

# **An Introduction to the Perth Light Rail TOD Master Class**

**23<sup>rd</sup> September 2011**

**Wendy Morris**  
**Ecologically Sustainable Design**  
[esdwendy@netspace.net.au](mailto:esdwendy@netspace.net.au)  
**and ACNU Director**



# Sponsors and Supporters



**And thanks to the Australian Urban Design Research Centre for allowing us to use their very new premises!**

# Master Class Visiting Facilitator

## Stef Polyzoides

Moule & Polyzoides Architects and Urbanists  
Los Angeles, USA

Co-founder of the CNU





# Master Class Leaders

## Urban Designers

Peter Richards  
Clive Alcock  
Chip Kaufman  
Malcolm Mackay  
John Stimson  
Ben De Marchi  
Steve Thorne  
Chris Hare

## Transport Engineers

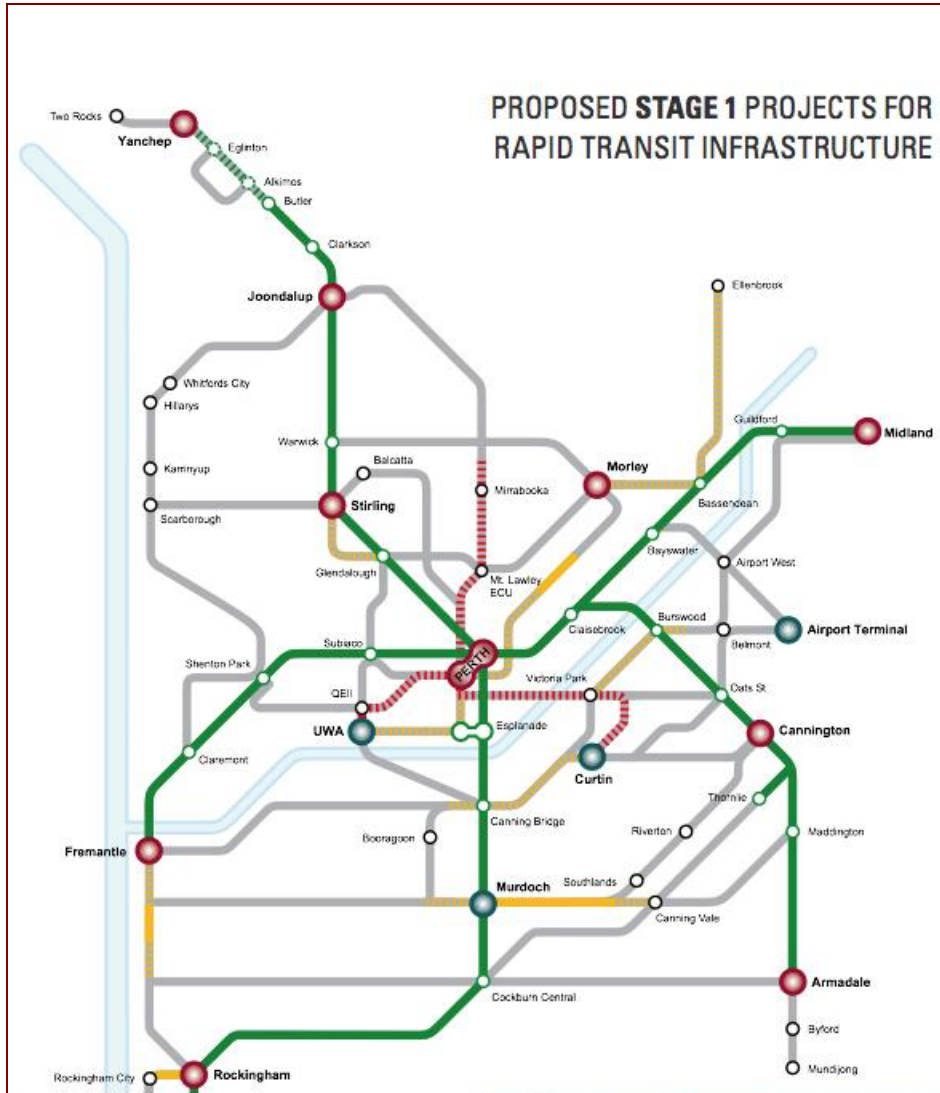
Jim Higgs  
Chris Stapleton

## Specific Expertise

Peter Newman  
Evan Jones  
Stephen Bowers  
Crystal Olin  
Xiaojian

# The Proposed LRT Network

The first three proposed LRT routes for Perth, in the latest *Public Transport Plan for Perth, 2031*



