

Perth Light Rail TOD Master Class

Team Tasks and Scenarios

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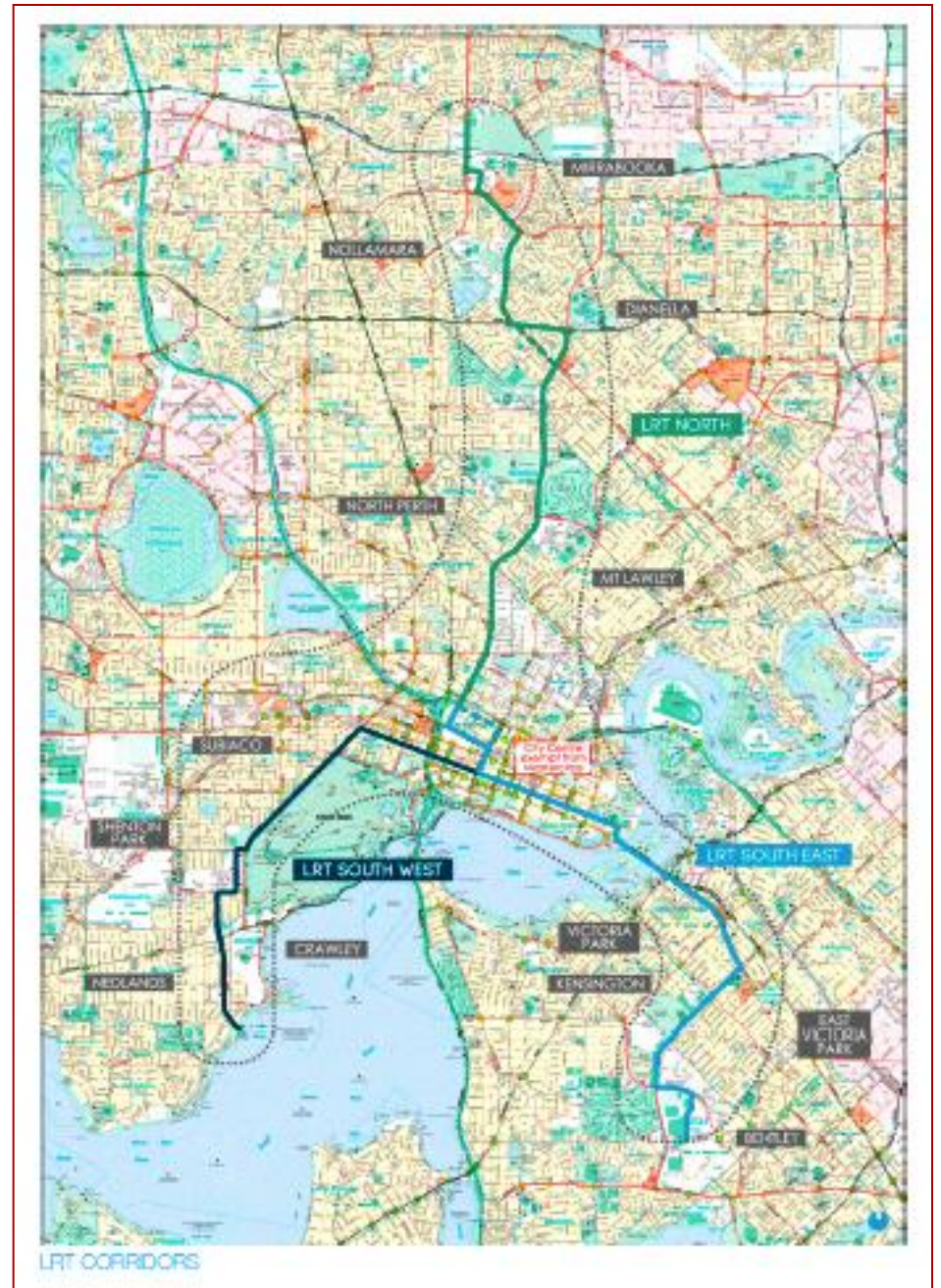
The Three LRT Corridors

