: none"> <li>a. For activities that will generate 50 or more heavy vehicle movements per day, the extent to which there are any effects from these trips on the roading infrastructure.</li> </ol> </li> <li>vii. Accessibility of the location:                 <ol style="list-style-type: none"> <li>a. The extent to which the proposed activity has demonstrated the accessibility of the site by a range of transport modes, and the extent to which the activity's location will minimise or reduce travel to and from the activity by private vehicles and encourage public and active transport use.</li> <li>b. The safety, distance and suitability of pedestrian routes to the nearest bus stop.</li> </ol> </li> </ol> </li> <li>b. Full ITA only (as well as the matters in (a)(i) to (vii) above):             <ol style="list-style-type: none"> <li>i. Network effects:                 <ol style="list-style-type: none"> <li>a. Having particular regard to the level of additional traffic generated by the activity and the extent to which the activity is permitted by the zone in which it is located, the extent to which measures are proposed to adequately mitigate the actual or potential effects on the transport system arising from the anticipated trip generation (for all transport modes) from the proposed activity, including consideration of cumulative effects with other activities in the</li> </ol> </li> </ol> </li> </ol>
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<sup>62</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

<sup>63</sup> Consequential amendment Kainga Ora [325.83]. TRAN Reply Report.



	<p>vicinity, proposed infrastructure, and construction work associated with the activity.</p> <ul style="list-style-type: none"> <li>b. The extent to which the design and layout of the proposed development maximises opportunities, to the extent considered reasonably practicable, for travel other than by private car.</li> <li>c. The extent of effects of construction traffic on the transport network.</li> <li>d. The extent of any new or modified infrastructure required for public transport, pedestrian, cycling, private vehicles and freight.</li> <li>e. The extent of any mitigation required to improve safety issues for pedestrians, cyclists or mobility impaired users and the nature of those measures.</li> <li>f. The extent to which travel demand management tools such as travel plans are proposed to reduce vehicle trips and associated effects, influence travel mode share and offer travel choice.</li> <li>g. The extent to which there are road, public transport, walking or cycling measures to be funded by the proposed development.</li> </ul> <ul style="list-style-type: none"> <li>ii. Strategic framework:             <ul style="list-style-type: none"> <li>a. The extent to which the proposal is consistent with the local and regional transport policy framework, including the Canterbury Regional Land Transport Plan 2021-31.</li> </ul> </li> </ul>
<p><b>TRAN-MD12</b></p>	<p><b>Parking space dimensions</b></p> <ul style="list-style-type: none"> <li>1. The safety and usability of the parking spaces.</li> <li>2. The extent to which any non-compliance with the required minimum parking space dimensions is offset by other means, such as provision of a mix of different types of parking spaces on site (for example, a mix of spaces for 85 percentile and 99 percentile vehicles (see TRAN-APP3), accessible spaces, cycle spaces, or the use of 99 percentile spaces in preference to 85 percentile spaces based on the predominant vehicle size visiting a site).</li> </ul>
<p><b>TRAN-MD13</b></p>	<p><b>Accessible parking spaces</b></p> <ul style="list-style-type: none"> <li>1. The extent to which the equivalent number of accessible parking spaces can be provided on a separate site which is:             <ul style="list-style-type: none"> <li>a. located within a readily accessible distance from the activity for persons whose mobility is restricted; and</li> <li>b. clearly associated with the activity through signs or other means.</li> </ul> </li> <li>2. The extent to which the nature of the particular activity is such that it will generate less accessible car parking demand than is required.</li> <li>3. The extent to which the safety of people whose mobility is restricted will be affected by being set down on the street.</li> </ul>
<p><b>TRAN-MD14</b></p>	<p><b>Minimum cycle parking facilities required</b></p> <ul style="list-style-type: none"> <li>1. The extent to which adequate alternative, safe and secure cycle parking and cycle end-of-trip facilities (such as showers and lockers), meet the needs of the intended users, and are available in a nearby location that is readily accessible.</li> <li>2. The extent to which the parking can be provided and maintained in a jointly used cycle parking area.</li> <li>3. The extent to which a legal agreement has been entered into securing mutual usage of any cycle parking area shared with other activities.</li> <li>4. The extent to which the cycle parking facilities are designed and located to match the needs of the intended users.</li> <li>5. The extent to which the provision, design and location of cycle parking facilities may disrupt pedestrian traffic, disrupt active frontages, or detract from an efficient site layout or amenity values.</li> </ul>

	<ol style="list-style-type: none"> <li>6. The extent to which the number of cycle spaces and cycle end-of-trip facilities provided are sufficient considering the nature of the activity on the site and the anticipated demand for cycling.</li> <li>7. The extent to which alternative adequate cycle parking is available which is within easy walking distance of the development entrance.</li> <li>8. The extent to which the provision for cyclists is sufficient considering the nature of the activity on the site and the anticipated demand for cycling to the site and adjacent activities.</li> <li>9. The extent to which the provision for cyclists is practicable and adequate considering the location and layout of the site and the operational requirements of the activity on the site.</li> </ol>
<p><b>TRAN-MD15</b></p>	<p><b>Formation of parking, loading and manoeuvring area and associated vehicle crossings and accessways</b></p> <ol style="list-style-type: none"> <li>1. The extent to which a lack of all-weather surfacing will cause adverse effects.</li> <li>2. The extent to which mud or gravel will be carried on to the road corridor, footpaths, shared use path or cycle lanes.</li> <li>3. The extent to which the materials used for the surface of the area and its stormwater management system will adequately collect and attenuate runoff.</li> <li>4. The extent to which permeable surfaces are suitable.</li> <li>5. The extent to which parking and loading spaces that are not permanently marked will affect the ability to reasonably access and efficiently utilise the spaces.</li> </ol>
<p><b>TRAN-MD16</b></p>	<p><b>Illumination of parking or loading areas</b></p> <ol style="list-style-type: none"> <li>1. The extent to which a facility is often used during the hours of darkness.</li> <li>2. The extent to which other light sources in the area give adequate light to provide security for users.</li> <li>3. The extent to which glare from the light source will adversely affect the safety of the road corridor or rail corridor.</li> <li>4. Any relevant matters of control or discretion in the Light Chapter.</li> </ol>
<p><b>TRAN-MD17</b></p>	<p><b>Queuing space</b></p> <ol style="list-style-type: none"> <li>1. The extent to which there would be any adverse effects on the safety, amenity values or efficient operation and functioning of the frontage road or adjacent road/rail level crossing.</li> <li>2. The effect of queuing vehicles on the safety of pedestrians and cyclists.</li> </ol>
<p><b>TRAN-MD18</b></p>	<p><b>New buildings, other structures, road intersections, vehicle crossings or vegetation adjacent to road/rail level crossing</b></p> <ol style="list-style-type: none"> <li>1. Where a new road crosses a rail corridor, or a road intersection or vehicle crossing does not comply with the applicable design requirements in relation to a road/rail level crossing:             <ol style="list-style-type: none"> <li>a. the extent to which the safety and efficiency of rail and road operations will be adversely affected;</li> <li>b. the extent to which a grade separated crossing will be provided; and</li> <li>c. the extent to which connectivity and accessibility for pedestrians, cyclists and vehicles will be improved, without compromising safety.</li> </ol> </li> <li>2. Where minimum setbacks for buildings, other structures or vegetation are not provided:             <ol style="list-style-type: none"> <li>a. the extent to which there will be an adverse effect on the safety of the road/rail level crossing for vehicles and pedestrians; and</li> <li>b. the extent to which visibility and safe sight distances will be adversely affected, particularly to the extent that vehicles entering/exiting the road/rail level crossing can see trains.</li> </ol> </li> <li>3. The outcome of any consultation with KiwiRail.</li> </ol>

