



**Christchurch Central**  
Development Unit



# Christchurch 3 years on: - growing resilience

## Presentation to Road Controlling Authorities Forum

9 May 2014

Michael Blyleven

**CERA**   
Canterbury Earthquake  
Recovery Authority



# Presentation Outline

- The Earthquakes
- The Damage
- The Recovery Plan
- An Accessible City



# Christchurch

- New Zealand's second-largest city
- Gateway to South Island
- Population of 342,000
- Greater Christchurch 436,000
- 13% of NZ GDP from Canterbury.



Christchurch 22 February 2011, 12:51pm



- More than 12,000 earthquakes from September, 2010.
- 6.3 quake of 22 February, 2011 took 185 lives and injured 11,432 people.
- Damage - NZD\$40 billion
- 1:2,500 year event

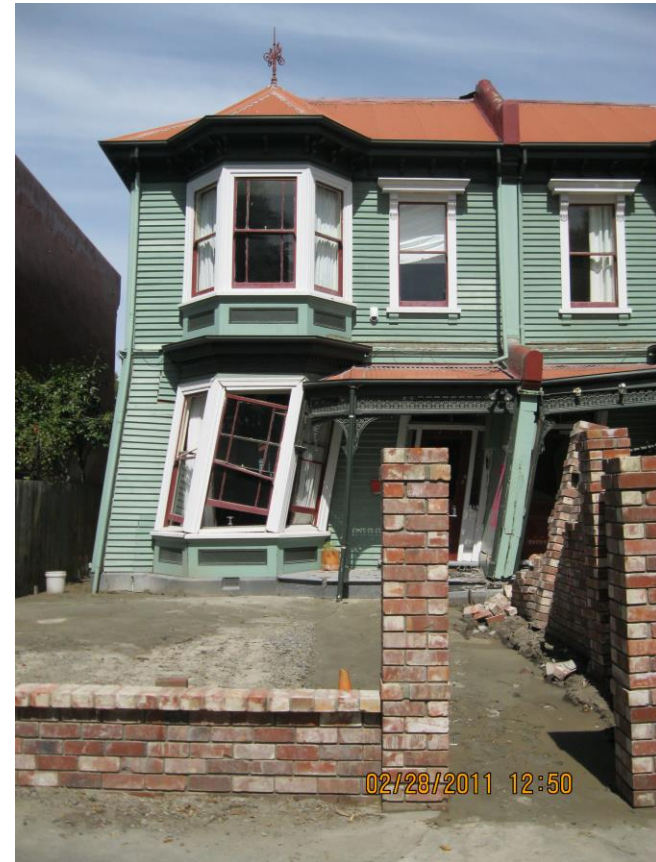




# Residential Damage



- 100,000 homes damaged
- 7,860 homes in red zone



# Infrastructure Damage



- 52% road network (1000km)
- 31% sewer network (528km)





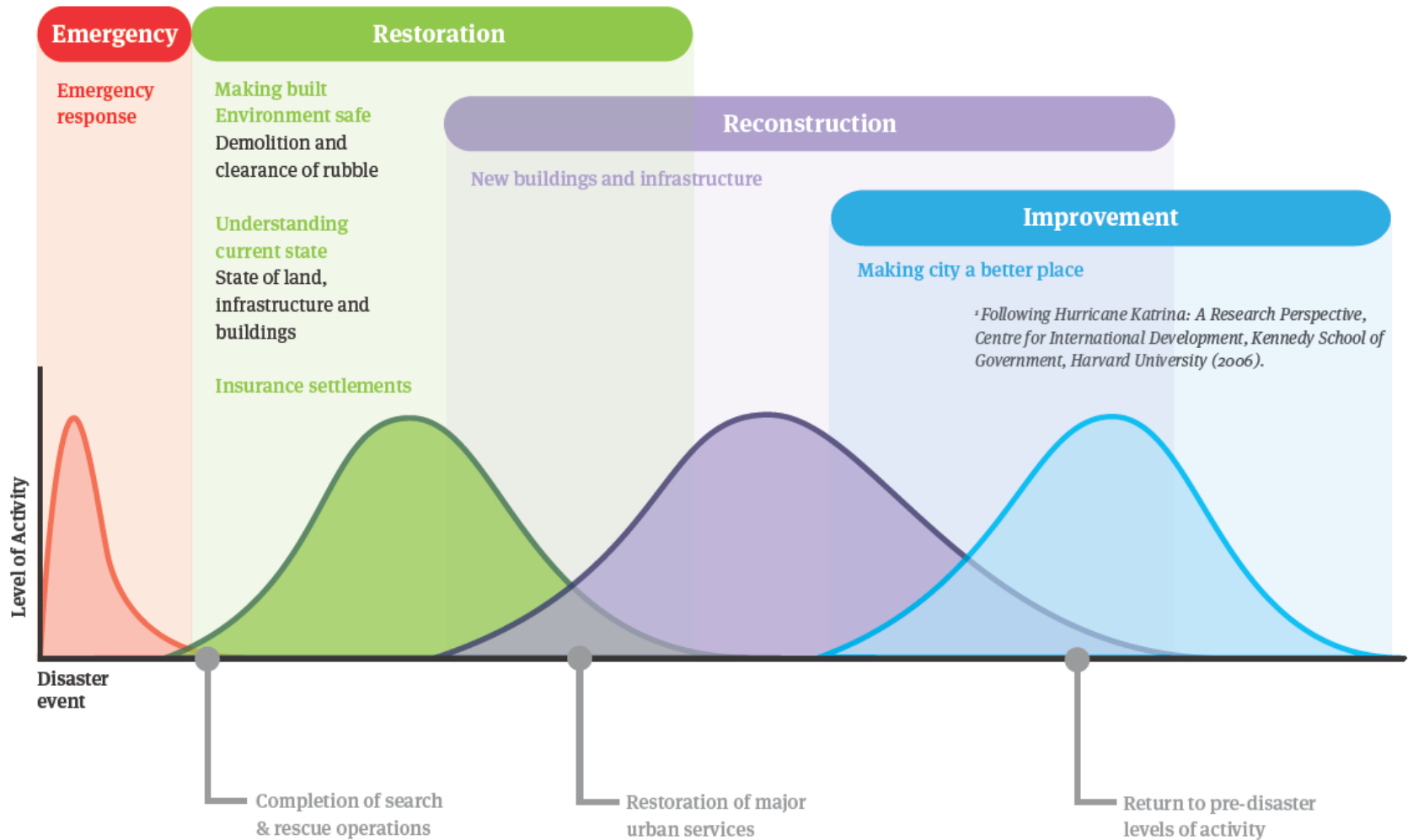
# Central City Damage



- 70% commercial buildings
- 3000 businesses displaced
- Cordon – 387ha



# The Recovery Road





# Path to the Blueprint

1

22 February  
2011  
Earthquake

2

Creation of

**CERA**  
Canterbury Earthquake  
Recovery Authority

29 March 2011

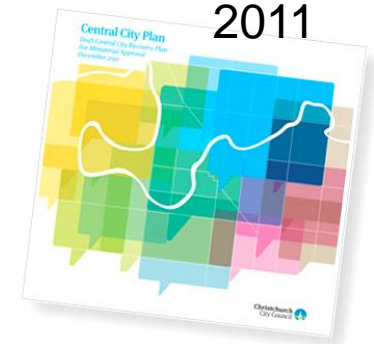
3

CCC  
Share an Idea  
June 2011



4

Draft Central  
City Plan  
December  
2011



5

Formation of  
CCDU  
18 April 2012

6

The 100 Day  
Blueprint  
31 July 2012

7

Christchurch Central  
Recovery Plan  
Te Mahere 'Maraka Ōtautahi'