North - to Mirrabooka

South West - to UWA

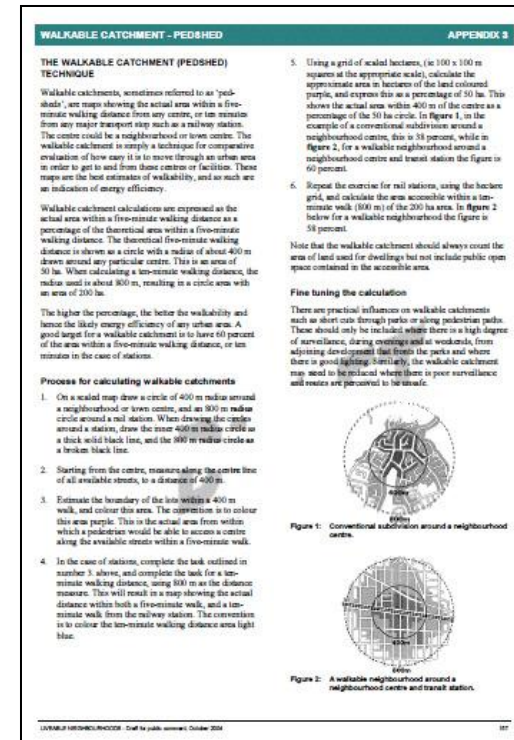
South East - To Curtin U

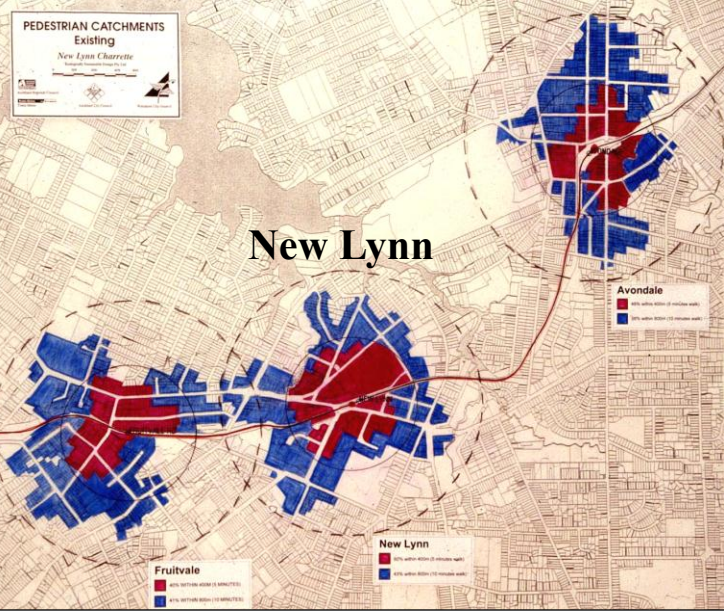
The combined SW and SE lines are also known as the Knowledge Arc



