

# Potentials For Integrated Planning

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# 1. Otira River Coach Crossings 1850-1920





## 2. Rail Dominance 1890's – 1950's

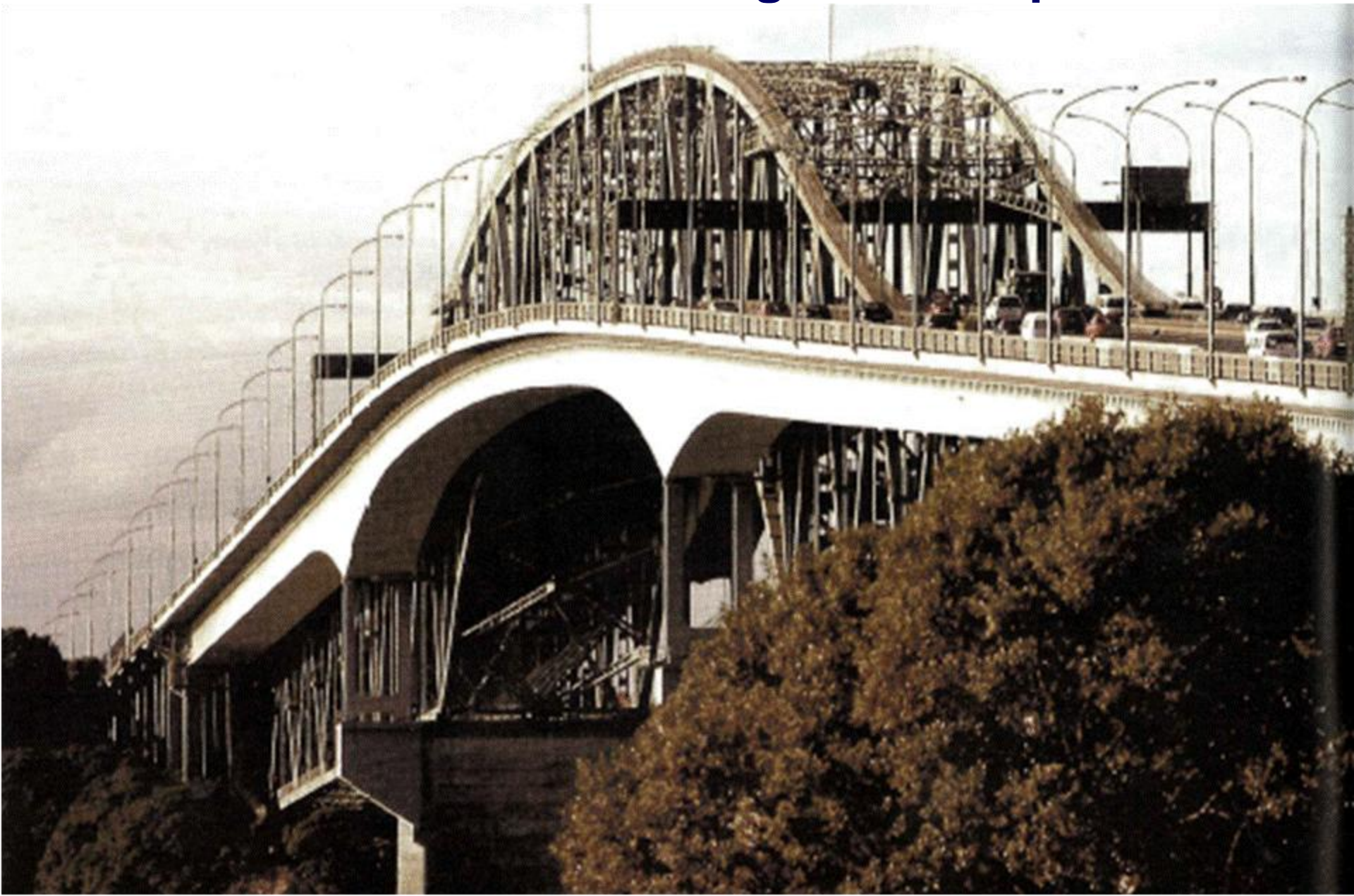


### 3. Hutt Motorway and Rail Corridor

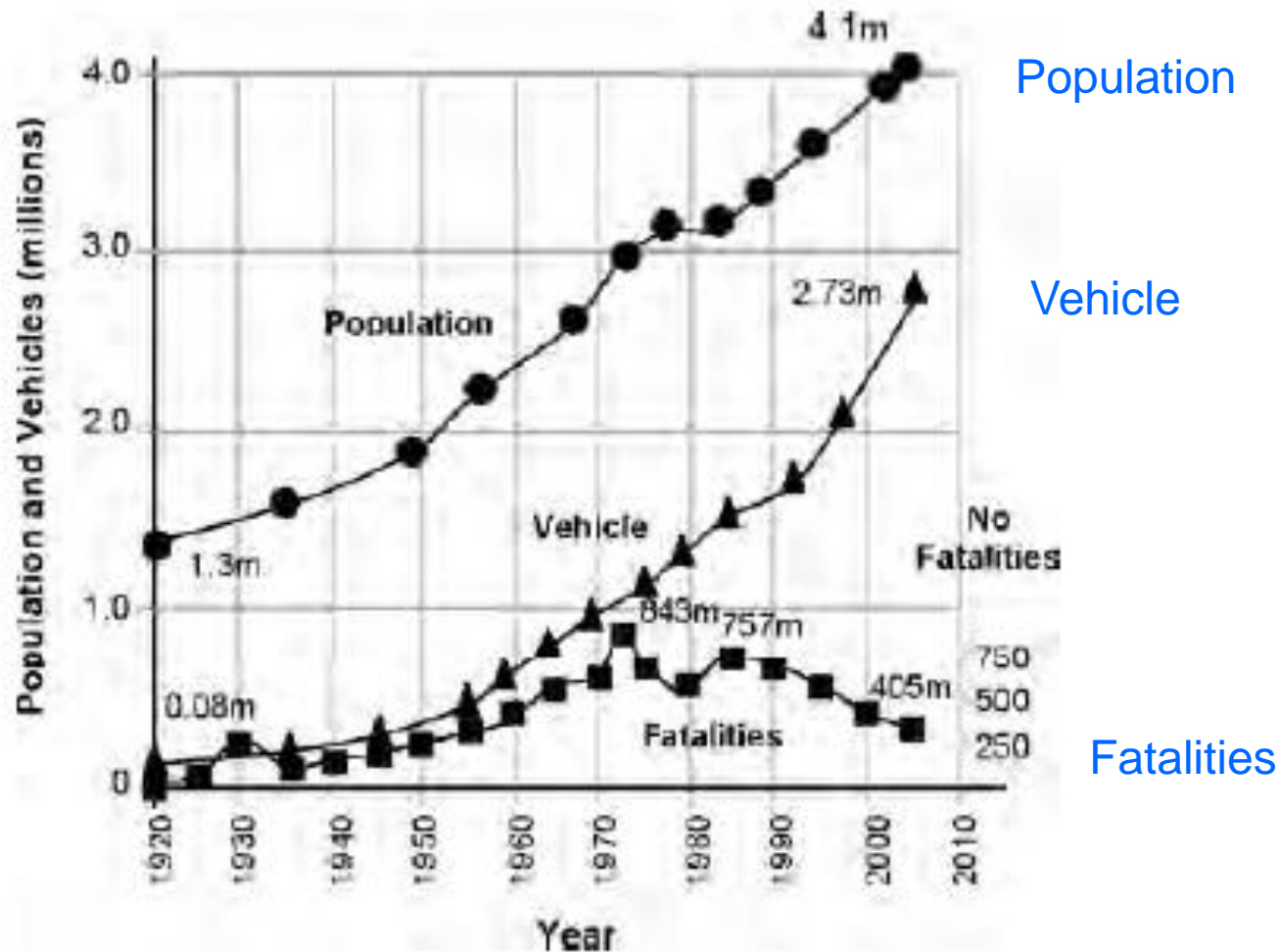




## 4. Auckland Harbour Bridge 1959 Clip-on's 1969

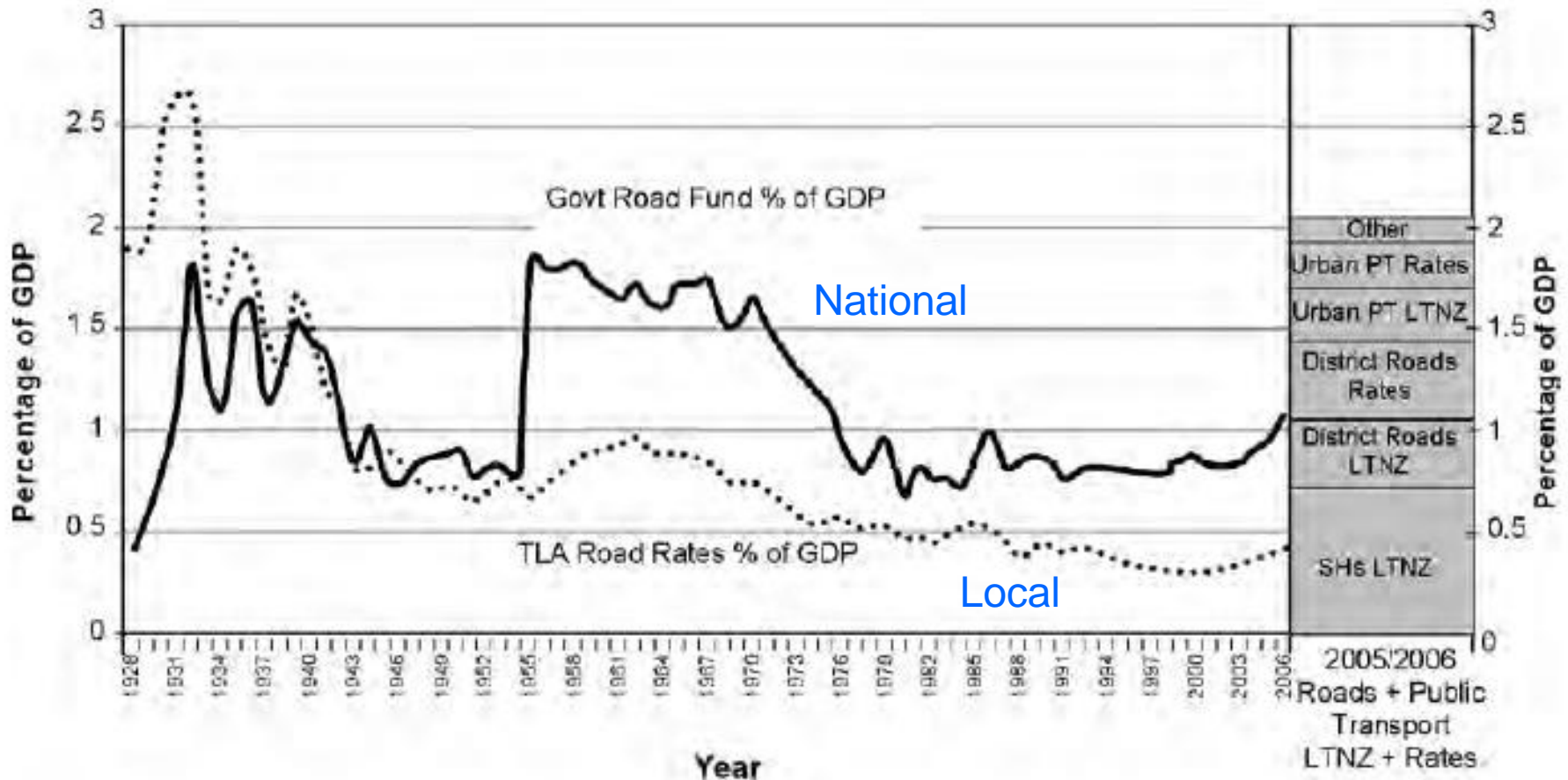


# 5. Graph of National Growth



Graph 1: New Zealand Changing Population, Vehicles and Fatalities