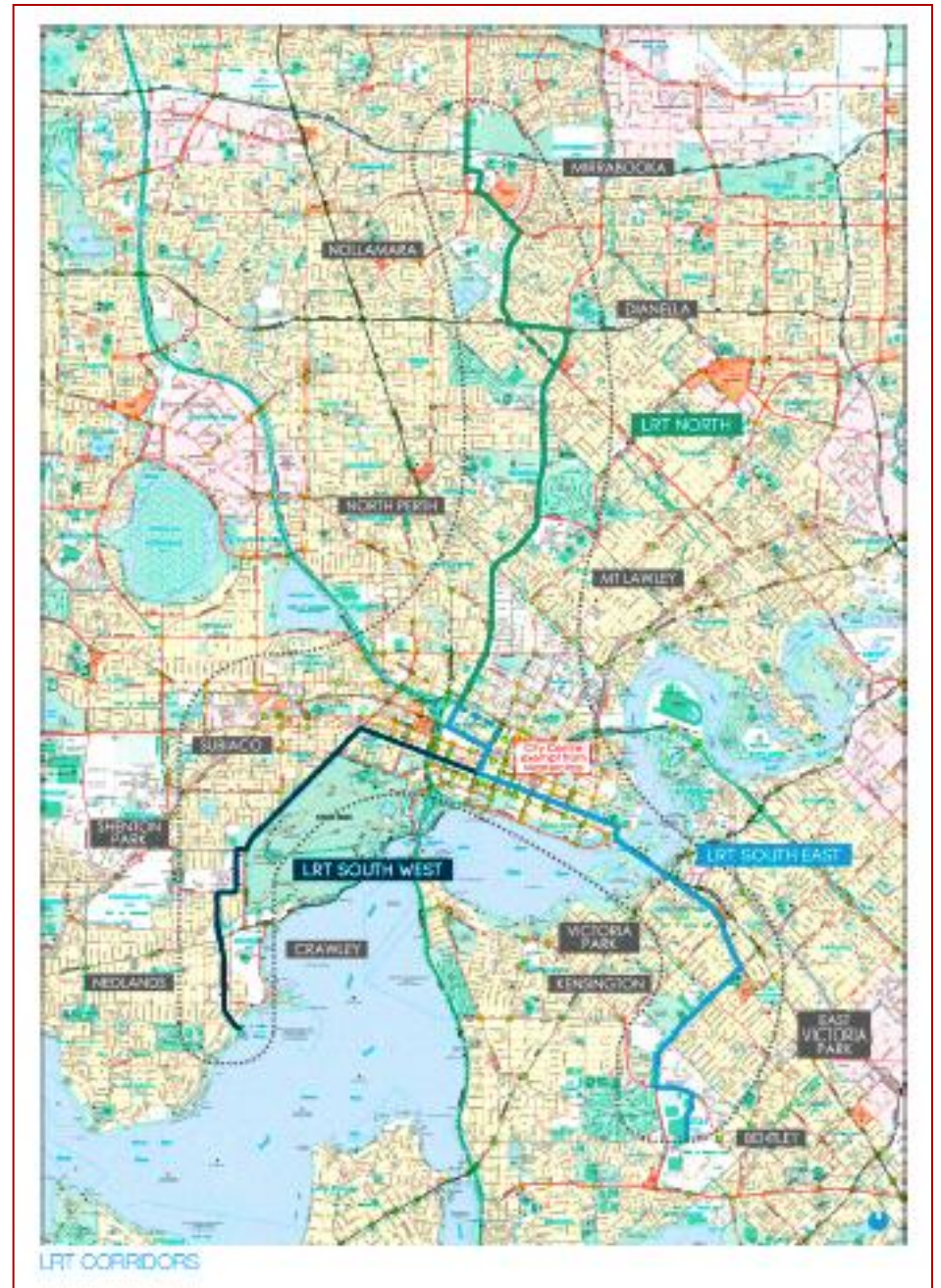
# The Three LRT Corridors

North - to Mirrabooka

South West - to UWA

South East - To Curtin U

The combined SW and SE lines are also known as the Knowledge Arc



# Master Class Objectives

Learn about designing for LRT and for appropriate TODs by:

Critiquing the existing plans for the LRT; test proposed routes before they are finalised; test operational approach, stops, spacings and design

Exploring the different scales of TOD - regional, 400m radius nodes; station stop precincts

Testing opportunities and constraints for TOD along the routes

Testing transit facility design - TOD-friendly and transit performance

Exploring architecture for TODs, including architecture of its place/context

Exploring and progress funding and implementation concepts

Documenting outcomes to inform Government

**The key question.....Will the LRT work???**

# Master Class Program and Process

## Friday

Project Briefing

Site Tour in Teams (one bus per corridor)

TOD Principles keynote presentation

Design Session 1

Groups preliminary report back 6.00 - 7.00pm

## Saturday

Melbourne Tram Route Intensification presentation

Graphic techniques presentation

Design Sessions 2 and 3 (no morning report back)

Groups report back and critique 4.30 - 7.30pm

Optional team designing into evening

## Sunday

Design Sessions 4 and 5 (no morning report back)