Corridor Investigations

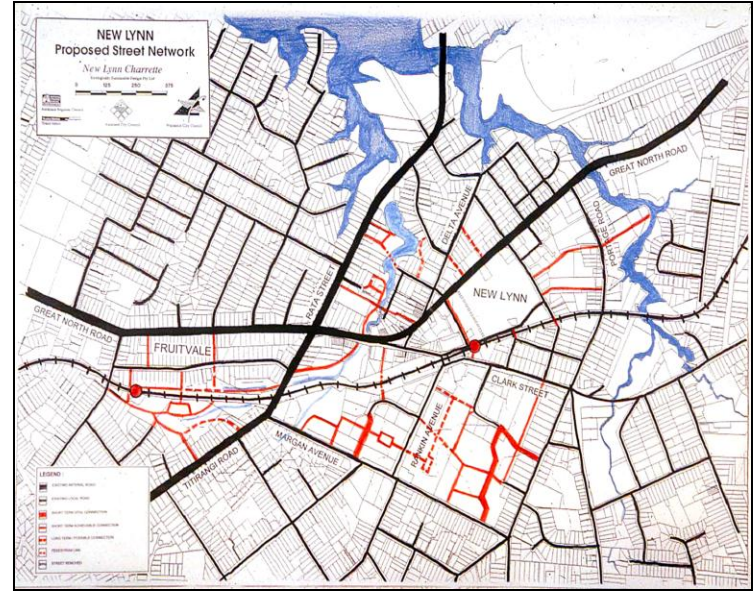
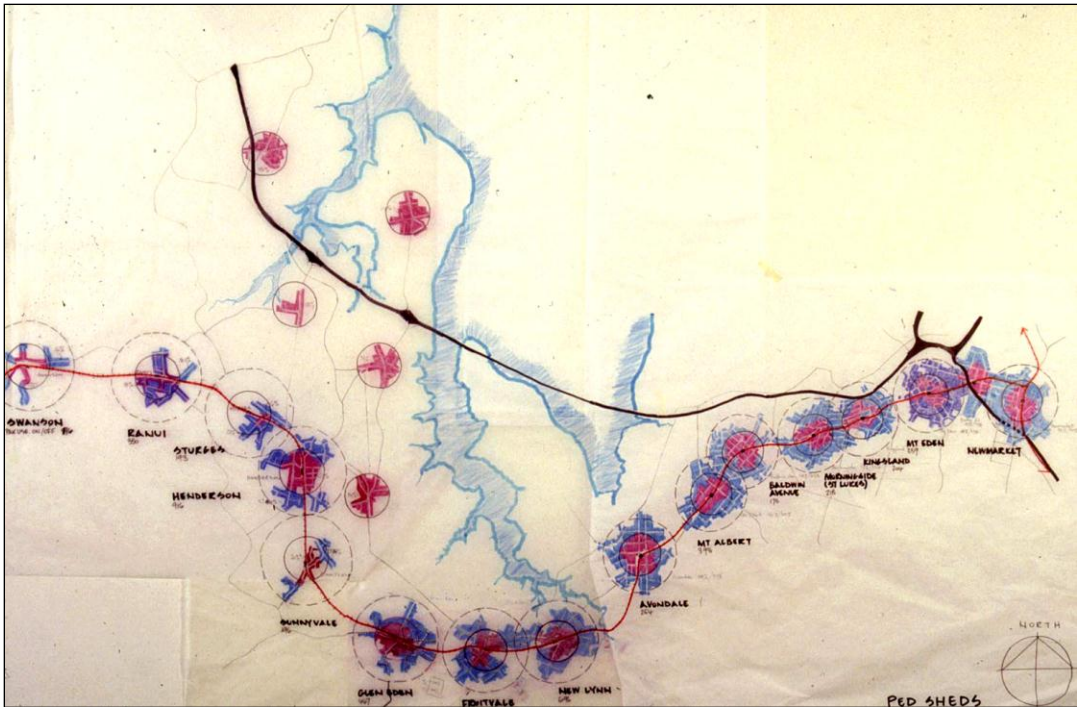
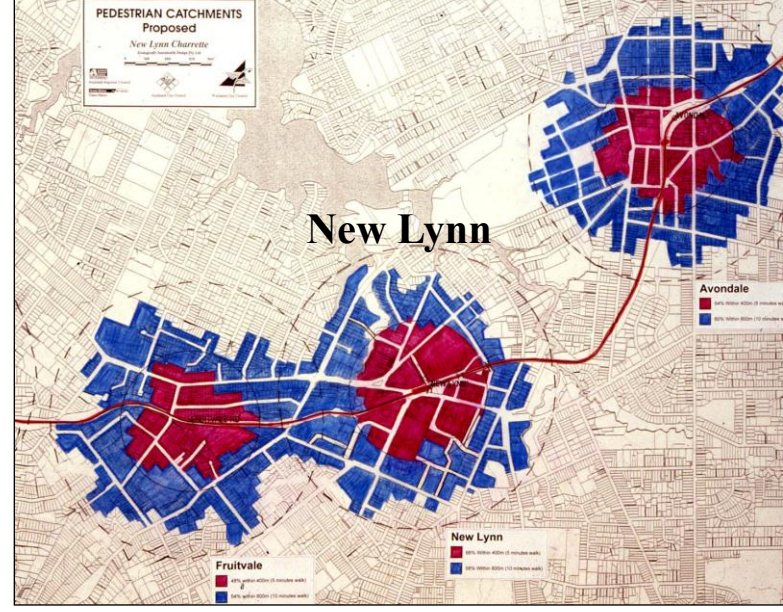
1. Identify and locate key *destinations* along routes and along alternative route segments
2. Identify the key development or redevelopment opportunities along the route/s
3. Locate possible *stops*, and review/check *pedsheds* for each. Identify key *missing streets*/walkable connectivity gaps, and propose new street locations, or pedestrian links where a street is not practical. Prepare a pedshed/missing street corridor plan (possibly at 10,000 scale on street directory)