# 6. National Transport Spending

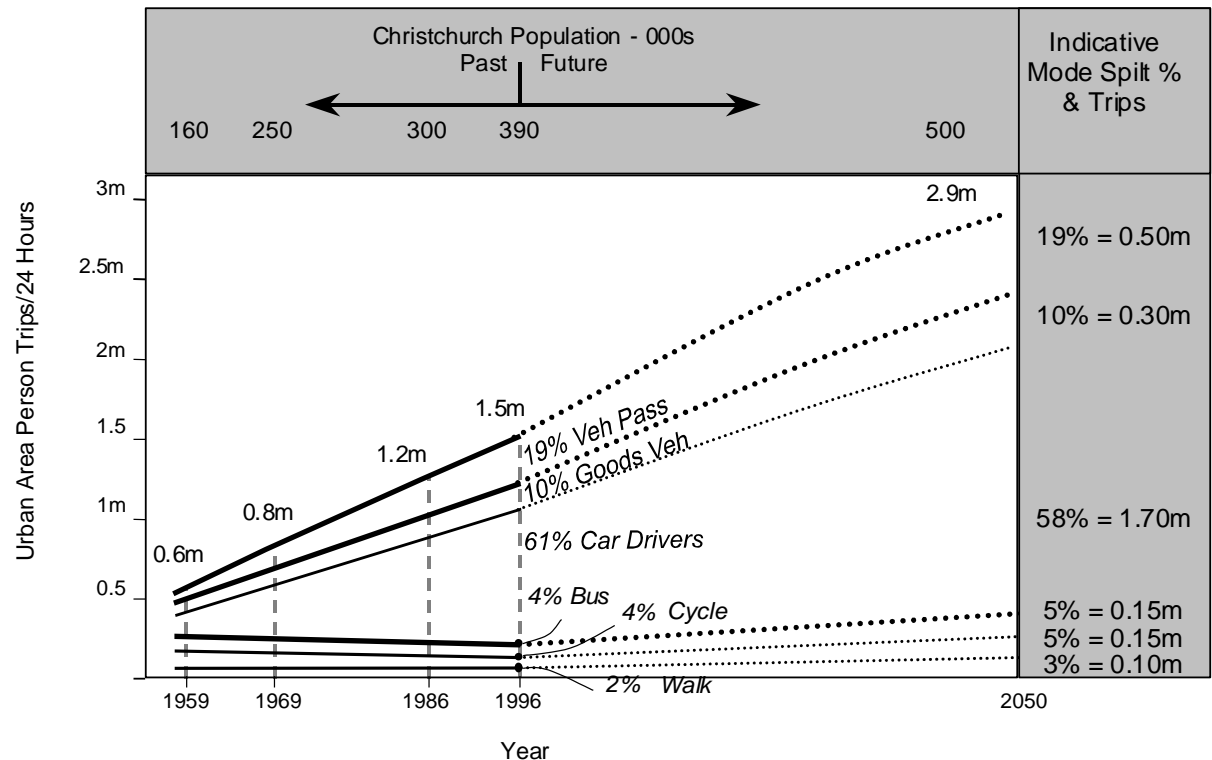


Graph 3: Public Spending Percent of GDP

# 7. History

- 1960's Good progress in science and art of Transport Planning
- 1970's Began decline in transport investment and move against roads
- 1980's More discussion on alternative modes
- 1990's Improving assessment techniques
- 2002 NZ Transport Strategy
- 2004 Land Transport Management Act

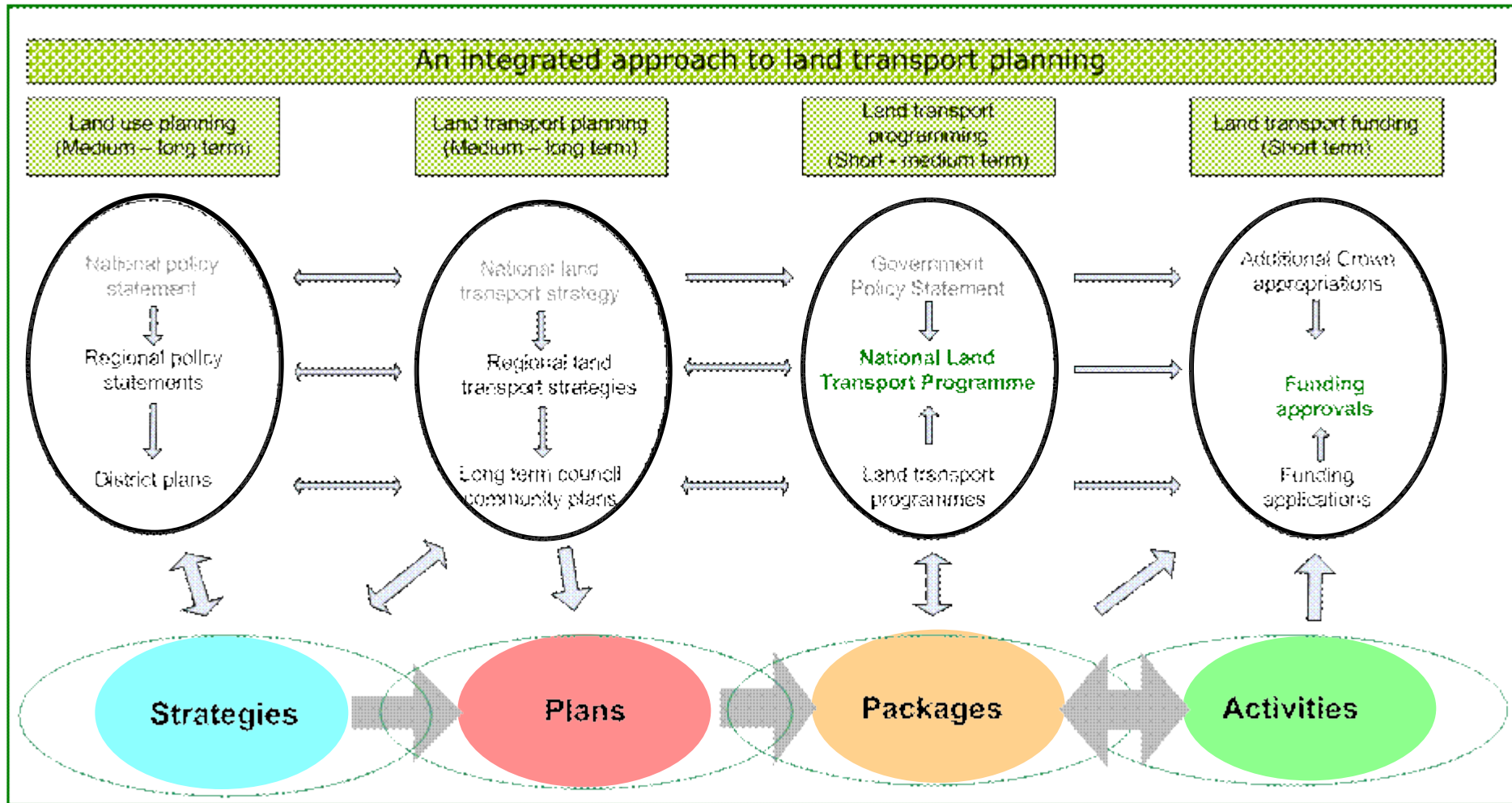
**Christchurch Urban Area Past and Future Trips**