Documentation of outcomes

Final Design Presentation 4.30 -6.30pm

Celebration and Closing - Finish around 7.15pm



# Four Design Teams

**Architecture of Place**

Chip, Crystal, Xiaojian

**LRT North**

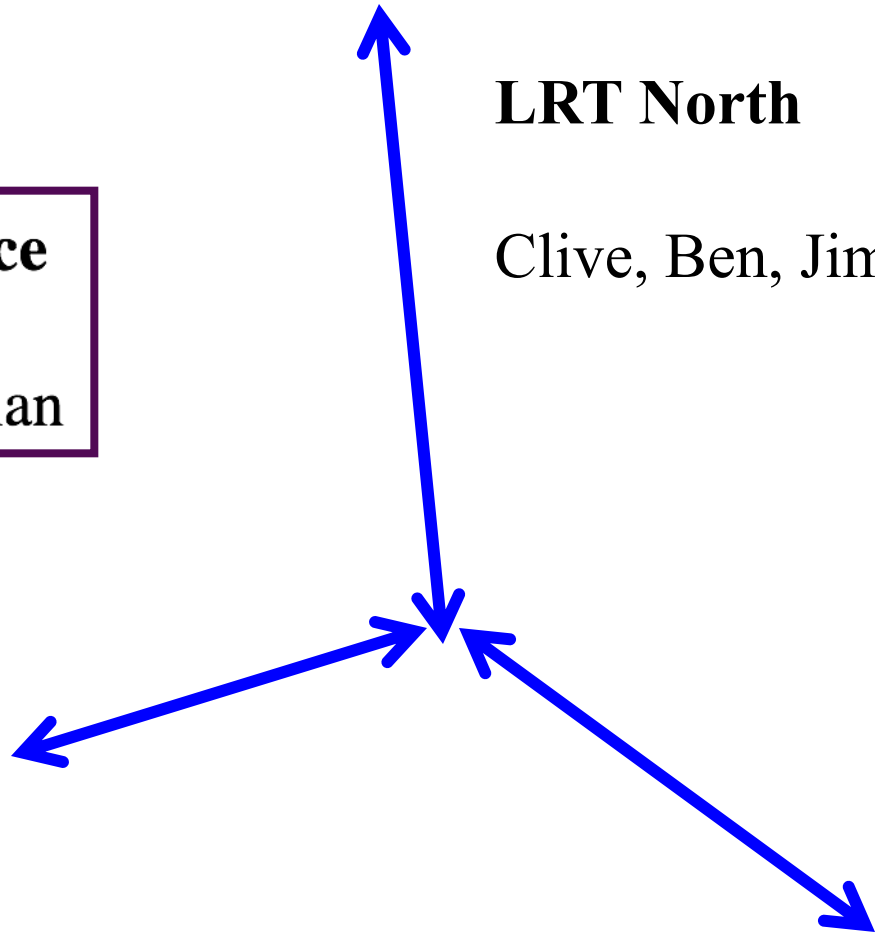
Clive, Ben, Jim

**LRT South West**

Steve, Peter A, Chris H

**LRT South East**

Peter R, Malcolm, John



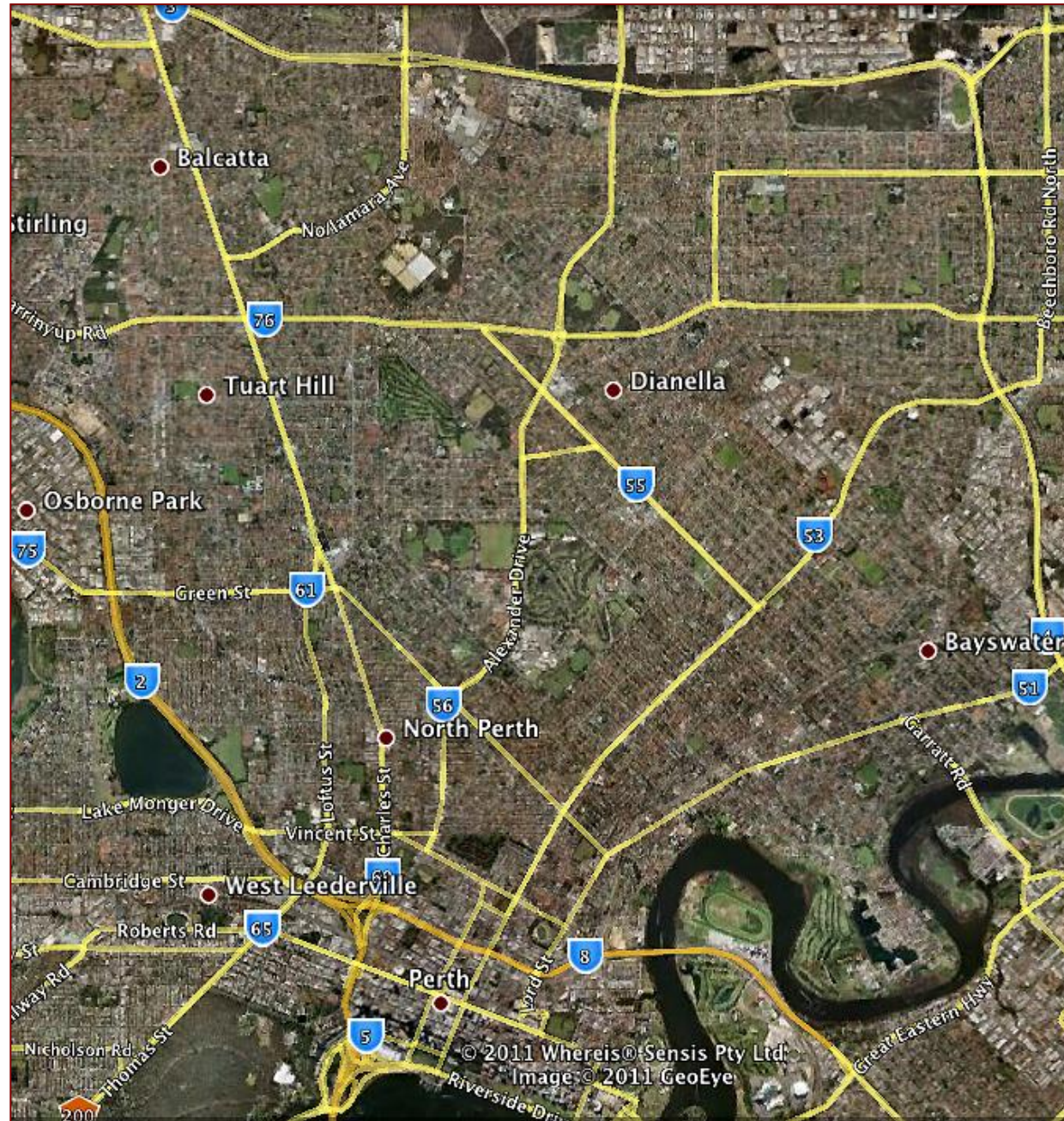
# The Design Teams

TEAM	LRT NORTH	LRT SOUTHWEST	LRT SOUTHEAST	ARCHITECTURE OF PLACE PLEASE EXPRESS INTEREST TO ME IF YOU WISH TO JOIN THIS GROUP
Facilitators/Urban Designers	Clive Alcock Ben De Marchi	Steve Thorne Peter Annand Chris Hare	Peter Richards Malcolm Mackay John Stimson	Chip Kaufman
Transport specialist	Jim Higgs	Chris Stapleton (P/T)	Chris Stapleton (P/T)	
Graphic specialists				Crystal Olin Xiaojian
Urban designer or architect	Sonny Embleton Bret White	Jeff Thierfelder	Oliver Penman Felicity Dowling	Volunteers wanted
Transport focus	Mairiad Cantwell Andrew Foreman Donald Yates	Simon Cox Louise Howells Michael Somerville-Brown	Ben Fereday Gary Merritt Chris Watts	
Planning focus	Melanie Bradley Catherine Evans Tayne Evershed Daniel Heymans Rochelle Lavery	Mark Bancroft Robina Crook Jeremy Holland Lucian Iocob Michael Murphy Michael Wilcock	Suzanne Barker Anna Evangelisti Denise Morgan Andrew Patterson Phil Slater Karen Wright	Volunteers wanted
Engineering focus	Danya Alexander John White	Christie McKinnon Eamonn O'Lionnain	Mark Johnston Jamie Mullins	
Mystery skills	Benjamin Pyromanski		Donald Veal	
AUDRC				

**Please see me at Morning Tea (at the Registration Desk) if you want to join the Architecture of Place team, or you have a specific problem with your team allocation, or if your name is missing...**