Auckland - Waitakere Line

Existing and
proposed
pedsheds



New Lynn - missing streets plan

Corridor Investigations (Cont)

4. Estimate relative *urban densities* along the corridor (within 500m of route or 800m of likely stops). Use H, M and L where indicatively $L = R20$ or less, $M = R20-R40$, and $H = >R40$ or equivalent. Try to estimate *residents and workers (and students)* per hectare, not just residents. Use aerials, street directories and local knowledge. Note Melbourne UV analysis.
5. Identify key stops/TOD precincts where significant intensification is required, and those where relatively limited change is needed... *priorities for action*...
6. Identify key *bus route interchange* opportunities along LRT corridors

URBAN VILLAGES PROJECT

Encouraging Sustainable Urban Form Summary Report



Urban Villages Targets for Melbourne

Table 3.5 Variable targets for different categories of urban villages

Type of centre	DESIGN TARGET			
	Pedestrian catchment	Residential density (residents per hectare) (1)	Worker density (workers per hectare) (1)	Premises per hectare (1)
Inner neighbourhood centre	65%	50	12	25
Inner town centre	65%	50	34	33
Inner regional centre	65%	50	100	40
Middle neighbourhood centre	60%	40	7	21
Middle town centre	60%	47	23	26
Middle regional centre	60%	40	80	30
Outer neighbourhood centre	60%	40	5	17
Outer town centre	60%	40	15	20
Outer regional centre	60%	30	60	20

Note (1) Residential, worker and premises density figures relate to *gross* density i.e. they refer to density calculated across the total site area.



Revised design targets

Common targets for all urban villages

Public space	20 per cent of total site area
Public recreation space	5 per cent of total site area
Area within 200 metres of recreation space	100 per cent of total site area
Average House Energy Rating for new dwellings	At least 4 stars (11 HERS points)

ALBERT PARK

Type of Urban Village	Inner Town	
	1993	2006
Residential dwellings	1055	1138
Shops	74	73
Offices	68	73
Industry	0	0
Public community services	8	8
Establishments/ha (target=33)	24	26
Av no. residents/ha (target=50)	46	50
Av no. workers/ha (target=34)	15	15
Total km of street in 400m radius	7	7
No. of street intersections	35	35
Public open space (%)	6	6
Daily train/light rail usage	N/A	700



Traditional terrace house

Description

Albert Park is an Inner Town urban village located on a tram route 3 km from the city and 1km from the beach. The urban fabric consists mainly of one and two storey terrace houses with rear laneway access. Most car parking is on street, accommodated in the typically wide streets. Retailing consists of small scale individual terrace shops, with housing, retail or storage above. A significant number of offices are located in the village and take advantage of complementary services. A wide range of community facilities also exist within the village. The busier roads are located around the edge of the village, which is bordered to the North by St Vincents Gardens. This, combined with its excellent urban form, adaptable architecture and range of infrastructure means that it works well as a local neighbourhood and shopping centre.