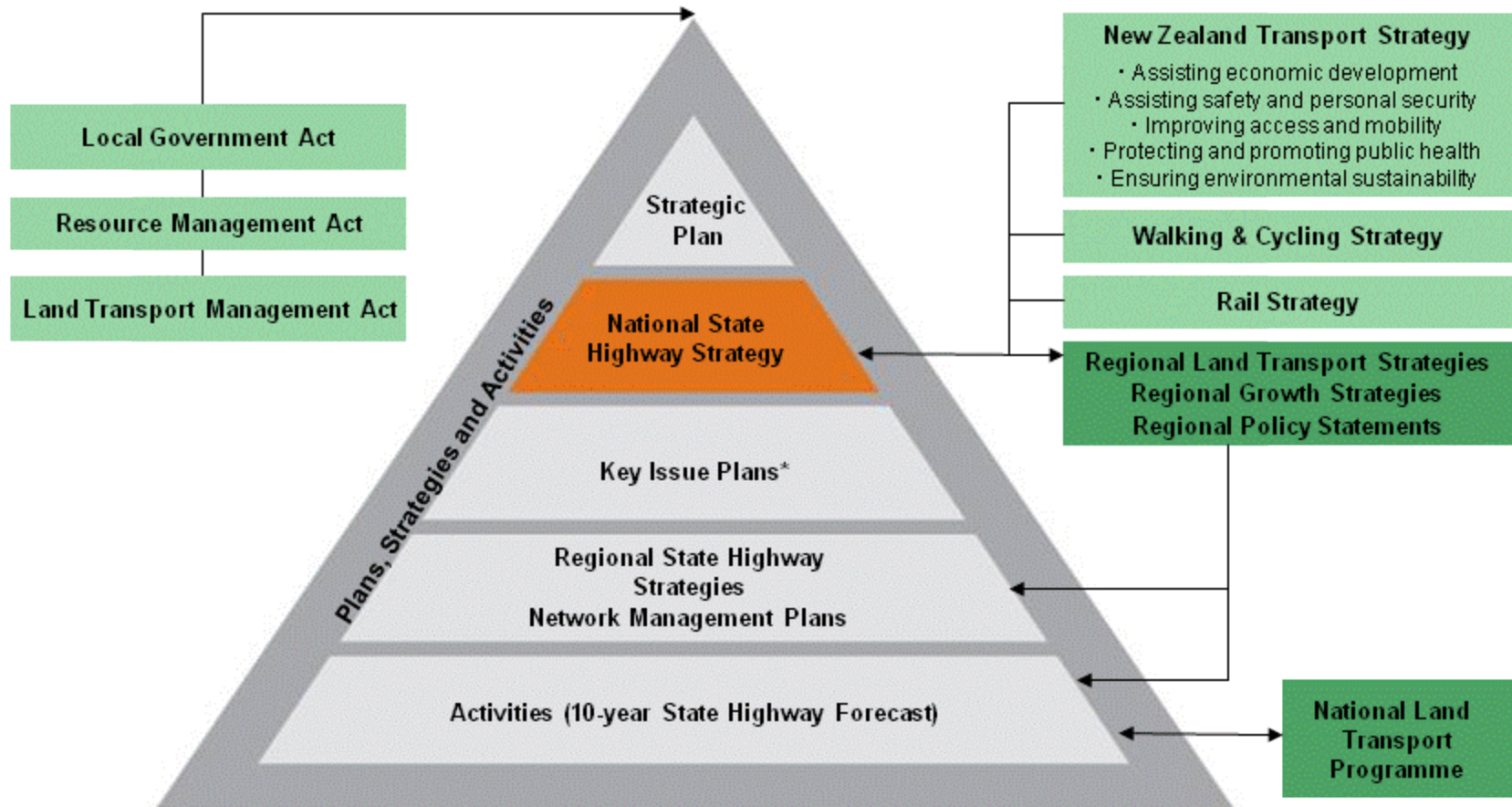
# 8. MOT National Integration

## “Four Egg Diagram”



# 9. National State Highway Strategy

## “Transit Pyramid Diagram”



\*These include the Safety Plan, the Travel Demand Management Policy and Guidelines, the Environmental Plan, the Planning Policy Manual, etc.



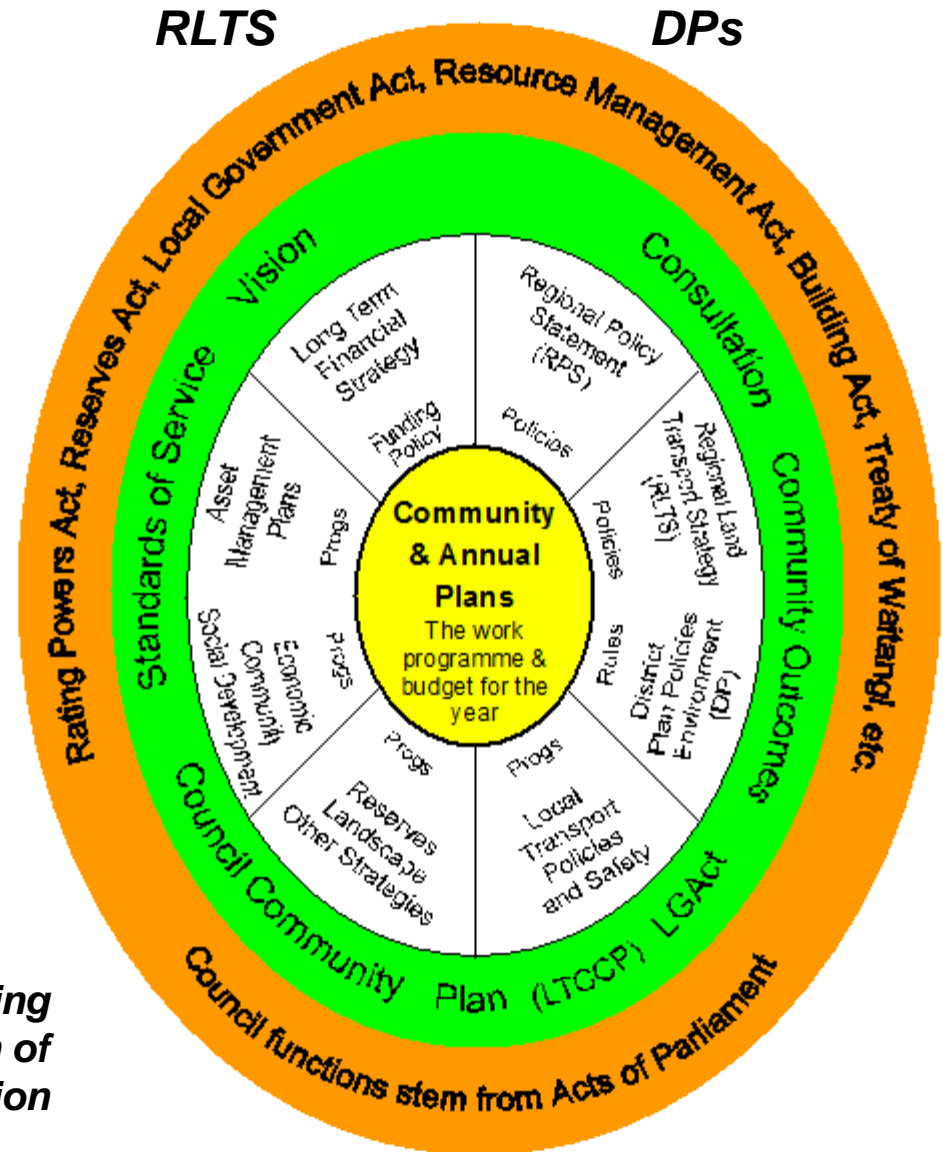
# 10. Local Govt Sustainability Framework

- Local Government
  - > Planning process very extensive processes designed to integrate community, economy, environment and including transportation
- National and Local Transport objectives meet and are agreed within Regional and District strategies

**Essential to sustainability**

**“Council’s Onion Diagram”**

*Local Government Planning Processes Integration of Transportation*



# 11. Consultation Work

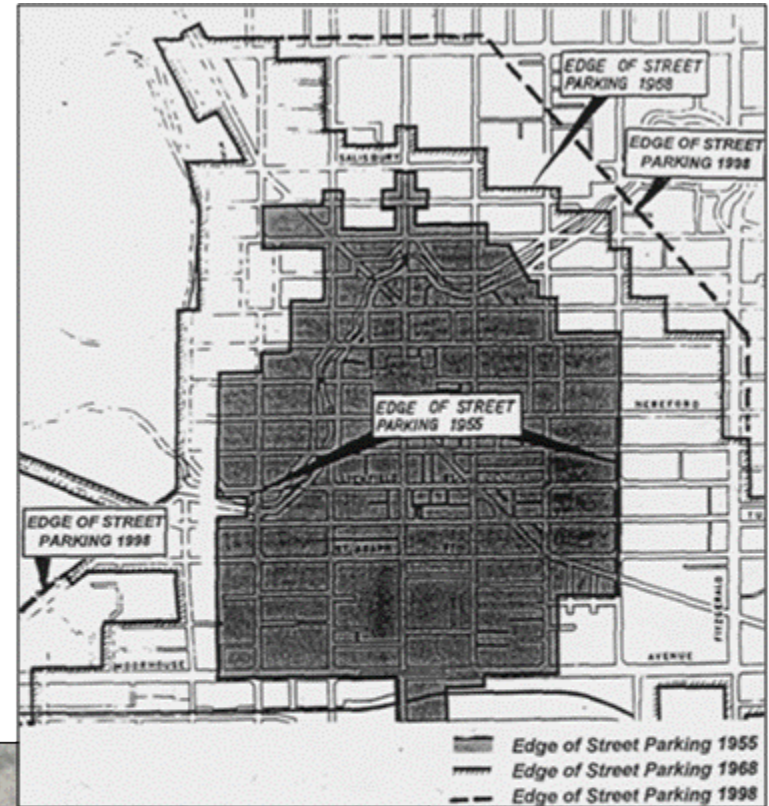




# 12. Sustainability - Demand Management

## Travel Demand Management

- Land use management (long term and slow effects)
- Economic tools - immediate vehicle, tax, petrol tax
- Paving pricing (citywide)
- Central city cordon pricing and GPS technology etc
- Toll roads for new facilities on rural and urban expressways and new Major Arterials as toll roads.



