



Stockland

Precinct 15 East Wanneroo Economic Development and Employment Report



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1 EXECUTIVE SUMMARY

This report considers the economic activation and impact of the construction and operation phases associated with development in Precinct 15 of the East Wanneroo District Structure Plan area. Specifically, the analysis considers the activation of a neighbourhood centre and construction impact associated with:

- The proposed 3,800 residential dwellings
- A 6,000m² neighbourhood centre¹
- A regional sporting facility and associated public open space

The analysis considers the operation impact associated with both of the employment supporting uses.

Activation for the neighbourhood centre was assessed based on six principles of economic activation. The preferred option design is to provide parking, including park and ride, to the west of the centre, in between the centre and proposed school (Figure 3).

Order of magnitude construction costs were estimated based on approximate floorspace for each development component, the Rawlinsons Construction Handbook 2021 and commercial in confidence costings for regional supporting facilities from previous projects.

Input-output modelling is used to estimate the construction impact. It is assumed that the 3,800 dwellings will be developed over a 20 year period, the neighbourhood centre over a one year period (estimated to be viable by 2030), and the regional facility over a two year period. It is estimated that the combined construction impact (across all years) of the identified infrastructure will provide a direct injection of approximately \$1.29 billion (construction costs) into the economy and generate total output in the broader economy of \$4.12 billion. Direct employment will total 2,395 FTE jobs over 20 years, with 9,544 FTE total jobs over the period.

Figure A. Construction Impact Summary

Development Component	Direct Output (Cost)	Direct Jobs	Indirect Jobs	Total Jobs	Total Output
Neighbourhood Centre (6,000m ²)	\$7,384,099	16	43	59	\$23,535,628
Recreation Facility	\$93,780,091	90	266	356	\$295,924,573
Dwellings	\$1,187,359,128	2,289	6,841	9,129	\$3,799,538,052
Total	\$1,288,523,318	2,395	7,150	9,544	\$4,118,998,253

Source: Rawlinsons 2021, ABS 2019

Floorspace to employment ratios were used to estimate operational employment. Department of Planning, Lands and Heritage (DPLH) Land Use and Employment Survey (LUES) data was used to develop ratios specific to the City of Wanneroo. Direct employment per annum amounts to 335 jobs and total employment in the

¹ A Neighbourhood Centre containing 10,000m² of shop/retail floorspace was also assessed, please see section 5



broader region is estimated to be 728 jobs per annum. Direct output amounts to \$72 million per annum and total output is estimated to be \$213 million per annum (Figure B and Figure C).

Figure B. Operational Employment Impact

Development	Direct Employment	Indirect Employment	Total Employment
Regional Facility	78	103	181
Neighbourhood Centre (6,000m ²)	257	290	547
Total	335	393	728

Source: DPLH 2016, ABS 2019

Figure C. Operational Output Impact

Development	Direct Output	Indirect Output	Total Output
Recreation Facility	\$ 18,253,094	\$ 35,794,343	\$ 54,047,437
Neighbourhood Centre (6,000m ²)	\$ 53,832,902	\$ 105,492,108	\$ 159,325,010
Total	\$ 72,085,996	\$ 141,286,450	\$213,372,447

Source: DPLH 2016, ABS 2019

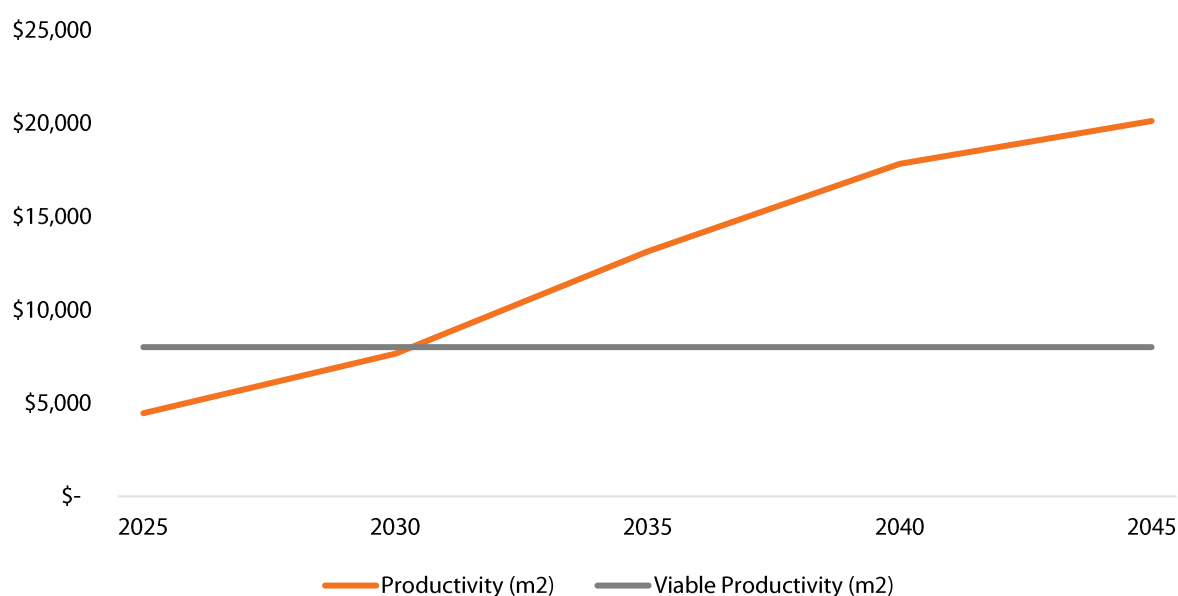
2 BACKGROUND

Pracsys was contracted by Stockland to estimate the economic development and employment impacts of the planned developments detailed below at precinct 15, East Wanneroo.

2.1 Neighbourhood Centre

The East Wanneroo Economic Development Strategy identifies the full build out of the Neighbourhood Centre for Precinct 15, Mariginiup, as including 4,181m² of Shop/Retail floorspace and 1,838m². A Retail Needs Assessment was conducted to estimate the supportable retail floorspace at the site over time based on the dwelling release schedule. A suitable date of construction completion was estimated to be in approximately 2030 based on achieving a benchmarked viable turnover level for a neighbourhood centre of \$8,000m² (Figure 1).²

Figure 1. Mariginiup Neighbourhood Centre Productivity



Source: Pracsys 2022

The analysis provides an understanding of the timing of development associated with the current planned fully developed activity centre and assumes it is constructed within a one year period.