31 July  
2012



CERA  
Canterbury Earthquake  
Recovery Authority

Christchurch Central  
Recovery Plan

Christchurch  
City Council

Te Rōnanga o Ngāi Tahu

# Christchurch Central Recovery Plan

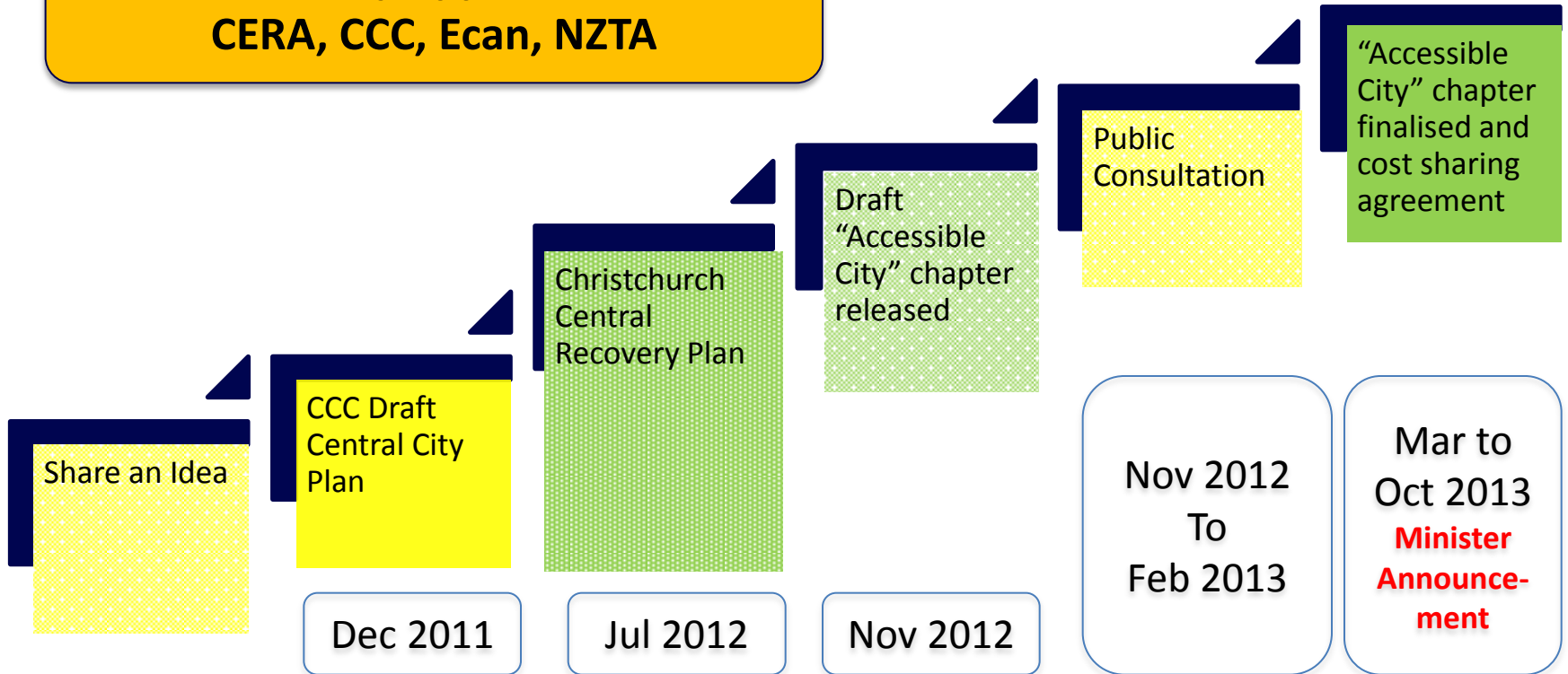
– a new blueprint: compact core and Anchor Projects



***Next 100 days to :  
develop a transport plan  
that meets the changing  
needs of people and  
business while enabling  
accessible, sustainable,  
affordable and safe travel  
choices.***

# An Accessible City development process

Partnership approach with  
CERA, CCC, Ecan, NZTA



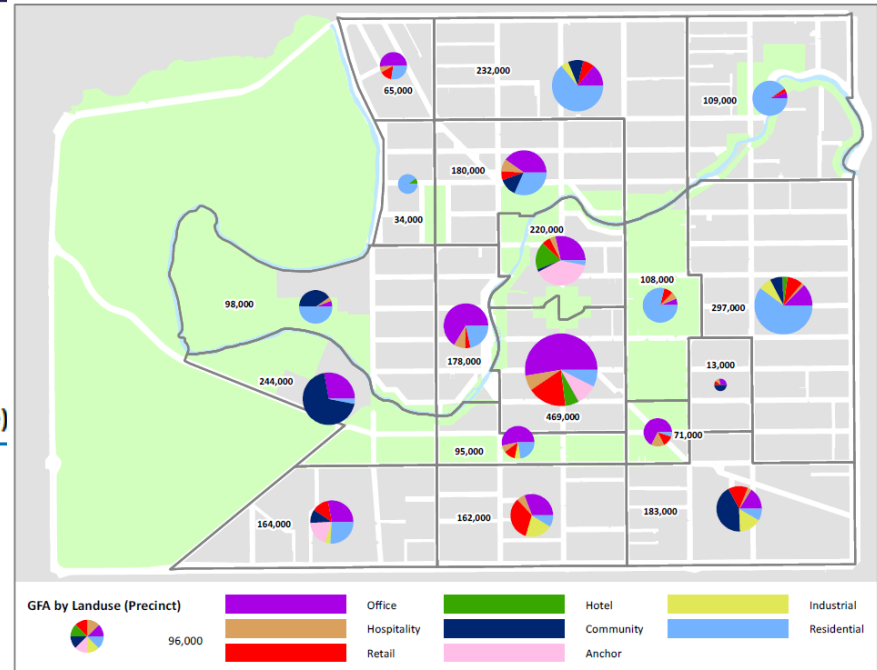
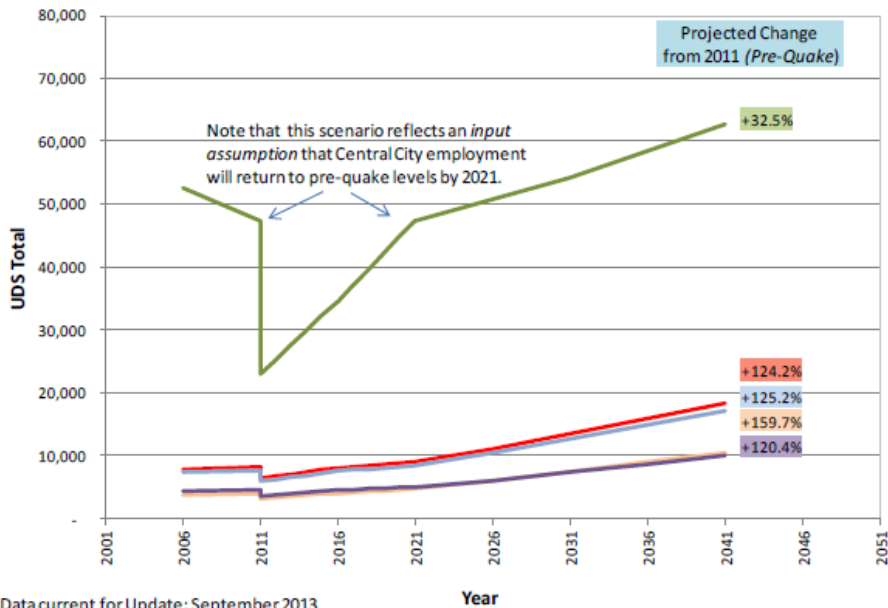