# 13. Sustainable Urban Form

## Management for Supply

New transport corridors

Redeveloped arterials

Enhanced rail and bus

Segregation of conflicts

Corridors and rooms

Recognise potential

Strategies for urban form

RLTS and district plans

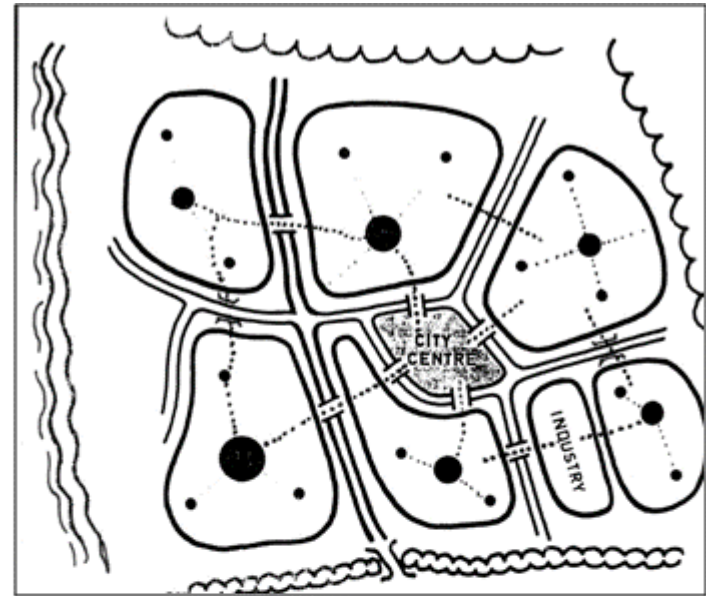
Investment in corridors

Space for multi-purpose

Enhance environment

Reduce adverse impacts

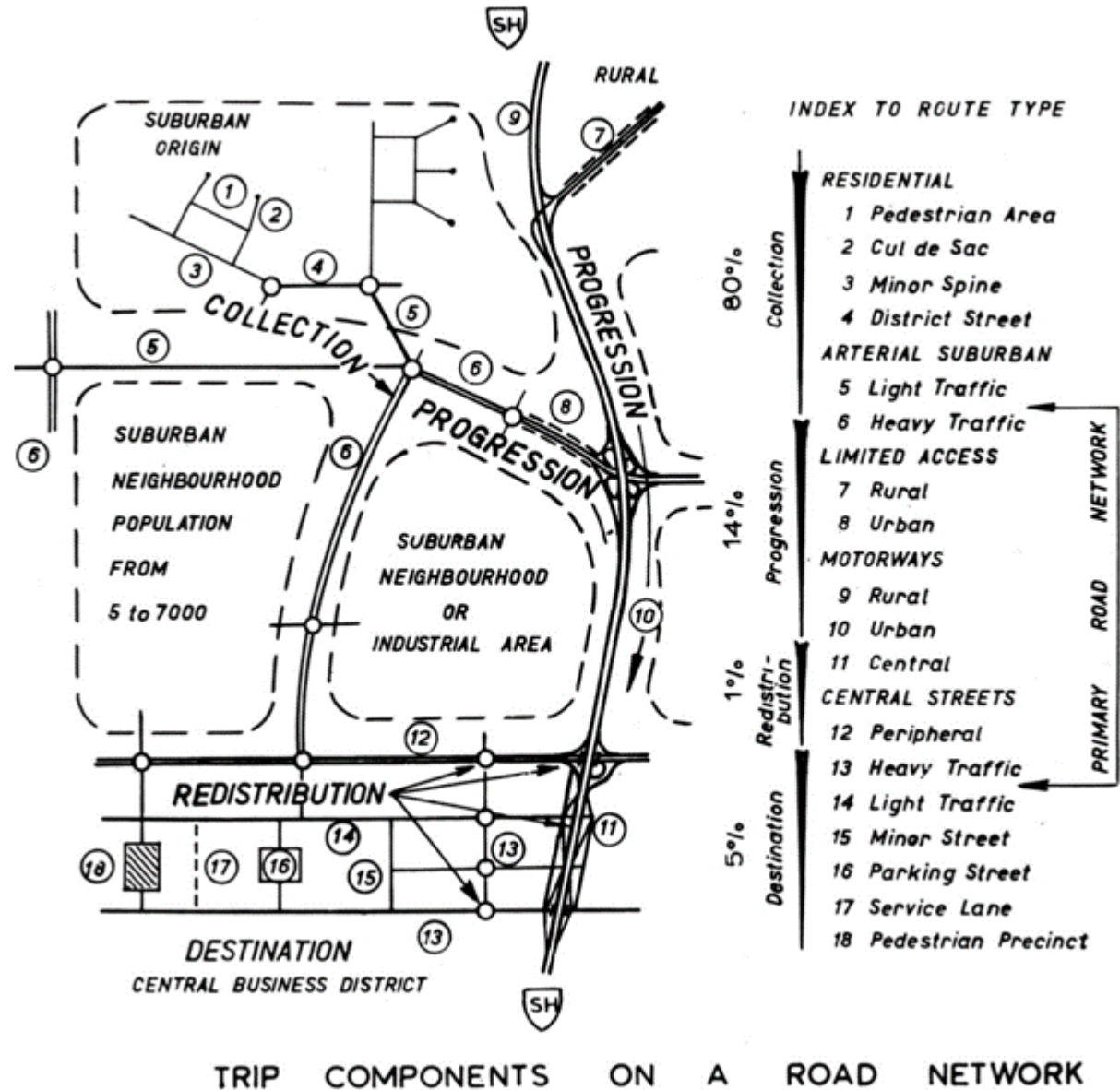
All must be planned to  
achieve sustainability



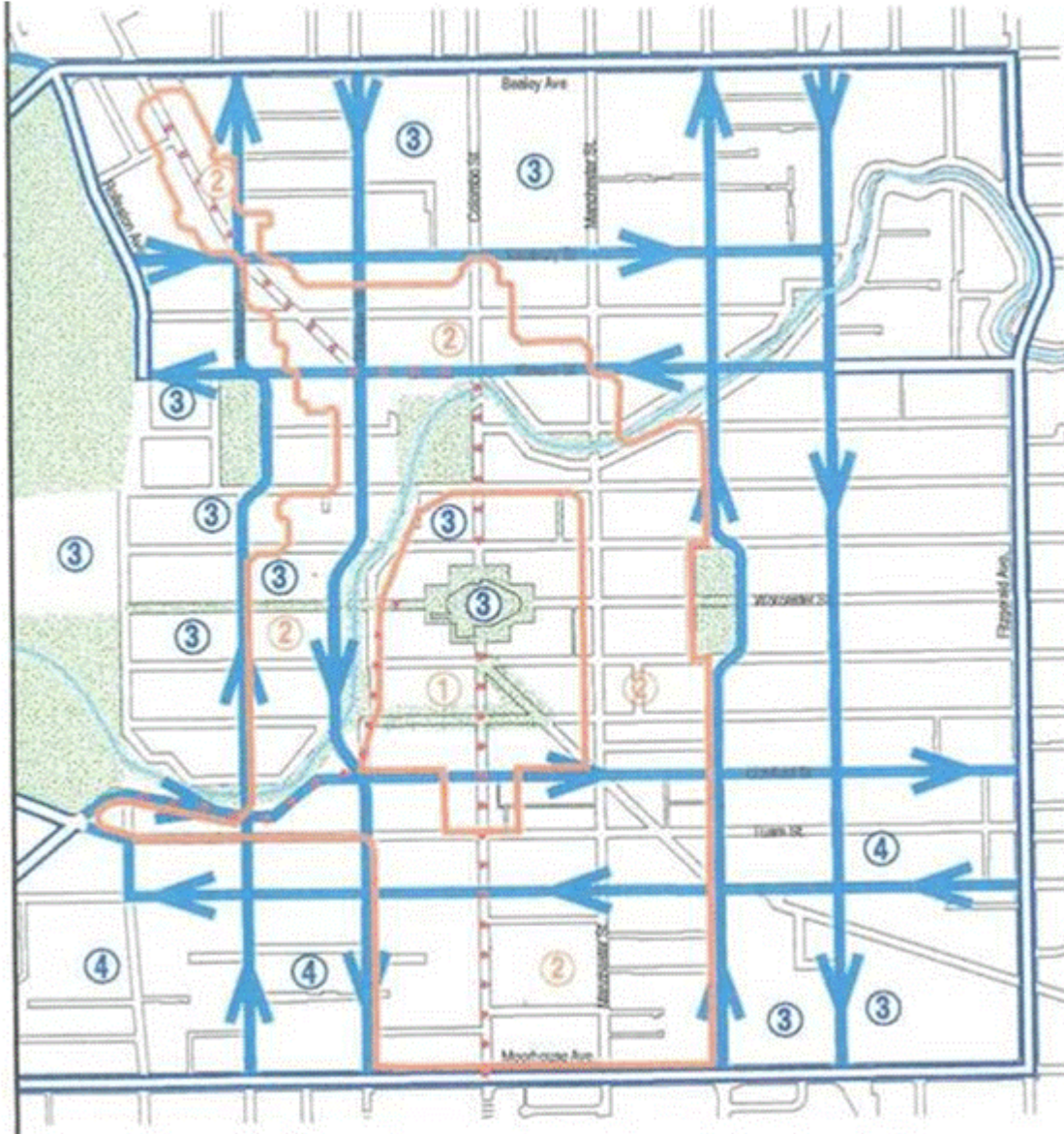


# 14. Road Hierarchy

- Road types to meet the needs of urban form
- Roads provide corridors to protect rooms
- Planning to present and future land use
- Access management control to protect roads and development



# 15. Christchurch One-Way Streets A Model Solution 35 years on



# 16. Christchurch City Centre Generations of Success

## ➤ City Centres

### > Accommodate ALL

- Pedestrians
- Rail
- cycles
- Cars
- buses
- Trucks



## ➤ City Centres

### > ALL types of spaces

- pedestrians
- slow streets
- parking areas
- busy places
- quiet places
- major routes
- oneway street
- collector roads
- malls

