Urban Design and CPTED: some Australian reflections

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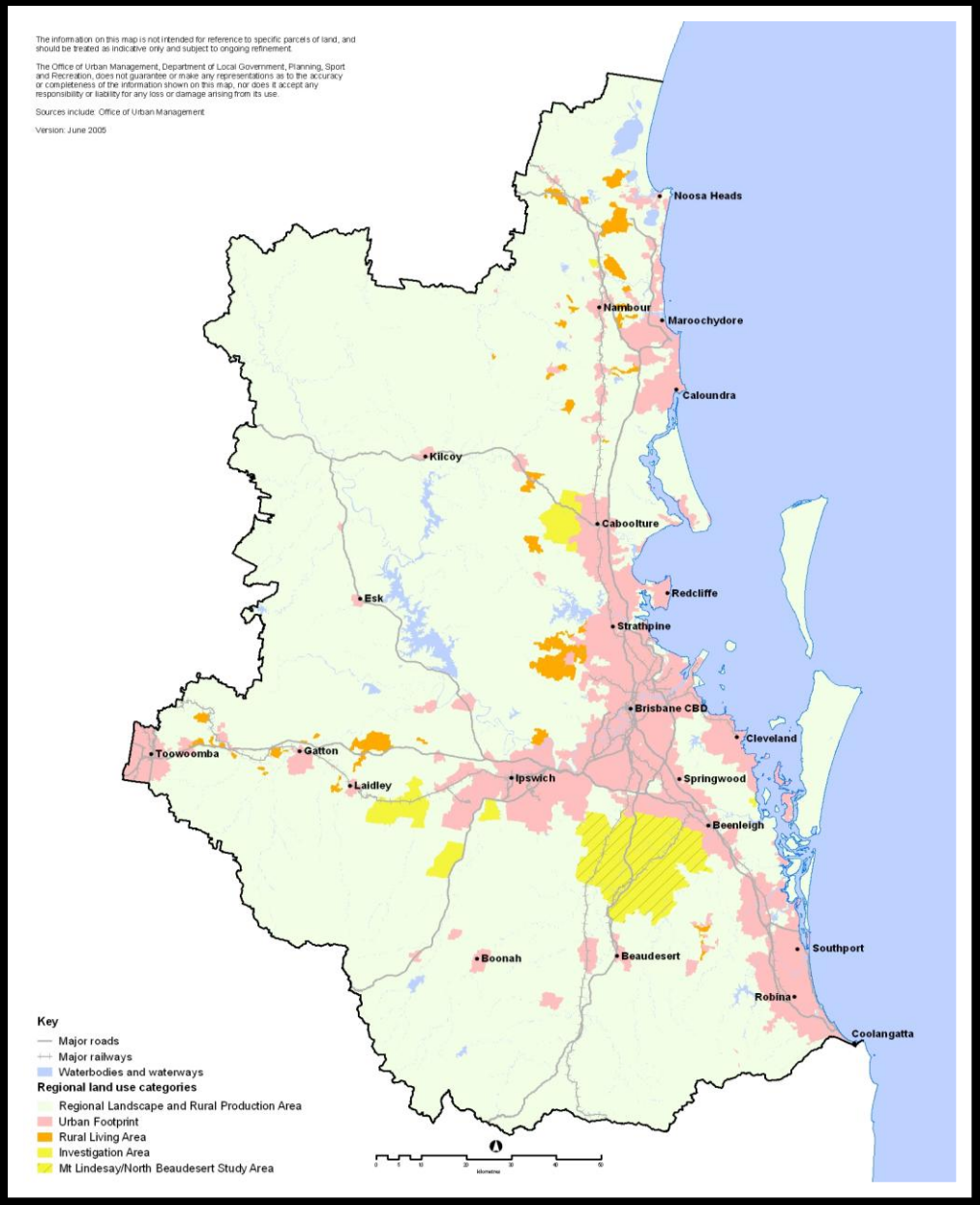
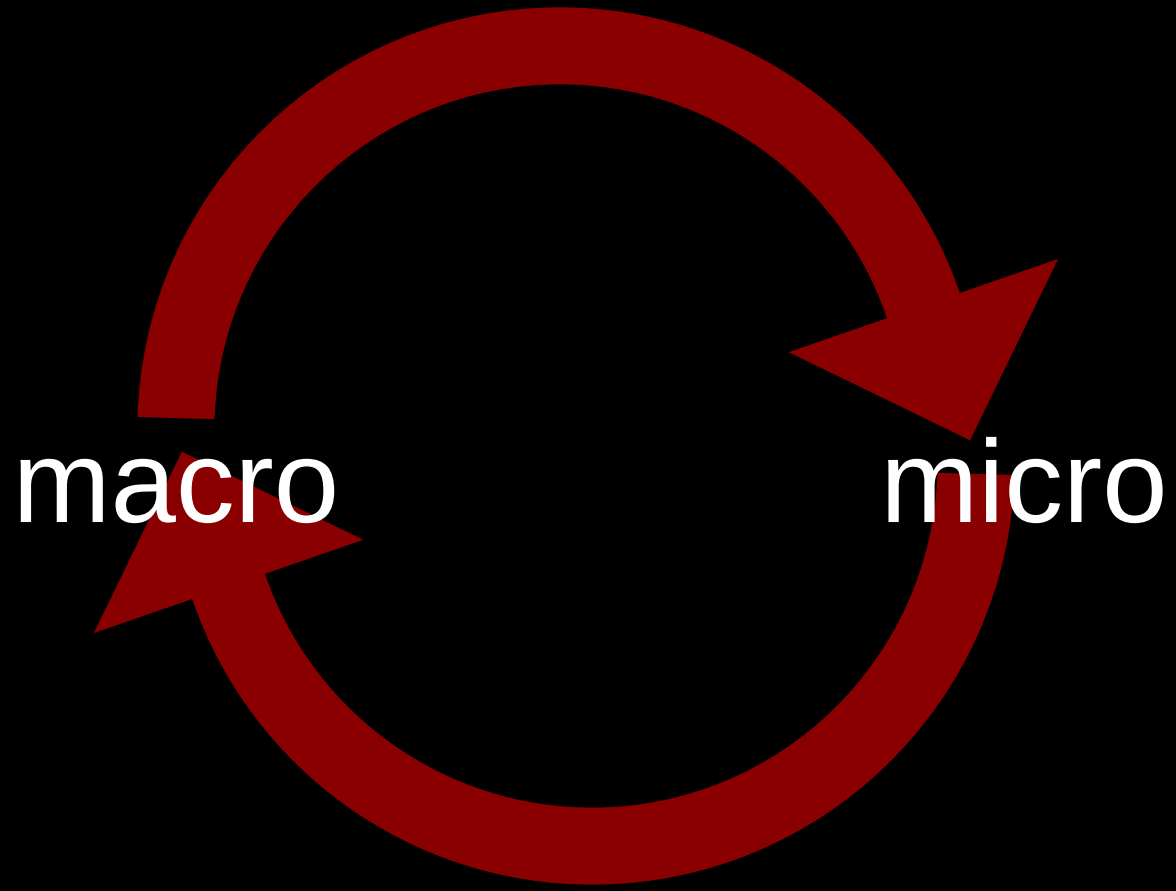
Queensland University of Technology

Urban Design




macro
micro

The basis for CPTED theory

The proper *design* and effective *use* of the built environment can lead to a reduction in the incidence and fear of crime, an improvement in the quality of life, and enhanced profitability for business.

Adapted from Crowe, 1992

What’s important in CPTED?

- the design of the place / environment / building / precinct / neighbourhood ….
- how it’s used
- peoples’ reactions to it

So ….the objectives for CPTED?

Design and use environments to:-

- support desired behaviours
- enhance intended functionality
- reduce undesired behaviours
- place potential offenders at a disadvantage

Crime Prevention through Environmental Design

Guidelines for Queensland

Part A: Essential features of safer places

Queensland Government

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Introductory Essays

Demographic Essay

Urban Design Essay

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CPTED Principles and Actions

CPTED Principles applied to Urban Design Contexts

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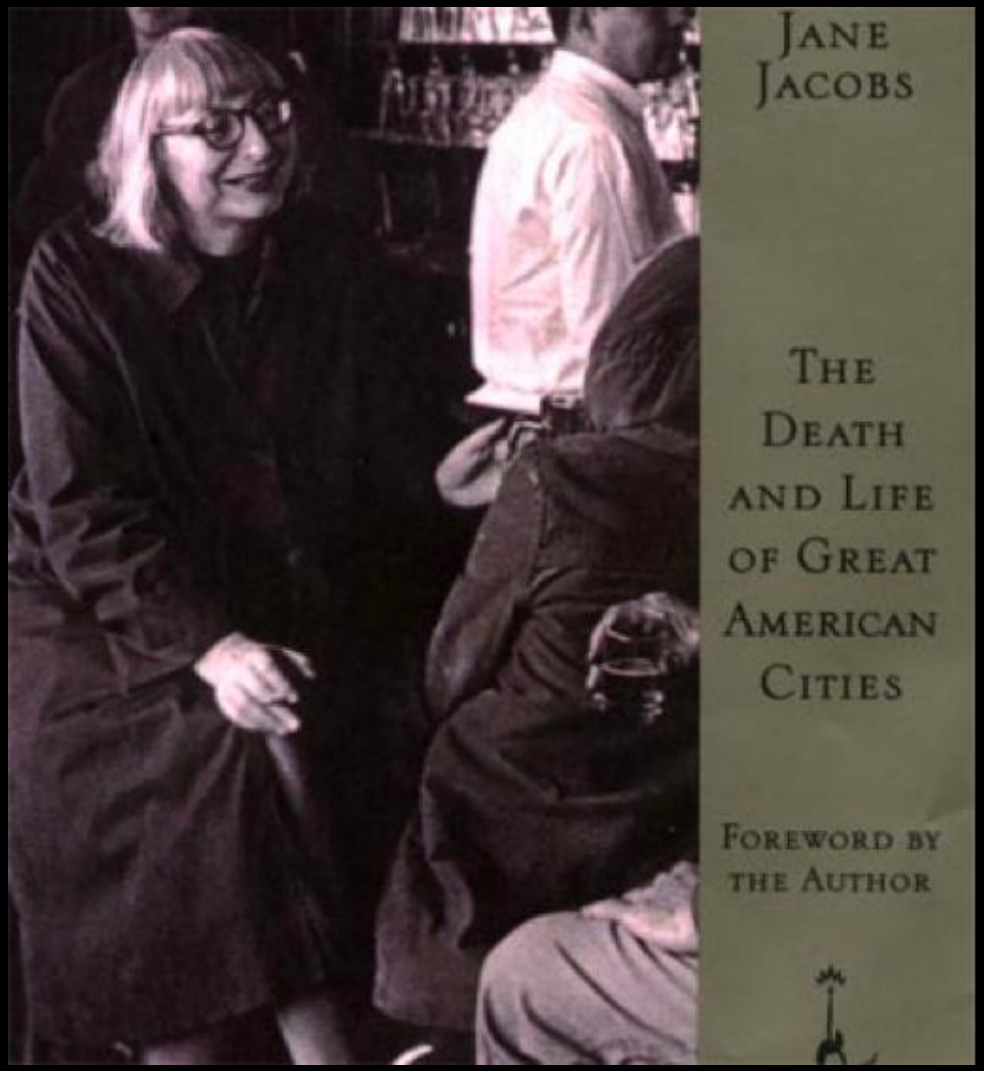

JANE
JACOBS

THE
DEATH
AND LIFE
OF GREAT
AMERICAN
CITIES

FOREWORD BY
THE AUTHOR

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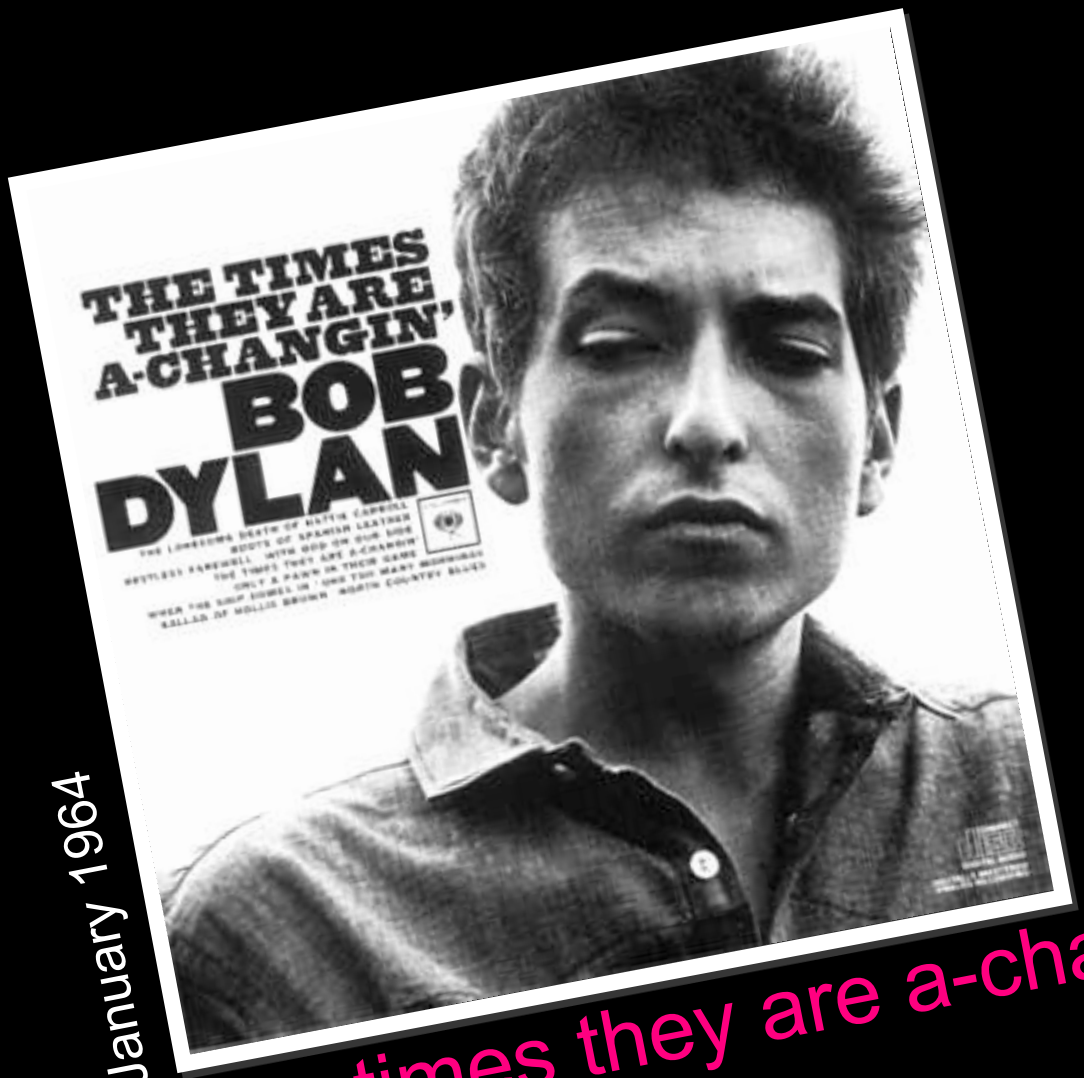
The new Queensland Guidelines consider
CPTED principles and guiding ideas
in terms of:

surveillance
legibility
territoriality
ownership of the outcomes
management
vulnerability

They apply these CPTED principles to
a range of urban design contexts including:

neighbourhoods and precincts
buildings
the public realm
centres
pedestrian and cyclist systems

and, in lesser detail, to a wide variety of others.



January 1964

The times they are a-changin' …

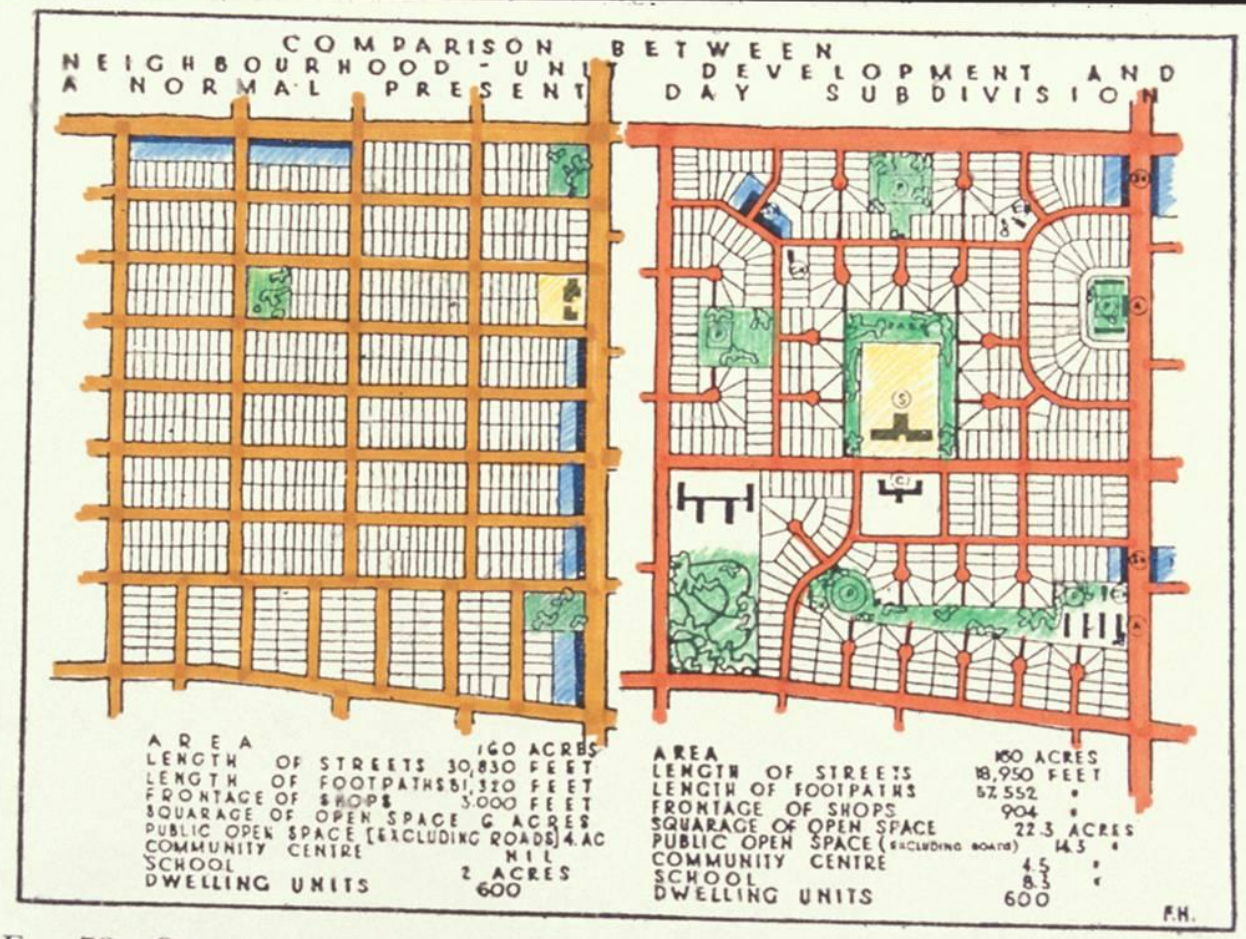


FIG. 72. Comparison of planned neighbourhood development (on right) and typical Australian form of land subdivision (on left)

Brown + Shenard, Town + Country Planning, (M.V.P. 1951)

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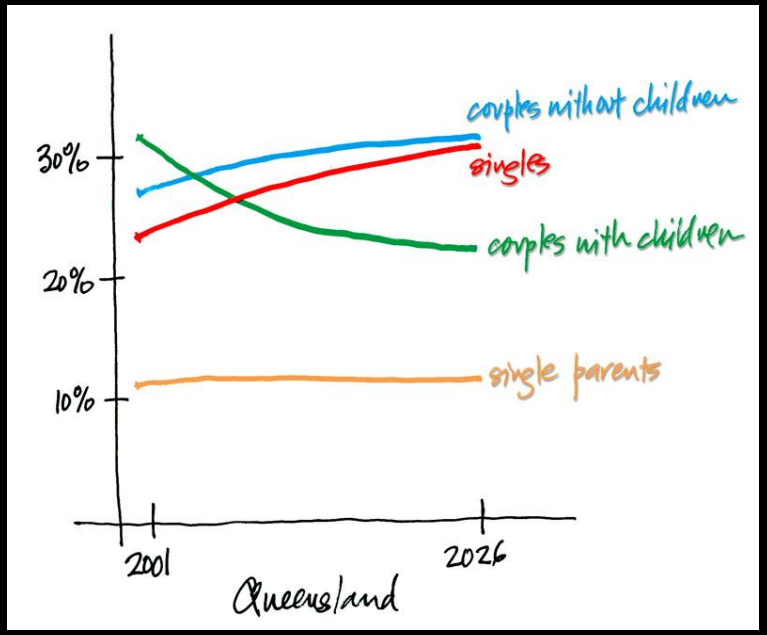
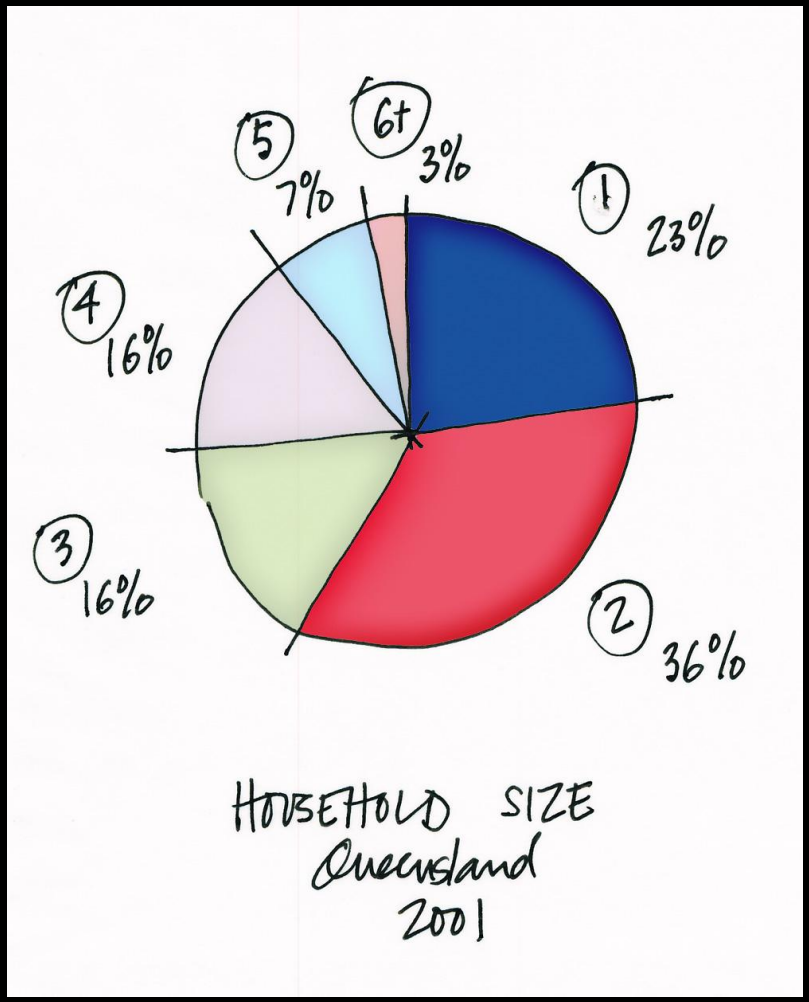
Household Size + Type





Housing Choice

is expanding dramatically.

Housing Mix

is much more widely accepted.

What does it mean for CPTED practice?

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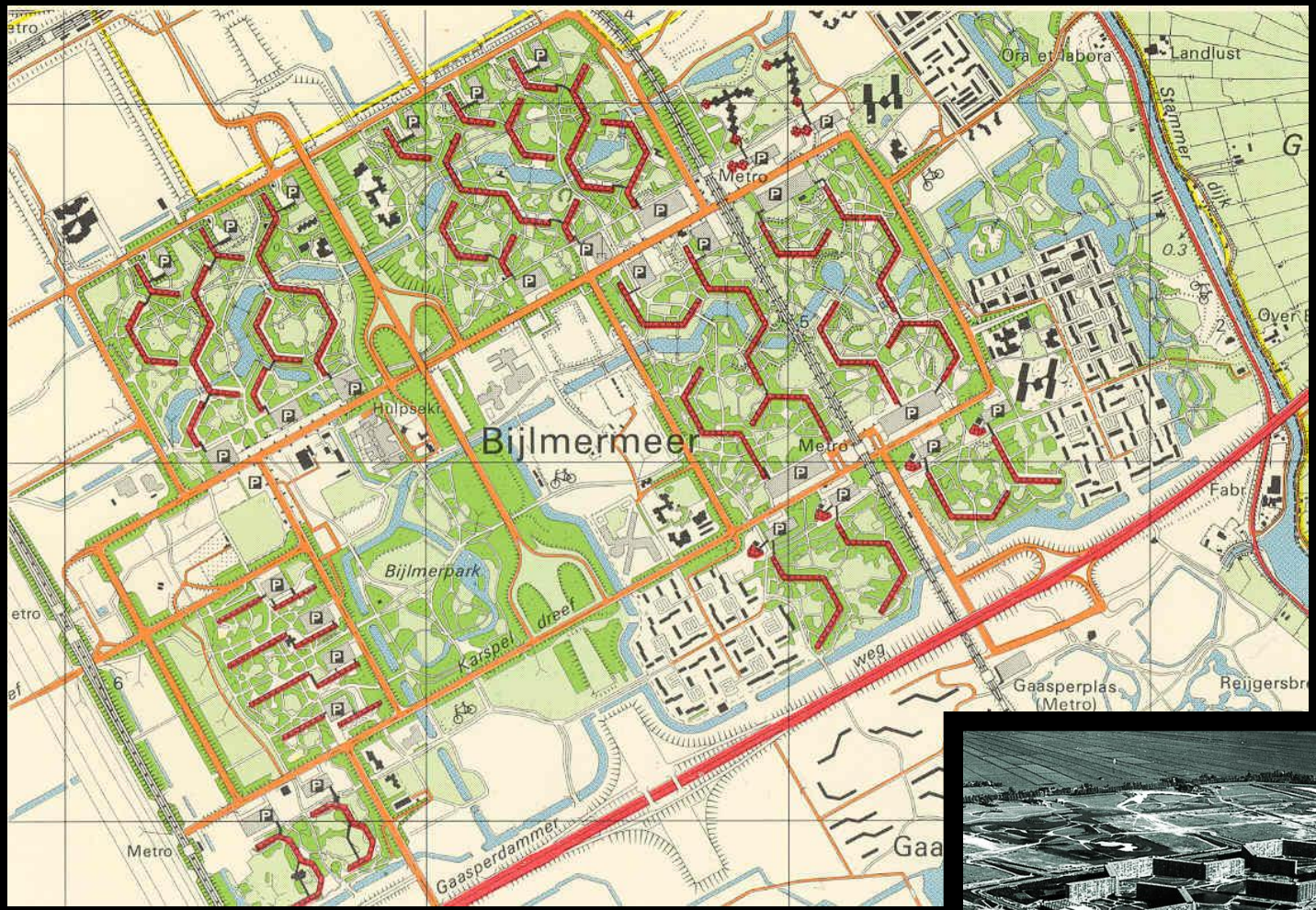

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“The 13000 unit Bijlmemeer New Town is the largest housing disaster built anywhere… As many as 1200 families share the entry to a single building… Residents are terrified to move through the grounds and the interiors of the buildings…”

Oscar Newman, Community of Interest (1975, 1981) p301

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Equally, CPTED thinking and practice
need surely to continue to evolve
in response to
the changing nature of society.