# Land-use recovery – more people living, working, visiting

**20k population, 10k households, 60+k jobs at year 2041**

Figure 4-1: Central City Key Landuse Variables (Rapid Recovery Update)

Central City Landuse Summary  
(Rapid Recovery CCRP Update Scenario)



**A compact core**

# A flexible and resilient transport system ....

Network reliability

Emergency response capability

Safer journeys

Improving access and mobility

Environmental sustainability

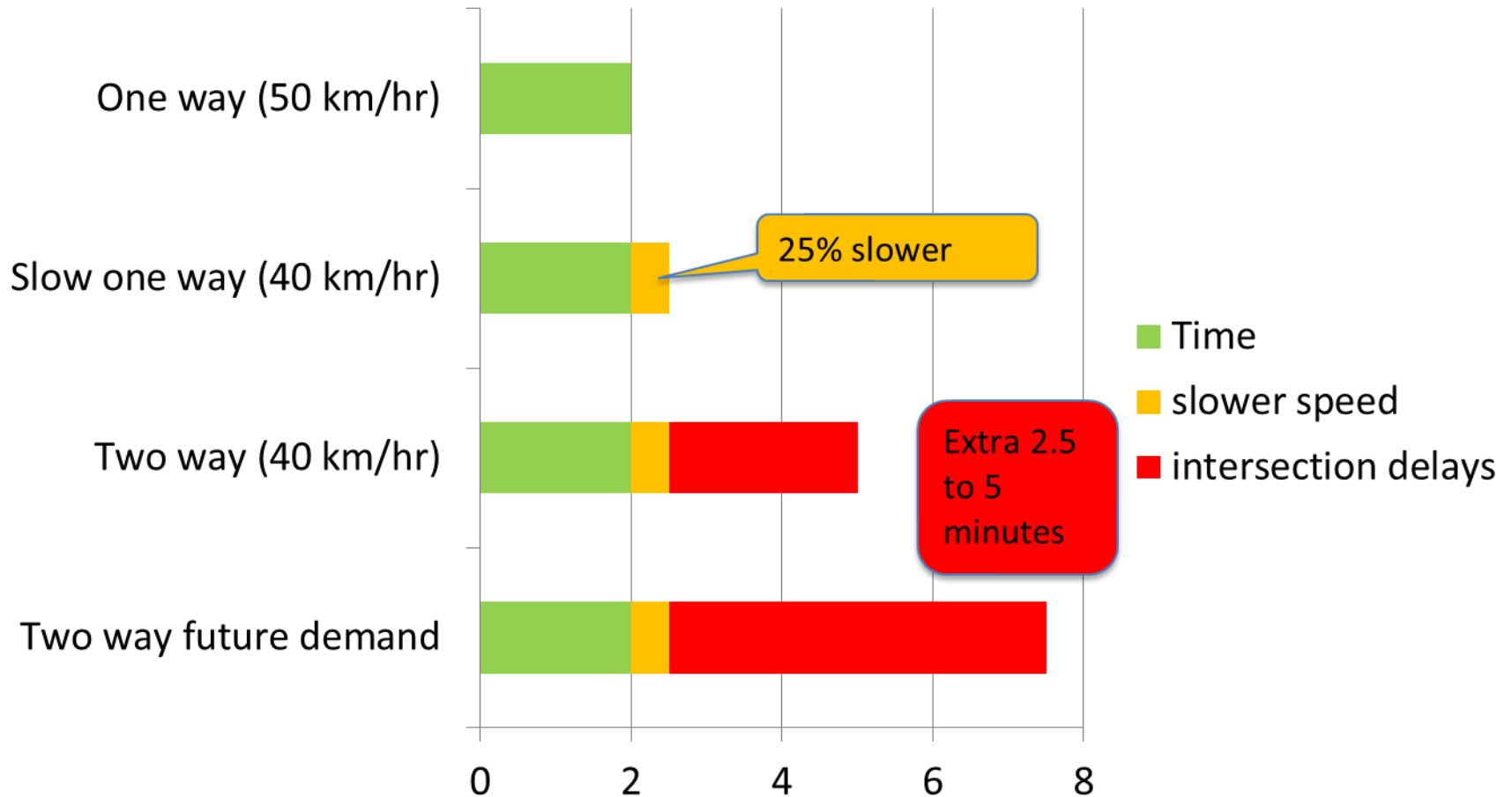
Improved amenity

Journey, safety and environment outcomes



# Option testing: one-way vs two-way

## Main distributor street – travel time (minutes)

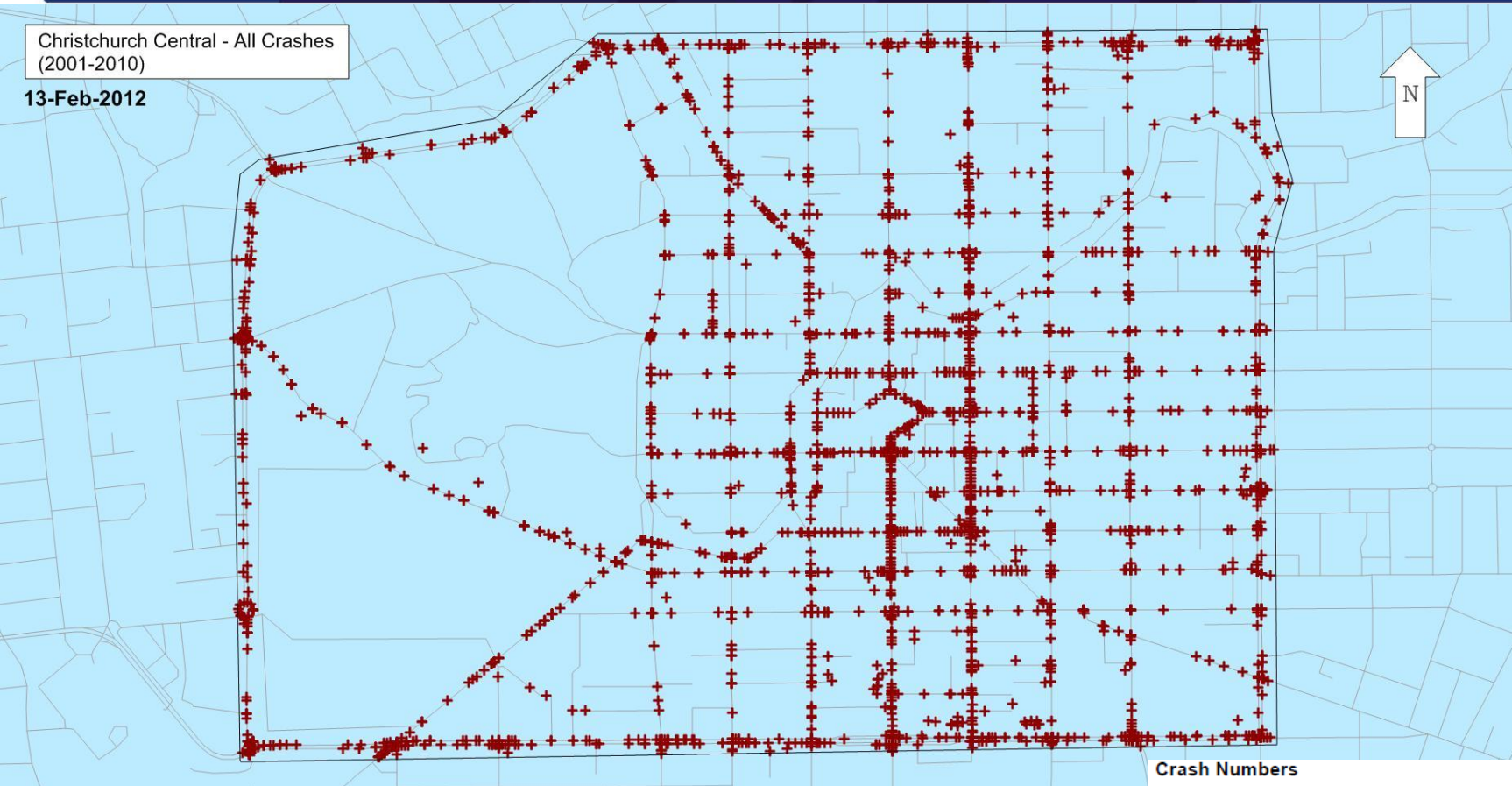




# Crash analysis 2001-2010 (All)

Christchurch Central - All Crashes  
(2001-2010)

13-Feb-2012



Crash Numbers

Year	Fatal	Serious	Minor	Non-Inj
2001	5	30	121	411
2002	2	29	128	395
2003	2	22	115	356
2004	1	23	127	303
2005	0	25	103	350
2006	1	20	154	388
2007	1	36	154	390
2008	1	35	159	346

