Long Term Plan 2018-28
Service Plan for Traffic Safety and Efficiency

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Christchurch City Council

Approvals		
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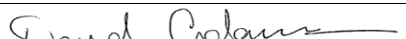
General Manager(s)	David Adamson	

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What does the overall Group of Activities do and why do we do it?

Christchurch City Council plans, manages and operates the local transport network in Christchurch. Many of the Council's activities in this role are undertaken in close collaboration with the New Zealand Transport Agency and Environment Canterbury.

The streets we manage provide a safe and efficient network that connect communities and facilitate the movement of people and goods around the District and to the adjoining region. These network facilities provide for choice in travel mode, promotion of active travel for healthy lifestyles and attractive, functional streetscapes. Council implements these services for the community in a number of ways, including network planning, day to day operations, asset maintenance, renewal of life expired infrastructure and improvements to the network.

For decision making clarity these elements are categorised into the following Service Plans: Roads and Footpaths, Active Travel, Parking, Public Transport and Traffic Safety & Efficiency. The objective for this group of Activities is to manage the network to ensure that it is safe, connected, integrated, affordable, sustainable, and is responsive to the needs of customers.

1. What does this activity deliver?

The objective of this Activity is to ensure that the roading network is safe and efficient. This is delivered in the following ways:

- Operational interventions, which are day to day tasks undertaken by staff, including;
    - Monitoring of the performance of the transport network and response to incidents
    - Control of temporary traffic management activities
    - Operation of the traffic signal network
    - Operation of intelligent traffic systems
    - Communication of traveller information
    - Managing technology challenges and changes
- Education and travel choice programmes, to inform customers and influence their behaviour (travel demand management), including;
    - Community based road safety education programmes, such as Crash Bash students safety programmes tour and Kick Start for motorcyclists.
    - School safety education and travel planning, promoting safety at the school gate and increased use of public transport, cycling and walking to school
    - Cycle skills training

    - Support to work place travel planning to encourage use of all modes or combinations of modes in line with transport as a service model.
- Network improvements, to physically change how the network operates, including;
    - Route improvements to encourage and respond to growth throughout the city
    - Intersection improvements to increase efficiency and productivity
    - Safety improvements to intersections and other high risk locations
    - School safety improvements

2. Why do we deliver this activity?

This Service Plan focuses on the road operations, transport education and road network improvement actions that Council undertakes. These are important to residents because the safety and efficiency of the transport network has a significant impact on the city's economy and wellbeing as well as providing the connection between communities. The estimated economic cost of congestion on the road network is $200M annually and the cost of road crashes is estimated to be $250M annually. This activity also impacts on climate change through vehicle emissions.

The Christchurch Transport Strategic Plan mandates the creation of safe, healthy and liveable communities. The Strategic Plan interprets this through an objective to create safer systems and safer speeds "a safer system that contributes to network efficiency, saves lives and reduces injuries". The Strategic Plan also sets out modal networks on which the different transport modes will be given priority. Achieving efficiency for all modes also enhances environmental outcomes by reducing greenhouse gas emissions and other negative environmental effects of the transport network. It also contributes to increased resilience by reducing dependence on fossil fuels.

Safety and efficiency is a key cornerstone to guide Council interventions on the transport network and address locations with high safety risks and corridors with localised congestion with highly variable journey times especially during the peak travel times in the morning and evening. Residents and businesses need to have confidence in the transport system. Human behaviour remains a key cause of many of the problems identified on the transport network related to safety and efficiency. Delays at key intersections where over 50% of all crashes occur, and on key corridors, can cause increased frustration and unsafe behaviours. These locations are prioritised through the Transport City Wide Business Case process. The aim of the planning and financial interventions in this space is to reduce the price paid for a mistake so that crashes don't result in loss of life or serious injuries. Vulnerable users such as cyclists and pedestrians require special attention and inclusion in all safety and efficiency interventions.

Travel Demand Management is a key intervention to achieve these priorities. The Travel Demand Management programme focuses on influencing how the network is used, resulting in a safer and efficient system. This is through engaging with citizens and addressing barriers in taking active, public and shared transport in addition to addressing high priority areas of safety risk that are behaviour-driven. A successful Travel Demand Management programme not only contributes to achieving goals in the short term, but through the enabling of sustained changes in demand it should ease supply issues in the network in a more cost-effective manner than addressing this through solely increasing physical interventions.

There are several key Acts of Parliament that determine Councils legal role in Transport. These include the Local Government Act 2002 and the Land Transport Management Act 2003. There are also a number of policies such as the Government Policy Statement for Transport and the Regional Land Transport Plan that guide regional priorities.

These are taken account of as part of Council's Community Outcomes process whereby Council identifies and measures what is important to the local community through a process of consultation, planning and reporting.

Under this framework there are three Community Outcomes that relate directly to Transport and this Service Plan:

- Liveable City - A well connected and accessible city.
- Strong Communities – Safe & healthy communities.