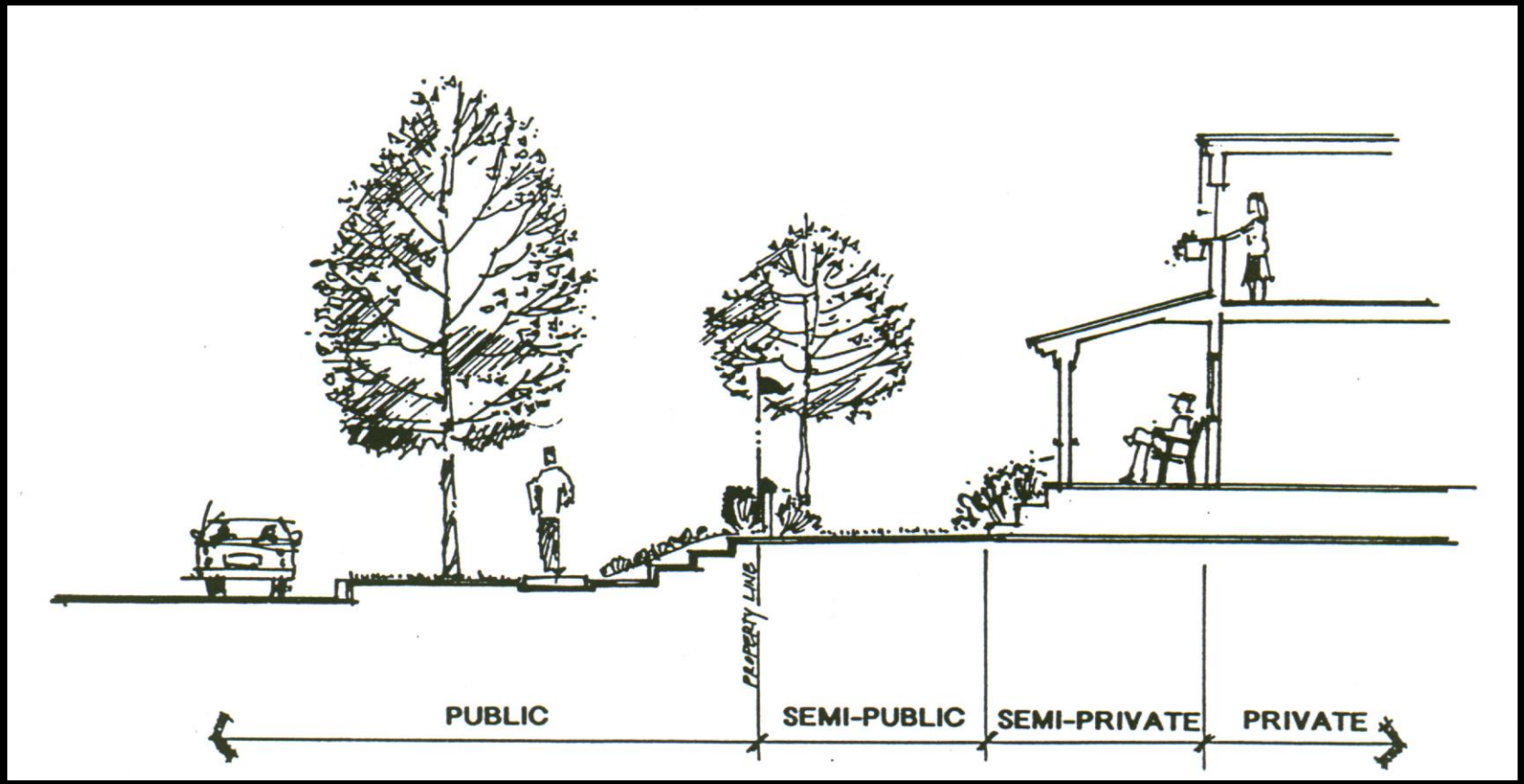
The new Queensland Guidelines discuss, for example:

the ageing of the population
the nature of households
the form of urban housing
the institutional provision of housing
the nature of the workforce and jobs
the nature of communications and lifestyles
the sense of community

The new Queensland Guidelines consider
CPTED principles and guiding ideas
in terms of:

surveillance
legibility
territoriality
ownership of the outcomes
management
vulnerability

Transition Zones



Red Hill, Brisbane

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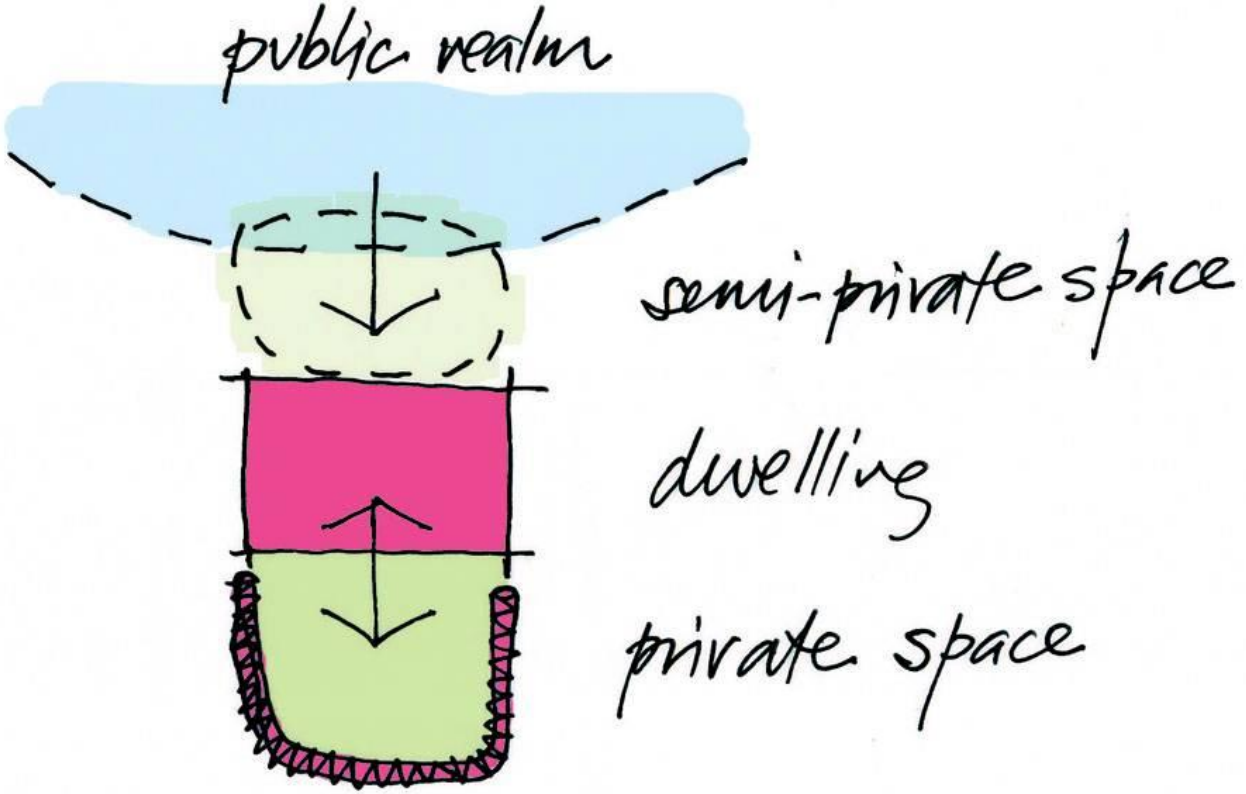

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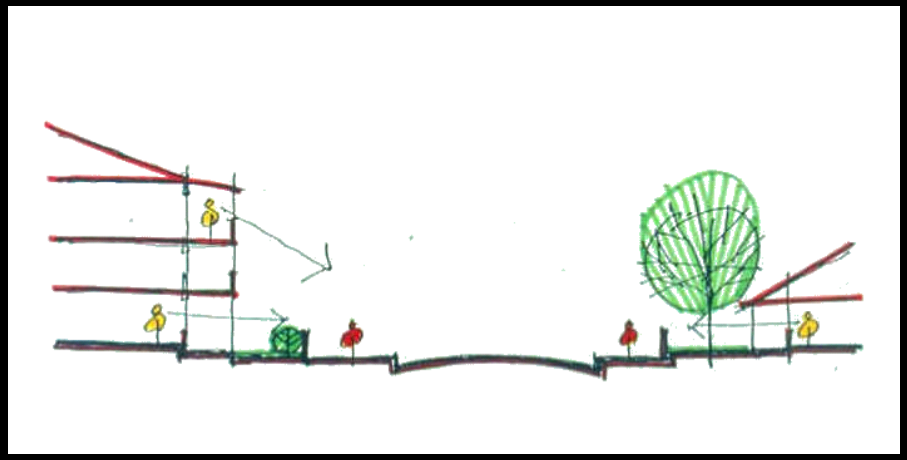
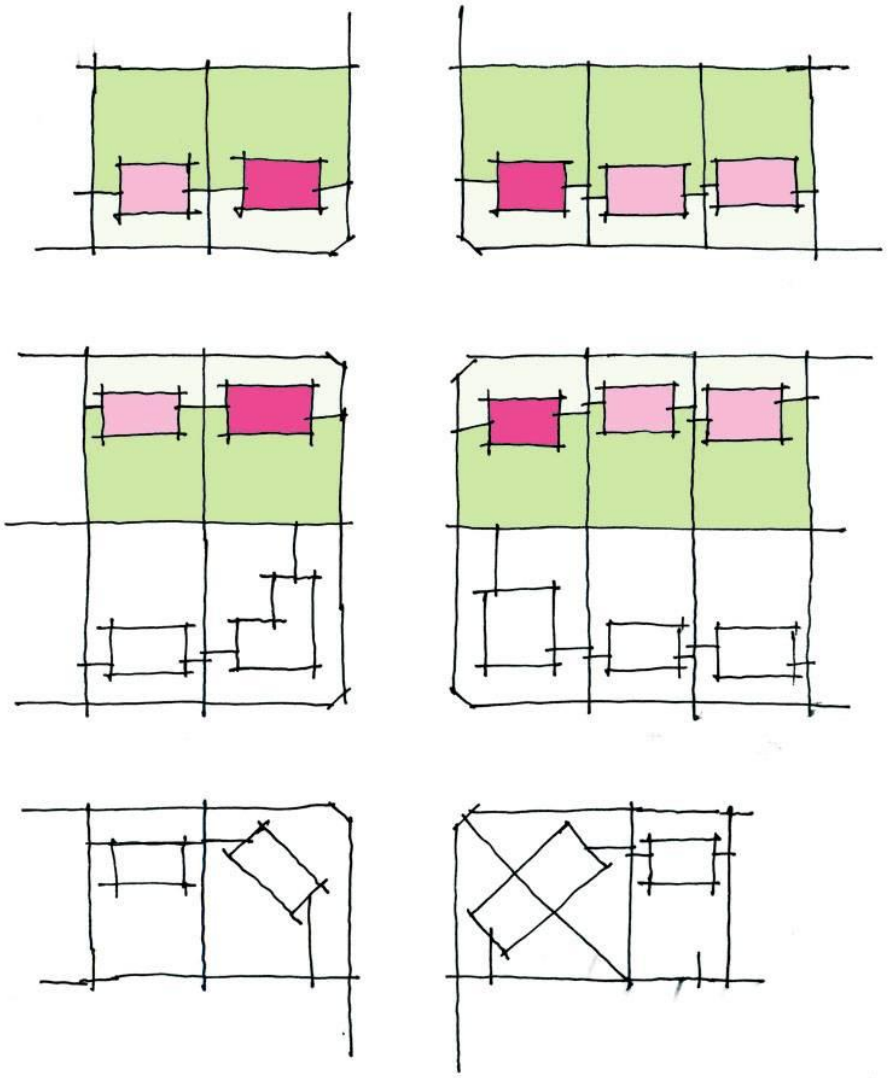
The new Queensland Guidelines consider
CPTED principles and guiding ideas
in terms of:

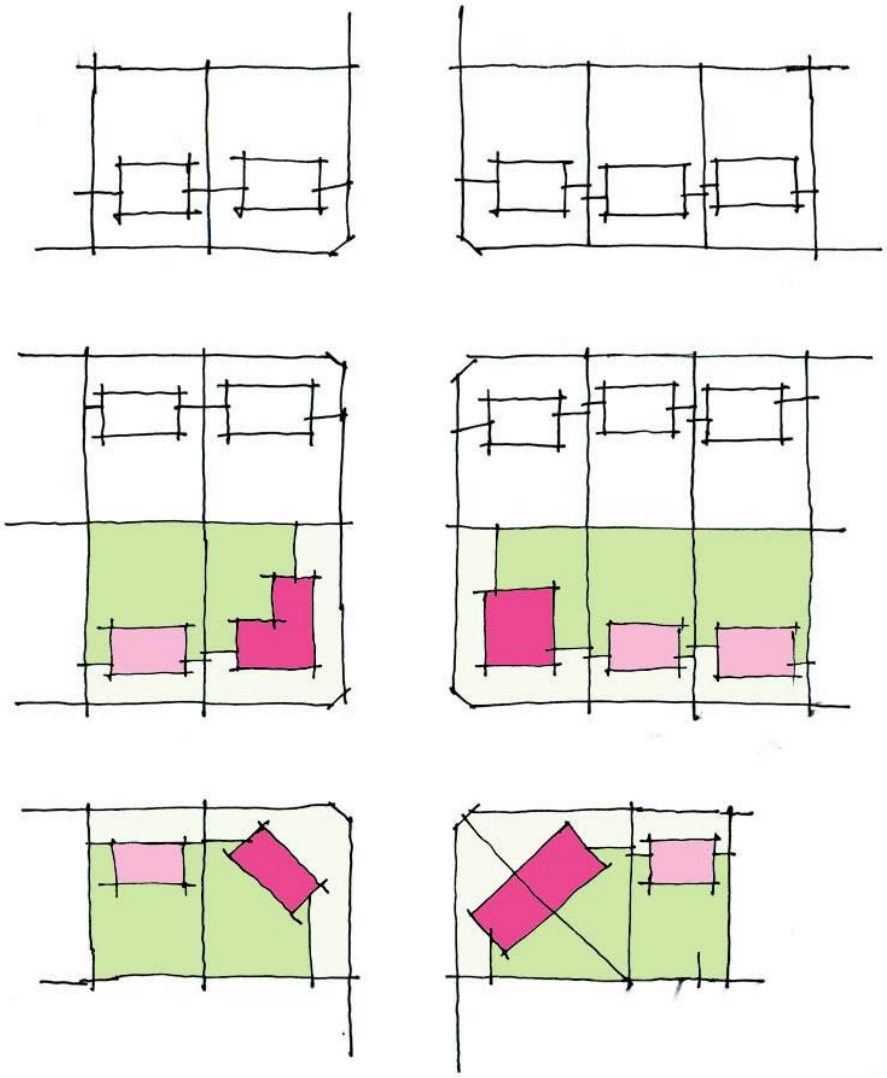
surveillance
legibility
territoriality
ownership of the outcomes
management
vulnerability

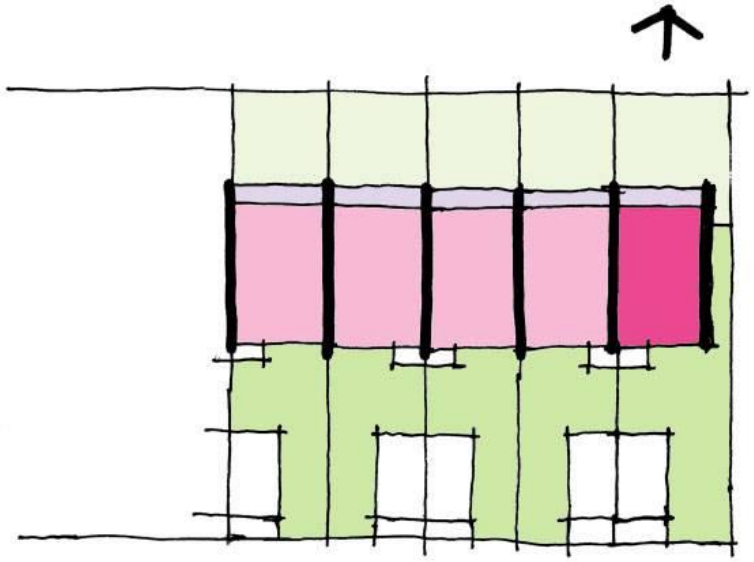
Crime Prevention Through Environmental Design

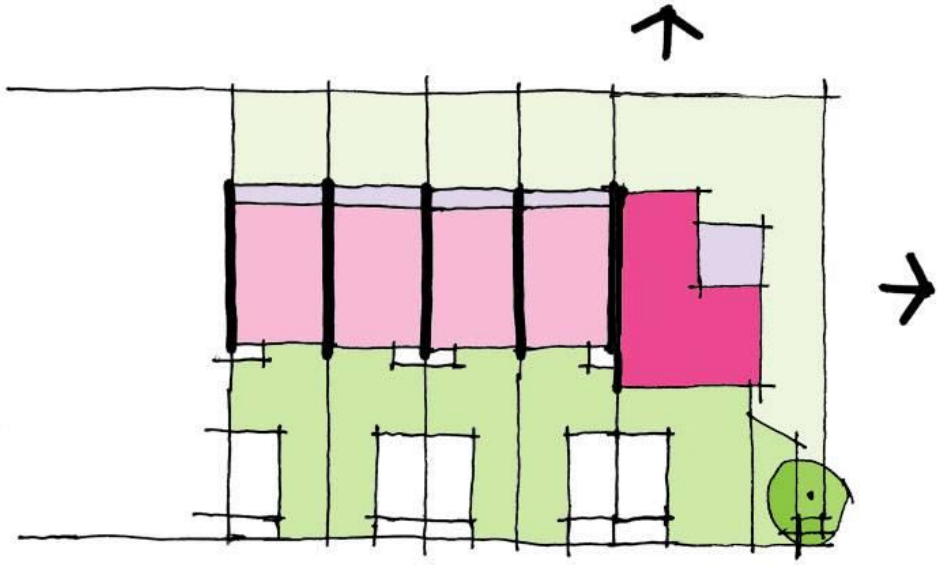


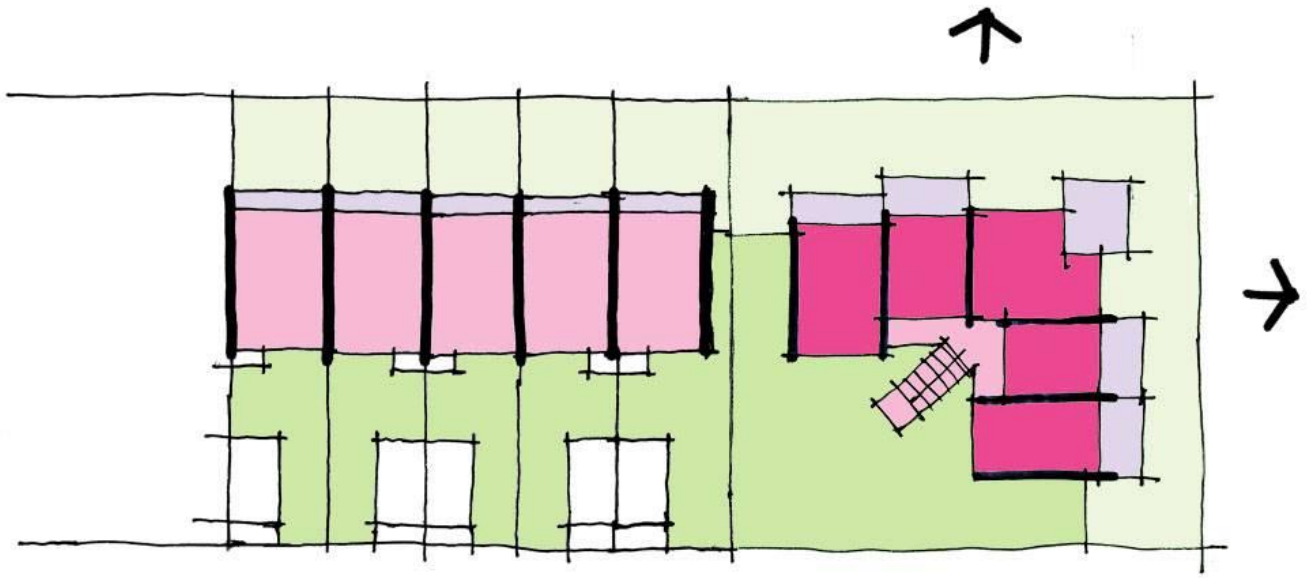
Newman, 1975



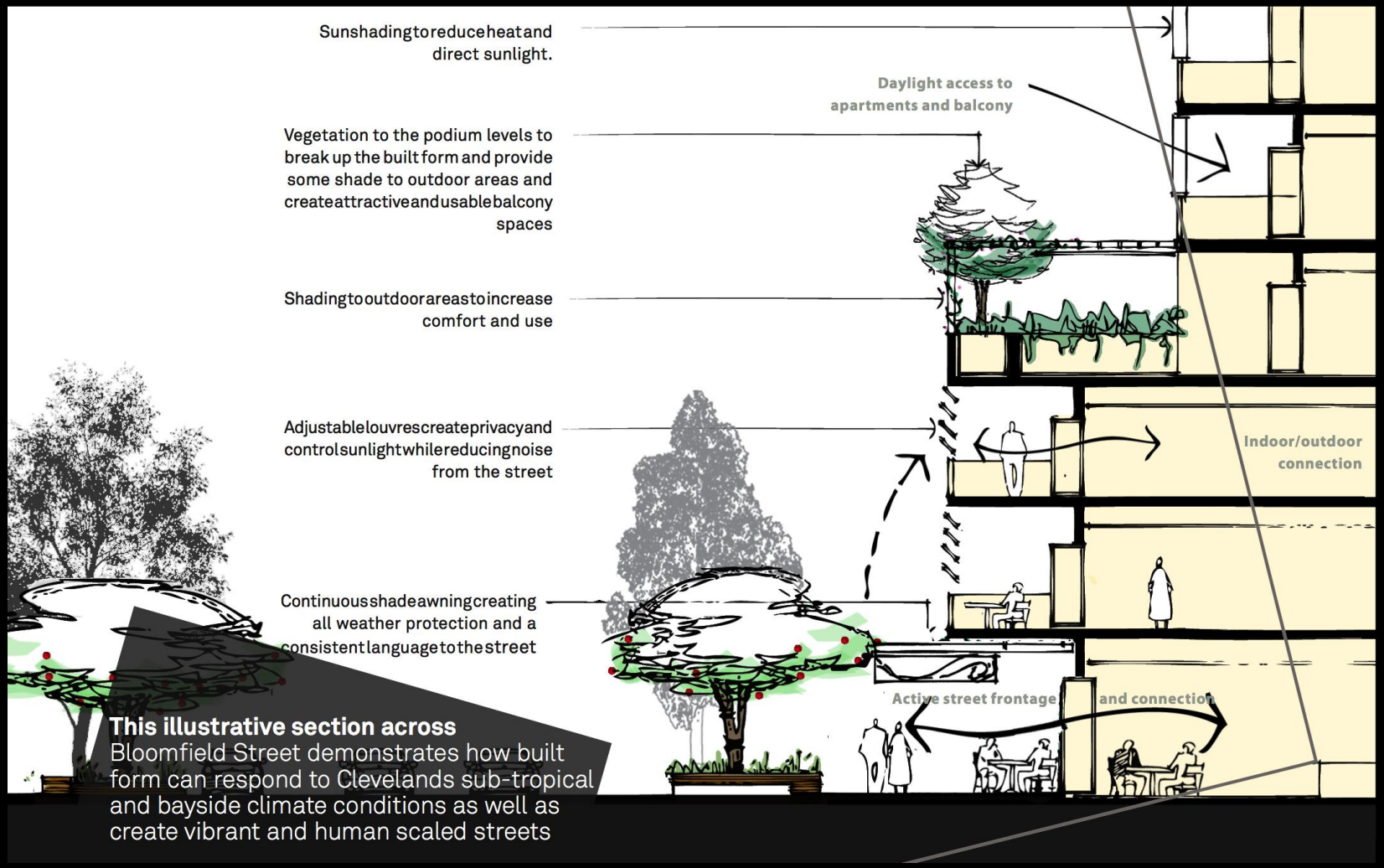








Queensland Social Housing



This illustrative section across Bloomfield Street demonstrates how built form can respond to Clevelands sub-tropical and bayside climate conditions as well as create vibrant and human scaled streets

