



Streets and transport



It's definitely getting busier on the streets, especially in the mornings and late afternoons, and the city's only going to get bigger. I reckon we need to look at other options, like trains.

I've just converted to a bike for commuting and it's a bit scary at times. I was driving for a few years and in a car you never really notice until you get on a bike how much drivers don't look out for you. It would definitely be better if we could get more people onto bikes; better for the environment and safer for riders too because drivers would be more aware of them.

Tahu Brown

Retail assistant
Linwood

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Why does the Council provide streets and transport?

The Council provides streets and transport so that people can have safe, easy and comfortable access to homes, shops, businesses and many recreational and leisure destinations. Street corridors also provide access for power, telecommunications, water supply and waste disposal activities.

What activities are included in streets and transport?

Streets - road corridors

The Council provides carriageways, road drainage facilities (for example, kerbs and channels), footpaths, on-street marked cycleways, street lighting, landscaping and traffic management.

Cycle and pedestrian linkages

The Council provides off-street linkages throughout the city for cyclists and pedestrians.

Public pedestrian malls

The Council provides attractive outdoor spaces for pedestrians, particularly in the central city.

Off-street parking

The Council provides parking buildings at strategic locations in and near the central city, and other off-street parking at some suburban commercial locations.

Public transport

The Council supports the bus system by providing bus stops, the bus exchange and bus shelters, and it provides the inner-city shuttle service.

How does the Council's work contribute towards our Community Outcomes?

Community Outcome	How the Council contributes	How much?
 Safety	By providing a safe transport system.	✓✓✓
 Community	By providing easy access to facilities.	✓✓
 Environment	By helping to reduce energy consumption in our community.	✓✓
 Governance	By providing the opportunity for the community to participate in decision-making through consultation on plans and projects.	✓✓
 Prosperity	By providing everyone with access to an efficient and affordable transport system.	✓✓
 Health	By contributing to improved air quality, through the promotion of alternative transport modes, the provision of assets for these modes, and the consequent reduction in vehicle numbers.	✓✓
 Recreation	By providing access to recreational facilities throughout the city.	✓✓✓
 Knowledge	By providing education programmes, for example cycle safety.	✓
 City Development	By providing a well-designed, efficient transport system and attractive street landscapes.	✓✓✓



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What does the Council plan to do in the future?

<i>What is the Council's objective?</i>	<i>What policies, strategies or drivers support these objectives?</i>	<i>What is the Council already doing?</i>	<i>What will we do in years 1 to 3?</i>	<i>What will we do in years 4 to 10?</i>	<i>How will we know if we achieve our objective?</i>
<p>To provide public street frontages to properties.</p> <p>Residential streets (urban) To provide a sustainable network of streets connecting the main traffic routes with properties, while contributing to the liveable environment.</p> <p>Collector / arterial streets (urban) To provide a sustainable network of streets, which distribute traffic between neighbourhoods, and connect to major localities within and beyond the city.</p> <p>Country streets (rural) To provide a sustainable network of streets which enable higher vehicle speeds.</p> <p>To provide off-street cycle and pedestrian linkages.</p> <p>To provide outdoor pedestrian malls.</p> <p>To provide off-street parking facilities.</p> <p>To provide public transport infrastructure and the Shuttle Bus.</p>	<p>Policies and strategies:</p> <ul style="list-style-type: none"> NZ Transport Strategy Regional Land Transport Strategy Metropolitan Christchurch Transport Statement Christchurch Road Safety Strategy Christchurch Public Passenger Transport Strategy Cycling Strategy Pedestrian Strategy for Christchurch City Parking Strategy Safer Christchurch Strategy <p>Drivers:</p> <ul style="list-style-type: none"> City Plan Living Streets charter Changes in population /urban form /location of businesses Safety Access /connectivity Legislative requirements Modal change Environmental and economic sustainability 	<p>Providing street frontages for property/land.</p> <p>Providing and maintaining a street system for land-based transport and services/utilities.</p> <p>Providing and maintaining infrastructure such as roads and bridges, footpaths and shared paths, on and off-street cycleways, on- and off-street parking facilities, outdoor pedestrian malls, and public transport infrastructure such as bus stops and shelters.</p> <p>Providing systems and devices to support user safety, for example traffic signals.</p> <p>Providing drainage facilities to meet site-specific requirements.</p> <p>Providing street landscaping and trees, on-street open spaces.</p> <p>Providing the Shuttle Bus.</p>	<p>Continue to do the same.</p> <p>Continue to do the same.</p> <p>Continue to do the same.</p> <p>Continue to do the same.</p> <p>Continue to do the same.</p> <p>Continue to do the same.</p> <p>Continue to do the same.</p> <p>Continue to do the same.</p>	<p>Continue to do the same.</p> <p>Continue to do the same.</p> <p>Continue to do the same.</p> <p>Continue to do the same.</p> <p>Continue to do the same.</p> <p>Continue to do the same.</p> <p>Continue to do the same.</p>	<p>Congestion, comfort and quality measures.</p> <p>Services/utilities access requirements.</p> <p>Number of crashes per 10,000 people; cyclist and pedestrian casualties.</p> <p>'Journey to work by mode' targets.</p> <p>Residents' satisfaction with congestion levels, ease of navigation, facilities and street appearance.</p> <p>Response rates, cleanliness and renewal target rates.</p> <p>Shuttle bus measures.</p>