	4. Any characteristics of the proposed activity that will make compliance unnecessary.
<b>TRAN-MD19</b>	<p><b>Land transport infrastructure</b></p> <ol style="list-style-type: none"> <li>1. The extent to which there is a need for the development in relation to improving safety, amenity values, efficiency or functionality of transport.</li> <li>2. The extent of adverse effects on the current or future safety and efficiency of transport.</li> <li>3. The extent to which the scale and location of buildings will adversely affect or dominate its surrounding setting including adjacent buildings and the environment, particularly: <ol style="list-style-type: none"> <li>a. where a larger building is proposed to locate adjacent to areas with smaller buildings, the massing and design of the proposed building should not overly dominate the built scale or open space of the surrounding area. Methods to moderate the bulk of the proposed building may include: <ol style="list-style-type: none"> <li>i. varying roof forms;</li> <li>ii. window placement;</li> <li>iii. appropriate use of materials;</li> <li>iv. modulation of facades.</li> </ol> </li> </ol> </li> <li>4. The extent to which a building adversely affects the environment, amenity values or adjacent land uses.</li> <li>5. The extent to which there is adequate access to sunlight.</li> <li>6. The extent to which the location and/or the scale of the building does not solely or cumulatively affect public access.</li> <li>7. The extent to which a building results in areas of entrapment or concealment.</li> <li>8. The extent to which the development avoids, remedies or mitigates actual or potential adverse effects.</li> <li>9. If land is being used for non-transport related activities, the extent to which the activity does not undermine the future use of the land for transport purposes.</li> <li>10. The extent to which a development impedes, restricts or compromises safe and efficient transport movement including access, parking, loading and manoeuvring.</li> </ol>
<b>TRAN-MD20</b>	<p><b>Extent of effects</b></p> <ol style="list-style-type: none"> <li>1. The extent of compliance with the relevant standard(s), and the extent of effects of non-compliance with the relevant standard(s) including cumulative effects.</li> <li>2. Any other relevant assessment matters for the Transport standard not met.</li> <li>3. The outcome of any consultation with <i>Waka Kotahi</i>, KiwiRail or District Council (as applicable).</li> </ol>
<b>TRAN-MD21</b>	<p><b>Parking or loading and associated manoeuvring area on a site with frontage to a Principal Shopping Street in Rangiora or Kaiapoi</b></p> <ol style="list-style-type: none"> <li>1. The location and characteristics of the activity to which the parking or loading relates and any factors that would affect generation of parking or loading demand.</li> <li>2. The type of vehicle requiring use of parking or loading facilities.</li> <li>3. The presence of any existing facilities with capacity to absorb additional parking or loading demand.</li> <li>4. The location and suitability of existing or proposed parking or loading or access.</li> </ol>
<b>TRAN-MD22</b>	<p><b>New stock underpass beneath a road corridor or rail corridor</b></p> <ol style="list-style-type: none"> <li>1. Whether there will be an adverse effect on the safety and structure of the road corridor or rail corridor.</li> <li>2. Whether connectivity across the road corridor or rail corridor will be improved, resulting in improved safety.</li> <li>3. The outcome of any consultation with <i>Waka Kotahi</i>, KiwiRail, or District Council (as applicable).</li> </ol>

## Appendices

### TRAN-APP1 Design standards for new vehicle crossings

**Table TRAN-15: Maximum number of vehicle crossing per site road frontage**

Frontage length (m)	Road frontage type	
	Local road or Collector road	Strategic road or Arterial road
0 - 16	1	1
> 16 - 60	2	1
> 60 - 200	2	1
> 200	3	2

**Table TRAN-16: Minimum separation distance between vehicle crossings**

Roads where the posted speed limit is 50km/h <sup>64</sup> or less			
Residential Zones	Site frontage on cul-de-sac: No limitation Where site road frontage length is < 12m: Less than 4m or greater than 7m Where site road frontage length is ≥ 12m: Less than 2m or greater than 7m, or less than 4m or greater than 7m where the site road frontage includes a minimum of 7m for on-street parking		
Commercial and Mixed Use Zones	Less than 6m or greater than 12m		
Roads where the posted speed limit is 60km/h <sup>65</sup> or above			
Frontage road speed limit (km/hr)	Strategic road or Arterial road (m)	Collector road (m)	Local road (m)
60 or 70	40	40	40
80	100	70	50
90	200	85	65
100	200	105	80

**Table TRAN-17: Minimum separation distance for vehicle crossings from road intersections**

Posted speed limit < 50km/h <sup>66</sup>	
Frontage road	Intersecting road type

<sup>64</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

<sup>65</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

<sup>66</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

	Strategic road or Arterial road	Collector road	Local road
Strategic road or Arterial road	30m	30m	30m
Collector road	20m	20m	10m
Local road	20m	15m	10m
<b>Posted speed limit 60-80km/h<sup>67</sup></b>			
<b>Frontage road</b>	<b>Intersecting road type</b>		
	Strategic road or Arterial road	Collector road	Local road
Strategic road or Arterial road	100m	100m	100m
Collector road	60m	60m	45m
Local road	60m	45m	45m
<b>Posted speed limit &gt; 80km/h<sup>68</sup></b>			
<b>Frontage road</b>	<b>Intersecting road type</b>		
	Strategic road or Arterial road	Collector road	Local road
Strategic road or Arterial road	200m	200m	200m
Collector road	60m	60m	60m
Local road	60m	60m	60m

**Table TRAN-18: Minimum and maximum width of vehicle crossings**

Activity	Number of marked parking spaces provided (For residential activity, the number of residential units)	Minimum legal width (m)	Minimum formed width (m)	Maximum formed width (m)
Residential activity, offices	1 - 3	3.0	2.7	4.5
	4 - 8	3.6	3.0	6.0
	9 - 15	5.0	4.0	6.0
All other activities	1 - 15	5.0	4.0	7.0
All activities	> 15	6.5	5.5	9.0

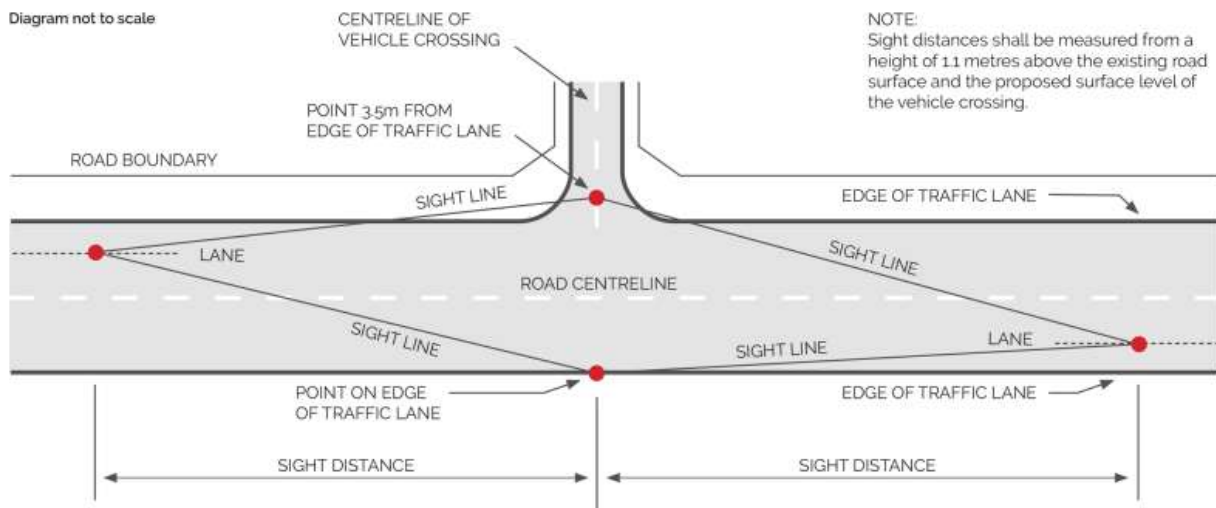
<sup>67</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

<sup>68</sup> Schedule 1 Clause 16(2). TRAN Reply Report.

**Table TRAN-19: Minimum sight distances from vehicle crossings**

Posted speed limit (km/h- <sup>69</sup> )	<del>Residential activity except high traffic generators (m)</del> <u>All activities</u>	<del>Other activity (m)</del>
30	<del>40</del> <u>50</u>	
40	<del>60</del> <u>70</u>	<del>75</del>
50	<del>80</del> <u>90</u>	<del>100</del>
60	<del>100</del> <u>125</u>	<del>125</del>
70	<del>120</del> <u>150</u>	<del>150</del>
80	<del>150</del> <u>180</u>	<del>180</del>
90	<del>170</del> <u>225</u>	<del>215</del>
100	<del>200</del> <u>260</u>	<del>250</del>
<u>110</u>	<u>300</u> <sup>70</sup>	

**Figure TRAN-6: Measurement of sight distances and sight lines from vehicle crossings**



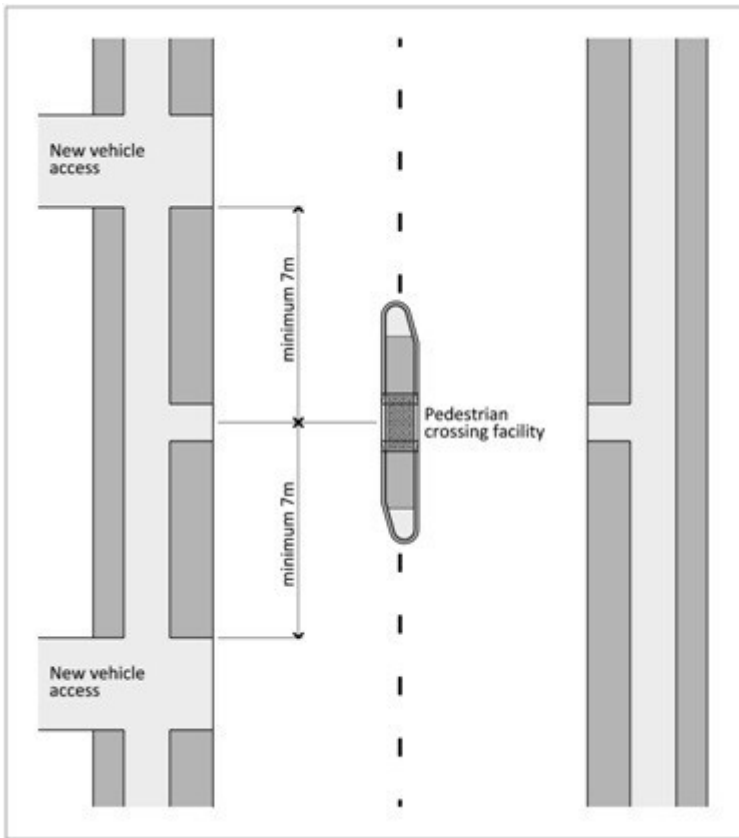
**Table TRAN-20: Minimum separation distance for a new vehicle crossing from an existing pedestrian crossing facility**

The closest edge of a new vehicle crossing shall be a minimum of 7m from the centre of an existing pedestrian crossing facility measured in accordance with Figure TRAN-7 below.