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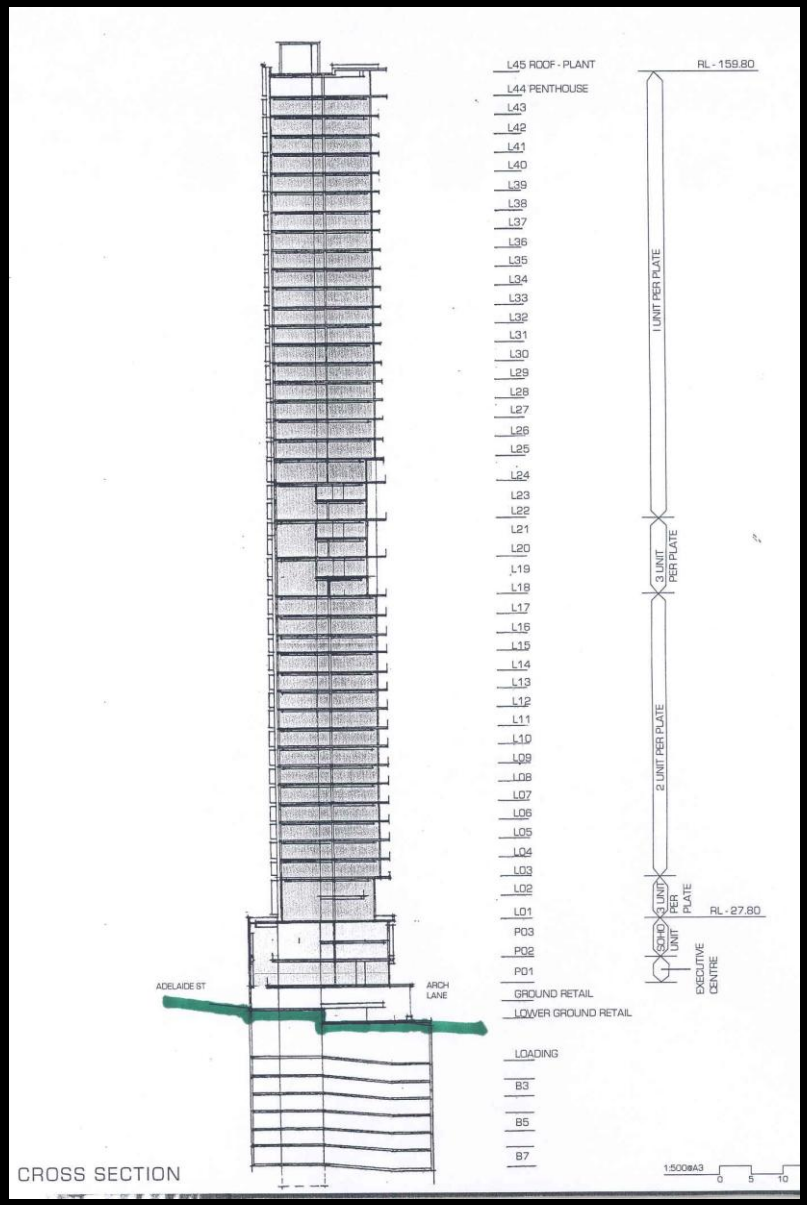
L45 ROOF - PLANT
L44 PENTHOUSE
L43
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L05
L04
L03
L02
L01
P03
P02
P01
GROUND RETAIL
LOWER GROUND RETAIL
LOADING
B3
B5
B7
RL - 159.80
1 UNIT PER PLATE
3 UNIT PER PLATE
2 UNIT PER PLATE
3 UNIT PER PLATE
RL - 27.80
(SOHO) 1 UNIT
EXECUTIVE CENTRE
ADELAIDE ST
ARCH LANE
CROSS SECTION
1:500@A3
0
5
10

CATERING

car parking: above ground or below ground?

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What about Neighbourhood Design?

How well does the layout of the neighbourhood
encourage
active use of the public realm ?
a mix of households ?
local facilities ?
access to public transport?

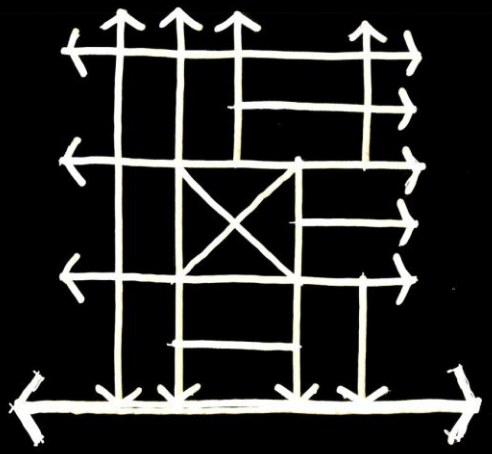
For example:
how well does the neighbourhood design

promote legibility?

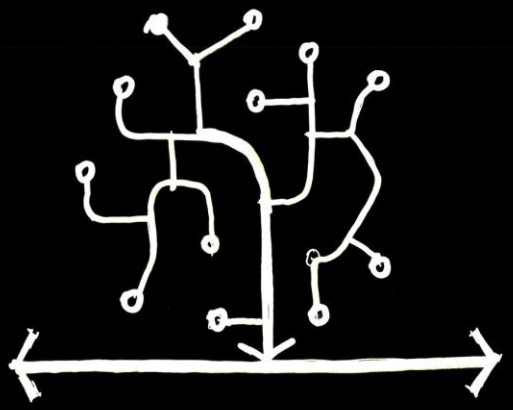
deliver pedestrian/cyclist amenity and interest?

accommodate a variety of households to ensure residents are around at all times?

sensitively accommodate supportive neighbourhood facilities?



grid



tree

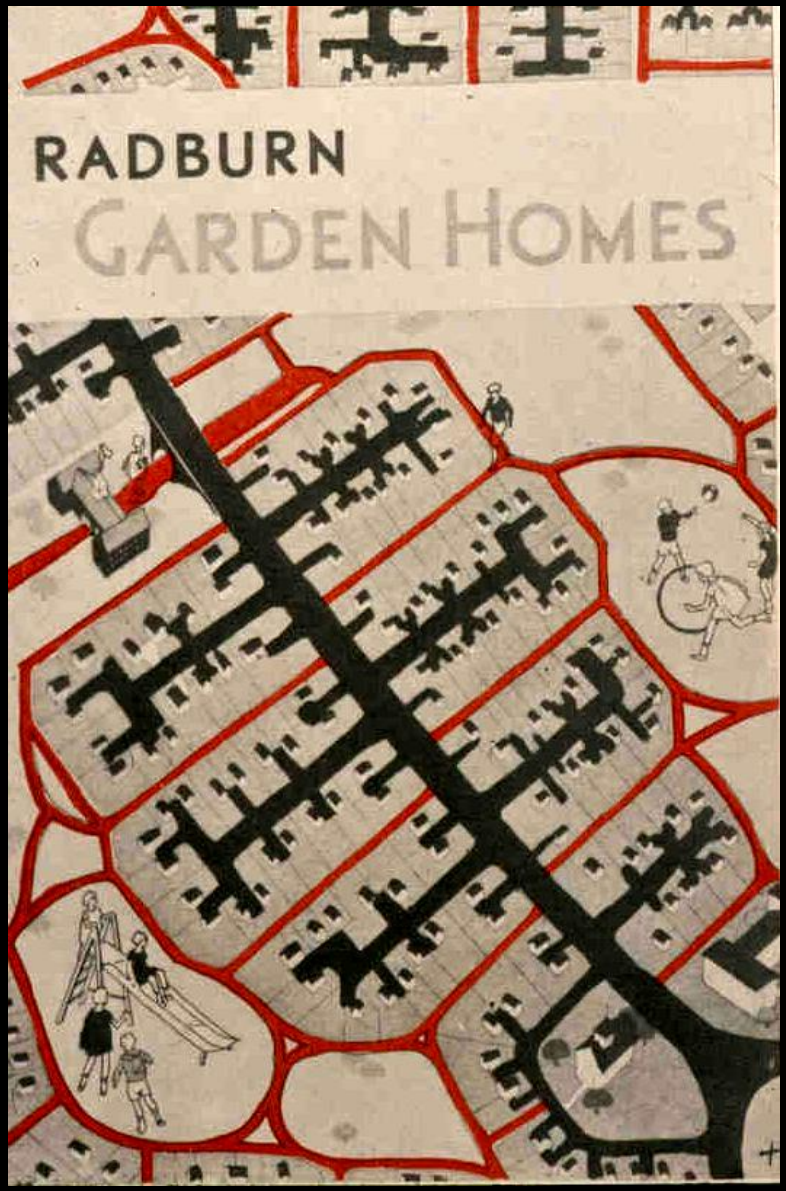
© 2007 Europa Technologies
Image © 2007 DigitalGlobe
546 m
Google
Pointer 34°56'03.31" S 138°37'38.02" E elev 63 m Streaming 100% Eye alt 1.94 km

Figure 1: Comparison between conventional and Community Code approach to neighbourhood design.

W.A Community Code Draft 9/97

Perth

PARK HILL VILLAGE
LYTTON ROAD
Proposed Office, Retail and Hotel
Future Service Station
Attached Housing
Future Open Space
CEDAR STREET
GARRETT STREET
IVY STREET
Proposed Village Centre
EDGE STREET
Future Retirement Community
mm
PIKE MELLS M'KNOUGHT
LAND SURVEYORS
TOWN PLANNERS
Cannon Hill Developments Pty. Ltd.
URBAN DESIGN CONCEPT
GEOFFREY WALKER
URBAN DESIGN + PLANNING
-MASTERPLAN-
MAY 2000
Gold Coast



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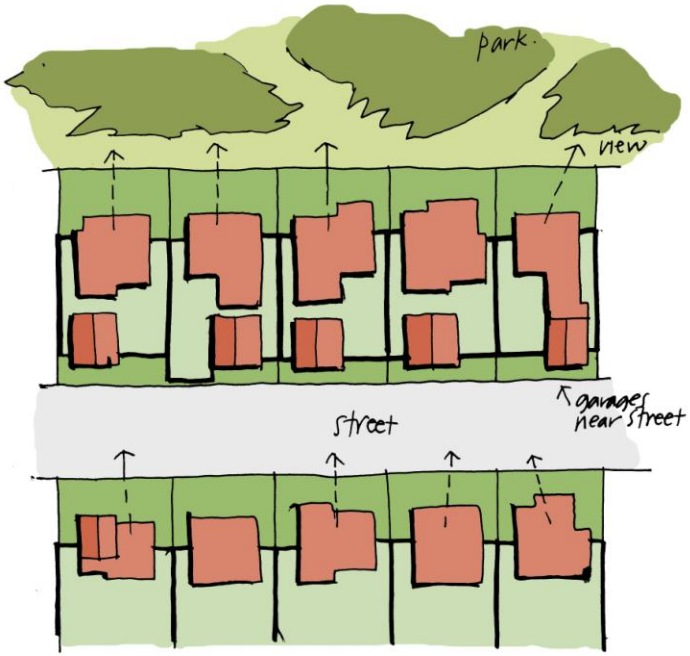
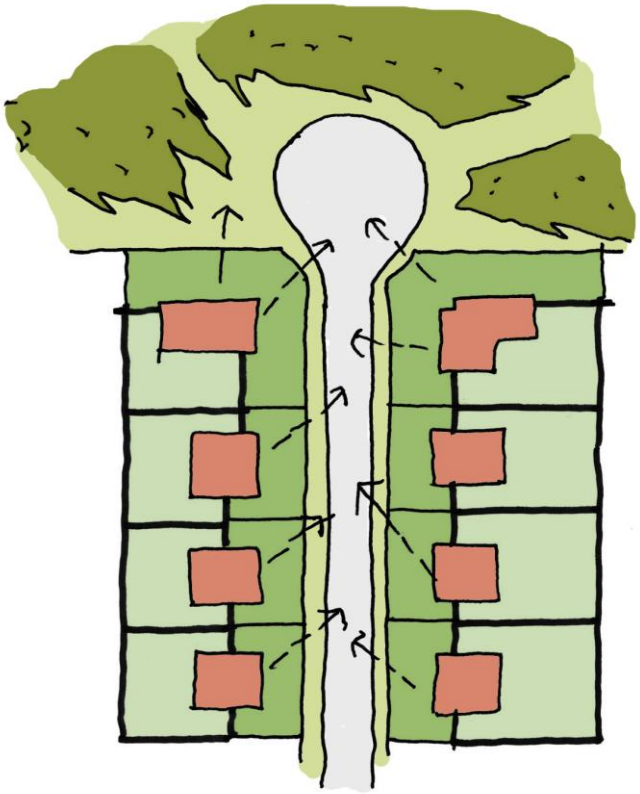
The Queensland Guidelines not only discuss

trees and grids

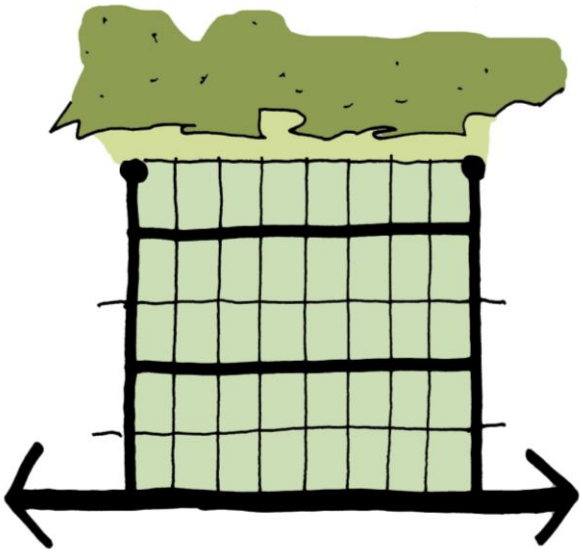
but also other neighbourhood design approaches such as

radburn systems
culs-de-sac and paths
battleaxe lots
rear lanes
golfcourse or marina estates
esplanades


park
view
street
garages
near street



1



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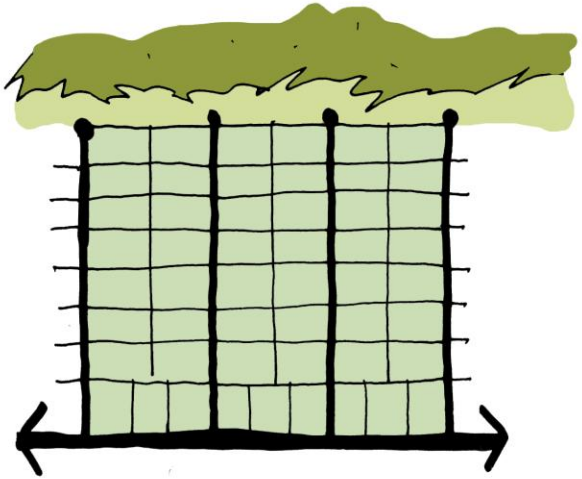

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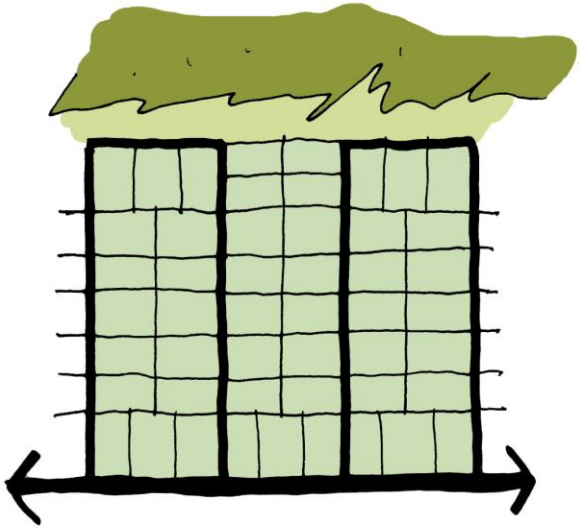

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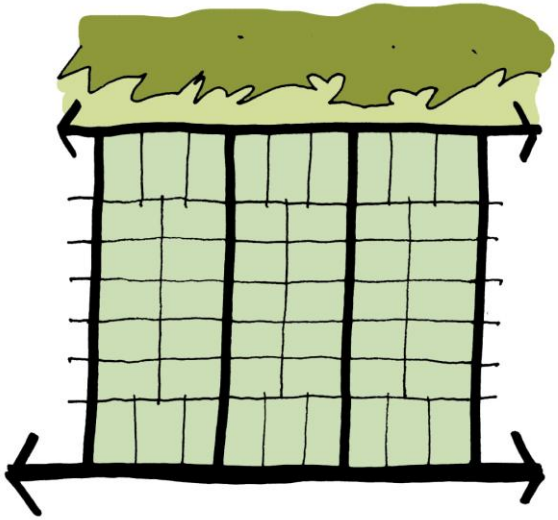
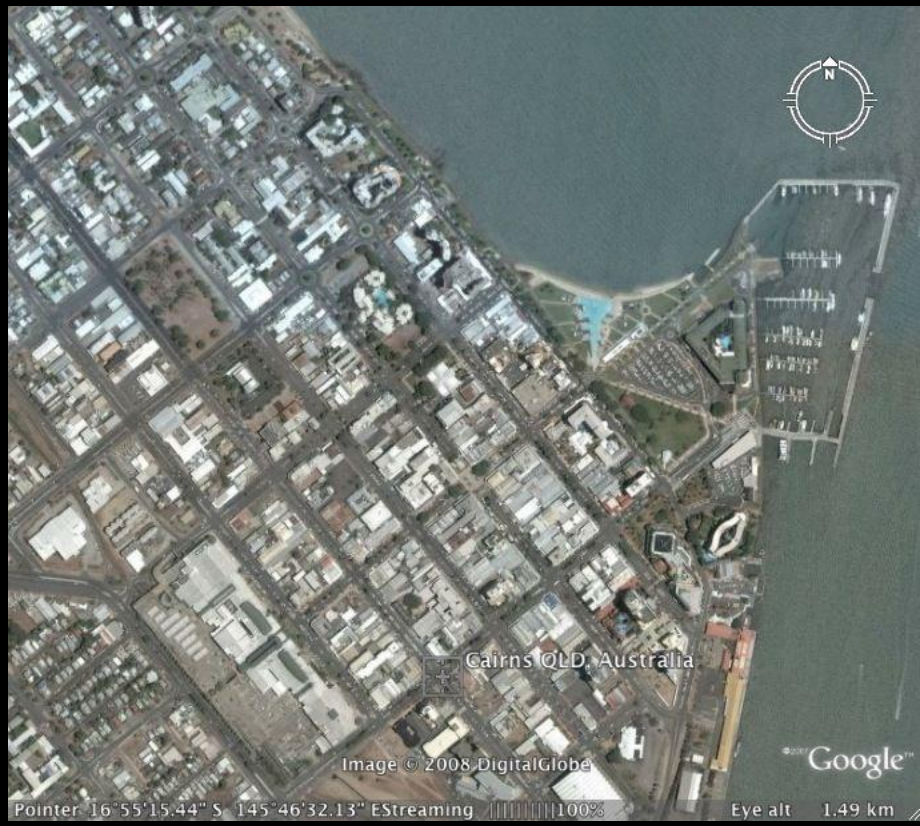


esplanade
Gold Coast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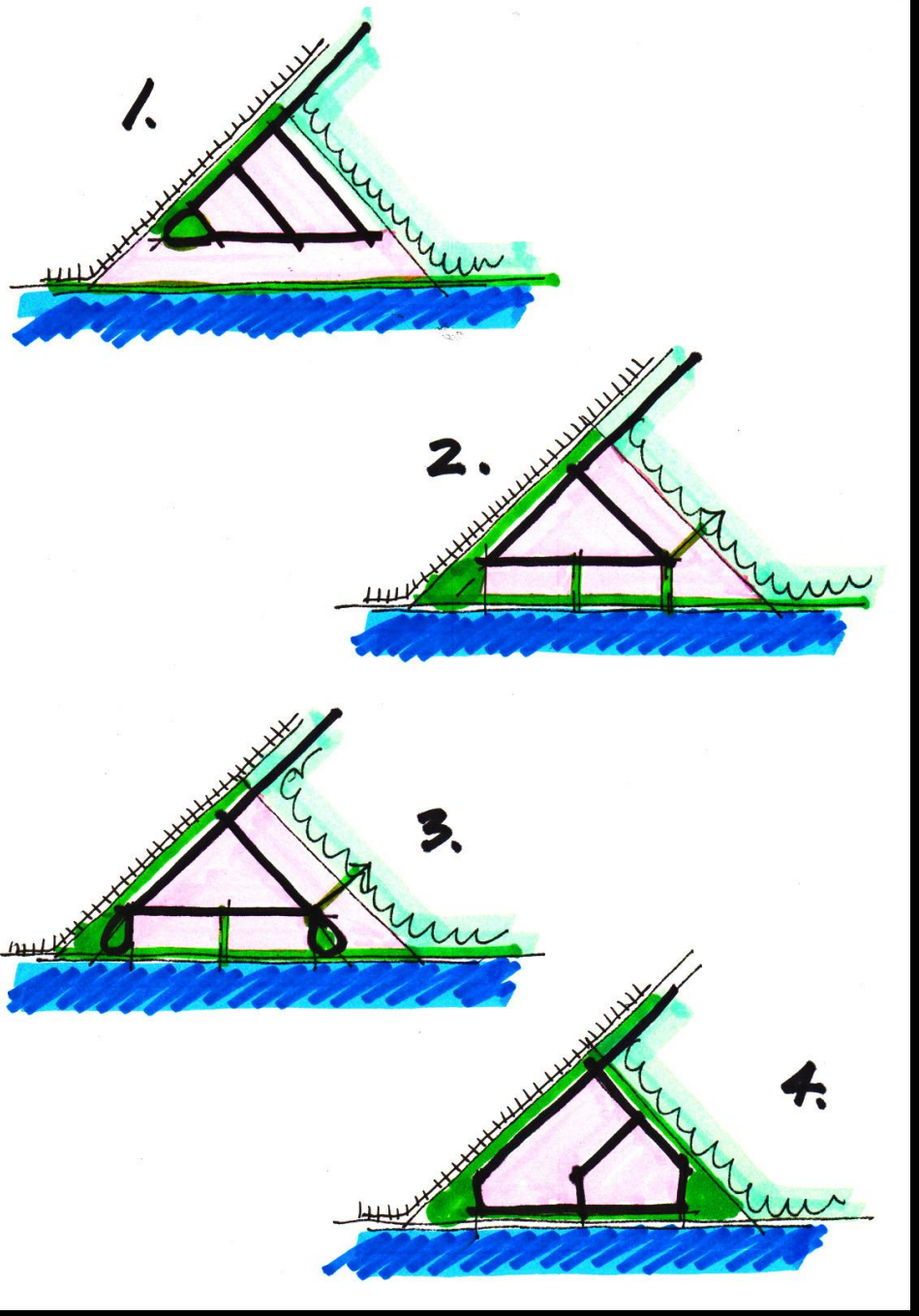
Cairns QLD, Australia
Image © 2008 DigitalGlobe
Google
Pointer 16°55'15.44" S 145°46'32.13" E Streaming 100%
Eye alt 1.49 km



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Street-by-Street: The Waterfront

Maritime Museum sign

EXCELLENT SHOPS, HISTORIC buildings, top restaurants and bars, a superb view – Auckland's waterfront has something for everyone. Yet only a few years ago, this area was of little interest to residents and visitors, and the inner city, traditionally reserved for offices, was almost deserted after dark. That trend has been reversed and downtown Auckland is now a hive of activity. New and planned apartments, some on the water's edge and others in garden environments, along with numerous trendy bars and restaurants, have made the waterfront a prime living and entertainment area.

Old Customhouse
Formerly part of the city's financial district, this 1889 building houses a duty-free store (see pp71, 88).

Queen Elizabeth II Square
The international food stalls lining the square make it a popular eating and meeting place (see p71). *Another food court is at the nearby Downtown Shopping Centre.*

★ **Ferry Building**
At the Ferry Building, visitors can buy tickets for ferries and harbour cruises or dine at its popular ground-floor restaurant (see p71).

Boat Services
A variety of harbour cruises and ferry services to Devonport and the Hauraki Gulf islands operate from the back of the Ferry Building.

Princes Wharf, the departure point for overseas cruises, also attracts visitors to its restaurants and bars.

Key

Suggested route

America's Cup

Viaduct Basin was the home base for the yachts that participated in the 1999–2000 and 2002–2003 America's Cup. New Zealand successfully defended the cup it took off the Young America (USA) team led by Dennis Connor in 1995. In the 2002–2003 event nine challengers took on Team New Zealand and these syndicates came from all over the world, including France, Italy, Sweden, Switzerland, England and the United States. The history of the cup goes back to the 1870s, but the intense emotion surrounding the challenge still remains.

New Zealand's *Black Magic* defeating its Italian challenger in the America's Cup 2000 final

Tepid Baths
Built in 1914 and refurbished in 1997, the baths now house modern aquatic and fitness facilities.

Viaduct Basin
This former industrial area was developed as an entertainment precinct for the 1999–2000 America's Cup (see p70).