These results should be interpreted as a progression of those identified in the East Wanneroo Economic Development Strategy (EDS). This analysis provides a more localised assessment of the retail demand created by the future population within Precinct 15 and the potential for the local Neighbourhood Centre to meet that demand given its proximity. They also include the dwelling staging estimates from the East Wanneroo DSP which was finalised in 2021 and after the development of the East Wanneroo EDS. The general upper limit

²This was developed based on benchmarking using the Property Council Shopping Centre Directory

for neighbourhood centres is 10,000m²; it is likely that between 2030 and 2050 the Precinct 15 neighbourhood centre could support this level of floorspace.

There is a high level of uncertainty around when and to what size the neighbourhood centre could expand due to the current level of planning for East Wanneroo. The East Wanneroo District Structure Plan (DSP) identifies a District Centre and the Precinct 15 Neighbourhood Centre as being the main activity centres for the area. The only other centres mentioned are referred to as local centres with no floorspace allocated. The combined Shop/Retail floorspace allocated in the DSP amounts to approximately 35,000m². This appears to be much lower than the Shop/Retail floorspace required to meet the needs of the 150,000 persons expected at full development of the East Wanneroo DSP. To provide context, the ratio of floorspace per person in the DSP has been compared to the 2016 provision rates (floorspace m² per person) for the City of Wanneroo and Greater Perth (Figure 2).

Figure 2. Service Ratio Comparison (m² per person)

Population	SHP Service Ratio	SHP Floorspace (m ²)	SHP Gap compared to Full Buildout (m ²)
Current DSP Full Buildout	0.23	35,000	-
City of Wanneroo Service Ratio (2016)	0.83	120,000	85,000
Perth Metropolitan Service Ratio (2016)	1.60	240,000	205,000

Source: DPLH 2016-18-21, ABS 2016

There appears to be a requirement for additional floorspace to support the planned population; the City of Wanneroo provision rate is representative of a suburban provision level and provides a conservative estimate of the Shop/Retail floorspace that could be provided within the DSP. Applying the City of Wanneroo ratio would still require that an additional 120,000m² of Shop/Retail floorspace be provided at surrounding higher order centres. This potential underprovision of Shop/Retail floorspace within the DSP leads to the significant increases in turnover productivity at the Precinct 15 centre over time (Figure 1) that would likely cause it to expand beyond the size of a neighbourhood centre by 2050. This unrestricted growth is unlikely however as other developers will eventually look to provide retail floorspace where population is developing to meet daily and weekly shopping needs locally.

To provide a conservative estimate of employment impact this report estimates the impact associated with the current planned full buildout of the Neighbourhood Centre and the potential impact should it achieve the upper end of 10,000m² Shop/Retail development. Office floorspace is assumed to develop at the same ratio as in the East Wanneroo EDS.

Centre Activation

An options assessment was undertaken to support planning of the Neighbourhood Centre. The assessment applied the six principles of economic activation to consider different centre and parking layouts and their

ability to support a viable and vibrant centre (for more detail please see Section 10, Appendix 1: Principles of Activation). The preferred option provides a consolidated parking area, with a park and ride component, to the west of the Neighbourhood Centre and in between the centre and proposed school.

Figure 3. Map of Preferred Design Option



Source: Stockland 2022

This layout provides high levels of access to both the school and the centre and allows park and ride passengers to walk through the main street to access the planned train station. This option maximises the potential vibrancy of the centre and supports walkability for multi-purpose between the school, centre and train station, addressing key objectives of the state planning framework. The pedestrian traffic generated by this design results in little additional walking distance for public transport patrons while providing significant additional foot traffic to support businesses in the centre.

2.2 Dwellings

There are a total of 3,800 dwellings being proposed in Precinct 15. The construction period for the 3,800 dwellings proposed within precinct 15 was assumed to be 20 years. ABS data was used to determine the split of dwelling types constructed based on the distribution of dwelling structures in Wanneroo (Figure 4). This provides a conservative impact estimate as Separate House dwellings are the least expensive per m² to develop

Figure 4. Distribution of Dwelling Structure Type

Dwelling Structures	Number Being Built
Separate House	3,496
Semi-detached, row or terrace house, townhouse etc	266
Flat or apartment	38
Total	3,800

Source: ABS 2021

2.3 Regional Recreational Facility

The East Wanneroo DSP includes a significant regional recreational facility in Precinct 15, estimated to occupy a total area of 425,000m². The following facility components were identified in the East Wanneroo Community Facility Plan (EWCFP) (Figure 5). These facilities are assumed to be constructed over a two year period.

Figure 5. East Wanneroo Community Facility Plan Main Developments

Development	Area (m ²)
Multipurpose Playing Fields	168,156
Indoor Recreation Centre	1,983
Gymnasium	350
Playground	10,020
Purpose Built Sport Area	1,000
Outdoor Courts	21,060
Indoor Courts	4,054