## ➤ Complex Interactions

> needing careful design

**For sustainability**



# 17. Poor Landuse Access Control Policies

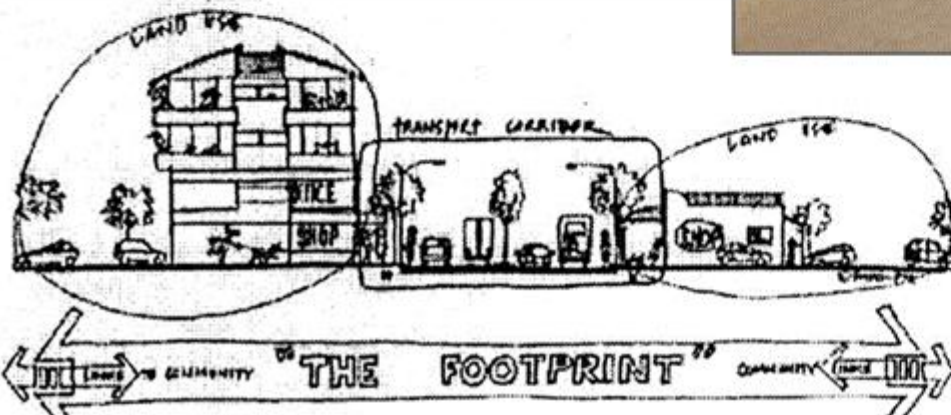


◀ Land use conflicts rural sites



▲ Access conflicts town sites

▼ 'Footprint' of corridor management



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# 18. Sustainability

Must move from “bottleneck solutions”/“cost benefit” solutions

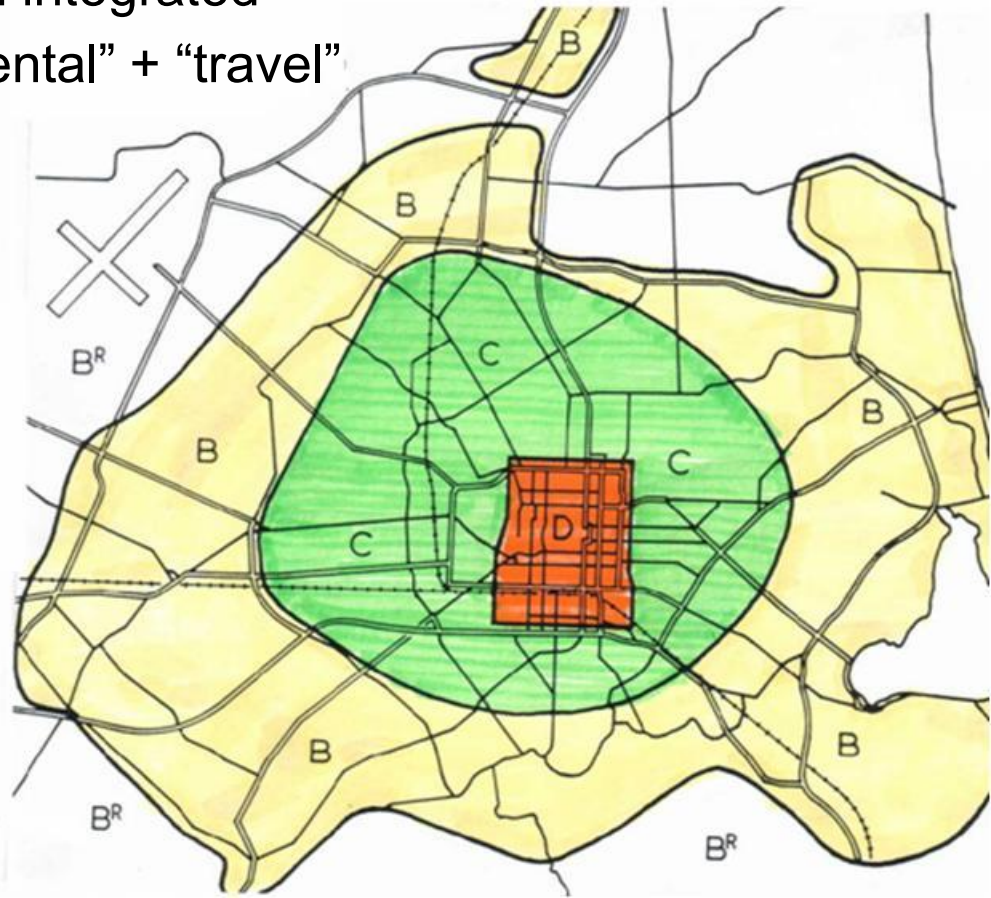
To “balance” and “reliability” over “all modes of travel”

Comprehensive and integrated

“land use” + “environmental” + “travel”

Need policy of Network Levels of Service linked to environmental capacity

**For Sustainability**

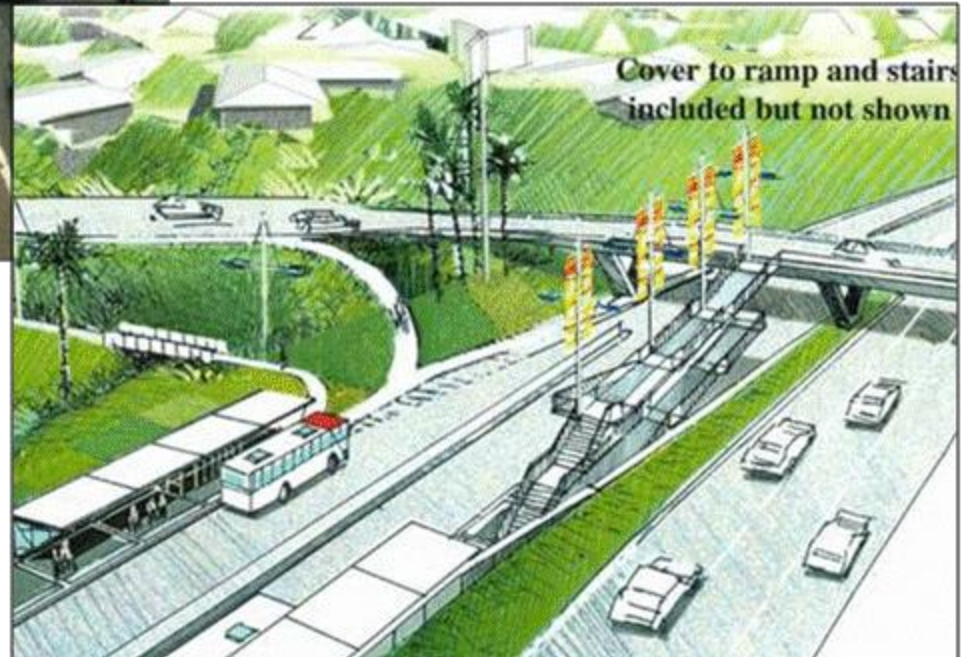




# 19. Motorway Multi Modal Corridors with Busway



◀ **Bus Two Way - Brisbane**

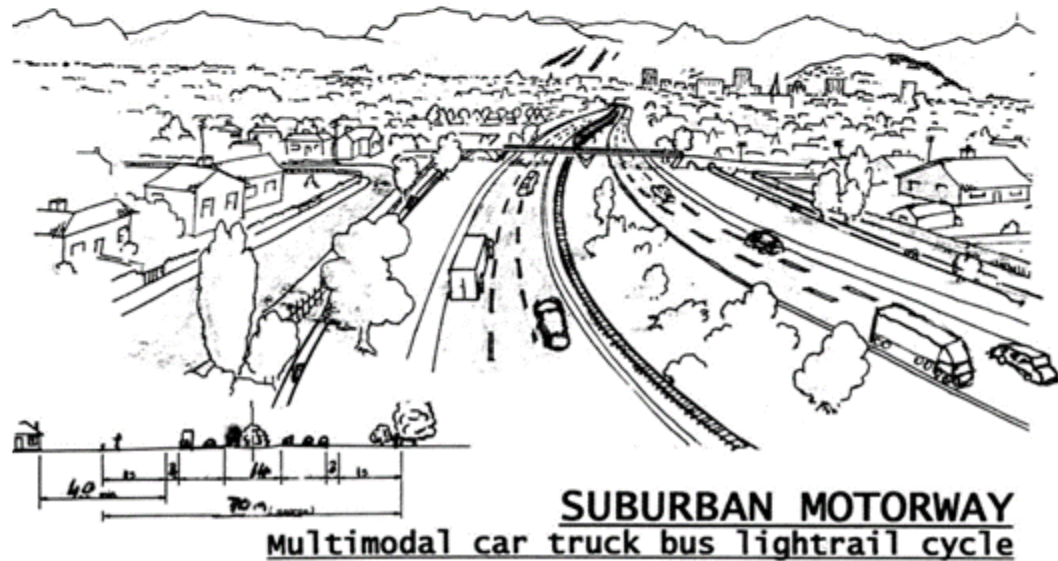


➤ **Bus Interchange - Proposed Auckland**



## 20. Multi Modal Corridors

- **Wide Corridors bring**
  - > Benefits to all modes of transport
  - > Enable staging area time
  - > Better landscape treatment
  - > Reduce adverse impacts on community
  
- **Transport sustainability requires new, wider and multi purpose open space corridors**



# 21. Urban Motorway Planning

## MOTORWAY CORRIDORS

- Support and shape urban form
- Provide capacity in the future
- reduce adverse effects overall
- creates exciting open space



## ACCESS MANAGEMENT

- Provides safer roads
- Retains capacity on existing arterials
- Enables intermediate controls
- Manages the roading asset economically