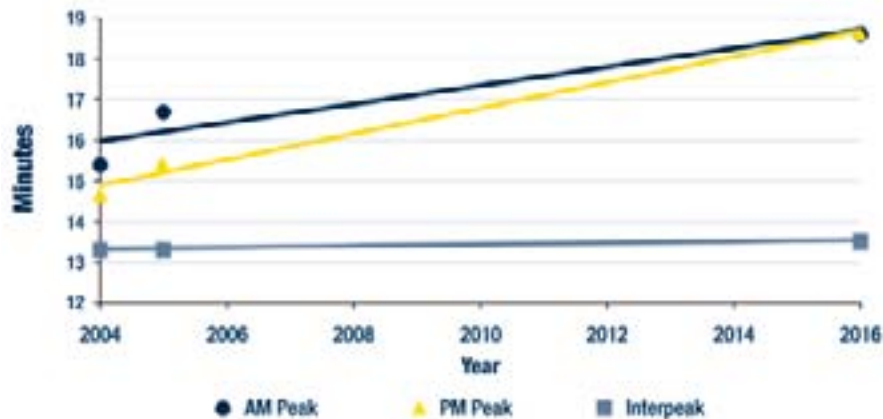
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Measuring our achievements

Measures and targets	Current performance	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16
% resident satisfaction with the safety of streets.	Not currently measured.	---	---	Results will be reported as they become available, and future targets will be based on these results. Baseline measures will be established 2008/09.							
Accident statistics provided by Land Transport NZ. Aim for ongoing downward trend, within specific targets: Number of vehicle crashes per 10,000 people - 5-year rolling average. Number of cyclist casualties - 5-year rolling average. Number of pedestrian casualties - 5-year rolling average.	22 112 95	<22 <112 <95	<22 <112 <95	<22 <112 <95	Targets to be reassessed from 09/10 onwards.						
Average travel time for a 10km trip (minutes:seconds), based on average speeds for monitored portion of network. See graph below.	2004 AM Peak 15:20 PM Peak 14:40 Interpeak 13:20 2005 AM Peak 16:40 PM Peak 15:20 Interpeak 13:20			2016 AM Peak 18:30 PM Peak 18:30 Interpeak 13:30							

Average travel time for 10 km





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Measures and targets	Current performance	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16
% resident dissatisfaction with general road congestion.	Not currently measured.	---	---	New measure - Baseline measures will be established in 08/09.							
Land Transport NZ Smooth Travel Exposure measure. % vehicle travel on smooth roads.	87%	>87%	>87%	Initial target is 87%, Target to be reassessed from 09/10 onwards.							
Kerb and ditched channel renewal (remove ditched channels by 2023).	Renew 21 km of ditched channel.	Renew 21 km of ditched channel.	Renew 22 km of ditched channel.	Renew 20-22 km of ditched channel per annum.							
% resident satisfaction with quality of cycleways.	68%	>65%	>65%	Ongoing target >65%							
% resident satisfaction with quality of pedestrian malls.	63%	>65%	>65%	Ongoing target >65%							
% user satisfaction that cars are safer in off-street parking facilities than parked on street.	69%	>66%	>66%	Ongoing target >66%							
% user satisfaction with the Council's off-street parking facilities.	Not currently measured.			New measure - Baseline measures will be established in 08/09.							
Number of shuttle bus passenger trips per year.	857,312	>850,000	Maintain	Maintain							
% resident satisfaction with the quality of bus signs, shelters and seats.	65%	>65%	>65%	Ongoing target >65%							

What negative effects or risks can occur in relation to our streets and transport?