Source: City of Wanneroo 2019

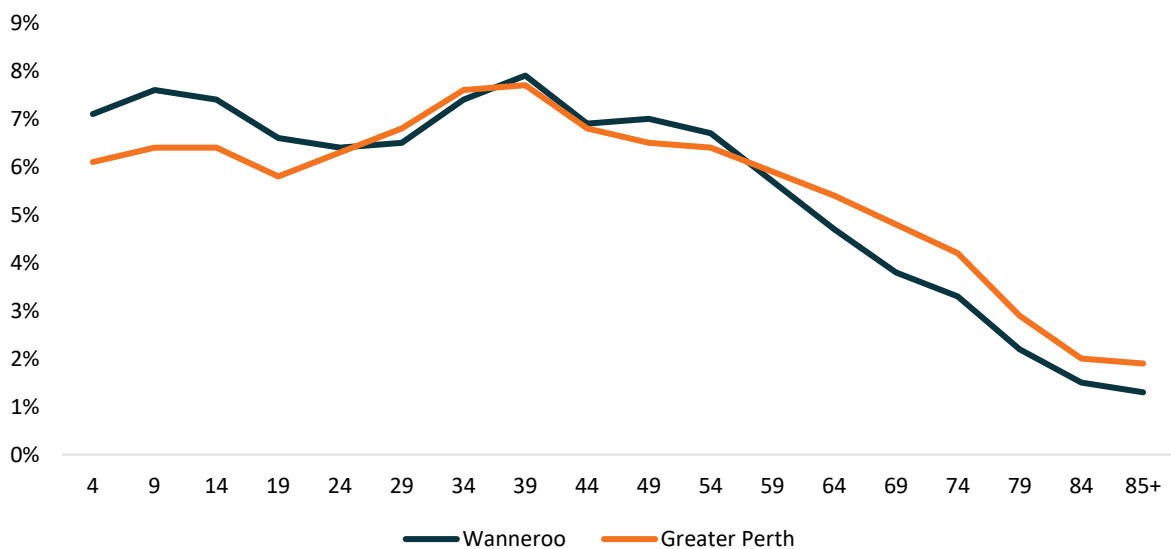
3 DEMOGRAPHICS

This section provides an overview of demographics, current and future dwellings and the income profile of the study area.

3.1 Age Profile

The trade area exhibits a relatively similar demographic profile to the Greater Perth benchmark (Figure 6) with a slightly higher proportion of people aged 0 to 19-year-olds and lower proportion of 59 to 85 years and over. This reflects that the study area is overall comprised of a higher concentration of working-age adults with young children than the Greater Perth average.

Figure 6. Study Area Demographic Profile

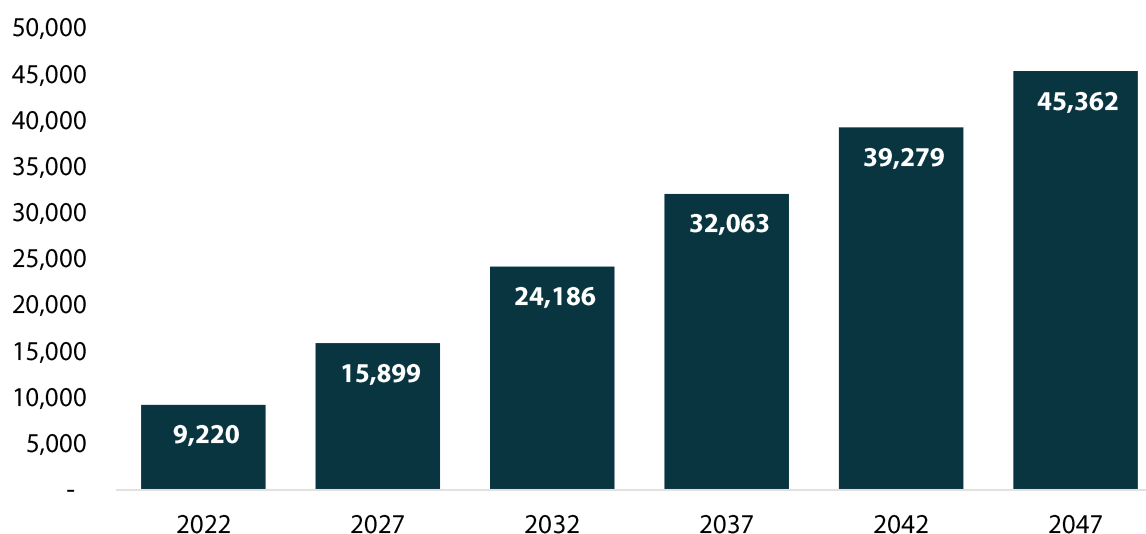


Source: ABS 2021, Pracsys 2022

3.2 Catchment Area Dwellings

The trade area of the proposed development is estimated to contain 9,220 dwellings in 2022 (Figure 7) Based on dwelling growth forecasts, the number of dwellings in the trade area is expected to grow to 24,186 by 2032, reflecting a forecast increase in dwellings of 162 per cent. By 2037, the number of dwellings in the trade area is projected to reach 32,063, reflecting a 248 per cent increase from the current level. The significant growth will create demand for goods and services, and employment opportunities.

Figure 7. Study Area Dwelling Growth Forecast

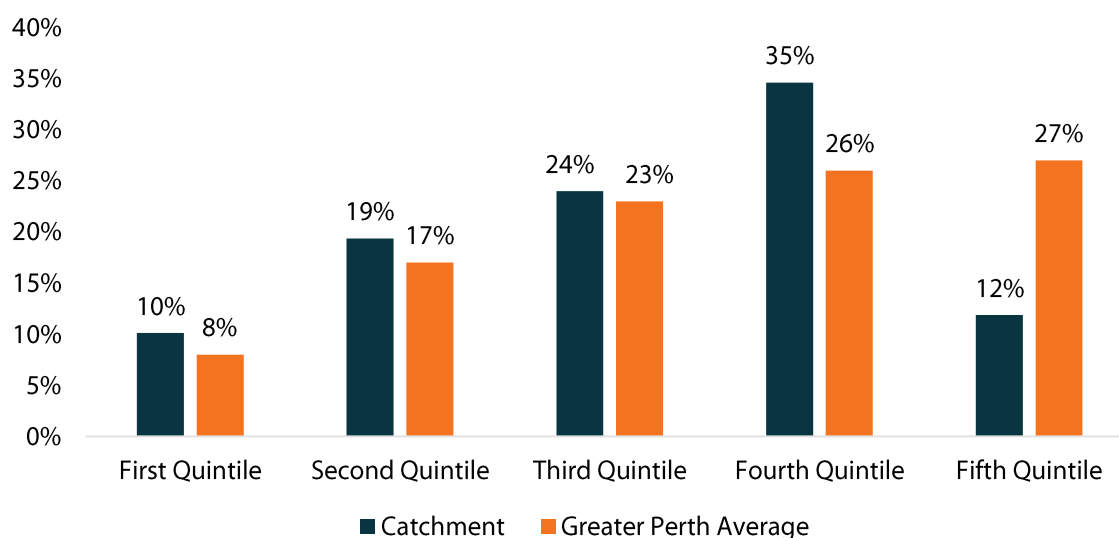


Source: ABS 2016, DPLH WA Tomorrow 2018, Pracsys 2022

3.3 Catchment Area Income

Generally, lower income quintiles spend a higher proportion of their income on basic goods and services; upper income quintiles have more disposable income available to spend on non-essential retail items. ABS Census data has been used to assess the distribution of household income within the study area (Figure 8).