Changes

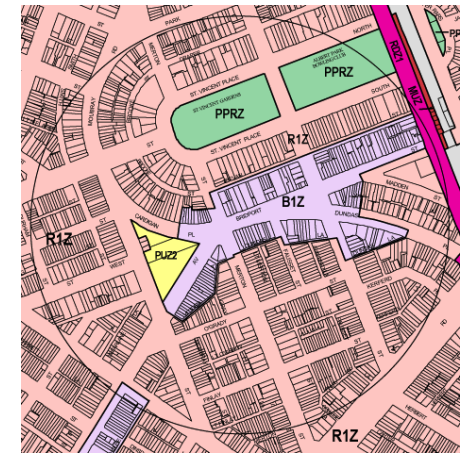
The number of shops has remained static, while there is a slight increase in offices. Bridport St, Cardigan Pl and Victoria Av have remained the main commercial area, with a slight variation in where the shops and offices are now situated. A few more shops have been established along Victoria Av, while offices are concentrated in Cardigan Pl and the eastern end of Bridport St. The growth in residences from 1,055 to 1,138 can be attributed to the increase in multi-storey establishments consisting mainly of double storey duplexes that maintain the narrow terrace character of the area.

Public Transport Access

The 400m radius is centred on the outbound tram stop on Bridport St within the retail hub. The St Kilda Light Rail and a bus service run past the edge of this circle, providing a high quality level of service to and from the locality.

Density Targets

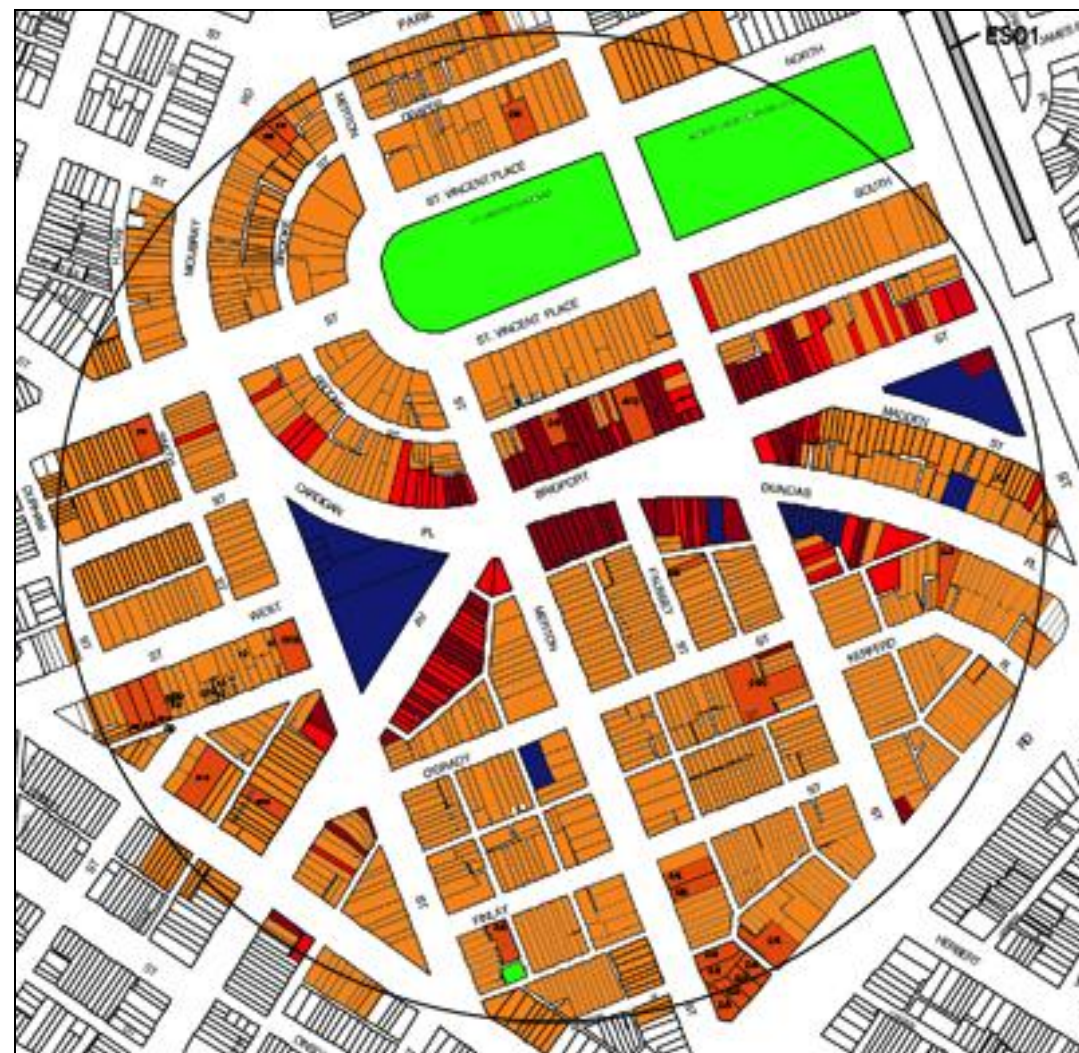
Albert Park has achieved the residential density target, but will need further intensification of shops and offices to achieve the desired worker and establishment densities.