<sup>69</sup> Schedule 1 Clause 16(2)

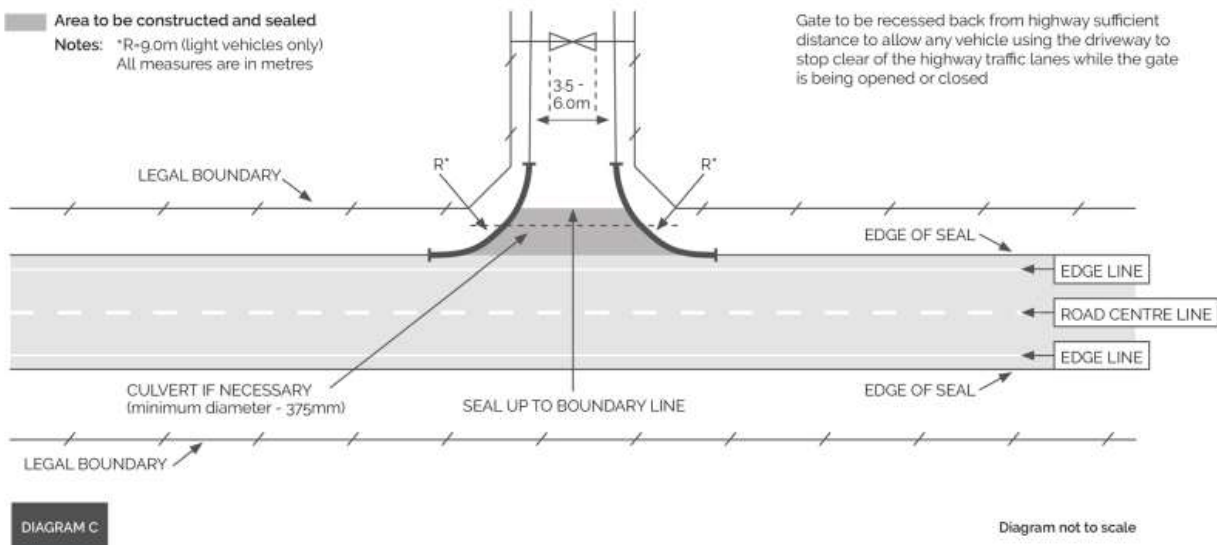
<sup>70</sup> Waka Kotahi NZ Transport Agency [275.20]

**Figure TRAN-7: Measurement of separation distance for a new vehicle crossing from an existing pedestrian crossing facility**



**TRAN-APP2 Design standards for a new vehicle crossing on a sealed road where the posted speed is 60km/h<sup>71</sup> or above**

(Source: Transit Planning Policy Manual Version, Manual No. SP/M/001, effective from 1 August 2007)



<sup>71</sup> Schedule 1 Clause 16(2). TRAN Reply Report.



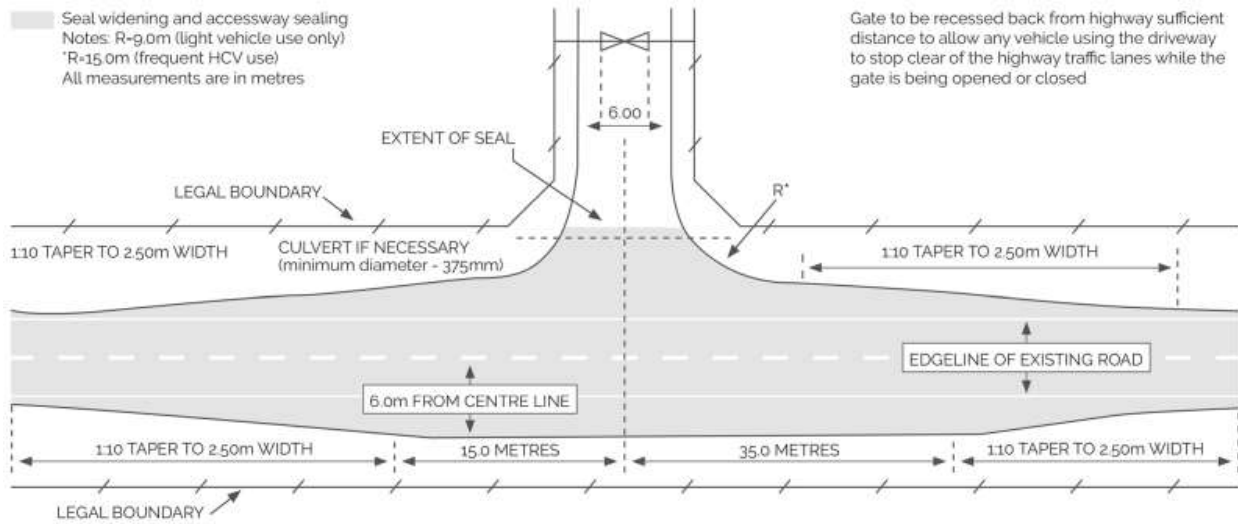
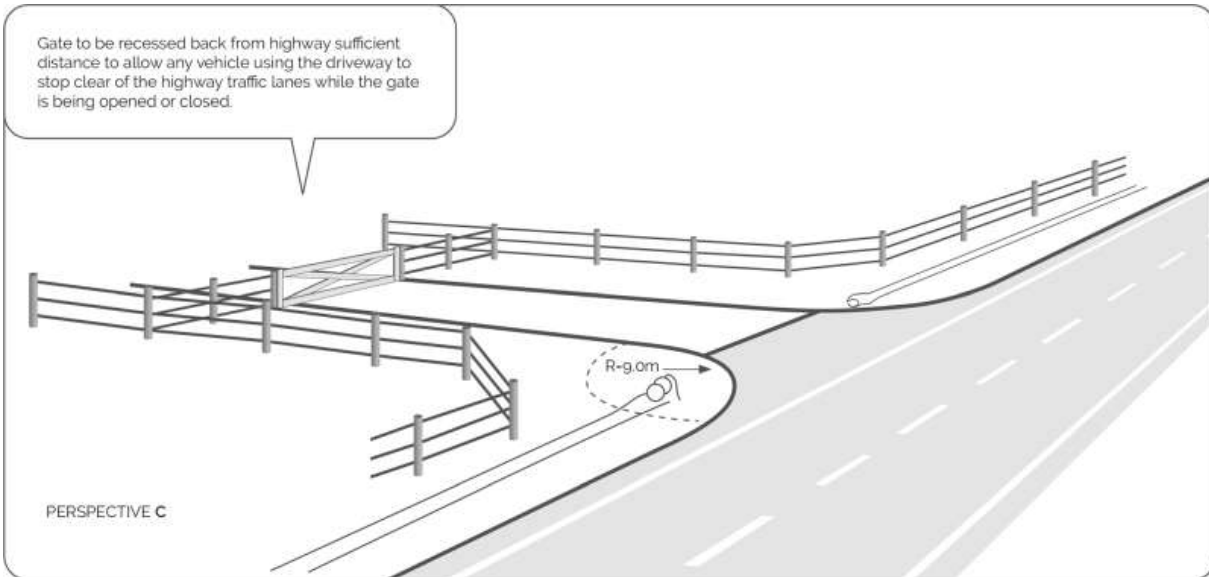
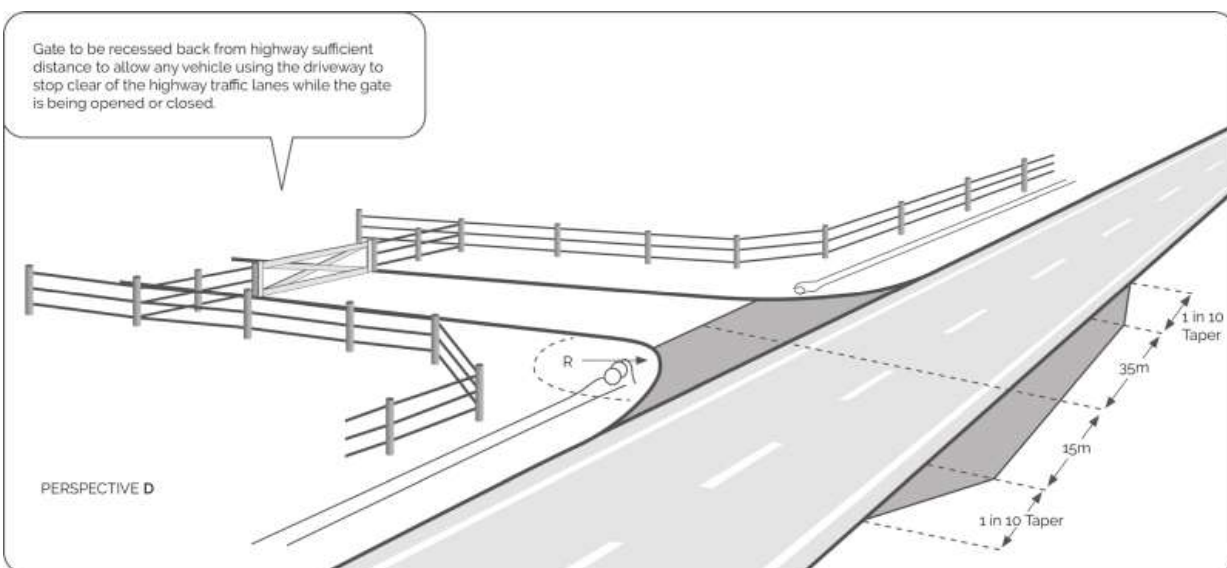