Figure 8. Study Area Population Weekly Income Profile



Source: ABS 2016, ABS HHES Survey 2015/2016, Pracsys 2022

Incomes in the trade area deviate from the Greater Perth benchmark across four of the five quintiles, with the most significant difference being a lower proportion of households in the fifth (12% versus 27%), and a higher proportion of households in the fourth quintile (35% versus 26%). Overall, the income breakdown indicates that residents of the Study Area have an average household income slightly lower than that of the Greater



Perth area. This income breakdown is not expected to significantly change the level of demand for goods, services and recreation within Precinct 15. The proposed neighbourhood centre and regional facility are still seen as appropriate at their proposed scales.

4 ECONOMIC IMPACT ASSESSMENT

The economic impact of the proposed developments in Precinct 15 have been assessed using ABS National Input-Output tables at an Input-output Industry Group (IOIG) level. The methodology involves estimating the total direct and indirect employment, value add and output arising from the development.

Input-Output Tables Methodology

Input-Output tables provide information about supply and disposition of commodities in the Australian economy as well as the structure and inter-relationships between industries.³ The National Input-Output tables were used to derive input-output multipliers. The multipliers predict the total impact on all industries of changes in the demand for output of any one industry. Total impact multipliers were calculated for employment, gross value added and output. The obtained multipliers were then combined with annual expenditure data to estimate the direct and indirect economic effect of the project on the economy.

Assumptions and Limitations

The following assumptions and limitations apply to the model:

- Results of the model represent the gross impacts in the absence of capacity constraints.
- National Input-Output table approximates the actual patterns of linkages between industries in the regional economy;
- Analysis assumes that the industrial structure of the economy is fixed. Considering the scale and duration of the proposed developments, it is likely that this assumption stays true;
- Estimates the employment impact based on the average output per Full Time Equivalent (FTE) employee. It is likely a significant component of the impact will result in an increase in the number of hours worked by existing employees, with some additional employment created.

³ Master Reference 25: ABS, 1995, Introduction to Input-Output Multipliers

5 NEIGHBOURHOOD CENTRE ECONOMIC IMPACT

5.1 Construction Cost

The 6,000m² neighbourhood centre proposed is to contain 4,181m² of shop/retail floorspace and 1,838m² of office/business floorspace. A 14,000m² neighbourhood centre composing of 10,000m² of shop/retail floorspace and 4,396 of office/business floorspace was also assessed and included within the analysis below. The construction cost of the centre was estimated using the Rawlinson Handbook⁴ element construction breakdown of Suburban Single Storey Neighbourhood Centre and Office Building Single Storey, which were then allocated under their relevant industry group (Figure 9). The duration of construction was assumed to be one year.

Figure 9. Construction Stage and Corresponding Industry (Neighbourhood Centre)

Construction Type	Industry
Preliminaries	Professional, Scientific & Technical Services
External Services	Heavy and Civil Engineering Construction
Substructure	Heavy and Civil Engineering Construction
Columns	Non-Residential Building Construction
Roof	Non-Residential Building Construction
External windows	Non-Residential Building Construction
Internal Walls	Non-Residential Building Construction
Internal Doors	Non-Residential Building Construction
Wall	Construction Services
Floor	Construction Services
Fitments	Construction Services
Mechanical	Construction Services
Ceiling	Construction Services
Plumbing	Construction Services
Fire	Construction Services
Electrical	Construction Services
Design Contingency	Professional, Scientific & Technical Services

Source: Pracsys 2022, ABS 2019, Rawlinsons 2021

5.2 Construction Phase

The overall capital expenditure estimated on the construction of the 6,000m² neighbourhood centre is approximately \$7 million and \$18 million for the construction of the 14,000m² neighbourhood centre. The expenditure was applied to the appropriate industry sector based on the breakdown detailed Figure 10.

⁴ Rawlinsons, 2021, Rawlinsons Australian Construction Handbook

Figure 10. Corresponding Industry and Construction Cost / Direct Output (Neighbourhood Centre)

IOIG	6,000m ²	14,000m ²
Heavy and Civil Engineering Construction	\$661,767	\$1,582,796
Non-Residential Building Construction	\$2,951,965	\$7,060,427
Construction Services	\$2,094,795	\$5,010,274
Professional, Scientific & Technical Services	\$1,675,572	\$4,007,587
Estimated Total	\$7,384,099	\$17,661,084

Source: Rawlinsons 2021

The direct output of \$7 million into the economy for the 6,000m² neighbourhood centre will lead to an estimated \$24 million in total output for the broader economy (Figure 11). This large multiplying effect on total output describes the significant number of industry-to-industry inputs within the construction sector e.g. purchasing of materials that must be manufactured within Australia.

Figure 11. Impact of Construction Activity: Increase in Output (Neighbourhood Centre 6,000m²)

IOIG	Cost (Direct Output)	Total Output
Heavy and Civil Engineering Construction	\$661,767	\$1,991,740
Non-Residential Building Construction	\$2,951,956	\$9,877,531
Construction Services	\$2,094,795	\$6,534,106
Professional, Scientific & Technical Services	\$1,675,572	\$5,132,251
Estimated Total	\$7,384,099	\$23,535,628

Source: Rawlinsons 2021, ABS 2019

The direct output of \$18 million into the economy for the 14,000m² neighbourhood centre will result in approximately \$56 million in total output for the wider economy (Figure 12).