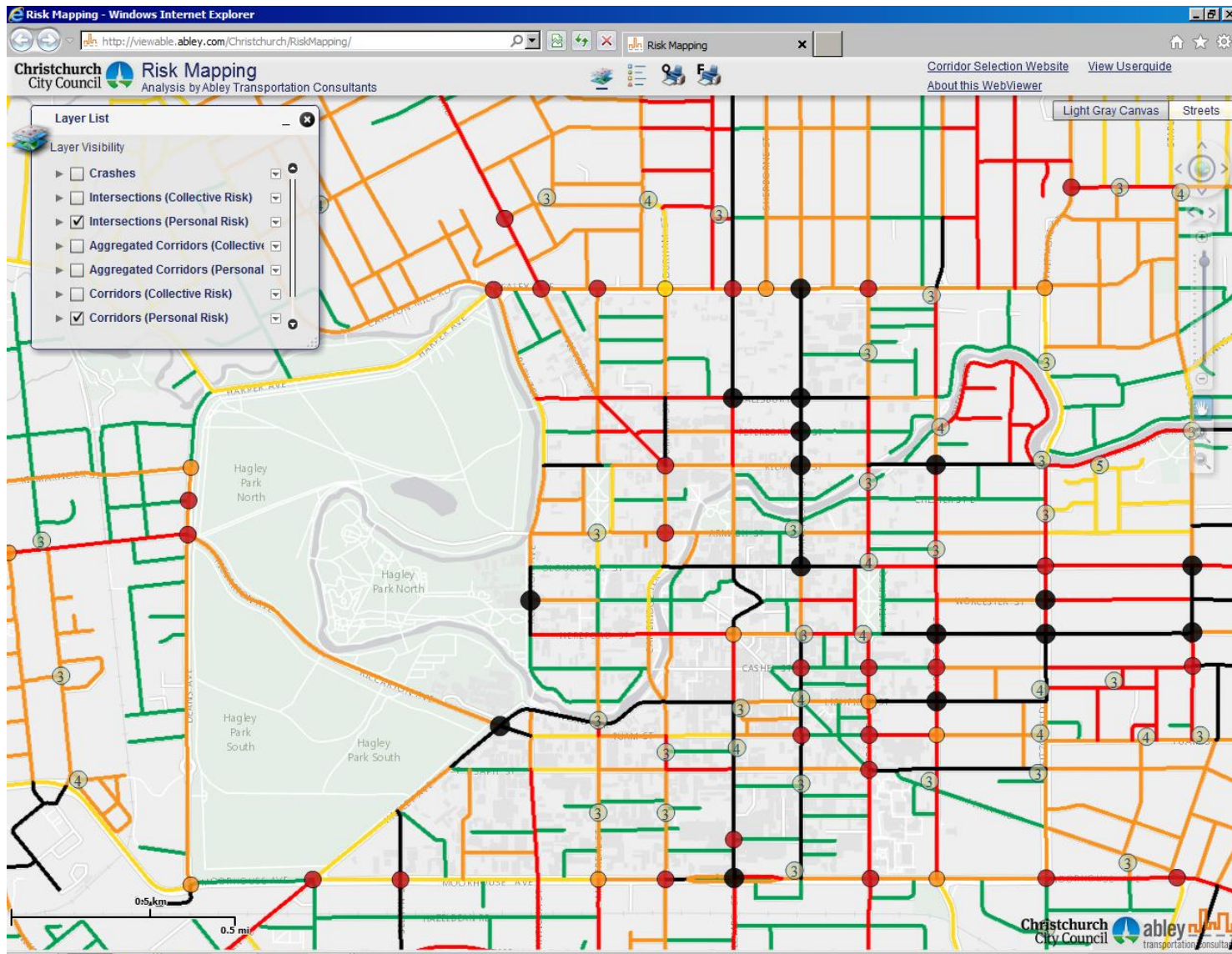
Total Injury Crashes: 1641

Total Non-Injury Crashes: 3510

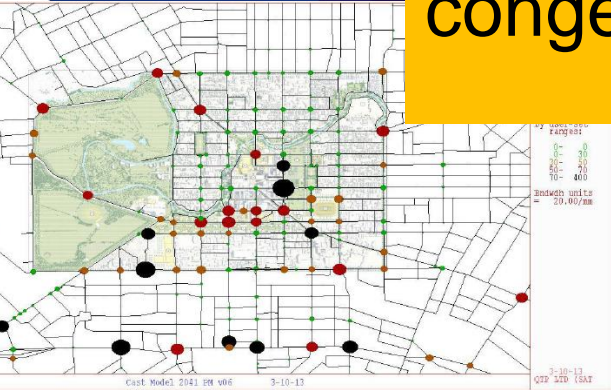
5151



# Reducing personal safety risk (UrbanRAP)

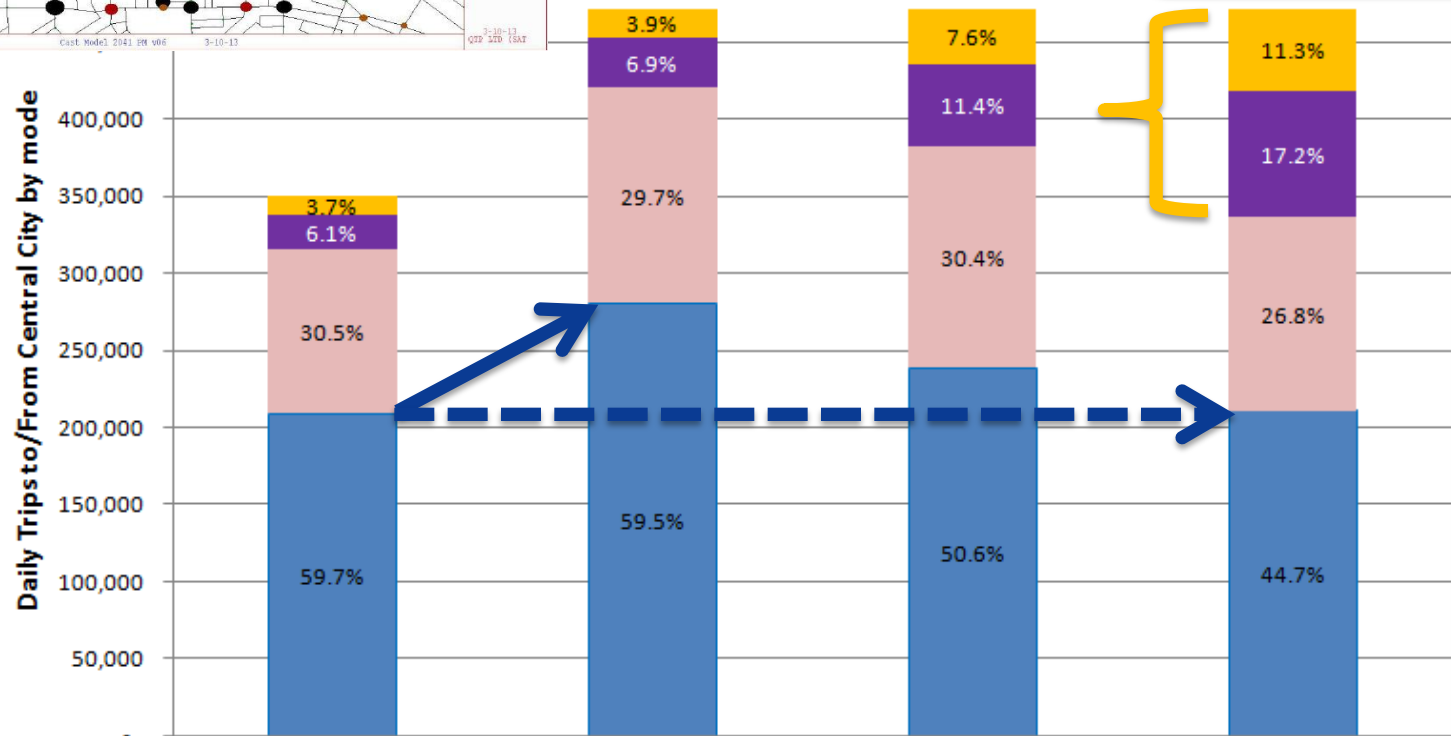


70,000 more cars = congested network



Three fold increase in cycling and public transport contains traffic growth

Share To/From Central City -



- Cycle
- PT
- Car Passenger
- Car Driver

Note these are Demand estimates derived from CTM trip matrices. The totals shown for the 4 Avenues therefore exclude trips with origins and destinations *within* the 4 Avenues and also exclude **through** trips. Goods trips are also not shown for simplicity