Negative effects	Mitigation options
User safety issues.	<ul style="list-style-type: none"> • Manage/implement safety strategies/standards. • Designs to allow separation between user groups; clarity of user function through the provision of traffic signals, signage, and road markings; skid-resistant surfaces. • Promotion and education programmes.
Implications of land acquisitions (land not available for other uses; affects demand /property market).	<ul style="list-style-type: none"> • Aim for land purchases to complement other land uses; and for management of land use to support and encourage sustainable transport systems.

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Negative effects	Mitigation options
Pollution - motor vehicle emissions, noise, vibration, sediment, light, air, water, chemicals (including trade-waste and wash-down water, and water-borne sediments).	<ul style="list-style-type: none"> • Manage air, water and soil pollutants: <ul style="list-style-type: none"> • Management of congestion which generates air pollutants • Landscaping treatments as pollutant 'sinks' • Manage stormwater run-off quality from street surfaces with on-street stormwater treatment systems • Manage soil quality/disposal • Manage on-street activity and adjacent construction to minimise pollution. • Management of stormwater run-off quality from adjacent properties, trade wastes and public and private off-street pre-treatment systems. Provision and management of on-street management systems. • Limit the use of agrochemicals. Manage hazardous spills.
Effects during construction – energy use, noise, vibration, nuisance, sediments, pollutants, disruptions, the use of non-renewable resources, public and site staff safety issues and production of waste.	<ul style="list-style-type: none"> • Design projects around economies of scale, control of construction site issues, safe traffic management, use of recycled resource materials, and responsible waste disposal.
Impact on adjacent property owners/residents – post-construction.	<ul style="list-style-type: none"> • Consultation/implementation processes to ensure awareness of impacts. • Design and construction solutions that minimise impacts such as severance and loss of amenity.
Consumption of energy by streetlights and traffic signals – increasing use and costs.	<ul style="list-style-type: none"> • Energy use reductions by operational and design management to ensure efficiency and efficacy gains over time.
Use of non-renewable resources.	<ul style="list-style-type: none"> • Minimise congestion and travel times. • Meet standards for upward waste light and light spill for streetlights. • Recycling of road construction materials.
Unclean or unhealthy elements such as litter and stagnant water.	<ul style="list-style-type: none"> • Manage street cleanliness and potential health issues.

The Council's key assets relating to streets and transport

Streets	1,608 km
Footpaths	2,314 km
Cycleways	73 km off-street, 58km on-street
Kerbs and channels Structures – bridges, culverts and retaining walls	2,725 km 911
Amenity Areas/outdoor pedestrian malls Traffic signals Street lights	57,000m ² 202 sets 31,500
Parking Buildings (9) On-street metered parking spaces Bus Shelters	3299 spaces 2,444 333



Maintaining our assets

Renewal of the roads, footpaths, and other streets assets, is based on a mix of factors including the overall condition and the useful life of the asset. Renewals occur at fairly regular intervals.

Typical renewal/replacement periods (approximate) for key assets include:

- Road surfaces – every 10-20 years
- Concrete kerbs and channels – every 80 years
- Footpath surfaces – every 20 years
- Paint markings – every nine months
- Street light fittings and poles – every 20-40 years (bulbs every three to four years)
- Bridges – approximately 100 years
- Street trees – approximately 100 years

Annual renewals include eight to ten km of carriageway (road), 70 to 90 km of road surfacing, 113 to 115 km of footpath surfacing, 21 to 22 km of kerb and channel. One bridge is renewed every four years.

An entire street, including the underlying base materials, is renewed about every 80 years. When this happens, the opportunity is taken to address all aspects from boundary to boundary across the street. This may allow for street landscaping, traffic safety initiatives and addressing cycling and pedestrian needs.

Changes planned for assets

<i>Reason for change</i>	<i>What will be done?</i>	<i>Year 1 cost (\$ 000)</i>	<i>Year 2 cost (\$ 000)</i>	<i>Year 3 cost (\$ 000)</i>	<i>Years 4 to 10 cost (\$ 000)</i>
Renewals and replacements	Assets are maintained in accordance with the Streets and Transport asset management plan including replacement of kerb and channel (21 km per year), carriageway sealing, footpaths, bridges, parking building equipment, berms, signs and traffic signals, depending on the age and condition of the asset.	40,071	40,034	40,913	325,529
Increased levels of service	Service improvements are planned in the areas of major amenities (including City Mall), traffic signals, signage, street lighting and implementing the Metropolitan Christchurch Transport Strategy initiatives.	11,357	18,910	11,585	117,421
Increased demand	Assets will be added in accordance with the Streets and Transport asset management plan including major road network improvements (including Blenheim Rd deviation and Ferrymead bridge), implementation of the Metropolitan Christchurch Transport Strategy passenger transport initiatives and expansion of the Bus Exchange.	4,098	16,778	25,826	96,552