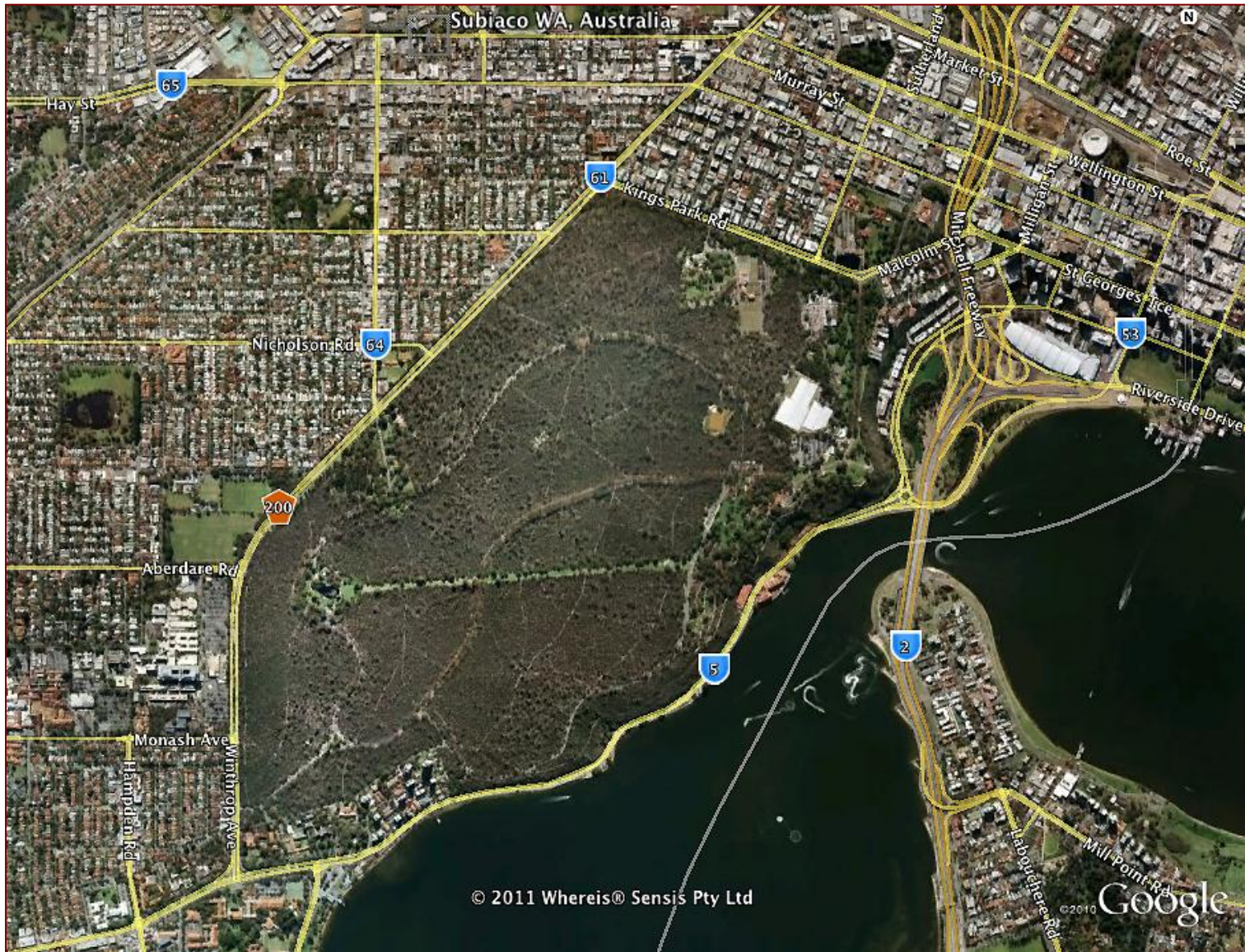
# LRT Northern Route

Via Alexander Drive to Mirrabooka



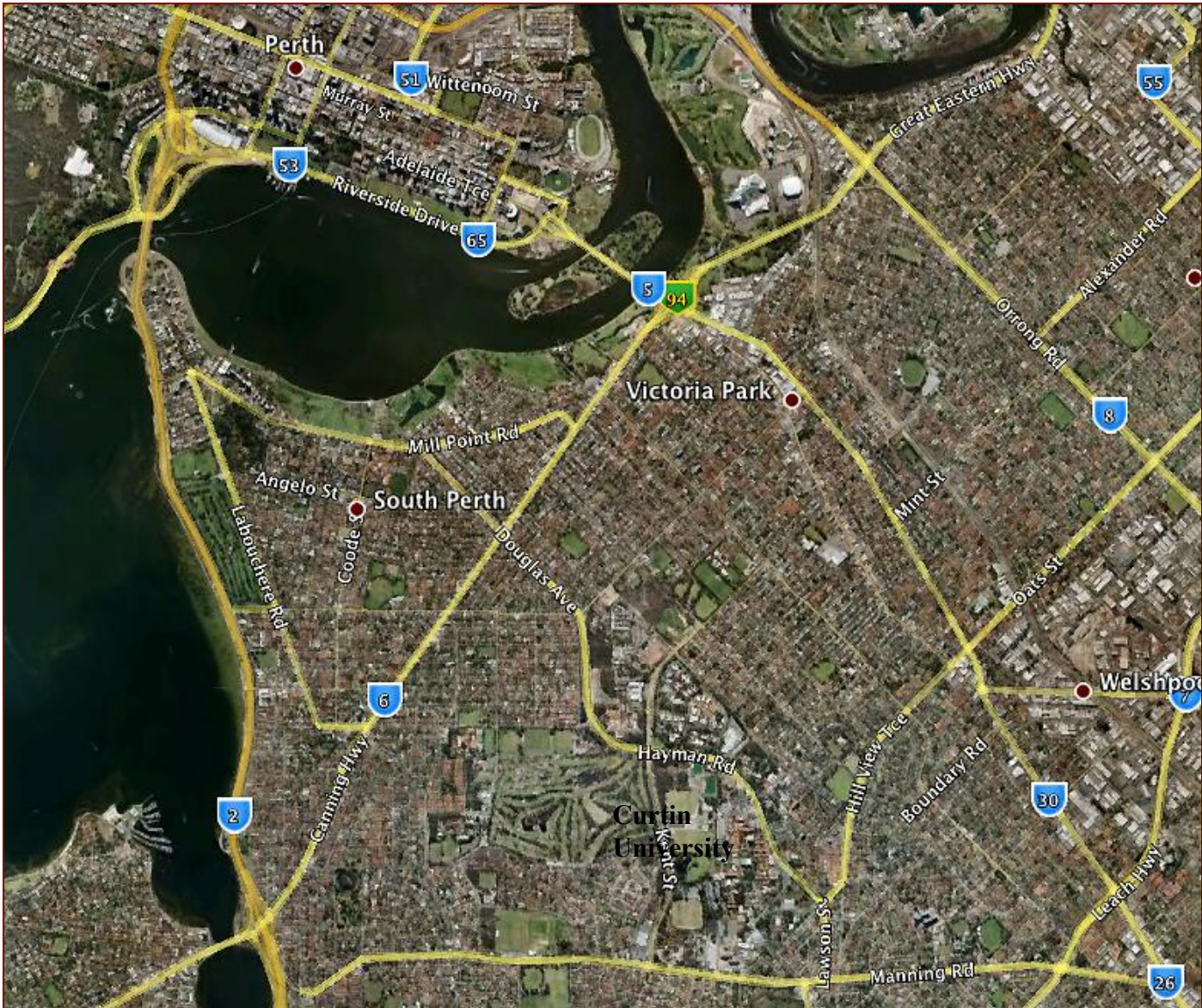
# LRT South West Route

Via West Perth to University of Western Australia



# South East LRT Route

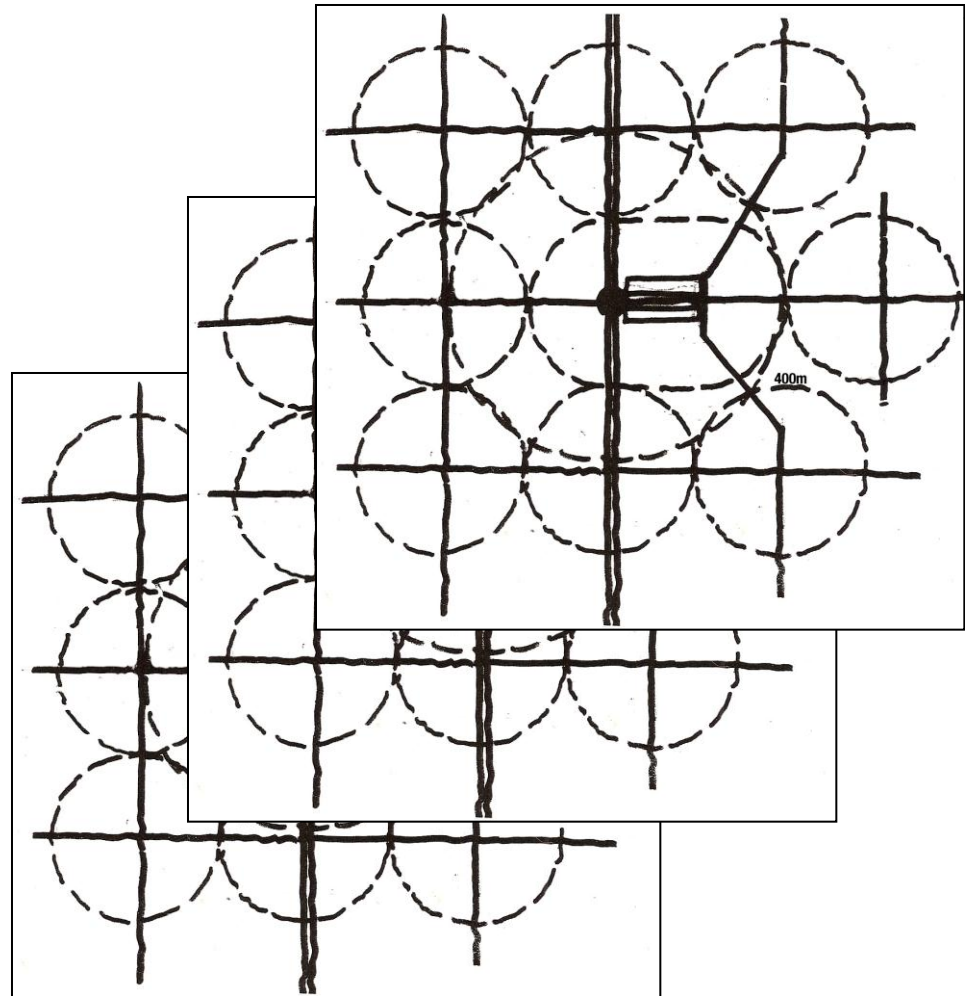
Via Victoria Park to Curtin University



# Master Class Toolkits

Each Team will have:

- Graphic equipment, scales and tracing paper
- Base Maps at various scales - mainly 1: 5000 and 1:1000
- 400m and 800m walkable radius template at 1:5000
- Design principles for TODs and mixed use town etc
- Other useful bits and pieces



