10 ISSUES, OBJECTIVES: Land Transport

10.1 OVERVIEW OF LAND TRANSPORT

Land transport infrastructure and activities are a significant component of the District's environment

- The physical infrastructure of roads, bridges, railway lines and facilities, and pedestrian and cyclist paths form a significant asset of physical resources; and
- Transport activities and maintenance of the transport infrastructure use considerable natural and physical resources; and
- Transport infrastructure and activities are significant in the landscape and economy of daily life.

The principal land transport links are road and rail. State Highway 1 is the main national and local arterial road. State Highway 57 provides an important regional link to Palmerston North. The North Island Main Trunk Railway Line provides rail freight and passenger services from and through the District - including commuter services between Palmerston North and District centres and Wellington. The development of national rail and road links have been instrumental in the location and growth of Levin, Foxton, Shannon, and other District settlements. The network of local roads extends in a Grid pattern east and west from State Highways 1 and 57. Each of the settlements is relatively compact in form and predominantly flat which makes it possible for cyclists and pedestrians to make use of pathways and shared use of roads.

The Manawatu-Wanganui Regional Council has in place two documents which are relevant to land transport issues in Horowhenua District:

- The Regional Policy Statement includes the objective: *"To have a land transport system which meets the needs of the region, while minimising adverse environmental effects"*; and
- The Regional Land Transport Strategy which is required by the Transit New Zealand Act 1989. The Strategy establishes regional objectives and policies for land transport which endeavour to balance the need to provide a safe, convenient and efficient transport system with consideration of environmental impacts.

10.2 SIGNIFICANT RESOURCE MANAGEMENT ISSUES FOR LAND TRANSPORT

Issue 22: The sustainable management of the land transport network to meet the needs of the community.

Issue 23: The adverse effects on the environment and the community that can be caused by some transport infrastructure and transportation activities.

Issue 24: The adverse effects that inappropriate land use activities can have on the safety and efficiency of land transport systems.

Issue 22: The sustainable management of the land transport network to meet the needs of the community.

Factors in the adequacy of the land transport network, and its ability to meet the community's needs, are:

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The Maintenance of Existing Infrastructure

There is considerable investment in existing land transport infrastructure including roads, railway lines and facilities, pedestrian pathways and facilities, street lighting, vehicle parking facilities, and directional and safety signage. It is important to the well-being of the community that this infrastructure is maintained to a standard able to function effectively.

The Integration of New or Extended Infrastructure With Existing Networks

It is important that any additions or extensions to the existing infrastructure are designed and constructed in a way that is compatible with existing infrastructure and which ensures efficient use of transport resources. Extensions to the roading network, for example, which unnecessarily duplicate existing roads or which create intersections with difficult safety conditions will not be compatible with aims of effectiveness or safety or efficiency. It is important that additions and extensions to the infrastructure meet adequate and consistent standards of design, construction, and maintenance. For example, new or extended roads should be compatible with the District's long-term roading hierarchy.

Providing For The Needs of Users Other Than Vehicles

Development of the transport infrastructure should also recognise the diverse transportation needs of people in the community. The needs of pedestrians, people with disabilities, children and infants, and cyclists as well as motorised vehicles should be provided for within land transport networks and land developments.

Public Passenger Services and Facilities

Public passenger transport is not a significant feature of land transport in the District although rail and bus services operate on the main connecting routes. The townships are small in size and most people use private vehicles or cycles or walk. Private vehicles predominate in the rural areas.

Vehicle Parking

Provision for vehicle parking is important to the proper operation of the transport network. It is important to achieve a balance between providing specific parking areas clear of conflicts with vehicles on roads and making maximum use of roads with kerb-side parking. In general it is expected that individual activities will provide on-site vehicle parking to accommodate expected parking demand but that kerb-side parking will be available for short term parking in commercial and industrial areas and for overflow parking in extraordinary circumstances elsewhere.

Significant Changes and Future Transportation Needs

The projected population growth for the District, together with expected increasing vehicle numbers and vehicle use, will add to the demands on local and arterial roads.

The District is expected, for the foreseeable future, to continue to produce and export bulk quantities of agricultural and horticultural produce. A network of roads and rail able to efficiently accommodate these transport movements will continue to be essential to the District's economy.

Substantial areas of the District have historically been planted in production forestry. Additional areas continue to be planted. Forest harvest projections indicate that there will be increasing heavy vehicle movements on local roads and state highways associated with future harvesting.