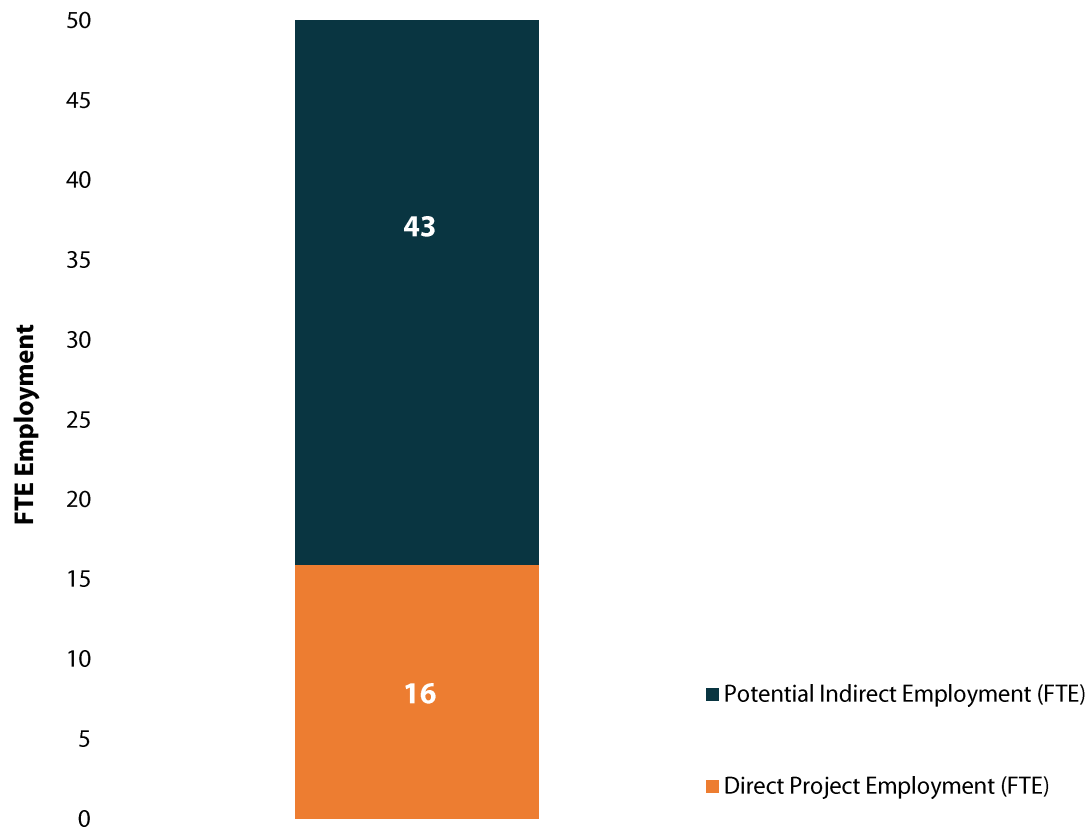
Figure 12. Impact of Construction Activity: Increase in Output (Neighbourhood Centre 14,000m²)

IOIG	Cost (Direct Output)	Total Output
Heavy and Civil Engineering Construction	\$1,582,796	\$4,763,789
Non-Residential Building Construction	\$7,060,427	\$23,624,804
Construction Services	\$5,010,274	\$15,628,093
Professional, Scientific & Technical Services	\$4,007,587	\$12,275,177
Estimated Total	\$17,661,084	\$56,291,863

Source: Rawlinsons 2021, ABS 2019

The 6,000m² neighbourhood centre is expected to create 16 direct FTE employment opportunities annually over a 1 year construction period. The total impact of the construction phase is estimated to be 43 indirect FTE employment opportunities (Figure 13) in the broader economy.

Figure 13. Impact of Construction Activity: Number of FTE Employees (Neighbourhood Centre 6,000m²)

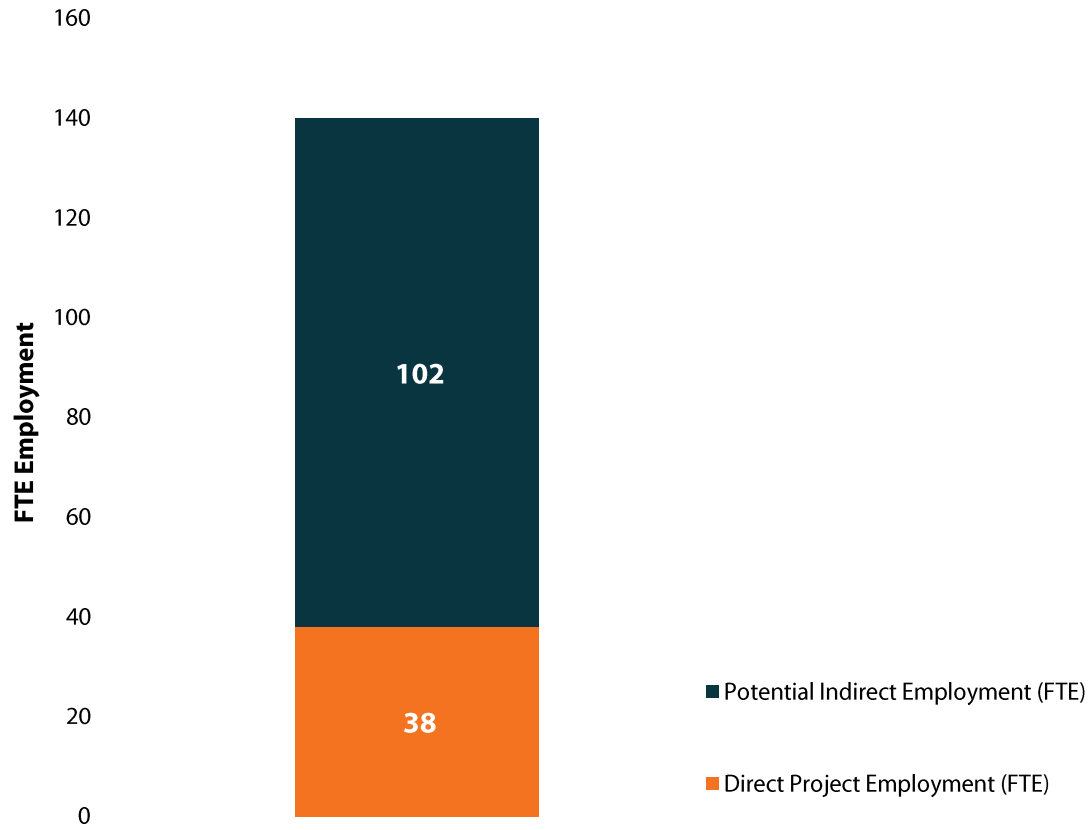


Source: ABS I-O Tables (2012-13), Pracsys 2022

The 14,000m² neighbourhood centre is expected to create 38 direct FTE employment opportunities annually over a 1 year construction period. The full impact of the construction phase is estimated to be 102 indirect FTE employment opportunities (Figure 1) in the wider economy.