**These concepts are essential to the environment and sustainable land transport**

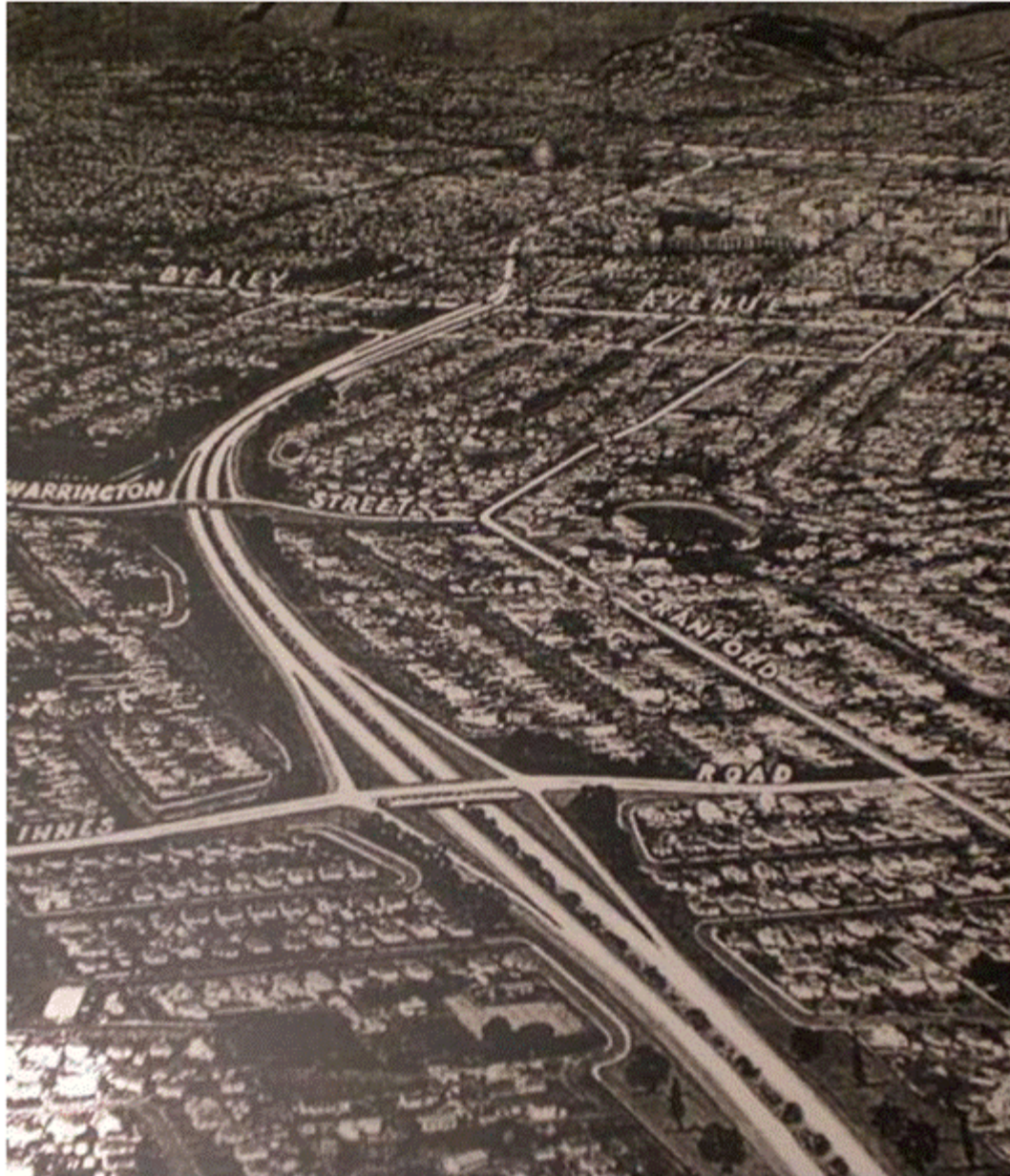


## 22. Kaiapoi Motorway Success 40 years on





## 23. Northern Motorway – Fatal Abandonment 1990's



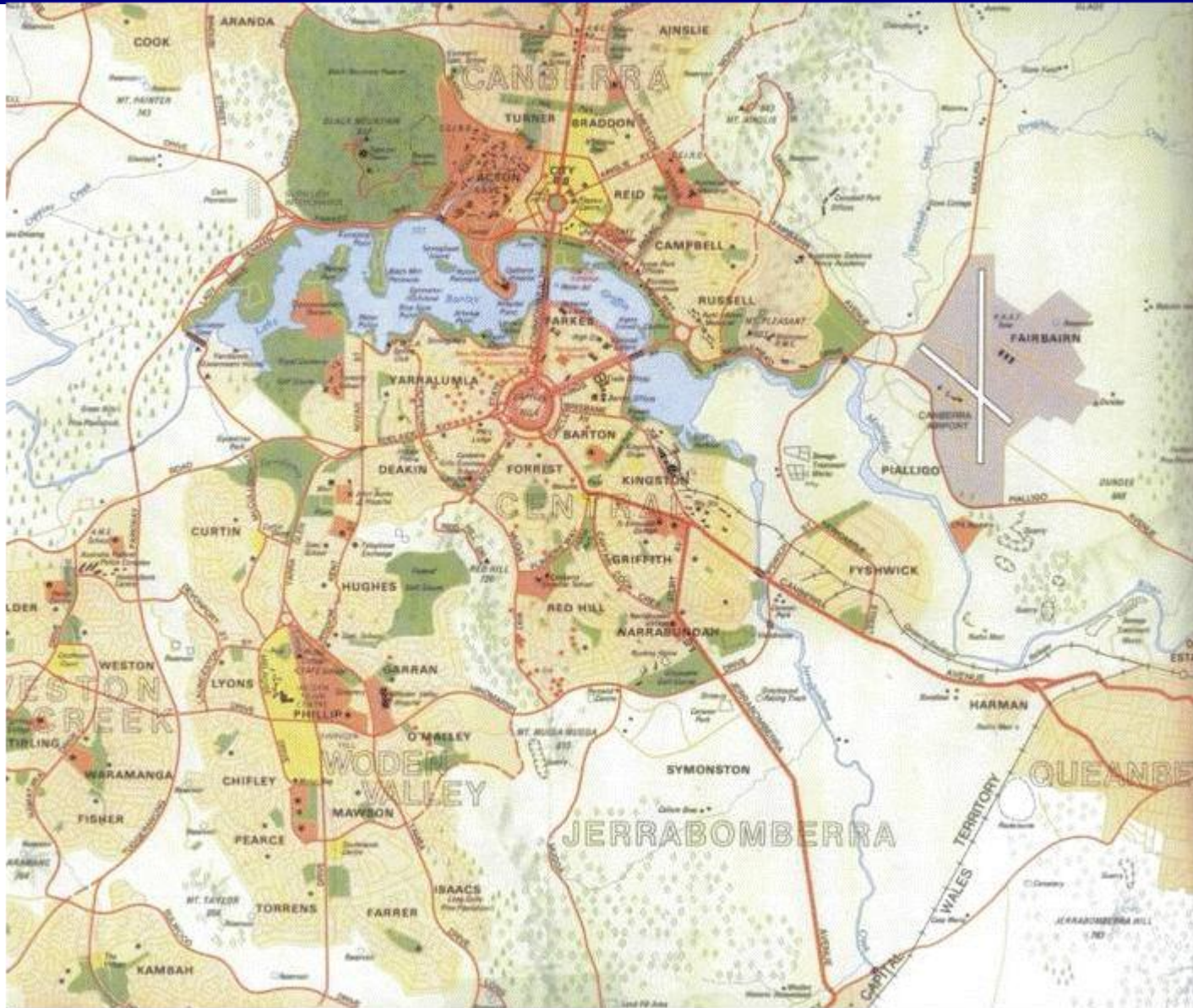
# 24. Canberra Concept Network - 1967



Alan Voorhees for the NCDC

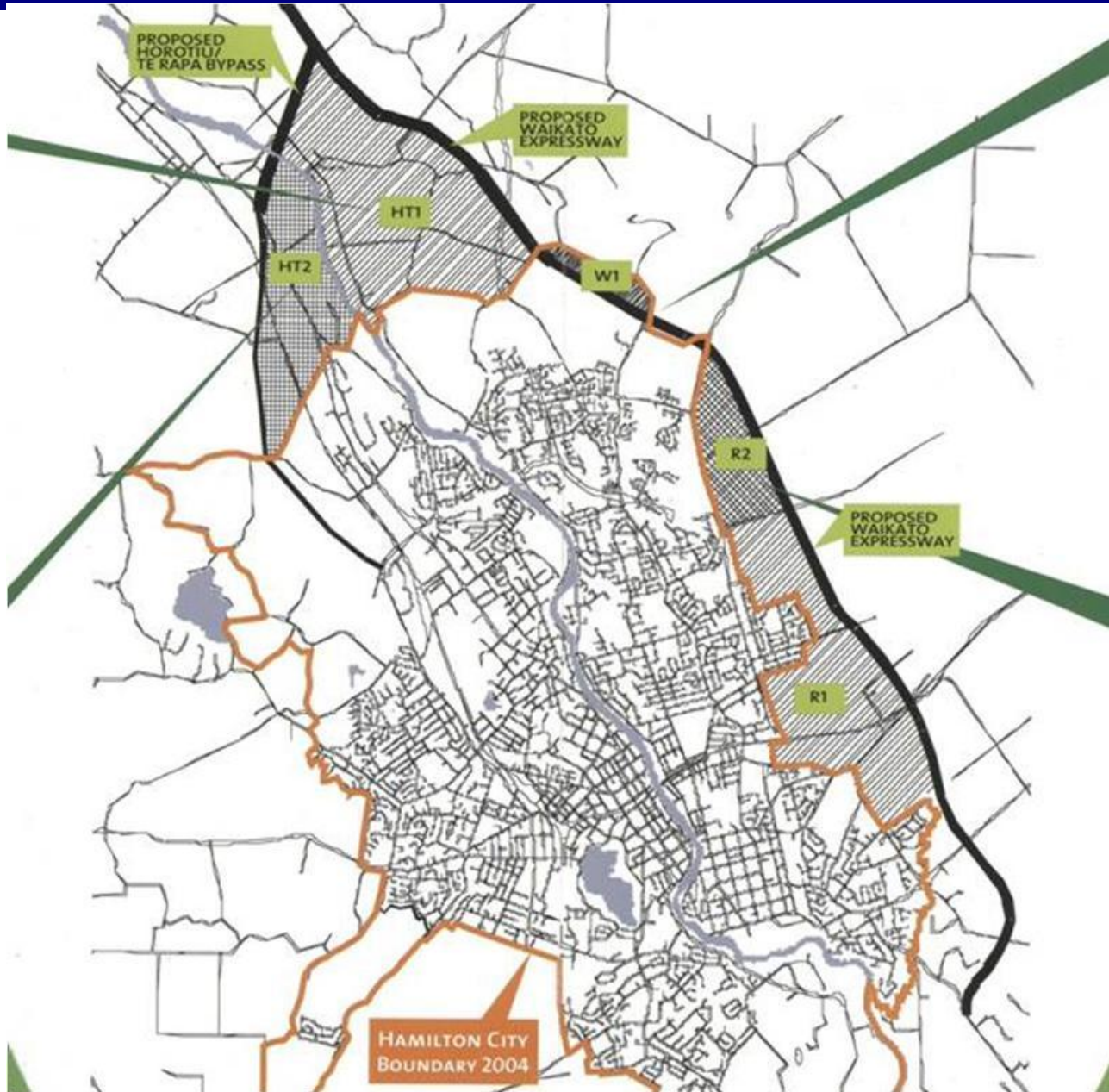


# 25. Canberra Network and Subdivisions - 1983



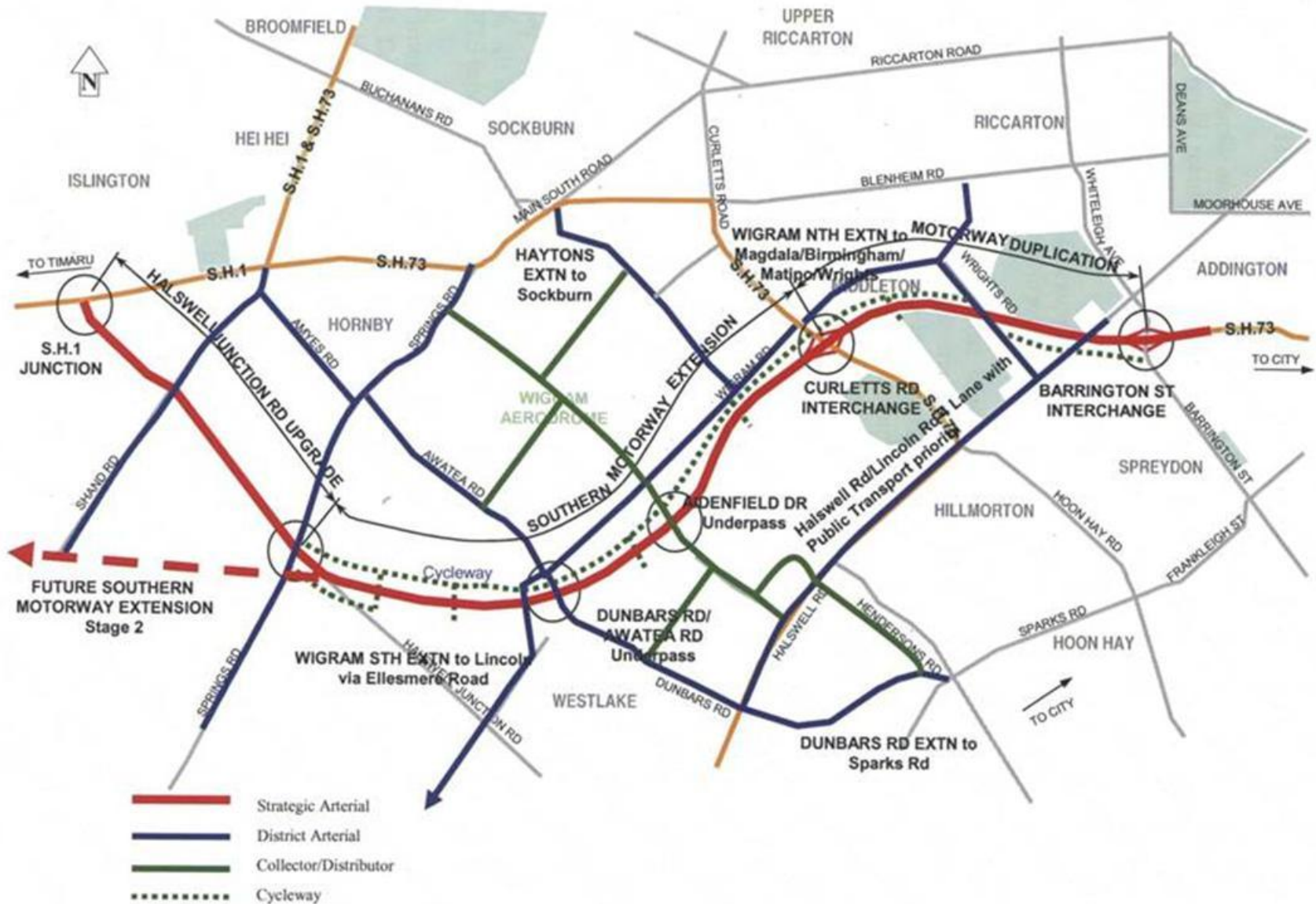


# 26. Hamilton – Waikato Expressway 2004

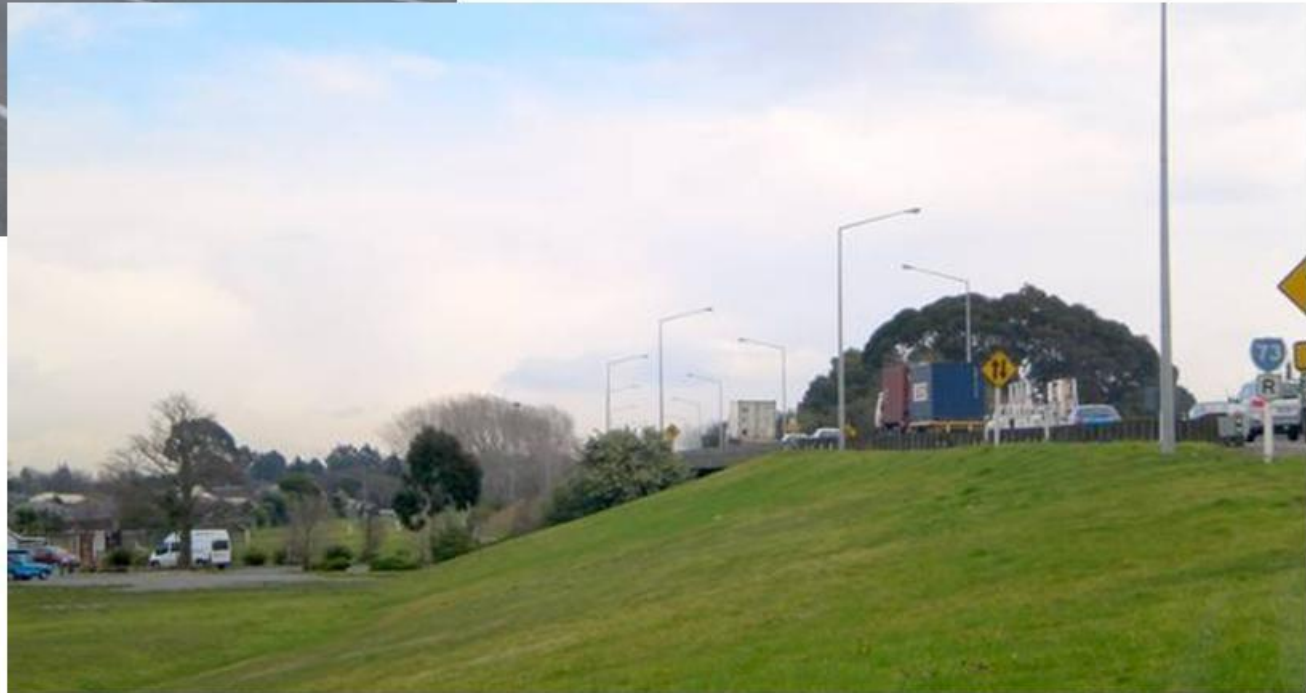