DIAGRAM D

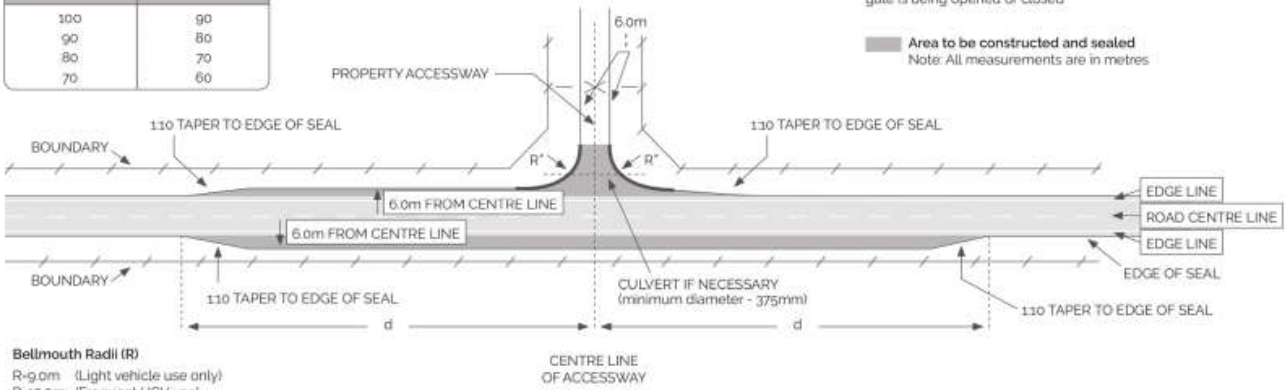
Diagram not to scale



LENGTH OF SHOULDER WIDENING	
SPEED LIMIT	d (in metres)
100	90
90	80
80	70
70	60

Gate to be recessed back from highway sufficient distance to allow any vehicle using the driveway to stop clear of the highway traffic lanes while the gate is being opened or closed.

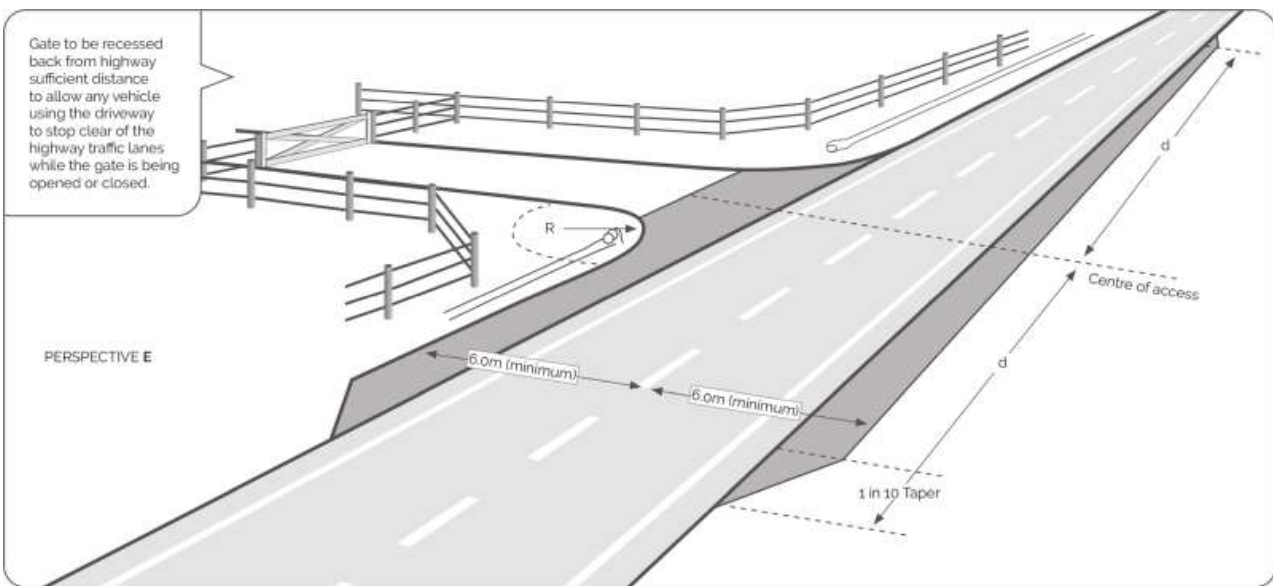
Area to be constructed and sealed  
Note: All measurements are in metres



**Bellmouth Radii (R)**  
 R-9.0m (Light vehicle use only)  
 R-15.0m (Frequent HCV use)

DIAGRAM E

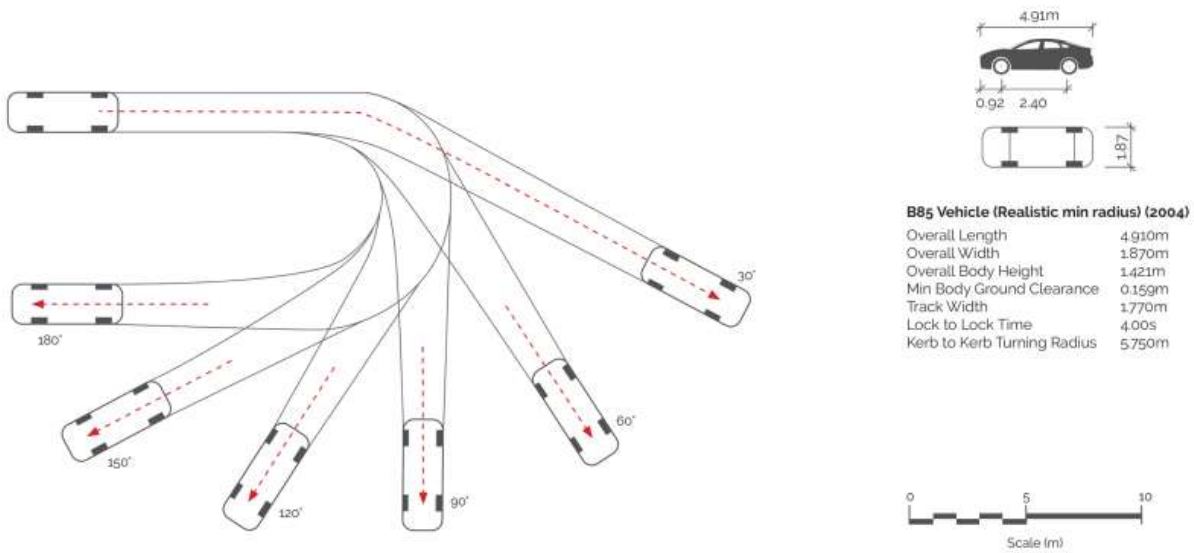
Diagram not to scale



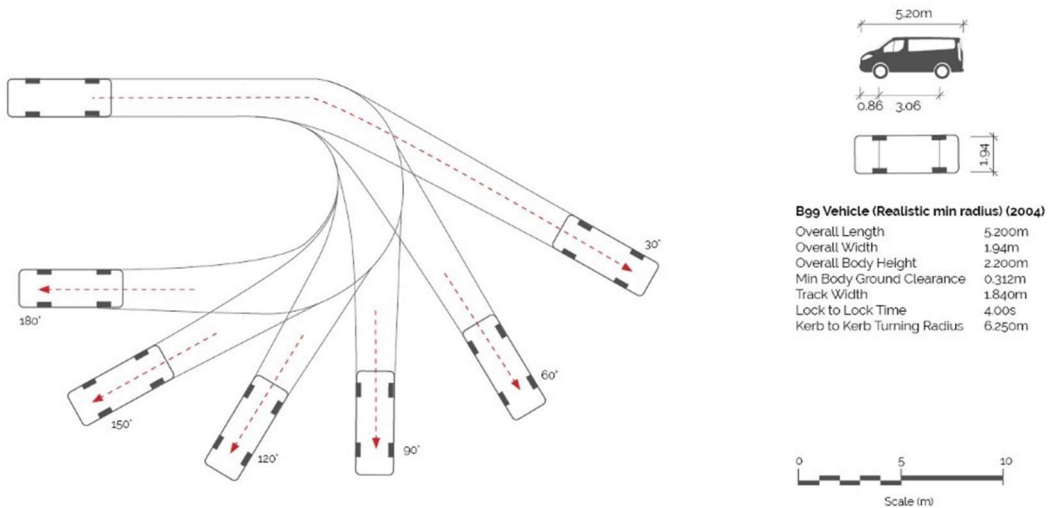
**TRAN-APP3 85 percentile and 99 percentile design vehicles**