★ **New Zealand National Maritime Museum**
The museum's many fascinating exhibits include historic vessels that take visitors out onto the harbour (see p71).

Country flags were painted on the sheds of yachts participating in the America's Cup.

Star Sights

- ★ Ferry Building
- ★ New Zealand National Maritime Museum

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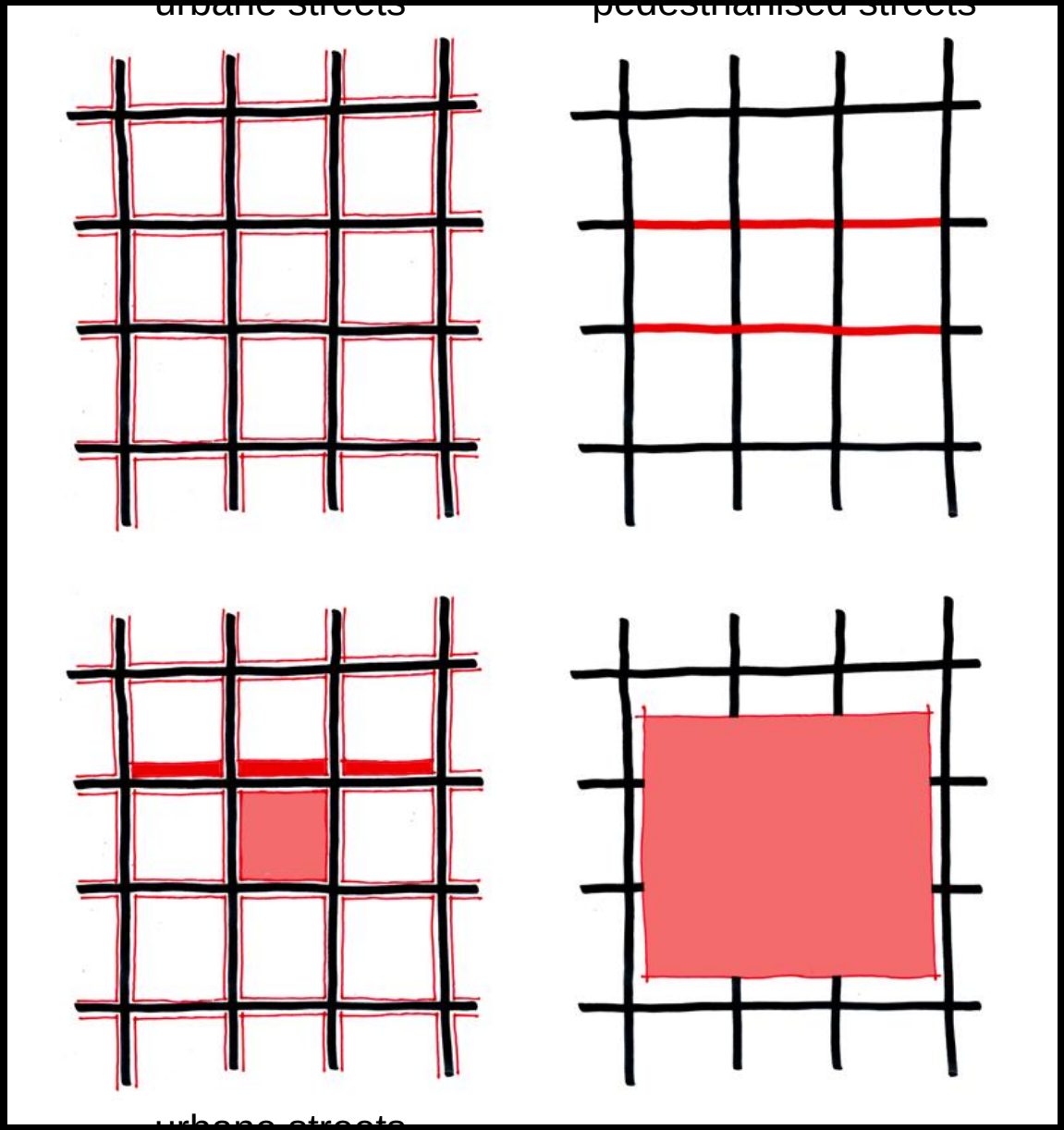
South Bank

Teneriffe

Mooloolaba

Roma Street Parklands

CPTED and Urbanism



City of Adelaide

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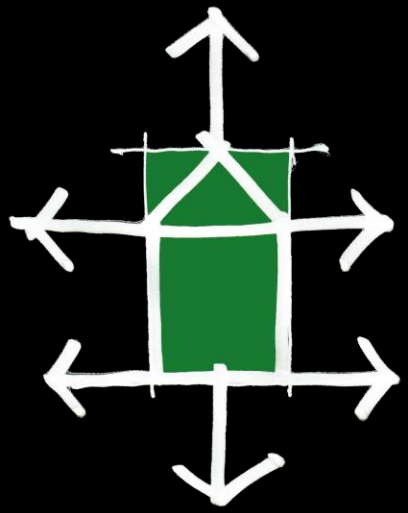

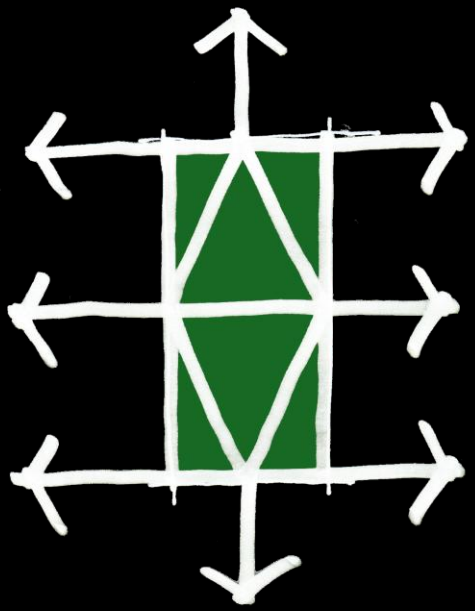

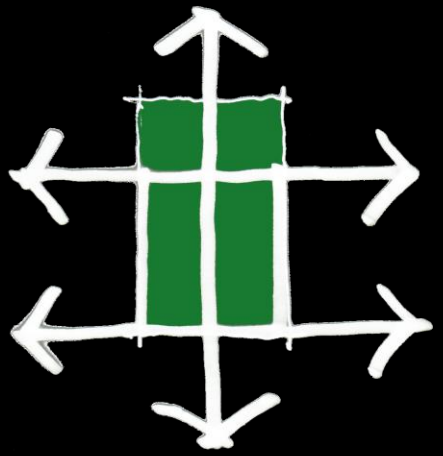

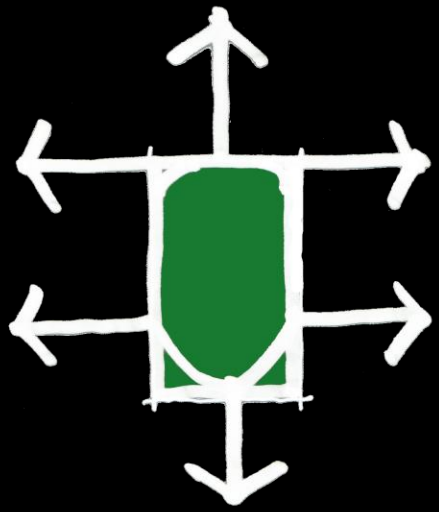

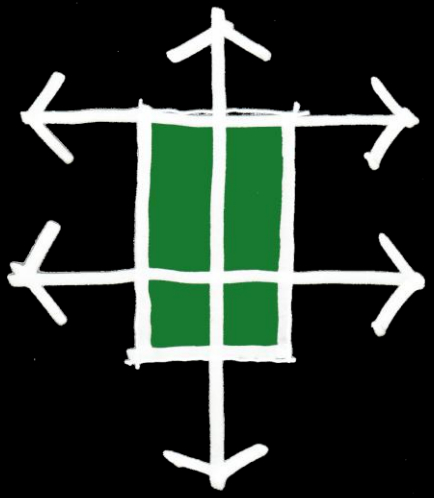

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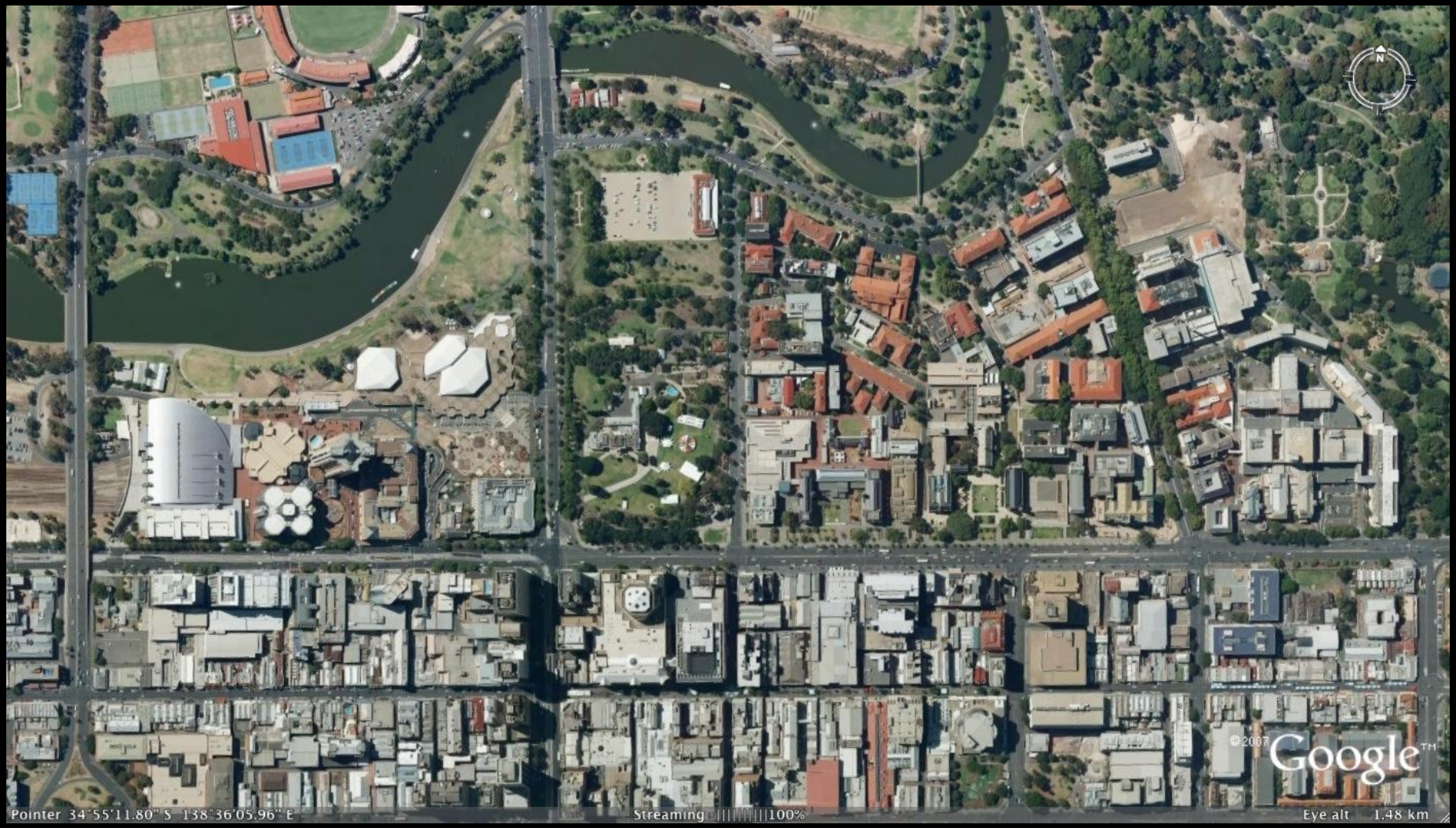

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In neighbourhood design and city centre design

LEGIBILITY

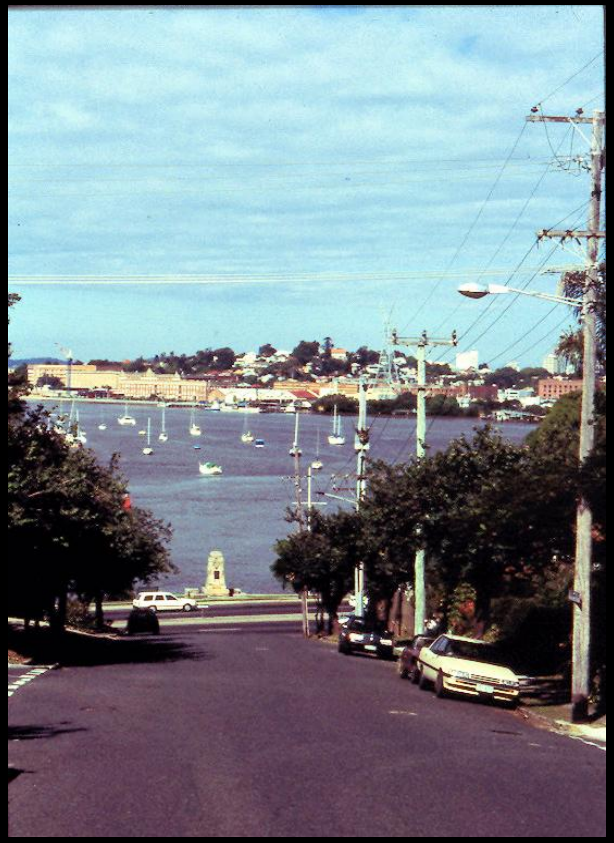
(and the potential for community ownership
that it can assist)

are important qualities

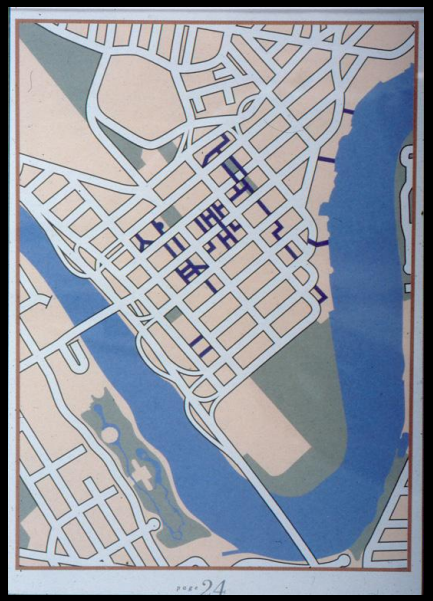
and

VISUAL CONNNECTIVITY

is often an important part of that

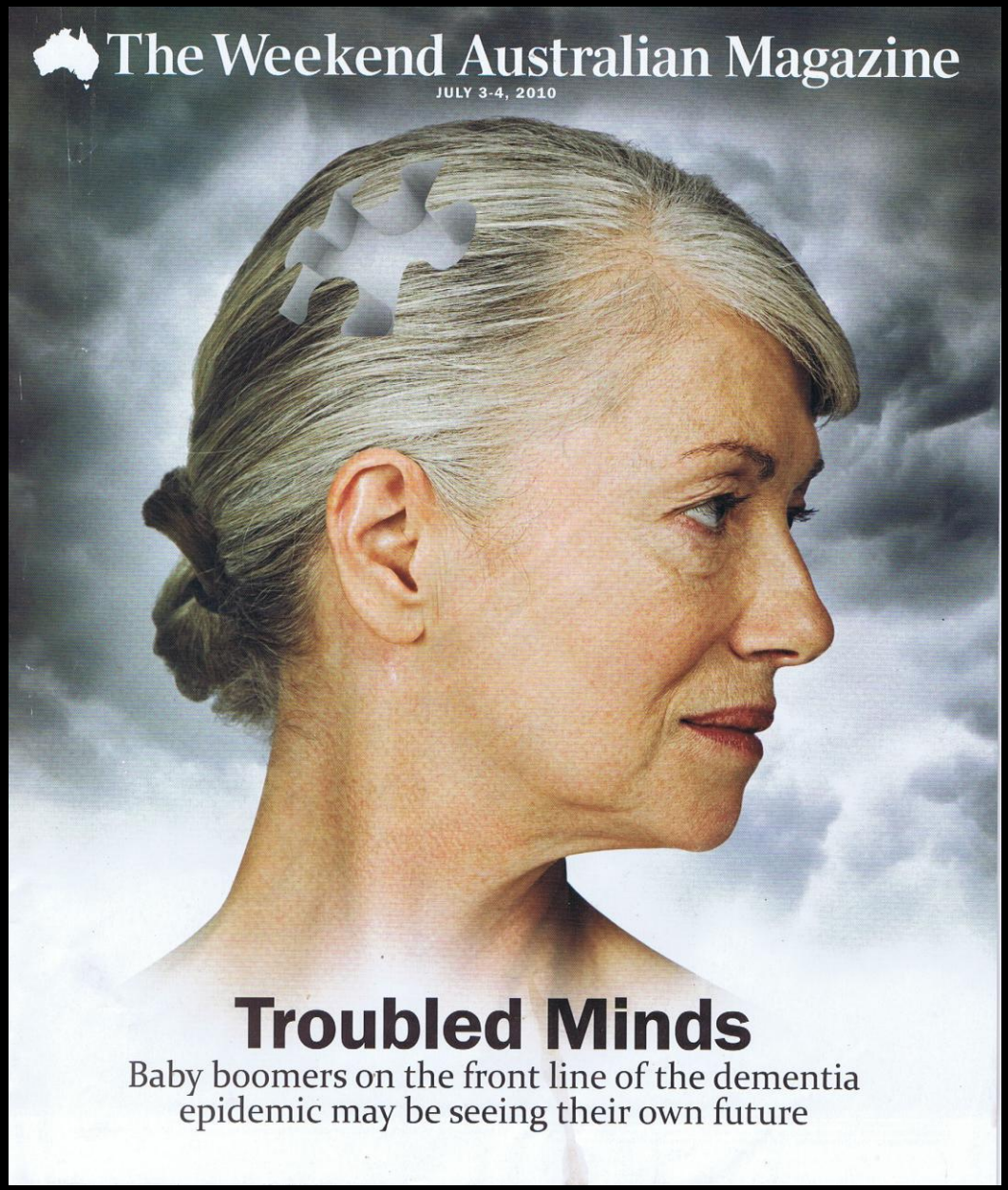


Brisbane



Elizabeth Street

Charlotte Street



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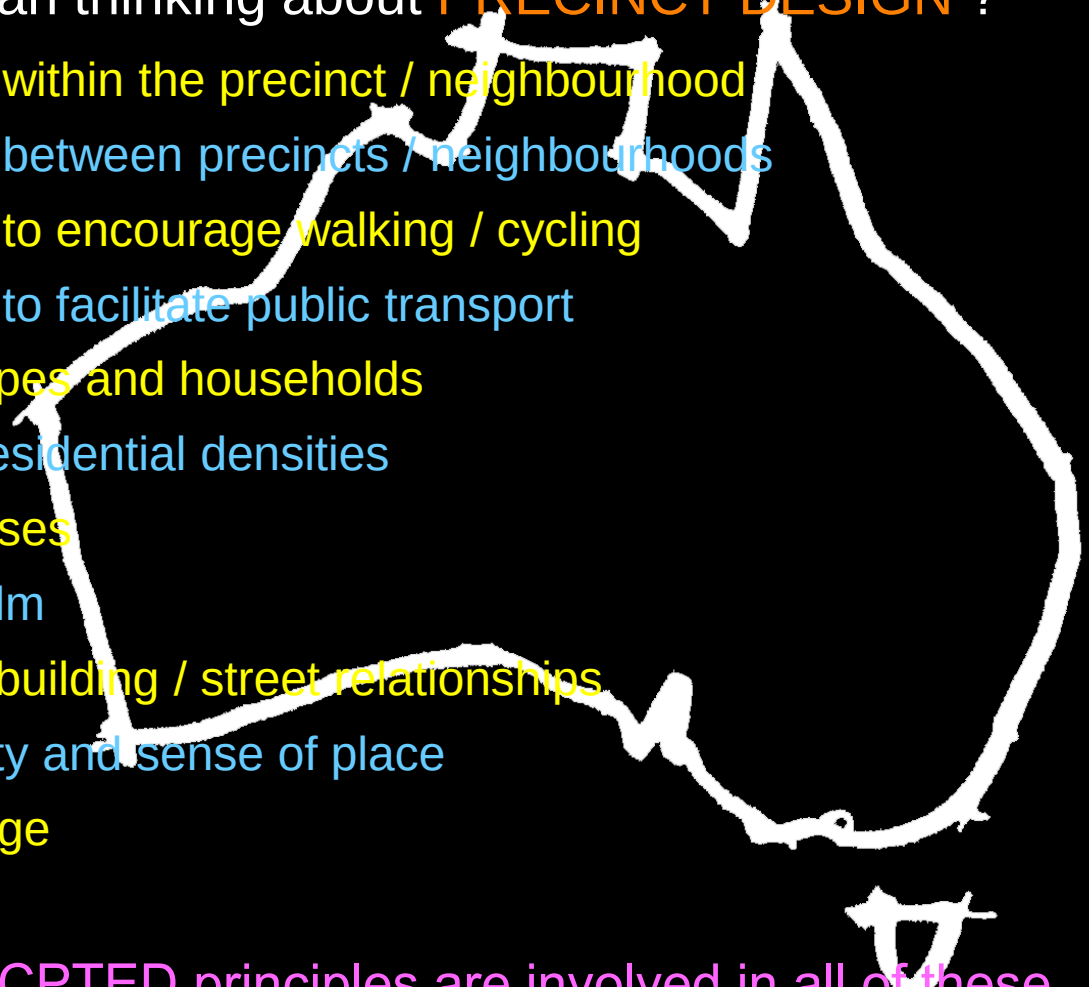
So …….

Current Australian thinking about PRECINCT DESIGN ?

- high connectivity within the precinct / neighbourhood
- high connectivity between precincts / neighbourhoods
- high connectivity to encourage walking / cycling
- high connectivity to facilitate public transport
- mix of housing types and households
- higher average residential densities
- potential mix of uses
- quality public realm
- design for urban building / street relationships
- design for legibility and sense of place
- capacity for change



…..and arguably CPTED principles are involved in all of these

“City and Town Centres
are major battlegrounds
for
Urban Design and CPTED.”

Jim Wark photo in Dolores Hayden, ‘A field guide to sprawl’, 2004

Charters Towers

Childers

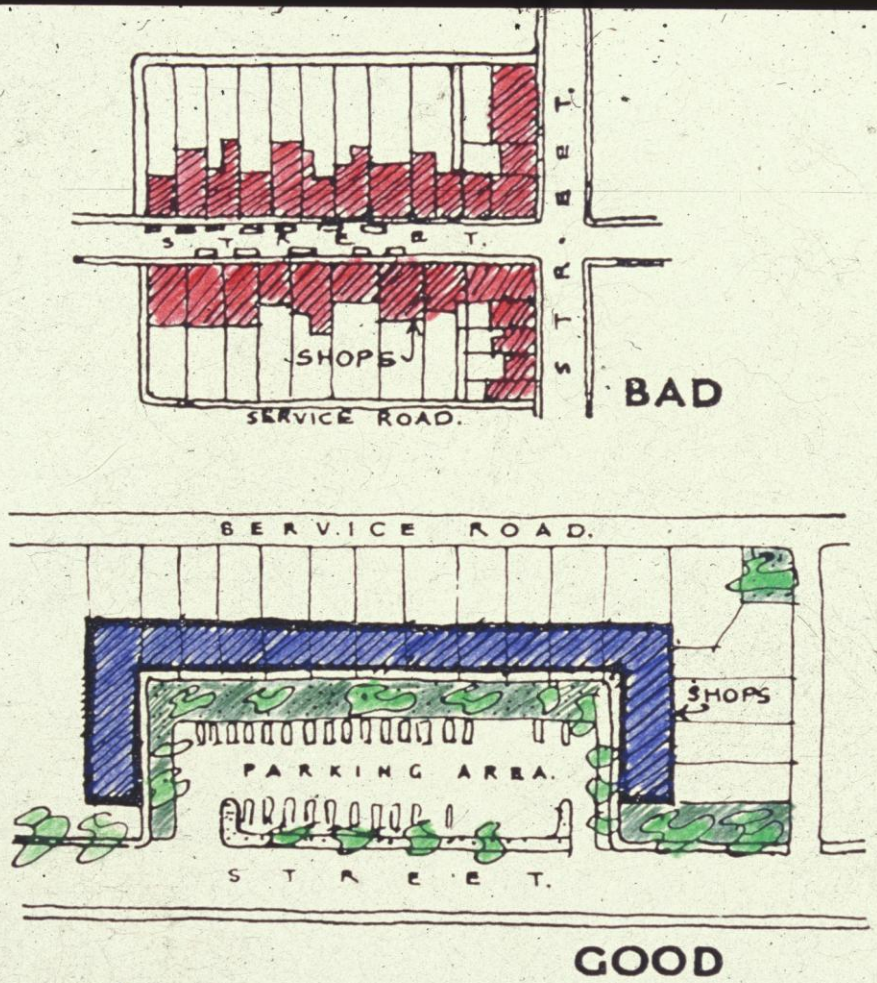


FIG. 82. Local shopping centres are best sited away from busy streets.

Where these cannot be avoided, shops should be set back from street frontage. This reduces traffic dangers, provides parking space clear of the street, and gives good appearance.