# 27. Southern Motorway Extension - 2008

CHRISTCHURCH SOUTHERN MOTORWAY  
And South West Christchurch Transport



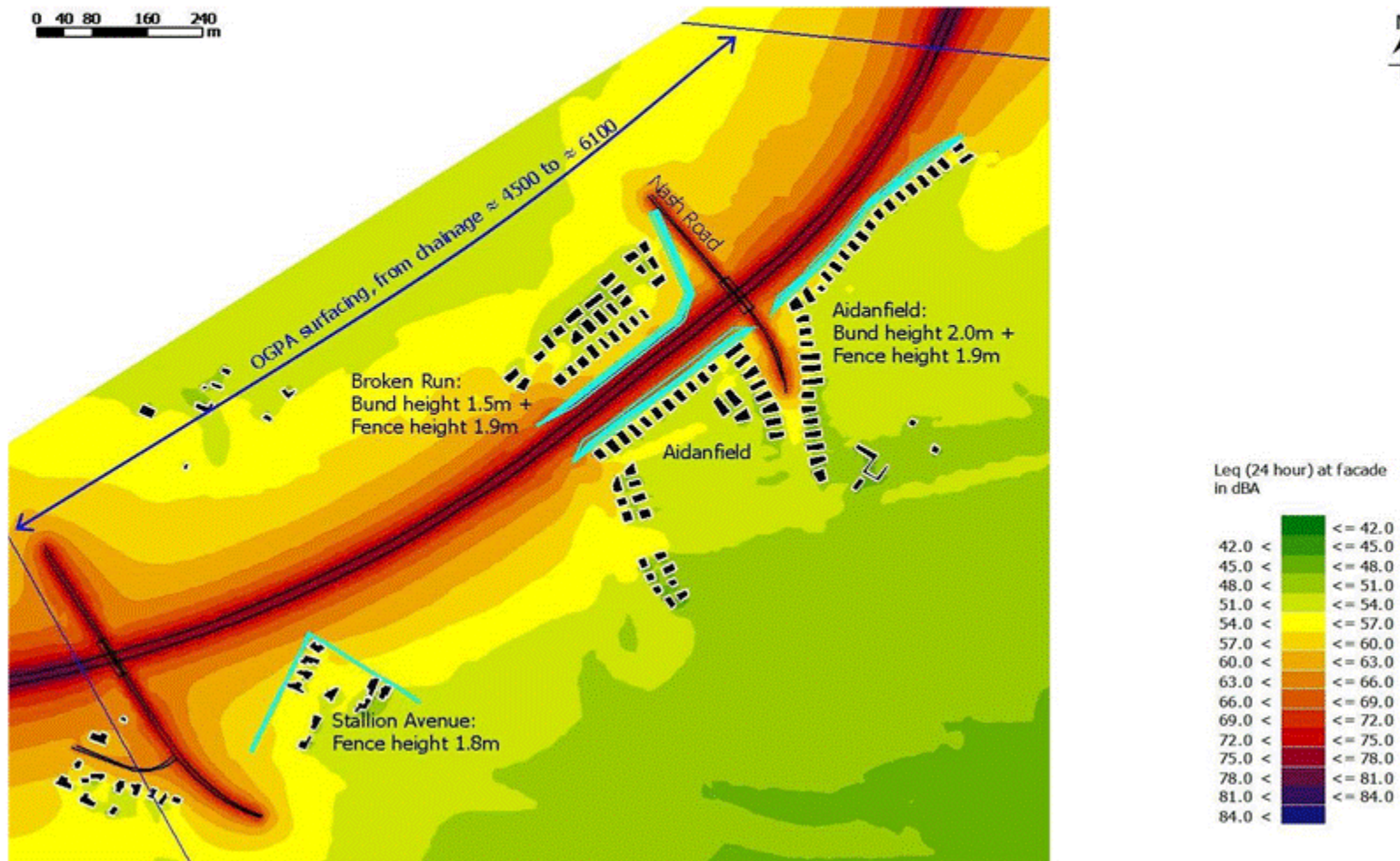
# 28. Addington Motorway Success 30 years on





# 29. CSM – Aidenfield Noise Levels

**Appendix C:** Plot showing noise contours for potential mitigation scenarios with the proposed motorway in place around Dunbars Rd, Broken Run & Aidenfield:  
Chainage  $\approx 4,400\text{m}$  to  $\approx 6,100\text{m}$



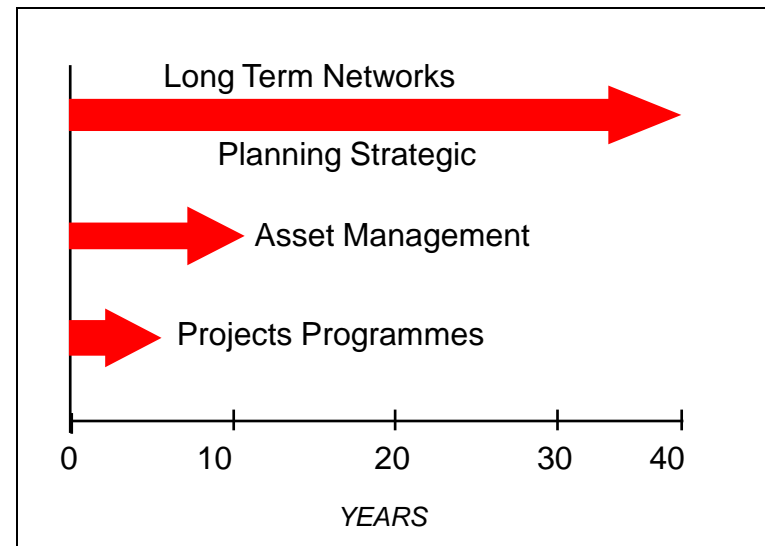
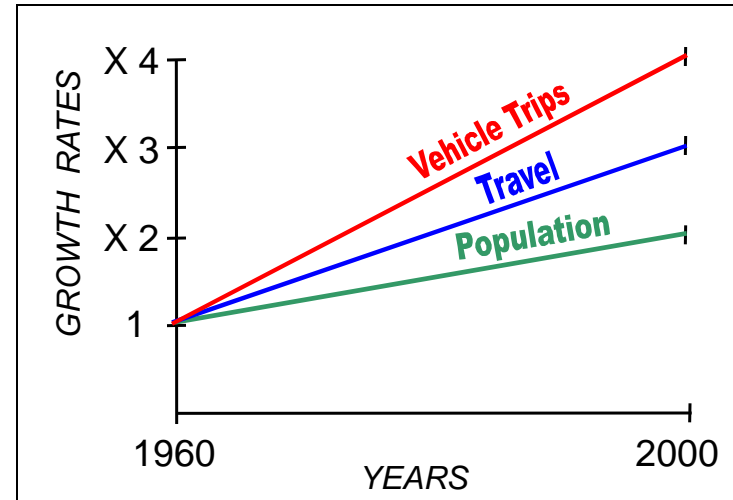