***PEN CARE!!! PLEASE PUT TOPS BACK ON PENS IMMEDIATELY AFTER USE - OR THEY WILL DIE!!!***

# The Land Use Colour Chart

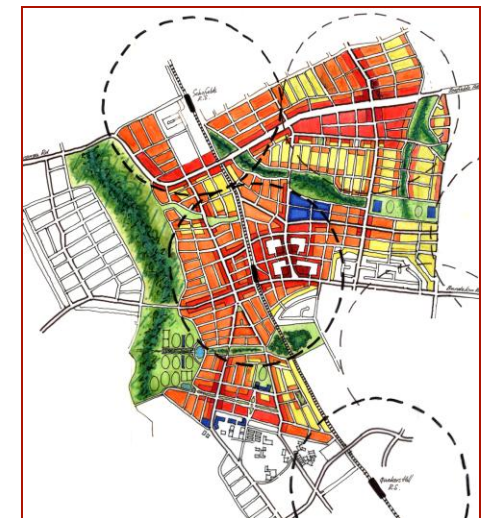
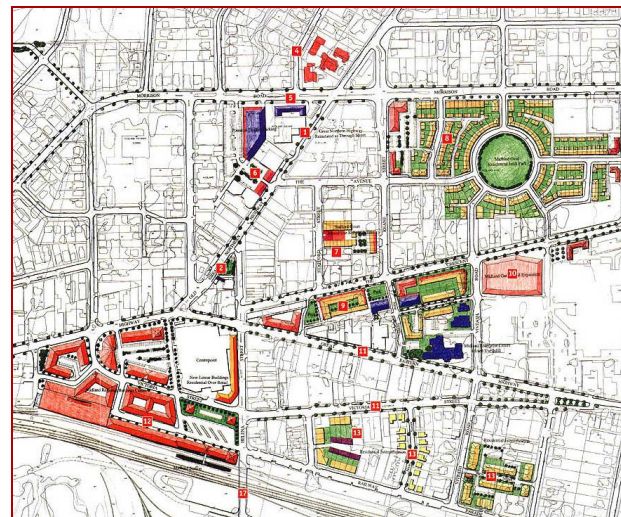
Standard colour charts in each drawing box...

Designates ground floor uses only. (Though it is hard to colour good mixed use town centres!)

Colours 'hot up' visually in and around centres ...gives a much better depiction of the urban structure than zoning colours.

Consistency means it is easier for us to understand each others' plans!

Mixed Use Colour Schedule			
Use colour to indicate prevalent activity			
Pantone marker	Colour Use	Pantone Marker Reference No	Prismacolour Pencil
[Red]	Pedestrian Based Retail	Crimson Red	207-T
[Orange-Red]	Business/Commercial	Warm Red	2X-T
[Purple]	Bulky Goods Commercial	Dahlia Purple	521-T
[Blue]	Community Facilities	Reflex Blue - T	286-T
[Orange]	Medium Density - Residential	Orange	021-T
[Yellow-Orange]	Lower Density Residential	Yellow	Yellow-T
[Light Yellow]	Rural Residential	Pale Yellow	100-T
[Yellow]	Home Business	Yellow-T & Warm Red	2x-T
[Dark Red]	Home Workshop	Mahogany Red	492-T
[Purple]	Light Industry	Lavender	265-T
[Dark Purple]	Heavy Industry	Dark Purple	266-T
[Brown]	Noxious/Offensive Industry	Brown	464-T
[Blue]	Water	Process Blue-T	
[Green]	Urban Parkland & Plazas	Apple Green	376-T
[Light Green]	Regional Park	Light Olive Green	583
[Light Yellow-Green]	Rural	Pale Green	617-T
[Dark Green]	Trees/Bushland (Core & Support)	Dark Green	3292-T



# Perth's Recent TOD achievements

Over the past 15 years Perth has transformed its urban form in significant ways.

Extensive rail route extensions and system upgrades.

New rail-based TODs are occurring in greenfields areas around stations on the heavy rail lines, and urbanistic medium rise mixed use redevelopments are occurring around existing rail stations.

The LRT routes provide a new opportunity and challenge, but it is one that the city seems keen to take up.

The Master Class is a real chance to contribute to this ongoing re-shaping of the city towards a more sustainable future.