**85 percentile**

(Source: AS/NZS 2890.1:2004 Parking Facilities - Off-street Car Parking - Part 1)

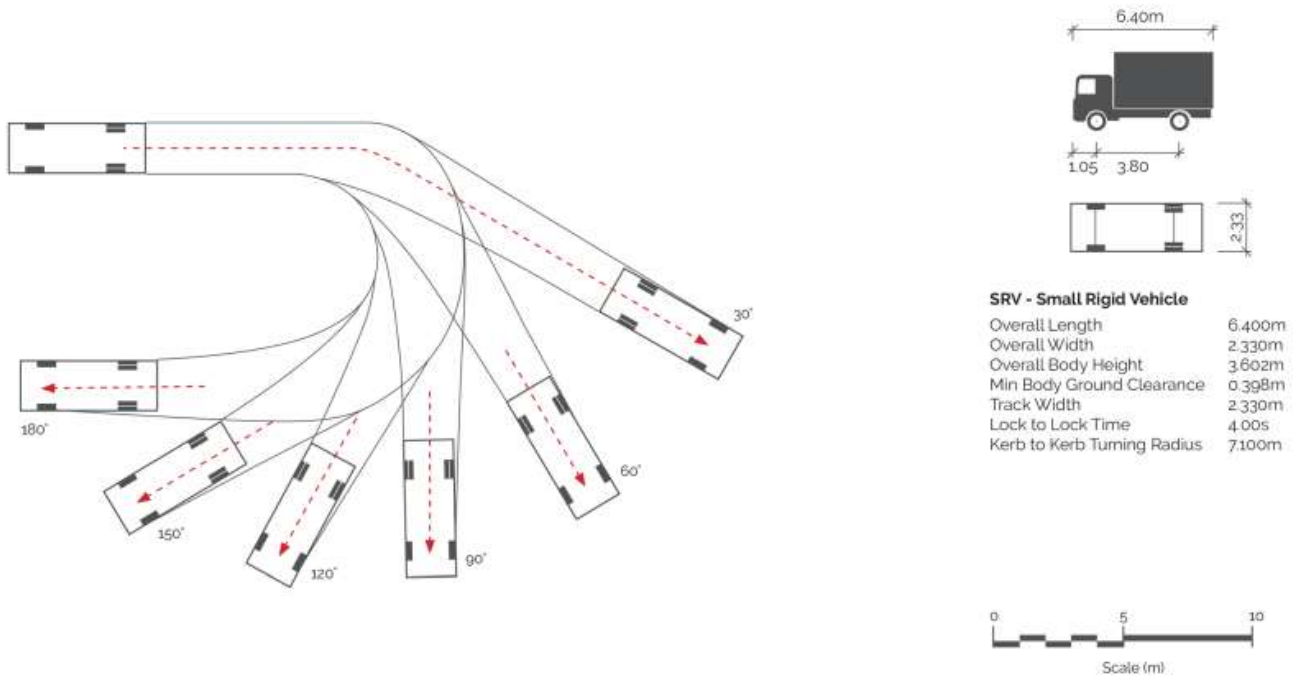


**99 percentile**  
 (Source: AS/NZS 2890.1:2004 Parking Facilities - Off-street Car Parking - Part 1)

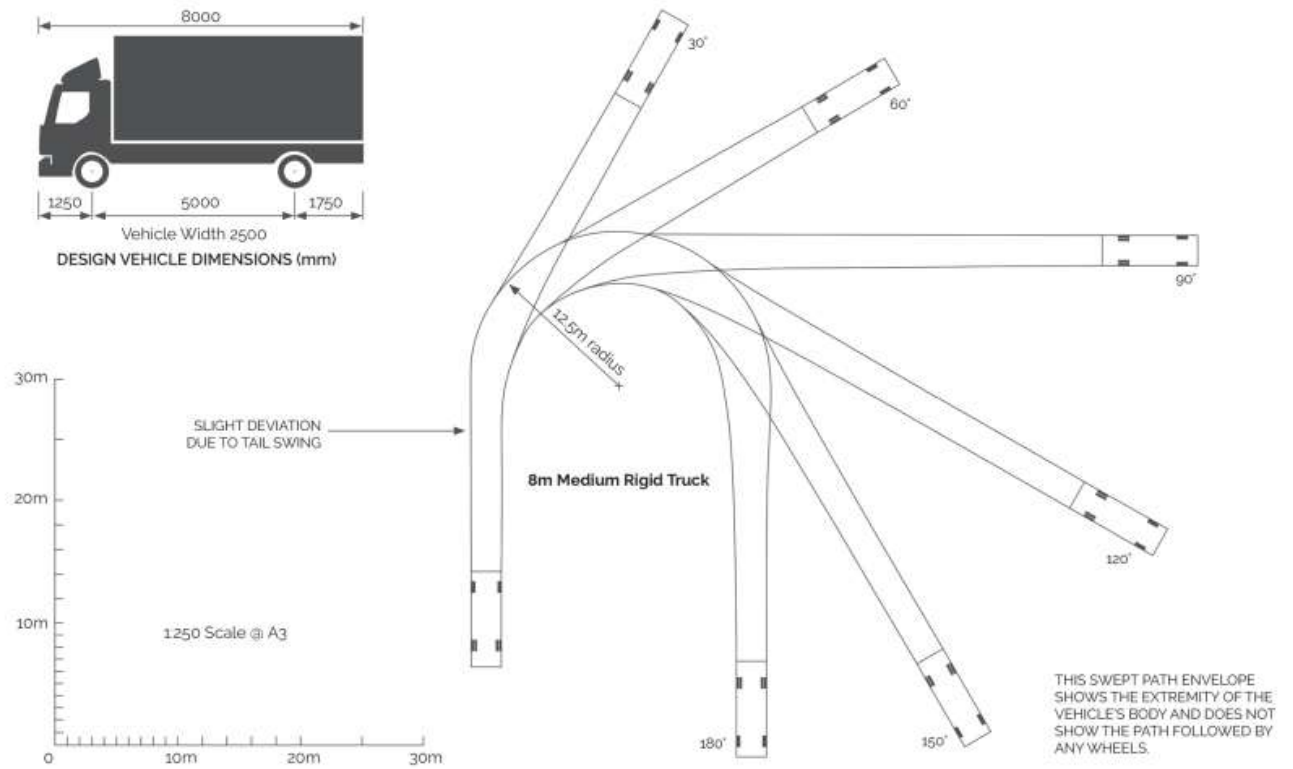


**TRAN-APP4 Loading space manoeuvring area dimensions**

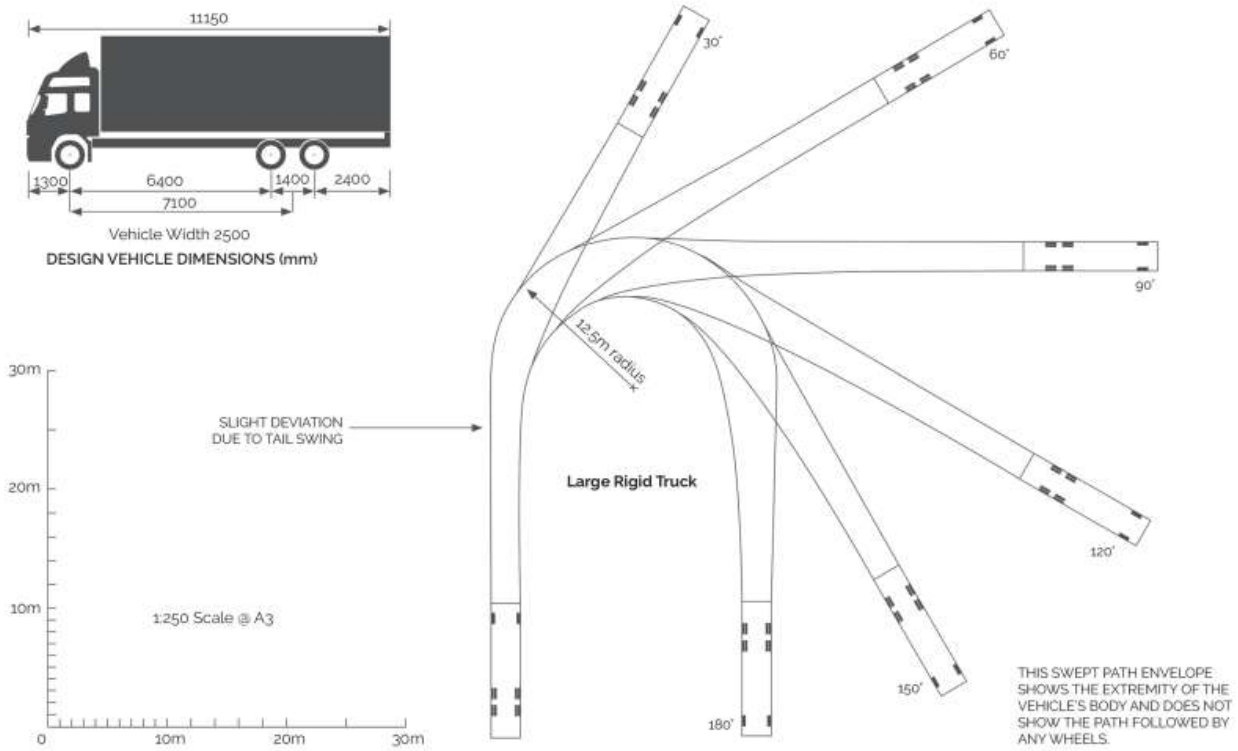
**Turning area for Small Rigid Truck (7.1m turning radius)**  
 (Source: AS/NZS 2890.1:2004 Parking Facilities - Off-street Car Parking - Part 2: Off-street Commercial Vehicle Facilities)