Planning Scheme



Street and block structure, with main transit stop in red



Change in Groundfloor landuse from 1993

Multistorey landuse 2006. Changes since 1993 depicted in bold outline



New duplex house

Typical garage loft extension.

Groundfloor Landuse 2006

LEGEND	Retail	Public Open Space, Park
Residential - low density single dwelling	Office, Medical	Car Park
Residential - medium density single dwelling	Industrial	Public Facilities/ Services
Residential - high density multiple dwelling	Empty lot	Development Opportunities



Bridport St near tram stop

Comparison of 1993 and 2006 UV data

Melbourne Urban Village TODs

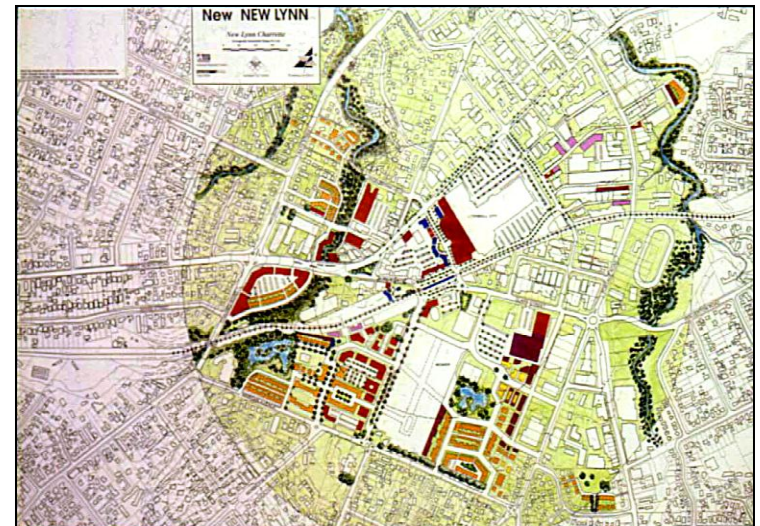
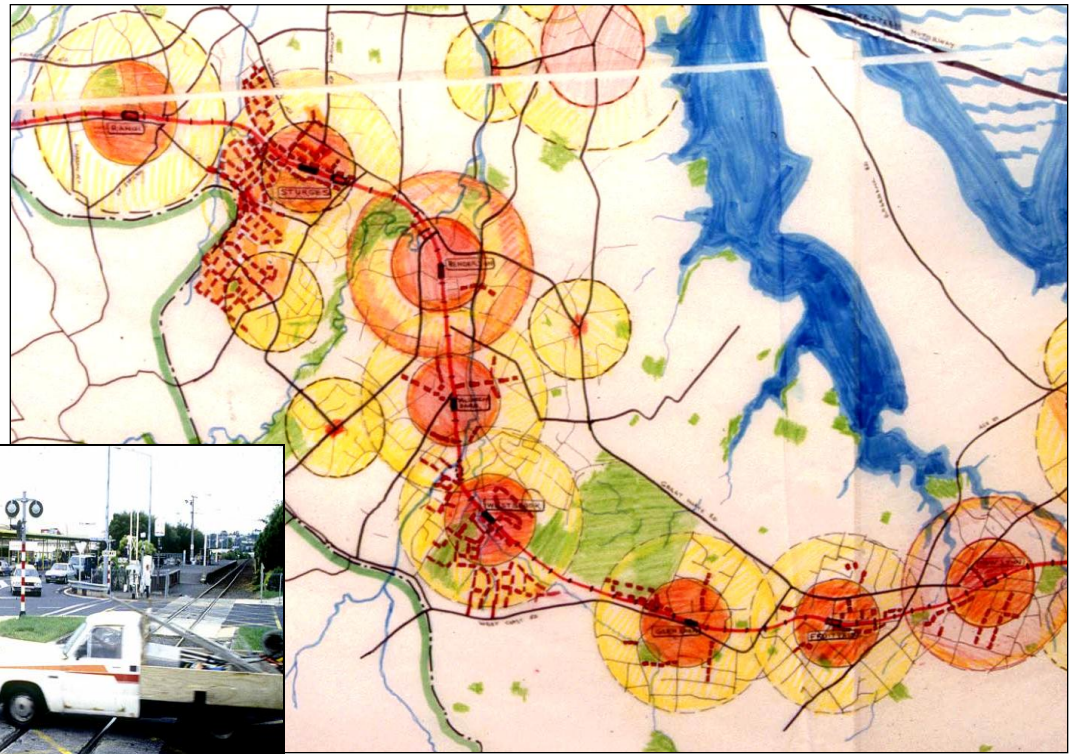
Urban Villages	Clifton Hill	Nth Fitzroy	Albert Park		Armadale		Canterbury		Mont Albert		Parkdale		St Albans		Yarraville		East Malvern		Av. for 2006	
Year	2006	2006	1993	2006	1993	2006	1993	2006	1993	2006	1993	2006	1993	2006	1993	2006	1993	2006	2006	
Total area (ha)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50		
Residential dwellings	788	1406	1055	1138	890	1372	513	463	505	601	673	723	328	304	885	985	270	292	807	
Shops	71	60	74	73	106	137	88	126	42	35	56	47	127	162	98	98	20	26	84	
Offices	36	45	68	73	13	29	37	43	18	12	16	24	58	73	29	35	8	12	38	
Industry	0	0	0	0	0	0	0	0	0	0	2	0	3	2	1	0	2	2	0	
Public Community Services	10	20	8	8	8	9	18	15	4	4	12	11	16	19	9	16	4	7	12	
Total Estabs	874	1531	1205	1292	1017	1548	656	643	569	655	759	812	532	560	1072	1134	301	332	938	