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Cost of Proposed Services	CCC	BPDC	Total Plan	Plan	Plan	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
	2006/07	2006/07	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000
Activity Operational Cost -												
Cycle and Pedestrian Linkages - Off-Street	744	-	744	818	857	925	1,005	1,091	1,140	1,192	1,278	1,358
Off-street parking	5,384	-	5,384	5,828	6,179	6,457	6,820	7,066	7,248	7,360	7,517	7,677
Pedestrian Malls - Off-Street	2,567	-	2,567	2,766	3,378	3,593	3,883	4,106	4,344	4,570	4,746	4,979
Public Passenger Transport	3,924	-	3,924	4,631	5,926	7,513	7,794	10,898	11,678	12,435	13,184	13,825
Streets	54,915	4,526	59,441	62,967	67,732	71,069	75,359	79,057	82,171	85,152	86,249	87,074
Total Expenditure	67,534	4,526	72,060	77,010	84,072	89,557	94,861	102,218	106,581	110,709	112,974	114,913
Activity Operational Revenue -												
Cycle and Pedestrian Linkages - Off-Street	75	-	75	81	87	93	98	104	112	119	125	130
Off-street parking	6,377	-	6,377	6,942	7,153	7,351	7,539	7,717	7,880	8,032	8,166	8,302
Public Passenger Transport	496	-	496	549	599	715	859	935	1,020	1,115	1,223	1,261
Streets	13,592	1,155	14,747	15,298	15,831	16,344	16,842	17,322	17,774	18,203	18,598	18,980
Capital Revenues	15,646	1,316	16,962	25,826	31,839	39,006	33,083	34,771	31,170	29,539	28,398	29,673
Total Operational Revenue	36,186	2,471	38,657	48,696	55,509	63,509	58,421	60,849	57,956	57,008	56,510	58,346
Fees and charges	16,303		16,303	17,728	18,811	19,893	20,980	21,612	22,100	22,554	22,961	23,376
Grants and subsidies	19,883	2,471	22,354	30,968	36,698	43,616	37,441	39,237	35,856	34,454	33,549	34,970
<i>Total Operational Revenue (by source)</i>	<i>36,186</i>	<i>2,471</i>	<i>38,657</i>	<i>48,696</i>	<i>55,509</i>	<i>63,509</i>	<i>58,421</i>	<i>60,849</i>	<i>57,956</i>	<i>57,008</i>	<i>56,510</i>	<i>58,346</i>
Net Operational Cost	31,348	2,055	33,403	28,314	28,563	26,048	36,440	41,369	48,625	53,701	56,464	56,567
Vested Assets	9,631	-	9,631	9,978	7,092	7,315	7,527	5,585	5,720	5,846	5,960	6,075
Net Cost of Services	21,717	2,055	23,772	18,336	21,471	18,733	28,913	35,784	42,905	47,855	50,504	50,492
Capital Expenditure												
Renewals and Replacements	36,901	3,170	40,071	40,034	40,913	41,751	45,808	48,136	46,546	46,510	47,439	49,340
Improved Service Levels	10,645	712	11,357	18,910	11,585	12,387	20,292	22,493	17,421	15,848	14,331	14,649
Increased Demand	4,076	22	4,098	16,778	25,826	35,049	12,031	13,709	10,429	9,224	7,763	8,347
Total Capital Expenditure	51,622	3,904	55,526	75,722	78,324	89,187	78,131	84,338	74,396	71,582	69,533	72,336

Rationale for activity funding (see also the Revenue and Financing Policy, page 258)

User charges for certain services, such as parking fees, are collected at levels considered reasonable by the Council. Subsidies will be claimed from Land Transport New Zealand for both operational and capital expenditure to the maximum allowed. The level of revenue sought from these activities by the Council for the 10 years covered by the LTCCP is illustrated above. The balance of the net operating cost is funded by General rates, with a loading on the Business sector.

Development contributions are applied towards appropriate capital expenditure. The balance is funded corporately in accordance with the Revenue and Financing Policy. Refer to page 259 for a summary of the corporate funding approach for capital expenditure.