Figure 14. Impact of Construction Activity: Number of FTE Employees (Neighbourhood Centre 14,000m²)



Source: ABS I-O Tables (2012-13), Pracsys 2022

6 DWELLING ECONOMIC IMPACT

6.1 Construction Cost

The Rawlinson Handbook element construction breakdown was used to determine the construction cost of each dwelling type based on their similarity to the dwelling structure found in ABS survey data (Figure 15). The duration of construction was assumed to be 20 years.

Figure 15. Rawlinson Residential Construction Classification and Corresponding ABS Classification

Rawlinsons Handbook Classification	ABS Dwelling Classification
House Single Unit: Individual House, Medium Standard Brick Veneer	Separate House
Multi-Unit Low Density: Town House 2 Storey, Medium Standard Full Brick	Semi-detached, row or terrace house, townhouse,
Multi-Unit Low Density: Apartments Max 3 Storey, Medium Standard	Flat or apartment

Source: ABS 2021, Rawlinson 2021, Pracsys 2022

The costs outlined by the Rawlinsons Handbook for each dwelling type were then allocated under their corresponding industry group (Figure 16).

Figure 16. Construction Stage and Corresponding Industry (Dwelling Development)

Construction Type	Industry
Preliminaries	Professional, Scientific & Technical Services
Substructure	Heavy and Civil Engineering Construction
Roof	Residential Building Construction
External Walls	Residential Building Construction
External Doors	Residential Building Construction
Internal Walls	Residential Building Construction
Internal Screens	Residential Building Construction
Internal Doors	Residential Building Construction
Wall	Construction Services
Floor	Construction Services
Ceiling	Construction Services
Fitments	Construction Services
Plumbing	Construction Services
Electrical	Construction Services
External Services	Heavy and Civil Engineering Construction
Design Contingency	Professional, Scientific & Technical Services

Source: Rawlinsons 2021, ABS 2019



6.2 Construction Phase

The analysis estimates the capital expenditure required for the construction of the proposed dwellings is approximately \$1 billion. The expenditure was applied to each dwelling type based on their relevant industry sector (Figure 17).

Figure 17. Corresponding Industry and Construction Cost / Direct Output (Dwelling Development)

Dwelling Structure	IOIG	Total
Separate House	Heavy and Civil Engineering Construction	\$99,984,180
	Residential Building Construction	\$522,389,254
	Construction Services	\$359,493,680
	Professional, Scientific & Technical Services	\$113,516,197
Townhouse	Heavy and Civil Engineering Construction	\$4,684,325
	Residential Building Construction	\$39,433,498
	Construction Services	\$30,150,018
	Professional, Scientific & Technical Services	\$8,823,283
Flat or Apartment	Heavy and Civil Engineering Construction	\$397,396
	Residential Building Construction	\$3,463,026
	Construction Services	\$3,162,951
	Professional, Scientific & Technical Services	\$1,861,321
Estimated Total		\$1,187,359,128

Source: Rawlinsons 2021, ABS 2019

The direct output of \$1 billion into the economy will lead to an estimated \$4 billion in total output for the broader economy (Figure 18). This equates to annual direct output of \$59 million and annual total output of \$190 million.

Figure 18. Impact of Construction Activity: Increase in Output (Dwelling Development)

IOIG	Input Construction Cost	Total Output
Heavy and Civil Engineering Construction	\$105,065,901	\$316,219,971
Residential Building Construction	\$565,285,778	\$1,877,646,755
Construction Services	\$392,806,649	\$1,225,246,200
Professional, Scientific & Technical Services	\$124,200,800	\$380,425,125
Estimated Total	\$1,187,359,128	\$3,799,538,051
Estimated Annual	\$59,367,956	\$189,976,903

Source: Rawlinsons 2021, ABS 2019

Over the 20-year construction period, dwelling construction is expected to create 114 direct FTE employment opportunities per year, achieving a cumulative total of 2,289 direct FTE employment by 2042. Indirect FTE



employment is estimated to be 342 jobs per year, amounting to 6,841 jobs by the end of the construction period (Figure 19).

Figure 19. Impact of Construction Activity: Cumulative Number of FTE Employees & Output (Dwelling Development)

Output	2023	2033	2042
Direct Employment (FTE)	114	1,259	2,289
Indirect Employment (FTE)	342	3,762	6,841
Total Employment (FTE)	456	5,021	9,129
Direct Output Annually	\$59,367,956	\$653,047,516	\$1,187,359,128
Total Output Annually (\$)	\$189,976,903	\$2,089,745,933	\$3,799,538,051

Source: Rawlinsons 2021, ABS 2019

7 REGIONAL RECREATIONAL FACILITY ECONOMIC IMPACT

7.1 Construction Cost

The Recreational Facility construction cost was determined using the Rawlinson Handbook construction pricing for relevant construction types. Each construction type was then allocated under their relevant industry group (Figure 20). The construction period for the regional recreational facility is assumed to be two years. It should be noted that the cost for playing fields, playgrounds and indoor and outdoor courts were estimated using commercial in confidence costings from previous projects, to provide a more accurate construction cost estimate.

Figure 20. Construction Type and Corresponding Industry (Recreational Facility)

Construction Type	Industry
Basketball Centre	Non-Residential Building Construction
Gymnasium	Non-Residential Building Construction
Public toilet	Non-Residential Building Construction
Playground	Non-Residential Building Construction
Clubhouse	Non-Residential Building Construction
Outdoor Courts	Non-Residential Building Construction
Indoor Courts	Non-Residential Building Construction
Landscaping	Construction Services
Verandahs	Construction Services
Footpaths	Construction Services
Fencing and Gates	Construction Services
Playing Fields	Construction Services
External Paving	Construction Services
Car/Bus Parking	Heavy and Civil Engineering Construction
Professional Services	Professional, Scientific & Technical Services

Source: Rawlinsons 2021, ABS 2019

7.2 Construction Phase

Capital expenditure was broken into relevant industry type detailed in Figure 21. The estimated capital expenditure for the construction of the recreational facility is approximately \$94 million.

Figure 21. Corresponding Industry and Construction Cost / Direct Output (Recreational Facility)

IOIG	Total
Non-Residential Building Construction	\$ 28,688,460
Construction Services	\$ 32,743,045
Heavy and Civil Engineering Construction	\$ 24,132,020
Professional, Scientific & Technical Services	\$ 8,216,566
Estimated Total	\$ 93,780,091

Source: City of Wanneroo 2019, Rawlinsons 2021, ABS 2019

The direct output into the economy of \$94 million will result in \$296 million in total output for the broader economy (Figure 22).