Healthy environment –Sustainable use of resource. Council also has in place a number of strategic priorities, which relate directly to this Service Plan:

- Increasing active, public and shared transport
- Climate Change leadership

3. Specify Levels of Service

The Levels of Service, Performance Measures and Performance Targets for Traffic Safety and Efficiency activity are provided below. Shaded rows are the levels of service and performance measures to be included in the Long Term Plan. Non-shaded rows are non-LTP management level measures.

Performance Standards Levels of Service		Results	Method of Measurement	Current Performance	Benchmarks	Future Performance (targets)			Future Performance (targets) by Year 10 2027/28
						Year 1	Year 2	Year 3	
						2018/19	2019/20	2020/21	
Journey times are reliable									
10.0.1 10.0.1	Maintain journey reliability on strategic routes		**10.0.1** Average journey time on 22 strategic routes, at peak, during day and overnight as measured by CTOC	**10.0.1** 16/17 Peak 25min Day 15 min Night 10 min		**10.0.1** Peak 25m Day 15m Night 10m	**10.0.1** Peak 25m Day 15m Night 10m	**10.0.1** Peak 25m Day 15m Night 10m	**10.0.1** Peak 25m Day 15m Night 10m
Maintain the number of private vehicle trips at current levels									
10.0.38 new	Maintain the number of motorised vehicle trips at 2019 levels:	Increasing active, public and shared transport	**10.0.38** Total number of commuter vehicle crossings at 15 major intersections during 4 hours of morning (7:00 to 9:00) and evening (16:00 to 18:00) peak periods on an average summer week as recorded by SCATS traffic data	**10.0.38** 2018/19: 0.99 million vehicles per week		**10.0.38** new	**10.0.38** 0.96 to 1.02 million vehicles per week	**10.0.38** 0.96 to 1.02 million vehicles per week	**10.0.38** 0.96 to 1.02 million vehicles per week
10.0.39 new	Maintain the number of motorised vehicle trips at 2019 levels		**10.0.39** Total number of all-purpose vehicle crossings at 15 major intersections during an average summer week as recorded by SCATS traffic data	**10.0.39** 2018/19: 4.21 million vehicles per week		**10.0.39** new	**10.0.39** 4.08 to 4.34 million vehicles per week	**10.0.39** 4.08 to 4.34 million vehicles per week	**10.0.39** 4.08 to 4.34 million vehicles per week
Journeys are safe									
10.0.6.1			**10.0.6.1**	**10.0.6.1**		**10.0.6.1**	**10.0.6.1**	**10.0.6.1**	**10.0.6.1**

10.0.6	Reduce the number of crashes on the road network		The number of crashes resulting in deaths or serious injuries on the local road network per calendar year. Reported from CAS.	2017 134 deaths and serious injuries (DSI)		≤129 (reduce by 5 or more per year)	≤124 (reduce by 5 or more per year)	≤119 (reduce by 5 or more per year)	≤100 (reduce by 5 or more per year)

Note that in addition to the above, the level of service 'Increase the numbers of people cycling into the central city' is shared from the 'Active Travel' Service Plan, reflecting the goals of the Travel Demand Management programme.

Note that Performance Measure 10.0.6.1 is a mandatory measure as per the 2010 amendment to the Local Government Act and the Department of Internal Affairs Non-Financial Performance Measures Rules 2013.

4. What levels of service do we propose to change from the current LTP and why?

To review changes to levels of service between those adopted for the Amended Long Term Plan 2016-25 (Annual Plan 2017/18) and the draft Long Term Plan 2018-28, refer to section 4 of the draft Service Plan.

5. How will the assets be managed to deliver the services?

The objective for Council is to manage the Transport network to ensure that it is safe, integrated, affordable, and sustainable, as well as being responsive to the needs of customers. Council staff undertake planning work to determine what is required by the Community, what the options are, how the works should be prioritised and what is the best what to deliver them.

Long term transport planning focuses on how the network will operate up to and including 2048. Citywide analysis is undertaken using the Christchurch Transport Model covering Greater Christchurch and the CAST Transport Model for Christchurch. Validation of the models is undertaken through the network monitoring programme. The development and maintenance of a Network Management Plan indicates where on the network certain mode priority such as public transport should occur. This is linked in with the road hierarchy within the District Plan and the One Network Road Classification, a National Standard. Safety and network performance and capability are the key areas of focus for the planning team, along with environment and health benefits. Reduced collective risk or crash density and reduced personal risk or crash rate are considered along with journey time reliability and improved awareness of travel choice and walking and cycling.

Operational activities are an important part of keeping the network functioning day to day. Council staff are responsible for maintaining an area specific awareness of transport issues affecting the network and ensuring that activities on the road network are safe and appropriate.