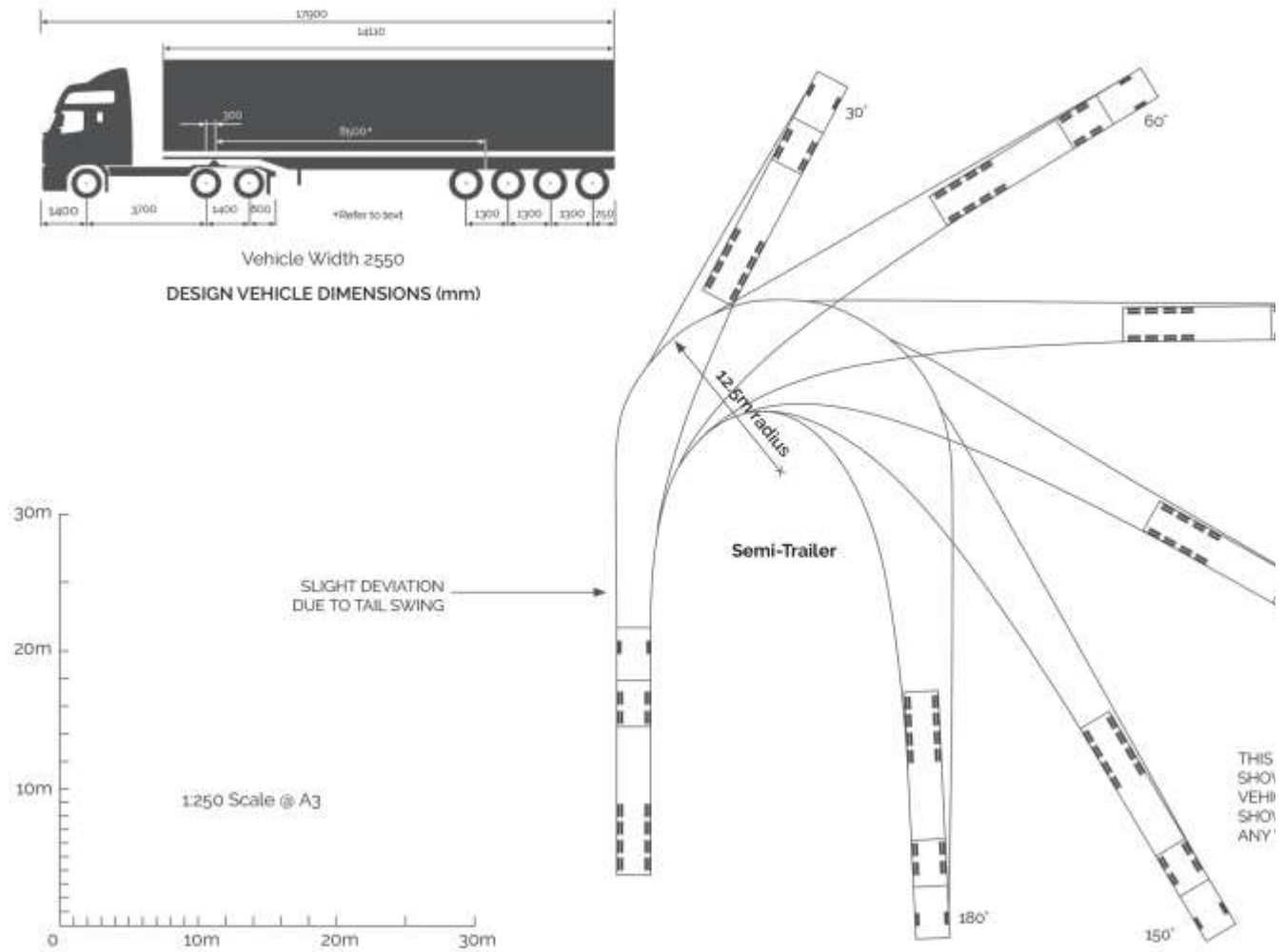
**Turning area for Medium Rigid Truck (12.5m turning radius)  
 (Source: RTS 18 New Zealand On-road Tracking Curves for Heavy Motor Vehicles August 2007, Land Transport New Zealand)**



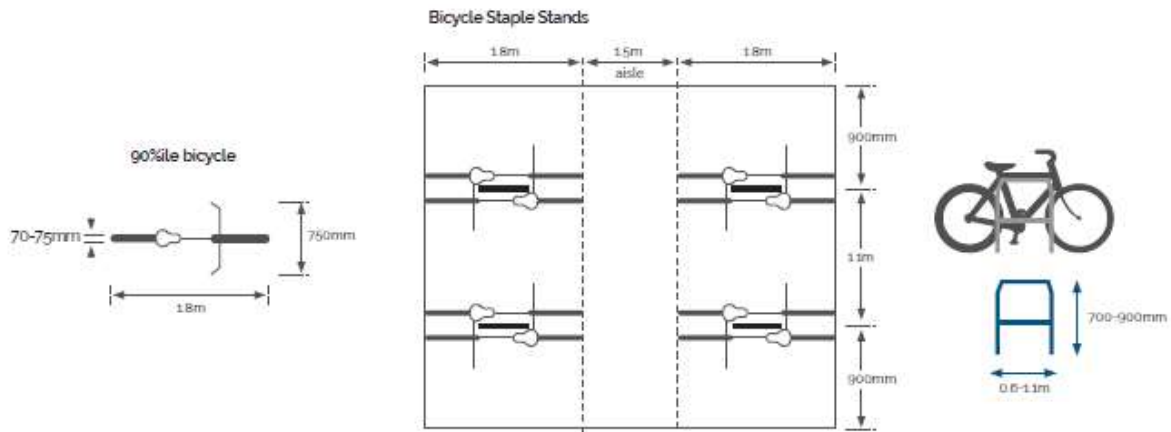
**Turning area for Large Rigid Truck (12.5m turning radius)**  
**(Source: RTS 18 New Zealand On-road Tracking Curves for Heavy Motor Vehicles August 2007, Land Transport New Zealand)**



**Turning area for Semi-Trailer Articulated Truck (12.5m turning radius)**  
(Source: RTS 18 New Zealand On-road Tracking Curves for Heavy Motor Vehicles August 2007, Land Transport New Zealand)



**TRAN-APP5 Cycle "staple" stand dimensions**



**TRAN-APP6 New Zealand Traffic Generation Rates<sup>72</sup>**

(Source: based on information contained in *Waka Kotahi* Research Report 453 'Trips and Parking Related to Land Use')

Category	Activity	Peak hourly traffic generation rate	Daily traffic generation rate
Assembly	Church	1.1 vph / person	
Commercial	Office	2.5 vph / 100m <sup>2</sup> -GFA	26.1 vpd / 100m <sup>2</sup> -GFA
Education	Preschool	1.4 vph / student	4.1 vpd / student
	Primary	0.7 vph / student	1.6 vpd / student
	Secondary	0.1 vph / student	0.4 vpd / student
	Tertiary	0.2 vph / student	1.4 vpd / student
Industrial	Warehousing	1.0 vph / 100m <sup>2</sup> -GFA	2.4 vpd / 100m <sup>2</sup> -GFA
	Contractor	6.2 vph / 100m <sup>2</sup> -GFA	
	Manufacturing	2.7 vph / 100m <sup>2</sup> -GFA	30.0 vpd / 100m <sup>2</sup> -GFA
Medical	Health-care facility	11.6 vph / professional	79.4 vpd / professional
	Hospital (Small)	3.0 vph / bed	13.5 vpd / bed
Residential	Residential unit (Medium-Density)	1.2 vph / unit	10.9 vpd / unit
	Residential unit (General)	0.9 vph / unit	8.2 vpd / unit
	Residential unit (Large Lot/Settlement/Rural)	1.4 vph / unit	10.1 vpd / unit

<sup>72</sup> Sports and Education Corporation [416.8] [416.9]. TRAN Reply Report.