Estabs/ ha	17	30	24	26	20	31	13	13	11	13	15	16	11	11	21	23	6	7	19	
Workers	570	585	745	765	625	865	700	905	310	245	415	400	990	1235	670	695	150	200	647	
Residents	1734	3093	2321	2504	1958	3018	1129	1019	1111	1322	1481	1591	722	669	1947	2167	594	642	1775	
Total residents & workers	2304	3678	3066	3269	2583	3883	1829	1924	1421	1567	1896	1991	1712	1904	2617	2862	744	842	2421	
No. residents/ha	35	62	46	50	39	60	23	20	22	26	30	32	14	13	39	43	12	13	35	
No. workers/ha	11	12	15	15	13	17	14	18	6	5	8	8	20	25	13	14	3	4	13	
Ratio of dwellings to workplaces	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.1	0.1	0.1	0.1	0.6	0.8	0.2	0.2	0.1	0.2	0.2	
Ratio of residents to workers	0.3	0.2	0.3	0.3	0.3	0.3	0.6	0.9	0.3	0.2	0.3	0.3	1.4	1.8	0.3	0.3	0.3	0.3		
Total no. lots	663	1358	1112	1112	788	788	612	612	435	434	582	640	455	456	970	972	296	296	733	
Total no. multistorey lots	210	325	251	383	228	299	103	156	52	109	87	209	40	54	52	184	22	64	199	
% multistorey lots	32%	24%	23%	34%	29%	38%	17%	26%	12%	25%	15%	33%	9%	12%	5%	19%	7%	22%	27%	
Km of street in 400m radius	6	11	7	7	6	6	8	8	7	7	8	8	7	7	9	9	4	4	7	
No. of street intersections	18	48	35	35	32	32	24	24	31	31	24	24	24	24	54	54	16	16	31	
% public open space	15	15	6	6	1	1	8	8	2	2	2	2	16	16	3	3	32	32	10	
Daily train/light rail usage	N/A	N/A	N/A	700		1388			852		791		760		3097		1502		1317	1301
Ratio of trips to residents & workers	N/A	N/A	N/A	0.2		0.4			0.4		0.5		0.4		1.6		0.5		1.6	1