Brown + Shenaid (1951)

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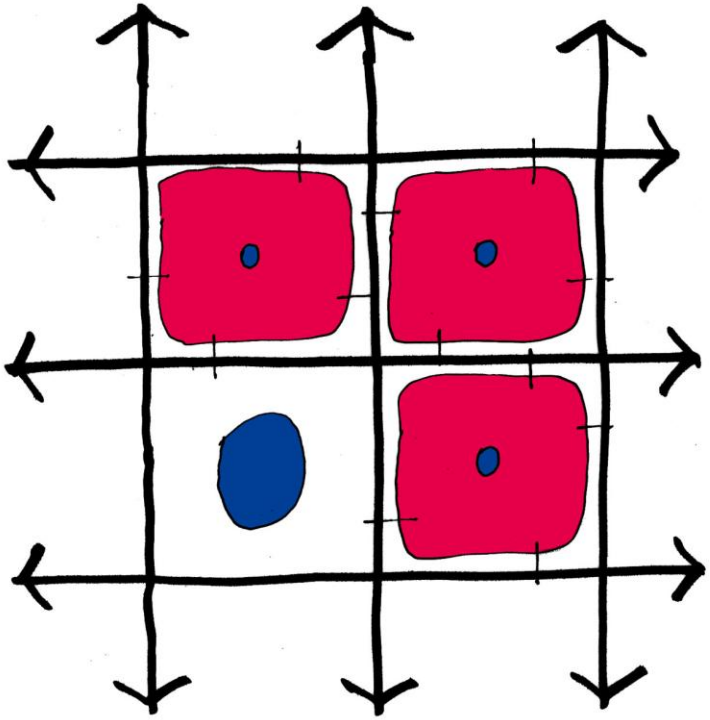
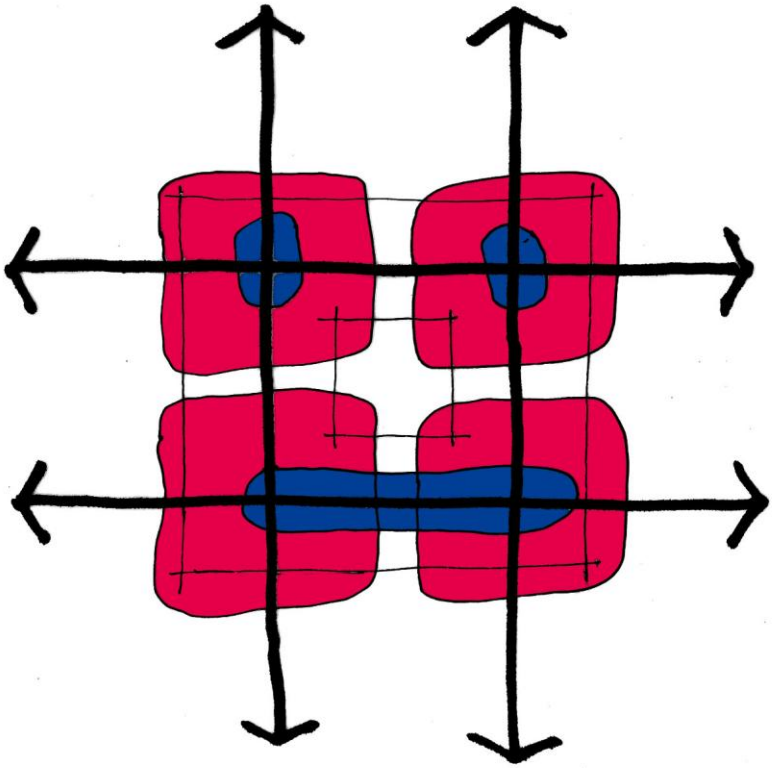
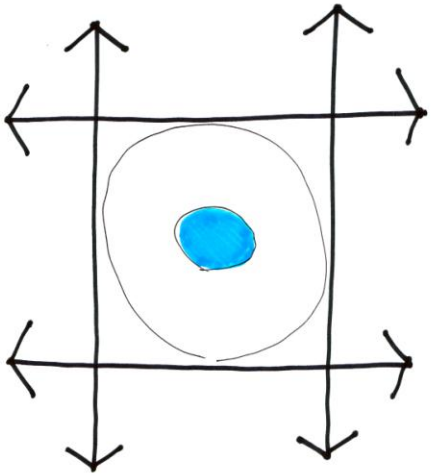
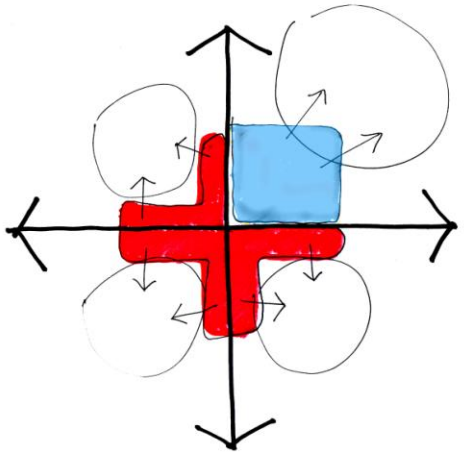
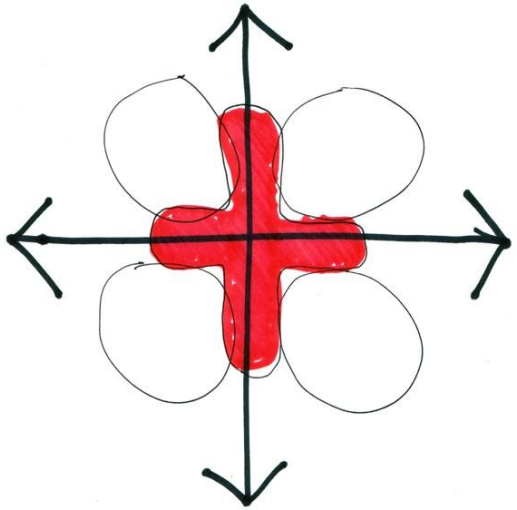






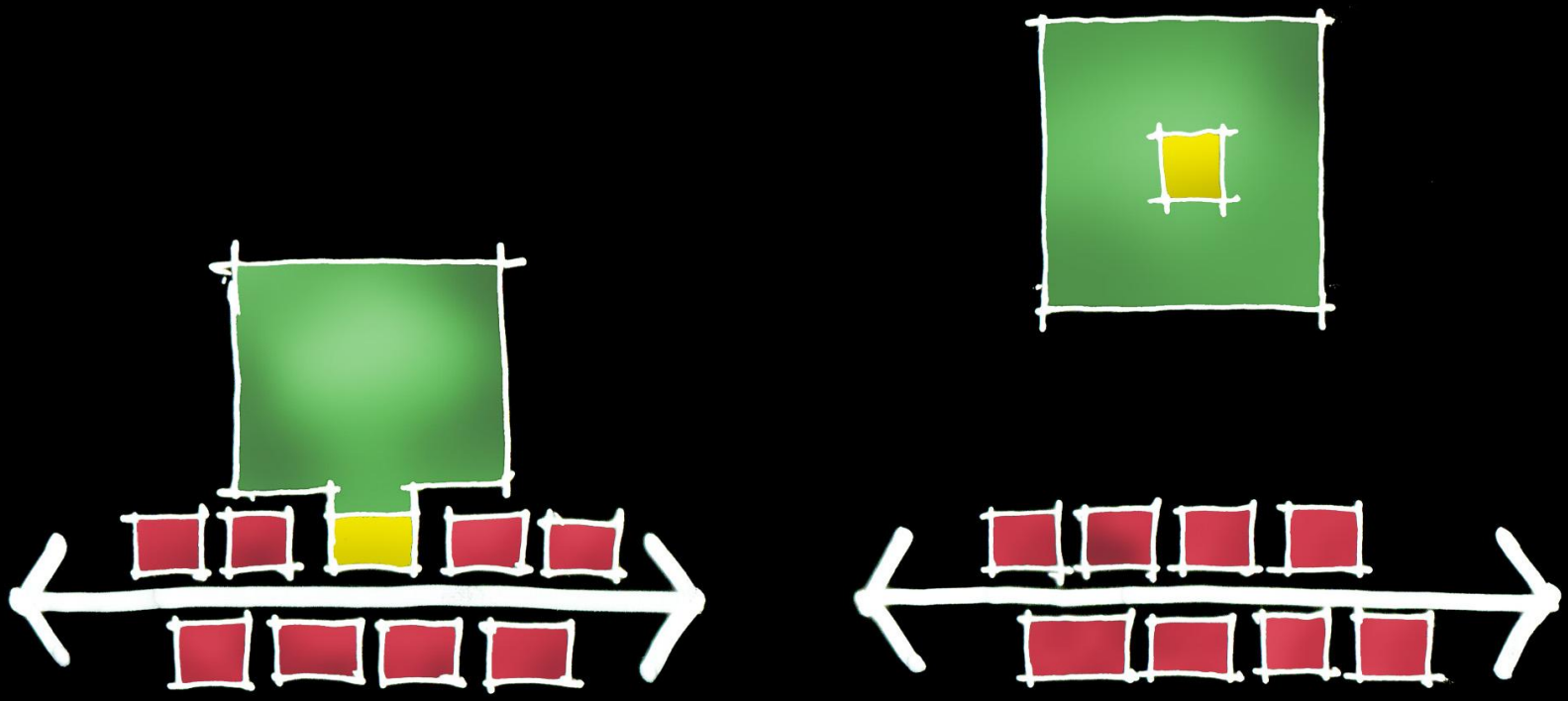


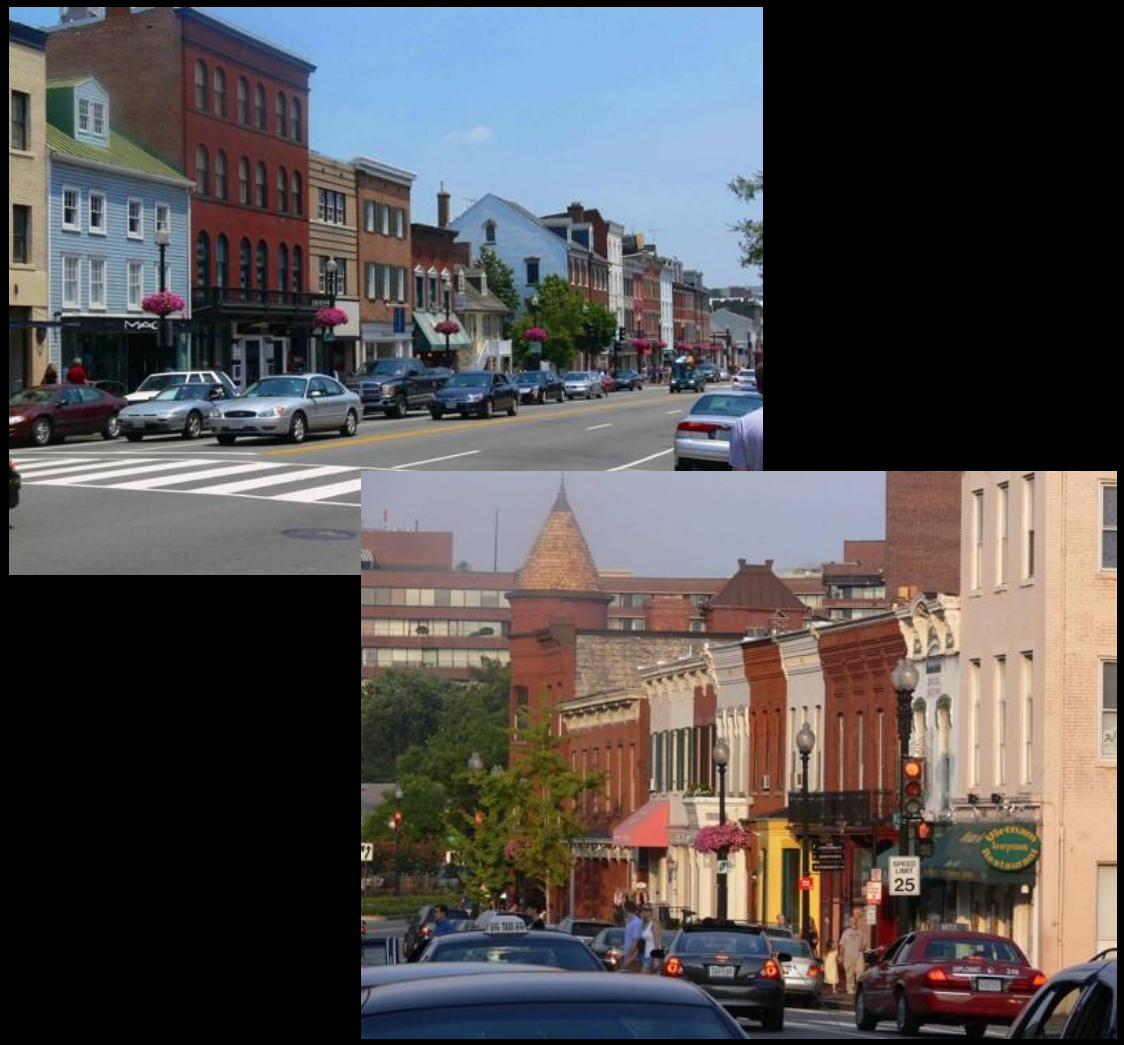


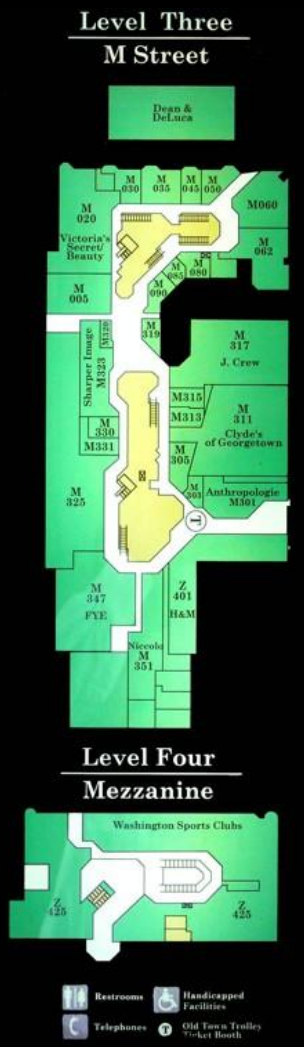
DOWNTOWN
MOTEL

DRY CLEA

BANK







Georgetown,Washington DC

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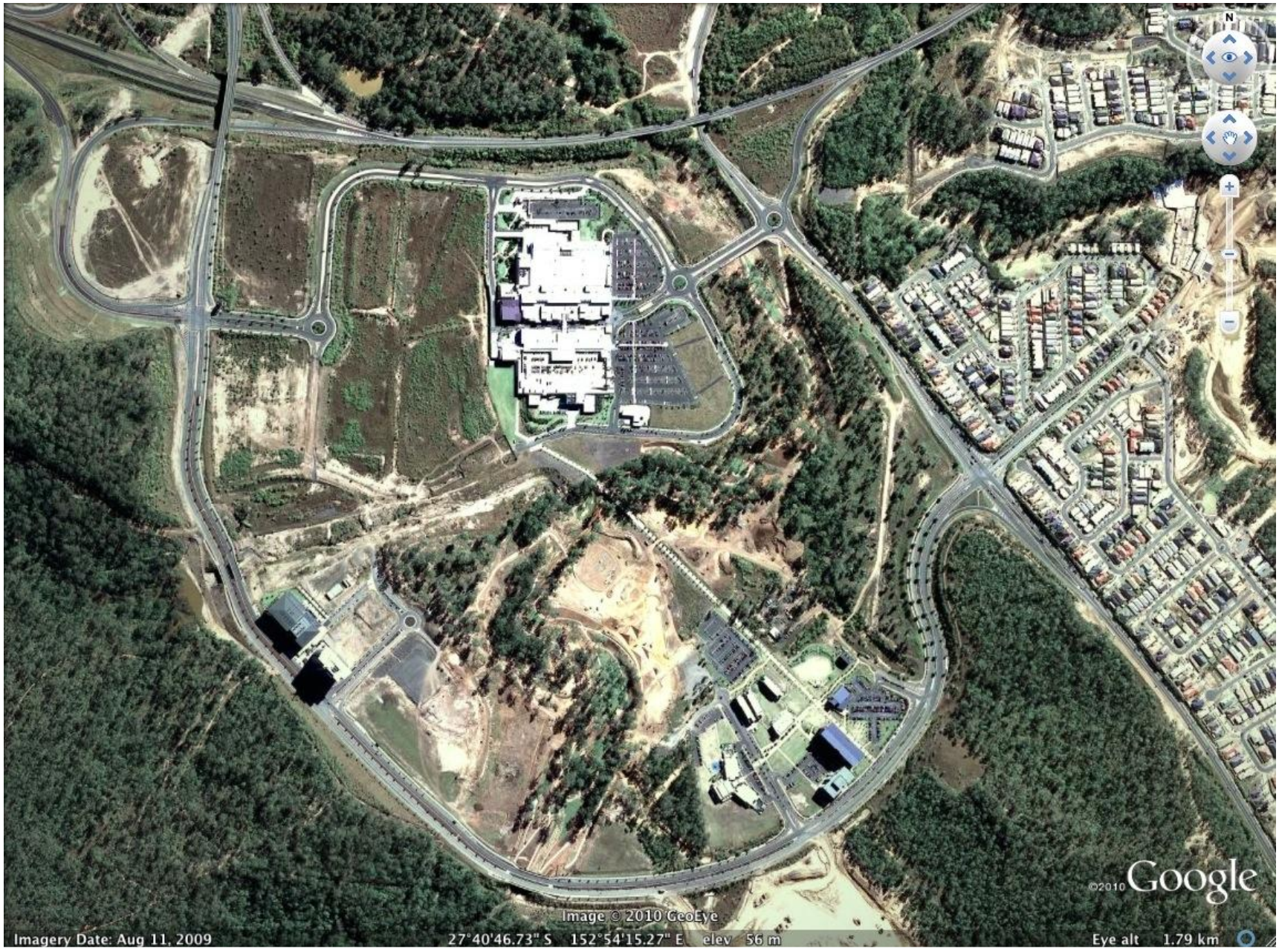

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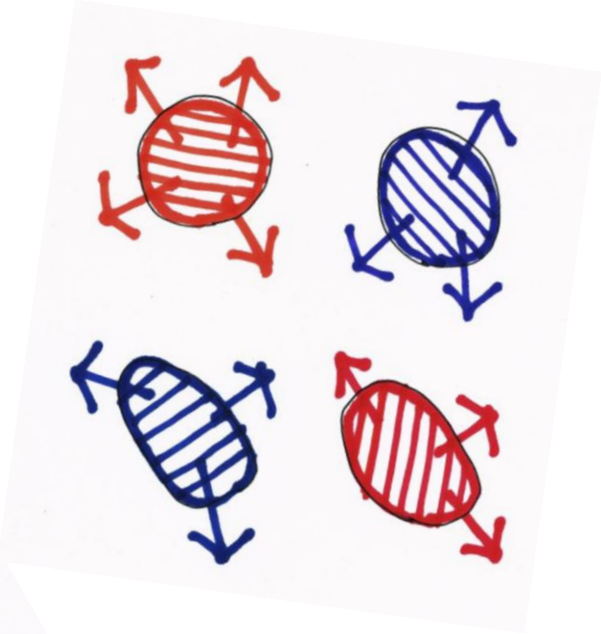
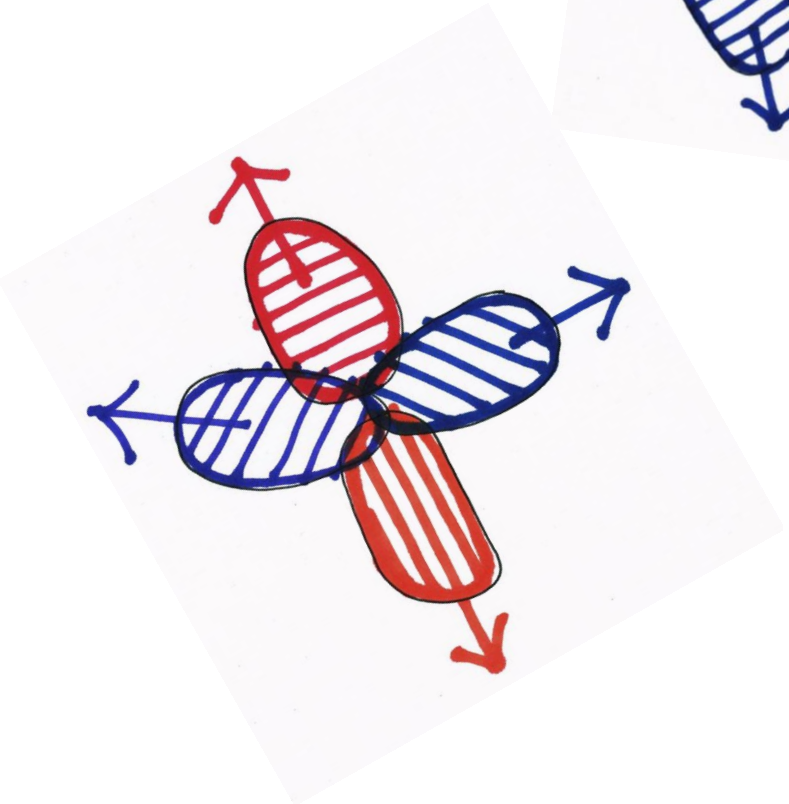
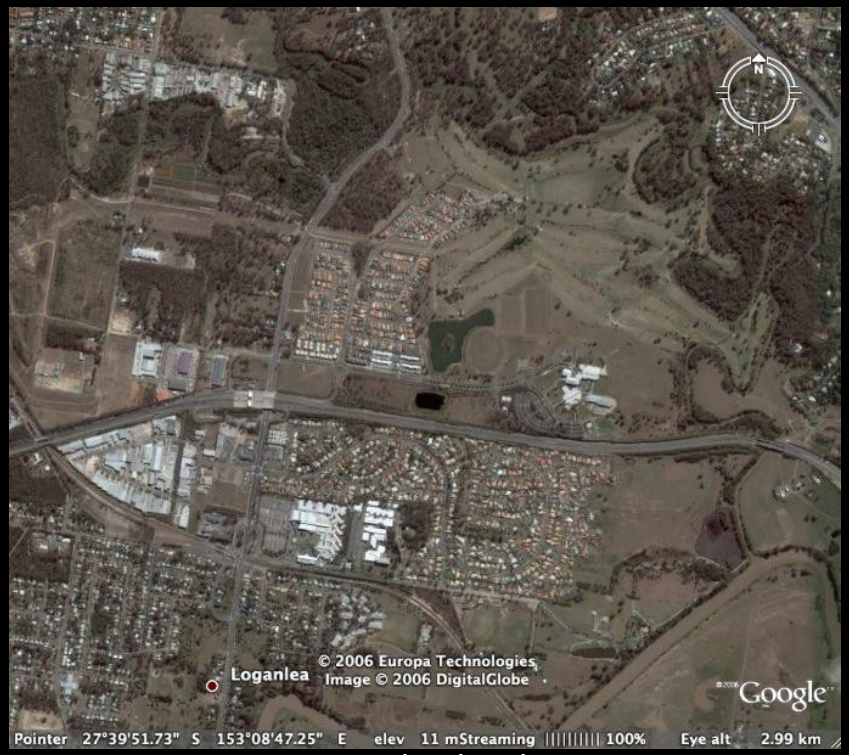




Imagery 2005, BCC

Sippy Downs



Meadowbank

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“No single factor has more influence on the vitality of city centers than the presence of universities and students in the area.”

“All of the famous university cities and city districts in Europe…. are known for their vitality and interesting atmosphere.”