# 30. Wellington Western Corridor and Future TDM





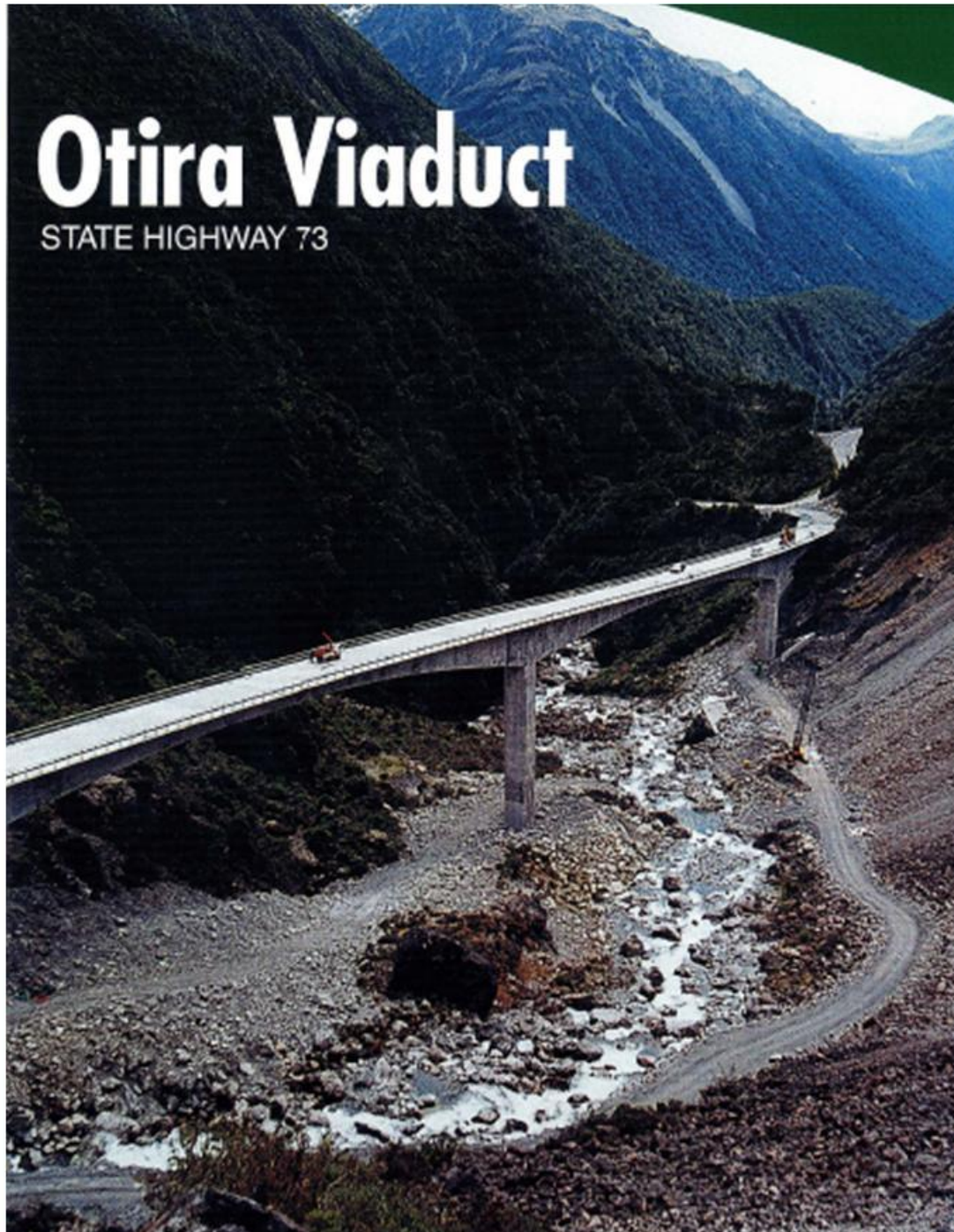
# 31. Key Planning Issues

- 1960-2000 NZ population x2  
Trip making total all modes x3  
Car driver trips increased x4
- Measured by congestion & lowering Levels of Service - present trend not sustainable
- Planning Horizons:
  - > 20-40 years for major network corridors & transportation planning
  - > 5-10 years network management
  - > 3-5 years project programmes
- Long term strategies for:
  - > Access Management
  - > Multi-mode corridors



**For sustainability**





# Otira Viaduct

STATE HIGHWAY 73