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The particular characteristics and intensity of log haulage, and other heavy haulage activities, can affect the condition of the surfaces of local roads and can create conflicts with other local road users. Identifying the causes of wear and tear on roads is not a straightforward matter. Wear and tear cannot be easily attributed to one sector or period of time. Developing a strategy for maintaining roads in situations of heavy traffic or high traffic volumes should take a long term approach. It is not simply a matter of demanding funds for repairs from one industry sector.

Traffic Congestion - Oxford Street Levin

There had been an historical designation for a "motorway" bypass of Levin as part of a continuous motorway-standard route for the entire length of State Highway 1 through the North Island. That designation was uplifted from the previous District Plan after investigations indicated there were insufficient public benefits to warrant the cost of the project. The issues of congestion of Oxford Street and the adverse effects of intensive use by heavy vehicles continue to present environmental problems for the Levin community. Investigations into the merits of some kind of bypass of Levin are continuing and options for resolving these environmental problems need to be explored.

Agencies Involved

Responsibility for the provision and maintenance of land transport infrastructure is shared between a number of organisations including:

- The District Council (for local roads, pedestrian paths and cycleways)
- Transit New Zealand (for state highways)
- New Zealand Rail (for railway lines)
- Individual land developers (in creating new public and private roads and transport facilities)

An appropriate mix of land transport infrastructure can only be achieved through the combined efforts of all agencies. This Plan can contribute only a share of the policies and methods necessary to support an adequate land transport network.

OBJECTIVE 17:	**Maintenance of adequate land transport networks to efficiently and safely move people and goods through and within the District.**
POLICY 17.1:	**Determine an appropriate District Roading Hierarchy and require all new roads to be consistent with that hierarchy.**
POLICY 17.2:	**Ensure that all proposed new or extended roads are necessary to provide safe and convenient access for the community; and** **Ensure that they provide the most efficient form of transport to serve community needs in terms of the alternative forms of transport and routes available and the relative environmental costs and benefits of those alternatives.**
POLICY 17.3:	**Require all new public and private roads to be designed and constructed to meet consistent minimum standards relating to safety and efficiency of vehicle movement and particularly in respect of:** • **Road width and alignment which should be sufficient for two**

vehicle lanes except where traffic volumes are insufficient;

- **The formation and surface sealing of all roads, access ways, and private ways to standards appropriate to the volume of vehicle traffic expected to be carried;**
- **Provision for necessary public utility facilities within roads;**
- **Safe design and construction of roads, road access points, including alignment, gradient, vehicle parking, manoeuvring, and turning requirements.**

POLICY 17.4: **Ensure that the design and construction of all land transport routes and facilities incorporate measures to enhance the personal safety, security, and convenience of users including vehicle users, public passenger transport services, pedestrians, cyclists, children, and people with disabilities.**

POLICY 17.5: **Require all public roads, private roads, and accessways, cycle ways, and pedestrian footpaths in urban areas to be provided with overhead lighting.**

POLICY 17.6: **Require all new urban subdivisions and developments to incorporate infrastructure and facilities for non-motorised transport users and particularly:**

- **Pedestrian access routes connecting residential areas, schools, shopping centres, recreation reserves, and public transport collection points and terminals where appropriate;**
- **Provision for cycle traffic within road carriageways in such a way that lane width, design, and surface finish are adequate to safely accommodate both motorised vehicles and cycles;**
- **Separate bicycle tracks outside road carriageways;**
- **Pedestrian footpaths to be provided in urban areas adjacent to but separated from vehicle carriageways;**
- **Safe, all-weather surfaces and gradients for public pedestrian footpaths;**
- **Pram and wheelchair crossings located at convenient positions in relation to intersections.**

POLICY 17.7: **Require all proposed allotments to have access from a public road suitable for the safe and efficient carriage of vehicles, cyclists, and pedestrians.**

POLICY 17.8: **Access across a rail corridor for subdivisional purposes is only permitted at an existing public level crossing and where sufficient safe sightlines are available or alternatively at a position where there are existing safety warning devices.**

POLICY 17.9: **Ensure that the cost of new or upgraded roading, which is needed to provide access to new subdivision or development, is met by the subdivider or developer.**

POLICY 17.10:	**Ensure that activities that generate demand for parked vehicles and which involve loading of vehicles provide space within their site to accommodate loading and parked vehicles without creating congestion or conflicts with moving vehicles or with pedestrians on adjacent roads.**
POLICY 17.11:	**To ensure that State Highways are a safe and efficient network.**

Explanation and Principal Reasons

Council has adopted a roading hierarchy which represents the intended status and function of roads and determines their design and speed characteristics. All subdivision and development of land should be serviced by roads of appropriate design and speed characteristics as defined by the hierarchy.