Jan Gehl and Lars GemzØe,
Public Spaces - Public Life
Copenhagen 1996

Imagery 2005, BCC

Imagery 2005, BCC

Image courtesy of Queensland Department of Housing

University
Substantially residential
Mixed use
VICTORIA PARK ROAD
MAIDSTONE
RAMSGATE ST
CARRAWAY ST
MUSK AVE
ROBINSON PLACE
GONNA PARADE
BLAMEY ST
KELVIN GROVE ROAD
VICTORIA PARK ROAD
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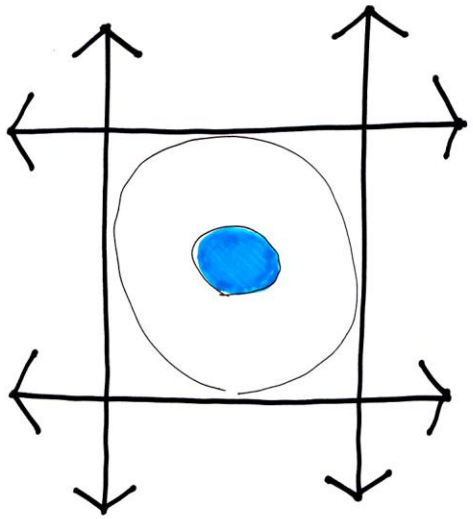
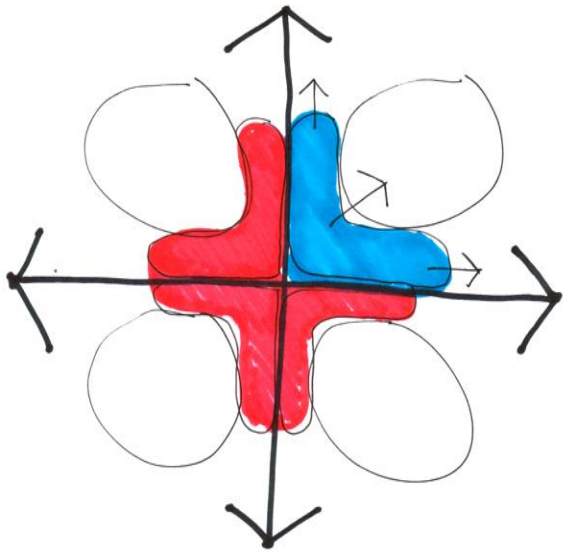
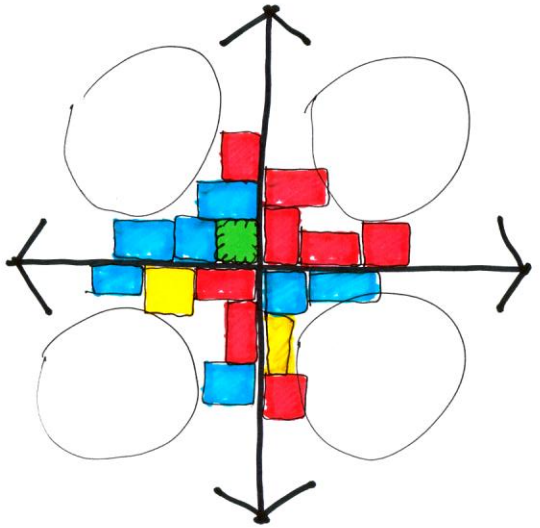
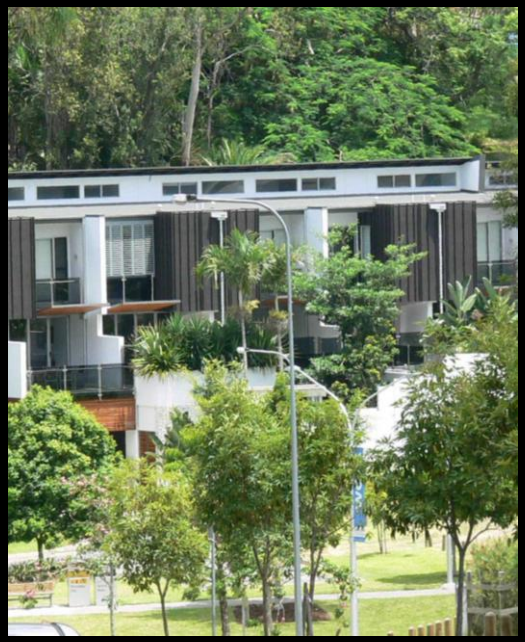
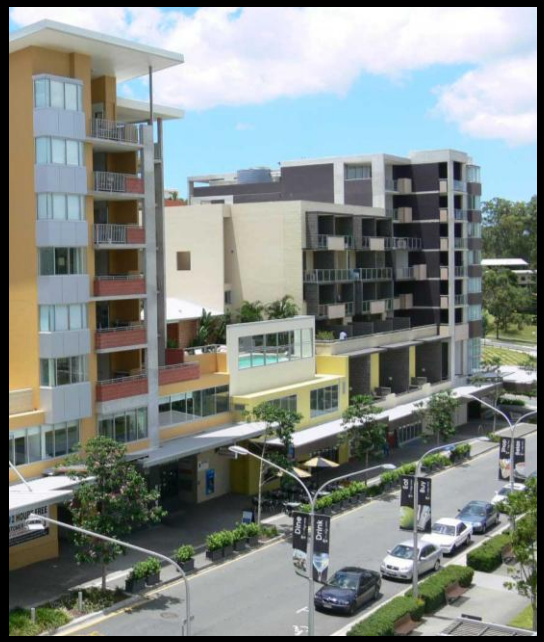








WOOLWORTHS
NOW OPEN!



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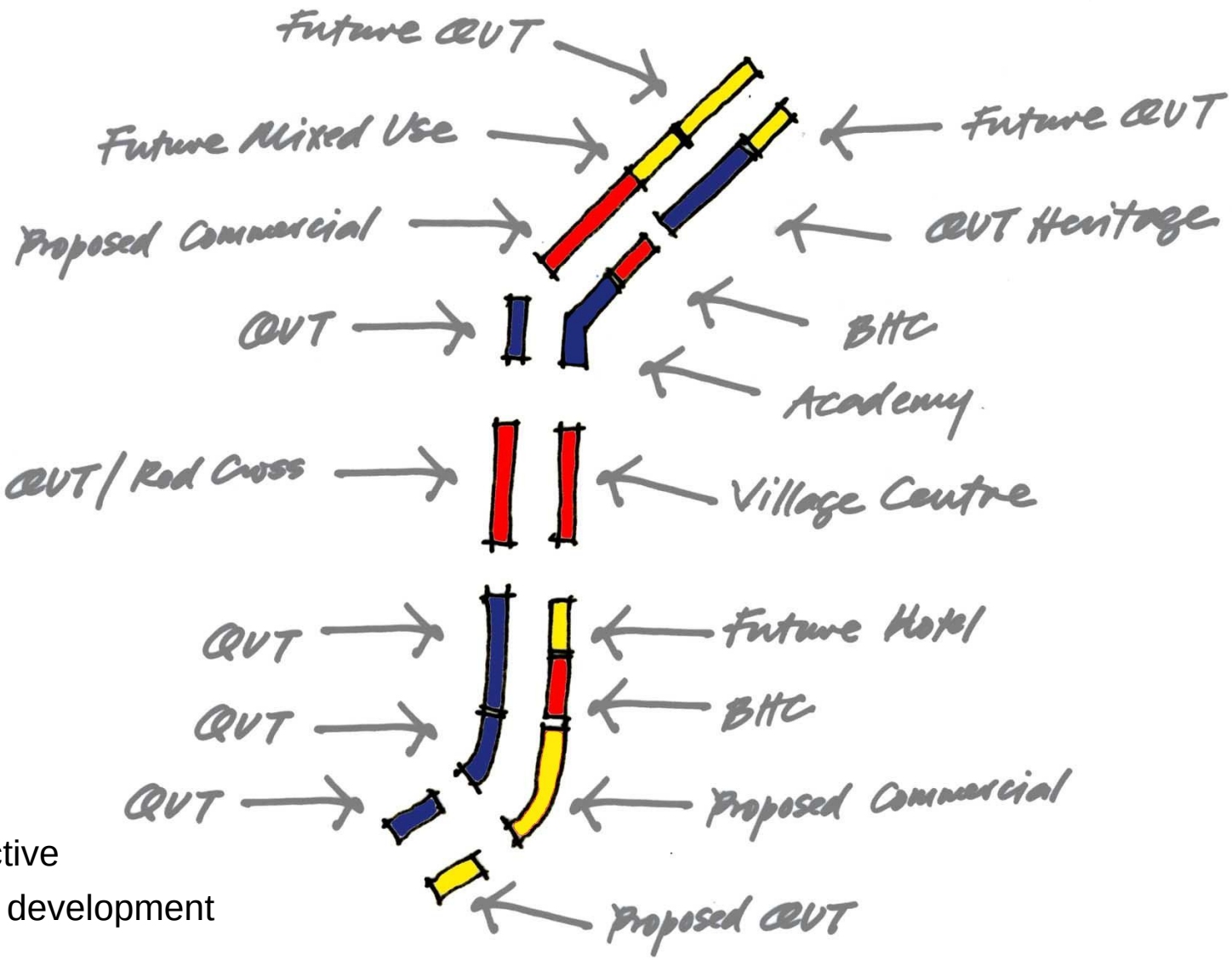

mainstreet kelvin grove

University
Substantially residential
Mixed use
VICTORIA PARK
ROAD
MAIDSTONE
RAMSGATE ST
CARRAWAY ST
MUSK AVE
ROBINSON PLACE
GONNA PARADE
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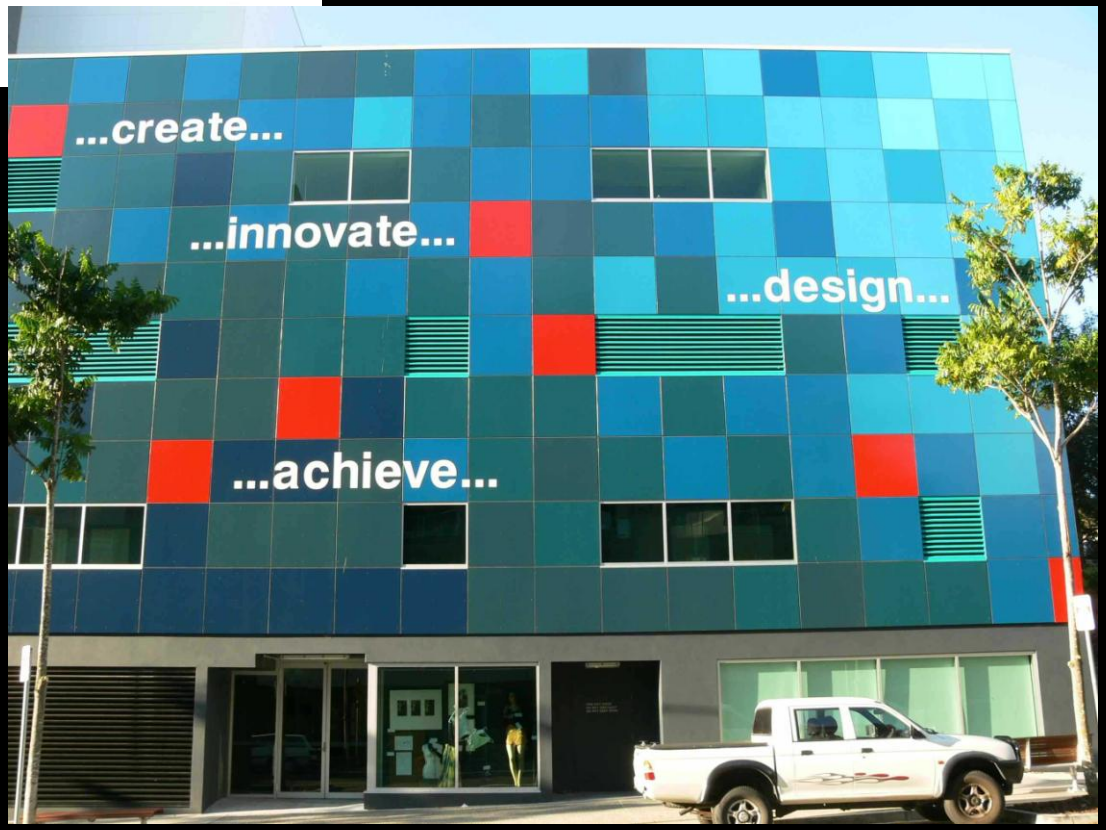
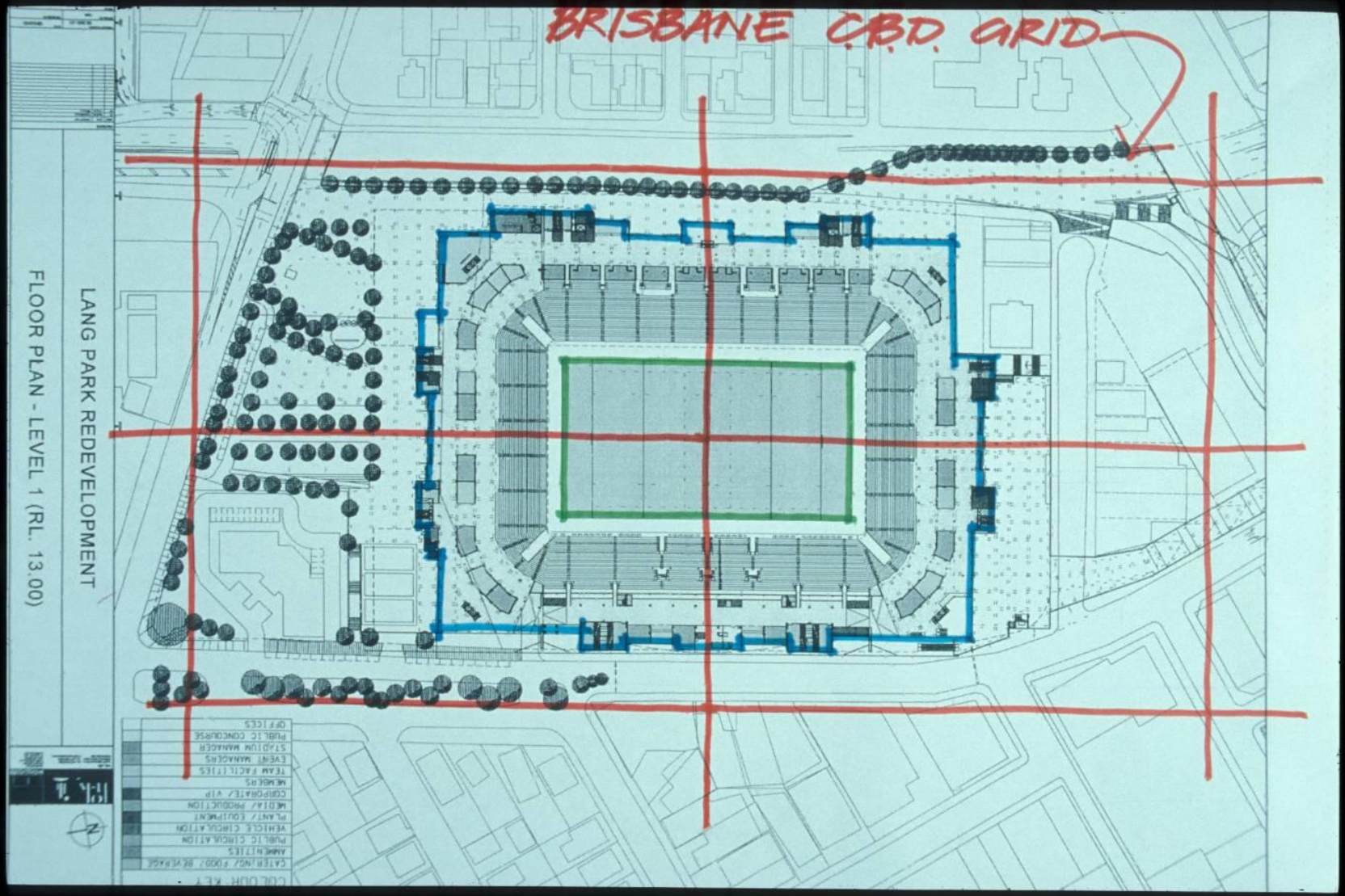

...create...
...innovate...
...design...
...achieve...

“ A GOOD CITY LOCATION
is not enough if
THE BUILDING DESIGN
sends all the wrong messages
or is just plain wrong…..”



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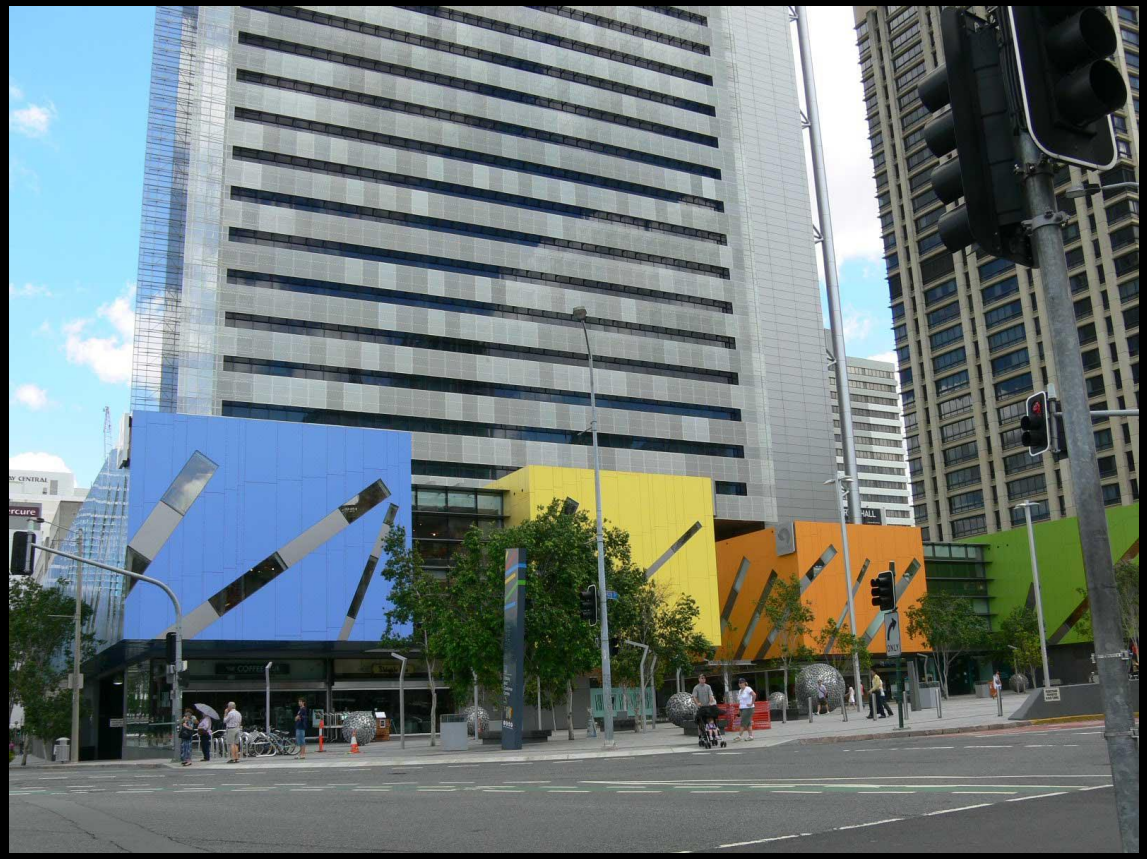
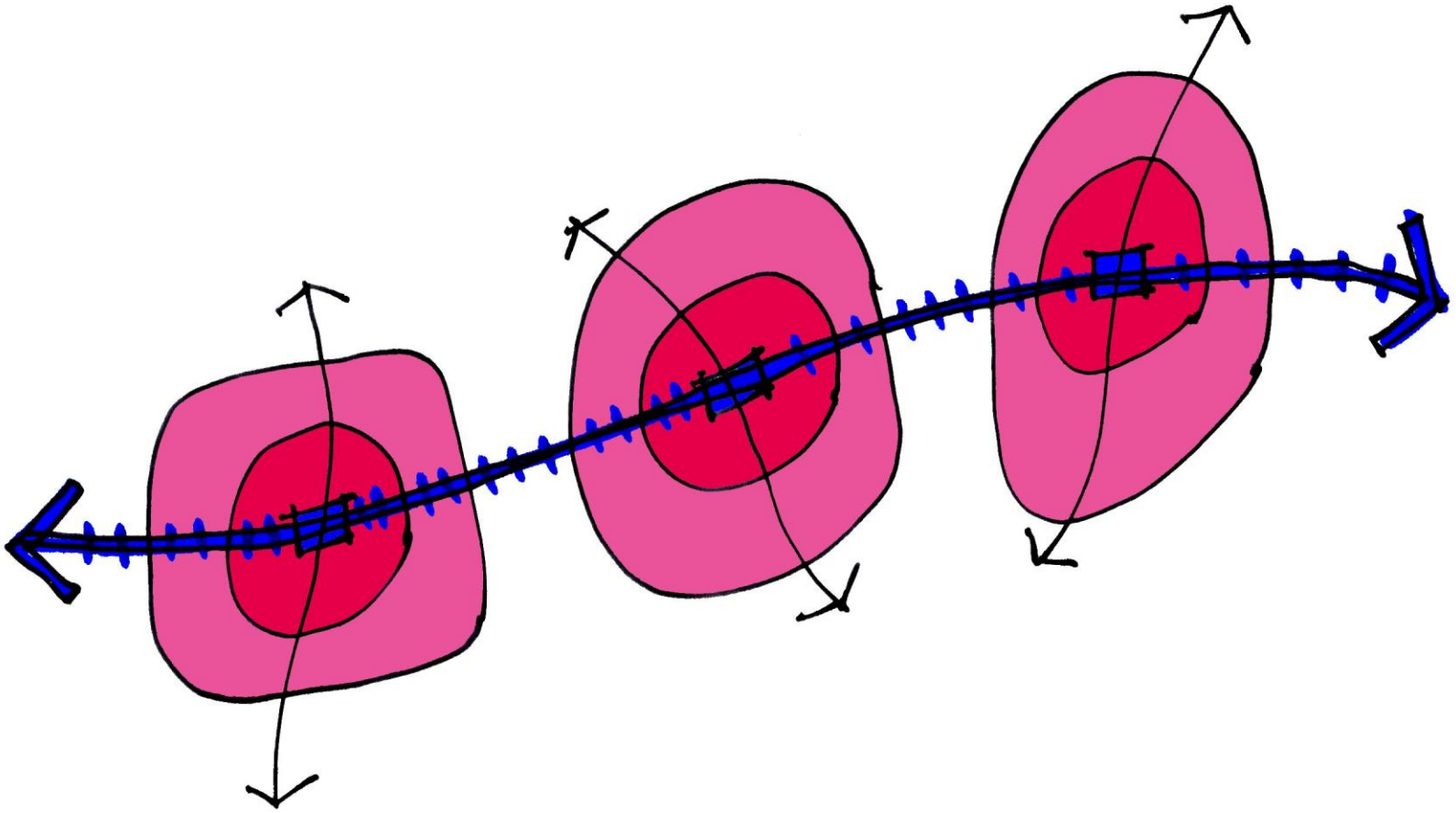




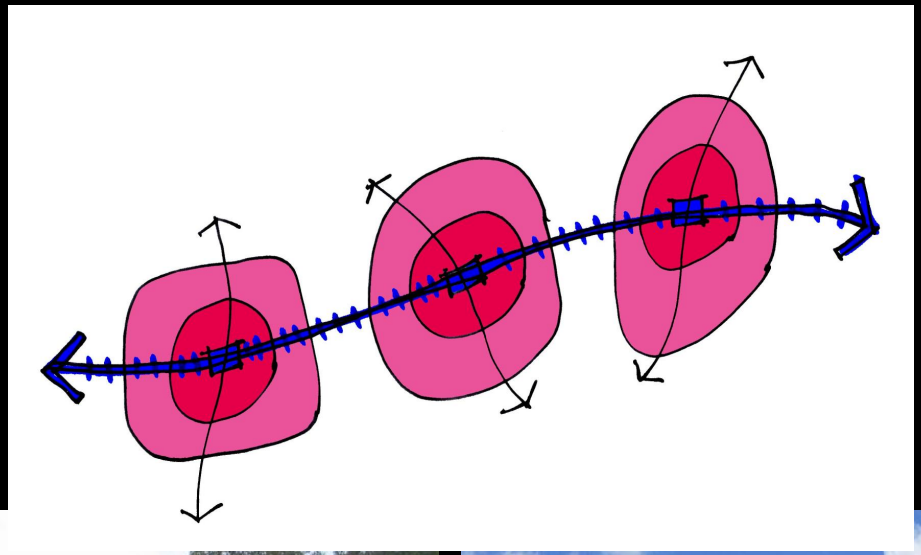
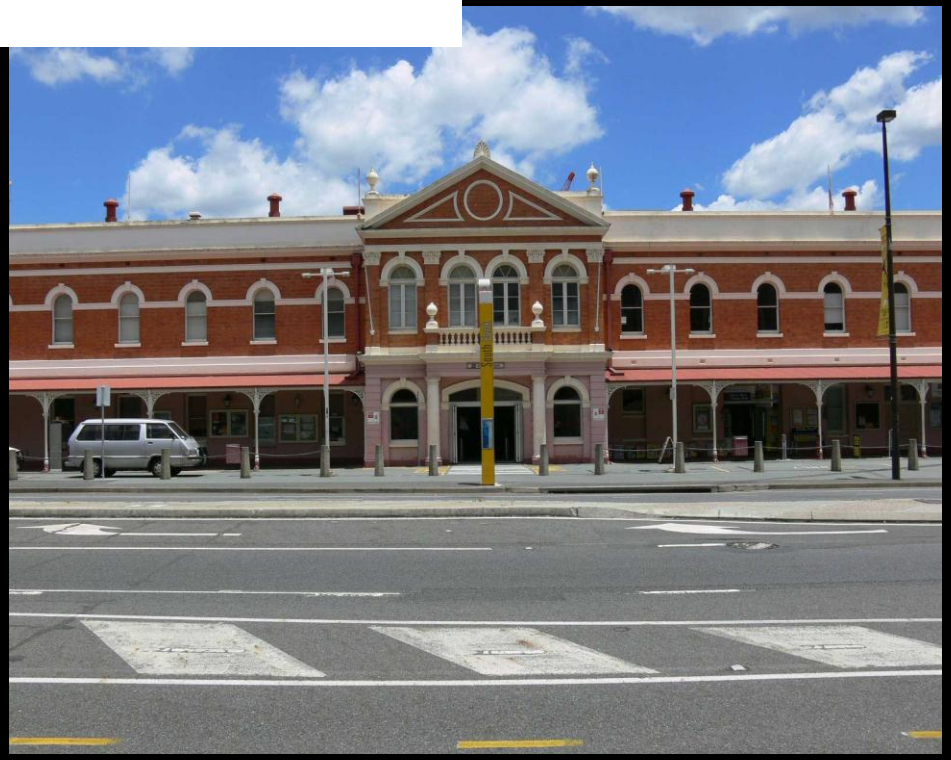
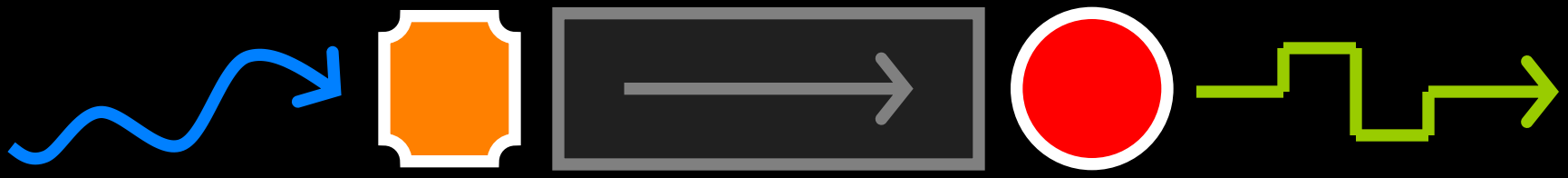
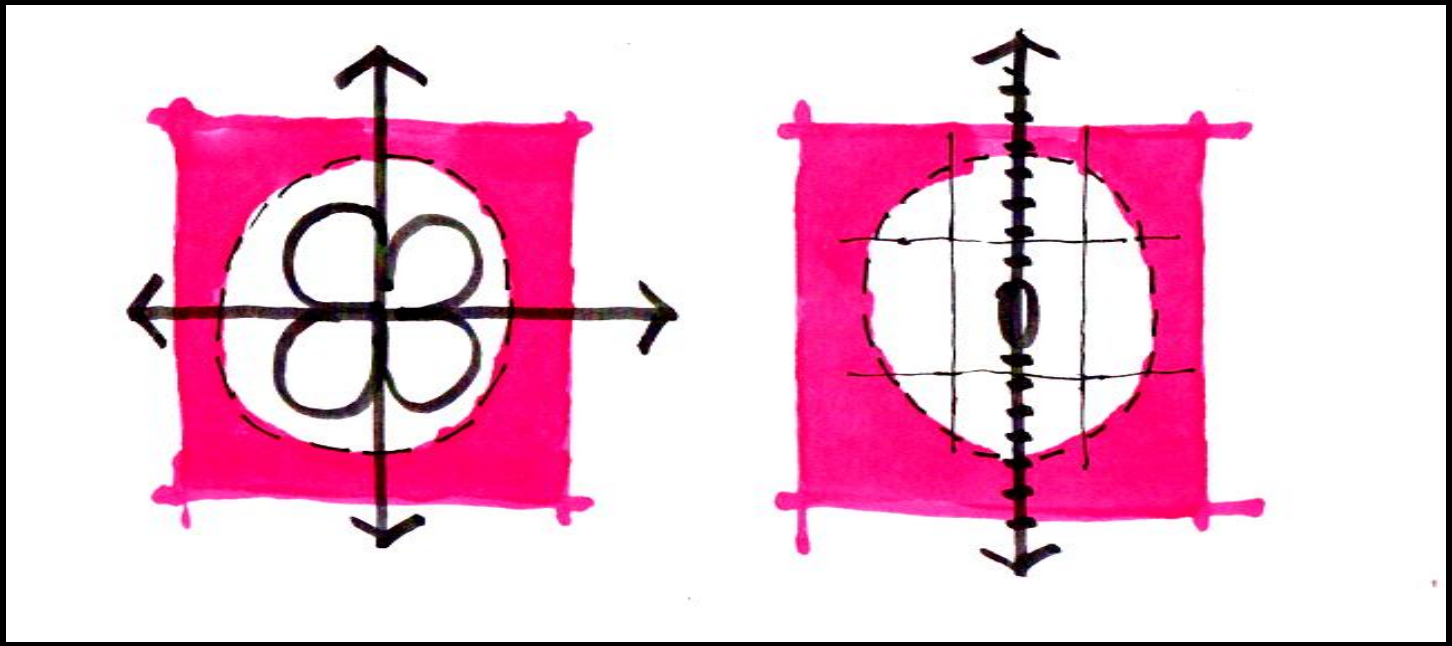