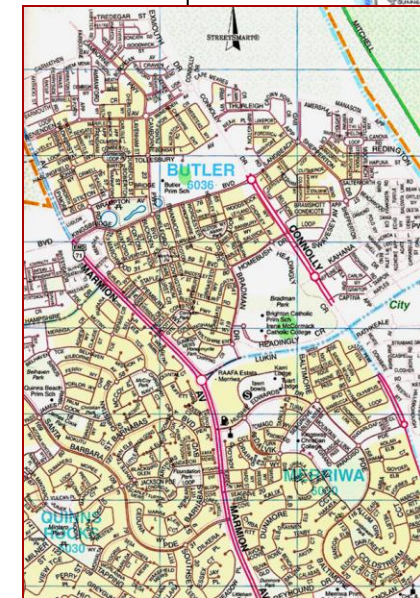
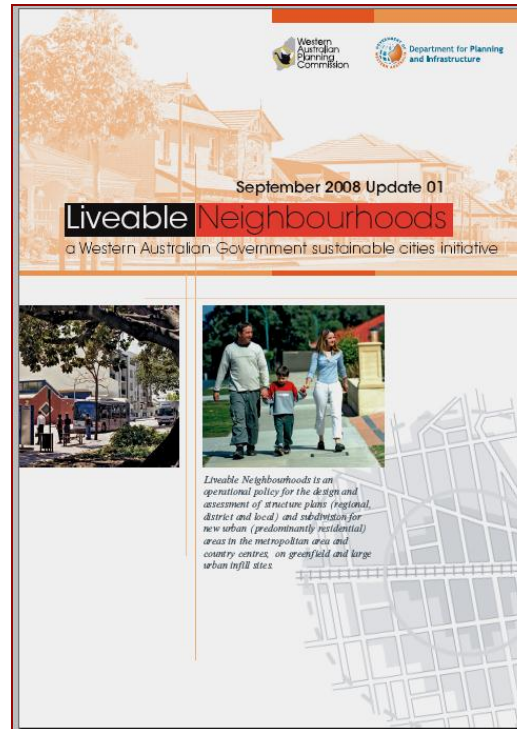
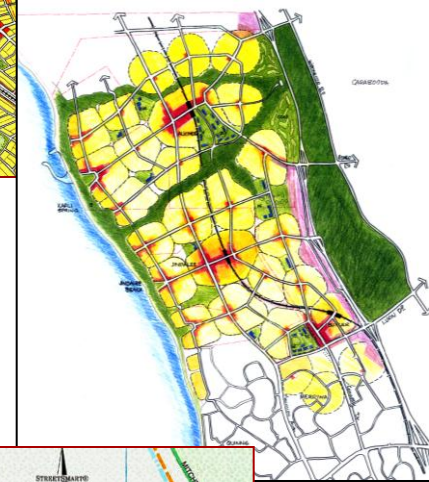
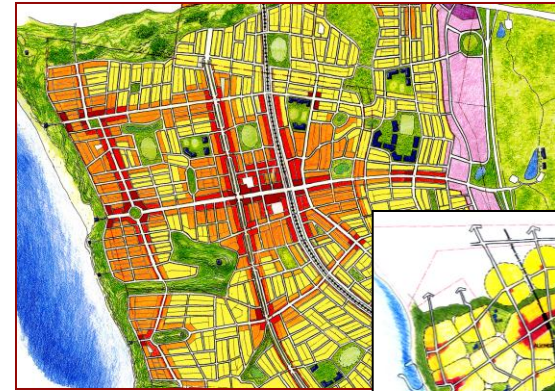
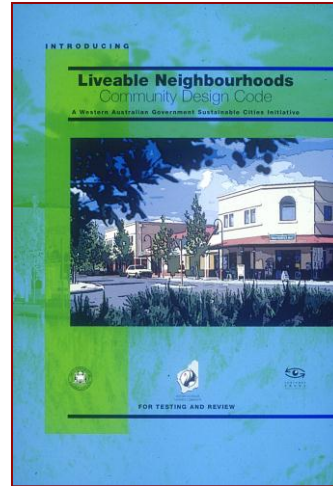
# Perth and *Liveable Neighbourhoods*

A Statewide Code principally for new Urban Extensions – has transformed them from sprawl to a much more sustainable form.

Edition 1 released by Government (WAPC) as optional alternative code in 1997. Now at Edition 4, 2008, and now adopted as State Policy/Code.

Significant change in form of new urban fringe extensions built across Perth and WA. Impressive start, but still a long way further to go....

Good impact on major Perth infill sites as well. Supportive of TOD.



# Somerley

Clarkson, North-west Corridor, Perth, WA

Transit-oriented urban village at Clarkson Station. Rail extended well in advance of freeway. Nearby Ocean Quays Town Centre is a main street hybrid, with street front development expanding. Council and Landcorp key players.



# Wellard

SW Perth, WA

Transit-oriented urban extension at new station south of Kwinana on the new Perth SW railway, with village centre and higher density housing.



# Wellard TOD, March 2010



# Brighton - ready for the train



**Brighton – rail being extended ahead of growth, nearly 40km north of CBD; increasing housing density emerging around future station...but is it enough?**

# Subi Centro

Subiaco, Perth, WA

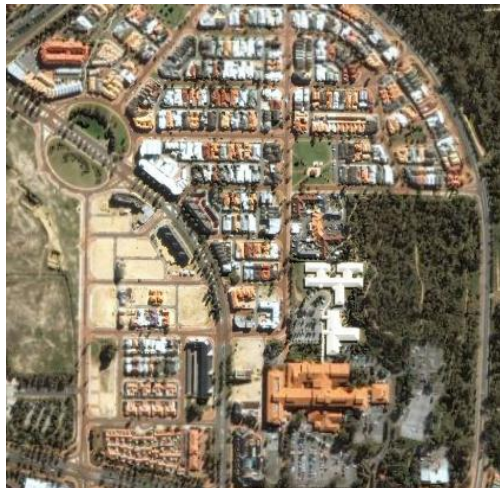
Former industrial. New station, and Rokeby Rd retail anchor. Extensive new commercial/office development, lots of terrace housing and some live-works. Redevelopment Authority.



# Joondalup City Centre

## Perth, WA

Creating dense, mixed use inner suburbs around a new urban fringe centre with rail station.  
Extensive terrace housing, rear lanes, studio units and a range of small business spaces.



# Midland, WA

Major revitalisation charrette 1997

MRA established 2000

Refined visions 2002 & 2007

Extensive site clean-up, street construction, new level crossing, landscape restoration 2002-2009

Police, hospital, university catalysts

Woodbridge coal dam catalyst - now >\$1m housing

Urban frontage to Midland Gate SC as part of expansion

Retail high street revitalising

Recent 3-4 storey mixed use, apartments, and live works





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**After lunch.... base maps, existing conditions plans , and details on scenarios, tasks and outputs**