Corridor Management Plans

Managing the needs of all road users

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Background to Study

How do we balance Safety and Efficiency on a Mixed-use arterial - for all road users, especially if traffic volumes grow?

We need a structured (and defendable) approach – Corridor Management Plans (list of improvements)

Key Concepts:

- **Movement and Place**
- **Road User Hierarchy**
- **Levels of Service**
- **The Self Explaining Road**

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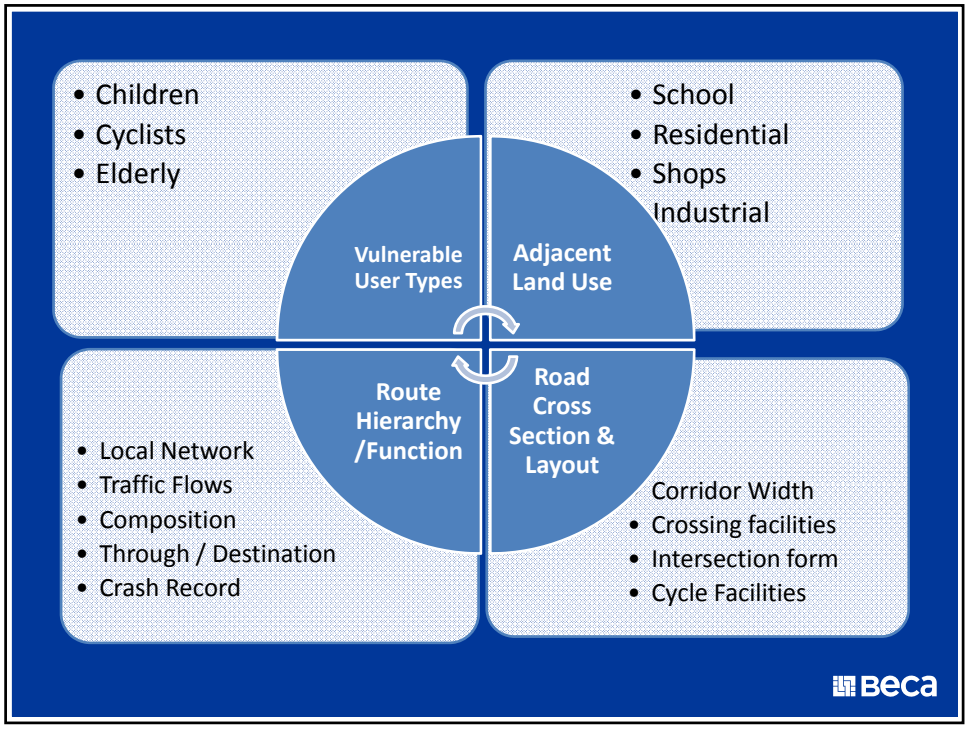
• Children
• Cyclists
• Elderly
• School
• Residential
• Shops
Industrial
Vulnerable User Types
Adjacent Land Use
Route Hierarchy /Function
Road Cross Section & Layout
• Local Network
• Traffic Flows
• Composition
• Through / Destination
• Crash Record
Corridor Width
• Crossing facilities
• Intersection form
• Cycle Facilities
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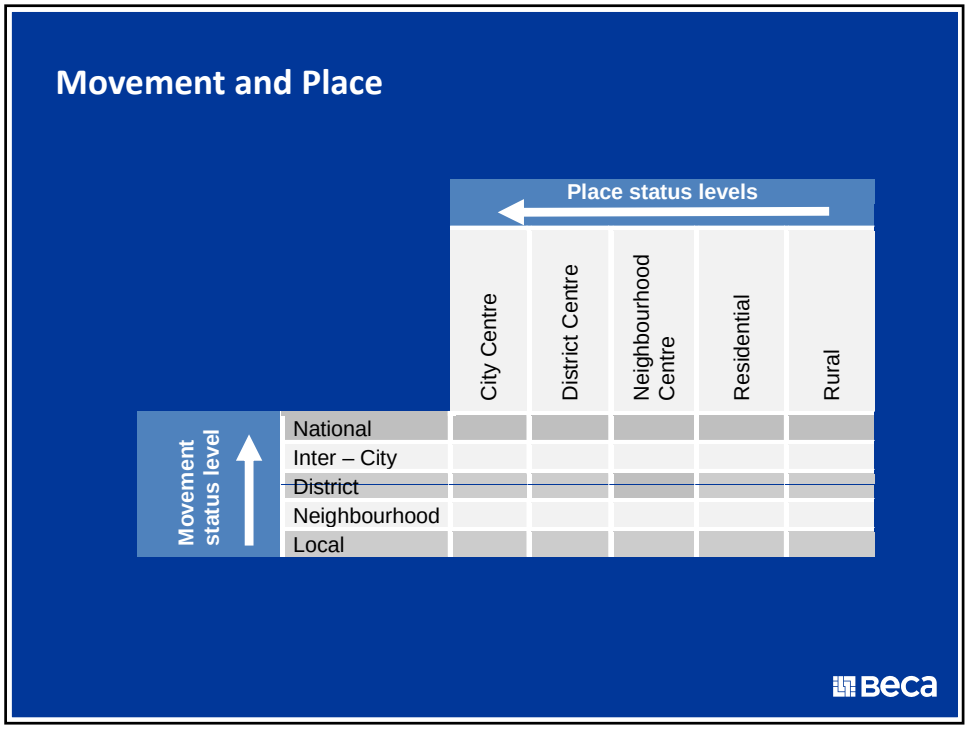
Movement and Place
Place status levels
City Centre
District Centre
Neighbourhood Centre
Residential
Rural
Movement status level
National
Inter – City
District
Neighbourhood
Local
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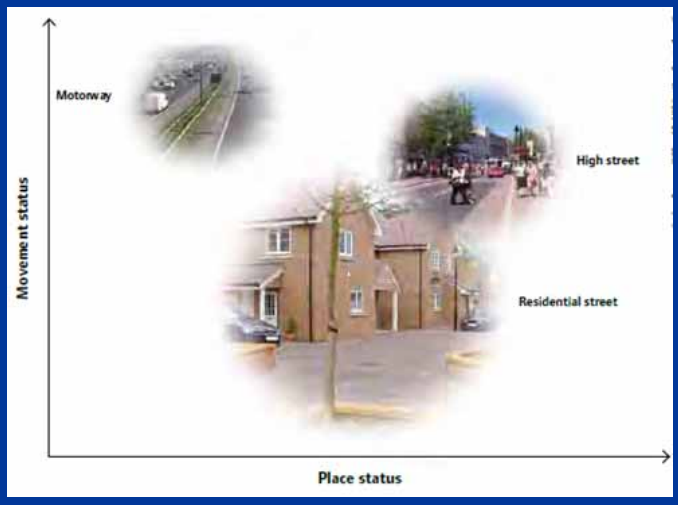
Movement and Place