It is important both to the safety and convenience of road users and to the efficiency of on-going maintenance of roads that they be designed and constructed using consistent standards. Road surface and gradient are particularly important to road safety and significant differences in the standard of road surface may compromise road safety. Where higher volumes of traffic are expected, on urban roads, road surfaces should be hard-surfaced for long-term wear and tear and ease of maintenance. Rural roads which carry lesser volumes of traffic will not always warrant the cost of hard surface finish at construction.

The design width of a road will depend on its status within the roading hierarchy but must be sufficient to accommodate the services and facilities usually expected within roads. Roads provide the servicing trenches for several essential public services. In some circumstances facilities such as footpaths, cycle lanes, vehicle parking, and landscaped berms may be appropriate. It is important that the road's future function be fully understood at the time of its design and that it be sufficiently wide to accommodate that function.

Council is committed to minimising accidents at road intersections. The design of all future road intersections will therefore be required to incorporate safe sight distances and intersection detail appropriate to the local speed environment and environmental conditions.

Roads are public spaces heavily used by pedestrians and cyclists of all ages and abilities, as well as by vehicles. Roads have different safety characteristics at night compared to the daytime. It is important that roads be designed to maximise personal safety of all users. Street lighting is one way of designing for safety and crime prevention. Separation of road users with security fencing or barriers may, in some circumstances, be appropriate - for example where there are high vehicle speeds or steeply-sloped pedestrian footpaths intersecting with vehicle roads. The location and design of any such barriers should be chosen carefully to enhance crime prevention.

Roads should be designed and constructed to maximise opportunities for pedestrian and cycle access within communities. The policies are directed towards ensuring that the provision of pedestrian and cycle facilities incorporate basic safety and convenience elements.

Road marking and traffic signs are an important component of the transport infrastructure. The Plan will enable provision for essential traffic safety and directional signs and road names. Access along local public roads is unrestricted and provides wide community benefit. That community-wide benefit is reflected in the funding of road maintenance from District Council rates. Where new roads are extended specifically to connect new subdivisions or developments to the existing road network, the

capital cost of that construction should be met by the principal beneficiary of the access ie: the subdivider or developer.

Public roads will be designed and maintained to enable their use by public passenger transport services and Council will continue to upgrade/provide facilities where demand necessitates.

The standards relating to carparking are designed to ensure that every new activity is provided with off-street parking for vehicles used in conjunction with the activity, as well as for people visiting the site.

The Council will consider reductions in parking provision, subject to a resource consent, where it can be demonstrated that the demand for parking generated by each activity does not occur simultaneously and that the operational hours or arrangements of those activities means that sharing of parking spaces will occur.

METHODS FOR ISSUE 22 AND OBJECTIVE 17

District Plan

- The Plan will adopt the current district roading hierarchy and use that to determine the status and function of all future roads;

- The Plan will specify the standards to be applied to the design and construction of public roads and private roads and access ways; and for non-vehicle land transport including facilities for pedestrians, cyclists, and people with disabilities.

- The Plan will provide for all existing public roads and parking areas as designated public works; and will recognise designated railway lines and rail facilities.

- The Plan will permit essential road markings and signs as permitted activities.

- Where a subdivision of land creates a new road Council will require the subdivider to fund the cost of road construction; where an existing road is extended or upgraded to serve a subdivision Council will require the subdivider to pay the full cost or contribute to the cost of the extension or upgrading in accordance with the level of benefit the upgraded road provides for the subdivision compared with other road users.

- The Plan will specify the amount of on-site vehicle parking required in association with land use activities; and the requirements for vehicle loading and access.

Given the importance of land transport infrastructure to the community, Plan rules and resource consents are considered to be the only way to ensure transport infrastructure with consistent high standards.

Annual and Strategic Plan and District Land Transport Programme

- Council will continue to fund capital works and maintenance of land transport infrastructure throughout the District in accordance with annual priorities.

- Council will continue, in association with other agencies, to improve infrastructure and facilities for pedestrians and cyclists and public transport passengers and will continue to maintain and improve the safety and efficiency of the road network.