A 400m radius = 50 ha... therefore Albert Park, with 3269 R+W = 65 R+W/Ha

Corridor Investigations (Cont)

- 7. Test small-scale intensification options for typical single dwelling residential areas along the LRT route, especially near stops. Eg. Options for consolidation of 2, 4, 6 lots???**
Also test options where new street links are required, and where back fence ‘frontages’ should be fixed. How far back from the LRT route should the intensification go?
(Parramatta proposed only half a block)
- 8. Review all green space along each route. Appoint a POS ‘heretic’!!! Identify ‘win-win’ redevelopment opportunities to improve POS whilst adding developed edges. Long term future of golf courses??**
- 9. Consolidate all investigations into a Corridor Plan, showing future structure, and documenting key opportunities and constraints.**

**Auckland -
Waitakere Line -
Proposed regional
structure**



New Lynn Concept Plan

Key Precinct and Site Investigations

Each Team should agree which areas are priority, and develop up detailed concept plans for each precinct or site.

The Northern LRT Team should review and evaluate the current Government route detail plan, and propose alternative solutions where appropriate.

AND FINALLY... PRIORITIES!!!

Identify the three to five key initiatives on each route that are critical to progressing the LRT line towards fruition

Where relevant, identify the 3-5 major constraints or challenges to progressing the LRT line.

Architecture of Place Team

Team to focus on site on LRT SW sites, particularly around UWA.


Design urbanism for one or more sites at detailed scale.

Identify and illustrate appropriate denser mixed use building typologies in perspectives and 3D modelling.

Detail up architectural responses derived both of Perth's contextural architecture and of quality walkable public realm/street frontage detailing.

Develop up key principles for a possible architectural approach to the LRT corridors to ensure the built outcomes contribute to the ongoing appeal of the corridor intensification process.





Design Session 1 - 3.15pm to 6pm

Pin up from 5.50pm... I will label boards with Team nos

Report Back - 6pm - 7pm

ENJOY!!!