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Case Study – Road X

Arterial Road with three distinct sections
- Rural section - lifestyle blocks and farms
- Rural/residential section – lower speed limit
- Residential with mixed-land-use

Mixed-land-use includes:
- Traditional suburban housing
- Local shops
- School and Park
- Sports and recreational facilities

Two-lane Road is expected to carry more traffic in the future

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Case Study – Section 1

Movement Category: District

Place Status: Rural

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Case Study – Section 2

Movement Category: District

Place Status: Rural /Residential

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Case Study – Section 3

Movement Category: District

Place Status: Residential/Neighbourhood

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Road User Hierarchy

- Ranks the importance of road users
- How do we apply this on arterial routes?

Increasing Importance

People with mobility impairments
Pedestrians
Cyclists
Public transport users
Powered two-wheelers
Commercial/business
Car-borne shoppers
Car-borne visitors
Car-borne commuters

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Levels of Service (LOS) by transport mode

Reducing performance

Level of Service					
A	No route delay. Always runs to timetable. No variability.	Opportunities to cross within 60m. Pedestrians able to cross almost immediately on arrival (<5s)	Off – road cycle corridor. No delay. No variability.	No delay. No variability.	No delay. No variability.
B	Almost always runs to timetable.	Most pedestrians able to cross with little delay (5-10s)	High degree of separation but within road corridor. Minimal delay. Relatively free of driveway crossings	Some variability. Minimal delay.	Some variability. Minimal delay.
C	Stop at every set of signals. Within 5 min of timetable.	Crossing within 200m. Most able to cross within acceptable period (10-15s)	Shared facility with footway Relatively free of driveway crossings	Stop at every set of signals. Some variability.	Stop at every set of signals. Some variability.
D		Some pedestrians must wait longer than desirable (15-20s)	On-road bicycle lane.		
E		Crossing within 400m. Most pedestrians must wait longer than desirable for an acceptable gap (20-40s)	Bicycles share traffic lanes. With low-medium levels of traffic. Wide lanes to comfortably accommodate cycles and passing traffic		

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LOS Case Study – Section 3

LOS Section 3	Transport Mode	Desirable	Current Traffic	Current LOS Gap	Future Traffic	Future LOS Gap
Section in General	Pedestrian	C	C	No	D	Yes
	Cycle	C	E	Yes	F	Yes
	Public Transport	C	C	No	D	Yes
	Traffic- District	C	C	No	D	Yes
Vicinity of School	Pedestrian	B	C	Yes	D	Yes
	Cyclist	B	E	Yes	F	Yes
Vicinity of Shops	Pedestrian	B	D	Yes	E	Yes
	Cycle	B	E	Yes	F	Yes

Movement Category: District

Place Status: Residential/Neighbourhood

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Self Explaining Roads

"Must be able to be replicated on other similar roads across a network"

"Corridor should be sufficiently different from other adjoining roads with different functions"

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Corridor Management Plan for Section 3

	Deficiency	Immediate (to 2016)	Mid Term (2017 to 2026)	Long Term (2027 to 2041)
Measures to address LOS Gap – General Section	Pedestrian difficulty crossing	Establish any other pedestrian desire lines such as west of school and install pedestrian refuges	Install signalised pedestrian crossings at suitable locations; Road A, Road B; with increased responsiveness at peak times and lunchtimes	
	There are no separate cycling facilities	Install a dedicated cycle lane throughout section.	No further Action (Unless significant land use or transport mode changes)	No further Action (Unless significant land use or transport mode changes)
	Delays to public transport through Roundabout	No Immediate Action	Install traffic signals at key intersections;	

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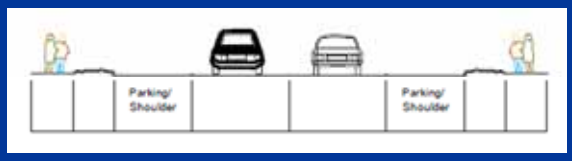
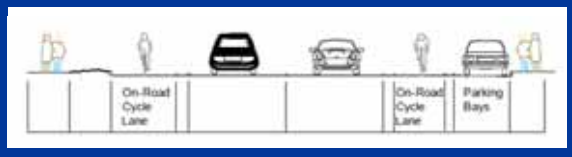
Corridor Management Plan Case Study – Road X



Existing layout



Proposed layout

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THE CORRIDOR MANAGEMENT PLAN

buildable and affordable

replicable

improve safety

set immediate, medium and long term goals

provide balance between people and traffic

buy in from local community

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