Figure 22. Impact of Construction Activity: Increase in Output (Recreational Facility)

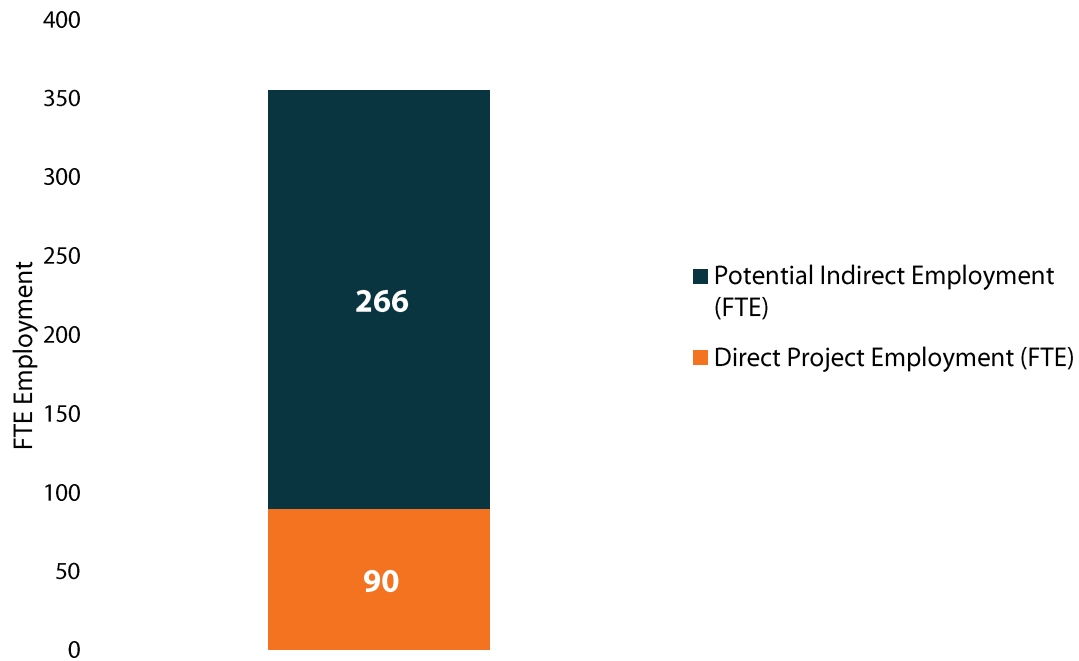
IOIG	Input Construction Cost (Direct Output)	Total Output
Non-Residential Building Construction	\$ 28,688,460	\$ 95,994,084
Construction Services	\$ 32,743,045	\$ 102,132,413
Heavy and Civil Engineering Construction	\$ 24,132,020	\$ 72,630,860
Professional, Scientific and Technical Services	\$ 8,216,566	\$ 25,167,216
Estimated Total	\$ 93,780,091	\$ 295,924,573

Source: Rawlinsons 2021, ABS 2019

Construction of the Recreational Facility is expected to create 90 direct FTE employment opportunities annually over a 2-year construction period. The total impact of the construction phase is estimated to be 266 indirect FTE employment opportunities annually throughout the wider economy (Figure 23).



Figure 23. Impact of Construction Activity: Number of FTE Employees Annually (Two Years)



Source: ABS I-O Tables (2012-13), Pracsys 2022

8 OPERATIONAL IMPACT

This section outlines the employment impacts associated with the operation of the Neighbourhood Centre and Regional Recreational Facility. Operational employment relates to the delivery of goods and services through the developed centre and recreational facilities.

The employment estimates are based on employment to floorspace ratios (service ratios). Specific methods were used for different floorspace types based on the Department of Planning, Lands and Heritage (DPLH) Land Use and Employment Survey (LUES) data (Figure 24):

- The city of Wanneroo average was used to develop a floorspace ratio for Shop/Retail and Health/Welfare/Community Services floorspace
- Benchmarking was used to develop a relevant employment to sport and recreation facility floorspace estimate. This combined ABS Census 2016 Place of work data and LUES floorspace data
- The Greater Perth average was used to estimate the Office/Business floorspace ratio⁵ and Commercial centres in the City of Wanneroo were used for the remaining floorspace types.

Figure 24. Service Ratios (m²/ employee)

ENT	HEL	OFF	SHP
101.02	71.11	20.62	24.86

Source: Pracsys 2022, DPLH 2016

Note: ENT = Entertainment/Recreation/Cultural, HEL = Health/Welfare/Community Services, OFF = Office/Business, SHP = Shop/Retail.

The floorspace breakdown of each development was assigned to their relevant floorspace ratio to determine the associated level of operational employment that would be supported by each floorspace type (Figure 25)

Figure 25. Employment Floorspace Breakdown

Development	PLUC	Floorspace (m ²)
Regional Facility		
Administration Office	OFF	150
Indoor Multipurpose Sport Courts	ENT	4,054
Gymnasium	ENT	350
Aerobics Room	ENT	180
Spin Room	ENT	60
Club Rooms	ENT	2,357
Creche	HEL	120
Neighbourhood Centre		
Neighbourhood Centre	SHP	4,181
	OFF	1,838

Source: City of Wanneroo 2019, Pracsys 2022

⁵ This provides a more conservative estimate compared to the City of Wanneroo average for Office floorspace (less employment per m²)

The analysis estimates that the regional facility will generate 78 direct jobs and 103 indirect jobs. The neighbourhood centre is estimated to support (Figure 26):

- 257 direct jobs 290 indirect jobs with 6,000m² of floorspace
- 616 direct jobs and 694 indirect jobs with 14,000m² of floorspace

Figure 26. Employment Estimates

Development	Direct Employment	Indirect Employment	Total Employment
Regional Facility	78	103	181
Neighbourhood Centre (6,000 m ²)	257	290	547
Total	335	393	728
Neighbourhood Centre (14,000 m ²)	616	694	1,309

Source: City of Wanneroo 2019, Pracsys 2022

Development type was aligned with industry sector to develop output impact estimates (Figure 27).