	Retirement Home	0.4 vph / unit	2.4 vpd / unit
	Retirement unit	0.3 vph / unit	2.6 vpd / unit
	Hostel	0.6 vph / unit	2.5 vpd / unit
	Motel	1.4 vph / unit	3.0 vpd / unit
	Hotel	1.2 vph / unit	6.4 vpd / unit
Retail	Shop	42.5 vph / 100m <sup>2</sup> -GFA	125 vpd / 100m <sup>2</sup> -GFA
	Shopping Centre (Small)	18.9 vph / 100m <sup>2</sup> -GFA	141 vpd / 100m <sup>2</sup> -GFA
	Shopping Centre (Medium)	17.2 vph / 100m <sup>2</sup> -GFA	101 vpd / 100m <sup>2</sup> -GFA
	Shopping Centre (Large)	9.9 vph / 100m <sup>2</sup> -GFA	83.7 vpd / 100m <sup>2</sup> -GFA
	Shopping Centre (Town Centre)	8.5 vph / 100m <sup>2</sup> -GFA	55.9 vpd / 100m <sup>2</sup> -GFA
	Garden Centre	27.8 vph / 100m <sup>2</sup> -GFA	147 vpd / 100m <sup>2</sup> -GFA
	Discount Store	15.3 vph / 100m <sup>2</sup> -GFA	100 vpd / 100m <sup>2</sup> -GFA
	Supermarket	17.9 vph / 100m <sup>2</sup> -GFA	129 vpd / 100m <sup>2</sup> -GFA
	Bulk	5.6 vph / 100m <sup>2</sup> -GFA	44.8 vpd / 100m <sup>2</sup> -GFA
Retail	Restaurant	0.5 vph / seat	6.1 vpd / seat
	Fast Food	52.2 vph / 100m <sup>2</sup> -GFA	362 vpd / 100m <sup>2</sup> -GFA
	Bar	15.6 vph / 100m <sup>2</sup> -GFA	92.1 vpd / 100m <sup>2</sup> -GFA
	Service Station	100.9 vph / 100m <sup>2</sup> -GFA	718 vpd / 100m <sup>2</sup> -GFA
	Market	2.4 vph / 100m <sup>2</sup> -GFA	22.4 vpd / 100m <sup>2</sup> -GFA
	Produce	68.8 vph / 100m <sup>2</sup> -GFA	487 vpd / 100m <sup>2</sup> -GFA

**TRAN-APP7 Sight triangles for road/rail level crossing**

**Approach sight triangles at level crossings with Stop or Give Way signs<sup>73</sup>**

On sites adjacent to rail level crossings controlled by Stop or Give Way Signs, no building, structure, road intersections, vehicle crossings or vegetation shall be located within the shaded areas shown in Figure 1. These are defined by a sight triangle taken 30 metres from the outside rail and 320 metres along the railway track.

<sup>73</sup> KiwiRail Holdings Ltd [373.40] and [373.41]. TRAN Reply Report.

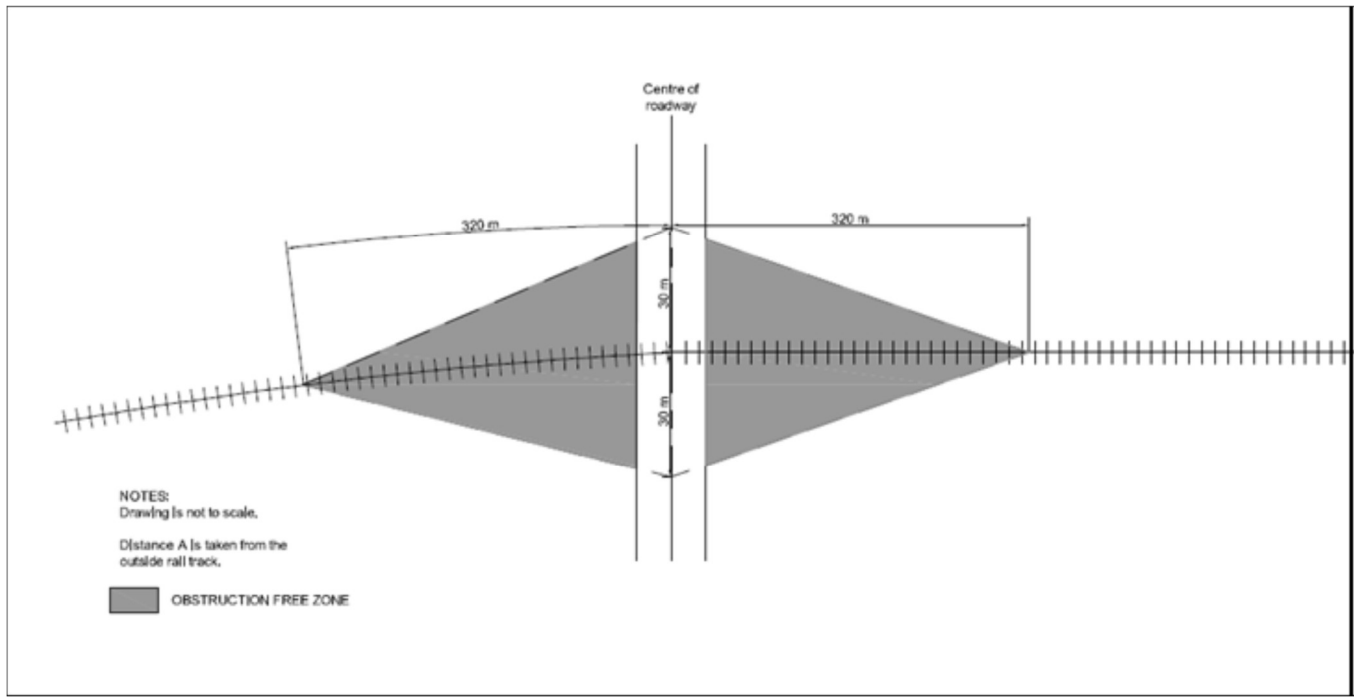


Figure 1: Approach Sight Triangles for Level Crossings with “Stop” or “Give Way” Signs

Advice Note:

The approach sight triangles ensure that clear visibility is achieved around rail level crossings with Stop or Give Way signs so that a driver approaching a rail level can either:

- See a train and stop before the crossing; or
- Continue at the approach speed and cross the level crossing safely

Of particular concern are developments that include shelter belts, tree planting, or a series of building extensions. These conditions apply irrespective of whether any visual obstructions already exist.

No approach sight triangles apply for level crossings fitted with alarms and/or barrier arms. However, care should be taken to avoid developments that have the potential to obscure visibility of these alarm masts. This is particularly important where there is a curve in the road on the approach to the level crossing, or where the property boundary is close to the edge of the road surface and there is the potential for vegetation growth.

**Restart sight triangles at level crossings**

On sites adjacent to all rail level crossings, no building, structure, road intersections, vehicle crossings or vegetation shall be located within the shaded areas shown in Figure 2. These are defined by a sight triangle taken 5 metres from the outside rail and distance A along the railway track. Distance A depends on the type of control (Table 1).