Other Methods

- Council will continue to investigate and develop a network of recreational walkways to be created in the District.

- Council will work with Transit New Zealand to investigate long term options for resolving the environmental problems caused by heavy traffic and heavy vehicle congestion in Oxford Street Levin.

Issue 23:	**The adverse effects on the environment and the community that can be caused by some transport infrastructure and transportation activities.**

The construction and maintenance of transport infrastructure can give rise to adverse effects on the environment. One example is road earthworks which scar the landscape or cause siltation of waterways. The choice of location of new transport infrastructure and road alignment is often limited by other engineering factors and the location of existing infrastructure. Adverse effects of transport infrastructure need to be balanced against overall benefits to the community of enhanced access, efficiency, or safety.

The use of transport infrastructure and transportation activities can give rise to localised adverse effects. Examples include noise of vehicles on roads or on private properties; dust on metal roads; vehicle exhaust emissions on local air quality; surface water run-off from roads to road-side drains and private property; spills of wastes and other material from vehicles to the road and stormwater system such as effluent from stock trucks. Effects on the wider environment include the cumulative effect of increasing vehicle emissions on the atmosphere and ozone depletion.

OBJECTIVE 18:	**Management of the adverse effects of transport infrastructure and transportation activities so as to maintain the health and safety of people and communities within the District.**
POLICY 18.1:	**Require all extensions to the land transport <u>infrastructure</u>, including roads, to avoid, remedy, or mitigate any adverse effects on the natural and physical resources and the landscape of the District as appropriate in the circumstances.**
POLICY 18.2:	**Avoid, remedy, or mitigate the adverse effects of land transport <u>activities</u> on the amenities of environments and on the natural and physical resources and landscape of the District.**
POLICY 18.3:	**Discourage high volume and heavy traffic use of collector and distributor roads which pass through areas of high amenity including residential areas.**

Explanation and Principal Reasons

Construction and maintenance works involving land transport infrastructure will be subject to the same assessment and resource consent procedures as other land use activities. Like other activities, they will be required to avoid, remedy, or mitigate potential adverse effects on the environment.

The current state of vehicle technology in New Zealand means that there are minimum levels of noise and vehicle emissions that must be expected from the operation of vehicles on roads. There is little the Plan can do to modify those conditions. The Plan can control the extent of these effects by adopting a roading hierarchy which encourages higher volumes of traffic and heavy traffic movements on certain routes and discourages them on others.

The policies recognise the adverse effects that can be caused by transport activities and intend that those effects be avoided or remedied or mitigated as appropriate to individual circumstances. High amenity areas such as residential areas, significant natural features, and areas of open space and reserve areas will be protected from the effects of high traffic volumes.

METHODS FOR ISSUE 23 AND OBJECTIVE 18

District Plan

- Proposed extensions to transport infrastructure will be assessed in terms of the Plan's policies and standards relating to protection of the qualities of natural and physical resources (including water quality, land disturbance, landscape quality, protection of archaeological and historic sites). Transport activities will have to meet minimum environmental standards.

The Plan will recognise existing designated roads. New and extended roads will be considered on their merits and be assessed in terms of the policies of the Plan relating to environmental quality.

The Plan will include minimum performance standards, principally relating to noise, for transportation activities on private land so as to maintain the amenity of local environments. The Plan will adopt the district roading hierarchy and will accept a certain level of effects from transportation activities along national and arterial routes. It will be the non-Plan initiatives of Council and other agencies which will encourage traffic to use appropriate routes within the hierarchy.

Other

- Council will work with N.Z. Police (Traffic Safety Service), Transit NZ and use road signage to encourage heavy vehicles to utilise the national and arterial routes indicated in the roading hierarchy.

- Council will continue to liaise with Central Government in terms of national initiatives to monitor and reduce overall emissions affecting the atmosphere and the Government's commitment to reduce carbon emissions by the year 2000.

Council acknowledges the Government's commitment to reducing overall carbon emissions to the atmosphere and acknowledges the significant contribution to emissions made by vehicles. The reduction of these emissions relies on a co-ordinated national strategy, rather than piecemeal initiatives of individual authorities. Council will therefore remain in touch with the development of any national strategy and is prepared to become involved with initiatives and programmes as they are developed.

Issue 24:	The adverse effects that inappropriate land use activities can have on the safety and efficiency of land transport systems.