Figure 27. Floorspace to Industry Output per FTE

Development	Industry Sector	Output FTE
Administration office	Professional, Scientific and Technical Services	\$315,380
Indoor Multipurpose Sport Courts	Arts and recreation Services	\$226,756
Gymnasium	Arts and recreation Services	
Aerobics room	Arts and recreation Services	
Spin room	Arts and recreation Services	
Clubrooms	Arts and recreation Services	
Creche	Primary & Secondary Education Services	\$144,469
Neighbourhood Centre	Retail Trade	\$152,913
	Professional, Scientific and Technical Services	\$315,380

Source: ABS 2019

Employment by floorspace type was multiplied by the relevant industry output per FTE to determine the direct annual output impact into the economy; direct output was multiplied by relevant industry sector multiplier to obtain economic impacts in the broader economy. The direct output for the regional facility is estimated at \$18 million and indirect output at \$35 million per annum. The neighbourhood centre direct output is estimated at \$54 million and indirect output at \$105 million (Figure 28).

**Figure 28. Recreational Facility and Neighbourhood Centre Output**

Development	Direct Output	Indirect Output	Total Output
Regional Facility	\$18,253,094	\$35,794,343	\$54,047,437
Neighbourhood Centre (6,000 m ²)	\$53,832,902	\$105,492,108	\$159,325,010
Total	\$72,085,996	\$141,286,450	\$213,372,447
Neighbourhood Centre (14,000 m ²)	\$128,754,860	\$252,310,656	\$381,065,516

Source: DPLH 2016, ABS 2019

The employment for the Regional Facility includes estimates for staff that would maintain public open space. This being said, the estimate is likely conservative given the scale of public open space that is provided for with the facility.

9 ECONOMIC & OPERATIONAL IMPACT SUMMARY

This report analysed the economic impact of the construction and operation phases associated with development of:

- The proposed 3,800 residential dwellings
- A 6,000 m² neighbourhood centre⁶
- A regional sporting facility and associated public open space

The analysis considers the operational impact associated with both of the employment supporting uses.

Input-output modelling is used to estimate the construction impact. It is assumed that the 3,800 dwellings will be developed over a 20 year period, the neighbourhood centre over a one year period (estimated to be viable by 2030), and the regional facility over a two year period. The analysis estimates that the total construction impact across all years of the identified infrastructure will provide an estimated direct injection of 1.29 billion into the economy and result in a total output of \$4.12 billion for the wider economy. Direct employment will total 2,395 FTE jobs over 20 years, with 9,544 FTE total jobs over the period (Figure 29).

Figure 29. Construction Impact Summary

Development Component	Direct Output (Cost)	Direct Jobs	Total Jobs	Total Output
Neighbourhood Centre (6,000m ²)	\$7,384,099	16	59	\$23,535,628
Recreation Facility	\$93,780,091	90	356	\$295,924,573
Dwellings	\$1,187,359,128	2,289	9,129	\$3,799,538,052
Total	\$1,288,523,318	2,395	9,544	\$4,118,998,253

Source: Rawlinsons 2021, ABS 2019

Operational phase direct employment per annum amounts to 335 jobs and total employment in the broader region is estimated to be 728 jobs. Direct output is estimated to be \$72 million per annum and total output is estimated to be \$213 million per annum (Figure 30).

Figure 30. Operational Employment & Output Summary

Development Component	Direct Output	Direct Employment	Total Employment	Total Output
Neighbourhood Centre (6,000m ²)	\$ 53,832,902	257	547	\$ 159,325,010
Regional Facility	\$ 18,253,094	78	181	\$ 54,047,437
Total	\$ 72,085,996	335	728	\$213,372,447

Source: DPLH 2016, ABS 2019

⁶ A Neighbourhood Centre containing 10,000m² of shop/retail floorspace was also assessed, please see section 5

10 APPENDIX 1: PRINCIPLES OF ACTIVATION

Economic Principles	Description
1. Purpose of Place	<ul style="list-style-type: none"> • Address the question – what does this place represent to its target user population (residents, workers, visitors)? • Successful places usually emanate from a single point, so establish a core precinct and ensure that the periphery follows in a complementary manner • Send signals to fringe area landowners and tenants to enable collaboration • Enhance land economics by using design to maximise frequency and concentration of transactions
2. Access – Arrival Points	<ul style="list-style-type: none"> • Decisions about access begin 5km from the place • Do not allow transport networks to bypass the place (train/parking) – ensure the design funnels people and traffic into the core • Congestion and a mix of transport nodes is good • Arrive at the ‘front door’ of the place, not around the back
3. Origins – Car Parking and Transport Nodes	<ul style="list-style-type: none"> • Parking is the driver of pedestrian movement • Strategic distribution of car parks and transport nodes will maximise pedestrian movement <ul style="list-style-type: none"> ○ Location is more important than numbers ○ Space the car parks around the periphery of the centre • Street parking is important (for commercial areas) <ul style="list-style-type: none"> ○ Charge no fees ○ Relax time limits
4. Exposure – Pedestrian Movement	<ul style="list-style-type: none"> • Economic Activation is driven by the frequency and concentration of transactions • Channel movements: <ul style="list-style-type: none"> ○ Concentrate transactions by pushing people past as many shop windows as possible ○ Rents and sales are directly related to pedestrian traffic (e.g.: A Butcher will pay three-times the rent to be at a supermarket entry)



Economic Principles	Description
	<ul style="list-style-type: none"> • Minimise possible routes from origin to destination points (e.g. car park to main attraction) as architectural “permeability” is not always a good thing
<p>5. Destinations – Major Attractions</p>	<ul style="list-style-type: none"> • Identify main destinations – what will bring users into the core? • Assess user behaviour: <ul style="list-style-type: none"> ○ Number of visits ○ Timing of visits (time of day, seasonality) • Give major destinations special treatment (POS and Community uses) <ul style="list-style-type: none"> ○ Understand what they need ○ Build Centre around them • Amplify the impact of attractions by creating support amenity and infrastructure to maximise frequency, length of stay and expenditure
<p>6. Control – Strategic Sites</p>	<ul style="list-style-type: none"> ○ Tenure control is vital for overall development success – determine which sites (supporting what uses) must stay in public ownership ○ Identify active frontages and take control of key sites ○ Corner sites drive uses on either side ○ Not all areas in a place need to be active – be selective ○ Have a plan for implementation