Further to this a number of Council staff are seconded to the Christchurch Transport Operations Centre (CTOC), which is a partnership between Christchurch City Council, the New Zealand Transport Agency and Environment Canterbury. CTOC is responsible for a daily network monitoring, temporary traffic management, operating intelligent traffic systems, and communicating traveller information.

Education programmes are planned for as part of Council's Travel Demand Management activities. These have been identified in the Christchurch Transport Strategic Plan and the associated business cases as a key element to ensure safety and efficiency goals for the Christchurch network are realised. Travel planning and cycle skills training are delivered by Council staff engaging directly with schools and businesses. Road safety programmes are planned and delivered in partnership with other agencies such as the New Zealand Transport Agency and the New Zealand Police. The programmes are prioritised each year, based on analysis of the main areas of incidence of death and serious injuries on Christchurch roads.

Staff plan for safety improvements by reviewing areas of high risk on the network. The Council uses its urban KiwiRap system to determine the potential for harm, or risk across its network and prioritises its safety activities at high risk elements of the transport system. High risk elements may include roads and roadsides; travel speeds; and gaps in driver skills, education and enforcement. Further to this growth and efficiency related improvements are planned for using the CAST model and the Network Operating Plan as a guide for how the city should operate, and what modes are prioritised and where.

All types of intervention are managed through the business case process and capital programme.

Major works programmes:
These are the programmes of work that are Council's principle means of achieving the strategic safety and efficiency outcomes described above.

- **Travel Demand Management:**
    - School workplace engagement on travel options and safety, prioritised based on the availability of active, public and shared transport to citizens and the impact that journeys/commuting has on the efficiency on the network.
    - Targeted safety programmes, based on the high-risk areas of death and serious injury within Christchurch, as prioritised by the cross agency Road Safety Action Plan (part of the national Safer Journeys framework).
    - Cycle skills training, focused on schools with most opportunity to increase and maintain active transport levels.
    - Targeted mode promotion, using proven methodology to create enhanced changes in behaviour, complementing wider engagement.

- **Intersections**
    - Plan intersection safety and efficiency improvements through risk identification and business case development to ensure benefits are realised and external funding is secured.
    - Operate and maintain traffic control and intelligent traffic systems.
    - Manage and control temporary traffic management due to increased road works and rebuild activities.

- Co-ordinate and manage traffic impacts for planned events and emergency events.
- Undertake minor operating and safety improvements.

- **Growth**
  - Plan for growth and especially greenfield developments and take-up by ensuring new land changes follow the Outline Development Plans and all internal roads and connections to the existing network meet the required standards and safety audits.
  - Include downstream effects from development such that mitigation of the potential effects can be undertaken.
  - Integrate a one network approach with the State Highways improvement programme.

- **Network Improvements**
  - Plan for prioritisation of routes for certain modes through the Network Management Plan.
  - Operate monitoring programmes across the network to measure, gauge and predict future movements and numbers of all modes on the network.
  - Design to "sweat the asset" within existing corridors and provide for mode shift by increasing journey time reliability for all modes.
  - Undertake minor operating and safety improvements.

Minor Works Programmes:
The minor works programmes support the immediate needs of local communities and may provide an interim low cost improvement to strategic issues that are not able to be resolved in the short term. The following table summarises the minor safety and efficiency programmes and how priorities are determined.

Programme	Description / examples	How priorities are determined
New Signs, Road Markings and Miscellaneous	Parking restrictions, kerb alterations, traffic signs	Reactive to community needs
Road Safety	Speed management devices, intersection improvements, removal of road side hazards	High risk corridors and intersections
Transport Optimisation	Right turn phases, turn lane extensions, measures to improve traffic flow	Arterial roads, level of congestion, alignment with modal priorities (e.g. freight, traffic)
School safety	School speed zones, kea crossings	Number of pedestrians, safety risk, legislative requirements

6. What financial resources are needed?

Refer to the **Activities and Services** section in the most recently adopted **Long Term Plan / Annual Plan**.

7. How much capital expenditure will be spent, on what category of asset, and what are the key capital projects for this activity?

Refer to the **Capital Programme** section in the most recently adopted **Long Term Plan / Annual Plan**.

8. Are there any significant negative effects that this activity will create?

Effect	Mitigation
Safety improvements such as signalised pedestrian crossings and right turn arrows can affect general traffic flows with general traffic journey time increases.	Although more time given to these phases they are on routes that carry key pedestrian and cycling access and movements.
Some modes being given priority on certain routes such as public transport	Alternative routes provided in the road classification hierarchy for general traffic.
Increased bus priority measures will require the reallocation of road space. This will likely result in the removal of parking, or travel time delays to other motorists.	Significant bus priority infrastructure to target corridors that cater for all day, high frequency bus services. Minor bus priority measures to consider the impact to the localised area in which they are proposed.

9. Does this Service Plan need to change as a result of a service delivery review?

No changes required.