Image courtesy of Queensland Transport



Images courtesy of TransLink


the route
the place
the trip



BRISBANE'S FIRST ROAD TUNNEL
ROADWORK AHEAD
60

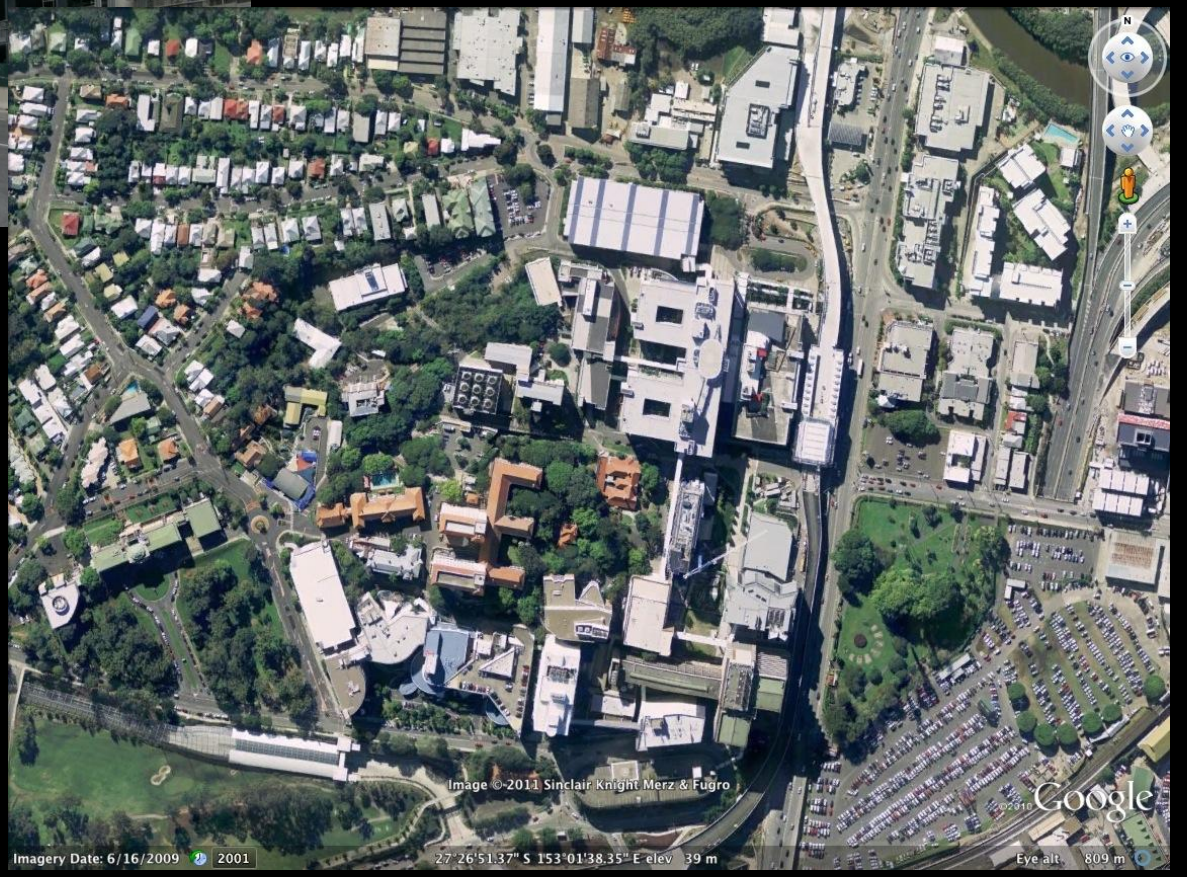


Image ©2011 Sinclair Knight Merz & Fugro
Google
Imagery Date: 6/16/2009 2001
27°26'51.37" S 153°01'38.35" E elev 39 m
Eye alt 809 m

Google Earth

Image courtesy of TransLink

Mater Hill

aa orthogonal view SS_2

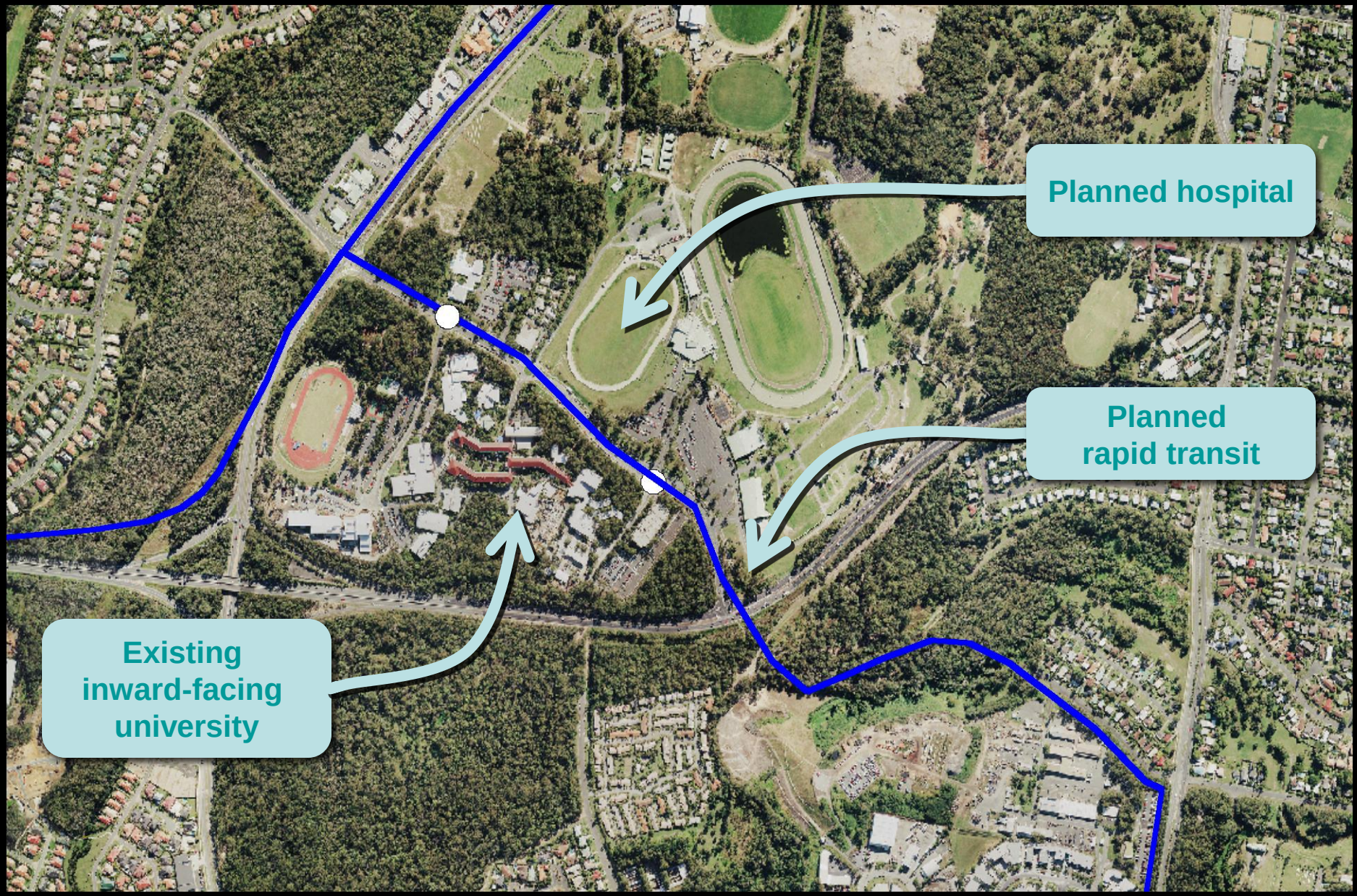
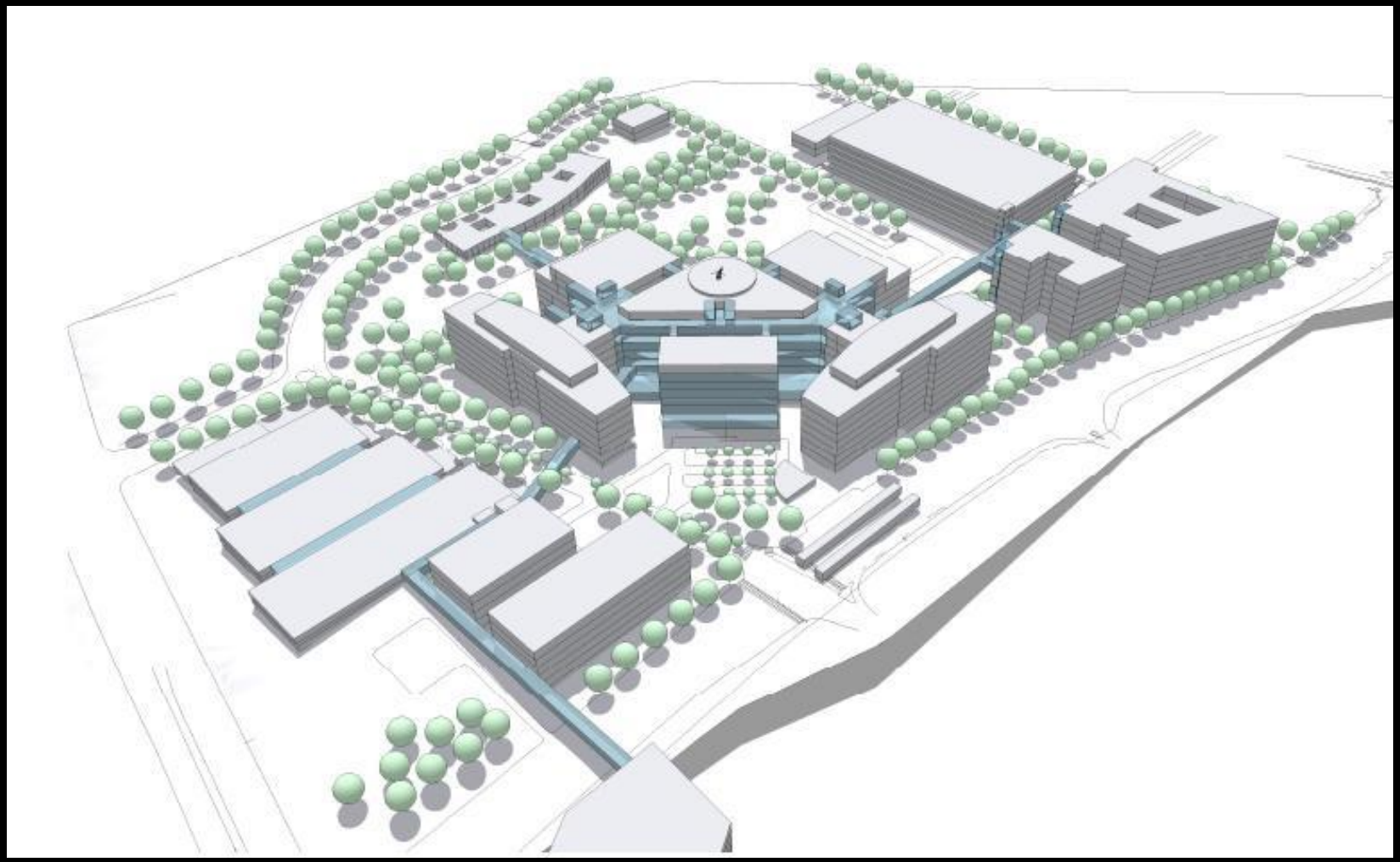
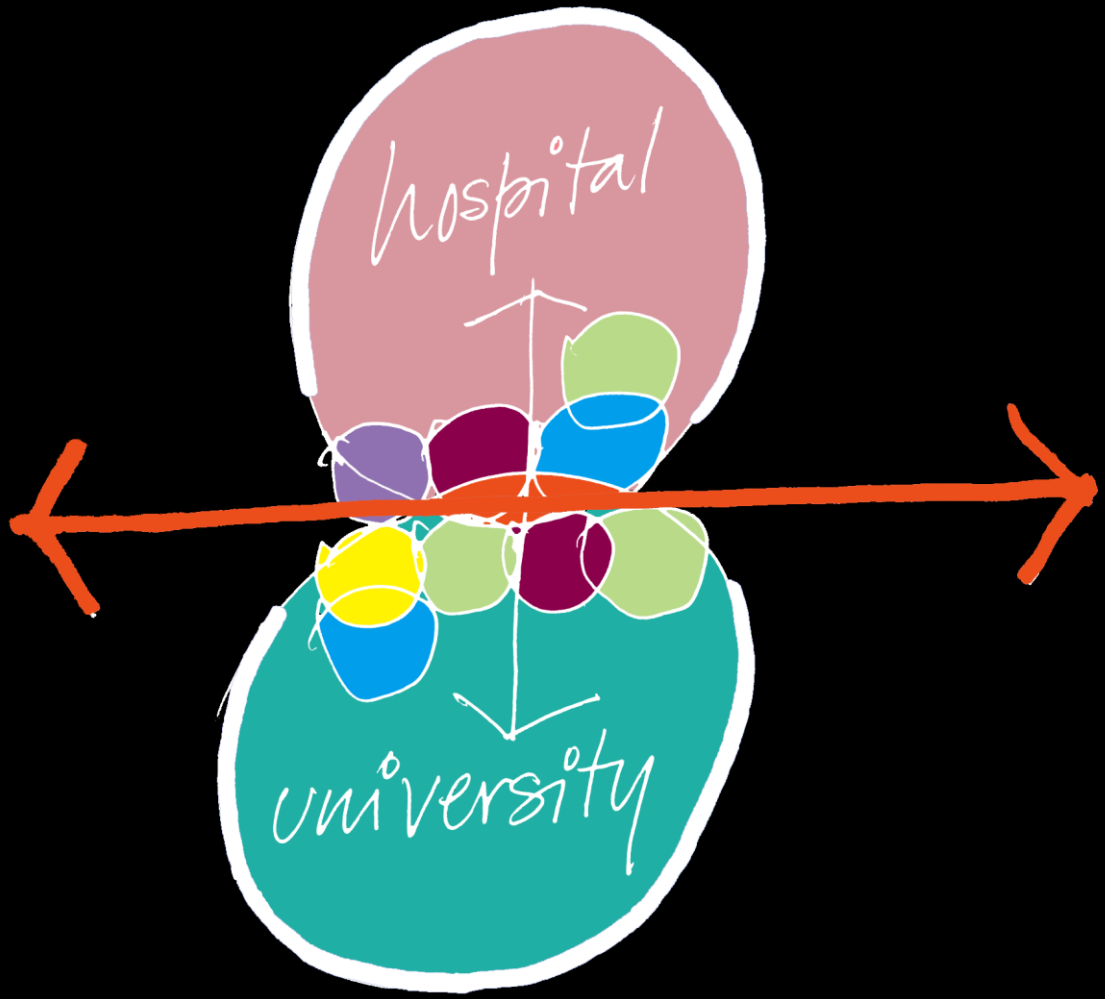


Image courtesy of the Gold Coast City Council




hospital
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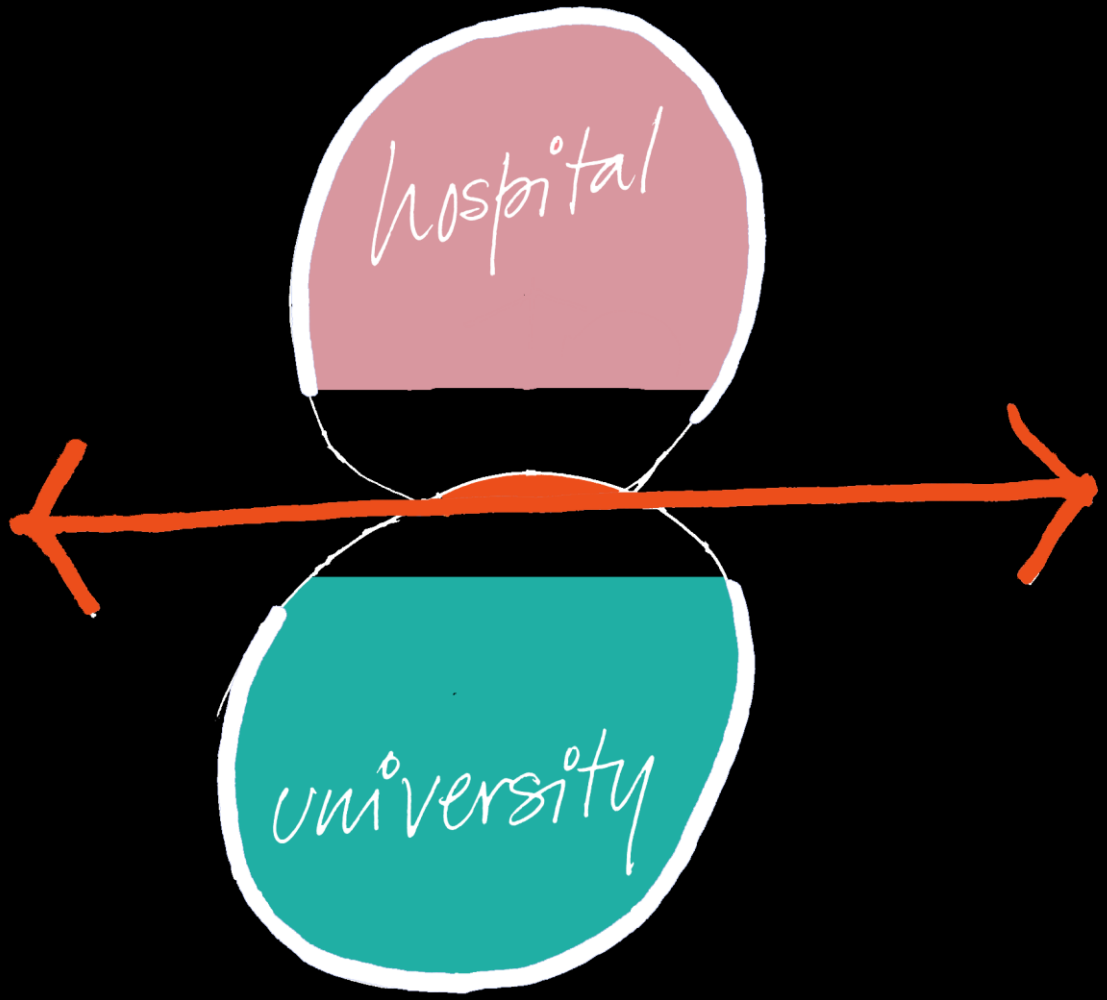
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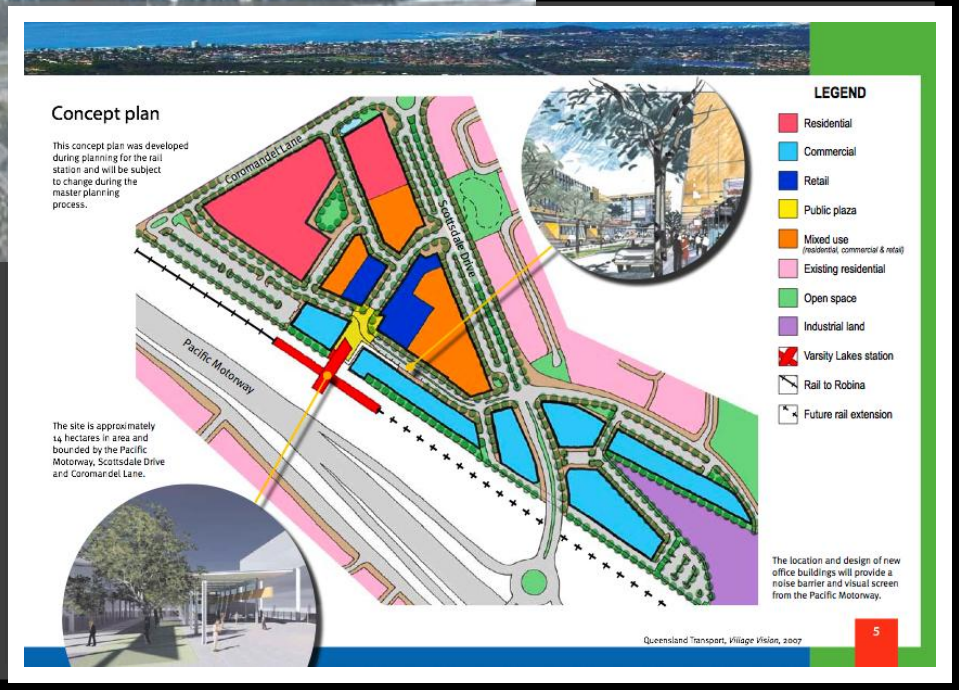

Images courtesy of Queensland Transport

Queensland Transport, *Village Vision*, 2007

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The way we design our cities has a social impact.

EKISTICS: Anthropos: sustainability components

- self-esteem
- human interaction
- spirituality
- emotion/love
- personal safety

Fookes 2000 quoting Doxiades 1968

The essence of any city is its capacity for social contact.

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The importance of the public realm

- socially
- physically
- economically
- culturally
- democratically

Who owns this place?