	2010 (Pre-Quake)	2041 Base Projection (CTM)	Double Pre-Q PT+Bike% by 2041	Triple Pre-Q PT+Bike % by 2041
Cycle	12,999	18,369	35,641	53,462
PT	21,536	32,635	53,957	80,935
Car Passenger	106,700	140,070	143,195	126,395
Car Driver	208,992	280,377	238,658	210,658

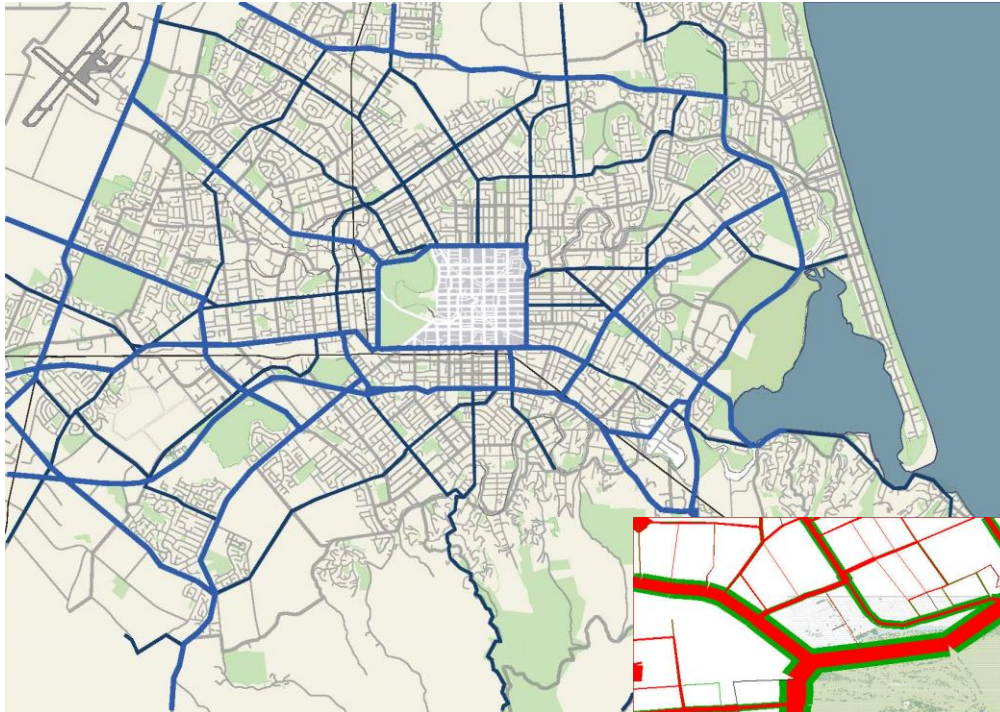


# Improved transport options

- Compact core, pedestrian friendly spaces
- Barrier-free and universal design
- Separated cycle routes
- Bus interchange and super-stops
- Manchester Street boulevard to support bus routes
- Reduced traffic speeds and enhanced streetscapes
- Salisbury/Kilmore two-way conversion to fit with residential and bus routes
- Oxford/Tuam swap for Avon River Precinct
- Enhanced one-ways to fit with the adjacent environment
- Improved Avenues as outer arterial