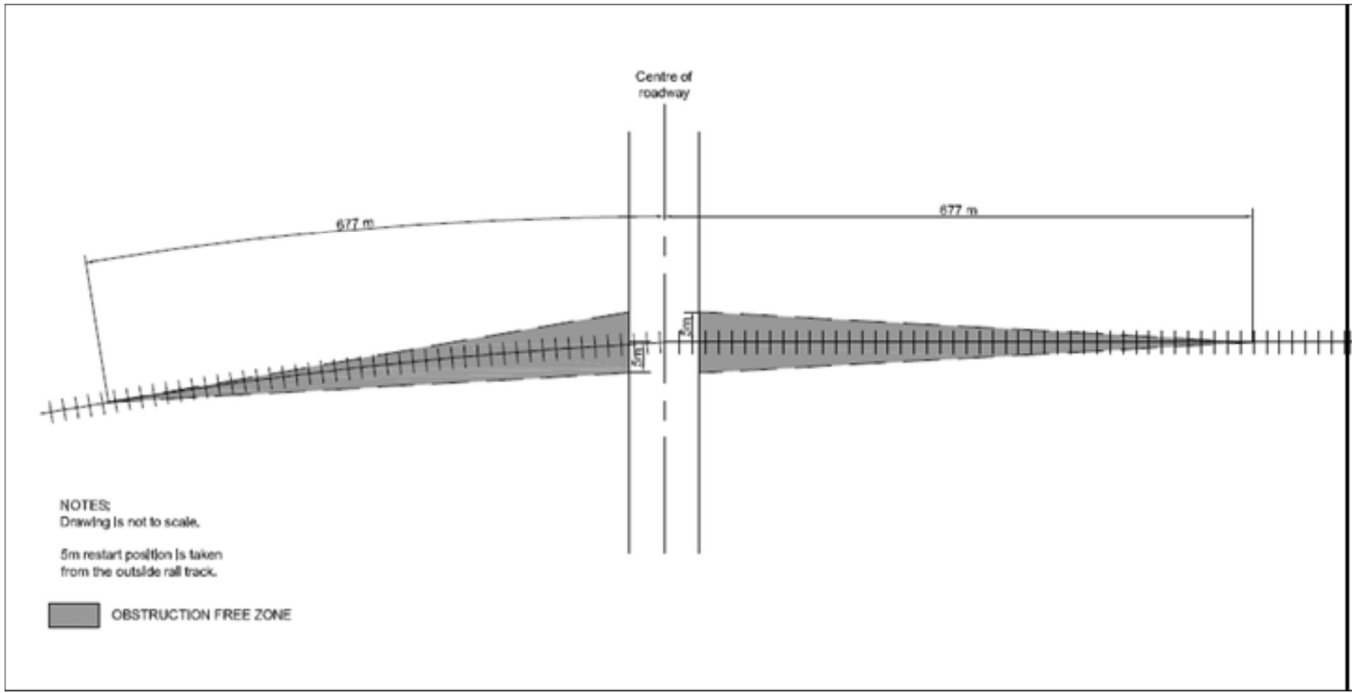


Figure 2: Restart Sight Triangles for all Level Crossings

Table 1: Required Restart Sight Distances for Figure 2

Required approach visibility along tracks A (m)		
Signs only	Alarms only	Alarms and barriers
677m	677m	60m

Advice Note:

The restart sight line triangles ensure that a road vehicle driver stopped at a level crossing can see far enough along the railway to be able to start off, cross and clear the level crossing safely before the arrival of any previously unseen train.

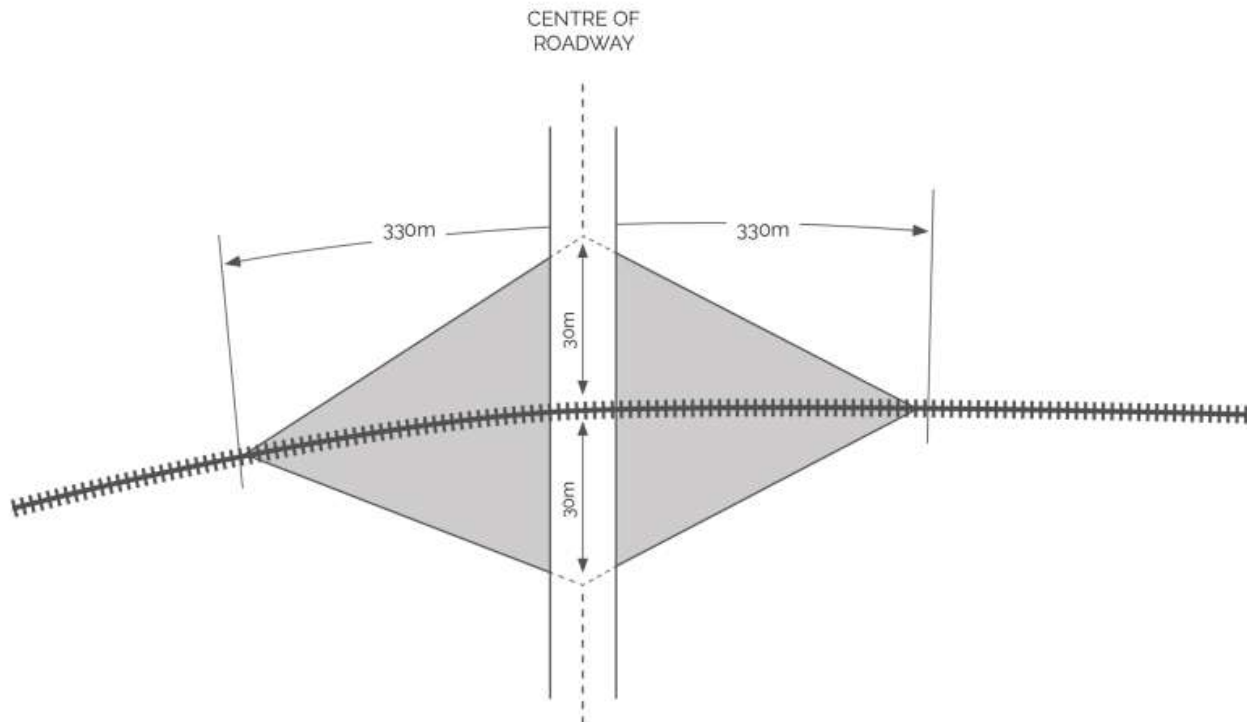
Of particular concern are developments that include shelter belts, tree planting, or a series of building extensions. These conditions apply irrespective of whether any visual obstructions already exist.

Notes:

1. Figures 1 and 2 show a single set of rail tracks only. For each additional set of tracks add 25 m to the along-track distance in Figure 1, and 50 m to the along-track distance in Figure 2.
2. All figures are based on the sighting distance formula used in NZTA Traffic Control Devices Manual, Part 9 Level Crossings. The formulae in this document are application of the standard. Approach and restart distances are derived from a:
  - train speed of 110 km/h
  - vehicle approach speed of 20 km/h
  - fall of 8 % on the approach to the level crossing and a rise of 8 % at the level crossing
  - 25 m design truck length
  - 90° angle between road and rail

## ~~TRAN-APP7 Sight triangles for road/rail level crossing~~

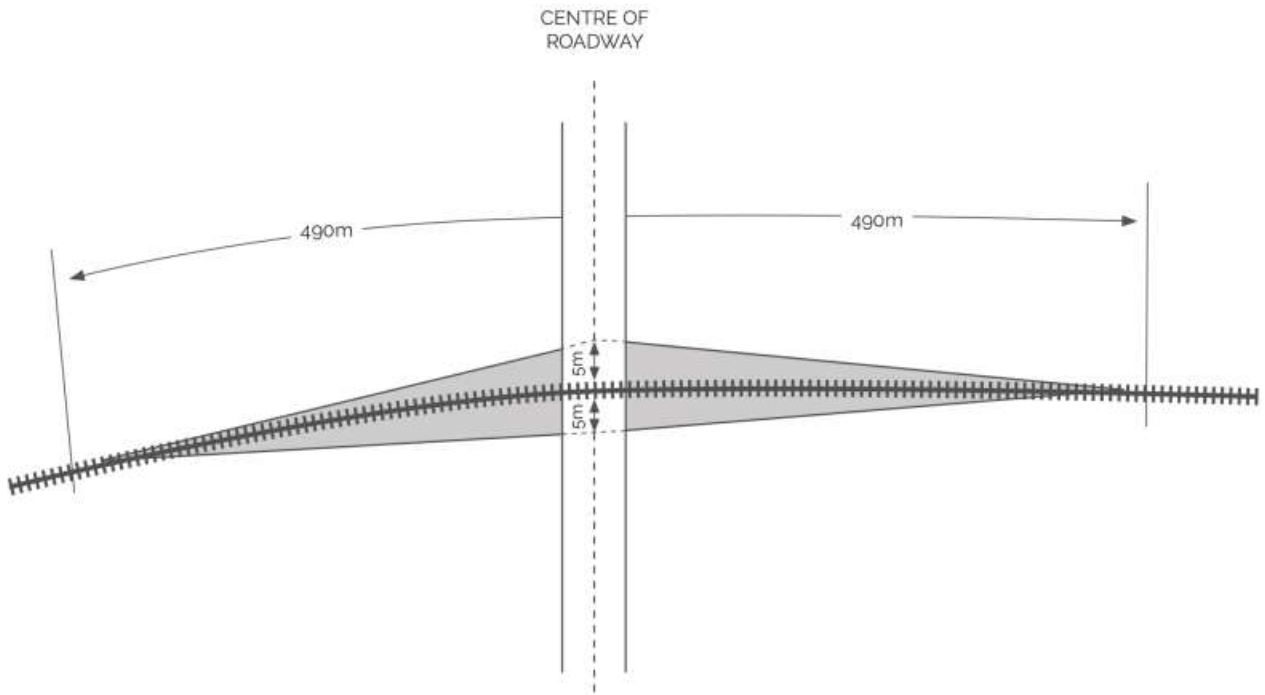
### ~~Approach sight triangles for road/rail level crossing~~



### ~~Advisory Notes~~

- The 30m distance is measured from the closest outside rail.
- Where there is more than one set of railway tracks, then 25m is added to the 330m distance along the railway track for each additional set of tracks.

### ~~Re-start sight triangles for road/rail level crossing~~



**Advisory Note**

- The 5m distance is measured from the closest outside rail.

### TRAN-APP8 Rangiora Airfield Obstacle Limitation Surfaces