Certain land use activities can have adverse effects on the safe and efficient operation of the land transport network. Examples include:

- Inappropriately sited vehicle entrances resulting in poor site lines for on-coming traffic and potential intersection accidents;
- Road-side stalls with poor visibility and difficult entrances/exits;
- Buildings and trees shading roads and contributing to ice on roads and safety hazards;
- Activities generating high vehicle movements into and out of a site increasing the chance of intersection accidents;
- Night lighting and glare from buildings affecting visibility of roads for vehicle users;
- Vehicle loading and delivery arrangements which interfere with pedestrians' free and safe use of footpaths;
- Advertising signs which are distracting to motorists;
- Activities which generate demand for vehicle parking but do not make provision for that parking and cause congestion on adjacent roads for other road users including cyclists.
- Accidental spills from vehicles onto roads creating slippery or hazardous road surface for other road users.

The maintenance of safe sight lines at rail level crossings is a particular issue that needs to be provided for.

OBJECTIVE 19:	Protection of the safety and efficiency of the land transport network from the adverse effects of land use activities
POLICY 19.1:	Avoid, remedy, or mitigate the adverse effects of increased traffic or changed traffic type, which could compromise the safe and efficient operation of any road; or the safe and convenient movement of pedestrians and cyclists on public roads.
POLICY 19.2:	Require vehicle crossing places and vehicle entrances from public roads to be located, constructed, and maintained to standards appropriate to the circumstances of traffic volume, pedestrian movement, and speed environment of each road.
POLICY 19.3:	Ensure that buildings and activities do not compromise the necessary clear sight lines for trains and road vehicles at level rail crossings; or of vehicles at road intersections.

POLICY 19.4:	**Control the location, design, and extent of advertising signs located adjacent to roads and avoid a proliferation of road-side advertising signs.**
POLICY 19.5:	**Require all permitted road-side advertising signs to display clearly and boldly the nature of the goods or activities being advertised and require all signs to be located within the site to which the sign relates.**
POLICY 19.6:	**Avoid, remedy, and mitigate any adverse effects or hazards for the vehicle and pedestrian and cyclist users of roads or for railway lines caused by land use activities (including effects of glare, inappropriate lighting, smoke, or discharges onto the road).**

Explanation and Principal Reasons

Council has a responsibility to manage the adverse effects of activities including effects on land transport infrastructure. Council seeks to ensure that the types and intensity of effects of activities are appropriate to the speed on and function of individual roads. This may mean, in some situations and for reasons of public interest and transport safety and efficiency, that activities need to be modified or even prevented from operating.

METHODS FOR ISSUE 24 AND OBJECTIVE 19

District Plan

- The Plan will include rules controlling the location, size, and design of advertising signs visible from transport routes; and standards for the operation of certain activities intended to avoid, remedy, or mitigate adverse effects of activities including their effects on transport routes (such as glare, night lighting, setback distances for plantation forestry).

- The Plan will include controls on building location intended to maintain clear sight lines to key intersections and rail level crossings.

- Where resource consent applications involve access onto the State Highway network, Council will forward copies of applications to Transit New Zealand as an affected party. Council will make reference to Transit New Zealand's guideline "Planning for a safe and efficient State Highway Network under the Resource Management Act 1991" when considering applications for resource consent which have implications for the state highway network.

- The plan will include performance standards controlling the location and design of farm loading ramps, to avoid the adverse effects of the use of these facilities in close proximity to the roading network.

The Plan is considered to be the most appropriate and effective means of controlling the adverse effects of activities on essential transport infrastructure and activities. In the case of District roads Council is able to assess the likely effects of activities. Council will, in the case of state highways, recognise Transit New Zealand's role and interest in maintaining safety and efficiency of highways and will ensure that T.N.Z. is aware of proposed activities likely to affect the highway. Transit NZ has powers under the Transit NZ Act to control the location and design of state highway crossing places

for designated Limited Access Roads. Remedies under this legislation should be used where appropriate to control adverse effects.

Other

- Council intends to continue to work with Traffic Safety Service, transport operators and Transit New Zealand to minimise the incidence of accidental spillages onto roads.

10.3 ANTICIPATED ENVIRONMENTAL RESULTS

The outcomes for land transport which are anticipated to result from the combined implementation of the above policies and methods are as follows:

- A land transport network which safely and efficiently moves people and goods through and within the District.
- A land transport which meets the needs of users other than motor vehicles.
- Few land transport hazards created by inappropriate land use activities.
- A high standard of safety and amenity throughout the land transport network.