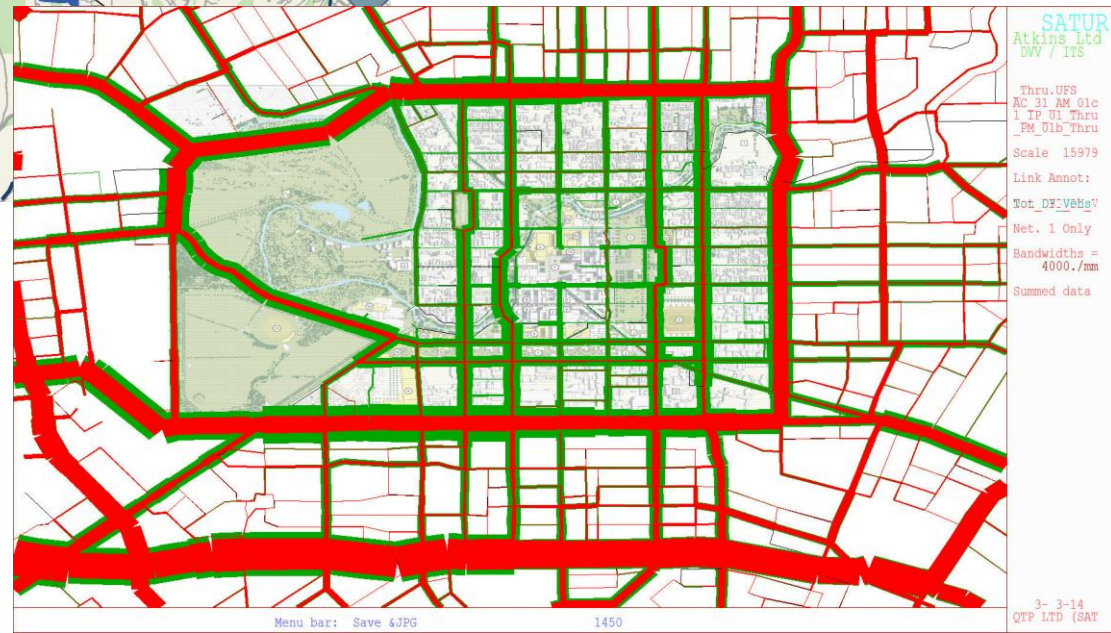


# 1. Use of surrounding avenues for traffic without a destination in the central city



**Aim:**

**Reduced traffic through the central city**

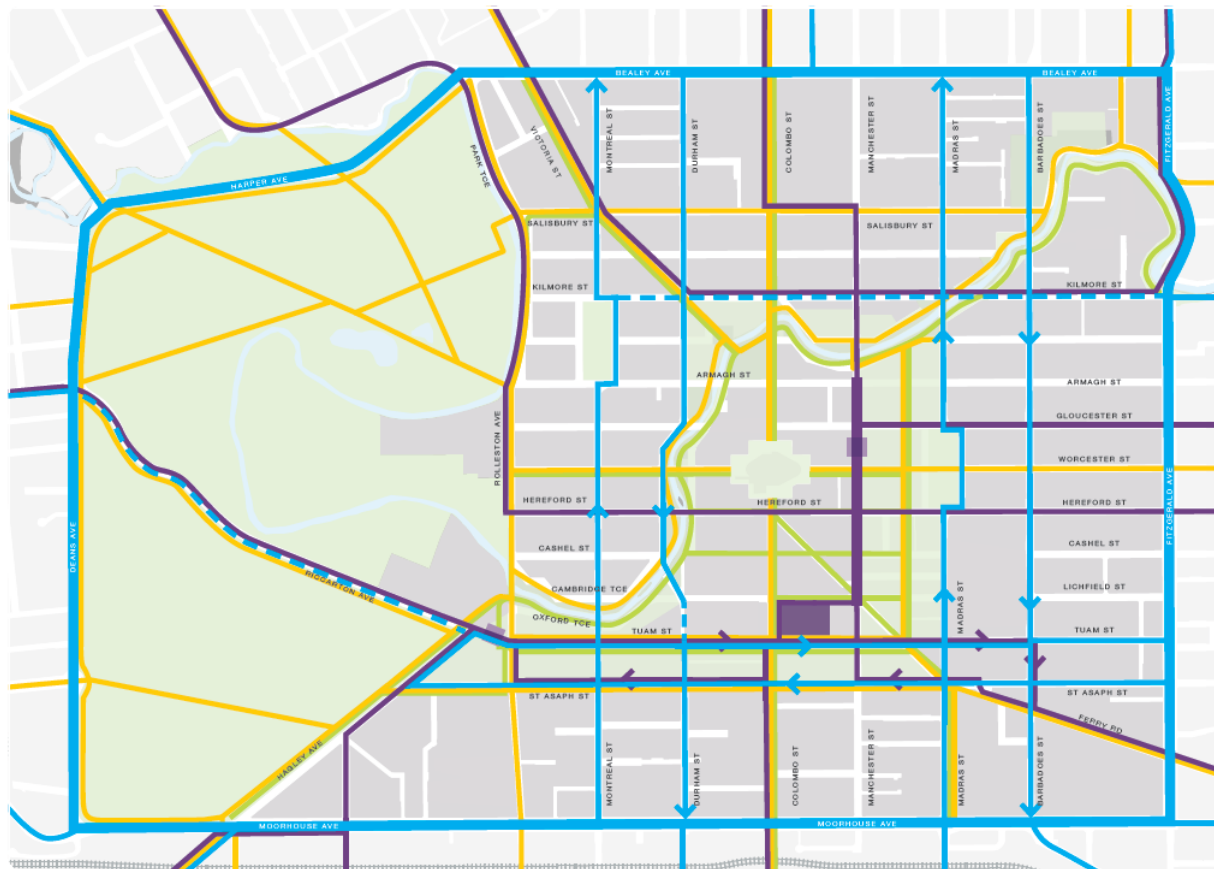






# 3. Preferred routes by mode of travel

## Road user hierarchy



**One network for all travel needs and modes**

Clear mode priority on some links for:

- Walking
- Cycling
- Public transport
- General traffic



Cycling



Car travel



Walking

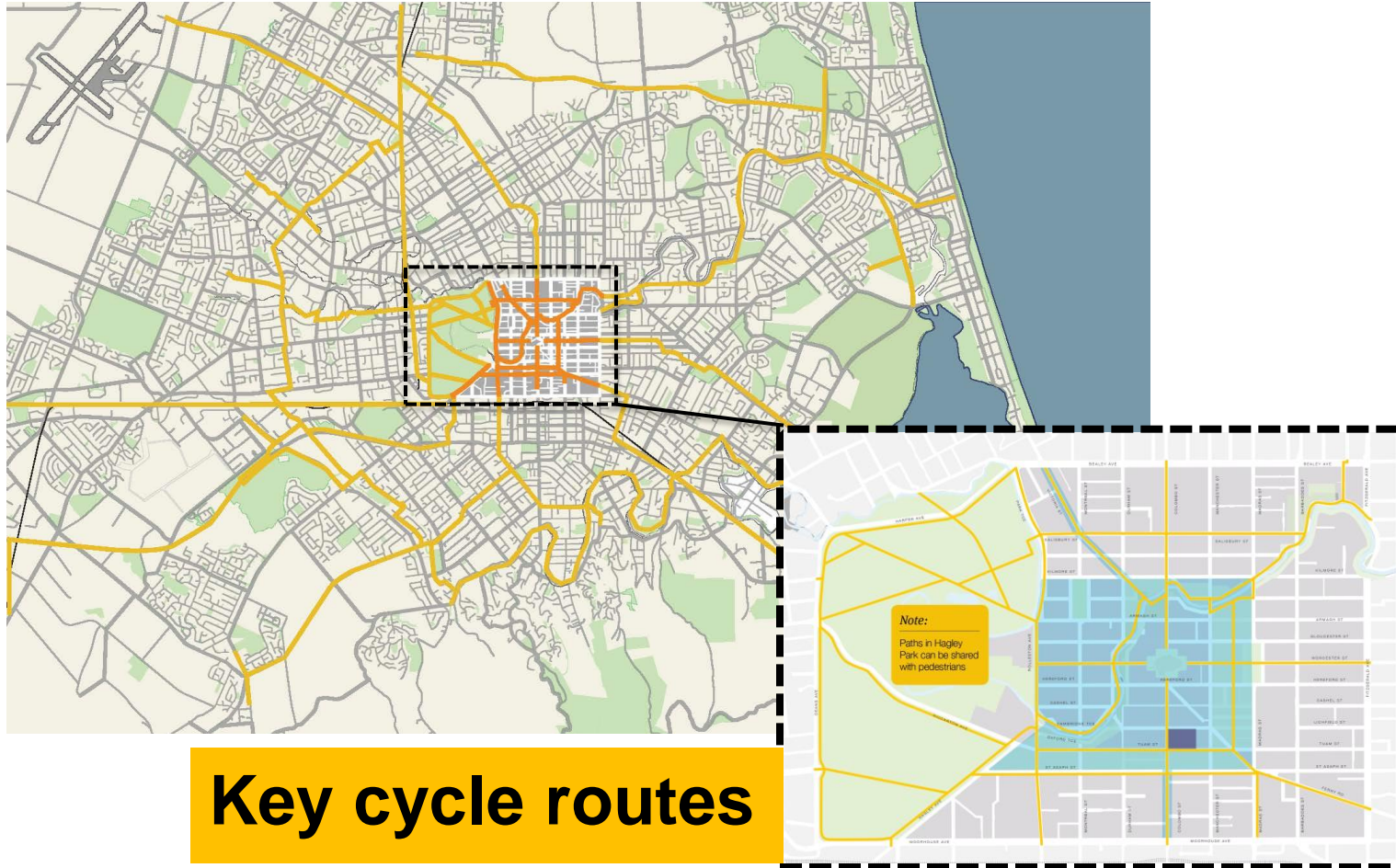


Public transport





# Major cycle routes connecting to the Central City



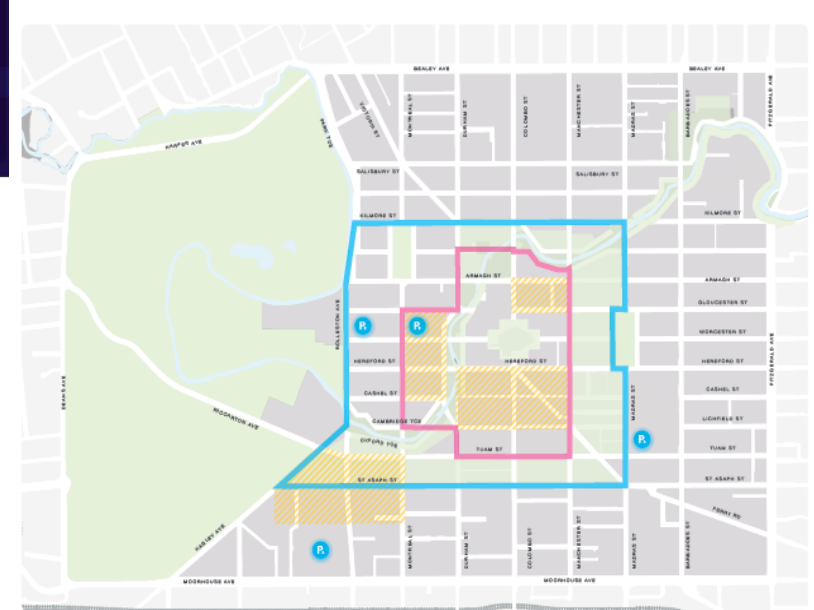
**Key cycle routes**



# Parking plan

- Available
- Accessible
- Manageable

Public parking access



- Carparking with safe vehicle access via distributor streets is a key component for An Accessible City
- The aim is for visitors to **Park Once and Stay Longer**
- On-street parking will be prioritised for short stay, delivery and disabled
- Off street public parking (short stay) will be provided to support business/visitor needs
- Parking principles include higher utilisation, shared use, time of day management
- Private commuter/lease parking (long stay) can be provided up to 50% of development GLFA
- Improved transport options to encourage greater use of cycling and public transport, with improved way-finding for legibility



# Public Realm Network Plan

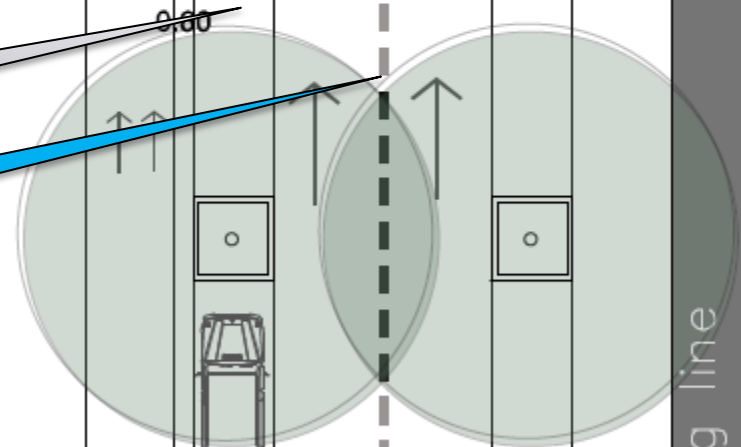
**Pedestrian friendly improvements, 2.4m barrier-free and widening in places**