Democracy

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Legibility

Monotony

Complexity

Disorientation

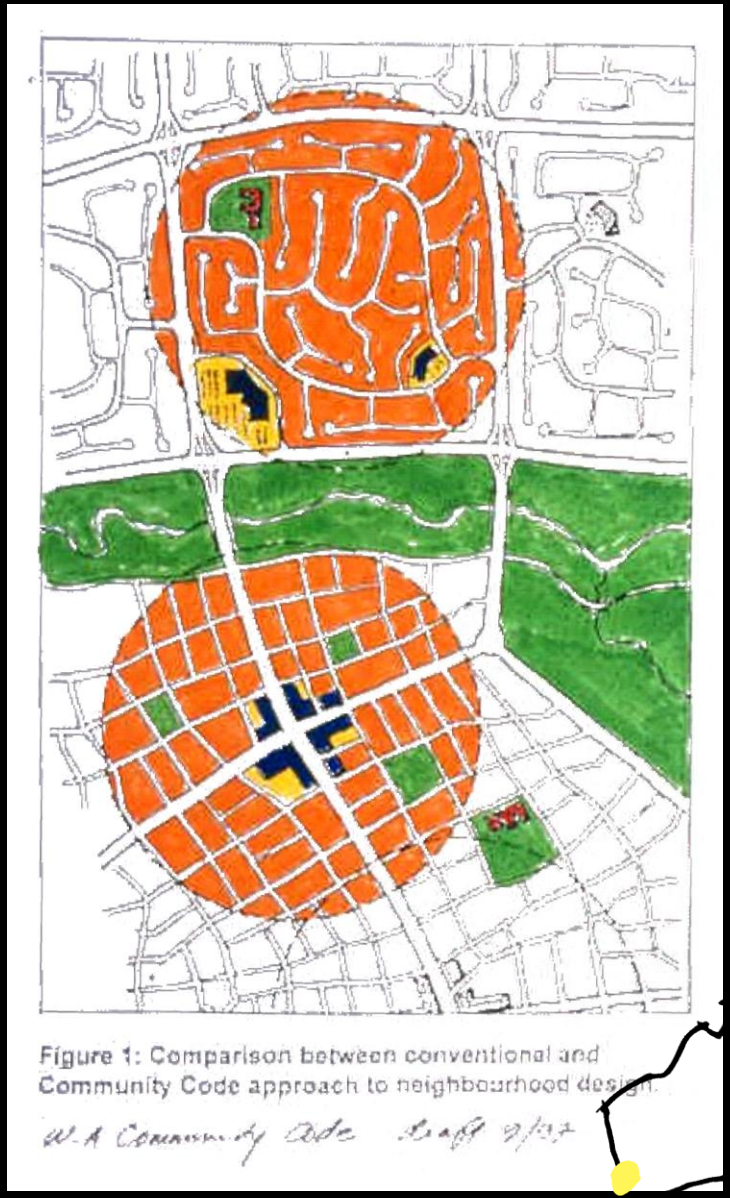
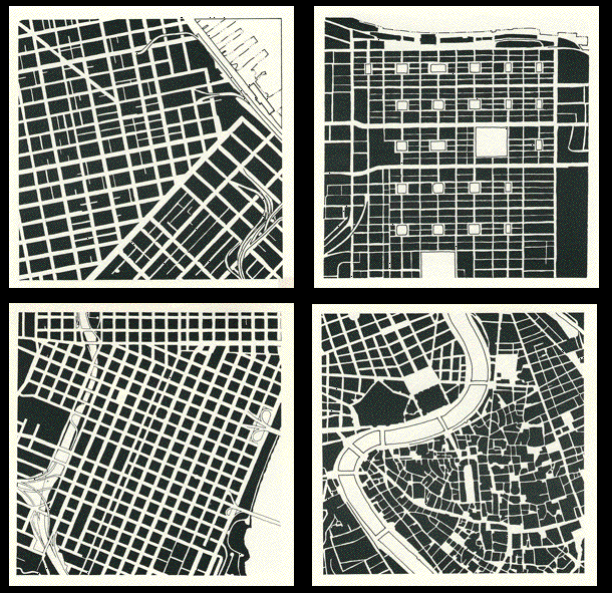


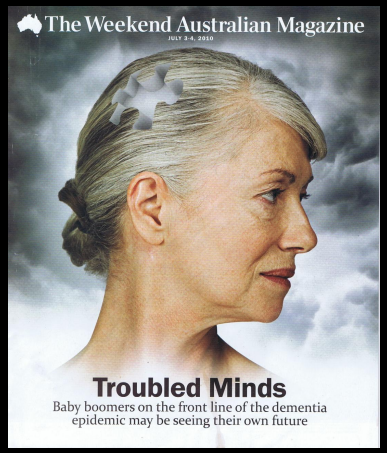
Figure 1: Comparison between conventional and Community Code approach to neighbourhood design.

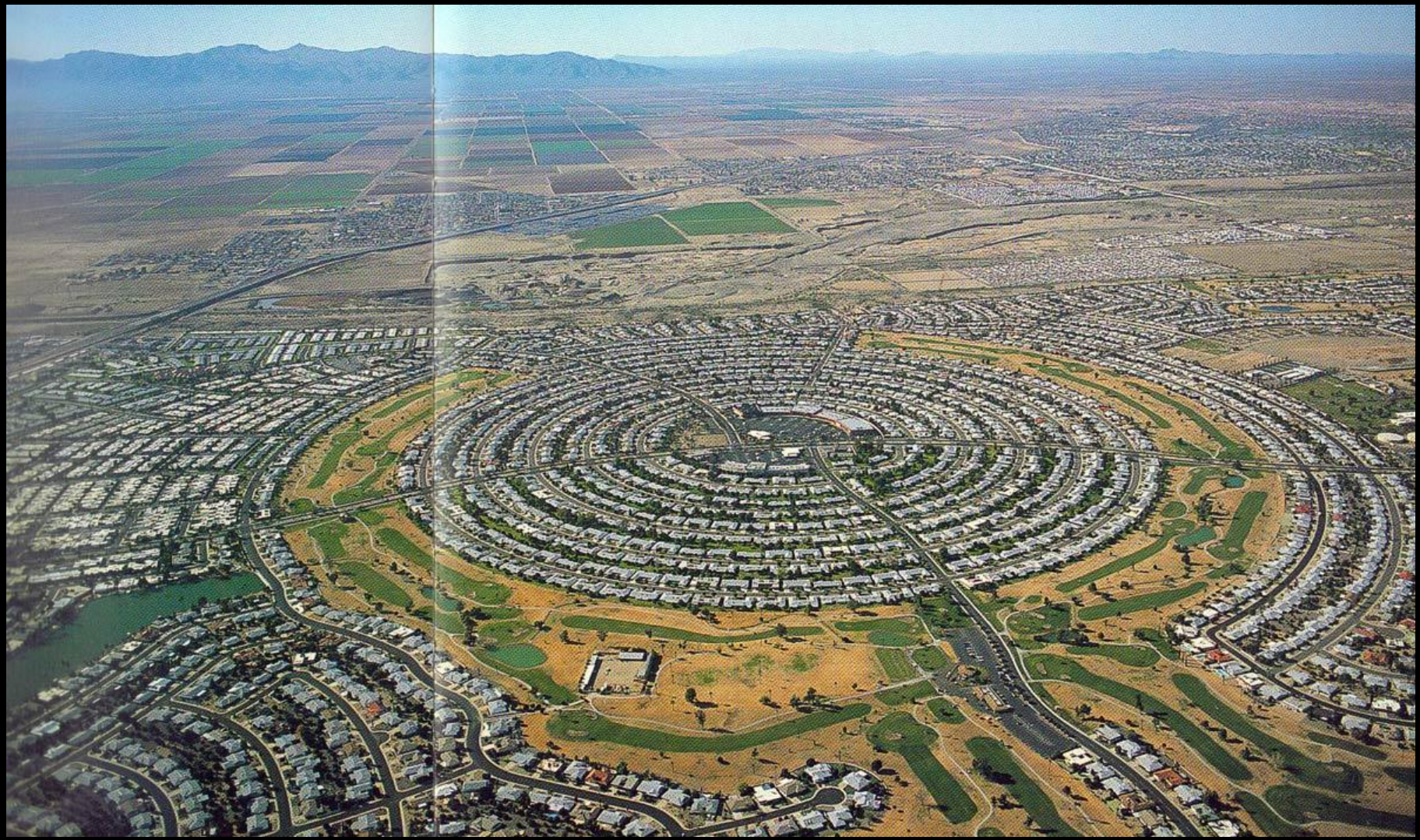
W.A Community Code Draft 9/97

Perth

BILL HARRISON
McDonald's

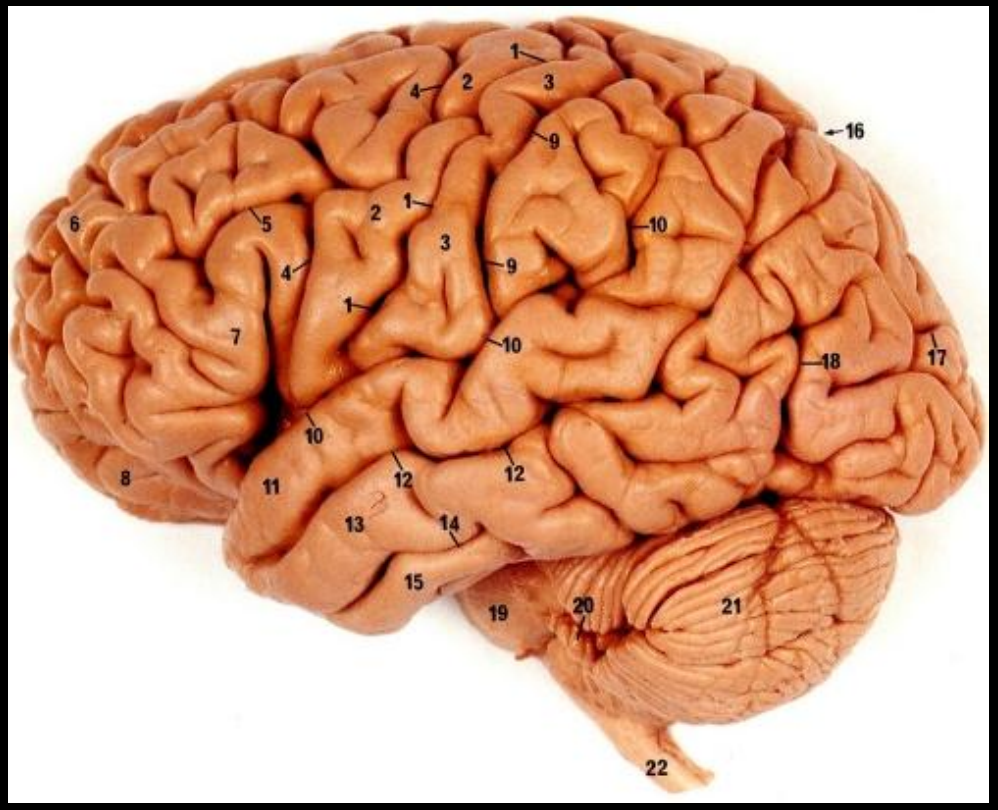



The Weekend Australian Magazine
JULY 3-4, 2010
Troubled Minds
Baby boomers on the front line of the dementia epidemic may be seeing their own future

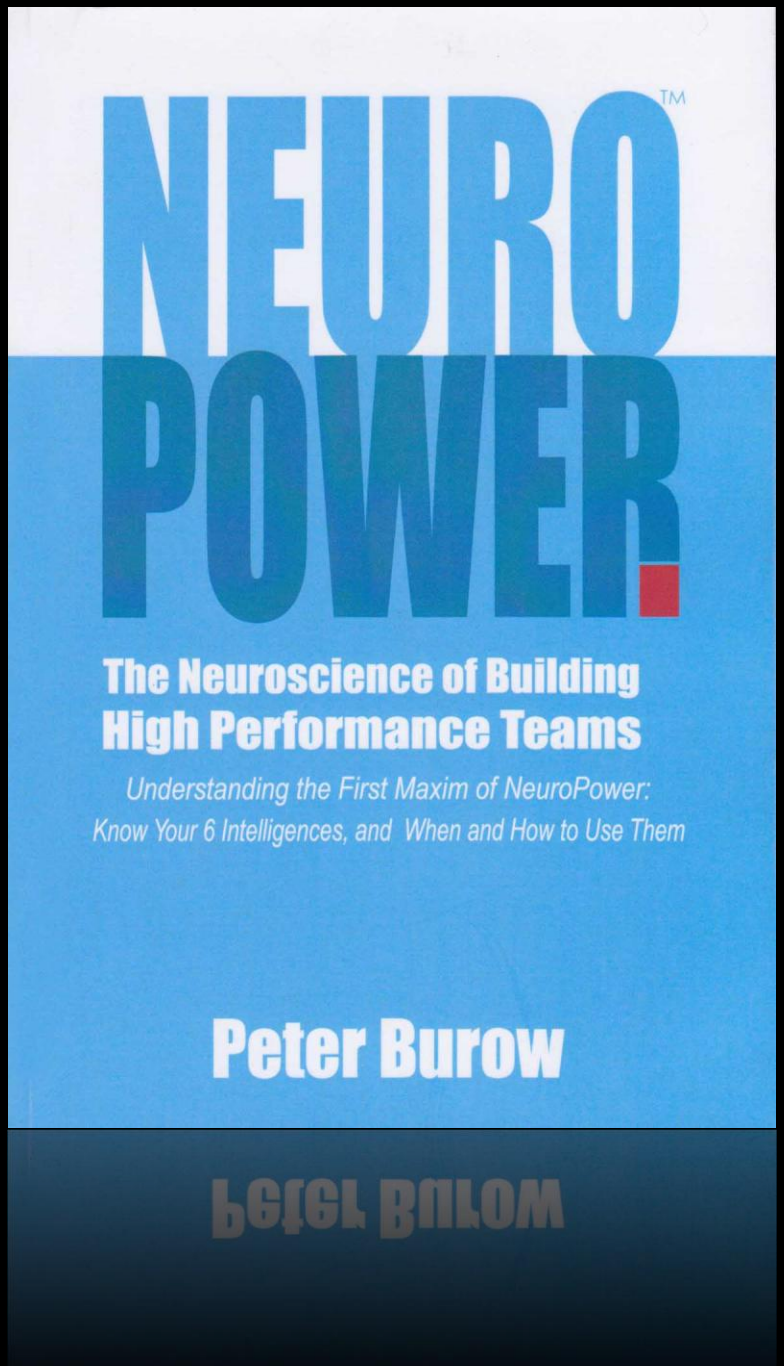


Sun City, Arizona

S K



Ellis H, Logan B & Dixon A (1991)
Human cross-sectional anatomy. Butterworth Heinemann, UK.



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- connections with the past
- connections with the place
- connections with nature

383

Laughter (is) nature’s best medicine.

Laughter builds your health,
reduces stress,
dilates your arteries,
breaks down cholesterol and
builds the immune system.

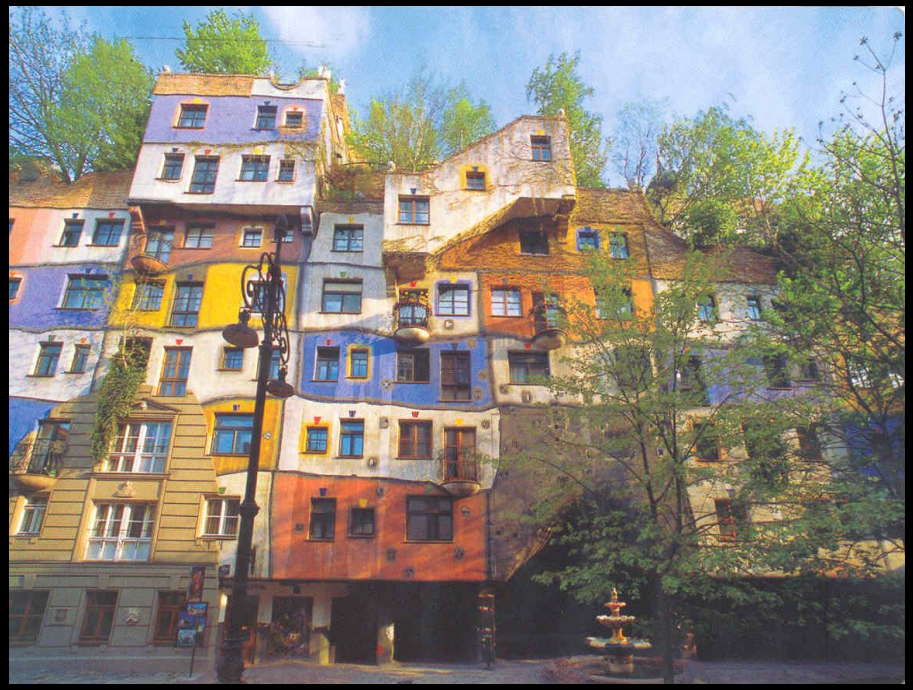
Allan Pease

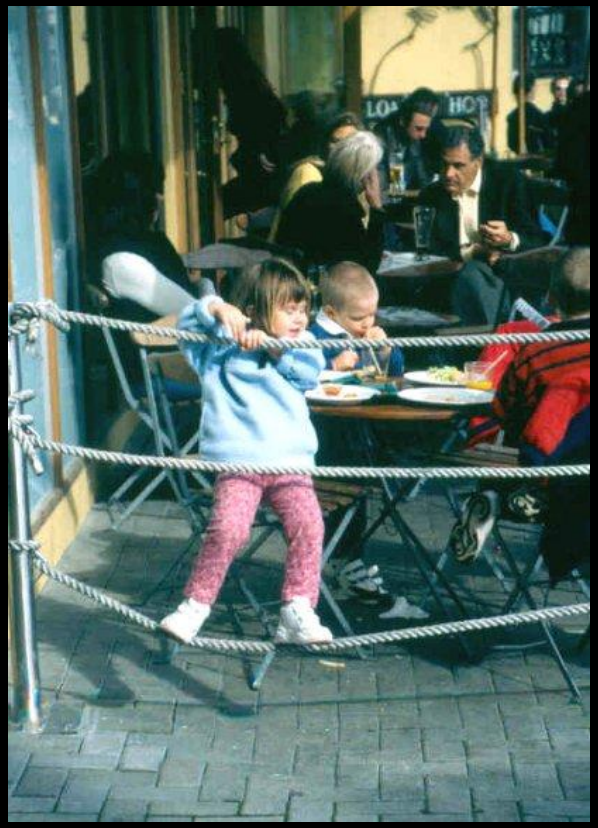
“Ten minutes of laughing

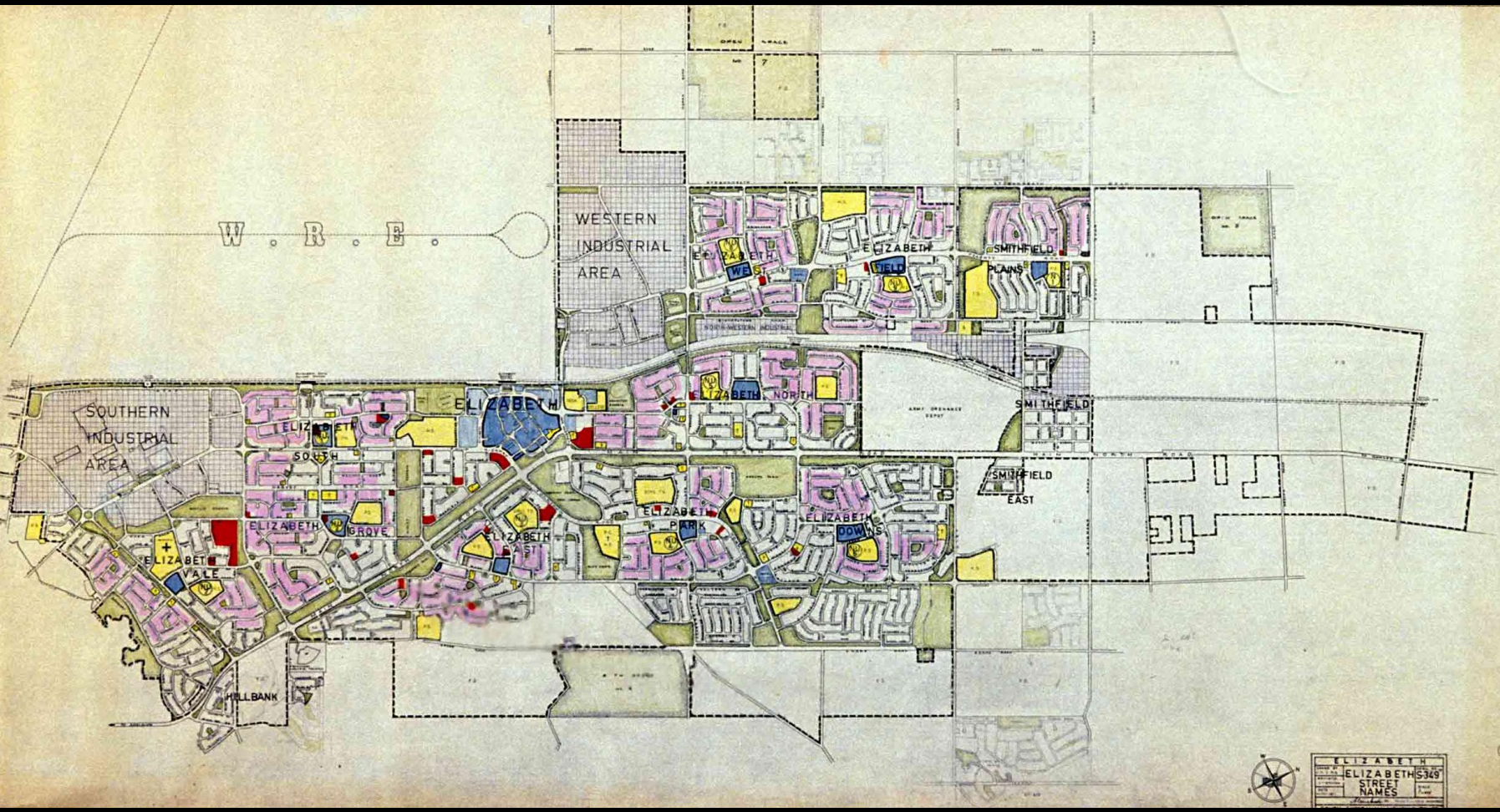
is better than

twenty minutes of jogging.”

COLLINGWOOD
COLLINGWOOD







Adelaide

Elizabeth,
South Australia

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an inventory of
community infrastructure

v

the *way*
we design our cities

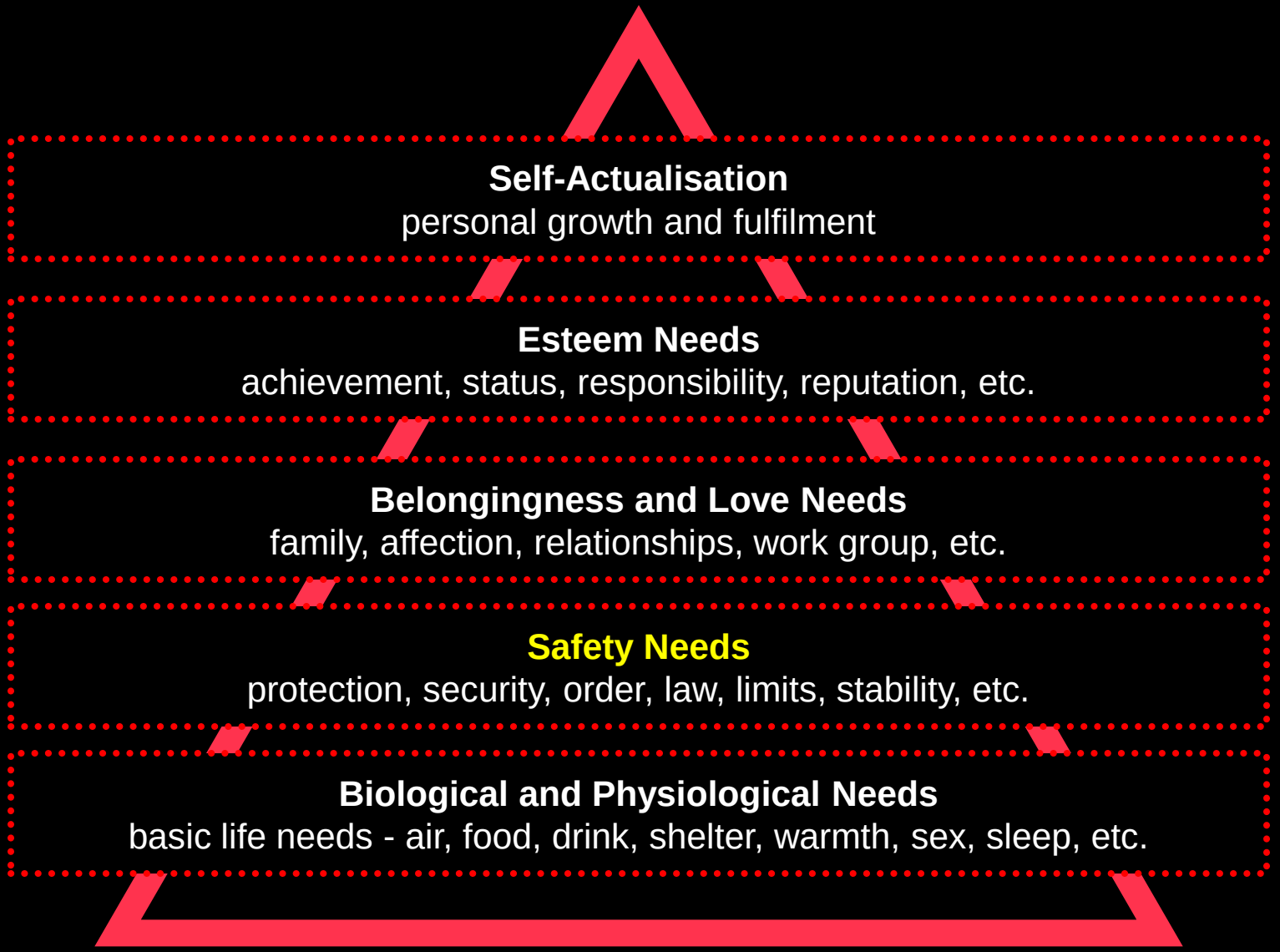
“For every complex problem there is a simple solution that is neat, plausible …..

What is viewed as “best practice” place-making and urban design has changed over the years …

… or is still debated !

In part, our changed thinking is due to changes in our world and in part because we continue to learn from experience.

Emerging CPTED understandings
have been influential in
changing
urban design thinking
in recent decades.



Maslow’s Hierarchy of Needs

Adapted from Alan Chapman (2004)

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CPTED
is a crucial role model or leader
in creating good cities ?

and so ……..?

1. Urban Design is a major CPTED strategy.
2. Delivery of CPTED is inherently multi-disciplinary, inter-agency, public / private ……
3. Society’s needs and urban design practices continue to change.
4. Urban design affects people.
5. Continuing to understand better the complexities and inter-relationships within CPTED, and between CPTED and other sustainability strategies, is essential (and must not be allowed to intimidate public policy and practice).
6. CPTED is inherently “ahead of the game” in understanding the role of the urban environment in better supporting human needs.
7. Understanding and practicising CPTED is an important strategy for saving future money and pursuing sustainability.

CPTED ?

Crime Prevention
Through
Environmental Design

CPTUD ?

Community Promotion Through Urban Design

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