**Cycle improvements, separated facilities and slower speed environment**



**Re-prioritised parking and landscaping strip**



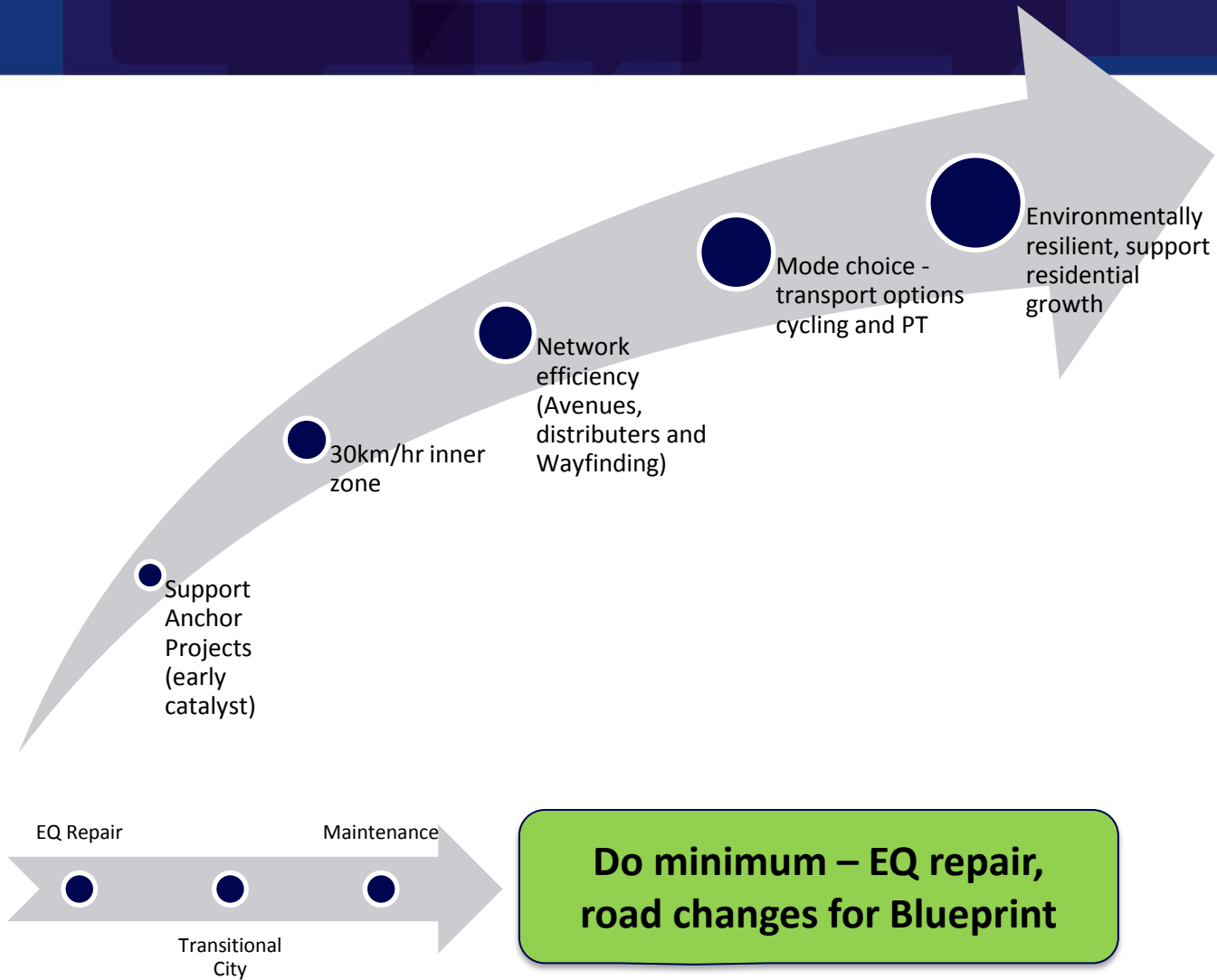
**Vehicle reliability, slower speed, narrower lanes**



Building line

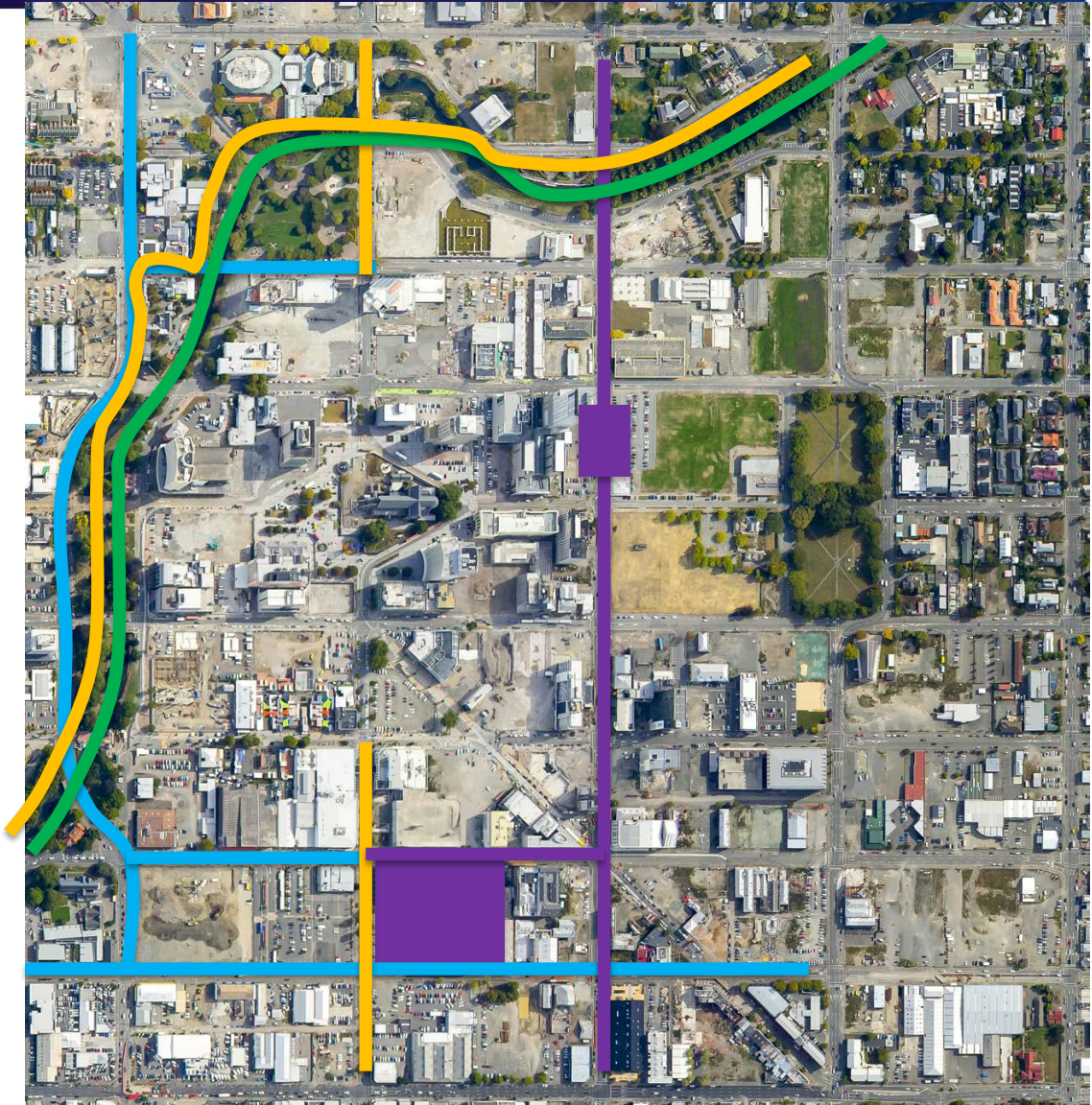


# Transport path to recovery and growth



# Moving forward – filling the gaps

- Anchor projects underway
  - Avon River Precinct
  - Justice and emergency precinct
  - Health precinct
  - Bus Interchange
- Supported by First Phase transport projects in design





# A new look city streetscape

## Montreal St before and after

